

WORKSHOP MANUAL

504



PEUGEOT

40⁰⁰ XAT



The information contained in this binder is effective as of date of sale. It is advised that the user of this manual consult a Peugeot dealer to be advised of possible technical changes or modifications. It is not the intention at present to update the contents of this binder.

National Parts Department

504 WORKSHOP MANUAL

Ref. 1212 E

SUPPLEMENT N° 1

This supplement supersedes the following pages :

- Class 1** : Summary - 01 01 - 03 03 - 03 05 - 03 51 - 03 55 - 04 05 - 04 05 04 11 - 10 01 - 15 03
Class 3 : Summary - 02 05 - 02 11
Class 4 : 02 03
Class 5 : Summary - 01 01 - 02 01 - 03 13 - 03 17 - 03 19 - 14 03 - 15 07 - 15 13
Class 6 : Summary - 01 03 - 02 13 - 06 03 - 06 11
Class 11 : 02 23

NEW PAGES

Class	Page	
	Summary	To be filed behind separator card 1
1	01 01 (1)	Identification and characteristics
	03 03 (1) and 03 04 (1)	Add and mark the connecting rods from 1 to 4
	03 05 (1)	Text of the 1st illustration
	03 51 (1)	Tools : tool chest 8.0110 X in place of 8.0110 Y
	03 53 (1) to 03 55 (1)	Tool BZ in place of B
	04 05	Precautions to be taken while fitting the cylinder head gasket
	04 11 (1)	Cylinder head height after rectification : 92 mm in place of 91,5 mm
	10 01 (1)	Tools : tool chest 8.0110 X in place of 8.0110 Y
	15 03 (1)	Water pump refitting
3	Summary	To be filed behind separator 3
	02 05 (1)	Note added
	02 11 (1) and 02 12 (1)	Precautions to be taken while fitting the speedometer cable
4	02 05 (1) and 02 06 (1)	Tightening torque of crossmember support to bodywork 29 ft.lbs (4 m.kg) in place of 46 ft.lbs (6.5 m.kg)
5	01 01 (1)	Identification and characteristics
	02 01 (1) and 02 02 (1)	Note added
	03 13 (1) and 02 14 (1)	Meshing distance tolerance
	03 17 (1) and 03 18 (1)	Text of page 03 18
	03 19 (1) and 03 20 (1)	Minimum backlash : 0,10 mm for Gleason and Oerlikon cut
	14 03 (1)	Particularities for removing the hub bearing.
	15 07 (1)	Tightening torque of crossmember support to bodywork 29 ft.lbs (4 m.kg) in place of 47 ft.lbs (6.5 m.kg)
6	Summary	To be filed behind separator 6
	01 13 (1)	Note added
	02 13 (1)	Text of first illustration
	06 03 (1) and 06 04 (1)	New page lay out
	06 11 (1) and 06 12 (1)	
9	Summary	To be filed behind separator 9
	02 03 (1)	Text
	03 01 (1) and 03 02 (1)	Tool H instead of G
	03 11 (1) and 03 12 (1)	
	17 05 (1) and 17 06 (1)	Tightening torque of crossmember attachment 29 ft.lbs (4 m.kg) instead of 47 ft.lbs (6.5 m.kg)
11	02 23 (1) and 12 24 (1)	

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File this sheet behind the class index.

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SUPPLEMENT N° 2

Class 8 Completing the existing Workshop Manual.

File this page behind the class index.

Class	Page	Modifications
6	Summary 06 21 (1) and 06 22 (1)	To be filed behind the separator card 6 Remove washer for depth bushing support 28 mm added
8	06 03 (1)	Fit safety washers added
9	Summary 01 01 (1) and 01 02 03 11 (2) and 03 12 (2) 11 01 (1) and 11 02 11 03 17 05 (2) and 17 06 (2) 17 07 (1) and 17 08 (1)	To be filed behind the separator card 9 Front springs identification ESSO OLEOFLUID 40 X oil in place of 40 S Rear springs identification Rear suspension crossmember identification Rear crossmember to hull tightening torque 29 ft. lbs (4 m.kg) and 47 ft. lbs (6.5 m.kg) Lubrication of the anti-roll bar bushings and conditions of interchangeability of the rear suspension crossmembers
11	Summary 02 21 (1) 02 23 (2)	To be filed behind the separator card 11 Conditions of interchangeability of the rear suspension crossmember spacers Rear crossmember to hull tightening torque 29 ft. lbs (4 m.kg) and 47 ft. lbs (6.5 m.kg)
13		Complement to the documentation which you already possess
15		Complement to the documentation which you already possess

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SUPPLEMENT N° 4

This supplement supersedes the following pages :

Class 1 : Summary - 04 07
Class 3 : Summary - 06 01
Class 4 : Summary - 12 01
Class 5 : Summary - 02 01(1) - 02 03 - 14 01 - 16 01 - 16 11
Class 6 : Summary - 01 01
Class 8 : Summary - 01 01 - 06 01 - 06 05

NEW PAGES

Class	Page	Modifications
1	04 07(1) and 04 08(1)	Idling adjustment 800 r.p.m. in place of 650
3	Summary 06 01(1) and 06 02(1) 06 05 - 06 08	To be filed behind the separator card Column gear change lever (L.H.D.) Floor mounted gear change lever
4	Summary 12 01(1) and 12 02 12 11 - 12 16	To be filed behind the separator card 4 Tools, Saloon models Drive shafts, Convertibles and Coupés
5	Summary 02 01(2) and 02 02(1) 02 03(1) and 02 04 02 11 - 02 15 14 01(1) and 14 02 14 11 - 14 14 16 01(1) and 16 02 16 11(1) - 16 15 16 21 and 16 22	To be filed behind the separator card 5 Tools, Saloon models Tools 80521 Z in place of 80521 Removal and refitting of differential on Convertibles and Coupés Tools, Saloon models Removal and refitting of rear hubs and hub carriers on Convertibles and Coupés Tools Saloon models Removal and refitting of rear arms on Convertibles and Coupés Supersede page 16 11 and 16 12
6	Summary 01 01(1)	To be filed behind the separator card 6 Toe in 3 mm ± 1 mm in place of 4.5 mm ± 1 mm
8	Summary 01 01(1) and 01 02 06 01(1) and 06 02 06 05(1) and 06 06 06 07 - 06 09	To be filed behind the separator card 8 Rear brakes, Convertibles and Coupés Tools, Saloon models, Convertibles and Coupés Added : disc fitted on the outer face of the hub Removal and refitting of the rear brake disc fitted on the hub inner face on Convertibles and Coupés.

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5th SUPPLEMENT

This supplement supersedes the following pages :

Class 4 : Summary.

NEW PAGES

Class	Page	Modification
4	Summary	To be filed behind separator 4
	1301 to 1309	Dismantling-reassembly of a drive shaft in order to replace the protector assemblies.

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6 TH SUPPLEMENT

Supersedes the following pages :

Class 11 : Summary page 11 01

NEW PAGES

Class 11 : Bodywork interventions Part 1

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File this page behind the class index

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7th SUPPLEMENT

This supplement supersedes the following pages :

Class 11 : Summary
Foreword

NEW PAGES

Class	Page	
11	04 11	Clearances of the moving components.
11	06 01 to 06 66	Replacing the front underbody elements.

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8 TH SUPPLEMENT

This supplement supersedes the following page :

Class 13 : Summary

NEW PAGES

Class	Page	Modification
13	Summary	To be filed behind separator 13
	02 41 to 02 44	} Removal and refitting, upholstery panel, Window control, window, deflector on Convertibles and Coupés.
	02 51 to 02 55	
	02 61 to 02 65	
	02 67 to 02 69	
	02 71 to 02 73	

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SUPPLEMENT N° 9

Class 14 entirely, which completes the workshop manual in your possession.

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10th ADDITIVE

This additive, in 21 x 29.7 cm format, supersedes :

Class 1 - Entirely.

NEW PAGES

Class	Page	Modification
1	Summary	To be filed behind the separator card 1.
	01 01(2)	Identification of all 504 engines.
	02 01(2)	Tool 8.0208 in place of 8.0202 .
	02 03(1) and 02 04(1)	New page lay-out.
	02 05(2)	
	02 11 and 02 12	Operations particular to engine removal on 504 Injection and 504 Automatic vehicles.
	03 01(1) and 03 02(1)	
	03 03(2) and 03 04(2)	Tool 0.0137 for Injection engine.
	03 05(2) and 03 06(1)	
	03 51(2) and 03 52(1)	New page lay-out.
	03 53(2) and 03 54(2)	
	03 55(2) and 03 56(1)	Operations particular to dismantling 504 Injection engine added.
	03 57(1) and 03 58(1)	
	03 59(1)	New page lay-out.
	04 01(1) and 04 02(1)	
	04 11(2)	Up dating following adoption of compressed liner engines.
	04 13(2) and 04 14(2)	
	04 15 and 04 16	New pages covering cylinder head tightening.
	04 17 and 04 18	
	04 19	New page lay-out.
	04 21 and 04 22	
	04 51 and 04 52	New page lay-out.
	04 61 and 04 62	
	04 63	Up dating including particularities of compressed liner engines.
	06 01 and 06 02	
	06 03 and 06 04	
	06 05	

Class	Page	Modification	
1	09 01(1) and 09 02(1)	Up dating	
	10 01(2) and 10 02		
	10 03(2) and 10 04(1)	New page lay-out Operations particular to dismantling and reassembly of the timing gear on Injection engines added.	
	10 05(2) and 10 06(2)		
	10 07		
	12 01 and 12 02		
	12 03 and 12 04	New pages concerning carburettors.	
	12 11 and 12 12		
	12 13 and 12 14		
	12 15		
	14 01		
	15 01(1)	New page covering oil pressure checking.	
	15 03(2) and 15 04(1)		
	15 05(1) and 15 06(1)	Up dating	
	15 07(1) and 15 08(1)		
	16 01 and 16 02		
			Up dating covering particularities of 504 Family Saloon, Break and Station Wagon.

File this page behind the class index.

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Ref. 1212 E

11 th ADDITIVE

This additive, in 21 x 29.7 cm format, supersedes the 504 PETROL INJECTION ENGINE WORKSHOP MANUAL (ref. 1293).

NEW PAGES

Class	Page	Modification
1	Contents	New page
	12 51	New page layout
	12 52	New page layout - KF 5 - XN 2 feed circuit
	12 53 and 54	New page layout - fitting of Bosch lift pump
	12 55 and 56	New page layout
	12 57 and 58	New page layout
	13 01	New page layout
	13 03 to 08	New pages - replacing of throttle flap spindle KF 5 - XN 2
	13 09	New page - injectors
	13 10 to 12	New page layout
	13 15 to 20	New page layout - KF 5 - XN 2 pump
	13 21 to 27	New page layout
	13 31 to 36	New pages - KF 5 - XN 2 pump adjustments.
	15	Contents
01 01		New page - tools for replacing the throttle flap spindle - KF 5 - XN 2.

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12TH SUPPLEMENT

This supplement supersedes the following pages :

Class 1 : Contents - 01 01 (2) - 03 05 (2) - 03 51 (2) - 03 55 (2) - 03 57 (1) - 04 15 -
10 01 (2) - 12 01 - 12 11 - 12 13 - 12 15 -

NEW OR MODIFIED PAGES

Class	Page	Subject
1	Contents	
	01 01 (3)	- Identification of XN1 US engine and XN1 engine with 7.6 : 1 compression
	02 51 and 02 52	- Engine tune-up - Ignition timing
	02 53 and 02 54	
	02 55 and 02 56	
	02 57	
	03 05 (3) and 03 06 (2)	- Crankshaft regrind sizes and bearing shell thicknesses
	03 51 (3) and 03 52 (2)	
	03 55 (3) and 03 56 (1)	
	03 57 (2) and 03 58 (1)	- 504 U.S. camshaft
	04 15 (1) and 04 16	- Cleaning cylinder head face with MAGSTRIP
	10 01 (4) and 10 02 (1)	- Timing diagrams
	12 01 (1) and 12 02 (1)	- Idling adjustment - Carburettor settings for XM7 engine with 8.35 : 1 compression
	12 11 (1) and 12 12 (1)	- Idling adjustment - Carburettor settings for 504 U.S.
	12 13 (1) and 12 14 (1)	
	12 15 (1) and 12 16	
	12 17 and 12 18	- Cleaning carburettor, air filter, fuel pump.
	12 19	

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SUPPLEMENT No. 13

This supplement cancels and replaces :

All of Section 14

NEW SHEETS

Section	Pages	Modifications
14	Summary	To fill with inset
	05-01 (1)	Updating of lubrication chart for mechanical parts of 504 GL.
	05-11 (1)	Updating of lubrication chart for mechanical parts of 504 Injection.
	05-21	New lubrication chart for mechanical parts of 504 L - 504 Long Vehicle.
	05-31 (1)	Updating of lubrication chart for 504 Saloon bodywork.
	05-41	New page. Lubrication chart for 504 Long Vehicle bodywork.
	05-51 (1)	Updating of recommended maintenance for 504 carburetor.
	05-52 (1)	Updating of recommended maintenance for 504 Injection.

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SUPPLEMENT N° 14

This supplement completes Section 13 of the Workshop Manual in your possession.

NEW SHEETS

Class	Pages	
13	Summary	To be filed behind the separating sheet.
	05 11 and 05 12	} Removal - refitting of windscreen 504 U.S.A. Models - remove and refit front screen, adhesive mounted.
	05 13 and 05 14	
	05 15 and 05 16	

File this sheet behind the Class Index.

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Ref. 1212

SUPPLEMENT N° 15

This supplement in format 21 x 29,7 cancels and replaces

Section 8 - in total

NEW SHEETS

Section	Sheets	Modifications
8	Summary	Insert behind section 8 index.
	01 01(2) and 01 02(1)	New sheets concerning general characteristics.
	02 01(1) and 02 02(1) 02 03(1) and 02 04	} New sheets concerning checking under pressure.
	02 11 to 02 15 02 21 to 02 24 02 31 and 02 32	
	03 01(1) and 03 02 03 03(1) to 03 06(1) 03 07	} Up-dated instructions for replacement of pads.
	04 01 to 04 03	
	06 01(2) 06 03(2)	} Machining of discs and drums. New sheet layout.
	06 05(2) and 06 06(1) 06 11(1) and 06 12 06 13 to 06 22	
	07 01(1) to 07 06(1) 07 11(1) to 07 16(1) 07 17(1) and 07 18	} Locking of caliper retaining bolts (with standard grade Loctite). Up-dating with Girling type AH12 MK III calipers.
	08 01 to 08 05 08 11 and 08 12 08 21 to 08 25	
	10 01 to 10 06	New sheets covering checking of brake servo.
	11 01(1) to 11 05	Up-dating, adjustment of brake compensator, long models.
	12 01 12 03 and 12 04	} New sheets covering checking and testing hydraulic lines, including fitting tolerances.
	14 01(1) and 14 04(1)	

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ADDITIVE No 16

This additive completes class 15 of the workshop manual already in your possession.

NEW PAGES

Class	Pages	Modifications
15	Summary 02 21 and 02 22 02 23 and 02 24 02 25	Towing attachmanet - 504 Derivatives

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Réf. 1212 E

SUPPLEMENT N° 17

This supplement, in 21 x 29,7 format, cancels and replaces

Group 6 : in total

Group 7 : in total

NEW SHEETS

Group	Page	Amendments
6	Summary	File behind group 6 inset
	01.01 (2)	Updating of front axle (conventional steering)
	01.03 (2)	
	01.05 to 01.09	Front axle, new pages (power assisted steering on 504 USA)
	02.01 (1)	} Updating
	02.03 (1) to 02.06	
	02.11 (1) to 02.13 (2)	
	04.01 (1) to 04.05 (1)	Updating, hubs with angular contact ball bearings
	04.11 to 04.20	
	06.01 (1)	} Updating
	06.03 (2) and 06.04 (1)	
	06.11 (2) to 06.14	
	06.21 (2) and 06.22	
07.01 (1)		
7	Summary	File behind group 7 inset
	01.01 (1)	Updating of illustration
	01.03	New page, power steering on 504 USA
	02.01 (1) to 02.04 (1)	Updating, tool 80908 D for ball and socket joints with skirt nut
	02.11 to 02.23	New pages, power steering on 504 USA
	03.01 (1) to 03.12 (1)	Updating, conventional steering on 504 USA
	03.51 to 03.58	} New pages, power steering on 504 USA
	03.61 to 03.76	
	05.01 and 05.02	
	06.01 and 06.02	} Updating, conventional steering
	07.01 to 07.07	
07.11 and 07.12	New pages, power steering on 504 USA	

MODIFIED SHEETS

11 Summary File behind group 11 inset

CANCELLED SHEETS

11 04.01 to 11.11 These sheets are now included in the Bodywork document, ref. 2090.



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National Parts Department

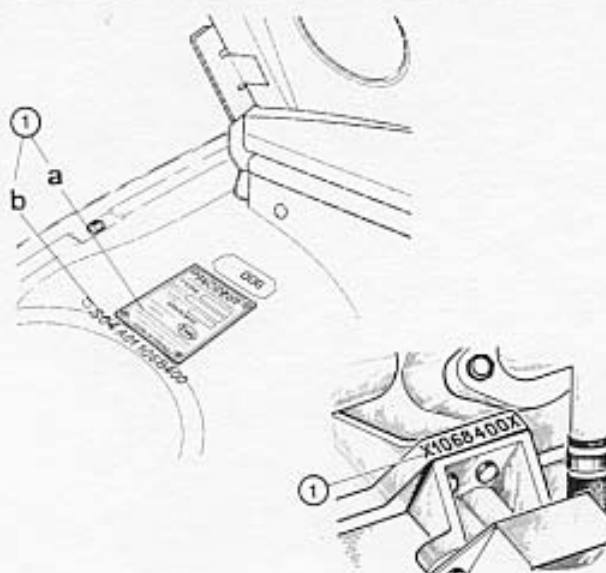
ENGINE
CONTENTS

1

	Page
IDENTIFICATION AND CHARACTERISTICS	
Identification	01 01 (3)
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Removal of the engine	02 03 (1) to 05 (2)
Refitting of the engine	02 11 and 12
Engine tuning	02 51 and 52
DISMANTLING - REASSEMBLY	
Tools to be used	03 01 (1) and 02 (1)
Dismantling the engine	03 02 (2) to 06 (2)
Reassembling the engine	03 51 (3) to 59 (1)
CYLINDER HEAD	
Checking the compression	04 01 (1) and 02 (1)
Tools to be used	04 11 (2)
Removal of the head	04 13 (2) and 14 (2)
Refitting the head	04 15 (1) to 19
Tightening the head after 1,000 km (600 miles)	04 21 and 22
Refitting of the spark plug tubes	04 51 and 52
Replacing a valve spring (head in place)	05 61 to 63
CYLINDER LINERS	
Tools to be used	06 01
Fitting free expanding liners (XM - KF 6 and KF5 engines)	06 02
Fitting compressed liners (XM7 - XN1 and XN2 engines)	06 03 to 05
FLYWHEEL	
Replacing the flywheel	09 01 (1)
Replacing the starter ring gear	09 02 (1)
TIMING	
Tools to be used	10 01 (4)
Timing diagram	10 02 (1)
Checking the timing	10 03 (2)
Removing the timing drive	10 04 (1) and 05 (2)
Dismantling the chain tensioner	10 05 (2)
Refitting - setting the timing	10 06 (2) and 07

	Page
CARBURETTOR	
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Adjusting the idling	12 01 (1)
Settings of Solex 34 PBICA carburettors	12 02 (1)
Description	12 03
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Cleaning and adjusting the 32/35 SEIEA carburettor	12 16 to 19
PETROL INJECTION ENGINE	
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Injection system :	
- tools to be used	13 01
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Delivery valves	13 10 and 13 11
Suction valves	13 12
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- removal	13 15 and 16
- refitting	13 17 to 20
- adjusting - KF 6	13 21 to 27
- adjusting - KF 5 and XN 2	13 31 to 36
LUBRICATION	
Checking the oil pressure	14 01
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Removal - refitting	15 01 (1)
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Dismantling	15 04 (1) and 05 (1)
Reassembly	15 06 (1) to 08 (1)
Checking the fan engagement	15 08 (1)
EXHAUST SYSTEM	
Assembly and clearances of the exhaust pipe :	
- Saloon	16 01
- Family Saloon - Break - Station Wagon	16 02

ENGINE
IDENTIFICATION

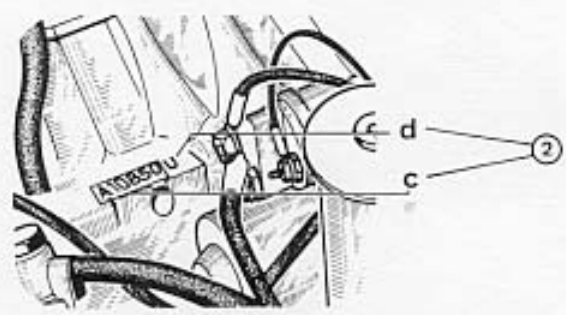


SERIAL NUMBER (1)

The serial number stamped on the L.H. engine mounting lug is :

- preceded and followed by an "X",
- identical to the number stamped on the maker's plate (a) and on the R.H. wing valance (b).

WARNING - In the event of replacement of the cylinder block or the engine, the number as defined above, must be stamped on the engine, using 8 mm letters, in the space provided (1).



ENGINE NUMBER (2)

The engine number stamped on the camshaft tunnel consists of :

- a production number (c) (a letter followed by 5 figures),
- an identification letter (d) (see table below)

WARNING - In the event of replacement, the new cylinder block must be stamped with the engine number in the space provided (2).

Identification letter	Type of engine		
P	XM	- (Carburettor - 10 CV for BA7 gearbox)	free expanding liners
R	KF6/KF5	- (Injection - 10 CV for BA7 gearbox)	
T	XM - ZF	- (Carburettor - 10 CV for ZF transmission)	
U	XN1	- (Carburettor - 11 CV for BA7 gearbox)	compressed liners*
UA	XN1 US, 7.6 : 1 comp.		
UB	XN1 7.6 : 1 comp.	- (Injection - 11 CV for BA7 gearbox)	
V	XN2	- (Injection - 11 CV for ZF transmission)	
W	XN2		
X	XN1	- (Carburettor - 11 CV for ZF transmission)	
XA	XN1 US, 7.6 : 1 comp.		
XB	XN1 7.6 : 1 comp.		
Y	XM7 7.5 : 1 comp.	- (Carburettor - 10 CV for BA7 gearbox)	
E	XM7 8.3 : 1 comp.	- (Carburettor - 10 CV "Export")	

* Compressed liners fitted since July 1970 and from serial number 1 178 001.

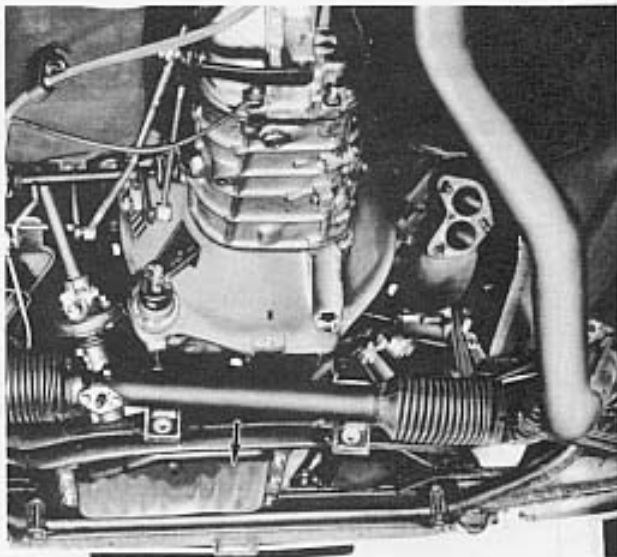
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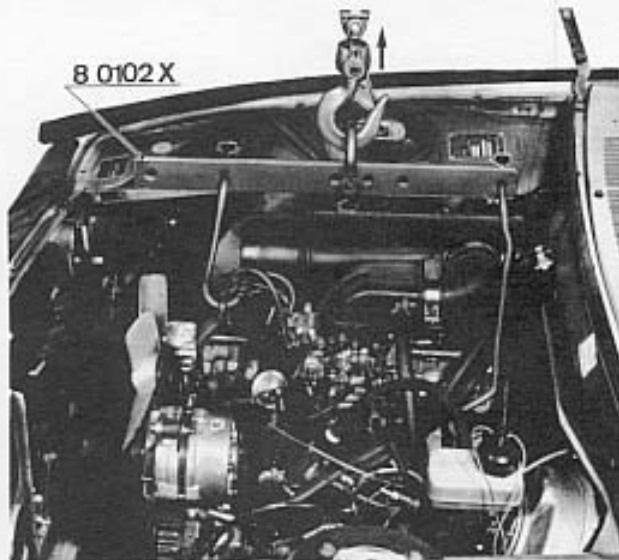
1

ENGINE

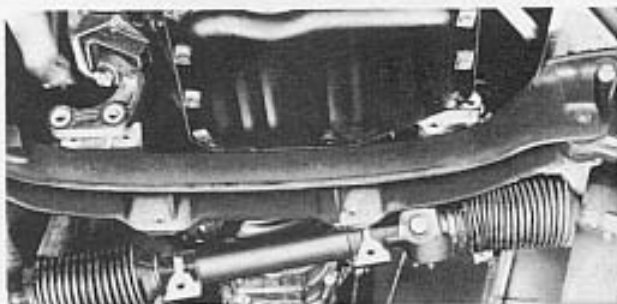
REMOVAL



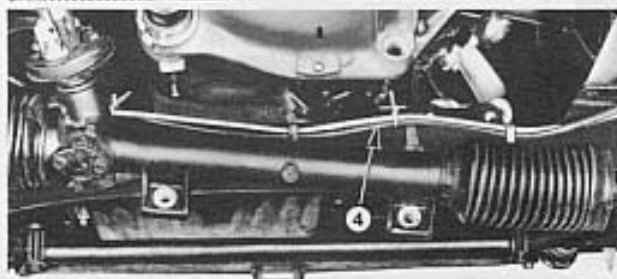
- Lower the steering rack housing (turn the steering wheel to the left).
- Disengage the exhaust pipe from the manifold.
- Remove :
 - the flywheel protector plates,
 - the clutch housing bolts.



- Position the hoisting apparatus as shown opposite (locate the hooks in the holes marked "404").
- Raise the apparatus until it is under load.



- Remove the four bolts securing the engine mountings to the crossmember.



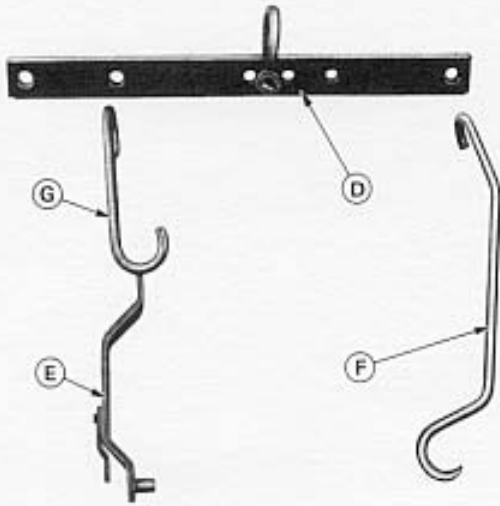
- WARNING** - Make sure that the front L.H. brake line is hard up against the crossmember.
- Raise the engine until the gearbox abuts on the tunnel.

ENGINE

REMOVAL - REINSTALLATION

1

02 01⁽²⁾

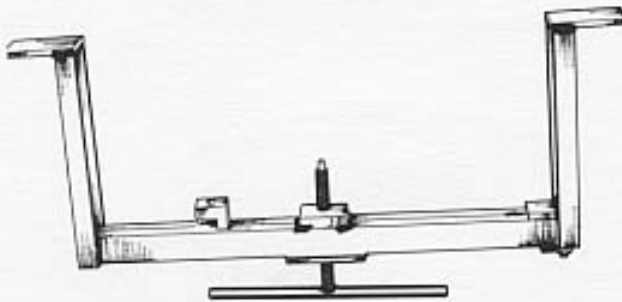


TOOLS TO BE USED

8.0102 X

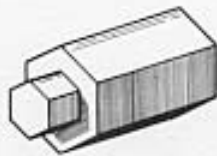
Engine hoisting apparatus.

- D - Hoist beam
- E - Front hook
- F - Rear hook
- G - Short hook



8.0208

Key for the clutch housing securing bolts.



8.0125

Engine or gearbox support bar.

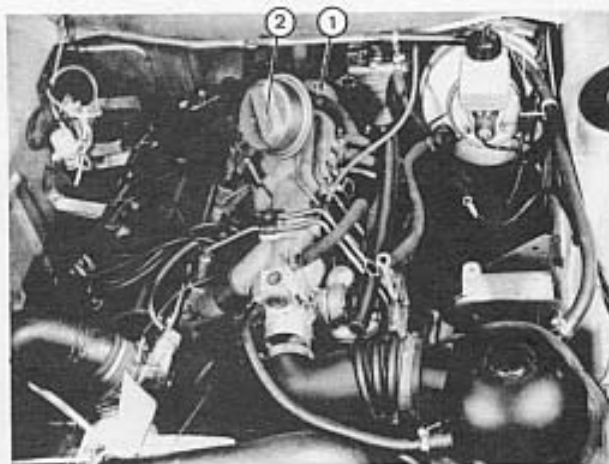
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ENGINE
REMOVAL

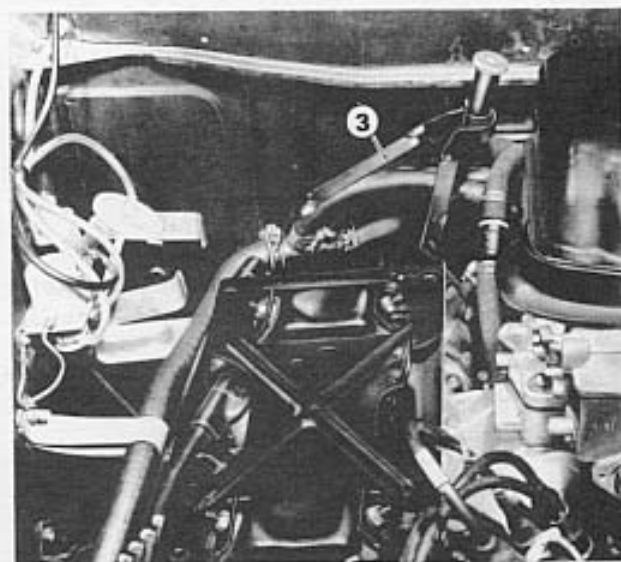
1 02 03⁽¹⁾



- On 504 with automatic transmission, drain the transmission.
- Remove :
 - the battery and its tray,
 - the bonnet,
 - the radiator,
 - the ignition coil,
 - the starter,
 - the windscreen washer bottle.
- Disconnect :
 - the heater hoses,
 - the fuel feed line,
 - the carburettor controls,
 - the Master-Vac vacuum line,
 - the wiring.



- On 504 Petrol Injection
- Disconnect :
 - the air ducts,
 - the throttle cable.
- Remove :
 - the electrovalve (1),
 - the altitude corrector (2).

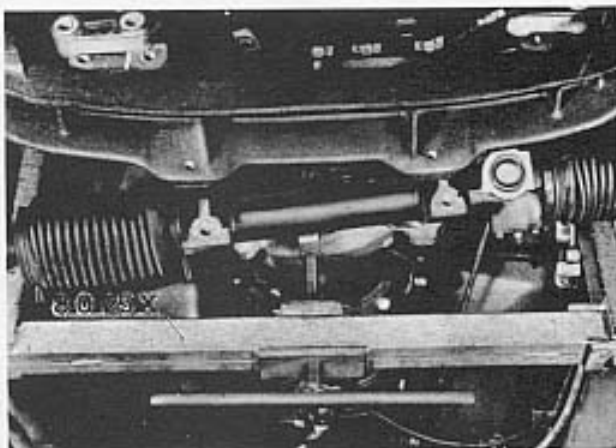


- On 504 Automatic.
- Remove :
 - the air filter,
 - the bracket (3).

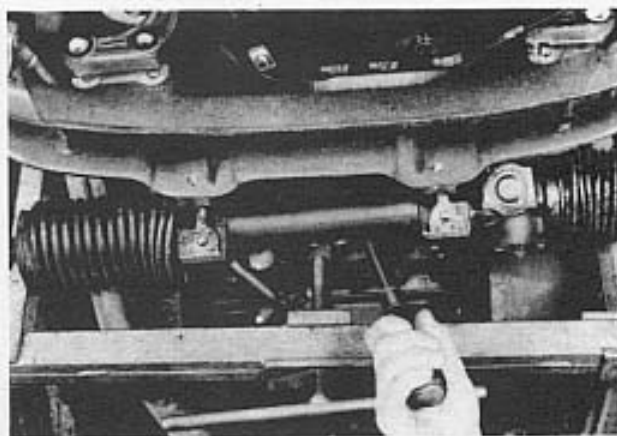
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ENGINE

REMOVAL

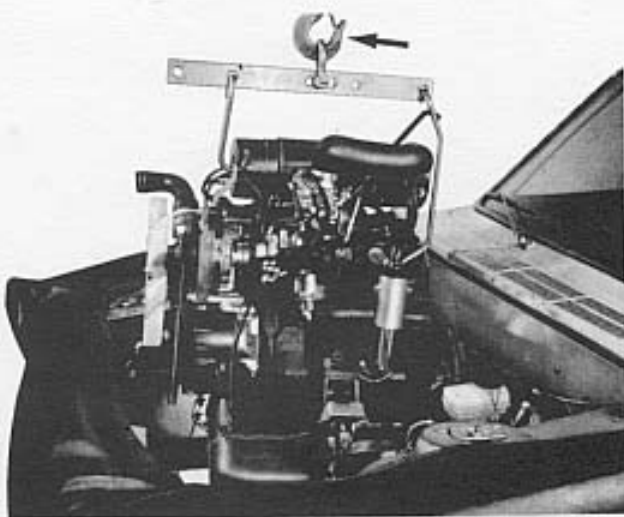

 02 05^{v2}


- Place the gearbox support bar under the gearbox and bring the centre bolt into contact with the housing.

**On 504 Automatic :**

- Remove the 4 bolts securing the converter to the flywheel.
- Disengage the converter.

WARNING - Never remove the engine with the converter ; make sure that the converter remains attached to the transmission.

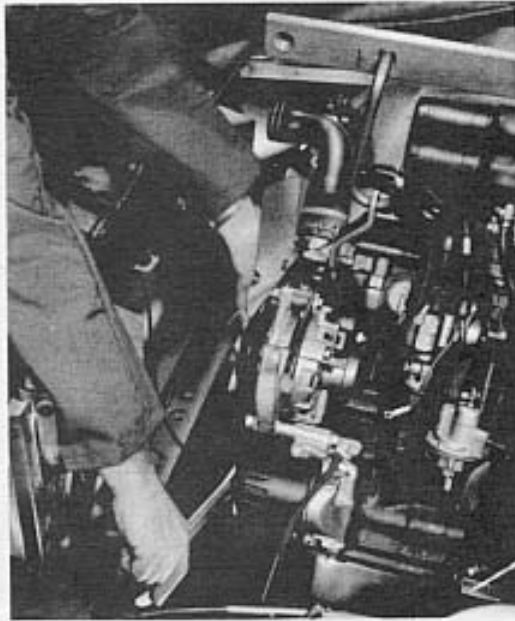


- Separate the engine from the gearbox without altering the position of the hoisting apparatus.

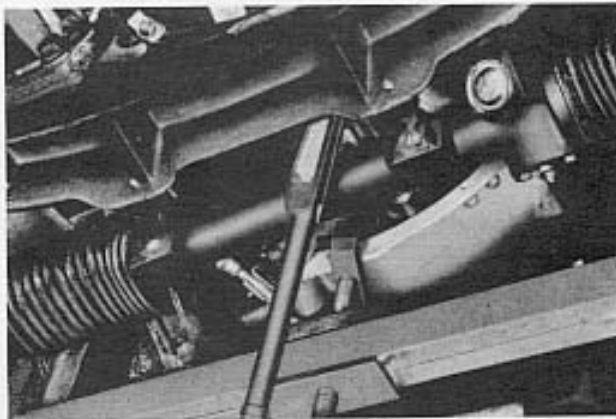
PEUGEOT

ENGINE
REINSTALLATION

1 02 11

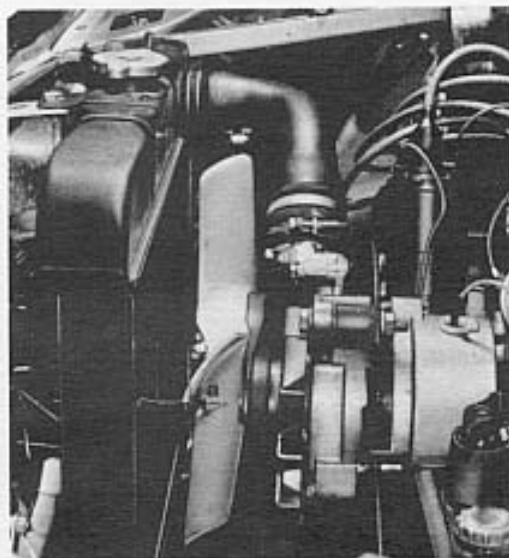


- Reinstallation is a reversal of the removal procedure.
- Particular points :
 - engage one of the gears (BA 7),
 - couple the engine to the gearbox by turning the flywheel to line the two components up exactly.



On 504 Automatic.

- Secure the converter housing to the cylinder block.
- Bring one of the openings in the flywheel to the bottom.
- Rotate the converter (using a screwdriver engaged in the cooling fins) to line up one of the threaded holes with the coupling plate on the flywheel.
- Tighten the bolts to **2.25 m.kg (16 ft.lbs)**.

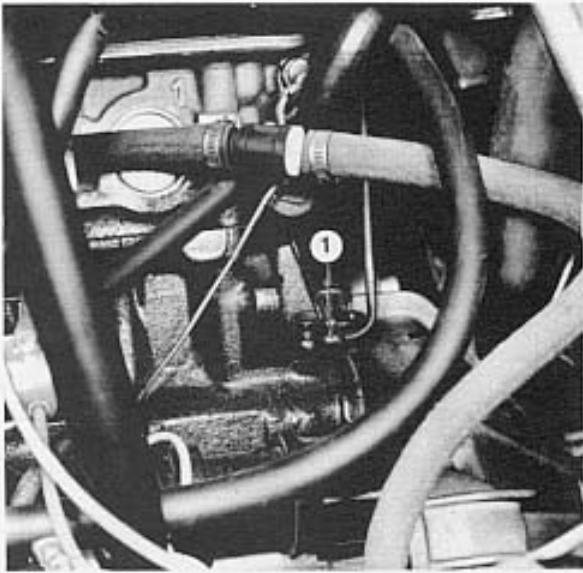


- When fitting the radiator, respect the dimension **(a)** : 15 to 20 mm.

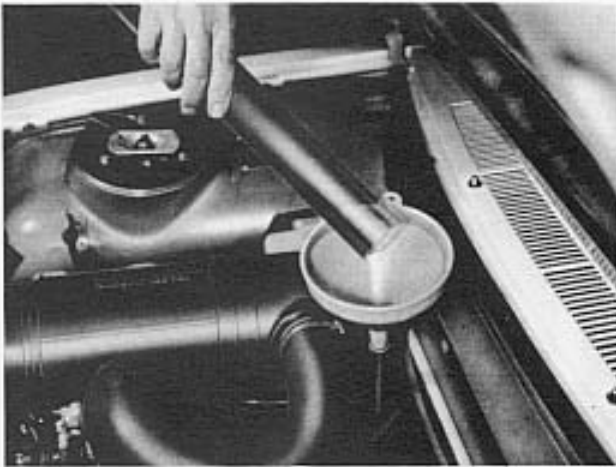
0212

1

ENGINE
REINSTALLATION



- Before starting the engine :
 - check the oil level and top up if necessary,
 - slacken off the banjo (1),
 - with the engine being driven by the starter, the oil should flow freely.

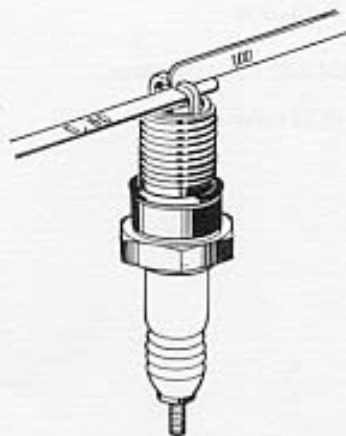


On 504 Automatic.

- Refill the transmission with the correct fluid.

In addition to checking and adjusting the ignition system, an engine tune-up may include the following operations:

- Compression check (page 0401)
- Valve clearance setting (page 0422)
- Oil pressure check (page 1401)
- Cleaning the carburettor, fuel pump and air filter (page 1211)
- Checking the cooling fan air gap (0.35 mm - 0.014")
- Adjusting the engine idling (page 1201 or 1211)



SPARK PLUGS

- Carburettor engines :

- For { XM - XM7
XM and XN1 U.S. :
- Marchal 35 HS
- AC 44 XL
- Champion N9Y

- For : XN1

- Marchal 35 HS
- AC 44 XL
- Champion N7Y

Electrode gap : 0.6 mm (0.024")

- Injection engines

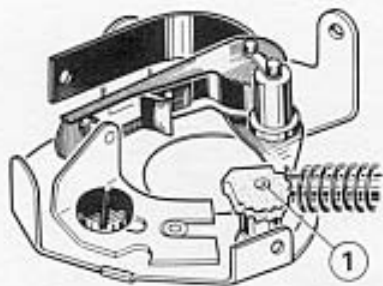
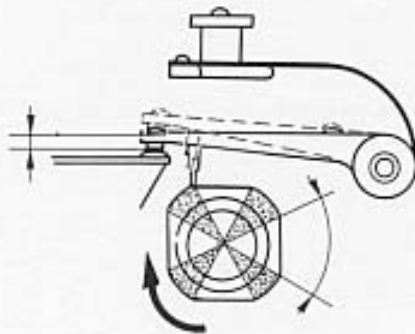
- For : XM KF6
- Marchal GT 34 HD
- Champion N6Y

Electrode gap : 0.5 mm (0.020")

- For : XM KF5 - XN2

- Marchal GT 34 HD
- AC 42 XL
- Champion N6Y

Electrode gap : 0.6 mm (0.024")



CHECKING THE DISTRIBUTOR

Dwell angle : $57^{\circ} \pm 2^{\circ}$

(Dwell percentage : $63\% \pm 3\%$)

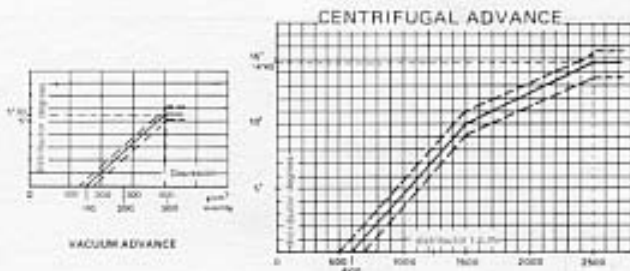
which corresponds to a points gap of approximately 0.40 mm (0.016") except in the case of S.E.V. Marchal "cassette" points sets where the gap is approximately 0.30 mm (0.012").

NB - On Ducellier distributors, check the dwell angle :

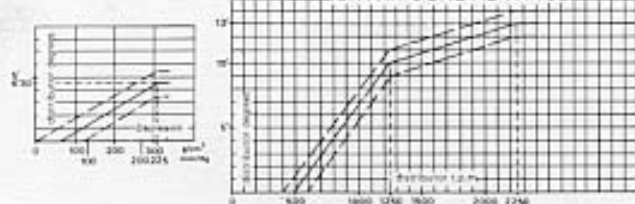
- 1 - vacuum unit disconnected (atmospheric pressure)
- 2 - vacuum unit submitted to a depression of 300 mm Hg.

The dwell angle must be the same in both cases. If it varies, correct by rotating the cam (1).

VACUUM ADVANCE
M 48



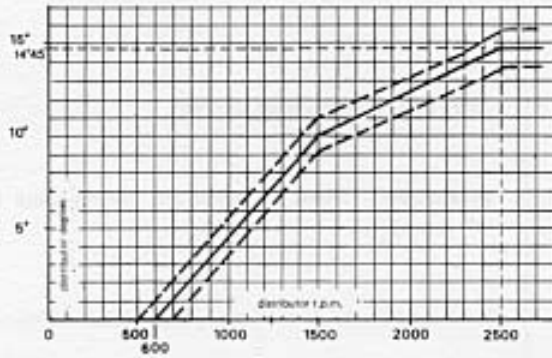
VACUUM ADVANCE
M 53



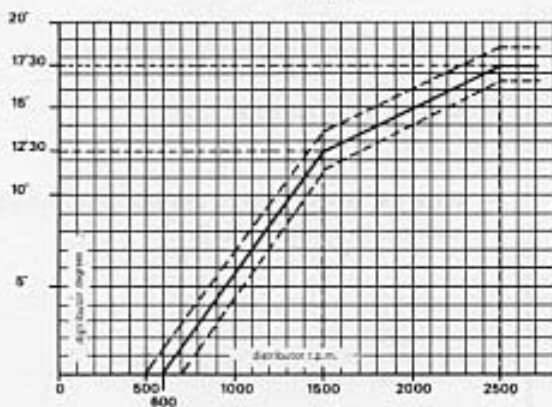
Advance curves :

- 504 with carburettor engine
 - M 48 curve
- 504 with injection engine
 - M 53 curve

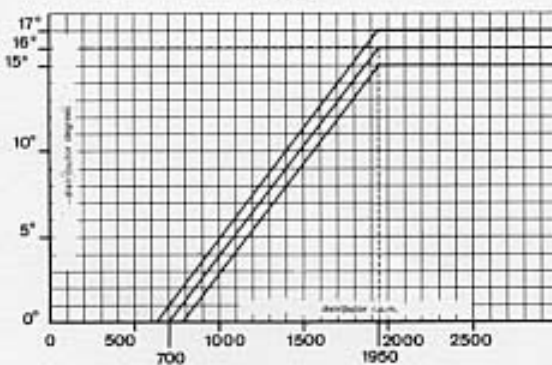
**CENTRIFUGAL ADVANCE
M 48**



**CENTRIFUGAL ADVANCE
M 69**



**CENTRIFUGAL ADVANCE
M 74**



Advance curves :

The distributors fitted to 504 U.S. models have no vacuum advance correction.

- 504 US "69 Standards"
- M. 48 curve
- 504 US "70 and 71 Standards"
- M 69 curve
- 504 US "72 and 73 Standards"
- M 74 curve

02 54

1

ENGINE

TUNING



SETTING THE TIMING PLATE

WARNING - Make sure that the timing plate has not moved.

If in doubt, check the setting and adjust as follows.



- Position No. 4 piston at T.D.C.

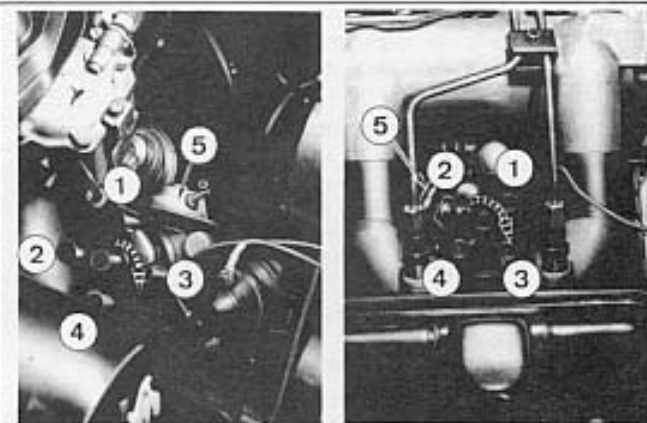
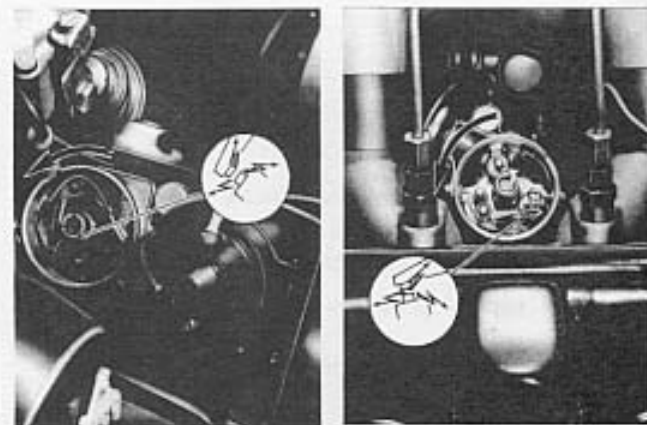
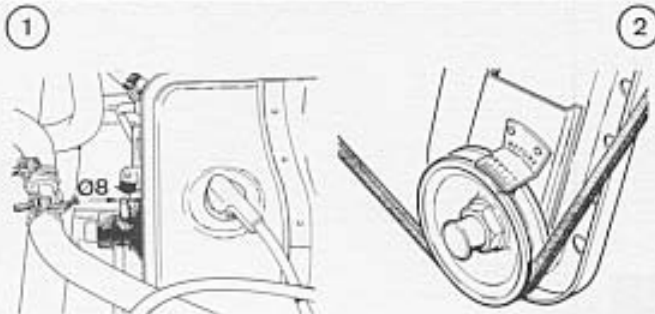
- Move the timing plate to line the '0' up with the mark on the crankshaft pulley.

ENGINE

TUNING

1

02 55



STATIC IGNITION TIMING

IGNITION TIMING WITH A STROBOSCOPE

- Dwell angle correct
- Timing plate set
- Set the distributor approximately
 - Find T.D.C. :
 - (1) - with 8 mm diameter rod
 - (2) - pulley mark lined up with the "0" on the plate.
 - Position the distributor as shown :
 - (3) - carburettor engine
 - (4) - injection engine
 - Connect up the low tension wire
 - Switch on the ignition
 - Rotate the distributor :
 - clockwise to fully close the points
 - anticlockwise until the points begin to open (spark visible between them).
 - Lightly clamp the distributor.

- Fit the distributor cap and connect up the plug leads.

- Disconnect the vacuum line from the unit 5 (where fitted) and seal off the nozzle

- Connect :
 - a stroboscope lamp with the sensor clamp on the coil HT lead.
 - a rev-counter.

- Start up the engine.

The engine speed must not exceed 850 r.p.m. during the setting.

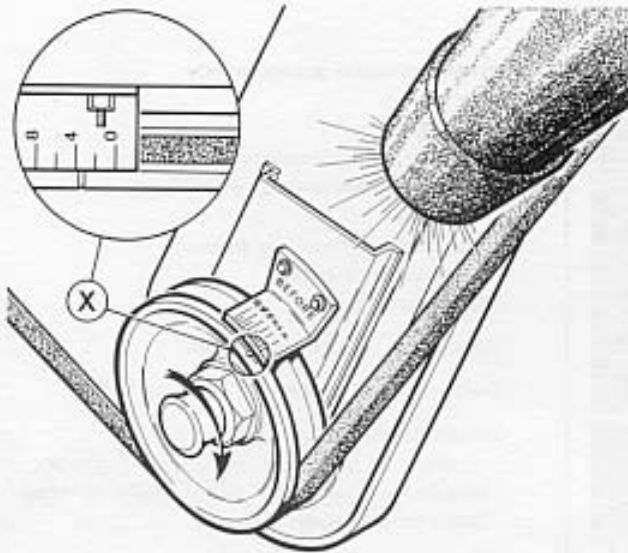
- Turn the dephaser needle to "0"

02 56

1

ENGINE

TUNING



– Point the stroboscope at the timing plate, holding it perpendicular to the plate.

– Rotate the distributor until the :

- reference mark on the pulley is in line with the correct reference (X) on the timing plate.

(X) = 0° for 504 US "71 Standards"

(X) = 5° B.T.D.C. on { XN1 - XN2 (11 CV) engines
504 US "70, 72, 73 Standards"

(X) = 10° B.T.D.C. on { XM7 (10 CV) engines
504 US "69 Standards"

- or , on engines with no timing plate :
until the mark on the flywheel is apparent in the 8 mm hole in the clutch housing.

– Tighten the distributor clamp

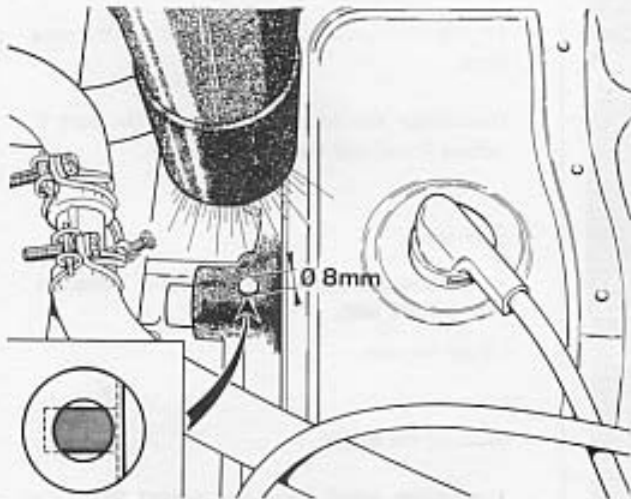
– Check :

- the engine speed

- the dephaser (on zero)

- the lining up of the timing marks.

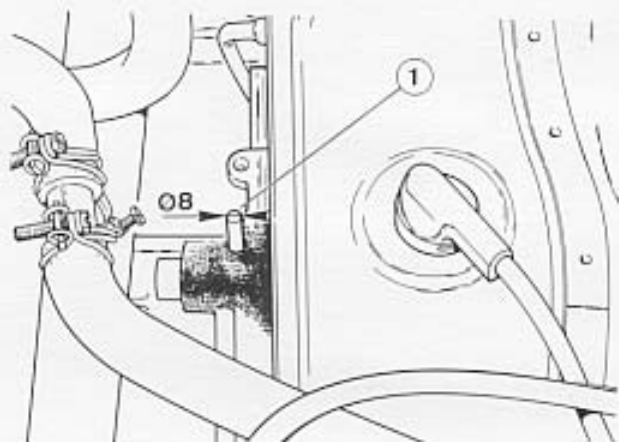
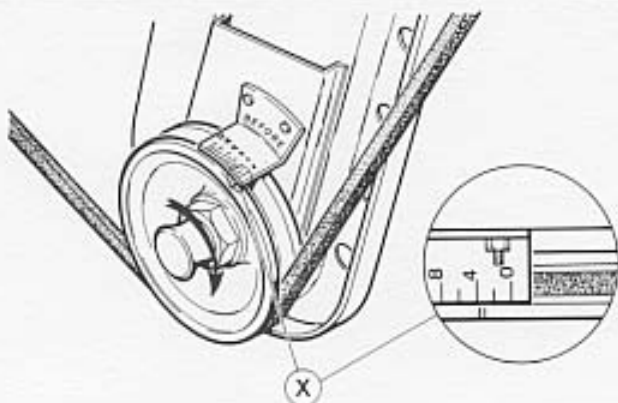
– Reconnect the vacuum line (where vacuum unit is fitted).



ENGINE

TUNING

1 02 57



IGNITION TIMING WITH A TEST LAMP

- Dwell angle correct
- Timing plate set

1 - Engines fitted with a timing plate

- Rotate the crankshaft clockwise until the mark on the pulley is in line with the graduation on the timing plate (X).

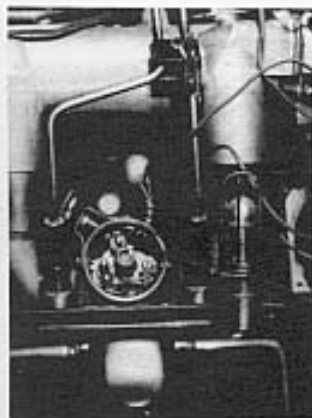
(X) = 0° for 504 US "71 Standards"

(X) = 5° B.T.D.C. { for XN1-XN2 (11 CV) engines
for 504 US "70, 72, 73 Standards"

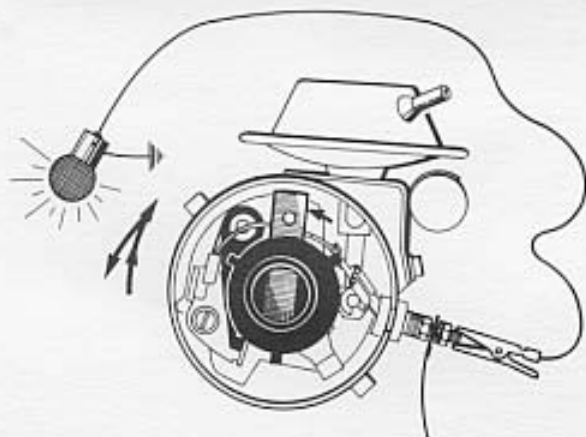
(X) = 10° B.T.D.C. { for XM7 (10 CV) engines
for 504 US "69 Standards"

2 - Engines with no timing plate

- Rotate the crankshaft clockwise until the 8 mm rod engages in the flywheel.


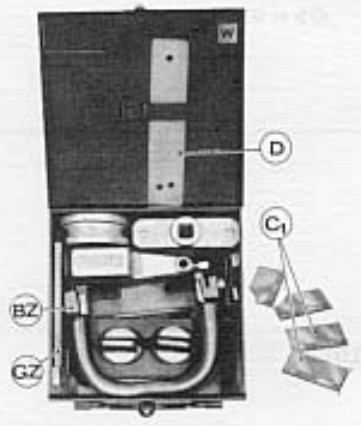
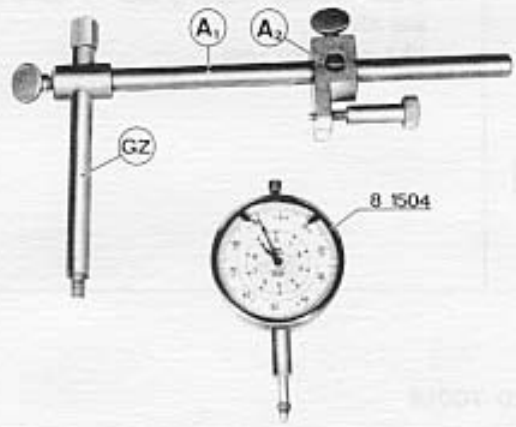



- Position the distributor as shown opposite
- Connect :
 - the low tension wire
 - a test lamp (5W bulb)
- Switch on the ignition
- Rotate the distributor
 - clockwise
 - anticlockwise until the light comes on, while holding the rotor arm "fully retarded".



- Tighten the distributor clamp
- Check, by turning the crankshaft clockwise :
 - the light must come on :
 - 1 - when the pulley reference is in line with the graduation (X) on the timing plate
 - 2 - when the 8 mm rod engages in the flywheel
- Remove the rod and the test lamp
- Fit the distributor cap and connect up the HT leads

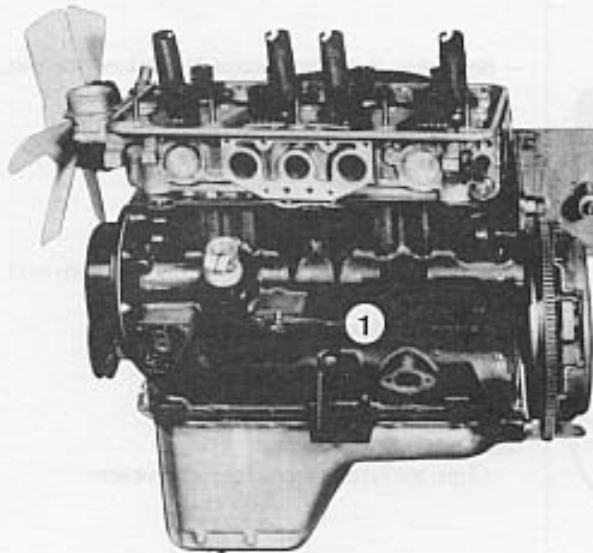
PEUGEOT

ENGINE		1	03 01 ⁽¹⁾
DISMANTLING - REASSEMBLY			
	<p>TOOLS TO BE USED</p> <p>8.0104 D</p> <p>– Set of 2 cylinder liner retaining screws.</p>		
	<p>8.0110 W</p> <p>Engine tool chest.</p> <p>BZ - Apparatus for fitting rear bearing cap seals.</p> <p>C1 - Diverse shim plates.</p> <p>D - 0.5 mm gauge.</p> <p>GZ - Dial indicator support (with \varnothing 7 mm x 100 pitch threading).</p>		
	<p>– Apparatus for checking crankshaft end float consisting of :</p> <p>8.0110 GZ - Dial gauge support.</p> <p>8.0504 A1 - Support rod A2 - Support.</p> <p>8.1504 - Dial gauge.</p>		
	<p>8.0207</p> <p>– Clutch plate centering tool.</p>		

PEUGEOT

ENGINE
DISMANTLING

1 03 03⁽²⁾



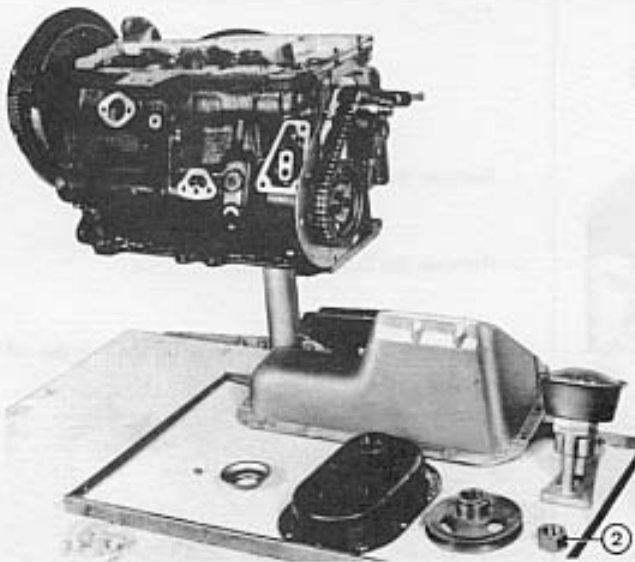
If the liners and pistons are to be replaced, the engine must be removed.

- Drain off the engine oil,
- Strip the engine to the extent shown opposite.
 - withdraw the petrol pump plunger (1).
- On XM/KF and XN 2 engines : remove the injection equipment (see pages 13).
- Remove the cylinder head.

WARNING - Pivot the cylinder head so as not to disturb the liners when removing it.



- Secure the liners, using the screws 8.0104 D.
- Remove :
 - the cam followers and **set them aside in the order of removal.**
 - the distributor support,
 - the distributor drive rod.

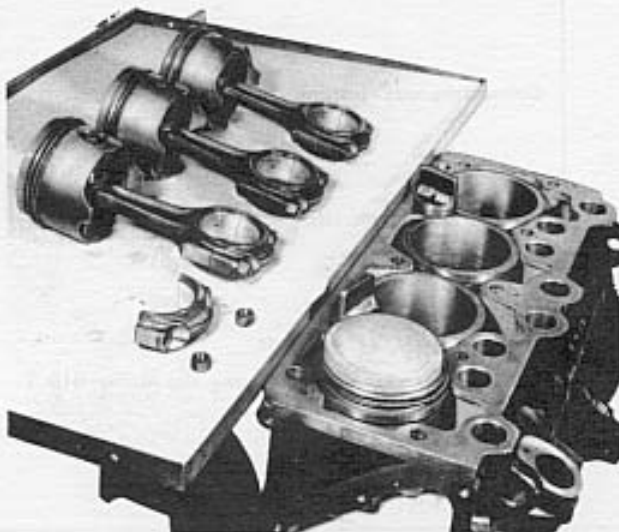


- Remove :
 - the oil sump and oil pump,
 - the timing housing
(place a block of wood between the crankshaft and cylinder block, in order to lock the crankshaft to remove the pulley nut (2)).

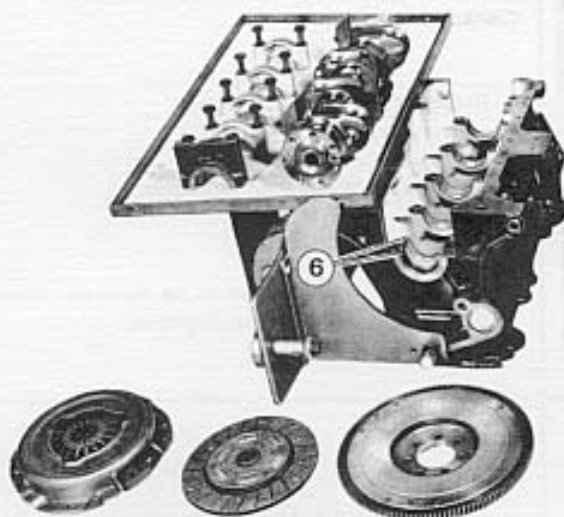
PEUGEOT

ENGINE
DISMANTLING

1 03 05⁽³⁾



- Remove the pistons/connecting rods.
- Remove the bearing shells,
- Assemble the connecting rods and their end caps.
- Mark the rods 1 to 4.

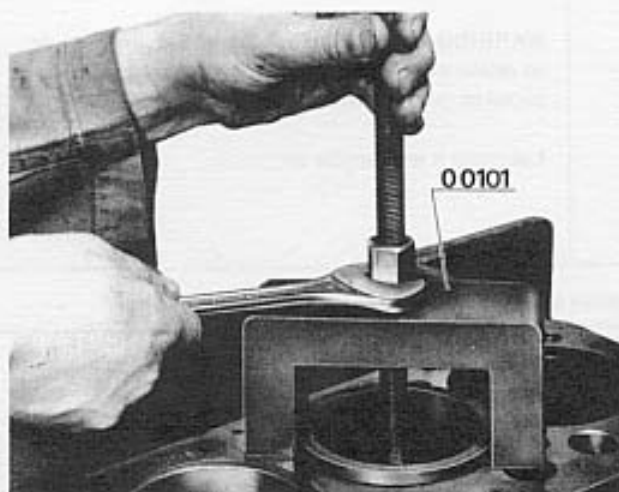


- Mark the position of the clutch mechanism in relation to the flywheel and remove the mechanism.
- Remove :
 - the flywheel,
 - the crankshaft.
- Recover the half thrust washers (6).

WARNING

XM/ZF - XM 7 - XN 1 and XN 2 engines are also fitted with two thrust washers in the rear main bearing cap.

- remove the main bearing shells.

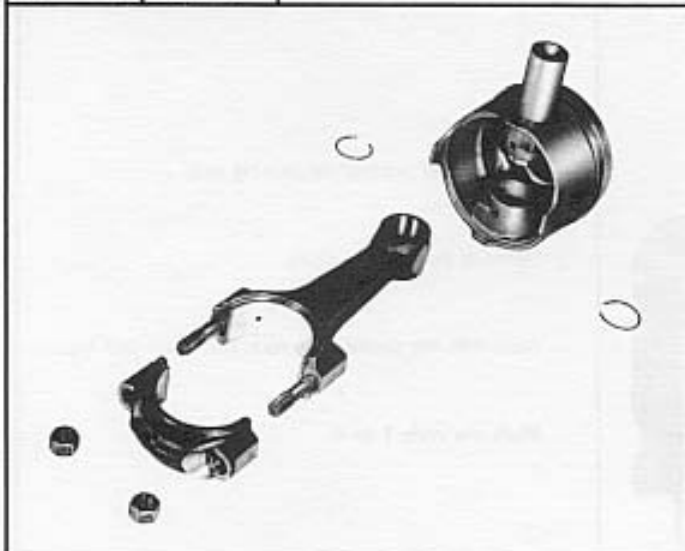


- Remove the cylinder liners, using the extractor 0.0101 if necessary.

WARNING - The cylinder block must never be skimmed.

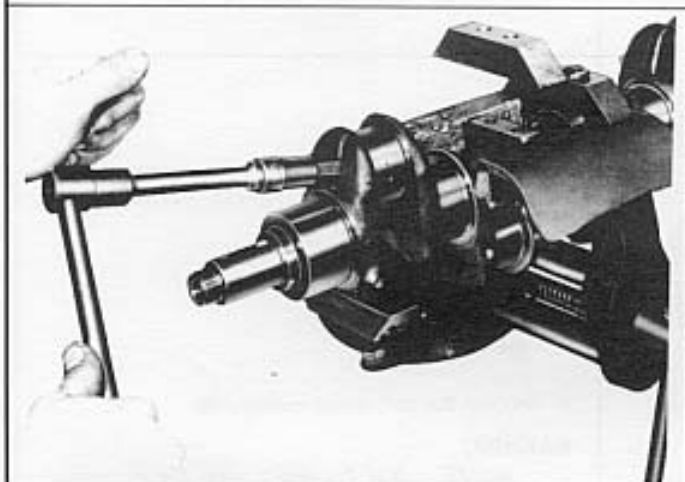
PEUGEOT

ENGINE
DISMANTLING



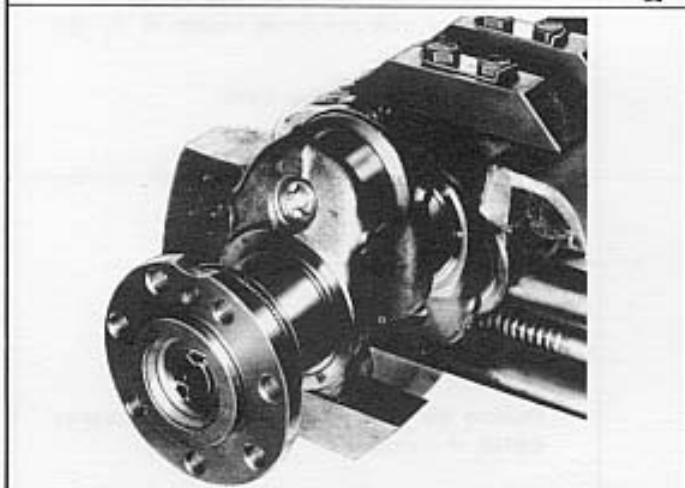
Connecting rods - pistons.

- Remove :
 - the gudgeon pin circlips,
 - the gudgeon pins,
- Check the connecting rods :
 - for twist or distortion using the Muller 519 T apparatus.



Crankshaft.

- Remove the sludge trap plugs.
- Clean the oil galleries out thoroughly.
- If the counterweights are to be removed, mark them precisely before removing them.



- If the centering bush is worn, remove it and its seal (see class 2).

WARNING - This bush is self lubricating and, in order to retain these properties, it must never be washed in petrol or carbon tetrachloride.

Lubricate it with engine oil.

CRANKSHAFT REGRIND SIZES :

Bearing	Original diameter (in mm)	Regrind diameter (-0.30 mm)
Rear journal	54.905 to 54.980	54.605 to 54.620
Int. rear journal	56.140 to 56.165	55.850 to 55.865
Centre journal	57.174 to 57.189	56.874 to 56.889
Int. front journal	58.548 to 58.573	58.258 to 58.273
Front journal	59.401 to 59.416	59.104 to 59.116
* Crankpins	49.984 to 50	49.675 to 49.691

* Only the crankpins can be reground on XM - XMKF6 - XMKF5 engines.

ENGINE
REASSEMBLY

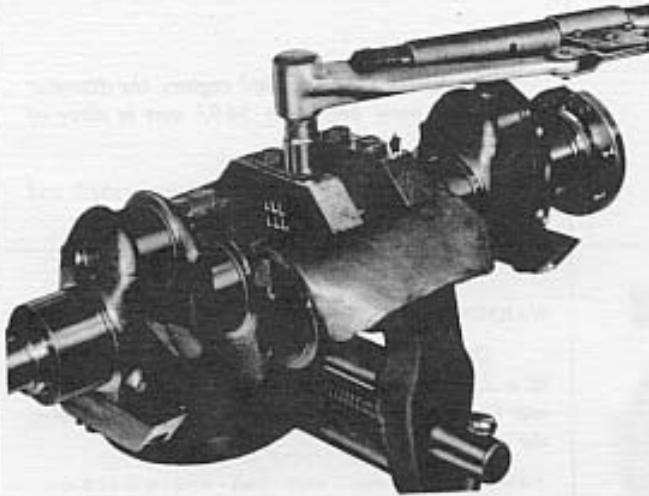
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03 51⁽³⁾

PREPARATION

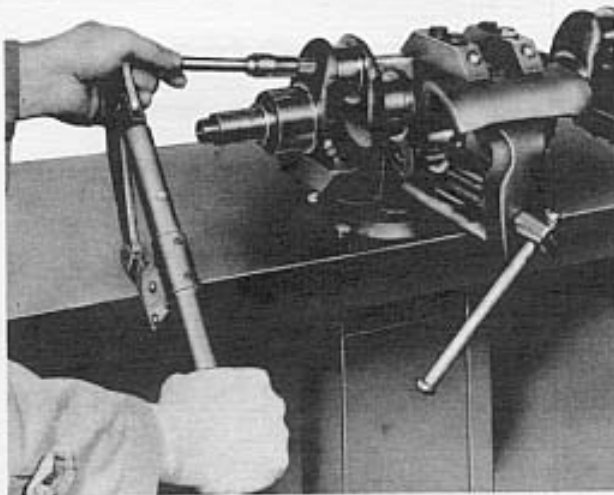
- Only parts which are perfectly clean and free from defect are to be used.
- Use **MAGSTRIP** to clean the mating faces
 - wear protective gloves
 - spread the MAGSTRIP using a brush ; leave it to dry for ten minutes

Then remove the deposit with a plastic or wood scraper.
- Lubricate all moving parts during assembly with engine oil.



Crankshaft.

- Fit the counterweights respecting the marks made when dismantling.
- tighten the bolts to **6.75 m.kg (49 ft.lbs)**,
- bend up the tab washers around the bolt heads.



- Screw a $\varnothing 24 \times 150$ finishing tap into the sludge trap plug holes (10 mm maximum).

- Fit **new** plugs after smearing them with sealing compound

- tighten them to **5.5 m.kg (40 ft.lbs)**.

- lock them with a centre punch.

N.B. - Refit the centering bush and its seal (see class 2).

- Lubricate it with engine oil.



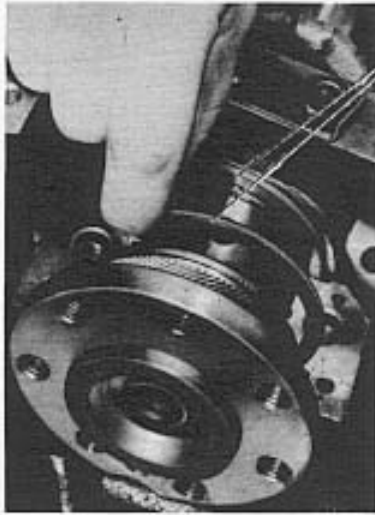
PEUGEOT

0352⁽²⁾

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ENGINE

REASSEMBLY

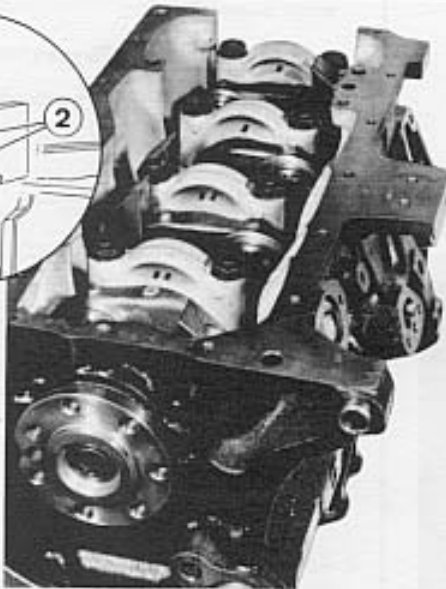
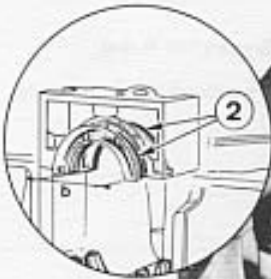


- Insert the main bearing half shells :
 - original size : e = 1,082 to 1,888 mm
 - oversize* : e = 2,032 to 2,038 mm
 - * (to be fitted on XN1 and XN2 engines with reground crankshaft)
- Install the crankshaft carefully,
- Insert the thrust washers (1) which were fitted originally (lubrication grooves facing the crankshaft) : 2.3 mm thick.

WARNING

On XN1 - XN2 and XM7 engines, the diameter of the rear main bearing is 54.92 mm in place of 51.18 mm.

Consequently the appropriate bearing shells and thrust washers (a) : 61.5 mm) must be fitted.



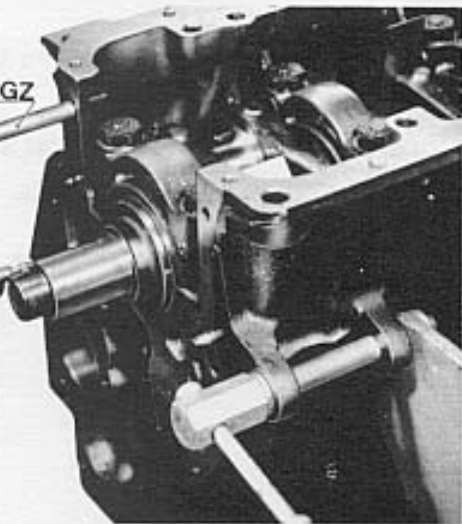
WARNING

On XM/ZF - XM7 - XN1 and XN2 engines : fit a 2.3 mm thrust washer (2) on each side of the rear bearing cap with the lubrication grooves facing the crankshaft.*

* XM/ZF : b = 58 mm - XM7 - XN1 - XN2 : b = 61.5 mm

- Fit :
 - the bearing caps, with their shells in place, as shown opposite,
 - the rear bearing cap, without lateral seals.
- Tighten the 10 bolts, fitted with new Onduflex washers, to 7.5 m.kg (55 ft. lbs).
- The crankshaft should rotate freely.

B 0504 A2
B 0110 GZ
B 1504

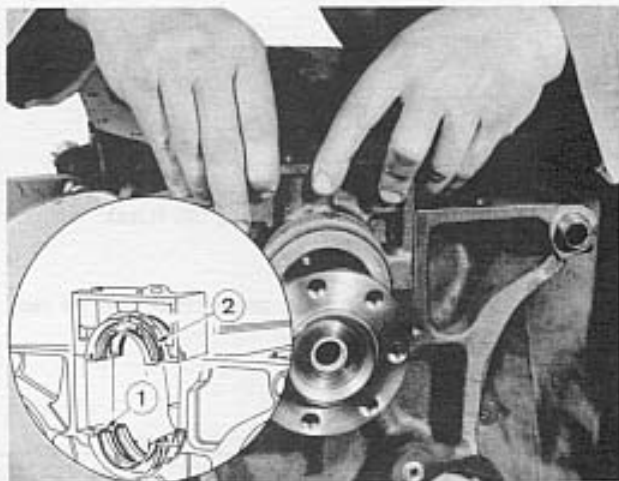


- Fit the end float checking assembly as shown opposite.

- Note the amount of end float, which must be between 0.08 mm and 0.20 mm.

ENGINE
REASSEMBLY

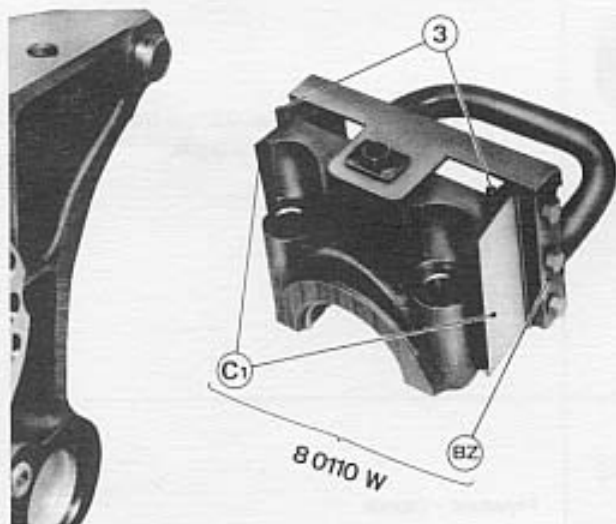
1 03 53⁽²⁾



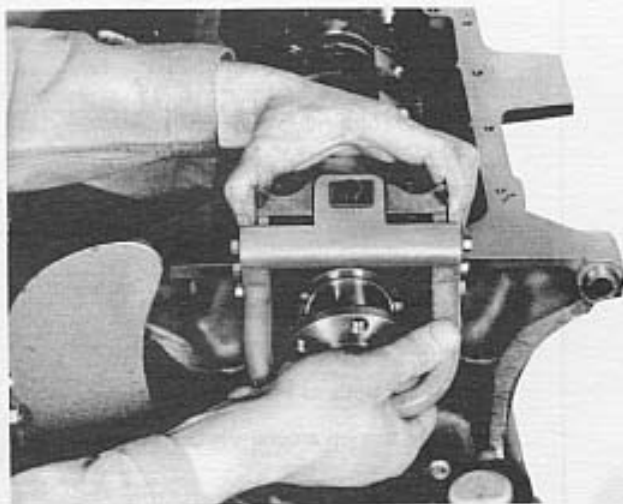
– If the end float exceeds 0.2 mm :

- on XM engine : replace the thrust washer (1),
- on XM/ZF - XM7 - XN1 and XN2 : replace the thrust washers (1) and (2) on the rear of the bearing using one of the oversize washers.

Oversize washers : thickness available :
2,40 mm – 2,45 mm – 2,50 mm.



- Install the lateral seals (3) on the bearing cap and hold them in place using the apparatus **8,0110 W**, as shown opposite.

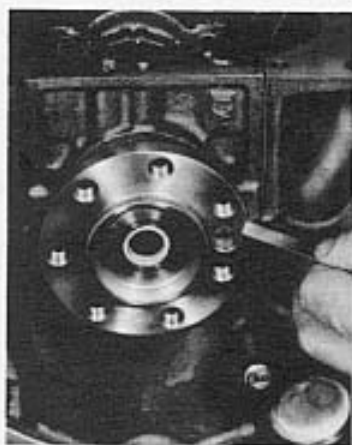


- After lubricating, tighten the shim plates by hand and engage the assembly in the cylinder block at an angle.
- Straighten up the cap and position correctly.

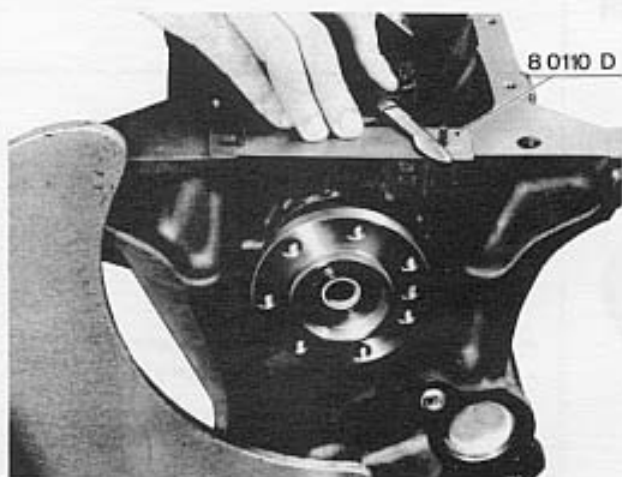
PEUGEOT

0354⁽²⁾

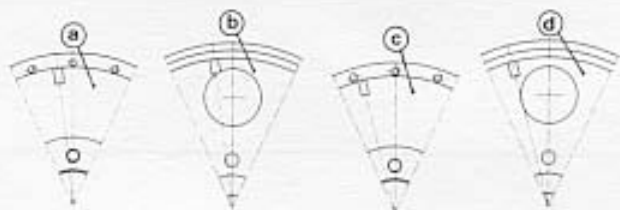
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ENGINE
REASSEMBLY

- Fit the bolts.
- Withdraw the apparatus.
- Tighten the bolts to **7.5 m.kg (55 ft.lbs)**.
- Using a 0.05 mm feeler gauge, check that the cap is bearing on the block.



- Cut the lateral seals off at 0.5 mm from the block using the gauge **8.0110** as a guide.

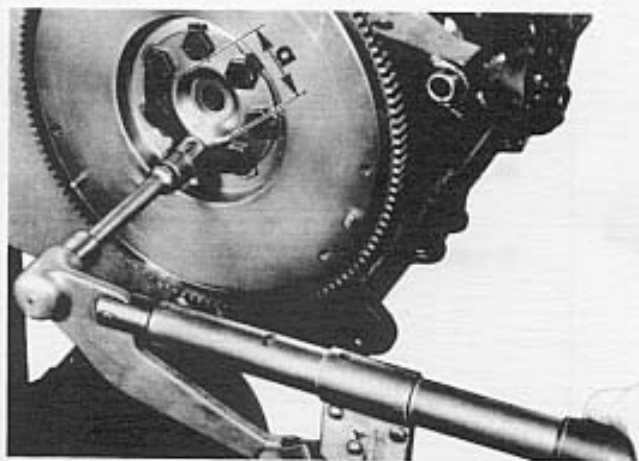


Flywheel - Clutch

WARNING

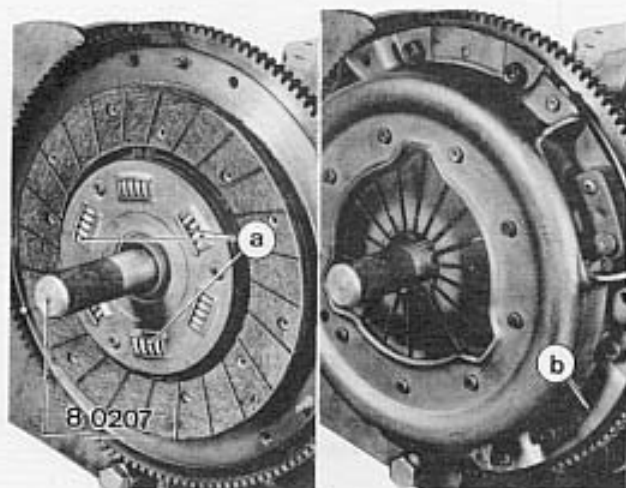
In the event of replacement of the flywheel :

- on XM - XM 7 with 10° ignition advance :
 - flywheel (a) for BA 7 gearbox,
 - flywheel (b) for ZF transmission.
- on XN 1 - XN 2 with 5° ignition advance.
 - flywheel (c) for BA 7 gearbox
 - flywheel (d) for ZF transmission.
- Fit the flywheel :
 - use a new tab washer (\varnothing (a) = 44 mm),
 - tighten the bolts to **6.75 m.kg (49 ft.lbs)**,
 - bend the tabs up around the bolt heads,



ENGINE
REASSEMBLY

1 03 55⁽³⁾



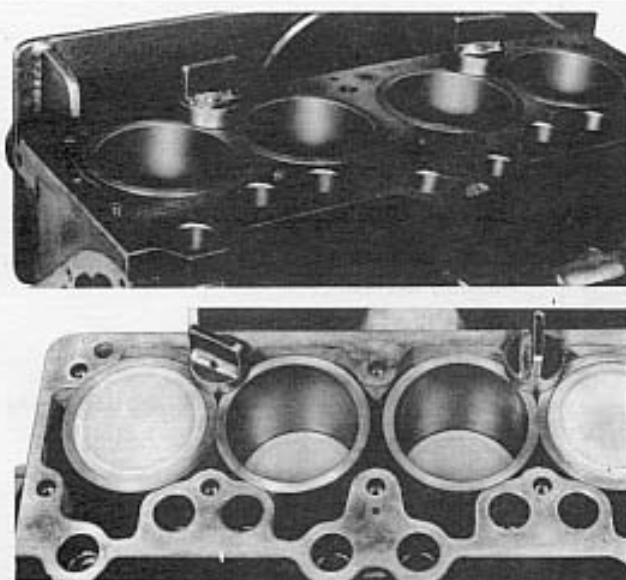
– Locate the clutch plate as shown opposite and centre it,

WARNING

On XN1 and XN2 engines :
- a plate with 3 grey springs and 3 mauve springs (a),
- a mechanism rated at 450 kg (b), must be used.

– Fit the mechanism, lining up the marks made while dismantling.

– Tighten the bolts, fitted with **new** Onduflex washers, to 1.5 m.kg (11 ft.lbs).



Cylinder liners - pistons.

– Fit the liners, following the method indicated on page 06 01 to 06 05, class 1.

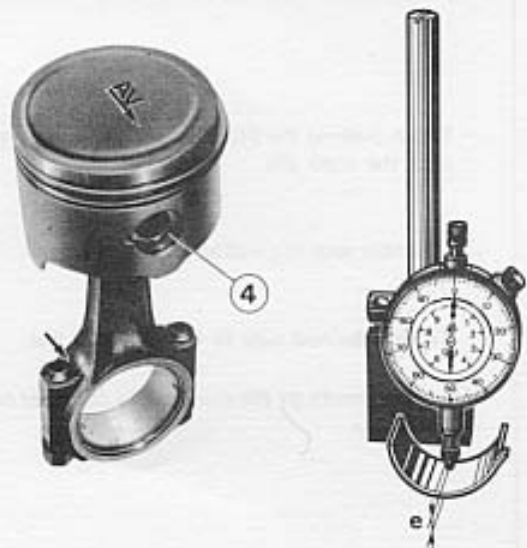
Connecting rods.

– Big end shells :

- original size : e = 1.812 to 1.818

- oversize * : e = 1.962 to 1.968

* (to be fitted when crankpins have been reground),



WARNING - If new liners and pistons are being fitted, respect the pairing of :

- the liners/pistons,
- the pistons/gudgeon pins.

– Position the piston with the mark "AV" at right angles to the oil thrower on the rod as shown opposite.

– Fit the pistons to the rods by hand.

N.B. - It may be necessary to heat the pistons in boiling water in order to fit the gudgeon pins.

– Fit the snap rings (4).

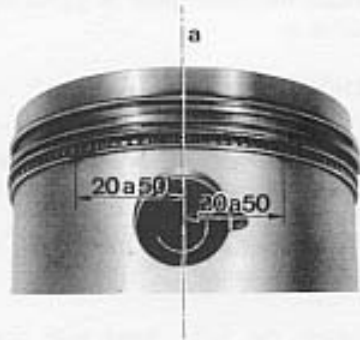
PEUGEOT

0356⁽¹⁾

1

ENGINE

REASSEMBLY



- Fit the " Perfect-Circle " oil scraper as shown opposite (gaps at 20 to 50 mm from the centre of the gudgeon pin hole).

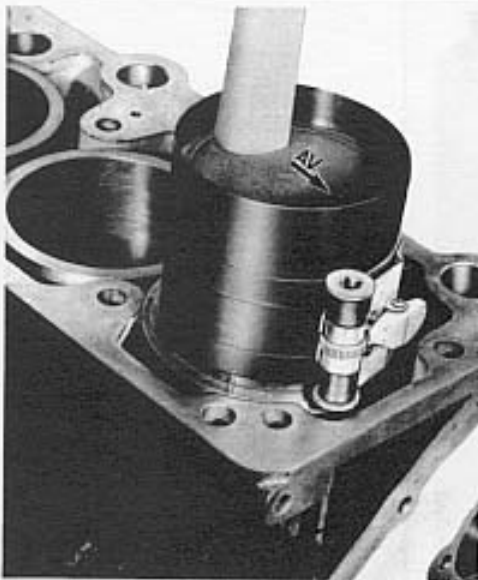
- Fit the remaining piston rings with the gaps at approximately 120° from the gap (a) in the expander ring.

N.B. - Never alter the length of the expander.

- The mark on the piston rings must be facing the crown of the piston.



Correct assembly

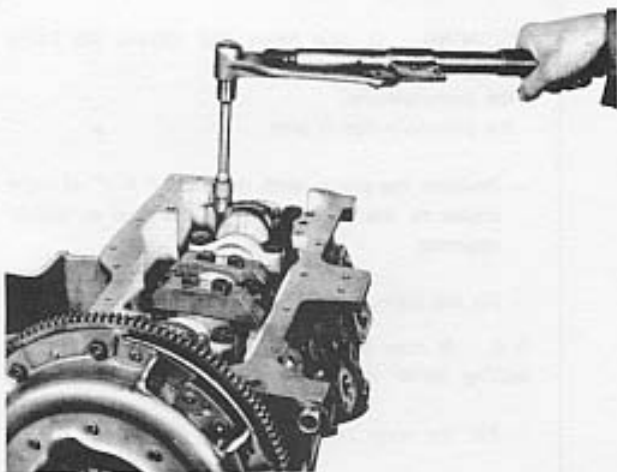


- Fit the piston ring clamp on the piston.

- Insert the piston/rod assembly, without turning it, making sure that :

- the arrow is facing the front of the engine,

- the order " 1-2-3-4 ", marked during dismantling is respected.



- Whilst pushing the piston down, guide the big end onto the crank pin.

- Assemble each big end as the rod is fitted.

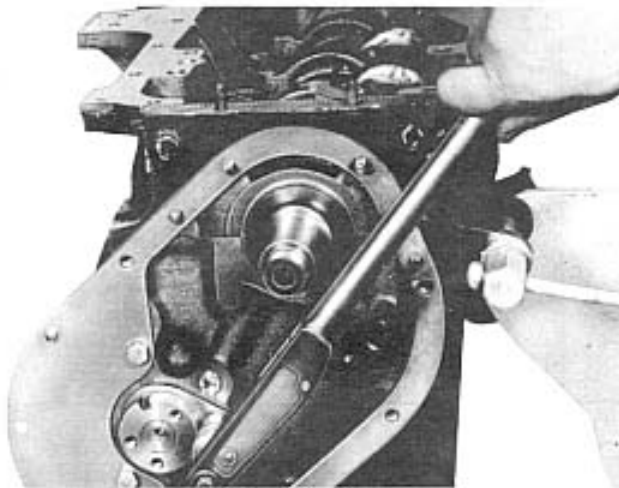
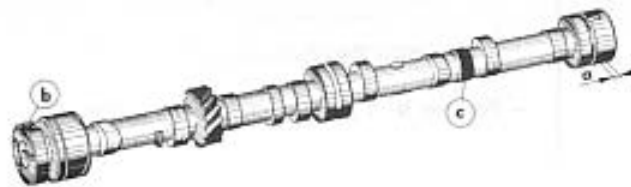
- Tighten the new nuts to 4 m.kg (29 ft.lbs).

N.B. - The marks on the rod and the cap must be on the same side.

ENGINE
REASSEMBLY

1

03 57⁽²⁾



Timing

- Fit the camshaft.

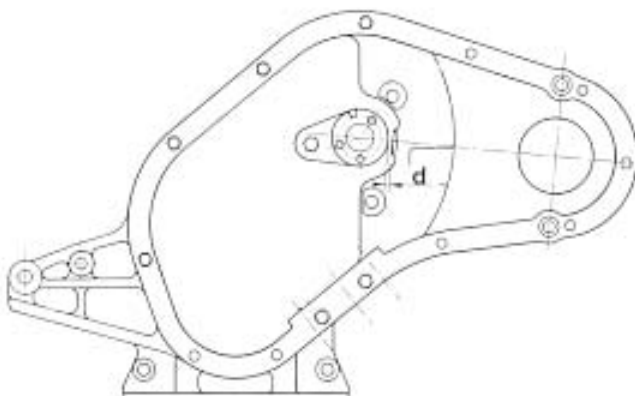
WARNING

On some XM engine camshafts, the groove (a) is 8 mm wide instead of 5 mm to ensure correct lubrication of the rocker assembly.

Camshafts with the reference XN 1 or XN 2 at (b) (with the boss (c)) can be fitted on XM - KF6 or KF5 engines on condition that black valve springs are fitted.

On 504 U.S. models :

- The camshaft marked AP or US at (b), is to be used for 69, 70, 71 and 72 models (Emission control standards) and yellow valve springs are to be fitted
- The camshaft marked XN1 at (b) and with a shoulder at (c), is to be used for 73 models and black valve springs are to be fitted.
- Tighten the retaining plate to 1,7 m.kg (12 ft. lbs).
- Install :
 - the paper gasket
 - the steel plate



KF 6 - KF5 and XN 2 engines.

- When securing the timing housing, the gap (d) of 0.55 mm (or 2.5 mm, depending on the housing) between the boss and the camshaft end must be respected.
- Install and set the timing gear (see page 10 01 to 10 07, class 1).

PEUGEOT

2-73

Supersedes page 03 57 (1) and 03 58, class 1.

1212 E

03 58⁽¹⁾

1

ENGINE

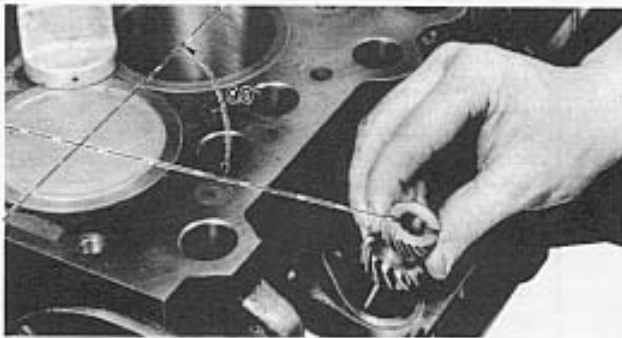
REASSEMBLY



Distributor/Oil pump drive rod.

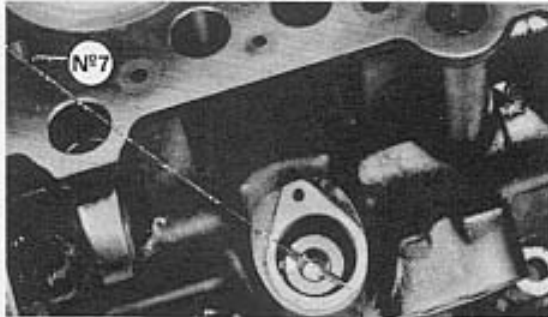
To install the drive rod correctly :

- Position N° 1 piston at T.D.C. (firing stroke).

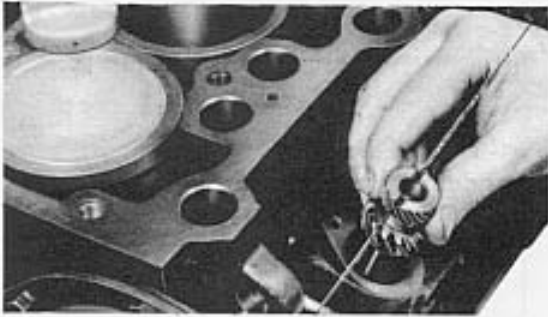


XM and XM7 engines.

- Present the distributor drive as shown opposite (large side facing the fly wheel, the slot at right angles to the engine).

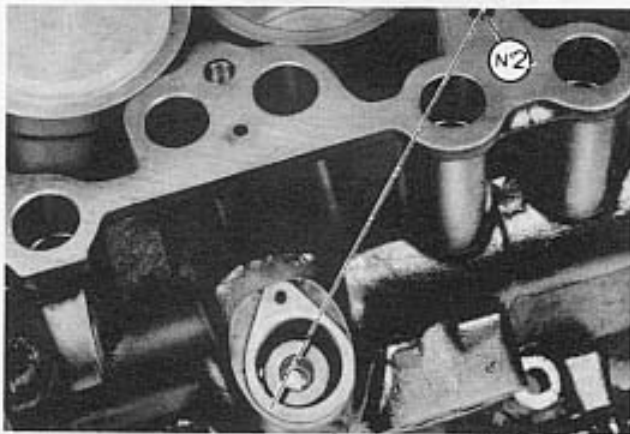


- When fully engaged, the slot should be more or less in line with the cylinder head bolt hole N° 7.



KF6 - KF5 - XN1 and XN2.

- Present the distributor drive as shown opposite (large side facing away from the block, the slot parallel to the cylinder block).

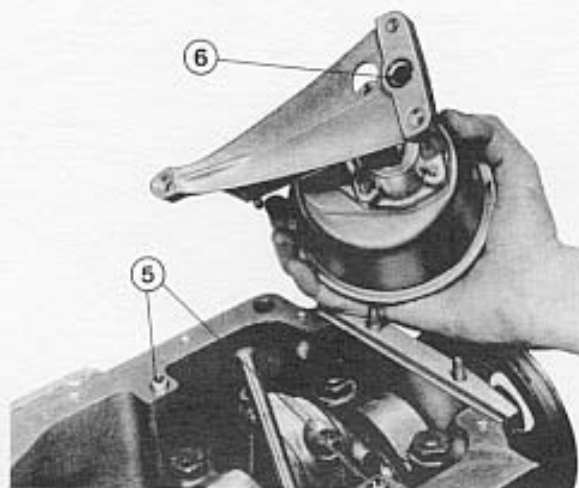


- When fully engaged, the slot should be more or less in line with the cylinder head bolt hole N° 2.
- Fit the distributor support with its machined face smeared with sealing compound.

ENGINE
REASSEMBLY

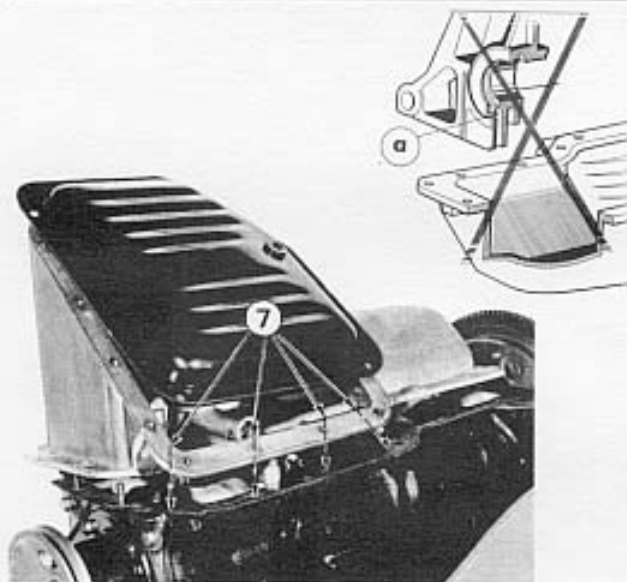
1

0359⁽¹⁾



Oil pump - Oil sump.

- Install :
 - the centering pins (5) in the cylinder block,
 - a new O-ring (6) on the pump.
- Fit the oil pump making sure that the drive blade engages the drive rod.
- Tighten the bolts to **1 m.kg (7.25 ft.lbs)**.



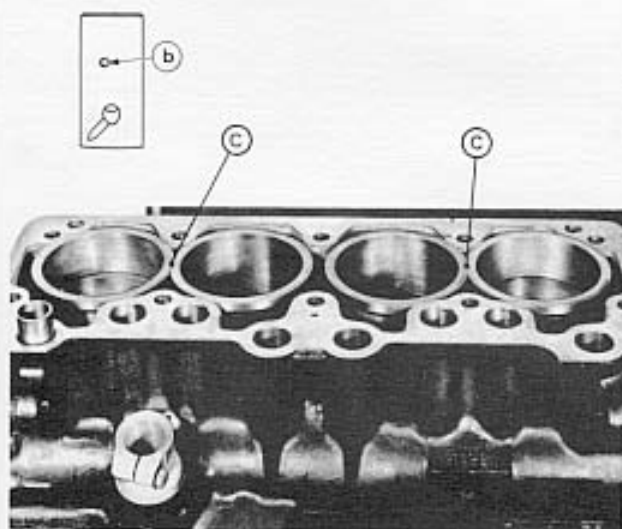
- Fit the sump using **new** gaskets.

WARNING

Oil sumps, in pressed steel or aluminium, which do not have an oil return passage, must not be fitted on XM engines with a rear main bearing cap which incorporates the hole (a).

A special gasket in rubber/asbestos must be fitted on USA models with an alloy sump.

- Fit the four bolts (7) after smearing the threads with "normal holding" LOCTITE.
- Tighten them to **1 m.kg (7.25 ft.lbs)**.
- Tighten the drain plug.



- Fit the cam followers.

WARNING - On KF 6 - KF 5 and XN 2 engines, only the cam followers with a 3 mm hole (b) are to be used.

- Remove the liner retaining screws.
- **Make sure that the flats (c) on the liners of 1-2 and 3-4 cylinders are parallel.**
- Refit the cylinder head.

WARNING

There are two methods for tightening down the head (see page 04 06, class 1) which must be followed.

- Fit the remaining components.
- Adjust the fan belt tension (2 to 3% stretch).
- Refill with oil when the engine has been refitted.

PEUGEOT

ENGINE
CYLINDER HEAD
CHECKING THE COMPRESSION

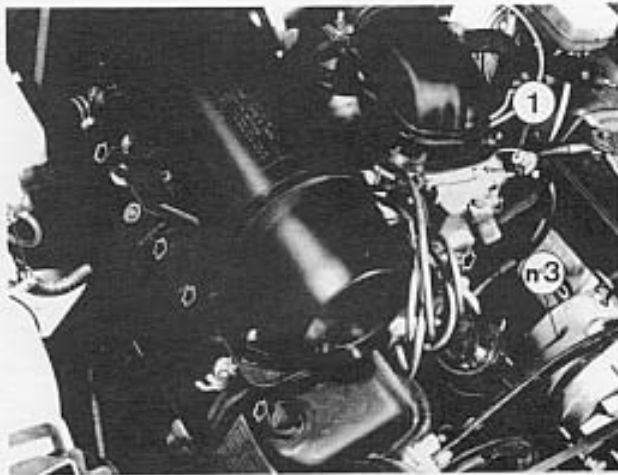
1

04 01^(*)

623 000 1004

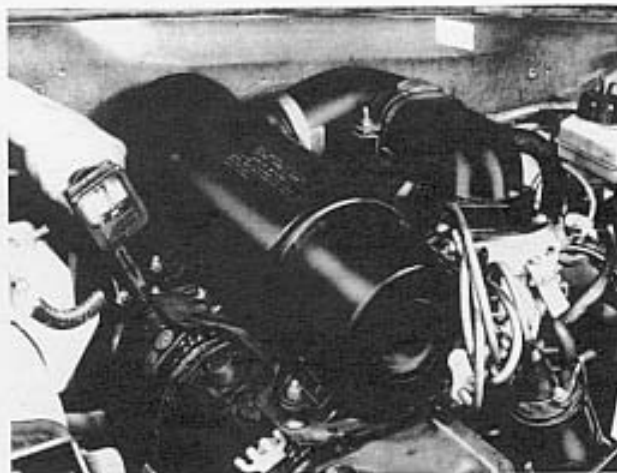


- Use the compression gauge :
Motometer ref. 623 000 1004.



The engine must be at operating temperature (approximately 80° C).

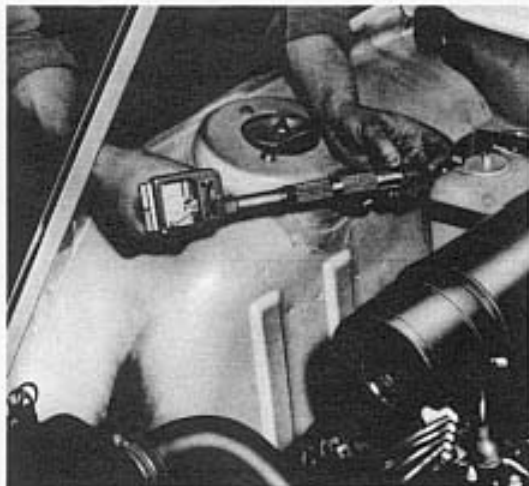
- Disconnect :
 - the fuel line (1) from the carburettor and seal it off,
 - the lead n° 3 from the coil.
- Drain the carburettor float bowl :
 - on XM engines, by removing the choke jet.
 - on XN1 engines, by removing the float bowl plug.
- Lock the throttle flap fully open.
- Remove the spark plugs.



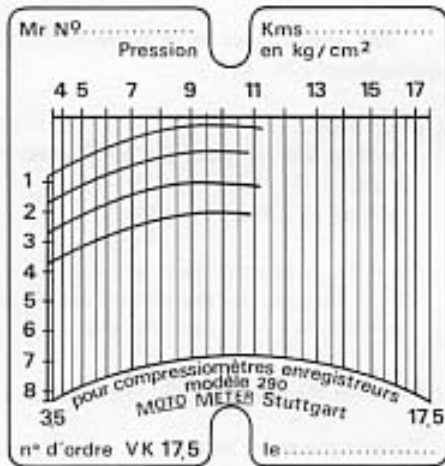
- Beginning on N° 1 cylinder, insert the gauge firmly in the plug hole.
- Turn the engine, using the starter, for 4 seconds.

PEUGEOT

ENGINE
CYLINDER HEAD
CHECKING THE COMPRESSION



- Decompress the gauge by pressing the point on the tip of the rubber cone.
- Raise the card to the 2nd position and carry out the same operation on N° 2 cylinder.
- Check the other cylinder in the same way.
- Refit the components removed.



- Withdraw the card.

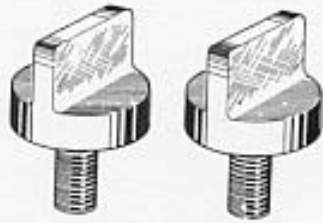
PRESSURE READING TO BE OBTAINED :

- 11 bars approximately** for XM-KF6-KF5-XN1-XN2.
- 10 bars approximately** for XM 7 (7.5:1 compression).
- Maximum variation between cylinders :
1 bar.

**ENGINE
CYLINDER HEAD
REMOVAL - REFITTING**

1

0411⁽²⁾



TOOLS TO BE USED

8.0104 D

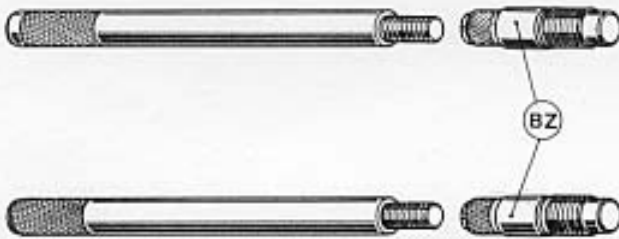
– Set of 2 cylinder liner retaining screws.



8.0106 Z

– Spark plug spanner

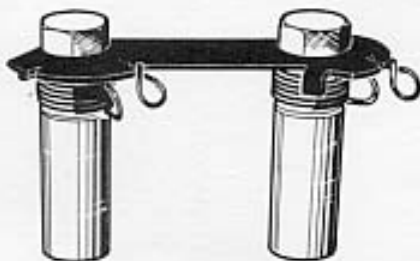
360 mm long - 27.5 mm outer diameter of the socket.



8.0115 Y

– Set of 2 cylinder head guides.

BZ - Guide screws.



8.0129

– Double cylinder head bolt socket for XN1 - XN2 and XM7 engines.

RECOMMENDED HAND TOOLS

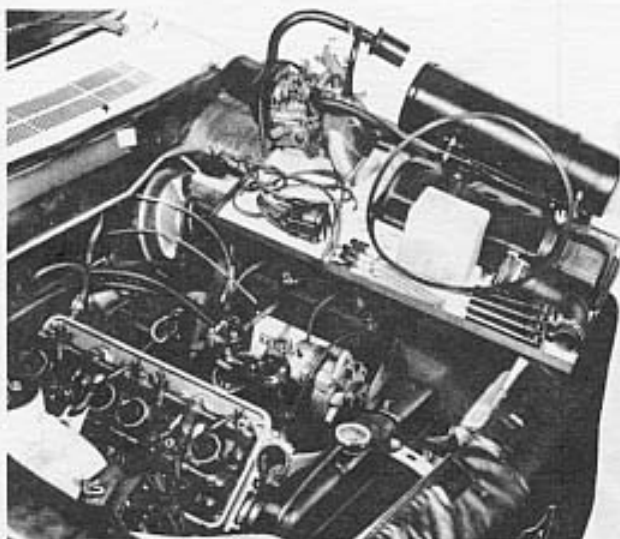
Tool	Make
Torque wrench	Sunnen PN 50

PEUGEOT

ENGINE

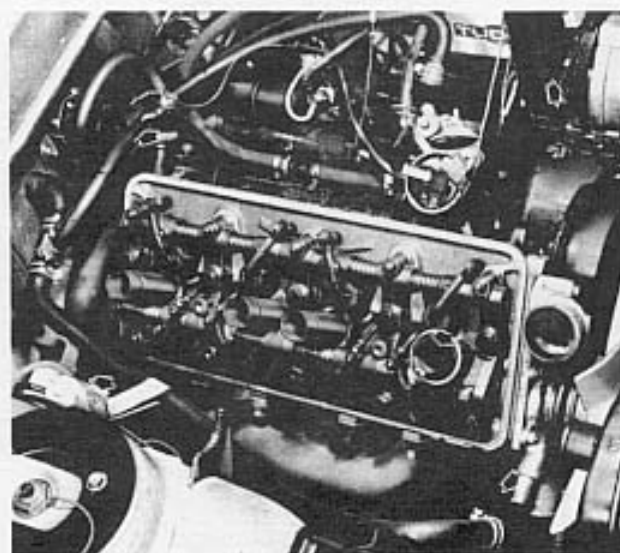
CYLINDER HEAD - REMOVAL

1

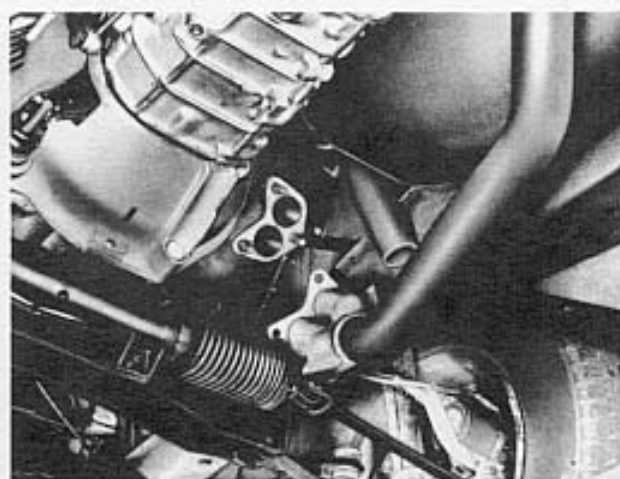
0413⁽²⁾

WARNING - Removal of the head must only be realised with the engine cold, to avoid any risk of distortion.

- Drain the water from the block.
- Remove the components as shown opposite.
- On KF 6 - KF 5 and XN 2 engines :
 - remove the injector lines (protect the delivery valves and injector unions with caps),
 - separate the air distribution chamber from the inlet manifold.

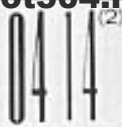


- Disconnect the leads and hoses.
- Disengage the various lugs.
- Remove the plug tube seals and their cups.



- Separate the exhaust pipe from the manifold.

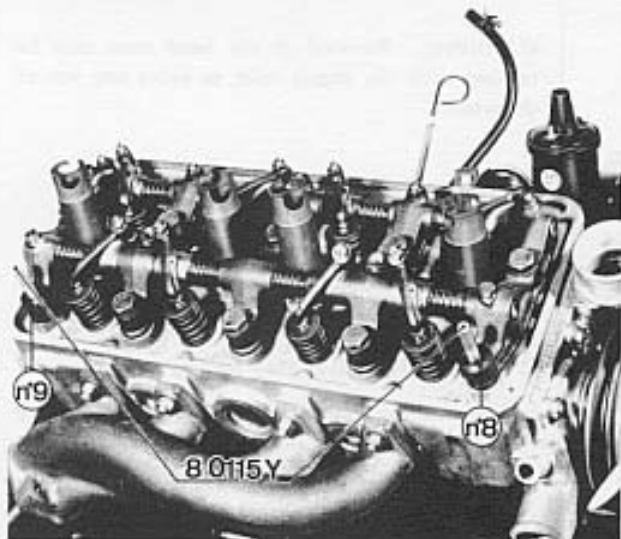
PEUGEOT



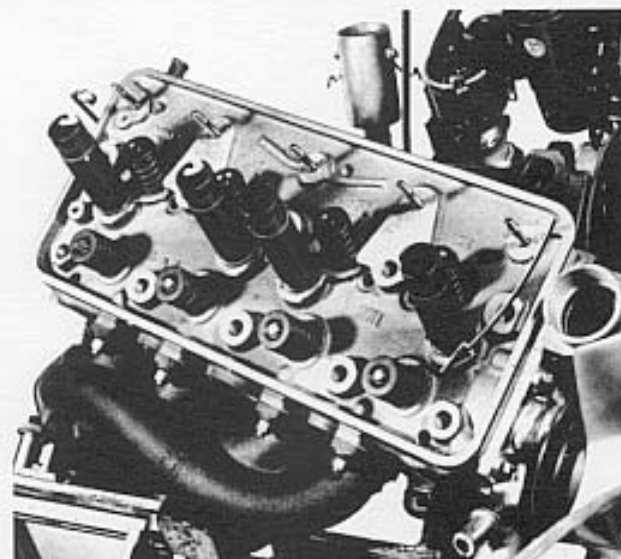
1

ENGINE

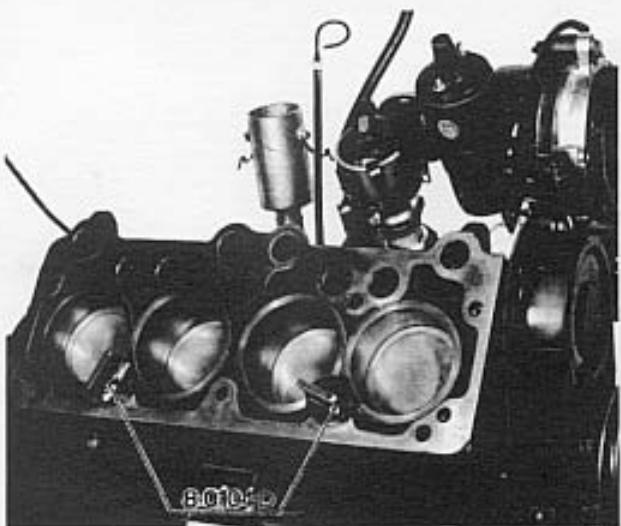
CYLINDER HEAD - REMOVAL



- Remove head bolts **(8)** and **(9)** and fit the cylinder head guides.
- Remove the rocker shaft assembly.
- Remove the push rods and **lay them out in the correct order from (1) to (8)**.



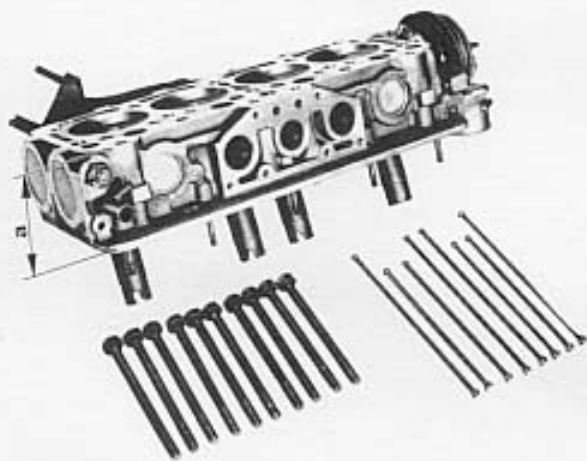
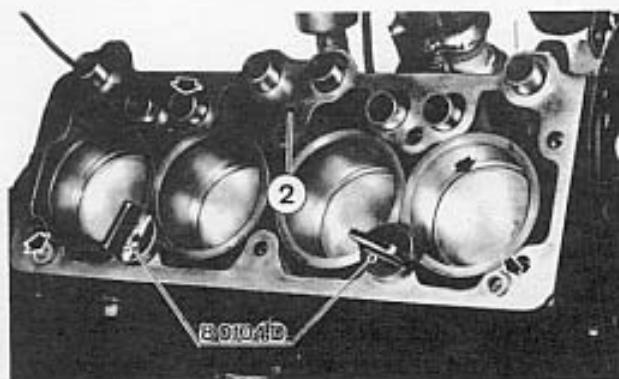
- Remove the head guide from hole N° 8.
- **Pivot the head** to separate it from the block and cylinder liners.
- Remove :
 - the cylinder head and gasket,
 - the second cylinder head guide.



- Lock the liners with the two retaining screws.

ENGINE
CYLINDER HEAD - REFITTING

1 04 15⁽¹⁾



PREPARATION

- Clean the face of the block* (including the threaded holes in the block) taking care :
 - to place an old piston ring on top of all four pistons,
 - to seal off the oil return holes,
 - to clean out the petrol drain hole (1) on XM - KF 5 and KF 5 blocks, (2) on XN1 - XN2 and XM7 blocks.

WARNING - Do not scrape the carbon from the piston crowns.

- Clean and check the cam followers.
- Remove all burrs from the face of XN1 - XN2 and XM7 blocks.

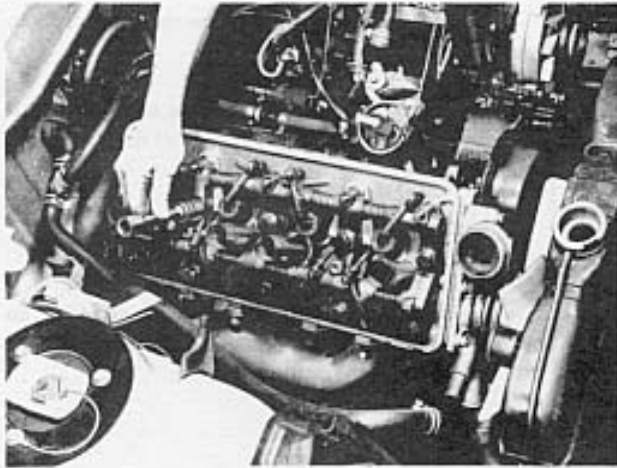
- **Clean :**
 - the face of the cylinder head,*
 - the cylinder head bolts,
 - the push rods (check them for distortion).
- **Check the surface condition of the cylinder head :**
maximum out of true : 0.05 mm.
- If the distortion is more, skim the face :
 - normal cylinder head height (a) : $92,5 \pm 0,15$ mm
 - height after skimming (a) : min, $92 \pm 0,15$ mm.
- * Use MAGISTRIP :
 - wear protective gloves
 - apply the product using a brush (do not let the Magistrip run down into the block)
 - leave it for ten minutes then scrape off the deposit using a plastic or wood scraper.

PEUGEOT

ENGINE

CYLINDER HEAD - REFITTING

1 0417

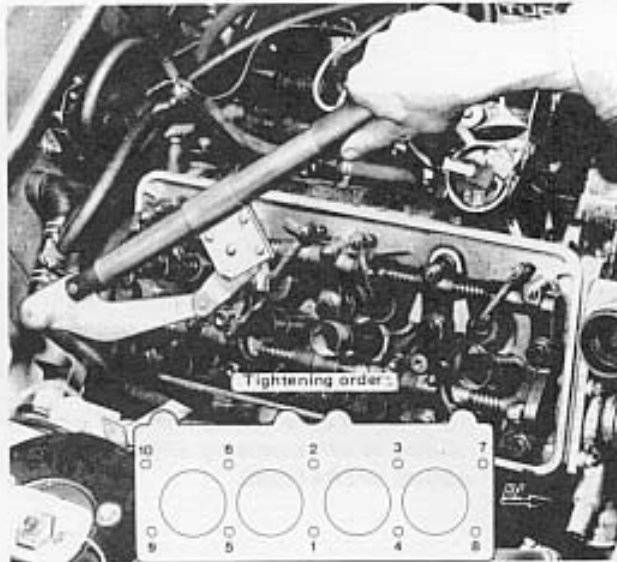


TIGHTENING THE HEAD

- Fit the head.
- Fit :
 - the push rods, in the order in which they were removed.
 - the rocker shaft assembly.
- Smear the bolt threads with **tallow**, fit the flat washers and tighten the bolts down moderately.

WARNING - The bolts must turn freely.

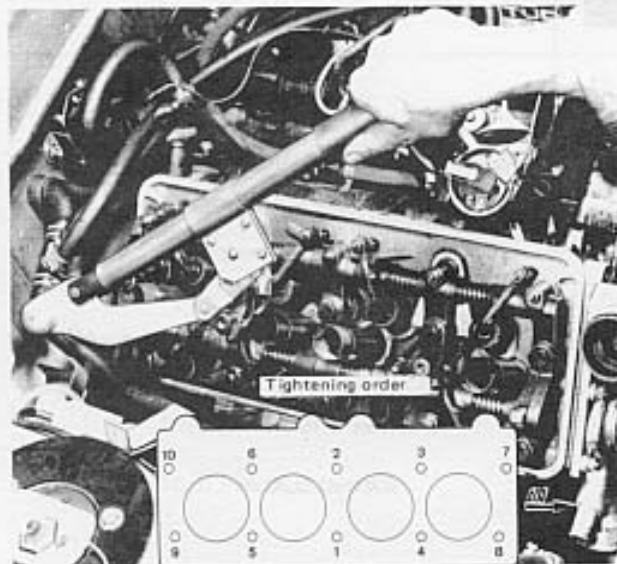
- fit the rocker shaft support nuts.

**WARNING**

There are two methods for tightening the head.

On XM engines with free expanding liners :

- Following the order shown opposite :
- pretighten to 6 m.kg (43.5 ft.lbs)
- final tighten to 8.25 m.kg (60 ft.lbs).
- Tighten the rocker shaft support nuts to 1.5 m.kg (11 ft.lbs).

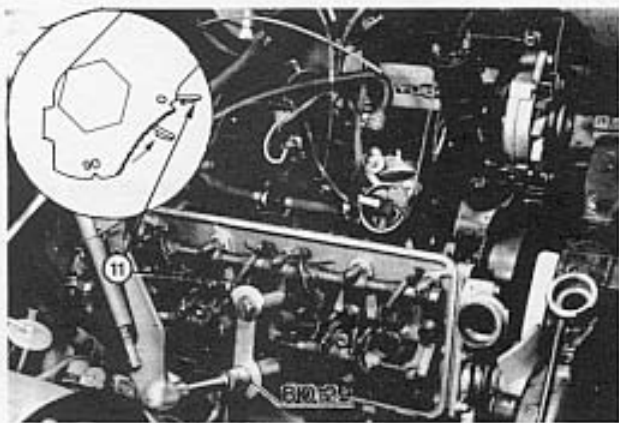


On XN1 - XN2 and XM7 engines (compressed liners) :

- Following the order shown opposite :
- Pretighten to 5 m.kg (36 ft.lbs).
- Tighten the rocker shaft support nuts to 1.5 m.kg (11 ft.lbs).

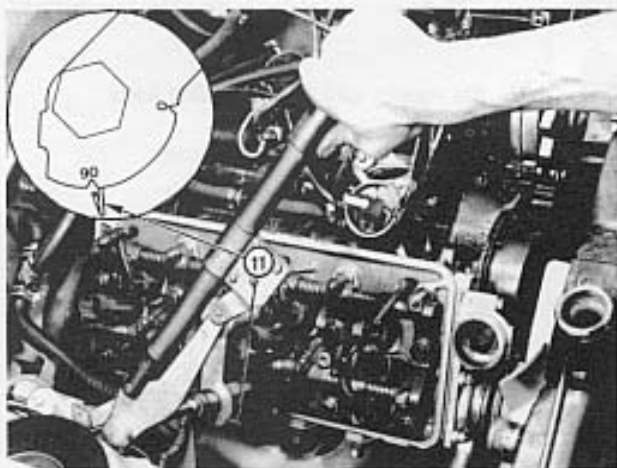
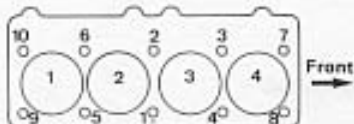
ENGINE

CYLINDER HEAD - REFITTING



- Place the double socket on the two central bolts.
- Slacken off N° 1 bolt completely and retighten it to 2 m.kg using the Sunnen P.N. 50 wrench.
- Hold the wrench under tension.
- Place the pointer (11) opposite the notch "0" on the quadrant of the double socket, by pushing on the lower prong of the spring.

Tightening order

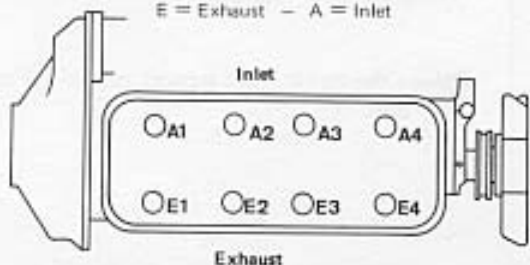


- Continue tightening until the pointer (11) is in line with notch "90" on the quadrant.
- Repeat this operation on N° 2 bolt.
- Place the double socket on the other bolts in the order shown opposite (i.e. bolts 3-4, 5-6, etc.), and tighten them as indicated above.

N.B. - If in doubt about the tightening of any one bolt, slacken it off completely and repeat ALL THE ABOVE OPERATIONS.

Set fully open	to adjust	
E ₁	A ₃	E ₄
E ₃	A ₄	E ₂
E ₄	A ₂	E ₁
E ₂	A ₁	E ₃

E = Exhaust - A = Inlet



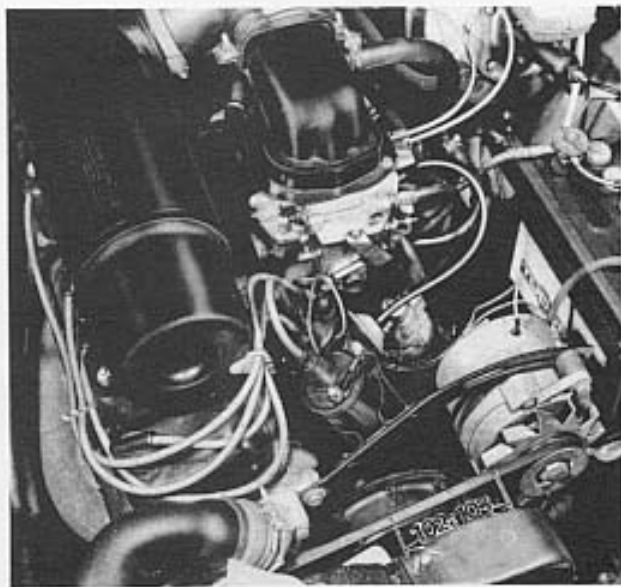
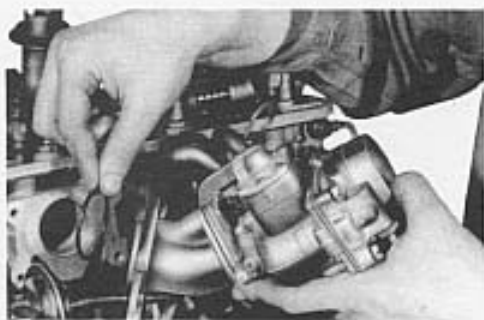
ADJUSTING THE VALVE CLEARANCES

- Follow the order shown opposite.
- Gap to be obtained with the engine cold, after refitting the head.
 - Inlet 0.15 mm (0.006").
 - Exhaust 0.30 mm (0.012").

ENGINE
CYLINDER HEAD - REFITTING

1

04/19



– Refit all the components in the opposite order to removal taking care :

- to fit the inlet manifold O-ring (dry) on **XM** and **XM7** engines.

- to clean or replace the air filter element.

- to leave 2 mm of dead stroke on the throttle cable.

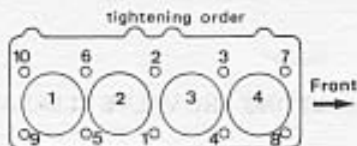
- to obtain 2 to 3% stretch of the fan belt (two reference marks 100 mm apart when slack should be 102 to 103 mm apart when it is taut).

- to adjust the idling.

ENGINE

CYLINDER HEAD - RETIGHTENING

1 0421



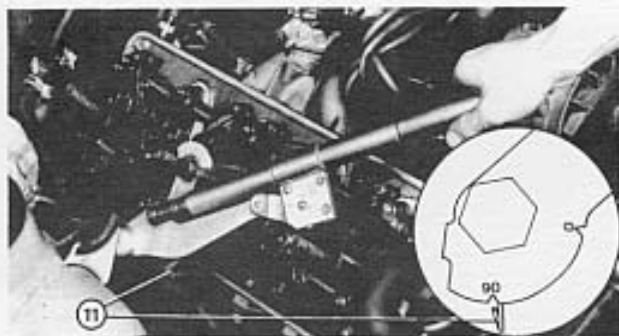
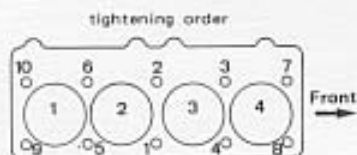
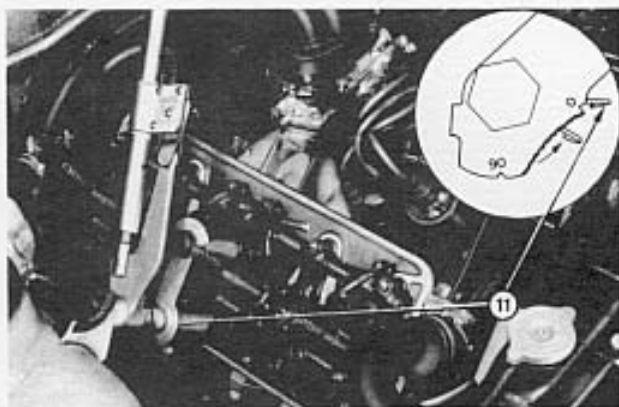
TIGHTENING DOWN AFTER 1,000 km (600 miles).

The retightening must be carried out with the engine cold.

WARNING

Two methods to be respected.

- XM - KF 6 and KF 5 (up to "1970 Motor Show").
- slacken off each bolt in turn and tighten to **8,25 m.kg (60 ft.lbs)** in the order shown opposite.



- XN1 - XN2 and XM7 (since "1970 Motor Show") with reference label on the rocker cover.

- place the double socket on the two central bolts.

- slacken off bolt N° 1 completely and retighten it to **2 m.kg (14,5 ft.lbs)**.

- hold the wrench under tension.

- place the pointer **(11)** on the "0" notch on the quadrant.

- continue tightening until the pointer **(11)** is in line with the notch "90" on the quadrant.

- repeat these operations on bolt N° 2.

- place the double socket on bolts 3 - 4 and, following the order shown opposite repeat the operations on the remaining bolts.

N.B. - On R.H.D. vehicles, move the Master-Vac/master cylinder assembly forward to gain access to bolt N° 9 (do not disconnect the brake lines from the master cylinder).

- If in doubt about the tightening of any of the bolts, slacken it off completely and carry out all the operations.

- Retighten the rocker shaft support nuts.

0422

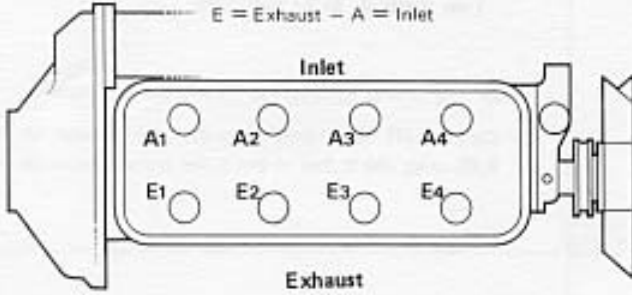
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ENGINE

CYLINDER HEAD - RETIGHTENING

Set fully open	To adjust	
E ₁	A ₃	E ₄
E ₃	A ₄	E ₂
E ₄	A ₂	E ₁
E ₂	A ₁	E ₃

E = Exhaust - A = Inlet



ADJUSTING THE VALVE CLEARANCES

- Follow the order shown opposite.

- Gaps to be set with the engine cold.

Inlet : 0.10 mm (0.004")

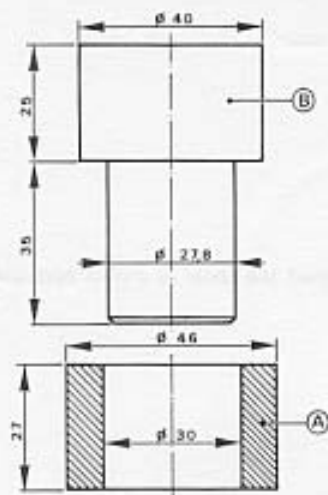
Exhaust : 0.25 mm (0.010")

N.B. - Retighten : *the exhaust manifold
the inlet manifold
the carburettor.*

ENGINE
CYLINDER HEAD
REPLACING THE SPARK PLUG TUBES

1

0451



TOOLS TO BE USED

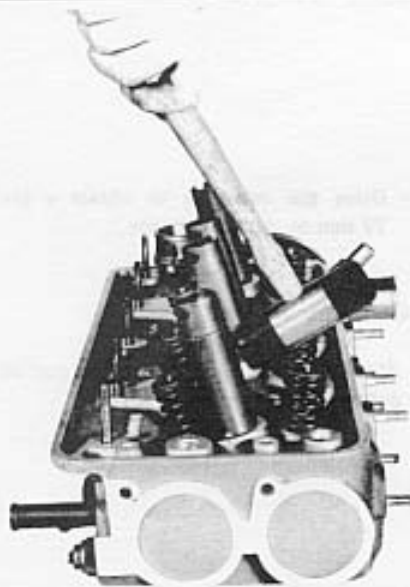
Tools to be realised,

0.0135

- Tools for refitting the tubes.

A - Bush

B - Drift.



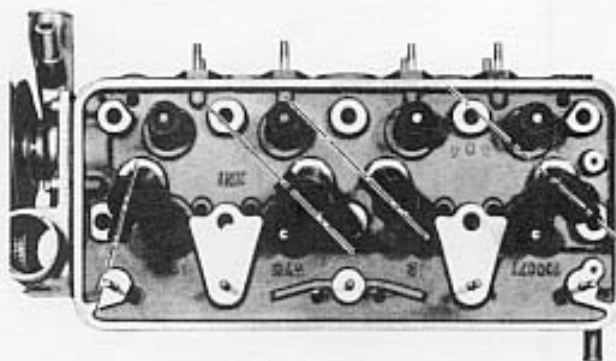
REMOVAL

N.B. - With the head in place :

- Screw the plugs in, without their springs, to prevent dirt falling into the cylinders.

- Remove the tubes using a mallet or the appropriate extractor.

WARNING - If removed, new tubes must be fitted.



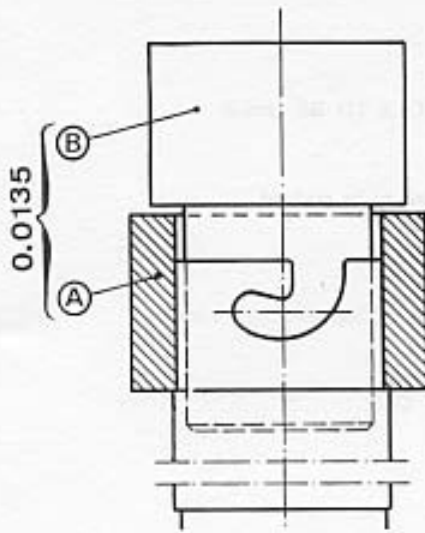
REFITTING

- Smear sealing compound on the tubes and insert them so that the plug caps are pointing in the directions shown opposite.

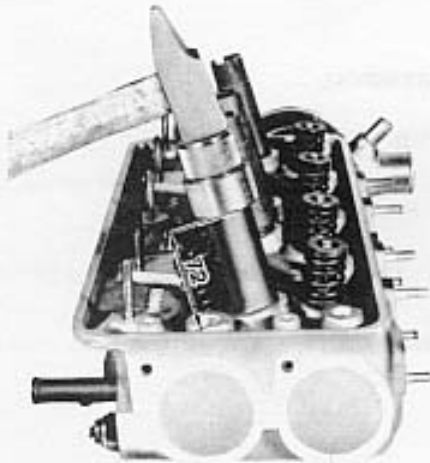
0452

1

ENGINE
CYLINDER HEAD
REPLACING THE SPARK PLUG TUBES



- Install the tools as shown opposite.



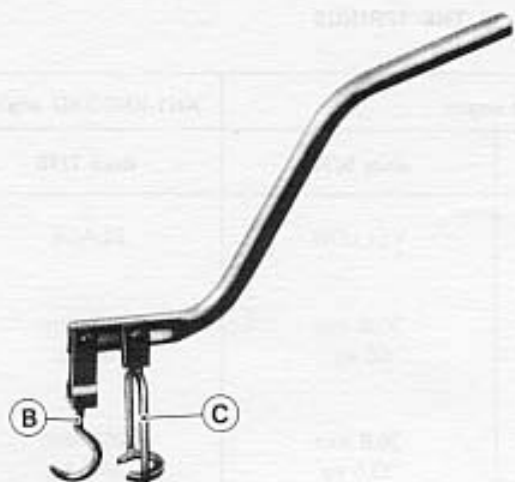
- Drive the tubes in to obtain a protrusion of 72 mm as shown opposite.

N.B. - With the head in place :

- Blow all traces of dirt or dust out of the tubes before removing the spark plugs.

ENGINE
CYLINDER HEAD
REPLACING A VALVE SPRING (HEAD IN PLACE)

1 04 61



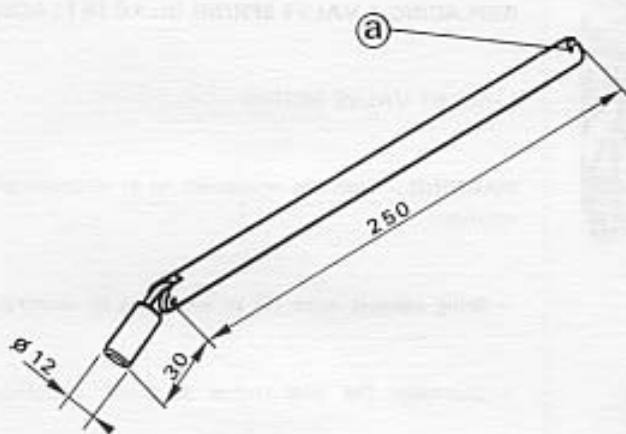
TOOLS TO BE USED

8.0105 Y

- Valve spring compressor.

N.B. - The lever 8.0105 Z can be converted to 8.0105 Y by fitting :

- the hook : 8.0105 B
- the compressor : 8.0105 C.



TOOLS TO BE REALISED

0.0136

- Hinged rod for removing exhaust valve springs.
- Cut a groove at (a) in the direction of bending of the hinge.

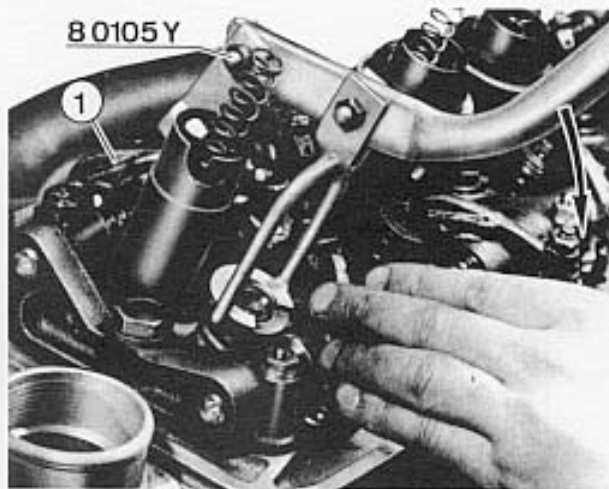
04 62

1

**ENGINE
CYLINDER HEAD
REPLACING A VALVE SPRING (HEAD IN PLACE)**

IDENTIFICATION AND RATING OF THE SPRINGS

Description	XM engine		XN1-XN2-XM7 engines
	up to 5/70	since 5/70	since 7/70
Protective varnish	GREY	YELLOW	BLACK
Outer spring Height Under a load of	30,8 mm 70 kg	30,8 mm 66 kg	30,8 mm 62 kg
Inner spring Height Under a load of	26,8 mm 35,5 kg	26,8 mm 33,5 kg	26,8 mm 31,5 kg



REPLACING A VALVE SPRING (HEAD IN PLACE)

I - INLET VALVE SPRING

WARNING - Turn the crankshaft in its direction of rotation.

- Bring exhaust valve (1) to beginning of opening.
- Disengage the inlet rocker as shown opposite.

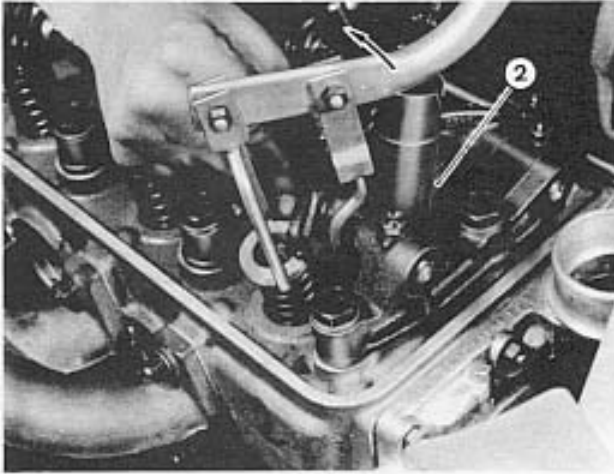


- Bring the piston to T.D.C. (firing stroke)
- Disengage the valve spring collets.
- Remove the upper spring cup and the springs.
- Replace the springs.
- Reassemble in the reverse order.
- Adjust the valve clearances if the engine is cold.

ENGINE
CYLINDER HEAD
REPLACING A VALVE SPRING (HEAD IN PLACE)

1

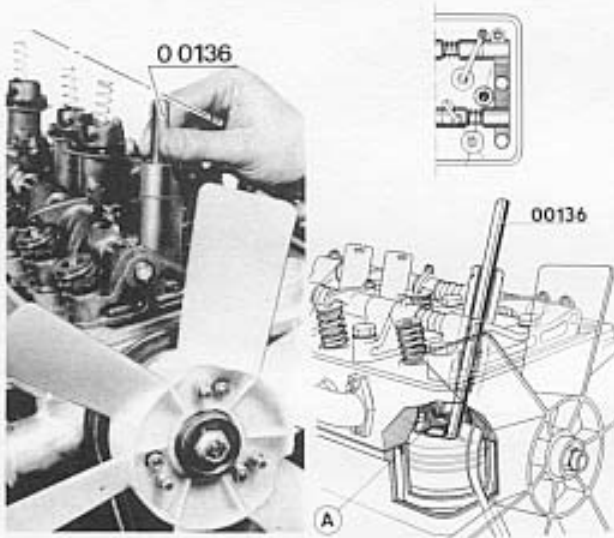
0463



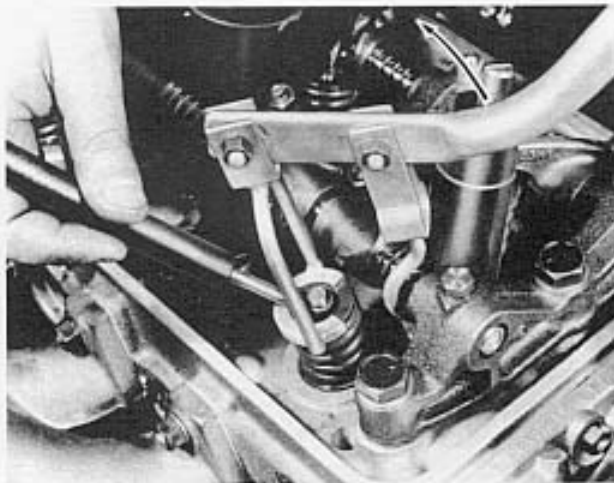
II - EXHAUST VALVE

WARNING - Turn the crankshaft in the direction of rotation of the engine.

- Remove the plug from the cylinder in question.
- **Bring the inlet valve (2) to the fully closed position.**
- Disengage the rocker arm from the exhaust valve as shown opposite.



- Insert the hinged rod through the plug hole.
- Turn the hinged rod through 90°.
- Position the notch in the end in line with the valve stem.
- **Bring the piston to T.D.C.** without forcing, as the hinged part of the rod (A) comes in contact with the valve.



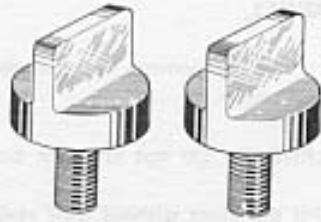
- Remove the valve spring collets.
- Remove the valve spring cups and the springs.
- Fit the new springs.
- **Reassemble in the reverse order.**
- Adjust the valve clearances if the engine is cold.

ENGINE

CYLINDER LINERS - REFITTING

1

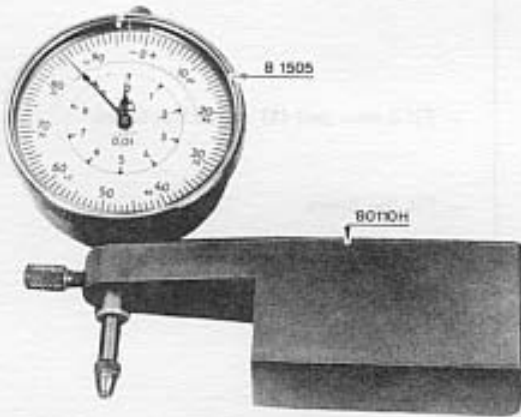
06 01



TOOLS TO BE USED

8.0104 D

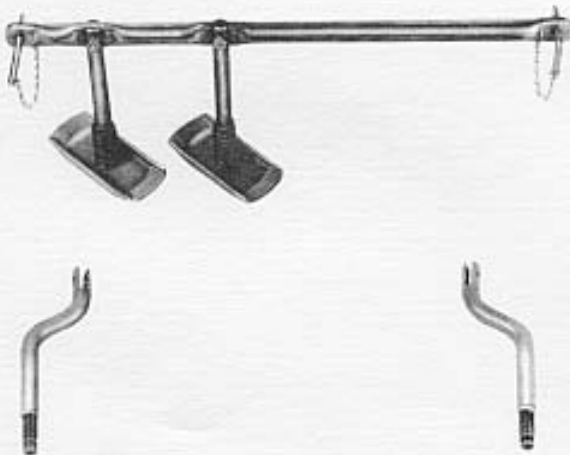
Set of two cylinder liner retaining screws.



Dial Gauge indicator :

8.0110 H - Support block,

8.1505 - Dial gauge,



8.0128

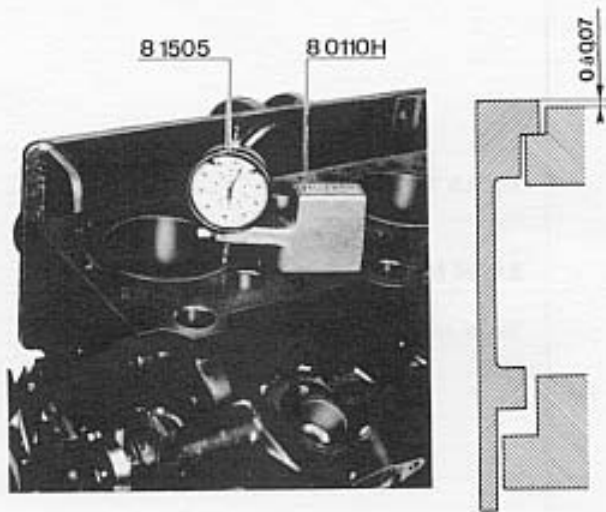
Liner compressor apparatus.

06 02

1

ENGINE

CYLINDER LINERS - REFITTING

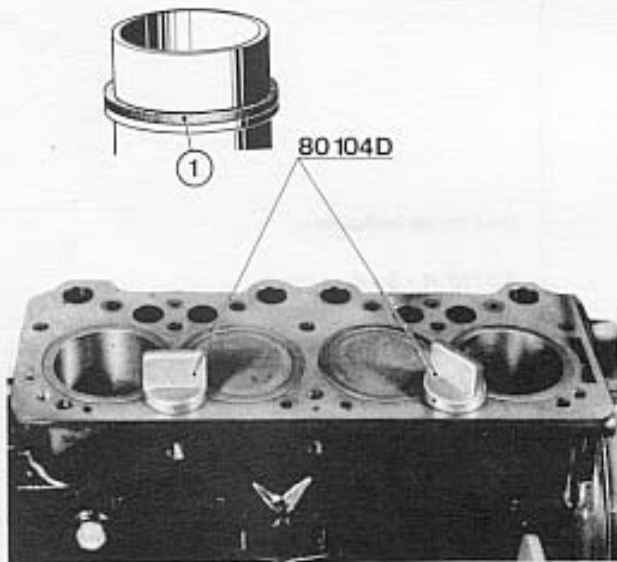


FREE EXPANDING LINERS ON XM - KF 6 - KF 5 ENGINES.

The components must be clean and free from impact marks.

WARNING - Do not alter the piston/liner pairing.

- Fit the liners without their seals.
- Check the protrusion which must be between 0 and 0,07 mm.

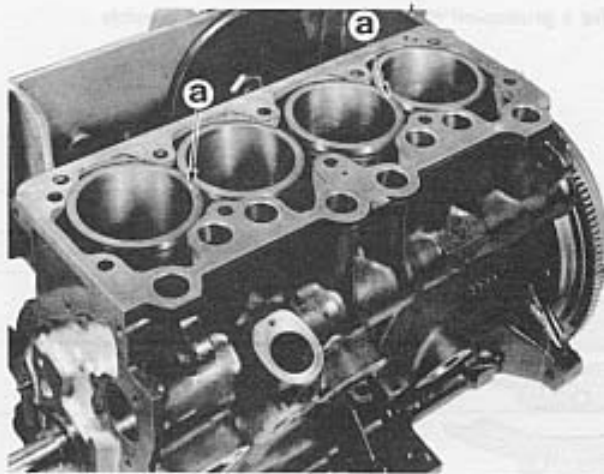


- Fit a new seal (1) on all the liners.
- Fit the liners.
- Install the retaining screws.

ENGINE

CYLINDER LINERS - REFITTING

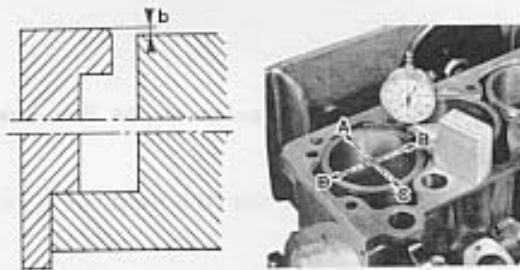
1 06 03



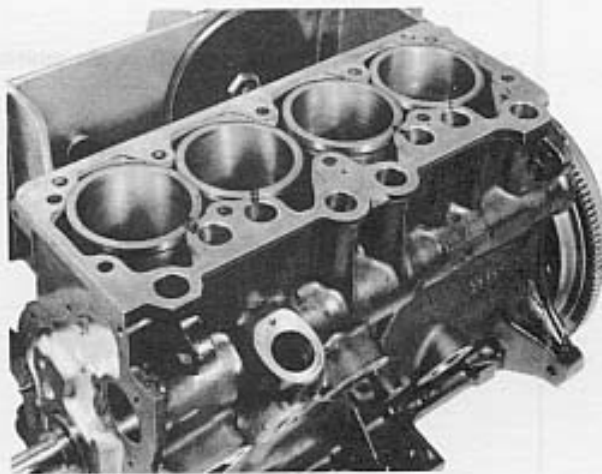
COMPRESSED LINERS ON XN 1 - XN 2 AND XM 7 ENGINES.

WARNING - Do not alter the piston/liner pairing.

- The parts must be clean and free from impact marks.
- Make sure that there are no burr marks on the face of the cylinder block.
- Insert the liners, without base gaskets, with the flats (a) on the upper shoulders of liners 1-2 and 3-4 parallel (on XN 1 and XN 2 engines).



- Place the dial gauge and support on the block face.
- Set the dial at 0 and 5.
- Check each liner at (A), (C), (B) and (D), noting the reading which is highest (point (b)).
- The maximum difference between two diametrically opposed points must be less than 0.07 mm.
- If it is more find the reason (burr, dust, etc.) and, if necessary, change the position of the liners.
- Mark the liners I, II, III and IV with a felt tip pencil.



PEUGEOT

06 04





1

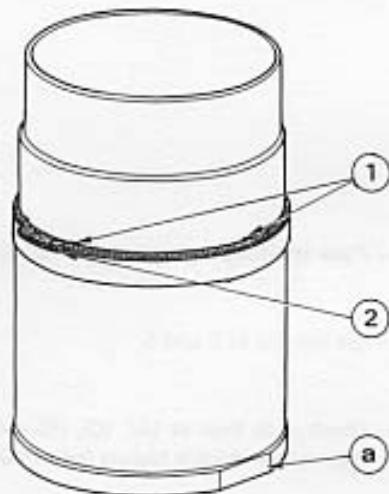
ENGINE

CYLINDER LINERS - REFITTING

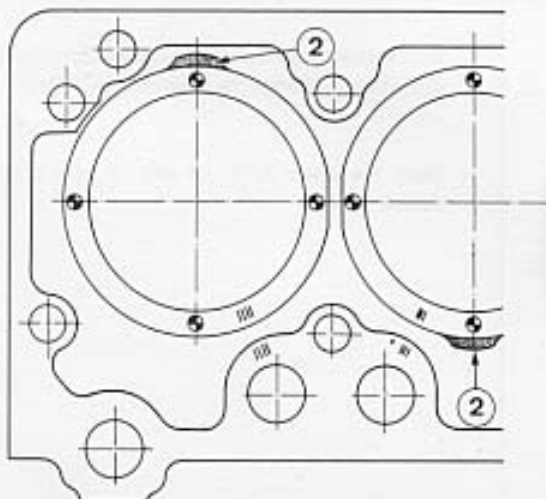
Select a base gasket for each liner which will give a protrusion of as close to 0.11 mm as possible - (minimum 0.04 mm).

WARNING - Only use ONE GASKET per liner.

HIGHEST POINT ON THE LINER (Without gasket)	GASKET TO BE FITTED	
	Reference	Thickness
from 0,036 to 0,06		0,050
from 0,011 to 0,035		0,075
from 0 to 0,010		0,100
Negative reading		0,125



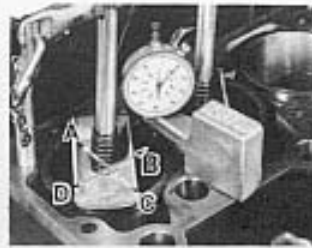
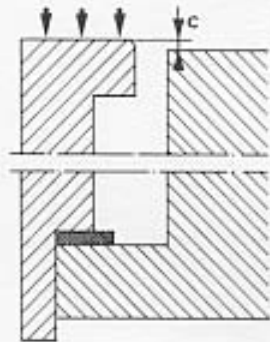
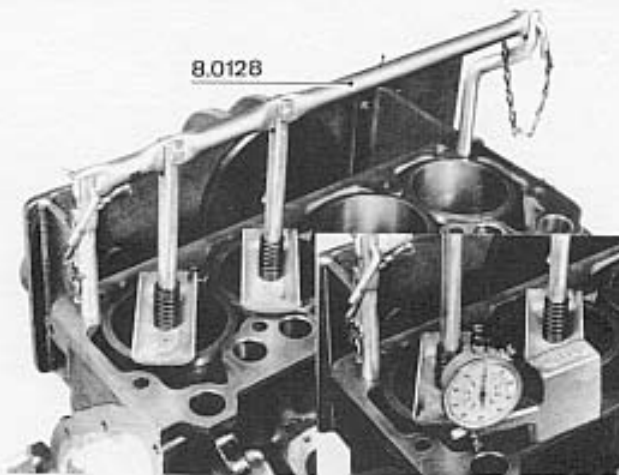
- Fit the correct gasket on the liner carefully.
- Engage the inner tabs (1) in the groove in the liner.
- Position the tab with the reference mark on it (2) at right angles to the flat (a).
- Fit the liners with the tabs (2) in the position shown opposite.



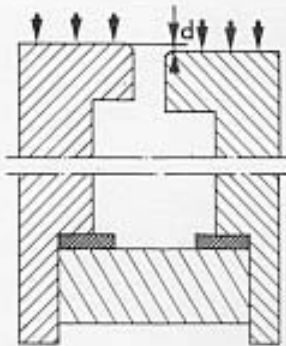
ENGINE

CYLINDER LINERS - REFITTING

1 06 05



- Install the liner compressing tool as shown opposite.
- Check the setting of the dial gauge at 5 and 0 on the block.
- Check the protrusion at (A), (B), (C) and (D).
- The protrusion at the highest point should be as close as possible to 0.11 mm (point c).
- The maximum difference between the diametrically opposed points (A), (C) and (B), (D) must be less than 0.07 mm.
- If it is more, find the reason.



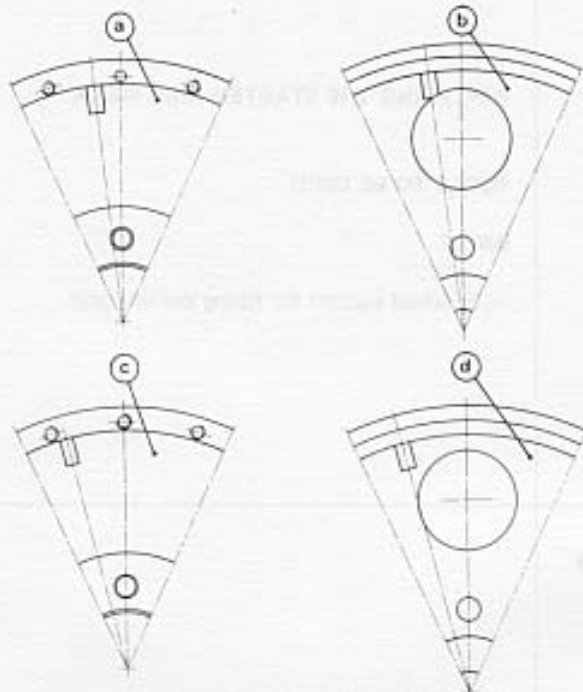
- Set the dial gauge at 0 on point B4 (liner N° 4).
- Place the dial gauge on point D3 (liner N° 3).
- The difference in protrusion between the two liners must not exceed 0.04 mm (point d).
- If it does, change the gasket on the liner which protrudes the most and fit a gasket one size smaller.
- Turn the compressor round and check the liners 1 and 2.
- Remove the compressor and fit the retaining screws.



PEUGEOT

ENGINE
FLYWHEEL

1 09 01⁽¹⁾

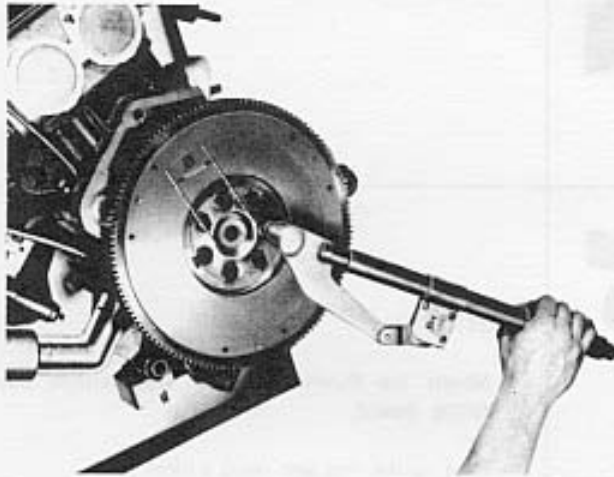


REPLACING A FLYWHEEL

WARNING

In the event of replacement of the flywheel :

- On XM - KF6 - KF5 and XM7 engines
(Ignition advance 10°)
- with BA 7 gearbox : Flywheel (a)
- with ZF transmission : Flywheel (b).
- On XN 1 - XN 2 engines
(Ignition advance 5°)
- with BA 7 gearbox : Flywheel (c)
- with ZF transmission : Flywheel (d).



- Use a new tab washer (Ø (a) = 44 mm)
- Tighten the bolts to 6.75 m.kg (49 ft.lbs).
- Bend the tabs up around the bolt heads.

09 02⁽¹⁾

1

ENGINE

FLYWHEEL

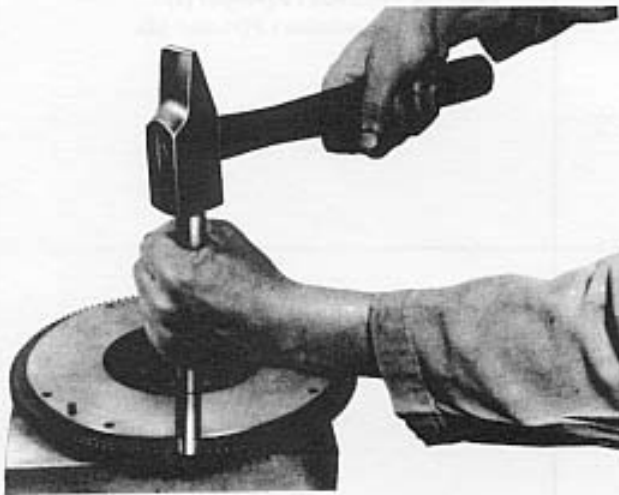


REPLACING THE STARTER RING GEAR

TOOLS TO BE USED

8.0124

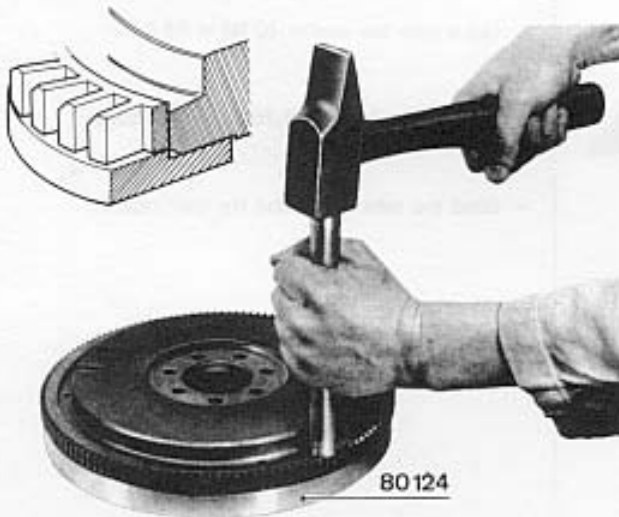
- Flywheel support for fitting the ring gear.



WARNING - The flywheel must be removed to replace the ring gear.

REMOVAL

- Drive the ring gear off, away from the clutch thrust side.

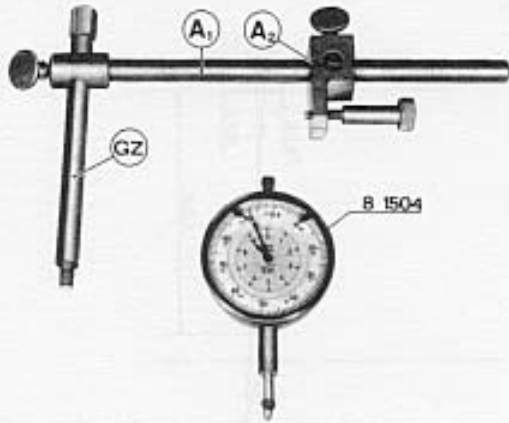


REFITTING

- Mount the flywheel on the base (clutch side facing down).
- Heat up the ring gear using a blow torch.
- Position the ring gear with the chamfered edge of the teeth facing up.
- Using a bronze drift, hammer the ring gear onto the flywheel, until it abuts on the support.

ENGINE
TIMING

1 10 01⁽⁴⁾



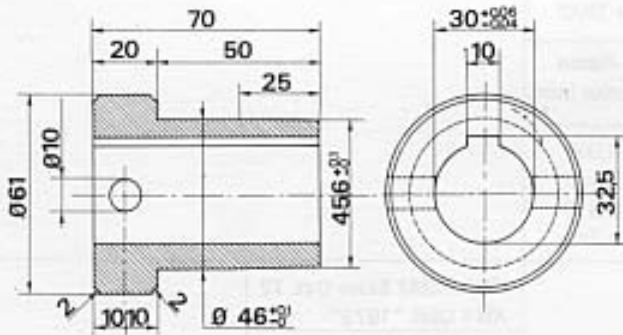
TOOLS TO BE USED

Apparatus for checking the valve opening :

- 8.0110 GZ - Dial gauge support,
- 8.0504 { A1 - Support rod
 A2 - Support,
- 8.1504 - Dial gauge with lug,

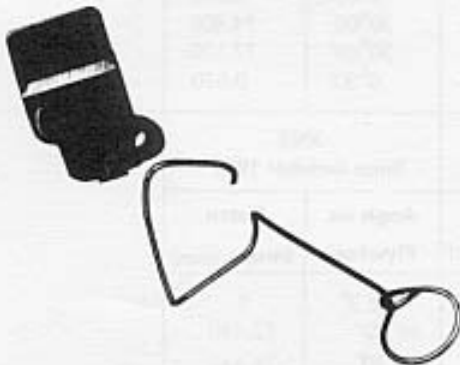


- 8.0126 - T.D.C. feeler,
- 8.1505 - Dial gauge,



TOOLS TO BE MADE

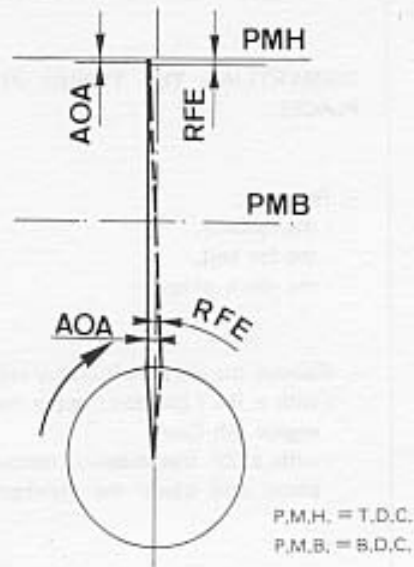
- 0.0128
- Timing housing centering piece,



- 0.0137
- Tool for retaining the chain tensioner pad for XM/KF and XN 2 engines,
(Ø 2 mm piano wire),

PEUGEOT

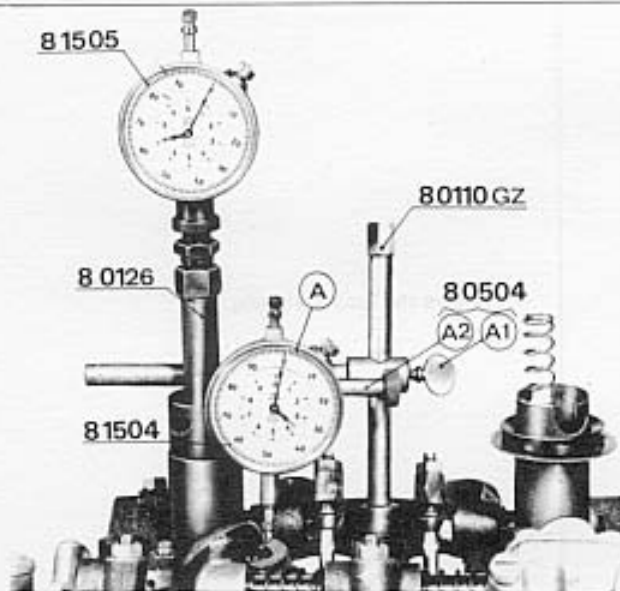
2-73



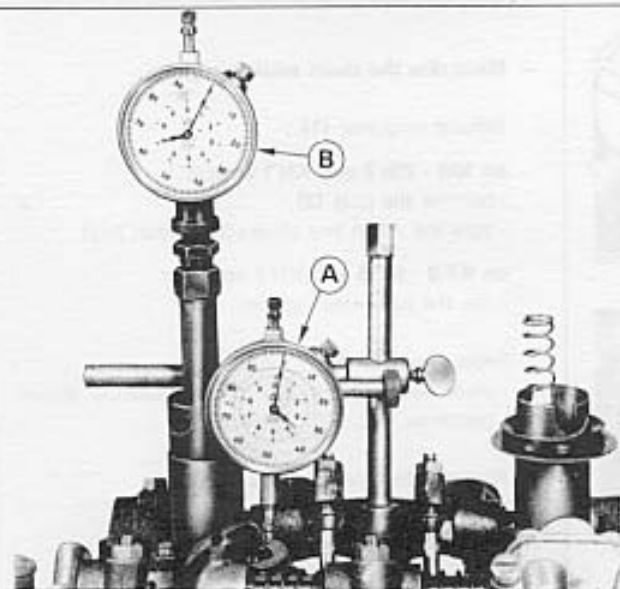
CHECKING

- Check the timing at approximately T.D.C. (A.O.A. or R.F.E.) due to the angle of the spark plug holes.

N.B. - A timing setting which is one tooth out will be noticed immediately. To check the R.F.A. or A.O.E., the cylinder head must be removed.



- Set the inlet valve gap on N° 4 cylinder to 0,70 mm.
- Install the dial gauges as shown opposite.
- Set the dial gauge (A) at "0" on the inlet valve spring cup.



- Turn the crankshaft in the direction of rotation of the engine.
- Find the exact T.D.C. and set the dial gauge (B) at "0".
- Note the position of the piston (gauge (B)) when the inlet valve just begins to open (gauge (A)).
- Check the value obtained with the one given on the table on page 10 02, class 1.

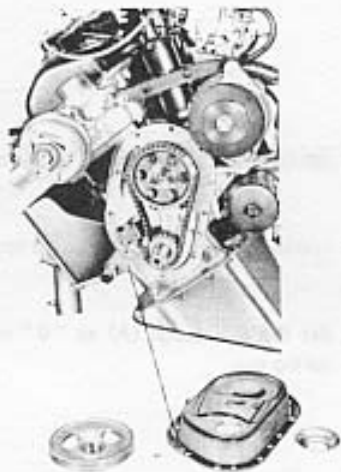
ENGINE

TIMING

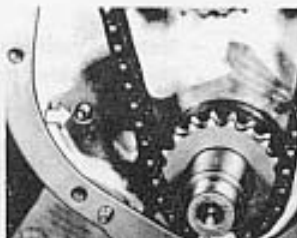
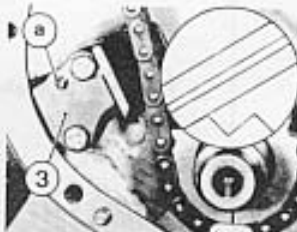
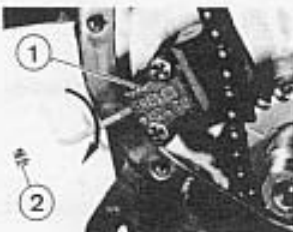
**DISMANTLING THE TIMING GEAR (HEAD IN PLACE).**

- Remove :
 - the radiator,
 - the fan belt,
 - the spark plugs.

- Remove the crankshaft pulley nut :
 - with a BA 7 gearbox : apply the handbrake and engage 4th Gear.
 - with a ZF transmission, remove the protector plates and block the flywheel with a lever.



- Remove the timing housing.



- Neutralise the chain tensioner spring.

Renold tensioner (1) :

on XM - XM 7 and XN 1 engines :

- remove the plug (2),
- turn the Allen key clockwise (3 mm key).

on KF 6 - KF 5 and XN 2 engines :

- use the pad retaining tool.

Sedis tensioner (3).

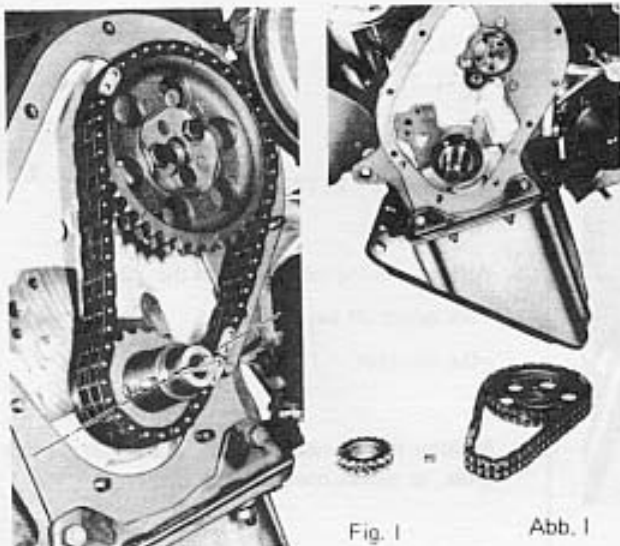
- place the ratchet (a) in the position shown opposite.

- Remove the tensioner and its plate.

- Recover the filter.

ENGINE

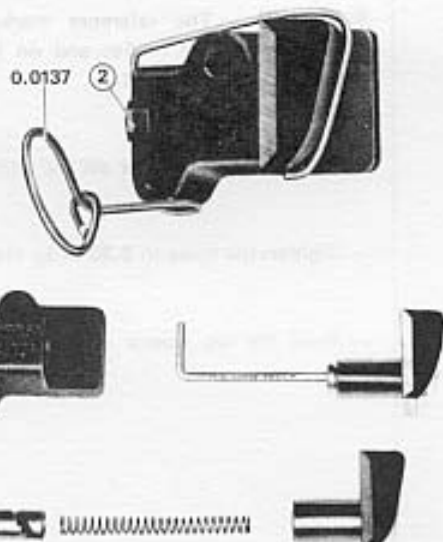
TIMING

1 10 05⁽²⁾

WARNING - Position the crankshaft as shown in the fig. I to avoid contact between valves and pistons when rotating the crankshaft with the timing chain removed.

— Remove in the following order :

- the camshaft sprocket,
- the timing chain,
- the crankshaft sprocket,
- the woodruff key.

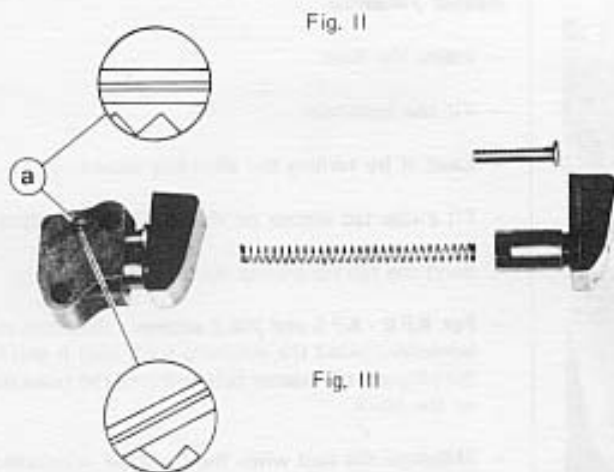
**DISMANTLING - REASSEMBLING THE TENSIONER**

WARNING - When reassembling, make sure that all the components slide freely in the housing and that the oil galleries are perfectly clean.

Renold Tensioner

— KF 6 - KF 5 and XN 2 :

- remove the plug (2), lock the tensioner spring and withdraw the retaining tool.
- turn the Allen key clockwise while holding the pad, to release the spring.
- withdraw the spring and ratchet from the pad.
- after cleaning, reassemble in the reverse order.

**Sedis Tensioner**

— Position the ratchet screw (a) as shown opposite (fig. II).

— Remove the pad, rack and spring together.

WARNING

Never remove the screw (a) (its return spring will render its reinstallation impossible).

— After cleaning, reassemble it in the reverse order.

— Lock the tensioner by turning the screw (a) anti-clockwise (fig. III).

ENGINE

TIMING

Fig. I

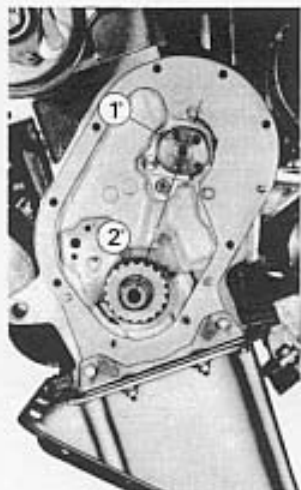
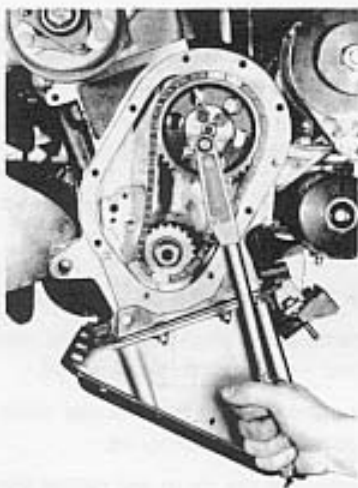
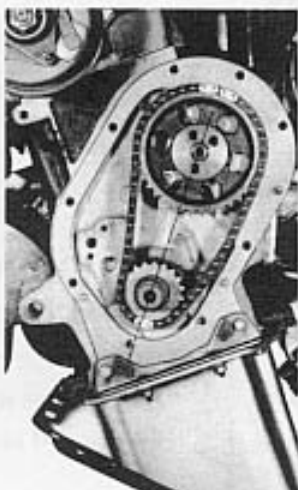


Fig. II

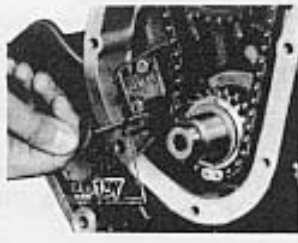
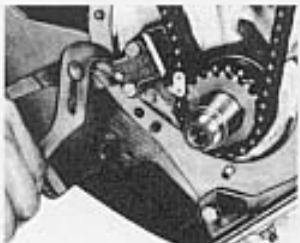
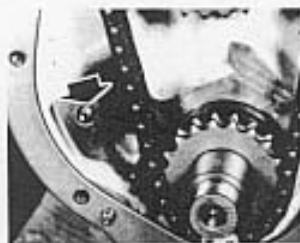


REASSEMBLY - SETTING

- Without altering the position of the crankshaft, fit :
 - the woodruff key
 - the sprocket
- Position the camshaft and the crankshaft, in that order, as shown opposite (fig. I).
- Install the chain on the camshaft sprocket then the assembly on the crankshaft sprocket (fig. II).

WARNING - The reference marks on the two sprockets must be in line and on the axes of the crankshaft and camshaft.

- Fit a new tab washer on the camshaft sprocket.
- Tighten the bolts to **2.25 m.kg (16 ft.lbs)**.
- Bend the tab washer up around the bolt heads.

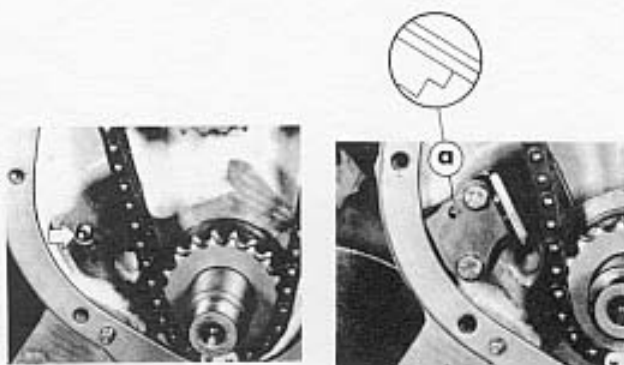
**Renold Tensioner.**

- Insert the filter.
- Fit the tensioner.
- **Load it by turning the allen key clockwise.**
- Fit a new tab washer on the plug and fit the plug.
- Bend the tab up around the plug head.
- **For KF 6 - KF 5 and XN 2 engines :** assemble the tensioner, install the retaining tool, load it and fit the plug and tab washer before fitting the tensioner on the block.
- Withdraw the tool when the tensioner is installed.

WARNING - Never assist the tensioner action.

ENGINE

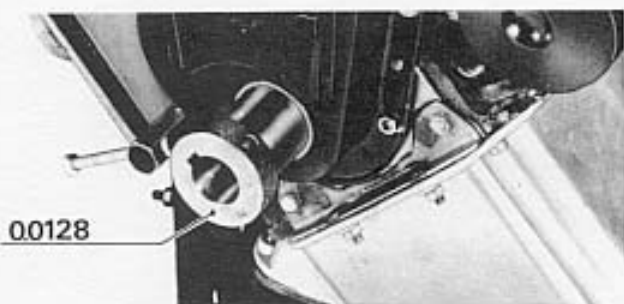
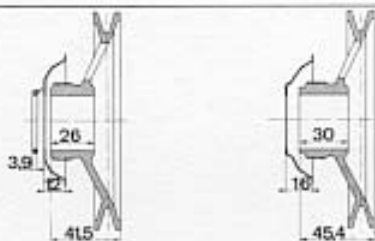
TIMING

**Sedis tensioner**

- Insert the filter,
- Fit the plate and the tensioner,
- Load the tensioner by turning the screw (a) clockwise.

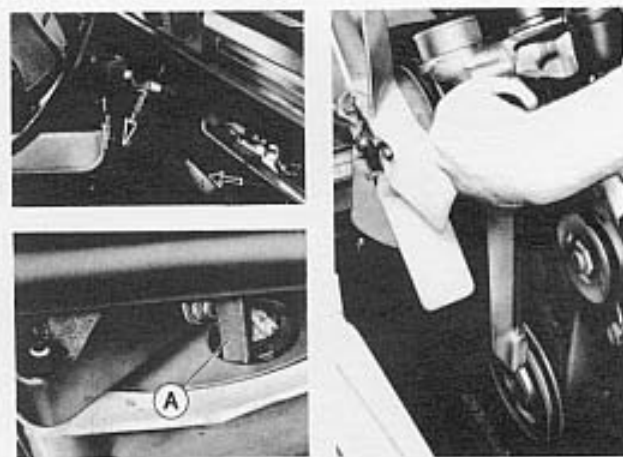
WARNING - Never assist the tensioner action.

N.B. - The *Renold* and *Sedis* tensioners are interchangeable as a unit.

**WARNING**

For XM engines there are two crankshaft pulleys, which are not interchangeable, available.

- Fit :
 - the thrust washer where necessary,
 - the oil thrower cup,
 - a new timing housing gasket.
- Centre the housing with the tool **0.0128** and secure it.



- Fit :
 - the woodruff key,
 - the crankshaft pulley.

Fit a new tab washer.

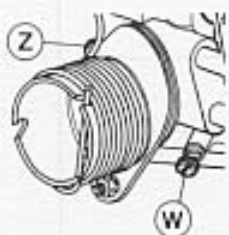
- Fit the nut with the threads facing the pulley,
- Tighten it to **17 m.kg (123.5 ft.lbs)**.
 - with BA 7 gearbox - apply the handbrake and engage 4th gear,
 - with ZF transmission - lock the flywheel using a lever (A).
- Bend the tab washer up around the nut.
- Refit the components which were removed.

WARNING - Check and if necessary, correct the ignition timing.

ENGINE

CARBURETTOR - XM AND XM 7 ENGINES

1 | 12 01⁽¹⁾



ADJUSTING THE IDLING

WARNING - The ignition system must be in good condition and the timing set perfectly.

- The engine must be warm (fan engaged).
 - The exciter wire (n° 8) must be disconnected from the alternator.

- Use a rev-counter.
- Act on the stop screw (Z) to obtain an engine speed of approximately 860 r.p.m.
- Increase the engine speed as much as possible by acting on the mixture screw (W).
- Bring the engine speed back to 860 r.p.m. by acting on stop screw (Z).
- Repeat these operations until the maximum engine speed obtainable with the mixture screw, is 860 r.p.m.
- Screw in the screw (W) until the engine speed drops to 800 r.p.m. without upsetting the regularity of the idling.

XM U.S.A. ENGINE

Set the idling at 800 r.p.m. but by obtaining an engine speed of :

825 r.p.m. for "1969" 504 (1 carburettor)

860 r.p.m. for "1970" 504 (2 carburettors) when acting on the stop screw (Z).

WARNING - The setting of the screw situated just above the mixture screw (W) must never be altered.
 - The setting of the second carburettor must never be altered.

Fig. I

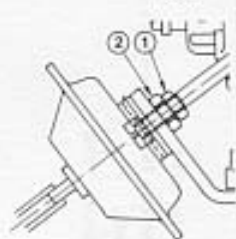


Fig. II

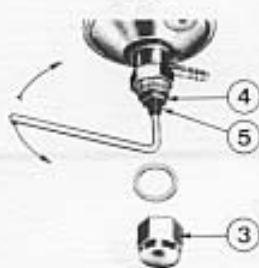


Fig. III

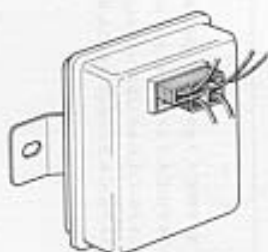
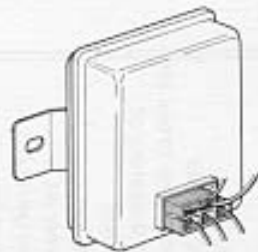


Fig. IV



ADJUSTING THE FAST IDLING (US)

- Disconnect the lead from the electronic control box to obtain the fast idling.

WARNING

Earthing of lead n° 83 (feed to the electrovalve) will immediately destroy the control box.

504 "1969" (1 carburettor) fig. I

- Slacken the lock nut (1).
- Adjust the nut (2) to obtain an engine speed of 1,400 r.p.m.

504 "1970" (2 carburettors) fig. II.

- Remove the cap (3).
- Slacken the lock nut (4).
- Adjust the allen screw (5) to obtain an engine speed of 1,500 r.p.m.
- When the lead is reconnected to the control box (fig. III or fig. IV) the engine speed should drop to 800 r.p.m.

PEUGEOT

1202⁽¹⁾

1

ENGINE

CARBURETTOR · XM AND XM 7 ENGINE

TABLE OF SOLEX 34 PBICA CARBURETTOR SETTINGS
XM AND XM 7 ENGINES

VEHICLE	504 A01 and A03					504 A91 and A93	
	XM with BA 7 gearbox	XM with ZF transmission	XM7 7.5:1	XM7 8.35:1	XM USA "1969" BA7 or ZF	XM USA "1970" BA7 or ZF	
ENGINE	34 PBICA.5 (ref.33) L.H.D. (ref.34) R.H.D.	34 PBICA.7 (ref.48) (ref.49) (1)	34 PBICA.9 L.H.D. or R.H.D. (ref.54)	34 PBICA.9 L.H.D. or R.H.D. (ref.65)	34 PBICA.6 BA7 (ref.43) ZF (ref.44) (3)	32 PBICA.8 (ref.51) (4)	34 PBICA.8 (ref.52) 4)
CARBURETTOR							
Venturi	27	27	27	27	27	24	24
Main jet	145	145	145	145	137.5	120	130
Correction jet	170	160	200	170	200	195	200
Emulsion tube	28	130	E.8	28	17	101	17
Pilot jet	50	50	47.5	50	52	55	50
Air jet	210 on bowl	210 below choke	210 in choke	210 below choke	210 below choke	210 below choke	210 below choke
Pump jet	45	50	50	50	40	50	50
Pump injector							
End of pump stroke for throttle opening of :	3 mm ± 0.5	3 mm ± 0.5	3.5 mm ± 0.5	3 mm ± 0.5	6.5 mm ± 0.5	4 mm ± 0.5	6 mm ± 0.5
Air bleed	3 holes Ø 110	3 holes Ø 110	130/120	3 holes Ø 110	125/105	2 holes Ø 115	2 holes Ø 110
Econostat	-	-	100	-	100	-	-
Enricher jet	-	-	-	-	-	60	-
Choke petrol jet	160	160	160	160	160	190	-
Vacuum jet	-	-	-	-	0.45	0.45	-
Needle valve	1.70	1.70	1.70	1.70	1.70	1.50	1.50
Float	5.7 g	5.7 g	5.7 g	5.7 g	5.7 g	5.7 g	5.7 g

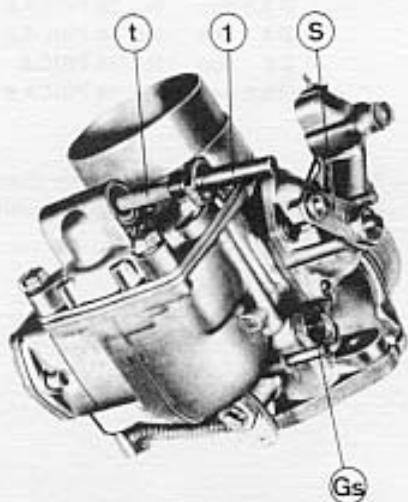
(1) - 34 PBICA.7 on XM engine with BA 7 gearbox since May 1970.
 (2) - 34 PBICA.7 on XM engine with ZF transmission since May 1970, but with ball valve.
 (3) - 34 PBICA.6 on USA XM engine, up to December 1969.
 (4) - 32 PBICA.8 and 32 PBICA.8 on USA engine since January 1970.

ENGINE

CARBURETTOR - XM AND XM 7 ENGINES

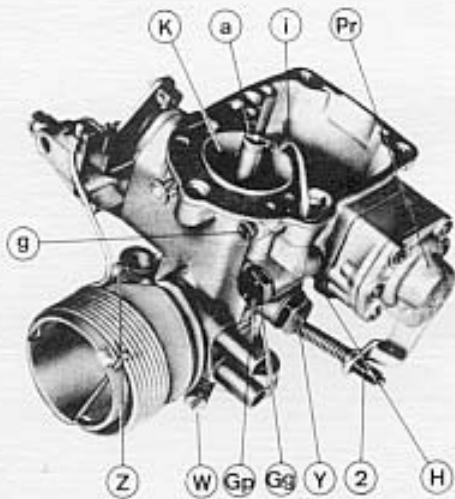
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DESCRIPTION

- 1 - Fuel intake union,
- 2 - Acceleration pump adjusting nut,
- a - Correction jet.
- Gg - Main jet.
- Gp - Pump jet,
- Gs - Choke jet.
- g - Pilot jet.
- H - Acceleration pump valve and filter,
- i - Pump injector.
- K - Choke tube,
- Pr - Acceleration pump.
- S - Choke lever.
- t - Fuel intake filter,
- W - Mixture screw,
- Y - Main jet holder,
- Z - Throttle stop screw,



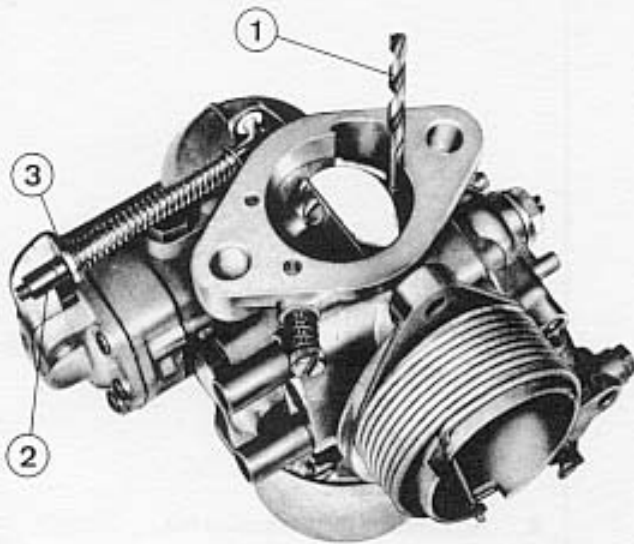
PEUGEOT

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ENGINE

CARBURETTOR - XM AND XM 7 ENGINE



ADJUSTING THE ACCELERATION PUMP STROKE

- Hold the throttle flap open using a rod (1) of :

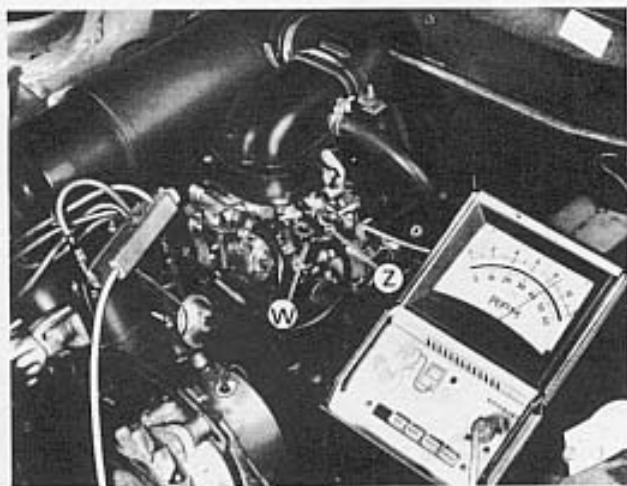
Ø 3 mm	- for	34 PBICA,5
		34 PBICA,7
Ø 3.5 mm	- for	34 PBICA,9
Ø 4 mm	- for	34 PBICA,8
Ø 6 mm	- for	34 PBICA,8
Ø 6.5 mm	- for	34 PBICA,6

- Slacken off nut (2) completely then tighten it down until it is just in contact with lever (3).

ENGINE

CARBURETTOR - XN1 ENGINE

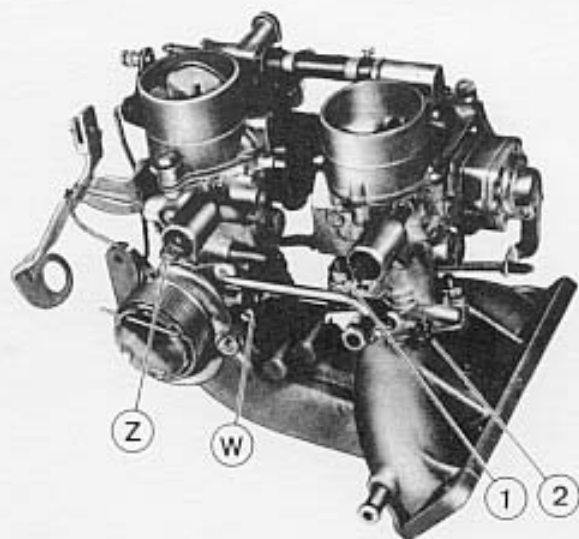
1	1211 ⁽¹⁾
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ADJUSTING THE IDLING

WARNING - The ignition system must be in good condition and perfectly set.

- The engine must be warm (fan engaged).
- The setting of the secondary carburettor Must not be altered.
- Use a rev-counter
 - 504 Europe-ralenti
 - 504 Europe-cycle
 - 504 U.S. "1971 standards"
- Acting on stop screw **(Z)**, obtain an engine speed of 840 r.p.m.
- Find the maximum engine speed, by acting on mixture screw **(W)**.
- Bring the engine speed back to 840 r.p.m, acting on the stop screw **(Z)**.
- Repeat these operations until the maximum obtainable engine speed is 840 r.p.m.
- Screw the screw **(W)** in until the engine speed drops to 800 r.p.m, without upsetting the regularity of the idling.



504 US "1972 standards"

504 US "1973 standards"

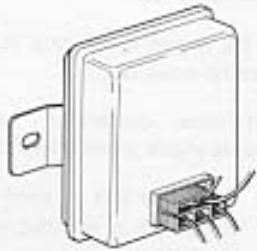
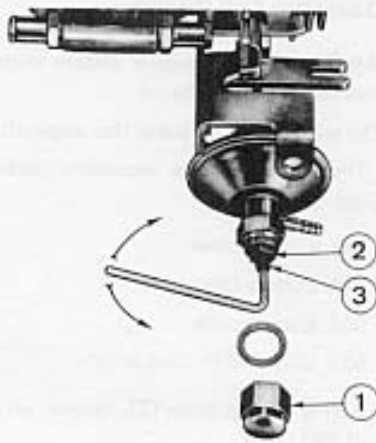
- Act on screw **(Z)** to obtain an engine speed of :
 - 820 r.p.m, for 1972 models
 - 800 r.p.m, for 1973 models
- Unscrew **(W)** until the idle running is steady
- Act on screw **(Z)** to obtain an engine speed of :
 - 870 r.p.m, for 1972 models
 - 830 to 880 r.p.m, for 1973 models
- Finish off the adjustment by screwing in **(W)** to obtain an idling speed of :
 - 800 r.p.m, for 1972 models
 - 800 to 850 r.p.m, for 1973 models



1

ENGINE

CARBURETTOR - XN1 ENGINE



ADJUSTING THE FAST IDLING (U.S.A.)

- Disconnect the connector from the electronic control box to obtain the fast idling.

WARNING

Earthing of the lead N° 83 will lead to immediate damage to the control box.

- Remove the cap (1).
- Slacken the lock nut (2).
- Act on the allen screw (3) to obtain an engine speed of 1,400 r.p.m.
- When the connector is reconnected (fig. 1) the engine speed should drop to 800 r.p.m.

TABLE OF SOLEX 32/35 SEIEA CARBURETTOR SETTINGS
XN 1 ENGINE

VEHICLE	504 A11 - A13											
	XN1 "EUROPE-VALENTI" BA 7			XN1 "EUROPE-CYCLE" (3) ZF			XN1 "EUROPE-CYCLE" BAZ			XN1 - "7.6 : 1 COMPRESSION" BA 7		
ENGINE GEARBOX USED	ZF			ZF			ZF			ZF		
CARBURETTOR SEIEA 32/35 CHOKE	ref. 68-1 (4) ref. 69-1 (4)		ref. 70-1 (4)		ref. 71-1 (4)		ref. 89 ref. 99		ref. 90 ref. 92		ref. 90 ref. 92	
	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd	1st	2nd
Venturi	24	27	24	27	24	27	24	27	24	27	24	27
Main jets	125	137,5	122,5	140	125	137,5	122,5	140	125	137,5	122,5	140
Correction jets	140	150	140	150	140	150	140	150	140	150	140	150
Emulsion tubes	ND	S1	ND	S1	ND	S1	ND	S1	ND	S1	ND	S1
Pilot jet	55 50 (2)	-	55 50 (2)	-	50	-	50	-	60	-	60	-
Idling air bleed	80	-	80	-	80	-	80	-	80	-	80	-
Calibrated orifice	200	-	200	-	200	-	200	-	200	-	200	-
Pump injectors	50(1)	35 (1)	50 (1)	35 (1)	50 (1)	35 (1)	50 (1)	35 (1)	50	35	50	35
Pump stroke (control)	cam		cam		cam		cam		cam		cam	
Progressivity jet	110/100	120	110/100	120	-	120	-	120	-	120	-	120
Petrol bleed	-	55	-	55	-	55	-	55	-	55	-	55
Air bleed	-	80	-	80	-	80	-	80	-	80	-	80
Progressivity slot	7,1x0,6 (2)	-	7,1x0,6 (2)	-	7,1 x 0,6	-	7,1 x 0,6	-	7,1 x 0,6	-	7,1 x 0,6	-
Econostat	-	100	-	100	-	100	-	100	-	100	-	100
Vacuum jet	-	-	-	-	-	-	-	-	-	-	-	-
Needle valve	-	1,80	-	1,80	-	1,80	-	1,80	-	1,80	-	1,80

(1) - Pump injector of 50-35 instead of 40-40 since November 1970 with modified pump cam, with reference X.X

(2) - Progressivity slot of 7,1 x 0,6 instead of 110/100 jet and pilot jet of 50 instead of 55 since January 1971.

(3) - "EUROPE-CYCLE" - on 504 for SWEDEN-NORWAY since July 1970 and for GERMANY-AUSTRIA-DENMARK-SWITZERLAND since January 1971.

- on 504 for BENELUX-FINLAND-ITALY since July 1971 and for FRANCE-MARTINIQUE-GUADELOUPE-GUYANE-REUNION-ANDORRA-MONACO since July 1972.

(4) - Suppression of insulating gasket and float cover with controls on it since March 1972.

The carburetors with the 70-1 and 71-1 reference can be fitted in place of the carburetors with the 57-1/58-1 and 60-1/69-1 reference but the reverse is not to be realised.

ENGINE

CARBURETTOR - XN 1 ENGINE

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1213 (3)

ENGINE

CARBURETTORS - XN1 USA ENGINE

SOLEX CARBURETTOR SETTINGS - XN1 USA ENGINE

A91 and A93 vehicles

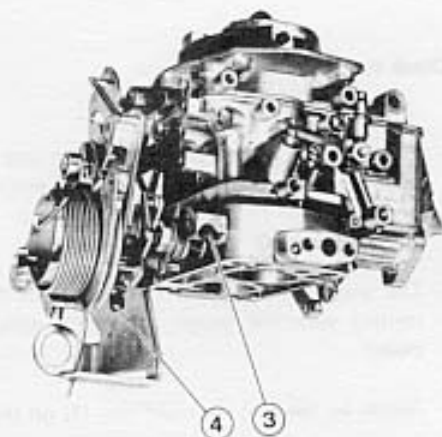
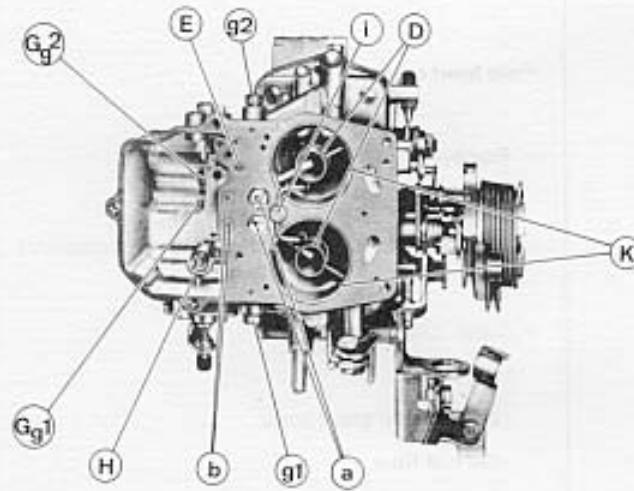
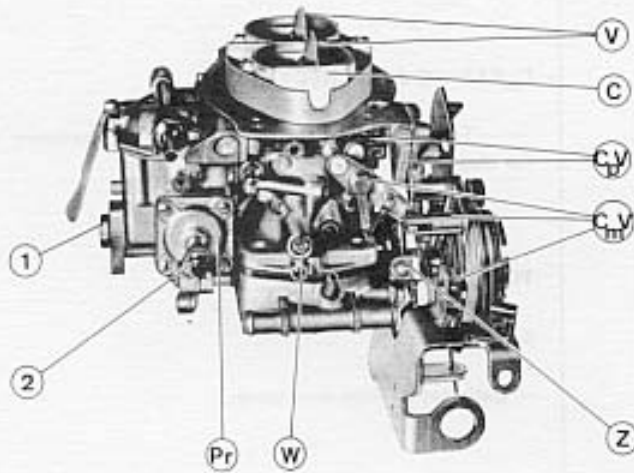
ENGINE TRANSMISSION FITTED	XN1 "71 standards"				XN1 "72 standards"				XN1 "73 standards"	
	BA7		ZF		BA7		ZF		BA7 - ZF	
	32-35 SEIEA 56	32-35 SEIEA 67	32-35 SEIEA 1st	32-35 SEIEA 2nd	32 BICSA2 79	34 PBIC8 80	32 BICSA2 81	34BICSA2 80	32 BICSA2	34 PBIC8
Venturi	24	27	24	27	24	24	24	24	24	24
Main jet	122.5	140	120	142.5	210	130	210	210	122.5±2.5	210±5
Correction jet	140	150	140	150	135	17	135	17	136	137
Emulsion tube	ND	S1	ND	S1	55	50	55	50	55	50
Idling jet	50	-	50	-	120	210	120	210	120	210
Idling air bleed	80	-	80	-	90	-	90	-	90	-
Calibrated orifice	200	-	200	-	40	50	40	50	40	50
Pump injector	40	40	40	40	Ø 3.2	Ø 3.2	Ø 3.2	Ø 3.2	Ø 3.2	Ø 3.2
Pump stroke (control)	cam	cam	cam	cam	0.55	-	0.55	-	-	-
Progressivity jet	-	120	-	120	1.5 mm±0.5	6 mm±0.5	1.5 mm±0.5	6 mm±0.5	3.5 mm±0.5	6 mm±0.5
Petrol bleed	-	55	-	55	Ø 130	Ø 110	Ø 130	Ø 110	Ø 130	Ø 110
Air bleed	-	80	-	80	-	-	-	-	-	90
Progressivity slot	7.1x0.6	-	7.1x0.6	-	1.2	1.5	1.2	1.5	1.2	1.5
Econostat	-	100	-	100	5.7 g	5.7 g	5.7 g	5.7 g	5.7 g	5.7 g
Vacuum jet	0.55	-	0.55	-	-	-	-	-	-	-
Needle valve	1.80	1.80	1.80	1.80	-	-	-	-	-	-

*WARNING - The exact calibration of the main and correction jets, within the limits given, is obtained with a test bench. They must therefore never be changed.

ENGINE

CARBURETTOR - XN 1 ENGINE

1 12, 15⁽¹⁾



INDEX TO PARTS

- 1 - Float bowl plug (access to main jets).
- 2 - Acceleration pump adjusting screw
- C - Plastic plug.
- C_mV - Manual strangler control.
- C_pV - Pneumatic partial strangler opening control.
- Pr - Acceleration pump.
- V - Strangler flap.
- W - Mixture screw.
- Z - Throttle stop screw.
- a - Correction jets (fixed).
- b - Overflow jets (fixed).
- D - Sprayers (removable).
- E - Econostat jet (removable).
- g₁ - Pilot jet (1st choke).
- g₂ - Bleed jet (2nd choke).
- G₁ - Main jet (1st choke).
- G₂ - Main jet (2nd choke).
- H - Acceleration pump valve (removable).
- i - Double acceleration pump injector (removable).
- K - Venturis (1st choke : Ø 24 - 2nd choke : Ø 27, incorporating idling air jets (removable).

WARNING - The setting of screws :

- 3 - Second throttle flap stop.
 - 4 - Partial opening of first throttle flap when starting the engine.
- should never be altered.

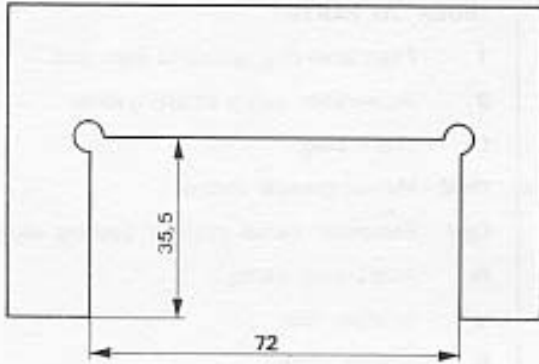
PEUGEOT

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ENGINE

CARBURETTOR - XN1 ENGINE

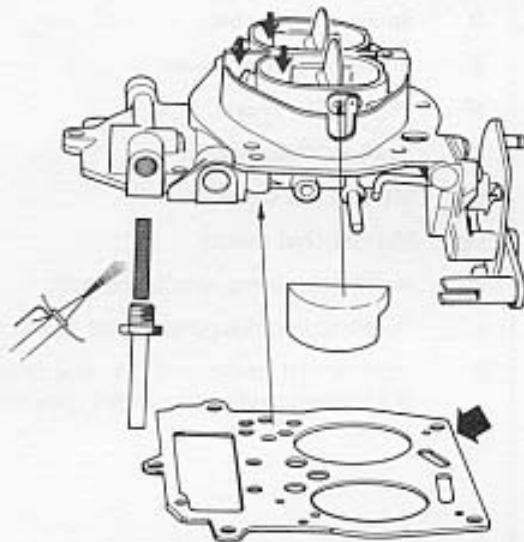
**CLEANING AND CHECKING**

The removal of the carburettor is not necessary for cleaning.

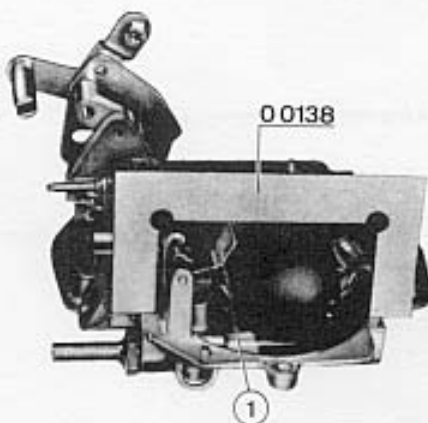
TOOLS TO BE MADE

0.0138.

- Carburettor float level gauge.

**Float bowl cover**

- Remove :
 - the cover
 - the gasket (check and replace if necessary)
- Clean and blow dry :
 - the cover
 - the idling air bleed holes
 - the fuel filter

**Check the float level**

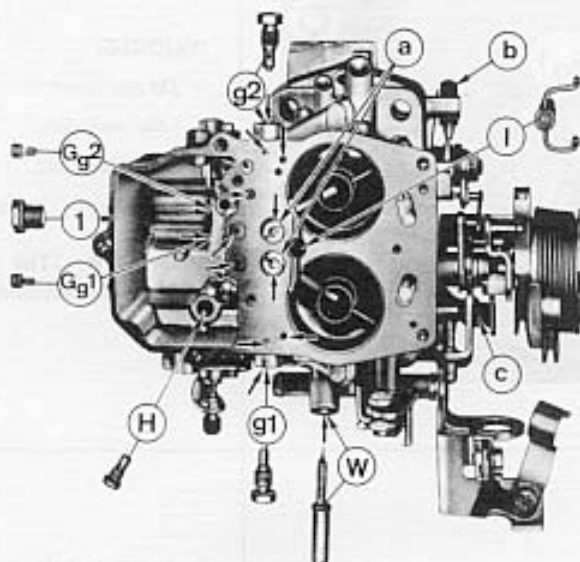
- Place the gauge on the cover with the gasket removed (the gauge resting on the mating face of the cover).
- The smaller diameter of the float should be in contact with the gauge, the needle valve being closed.
- Adjust by bending the pivot arm (1) on the float.

ENGINE

CARBURETTOR - XN1 ENGINE

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1217

**WARNING :**

- Do not remove the correction jets (a) and never alter their position.
- Do not alter the setting of screws (b) and (c).

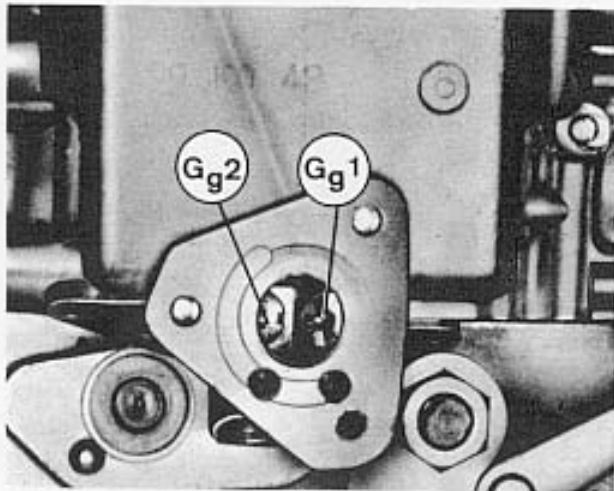
- Remove :

- (2) - the float bowl plug
- (W) - the mixture screw
- (g1) - the idling jet
- (g2) - the idling by pass jet
- (H) - the acceleration pump valve
- (I) - the acceleration pump injectors
- (Gg1) - the main jet (1st choke - small Ø)
- (Gg2) - the main jet (2nd choke - large Ø)

- Clean the float bowl.

- Blow :

- through all the holes marked with an arrow
- through all the jets which have been removed.

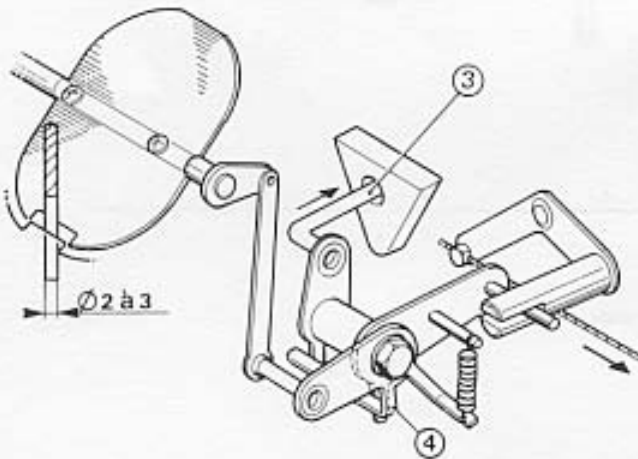


– Reassemble the carburettor

WARNING

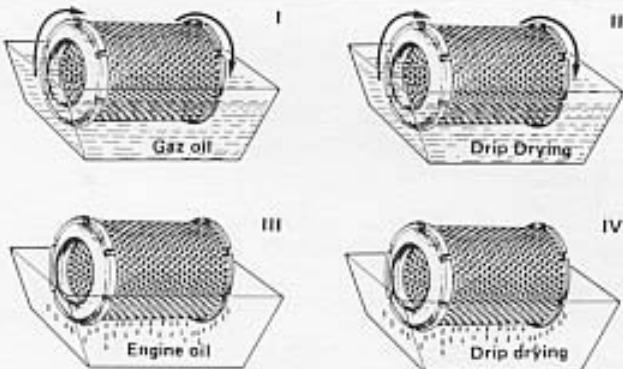
- Do not invert
- the main jets
- the idling jets
- (see table of carburettor settings).

REMINDER - The main jet Gg1 (smaller Ø) is fitted on the acceleration pump side.



CHECKING THE PARTIAL OPENING OF THE STRANGLER FLAPS

- Pull out the choke knob.
- Push in the rod (3) until it abuts, to obtain the partial opening of the flaps.
- The flap in the 1st choke should be open 2-3 mm ; check as shown opposite.
- Adjust if necessary by bending lever (4).



AIR FILTER

1 - Nylon filter element

- Change the element every 40 000 km (24 000 miles).
- Clean it every 10 000 km (6 000 miles).
- Blow the element clean,
- Rinse it in diesel fuel and leave to drain,
- Immerse in engine oil and, after draining it, refit.



2 - Polyurethane foam element

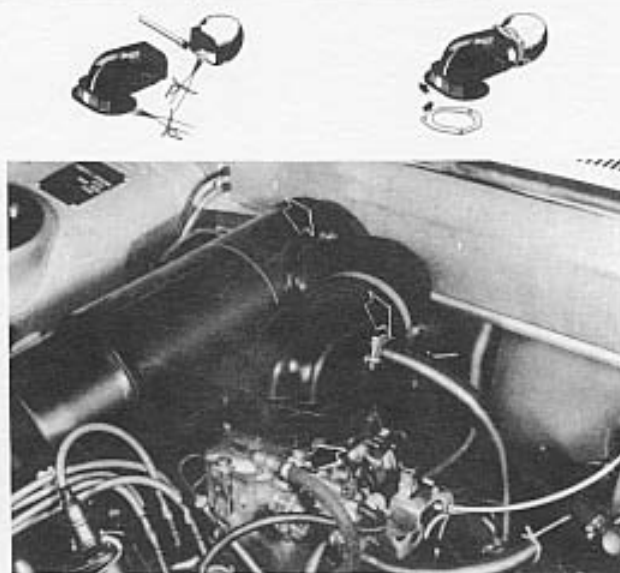
- Change the element every 20 000 km (12 000 miles) or every 10 000 km (6 000 miles) if the vehicle is used in very dusty areas.

ENGINE

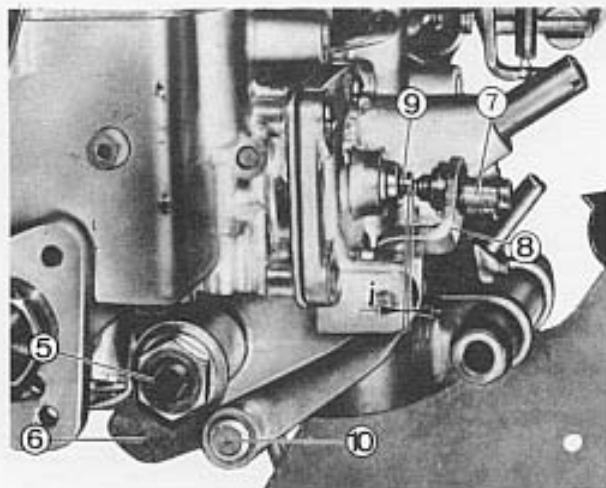
CARBURETTOR - XN1 ENGINE

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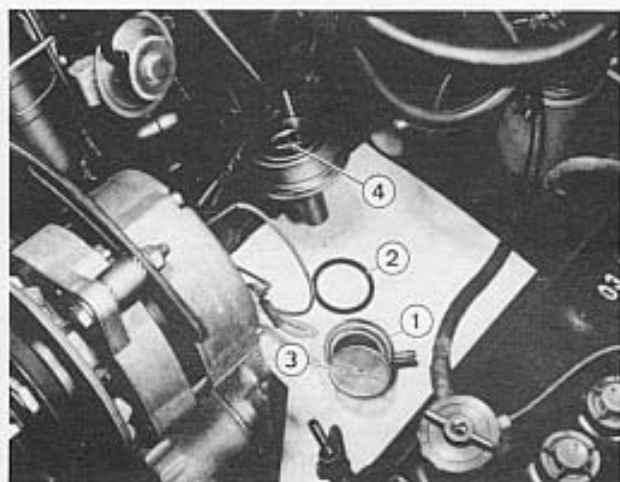


- Clean and blow dry
 - the air intake hoses
 - the filter bowl,
- Refit the filter
 - change the gasket at the carburettor/intake hose joint,
- Check for leaks
 - the air filter bowl
 - the air intake hose



ACCELERATION PUMP ADJUSTMENT

- Make sure that :
 - the idling is correctly adjusted
 - the nut (5) on the cam (6) is tight,
- Unscrew the screw (7) to obtain a gap at (J).
- Screw in the screw (7) until it just touches the plunger (9) in order that the roller (10) is free on the cam (6).



FUEL PUMP

- Remove :
 - the cover (1)
 - the gasket (2) ; check and replace if necessary,
- Clean the pump filter in petrol
- Clean and blow the upper part of the pump dry.

WARNING

In order not to damage the valves (3) only use low pressure air.

- Reassemble the pump.

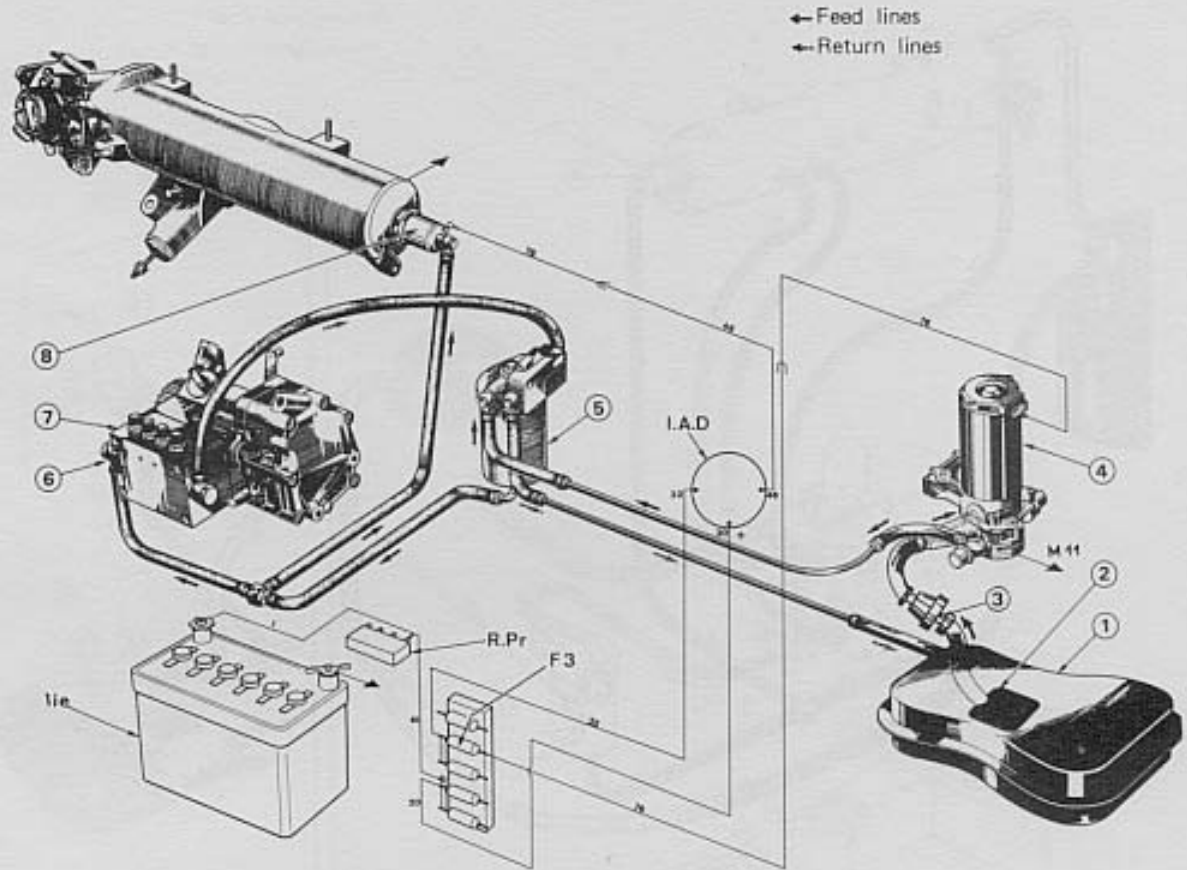
PETROL INJECTION ENGINE

FEED CIRCUIT - KF 6 ENGINE

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1251

Feed circuit



DESCRIPTION

WIRING

- Bie - Battery
- R.Pr. - Relay
- F3 - Fuse
- I.A.D. - Ignition switch

HYDRAULIC CIRCUIT

- 1 - Fuel tank
- 2 - Fuel strainer
- 3 - Pre-filter
- 4 - Electric lift pump
- 5 - Degassing filter (water trap)
- 6 - Injection pump filter
- 7 - Injection pump
- 8 - Electrovalve,

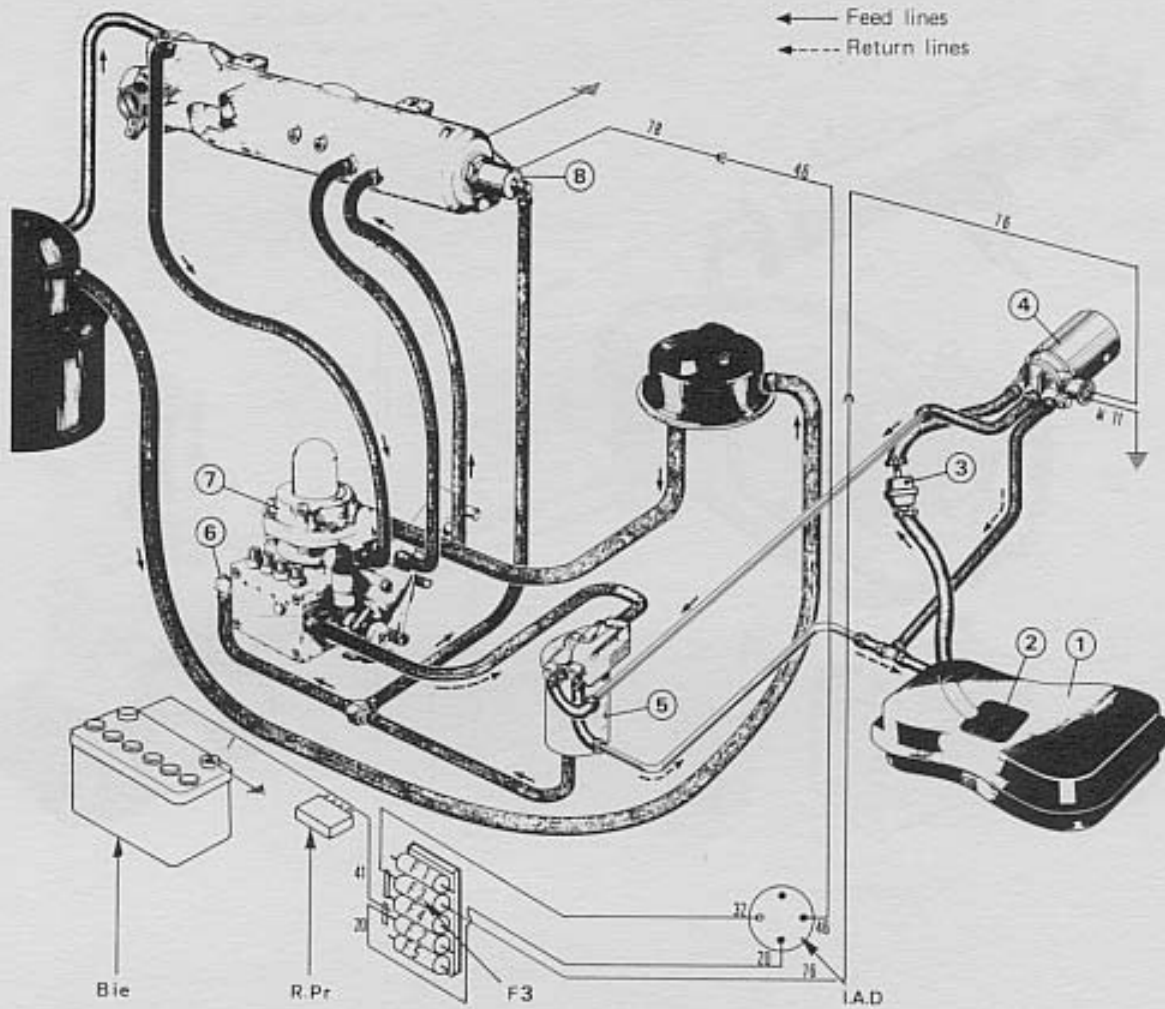
PEUGEOT

1252

1

PETROL INJECTION ENGINE
FEED CIRCUIT - KF 5 AND XN 2 ENGINES

Feed circuit



DESCRIPTION

WIRING

- Bie - Battery
- R.Pr. - Relay
- F3 - Fuse
- I.A.D. - Ignition switch

HYDRAULIC CIRCUIT

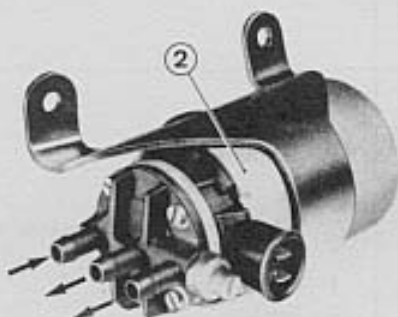
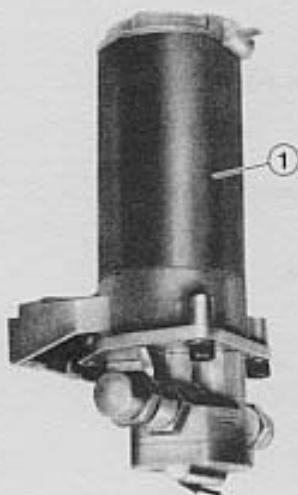
- 1 - Fuel tank
- 2 - Fuel strainer
- 3 - Pre-filter
- 4 - Electric lift pump
- 5 - Degassing filter (water trap)
- 6 - Injection pump filter
- 7 - Injection pump
- 8 - Electrovalve

PETROL INJECTION ENGINE

LIFT PUMPS

1

1253



LIFT PUMPS

IDENTIFICATION

KF 6 engine

PLF 6 pump (1)

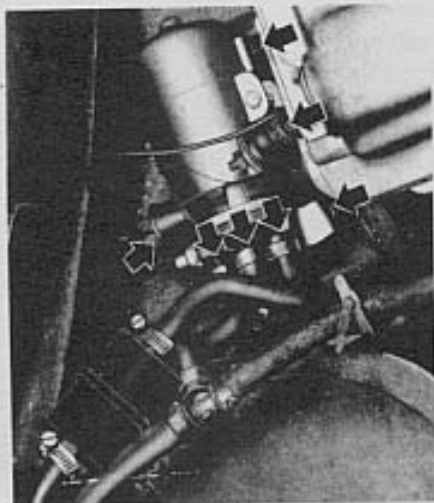
- Hydraulic part : Kugelfischer
- Electric part : A.E.G.

KF 5 and XN 2 engines

Bosch pump (2)

Characteristics

- Feed voltage : 12 V
- Current absorbed : 2,3 A
- Output : 50 litres/hour at 1,2 bars



REMOVAL

- Disconnect
 - the wires
 - the fuel lines (seal them off).
- Remove the pump

REFITTING

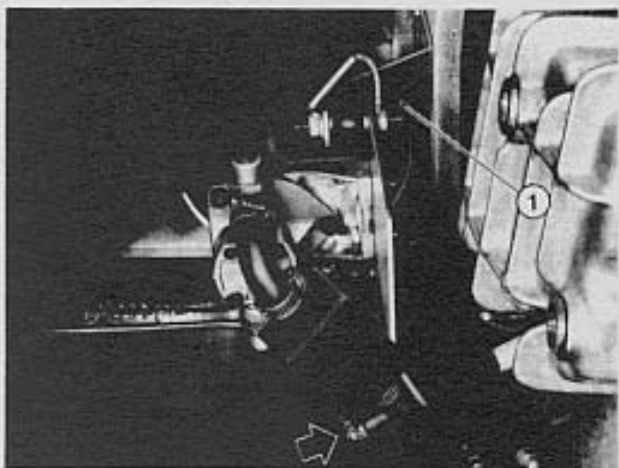
- Replace all the copper union seals on PLF 6 pumps.

1254

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PETROL INJECTION ENGINE

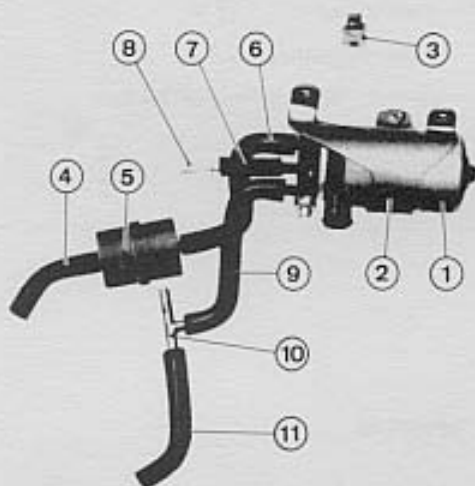
LIFT PUMPS



ADAPTING A BOSCH PUMP

Removing the PLF6 pump

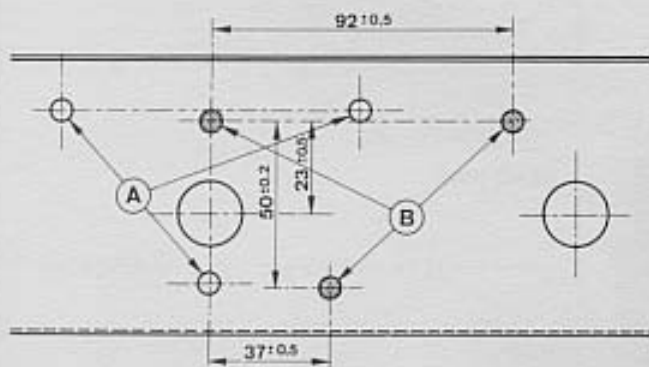
- Disconnect the wires.
- Remove the pump and the bracket (1).
- Seal of the fuel lines.



Fitting the Bosch pump.

The following components must be used :

- 1 - Lift pump
- 2 - Bracket
- 3 - Support plate
- 4 - Feed line
- 5 - Pre-filter
- 6 - Line between pre-filter and pump
- 7 - Pump outlet line
- 8 - Two way union
- 9 - Fuel return line
- 10 - " T " union
- 11 - Fuel return line.



Bosch pump mounting holes

- Drill 3 holes (Ø 7.2 mm) in the rear floor reinforcement (see drawing opposite).

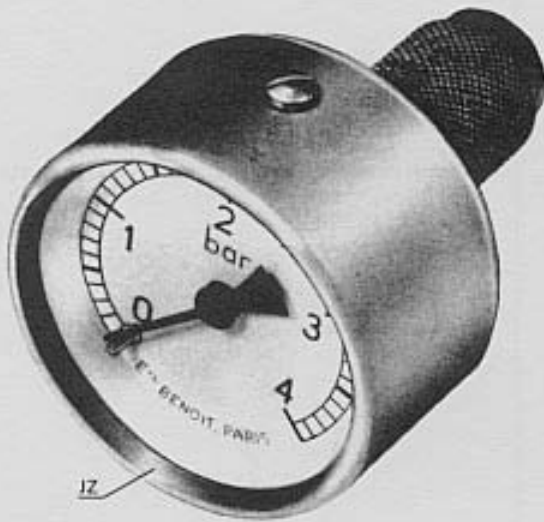
A - PLF6 pump mounting holes

B - Bosch pump mounting holes

N.B. - The positions for the 3 holes are marked with a punch from body N° 156 995.

PETROL INJECTION ENGINE

LIFT PUMPS

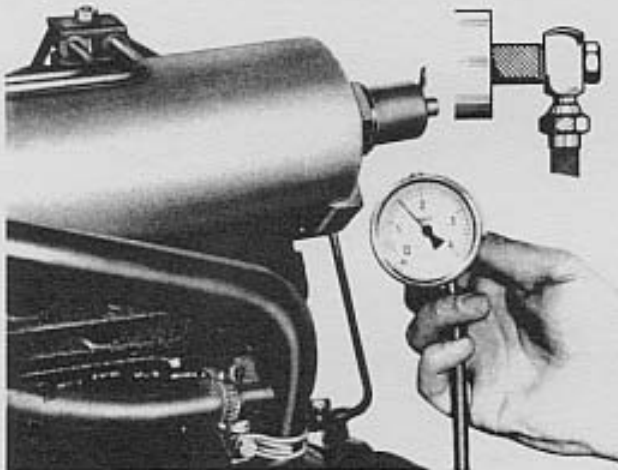
1 | 1255


CHECKING THE FEED PRESSURE

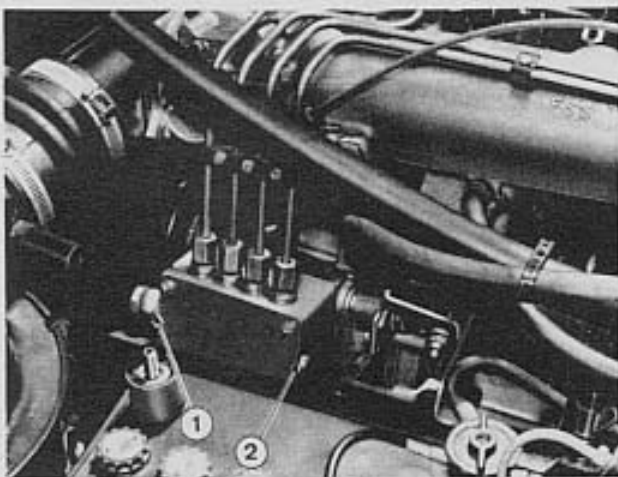
Tools to be used.

8.0112 W - Petrol injection engine tool chest

JZ - Pressure gauge.



- Install the pressure gauge as shown opposite.
- Switch on the ignition.
- The pressure must be between 1 and 2,5 bars.



- If the pressure is lower than 1 bar, check :
 - the amount of fuel in the tank,
 - the fuel line connections on the tank,
 - the pump feed voltage : $12\text{ V} \pm 0,1$,
 - the circuit for leaks,
 - the condition of the pre-filter and the degassing filter cartridge.
- Repeat the check and, if necessary, replace the pump.
- If the pressure is higher than 2,5 bars, check :
 - the pump intake filter (1),
 - the jet (2) in the hydraulic head, after removing the union,
 - the return lines.

N.B. - A pressure of slightly more than 2,5 bars will have no ill effect on the operation of the injection pump.

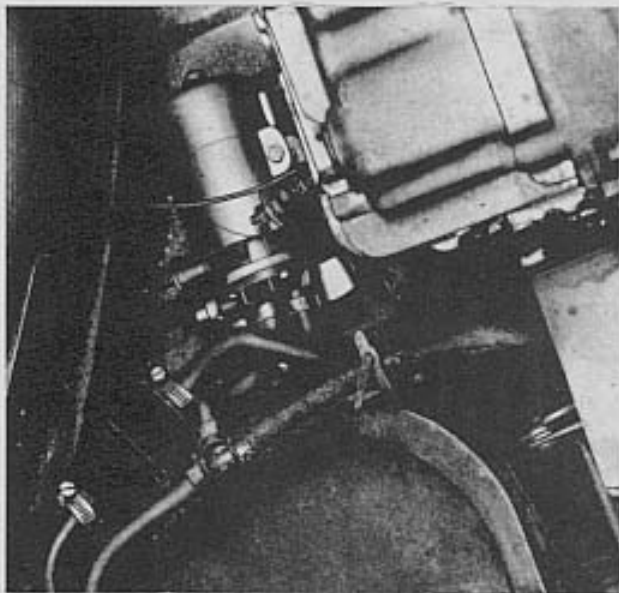
- Reconnect the fuel line to the electrovalve, using new sealing washers.

1256

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PETROL INJECTION ENGINE

LIFT PUMPS



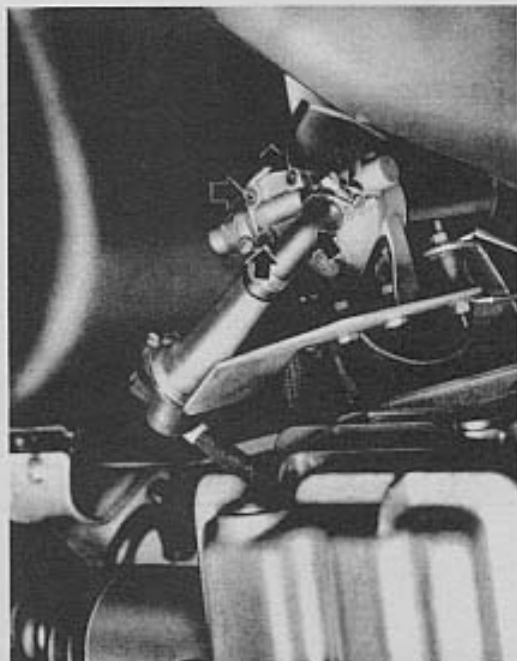
- Install the pump and realise the various connections.
- Start up the engine.
- Make sure that there are no leaks.

PETROL INJECTION ENGINE

ELECTROVALVE

1

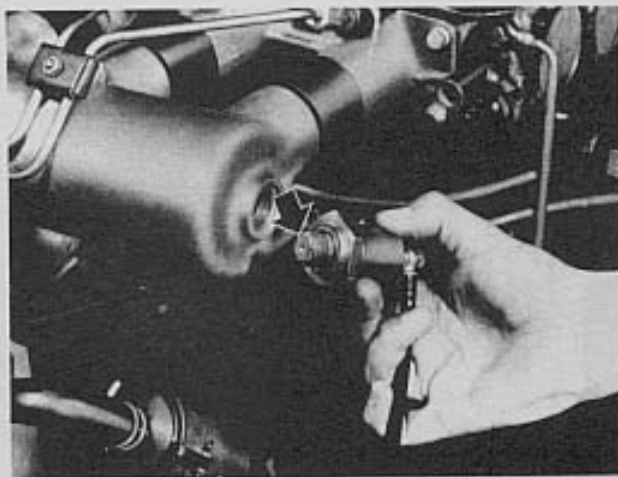
1257

**CHECKING FOR LEAKS****Feed circuit.**

There should be no apparent leakage from the pump body and unions.

If there are, check the tightness of the allen screws on the pump body.

If the unions leak, replace the seals rather than tighten the screws.

**Electrovalve**

- Remove the electrovalve.
- Refit the petrol feed union.
- Reconnect the feed wire.
- Switch on the ignition.

The valve should not leak. If it does, change the unit.

- When refitting replace the seals.

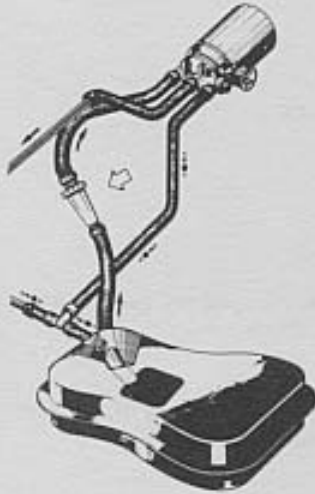
1258

1

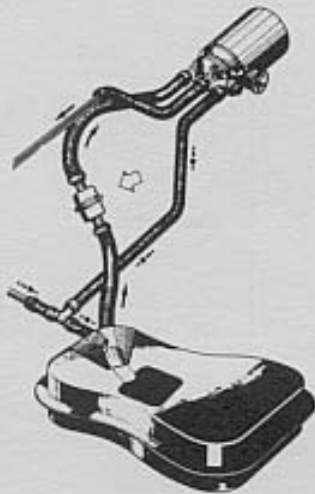
PETROL INJECTION ENGINE

FILTERING

1st Fitting



2nd Fitting



FILTERING

Pre-filter

1st Fitting

- A.M.F.G. filter.

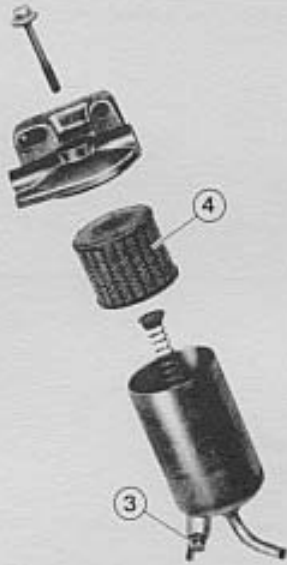
2nd Fitting

- Bosch filter.

Maintenance

- Replace the filter every 15,000 km.
- Never blow it clean with compressed air.

N.B. - *In the event of replacement, only use the 2nd fitting filter (Bosch).*

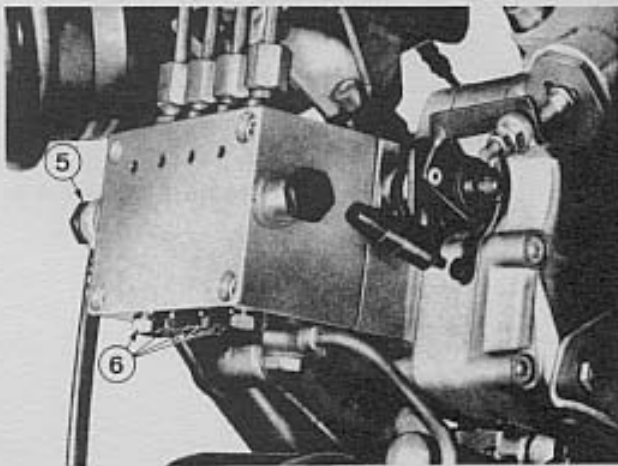


BLEEDING

- Place a recipient under the filter.
- Bleed the filter through screw (3).

WARNING - If more than 10 c.c. of water are recovered :

- remove the filter bowl and clean it,
- drain the fuel tank,
- blow through the fuel lines,
- replace the C113 cartridge (4), if necessary.



- Check :

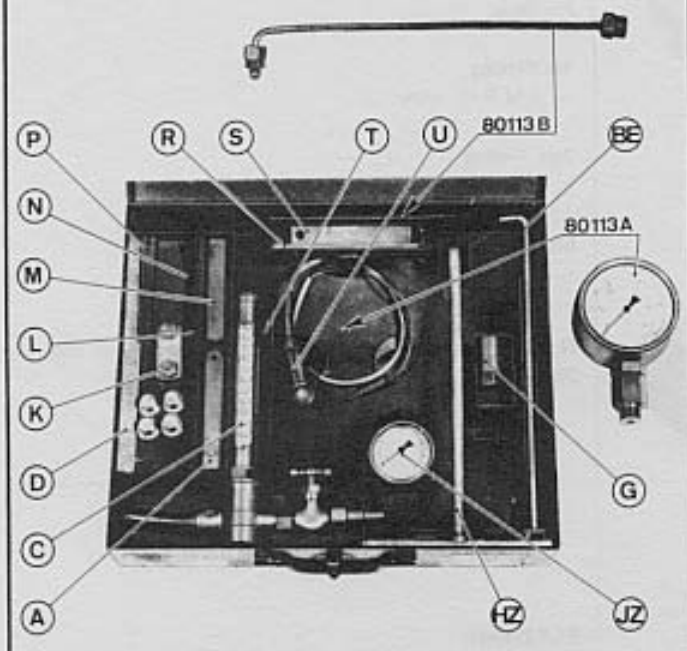
- the pump intake filter (5),
- the suction valve filters (6),
(see page 13 14, class 1).

PETROL INJECTION ENGINE

INJECTION SYSTEM

1

1301



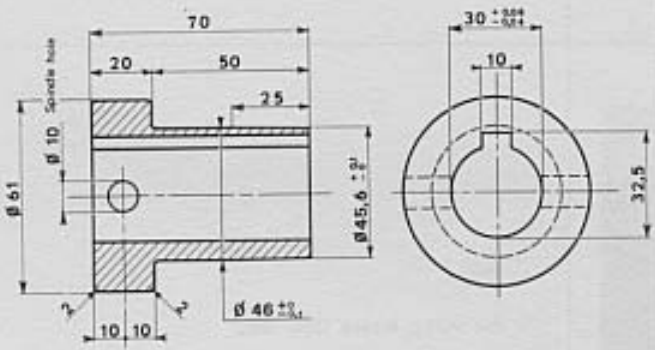
TOOLS TO BE USED

Tool chest for petrol injection engines.
404 KF - KF 2
504 KF 6 - KF 5 - XN 2.

8.0112 W

- A - Gauge
- B/E - Positioning rod
- C - Thermometer
- D - Gauge
- G - Socket for bleeding the delivery valves
- HZ - "T" wrench
- JZ - Pressure gauge
- K - Puller
- L - Feeler for KF 2
- M - Gauge for KF 2
- N - Feeler
- P - Retaining key
- R - Gauge for adjusting the pump-throttle link
- S - Gauge for setting the mean throttle flap position.
- T - Gauge for adjusting the thermostat
- U - Lamp for adjusting the throttle flap.

Empty spaces for storing 8.0113 A and 8.0113 B.



TOOLS TO BE REALISED

0.0128

Bush for centering the timing cover.

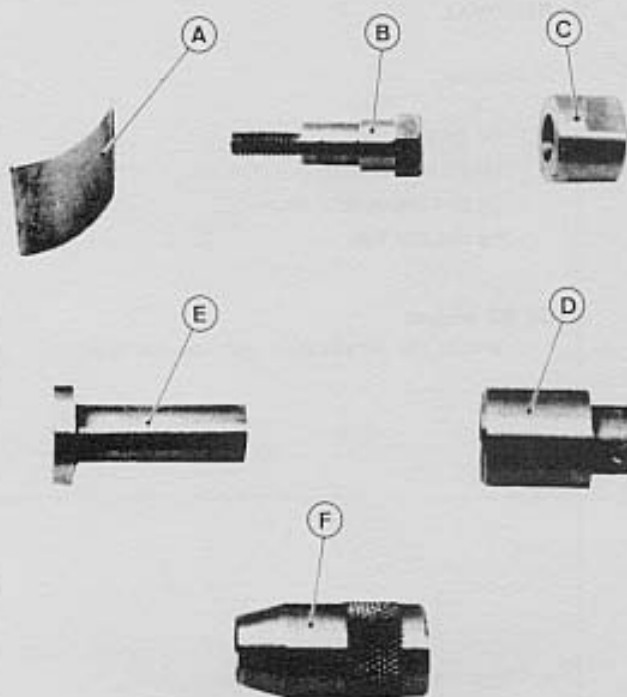
PEUGEOT

PETROL INJECTION ENGINE (KF 5 - XN 2)

REPLACING THE THROTTLE FLAP SPINDLE

1

1303



TOOLS TO BE REALISED 0.0143

(see page 01 01, class 15).

A - Nut for installing the DU bush

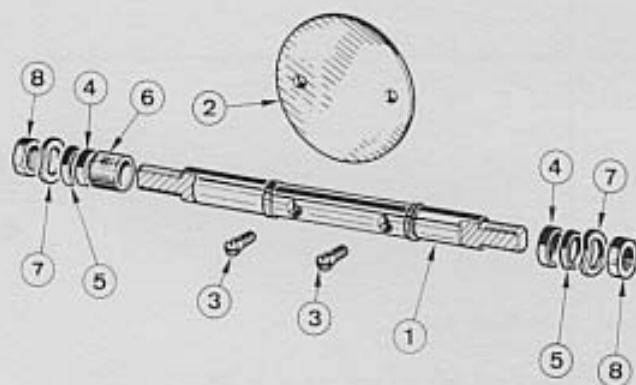
B - Draw bolt

C - Throttle spindle retaining nut

D - Guide for the 2nd bush

E - Drift for the 2nd bush

F - Drift for the seals.



REPAIR KIT

1 - Throttle spindle

2 - Throttle flap

3 - Throttle flap screws

4 - DU bush - 10 x 12 x 10 mm

5 - Nylon seal

6 - Spacer

7 - Onduflex washer (Ø8 mm)

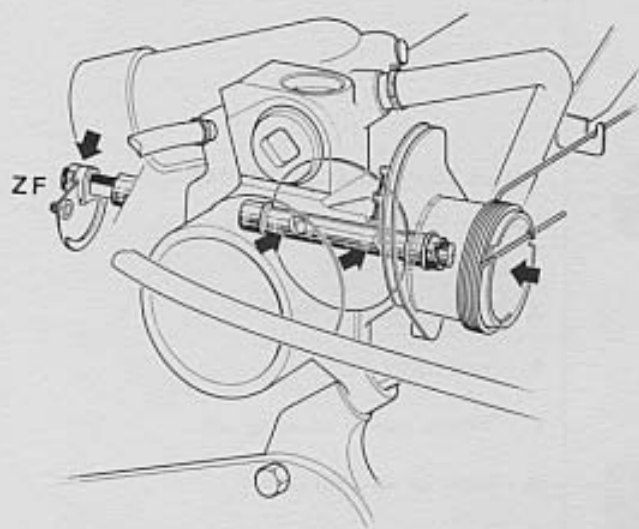
8 - Nut

1304

1

PETROL INJECTION ENGINE (KF 5 - XN 2)

REPLACING THE THROTTLE FLAP SPINDLE

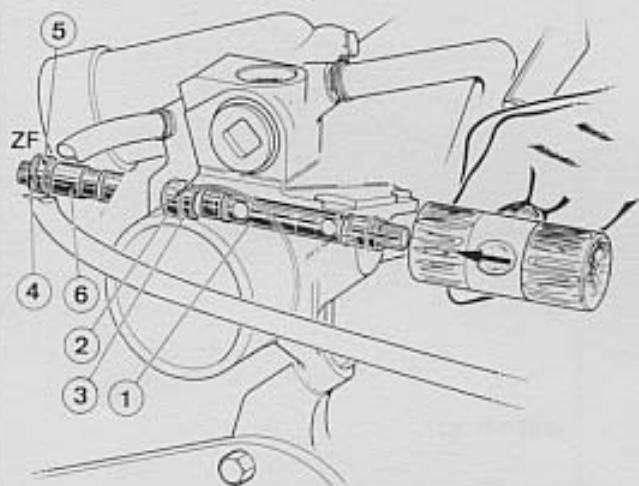


REMOVAL

- Remove :
- the ignition coil,
- the air intake hose,
- the throttle control drum.
- the throttle flap.

On ZF engines

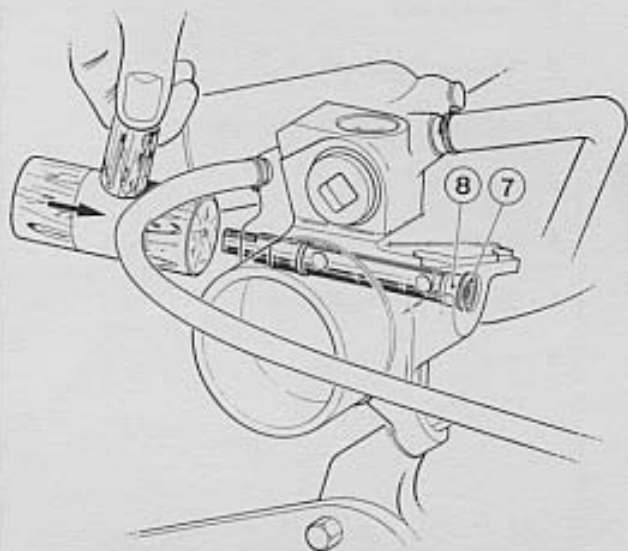
- remove the acceleration cable control quadrant.



- Using the spindle (1), drive out :
- the plug (2) and the bush (3).

On ZF engines

- the seal (4) the spacer (5) and the bush (6).



- Drive out :
- the seal (7) and the bush (8).

PETROL INJECTION ENGINE (KF 5 - XN 2)

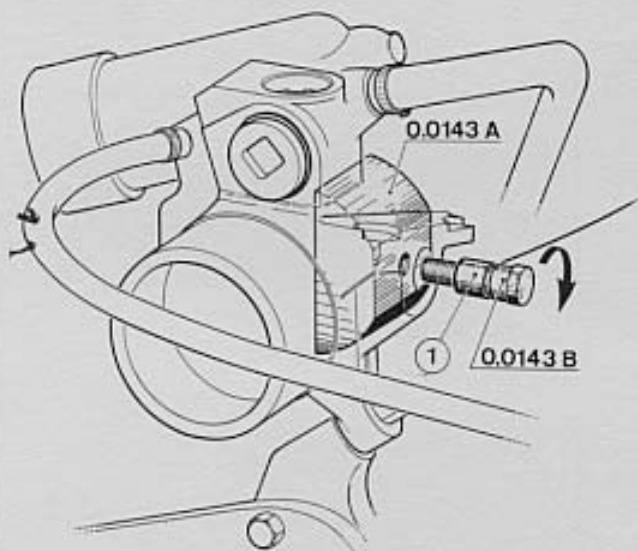
REPLACING THE THROTTLE FLAP SPINDLE

1

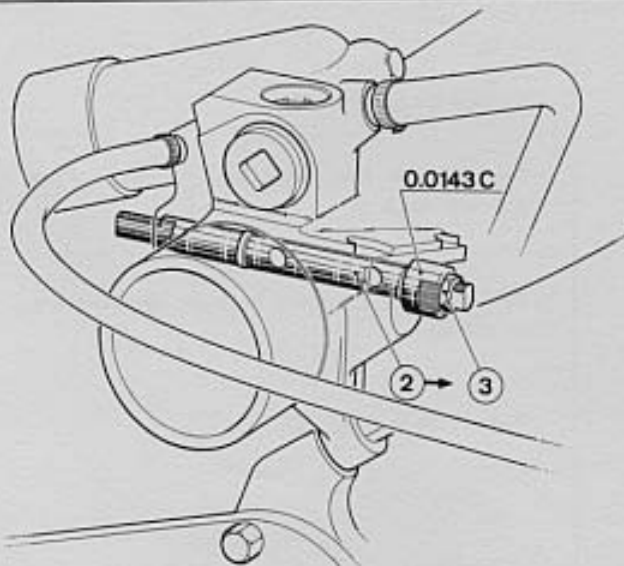
13 05

REASSEMBLY

- The air distribution chamber must be in perfect condition and spotlessly clean.
- Use all the parts in the repair kit.



- Fit the bush (1) on the throttle drum side.
- Tighten the draw bolt (B) until it abuts.



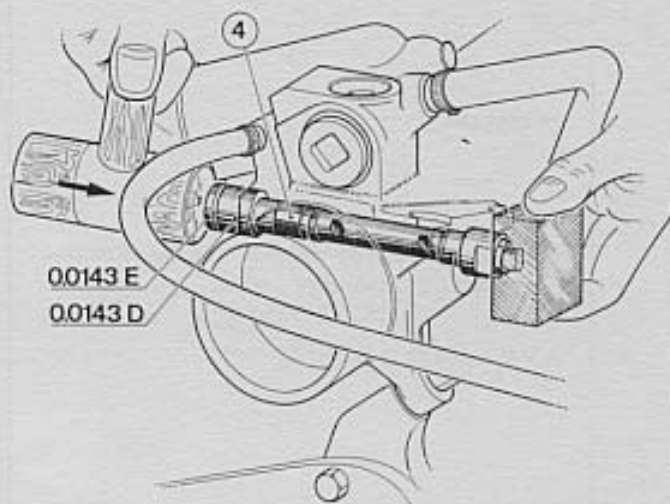
- Lock the spindle (2) using the nut (C), with the flats facing away from the housing (short threaded end on the drum side).
- Tighten the lock nut (3), whilst holding the nut (C) with a 17 mm spanner.

13 06

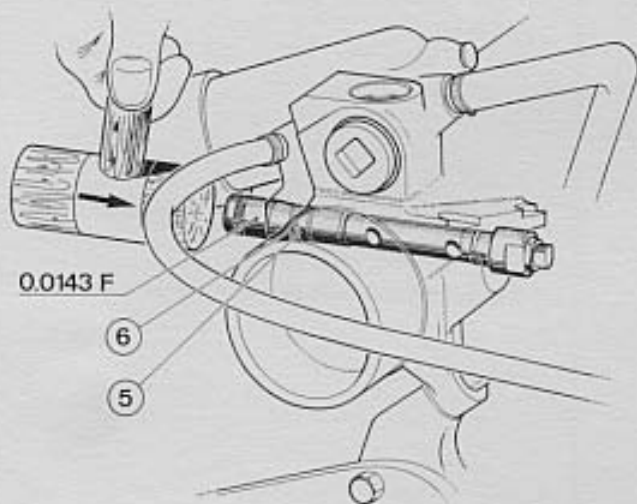
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PETROL INJECTION ENGINE (KF 5 - XN 2)

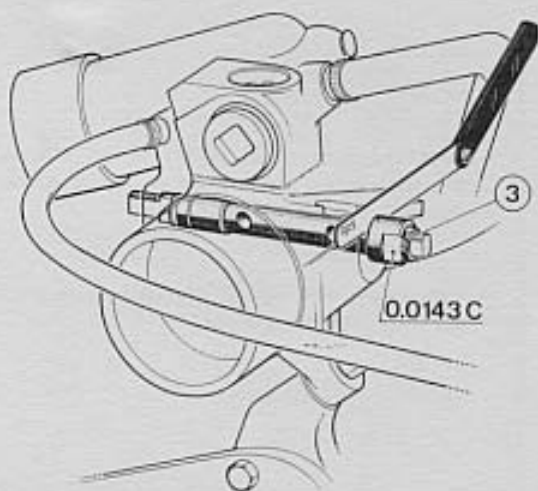
REPLACING THE THROTTLE FLAP SPINDLE



- Install the bush (4), with the spindle in place, bearing against a lead block.



- Fit :
 - the spacer (5),
 - the seal (6).



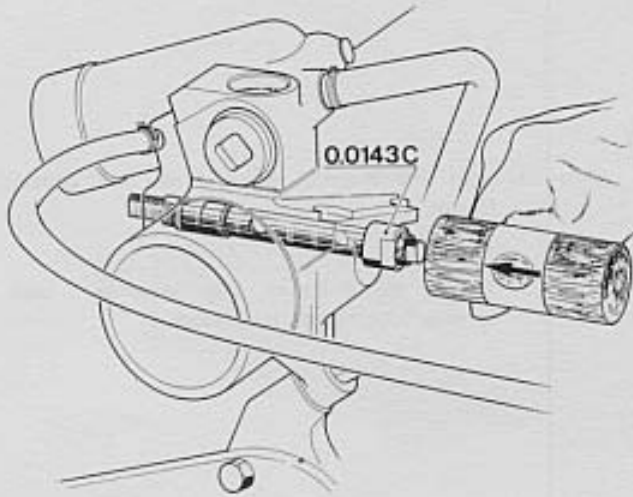
- Slacken the lock nut (3).
- Place a 0,05 mm feeler between the nut (C) and the housing.
- Screw the nut (C) down, by hand, until it abuts on the feeler.
- Tighten the lock nut (3).

PETROL INJECTION ENGINE (KF 5 - XN 2)

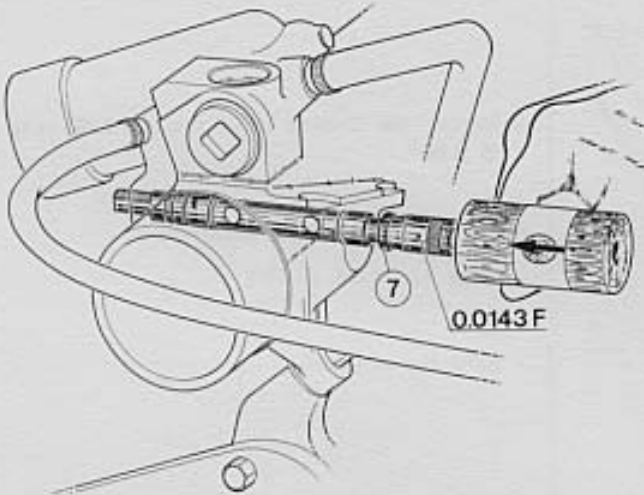
REPLACING THE THROTTLE FLAP SPINDLE

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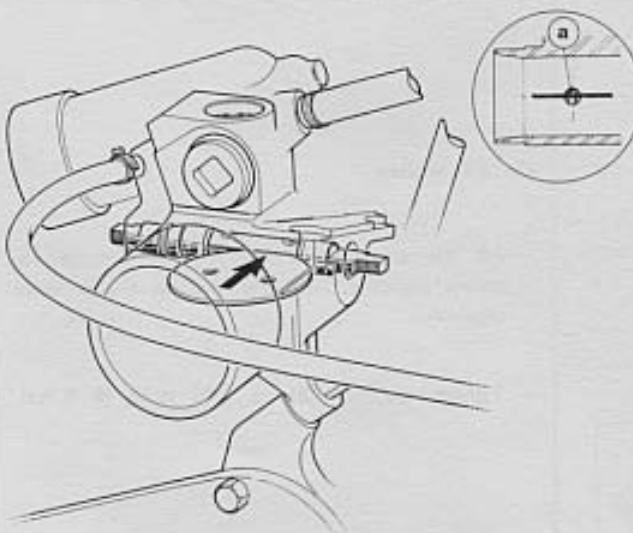
13 07



- Bring the nut (C) up against the housing by tapping on the end of the spindle.
- Remove the lock nut (3) and the nut (C).



- Make sure that the spindle rotates freely with an end float of approximately 0.05 mm.
- Fit the nylon seal (7).



- Position the spindle with the countersunk holes (a) facing up.
- Insert the throttle flap in the slot as shown, opposite.
- Make sure that it is centered by snapping the throttle shut a number of times.

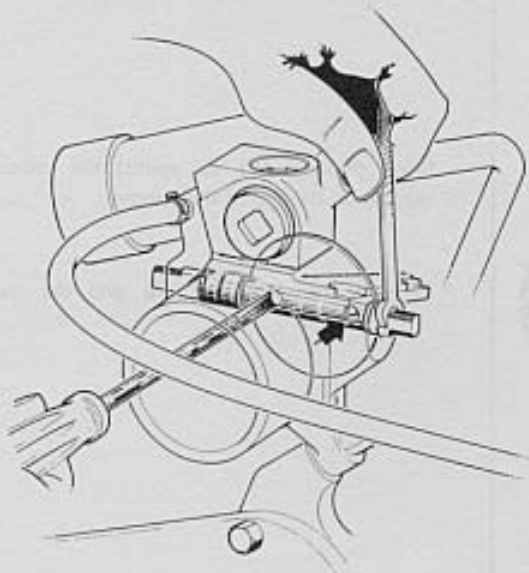
PEUGEOT

1308

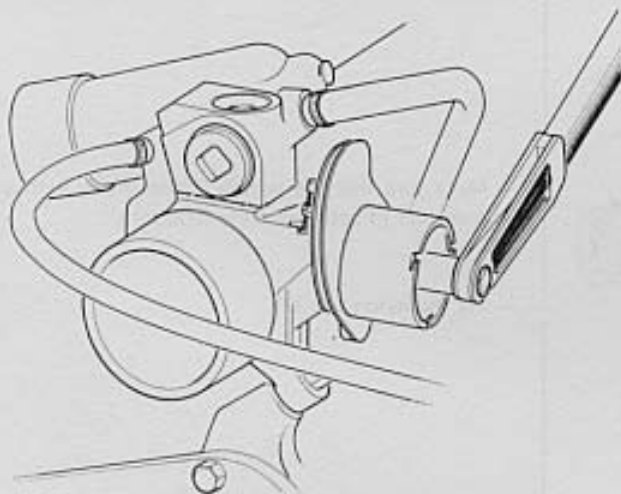
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PETROL INJECTION ENGINE (KF 5 - XN 2)

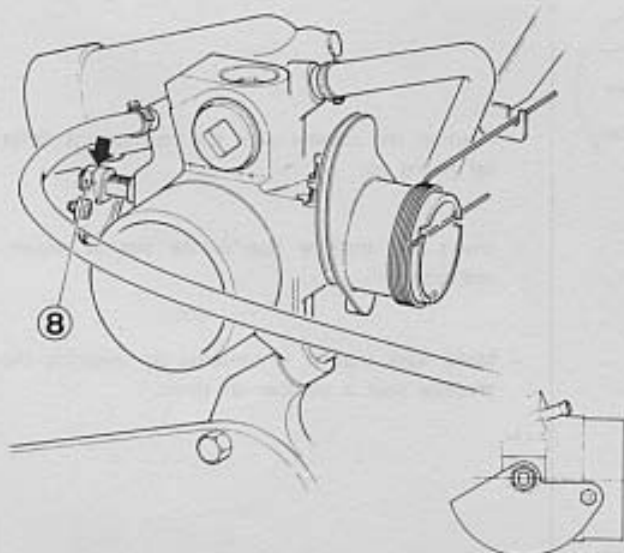
REPLACING THE THROTTLE FLAP SPINDLE



- Hold the throttle closed, firmly but without forcing.
- Tighten the 2 screws, after smearing "weak holding" Loctite on the threads.



- Tighten the throttle drum nut to **1.25 m.kg (9 ft.lbs)**.
- Carry out the various adjustments (page 13 31 to 13 36).
- Refit the accessories.

**On ZF engines**

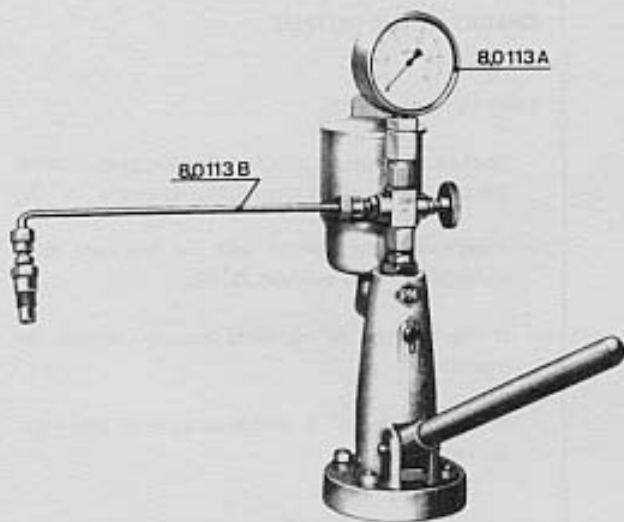
- Fit the acceleration cable control quadrant as shown opposite, with the throttle in the closed position.
- Tighten the nut (8) to **1.25 m.kg (9 ft.lbs)**.

PETROL INJECTION ENGINE

INJECTORS

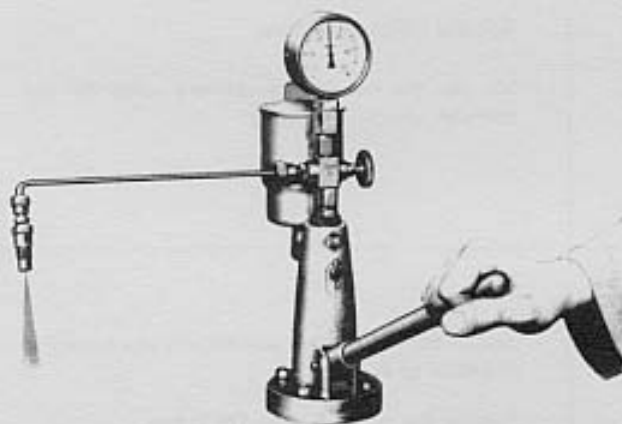
1

1309



TOOLS TO BE USED

- Apparatus : PM : type 22,41,01,0002 or Bosch ref : 068,1143,013,
- Pressure gauge, 0 to 50 bars : **8,0113 A.**
- Injector support tube : **8,0113 B.**



CHECKS

- Remove the injector.

Before checking, flush the injector thoroughly by several rapid strokes of the pump.

- Pressure

Initial : 30 to 38 bars
 Minimum : 15 bars
 (no possible adjustment).

- Sealing

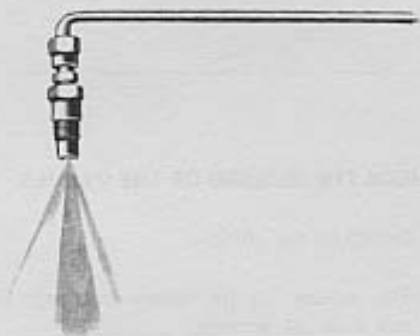
No formation of drops after 5 seconds at 15 bars.

- Shape of the jet

Fine conical jet with no splashing

- Refit the injector :

- tighten the injector to **2 m.kg (14,5 ft.lbs).**
- tighten the injector line to **2,5 m.kg (18 ft.lbs).**



PETROL INJECTION ENGINE

DELIVERY VALVES

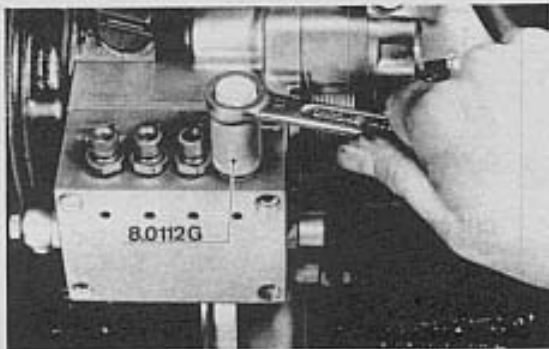


CHECKING THE OUTPUT

ACIT02

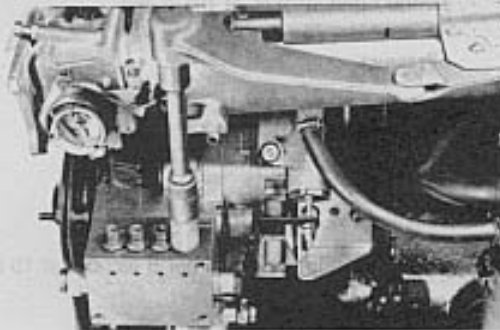
Fault : irregular idling.

- Slacken the injector lines one by one to determine the cylinder which is missing (for example : N° 3).
- Interchange the injector with the one next to it (cylinder N° 3 to cylinder N° 4).
- If the cylinder N° 4 starts missing, replace the injector.
- If the cylinder N° 3 continues to miss, bleed the delivery valve.

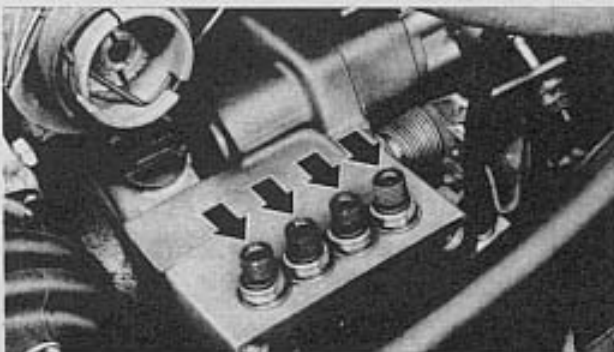


BLEEDING A DELIVERY VALVE

- Remove the injector lines.
- Slacken the nut of the delivery valve for the cylinder which is missing.



- Switch on the ignition and allow a small amount of petrol to flow.
- Tighten the nut to **5 m.kg (36 ft.lbs)**.
- Refit the injector lines :
 - tighten to **2.5 m.kg (18 ft.lbs)**.
- Check that the lines do not leak.



CHECK THE SEALING OF THE VALVES

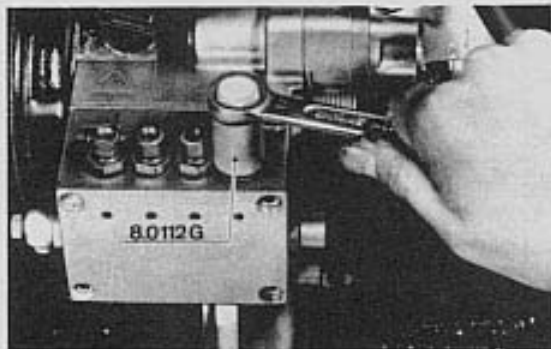
- Switch on the ignition.
- The recesses in the valves must not fill up in less than 30 seconds.
- If they do, replace the defective ones.

PETROL INJECTION ENGINE

DELIVERY VALVES

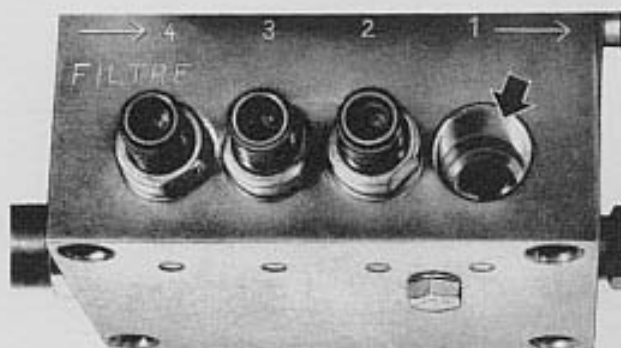
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1311

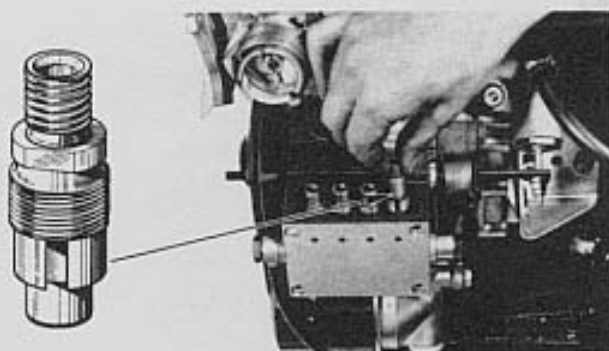


REPLACING A DELIVERY VALVE

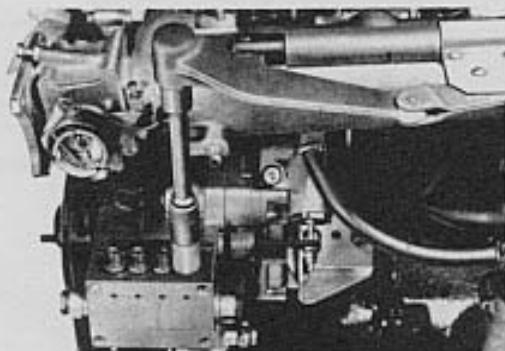
- Clean the top of the hydraulic head thoroughly to prevent dirt getting into the pump.
- Remove the delivery valve.



- Blow out the inside of the valve recess and pour a few drops of oil in.



- Fit the new valve fitted with its spacer, as shown opposite.

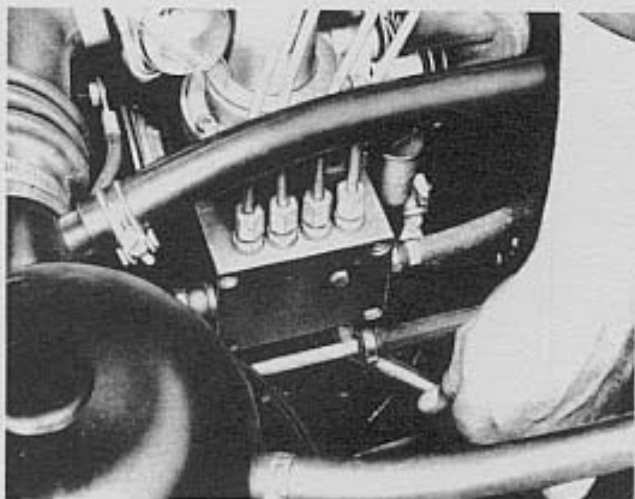


- Tighten the nut to 5 m.kg (36 ft.lbs).
- Refit the injector lines :
 - tighten the unions to 2.5 m.kg (18 ft.lbs).
- Check the sealing.

PEUGEOT

PETROL INJECTION ENGINE

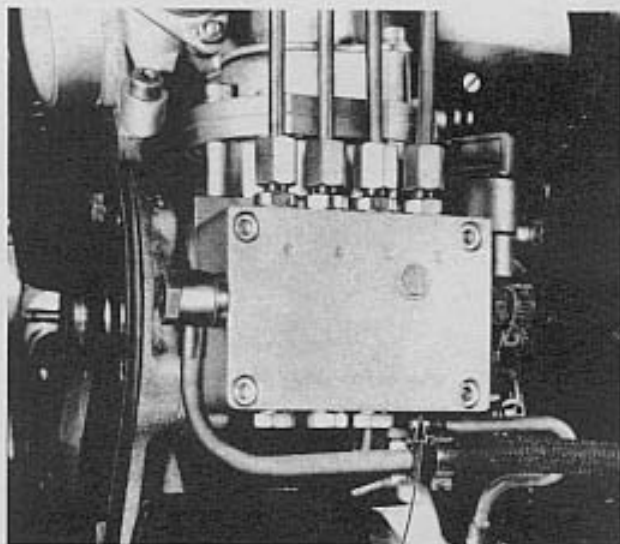
SUCTION VALVES



REPLACING A SUCTION VALVE

Removal

- Clean the hydraulic head thoroughly.
- Remove :
 - the suction valve with its O-ring,
 - the filter,

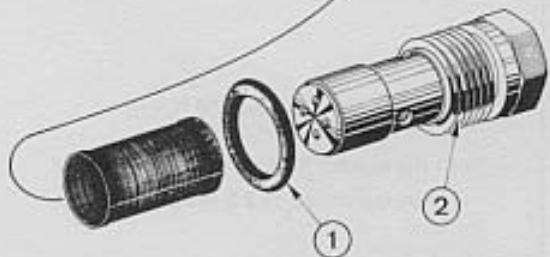


Refitting

- Clean the new valve assembly (valve body, O-ring, filter) thoroughly.
- Lightly oil :
 - the O-ring (1),
 - the thread (2).
- Fit the valve (hand tighten only).

BLEEDING

- Operate the lift pump,
- Slacken off the suction valve until petrol is flowing from it.
- Tighten the valve to **2,5 m.kg (18 ft.lbs)**.
- Bleed the corresponding delivery valve (page 13 10, class 1).
- Make sure that the hydraulic head does not leak.

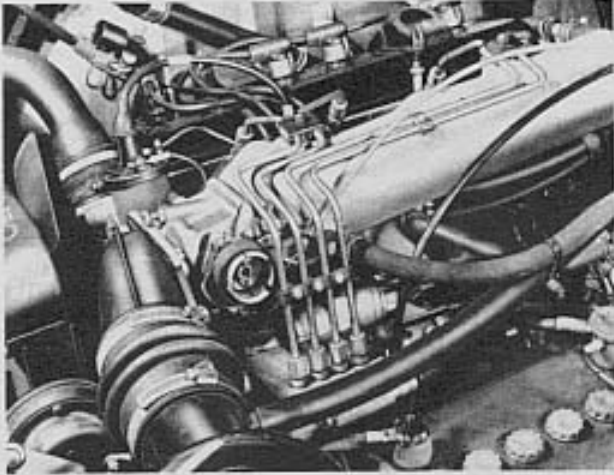


PETROL INJECTION ENGINE

INJECTION PUMP

1

1315

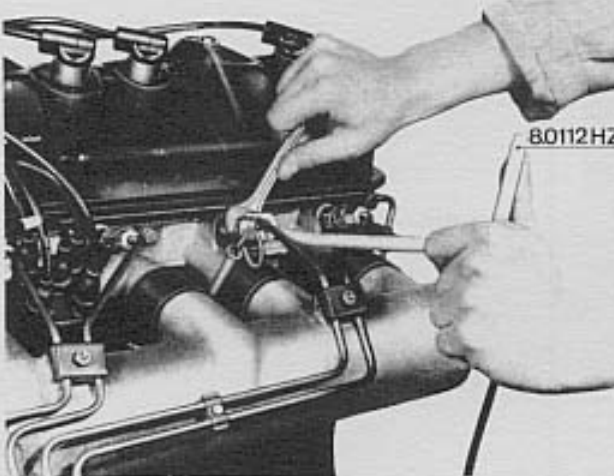


REMOVAL OF THE INJECTION PUMP

- Remove :
- the battery,
- the air intake hose from the air chamber.

On KF 6 :

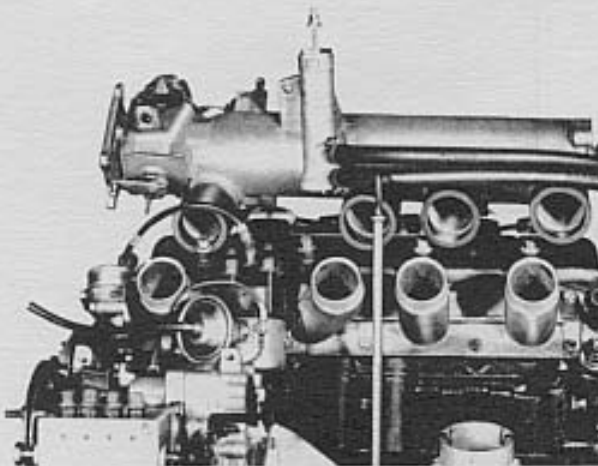
- Remove :
- the oil vapour recirculation hose (from the filter end),
- the vacuum lines (distributor and Master-Vac),
- the electrovalve petrol line and feed wire,
- the throttle cable.



- Remove the injector lines.
- Protect the pump and injector unions.
- Disconnect :
- the fuel feed and return lines from the pump.

On KF 5 and XN 2 :

- Disconnect the return line from the degassing filter (to avoid dismantling the Staubli collar).



On KF 5 and XN 2 :

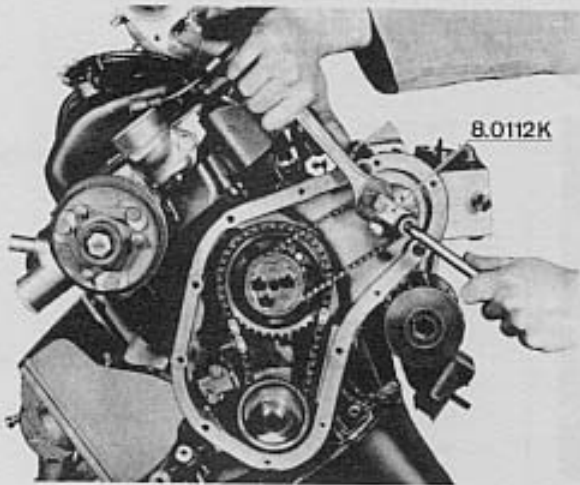
- Disconnect :
- the four chamber/manifold rubbers,
- the two hoses from the thermostat (secure them pointing upwards so as not to drain off the water).
- Remove :
- the oil line (oil filter to pump).

On KF 6 :

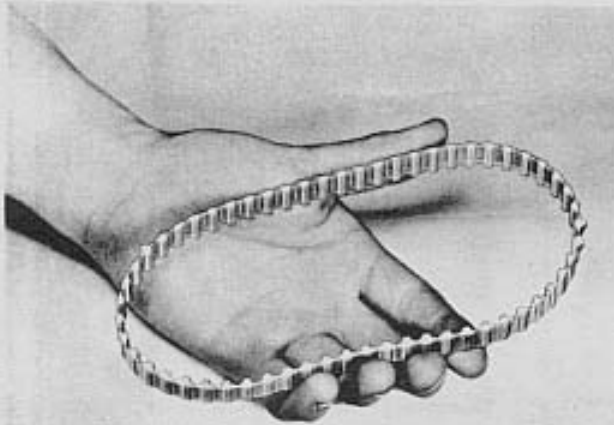
- Remove the air chamber and turn it over, to rest it on the rocker cover.

PETROL INJECTION ENGINE

INJECTION PUMP



- Remove :
- the fan belt and alternator drive belt,
 - the crankshaft pulley,
 - the timing cover,
 - the injection pump pulley with the drive belt in place,
 - the injection pump.



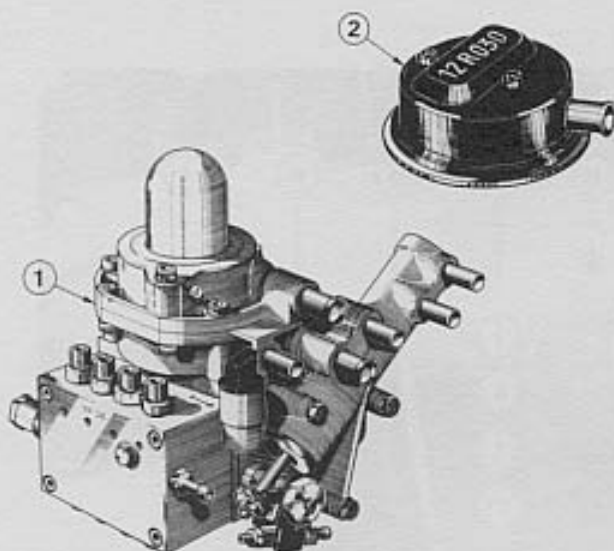
WARNING - Never bend the belt, once removed, to form an arc of less than 20 mm in diameter.

PETROL INJECTION ENGINE

INJECTION PUMP

1

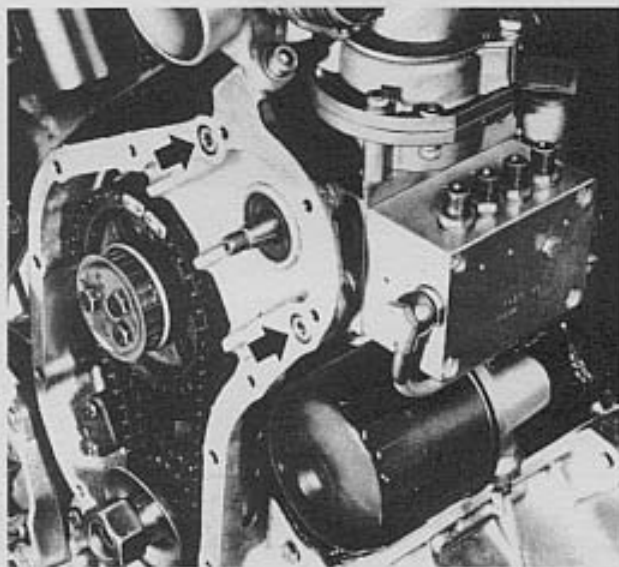
1317



REFITTING THE INJECTION PUMP

WARNING - KF 5 and XN 2 - the injection pump (1) and the altitude corrector (2) form an inseparable unit.

A defect in one or other of these parts entails replacement of both of them.



- Smear sealing compound on the mating face of the pump.

- Secure the pump to the timing housing. Tighten to **2 m.kg (14.5 ft.lbs)**.

On KF 5 and XN 2:

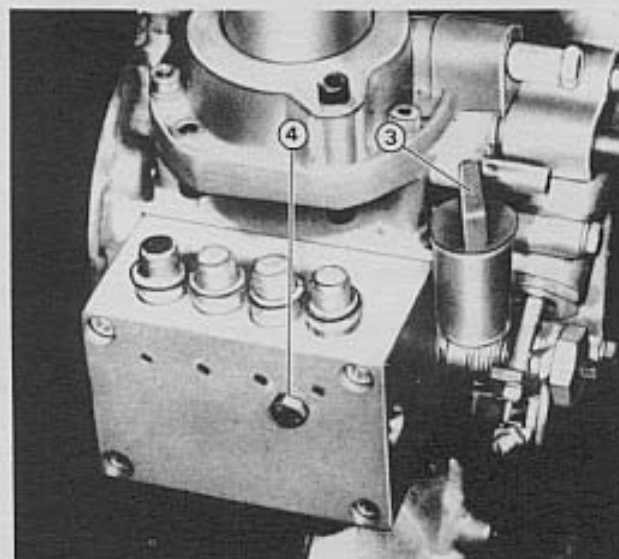
- Secure the rear bracket between pump and oil filter. Tighten to **2 m.kg (14.5 ft.lbs)**.

On KF 6:

- Secure the rear mounting bracket to the block while holding it up tight against the rear of the pump. Tighten to **2 m.kg (14.5 ft.lbs)**.

- Fit the two support bolts in the rear of the pump. Tighten to **0,75 m.kg (5.5 ft.lbs)**.

WARNING - If difficulty is encountered, slacken the two allen screws on the front and, after retightening them, tighten the rear bolts.



- Check the oil level in the pump.

- Top up, if necessary, using ESSOLUBE 10 W. Pour the oil in through the orifice (3) until it flows from the level hole (4). Refit the two plugs.

N.B. - On KF 6 pumps, the level is checked with the dipstick in the plug (3).

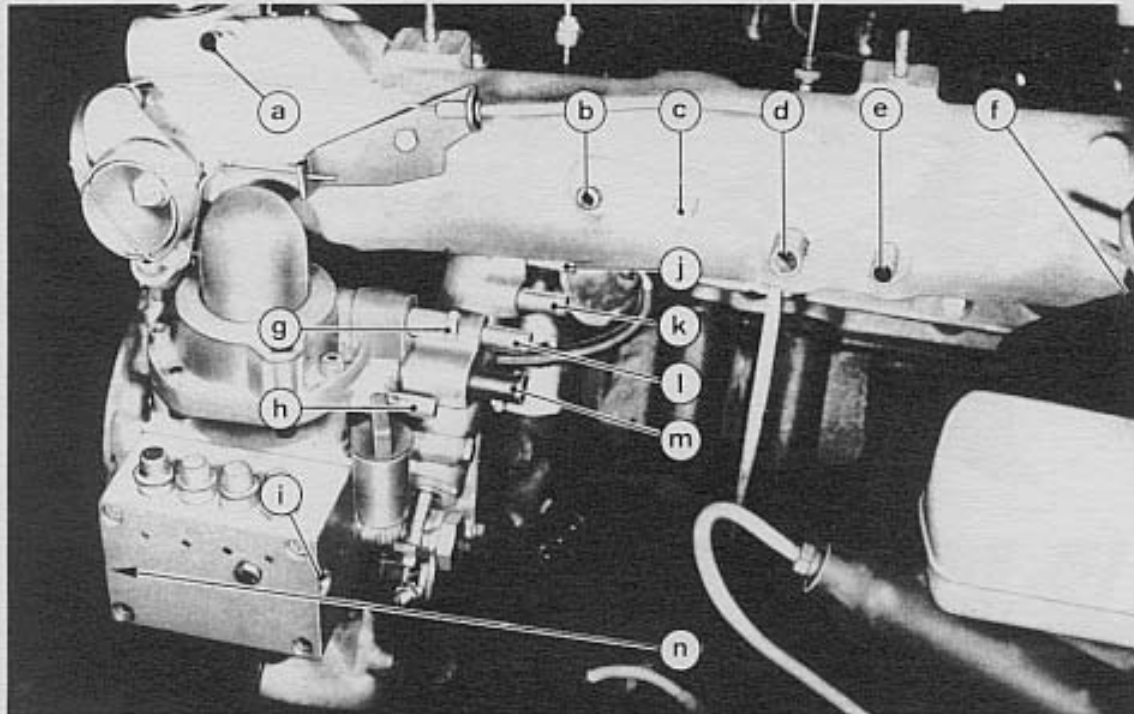
- Pump capacity :

- KF 6 - 0.4 litres (0.7 pints),

- KF 5 - XN 2 - 0.15 litres (0.26 pints).

PETROL INJECTION ENGINE

INJECTION PUMP



CONNECTING THE VARIOUS HOSES TO THE PUMP (KF5 - XN2)

The connections must be realised in the following order.

From	To	Identification
Cylinder head	(j)	Thermostat intake
Water pump	(k)	Thermostat outlet
Air chamber (e)	(l)	Fast idling air intake (Ø 10 mm)
Air chamber (d)	(m)	Counter pressure line (Ø 13 mm)
Corrector (f)	(g)	Altitude correction line (Ø 13 mm)
Air chamber (a)	(h)	Pneumatic governing line (Ø 10 mm)
Air chamber (b)		Master-Vac vacuum line*
Air chamber (c)		Oil vapour recirculation line*
	(n)	Fuel feed
	(i)	Fuel return

* The removal of these lines is not essential.

PETROL INJECTION ENGINE

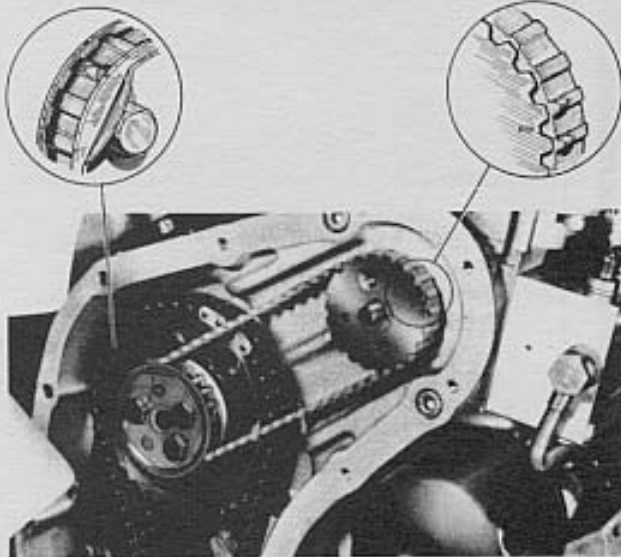
INJECTION PUMP

1 13 19



SETTING THE INJECTION PUMP

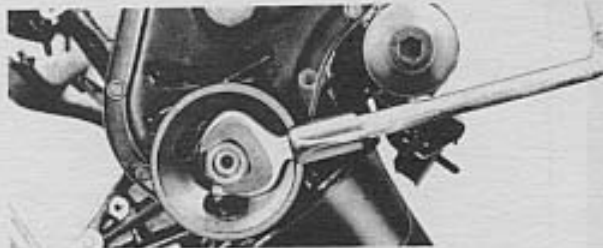
- Fit the crankshaft pulley nut temporarily.
- Rotate the crankshaft to position the rotor arm contact between N° 1 and N° 3 HT terminals.
- Position the injection pump pulley keyway as shown opposite.



- Mount the drive belt on the camshaft pulley and pump pulley, lining up the reference marks.
- Locate the pulley on the pump shaft.
- Rotate the crankshaft backwards through one turn and then check by rotating it through one turn in the normal direction of rotation.
- Tighten the pump pulley nut to **3.5 m.kg (25 ft.lbs)** and lock it.



- Fit :
 - the timing cover (centering it),
 - the crankshaft pulley,
 - the tab washer and nut,
- Tighten to **17 m.kg (123.5 ft.lbs)** and lock the nut.



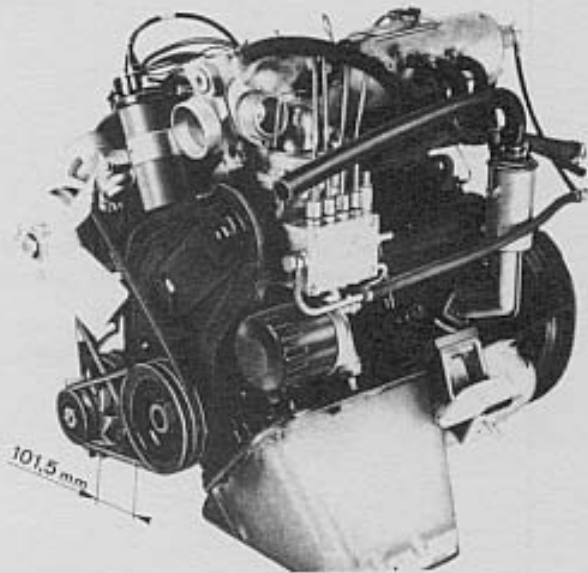
- On KF 6**
- Fit the air distribution chamber making sure that the thermostat rod engages in the groove in the enricher lever.
- Secure the chamber. Tighten the allen screws on the pump body to **2 m.kg (14.5 ft.lbs)**.

13 20

1

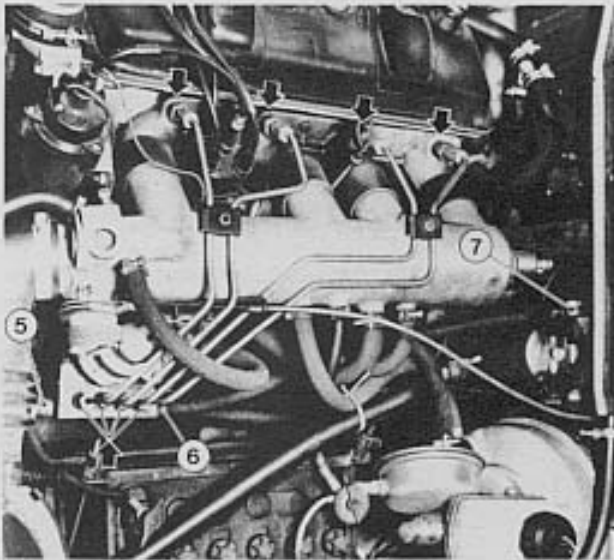
PETROL INJECTION ENGINE

INJECTION PUMP

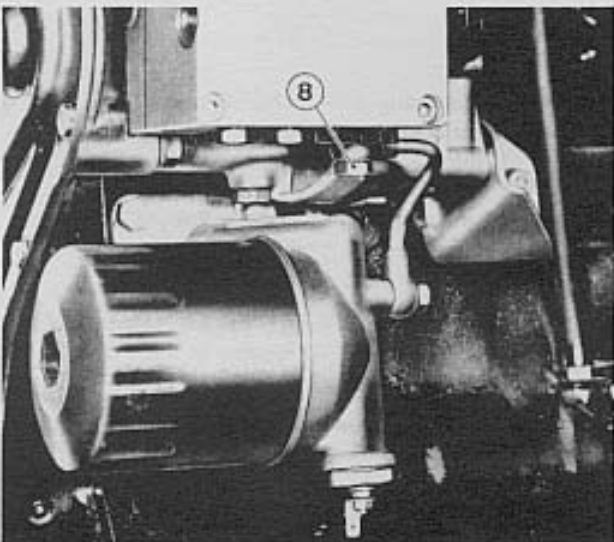


Refit and reconnect the different components in the reverse order to removal, making sure of the following :

- Tighten the alternator belt,
- Mark two lines on the belt, 100 mm apart,
- Stretch the belt to obtain a distance between them of :
 - 101,5 mm on KF 5 and XN 2,
 - 103,5 mm on KF 6.



- Tighten :
 - the fuel feed union (5) to 2 m.kg (14.5 ft.lbs),
 - the return union (6) to 1.75 m.kg (13 ft.lbs) and (7) to 2 m.kg (14.5 ft.lbs),
 - the injector line unions to 2.5 m.kg (18 ft.lbs).



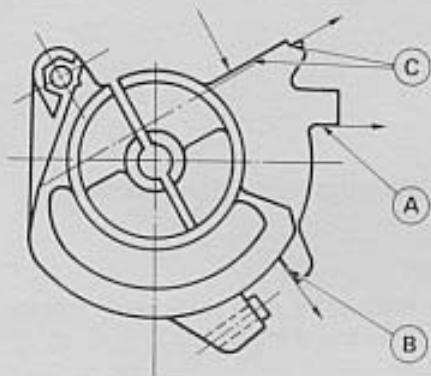
- Bleed the oil line (8) after starting up the engine.
- Make sure that the fuel lines, water hoses and oil lines do not leak.
- Carry out the checks and adjustments given on page 13 31 to 13 36, class 1.

PETROL INJECTION ENGINE (KF 6)

INJECTION PUMP

1

13 21

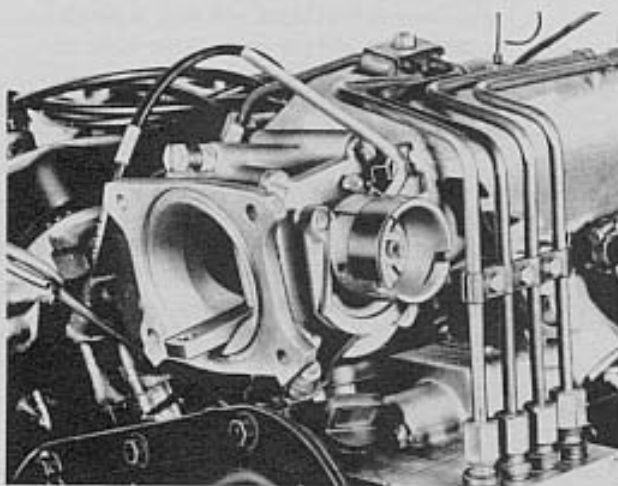
*ADJUSTMENTS***CONTROL QUADRANT**

The throttle drum incorporates the quadrant which enables the setting of the various throttle flap positions.

Position **A** - throttle open at 43° - 1st adjustment.

Position **B** - throttle open at 94° (fully open)
2nd adjustment.

Position **C** - throttle open at 10° or 12° (minimum opening) - 3rd adjustment.



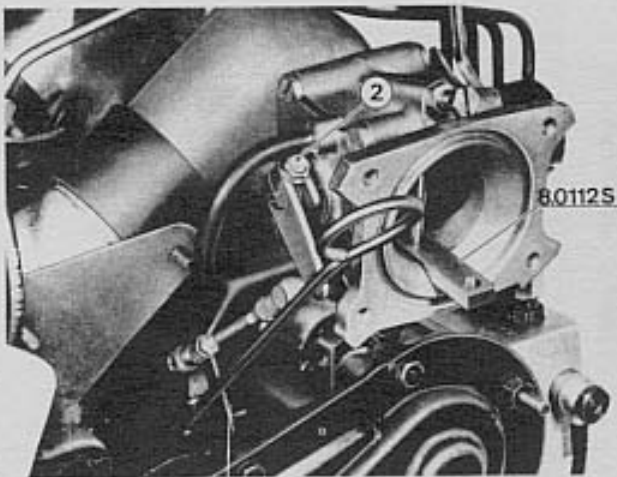
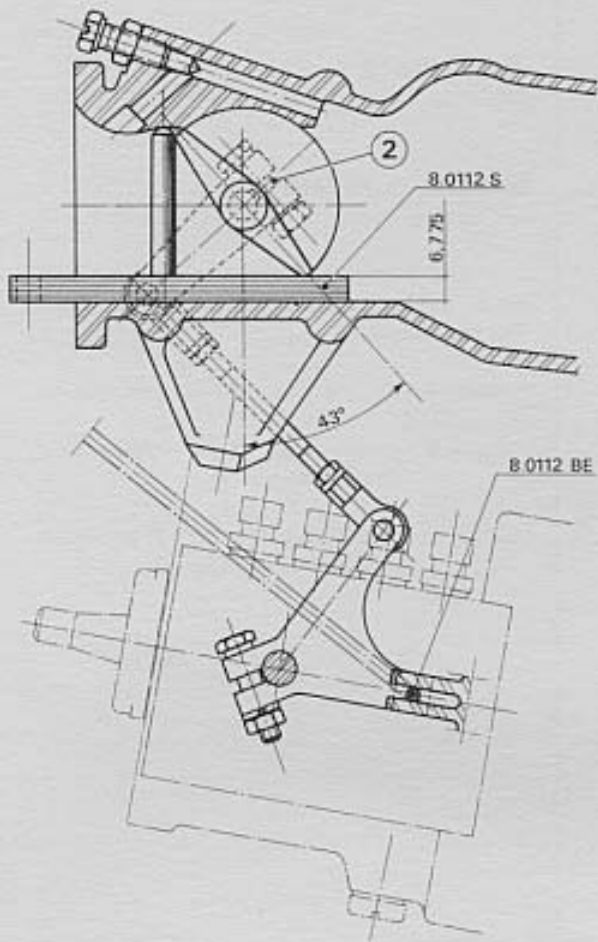
The throttle drum is secured to the spindle by an allen screw, which is accessible after removal of the return spring.

1322

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PETROL INJECTION ENGINE (KF 6)

INJECTION PUMP

*1st ADJUSTMENT***PUMP-THROTTLE COORDINATION**

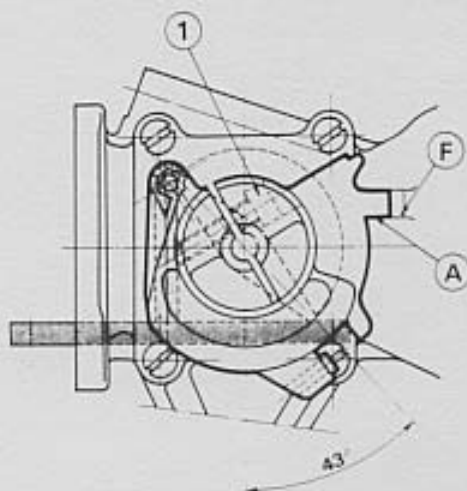
- Remove the sheet metal sleeve between the air filter and chamber.
- Remove the pump/throttle link.
- Check the centre to centre distance of the ball heads ($97,3 \pm 0,1$ mm) using the gauge **8.0112/R** ; adjust, if necessary, after slackening off the lock nuts.
- Tighten the lock nuts.
- Refit the link.
- Locate the rod **8.0112/BE** ($\varnothing 5$ mm) in the hole in the pump lever and the recess in the pump body.
- Slacken the bolt **(2)** and remove the lever.
- Insert the gauge **8.0112/S** in the groove in the bottom of the air chamber inlet so that the rod on the gauge abuts on the throttle flap. The hole in the gauge should be facing outwards.
- Refit the lever and tighten the bolt **(2)** making sure that the setting has not altered and leaving a clearance of 2 mm between the lever and the housing (hold the gauge **8.0112/S** under tension while tightening the bolt **(2)**).

PETROL INJECTION ENGINE (KF 6)

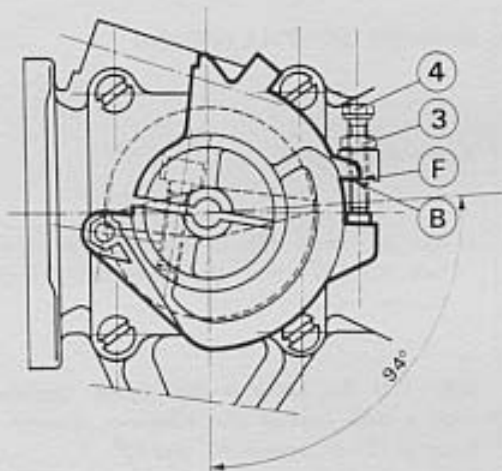
INJECTION PUMP

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1323



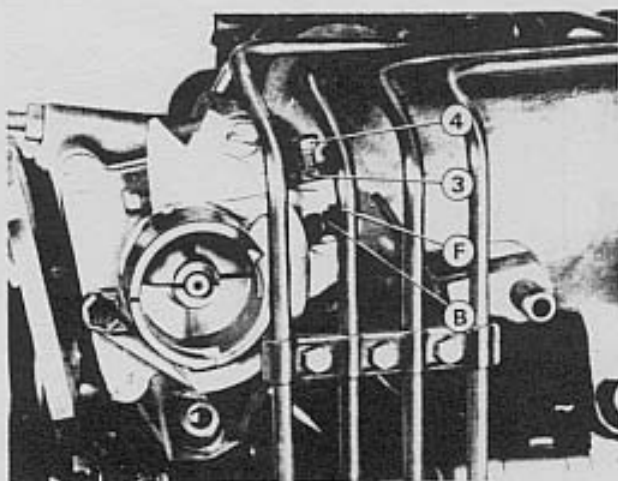
- Unhook the throttle return spring - slacken the allen screw (1).
- Line up the reference face (A) (43°) with the lower face (F) of the boss on the air chamber.
- Tighten the allen screw (1), making sure that the setting has not altered - leave a clearance of 1 mm between the drum and the housing.
- Withdraw the gauge 8.0112/S and the rod 8.0112/BE.



2nd ADJUSTMENT

MAXIMUM THROTTLE OPENING

- Engine switched off, accelerator at end of stroke,
- Slacken the lock nut (3).
- Act on screw (4) to bring the reference face (B) (94°) into line with the lower face (F) of the boss on the housing.
- Tighten the lock nut (3), making sure that the setting does not alter.
- Refit the return spring.
- Check the maximum opening by depressing the accelerator pedal.



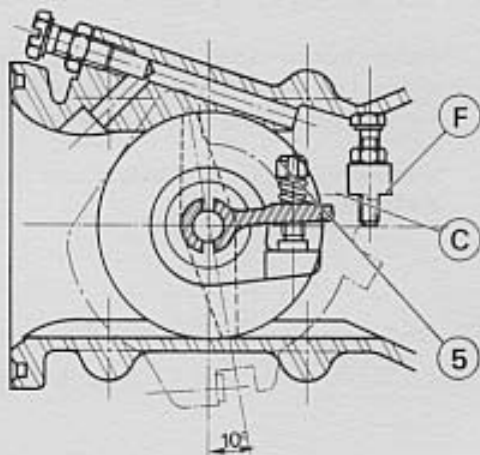
PEUGEOT

1324

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PETROL INJECTION ENGINE (KF 6)

INJECTION PUMP



3rd ADJUSTMENT

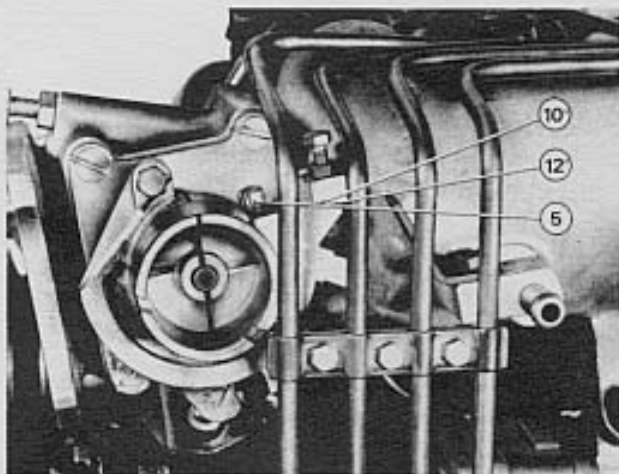
MINIMUM THROTTLE OPENING

Accelerator released.

- Act on screw (5) to line up the reference face (C) (10°) with the lower face (F) of the boss on the air chamber.

N.B. - If the idling is not regular (particularly with a new engine) the minimum opening may be set at 12° or between 10° and 12° .

However, if backfiring occurs when the minimum setting is at 12° , a position of approximately 11° should be obtained.

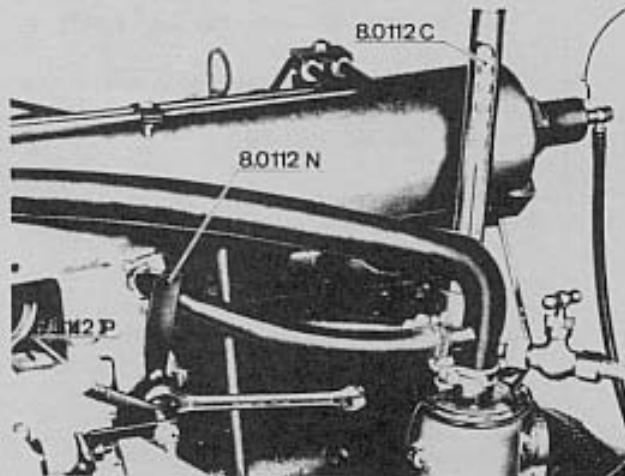


PETROL INJECTION ENGINE (KF 6)

INJECTION PUMP

1

1325



4th ADJUSTMENT

ENRICHENER

- Install the thermometer* 8.0112 C with the tap open, in the water return circuit (hose going to the water pump).
- Start up the engine and unscrew the idling air bleed screw to obtain an engine speed of more than 1,000 r.p.m.
- Slow down the rise in temperature by decreasing the flow of water around the thermostat (by closing the tap slightly) to stabilise the temperature at 50°C.

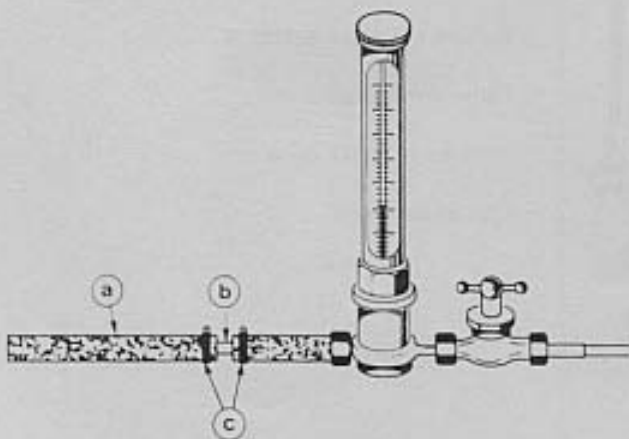
N.B. - Never close the tap completely as the cooling down of the thermostat element will render the setting inexact.

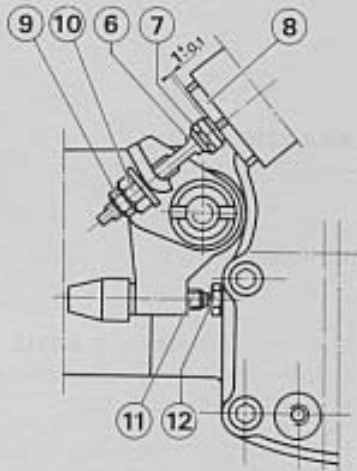
- Adjust the air valve immediately, whilst making sure that the temperature remains stable at 50°C.

* The hose on the thermometer 8.0112 C must be lengthened by 200 mm to enable installation,

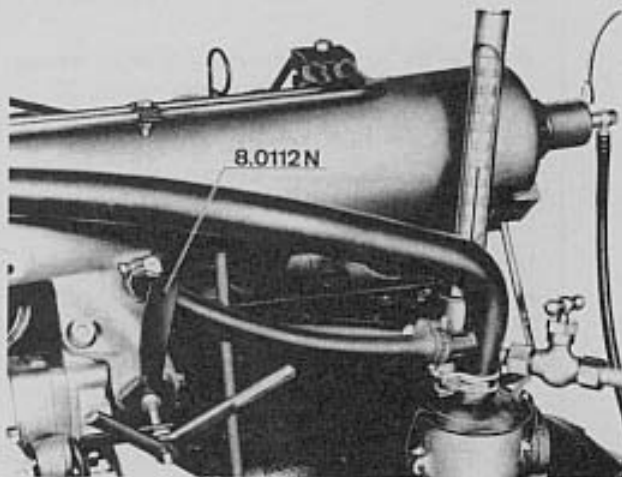
To realise this, use:

- a - a Diesel hose (7 x 16 mm - P.N. 1559.10),
- b - a copper tube (ext. Ø 8 mm),
- c - 2 collars (P.N. 1565.09),



**ADJUSTING THE AIR VALVE**

- Hold the rod (6) using the key 8.0112 P.
- Slacken the nut (7) (10 mm spanner) to enable insertion of the feeler 8.0112 N between the nut (7) and the plug (8).
- Tighten the nut to obtain the clearance of $1 \text{ mm} \pm 0,1 \text{ mm}$, determined by the feeler.
- Leave the feeler 8.0112 N in place.
- Withdraw the key 8.0112 P.
- Stop the engine.
- Close the tap on the thermometer.

**ADJUSTING THE ENRICHENER**

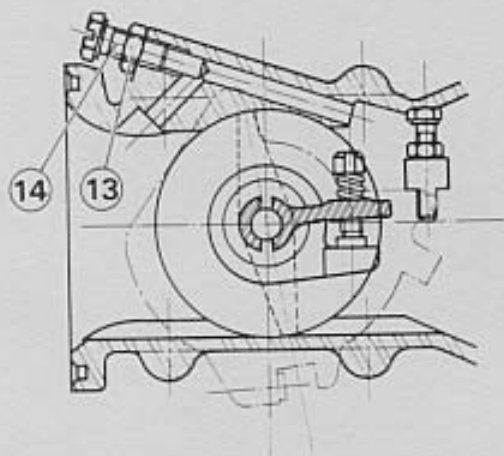
- Slacken the lock nut (9) (8 mm spanner).
- Slacken the nut (10) (10 mm spanner) to free off the lever (11) so that it comes into contact with the stop (12) on the injection pump body.
- Screw up the nut (10) until it just touches the enrichener lever.
- Tighten the lock nut (9).
- Remove the feeler 8.0112 N.
- Remove the thermometer.
- Refit the air intake sleeve.
- Start up the engine.

PETROL INJECTION ENGINE (KF 6)

INJECTION PUMP

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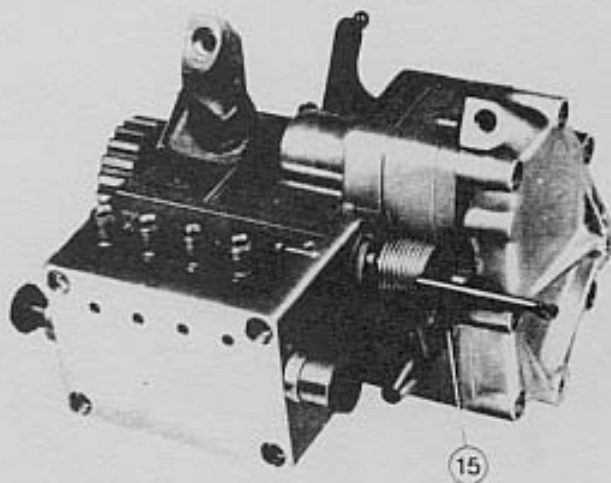
13 27



5th ADJUSTMENT

ADJUSTING THE IDLING

- This adjustment is to be realised with the engine at its normal operating temperature (electromagnetic fan engaged),
- Slacken the lock nut (13).
- Act on the air bleed screw (14) to obtain an engine speed of 800 to 850 r.p.m.
- Screw it in to decrease the engine speed,
- Screw it out to increase the engine speed.
- Retighten the lock nut (13).



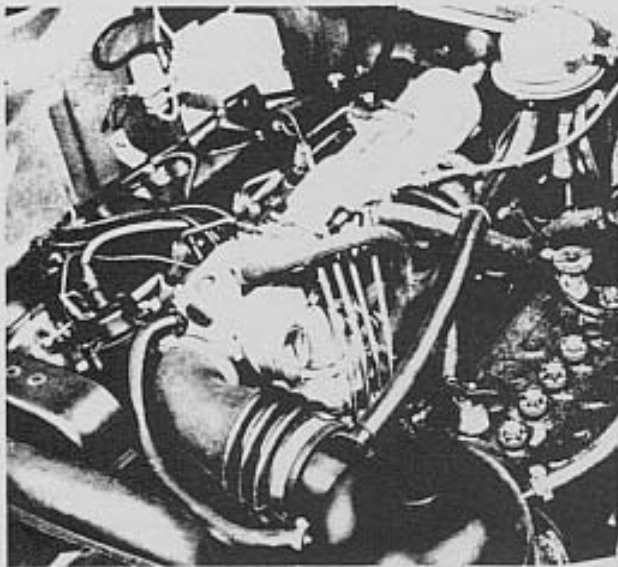
WARNING - The 0.5 mm thick flat washer (15) situated under the enricher stop (which serves to slightly enrich the mixture during the running in) must be removed after the first 1,000 km of operation of a new or rebuilt engine.

PETROL INJECTION ENGINE (KF 5 - XN 2)

INJECTION PUMP

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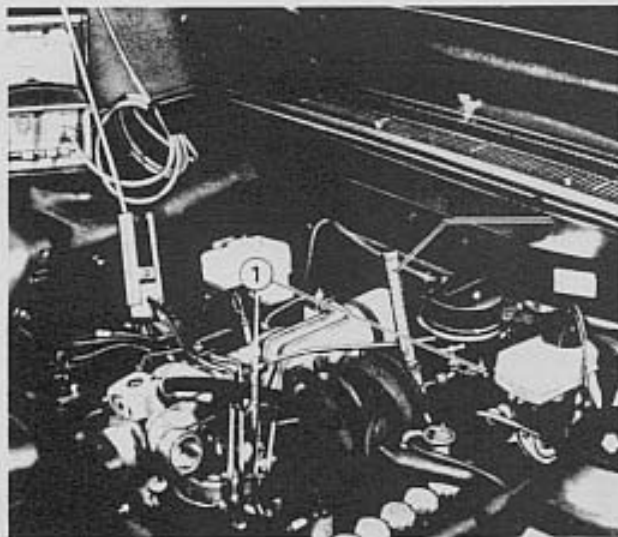
1331



ADJUSTMENTS

WARNING - Even the very slightest air leak will cause poor engine operation (idling difficult to set). Before carrying out any adjustments check :

- that all lines connected to the air chamber are air tight,
- the condition of the air cleaner,
- the engine compression,
- the condition and setting of the ignition (distributor/ spark plugs).



PREPARATION

- Disconnect :
 - the oil vapour recirculation line from the air filter,
 - the air intake hose from the air chamber,
 - the water return hose (1) from the thermostat (lower hose),
- Install the thermometer*.

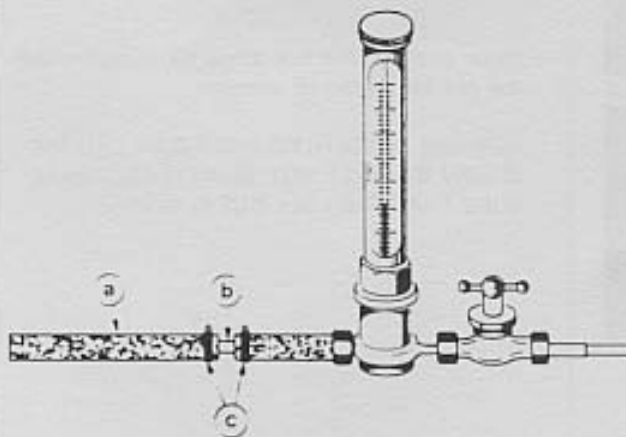
N.B. - Pass the return hose behind the degassing filter to connect it to the thermometer.

- Install the rev-counter.

* To enable installation of the thermometer 8.0112 C, the hose must be extended by 140 mm.

Use :

- a - an 8 x 16 mm hose - 140 mm long,
- b - a copper tube - ext. \varnothing 8 mm,
- c - two collars.

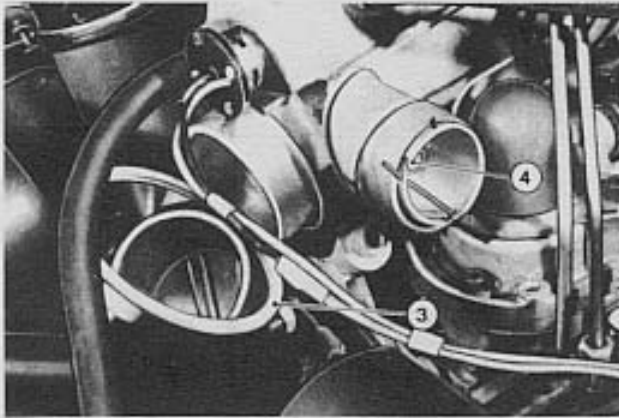
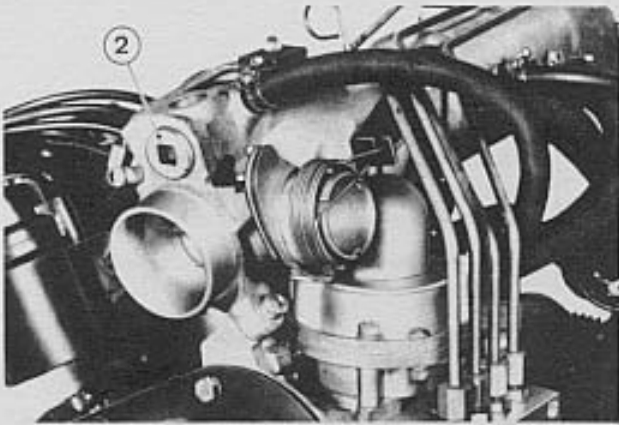


1332

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PETROL INJECTION ENGINE (KF 5 - XN 2)

INJECTION PUMP

*1st ADJUSTMENT*

- Remove the plug (2).
- Insert the lamp in the bore and connect it to the battery.
- Place a mirror (3) in front of and below the air chamber intake so that the top edge of the throttle flap is clearly visible.
- Make sure that the nut (4) is tightened to 1.25 m.kg (9 ft.lbs).

**Checking the 1st adjustment.**

- Engine stopped
- A small strip of light must appear as soon as the throttle flap is moved slightly.
- Make sure that the stop screw (5) is bearing on the pad (6) on the air chamber.

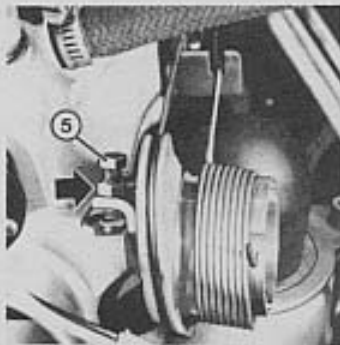
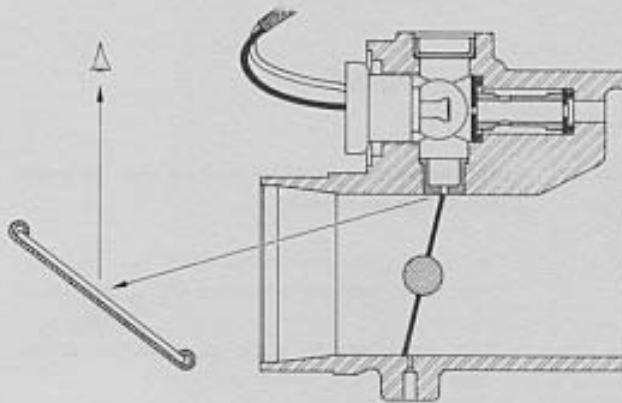
IF THESE CONDITIONS ARE FULFILLED THE SCREW (5) MUST NOT BE ALTERED. MAKE SURE THAT THE LOCK NUT IS TIGHT.

PETROL INJECTION ENGINE (KF 5 - XN 2)

1

1333

INJECTION PUMP



If the check shows an incorrect setting (too much light or none at all).

- Slacken the stop screw (5) until a thin strip of light is apparent above the top edge of the throttle flap.
- Slacken the screw off slowly until the light just disappears. Screw it back in one tenth of a turn **maximum** to obtain a slight clearance (the strip of light should **just** reappear).
- Retighten the lock nut.



- Make sure that the correction jet is in place (washer with a 2,5 mm hole (KF5), or 2,3 mm hole (XN2), made of tin-foil).
- Tighten the plug (2), oiled and fitted with a new O-ring, to 2 m.kg (14,5 ft.lbs).
- Refit the air intake hose on the air chamber.

1334

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PETROL INJECTION ENGINE (KF 5 - XN 2)

INJECTION PUMP



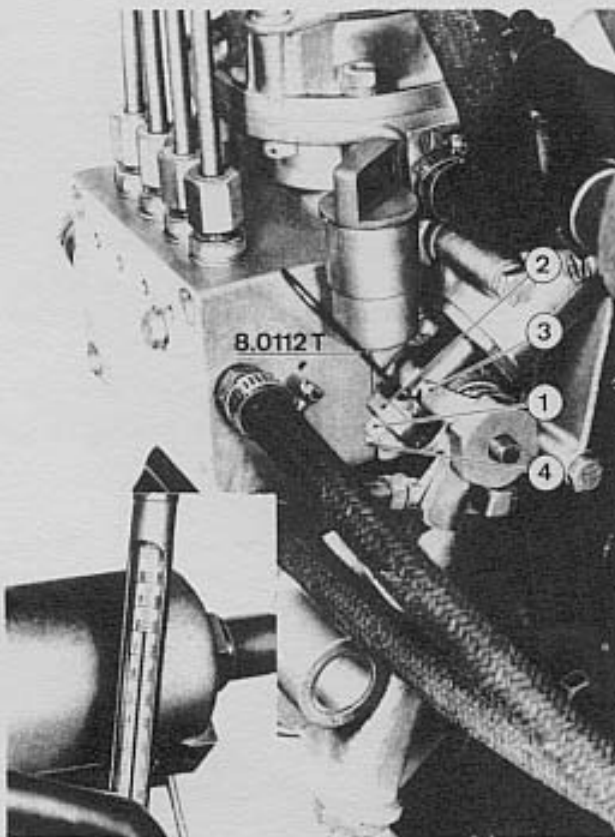
B.0112 P



B.0112 T

*2nd ADJUSTMENT*

- This adjustment is to be realised with the engine hot, temperature rising.
- On an engine which has been running, wait until the temperature reaches 65° C maximum.
- Make sure that the idling speed is not below :
 - 900 r.p.m. for a new engine,
 - 850 r.p.m. for a "run-in" engine.
- If necessary, adjust the idling speed by acting on the air bleed screw.
- Set aside :
 - a 17 mm open end spanner for the thermostat valve,
 - a 10 mm open end spanner for the lock nut,
 - the key for holding the thermostat rod,
 - the gauge,



- Slacken the lock nut (1) and the nut (2).
- Start up the engine and run it at idling speed.
- Prepare the gauge to insert it between the nut (2) and the enricher lever (3).

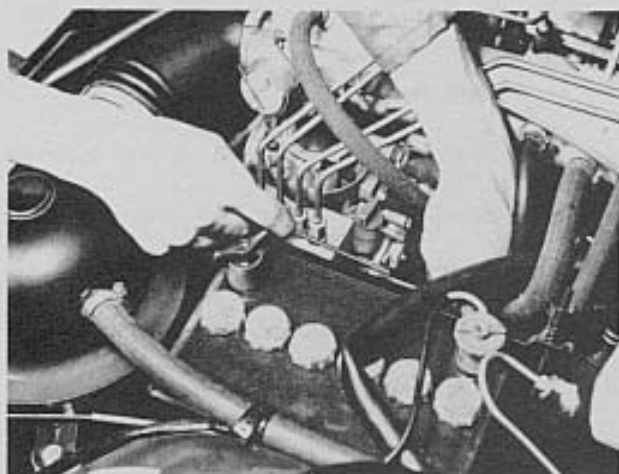
When the temperature reaches 80° C on the thermometer,

SWITCH OFF THE ENGINE

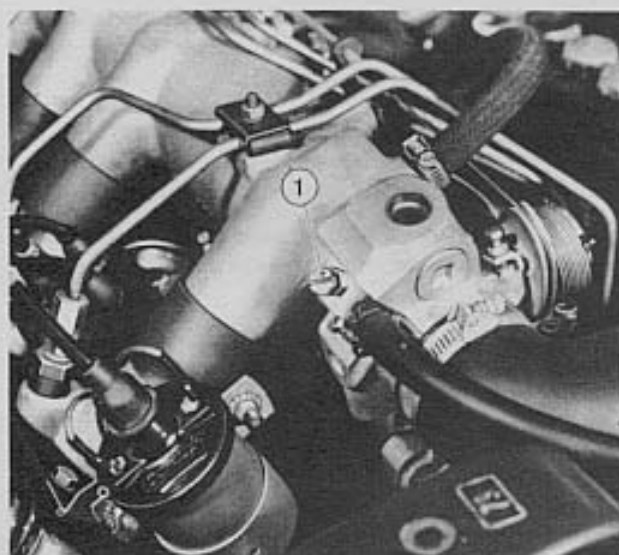
The mechanic has approximately 2 minutes to carry out the adjustment by acting on the nut (2) while holding the rod (4) with the key.

PETROL INJECTION ENGINE (KF 5 - XN 2)

INJECTION PUMP

1 1335


- If the temperature drops to below 75° C the engine should be warmed up again from 70° C.
- Repeat the check with the gauge at 80° C and adjust if necessary taking care to work rapidly in order to complete the setting before the temperature drops to 75° C.

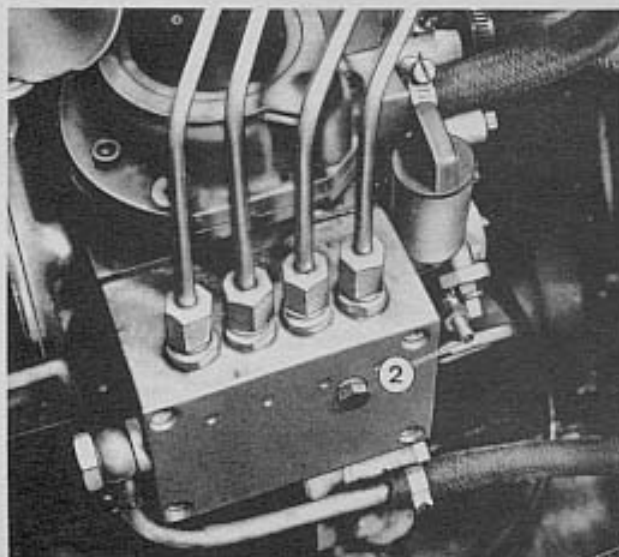
**3rd ADJUSTMENT**

Air/petrol metering at idling speed,

- The idling setting is obtained by acting on the following two screws :
 - air bleed screw (1) to meter the air,
 - enricher stop screw (2) to meter the petrol.

N.B. - By screwing (2) in, the mixture becomes richer ; by unscrewing it, the mixture becomes leaner.

The optimum mixture is determined by a "richness" test while checking the engine speed.

**Adjusting the idling :**

- To be carried out with the engine hot (approximately 80° C).
- Disconnect the exciter wire from the alternator.
- Adjust screw (1) to obtain :
 - 900 r.p.m. on a new engine (less than 5,000 km),
 - 850 r.p.m. on a "run-in" engine (more than 5,000 km).

1336

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PETROL INJECTION ENGINE (KF 5 - XN 2)

INJECTION PUMP

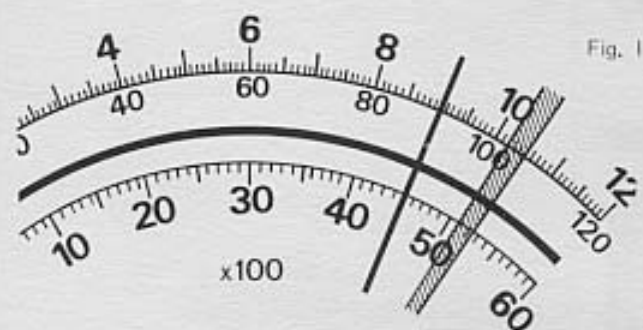
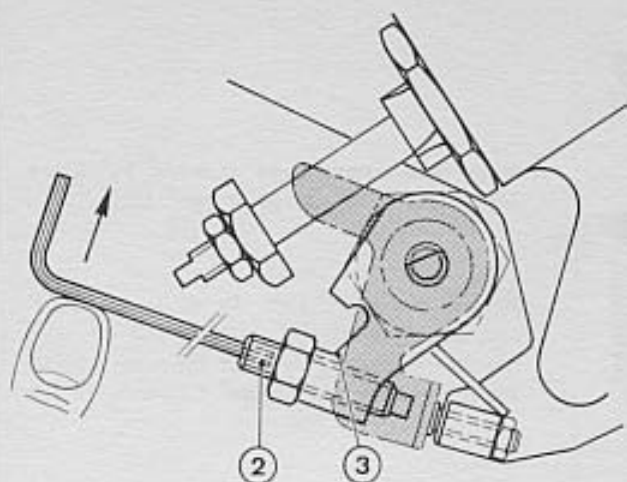


Fig. I

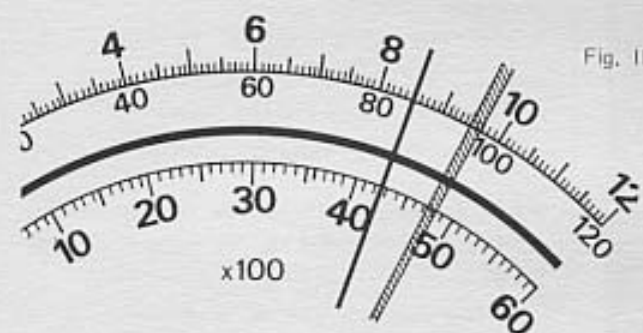
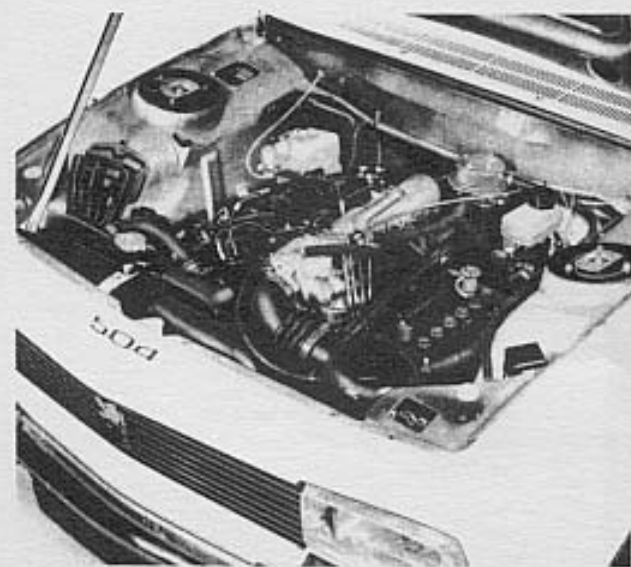


Fig. II

**Richness Test**

- Insert a 3 mm Allen key in the screw (2)
- Raise the enricher lever (3) slowly.
- Check the rev-counter.
- If the engine speed increases, make sure that it is between :
 - 1,020 and 1,050 r.p.m. (new engine) fig. I.
 - 950 and 970 r.p.m. ("run in" engine) fig. II.

Resetting

- If the engine speed exceeds 1,050 (or 970) r.p.m., the mixture is too lean. Screw in the stop (2) one quarter of a turn.
- If the engine speed is less than 1,020 (or 950) r.p.m., the mixture is too rich. Unscrew the stop (2) one quarter of a turn.

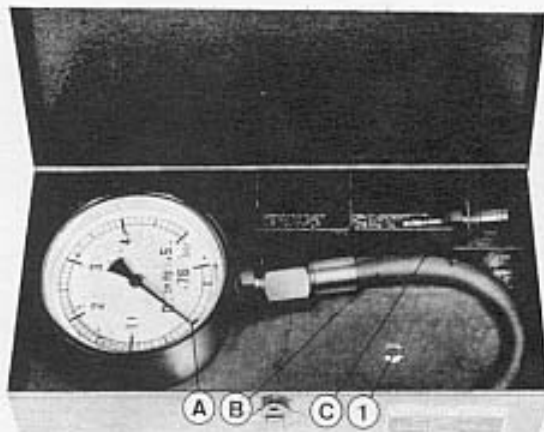
WARNING - The idling speed of 900 (or 850) r.p.m. must be reset using screw (1) after each adjustment of the stop (2).

It is also necessary to check the richness after each alteration of the air bleed screw (1), until the engine speeds given above are obtained.

- Reconnect the water return hose.
- Top up the radiator.
- Make sure that the cooling system is not leaking.
- Reconnect the exciter wire to the alternator.

ENGINE
LUBRICATION

1 14 01



CHECKING THE OIL PRESSURE

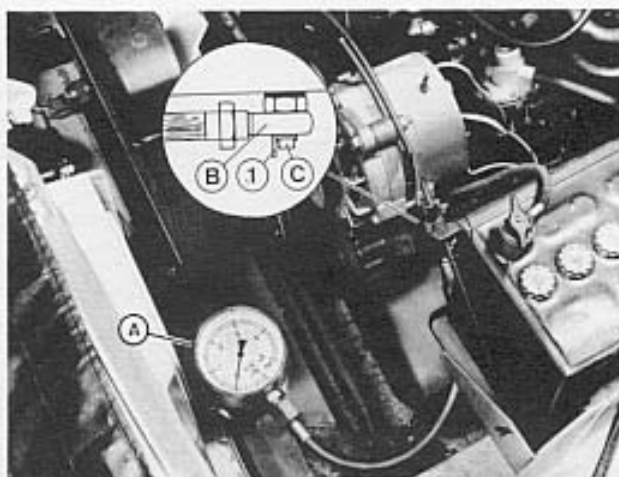
TOOLS TO BE USED

8.1503

Tool chest for checking oil pressure.

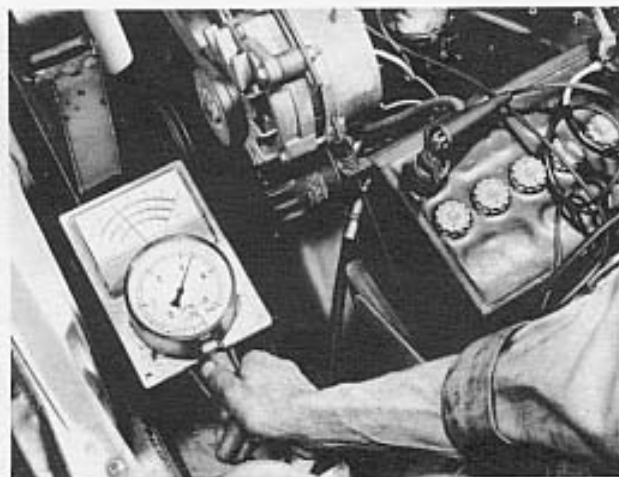
Consisting of :

- A - Pressure gauge with two readings : 76 cm/Hg to 0 and from 0 to 5 bars.
- B - Hose for checking engine oil pressure.
- C - Union.
- 1 - Snap ring.



CHECKING

- Connect up the pressure gauge (A) in place of the oil pressure switch.
- The check must be carried out with the oil at 90°C.
- starting with the engine cold (ambiente temperature 20°C), run the engine at 3,500 r.p.m. and note the pressure 5 minutes after the fan engages.



- Pressures to be obtained at 90°C.

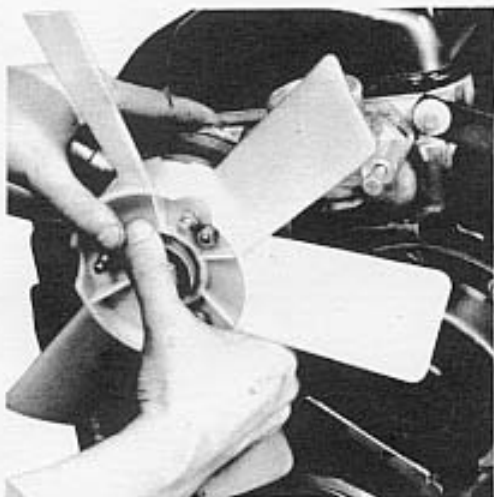
- 850 r.p.m. - 2.7 ± 0.8 bars.
- 2,000 r.p.m. - 3.3 ± 0.7 bars.
- 4,000 r.p.m. - 3.8 ± 0.8 bars.

N.B. - Depending on the mileage covered by the car these pressures may be reduced by 0.2 to 0.4 bars.

ENGINE

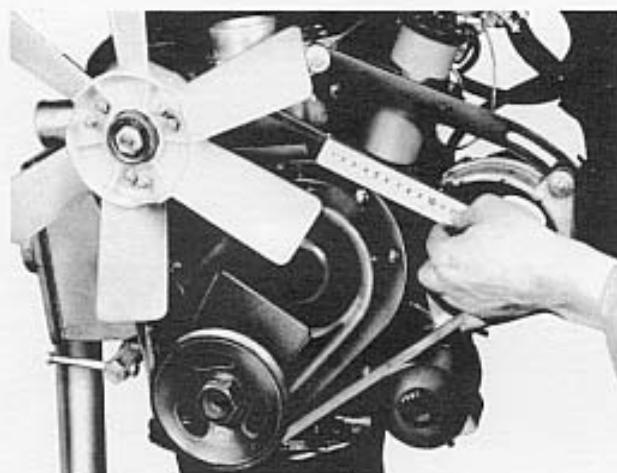
WATER PUMP - REMOVAL - REFITTING

1

15 01^(C)

REMOVAL

- Remove :
 - the radiator,
 - the top hose,
 - the fan belt.
- Disconnect :
 - the heater hose from the pump,
 - the self disengaging fan brush holder.
- Remove the pump.



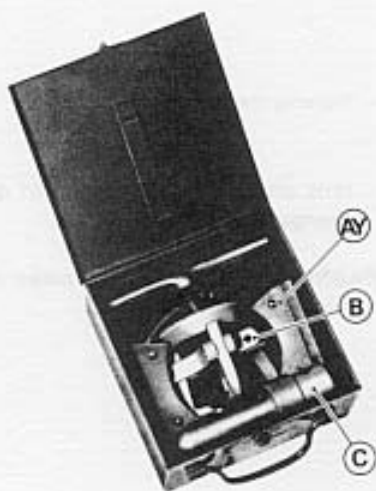
REFITTING

- Clean the mating faces of the pump and head thoroughly.
- Fit a new gasket.
- Refit the pump and hoses in the reverse order to removal.
- Fit the fan belt and tighten it to obtain 2 - 3% stretch (the references 100 mm apart when the belt is slack must be 102 to 103 mm apart when the belt is tight).
- Refill the radiator.

ENGINE

WATER PUMP - DISMANTLING - REASSEMBLY

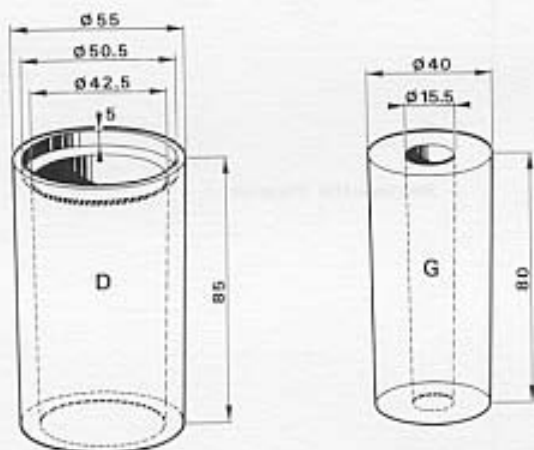
1 15 03⁰²



TOOLS TO BE USED

8.0107 Y

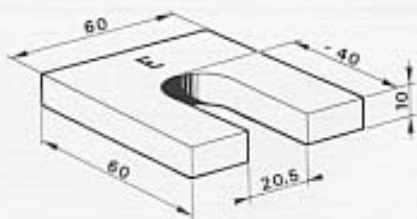
- Tool chest for the water pump.
- AY - Jaws for holding the pulley.
- B - Impeller extractor.
- C - AD seal extractor.



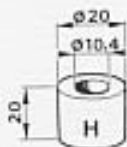
Tools to be realised.

0.0107

- Additional tools for water pump.



- D - Spacer.
- E - Plate.
- G - Tube.
- H - Tube



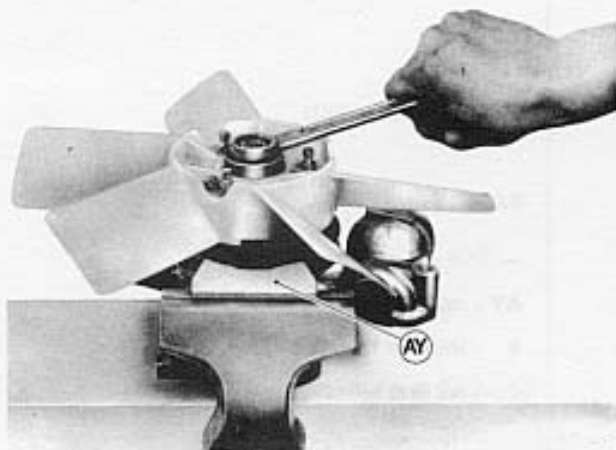
PEUGEOT

1504

1

ENGINE

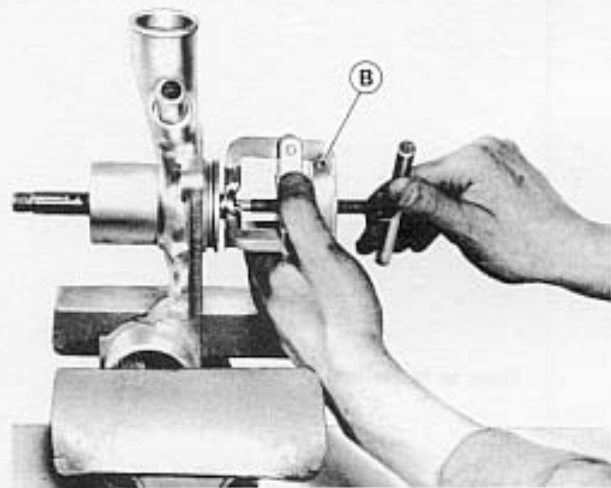
WATER PUMP - DISMANTLING



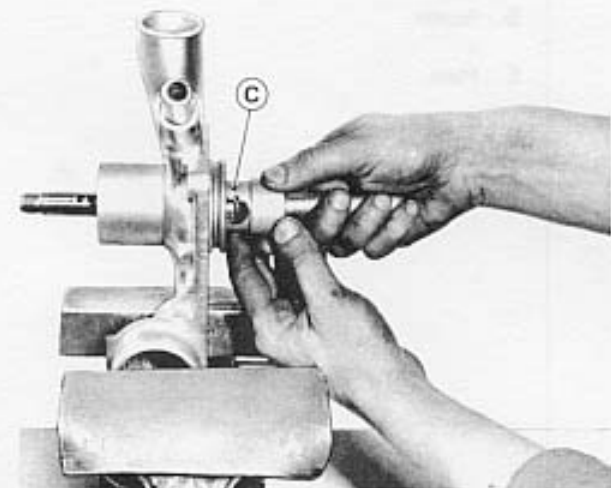
- Remove the pump hub nut.
- Hold the pulley and tap the end of the shaft to disengage the pump body.

WARNING - Do not lay the pulley on the bronze commutator ring.

- Recover the key.



- Remove the impeller.



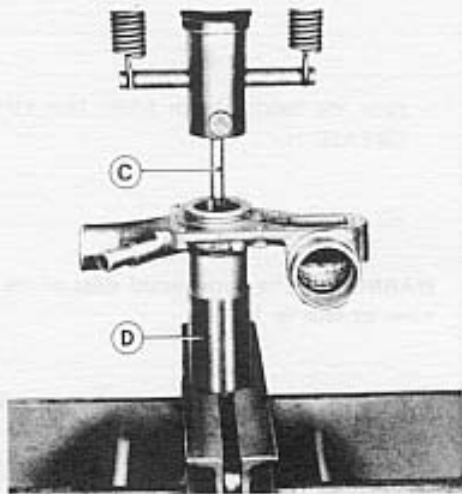
- Remove the AD seal.

ENGINE

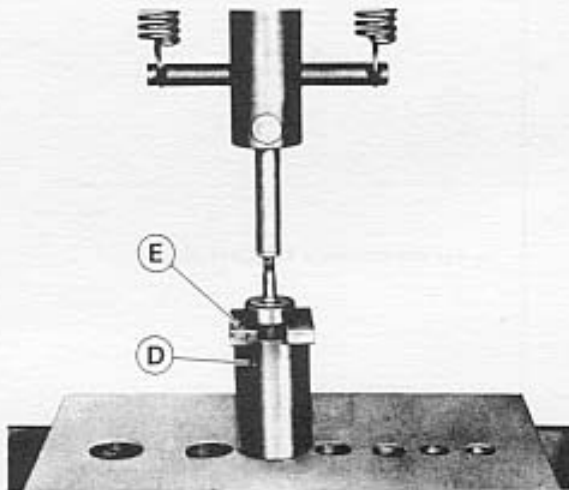
WATER PUMP - DISMANTLING

1

15 05⁽¹⁾



- Remove the front bearing snap ring.
- Immerse the pump body in boiling water.
- Remove the shaft and its bearings on a press.



- If necessary remove the front and rear bearings.



- Check the condition of the bearings, the AD seal and its bearing face in the pump body.
- Check the electro-magnet on the fan pulley using an ammeter.
- place the feeler inside the commutator ring so as not to scratch the brush face ; clamp the "crocodile" on the pulley body.

Reading on the ammeter	Indication
0	Winding broken
0,7 to 0,9	Normal
Higher reading	Winding earthed

- Replace all defective components.

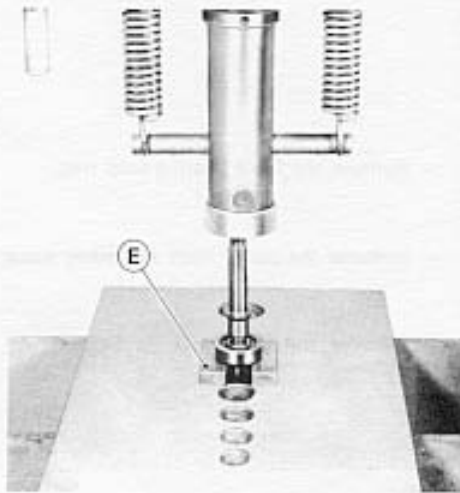
PEUGEOT

1506⁽¹⁾

1

ENGINE

WATER PUMP - REASSEMBLY

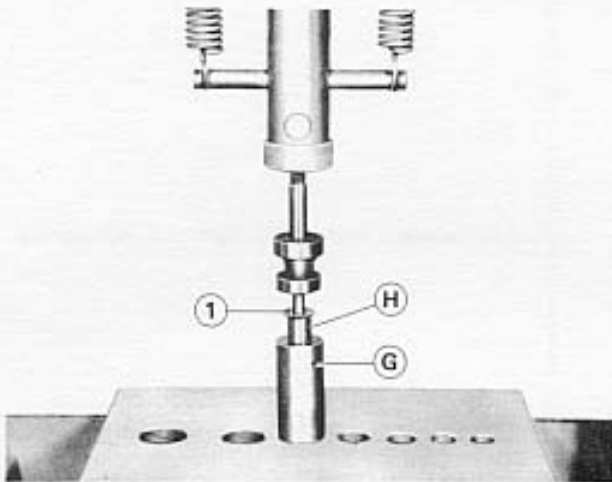


- Pack the bearings with ESSO MULTIPURPOSE GREASE H.

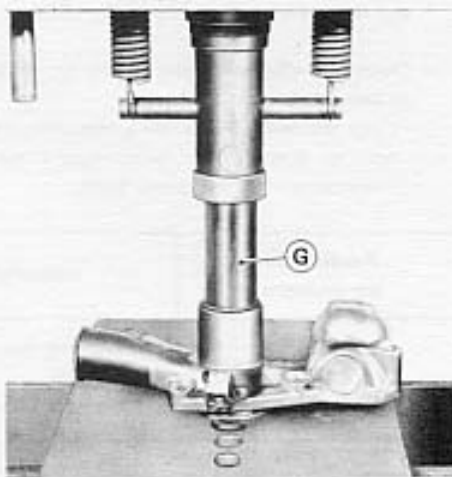
- Fit the bearings on the shaft.

WARNING - The unprotected sides of the bearings must be face to face.

- Pack the space between the bearings with grease.



- Fit the deflector (1) carefully.



- Immerse the pump body in boiling water.

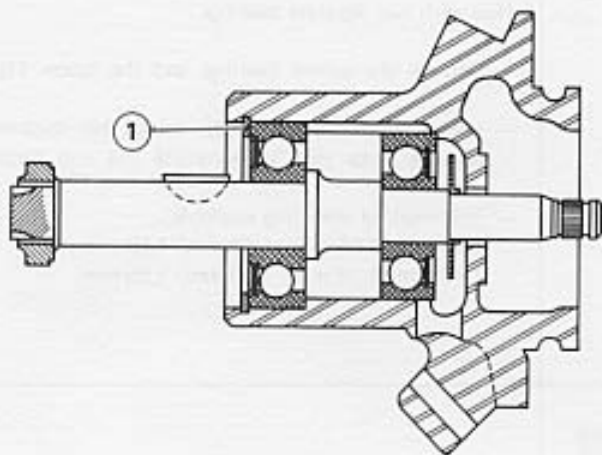
- Insert the shaft, with the bearings, in the pump body.

ENGINE

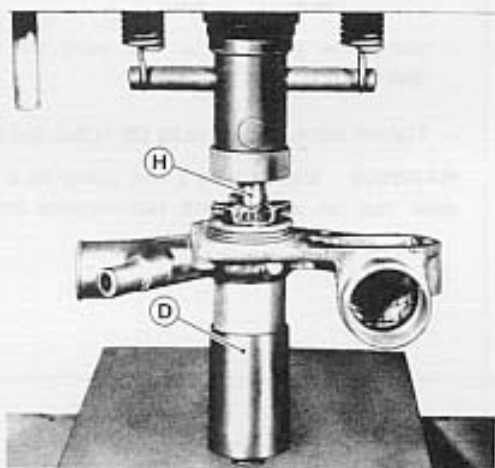
WATER PUMP - REASSEMBLY

1

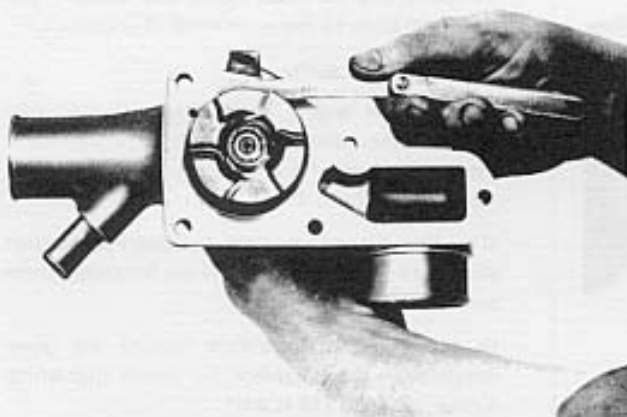
15 07⁽¹⁾



- Install the snap ring (1) using the thickest one possible, to eliminate end float in the shaft.
- Thickness of snap rings available :
1.75 mm - 1.80 mm - 1.85 mm - 1.90 mm - 1.95 mm.



- Grease the extremity of the shaft and the AD seal bearing face.
- Place the seal/impeller assembly on the shaft with the splines engaging correctly.
- Engage the assembly fully, on the press.



- Check the position of the impeller and reset it if necessary.
- It must turn without run out, with a maximum clearance of 1 mm measured between the impeller and pump shoulder.

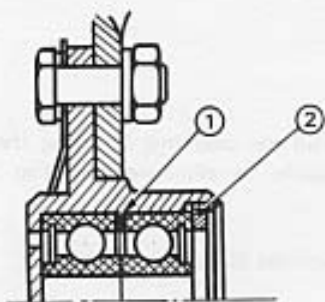
PEUGEOT

1508⁽¹⁾

1

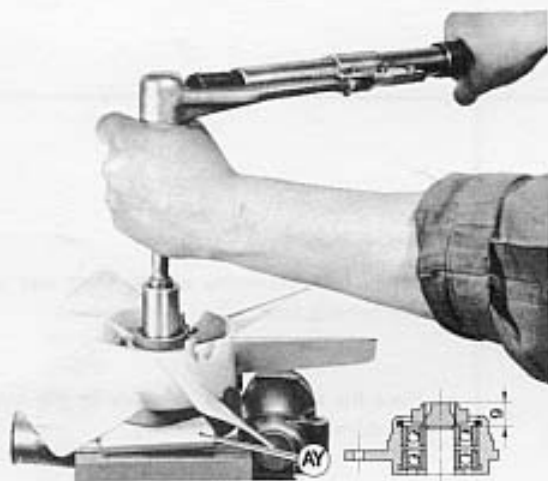
ENGINE

WATER PUMP - REASSEMBLY



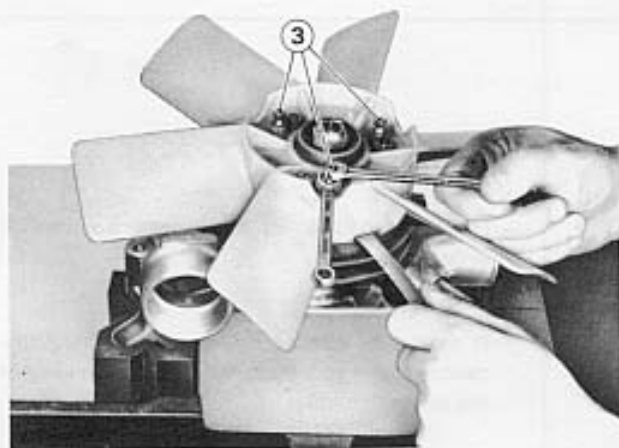
Hub with two separate bearings :

- Replace the paired bearings and the spacer (1).
- Insert the snap ring (2) using the thickest possible snap ring to eliminate the end float.
- Thickness of snap ring available :
1,50 mm - 1,55 mm - 1,60 mm - 1,65 mm
1,70 mm - 1,75 mm - 1,80 mm - 1,85 mm.



- Fit the key on the shaft.
- Position the pulley and the fan hub.
- Clamp the pulley in a vice using the special jaws (AY).
- Tighten the nut to **3.5 m.kg (25 ft.lbs)** and lock it.

WARNING - When fitting a new pump fit a 9 mm thick nut on a hub with two separate bearings.



Checking :

- Check the fan air gap which must be 0,3 mm (0,012") and adjust it if necessary using the 3 square head screws (3).
- Check the operation of the fan on the work bench by connecting the brush holder lead to the + and the pump body to the - terminal of a battery.
- Refit the water pump.
- Start up the engine and, using a thermometer (placed in the radiator), check the fan engagement :
- engagement at $87 \pm 3^{\circ}\text{C}$
- disengagement at $79^{\circ} \pm 3^{\circ}\text{C}$.
- If it does not engage check the fuse F3 and then short the 2 switch terminals : if the fan engages, the switch is defective.
- In the event of operation outside the given temperature range, replace the switch (tightening torque : **4 m.kg (19 ft.lbs)**).

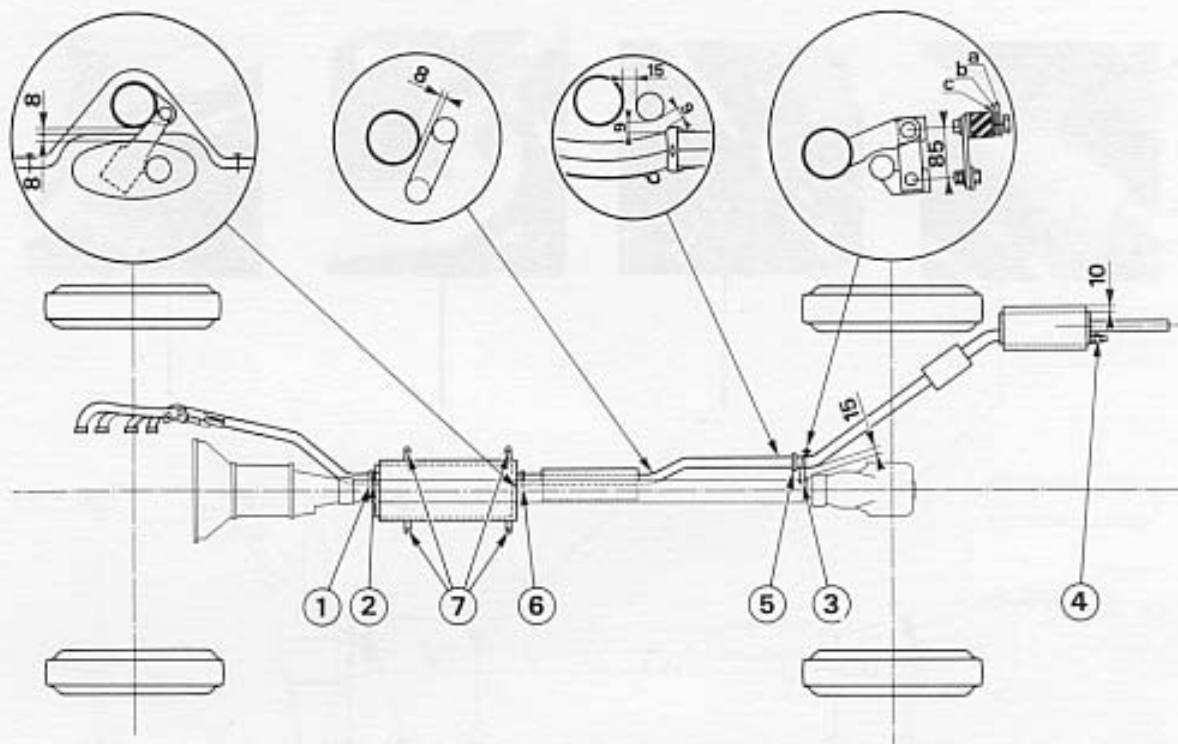
ENGINE
EXHAUST PIPE

1

16 01

504 SALOON

A - CLEARANCE BETWEEN THE PIPE AND THE MECHANICAL COMPONENTS



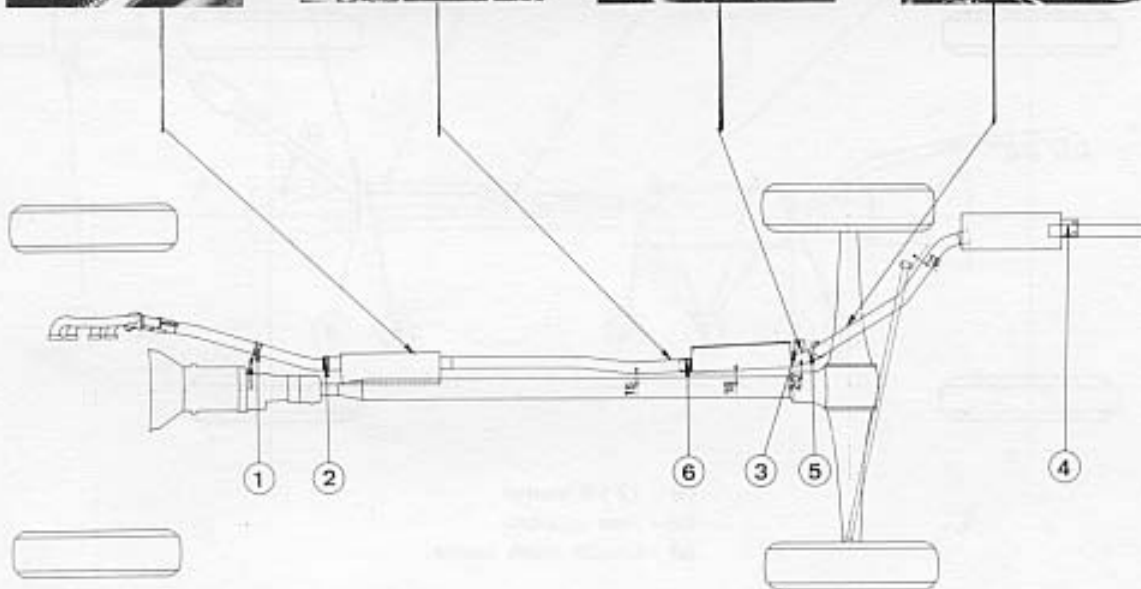
- (a) - 12 H8 washer
(b) - Rear support
(c) - Double tooth washer.

B - PIPE ASSEMBLY

- Assemble the exhaust pipe without tightening the nuts.
- Tighten the 3 nuts on the manifold.
- Position the front silencer and tighten :
 - the clamp (1),
 - the mounting (2) on the torque tube.
- Position :
 - the intermediate pipe and silencer,
 - the rear pipe.
- Tighten in the following order :
 - the rear pipe mounting (3),
 - the rear silencer mounting (4),
 - the intermediate/rear pipe clamp (5),
 - the intermediate pipe clamp (6),
 - the nuts (7) on the dissipation plate, respecting the pipe/plate clearance.

504 FAMILY SALOON AND STATION WAGON

A - CLEARANCE BETWEEN THE PIPE AND THE MECHANICAL COMPONENTS



N.B. - The 504 Station Wagon has no front silencer.

B - PIPE ASSEMBLY

- Assemble the exhaust pipe without tightening the nuts.
- Tighten the nuts on the manifold and the clamp (1).
- Position the front silencer and tighten the clamp (2).
- Position :
 - the intermediate pipe and silencer,
 - the rear pipe.

Tighten in the following order :

- the intermediate mounting (3),
- the rear mounting (4),
- the intermediate/rear pipe clamp (5),
- the intermediate pipe clamp (6).

40⁰⁰
X134

CLUTCH

2

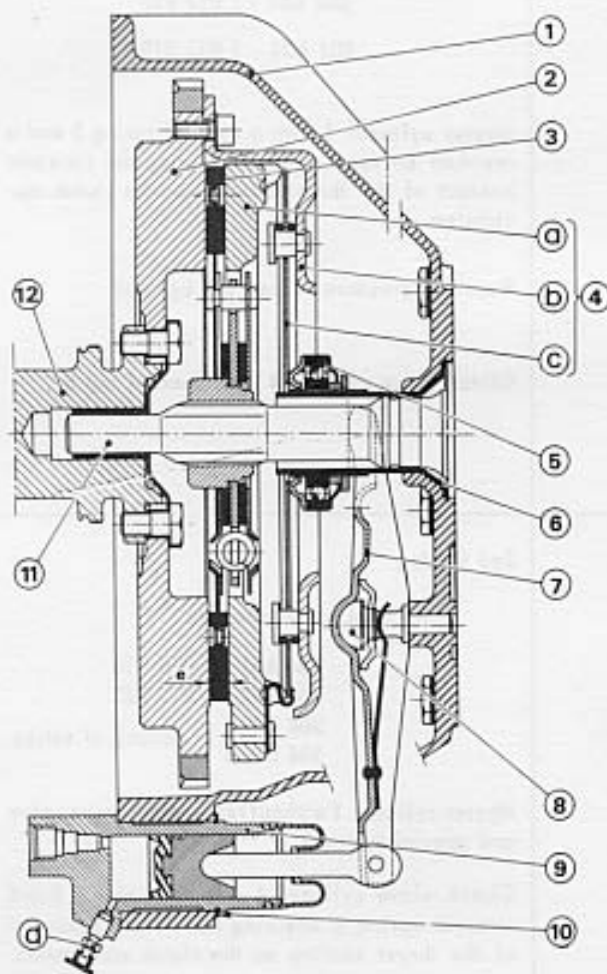
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Hydraulic control	01 02
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Removal and Refitting	02 02(1)
CLUTCH CONTROL	
Tools to be used	04 01
Clutch thrust bearing	04 02
Clutch fork	04 03 (1)
Hydraulic control	04 04 (1)

PEUGEOT

CLUTCH
IDENTIFICATION - CHARACTERISTICS

2

01 01⁽¹⁾



DIAPHRAGM CLUTCH

Mechanism :

Make Ferodo
Type 215 DB
Calibration 420 kg or 410 da.N

Clutch disc :

with disc-Dentel thickness 1.3 mm dimensions :
215 × 145 mm

Thickness *e* of the new clutch disc :

- free thickness : 8.4 ± 0.1 mm
- free thickness after it has been compressed by the mechanism : 8 ± 0.1 mm
- compressed under a load of 450 kg :
 $7.7 + 0.15$ mm
 $- 0.30$ mm

- 1 - Clutch housing
- 2 - Flywheel
- 3 - Clutch disc
- 4 - Mechanism
 - a - clutch pressure plate
 - b - cover
 - c - diaphragm
- 5 - Guided thrust bearing
- 6 - Thrust bearing guiding bush
- 7 - Clutch fork
- 8 - Fork thrust ball
- 9 - Clutch release cylinder with bleed screw *d*
- 10 - Clutch release cylinder retaining ring in housing
- 11 - Drive shaft
- 12 - Crankshaft

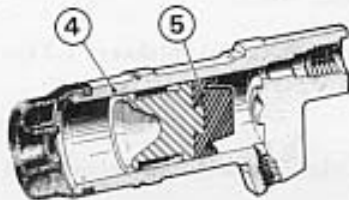
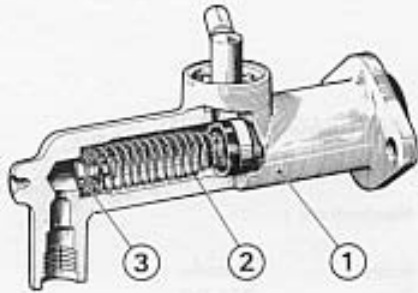
PEUGEOT

0102

2

CLUTCH

IDENTIFICATION AND CHARACTERISTICS



HYDRAULIC CONTROL

1st Fitting

Up to serial numbers :

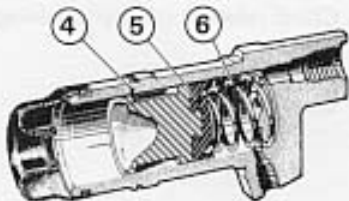
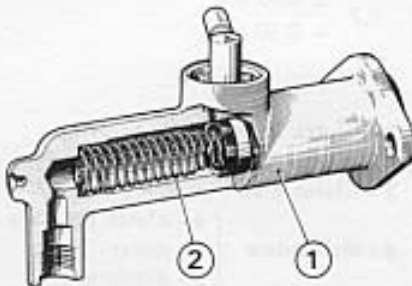
504 A01 - 1 014 917

504 A02 - 1 012 919

Master cylinder 1 with a special spring 2 and a residual pressure valve 3 ensuring the constant contact of the thrust bearing on the clutch mechanism.

Residual pressure value : 0.8 kg/cm²

Clutch slave cylinder 4 with special cup 5.



2nd Fitting

As from serial numbers :

504 A01 - 1 014 918

504 A02 - 1 012 920

504 B02 } beginning of series

504 C02

Master cylinder 1 without residual pressure valve and special spring 2.

Clutch slave cylinder 4 with special cup 5 and internal spring 6 ensuring the constant contact of the thrust bearing on the clutch mechanism.

INTERCHANGEABILITY

The master cylinder, without residual pressure valve, of the 2nd fitting must be fitted together with the new slave cylinder with internal spring.

The slave cylinder of the 2nd fitting can be fitted in replacement of the cylinder of the 1st fitting but the opposite must never be effected.

**CLUTCH
REMOVAL - REFITTING**

2 02 01⁽¹⁾



TOOL TO BE USED

8.0207

- Clutch disc centering tool

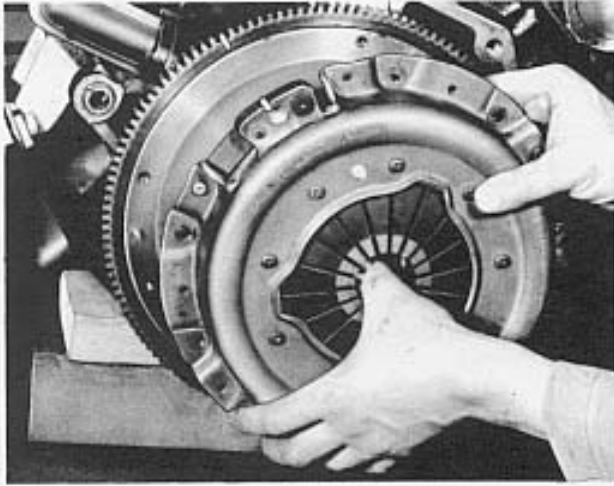
PEUGEOT

02 02¹³

2

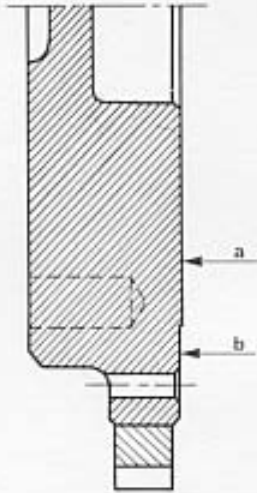
CLUTCH

REMOVAL - REFITTING



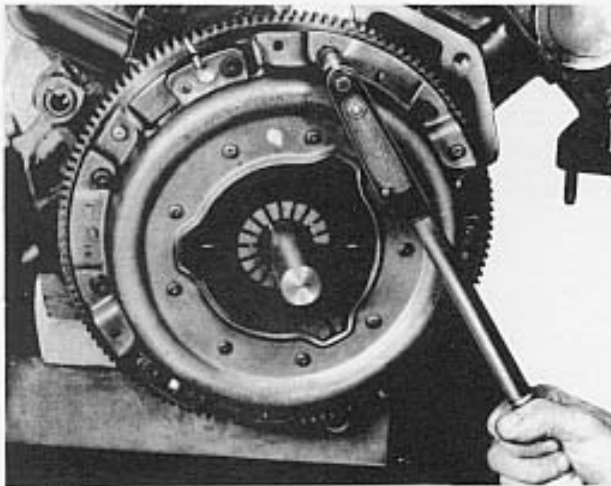
REMOVAL

- Remove the engine as per procedure indicated in class 3, page 02 03, by moving the differential backwards.
- Mark the mechanism in relation with the flywheel.
- Unscrew the six screws using an Allen key of 6 mm across flat.
- Remove the mechanism and the clutch disc.
- Clean, check and replace used parts.



RE-INSTALLATION

- Check the bearing surface of the disc on the flywheel ; if necessary remove and true up the bearing surface a on a lathe. It is also necessary that the same metal thickness be removed on part b of the flywheel receiving the mechanism in order not to alter the diaphragm tension.

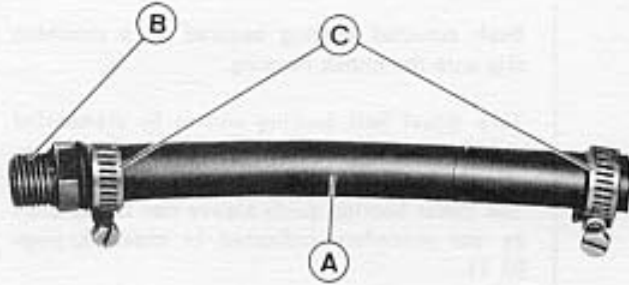


- Position the disc correctly (flexible hub towards the gearbox) and centre it using tool 8.0207.
- Fit the mechanism according to the marks made at the time of removal
- Having replaced the Onduflex washers tighten the screws to 11 ft.lbs (1.5 m.kg).
- Check thrust ball bearing for condition and replace it if necessary (refer to class 2 page 04 01).
- Pack the splines and front part of the drive shaft with Molykote as well as the thrust ball bearing guide sleeve.
- Refit engine ds per procedure indicated in class 3, page 02 11.

CLUTCH
CONTROLS

2

0401



TOOLS TO BE USED

This union must be made in the workshop

0.0204

- Rubber union for bleeding the clutch hydraulic system. This rubber comprises :

A - One hose of 7 × 14 × 170 mm P.N. 1192.02

B - One threaded union of the reservoir plug ARC 50.

C - Two clamps P.N. 1565.17

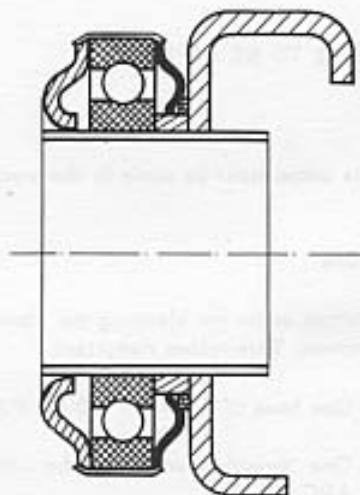
TOOLS RECOMMENDED

Description	Manufacturer
Tester ARC 50	Salzer and Co

PEUGEOT

0402

2

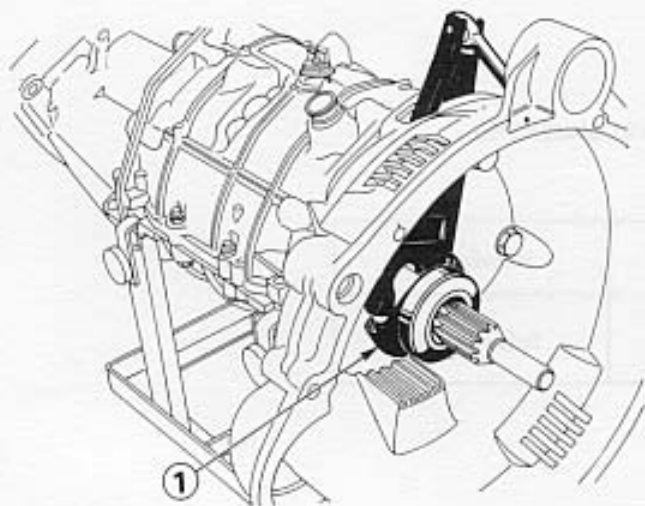
CLUTCH
CONTROLS

1 - CLUTCH THRUST BEARING

Bush mounted bearing secured by a retaining clip onto the clutch housing.

This thrust ball bearing cannot be dismantled and does not require any particular maintenance.

The thrust bearing guide sleeve can be replaced as per procedure indicated in class 3., page 03 11.



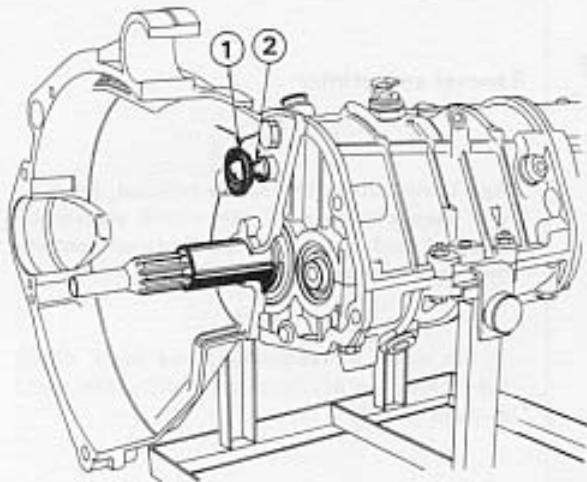
Removal

- Remove the thrust bearing by rotating it anti-clockwise.

Re-installation

- Smear the guide sleeve with Molykote then engage the thrust bearing by positioning the retaining jaw 1 towards the starter motor housing.
- Engage thrust bearing with clutch release fork by rotating the bearing clockwise.

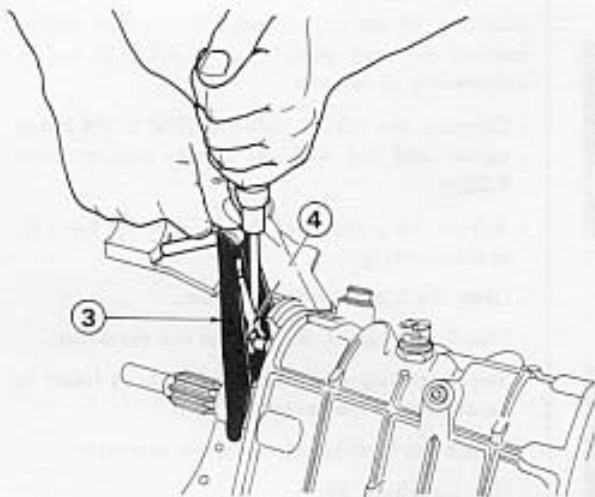
CLUTCH CONTROLS

2 0403⁽¹⁾


II - CLUTCH RELEASE FORK

Removal

- Working from inside the clutch housing remove the thrust bearing and the clutch release fork.
- Remove the rubber cup 1 and the ball head thrust 2. Replace the rubber cup if necessary.



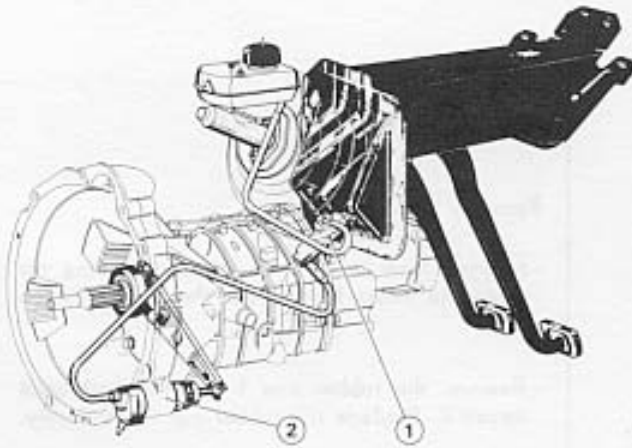
Refitting

- Pack the rubber cup 1 with grease.
- Slide clutch release fork 3 from the inside towards the outside of the housing.
- Use a screw driver to raise clutch release fork backing spring 4.
- Engage the fork on the ball head the spring being backed against the rubber cup.
- Then fit thrust ball bearing.

PEUGEOT

0404⁽¹⁾

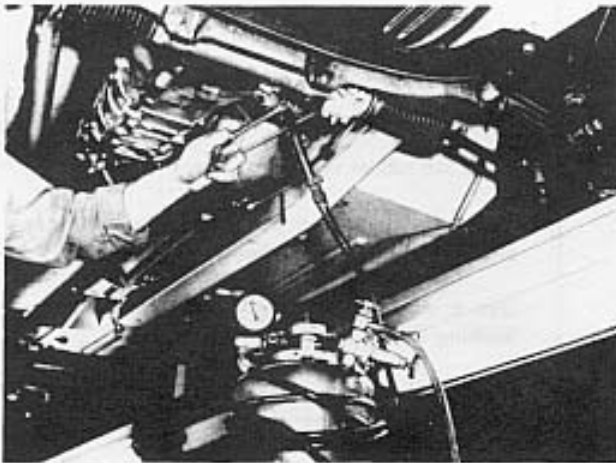
2

CLUTCH
CONTROLS

III - HYDRAULIC CONTROL

Removal and refitting

- Apart from cleanliness, the removal, refitting and reconditioning of the clutch master cylinder 1 and slave cylinder 2 do not require any particular precautions.
- In the event of replacing these parts check their condition of interchangeability (see class 2, page 01 02).



Bleeding

Bleeding of the clutch hydraulic system can be carried out very quickly using ARC 50 and by proceeding as follows :

- Connect the rubber union 0.0204 to the bleed screw and the ARC 50 supply pipe to union 0.0204.
- Adjust the pressure of the fluid to 1.8 kg/cm² approximately.
- Open the bleed screw by a turn.
- Check the rise of the fluid in the reservoir.
- Stop bleeding when the fluid level is found to be correct in the reservoir.
- Check the hydraulic control for operation.
- Use Lockheed 55.
- Drain the system every 12,000 miles (20,000km) or every year.

3

GEARBOX

GEARBOX

3

	Page
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Removal	02 03
Refitting	02 11(1)
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Dismantling	03 02
Re-assembly	03 10
GEAR CHANGE CONTROLS	
Controls adjustment	
- Column gear change lever	06 01(1)
- Floor mounted gear change lever	06 02(1)

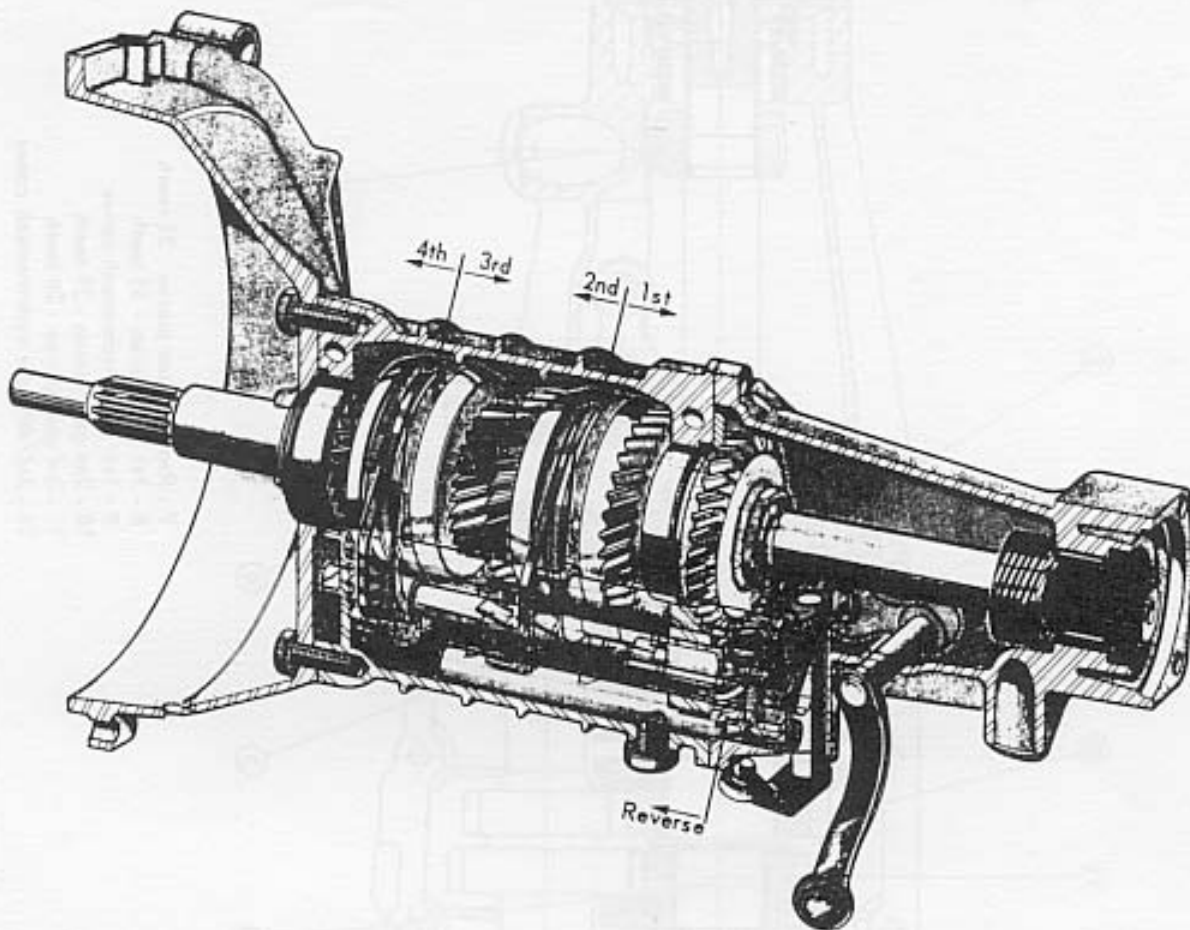
PEUGEOT

6-70

Supersedes the previous summary

504 Workshop Manual - Ref. 1212 E

GEARBOX
IDENTIFICATION AND CHARACTERISTICS



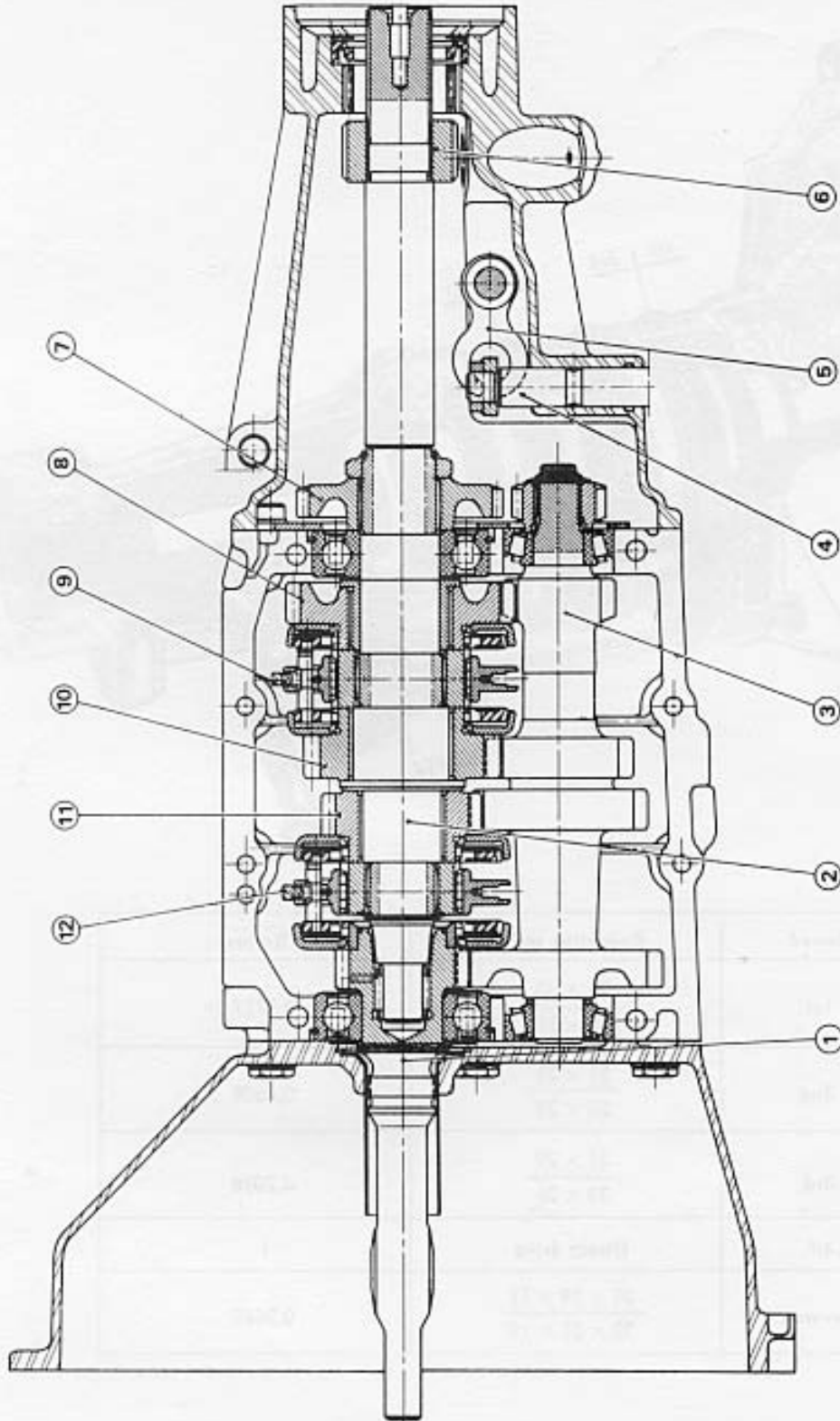
Speed	Reduction ratios	Ratios
1st	$\frac{21 \times 15}{33 \times 35}$	0.2727
2nd	$\frac{21 \times 21}{33 \times 29}$	0.4608
3rd	$\frac{21 \times 29}{33 \times 26}$	0.7098
4th	Direct drive	1
Reverse	$\frac{21 \times 19 \times 13}{33 \times 31 \times 19}$	0.2669

PEUGEOT

0102

3

GEARBOX
IDENTIFICATION AND CHARACTERISTICS

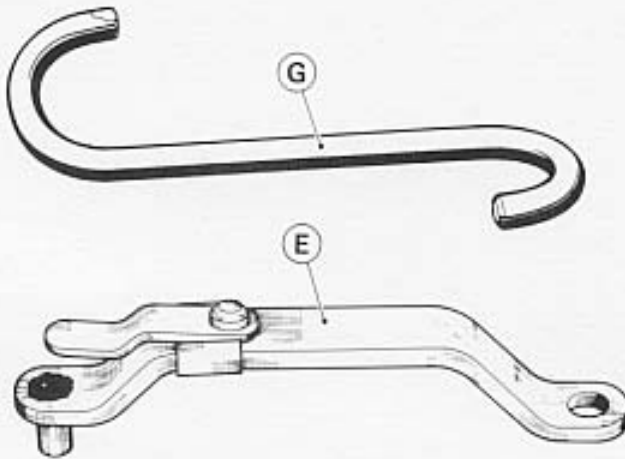


- 1 - Drive shaft
- 2 - Mainshaft
- 3 - Layshaft or intermediate shaft
- 4 - Gear change control
- 5 - Gear selector control
- 6 - Speedometer drive worm 10 threads

- 7 - Reverse gear pinion - 31 teeth
- 8 - 1st gear pinion - 35 teeth
- 9 - 1st/2nd synchronesh cones
- 10 - 2nd gear pinion - 29 teeth
- 11 - 3rd gear pinion - 26 teeth
- 12 - 3rd/4th gear synchronesh cones.

GEARBOX
REMOVAL - REFITTING

3 0201



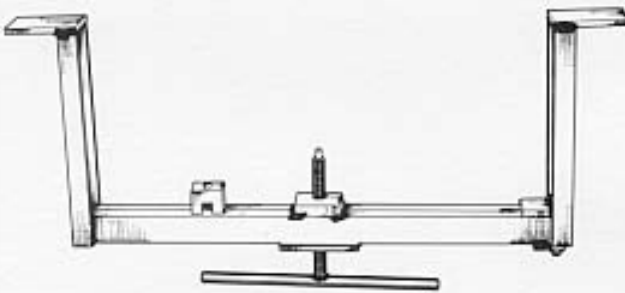
TOOLS TO BE USED

8.0102 X

Engine hoisting apparatus

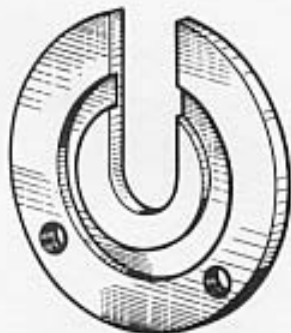
E - Front hook

G - Short hook



8.0125

Engine or gearbox support base

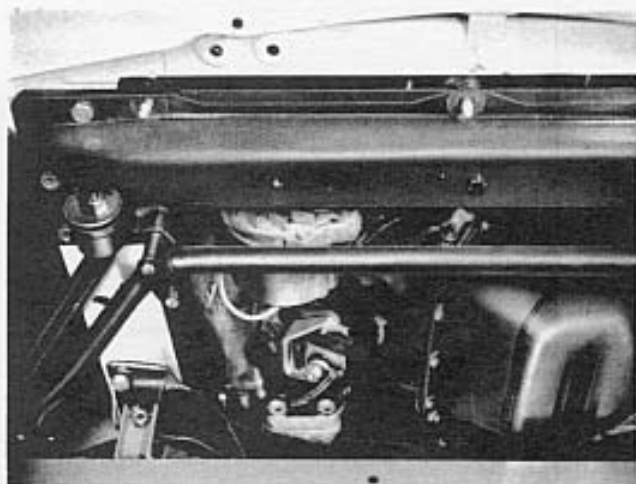


8.0403 S

Propeller shaft holding plate.

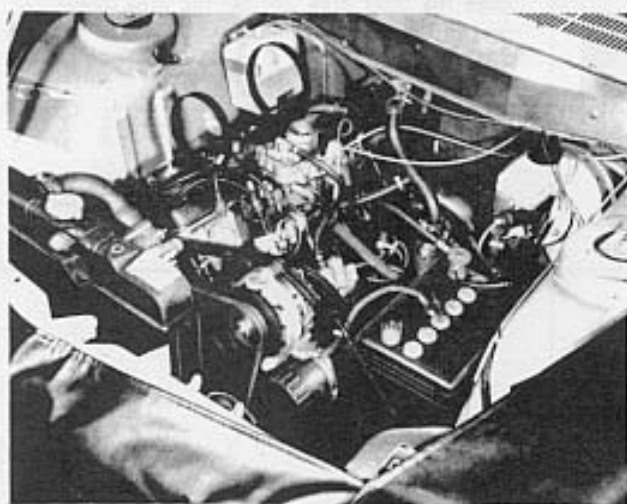
PEUGEOT

GEARBOX REMOVAL

3 02 03


- Place the car on car lift or a pit.
- Fit wing protective covers.
- Disconnect battery.
- Drain the gearbox.
- Remove :
 - ignition coil,
 - radiator upper mounting,
 - both the bolts of the radiator lower mounting on the front crossmember.

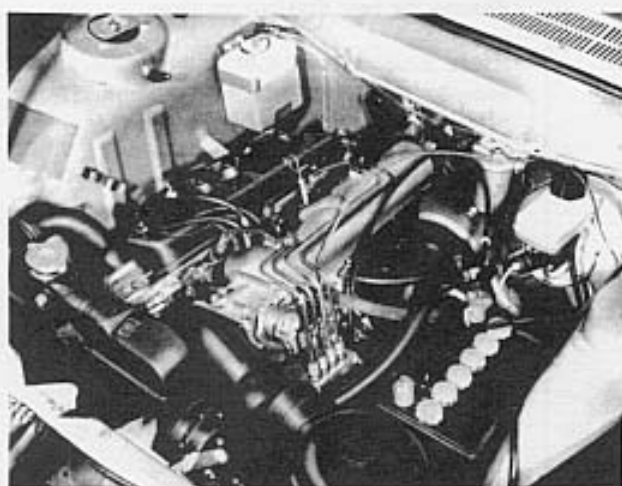
NOTE - There is no need to drain the cooling system.



- Remove the starter motor securing bolts then free the starter motor without disconnecting it.
- Recover the closure plate.

On 504 carburettor engine

- Remove the air cleaner to avoid damaging the regulator cover.



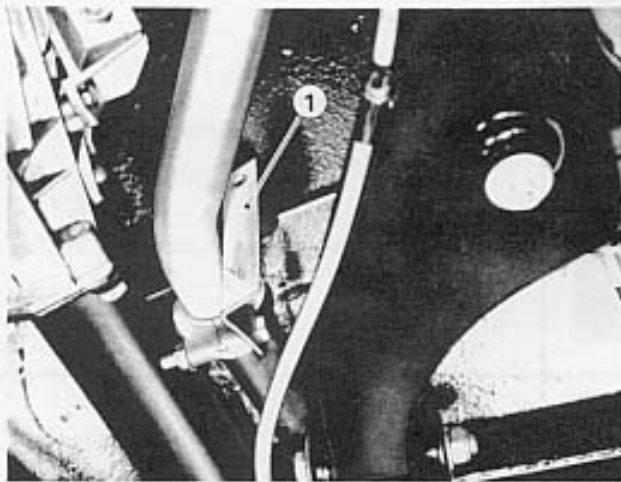
On 504 injection engine

- Disconnect :
 - electro-valve supply pipe,
 - air cleaner to air distribution chamber union.
- Remove the engine oil filler plug without disconnecting the oil vapour recirculating rubber connections.

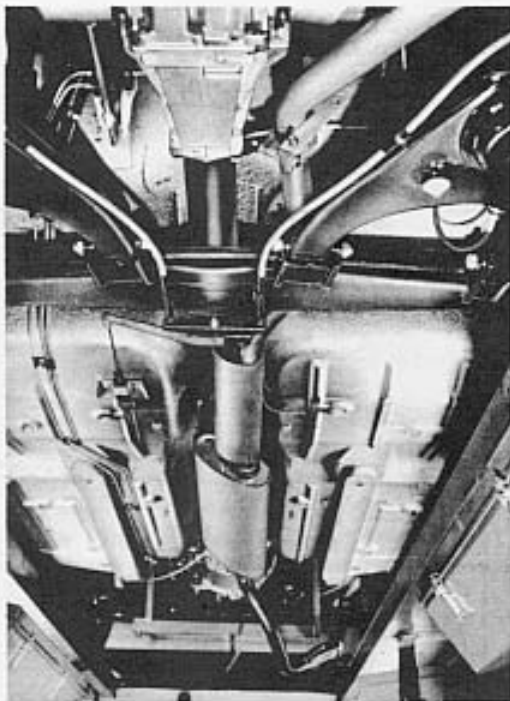
PEUGEOT

0204

3

GEARBOX
REMOVAL

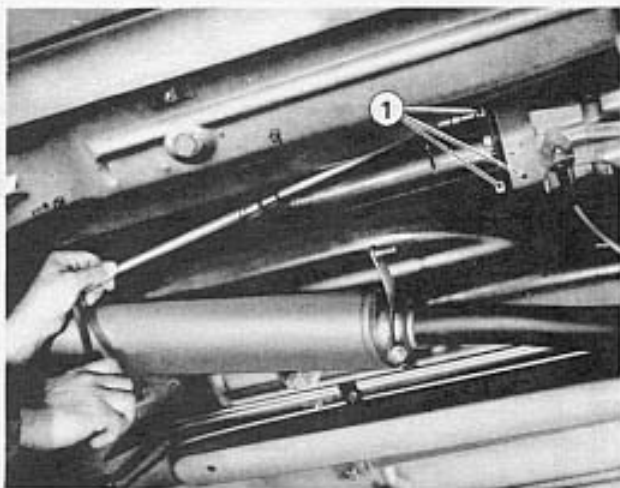
- Remove :
 - the three securing nuts of the exhaust pipe to the manifold,
 - the holding nut of the front silencer on the connecting tube,
 - the upper securing nut of the rear attachment 1 on the connecting tube,
 - the rear attachment on the body.
- Turn the steering wheel clockwise to disengage the front pipe and let the pipe assembly rest on the rear crossmember.



- Remove the heat dissipation plate.
- Place support base 8.0125 under the clutch housing : (the left hand side will be secured after the apparatus has been engaged, exhaust side, then tightly secure the nut).
- Press the end piece against the clutch housing by turning the operating screw without using too much force.

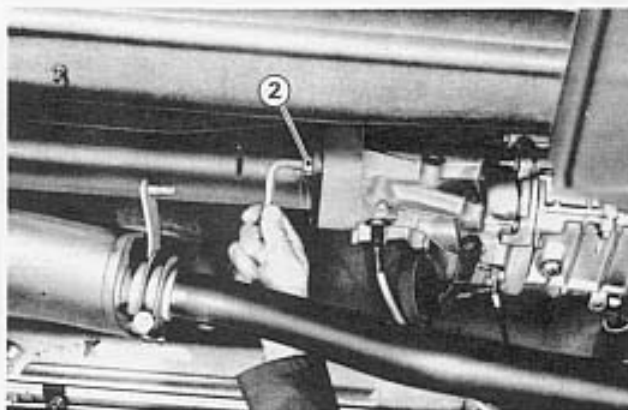
GEARBOX REMOVAL

3

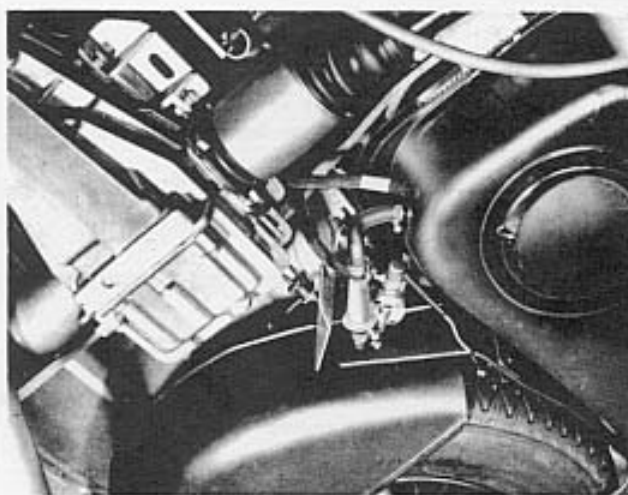
 0205¹¹


- Using the Facom extension J236/ET8 and an articulated "junior" extension remove the three assembling bolts 1 on the connecting tube to the gearbox housing.

N.B. - The allen extension of 8 mm across flat should protrude from the socket by about 10 mm.



- Remove the fourth bolt 2 using a shouldered allen key of 8 mm across flat. (Do not unscrew completely).



- Remove both the Allen bolts used for securing the differential under the suspension cross-member.

On 404 fuel Injection

- In order to be able to move the differential backwards the electric supply pump should be freed from its attachments.

PEUGEOT

0206

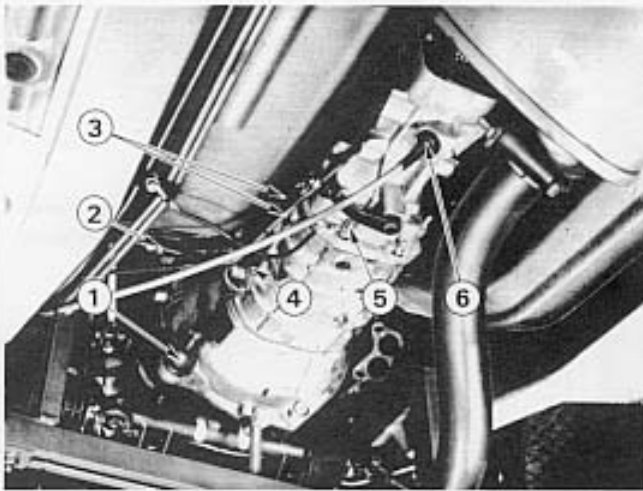
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GEARBOX

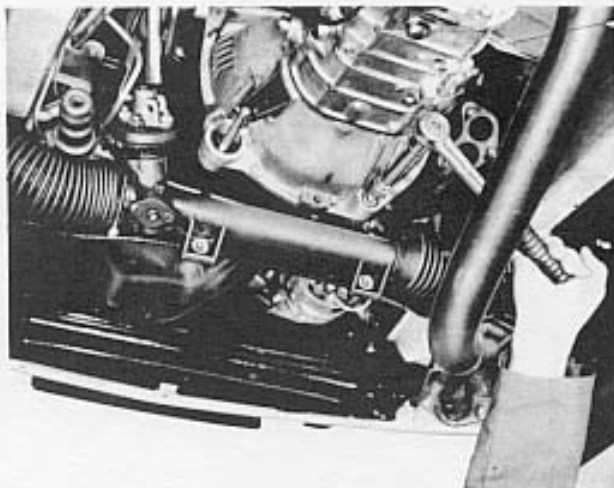
REMOVAL



- Separate the connecting tube from the gearbox by about 20 mm.
- Insert propeller shaft holding plate 8.0403 5 between them.
- Using two M10 × 150 bolts secure the plate at the lower part of the tube.
- Completely remove propeller shaft assembly from the gearbox.



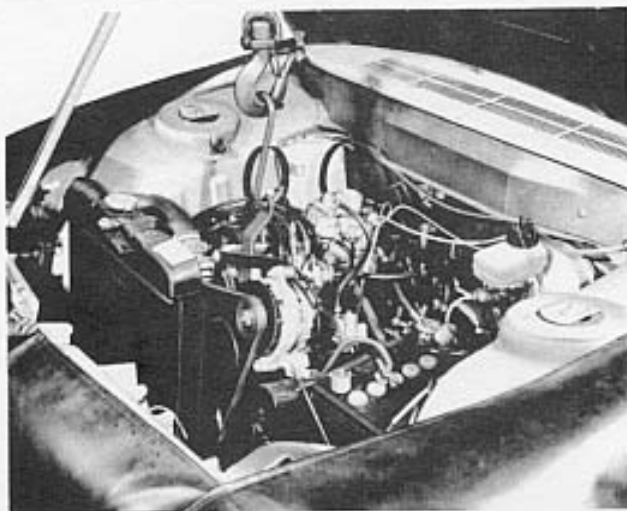
- Release the clutch slave cylinder 1 without disconnecting the pipe.
- Remove the counter lever 2 with its rods 3.
- Disconnect :
 - the reversing light switch leads 4,
 - the earth lead 5 on the gearbox,
 - the speedometer cable 6.



- Remove
 - the flector clamp bolt,
 - the steering gear housing securing bolts.
- Lower the steering gear housing without disconnecting the connecting ball heads.
- Remove the clutch housing closure plates.
- Remove the support base 8.0125
- Remove the three Allen bolts that secure the gearbox to the engine.

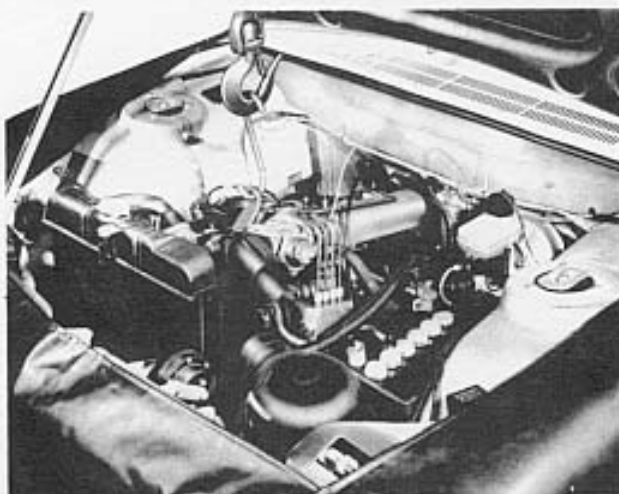
GEARBOX REMOVAL

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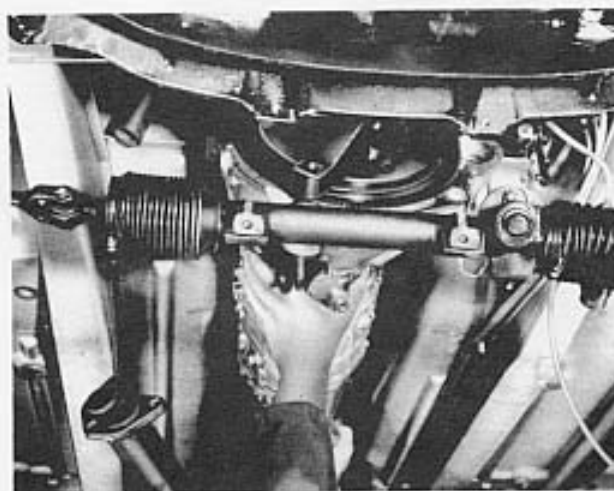
 02 07


- Attach the engine to the hoisting apparatus through the intermediary of short hook G and hook E secured to the front handling hole.

- Rotate the engine on its rubber mounting blocks as far as possible in order to disengage the gearbox under the tunnel.



- Insert a wooden block between the hoisting cross-piece and the radiator in order to prevent the radiator weight from damaging the hoses.



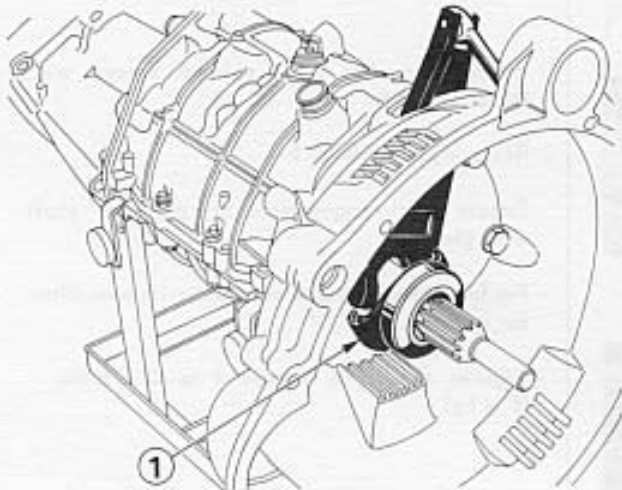
- Release the gearbox by rotating it a quarter of a turn anti-clockwise to allow for the passage of the starter motor boss under the tunnel.

- Remove the clutch thrust ball bearing.

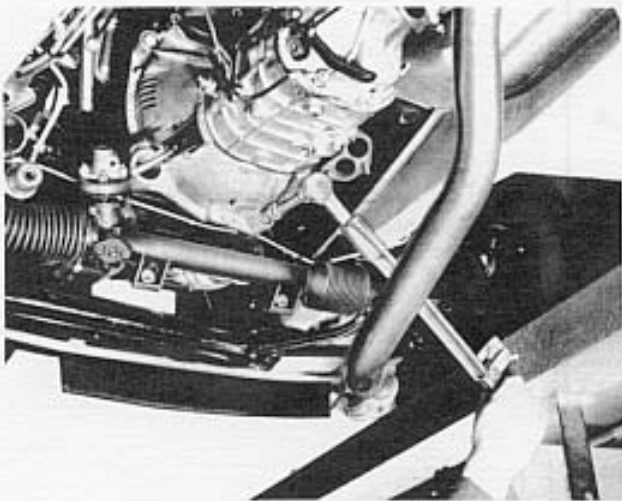
PEUGEOT

GEARBOX REFITTING

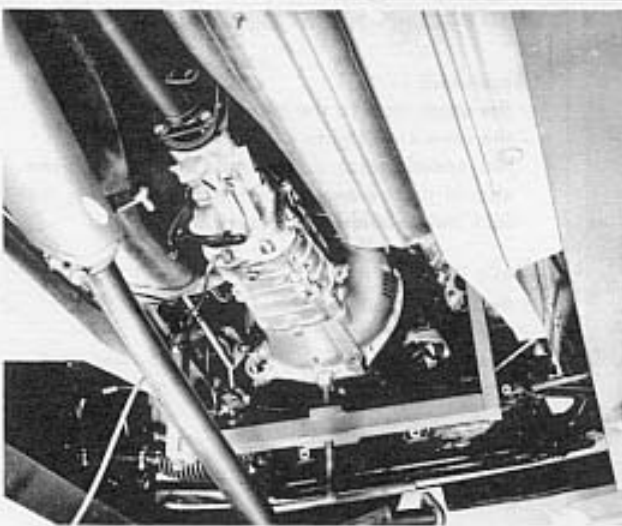
3

 0211⁽²⁾


- Smear Molykote 321 on the front part of the engine drive shaft as well as in the thrust ball bearing guide sleeve.
- Engage the thrust ball bearing by positioning its retaining jaw 1 towards the starter motor housing.
- Engage thrust bearing with clutch release fork by rotating the bearing clockwise.



- Properly position the gearbox and engage the engine drive shaft with the clutch disc without using too much force.
- Secure the gearbox by means of three Allen screws equipped with new Grower washers. The tightening torque is 40 ft.lbs (5.5 m.kg).

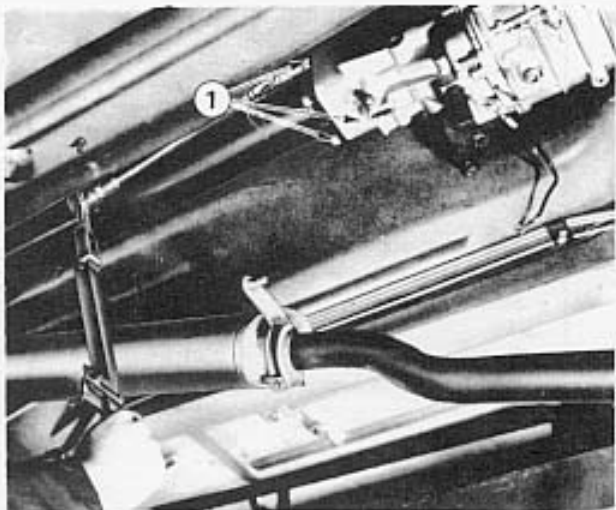


- Remove the block placed under the radiator.
- Lower the hoisting apparatus and remove hooks E and G.
- Place the support base 8.0125 as for removal.
- Align the engine-gearbox assembly with the propeller shaft by means of the operating screw.
- Smear MULTIPURPOSE GREASE H on the propeller shaft splines.

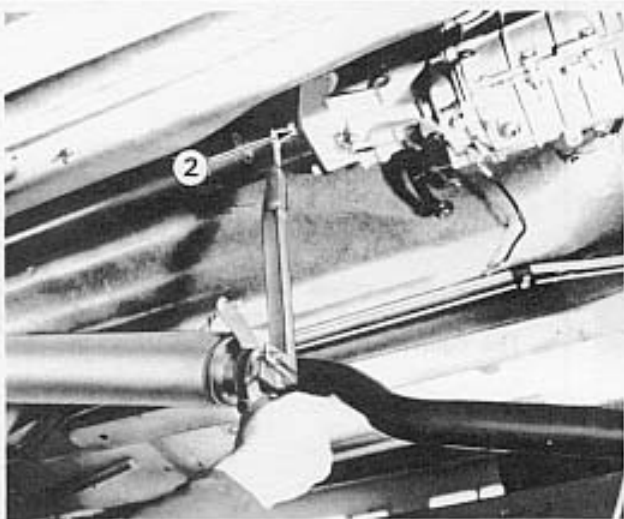
PEUGEOT

0212⁽¹⁾

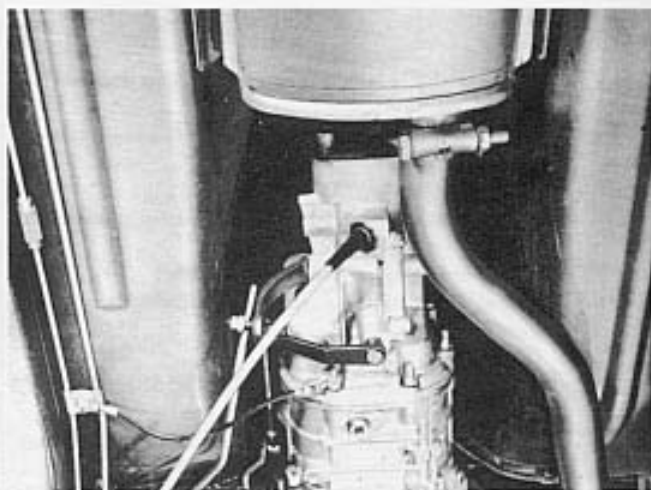
3

GEARBOX
REFITTING

- Engage propeller shaft splined sleeve with the drive shaft.
- Remove plate 8.0403 S.
- Ensure final engagement of propeller shaft with gearbox.
- Fit four Allen screws equipped with new Bloc-for washers.
- Tighten the three screws 1 to 43.5 ft.lbs (6 m.kg).



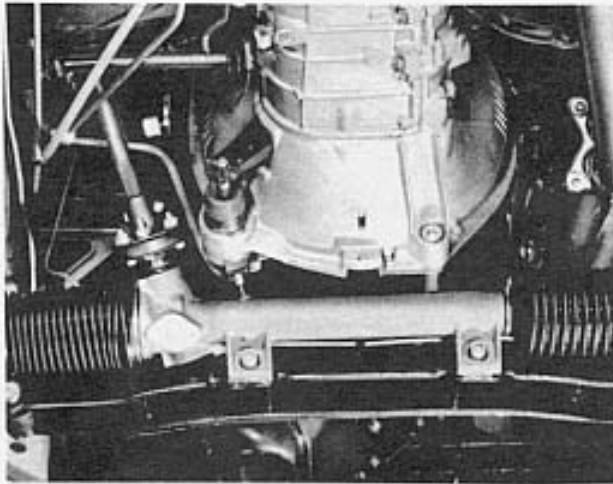
- Using an hexagonal extension of 8 mm and the torque wrench equipped with a fork extension tighten the fourth screw 2 to 43.5 ft.lbs (6 m.kg).
- Remove the support base 8.0125.



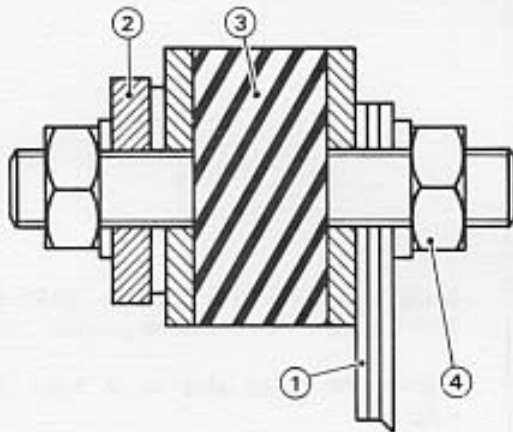
- Reconnect :
 - the earth lead to the gearbox,
 - the reversing lights switch leads,
 - the speedometer drive cable (the drive worm should just be engaged on the pinion, only the lock nut should be tightened).
- Refit :
 - the counter lever,
 - the control rods,
 - the drain plug equipped with a new seal, tightening torque 20 ft.lbs (2.75 m.kg).

GEARBOX REFITTING

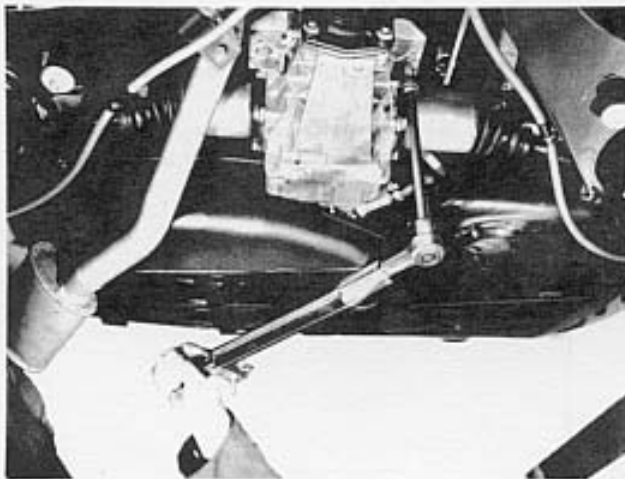
3

 02 13


- Refit :
 - the clutch housing closure plates,
 - the clutch release slave cylinder,
 - the steering gear housing (refer to class 7, page 02 03).
- Secure the radiator to the front crossmember and tighten to 7.2 ft.lbs (1 m.kg).



- Secure the heat dissipation plate under the car floor.
- Refit the exhaust pipe assembly and use a new «metalloplastic» gasket.
- Secure the rear attachment 1 to the connecting tube lug 2 as per drawing opposite.
- Ensure that the rubber ring 3 does not turn while tightening nut 4.



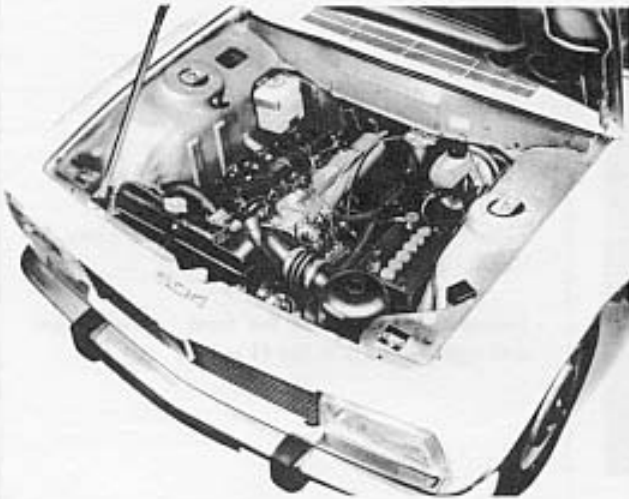
- Using the two Allen screws equipped with new Onduflex washers secure the differential to the suspension crossmember.
 - Tighten the bolts to 27 ft.lbs (3.75 m.kg).
- On 504 fuel injection
- Secure the electric fuel supply pump.

PEUGEOT

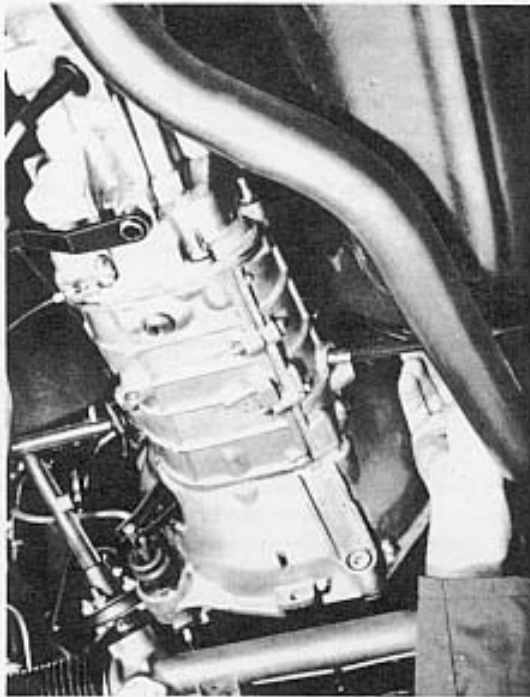
02 14

3

GEARBOX REFITTING



- Secure the radiator at its upper part.
- Fit :
 - the clutch housing upper left hand closure plate,
 - the starter motor of which the securing bolts should be tightened to 14.5 ft.lbs (2 m.kg).
- Refitting is a reversal of the removal procedure.



- Using 2 pints (1.150 l) of ESSO EXTRA MOTOR OIL 20 W 30/40, fill the gearbox.
- Tighten the filling plug to 20 ft.lbs (2.75 m.kg).
- Ensure correct gear selector movement and adjust the controls if necessary (refer to class 3, page 06 02).
- Check clutch control for correct operation.
- Road test the vehicle and then check the housings and the gearbox plugs for leaks.

GEARBOX
DISMANTLING - REFITTING

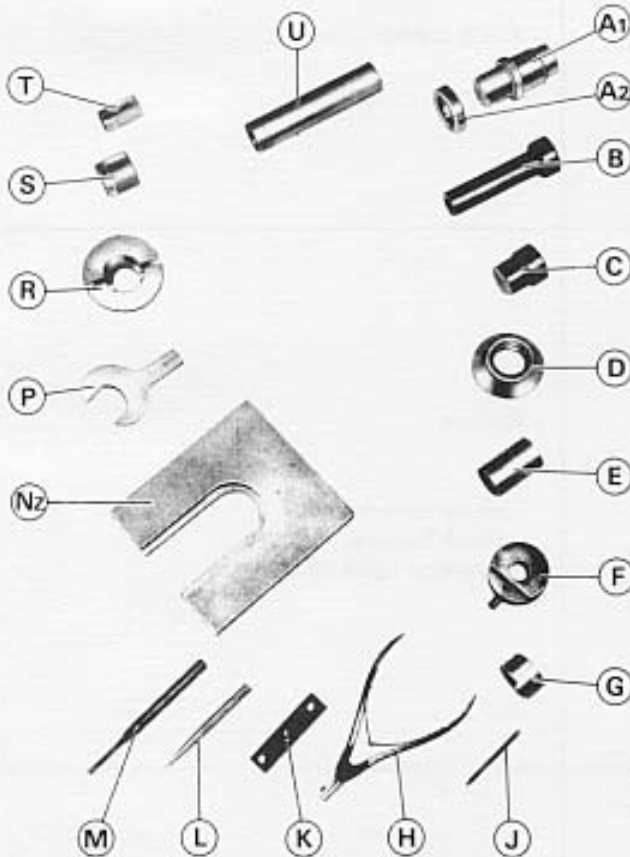
3 0301



TOOLS TO BE USED

8.0311

Gearbox support base.

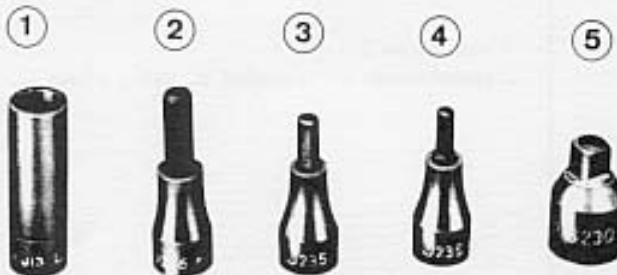


8.0310 Z

Components of the BA7 gearbox.

- A** - Tool set, rear housing bearing and «SPI» seal fitting and removing comprising :
 A1 - Plug, NADELLA bearing fitting and removing
 A2 - Ring, «SPI» seal fitting
- B** - Gauge, 2nd gear pinion
- C** - Gauge, 4th gear synchronizer or synchro-meshcone
- D** - Ring, fitting
- E** - Drift, mainshaft lock ring fitting
- F** - Support, dial indicator mounting (micro-meter)
- G** - Spacer
- H** - Pliers, speedometer drive socket removing and snap ring fitting.
- J** - Extension, dial indicator finger
- K** - Bar, safety
- L** - Tool, staking
- M** - Drift, plastic covered
- NZ** - Plate, backing, hydraulic press
- P** - Wrenchend, mainshaft nut
- R** - Shells, intermediate gearshaft bearing removing
- S** - Drift, intermediate gearshaft bearing fitting.
- T** - Drift, intermediate gearshaft snap ring fitting
- U** - Drift, drive shaft bearing and snap ring fitting.

PEUGEOT



TOOLS RECOMMENDED

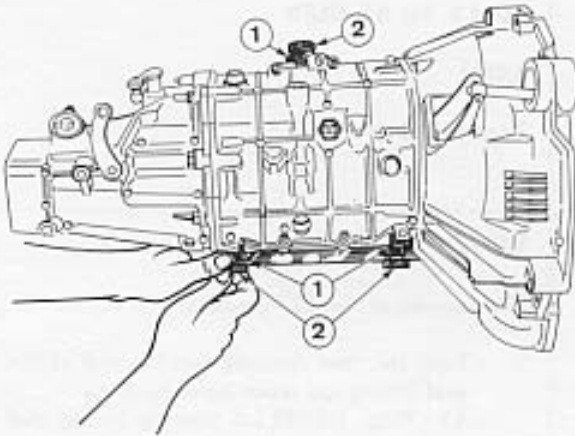
Facom standard tools

- 1 - Socket, «long», 13 mm (J13 L)
- 2 - Socket, external hexagonal (J 236/ET 8)
- 3 - Socket, external hexagonal (J 235/ET 6)
- 4 - Socket, external hexagonal (J 235/ET 5)
- 5 - Socket, adaptor, 1/2" - 3/8" (S 230)

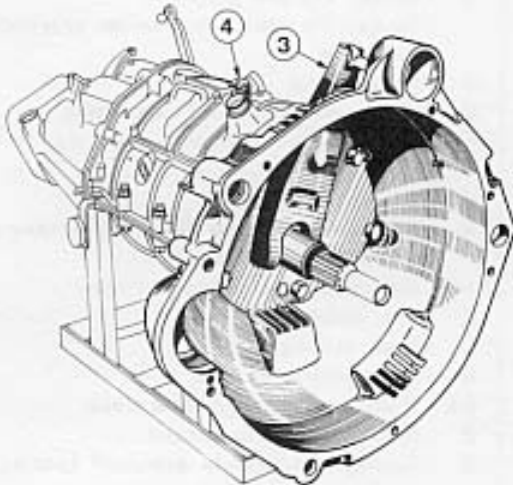
The above tools are not supplied with the tool chest, but compartments are provided for storing them.

03 02

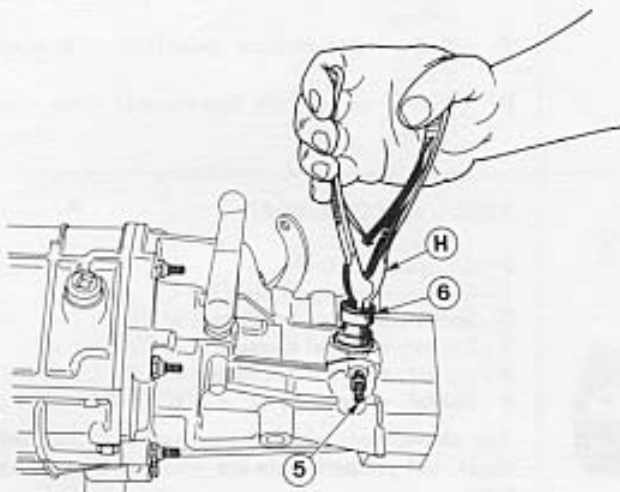
3

GEARBOX
DISMANTLING

- Tightly secure gearbox to support base 8.0311 as indicated on drawing opposite, by pressing support brackets 1 against the corresponding pads on the housing.
- Firmly tighten screws 2.



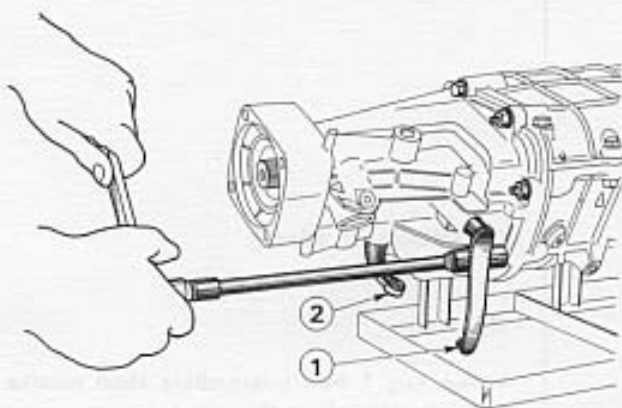
- Remove :
- clutch release fork 3
- clutch housing
- reversing lights switch 4



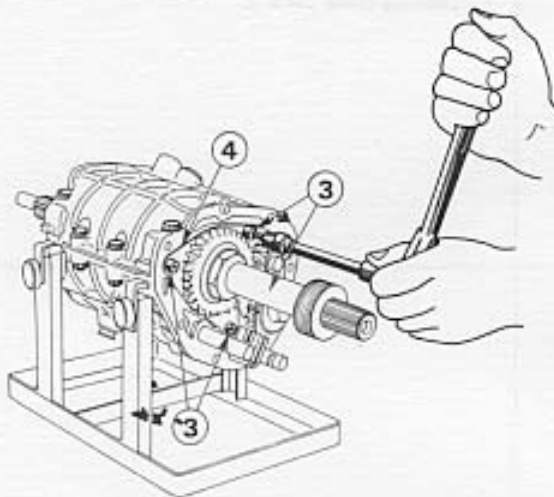
- Remove :
- stop screw 5
- speedometer drive socket 6, using pliers H.

GEARBOX
DISMANTLING

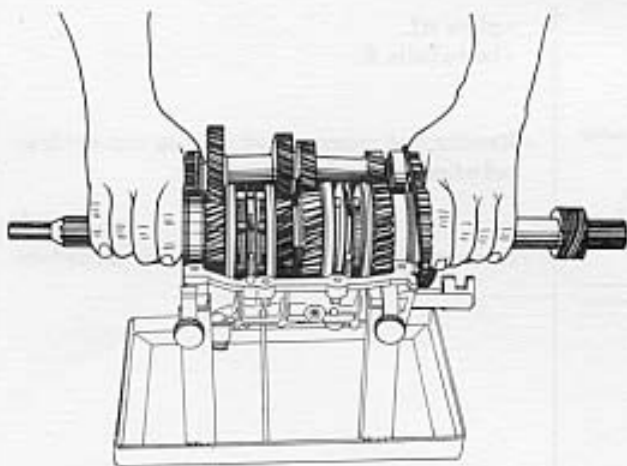
3 03 03



- Reverse the position of the gearbox on the support base, and firmly tighten all the three knurled bolts.
- Set control lever 1 to neutral and pull selector lever 2 fully to the rear.
- Remove all seven housing securing bolts (use wrench equipped with 13 mm long socket, Facom J 13 L).



- Remove rear housing, using a mallet if required.
- Remove :
 - all four Allen screws 3 on bearing lock plate
 - 4 use a 6 mm Allen key, Facom J 235/ET 6,
- all eight half housings assembling screws,
- the upper housing.



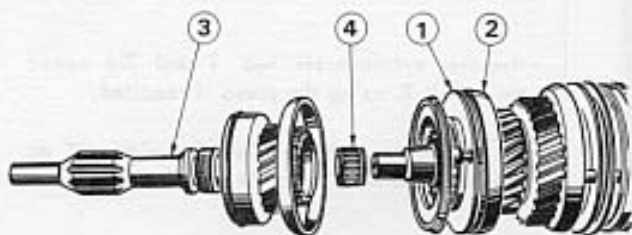
- Lift off and remove gear and pinion assembly.

PEUGEOT

GEARBOX DISMANTLING

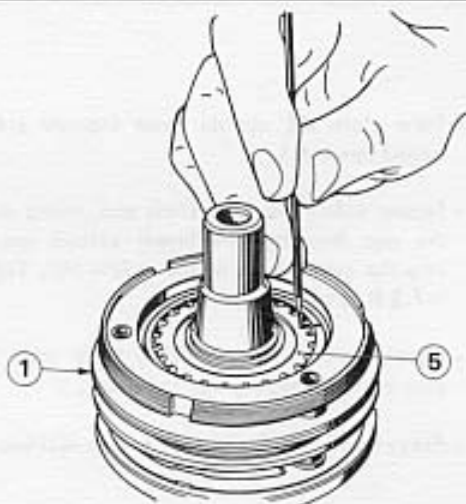
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03 05



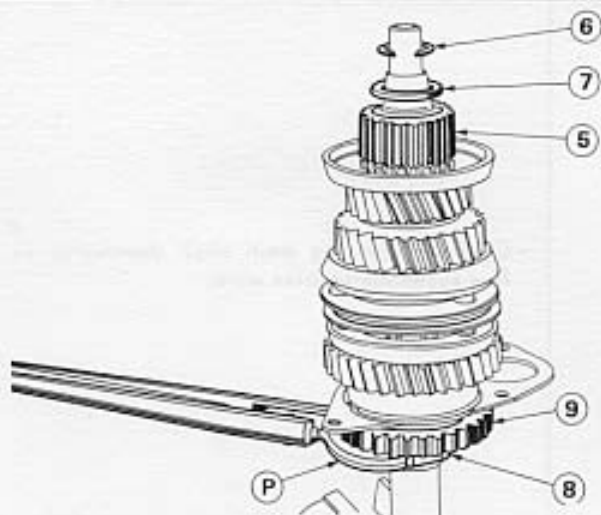
DRIVE SHAFT AND MAINSHAFT

- Engage 3rd/4th speed sliding gear 1 into 3rd speed synchronizer cone 2 and hold it in this position.
- Separate drive shaft 3 from mainshaft.
- Remove needle bearing cage 4 from inside of drive shaft.



MAINSHAFT

- Remove grease from 3rd/4th speed synchronizer without disengaging the dog gear.
- Hold mainshaft in a vice.
- Mark the position and direction of rotation of 3rd/4th speed sliding gear with respect to its hub 5 using a sharp brass rod.
- Remove sliding gear 1.

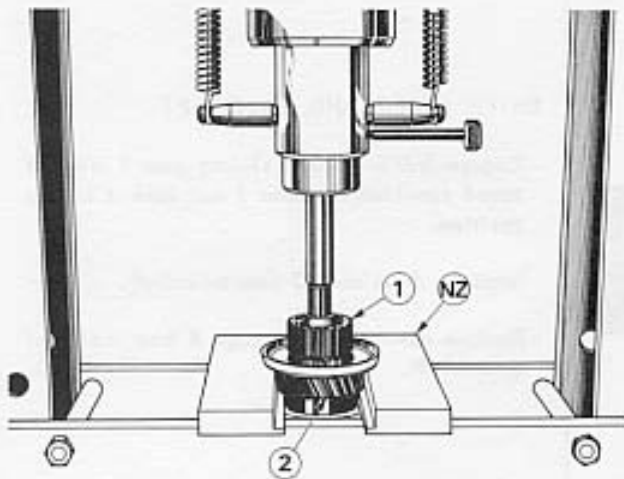


- Remove snap ring 6 and spring washer 7 from 3rd/4th speed synchronizer hub 5.
- Fully unscrew nut 8 while holding mainshaft reverse pinion 9 with wrench P equipped with Facom SJ 214, extension.

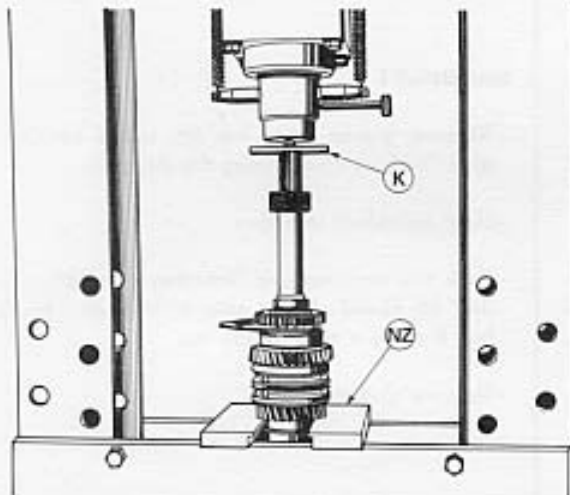
PEUGEOT

03 06

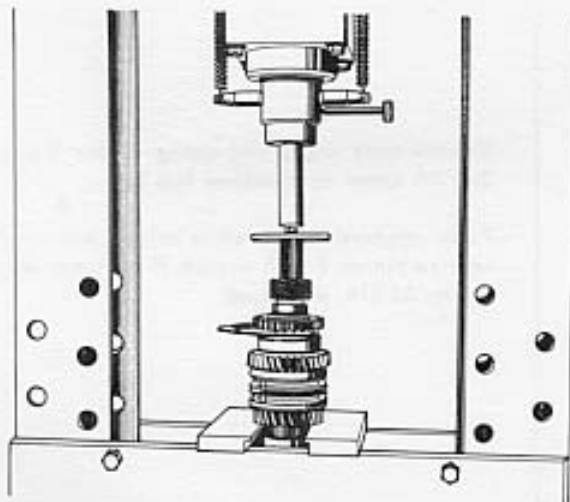
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GEARBOX
DISMANTLING

- Remove synchronizer hub 1 and 3rd speed mainshaft 2, using the press if required.
- In such a case, install backing plate NZ on press table with wider side turned upwards.



- Turn plate NZ upside down (narrow side is turned upwards).
- Secure safety bar K to shaft end, using one of the rear housing attachment screws inserted into the centre hole of the safety bar. Tighten to 7.2 ft.lbs (1 m.kg).
- Install mainshaft on backing plate with 2nd gear pinion pressing against plate.
- Press mainshaft downwards to free rear bearing.

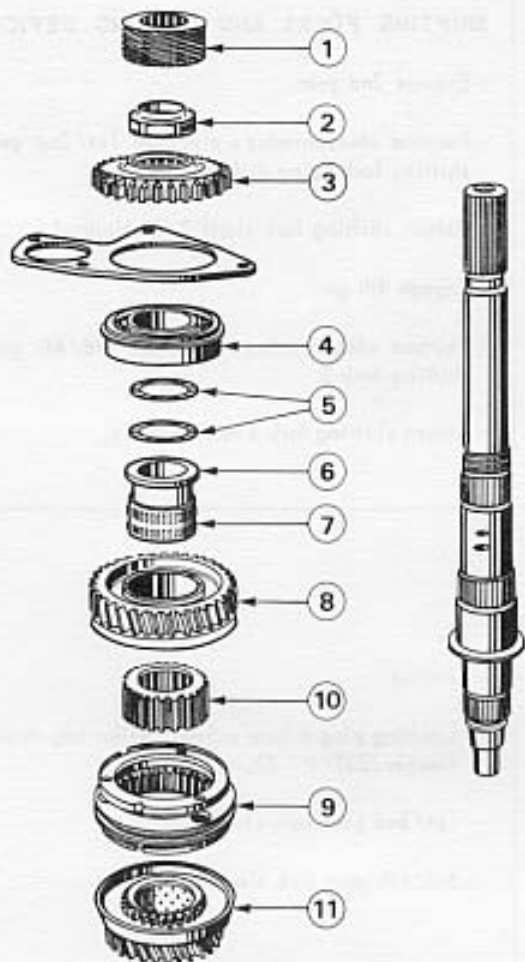


- Continue pressing main shaft downwards to free speedometer drive worm.

GEARBOX
DISMANTLING

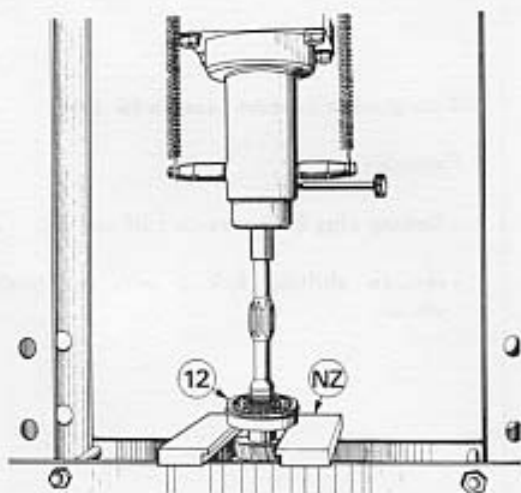
3

0307



- Remove safety bar K
- Remove the following parts in the indicated order:
 - speedometer drive worm 1,
 - nut 2,
 - reverse pinion 3,
 - rear bearings backing plate,
 - rear bearing 4,
 - adjusting shim stack 5,
 - 1st speed spacer bushing 6,
 - needle bearing cage 7,
 - mainshaft 1st speed pinion 8,
 - 1st/2nd speed synchronizer, without removing sliding gear 9 from hub 10,
 - mainshaft 2nd speed 11.
- Remove grease from parts 9 and 10 and mark their respective positions.

PEUGEOT

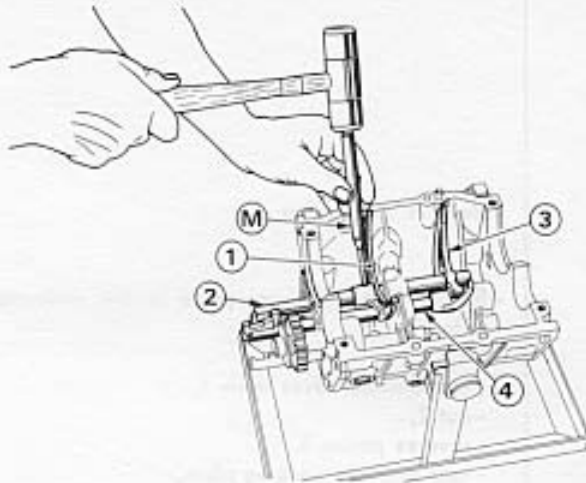


- Drive shaft
- Remove snap ring, using pliers H.
 - Remove the spring washer.
 - Remove bearing 12, using plate NZ, with narrow side turned upwards.
 - Recover :
 - bearing 12,
 - deflector washer,
 - adjusting shims.

03 08

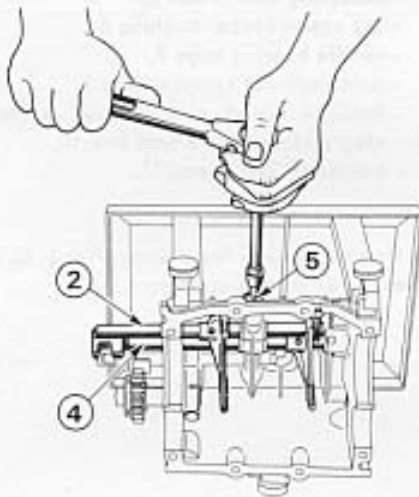
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GEARBOX DISMANTLING

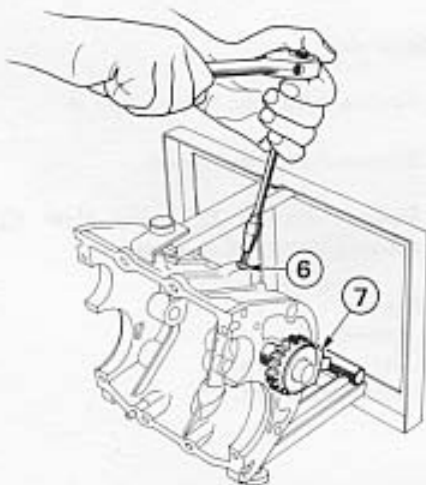


SHIFTING FORKS AND LOCKING DEVICES

- Engage 2nd gear.
- Remove «Mecanindus» pin from 1st/2nd gear shifting fork using drift M.
- Return shifting fork shaft 2 to «Neutral».
- Engage 4th gear.
- Remove «Mecanindus» pin from 3rd/4th gear shifting fork 3.
- Return shifting fork 4 to «Neutral».



- Remove :
- Locking plug 5 (use a 5mm Allen key type Facom J235/ET 5).
- 1st/2nd gear fork shaft 2.
- 3rd/4th gear fork shaft 4.

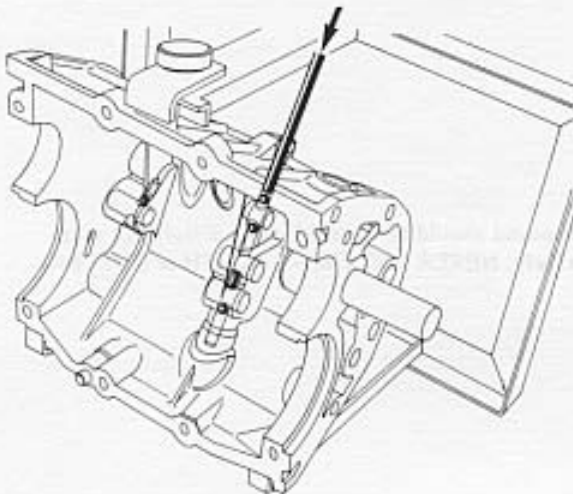


- Turn gearbox support base on its side.
- Remove :
- locking plug 6 for reverse shifting fork.
- reverse shifting fork 7 with countershaft pinion.

GEARBOX
DISMANTLING

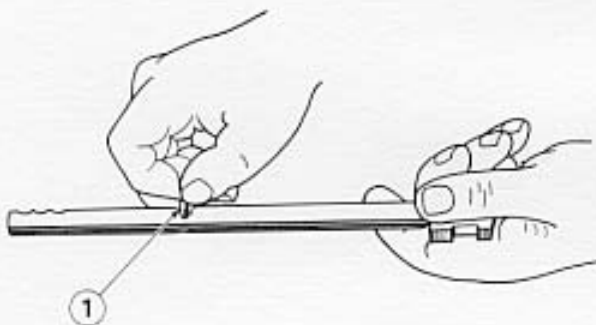
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03 09

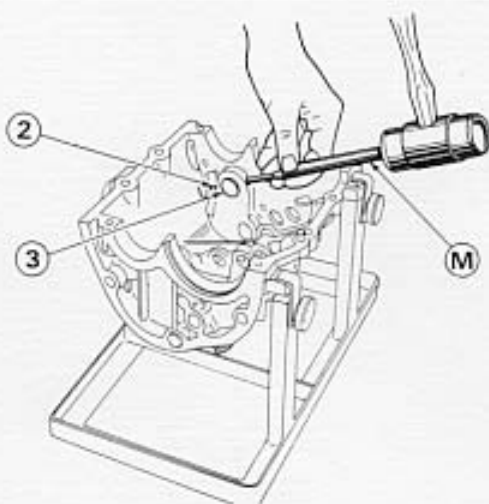


- Recover :
- 3 locking springs,
- 4 balls,
- 1 locking finger.

N.B. - If the balls are «stuck» in the passage, use a 7 mm dia., 230 mm long rod to free them.



- Remove locking needle 1 from 3rd/4th speed fork shaft.



- Use drift M to dislodge «Spiral» pin 2 from reverse pinion shaft 3, and to force this shaft towards the inside of the housing.

PEUGEOT

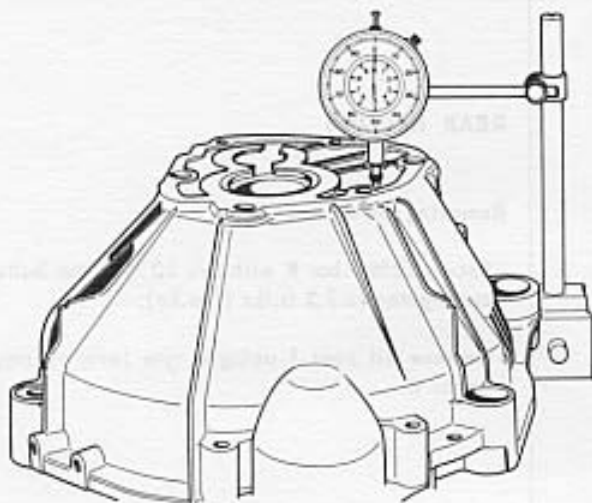
Preliminary conditions

- All parts must be perfectly clean
- Mating surfaces smeared with «Perfect seal» sealing compound should be cleaned using a fluffless cloth moistened with industrial grade methylated spirit **exclusively**. NEVER USE EMERY CLOTH or CUTTING TOOLS.
- The following parts must be replaced systematically :
 - snap rings used on shafts,
 - spring washers,
 - Mecanindus pins,
 - Spiral pin (reverse shaft),
 - mainshaft nut,
 - mainshaft rear oil seal,
 - speedometer drive socket «0» seal ring,
 - all Onduflex and Blocfor washers,
 - engine drive shaft bearing deflector washer.
- All components should be smeared with ESSO EXTRA MOTOR OIL 20 W 30/40 before installing them.

GEARBOX
RE-ASSEMBLY

3

0311

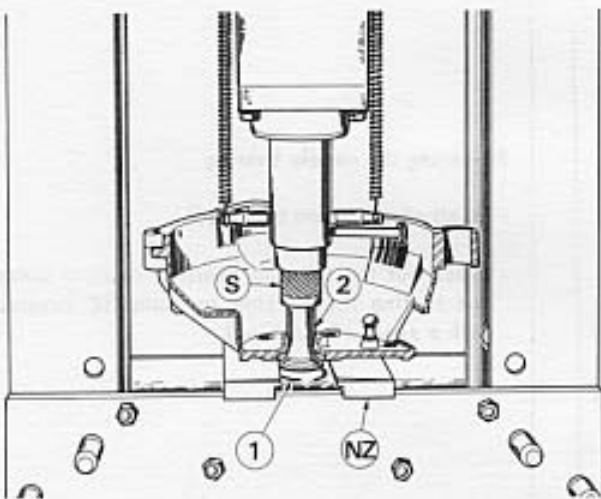


PREPARING THE HOUSINGS

CLUTCH HOUSING

Use a flat surface to check the parallelism of the front and rear faces of the clutch housing ; proceed as indicated on drawing opposite.

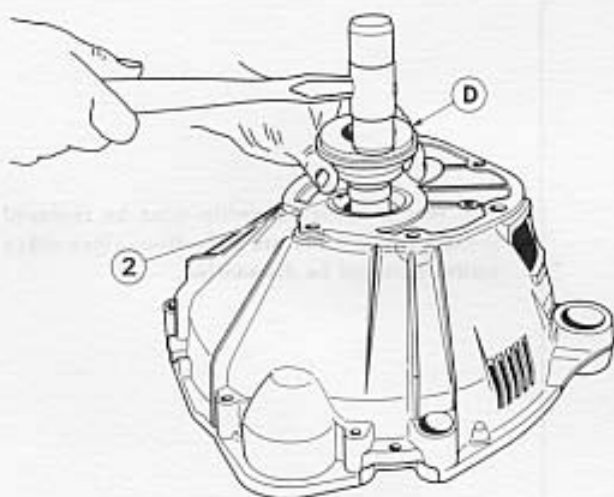
The housing must be replaced if the lack of parallelism exceeds 0.10 mm.



Replacing the guide sleeve

DISMANTLING

- Remove snap ring 1 from guide sleeve 2 using a screwdriver.
- Remove guide 2 by forcing it out with a press if required ; use :
 - plate NZ, covered with cardboard,
 - driver S.



RE-ASSEMBLY

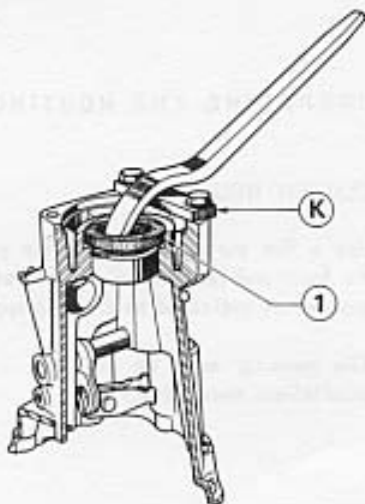
- Place the housing on the bench.
- Insert guide sleeve 2 and force it in place using installing ring D and a mallet.
- Install a new snap ring.

PEUGEOT

03 12

3

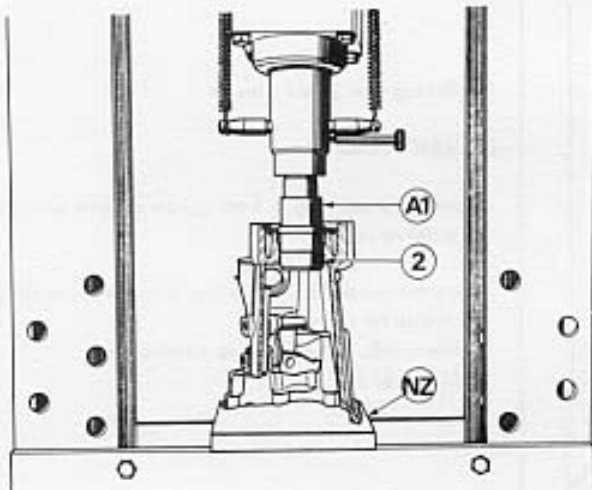
GEARBOX RE-ASSEMBLY



REAR HOUSING

Removing the oil seal

- Secure safety bar K with two 10 × 25 mm bolts and tighten to 7.2 ft.lbs (1 m.kg).
- Remove oil seal 1 using a tyre lever resting on bar K.



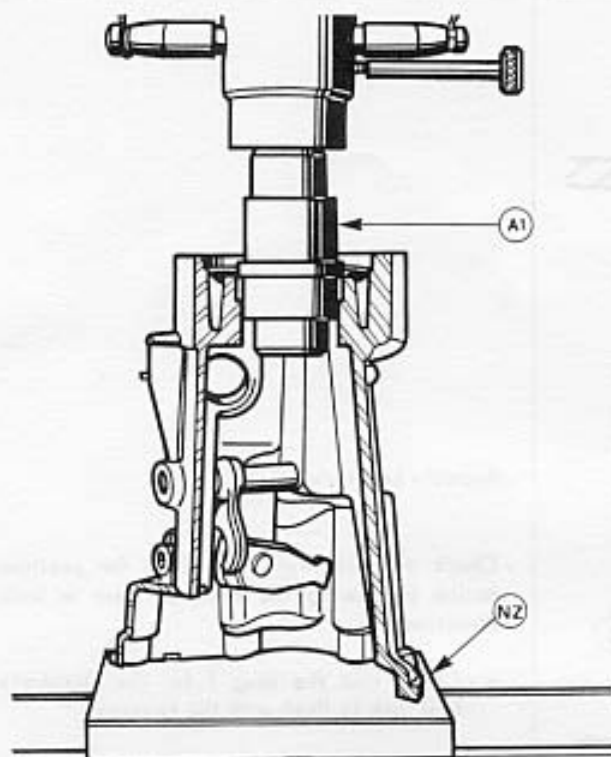
Removing the needle bearing

- Insert plug A1 into bearing 2.
- Press out the Nadella bearing, using a press and resting the housing on plate NZ covered with a sheet of cardboard.

- The rear housing assembly must be replaced if the gear controls are defective, since these controls cannot be dismantled.

GEARBOX
RE-ASSEMBLY

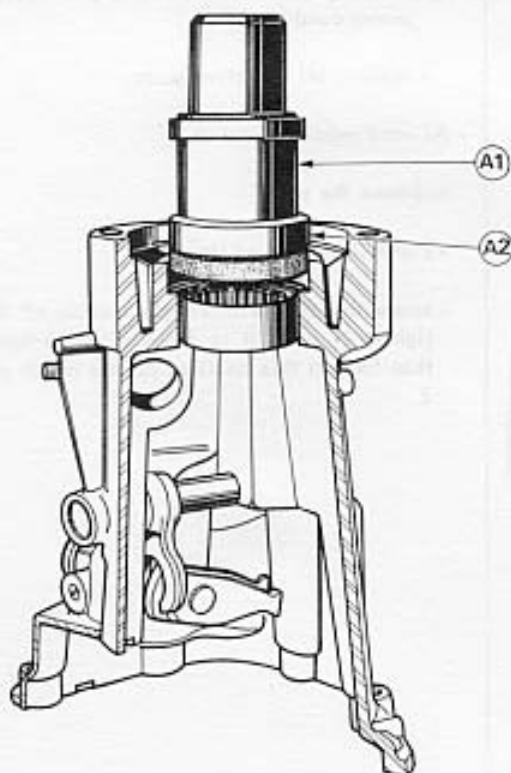
3 03 13



Installing the rear bearing

- Position the bearing inside the housing, with the written face turned outwards, and install it, using the following :
 - plate NZ, covered with a sheet of cardboard
 - drift A1 positioned as indicated on drawing opposite.

NOTE - The rear bearing and the oil seal must be replaced at each dismantling operation.



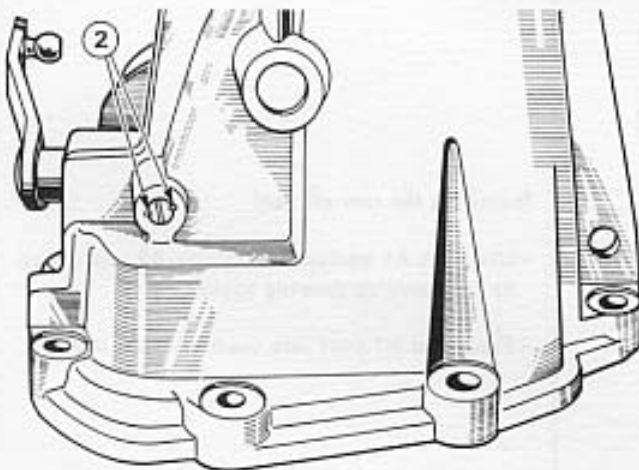
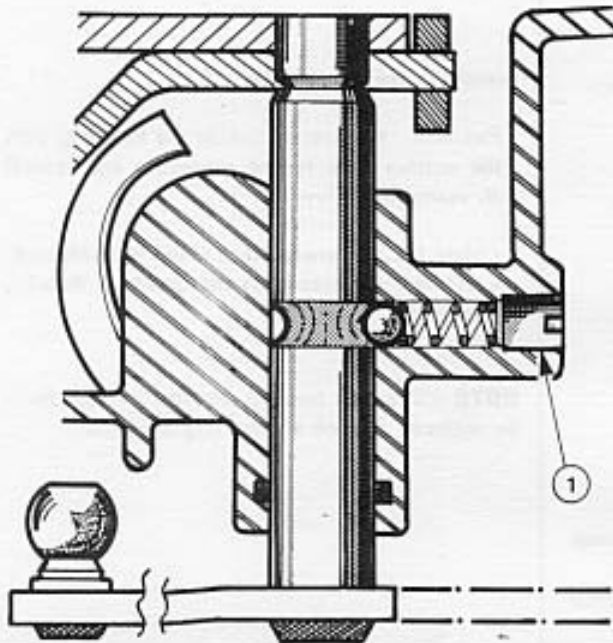
Installing the rear oil seal

- Use drift A1 equipped with ring A2 positioned as indicated on drawing opposite.
- Press the oil seal into position until it abuts.

PEUGEOT

03 14

3

GEARBOX
RE-ASSEMBLY

«Neutral» ball lock

- Check the «Neutral» ball lock for positive action by moving the selector lever in both directions.

a - Check that the plug 1 for the «Neutral» ball lock is flush with the housing.

b - Should the ball lock be inoperative remove the plug and check the spring and ball for proper condition.

- replace all defective parts.

- At each repair operation :

- remove the plug,

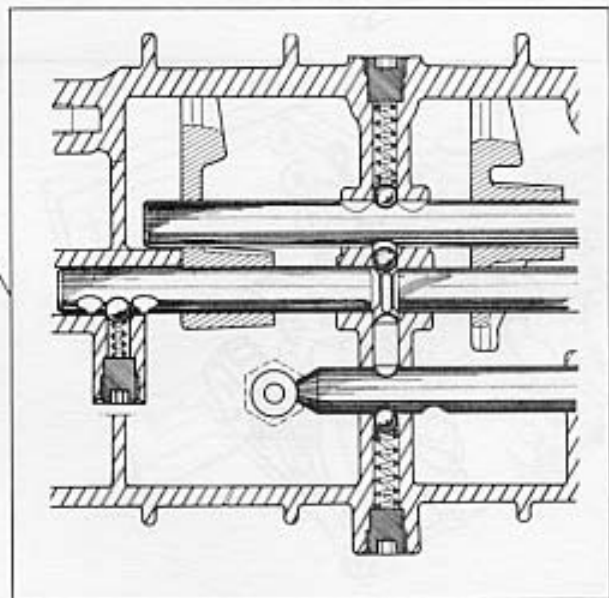
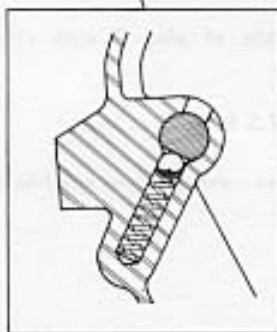
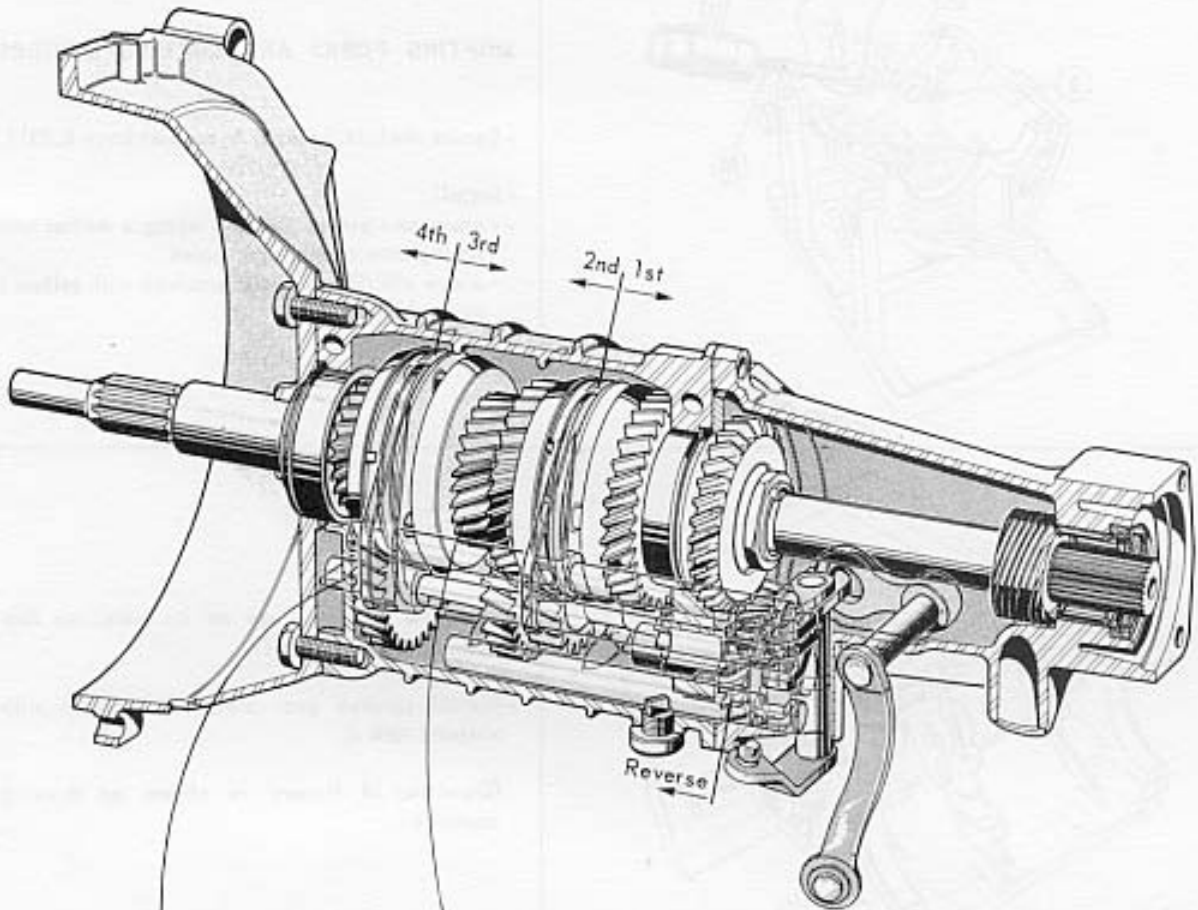
- clean it as well as its recess,

- smear the plug with «Perfect seal» n° 4 and tighten it until it is flush with the housing then lock in this position by two punch marks 2.

GEARBOX
RE-ASSEMBLY

3 03 15

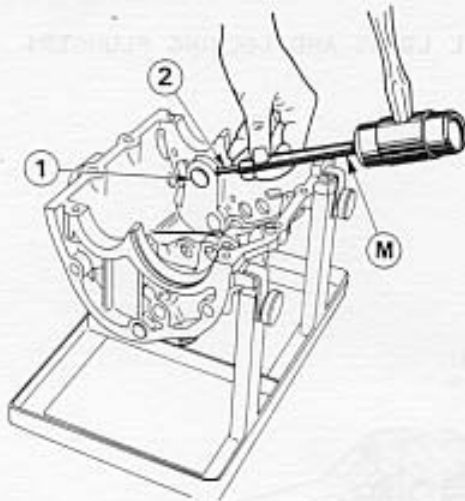
SCHEMATIC DIAGRAM OF GEAR CHANGE BALL LOCKS AND LOCKING PLUNGERS



PEUGEOT

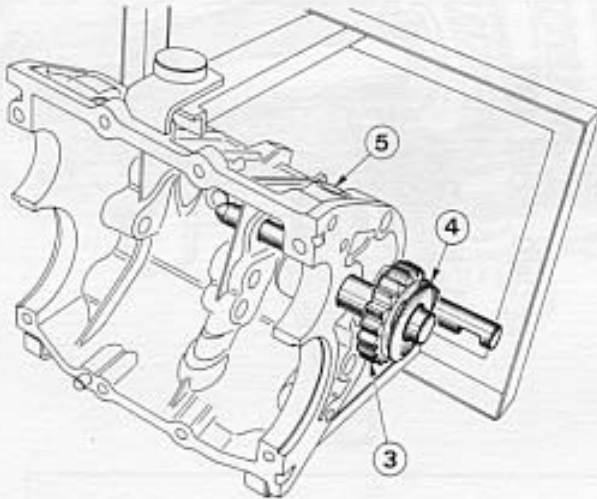
03 16

3

GEARBOX
RE-ASSEMBLY

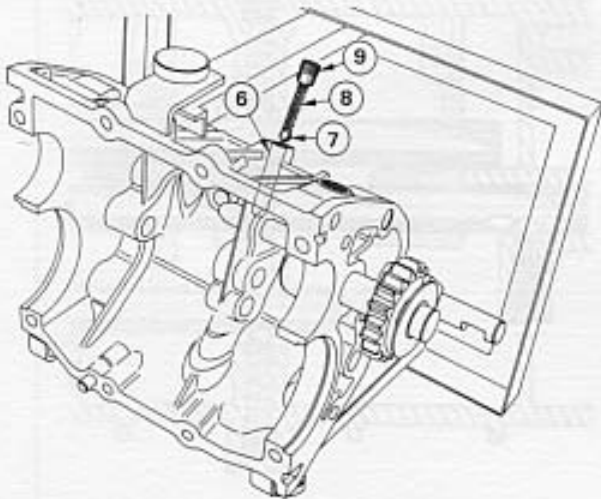
SHIFTING FORKS AND LOCKING DEVICES

- Secure the L.H. housing to support base 8.0311.
- Install :
 - «reverse» pinion shaft 1, using a mallet and taking care to align pin holes,
 - a new «SPIRAL» pin 2, smeared with tallow ; using drift M.



- Turn the support base on its side, so that drain hole 5 is upwards.
- Install reverse gear pinion 3 together with shifting fork 4.

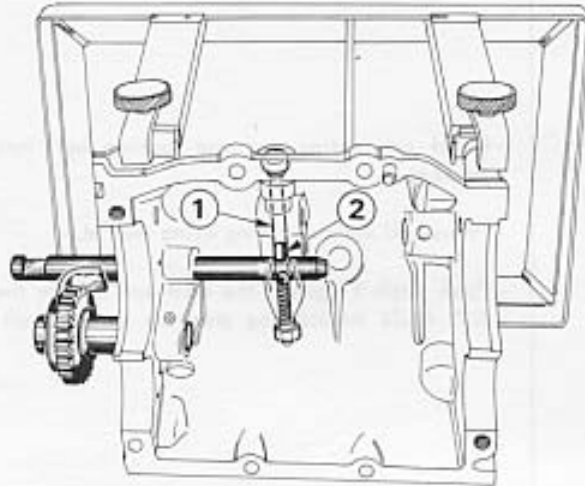
(Direction of fitment as shown on drawing opposite).



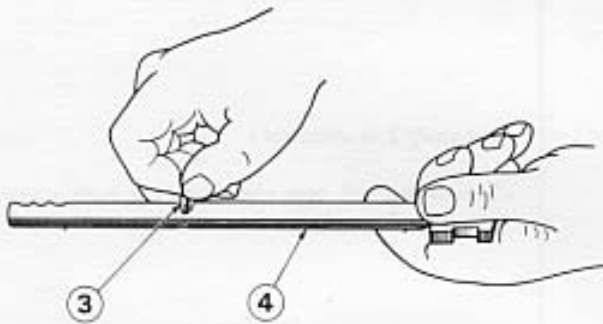
- Insert the following into locking passage 6 :
 - 1 ball 7,
 - 1 spring 8.
- Smear the threads of plug 9 with «Perfect Seal» n° 4.
- Tighten plug to 7.2 ft.lbs (1 m.kg)
- Bring the «reverse» shifting fork shaft to «Neutral».

GEARBOX
RE-ASSEMBLY

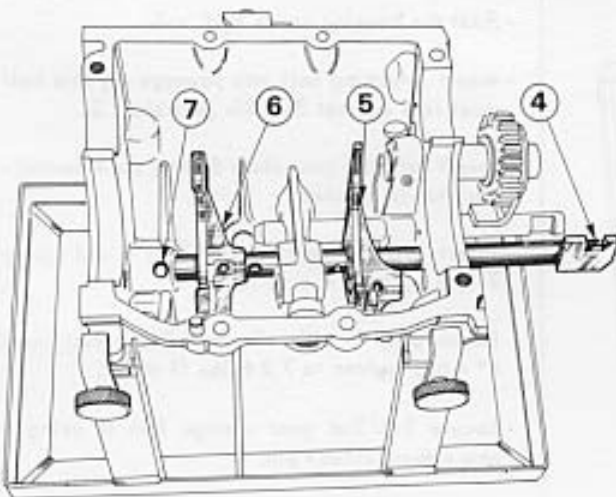
3 03 17



- Rest the housing on the opposite side, so that locking passage 1 is in vertical position.
- Install 3rd/4th and Reverse locking finger 2.



- Smear locking needle 3 with tallow and insert it in the corresponding housing in 3rd/4th gear change fork shaft 4.

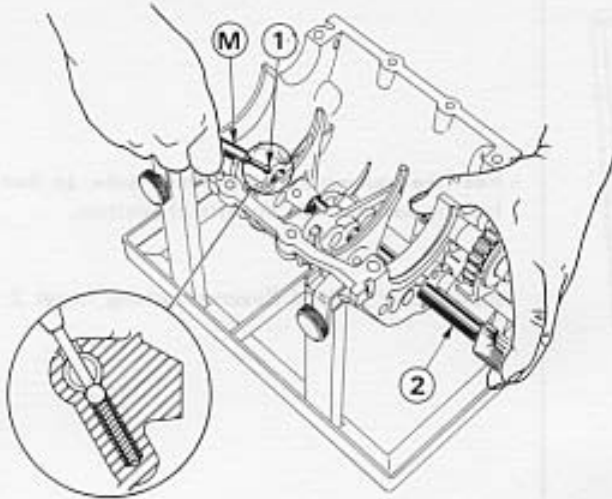


- Re-install the gearbox support base in upright position.
- Install the following inside the housing :
 - 1st/2nd gear change fork 5 (larger one), and
 - 3rd/4th gear change fork 6.
- Insert fork shaft 4 until it is flush with ball lock hole 7.

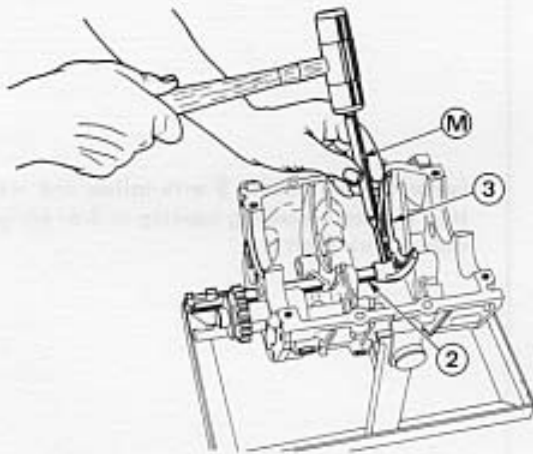
PEUGEOT

03 18

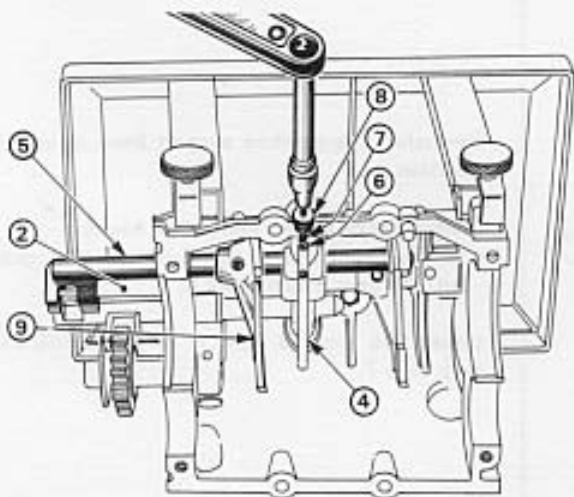
3

GEARBOX
RE-ASSEMBLY

- Insert one spring and one locking ball into passage 1.
- Press ball against spring using drift M.
- Push shaft 2 against the drift and remove the drift while maintaining pressure on the shaft.



- Set shaft 2 to «Neutral».
- Secure 3rd/4th gear change fork 3 with a new «Mecanindus» pin.

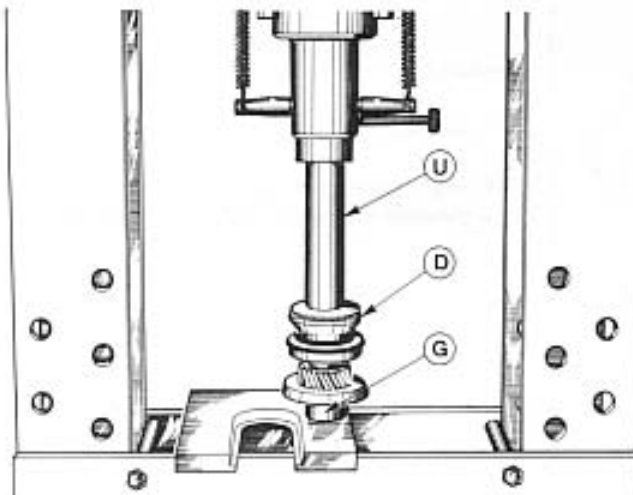


- Rest the housing on its R.H. side.
- Insert a locking ball into passage 4 ; this ball must rest against 3rd/4th gear shaft 2.
- Insert 1st/2nd gear shaft 5 until the «Neutral» position is reached.
- Insert 1st/2nd gear locking ball 6 and spring 7 into passage 4.
- Smear plug 8 with «Perfect Seal» compound n° 4 and tighten to 7.2 ft.lbs (1 m.kg).
- Secure 1st/2nd gear change fork 9 using a new «Mecanindus» pin.

GEARBOX
RE-ASSEMBLY

3

03 19



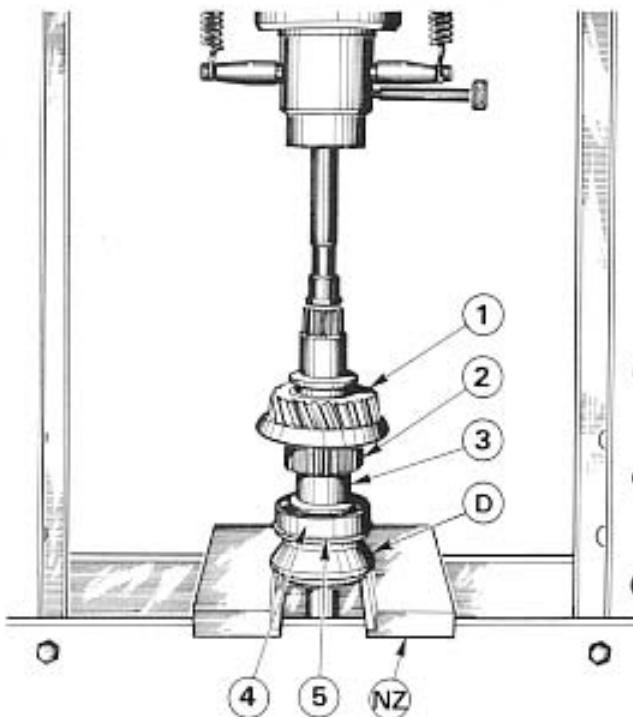
PREPARING THE SHAFTS FOR ADJUSTMENT

DRIVE SHAFT

- Install the following parts on the press table in the indicated order :

- spacer G,
- drive pinion,
- one bearing with a new snap ring on the upper surface,
- ring D,
- driver U.

- Press the bearing onto the shaft until it bottoms.



MAINSHAFT

- Install the following on the mainshaft in the indicated order :

- mainshaft 2nd gear pinion 1,
- 1st/2nd gear synchronizer hub 2,
- 1st gear pinion spacer 3,
- bearing 4 equipped with a new snap ring 5 on its rear face,

- Press the bearing into position, using :

- plate NZ
- ring D

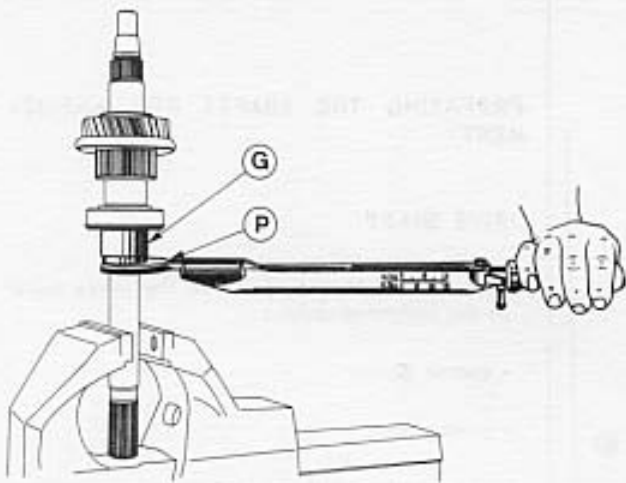
CAUTION - Do not exert a force greater than 3 tons when the bearing is bottomed.

PEUGEOT

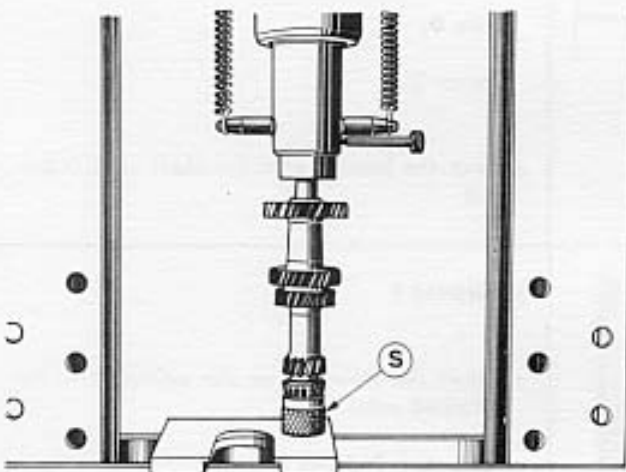
0320

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GEARBOX
RE-ASSEMBLY

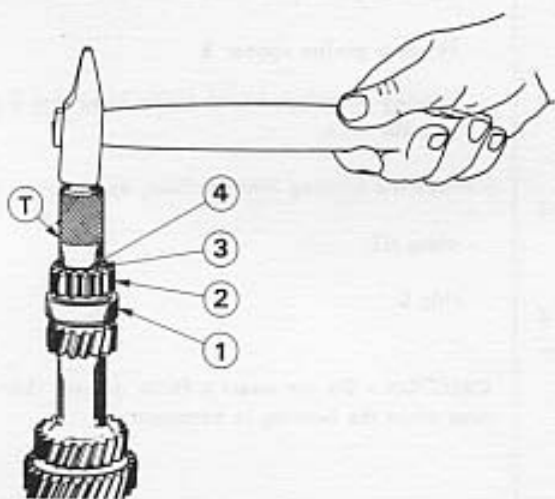


- Install :
- Spacer G,
- A new nut, using wrench P.
- Tightening torque : 40.00 ft.lbs (5.5 m.kg).



INTERMEDIATE GEARSHAFT

- Install the front and rear bearings, using drift S.

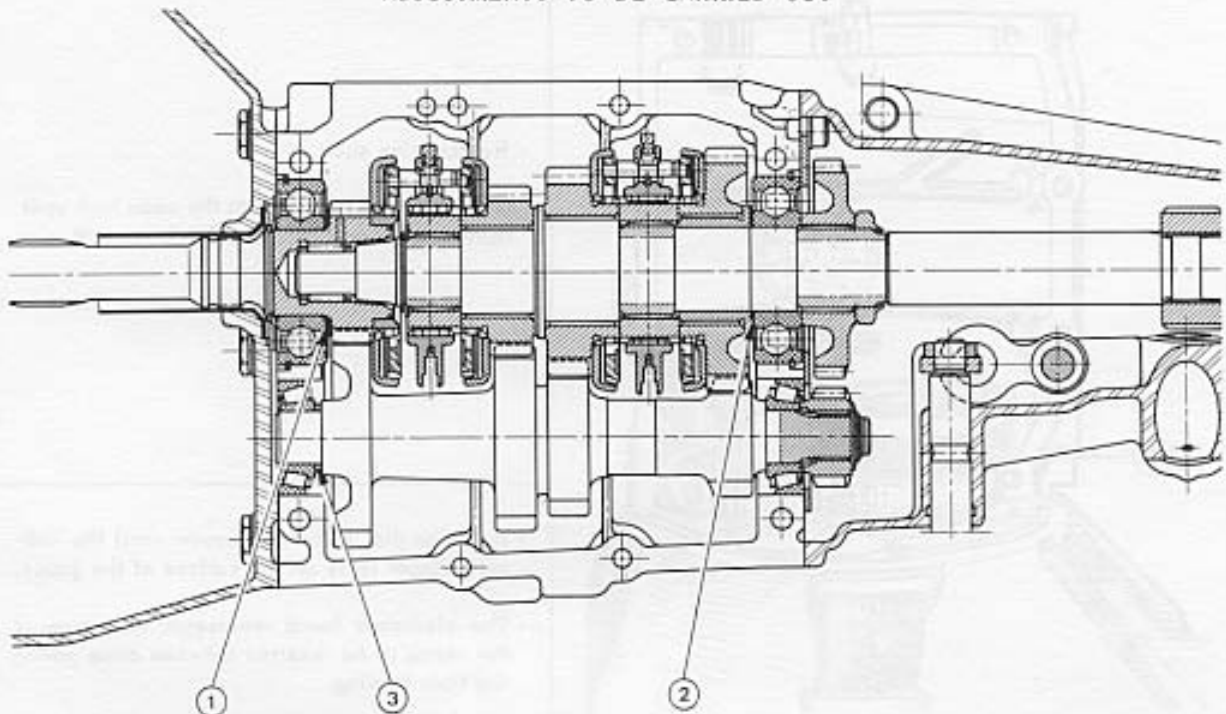


- Position the following parts :
 - rear bearing outer race 1,
 - reverse gear pinion 2,
 - a new spring washer 3,
 - a new snap ring 4.
- Engage the snap ring into its mounting groove, using driver T.
- Check the snap ring for proper engagement, using combination pliers.

GEARBOX
RE-ASSEMBLY

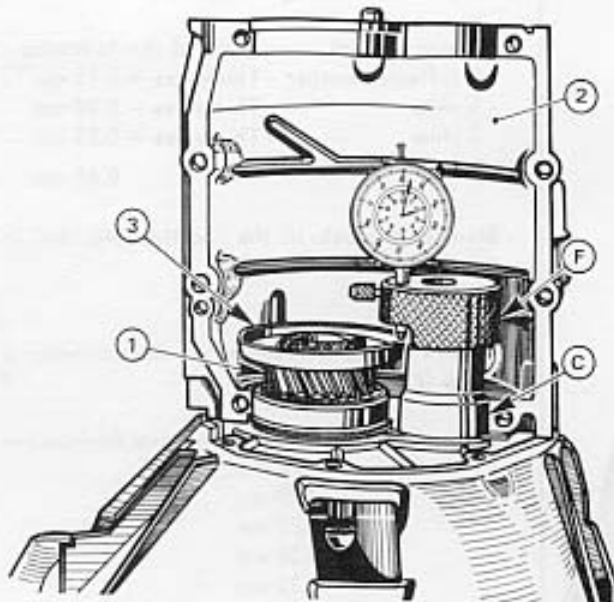
3 03 21

ADJUSTMENTS TO BE CARRIED OUT



- 1 - 4th gear synchronizer cone position,
- 2 - 2nd gear synchronizer cone position,
- 3 - Pre-loading of intermediate gearshaft conical roller bearings.

PEUGEOT

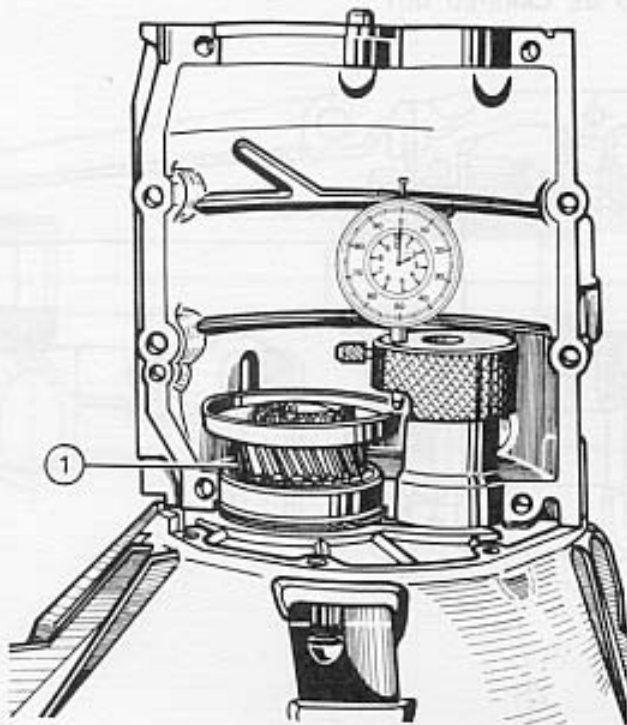


ADJUSTMENT N° 1

- Install the clutch housing on support base 8.0311 turned upside down.
- Engage drive shaft 1 into the corresponding hole.
- Secure R.H. housing 2 to the clutch housing, using the assembling bolts
Tightening torque : 14.5 ft.lbs (2 m.kg).
- Position gauge C equipped with dial indicator support F in the mounting hole for the intermediate gearshaft front bearing.
- Align dial indicator finger with the upper edge of synchronizer cone 3.

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3

GEARBOX
RE-ASSEMBLY

- Rotate drive shaft 1.
- Set dial indicator to zero at the mean high spot found for one revolution of the drive shaft.

- Move the dial indicator support until the indicator finger rests on the surface of the gauge.

- The clearance found represents the value of the shims to be inserted between drive pinion and front bearing.

- The measured value should be rounded to the nearest 0,05 mm.

Example :

Dial indicator reading = 0,58 mm

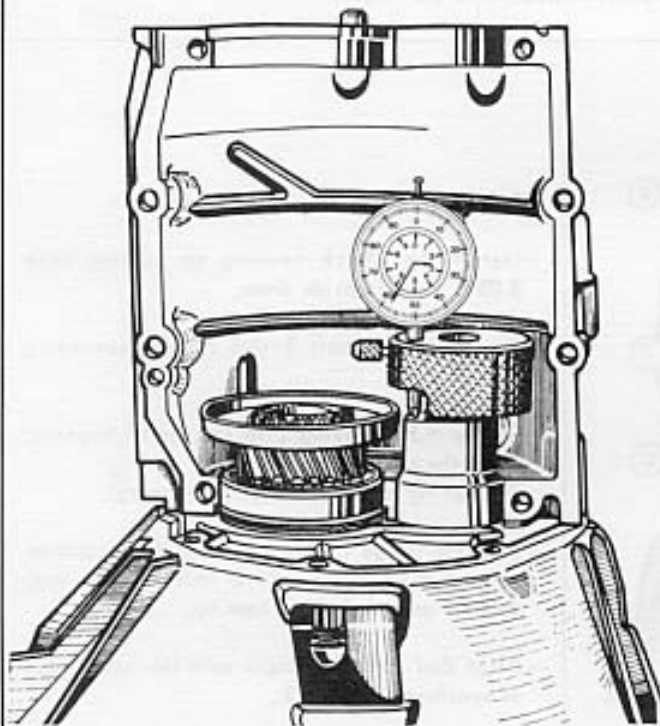
- Prepare a stack consisting of the following :
 - 1 deflector washer - Thickness = 0,15 mm *
 - 1 shim - Thickness = 0,20 mm
 - 1 shim - Thickness = 0,25 mm
- 0,60 mm

- Store this stack in the location provided in the cover of chest 8.0310 Z.

NOTE - * The thickness of the deflector is always 0,15 mm.

Shims are available in the following thicknesses

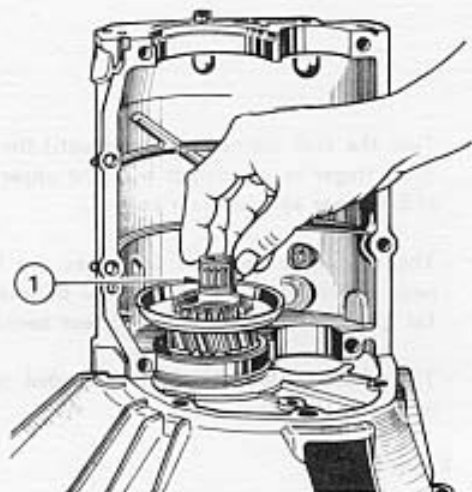
0,15 mm
0,20 mm
0,25 mm
0,30 mm
0,35 mm



GEARBOX
RE-ASSEMBLY

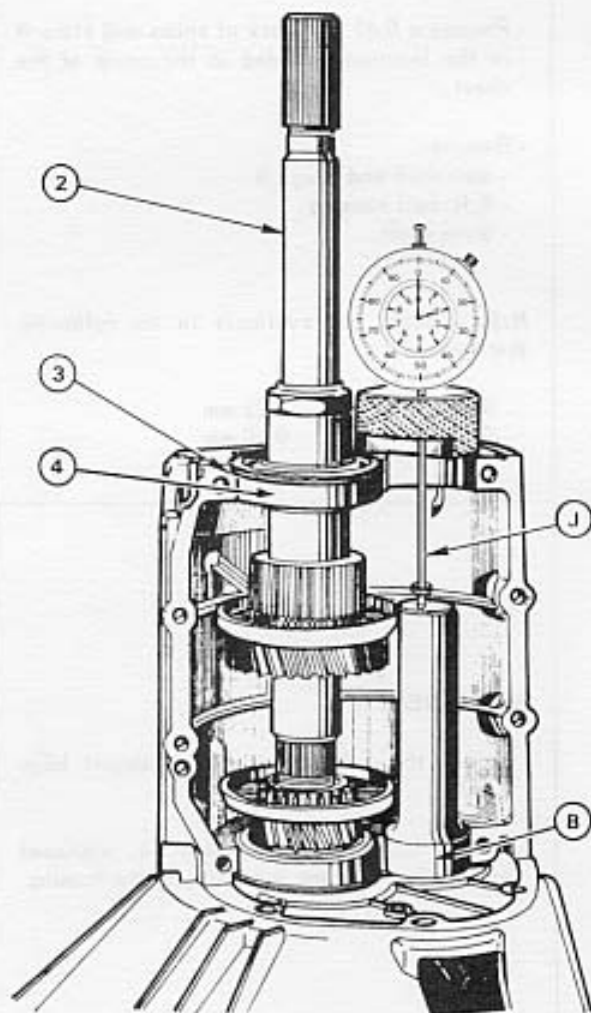
3

03 23



ADJUSTMENT N° 2

- Position needle cage 1 in the drive shaft.

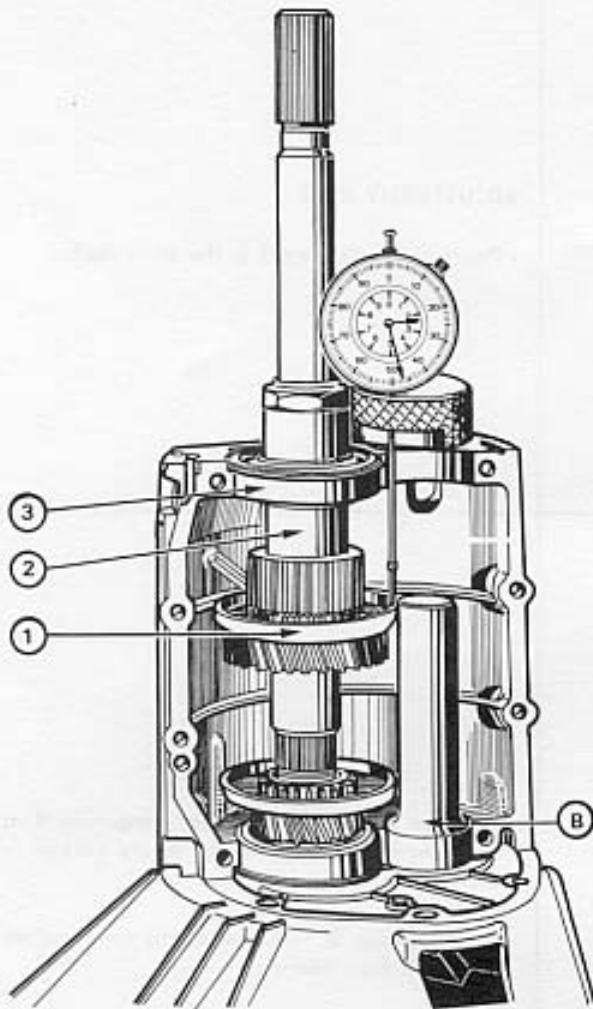


- Position mainshaft 2 so that snap ring 3 of rear bearing 4 is bottomed in its recess in the housing.
- Install gauge B in place of the intermediate gearshaft front bearing.
- Install the dial indicator finger on finger extension J and secure the finger extension to the dial indicator.
- Position the indicator support on the rear face of the housing, with the dial indicator finger resting on the upper surface of gauge B.
- Set the dial indicator to 0.

PEUGEOT

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3

GEARBOX
RE-ASSEMBLY

- Turn the dial indicator support until the indicator finger is in contact with the upper edge of 2nd gear synchronizer cone 1.
- The clearance obtained indicates the thickness of the shims to be inserted between the 1st gear pinion bushing 2 and rear bearing 3.
- The above value should be rounded to the nearest 0,05 mm.

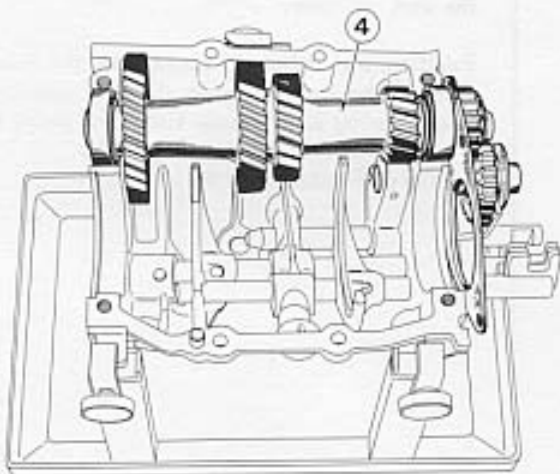
Example :

Indicator reading : 0,47 mm

- Prepare a 0,45 mm stack of shims and store it in the location provided in the cover of the chest.
- Remove :
 - mainshaft and gauge B
 - R.H. half housing,
 - drive shaft,

N.B. - Shims are available in the following thicknesses :

0.15 mm	0.25 mm
0.20 mm	0.50 mm

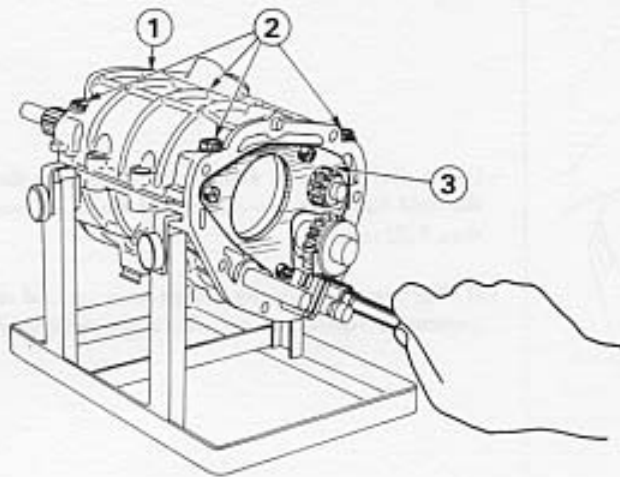
**ADJUSTMENT N° 3**

- Secure the L.H. housing on support base 8.0311.
- Install intermediate gearshaft 4, equipped with its bearings and rear plate, in the housing.

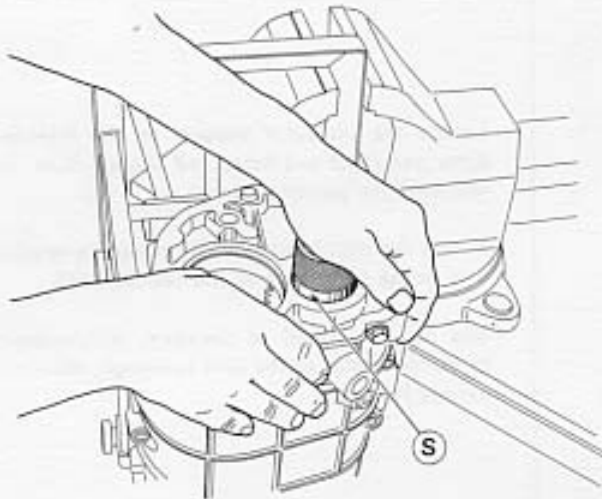
GEARBOX RE-ASSEMBLY

3

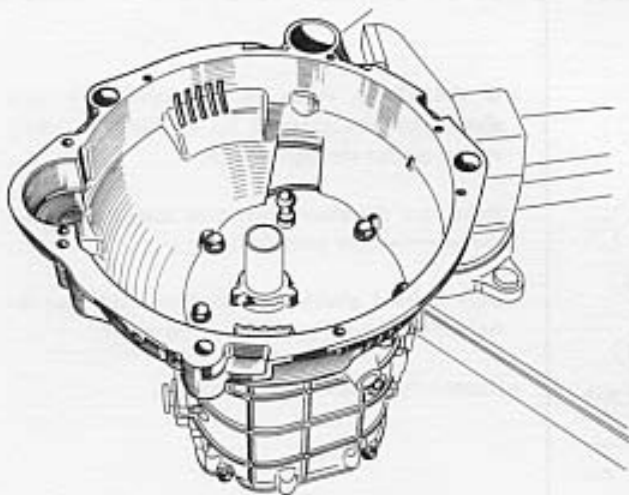
03 25



- Position R.H. housing 1 and secure with the four housing bolts 2 (Hand tight only).
- Secure rear plate 3 using the 4 Allen screws (hand tight only).



- Make sure the knurled head screws are tightened on support base 8.0311 and clamp base vertically in a vice, with the front part of the gearbox facing upwards.
- Place installing drift S on intermediate gear shaft front bearing and press downwards.
- Rotate the shaft to position the bearings.

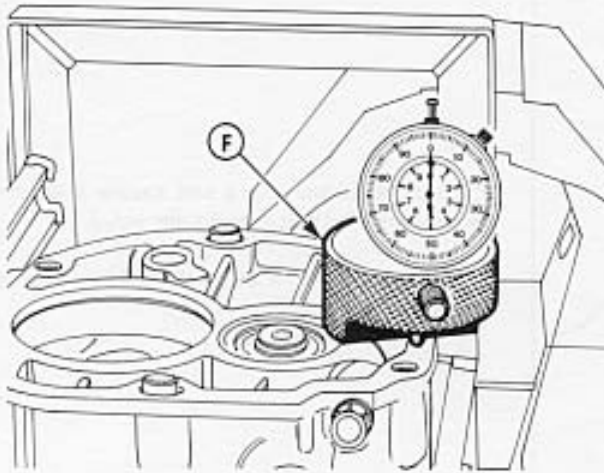


- Install the clutch housing and secure with four bolts installed either side of the gearbox half housing mating surfaces.
- Tighten the following bolts :
 - clutch housing bolts,
 - gearbox housing bolts,
 - rear plate bolts
 Tightening torque : 7.2 ft.lbs (1 m.kg)
- Remove the clutch housing.

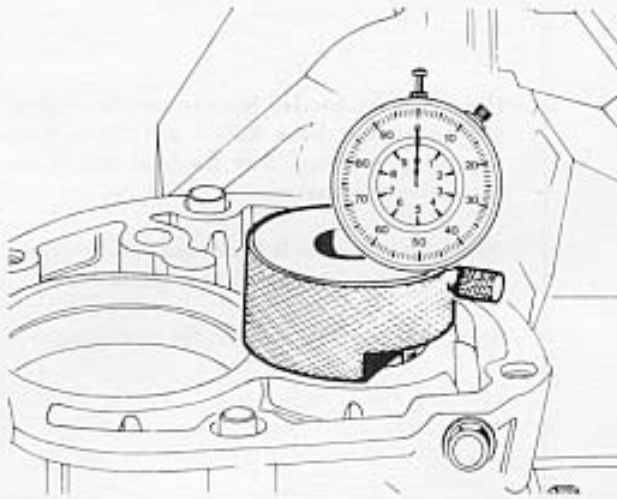
PEUGEOT

03 26

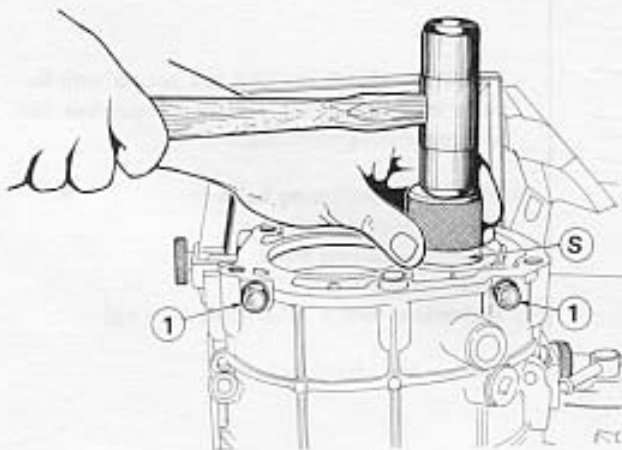
3

GEARBOX
RE-ASSEMBLY

- Using dial indicator support **F**, make sure that the half housings are not out of flush by more than 0.02 mm.
- If they are, replace the clutch housing and recommence tightening as previously described.



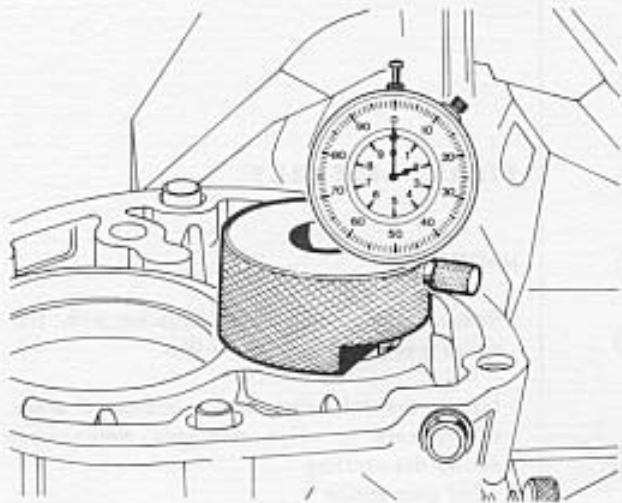
- Locate the indicator support on the intermediate gearshaft end face, and engage it in the intermediate gearshaft bore.
- Rotate the dial indicator one complete revolution on the outer race of the rear bearing.
- The out of parallel of the race, with respect to the rear face of the half housings, must not exceed 0.02 mm.



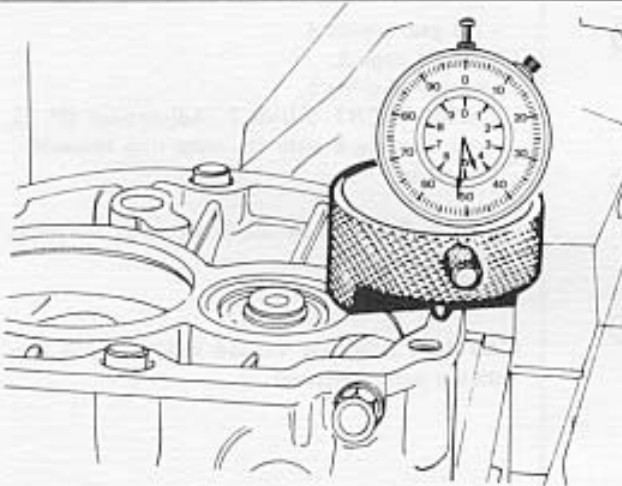
- If the above value is exceeded, the race should be straightened by striking it lightly with a mallet through drift **S**.
- Make sure the above operation does not tighten the intermediate gearshaft.
- Both bolts **1** should be loosened, and then re-tightened if bind is noted in the shaft.
- Repeat the check for parallelism.

GEARBOX RE-ASSEMBLY

3

 03 27


- Set the dial indicator to 2 and to 0.
- Turn the indicator support outwards so that the indicator finger rests on the front face of the housing.
- Note the indicator reading.
- ADD 0,10 mm to this reading, to take into account the pre-load of the bearings.
- The result should be rounded to the nearest 0,05 mm.

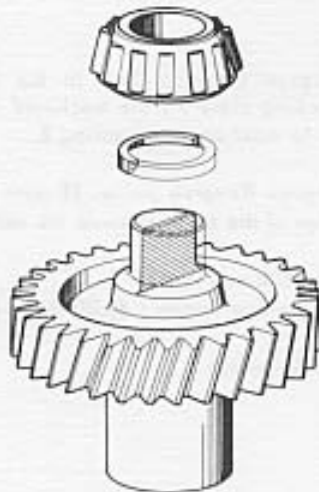


Example :

Reading on housing	4,52 mm
- Reading on bearing	2,00 mm
	2,52 mm
+ Pre-load	0,10 mm
	2,62 mm

ROUND to 2.60 mm

- Place the shim required in the location provided in the tool chest cover.



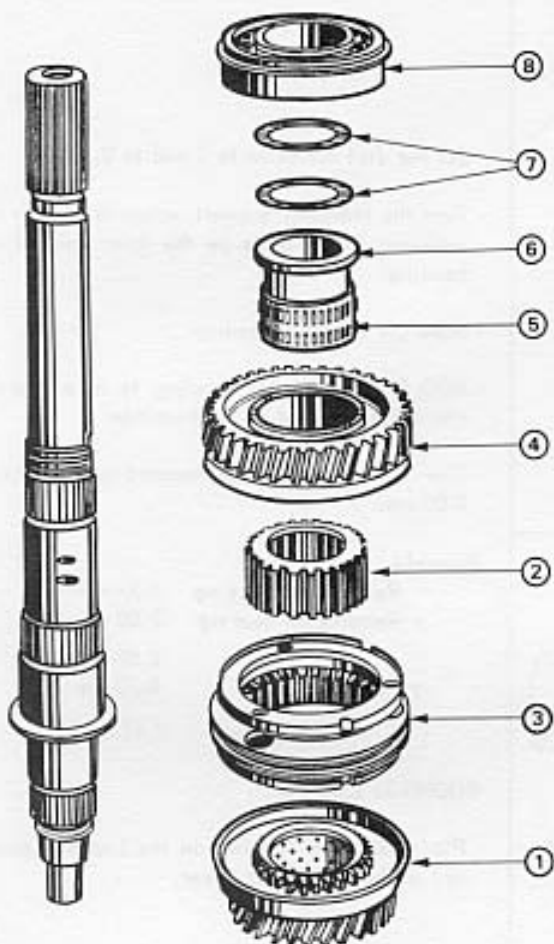
- Calibrated adjustment shims are available in different thicknesses of 0,05 mm to 0,05 increments from 2,25 mm to 3,25 mm.
- Remove intermediate gearshaft.
- Remove front bearing, using the press.
- Install the shim previously determined (adjustment 3) chamfered side of the shim should be towards the pinion.
- Re-install the bearing, using the press (class 3, page 03 20).

PEUGEOT

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3

GEARBOX RE-ASSEMBLY

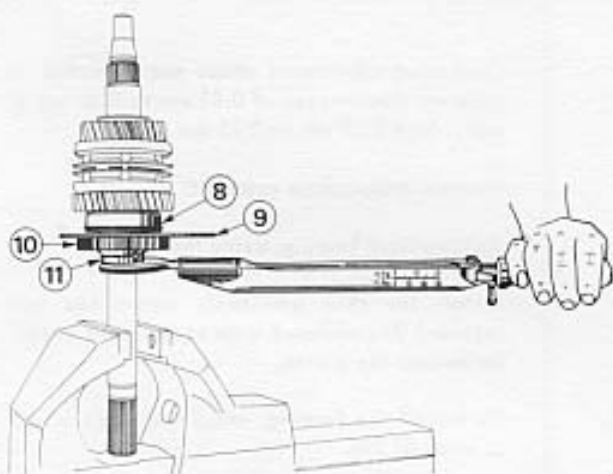


FINAL ASSEMBLY

MAINSHAFT

- Remove the rear bearing together with the shims (see class 3, page 03 06).
- Install the following in the indicated order, taking care to align reference marks made during dismantling :
 - 2nd gear pinion 1,
 - synchronizer hub 2 together with sliding gear 3,
 - 1st gear pinion 4,
 - needle cage 5,
 - spacer bushing 6,
 - ADJUSTMENT SHIMS 7 (Adjustment N° 2),
 - rear bearing 8 with its snap ring towards the rear.
- Bearing 8 should be installed using the press and plate NZ.

CAUTION : Do not exceed a force of 3 tons with the parts bottomed.

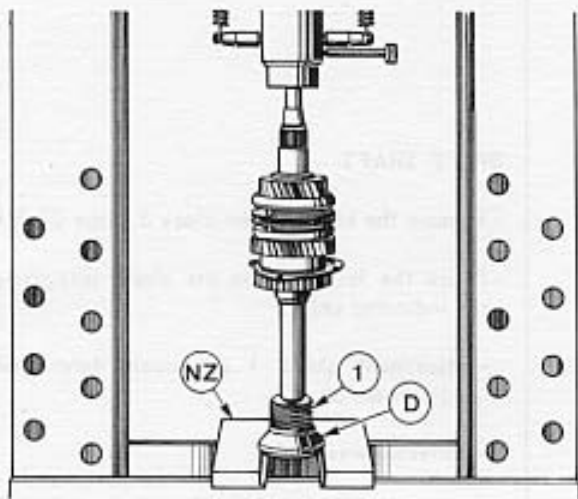


- Engage the mainshaft in the larger hole of backing plate 9 ; the machined surface of this plate must contact bearing 8.
- Engage Reverse pinion 10 with the chamfered edge of the teeth towards the rear.
- Install a new nut 11
Tightening torque : 40.00 ft.lbs (5.5 m.kg)
- Lock the nut.

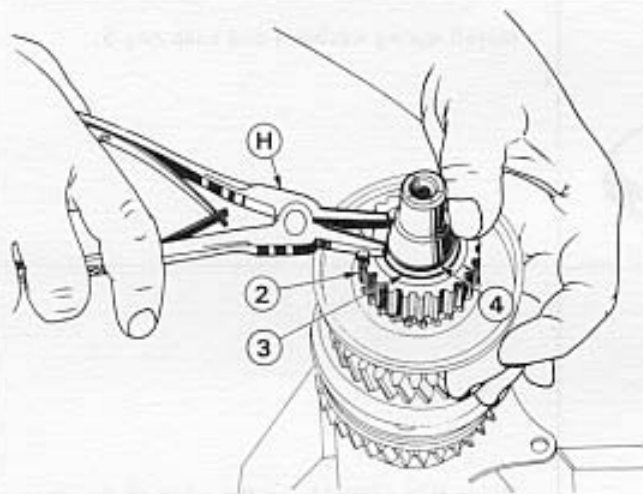
GEARBOX
RE-ASSEMBLY

3

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- Install speedometer drive worm 1 on mainshaft, using :
- Plate NZ,
- Installing ring D.



- Install :
- 3rd gear mainshaft pinion,
- 3rd/4th gear synchronizer hub 2,
- using the press as for the previous operation if required.

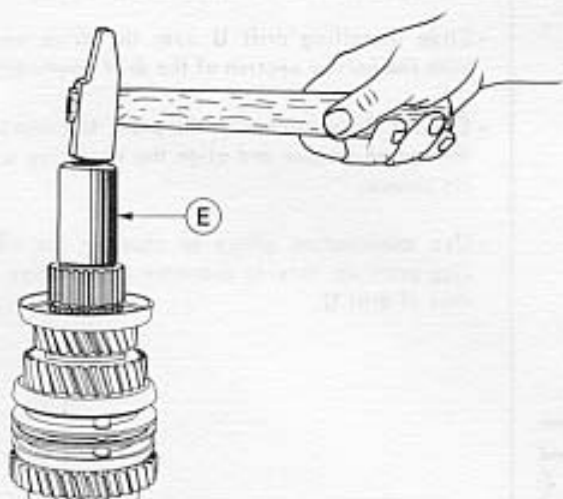
- Clamp this assembly vertically in a vice.

- Install :
- one new spring washer 3
- new snap ring 4, using pliers H and then drift E.

- Squeeze the snap ring, using combination pliers.

- Install the 3rd/4th gear sliding gear, respecting the reference marks.

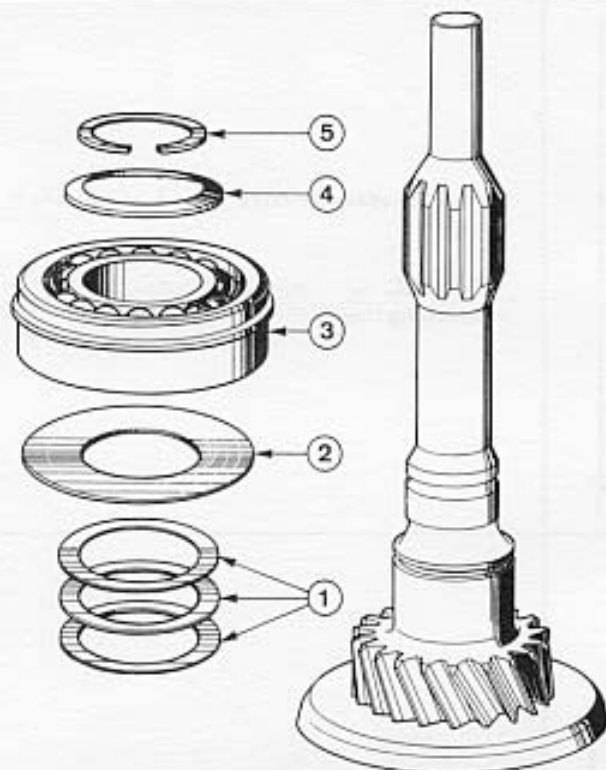
- Engage 3rd gear.



PEUGEOT

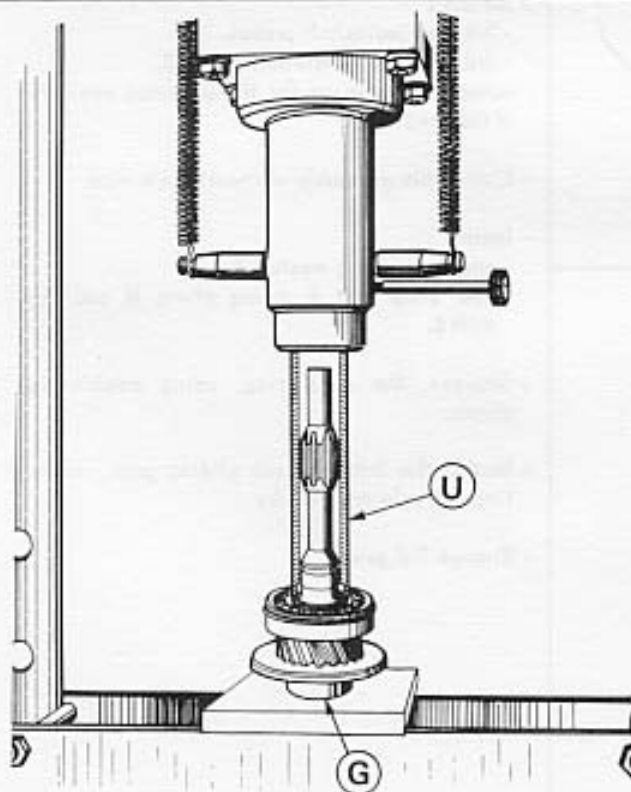
03 30

3

GEARBOX
RE-ASSEMBLY

DRIVE SHAFT

- Remove the bearing (see class 3, page 03 07).
- Place the following on the shaft, respecting the indicated order :
 - adjustment shims 1 previously determined (adjustment n° 1),
 - deflector washer 2.
- Re-install bearing 3 (see class 3, page 03 19).
- Install spring washer 4 and snap ring 5.

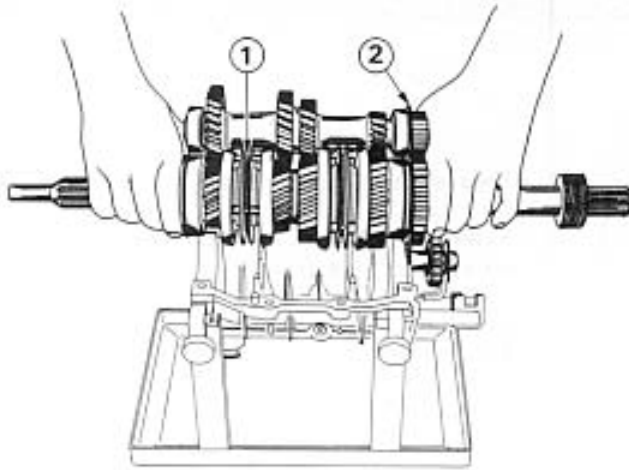


- Place this assembly on the table of the press resting on spacer G.
- Slide installing drift U over the drive shaft with the hollow section of the drift downwards.
- Exert a slight force with the press to compress the spring washer and align the snap ring with its groove.
- Use combination pliers to squeeze the snap ring until its outside diameter is the same as that of drift U.

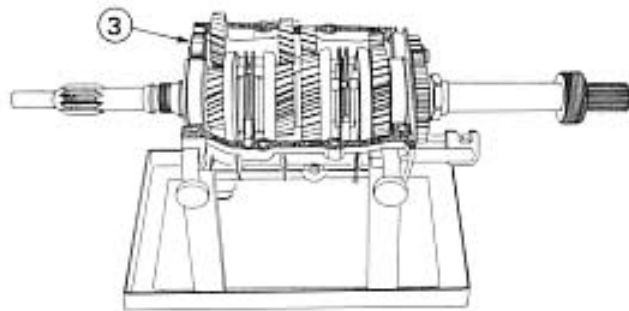
GEARBOX RE-ASSEMBLY

3

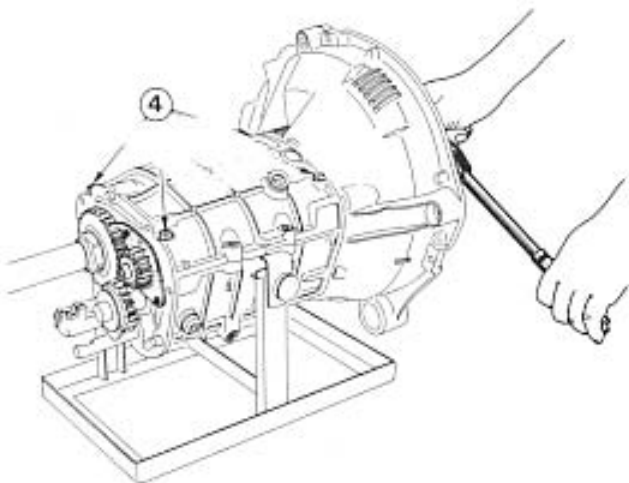
0331



- Secure the housing equipped with the gear change forks on support base 8,0311.
- Install the needle cage in the drive pinion.
- Assemble drive shaft and mainshaft.
- Bring back 3rd/4th gear sliding gear 1 to the «Neutral position».
- Install the intermediate gearshaft on this assembly by passing reverse pinion through backing plate 2.



- Mesh the pinions.
- Install the assembly inside the L.H. housing, taking care that the shifting forks correctly engage the synchronizer rings.
- Install intermediate gearshaft front bearing outer race 3.
- Lightly smear the mating surfaces of the half housings with «Perfect seal» N° 4 compound.
- Install the R.H. half housing.



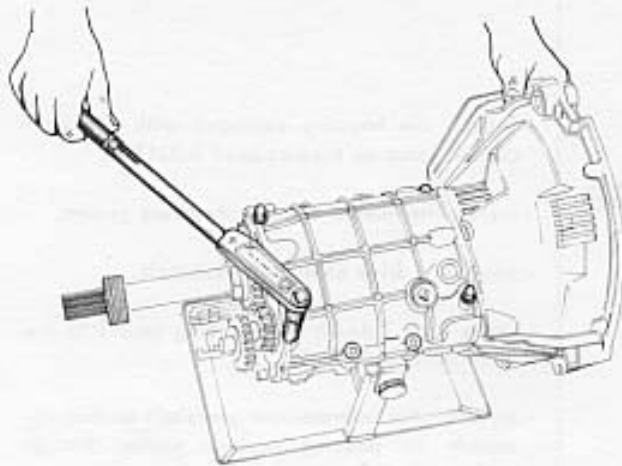
- Install and tighten the four housing bolts 4
Tightening torque : 3.60 ft.lbs (0.5 m.kg)
- Lightly smear the rear face of the clutch housing with «Perfect seal» N° 4 compound and secure this housing with six bolts,

Tightening torque : 20.00 ft.lbs (2.75 m.kg).
- Secure the rear backing plate using four Allen screws,
Tightening torque : 7.2 ft.lbs (1 m.kg)

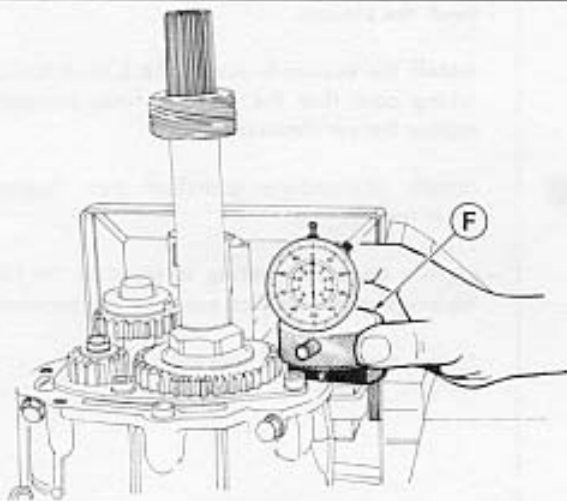
PEUGEOT

03 32

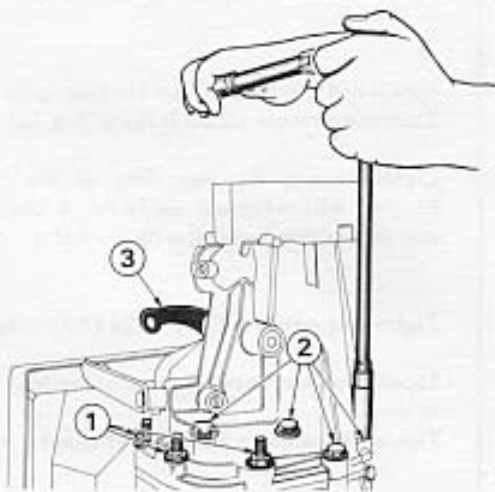
3

GEAR BOX
RE-ASSEMBLY

- Loosen the four housing bolts.
- Strike the half housings with a mallet while rotating the drive shaft.
- Re-tighten the four bolts
Tightening torque : 11.00 ft.lbs (1.5 m.kg).



- Use dial indicator support F to check the out-of-flush of the half housings at their rear mating surface. The housings must not be out-of-flush by more than 0.02 mm.
- Install the four assembling bolts and nuts of the half housings.
- Tighten these 4 bolts to 7.2 ft.lbs (1 m.kg)

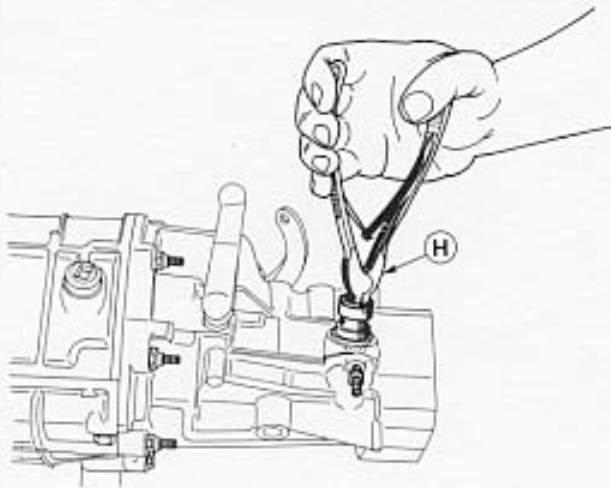


- Smear the mating surface of the rear housing with «Perfect seal» N° 4 compound.
- Install the rear housing.
- Engage :
 - three double-thread studs 1,
 - four attaching bolts 2.
- Pull selector lever 3 fully backwards.
- Tighten the seven bolts and studs
Tightening torque : 11.00 ft.lbs (1.5 m.kg).
- Oil the «Nadella» bearing of the rear housing.

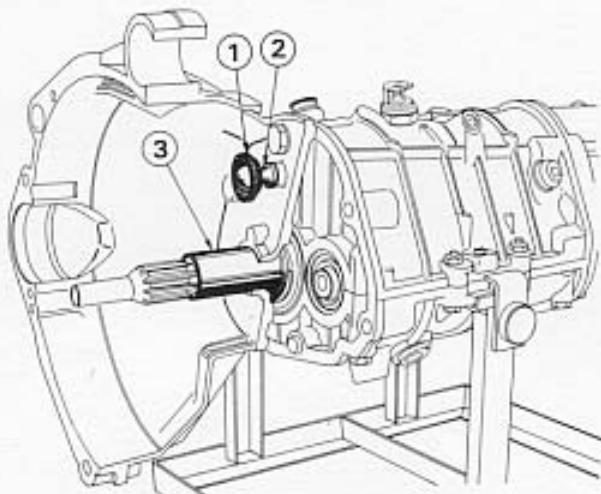
GEARBOX
RE-ASSEMBLY

3

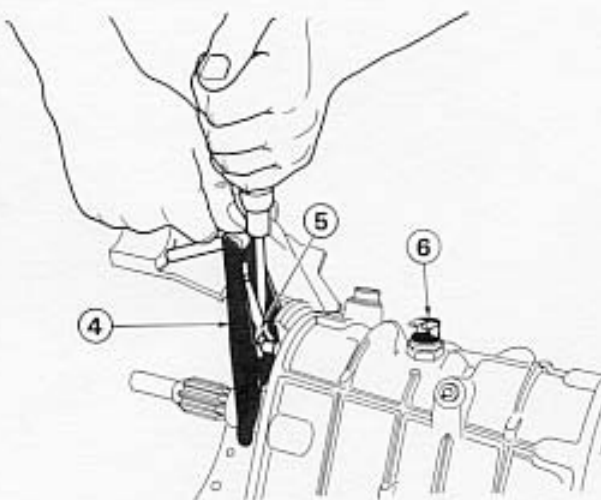
0333⁽¹⁾



- Install the speedometer drive socket with a new «O» ring smeared with tallow ; use pliers H and position the parts by rotating them.
- Install the drive socket stop screw together with its lock nut.



- Working inside the clutch housing, proceed as follows :
- insert rubber cup 1 in the groove behind the ball head thrust 2 and fill with grease.
- coat guide sleeve 3 sparingly with Molykote grease.



- Slide clutch release fork 4 from the inside towards the outside of the housing.
- Use a screwdriver to raise clutch release fork backing spring 5.
- Engage the fork on the ball head with the spring pressing on the rubber cup.
- Fit the reverse lights switch 6, equipped with a new seal.
- For switches with copper body and metallo-plastic gasket tighten to 9 ft.lbs (125 m.kg).
- For switches with steel body and copper gasket tighten to 20 ft.lbs (2.75 m.kg).

PEUGEOT

GEARBOX
GEAR CHANGE CONTROLS

3

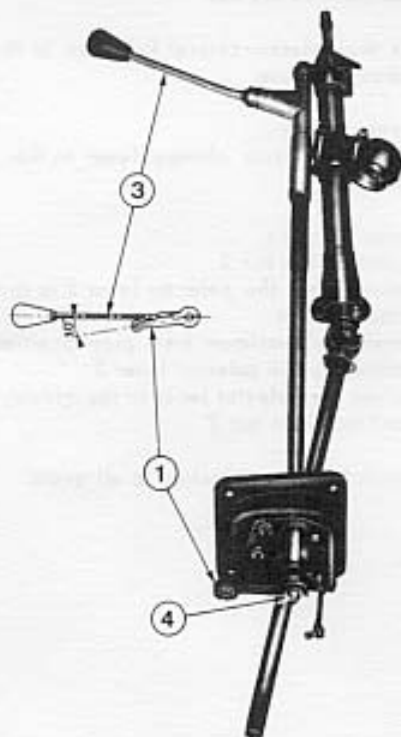
06 01⁽¹⁾



STEERING COLUMN GEAR CHANGE LEVER

504 Saloons with L.H.D.

- To overhaul this control it is necessary to remove the steering column.
- Prior to removal, the position of the lower lever 1, on the splines of the control rod 2, should be marked.
- An incorrect angular position of the lower lever, in relation to the control rod, could effect gear selection adversely.



Lower lever on the control rod

The lower lever 1 should be at an angle of 10° (downwards) in relation to the gear change lever 3.

If this is not the case :

- remove the «Nylstop» nut 4 and the flat washer.
- disengage the lever 1 and reposition correctly.

PEUGEOT

6-70

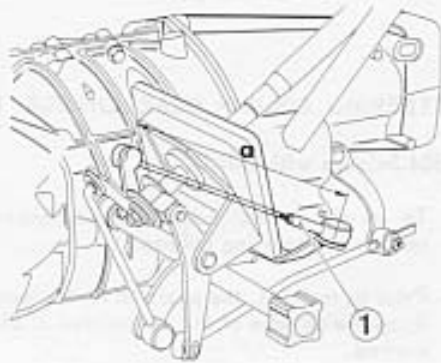
Supersedes page 06 01 and 06 02, class 3

504 Workshop Manual - Ref. 1212 E

06 02⁽¹⁾

3

GEARBOX GEAR CHANGE CONTROLS

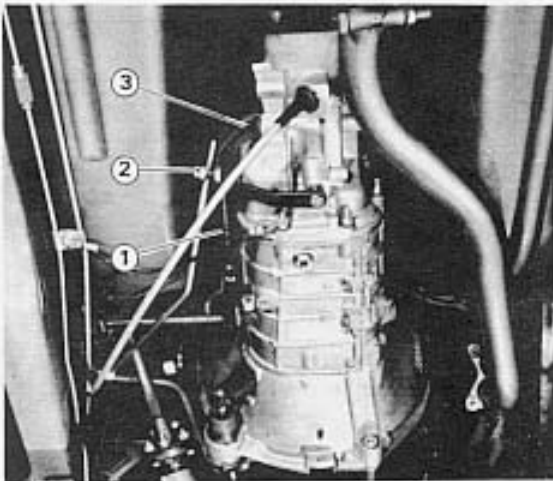


ADJUSTMENT OF THE CONTROLS

R.H.D. 504 Saloons with column gear change lever.

- Gear selector control link 1 :

$$a = 248 \pm 1 \text{ mm}$$



Adjustment on the car

- Fit the selector control link 1 set at the length indicated above

- Inside the car :

- place the gear change lever in the neutral position

- Under the car :

- unscrew the nut 2

- ensure that the selector lever 3 is in the neutral position

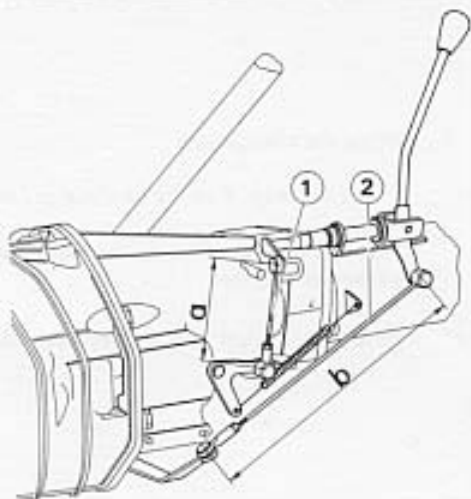
- mark the maximum free play positions permitted by the selector lever 3

- place the selector lever in the midway position and retighten nut 2

- Check the gear selection in all gears.

GEARBOX GEAR CHANGE CONTROLS

3

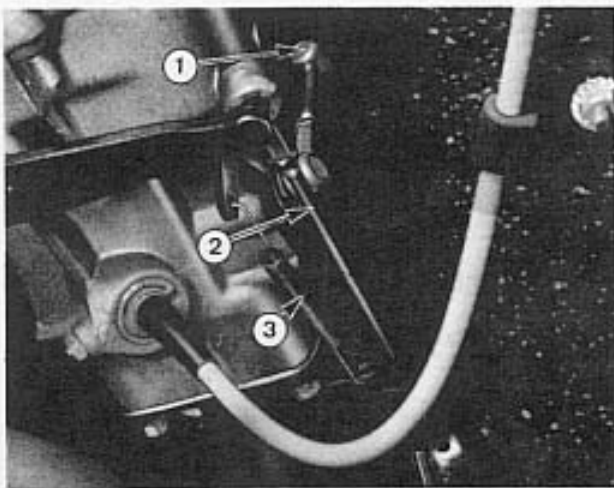
 06 05


ADJUSTMENT OF THE CONTROLS

R.H.D. 504 Saloons

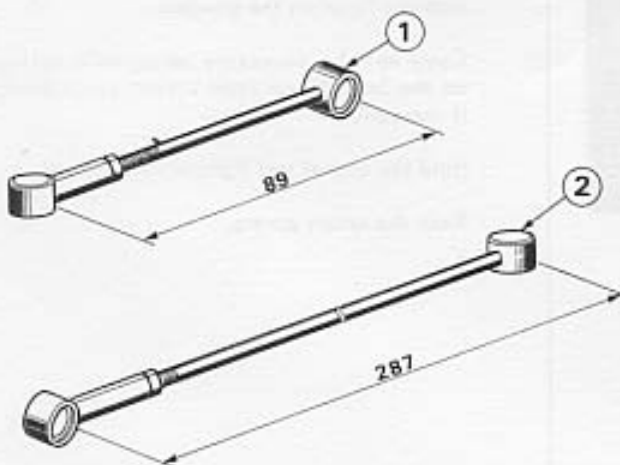
504 Convertibles and Coupés

- Gear selector control link 1
a : 89 ± 1 mm
- Gear selector control link 2
b : 287 ± 1 mm



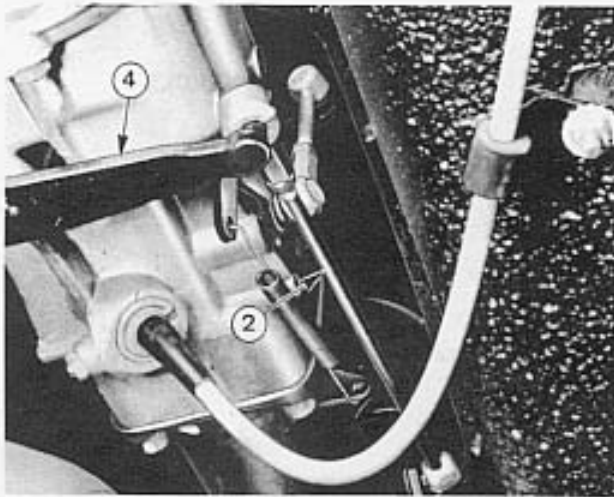
Adjustment on 504 Convertibles and Coupés

- Remove :
 - the return spring 3 from the selector control link
 - the selector control link 1
 - the selector control link 2
- Clean the plastic ball joint sockets and make sure that they have not been damaged at dismantling
- Replace all defective part
- Lubricate the ball joints prior to refitting.



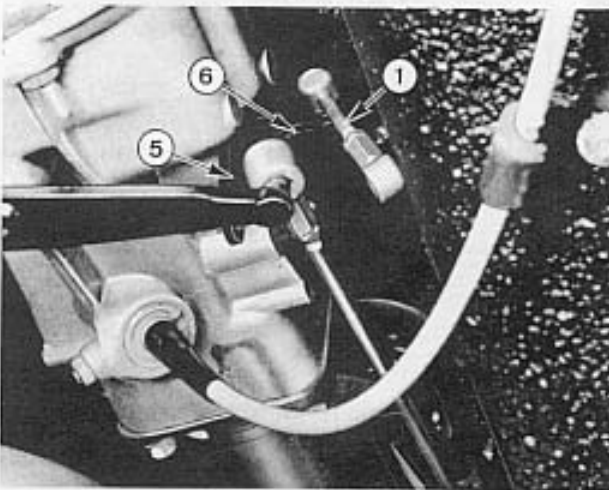
- Check and adjust the between centres distance of the ball joint sockets prior to refitting :
 - selector control link 1 : 89 mm
 - selector control link 2 : 287 mm
- After adjustment do not re-tighten the ball joint socket lock nuts. This operation must only be carried out after refitting of the selector control links.

GEARBOX
GEAR CHANGE CONTROLS



1 - Fitting the change link

- Place the lever 4 on the gearbox in "neutral"
- Fit the link 2 positioning the adjustable ball socket as required
- Hold the socket and tighten the lock nut.

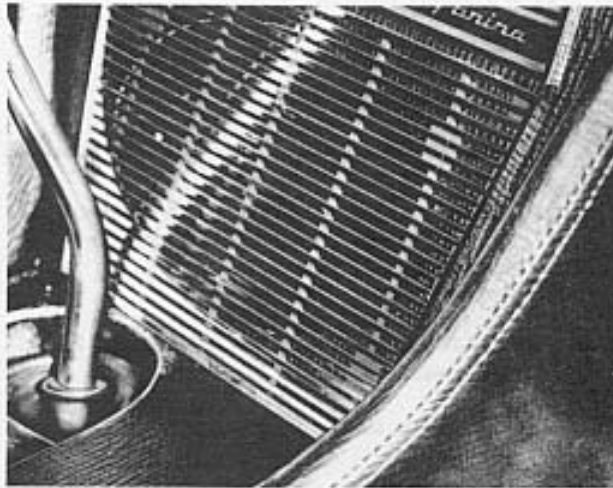


2 - Fitting the selector link

- Make sure that the gear selector lever 5 is in "neutral"
- Connect the fixed ball socket on the link 1 to the selector jack lever 6
- Push the link upwards as far as possible and check the alignment of the ball joint with the lever on the gearbox
- Carry out the necessary adjustment, acting on the bottom ball joint socket, positioning it correctly
- Hold the socket and tighten the lock nut
- Refit the return spring.

GEARBOX GEAR CHANGE CONTROLS

3

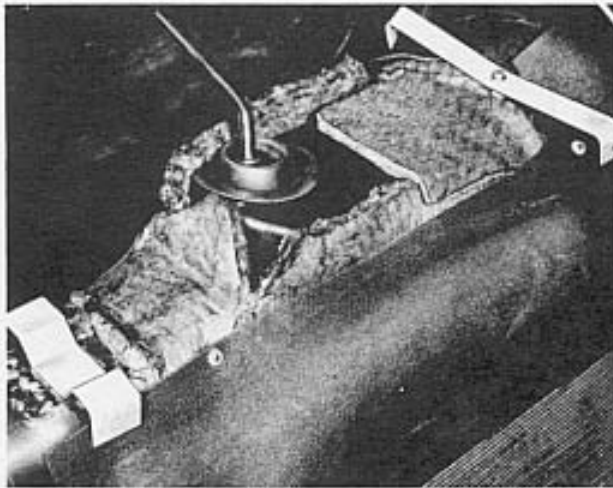
 06 07


SETTING THE CONSOLE

The heater and the gearbox tunnel are covered by an adjustable console.

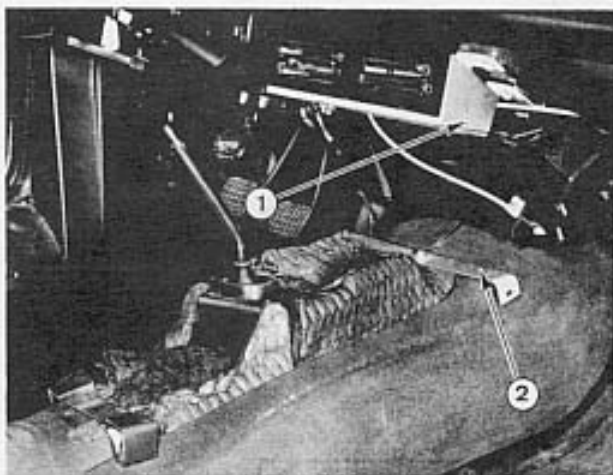
After adjusting the controls, it is necessary to check the position of the lever in 1st gear, as in this position it may come into contact with the edge of the cutaway in the console.

In this case it is necessary to reset the position of the console to ensure a minimum gap of 10 mm between the console and gear change lever in all the gear positions.



REMOVAL

- Disconnect the battery
- Remove the front seats
- Unscrew the gear change lever ball
- Remove the ashtray
- Disconnect the cigarette lighter
- Remove the console.

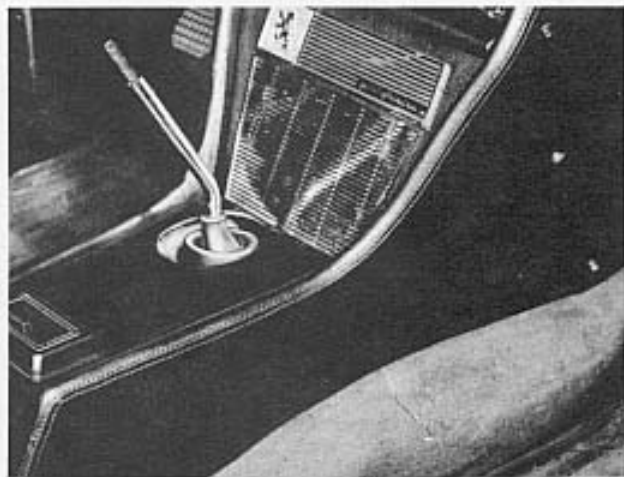


- Unscrew the four screws and push the heater control support 1 forwards.
 - Retighten the four screws.
 - Slacken the nut and move the front console support 2 forwards.
- Do not tighten the nut yet
- The rear support, on the tunnel, is not adjustable and the console is secured with self tapping screws.

0608

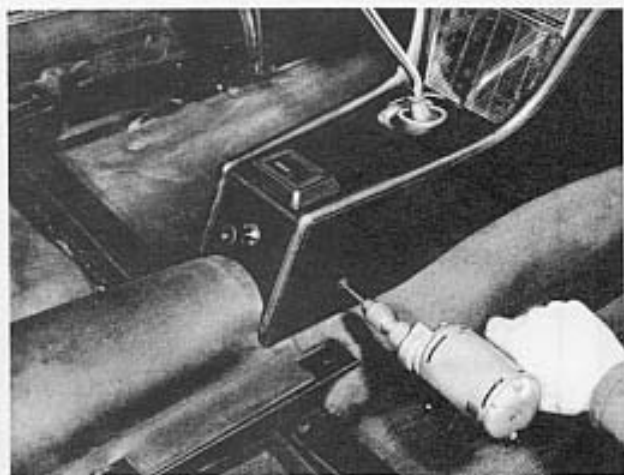
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GEARBOX GEAR CHANGE CONTROLS

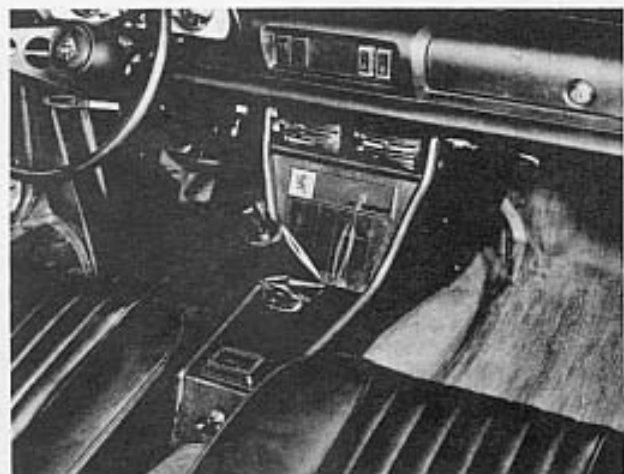


REFITTING

- Engage reverse gear
- Refit the console and tighten in the following order :
 - the two securing screws on the heater controls
 - the screws on the sides of the console
 - the screws on the tunnel
 - the central nut on the tunnel
- Check the freedom of the gear change lever in the console, in all the gears.
- Correct the setting if necessary.



- Set the rear of the console on the tunnel
- Drill the support to 2.8 mm diameter
- Position and tighten the self tapping screws.



- Refit the gear change lever ball
- Reconnect the cigarette lighter
- Refit the ash tray
- Refit the front seats
- Reconnect the battery and reset the clock.

**PROPELLER SHAFT/DRIVE SHAFTS
SUMMARY**

4

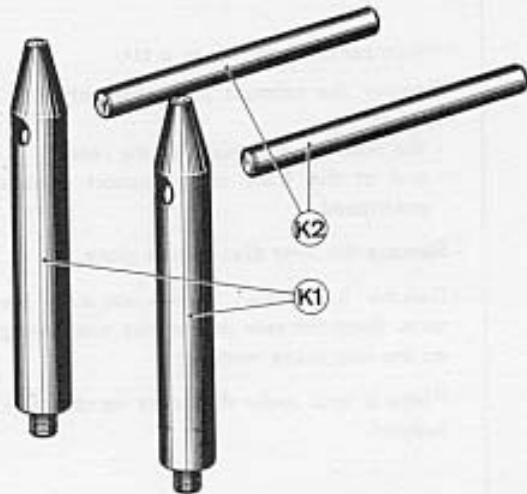
<i>I - PROPELLER SHAFT</i>	Pages
REMOVAL AND REFITTING	
Tools to be used	0201
Removal	0292
Checking	0204 (1)
Refitting	0204 (1)
 REMOVAL OF CENTRE BEARING	
Tools to be used	0301
Removal	0302
Refitting	0303
 <i>II - DRIVE SHAFTS</i>	
REMOVAL AND REFITTING	
Saloons	
Tools to be used	1201(1)
Removal	1202
Refitting	1205
 Convertibles - Coupés	
Tools to be used	1211
Removal	1212
Refitting	1214
 DISMANTLING - REASSEMBLY	
Tools to be used	1301
Dismantling	1303
Reassembly	1306

PEUGEOT

PROPELLER SHAFT
REMOVAL AND REFITTING

4

0201

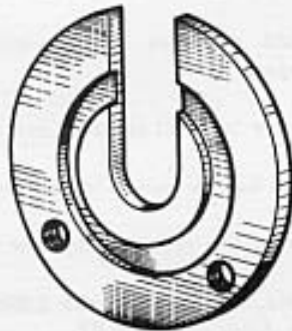


TOOLS TO BE USED

8.0906

Tool chest for front and rear suspension

- K1 set of two rear cross member guide rods
- K2 set of two bars



8.0403 S

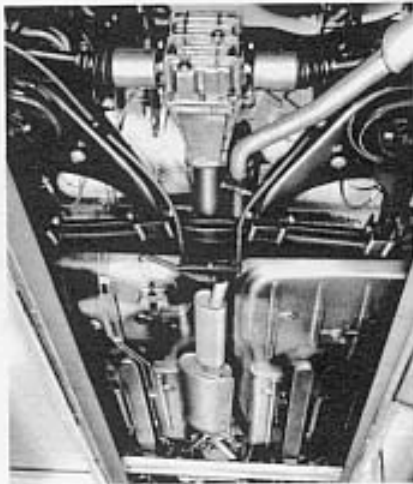
- Propeller shaft holding plate

PEUGEOT

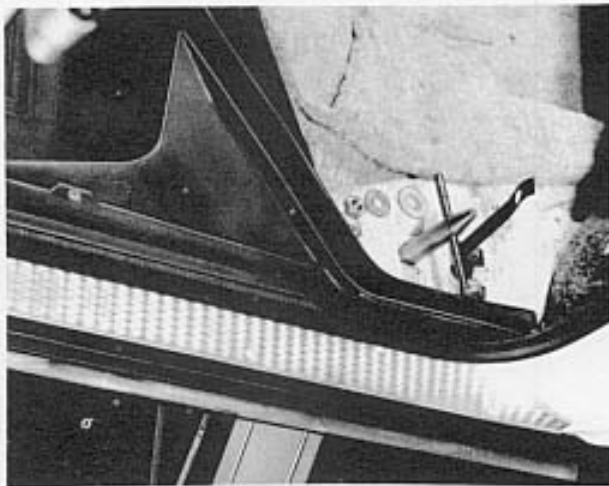
0202

4

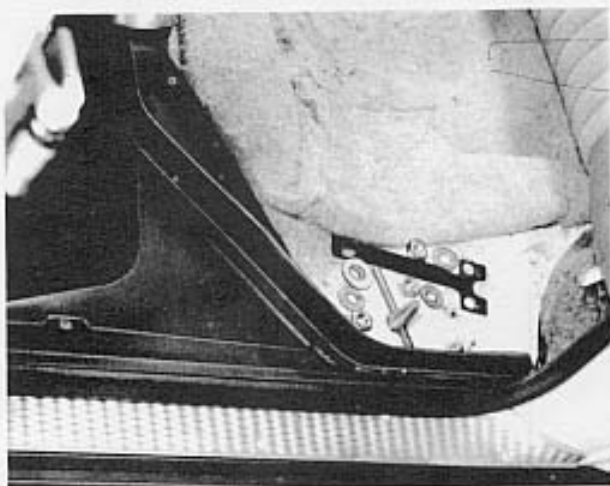
PROPELLER SHAFT REMOVAL



- Place car on a car lift or a pit.
- Remove the exhaust pipe assembly and let it rest on :
 - the rear cross member, at the rear,
 - and at the front on a support transversally positioned.
- Remove the heat dissipation plate.
- Remove both Allen screws securing the rear axle. Rest the rear part of the connecting tube on the rear cross member.
- Place a jack under the cross member left hand support.



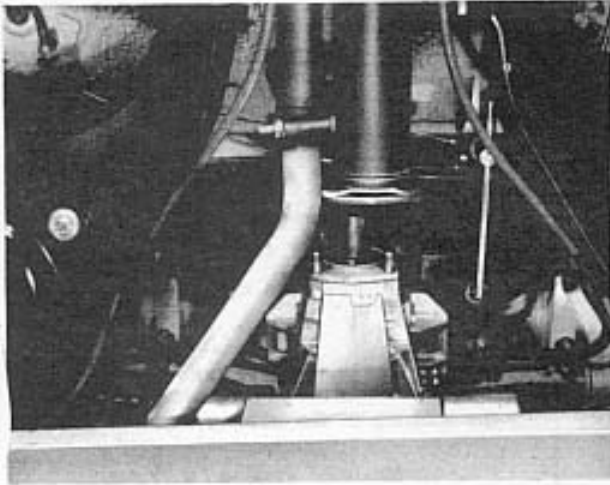
- Remove the rear seat cushion.
- Unlock all three securing nuts of the cross member.
- Remove the front securing nut.
- Raise the tab lock or locking washer.
- Remove the plastic plug from the guide hole.
- Firmly tighten guide rod 8.0906 K1 into this hole. Lock using bar K2.



- LEAVE THE ROD IN THE GUIDE HOLE
- Remove the cross member rear securing nuts and the thrust washers.
- Lower the cross member until the bar bears against the floor.
- The same operations should be carried out on the right hand side.

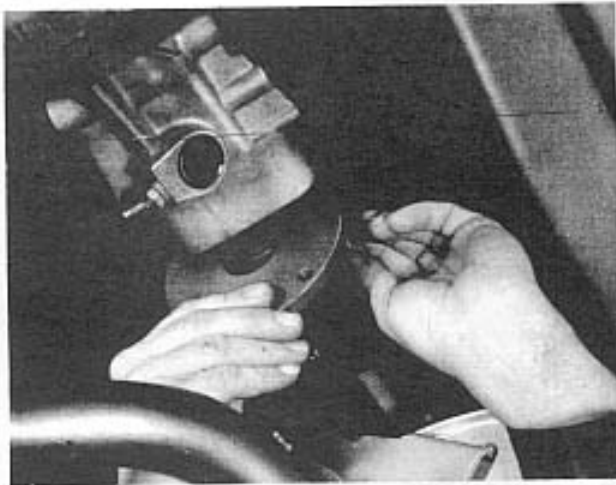
PROPELLER SHAFT REMOVAL

4

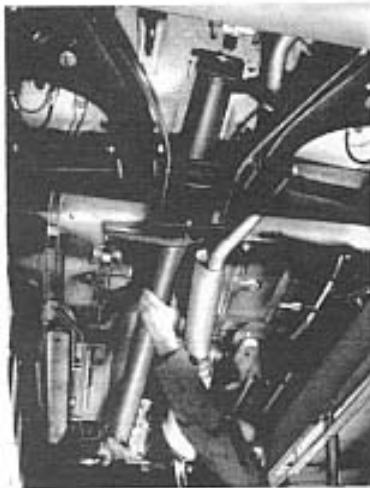
0203⁽¹⁾

- Separate the differential from the connecting tube.
- Move the differential rearwards and rest it on a wooden block.
- Remove the spring located inside the propeller shaft.

N.B. - In order to be able to move the car freely, the differential can be secured to the suspension crossmember using two 204 cylinder head bolts.



- Remove the four Allen screws securing the connecting rod to the gearbox.
- Separate the tube from the gearbox by approx. 20 mm.
- Insert the propeller shaft holding plate 8,04035 between them.
- Using two Allen screws M 10 x 150 secure this plate to the tube lower part.



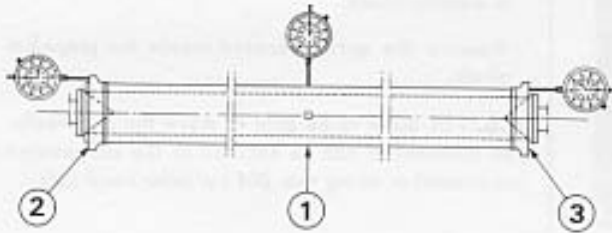
- Lower the exhaust pipe downwards at the front.
- Separate the propeller shaft from the gearbox.
- Bring the assembly connecting tube propeller shaft forward to withdraw it.

PEUGEOT

0204⁽¹⁾

4

PROPELLER SHAFT REFITTING



CHECKING

- Connecting tube
- Place the tube between two centering pins.
- Using a dial indicator check :
 - the out of true 1 on the grease nipple right hand side.

Maximum out of true : 2 mm

- the warping of the bearing surfaces 2 and 3.

Maximum warping : 0.05 mm

- Propeller shaft
- Place propeller shaft between two centering pins.
- Using a dial indicator check the maximum out of true on the central bearing surface.

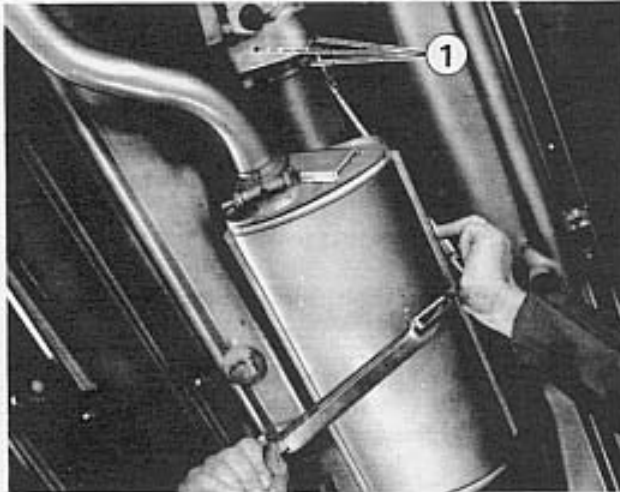
Maximum out of true : 0.2 mm



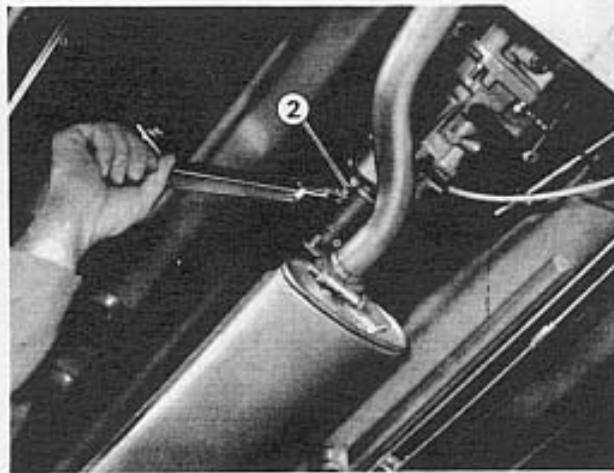
REFITTING

- Ensure that the tube, the gearbox and differential bearing surfaces are perfectly clean.
- Press the propeller shaft front part against the tube using holding plate 8.0403 S.
- Smear MULTIPURPOSE GREASE H on the front part of the propeller shaft splines.

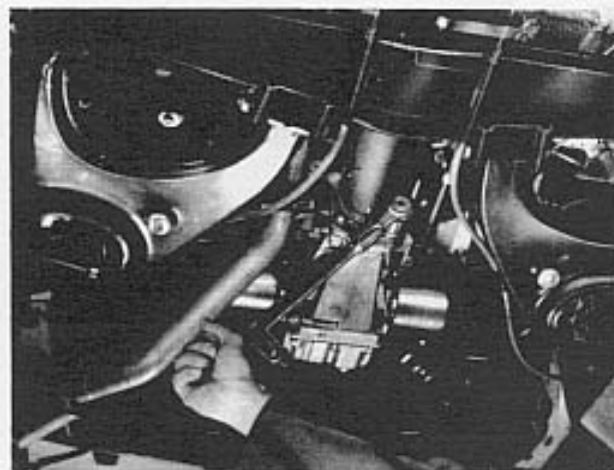
PROPELLER SHAFT REFITTING

4 02 05^{V23}


- Rest the connecting tube on the crossmember at the rear.
- Engage the propeller shaft sleeve with the gearbox output shaft.
- Remove plate 8.0403 S.



- Fit all four Allen assembling screws equipped with new Blocfor washers.
- Tighten the three Allen screws 1 to 43.5 ft.lbs (6 m.kg).
- The fourth one 2 should also be tightened to 43.5 ft.lbs (6 m.kg) using the 8 mm male hex head socket and the Facom torque wrench equipped with a fork extension.



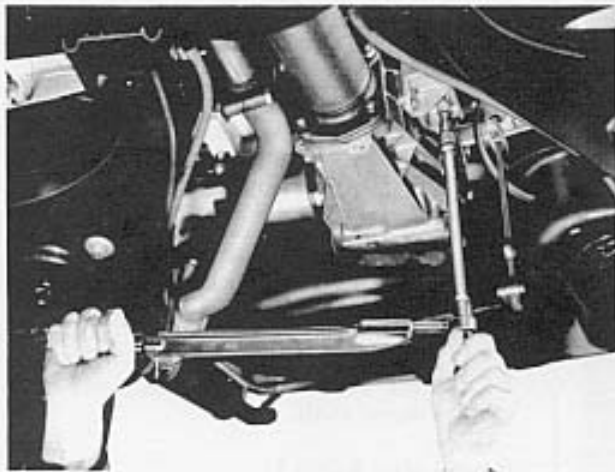
- Smear the propeller shaft splines with grease.
- Fit the spring inside the propeller shaft.
- Couple the differential with the propeller shaft.
- Fit four new Blocfor washers onto the assembling studs.
- Tighten the nuts to 43.5 ft.lbs (6 m.kg).

PEUGEOT

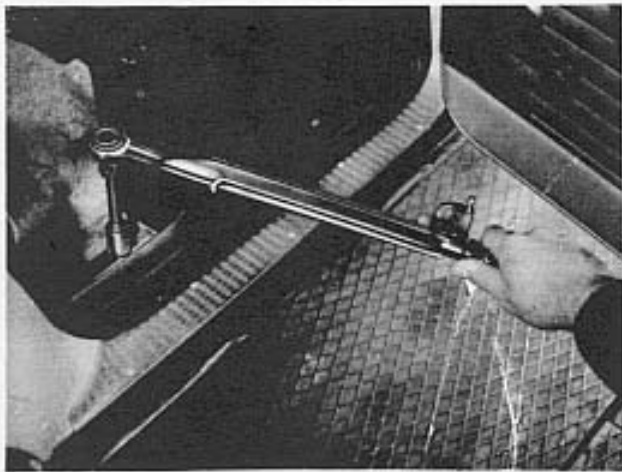
0206⁽²⁾

4

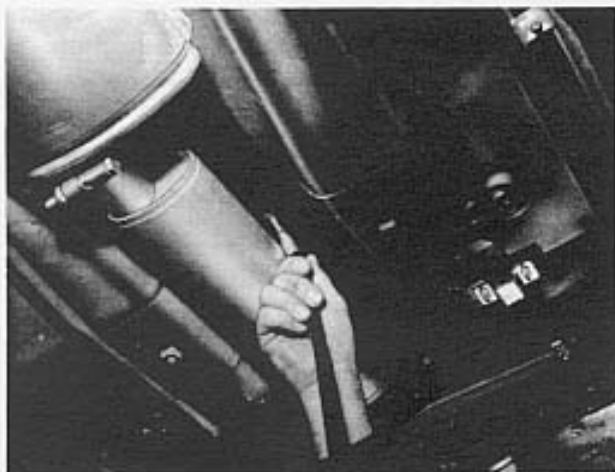
PROPELLER SHAFT REFITTING



- Using two Allen screws equipped with new Blocfor washers, equipped with counter plates, secure the differential to the suspension cross-member.
- Tighten the screws to 27 ft.lbs (3.75 m.kg).
- Refit the heat dissipation plate.
- Refit the exhaust pipe assembly and install a new clamp gasket.
- Properly centre the assembly to avoid contact with the connecting tube, the rear crossmember and the floor.



- Place a jack under the righthand lateral support and raise the crossmember until it comes into contact with the floor.
- Remove guide K1.
- Close the guide hole using the plastic plug.
- Following the order given below, install the following parts on the studs :
 - the flat washers
 - a new tab lock
 - the securing nuts must be tightened either at :
 - 504 A01 - 1 005 546
 - 504 A02 - 1 003 649
 - 504 A03 - beginning of series
 - 504 B02 - 1 032 357
 - 504 C02 - 1 009 769
- Lock by bending the tab tongues over the nuts.
- To secure the rear crossmember in position carry out the same operations on the left hand side.

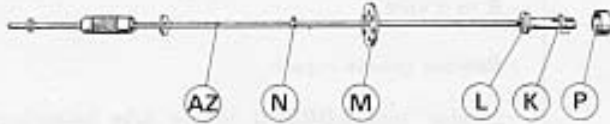


- Refit the rear seat cushion.
- Grease the propeller shaft centre bearing.
- Check gearbox oil level : top up if necessary using ESSO EXTRA MOTOR OIL 20 W 30/40.

**PROPELLER SHAFT
REMOVAL-REFITTING OF CENTRE BEARING**

4

0301

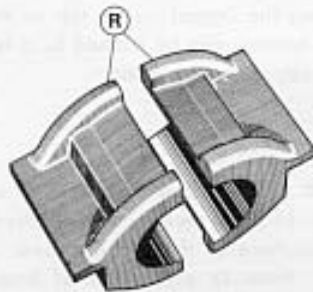


TOOLS TO BE USED

8.0403 U

- Tool for fitting the centre bearing into the connecting tube comprising of :

- AZ - Impact puller
- K - Puller assembly
- L - Installing stop
- M - Plate
- N - Adjustment sliding ring
- P - Guiding ring.



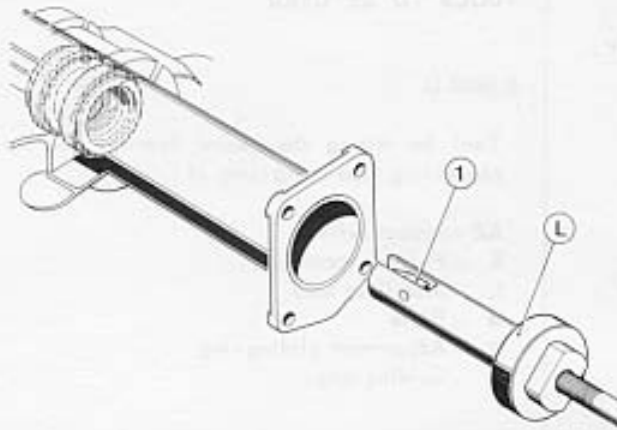
R - Connecting tube support.

PEUGEOT

0302

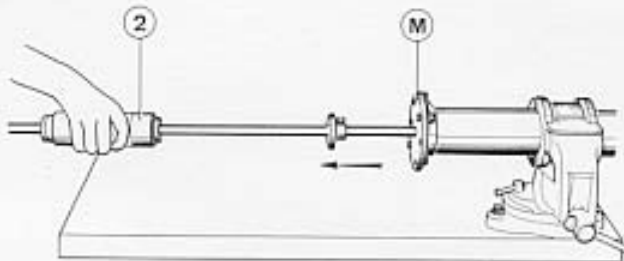
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PROPELLER SHAFT CENTRE BEARING REMOVAL



- Hold connecting tube equipped with support R in a vice.
- Remove grease nipple.
- Engage tool 8.0403 U inside tube (ensuring correct positioning in order that the rocking lever 1 remains horizontal) until stop L touches the bearing.
- Secure plate M on tube.
- Using the impact puller tap on the tool so that the bearing can be pushed by a few centimetres thereby releasing same.

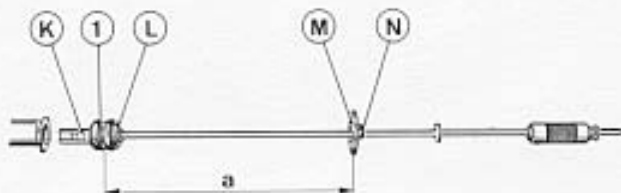
NOTE - The above operation is of great importance because due to the relatively small contact surface of the rocking lever on the bearing race, there is some risk of breaking the race during removal.



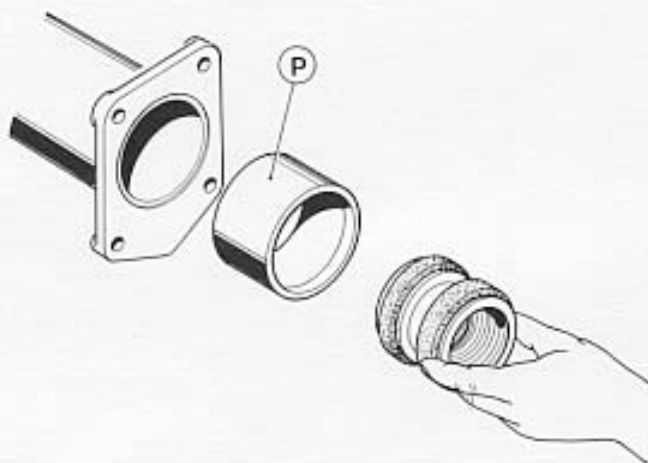
- Turn the tool half a turn in order that the rocking lever lies vertically.
- Remove the bearing using impact puller 2 until it abuts on plate M.
- Then remove plate M and afterwards the bearing
- Clean, examine and replace all defective parts.

PROPELLER SHAFT
CENTRE BEARING REMOVAL

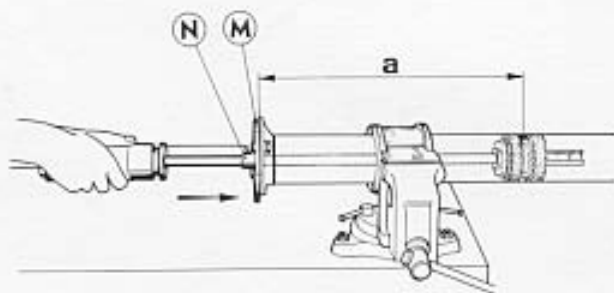
4 0303



- Hold connecting tube equipped with support R in a vice.
- Prepare tool n° 8.0403 U
 - screw puller K until threaded rod touches the thick part of the rocking lever so that same be immobilized.
- Lock tightly installing stop L against puller K.
- Place bearing I on puller K.
- Measure on connecting tube dimension a between grease nipple and attachment clamp.
- Apply this dimension a on the tool between centre bearing lubrication groove I and plate M.
- Bring sliding ring N against plate M and tighten its attachment screw.



- Using engine oil lubricate inside of connecting tube.
- Dip complete bearing in oil, then insert bearing in torque tube using guiding ring P or if necessary a mallet.



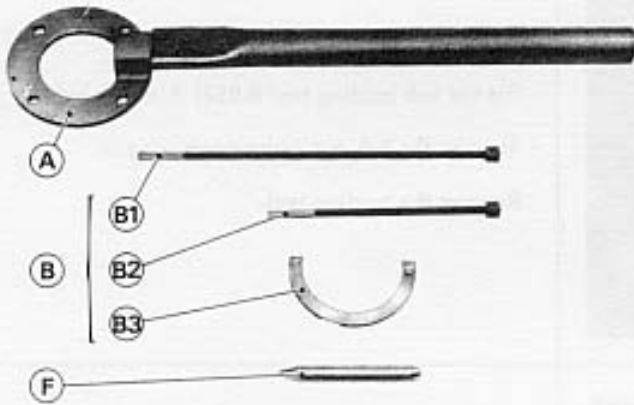
- Engage tool in the bearing.
- Secure plate M on connecting tube.
- Using impact puller tap on the tool until sliding ring N touches plate M.
- Through grease nipple hole ensure correct positioning of bearing lubrication groove.
- Fit grease nipple.

PEUGEOT

DRIVE SHAFTS
REMOVAL - REFITTING

4

12 01⁽¹⁾



504 SALOONS

TOOLS TO BE USED

8.0521 Z

Tool chest for rear hub bearings

- A - Hub retaining tool
- B - Hub carrier extractor consisting of :
 - B1 - long bolt
 - B2 - short bolt
 - B3 - thrust plate
- F - Locking punch

PEUGEOT

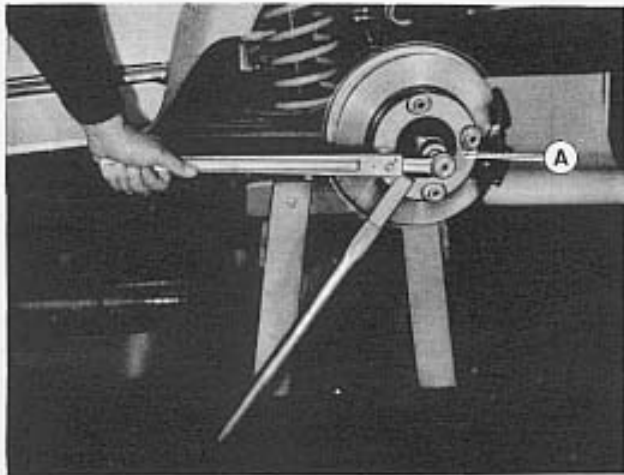
6-70

Supersedes page 12 01, class 4

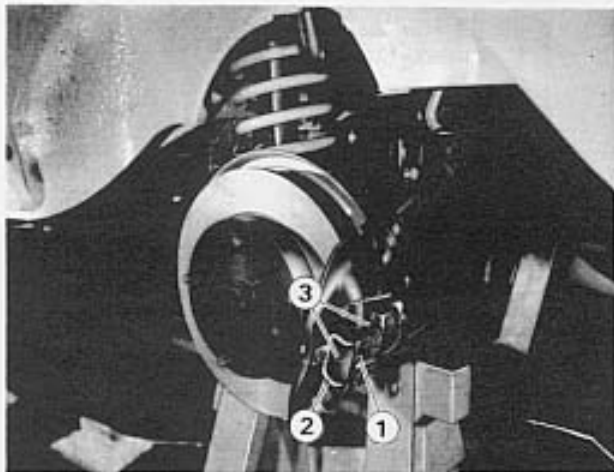
504 Workshop Manual - Ref. 1212 E

1202

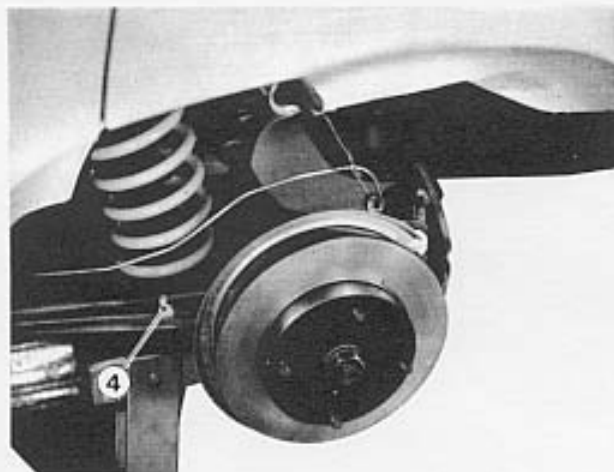
4

DRIVE SHAFTS
REMOVAL

- Raise the rear of the car and chock it under the suspension arm as shown opposite.
- Remove the wheel
- Fit the hub holding tool 8.0521 A on the hub.
- Slacken the hub nut without removing it.
- Remove the holding tool.



- Remove :
 - the thrust spring 1,
 - the retaining fork 2,
 - the brake pads 3.

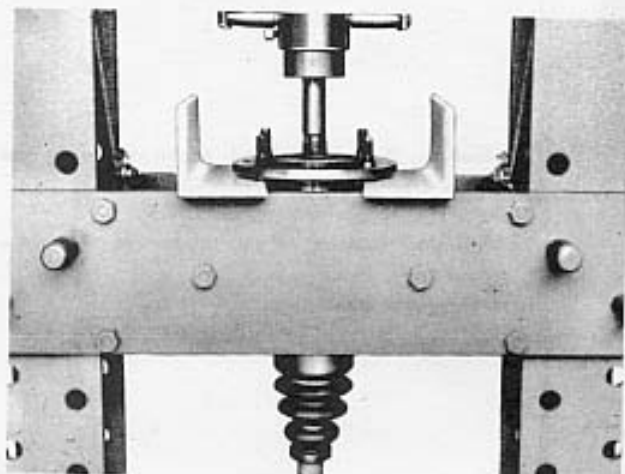


- Open the brake line retaining clamp 4 on the rear arm.
- Remove the Allen screw securing the caliper using an 8 mm Allen socket.
- Remove the caliper, without distorting the brake line, and suspend it from the bodywork.

1204

4

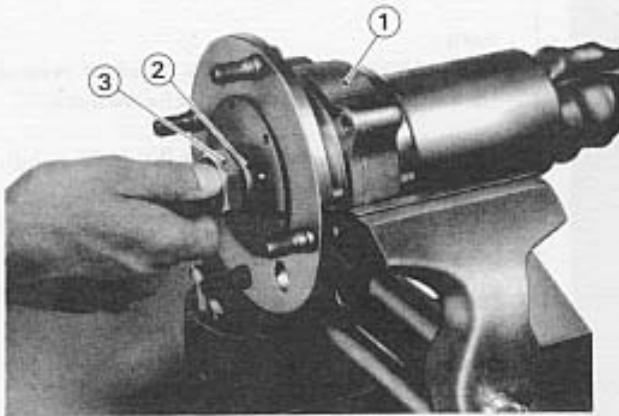
DRIVE SHAFTS REMOVAL



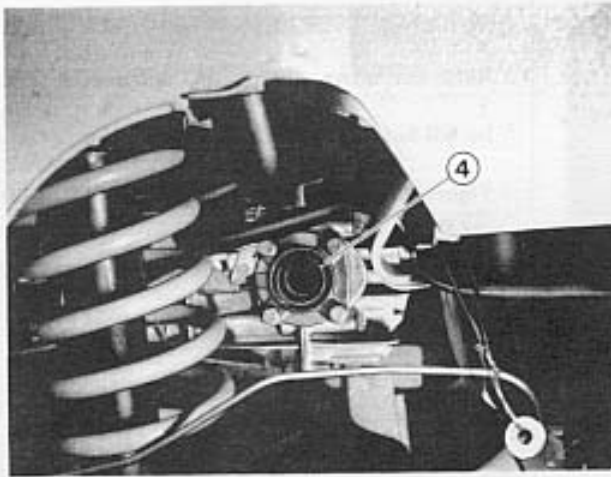
- Remove the hub nut.
- Set aside the washer.
- Remove the drive shaft from the hub knuckle using a press if necessary.

DRIVE SHAFT
REFITTING

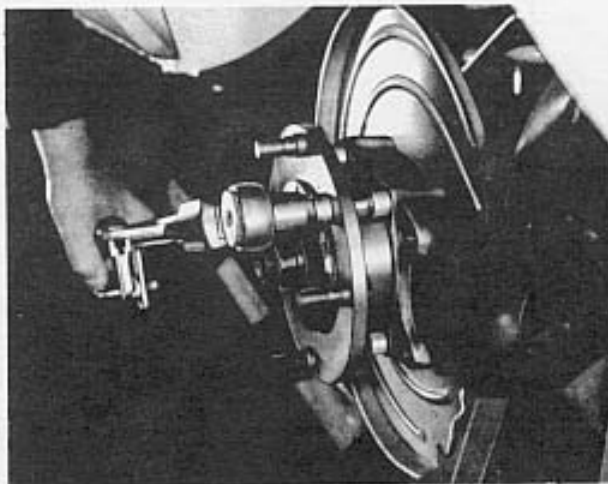
4 1205



- The parts should be thoroughly clean and free from any defect.
- Hold hub/knuckle 1 in a vice.
- Smear the drive shaft splines, wheel side, with Molykote 321.
- Engage the drive shaft into the hub.
- Fit washer 2.
- Hand tighten a new hub nut 3.



- Ensure perfect condition of lateral seal ring 4 on the differential housing.
- Smear the gap between the seal lips with tallow or grease.
- Grease the drive shaft splines.

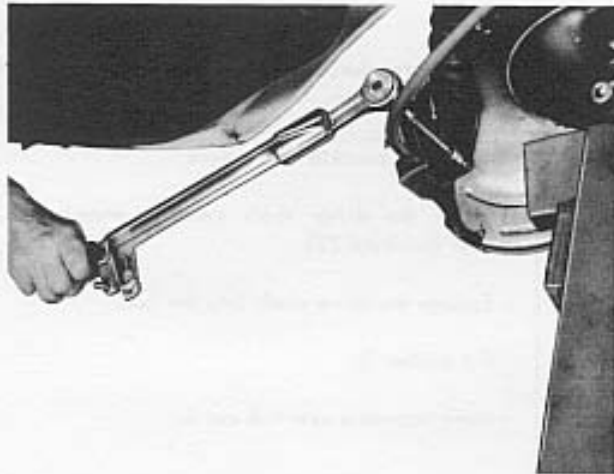


- Engage hub/knuckle/drive shaft assembly in its housing on suspension arm.
- Carefully introduce the drive-shaft splined end into the differential housing.
- Using new Blocfor washers secure the knuckle to the suspension arm.
- Tighten the Allen screws to 29 ft.lbs (4 m.kg).

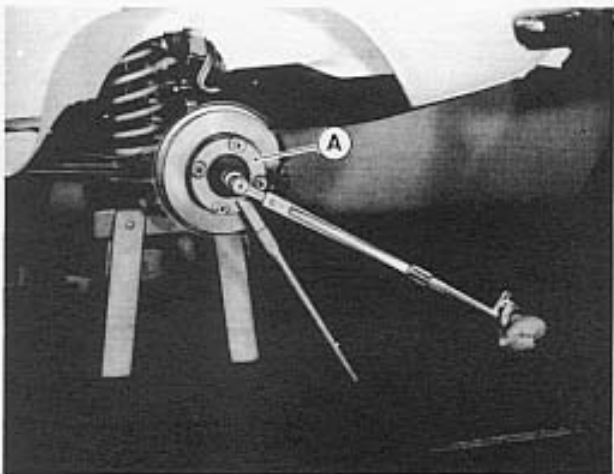
PEUGEOT

1206

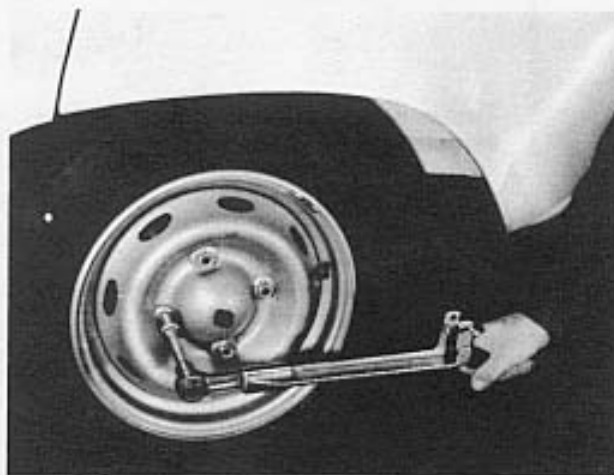
4

DRIVE SHAFTS
REFITTING

- Refit :
 - brake disc in the position noted at removal
 - brake caliper using new Bloctar washers.
- Tighten the screws to 31 ft.lbs (4.25 m.kg).
- Fit the brake pads, the holding fork and tighten the bolt to 13 ft.lbs (1.75 m.kg).
- Observing the correct direction of fitment install the thrust spring in the brake pads (arrow facing normal rotation direction of the disc).



- Refit the brake pipe to the suspension arm.
- Install holding tool A onto the rear hub.
- Tighten the drive shaft nut to 189 ft.lbs (25 m.kg).
- Punch this nut using tool F.
- Remove the holding tool.

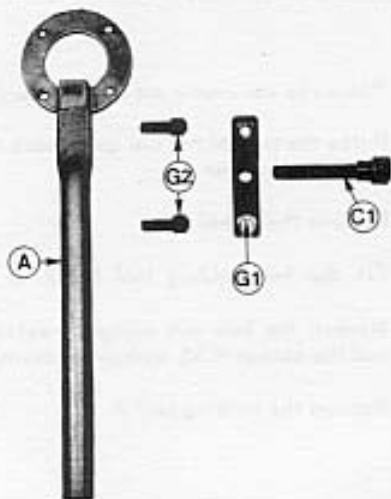


- Refit the wheel and tighten the nuts to 43.5 ft. lbs (6 m.kg).
- Fit the wheel trim.
- Check oil level in the rear axle. Top up if necessary using ESSO GEAR OIL GP 90.

DRIVE SHAFTS
REMOVAL - REFITTING

4

1211



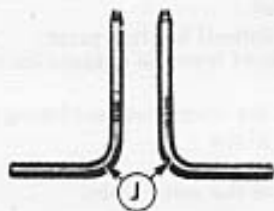
504 CONVERTIBLES AND COUPES

TOOLS TO BE USED

8.0521 Z

Tool chest for rear hubs

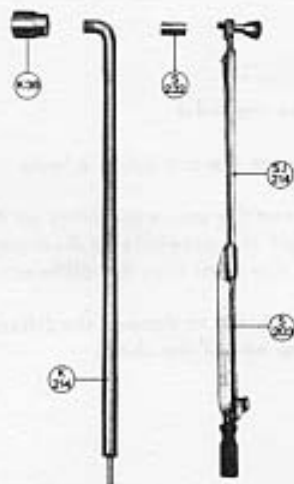
- A - Hub holding tool
- C1 - Extractor bolt
- G1 - Extractor plate
- G2 - Reversible plate nuts



8.0906 Z

Tool chest for front and rear suspension .

J - Set of 2 rods for positioning the rear arms on the cross member.



RECOMMENDED TOOLS

Standard Facom tools :

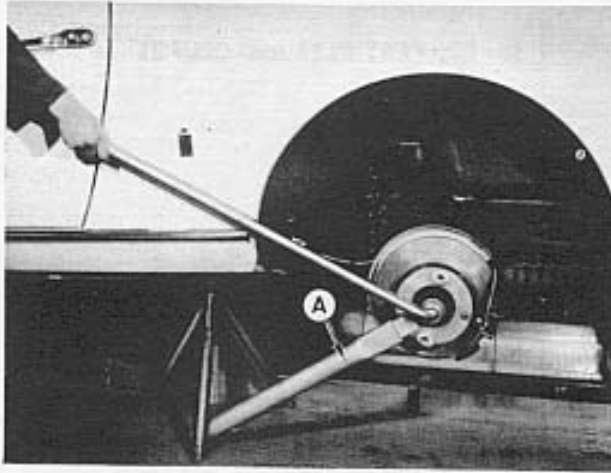
- Socket - K 36
- Adaptor - S 232
- Torque wrench - S 203
- Extension SJ 214
- Extension K 214

PEUGEOT

1212

4

DRIVE SHAFTS REMOVAL



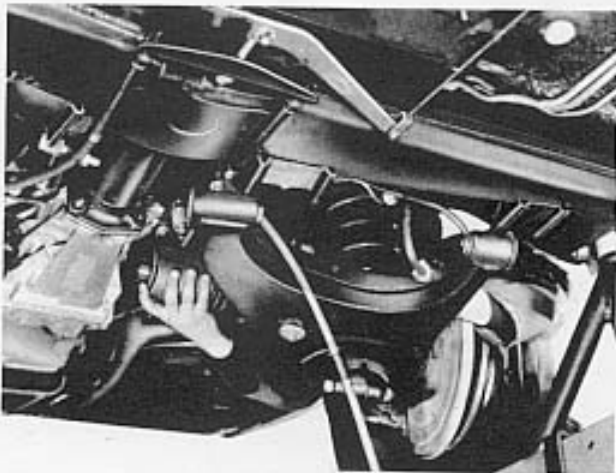
- Place the car over a pit or on a car lift
- Raise the rear of the car and chock it under the rear crossmember
- Remove the wheel
- Fit the hub holding tool 8.0521 A to the hub
- Slacken the hub nut, using the extension K 214 and the socket K 36, without removing it.
- Remove the holding tool A



- Unclip the hand brake cable from the rear arm
- Disconnect the cable from the rear brake end
- Remove :
 - the antiroll bar link pivot
 - the nuts from the suspension arm pivots
- Drive the inner pivot out fitting the rod 8.0906 J in its place
- Remove the outer pivot.

N.B. -

The shock absorber should remain fixed.

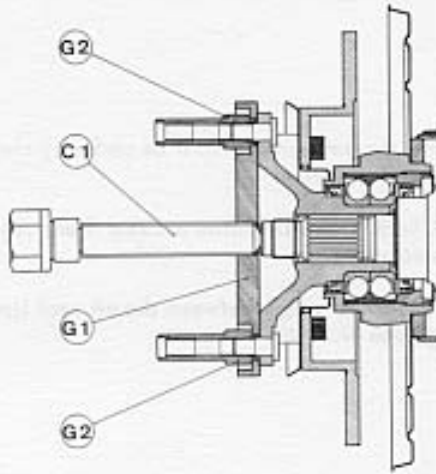


- Remove the rod J
- Disengage the arm using a lever
- Compress the universal joints on the drive shaft and pull the assembly to disengage the splined end of the shaft from the differential housing.
- Take care not to damage the differential oil seal with the end of the shaft.

DRIVE SHAFTS
REFITTING

4

1213



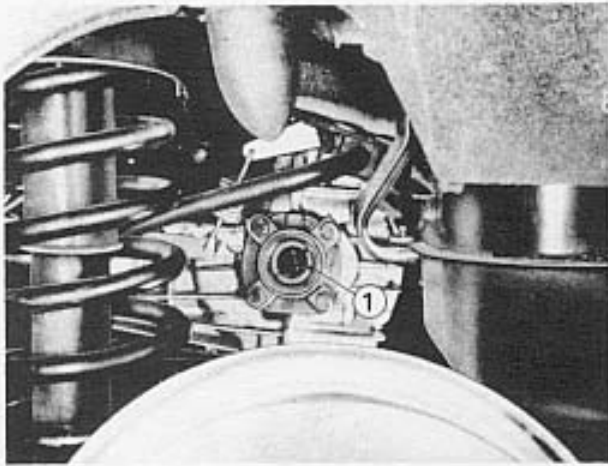
- Remove the hub nut
- Withdraw the drive shaft, using the extractor plate G1 secured to the wheel studs with the nuts G2 and the extractor bolt C1 as shown opposite, if necessary.



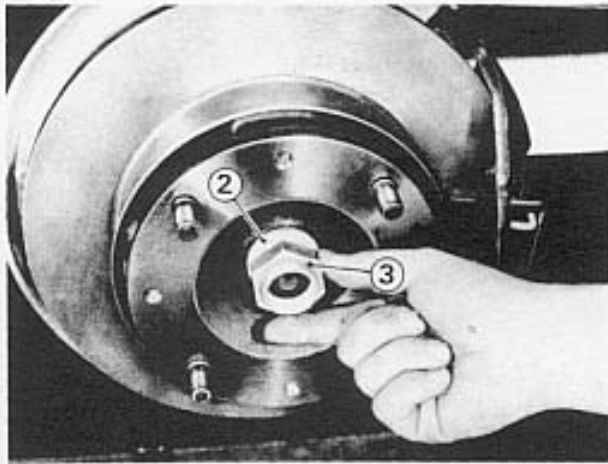
PEUGEOT

1214

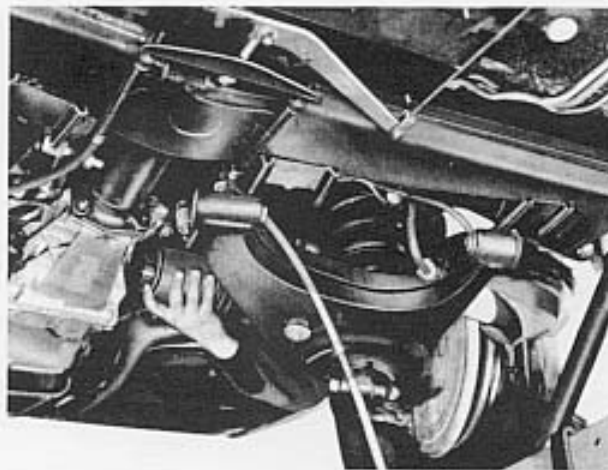
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DRIVE SHAFTS
REFITTING

- All the components must be perfectly clean and free from defect
- Check the differential oil seal 1 and replace if necessary
- Smear the space between the oil seal lips with grease or tallow



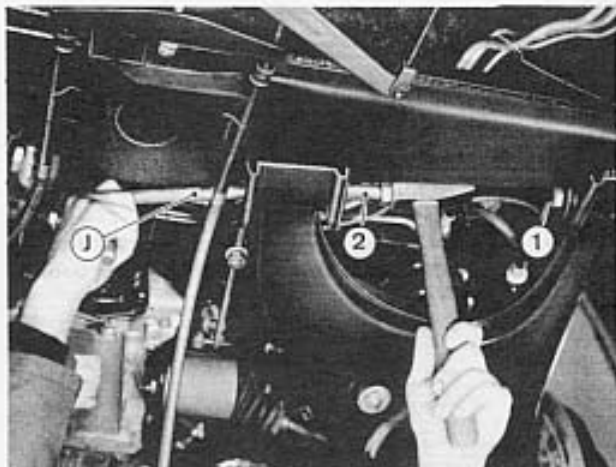
- Coat the splines on the wheel end of the shaft with Molykote 321
- Engage the shaft in the hub
- Fit the washer 2 and a new nut 3
- Grease the splines on the differential end of the shaft lightly



- Disengage the suspension arm as much as possible
- Compress the drive shaft universal joints
- Carefully engage the splined end in the differential housing.
- Reposition the suspension arm in the yokes on the crossmember using a lever.

DRIVE SHAFTS
REFITTING

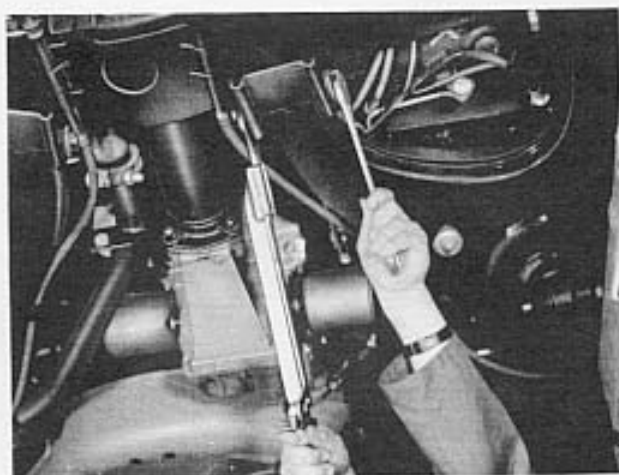
4 1215



- Secure the inner pivot using the rod J and insert the outer pivot 1
- Fit the inner pivot 2 as shown opposite
- Fit the flat washers and new Nylstop nuts without tightening them.



- Reconnect the handbrake cable and secure it on the suspension arm
- Reconnect the anti-roll bar link, using a new Nylstop nut without tightening it
- Fit the holding tool A on the hub
- Tighten the hub nut to 181.25 ft.lbs (25 m.kg.)
- Lock the nut using tool F
- Remove the tool A.



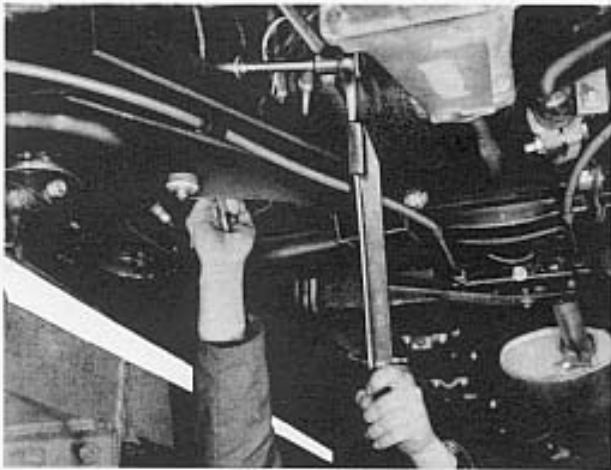
- Refit the wheel and tighten the nuts to 43.5 ft.lbs (6 m.kg)
- Fit the wheel trim
- Raise the rear of the car and remove the stands
- Lower the rear and have two people sit in the back seats in order that the rubber bushes adopt their "neutral" position
- Tighten the suspension arm pivot nuts to 47 ft.lbs (6.5 m.kg).

PEUGEOT

1216

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DRIVE SHAFTS REFITTING



Tighten the antiroll bar link pivot to 33 ft.lbs (4.5 m.kg).

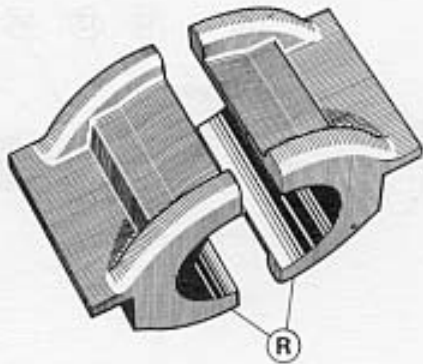
- Check the oil level in the differential housing and if necessary top up using **Esso Gear oil GP 90**.



DRIVE SHAFTS
DISMANTLING-REASSEMBLY

4

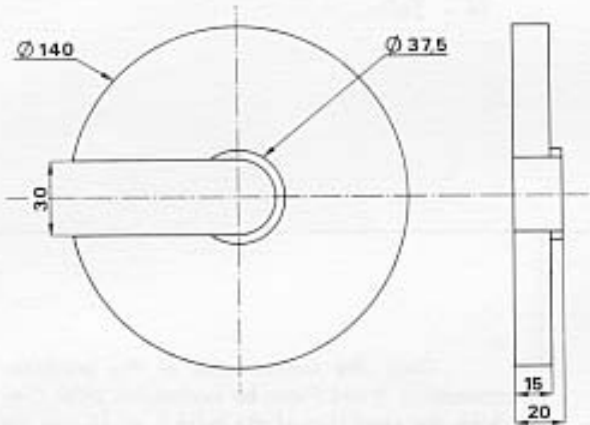
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TOOLS TO BE USED

8.0403 U

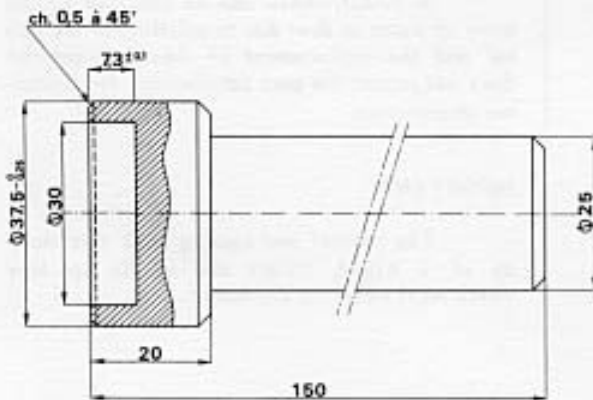
R - Propeller shaft tube support



Tools to be made up in the workshop

0.0403

Spacer for removing the journal and bearing packs.



0.0404

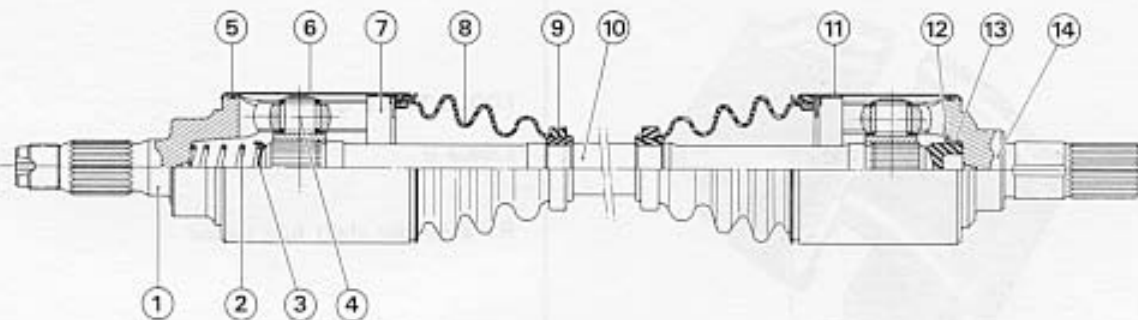
Drift for positioning the journal and bearing packs.

PEUGEOT

13 02

4

DRIVE SHAFTS
DISMANTLING-REASSEMBLY



Wheel side

- 1 - Tulip
- 2 - Spring
- 3 - Cup
- 4 - Journal and bearing pack
- 5 - O - ring
- 6 - Cover . length 113 mm
- 7 - Spacer
- 8 - Gaiter
- 9 - Retaining ring
- 10 - Shaft

Differential side

- 11 - Cover : Length 99 mm
- 12 - Thrust washer
- 13 - Stop
- 14 - Tulip



Only the replacement of the protector assemblies 5 and 9 can be envisaged, after checking the condition of the tulip 1 or 14 and the journal and bearing packs 4.

In effect, these can be damaged by the entry of water or dust due to splitting of the gaiter and the replacement of these assemblies does not render the part satisfactory for guarantee application.

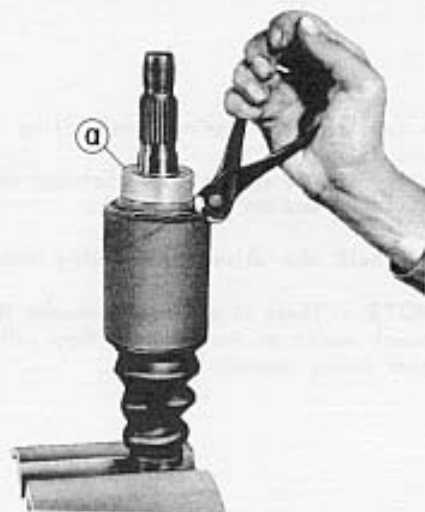
IMPORTANT

The journal and bearing pack 4 is made up of a tripod, rollers and needle bearings which must never be separated.

DRIVE SHAFTS DISMANTLING - REASSEMBLY

4

1303



- Clamp the drive shaft vertically in a vice equipped with aluminium jaws.
- Place adhesive tape (a) on the oil seal bearing face of the tulip to protect it from knocks.
- Bend back the cover carefully using a pair of end cutters.



- Disengage the cover by tapping lightly with a hammer.
- Remove the tulip by raising it vertically
- Wheel side joint :
 - Recover the spring and the thrust cup.
- Lower the gaiter as far as possible on the shaft.



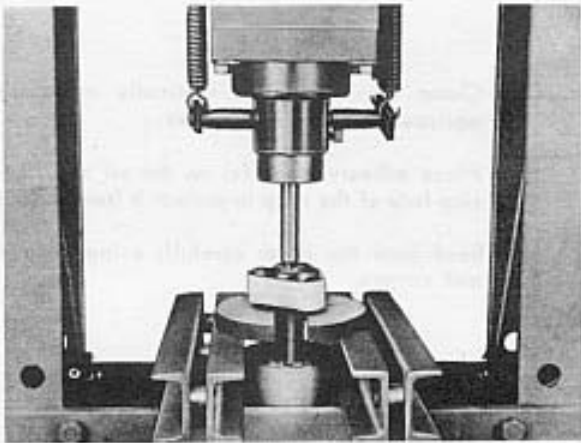
- Stick a strip of adhesive tape around the bearing pack. This is a paired component and must not be separated.
- Remove as much of the grease as possible from the assembly.
- **Never** dip it in a degreasing product.

13 04

4

DRIVE SHAFTS

DISMANTLING

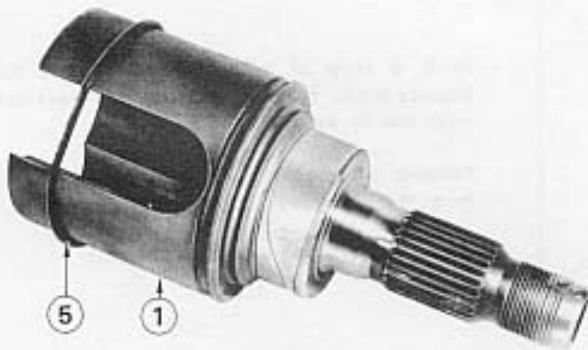


- Extract the bearing pack using a press
- place the spacer 0,0403 between the press plate and the bearing pack.
- hold the drive shaft during dismantling

NOTE - There is no need to remove the three punch marks on the shaft as they will disappear during removal.



- Remove the protector and the rubber ring
- Proceed in the same manner for the differential side joint,
- In the event of replacement of both protectors there is no need to remove both bearing packs.
The protector of the second joint can be removed over the end of the first joint,

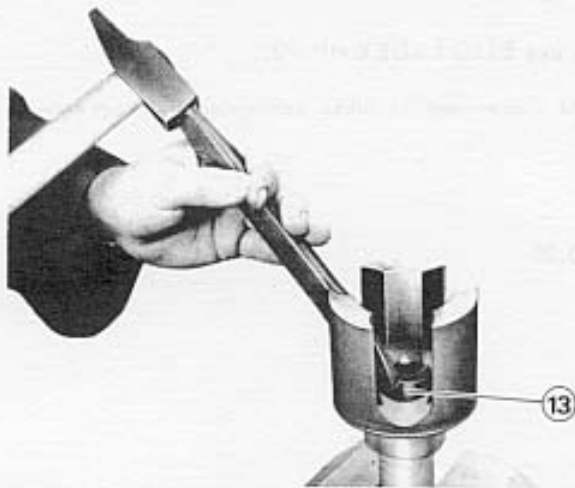


- Remove the O-ring 5 from tulip
- Remove the grease from inside the tulip.

DRIVE SHAFTS
DISMANTLING

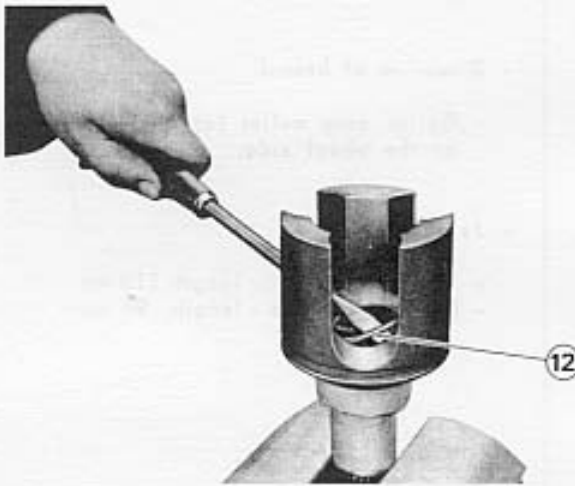
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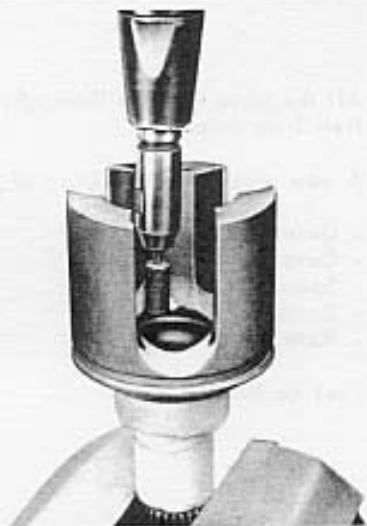


- Differential side tulip

In the event of wear or damage to the nylon stop 13 cut this away with a chisel.



- Remove the retaining washer 12 through the cut in the nylon stop.



- Remove the punch marks from the washer using a small stone,
- Clean and blow dry, removing all traces of abrasive from the tulip.

PEUGEOT

6-70

13 06

4

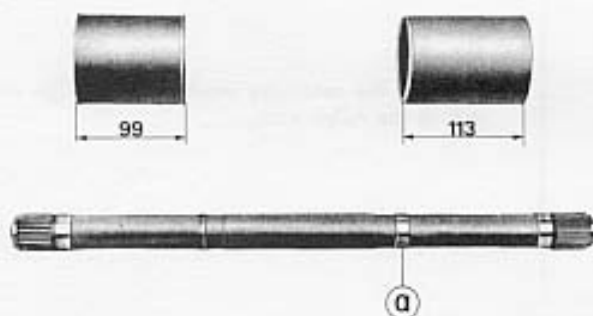
DRIVE SHAFTS
REASSEMBLY

For lubrication of the drive shaft joints, only use ESSO LADEX HP F2.

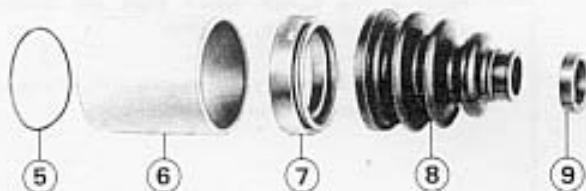
This grease is obtainable from the Spare Parts Department in tubes containing the exact amount for the joints.

Do not exceed the following quantities :

-Differential side joint : 130 g
-Wheel side joint : 130 g } P.N. 9.730.28



- Direction of fitment
- Gaiter stop collar (a) of 10 mm width on the wheel side.
- Joint covers
 - Wheel side : length 113 mm
 - Differential side : length 99 mm

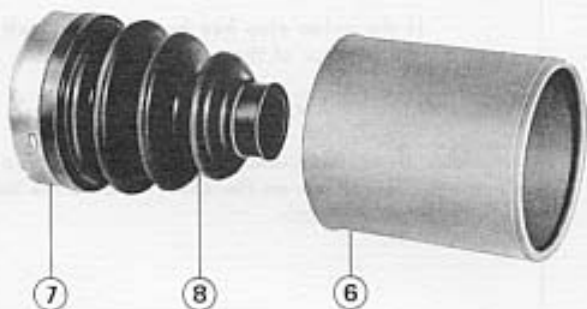


- All the parts must be thoroughly clean and free from defect.
- A new protector consisting of :
 - O-ring 5
 - Cover 6
 - Spacer 7
 - Gaiter 8
 - Retaining ring 9
 must be fitted.

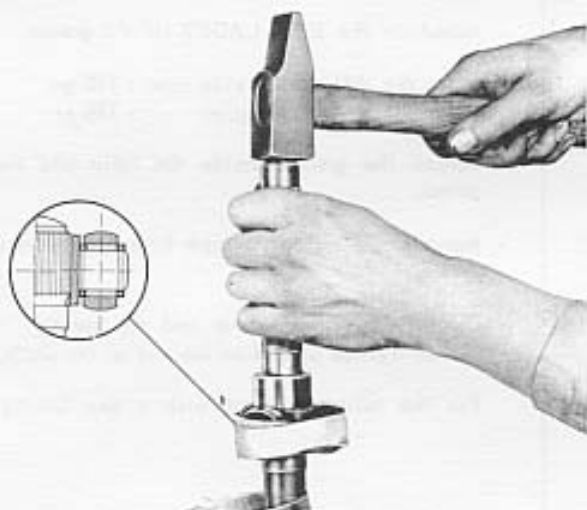
DRIVE SHAFTS
REASSEMBLY

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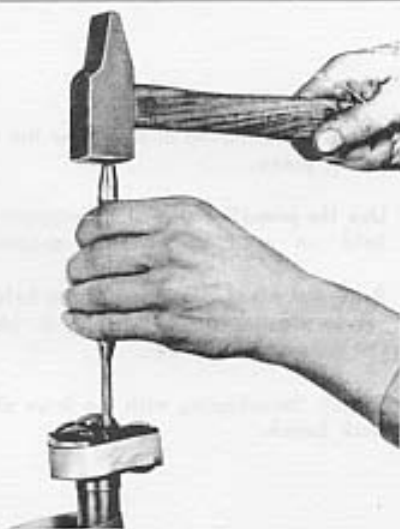
1307



- Assemble the gaiter 8 and the spacer 7
- Insert this assembly into the cover 6 after greasing it.
- Push the spacer in until it abuts.



- Clamp the shaft vertically in a vice fitted with aluminium jaws.
- Slide over the shaft :
 - The retaining ring
 - The assembled protector
- Install the bearing pack on the shaft.
- Drive it down until it abuts using the drift n° 0.0404 and a hammer
- Check that the lower part of the bearing pack is flush with the bottom of the shaft groove.

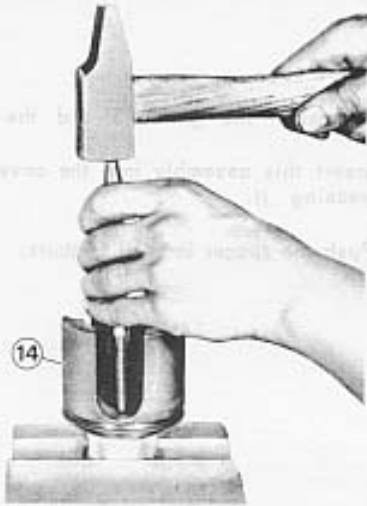


- Make three equidistant punch marks, spreading the splines on the shaft towards the hub of the bearing pack, using a centre punch.

PEUGEOT

1308

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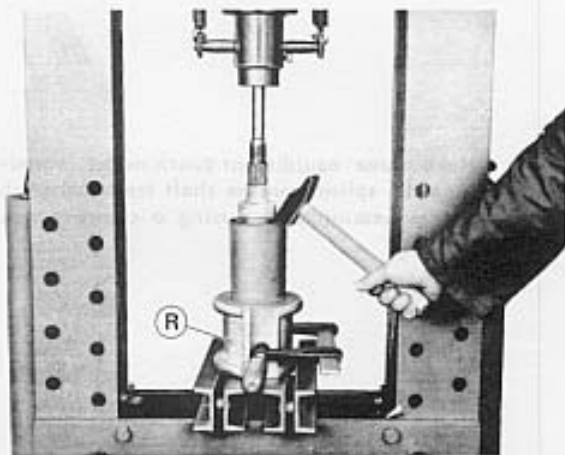
DRIVE SHAFTS
REASSEMBLY

If the nylon stop has been removed refit it, in the interior of the tulip 14:

- Insert the washer
- Make three equidistant punch marks, spreading the splines on the shaft towards the hub of the bearing pack.



- Introduce the ESSO LADEX HP F2 grease
 - for the differential side joint : 130 gr.
 - for the wheel side joint : 130 gr.
- Spread the grease inside the tulip and the gaiter.
- Remove the adhesive tape from the bearing pack.
- On the wheel side, cup and the spring should then be placed on the end of the shaft.
- Fit the tulip equipped with a new O-ring



- Begin the crimping of the cover the tulip onto in the press.
- Use the propeller shaft tube support, 8.0403 R held in a clamp, as a support.
- Bring the press onto the tulip to hold the spacer in place without crushing it (do not let the pressure increase).
- Finish the crimping with the drive shaft on a work bench.

DRIVE SHAFTS
REASSEMBLY

4

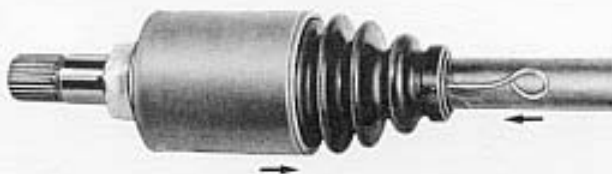
13 09



- Fit the retaining ring to the gaiter.
- Slide a welding rod, with the end rounded, between the gaiter and the shaft to release the air.

Wheel side joint

- Insert the shaft, to obtain the dimension of 88 mm as shown opposite.
- Remove the welding rod without altering this position.



Differential side joint

- After having inserted the rounded welding rod under the gaiter, insert the shaft into the tulip until it abuts, then remove the welding rod.
- Check the operation of the joints by hand. They must slide freely and no deformation of the gaiter must be present.

PEUGEOT

DIFFERENTIAL - REAR AXLE

5

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PEUGEOT

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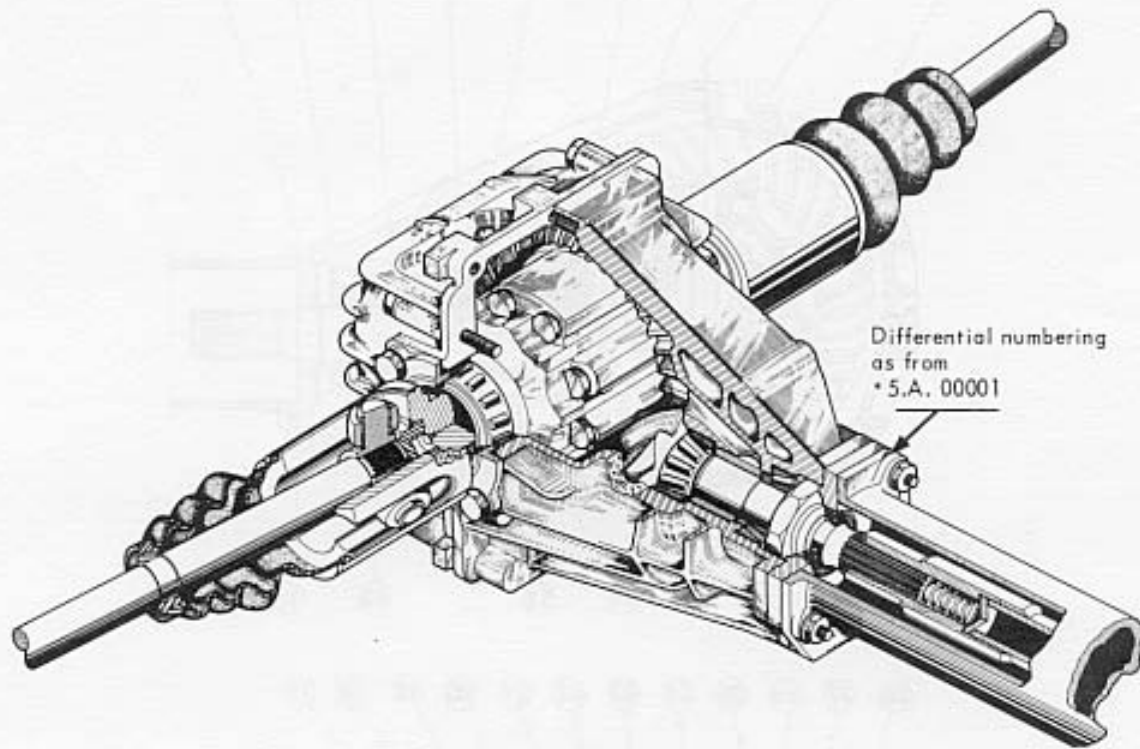
Supersedes the previous summary

504 Workshop Manual - Ref. 1212 E

DIFFERENTIAL
IDENTIFICATION - CHARACTERISTICS

5

01 01⁽²⁾



CHARACTERISTICS

Type	504 A01 504 A03	504 A02	504 B02 504 C02
Gear set	9 × 35	9 × 34	10 × 37
Ratio	0.257	0.264	0.270
Lubricant	ESSO GEAR OIL GP 90		
Capacity	2.10 pints (1.2 dm ³)		

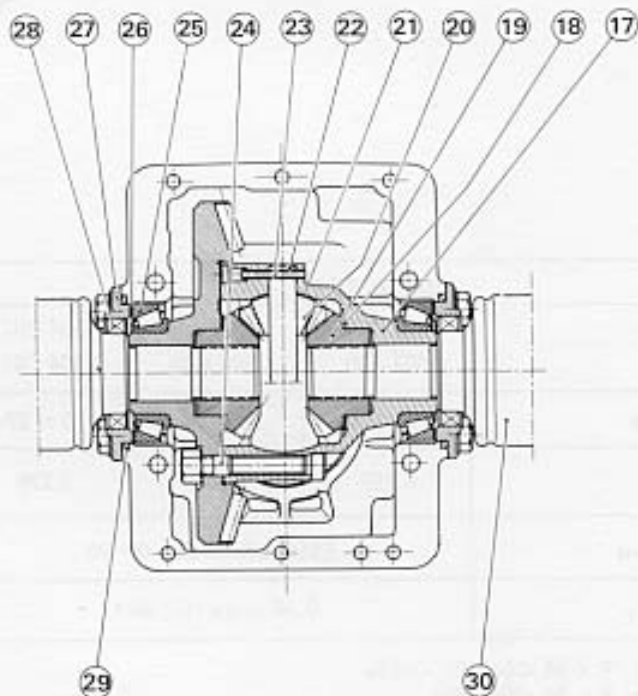
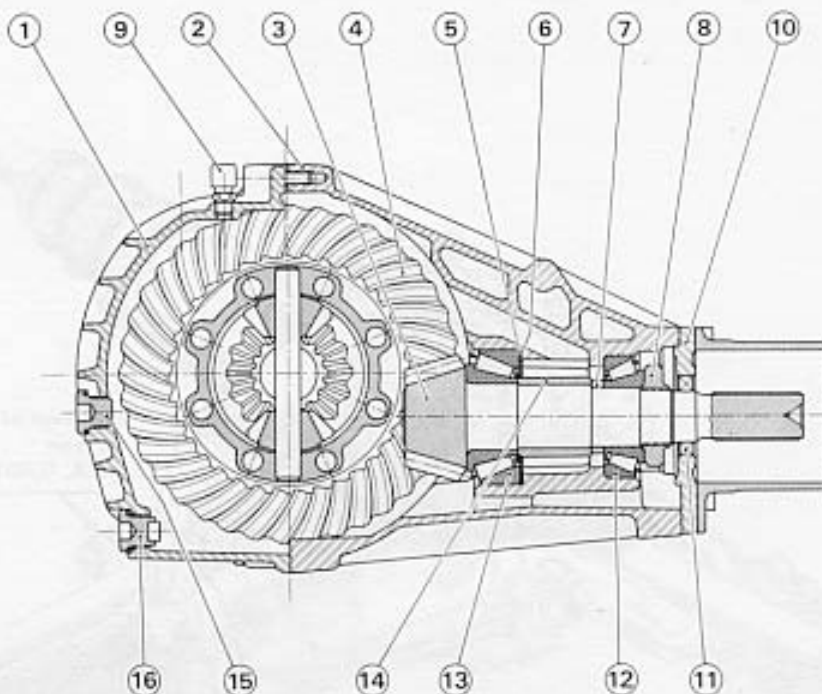
* Identification : 5 for gear set 9 × 35 «504 A01 - A03»
4 for gear set 9 × 34 «504 A02»
7 for gear set 10 × 37 «504 B02 - C02»

PEUGEOT

0102

5

DIFFERENTIAL
IDENTIFICATION - CHARACTERISTICS



DIFFERENTIAL
IDENTIFICATION - CHARACTERISTICS

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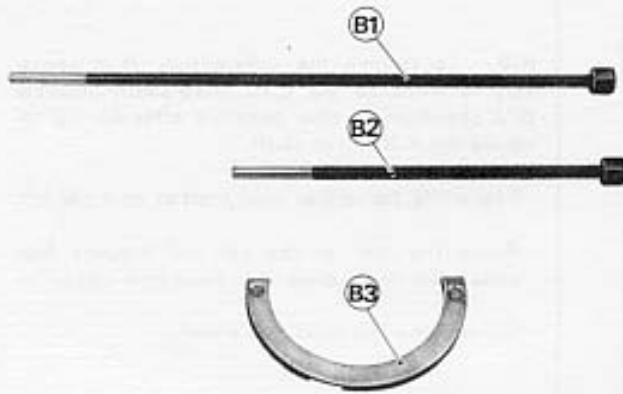
0103

- 1 & 2 - Rear axle housing and cover
- 3 & 4 - Gear set (drive pinion and crown wheel) $\left\{ \begin{array}{l} (9 \times 35 \text{ (Carburettor)}) \\ (9 \times 34 \text{ (Injection)}) \end{array} \right.$
- 5 - Meshing distance adjustment washers
- 6 - Drive pinion rear bearing thrust washer
- 7 - Washers for the drive pinion bearings pre-load setting thickness :
from 3/100 ths to 3 /100 ths of mm and from 6.04 to 7.33 mm
- 8 - Tightening nut
- 9 - Pressure release valve
- 10 - Front oil seal support
- 11 - Front oil seal
- 12 - Pinion front bearing
- 13 - Pinion rear bearing
- 14 - Spacer
- 15 - Filler plug
- 16 - Drain plug
- 17 - Differential case
- 18 - Sun gear thrust washer
- 19 - Sun gear
- 20 - Planet pinion
- 21 - Planet pinion thrust washer
- 22 - Planet shaft
- 23 - "Mecanindus" pin
- 24 - Differential bolt
- 25 - Differential bearing
- 26 - Differential adjusting shim
- 27 - Differential bearing thrust plate
- 28 - Oil seal
- 29 - Thrust plate "O" ring
- 30 - Half-shaft or drive shaft

DIFFERENTIAL
REMOVAL - REFITTING

5

02 01⁽²⁾



504 SALOONS

TOOLS TO BE USED

8.0521 Z

Tool kit for rear hub bearings

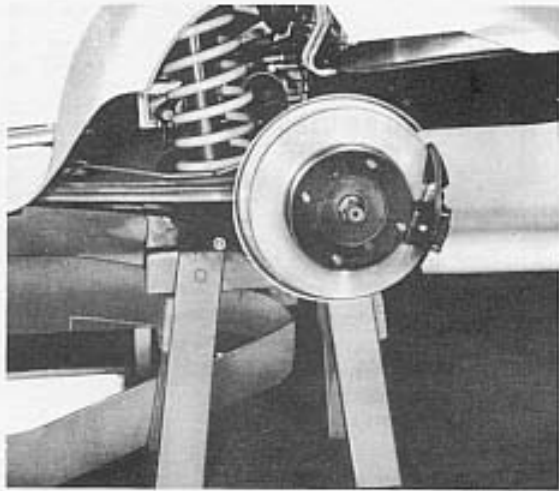
B - Hub carrier extractor including :

- B1 - Long bolt
- B2 - Short bolt
- B3 - Thrust plate.

PEUGEOT

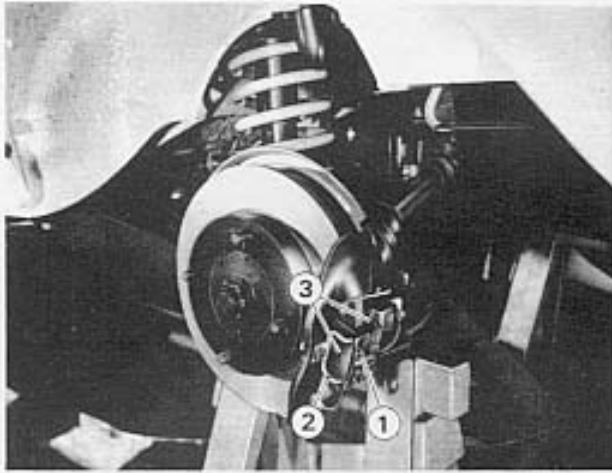
0202⁽¹⁾

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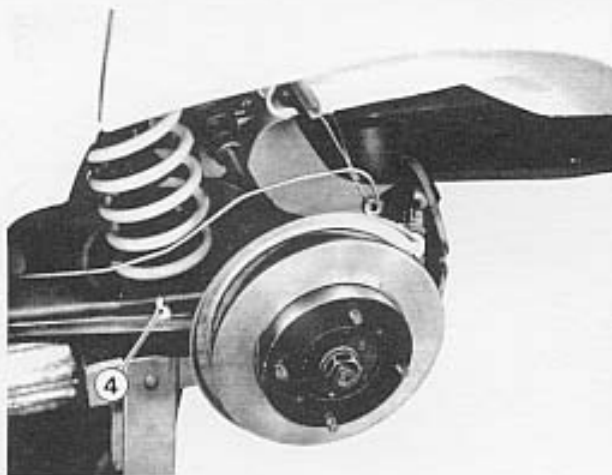
DIFFERENTIAL
REMOVAL

N.B. - To remove the differential, it is necessary to withdraw the L.H. drive shaft, however this operation is also possible after having removed the R.H. drive shaft.

- Place the car either over a pit or on a car lift.
- Raise the rear of the car and support from under the rear arms as indicated opposite.
- Remove the left hand rear wheel.



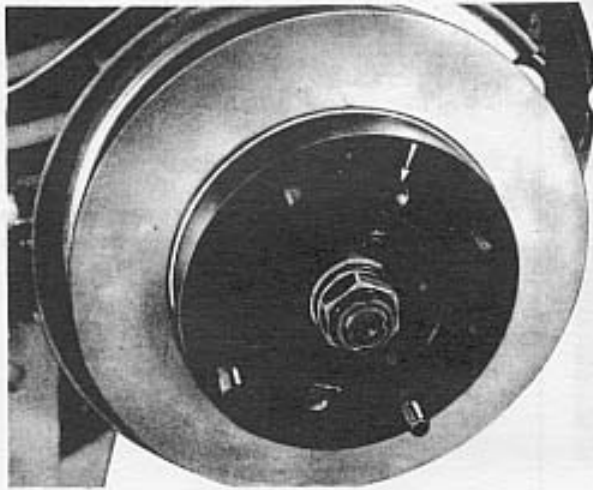
- Remove :
- the brake pad anti-squeal spring 1
- the retaining fork 2
- the brake pads 3



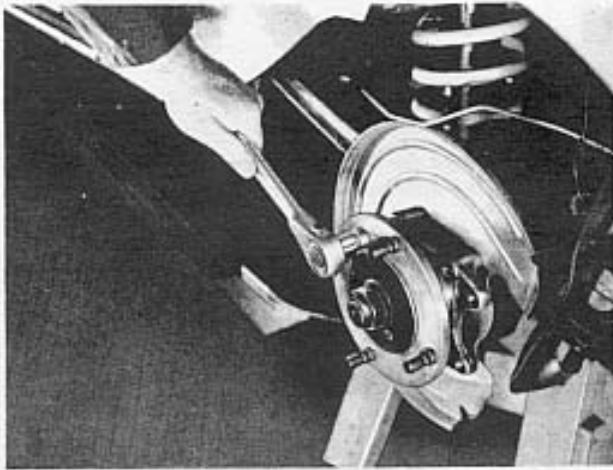
- Open the brake hose retaining clip 4, on the rear arm.
- Remove the brake caliper retaining bolts using an 8 mm Allen socket.
- Withdraw the brake caliper, bending the hose as little as possible and suspend it from the bodywork.

DIFFERENTIAL REMOVAL

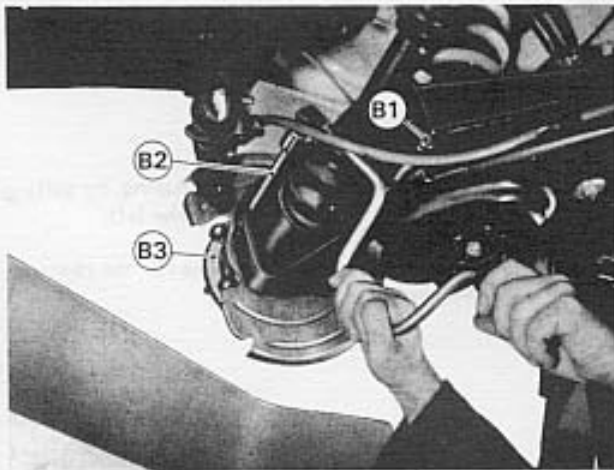
5 02 03⁽¹⁾



- Remove the cross head screws securing the brake disc to the hub.
- Mark the position of the screw on the disc.
- Remove the disc.



- Remove the 4 Allen screws securing the hub carrier to the rear arm.
- Use a socket spanner inserted in the hole provided in the hub for this purpose.



- Withdraw the hub-carrier-drive shaft assembly, using the bolts **B1** and **B2**, of the tool chest 8.0521 Z, positioned diagonally and the thrust plate **B3** which is placed on the hub.
- Tighten alternately the 2 bolts **B1** and **B2** which come into contact with the plate **B3** removing the carrier from the rear arm.
- Remove the thrust plate and the bolts.

PEUGEOT

6-70

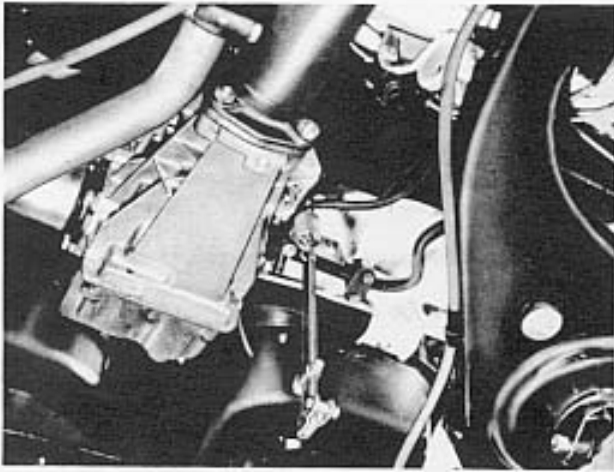
Supersedes page 02 03, class 5

504 Workshop Manual - Ref. 1212 E

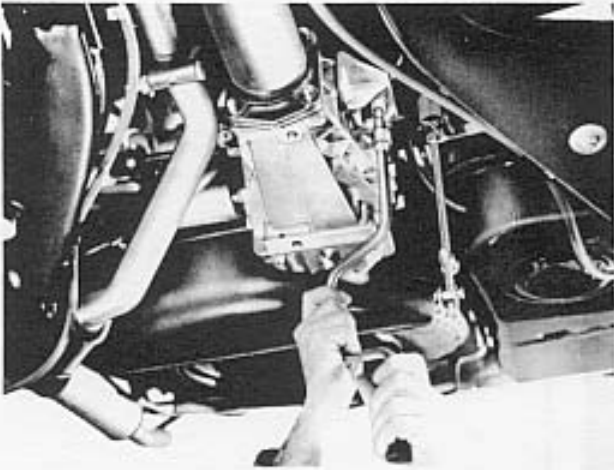
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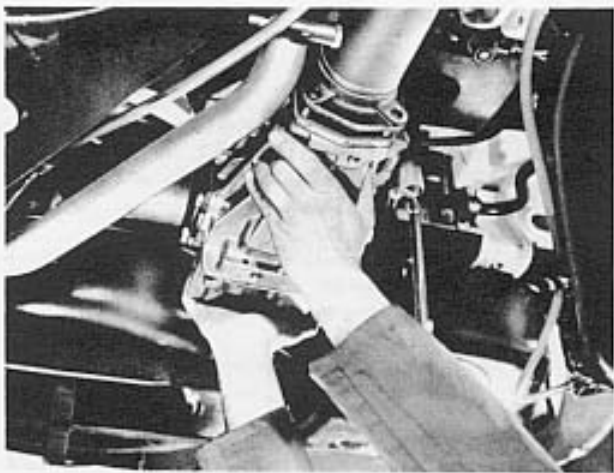
DIFFERENTIAL REMOVAL



- Drain the differential housing.
- Remove the brake compensator lever pivot from the bodywork (leave the lever suspended by its spring).



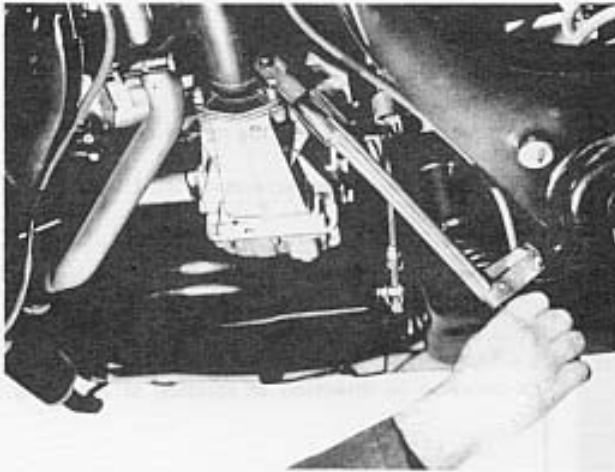
- Remove the 4 nuts securing the connecting tube to the differential housing.
- Remove the 2 Allen screws securing the differential housing to the suspension cross member using the 10 mm Allen socket.



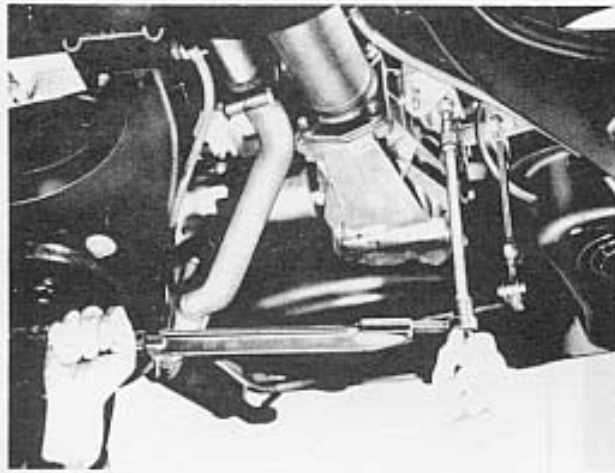
- Disengage the differential housing by pulling it first to the rear and then to the left.
- Recover the spring placed inside the rear end of the propeller shaft.

DIFFERENTIAL
RE-FITTING

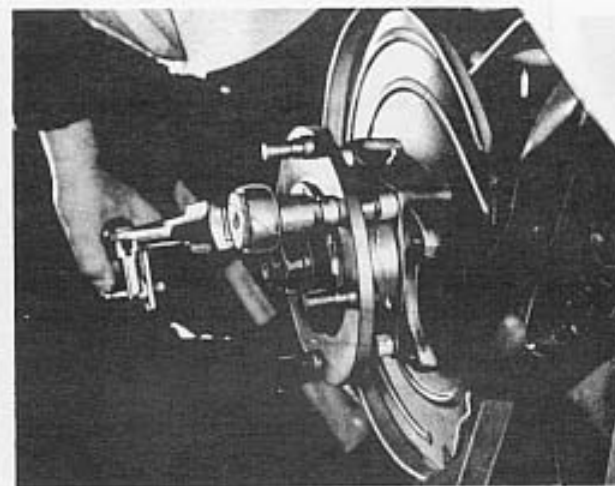
5 0205



- Check the condition of the oil seals mounted in the differential housing.
- Coat with tallow or bearing grease the space between the two lips of each seal.
- Grease the half shaft splines
- Insert the spring into the rear end of the propeller shaft.
- Couple the differential housing, first of all to the right hand half shaft then to the propeller shaft.
- Secure the connecting tube to the differential housing, using new Blocfor washers.
- Tighten the nuts to 43.5 ft.lbs (6 m.kg).



- Secure the differential housing to the suspension cross member using new Onduflex washers
- Tighten the Allen screws to 27.1 ft.lbs. (3.75 m.kg).

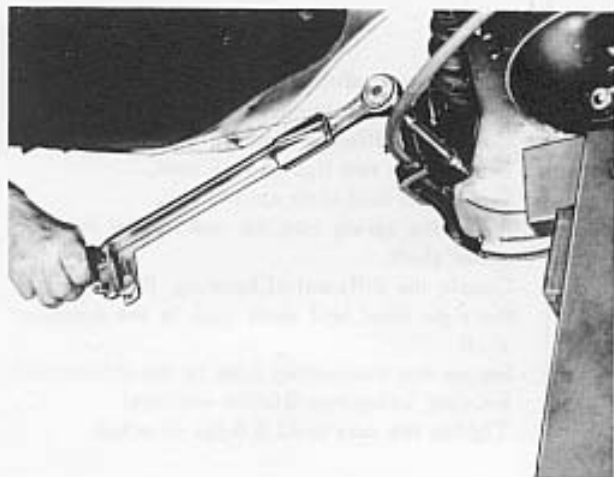


- Mount the hub-knuckle-half shaft in its housing on the rear arm.
- Engage the splined end of the half shaft carefully in the differential housing.
- Secure the knuckle to the rear arm using new Blocfor washers.
- Tighten the Allen screws to 29.0 ft.lbs (4 m.kg).

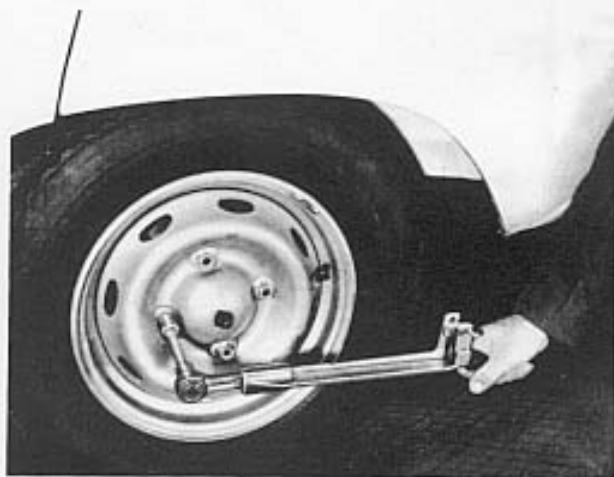
PEUGEOT

0206

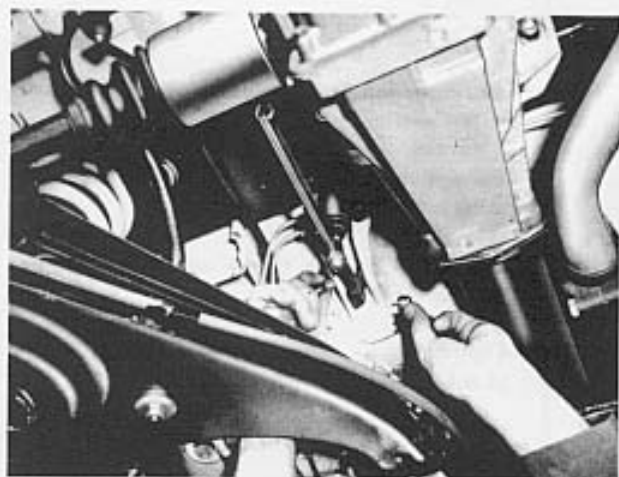
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DIFFERENTIAL
RE-FITTING

- Refit :
 - the brake disc, in the position marked during removal,
 - the brake caliper, using new Blocfor washers.
- Tighten the Allen screws to 31.0 ft.lbs (4.25 m.kg).
- Then fit the brake pads and the retaining fork and tighten the bolt to 13.0 ft.lbs (1.75 m.kg).
- Reposition the anti-squeal spring (arrow pointing in direction of rotation of the disc).



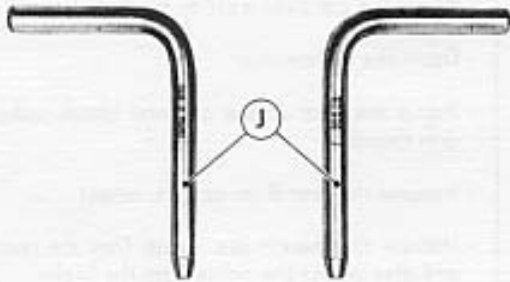
- Replace the brake hose on the rear arm.
- Refit the wheel.
- Tighten the wheel nuts to 43.5 ft.lbs (6 m.kg).
- Refit the wheel trim.



- Replace the compensator lever using a new circlip.
- Refill the differential housing with oil (ESSO GEAR OIL GP 90).
- Tighten the plugs to 20.0 ft.lbs (2.75 m.kg).
- Check the assembly for oil tightness after road testing.

DIFFERENTIAL
REMOVAL - REFITTING

5 02 11



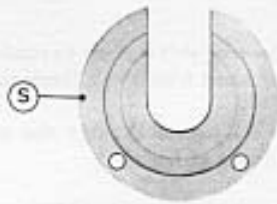
504 CONVERTIBLES COUPES

TOOLS TO BE USED

8.0906 Z

Tool chest for front and rear suspension

J - Set of two bent rods for positioning the rear suspension arms on the cross-member.



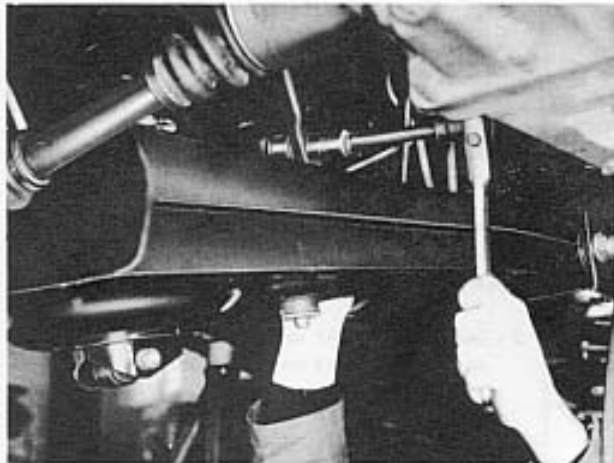
8.0403 S

Propeller shaft retaining plate.

PEUGEOT

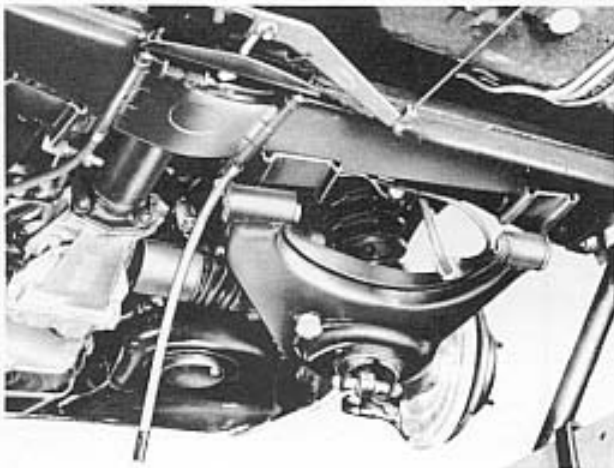
0212

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DIFFERENTIAL
REMOVAL**NOTE :**

To remove the differential, one of the drive shafts must be removed.

- Place the car over a pit or on a car lift
- Drain the differential
- Raise the rear of the car and chock under the crossmember
- Remove the rear R.H. or L.H. wheel
- Unhook the handbrake cable from the rear arm and disconnect the cable from the brake
- Remove the antiroll bar link pivot.



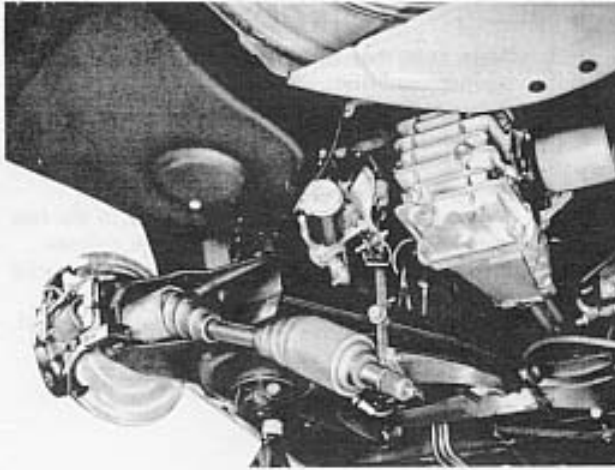
- Remove the suspension arm pivots
- Disengage the arm from the crossmember using a lever
- Pull the arm/drive shaft assembly to disengage the half shaft from the differential
- Take care not to damage the oil seal with the splined end of the shaft
- The shock absorber should remain secured.



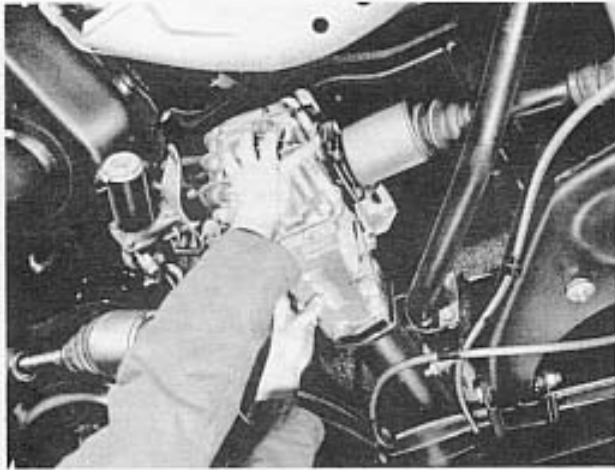
- The half shaft/arm assembly remains suspended while removing and refitting the differential.

DIFFERENTIAL
REMOVAL

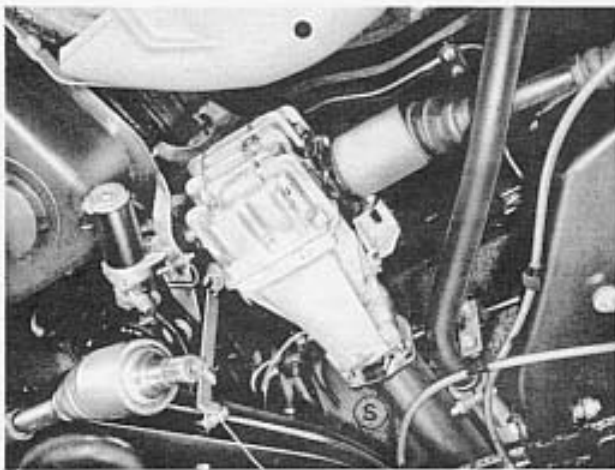
5 0213



- Remove the brake compensator lever pivot (leave the lever hanging from the spring)
- Remove the electric feed pump without disconnecting it.



- Remove the 4 nuts securing the connecting tube to the differential
- Remove the two Allen screws securing the differential to the crossmember using a 10 mm Allen socket.
- Separate the differential from the connecting tube and withdraw the unit until the studs are approximately 15mm from the flange.

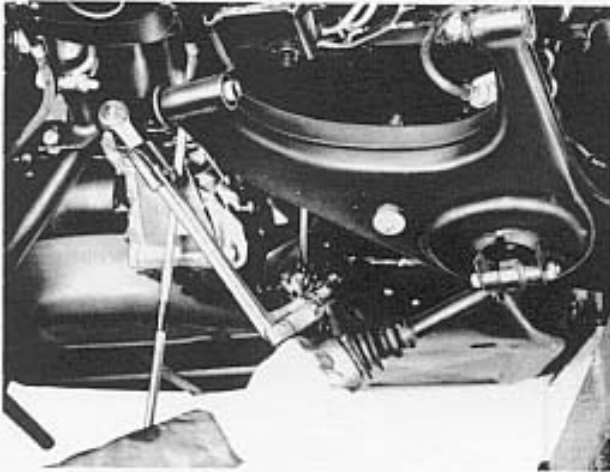


- Insert the propeller shaft retaining plate S between the differential and the tube
- Secure it to the tube using a 10 x 20 bolt screwed into the top left hand hole
- Tighten the bolt
- Withdraw the differential unit.

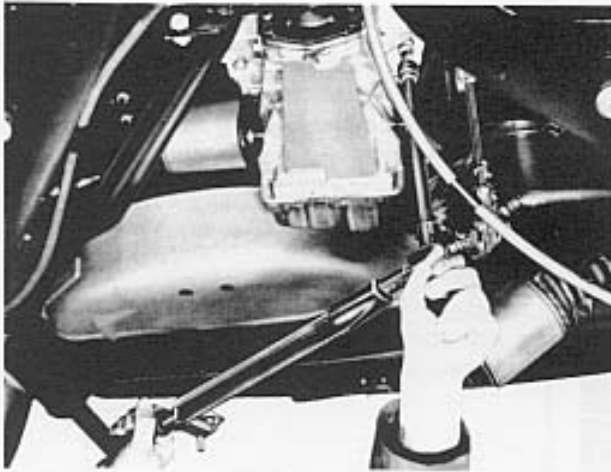
PEUGEOT

0214

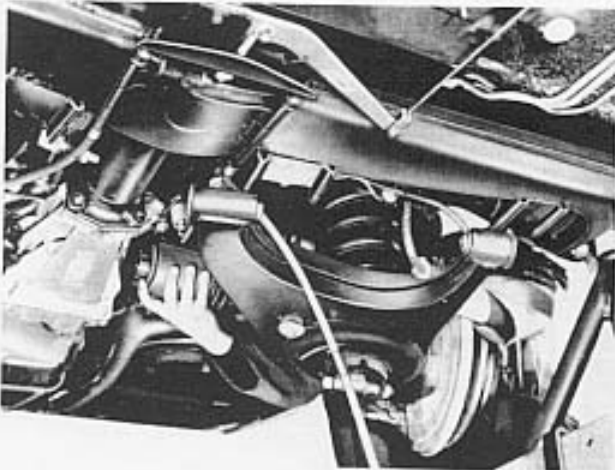
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DIFFERENTIAL
REFITTING

- Make sure that the differential oil seals are in perfect condition
- Smear tallow or bearing grease inside the lips of each seal
- Grease the drive shaft splines
- Remove the plate 8.0403 S
- Make sure that the spring is in place in the rear of the propeller shaft and grease the splines
- Insert the R.H. drive shaft in the differential then the propeller shaft
- Secure the connecting tube to the differential, placing new Blocfor washers under the nuts.
- Tighten to the nuts to 435 ft.lbs (6mkg).



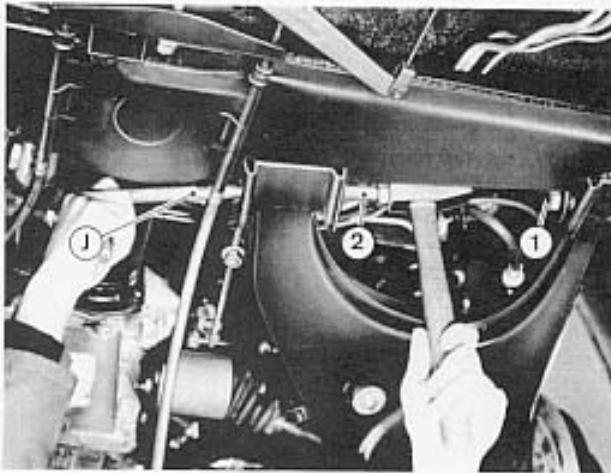
- Secure the differential to the crossmember using new counter plates and Blocfor washers
- Tighten the Allen screws to 27 ft.lbs (3.75m.kg)
- Position the lips of the counterplates on the edges of the angle supports
- Refit the feed pump
- Refit the brake compensator lever using a new circlip.



- Pull the drive shaft/arm assembly outwards compressing the sliding joints at the same time
- Engage the splined end of the shaft in the differential housing
- Reposition the arm in the yokes on the cross-member.

DIFFERENTIAL REFITTING

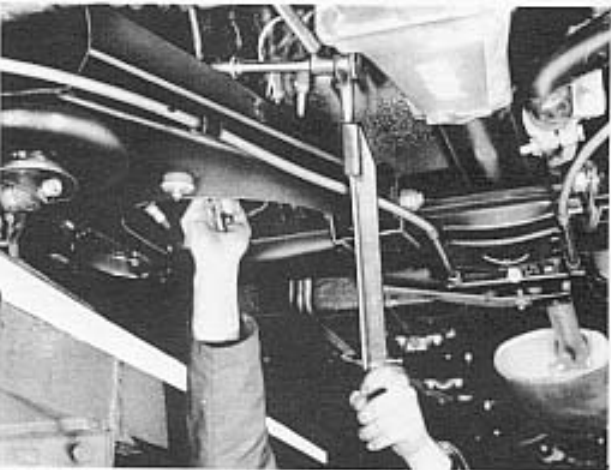
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 0215


- Hold the inner joint using the rod J and insert the outer pivot 1
- Then fit the inner pivot 2 as shown opposite
- Fit the flat washers and the new Nylstop nuts without tightening them.



- Connect the antiroll bar to its link. Fit a new Nylstop nut without tightening it.
- Refit the wheel and tighten the nuts to 43.5 ft.lbs (6 m.kg)
- Fit the wheel trim
- Raise the rear of the car and remove the chocks
- Lower the car and have two people sit in the rear seats to position the flexible bushes neutrally
- Tighten the pivot nuts to 47 ft.lbs (6.5 m.kg)



- Tighten the antiroll bar link nut to 33 ft.lbs (4.5 m.kg)
- Refill the differential with 2.1 pts (1.2 l) of oil (Esso gear Oil GP 90)
- Tighten the plugs to 20 ft.lbs (2.75 m.kg)
- Check the sealing after road testing the car.

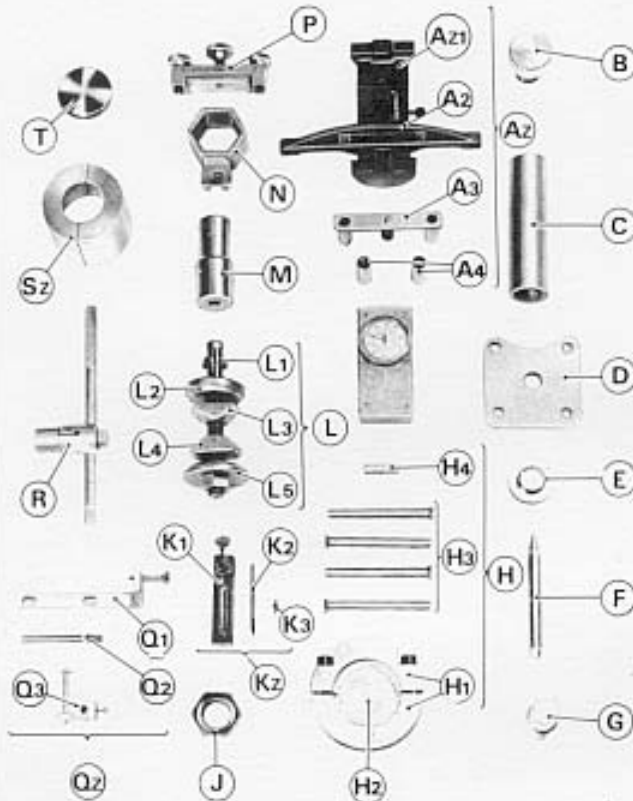
PEUGEOT

DIFFERENTIAL

DISMANTLING - RE-ASSEMBLY

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0301



TOOLS TO BE USED

8.0520 Y - Tool chest for adjusting the differential

AZ - Apparatus for measuring the meshing distance, including :

- AZ1 - bridge
- A2 - feeler
- A3 - bridge clamp
- A4 - spacers

B - Differential bearing fitting tool

C - Drive pinion rear bearing fitting tool

D - Support plate

E - Drive pinion oil seal protector sleeve

F - Punch

G - Drive pinion oil seal fitting tool.

H - Differential bearing extractor consisting of

- H1 - Extractor clamps
- H2 - Press pad
- H3 - Extractor support rods
- H4 - Adapter for tightening clamp screws

J - Measuring nut

KZ - Micrometer consisting of :

- K1 - Dial indicator holder
- K2 - Dial indicator extension rod
- K3 - Long feeler

L - Apparatus for removing and refitting the drive pinion bearing outer races including :

- L1 - bolt
- L2 - thrust plate, front
- L3 - extractor, front
- L4 - extractor, rear
- L5 - thrust plate, rear

M - Drive pinion holding socket

N - Drive pinion nut box spanner

P - Differential bearing thrust clamp

QZ - Dial indicator mounting including :

- Q1 - Dial indicator support
- Q2 - Support rod
- Q3 - Dial indicator holder

R - Backlash measuring tool

SZ - Drive pinion rear bearing extractor clamps

T - Lateral oil seal inserting drift

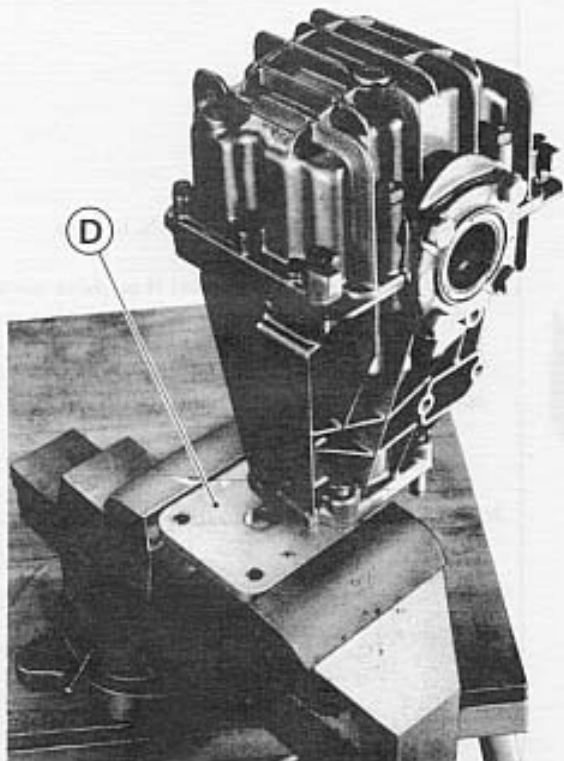
- Dial indicator.

N.B. - The dial indicator is not delivered with this tool chest, but a space is provided for storing it and it can be ordered separately.

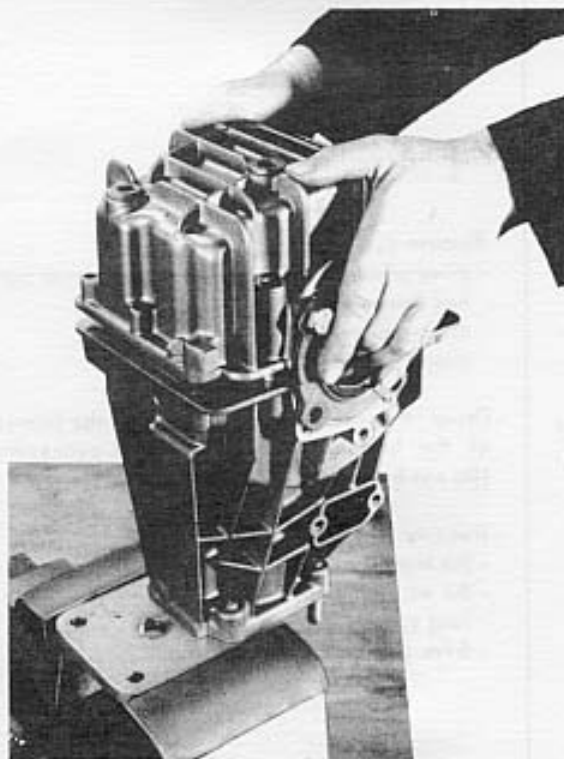
DIFFERENTIAL DISMANTLING

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0303



- Drain rear axle oil
- Clean the housing
- Remove the drive oil seal support plate
- Install support plate D on front housing by means of the 2 lower attachments studs of the connecting tube using 2 nuts.
- Clamp assembly vertically in vice fitted with lead jaws.

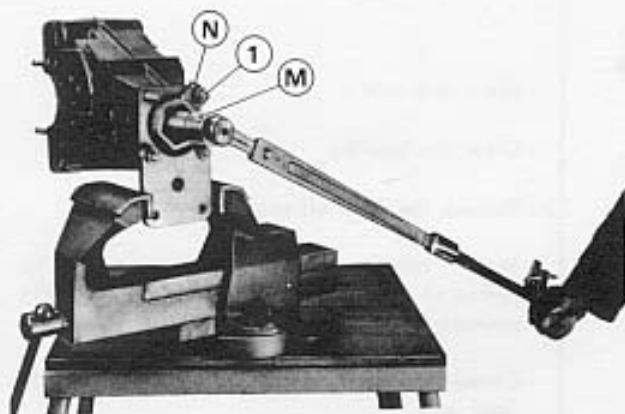


- Slacken all bolts and assembling nuts of the 2 half housings.
- Remove :
 - the front attachment screws of the differential bearing side plates.
 - the 6 assembling screws of the half housings.
 - the 4 nuts of the rear housing.
- Remove the rear housing differential assembly and place same, reverse side up, on the work bench. (Should the need arise, use a mallet to separate both half housings).

PEUGEOT

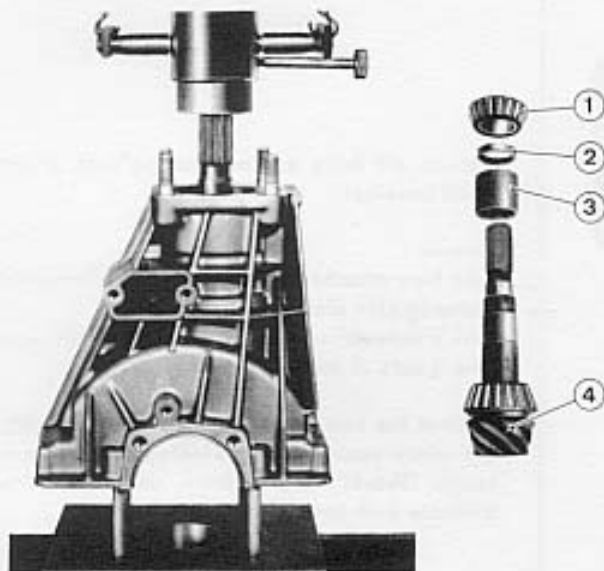
0304

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DIFFERENTIAL
DISMANTLING

- Clamp front housing horizontally in vice.
- Install pinion nut box spanner N on drive pinion nut and secure to stud 1 by means of a nut.
- Using drive pinion holding socket M, slacken nut. (Turn wrench clockwise).

N.B. - There is no need to unlock the nut.

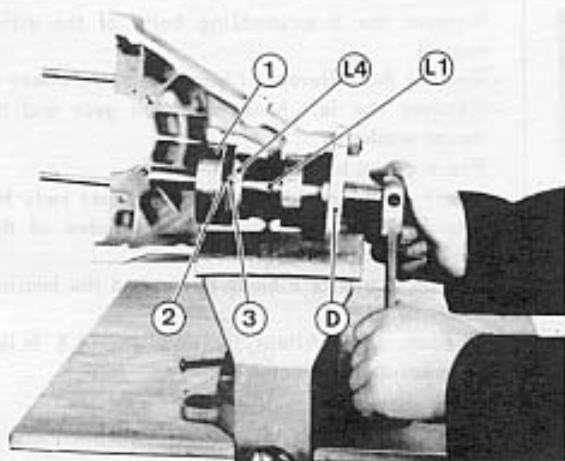


- Remove :
 - drive pinion holding socket M and pinion nut box spanner N.
 - drive pinion nut.
 - support plate D.
- Drive the drive pinion out through the interior of the housing using a press if necessary. (Do not hammer)
- Recover :
 - the front bearing 1
 - the adjusting spacer 2
 - long spacer 3
 - drive pinion and rear bearing 4.

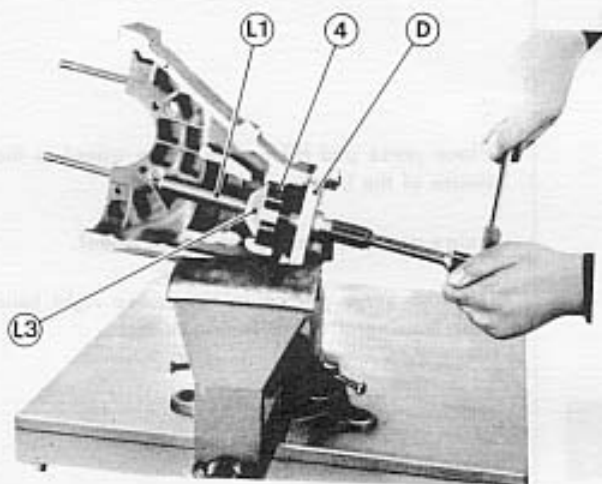
DIFFERENTIAL
DISMANTLING

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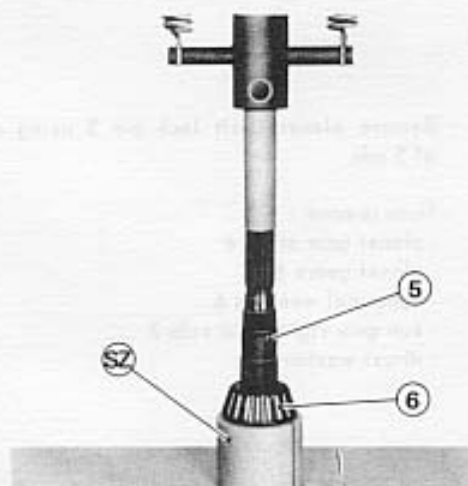
0305



- Remove drive pinion bearing outer race 1 using:
 - Bolt L1
 - Extractor L4
 - Support plate D
- Turn bolt anti-clockwise
- Recover :
 - adjustment shims 2
 - thrust washer 3



- Remove drive pinion front bearing outer race 4 using :
 - Bolt L1
 - Extractor L3
 - Support plate D
- Turn bolt clockwise



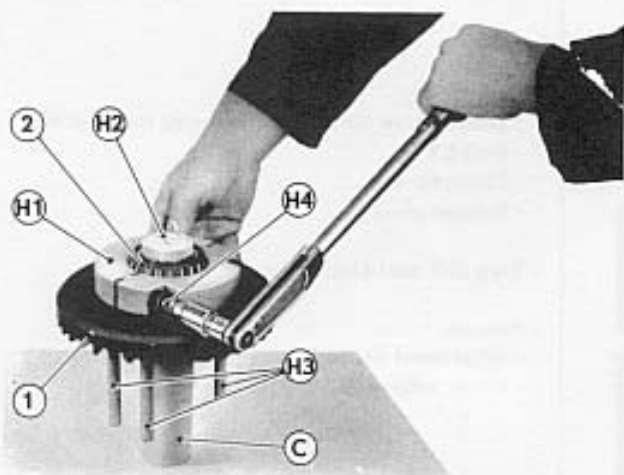
- Remove rear bearing 6 of drive pinion 5 using :
 - two half clamps SZ
 - a press

PEUGEOT

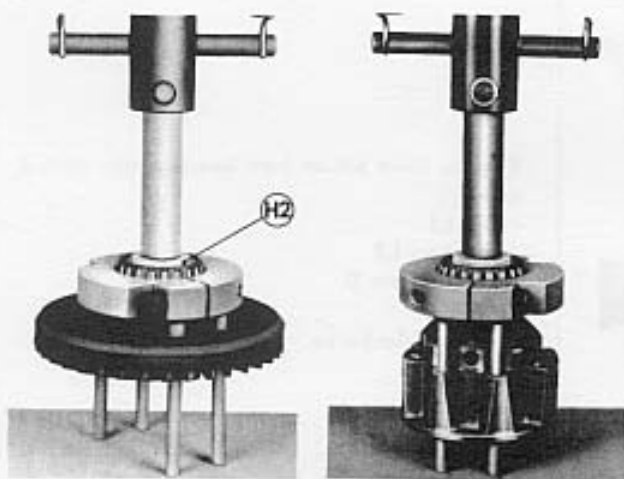
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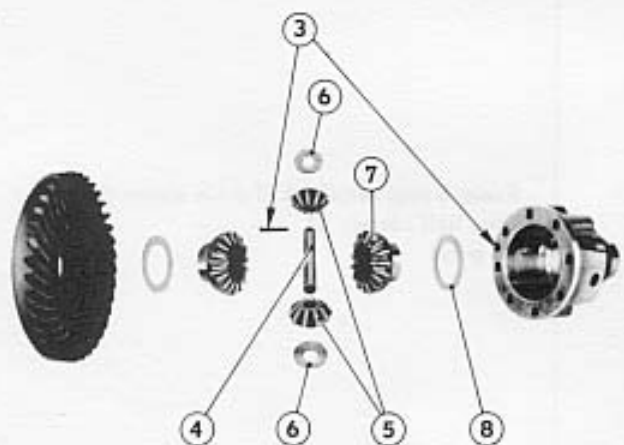
DIFFERENTIAL DISMANTLING



- Remove the 8 assembling bolts of the differential.
- Remove the differential from the crown wheel 1.
- Recover the left hand side sun gear and its thrust washer.
- Place crown wheel on tool C.
- Insert the 4 extractor clamp support rods H3 into four diametrically opposed holes of the crown wheel.
- Fit the extractor clamps H1 around the bearing 2.
- Tighten the "Allen" screws to 14.5 ft.lbs (2 m.kg) using adaptor H4.



- Place press pad H2 on the crown wheel in the centre of the bearing.
- Using a press, remove the crown wheel.
- Use the same procedure to remove right hand side bearing of the differential case.



- Remove planet shaft lock pin 3 using a drift of 5 mm.
- Then remove :
 - planet gear shaft 4
 - planet gears 5
 - spherical washers 6
 - sun gear right hand side 7
 - thrust washer 8

DIFFERENTIAL RE-ASSEMBLY - ADJUSTMENT

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 0307


PREPARATION

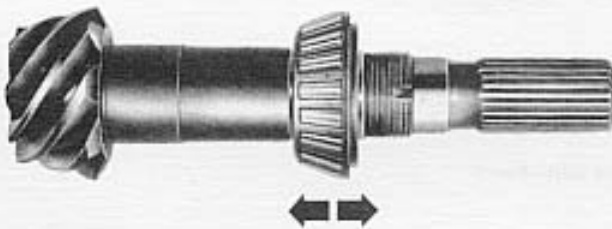
- Clean and blow dry all parts of the rear axle assembly mechanism.

UNDER NO CIRCUMSTANCES SHOULD EMERY CLOTH OR SHARP TOOLS BE USED TO CLEAN THE HOUSINGS.

- Spray Molykote 321 into the housings of the drive pinion bearings.
- Do not heat the housing.

Every time the gear set (crown wheel and drive pinion) is replaced it is mandatory that the following parts are also renewed.

- differential bearings
- drive pinion bearings
- "Onduflex" washers
- drive pinion nut
- differential assembling bolts
- drive pinion oil seal
- O rings and oil seals of the differential bearing thrust plates.



- Ensure that the front bearing slides freely onto the drive pinion shaft.
- If difficulty is experienced in fitting the bearing onto the drive pinion, polish the shaft bearing surface using a fine abrasive, until the bearing just slides as a free fit onto the shaft.



- Smooth the front end of pinion shaft with a fine stone to remove any burrs.

The front end of the pinion shaft will serve as contact point during the various adjustments to be carried out.

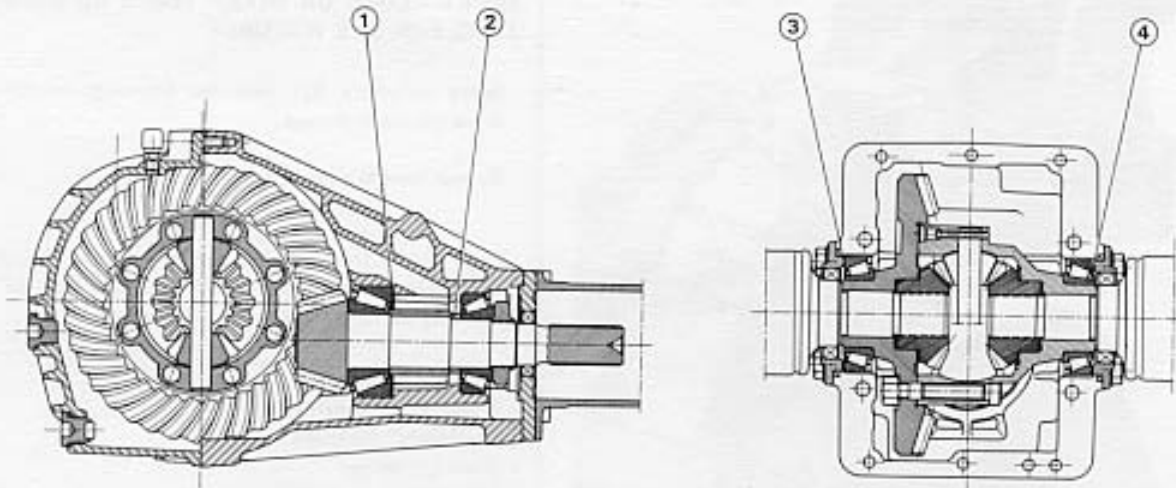
PEUGEOT

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DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT

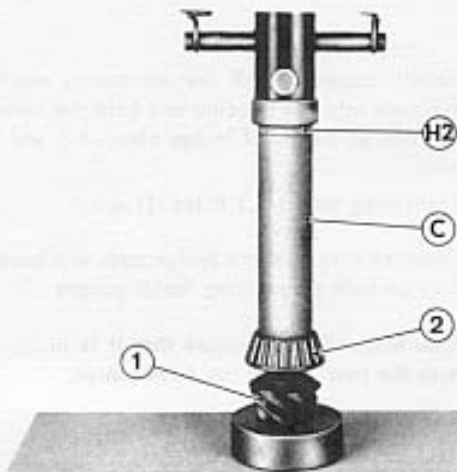
DIFFERENT ADJUSTMENTS TO BE CARRIED OUT



- 1 - Meshing distance adjustment
- 2 - Drive pinion bearings pre-load adjustment
- 3 - Backlash adjustment
- 4 - Differential bearings pre-load adjustment

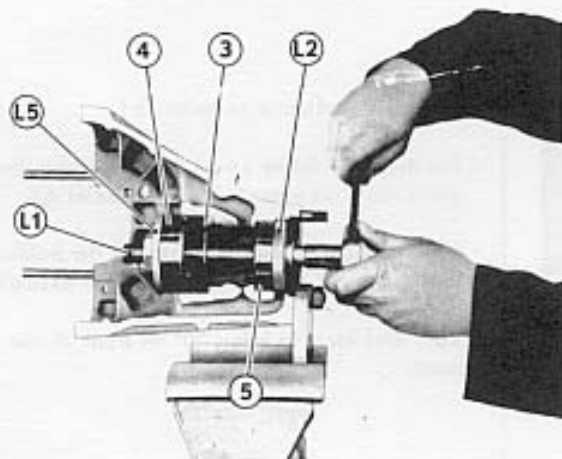
DIFFERENTIAL RE-ASSEMBLY - ADJUSTMENT

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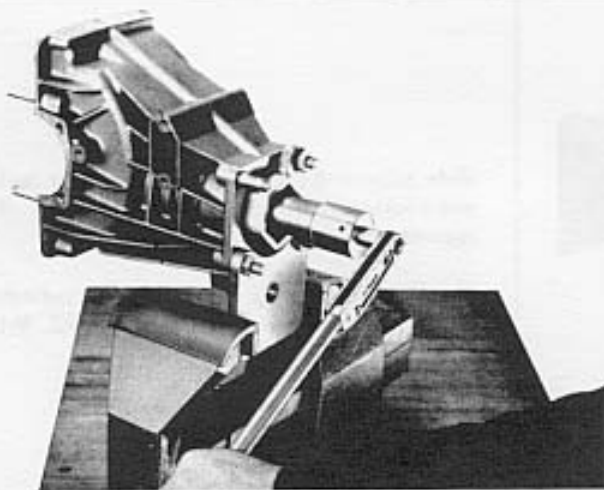
0309


Mounting of the rear bearing on the pinion

- Assemble the following parts on the press bench as follows :
 - a lead base
 - drive pinion 1
 - Rear bearing 2
 - drive pinion bearing fitting tool C
 - end pad H2
- Using the press, drive bearing down until it abuts.



- Hold rear axle housing in the vice
 - Install thrust washer 3 in the housing.
 - Install the outer bearing races 4 and 5 back to back into the housing using the bolt L1, thrust plate L2 and the nut L5.
 - Tighten and apply firmly the prescribed torque.
- Tightening torque 101 ft.lbs (14 m.kg)**
- Oil the bearings with ESSO EXTRA MOTOR OIL 20 W 30/40 with the exclusion of any other lubricant.



ADJUSTMENT OF THE DRIVE PINION

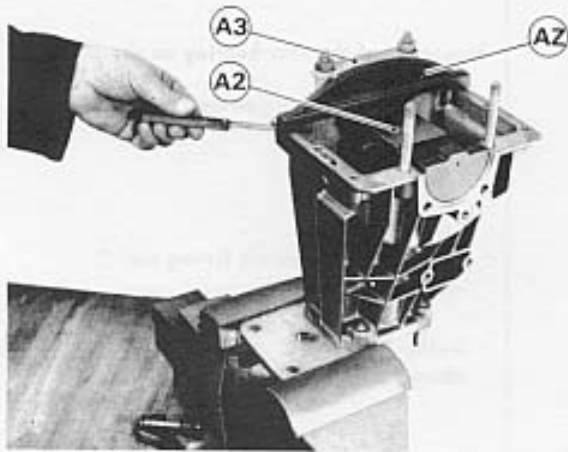
- MESHING DISTANCE
 - BEARINGS PRE-LOAD
 - Install drive pinion fitted with the following into the housing :
 - Rear bearing
 - Long spacer
 - Front bearing (hand fitting)
 - Nut J
- Tightening torque 7.2 ft.lbs (1 m.kg)**
- Rotate drive pinion ten turns in both directions of rotation.
 - Repeat operation until nut J can no longer be tightened under 7.2 ft.lbs (1 m.kg).

PEUGEOT

0310

5

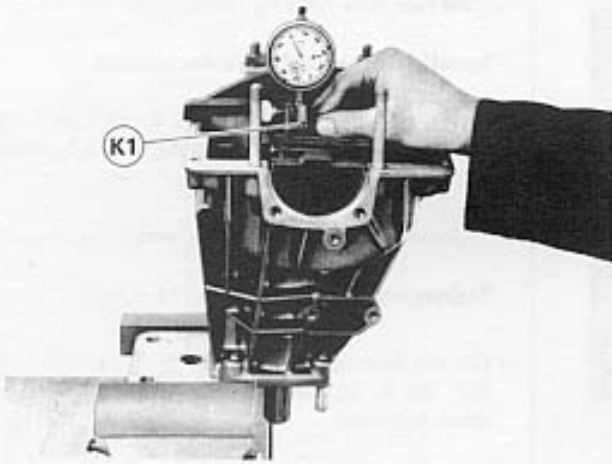
DIFFERENTIAL RE-ASSEMBLY - ADJUSTMENT



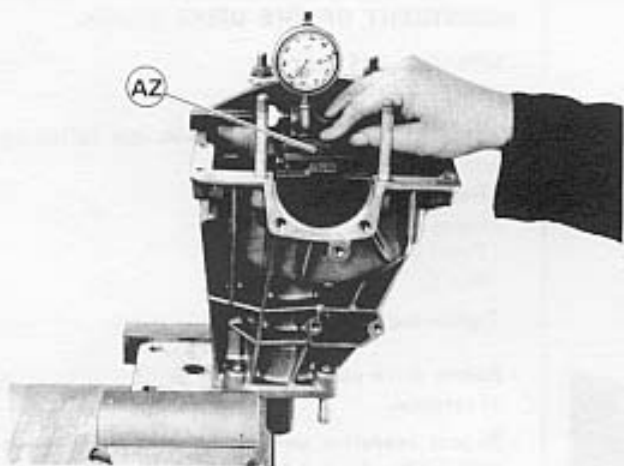
- Install apparatus AZ for measuring meshing distance into the housing and hold the same in position by means of bridge clamp A3, and two nuts.

Tightening torque 7.2 ft.lbs (1 m.kg)

- Equalize play between bridge pads and housing face on both sides using feeler gauges.
- Free feeler A2 and ensure that it is in contact with the rear face of the drive pinion.



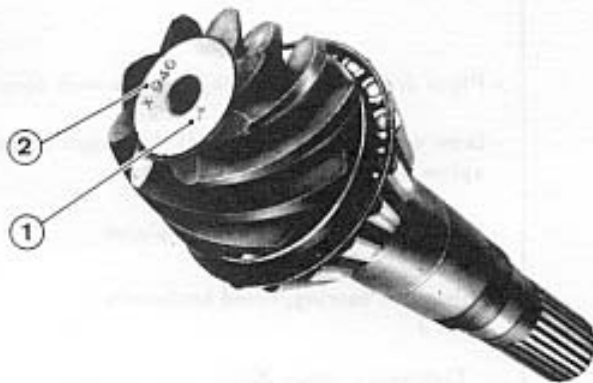
- Place dial indicator in holder K1.
- Position the latter so as dial indicator feeler guide rests on upper surface of feeler A2.
- Adjust height of dial indicator in the holder so that the small hand is set to "3" for example.
- Turn dial face to bring "0" in front of the big hand.



- Slide support K1 to bring dial indicator feeler into contact with the machined surface of the apparatus AZ.
- The displacement as shown by dial indicator hands indicates the depth of feeler A2. Write down the value obtained.

DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT

5 0311



Two reference marks are to be found on the drive pinion rear face.

The first one indicates the MESHING DISTANCE 1 and comprises :

a number from 0 to 20 and, up to 10, this number can bear the sign - (minus).

The other reference number to be found on the pinion is for the MESH SET 2.

this number is preceded by a letter and the same reference mark also appears on the crown wheel.

ADJUSTMENT TABLE
WITH TOOL 8.0520 AZ

Reference marked on pinion	Corresponding guide N°
- 10	20
- 9	21
- 8	22
- 7	23
- 6	24
- 5	25
- 4	26
- 3	27
- 2	28
- 1	29
0	30
1	31
2	32
3	33
4	34
5	35
6	36
7	37
8	38
9	39
10	40
11	41
12	42
13	43
14	44
15	45
16	46
17	47
18	48
19	49
20	50

- Write down reference marked on drive pinion.

- Refer to table opposite to find the corresponding guide number.

- Compare dial indicator reading with guide number.

- The difference represents, in hundredths of a millimetre, brought to the nearest figure of 0.05, the thickness of the shim to be installed between the rear bearing outer race and the thrust washer (1st adjustment).

ex :

- Dial indicator figure obtained 67

67

- Reference mark on pinion - 4 :
corresponding guide number 26

26

41

In this instance the thickness of the shim to be fitted is 0.40 mm.

- Remove device AZ and pinion.

PEUGEOT

0312

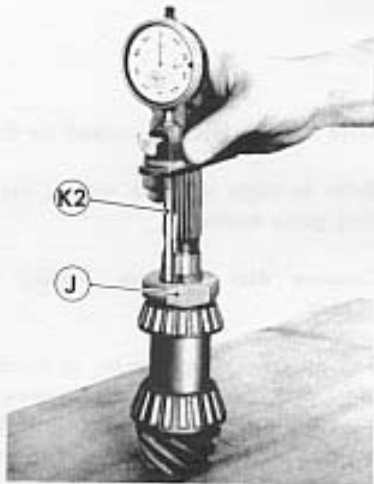
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DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT

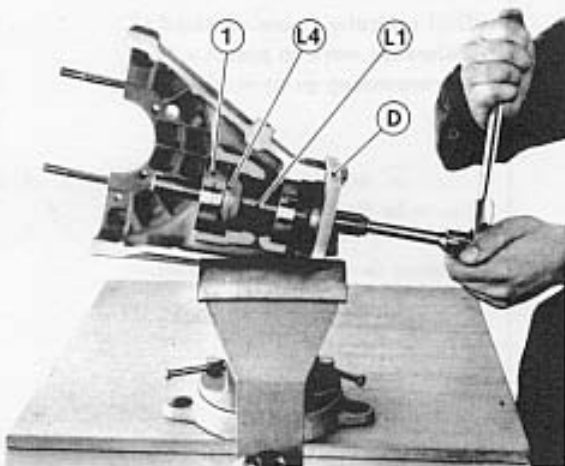


- Place drive pinion vertically on the work bench
- Draw a coloured mark on all the length of one spline of the drive pinion.
- Install the following on drive pinion :
 - the long spacer
 - the front bearing, fitted backwards
 - nut J

Tightening torque 203 ft.lbs (28 m.kg)



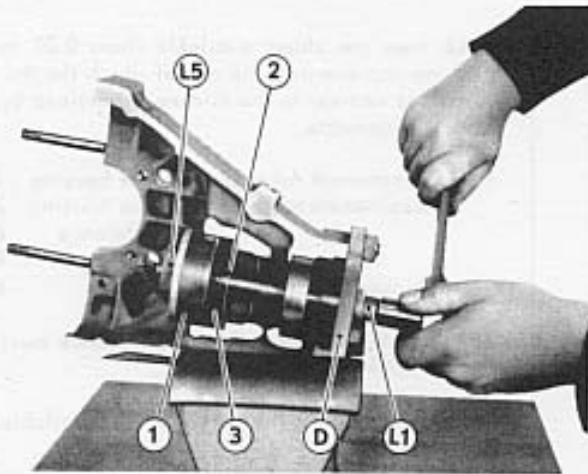
- Screw dial indicator feeler end onto extension K2, which in turn should be secured to dial indicator.
- Place dial indicator K1 on front face of drive pinion and make sure that extension tool K2 faces the marked spline and that extension rests on the machined surface of nut J.
- Move dial indicator into its support to bring small hand to 1 and big hand to 0, for example.
- Remove micrometer and to avoid change of reading keep micrometer in a safe place.



- Remove rear bearing outer race, using :
 - bolt L1,
 - Extractor L4,
 - Support plate D.

DIFFERENTIAL

RE-ASSEMBLY - ADJUSTMENT

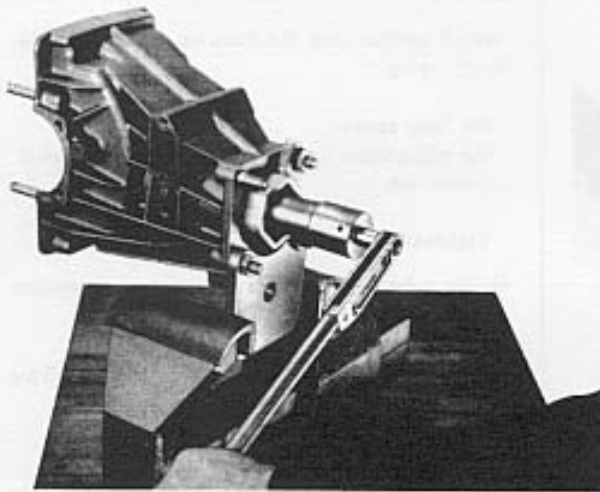
5 0313⁽¹⁾


- Install the following in bottom of bearing housing :
 - Thrust washer 2
 - Adjustment shims 3 previously selected (1st adjustment, page 03 11).

- Re-install the outer bearing race 1 using :
 - bolt L1
 - thrust plate L5,
 - support plate D

- Apply final torque firmly.

Tightening torque 101 ft.lbs (14 m.kg).



- Remove nut J and the front bearing.

- Re-install drive pinion in the housing, with :
 - long spacer,
 - front bearing,
 - nut J

Tightening torque 7.2 ft.lbs (1 m.kg)

- Rotate drive pinion 10 turns anti-clockwise.
- Repeat above operation several times until nut can no longer be tightened under 7.2 ft.lbs (1 m.kg).



- With the same spline (coloured mark) as reference mark take another reading between end of shaft and nut J using the micrometer previously set to 1 and 0 (class 5 page 03 12).

- Note the reading on the dial indicator.

- Find the difference between both figures.

- Subtract 0,06 mm.

- The number thus obtained corresponds to the thickness of the shim to be installed between the front bearing and the long spacer (2nd adjustment).

PEUGEOT

0314⁽¹⁾

5

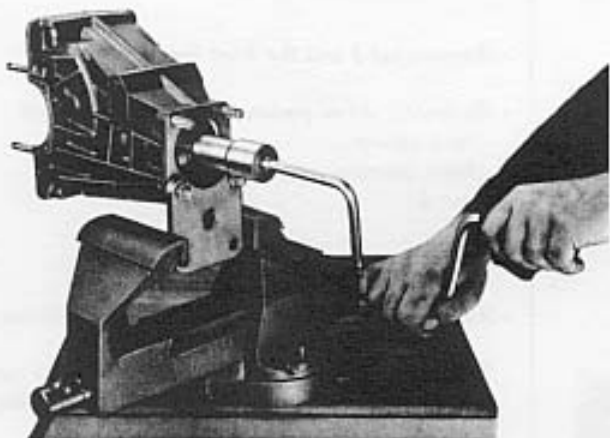
DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT

Thickness			
6.04	6.37	6.70	7.03
6.07	6.40	6.73	7.06
6.10	6.43	6.76	7.09
6.13	6.46	6.79	7.12
6.16	6.49	6.82	7.15
6.19	6.52	6.85	7.18
6.22	6.55	6.88	7.21
6.25	6.58	6.91	7.24
6.28	6.61	6.94	7.27
6.31	6.64	6.97	7.30
6.34	6.67	7.00	7.33

- Take from the shims available (from 0.03 to 0.03 mm increments), the one of which the thickness is nearest to the thickness obtained by the measurements.

Ex : Measurement taken outside the housing : 1.0
 Measurement taken in / side the housing : 7.86
 Difference : 6.86
 Thickness of shim : 6.80

- The shim to be installed in this instance must have a thickness of 6.80 mm
 - As a shim of this thickness is not available use the 6.79 one.



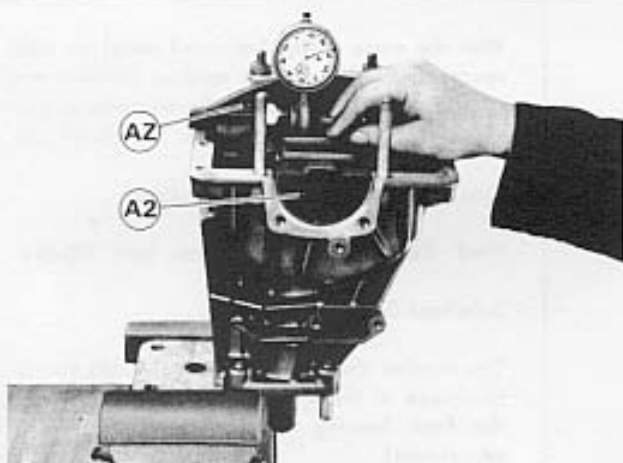
- Install pinion into the housing (final installing), using :

- the long spacer,
- the adjustment spacer previously determined
- a new nut.

Tightening torque 203 ft.lbs (28 m.kg)

- Using a hand crank turn pinion fast to ensure proper settlement of bearings.

(From now on it is difficult to turn the pinion by hand).



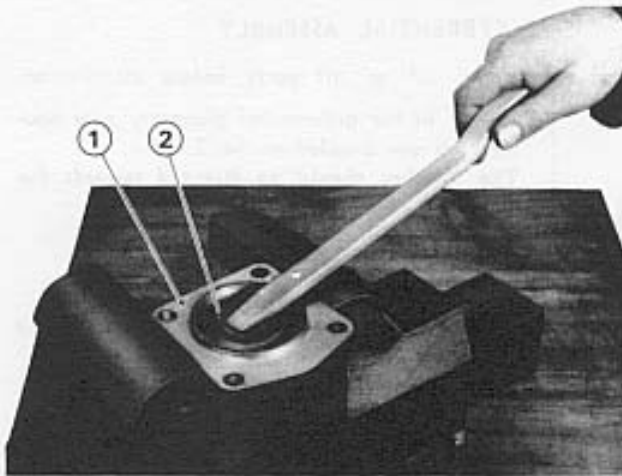
CHECK :

- Place rear axle vertically in vice.
 - Install apparatus AZ as indicated (class 5 page 03 10).
 - Using micrometer as indicated (class 5 page 03 10) measure the travel of feeler A2. This travel should correspond to the guide number :

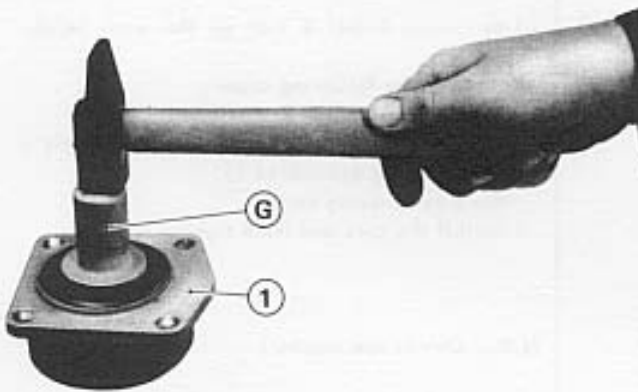
Tolerance + 0.05 mm
 - 0.03

DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT

5 0315



- Remove the apparatus AZ.
- Lock the pinion nut, using the punch F, in the 4 notches provided.
- Remove the support plate D.
- Clean thoroughly, the front oil seal housing 1.
- Remove the oil seal 2, using a tyre lever, taking care not to damage the inset deflector.
- Ensure that its insertion is perfect. If it is not, rectify this with 3 punch marks set 120° apart.

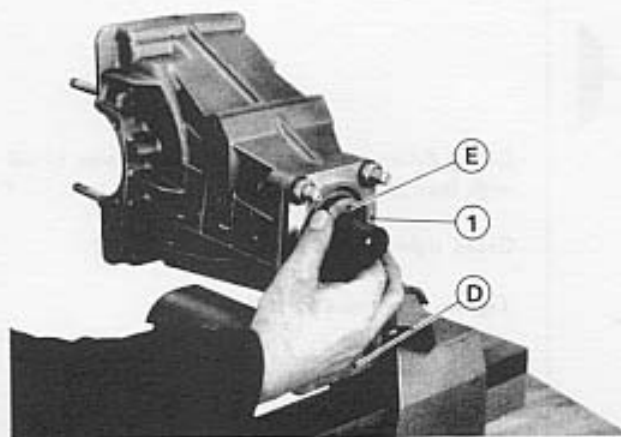


- Any deterioration of the deflector necessitates the replacement of the complete oil seal housing.

Fitting a new seal :

- Fit a new oil seal in the housing using tool G.
- Tap the tool until it abuts on the housing 1.

N.B. Dip the oil seal in engine oil before re-fitting the support.



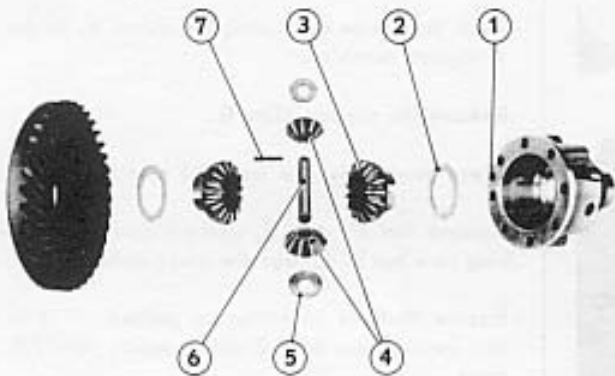
- Place the protector sleeve E in the bore of the oil seal 2.
- Coat the front face of the differential housing with Perfect Seal.
- Fit the oil seal housing 1.
- Refit the support plate D, in its previously occupied position.
- Tighten the 4 nuts, together with new Onduflex washers to 7.2 ft.lbs (1 m.kg)
- Remove the protector sleeve E whilst turning it carefully.

PEUGEOT

0316

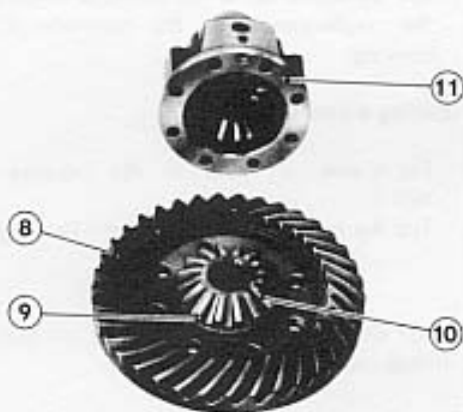
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DIFFERENTIAL RE-ASSEMBLY - ADJUSTMENT



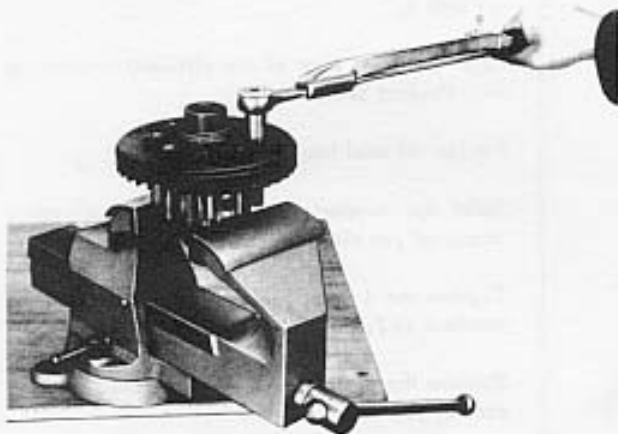
DIFFERENTIAL ASSEMBLY

- Apply oil on all parts before installation.
- Install in the differential planetary gear housing 1 a new dimpled washer 2. The dimples should be directed towards the sun gear 3.
- Install right hand side sun gear 3.
- Install :
 - planet gears 4 with their spherical dimpled washers 5.
 - planet gear shaft 6 with pin holes aligned.
 - fit a new Mecanindus pin 7 flush with surface of differential gear housing.



- Lay crown wheel 8 flat on the work bench.
- Install in the following order :
 - the dimpled washer 9,
 - the sun gear 10 and the differential planetary gear housing assembled 11.
 - the 8 assembling bolts,
 - install the nuts and hand tighten same.

N.B. - Do not use washers



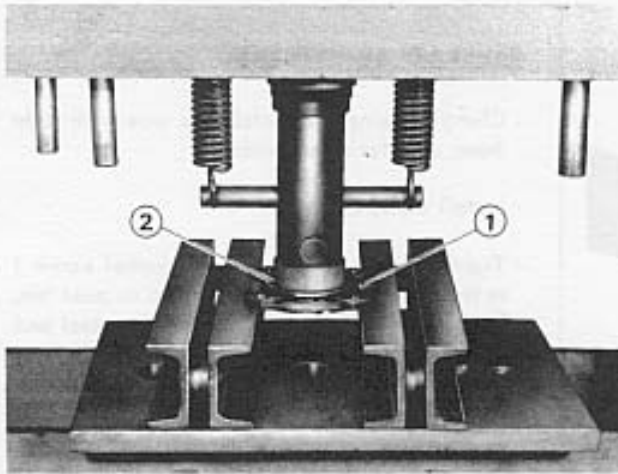
- Clamp differential gear assembly in a vice fitted with lead jaws.
- Cross tighten all 8 nuts.

Tightening torque 51 ft.lbs (7 m.kg).

DIFFERENTIAL

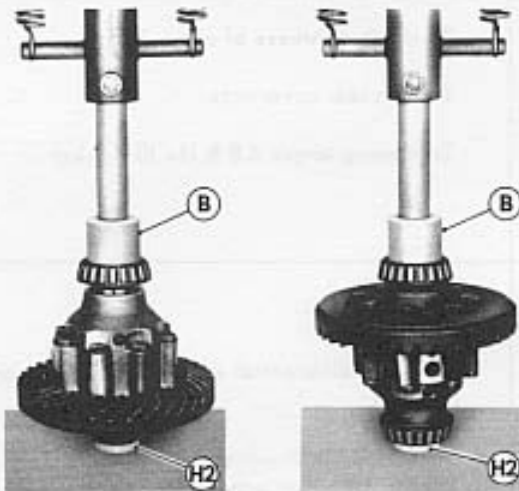
RE-ASSEMBLY - ADJUSTMENT

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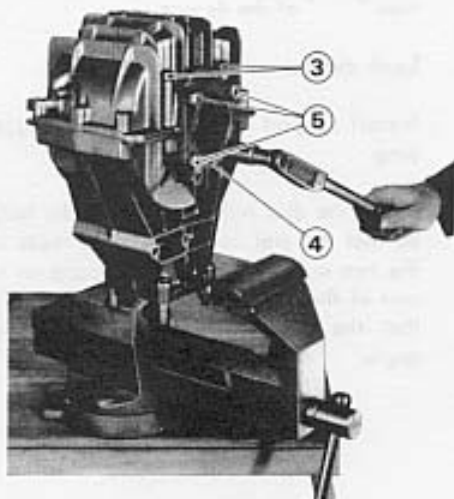
0317 ⁽¹⁾


- Remove the two differential bearing thrust plates 1.
- Remove the two oil seals 2 using a press.

N.B. - It is possible to effect this operation, with the differential mounted on the car, using a tyre lever.



- Remove grease from new bearings and install same using :
 - a press,
 - fitting tool B,
 - press pad H2
- Oil bearings with plenty of ESSO EXTRA MOTOR OIL 20 W 30/40. No other lubricant should be used.



Assembling the differential mechanism

- Place housing vertically in vice.
 - Apply Perfect Seal on machined surface of housing.
 - Apply oil on housing bearing recesses
 - Install crown gear differential assembly
 - Install rear cover by means of 4 nuts 3 equipped with new Onduflex washers and tighten to 5.8 ft.lbs (0.8 m.kg).
 - Install bearing side plate 4 (left hand side) without shims. Fit the 4 bolts 5 with new Onduflex washers.
- Tightening torque 5.8 ft.lbs (0.8 m.kg)**
- Slacken nuts 3 and tighten them by hand.

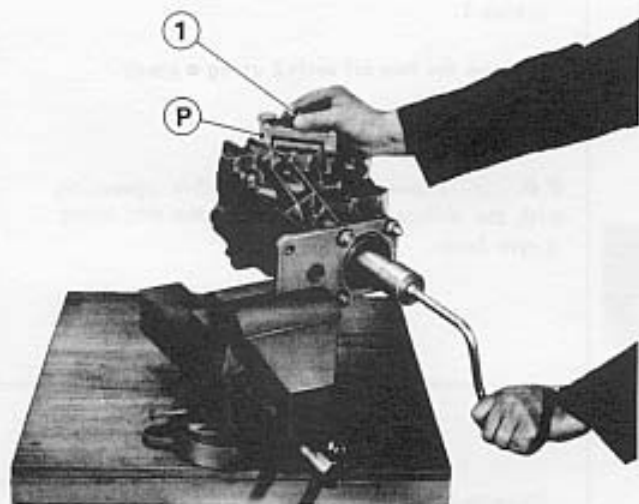
PEUGEOT

0318⁽¹⁾

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DIFFERENTIAL

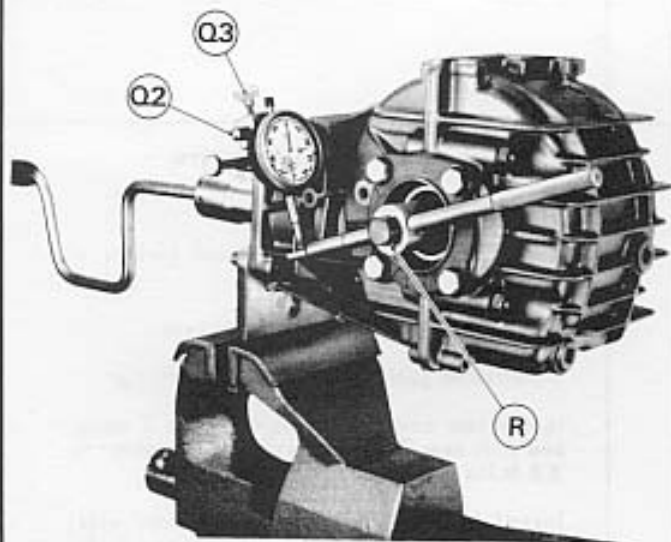
RE-ASSEMBLY - ADJUSTMENT



BACKLASH ADJUSTMENT

- Clamp housing horizontally in vice with right hand side facing upwards.
- Install clamp P.
- Tighten clamp P by means of control screw 1 to bring the differential as far down as possible, hand tighten (Do not use an auxiliary tool and do not apply much force).
- Rotate differential 5 turns in both directions.
- Tap on housing with a mallet for proper settlement of assembly.
- Re-check tightness of clamp P.
- Tighten rear cover nuts.

Tightening torque 5.8 ft.lbs (0.8 m.kg)

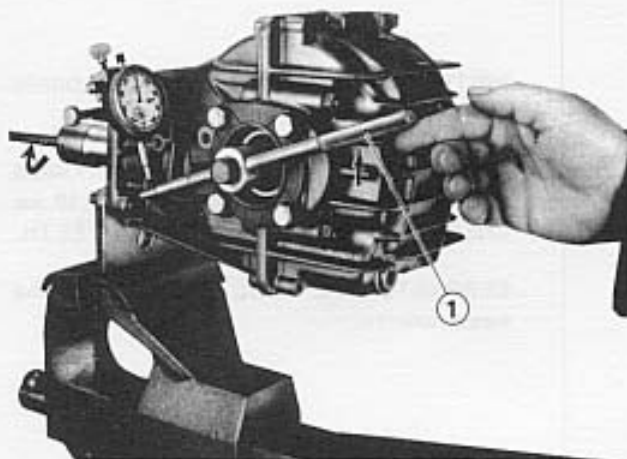


- Refit the differential in the vice in its normal position.
- Install backlash measuring tool R horizontally making sure that one of the radial grooves of the crown wheel end face is in line with position " " of the device.
- Lock central screw.
- Install support rod Q2 in the front upper housing.
- Mount the dial indicator, using the holder Q3, so that the dial indicator feeler rests between the two marks which can be found on the flat part of the left hand side of the tool R and so that the feeler and the tool R form a right angle.

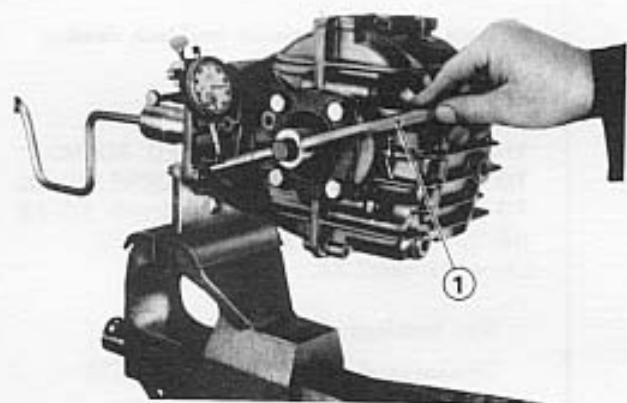
DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT

5

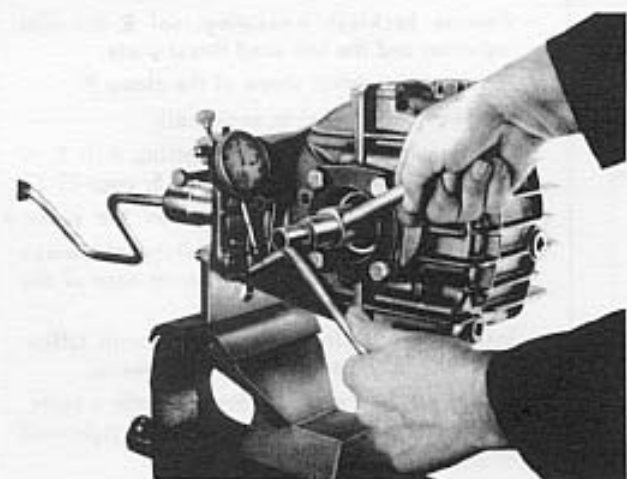
0319⁽¹⁾



- Turn drive pinion with care, anti-clockwise, to set dial indicator small hand to "5".
- Adjust dial indicator face to 0 holding the knurled arm 1 upwards.



- Press down lever 1 gently just enough to make it abut clockwise.
- In this position the dial indicator indicates the backlash between drive pinion and crown gear.
- Note this reading.



- Repeat this operation at three different points, using the other three gaps in the tool R lined up with the groove in the crown wheel used for the first reading.
- Note each reading, making sure that each time dial indicator has been set to 0.
- Turn tool anti-clockwise for each adjustment position.

PEUGEOT

0320⁽¹⁾

5

**DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT**

BACKLASH READINGS	
Positions	Readings
1	
2	
3	
4	

- WRITE DOWN THE TWO EXTREME READINGS OBTAINED
- IF THE DIFFERENCE BETWEEN MAXIMUM AND MINIMUM READINGS EXCEEDS 0.10 mm CHECK FOR DIRT OR BURRS ON TEETH.
- ELIMINATE THE FAULT and recheck the measurements.

**DIFFERENTIAL ADJUSTMENT
SHIMS**

Thicknesses available

- 0.05 mm
- 0.10 mm
- 0.20 mm
- 0.40 mm
- 0.50 mm
- 1. mm

DETERMINATION OF ADJUSTMENT SHIMS

Subtract from the minimum backlash reading :

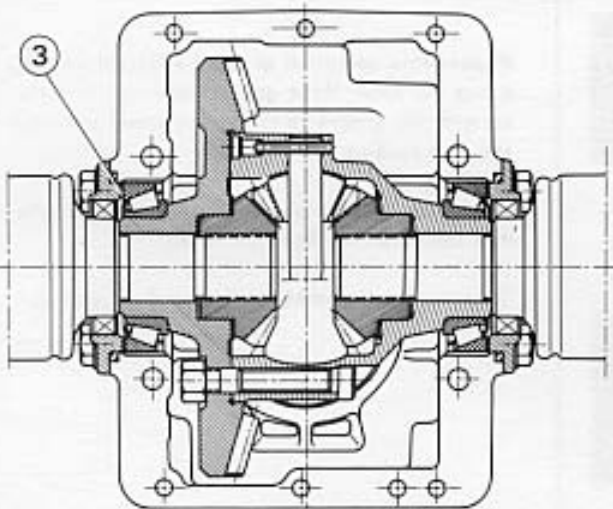
0.10 mm

THE NUMBER THUS OBTAINED ROUNDED TO THE NEAREST 0.05 mm CORRESPONDS TO THE THICKNESS OF THE SHIMS TO BE INSTALLED ON THE LEFT HAND SIDE (3rd adjustment). Ex. :

Mini backlash : 0.38

Thickness of shim : $0.38 - 0.10 = 0.28$

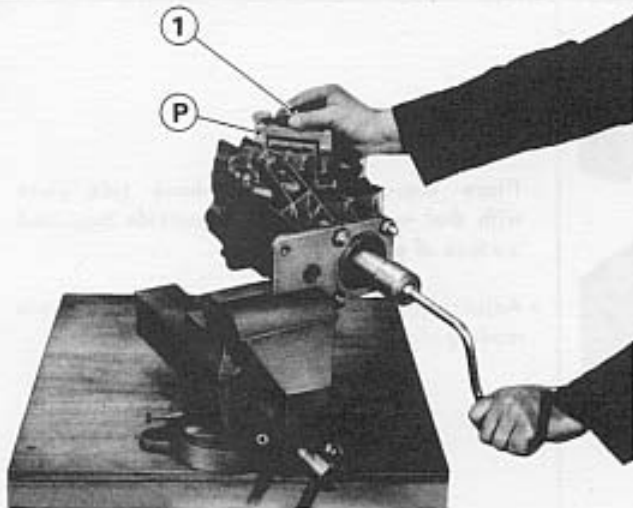
Which is : 0.30



- Remove backlash measuring tool R the dial indicator and the left hand thrust plate.
- Slacken the central screw of the clamp P
- Dip the new oil seal in engine oil.
- Fit the oil seal using the inserting drift T in left hand thrust plate (see class 5, page 03 23)
- Tap the drift until it abuts on the plate.
- Place the shims (after checking thickness with a Palmer gauge) on the outer race of the left hand bearing.
- Insert a new O ring, after coating with tallow between the thrust plate and the housing.
- Secure this plate to the housing with 4 bolts, fitted with new "Onduflex" washers, tightened to 5.8 ft.lbs (0.8 m.kg).

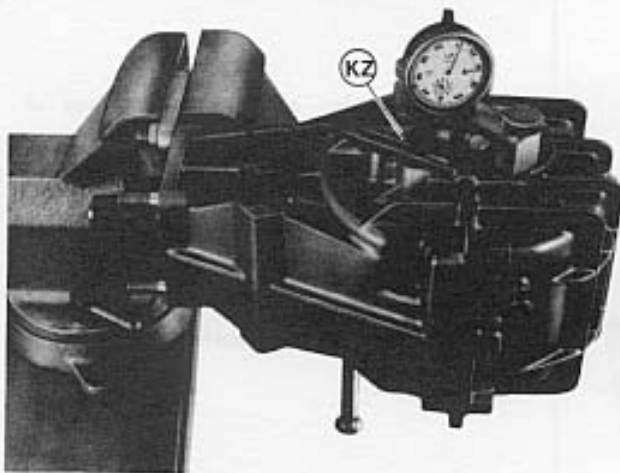
DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT

5 0321

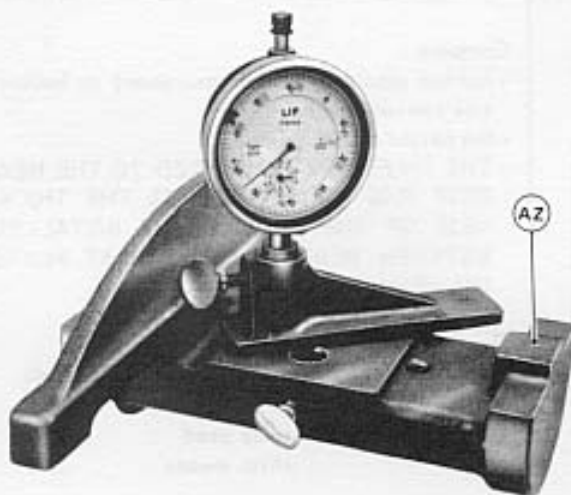


BEARINGS PRE-LOAD ADJUSTMENT

- Re-install housing horizontally in vice (as per drawing opposite).
- **HAND TIGHTEN** firmly central screw (1) of clamp P while turning drive pinion.



- Place micrometer **KZ** on a flat surface of front differential housing (right hand side) with dial indicator long feeler **K3** resting on outer bearing race.
- Make sure that micrometer does not rest on both housings (Only on the front or the rear)
- Adjust dial indicator setting so as to obtain "1" and "0", for example.



- Place micrometer on machined surface of tool **AZ** used as measuring surface.
- The displacement of the dial indicator needles represents the depth of the bearing in the housing and 0.25 mm should be added.
- Note down the reading obtained.

Ex. :

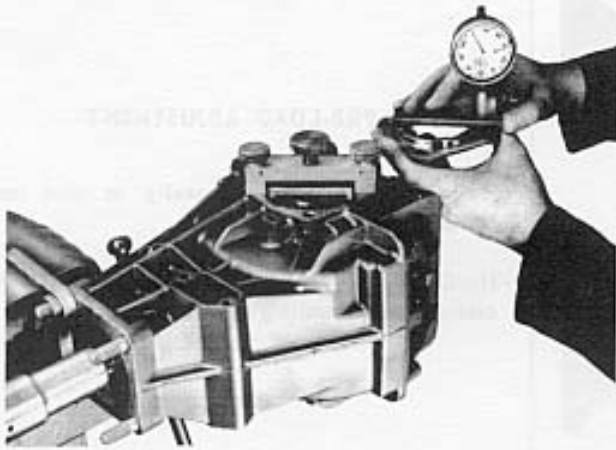
Measurement in the housing	1.00
Measurement on machined surface	7.15
Difference	6.15
	+ 0.25
Number to be noted	6.40

PEUGEOT

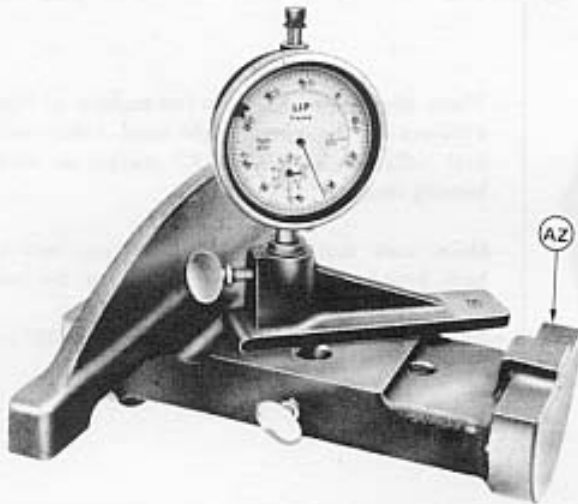
0322

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DIFFERENTIAL RE-ASSEMBLY - ADJUSTMENT



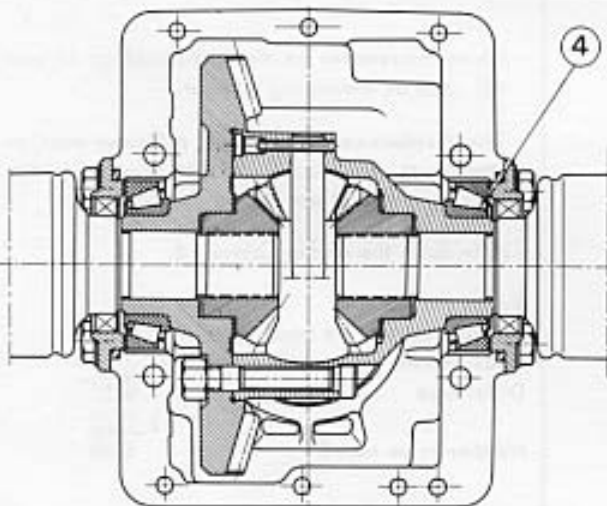
- Place micrometer on right-hand side plate with dial indicator feeler on outside machined surface of plate.
- Adjust dial indicator height so as to obtain a reading of "1" and "0" for example.



- Place micrometer on machined surface of tool AZ used as measuring surface.
- The displacement of the dial indicator needles represents the height of the collar on plate.

Ex. :

Measurement on plate	1.00
Measurement on measuring surface	7.29
Height of collar	6.29



Compare :

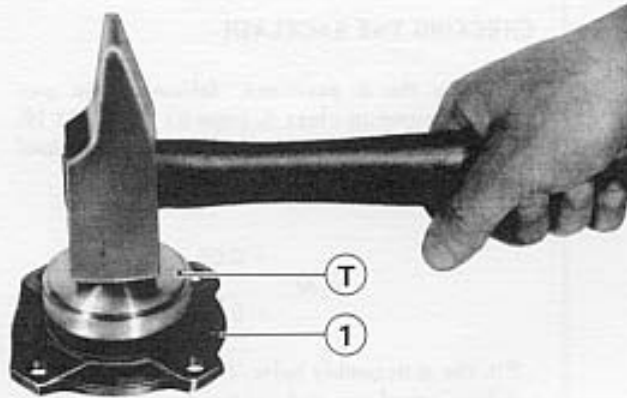
- number obtained when measurement on housing was carried out.
- the height of the collar.
- THE DIFFERENCE ROUNDED TO THE NEAREST 0.05 mm REPRESENTS THE THICKNESS OF THE SHIMS TO BE INSTALLED BETWEEN BEARING AND THRUST PLATE (4th adjustment).

Ex. :

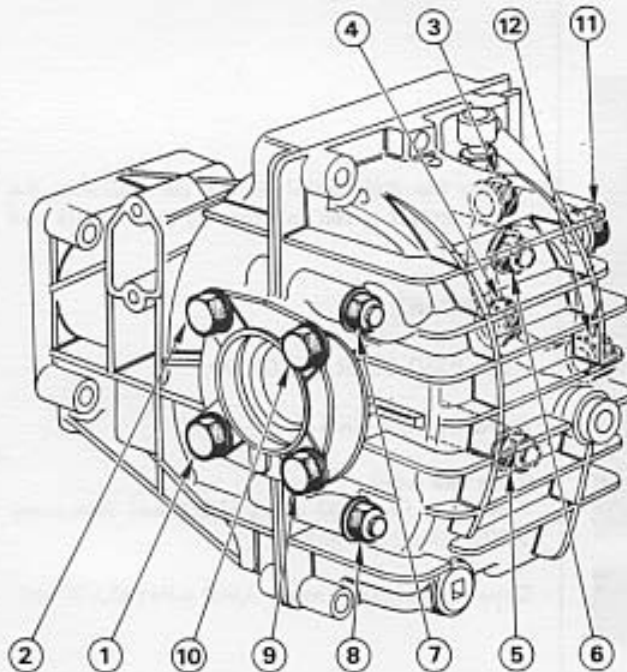
Number obtained with first measurement	6.40
Height of collar	<u>6.29</u>
Thickness of shims to be used	0.11
which means	0.10

DIFFERENTIAL
RE-ASSEMBLY - ADJUSTMENT

5 0323⁽¹⁾



- Dip the new oil seal in engine oil.
- Fit this into the thrust plate 1 using the drift T.
- Tap the drift until it abuts on the plate.
- Place the shims (after checking with a Palmer-gauge) on the outer race of the right hand bearing.
- Insert a new O ring, coated with tallow between the thrust plate and the housing.
- Secure this housing with 4 bolts fitted with new Onduflex washers tighten to 5.8 ft.lbs (0.8 m.kg).



- Proceed with final tightening of the eight bolts and four nuts in the sequence indicated below to 25.37 ft.lbs (3.5 m.kg).
- Slacken the 4 assembling nuts 5, 6, 7, and 8.
- Tap with a mallet on the rear housing to obtain a perfect mating between front and rear housings.
- Re-tighten the four assembling nuts in the same sequence as before (5, 6, 7, 8). Tightening torque : 39.87 ft.lbs (5.5 m.kg).
- Rotate drive pinion several times in both directions.

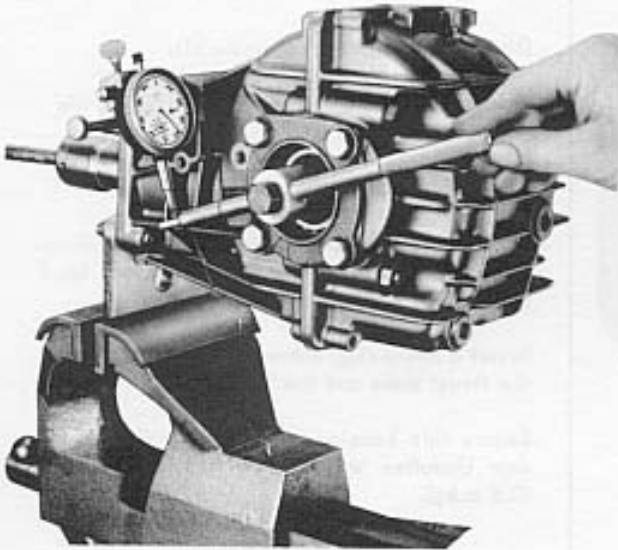
PEUGEOT

03 24⁽¹⁾

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DIFFERENTIAL

RE-ASSEMBLY - ADJUSTMENT

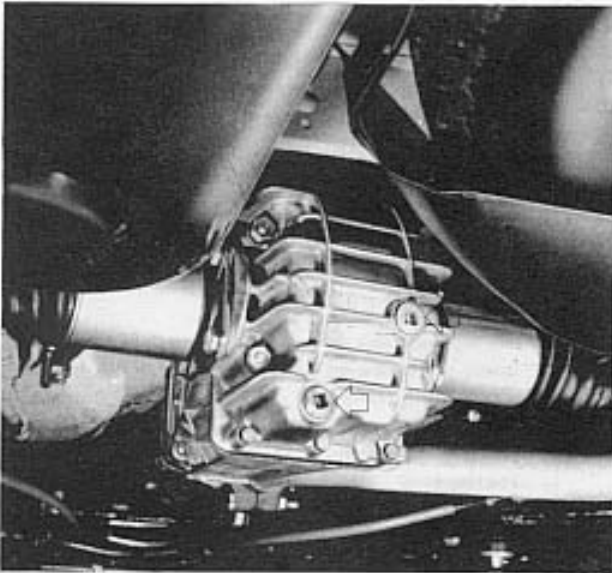


CHECKING THE BACKLASH

Check in the 4 positions, following the process indicated in class 5, page 03 18 and 03 19. The minimum amount of backlash must be equal to :

$$0.20 \begin{matrix} + 0.05 \\ - 0.02 \end{matrix}$$

- Fit the 6 assembly bolts, fitted with new "On-duflex" washers, and tighten them to 7.2 ft.lbs (1 m.kg).



- Refit the differential on the car following the instructions given in class 5, page 02 05 and 02 06.

LUBRICANT

- Use ESSO GEAR OIL GP 90

Capacity : 2.1 pints (1.2 l)

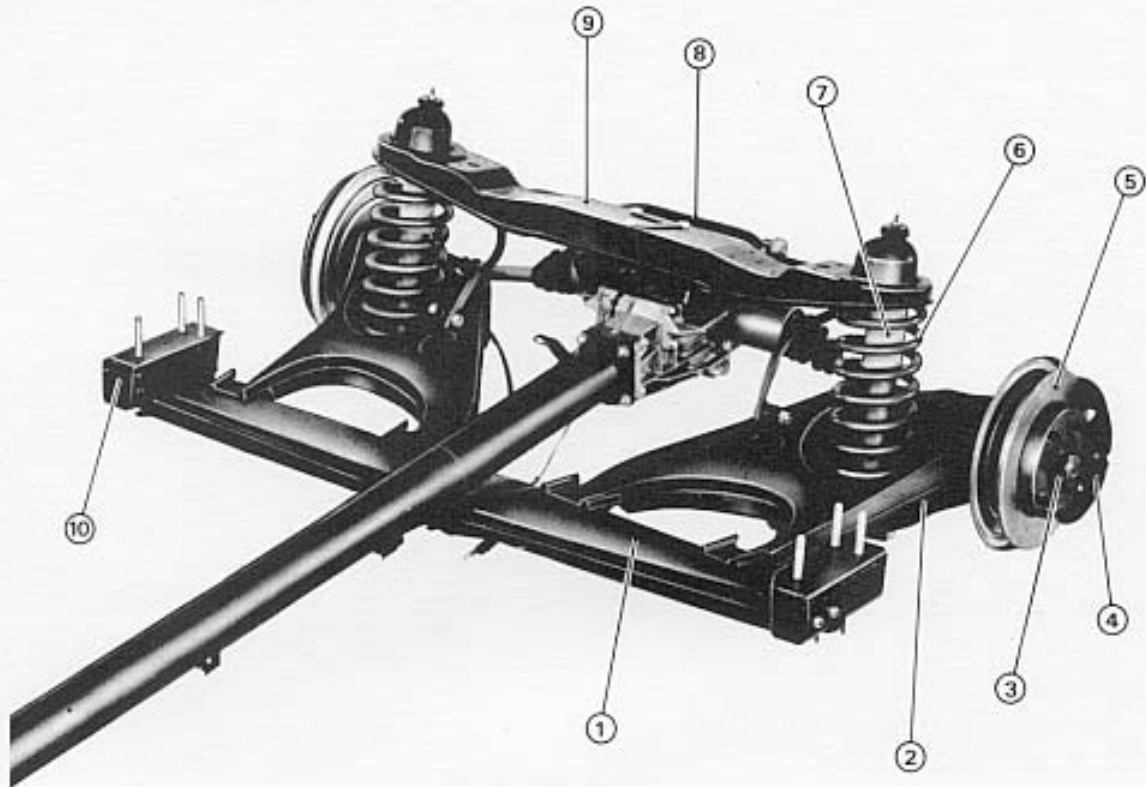
Drain and refill :

After the first 600 miles (1,000 km) then every 9,000 miles (15,000 km).

Check the level : every 3,000 miles (5,000 km).

REAR AXLE
IDENTIFICATION AND CHARACTERISTICS

5



- 1 - Rear cross member
- 2 - Rear arm
- 3 - Rear hub
- 4 - Brake caliper
- 5 - Brake disc
- 6 - Suspension spring
- 7 - Rear shock absorber
- 8 - Anti-roll bar
- 9 - Rear suspension cross member
- 10 - Rear cross member support

REAR AXLE CHARACTERISTICS

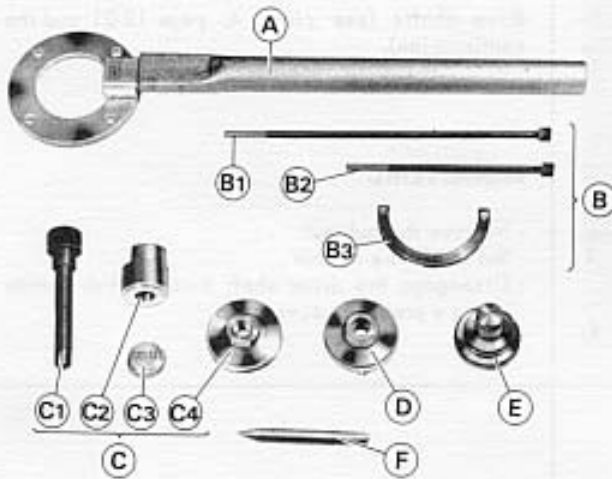
REAR AXLE CHARACTERISTICS	
Toe in	In working order 4.5 mm ^{+ 1} - 2
Camber angle	1° + 0° 40' - 0° 20'

PEUGEOT

REAR AXLE
REAR HUBS - REAR HUB CARRIERS

5

14 01 (1)

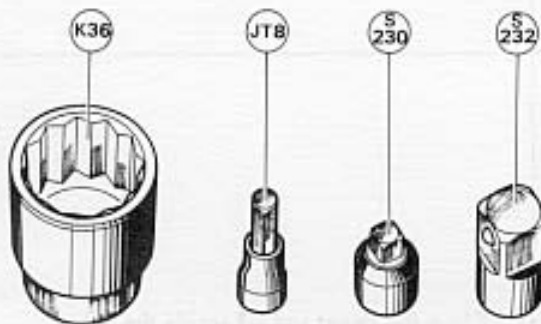


TOOLS TO BE USED

8.0521 Z

Tool chest for rear wheel bearings including :

- A - Apparatus for holding the hub (2 parts)
- B - Hub carrier extractor including
 - B1 - Long bolt
 - B2 - Short bolt
 - B3 - Thrust plate
- C - Apparatus for dismantling and re-assembling the hub and the bearing including :
 - C1 - Bolt
 - C2 - Nut
 - C3 - Thrust pad
 - C4 - Extractor
- D - Spanner head for the carrier nut.
- E - Hub seal fitting drift.
- F - Punch.



RECOMMENDED TOOLS

- Standard FACOM tools

- Socket K36
- Socket JT8
- Adaptor S230
- Adaptor S232

N.B. - These tools are not supplied in the tool chest, but a space is provided for them.

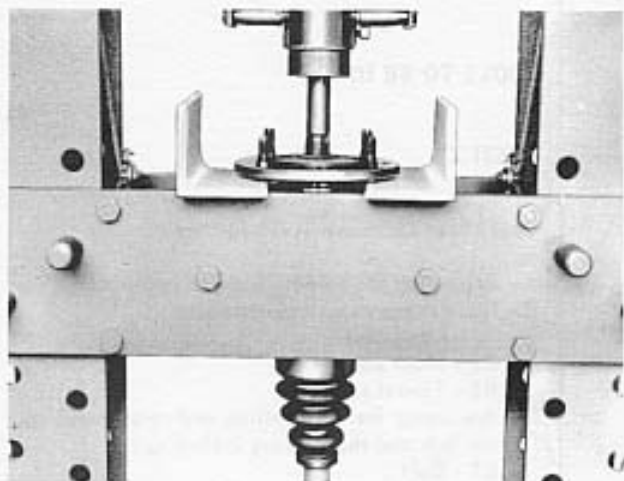
PEUGEOT

1402

5

REAR AXLE

REAR HUBS - REAR HUB CARRIERS

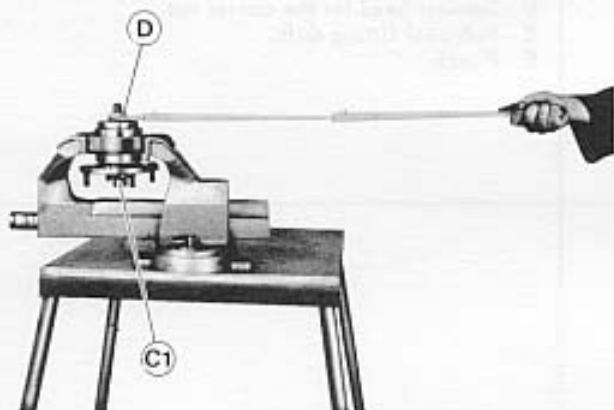


REMOVAL - REFITTING

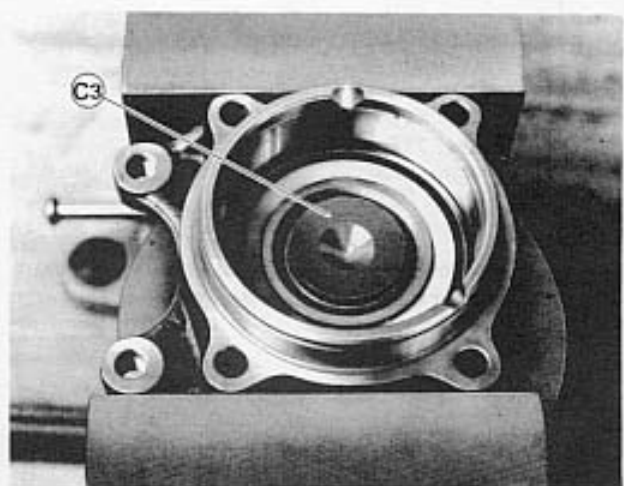
The method of removal and refitting of the hub carrier is identical to that for the drive shafts (see class 4, page 1201 and the continuation).

DISMANTLING

- Remove the hub nut.
- Set aside the washer.
- Disengage the drive shaft from the hub-carrier using a press if necessary.



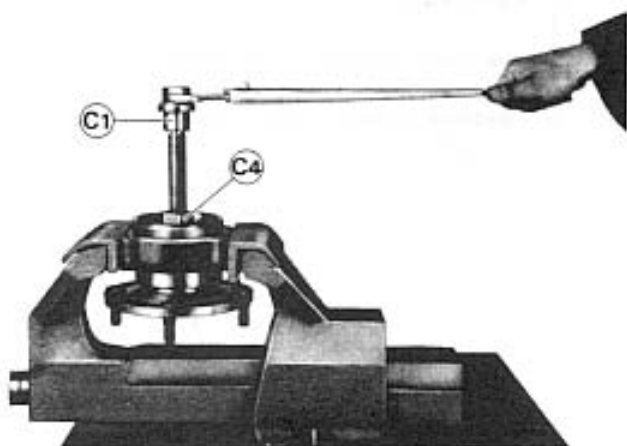
- Clamp the hub-carrier assembly in a vice fitted with soft jaws.
- Unlock the carrier nut.
- Place the spanner head D on the nut.
- Lock the spanner head D with the bolt C1.
- Use an open end spanner and the Facom extension to unscrew the carrier nut.



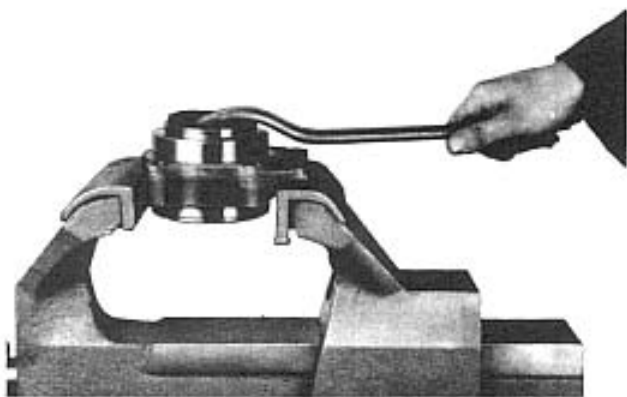
- Place the thrust pad C3 inside the hub.

REAR AXLE
REAR HUBS - REAR KNUCKLES

5 | 14 03^m



- Screw :
- the extractor C4, into the knuckle body
- the bolt C1 into the extractor C4.
- Tighten the bolt C1 until the hub is completely withdrawn.



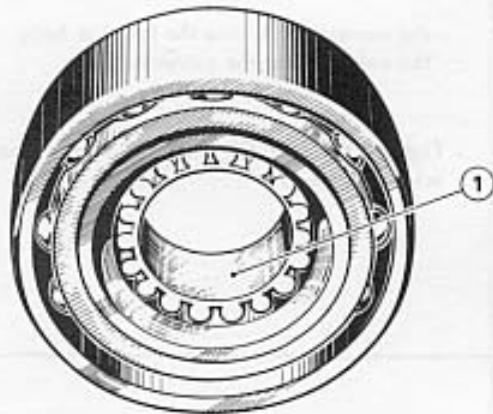
- Remove the extractor C4
- Set aside the thrust pad C3.
- Remove the double bearing using nut C2 and the press if necessary.
- Turn the knuckle over in the vice.
- Remove the outer oil seal using a tyre lever.

PEUGEOT

1404

5

REAR AXLE
REAR HUBS - REAR KNUCKLES

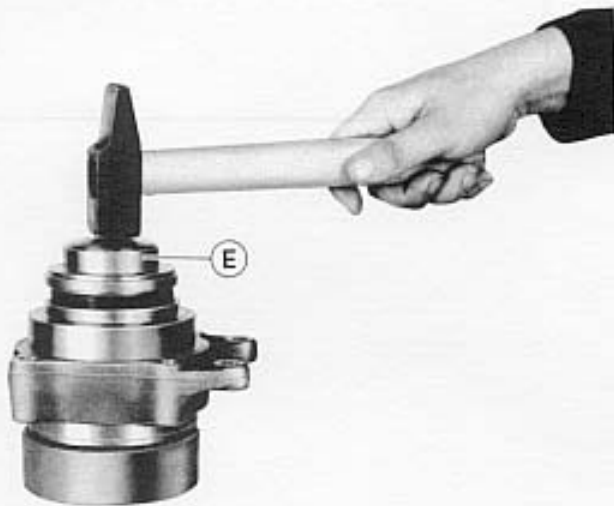


REFITTING

- Use only clean and faultless parts
- Replace at each dismantling ;
 - the knuckle nut with its two lipped oil seal,
 - the outer oil seal.
- Check the bearing surface of both inner and outer races.
- Grease the bearing with ESSO MULTIPURPOSE GREASE H.

N.B. - All new bearings are delivered by the Spare Parts Departement with a nylon ring 1 inserted to maintain the two parts of the bearing in one piece for handling purposes.

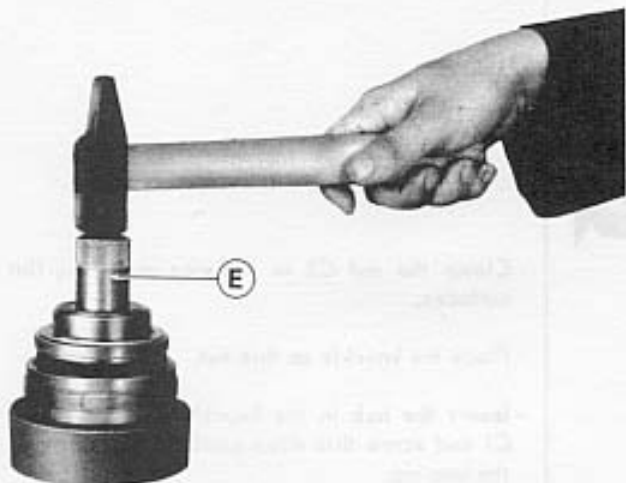
This ring must be removed before assembly of the hub-knuckle.



- Fit the outer oil seal of the knuckle using the drift E.
- Tap the drift until it abuts on the knuckle.

REAR AXLE
REAR HUBS - REAR KNUCKLES

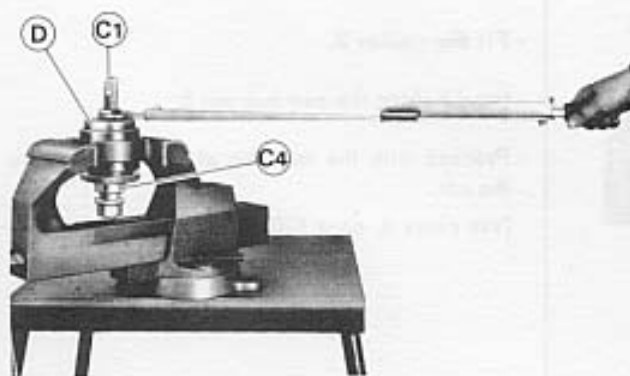
5 1405



- Insert the oil seal in the knuckle nut using the drift E.
- Tap the drift until it abuts on the knuckle nut.



- Insert the bearing, fitted with its inner races in the knuckle.



- Tighten the knuckle nut until it comes into contact with the bearing.
- Thread the extractor C4 onto the bolt C1.
- Place the spanner head D on the knuckle nut.
- Insert the bolt C1 fitted with the extractor C4 into the knuckle and screw this assembly into the spanner head D.
- Tighten the knuckle nut to 181 ft.lbs (25 m.kg).
- Remove the bolt-extractor-spanner head assembly.
- Lock the knuckle nut, using the punch F, in the notches provided.

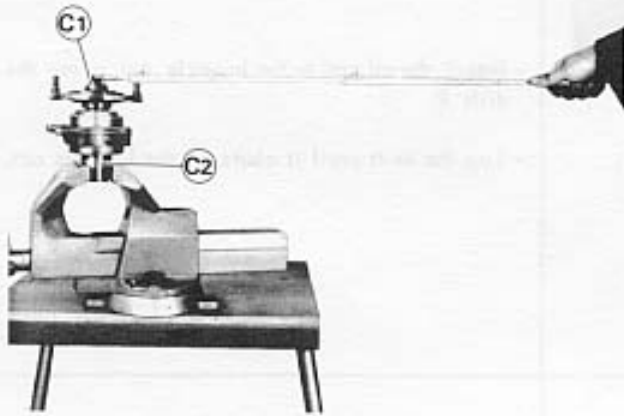
PEUGEOT

1406

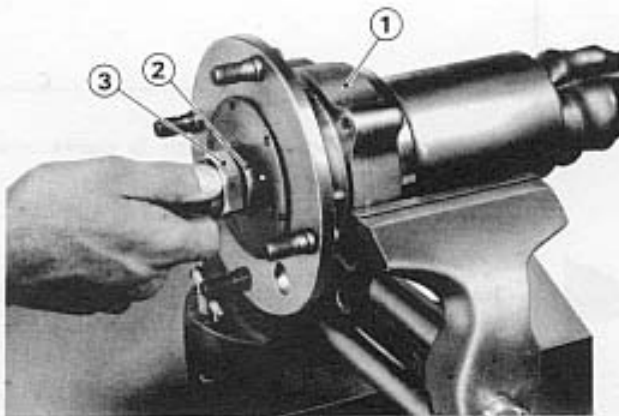
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REAR AXLE

REAR HUBS - REAR KNUCKLES



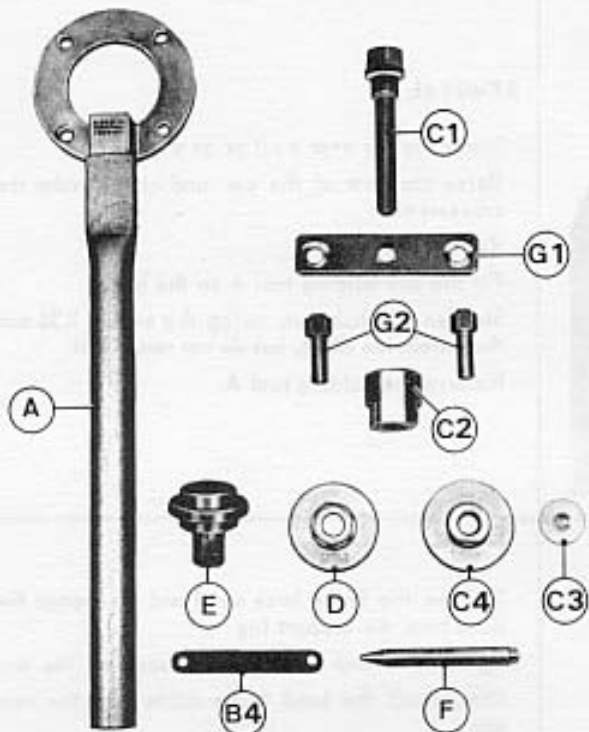
- Clamp the nut C2 in the vice on its two flat surfaces.
- Place the knuckle on this nut.
- Insert the hub in the knuckle using the bolt C1 and screw this down until the hub abuts on the bearing.



- Coat the splines of the half shaft with molykote 321.
- Insert the half shaft in the hub-knuckle assembly 1.
- Fit the washer 2.
- Hand tighten the new hub nut 3.
- Proceed with the refitting of this assembly to the car.
(see class 4, page 1205).

REAR AXLE
HUBS - HUB CARRIERS

5



504 CONVERTIBLES - COUPES

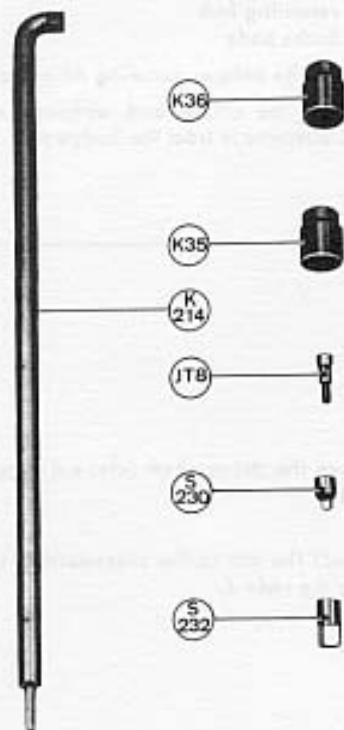
TOOLS TO BE USED

B.0521 Z

Tool chest for the rear hubs

- A - Hub holding tool
- B4 - Hub carrier extractor plate
- C - Apparatus for dismantling and reassembling the hubs consisting of :
 - C1 - bolt
 - C2 - nut
 - C3 - thrust pad
 - C4 - extractor
- D - Hub carrier nut spanner head
- E - Drift for fitting the hub oil seals
- F - Locking punch
- G1 - Extractor plate
- G2 - Reversible nuts

PEUGEOT



RECOMMENDED TOOLS

Standard Facom tools

Sockets K36 - K35

Socket JT8

Adaptor S230

Adaptor S232

Torque wrench extension K214

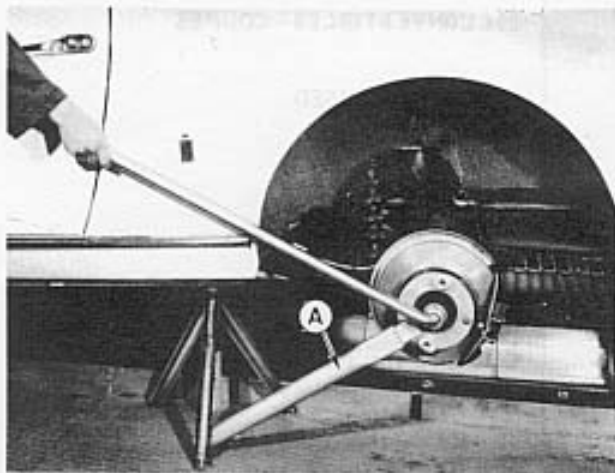
NOTE :

The tools : K36 - JT8 - S230 and S232 are not supplied with the chest but space is provided for them.

14 12

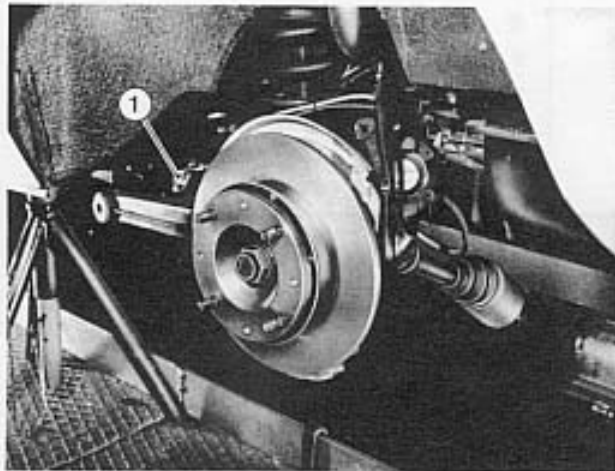
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REAR AXLE HUBS - HUB CARRIERS

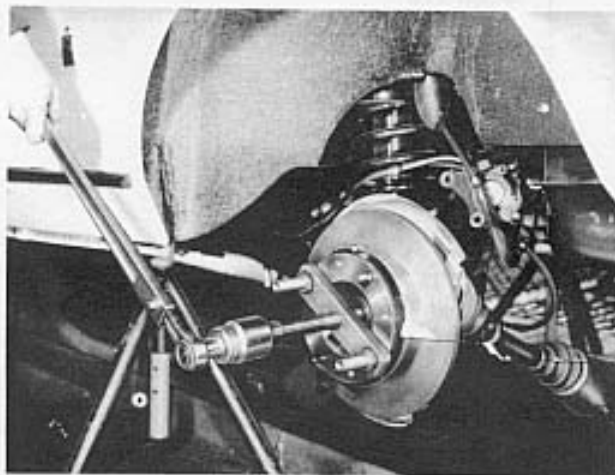


REMOVAL

- Place the car over a pit or on a car lift
- Raise the rear of the car and chock under the crossmember
- Remove the wheel
- Fit the hub holding tool A on the hub
- Slacken the hub nut, using the socket K36 and the extension K214, but do not remove it
- Remove the holding tool A.



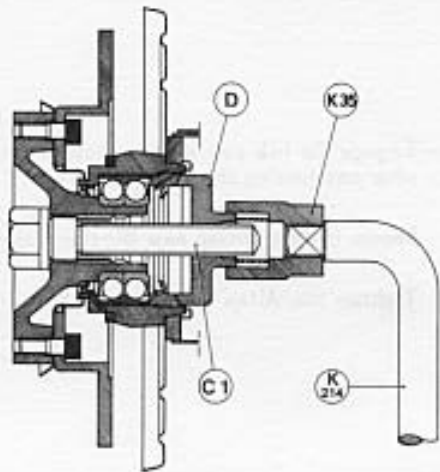
- Slacken the brake hose nut 1 and disengage the hose from the support lug
- Open the clamp retaining the hose on the arm
- Disconnect the hand brake cable from the rear arm
- Remove :
 - the anti-squeal spring
 - the retaining fork
 - the brake pads
- Remove the caliper securing Allen screws
- Withdraw the caliper and, without distorting the hose, suspend it from the bodywork.



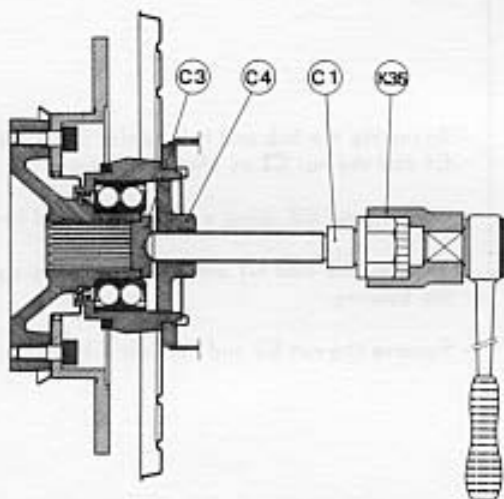
- Remove the drive shaft (class 4 page 12 12 and 12 13).
- Connect the arm to the crossmember temporarily using the rods J.

REAR AXLE
HUBS - HUB CARRIERS

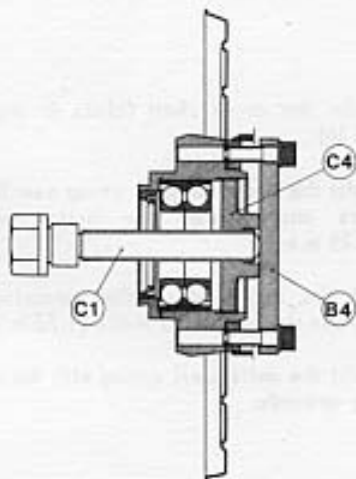
5 1413



- Remove the hub carrier nut using the spanner D, held in place with the bolt C1 and the socket K35 fitted on the extension K214.



- Extract the hub using tools as shown opposite :
- Recover :
 - the hub/disc assembly
 - the thrust pad C3
 - the bolt C1
- Leave the extractor C4 in place.



- Remove the 4 Allen screws securing the hub carrier to the arm
- Place the extractor plate B4 on the arm using two of the carrier securing screws.
- Extract the hub carrier using the bolt C1.

IMPORTANT

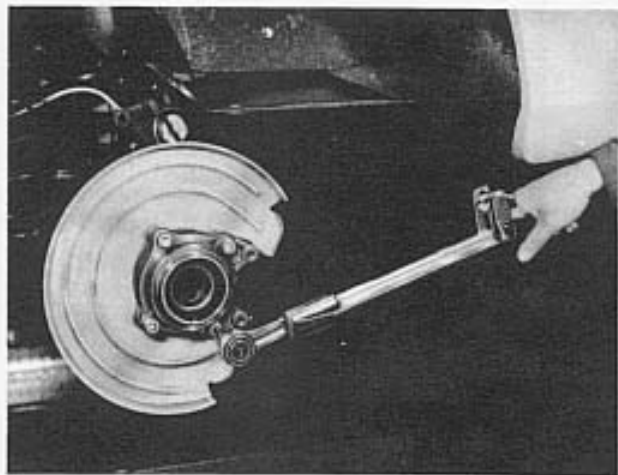
- For dismantling and reassembly of the rear hub, the hub carrier nut and the oil seals, see class 5, page 14 03 to 14 05.

PEUGEOT

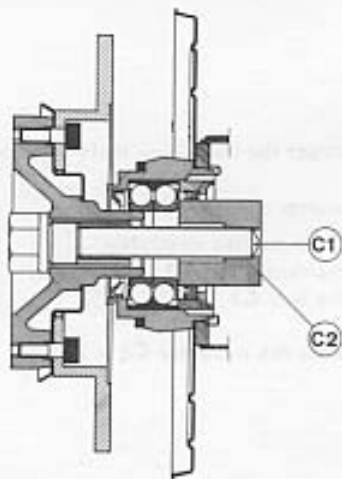


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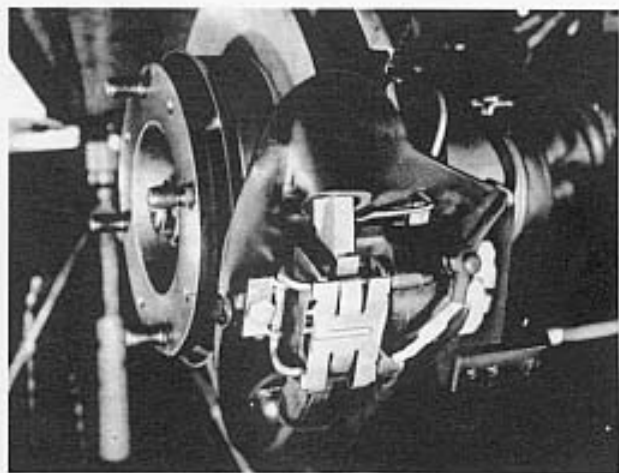
REAR AXLE HUBS - HUB CARRIERS



- Engage the hub carrier in its housing on the arm after positioning the disc protector
- Secure it after fitting new Blocfor washers
- Tighten the Allen screws to 29 ft.lbs (4 m.kg).



- Assemble the hub and hub carrier using the bolt C1 and the nut C2 as shown opposite
- Hold the nut C2 using a 40 mm open end spanner
- Tighten the bolt C1 until the hub abuts against the bearing.
- Remove the nut C2 and the bolt C1.



- Refit the drive shaft (class 4, page 12 14 to 12 16)
- Refit the brake caliper, using new Blocfor washers and tighten the bolts to 31 ft.lbs (4.25 m.kg).
- Fit the brake pads, the retaining fork and tighten the bolt to 13 ft.lbs (1.75 m.kg).
- Refit the antisqueal spring with the arrow pointing upwards.

REAR AXLE
REAR CROSS MEMBER

5 1501



TOOLS TO BE USED

8.0906

Tool chest for front and rear suspension.

J - Set of 2 bent bars for positioning rear arms on the cross member.

K1 - Set of 2 guide rods for the rear cross member

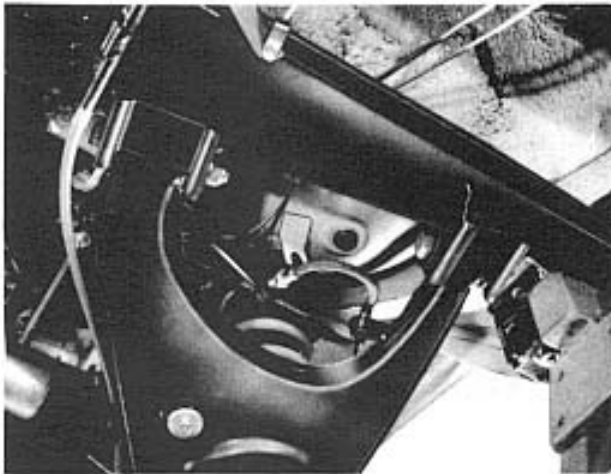
K2 - Set of 2 bars.

PEUGEOT

1502

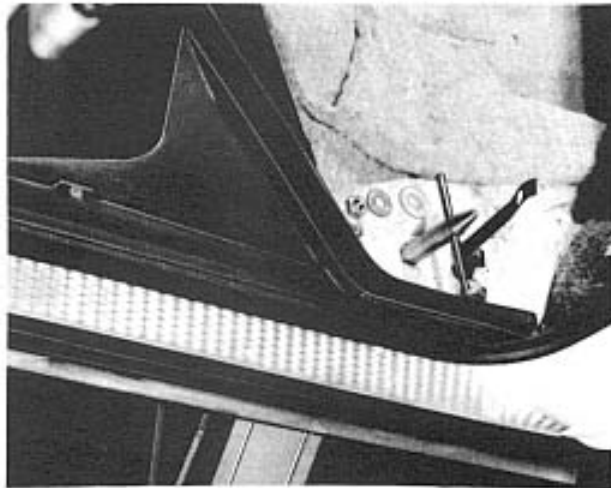
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REAR AXLE REAR CROSS MEMBER

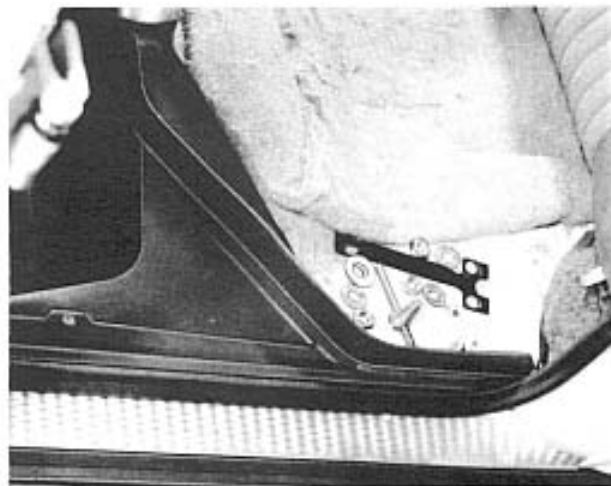


REMOVAL

- Place the car over a pit or on a car lift.
- Unscrew the nuts securing the flexible hoses of the rear brakes to the supports on the rear floor.
- Remove the brake lines from their supports.
- Place a jack under the left hand lateral cross member support in contact with it.



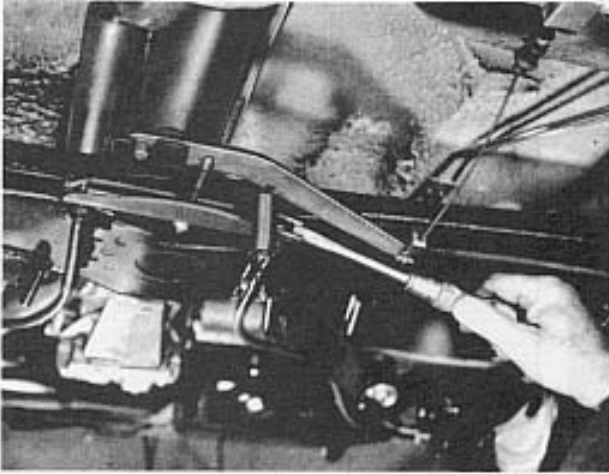
- Remove the rear seat cushion.
- Unlock the three nuts securing the cross member.
- Remove the front securing nut.
- Raise the tab lock and remove the plastic plug from the guide hole.
- Screw into the hole the guide K1 and tighten it using the bar K2.



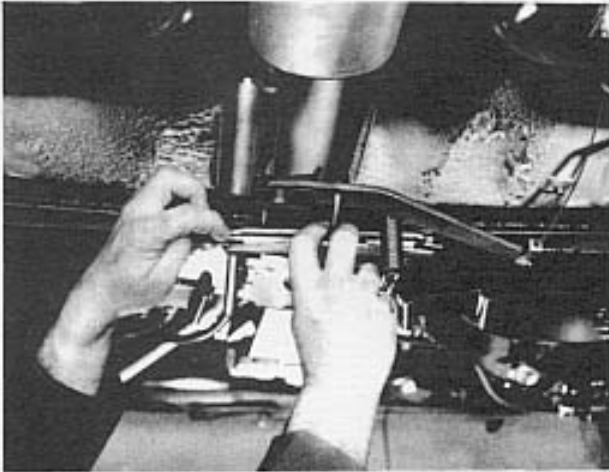
- Leave the bar K2 in the guide hole.
- Remove the rear cross member securing nuts and thrust washers.
- Lower gently the cross member until the bar is resting on the floor.
- Carry out the same operation on the right hand side.

REAR AXLE
REAR CROSS MEMBER

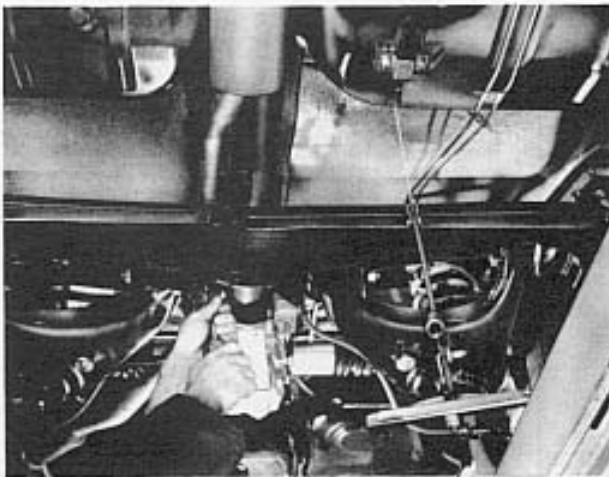
5 1503



- Unhook the hand brake control lever return spring.
- Straighten the hand brake cable stop tongues on the relay arm.



- Slide the cable sideways out of the arm.
- Remove the lever-arm assembly.



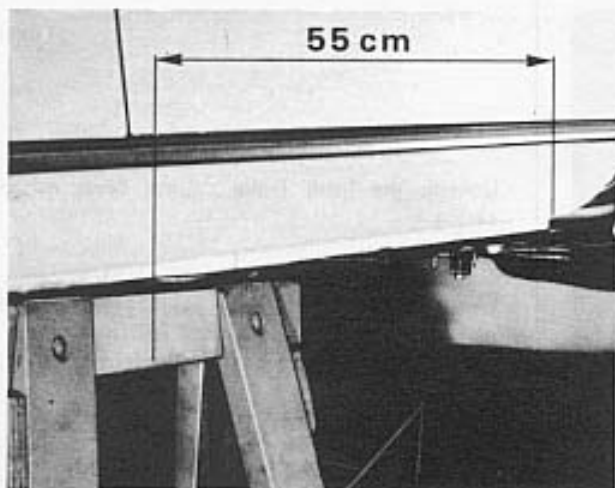
- Remove protector covers and withdraw the brake cables from their respective guides on the cross member.

PEUGEOT

1504

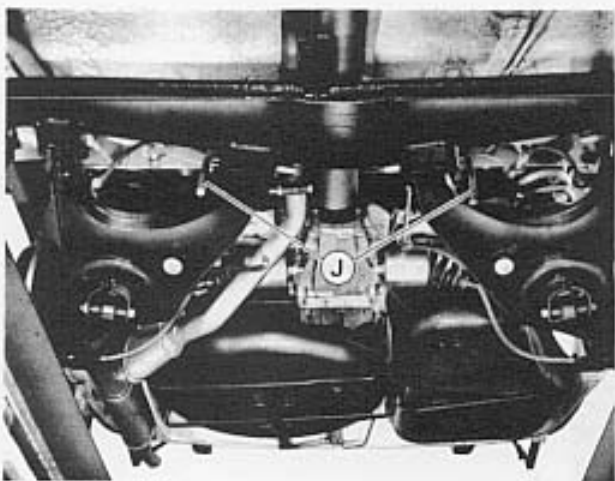
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REAR AXLE
REAR CROSS MEMBER



- Chock the car, from under the outer sidemembers, 55 cm in front of the wheel arches.

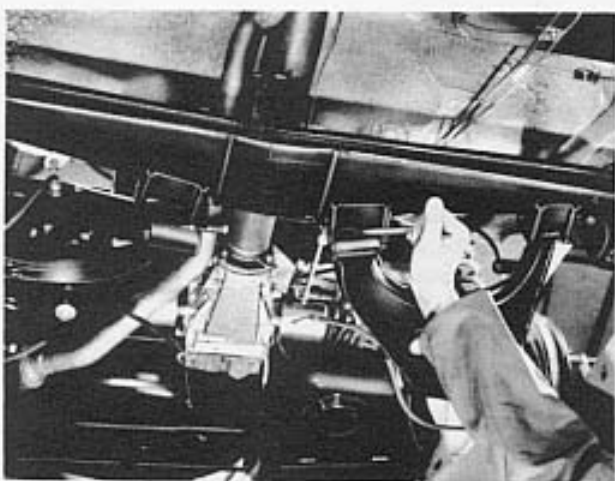
- Remove the rear wheels.



- Remove the inner rear arm articulation pivots.

- Insert in their place the 2 bars 8.0906 J.

- Then remove the outer articulation pivots of the rear arms.



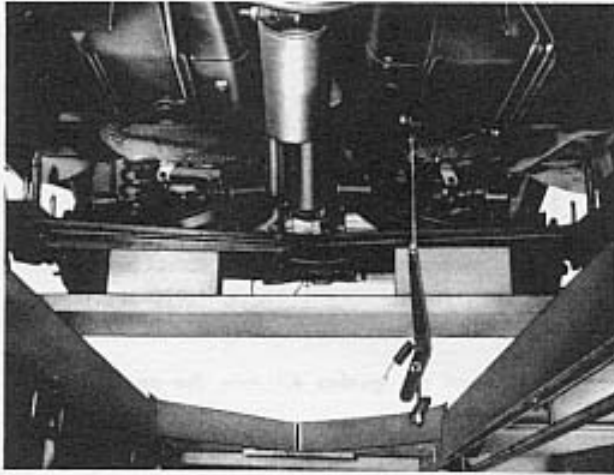
- Remove the bars 8.0906 J.

- Disengage, using a lever, the left hand rear arm articulations.

- Then remove in the same manner the right hand rear arm articulations.

REAR AXLE
REAR CROSS MEMBER

5 1505



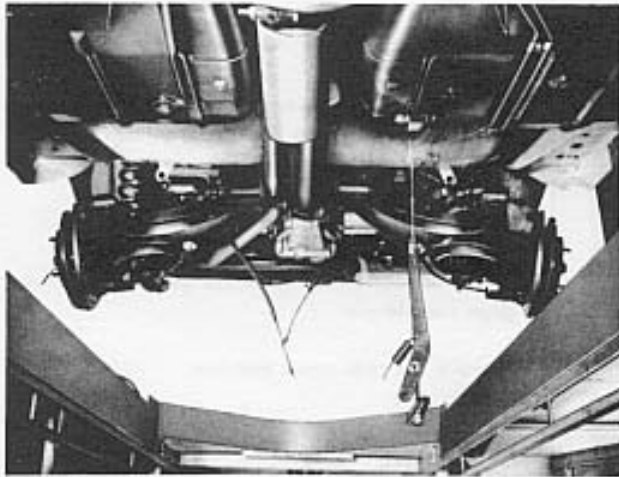
- Chock the cross member so as to release the bars K2 maintaining the cross member suspended from the floor of the car.
- Remove the bars K2 and the guides K1.
- Raise the bodywork until the guides K1 disengage completely.
- Remove the rear cross member.

PEUGEOT

1506

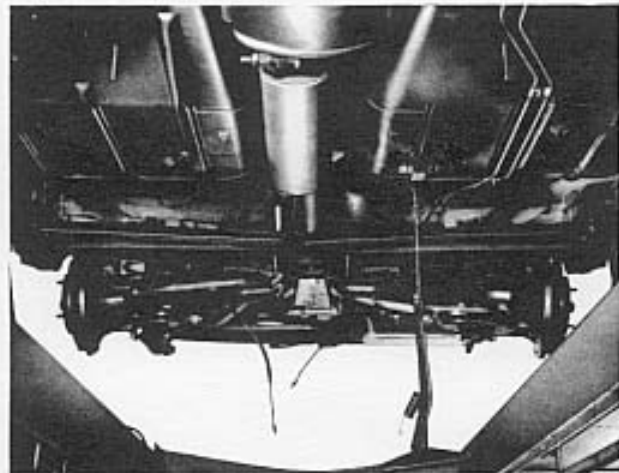
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REAR AXLE REAR CROSS MEMBER

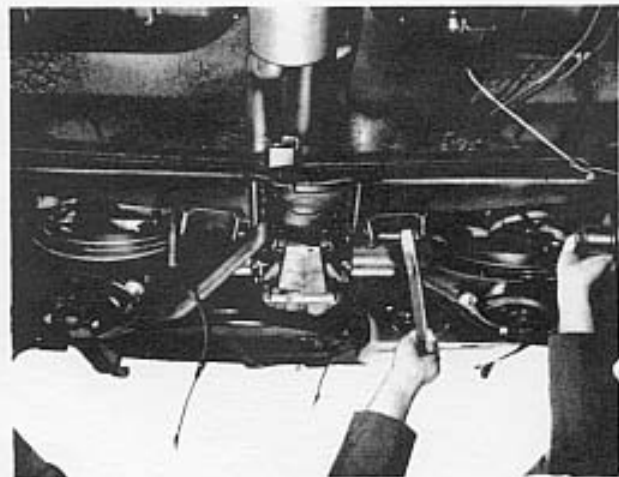


REFITTING

- Ensure that all parts are clean and free from all defect.
- If necessary assemble the cross member and the lateral supports as indicated in class 5, page 15 13.
- Thread the guides K1 into the cross member supports.



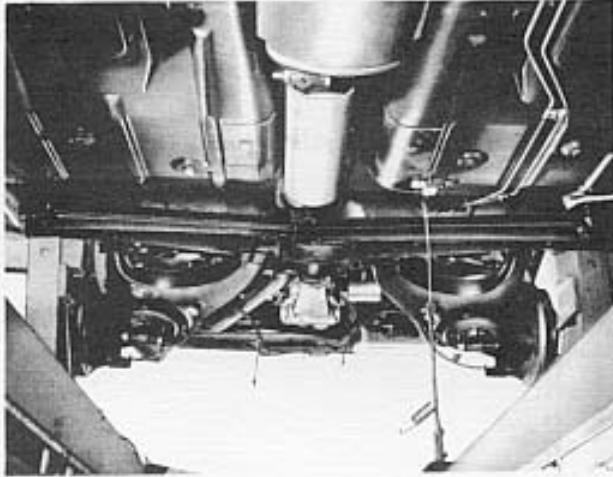
- Position the cross member under the car floor.
- Engage the guides in their respective holes in the outer sidemembers of the car.
- Raise the cross member in such a way as to enable the insertion of the 2 bars K2 in the guides K1 from inside the car.



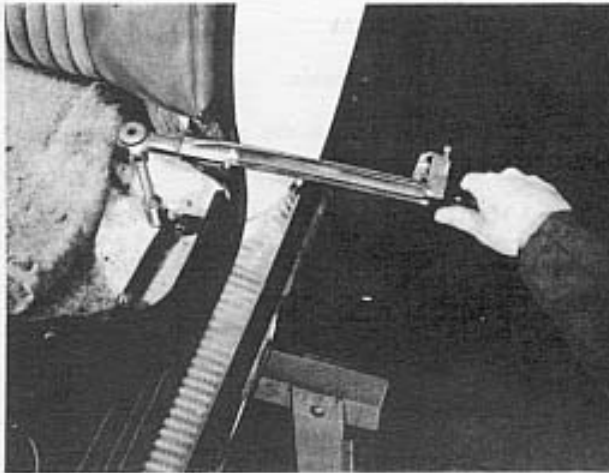
- Leave the cross member suspended from the two guides.
- Reposition the rear arm articulations in the yokes of the cross member using a tyre lever.
- Use the bars J, to position the pivots as indicated (class 5, page 16 04).
- Fit new Nylstop nuts on the pivots without tightening them.

REAR AXLE
REAR CROSSMEMBER

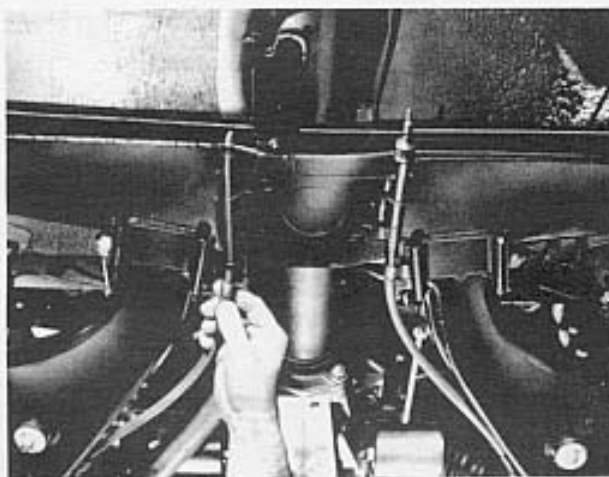
5 1507⁽²⁾



- Raise the car at the rear and chock it under the lateral crossmember supports.
- Lower the rear of the car until the securing studs on the crossmember are positioned.



- Remove the two guides K1 and fit in order :
 - the plastic guide hole plugs.
 - the six flat washers.
 - the two tab locks.
 - the six nuts must be tightened either
 - at - 29 ft.lbs (4 m.kg) up to the serial numbers mentioned below
 - or - 47 ft.lbs (6.5 m.kg) as from the same serial numbers :
- 504 A01 - 1 005 546
504 A02 - 1 003 649
504 A03 - beginning of series
504 B02 - 1 032 357
504 C02 - 1 009 769
- Lock the nuts by turning the tabs up around the nuts.



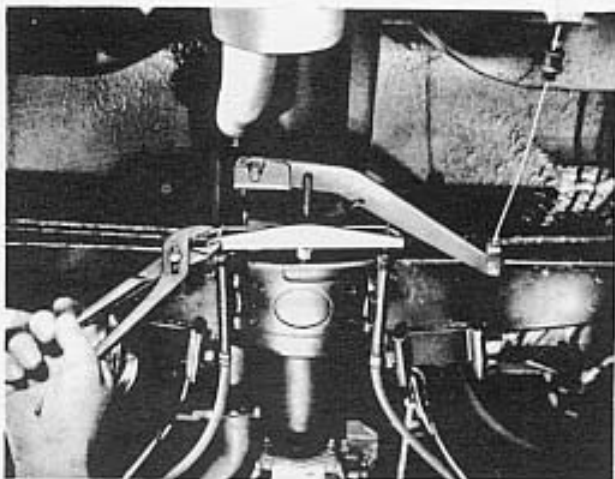
- Coat the rubber stop rings with pure Teepol.
- Introduce the outer cable ends in their respective guides.
- Replace the protector covers.
- Refit the handbrake control equipped with a new relay arm.

PEUGEOT

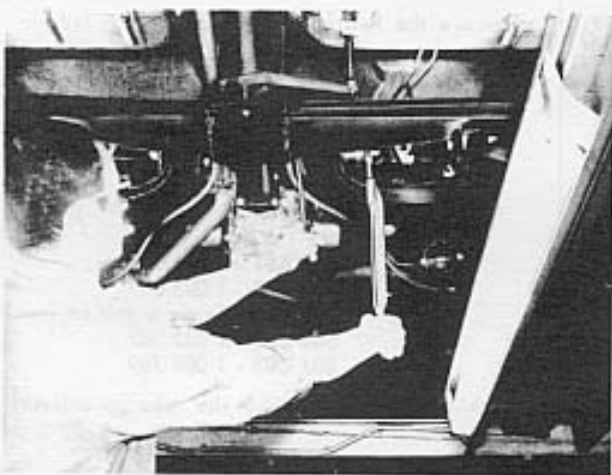
1508

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REAR AXLE REAR CROSSMEMBER



- Bend over the cable retaining tongues on the relay arm.
- Then adjust the handbrake as described in class 8.
- Reconnect the flexible hoses to the supports on the rear floor.

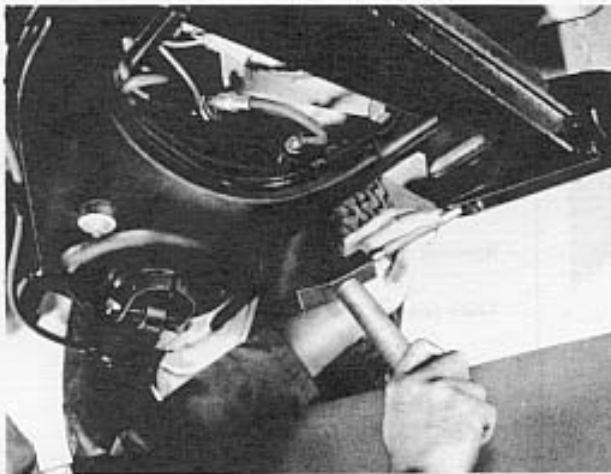


- Refit the rear wheels.
- Raise the rear of the car and withdraw the chocks.
- Tighten the rear wheel nuts to 43.5 ft.lbs (6 m.kg).
- Seat two people in the rear of the car to bring the flexible bushings in the rear arms to their neutral position.
- Tighten the nuts of the rear arm pivots to 47 ft.lbs (6.5 m.kg).



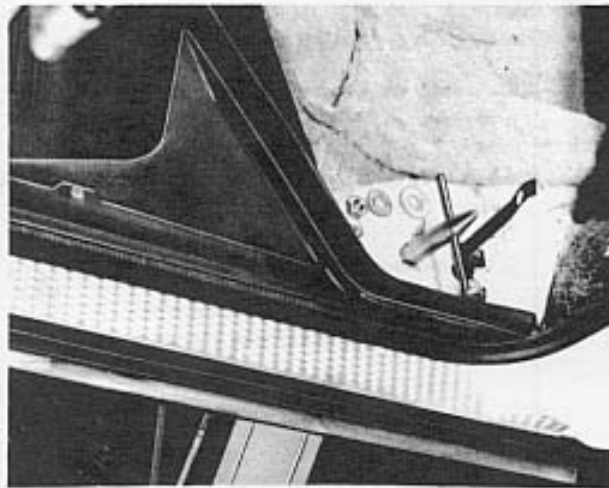
REAR AXLE
REAR CROSS MEMBER

5 1511

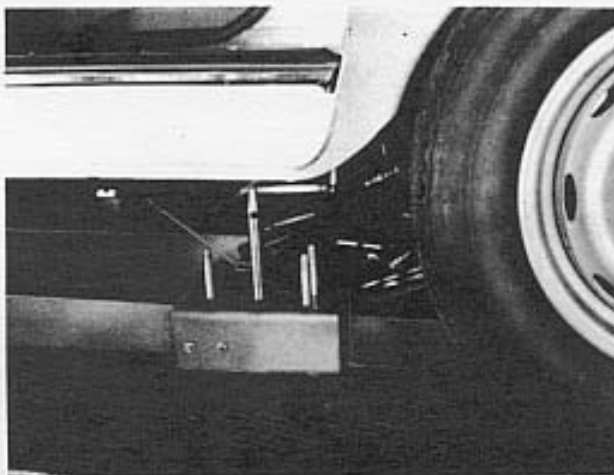


REMOVAL OF A REAR CROSS MEMBER SUPPORT

- Place the car over a pit or on a car lift.
- Unscrew the nut securing the rear brake hose to the support on the rear floor.
- Remove the hose from the support.
- Unlock the rear support shouldered nut on the rear block.
- Position a jack under the rear cross member support in contact with it.



- Remove the rear seat cushion.
- Unlock the three cross member securing bolts.
- Remove the front securing nut.
- Raise the tab lock and remove the plastic plug from the guide hole.
- Screw into this hole the guide K1 and tighten it using the bar K2.
- Remove the bar K2.



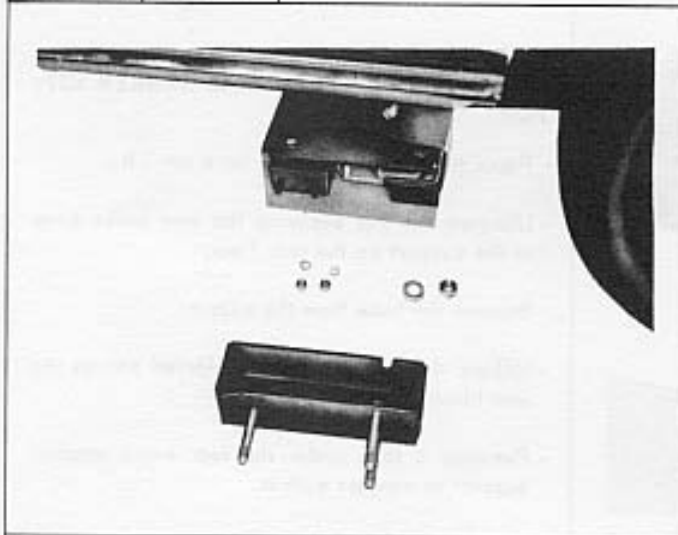
- Remove the rear securing nuts of the cross member and the thrust washers.
- Lower the cross member until the guide is disengaged from the bodywork.

PEUGEOT

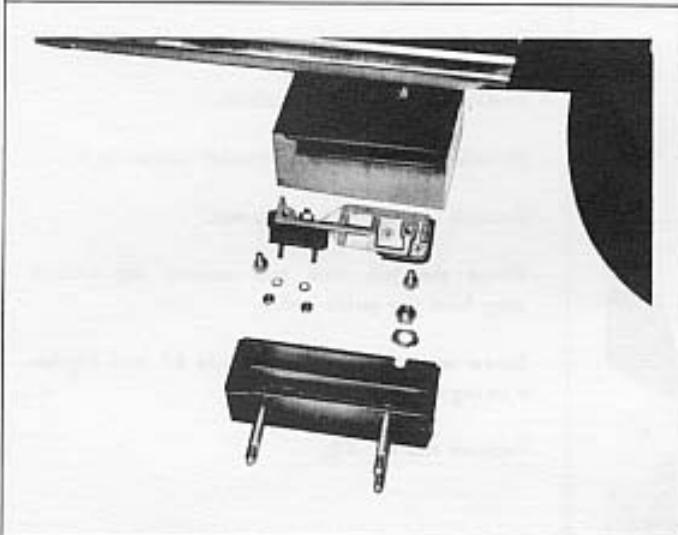
1512

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REAR AXLE
REAR CROSS MEMBER



- Place a wooden block approximately 10 cm thick under the end of the rear cross member.
- Remove the guide K1.
- Then remove the cross member support.

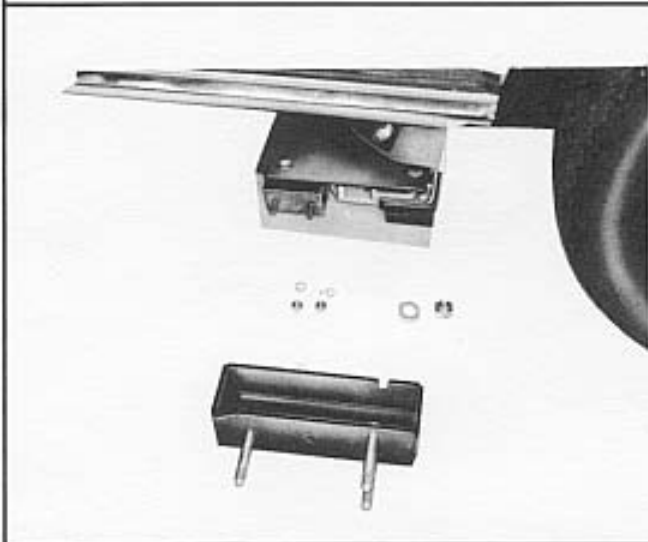


- Remove the intermediate support, in light alloy, together with its rubber blocks.
- If necessary replace the rubber blocks using new "Onduflex" washers.
- Tighten the nuts to :
 - 23.5 ft.lbs (3.25 m.kg) front block.
 - 9 ft.lbs (1.25 m.kg) rear block.

REAR AXLE
REAR CROSSMEMBER

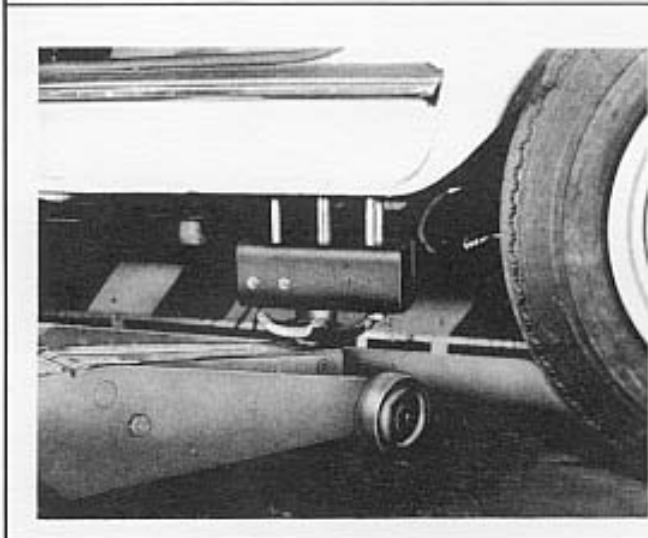
5

1513⁽²⁾

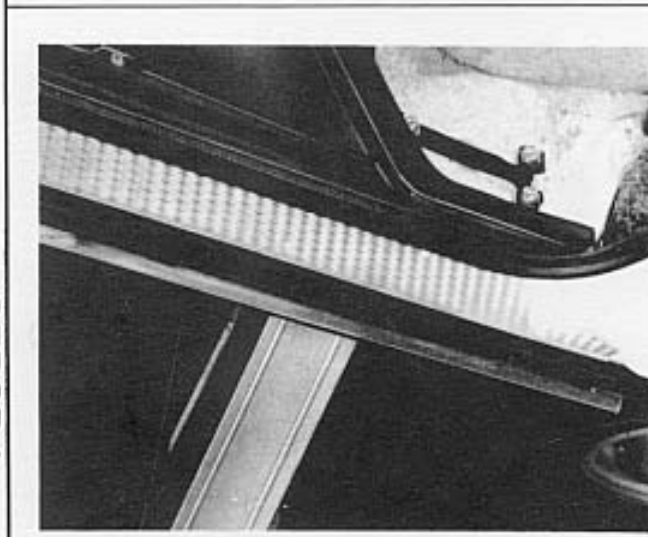


REFITTING OF A REAR CROSSMEMBER

- Secure the intermediate support to the cross member using new star washers.
- Tighten the bolts to 23.5 ft.lbs (3.25 m.kg).
- Then fit the crossmember support to the rubber blocks using new star washers and a new locking washer.
- Tighten the two front nuts to 13 ft.lbs (1.75 m.kg) and the rear nut to 23.5 ft.lbs (3.25 m.kg) and lock by bending the tab tongues over the nut.

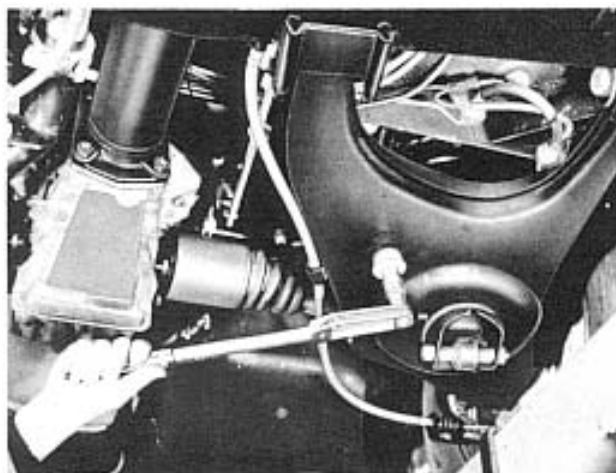


- Fit the guide K1 to the crossmember support.
- Place a jack under this support and raise it until the three crossmember studs are completely engaged.



- Remove the guide K1 and fit in order :
 - the plastic guide hole plug.
 - the three flat washers.
 - the tab lock.
 - the three nuts must be tightened either at :
 - 29 ft.lbs (4 m.kg) up to the serial numbers mentioned below, or :
 - 47 ft.lbs (6.5 m.kg) as from the same serial numbers.
- 504 A01 - 1 005 546
504 A02 - 1 003 649
504 A03 - beginning of series
504 B02 - 1 032 357
504 C02 - 1 009 769
- Lock by bending the tab tongues over the nuts.

PEUGEOT

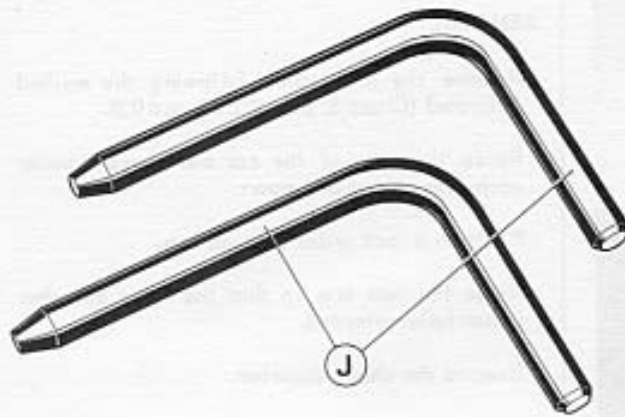
REAR AXLE
REAR ARMS**5** 1615

- Refit the drive shaft and rear brake (class 5, page 14 14)
- After fitting the wheel lower the car
- Have two people sit in the rear seats to position the bushes neutrally
- Using a torque wrench :
 - tighten :
 - the arm pivot nuts to 47 ft.lbs (6.5 m.kg)
 - the antiroll bar link nut to 33 ft.lbs (4.5 m.kg)
 - the shock absorber link pivot nut to 33 ft.lbs (4.5 m.kg)
 - the nut securing the link to the rear arm to 9 ft.lbs (1.25 m.kg).
- Check the oil level in the differential and top up if necessary (Esso gear oil GP 90).

REAR AXLE
REAR ARMS

5

16 01⁽¹⁾



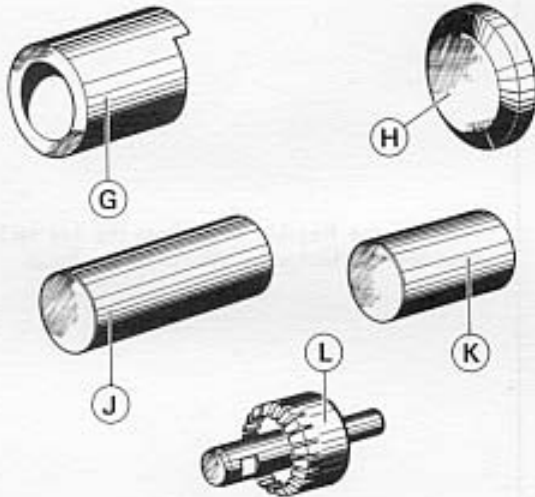
504 SALOONS

TOOLS TO BE USED

8.0906 Z

Tool chest for front and rear suspension.

J - Set of two bent rods for positioning the rear arms on the crossmember.



8.0907

Tool chest for front and rear rubber bushes.

G - Fitting and removing support for rear arm bushes

H - Fitting cup for rear arm bushes

J - Drift for removing rear arm inner bushes

K - Drift for removing rear arm outer bushes

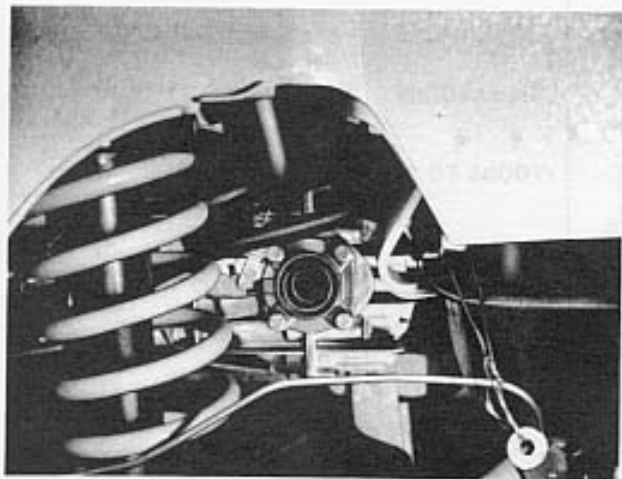
L - Cutter for removing rear arm blocks.

PEUGEOT

16 02

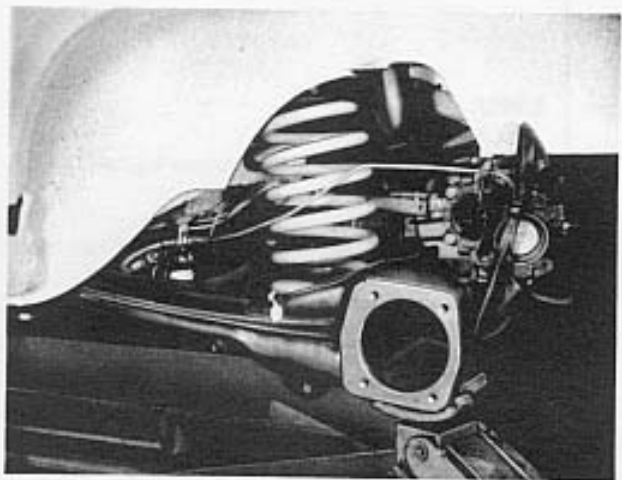
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REAR AXLE
REAR ARMS

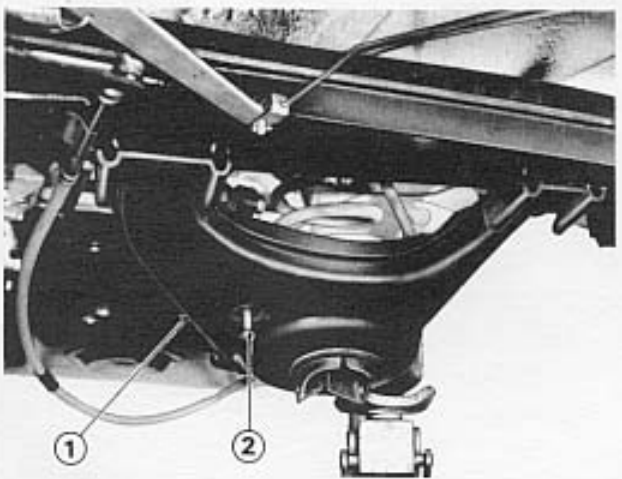


REMOVAL

- Remove the drive shaft following the method indicated (Class 5, page 02 03 and 03).
- Raise the rear of the car and chock it under each cross member support
- Position a jack under the rear arm.
- Raise the rear arm so that the shock absorber is not fully extended.
- Remove the shock absorber.



- Remove the flexible hose from the lug on the rear arm by slackening the nut on the hose.



- Unclip the mounting 1 of the handbrake cable on the rear arm.
- Remove the nut 2 securing the anti-roll bar link under the rear arm.
- Withdraw the metal cup and the rubber washer and refit the nut 2 immediately to prevent the upper parts from falling inside the rear arm.

REAR AXLE
REAR ARMS

5

1603⁽¹⁾



- Unscrew the rear arm pivot nuts.
- Lower the jack carefully until the suspension spring is fully extended.
- Remove the spring and its upper rubber cup.
- Withdraw the rear arm pivots.
- Remove the rear arm.

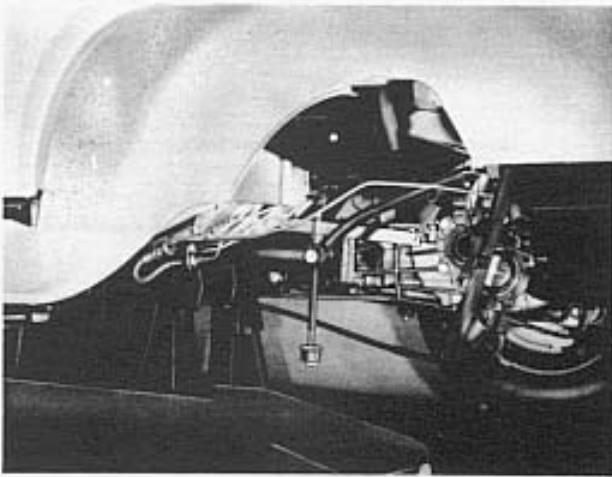
PEUGEOT

16 04⁽¹⁾

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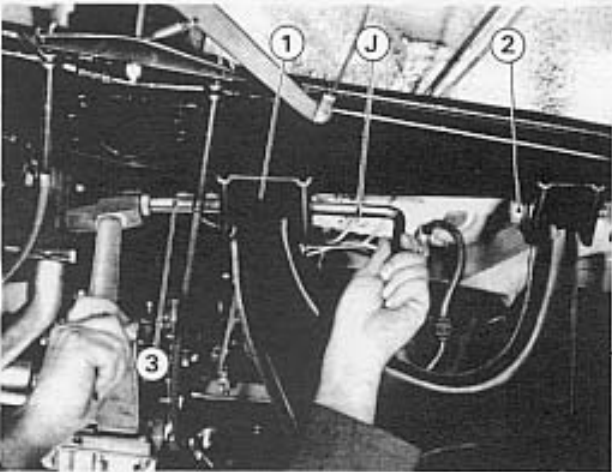
REAR AXLE

REAR ARMS

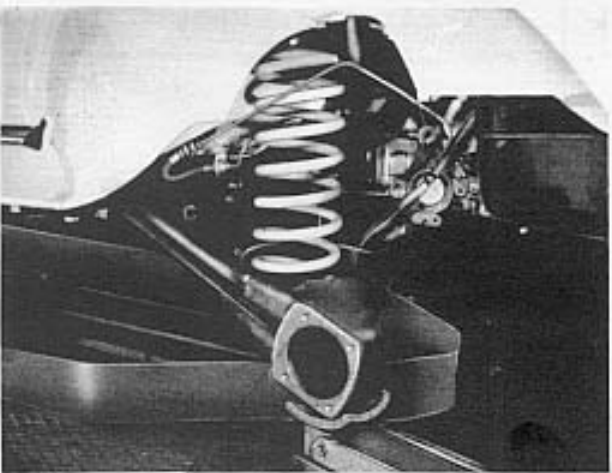


REFITTING

- Only fit parts which are clean and free from all defect.
- Check particularly the condition of the flexible bushings. In case of doubt, replace them following the method indicated (Class 5, page 16 11).
- Use new "Nylstop" nuts and new "Blocfor" and "Onduflex" washers.



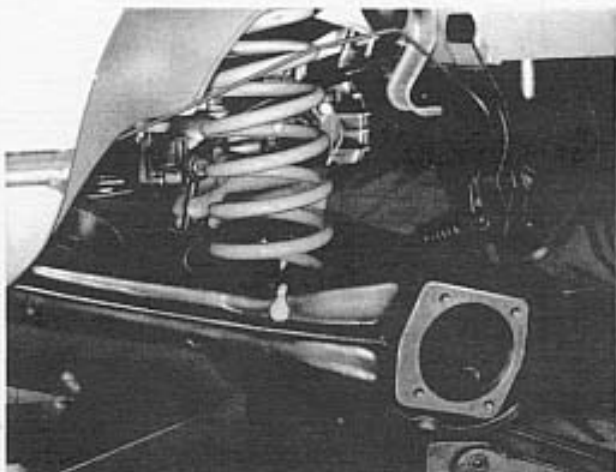
- Position the rear arm in the corresponding yokes on the crossmember.
- Retain the inner articulation 1 using the bar 8.0906 J and insert the outer pivot 2 in its housing.
- Then insert the inner pivot 3 in the correct direction of fitment.
- Fit the new "Nylstop" nuts without tightening them.



- Place a jack under the rear part of the arm.
- Coat the upper rubber spring cup with pure Teepol to facilitate its positioning.
- If this component needs replacing check for condition of interchangeability indicated in page 11 03 class 9.
- Place the spring in between its upper and lower mountings.

REAR AXLE
REAR ARMS

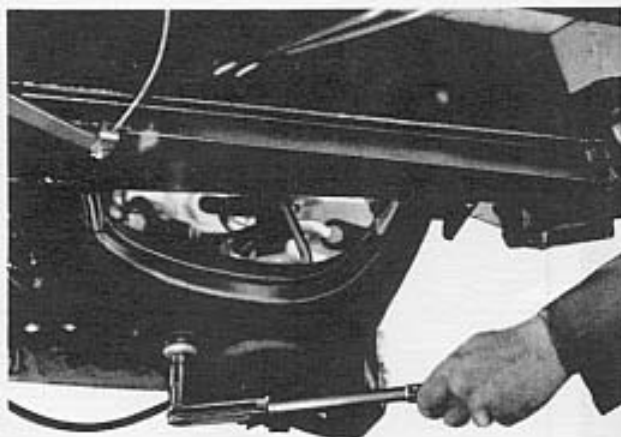
5 16 05



- Raise the arm taking care that the spring centres correctly in their housings.
- At the same time guide the anti-roll bar connecting link into position in the rear arm.



- Replace the two rubber washers, the metal cup and the upper shock absorber securing nut.
- Fit the shock absorber without tightening the lower securing nut.
- Tighten the upper shock absorber nut to 9 ft.lbs (1.25 m.kg).



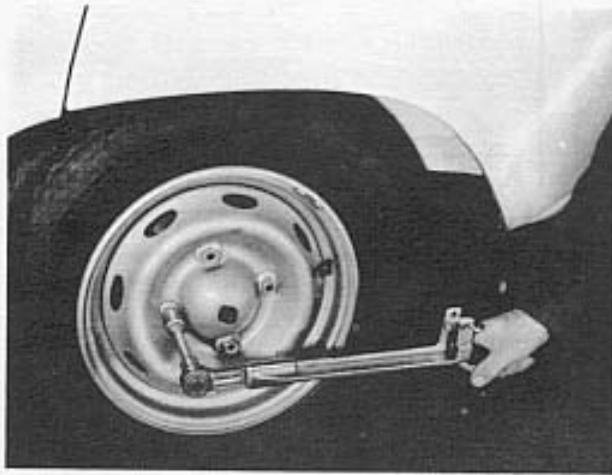
- Lower and remove the jack.
- Fit the rubber washer and metal cup on the anti-roll bar connecting link.
- Tighten the nut to 9 ft.lbs (1.25 m.kg).
- Fit the rear arm :
 - the rear brake flexible hose
 - the hand brake cable
- Refit the half shaft following the method indicated (Class 5 page 02 05 and 06).

PEUGEOT

1606

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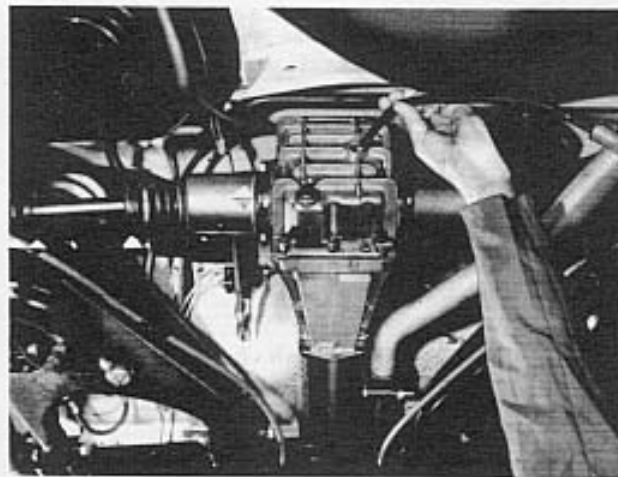
REAR AXLE REAR ARMS



- Fit the wheel.
- Lower the car onto its wheels.
- Tighten the nuts to 43.5 ft.lbs (6 m.kg).
- Fit the wheel trim.



- Seat two people in the rear of the car to neutralise the position of the flexible bushings.
- Tighten with a torque wrench :
 - the lower shock absorber nut to 33 ft.lbs (4.5 m.kg).
 - the rear arm pivot nuts to 47 ft.lbs (6.5 m.kg).



- Check the oil level in the differential and top if necessary using ESSO GEAR OIL GP 90.

REAR AXLE
SUSPENSION ARMS

5

16 11⁽¹⁾



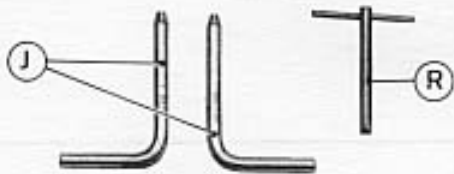
504 CONVERTIBLES - COUPES

TOOLS TO BE USED

8.0521 Z

Tool chest for rear hubs

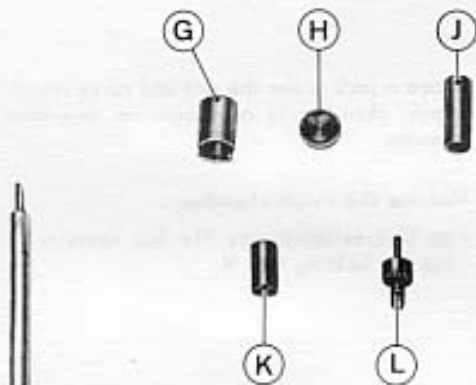
- B4 - Hub carrier extractor plate
- G1 - Extractor plate
- G2 - Extractor plate nuts



8.0906 Z

Tool chest for front and rear suspension

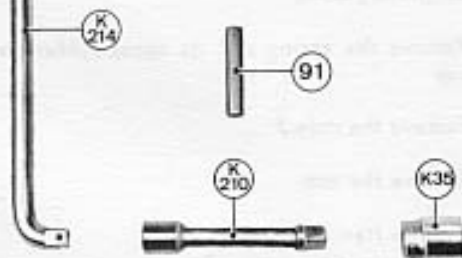
- J - Set of 2 bent rods
- R - Rear shock absorber rod holding tool



8.0907

Tool chest for front and rear rubber bushes

- G - Thrust tube for rear arm rubber bushes
- H - Cup for fitting the rear arm rubber bushes
- J - Drift for removing the rear arm inner bush
- K - Drift for removing the rear arm outer bush
- L - Cutter for the rear arm bushes.



RECOMMENDED TOOLS

Standard Facom tools

- K 214 - Torque wrench extension
- K 210 - 200 mm extension
- K 35 - 35 mm socket
- 91 * - Box spanner (12 x 13)

* for Convertible only

PEUGEOT

6-70

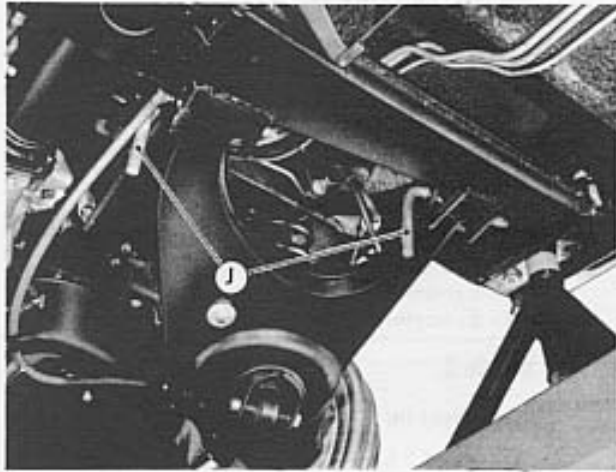
Supersedes page 16 11 and 16 12, class 5

504 Workshop Manual - Ref. 1212 E

16 12⁽¹⁾

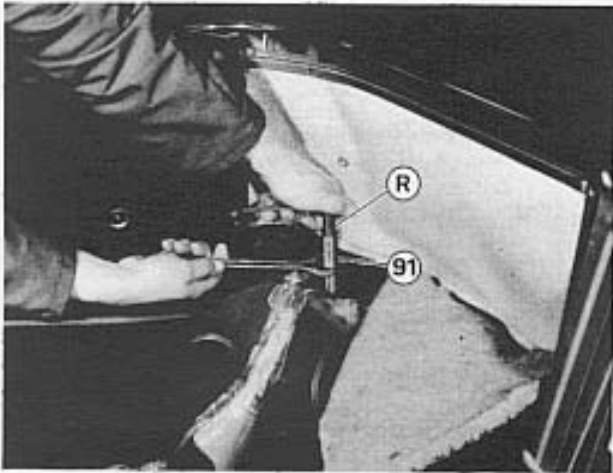
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REAR AXLE
SUSPENSION ARMS



REMOVAL

- Remove the drive shaft (class 4, page 12 12 and 12 13)
- The arm being temporarily joined to the cross-member with the rods J, remove the brake caliper, the rear hub and hub carrier (class 5, page 14 12 and 14 13).



- Place a jack under the arm and raise it until the shock absorber is no longer on maximum expansion
- Remove the shock absorber :
 - on Convertibles, use the box spanner 91 and the rod holding tool R.

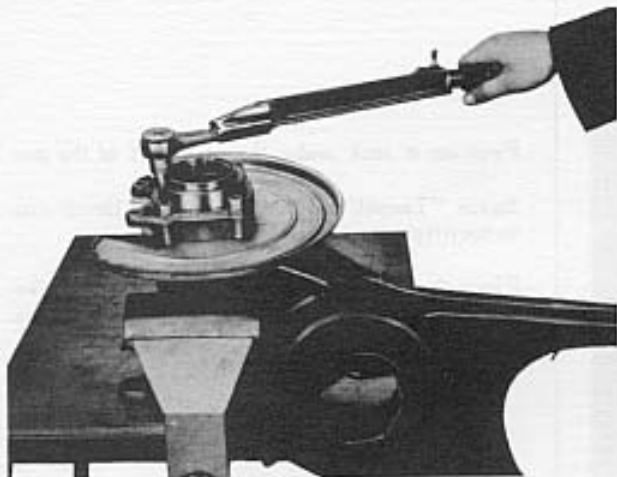


- Lower the jack until the suspension spring is completely freed
- Remove the spring and its upper rubber thrust cup
- Remove the rods J
- Remove the arm
- Remove from the arm :
 - the antiroll bar link.

REAR AXLE SUSPENSION ARMS

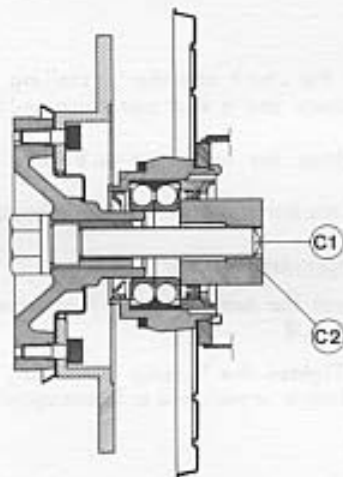
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1613

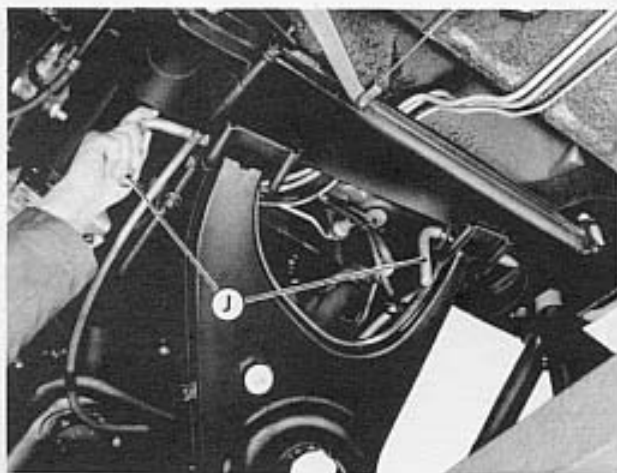


REFITTING

- All the parts must be perfectly clean and free from defect
- Check that the rubber bushes are in perfect condition and, if necessary replace them (class 5, page 16 21 and 16 22).
- Clamp the arm in a vice
- Secure the disc protector and the hub carrier, fitting new Blocfor washers.
- Tighten the Allen screws to 29 ft.lbs (4 m.kg)



- Fit the hub in the carrier using the bolt C1 and the nut C2 as shown opposite
- Hold the nut C2 with a 40 mm open end spanner
- Tighten the bolt C1 until the hub abuts on the bearing.
- Remove the nut C2 and the bolt C1.

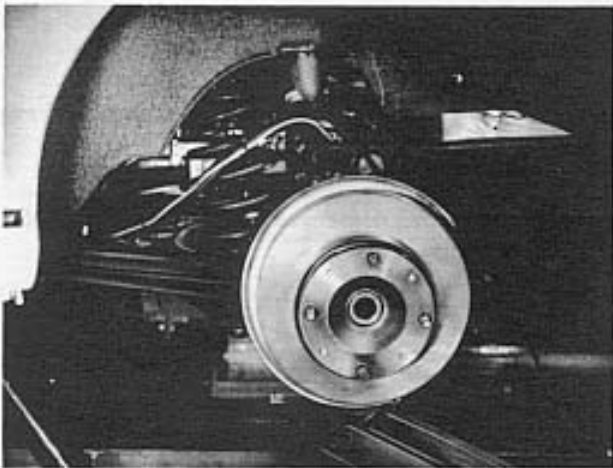


- Fit the antiroll bar link on the arm using a new Nylstop nut. Do not tighten yet.
- Place the arm in the yokes on the crossmember
- Insert the rods J to hold it in place temporarily

1614

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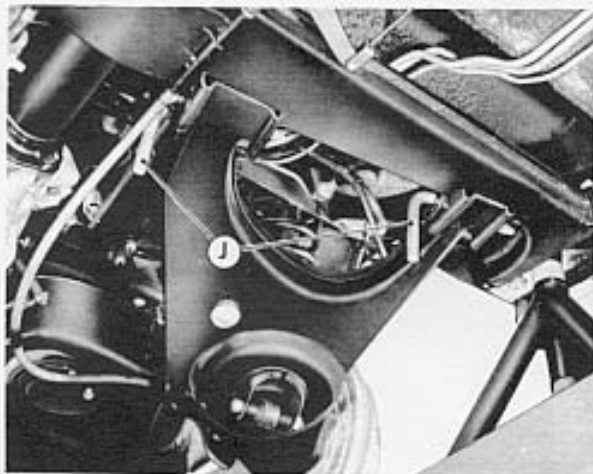
REAR AXLE
SUSPENSION ARMS



- Position a jack under the rear part of the arm
- Smear "Teepol" on the upper rubber thrust cup to facilitate its installing
- Place the spring between its supports and raise the arm making sure that the spring settles correctly



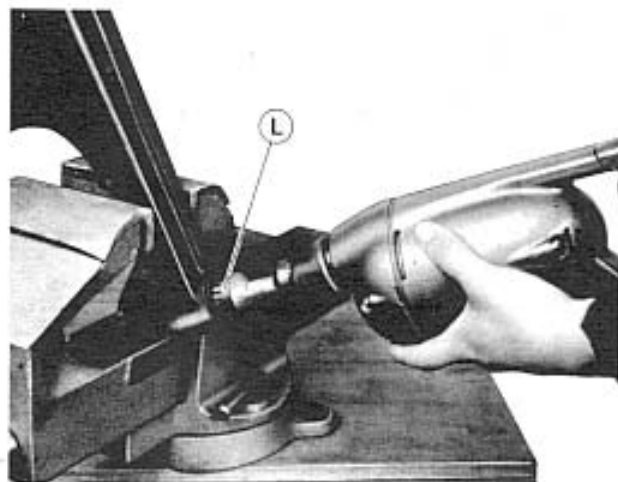
- Fit the shock absorber installing new rubber washers and a new metal cup and Nylstop nut.
- Tighten the upper nut to 9 ft.lbs (1.25 m.kg)
- Fit the bottom pivot without tightening it
- On Convertibles :
 - use the box spanner 91 and the rod holding tool R
 Tighten the Nylstop nut, using the Facom torque wrench and a 16 mm open end head.



- Lower the jack and remove it
- Withdraw the two rods J
- Disengage the arms from the crossmember yokes

REAR AXLE
REAR ARMS

5 1621



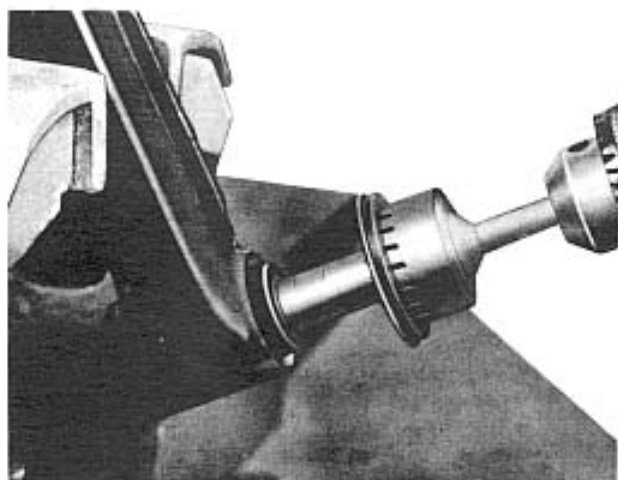
REPLACING THE RUBBER BUSHES

Important :

In order to prevent the rear arm from being damaged, thereby affecting the rear suspension adversely, it is essential to remove the shoulder of the bush with the cutter L.

Removal

- Clamp the rear arm in a vice fitted with soft jaws.
- Use the cutter L in a drill with a maximum speed of 600 r.p.m.
- Cut the bush, either dry or using brake fluid, progressively to avoid overheating the cutter L.



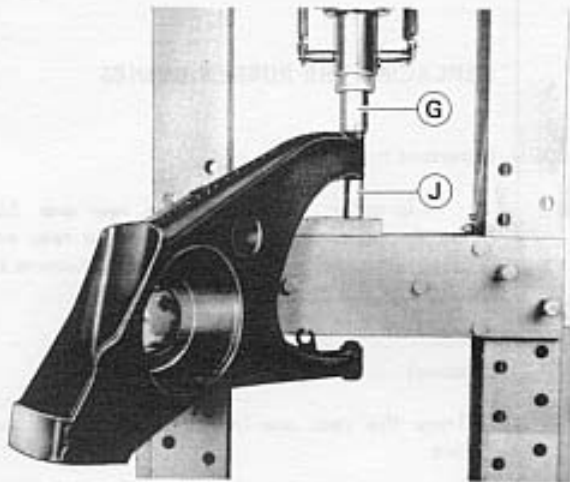
- Stop cutting as soon as the shoulder is released.
- Do not continue cutting once the shoulder has been cut from the bush.

PEUGEOT

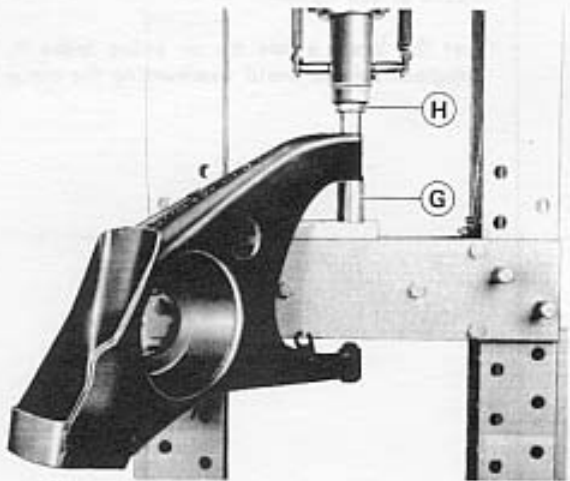
1622

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REAR AXLE REAR ARMS

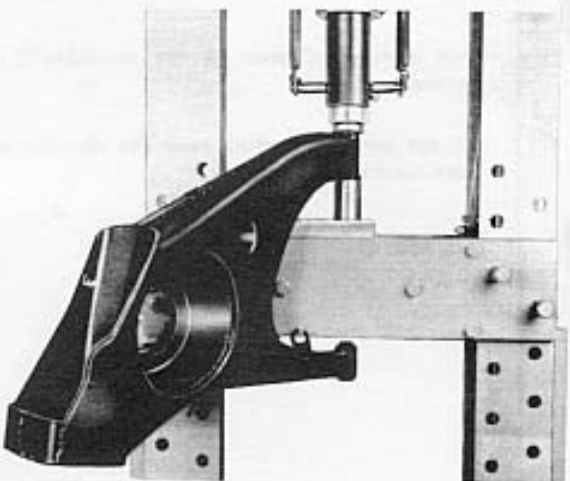


- Place in order on the press base :
 - the drift J for the inner bush or the drift K for the outer one.
 - the rear arm.
 - the fitting and removing support G.
- Lower the press piston to effect the complete disengagement of the bush, which should be found inside the support G.



REFITTING

- Smear the new bush and its housing with tallow.
- Place, in order, on the press base :
 - the support G, in the opposite position to that of removal.
 - the new bush, together with the cup H.
- Check the perfect alignment of this assembly.



- Lower the press piston until the bush shoulder is in contact with the arm.
- Stop as soon as the pressure in the press hydraulic system begins to build up.
- Never exceed a force of three tons when abutted.

FRONT AXLE

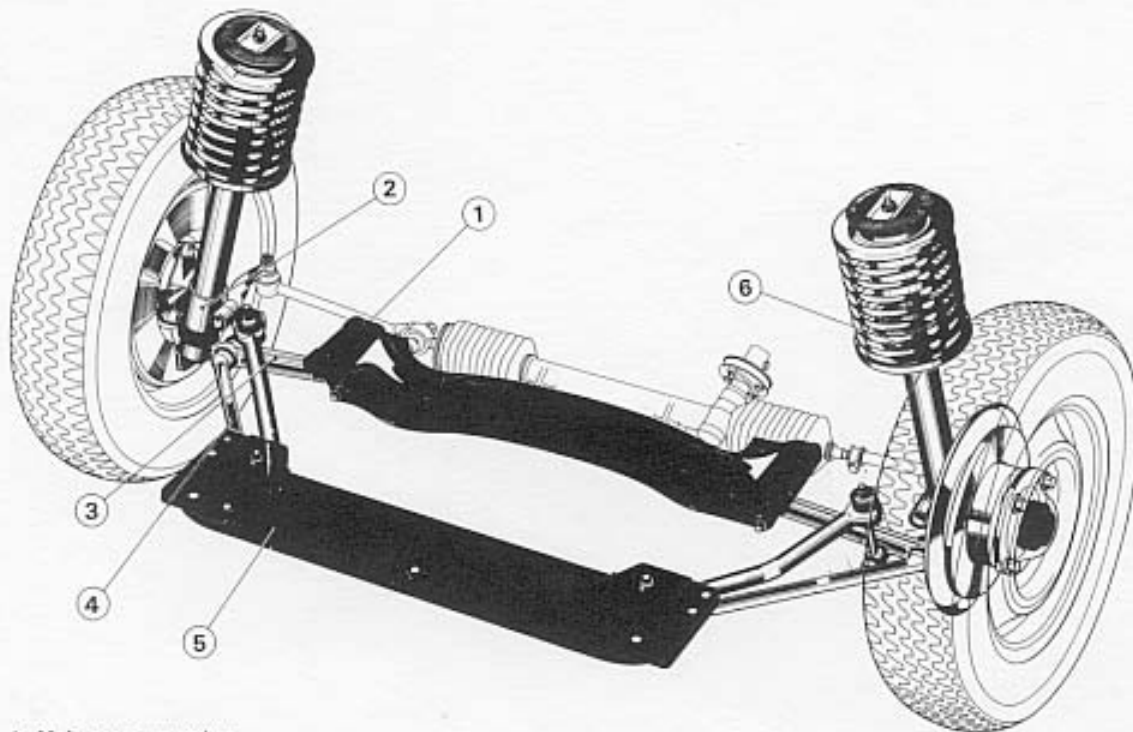
6

SUMMARY

IDENTIFICATION, CHARACTERISTICS AND ADJUSTMENTS	Pages
Conventional Steering	
Identification and characteristics	01.01(2)
Adjustment of wheel alignment	01.03(2)
Power assisted steering (U.S.A.)	
Identification and characteristics	01.05
Distribution of ram movement	01.06 to 08
Steering wheel alignment - Front wheels alignment	01.09
 REMOVE - REFIT	
Tooling required	02.01(1)
Remove front axle	02.03(1) to 06
Refit front axle	02.11(1) to 13 (2)
 HUBS	
Angular contact ball bearings	
Tooling required	04.01(1) and 02 (2)
Remove-refit	04.03(1)
Dismantle	04.04(1)
Reassemble	04.05(1)
Taper roller bearings	
Tooling required	04.11 and 12
Remove	04.13
Refit	04.14 to 17
Dismantle	04.18
Reassemble	04.19 and 20
 TRIANGLE ARMS	
Tooling required	06.01(1)
Dismantling of triangle rear arm	06.03(2) and 04 (1)
Reassembly of triangle rear arm	06.11(2) and 14
Replacement of flexible bushes of :	
- triangle rear arm	06.21(2)
- bearing block	06.22(2)
 SWIVEL WITH REMOVABLE CALIPER BRACKET	
Tooling required	07.01(1)
Checking of swivel arm	07.01(1)

FRONT AXLE (CONVENTIONAL STEERING)
IDENTIFICATION AND CHARACTERISTICS

6 01 01⁽²⁾



- 1. Main cross - member
- 2. Swivel
- 3. Triangle rear arm
- 4. Triangle front arm
- 5. Front cross - member
- 6. Rebound buffer

CHARACTERISTICS
(vehicle in working order)*

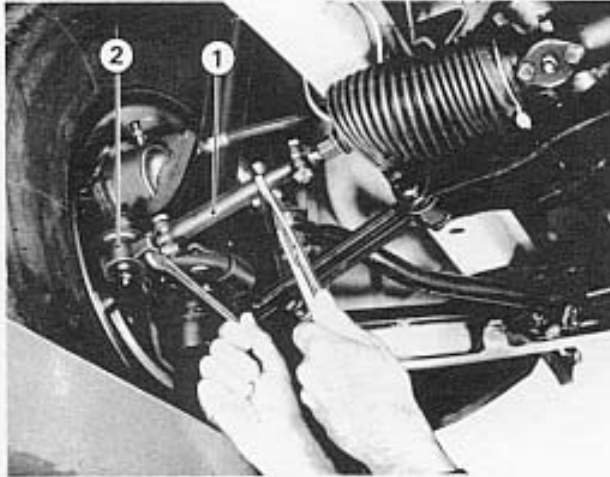
TOE - IN	3 mm ± 1 mm	
CAMBER	0°38' ± 30'	
CASTOR	2°40' ± 30'	
SWIVEL PIN TILT	8°54' ± 30'	
THEORETICAL TURNING LOCK (INNER)	45°05'	
THEORETICAL TURNING LOCK (OUTER)	35°15'	
CHECKING TURNING LOCK ANGLES	INNER WHEEL	OUTER WHEEL
	20° 21°25'	18°45' 20°

* Complete with tools, oil, water and fuel

PEUGEOT

FRONT AXLE (CONVENTIONAL STEERING)
ADJUSTMENTS

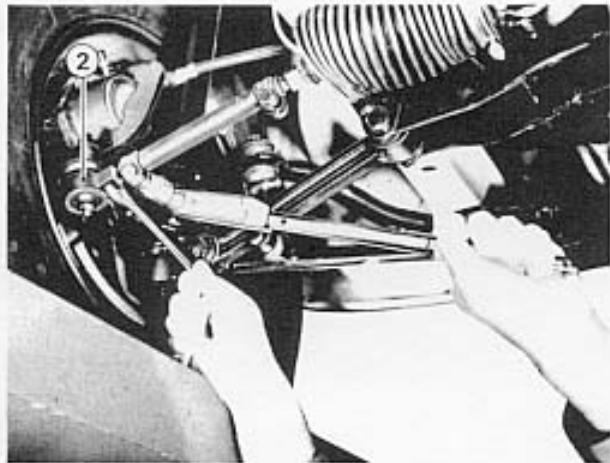
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01 03⁽²⁾

WHEEL ALIGNMENT

- Alignment can be checked with BEM Muller equipment.
- Adjustment of alignment must be done with the vehicle in **working order**, i.e. vehicle unloaded but with full complement of water, oil and fuel.
- Slacken the adjustable track arm (1) clamp nuts.
- Hold the ball joint socket (2) in a horizontal plane, using a 14 mm open-ended spanner..
- Screw the adjustable arm (1) in or out to give a toe-in of 3 mm \pm 1 mm.

NOTE - One complete turn of the adjustable track arm : 4,5 mm at the wheel rim.



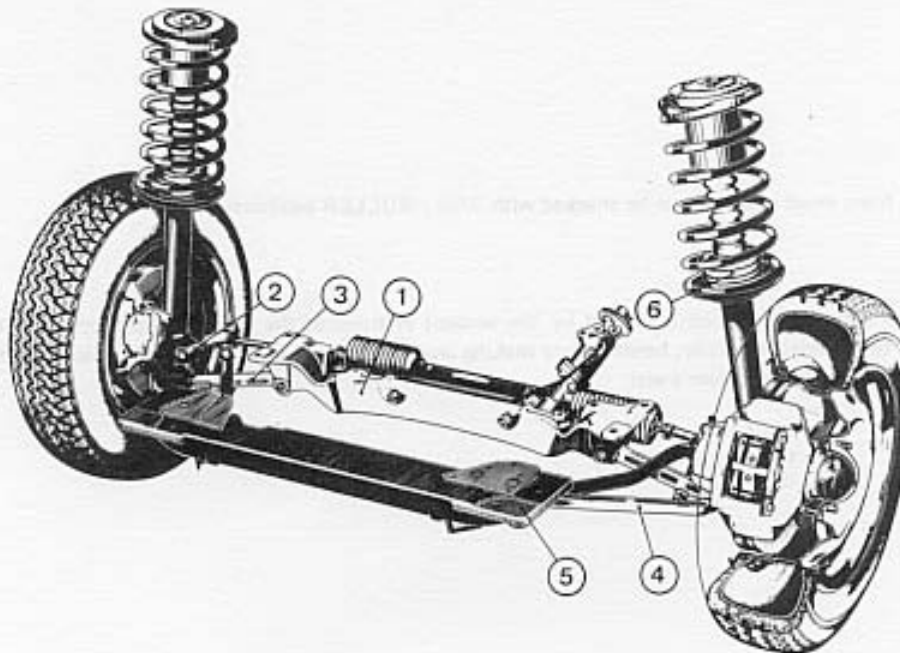
- Hold the adjusted track arm
- Tighten the clamp nuts to 1m.daN (m.kg) (7.23 ft/11bs) whilst ensuring that the ball joint (2) is in the horizontal plane.

PEUGEOT

FRONT AXLE (POWER STEERING)
IDENTIFICATION AND CHARACTERISTICS

6

0105



- 1 - Suspension cross-member
- 2 - Swivel
- 3 - Triangle rear arm
- 4 - Triangle front arm
- 5 - Lift cross-member
- 6 - Rebound buffer

CHARACTERISTICS
(vehicle in working order*)

TOE-IN	3 mm ± 1 mm
CAMBER (negative)	0° 38' ± 30'
CASTOR	2° 40' ± 30'
SWIVEL PIN TILT	8° 54' ± 30'
THEORETICAL TURNING LOCK ANGLES	45° 05'
THEORETICAL TURNING LOCK ANGLES	35° 15'

	INNER WHEEL	OUTER WHEEL
CHECKING TURNING LOCK	20° 21° 25'	18° 45' 20°

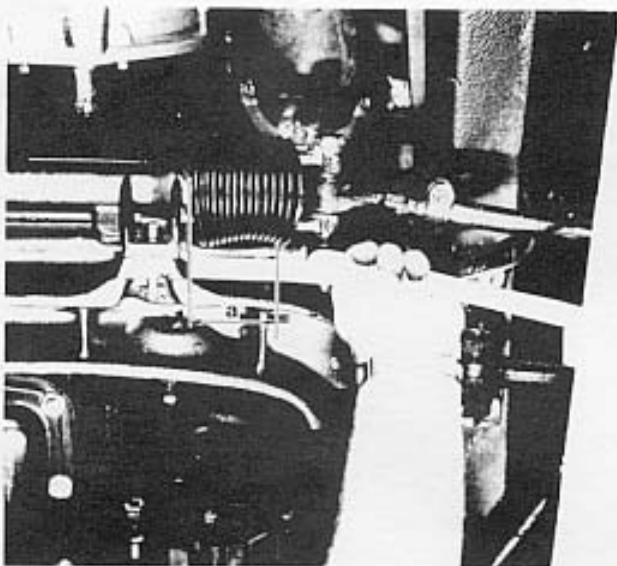
*Complete with oil, water, fuel and tools

PEUGEOT

FRONT AXLE
DISTRIBUTION OF RAM MOVEMENT
ADJUSTMENT

The front axled assembly can be checked with BEM - MULLER equipment

WARNING - Since the steering lock is limited by the amount of travel of the rack ram a positive stop is not incorporated in the steering assembly, hence before making any adjustments it is necessary to check the distribution of steering lock relative to ram travel.



CHECKING DISTRIBUTION OF STEERING LOCK.

- Place the vehicle over a pit or on a lift with the front wheels resting on pivot plates.
- Unlock the plates.
- Run the engine at idling speed in order to activate the ram.
- Turn the steering to right hand full lock and hold in this position.
- note ram protrusion (dimension (a)).

Example : (a) : 62 mm.

FRONT AXLE (POWER STEERING)
DISTRIBUTION OF RAM MOVEMENT
ADJUSTMENT

6

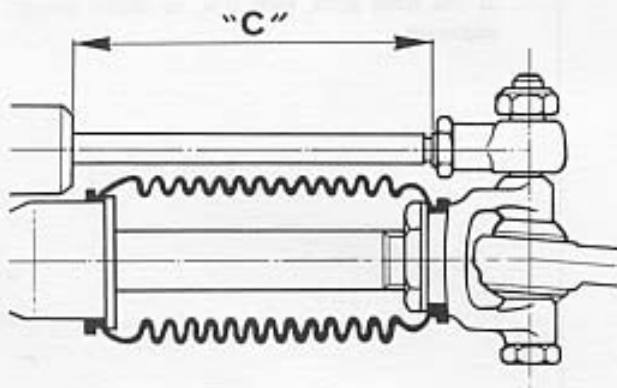
01 07



- Turn the steering to left-hand, full lock and hold in this position.

- note ram protrusion (dimension (b))

- Example (b) = 242 mm



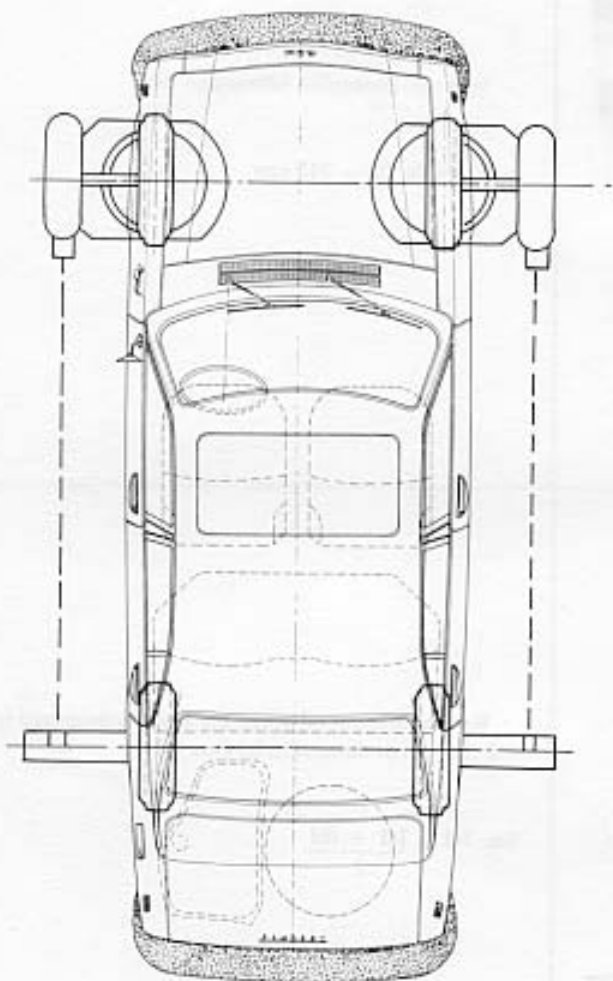
Ram protrusion (c) when the steering is centred is 1/2 the sum of dimension (a) plus (b).

$$\text{i.e. } (c) = \frac{(a) + (b)}{2}$$

In the example given

$$\text{Dim. } (c) = \frac{62 + 242}{2} = 152 \text{ mm}$$

FRONT AXLE (POWER STEERING)
DISTRIBUTION OF RAM MOVEMENT
ADJUSTMENT



- Position the steering so that ram protrusion is equal to dimension (c)

- Stop the engine.

- Check alignment of the front wheels with the rear axle.

- If the front wheels are misaligned, check the steering arms for distortion, and adjust the length of the track arms, each side, to obtain correct alignment.

FRONT AXLE
STEERING WHEEL ALIGNMENT
WHEELS ALIGNMENT

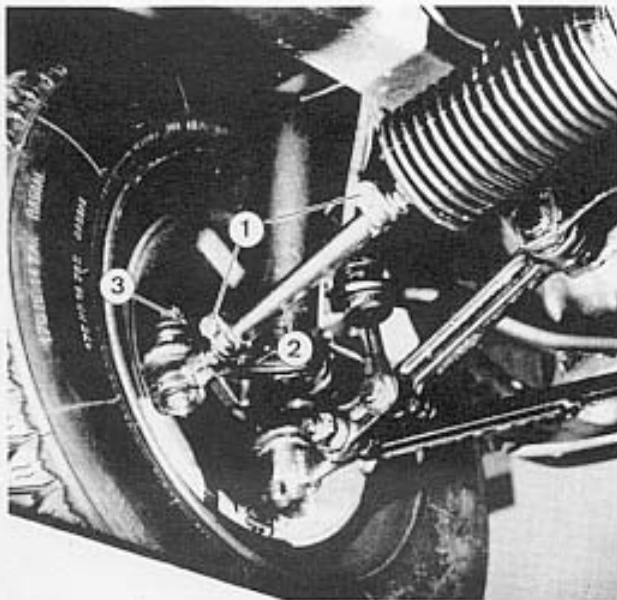
6 01 09



STEERING WHEEL ALIGNMENT

With front wheels centred, the position of the steering wheel should be as shown opposite.

If it is not, reposition it by means of the splines in the steering column.



ADJUSTMENT OF WHEEL ALIGNMENT

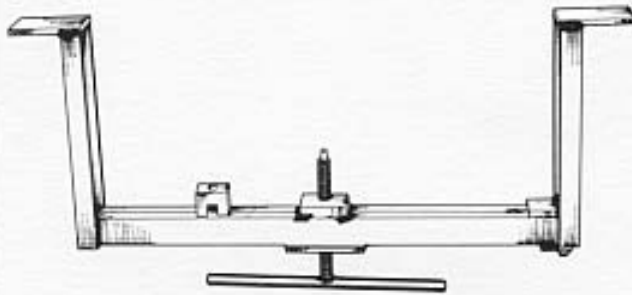
This adjustment must be done with the vehicle in working order (full complement of water, oil and fuel).

- Slacken the track arm (2) clamp nuts (1)
- Act on both track arms (2) at the same time to obtain a toe-in of :
3 mm \pm 1 mm
- Tighten the clamp nuts (1) to 1 m.daN (m.kg) (7.23 ft/lbs) whilst ensuring that the ball joint sockets (3) remain in a horizontal plane.

FRONT AXLE
REMOVE-REFIT

6

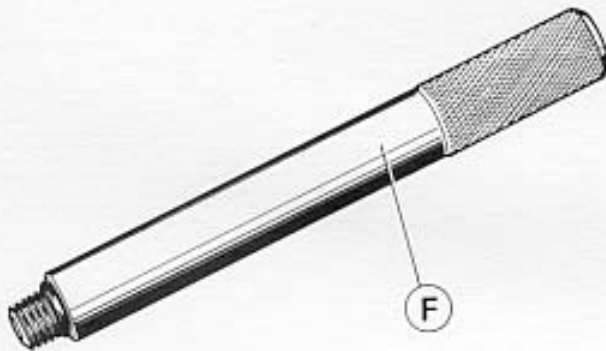
0201⁽¹⁾



SPECIAL TOOLING

8.0125

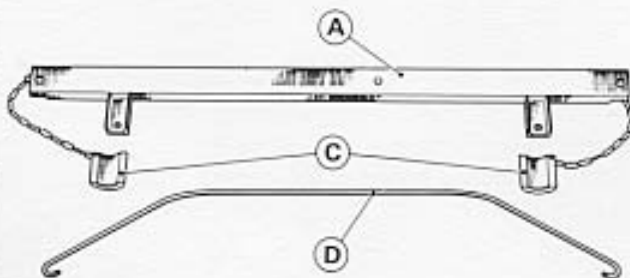
- Gearbox holding arm



Disc brakes tool chest

8.0803 F

- Screwed rod for plugging simple circuit master cylinder



8.1101

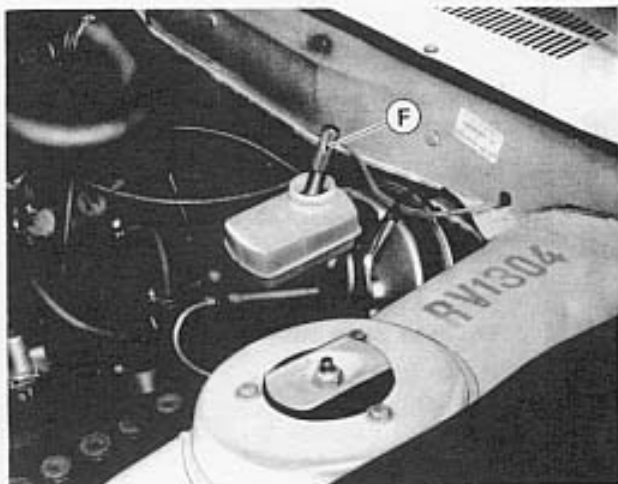
- Apparatus for holding the front mechanicals in position comprising :

A. Crossbar for holding front triangles

C. Thrust pads for swivels

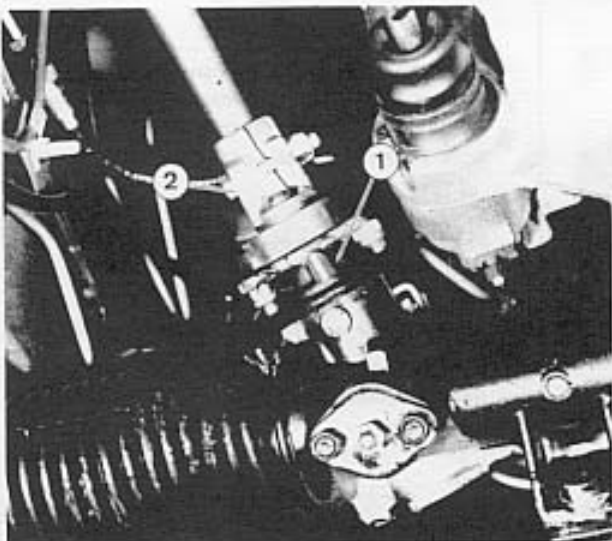
D. Connecting rod for front suspension units.

PEUGEOT

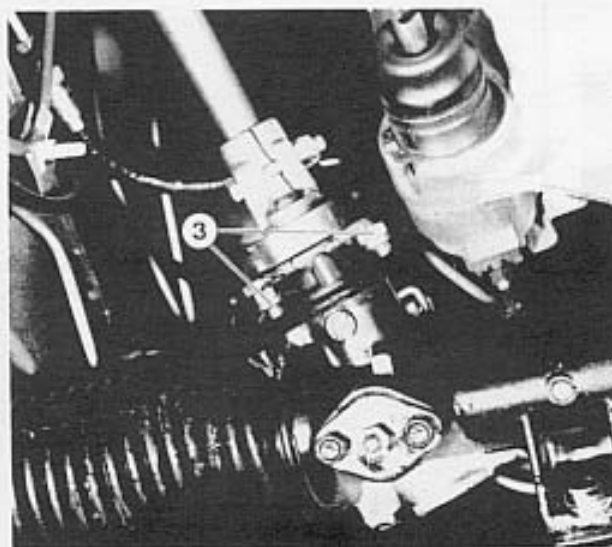
FRONT AXLE
REMOVAL6 0203⁽¹⁾

- Place the car over a pit or on a car lift.
- Protect the wings with the covers.
- Disconnect the battery.
- With simple circuit brakes screw

The plug rod 8.0803 F into the hollow master cylinder securing bolt and screw it in completely to prevent draining the brake fluid system.



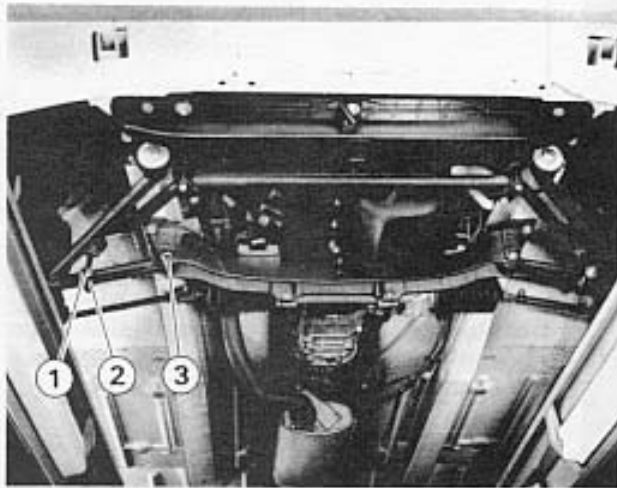
- Mark the rack pinion 1 opposite the bolt 2 on the flector collar.



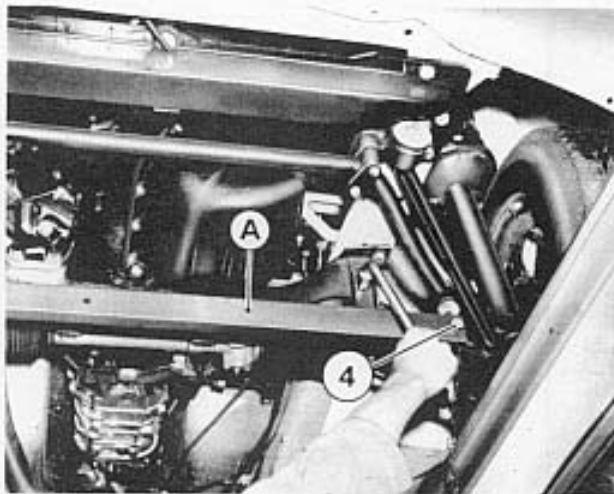
- Remove the two bolts (3) securing the collar to the steering flector. (Do not slacken the collar bolt).

0204⁽¹⁾

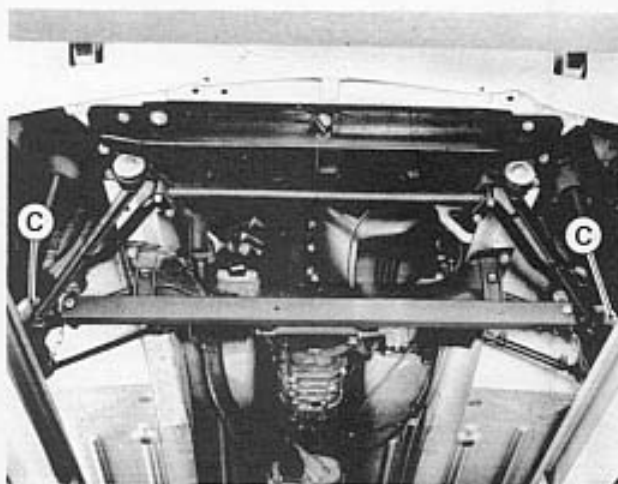
6

FRONT AXLE
REMOVAL

- Remove the two nuts (1) from the anti-roll bar connecting link pivots on the triangle rear arm.
- Leave the flat washers (2) in position.
- Remove the two nuts (3) from the triangle rear arm pivots on the main cross member.



- Raise the front of the car carefully, with a pulley using a hoist chain mounted on the jack guides, until the four pivot holes of the front axle coincide with the holes on the apparatus 8.1101 A
- Position the apparatus (A) and tighten the nuts.
- Anti-roll bar secured to the rear of the arm.
- Remove the connecting link pivots, and
- Replace them with 12 mm diameter X 95 mm long bolts.
- Insert at (4) two tubular spacers, 13 x 21 x 30 mm long.

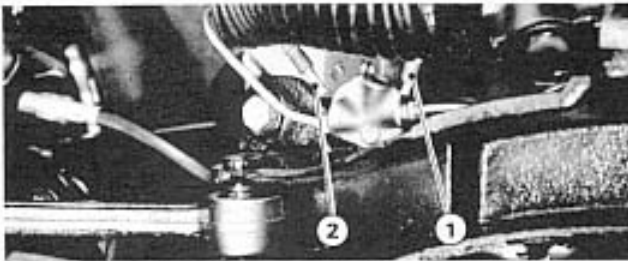


- Lower the car.
- Place the two thrust spacers (c) between the eyelets of the triangle arm silentblocs and the track arm bosses on the front stub axles.

FRONT AXLE REMOVAL

6

0205⁽¹⁾



– Disconnect the brake pad wear tell-tale.

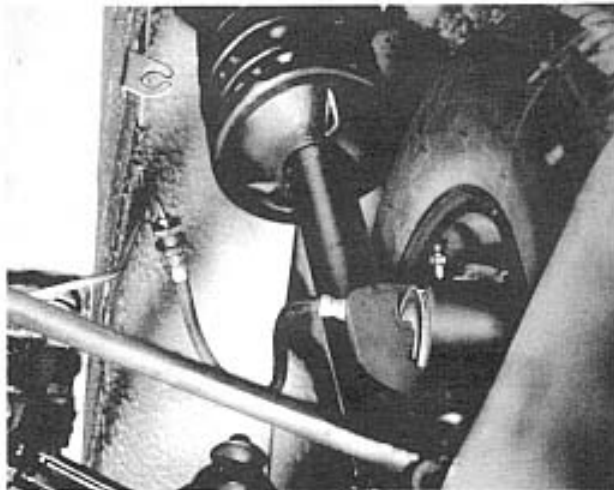
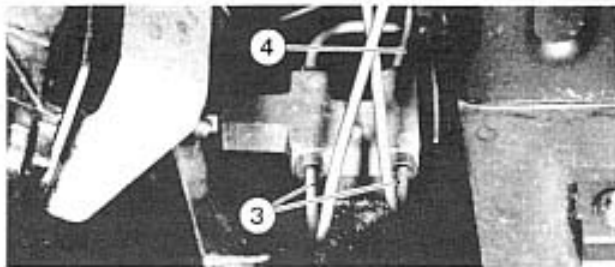
– Disconnect the hose unions :

Simple circuit

- the main supply pipe (1)
- the rear brake lines (2)

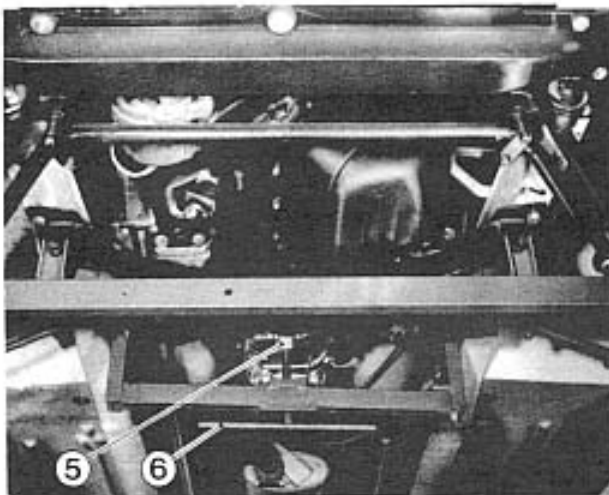
Dual circuit

- the two main feed hoses (3) and plug them
- the rear brake line (4)



– Slacken the nuts securing the front flexible hoses to the lugs on the front wheel valances

– Free the pipes from the mounting lugs without disconnecting them



– Place the support apparatus 8.0125 on the side-members.

– Ensure the correct positioning of the lifting pad (5) under the clutch housing.

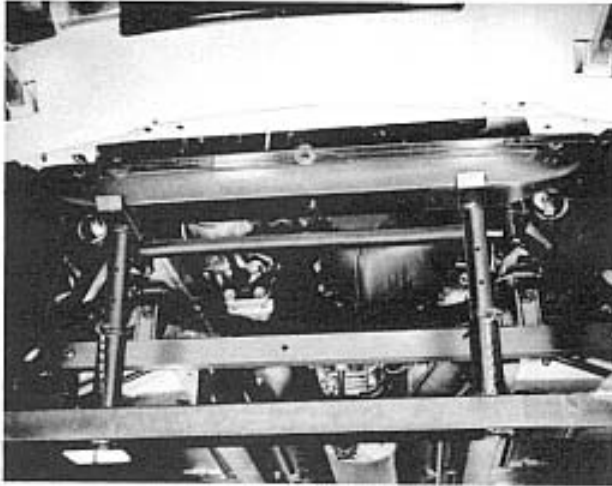
– Bring the pad into contact by turning the bolt (6) without forcing it.

– Remove the four bolts securing the engine supports to the main cross member.

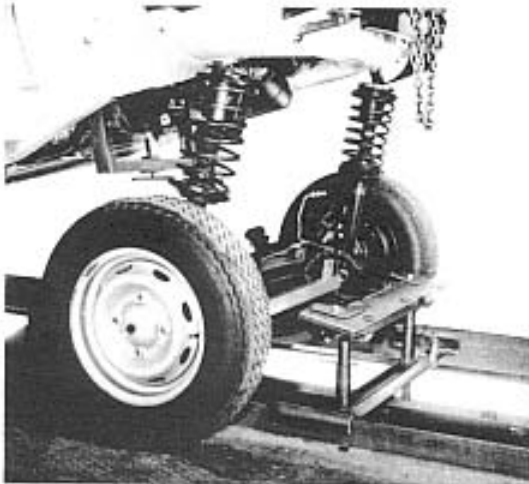
PEUGEOT

02 06

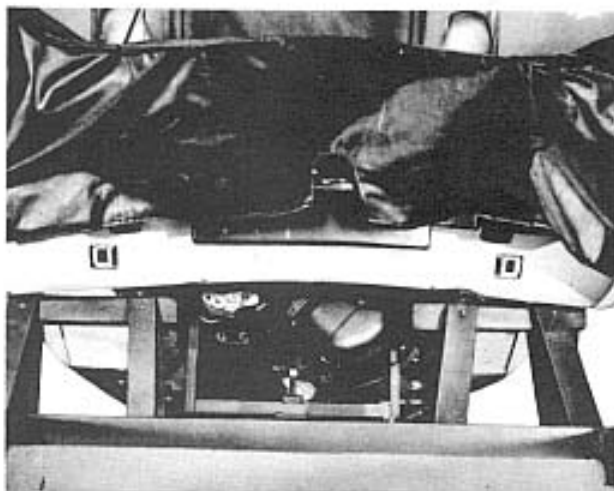
6

FRONT AXLE
REMOVAL

- Check the front cross member.
- Remove :
 - the two lower radiator mountings on the front cross member
 - the six bolts securing the front cross member.
 - the four bolts securing the main cross member.



- Remove the six bolts securing the top spring mountings to the wing valances.
- Raise the front of the car carefully to enable the withdrawal of the front suspension assembly.
- Link the front suspension springs using the connecting bar D and withdraw the front axle assembly.

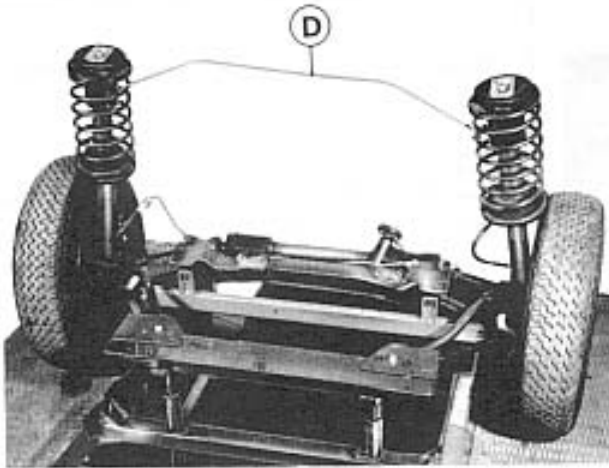


Chocking

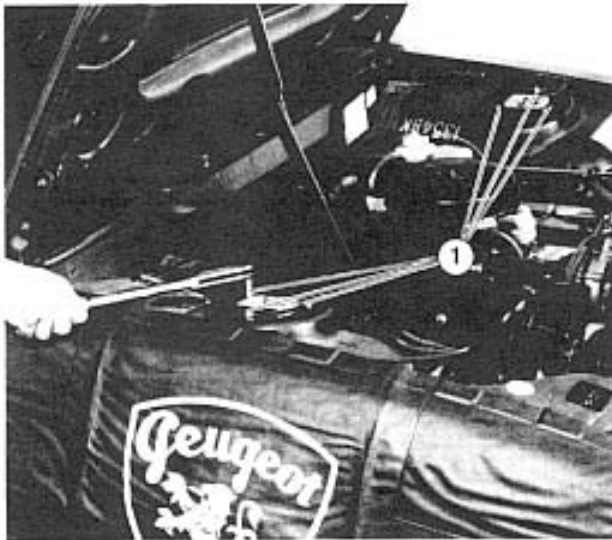
- The car, with the front axle removed, can only be chocked under the sidemember mounting points for the front axle. No other point under the bodywork should be used.

FRONT AXLE REFITTING

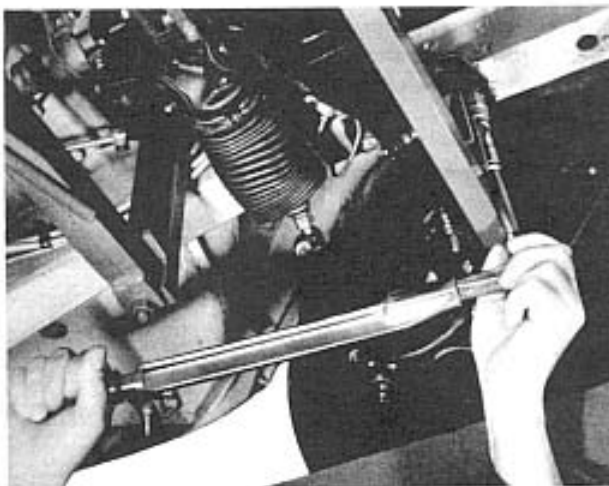
6

0211⁽¹⁾

- The front axle assembly must be made up of components which are clean and free from defect.
- To refit to the bodywork, check the assembly, under the front cross member, so that the shock absorbers are leaning forward.
- Remove the connecting bar (D).

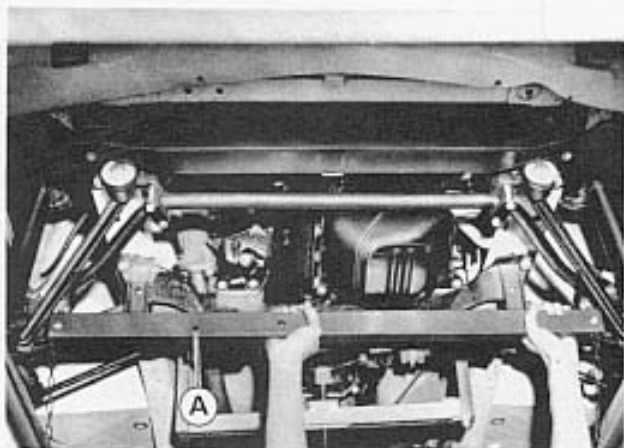


- Lower the hull onto the front axle.
- Guide the upper spring mountings into their respective positions.
- Secure the suspension elements to the wing valances using new double toothed washers and tight-ening the six bolts (1) to 7.2 ft.lbs 1mdaN (mkg)



- Secure the two front axle cross members using new Blocfor washers and tighten :
 - the four M12 bolts of the main cross member and the two M12 bolts of the front cross member to 31 ft.lbs 4,25 mdaN (m.kg)
 - the four M10 bolts of the front cross member to 27 ft.lbs 3.75 mdaN (m.kg)

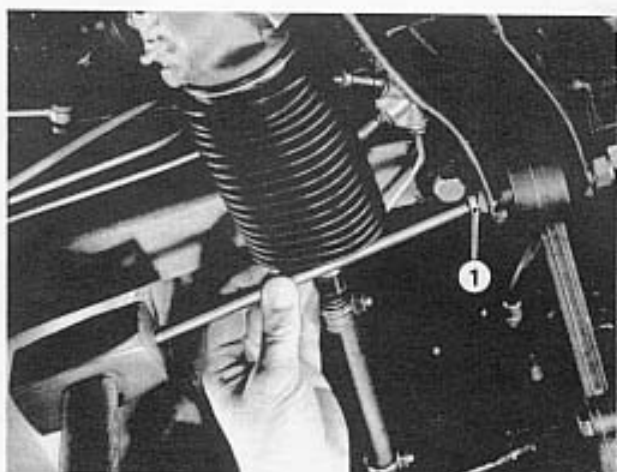
PEUGEOT

FRONT AXLE
REFITTING

- Secure the radiator to the front cross member.
- Tighten the nuts to 7.2 ft.lbs 1 m.daN (m.kg)
- Remove :
 - the thrust spacers (C) in between the triangle arms and the stub axle
 - the four bolts securing the holding apparatus for the triangle arms 8.1101(A)
- Raise the car until the apparatus (A) can be freed from its mounting points.
- Remove the holding apparatus (A).



- Secure the engine to the main cross member, tightening the four bolts, fitted with new Grower washers, to 33 ft.lbs 4.5 m.daN (m.kg).
- Remove the engine gearbox support 8.0125.



- If the front axle has been dismantled it is essential that the two triangle rear arm pivots be withdrawn until the splines disengage.
- Lower completely the hoist chain.
- Roll the car backwards and forwards to reposition the flexible bushes.
- Drive in the two pivots (1) until they abut.

FRONT AXLE
REFITTING

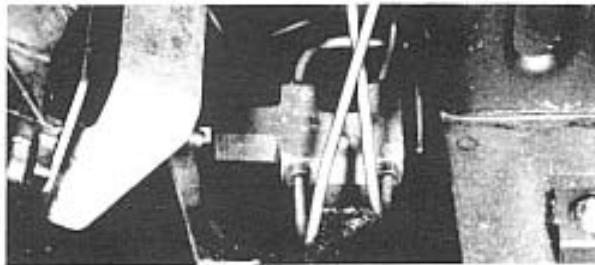
6

0213⁽²⁾

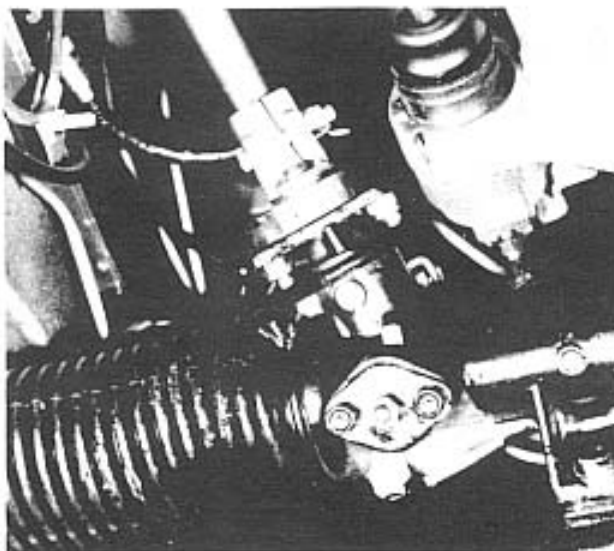
- Fit 2 new Nylstop nuts on the rear arm pivots.
- Tighten to 33 ft.lbs (4.5 m.daN (m.kg)).
 - the pivot nuts(1) on the crossmember
 - the nuts (2) securing the anti-roll bar links to the rear arm
 - the triangle arm silentbloc nuts if the front axle has been dismantled.



- Reconnect to the union either
 - the main fluid feed pipe
- or the :
 - the rear brake lines



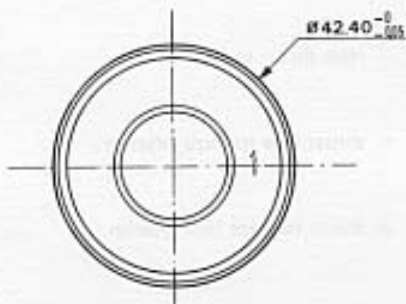
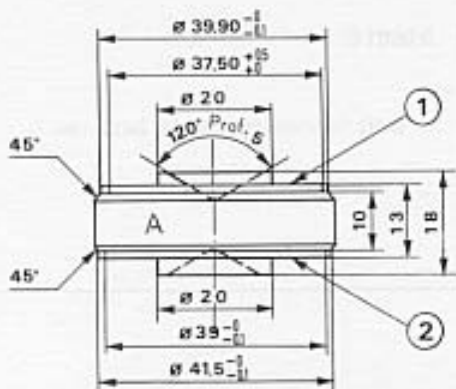
- Reconnect the brake pads tell-tale
- Secure the brake flexible hoses to the lugs on the front wing valances.



- Reconnect the collar to the steering flector in the position marked while dismantling.
- Use two new Nylstop nuts, tighten to 2 m.daN (m.kg).
- Bleed the brake system (see class 8)
- Adjust the front wheel parallelism (see class 6, page 01.03).

PEUGEOT

FRONT AXLE
HUBS WITH ANGULAR CONTACT BALL BEARINGS

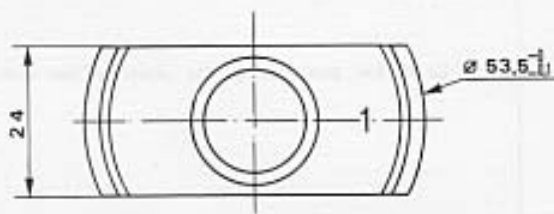
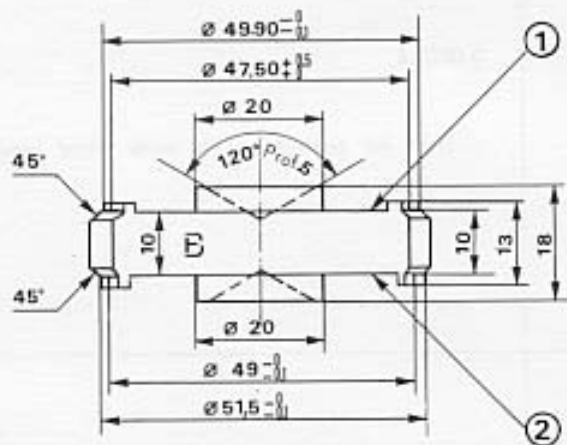


TOOLS TO BE MADE

These tools must be made in the workshop.

6.0601 A

- Thrust pad for removing the outer race of the exterior wheel bearing.
- 2. race thrust face.



0.0601 B

- Thrust plate for removing the outer race of the inner wheel bearing
- 2- race thrust face.

N.B. - The numbers 1 and 2 should be stamped on the corresponding faces.

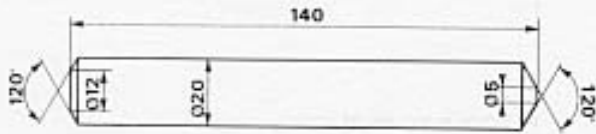
- 1- Thrust face for the 404 first fitting wheel bearing races.

PEUGEOT

04 02⁽¹⁾

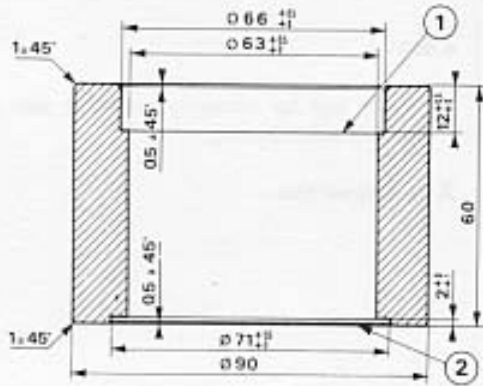
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FRONT AXLE
HUBS WITH ANGULAR CONTACT BALL BEARINGS



0.0601 C

- Drift for removing bearing outer race.

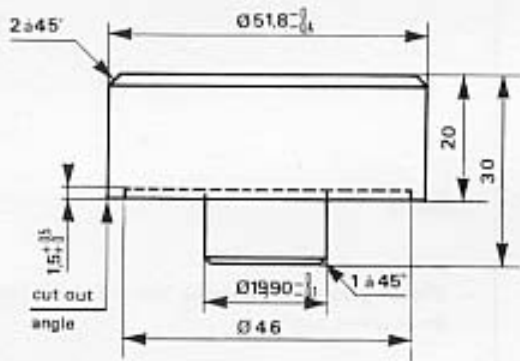


0.0601 D

- Hub thrust block

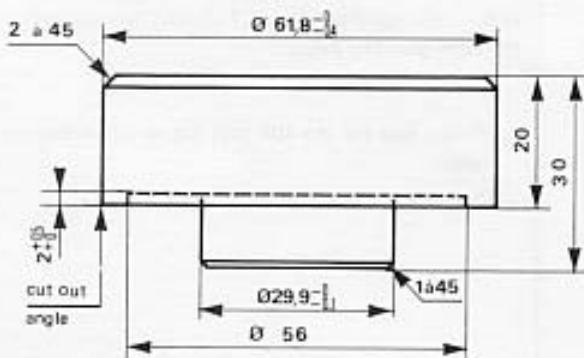
1- thrust face for hub exterior.

2- thrust face for hub interior.



0.0601 E

- Drift for positioning the outer wheel bearing.

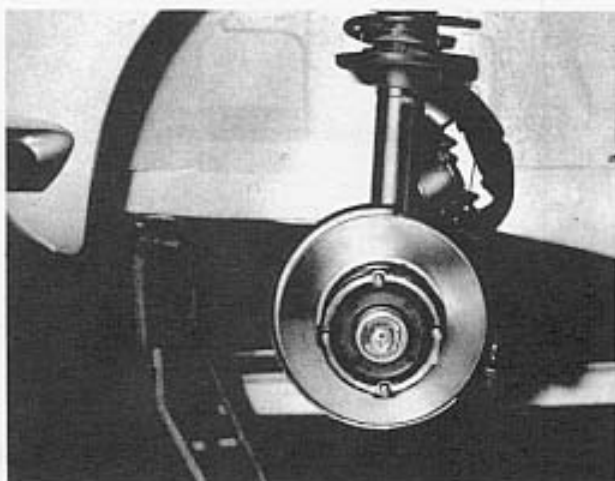


0.0601 F

- Drift for positioning the inner wheel bearing.

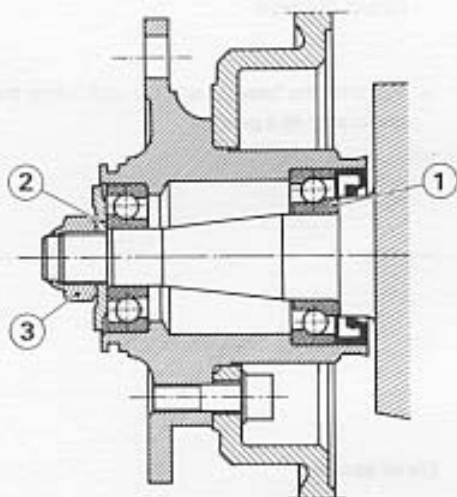
FRONT AXLE
HUBS WITH ANGULAR CONTACT BALL BEARINGS

6 04 03⁽¹⁾



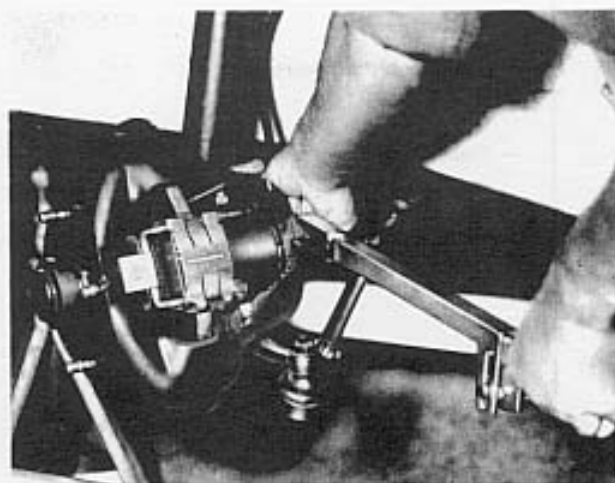
REMOVAL

- Raise the front of the car
- Chock under the front cross member
- Remove the wheel
- Remove bolts securing the brake caliper and hang it from the bodywork, without removing the brake hose.
- Remove the hub nut cap and the nut
- Remove the hub.



REFITTING

- Position the hub on the stub axle, the inner race (1) tight against the stub axle shoulder
- Fit the washer, the inner shoulder (2) against the inner race of the bearing
- Fit new nut (3) and pre-tighten to 22 ft.lbs 3 m.daN (m.kg)
- Slacken the nut and tighten finally to 7.2 ft.lbs 1 m.daN (m.kg) .
- Lock the nut, in the 2 grooves provided.



Clean the brake disc (if necessary, degrease with a cloth saturated with alcohol)

Hexagon socket head bolt

- Brush the screw threads
- Clean-out the tapped holes with a 12 x 150 plug tap
- Fit each clean screw with :
 - a new lock-washer
 - and apply standard Loctite thread locking fluid
- Tighten to 7 m.daN (m.kg) (50 ft.lbs)

Hex. head bolt

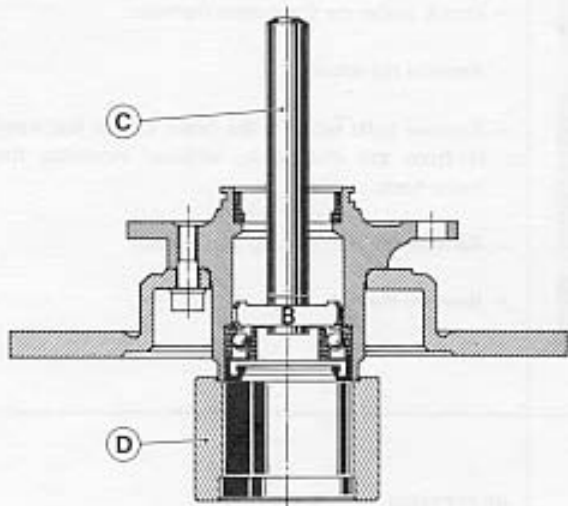
- Fit the brake caliper
- Place a locking tab under each head
- Tighten to 8.5 m.daN (m.kg)
- Fold the locking tab.

PEUGEOT



6

**FRONT AXLE
HUBS WITH ANGULAR CONTACT BALL BEARINGS**

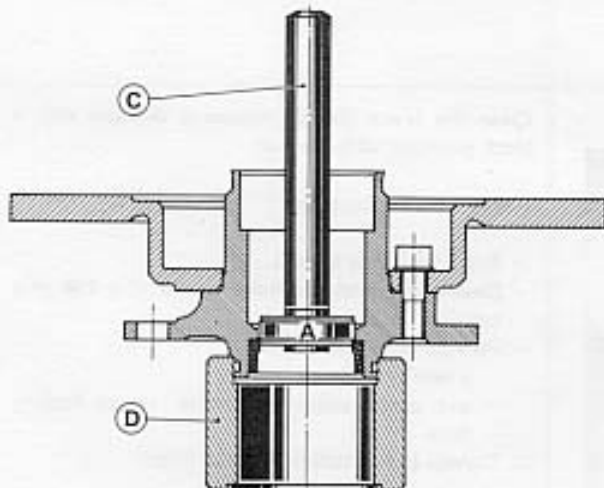


DISMANTLING

- Remove the hub nut cap "O" ring
- Remove the surplus grease from the hub.

Inner bearing

- Insert the plate (B) in the hub, face (2) resting on the outer race
- Place the hub on the block (D) on the side with the largest diameter
- Remove the bearing and oil seal, using the drift (C) preferably in a press

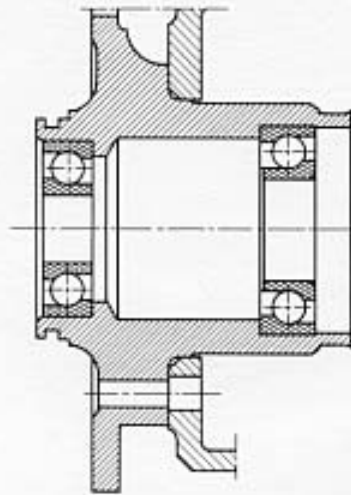


Outer bearing

- Insert the plate (A) in the hub, face (2) resting on the outer race
- Turn the block (D) over
- Place the hub on the block
- Remove the race, using the drift (C) preferably in a press.

FRONT AXLE
HUBS WITH ANGULAR CONTACT BALL BEARINGS

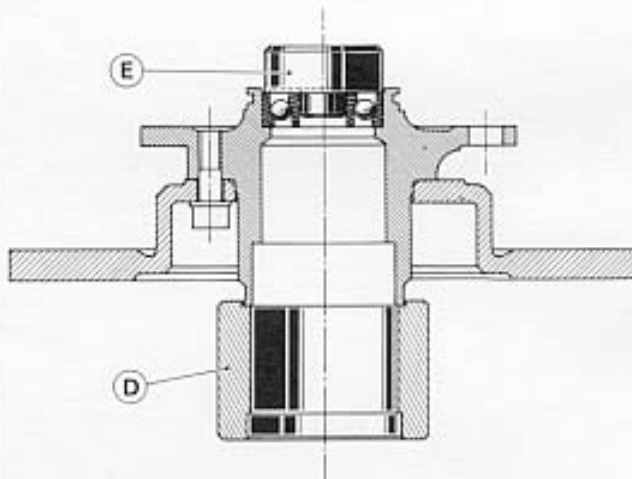
6

04 05⁽¹⁾

RE-ASSEMBLY

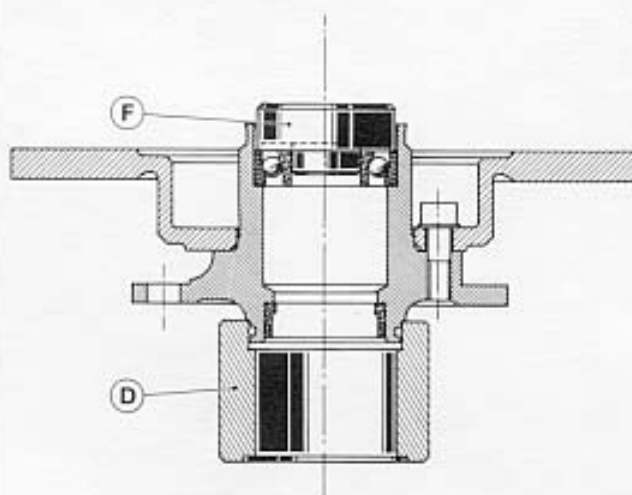
- Clean and dry the components
- The new bearings should be fitted without degreasing
- Grease the hub and the bearings with ESSO MULTIPURPOSE GREASE H (app. 100 g.)
- Check that the outer races are inserted in the correct direction of fitment (refer to drawing opposite)

IMPORTANT - The inner and outer bearing races, as well as the ball cages, are "paired" and this pairing must not be altered.



Outer bearing

- Insert the complete bearing in the hub using :
 - the block (D),
 - the drift (E),
 - a press
- Withdraw the inner race



Inner bearing

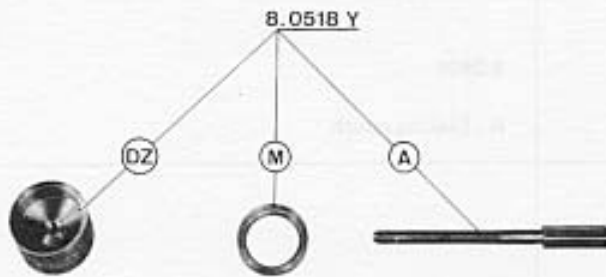
- Insert the complete bearing in the hub using :
 - the block (D) (turned over),
 - the drift (F),
 - a press.
- Ensure that the races are completely and squarely inserted.
- Fit the oil seal, with its upper face flush with the hub.
- Fit the hub nut cap "O" -ring.
- Fit the inner race of the outer bearing.
- Place the hub on the stub axle.

PEUGEOT

FRONT AXLE
HUBS WITH TAPER ROLLER BEARINGS

6

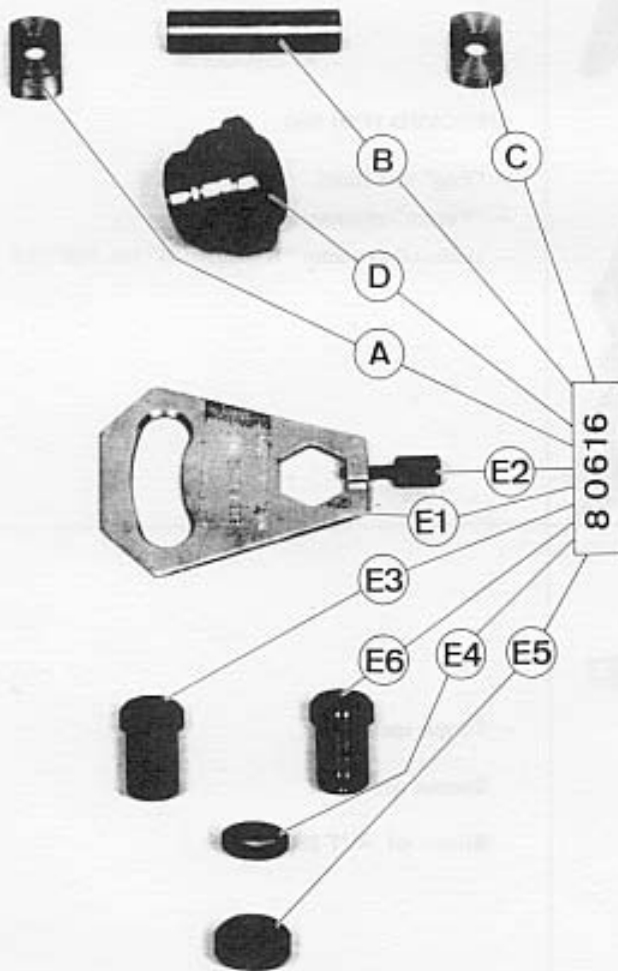
0411



SPECIAL TOOLING

8.0518 Y

- A Operating bolt
- DZ Anvil
- M Anvil spacer collar



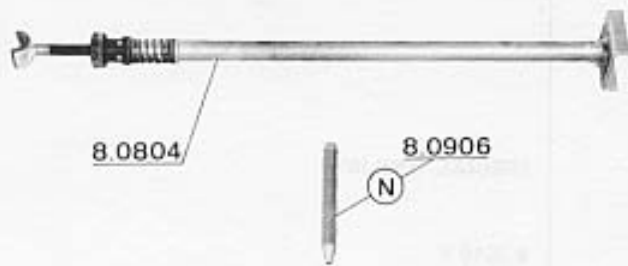
8 0616

- A Outer race extractor
- B Tubular spacer
- C Inner race
- D Fitting plug
- E Bearing setting gauge
- E1 Gauge body
- E2 Clamp screw
- E3 Hollow screw (504c/c - 604)
- E4 Adjustable thrust collar
- E5 Locknut
- E6 Hollow screw (504)

04 12

6

FRONT AXLE
HUBS WITH TAPER ROLLER BEARINGS

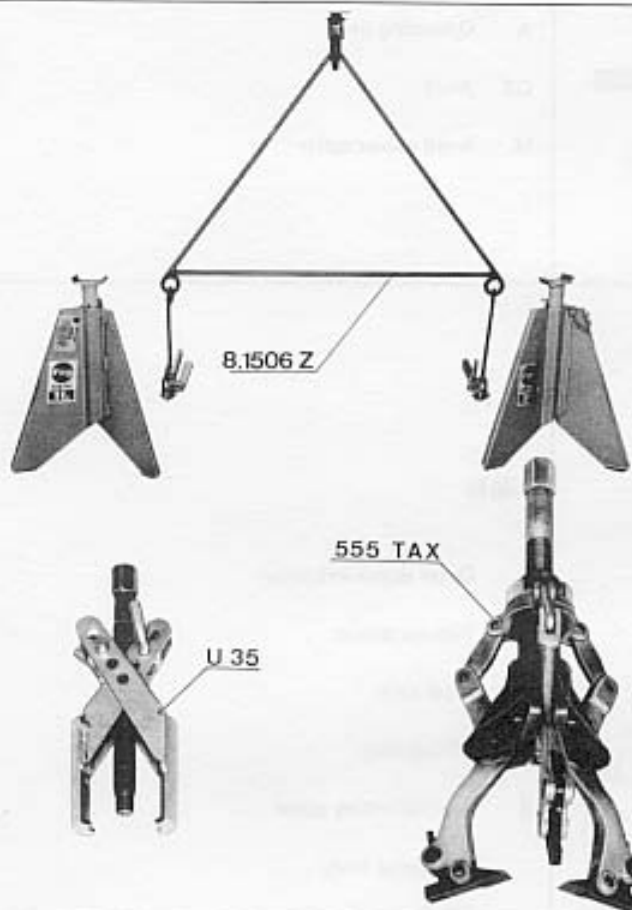


8.0804

– Preset pedal depressor

8.0906

N - Staking punch



8.1506 Z

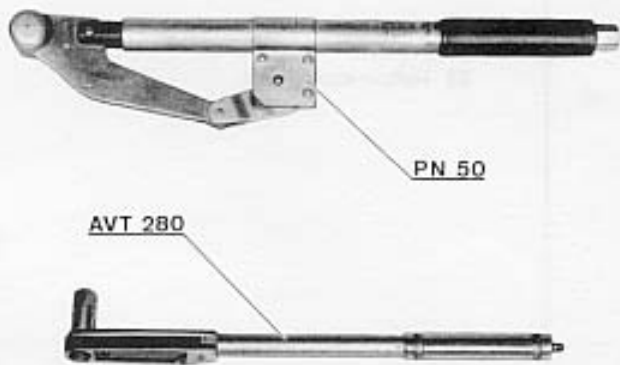
– Front end lifting tackle

APPROVED TOOLING

– “Fog” axle stand.

– “Facom” extractor réf. U.35

– Universal extractor “WILMONDA” réf. 555 TAX



– Torque spanners :

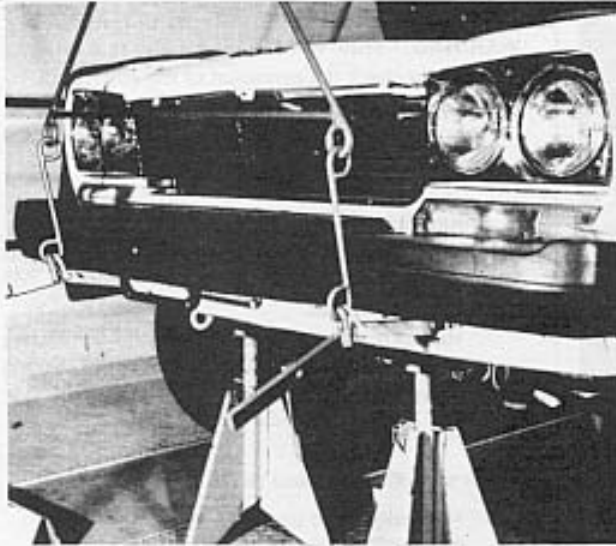
Sunnen ref. PN 50

Britool ref. AVT 280

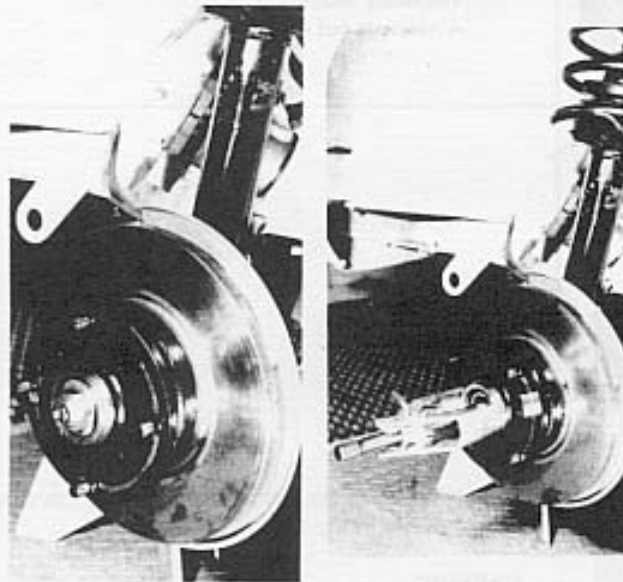
FRONT AXLE
HUBS WITH TAPER ROLLER BEARINGS
REMOVE

6

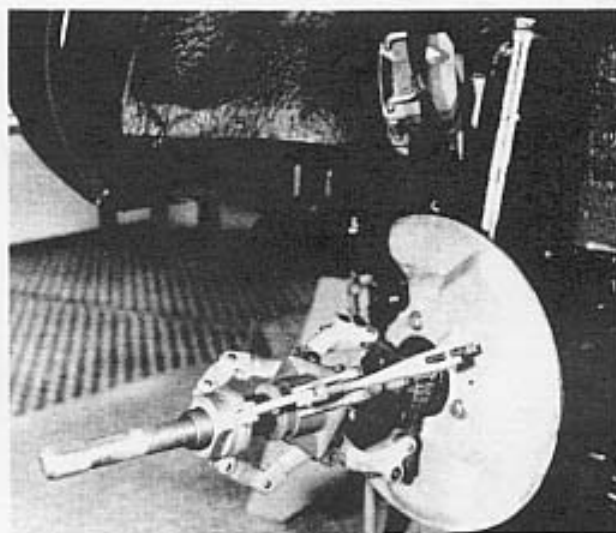
04 13



- Place axle stands under the jacking cross-member
- Remove the wheel



- Remove the caliper and suspend it without disconnecting the flexible hose
- Remove hub cap and nut
- Remove the hub

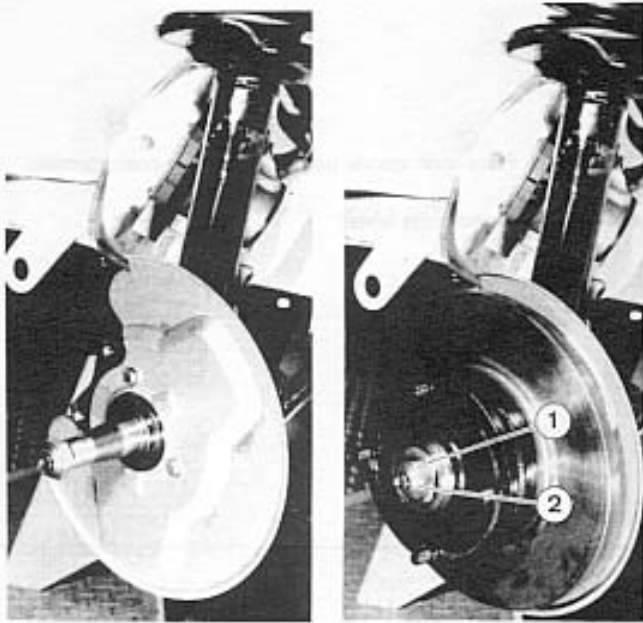


- If the inner race remains stuck to the stub axle, use an extractor

PEUGEOT

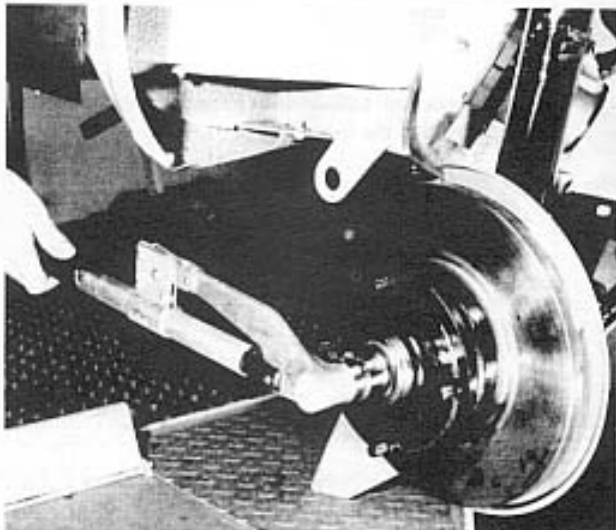

6

FRONT AXLE HUBS WITH TAPER ROLLER BEARINGS REFIT



WARNING - Prior to refitting the hub it is essential to carefully check the condition of the swivel.

- The stub axle must be clean and free from any defects
- Ensure that :
 - the inner races of both bearings are a sliding fit on the axle. If necessary, emery cloth the axle bearing surfaces.
 - stub axle screw threads are in good condition ; if threads are in anyway defective the steering swivel must be replaced
- Fit the following items to the stub axle :
 - Hub/caliper sub-assembly
 - The inner race of the outer bearing
 - The safety washer (1)
 - A new axle nut (2)

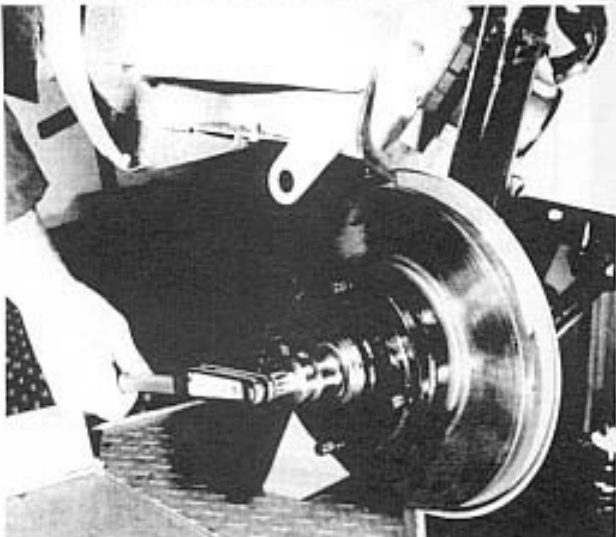


- Whilst rotating the hub : tighten the stub axle nut to 4 m.daN (m.kg) (29 ft/lbs)

WARNING

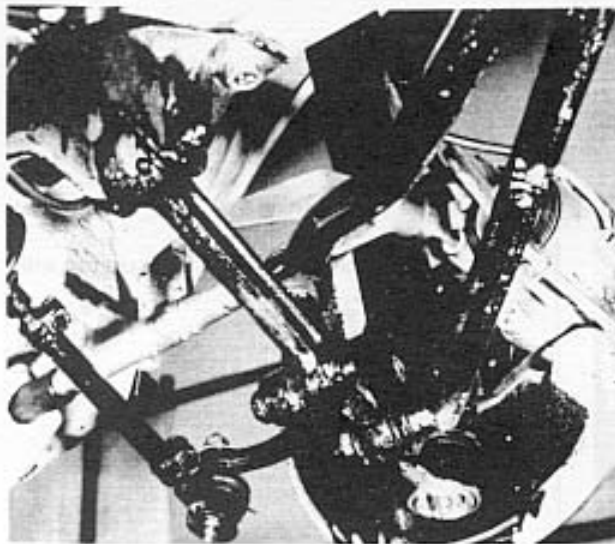
This pre-tightening is essential.

- Slacken the axle nut
- Retighten to : 1 m.daN (m.kg) (7.23 ft/lbs)



FRONT AXLE
HUBS WITH TAPER ROLLER BEARINGS
REFIT

6 04 15



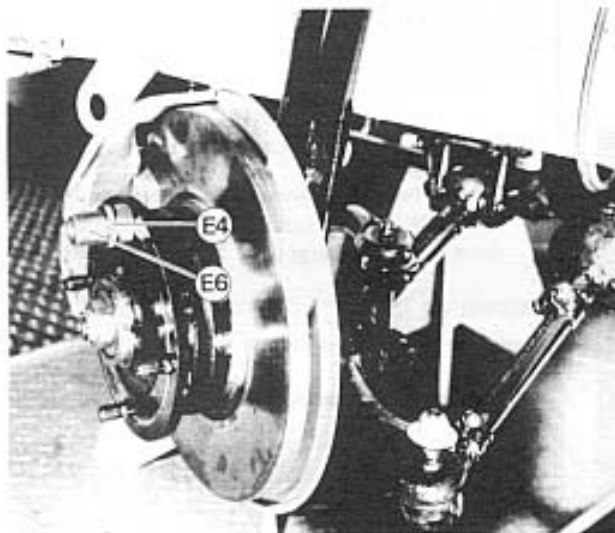
- Clean the brake disc (degrease if necessary using a cloth saturated with alcohol)

Hollow head hexagon bolt :

- brush the bolt threads
- clean the screw threads (use a 12 x 1.50 plug tap)
- fit each cleaned bolt with :
 - a new lockwasher
 - and coat the threads with loctite standard thread fluid
- Tighten to : 7 m.daN (m.kg) (50 ft'lbs)

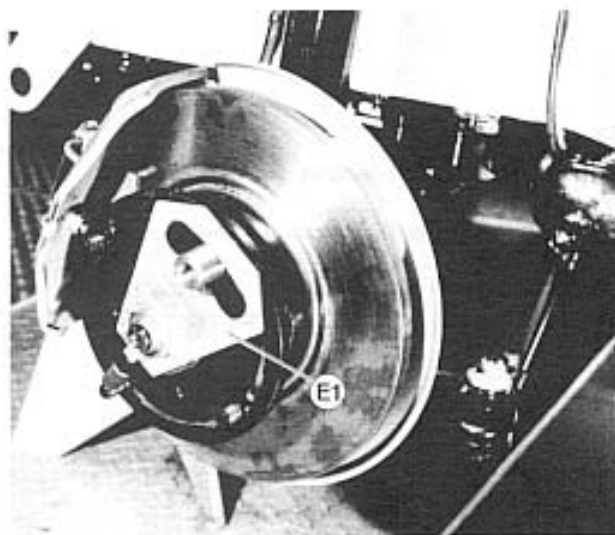
Hexagon head bolt :

- Fit the brake caliper
- Put a tab washer under the head of each bolt
- Tighten to 8.5 m.daN (m.kg) (61 ft/lbs)
- Fold the tab



- Fit :

- the hollow bolt (E6) to a wheel stud
- tighten to 2 m.daN (m.kg) (14.5 ft/lbs)
- the adjustable thrust collar (E4) to the hollow bolt (E6)



- Fit the gauge (E1)

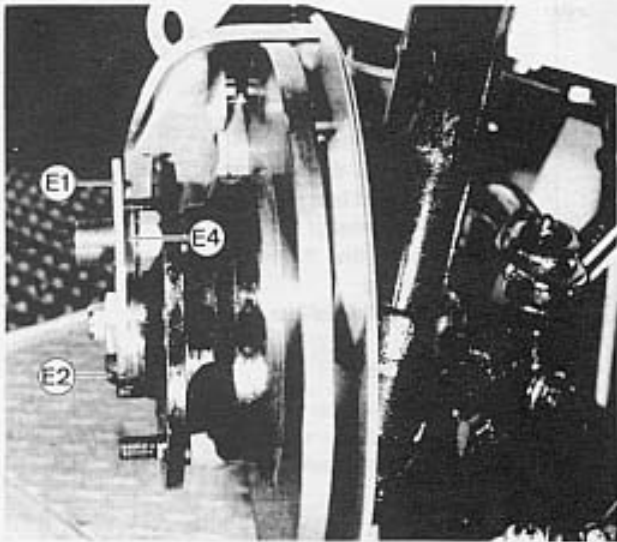
WARNING

Do not alter the position of the axle nut.

04 16

6

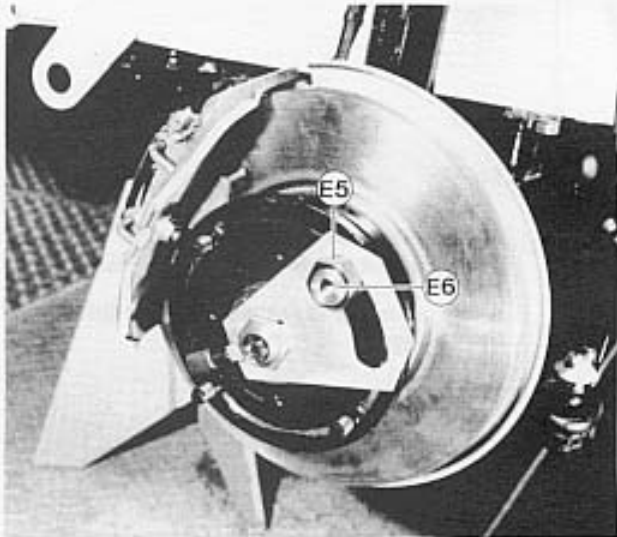
FRONT AXLE HUBS WITH TAPER ROLLER BEARINGS REFIT



- Position the gauge (E1) against the hub
- Screw the clamp screw (E2) onto the axle nut
- Set the adjustable thrust collar (E4) in contact with the gauge (E1)

WARNING

Do not force the gauge (E1)

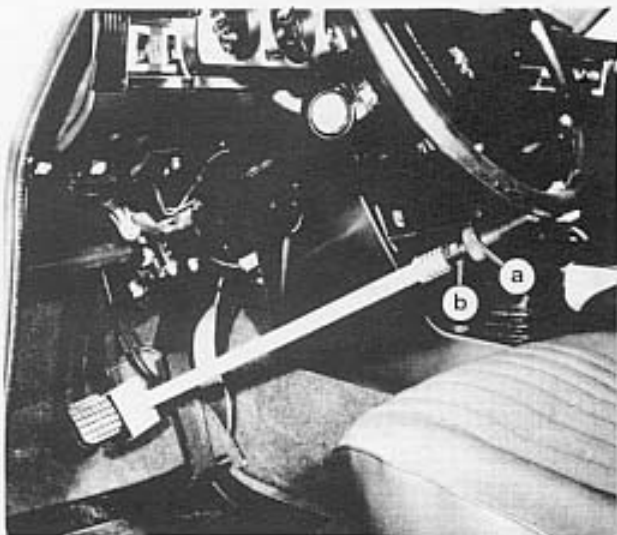


- Rotate the disc anti-clockwise so that the hollow bolt (E6) is in contact with the end of the elongated slot in the gauge (E1)

WARNING

Do not alter the position of the axle nut.

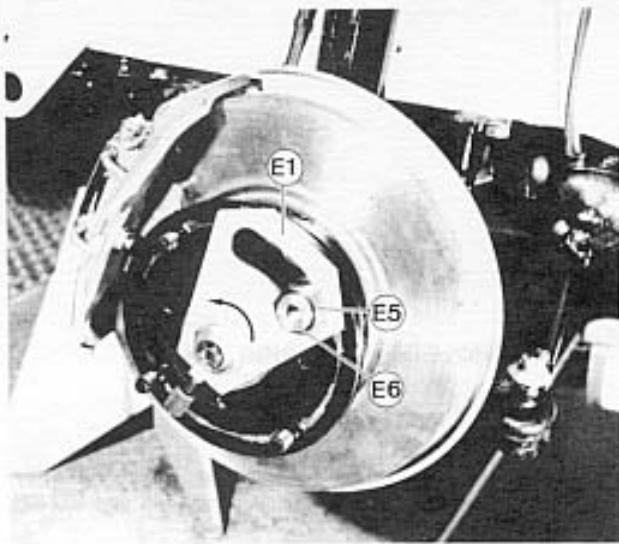
- Immobilise the disc by tightening the locknut (E5)



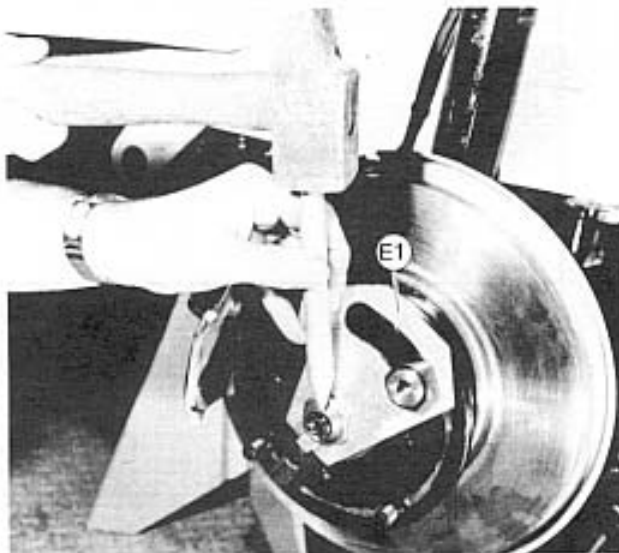
- Block the steering by means of the anti-theft lock
- Put the pedal depressor in position
- Act on the ring nut (a) until the slots (b) are covered in order to immobilise the brake discs.

FRONT AXLE
HUBS WITH TAPER ROLLER BEARINGS
REFIT

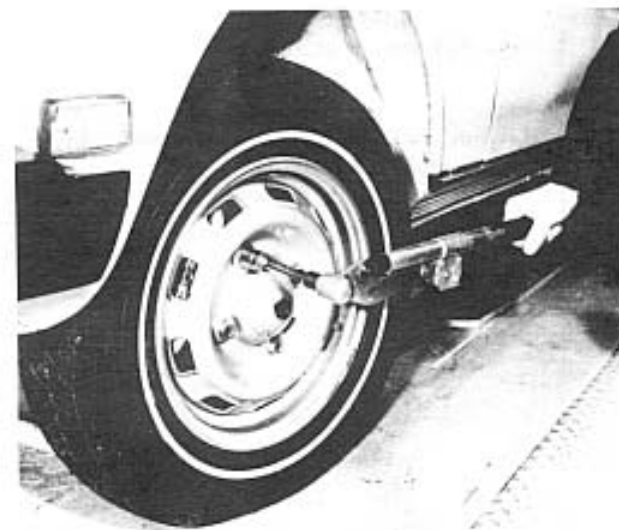
6 04 17



- Slacken the locknut (E5)
- Pivot the gauge (E1) so that the opposite end of the slot rests on the hollow screw (E6)
- Tighten locknut (E5) to 1 m.daN (m.kg) (7.2 ft/lbs)



- In this position, stake the axle nut
- Remove the gauge (E1)
- Fit the hub cap together with its seal

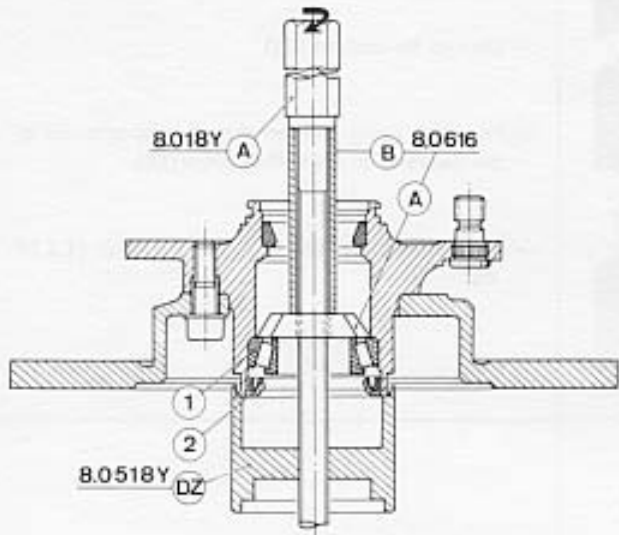


- Refit the roadwheel
- Tighten wheel studs to : 6 m.daN (m.kg) (44 ft/lbs)
- Remove the pedal depressor

04 18

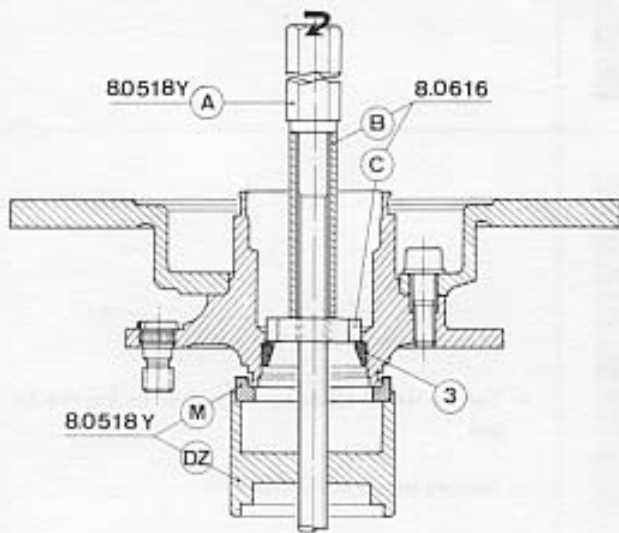
6

FRONT AXLE
HUBS WITH TAPER ROLLER BEARINGS
DISMANTLING



REMOVE INNER BEARING

- With the tool assembled as shown opposite - extract together the bearing (1) and seal (2)

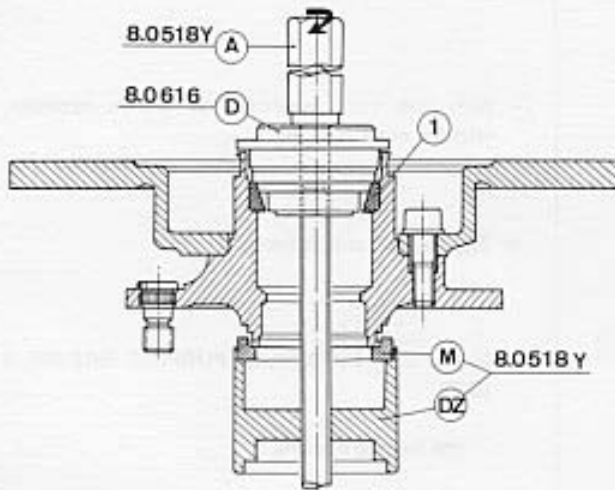


REMOVE OUTER BEARING

- With the tool assembled as shown opposite - extract the outer race (3)

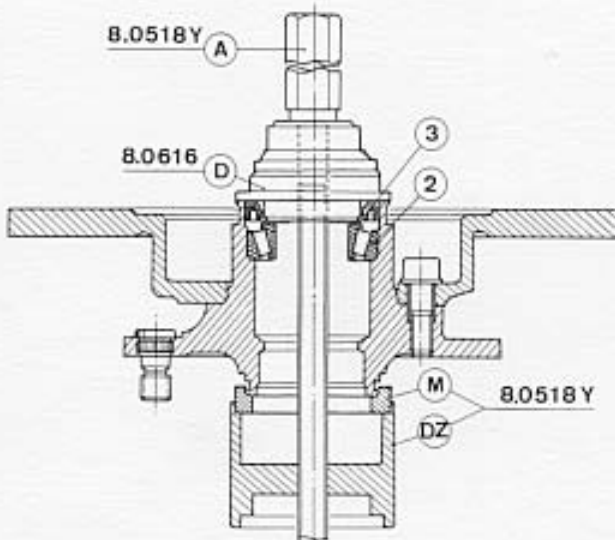
FRONT AXLE
HUBS WITH TAPER ROLLER BEARINGS
REFIT

6 04 19



REFIT INNER BEARINGS

- With the tool assembled as shown opposite - refit the inner race (1)
- Tighten to 6 m.daN (m.kg) (43 ft/lb)



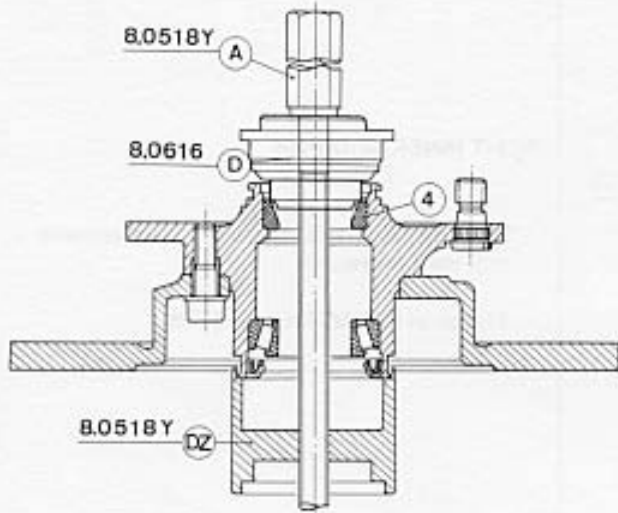
FITTING OF SEAL

- Fit :
 - the inner race (2) greased with ESSO MULTI-PURPOSE GREASE H
 - the seal (3) with the tool assembled as shown opposite (tighten lightly)

04 20

6

FRONT AXLE
HUB WITH ANGULAR CONTACT BALL BEARINGS
REASSEMBLE



REFIT OUTER BEARINGS

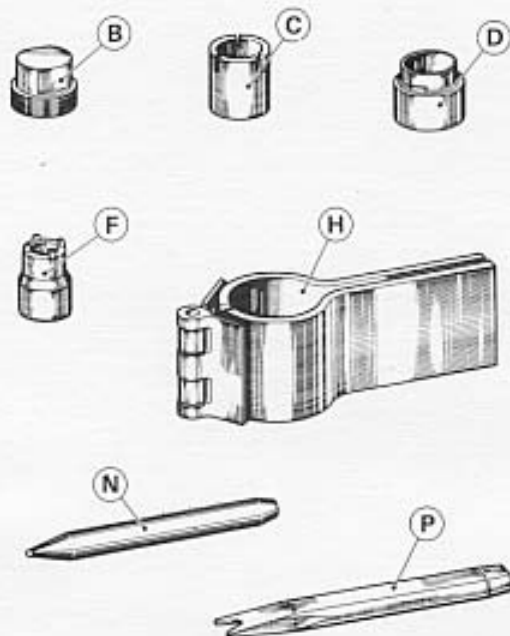
- With the tool assembled as shown opposite, refit the outer race (4)

- Tighten to 6 m.daN (m.kg)

- Grease with ESSO MULTIPURPOSE GREASE H (509)
 - the bearing housing
 - the outer race (4)

FRONT AXLE
TRIANGLE ARMS

6

06 01⁽¹⁾

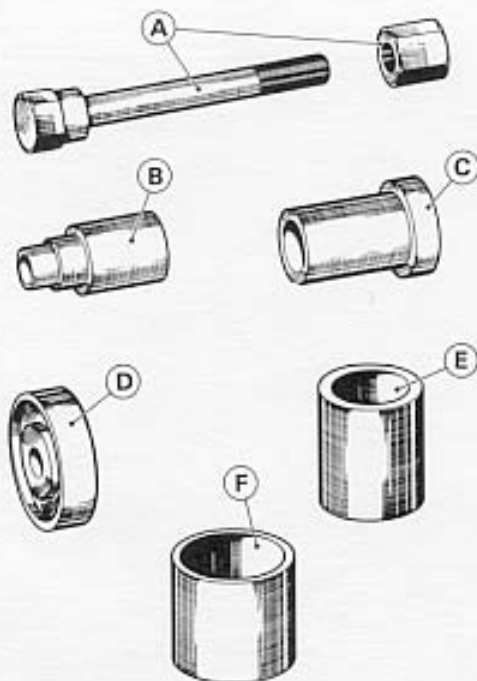
TOOLS TO BE USED

Tool chest for front and rear suspension

8.0906

- B. Steering swivel ball joint extractor
- C. Socket head for steering swivel ball joint housing closing nut, with three notches.
- D. Socket head, for the steering swivel ball joint housing closing nut, with three shoulders.
- F. Castled socket head for lower ball joint securing nut.
- H. Supporting clamp.
- N. Punch for locking the closing nut and the front hub nut.
- P. Punch for locking the steering swivel ball joint securing nut.

N.B. The tools 8.0906 C, D, F, N, already exist, for the 404 and Associated vehicles, under references 8.0902 N, M, AZ and K. They are not delivered with this tool chest, but a place is provided for them.



Tool chest for front and rear flexible bushes.

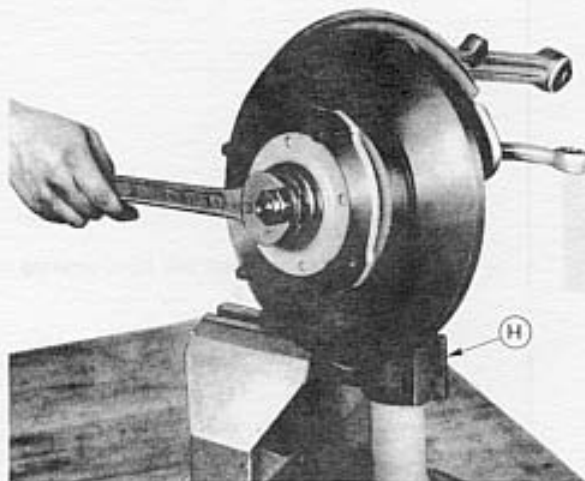
8.0907

- A. Nut and bolt for front triangle silentblocs
- B. Removing and refitting drift for the bushing support silentbloc.
- C. Removing and refitting drift for the triangle front and rear arm silentblocs.
- D. Removing and refitting cup for the front triangle silentblocs.
- E. Removing and refitting ring for the front triangle rear arm silentbloc.
- F. Removing and refitting ring for the bushing support silentbloc.

FRONT AXLE
TRIANGLE ARMS

6

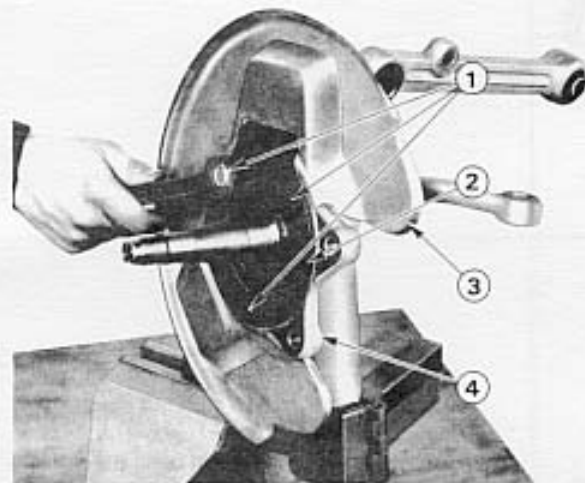
06 03



• TRIANGLE REAR ARM

DISMANTLING

- Using the support H, clamp the assembly in a vice
- Remove :
 - the hub nut cap,
 - the hub nut.
- Withdraw the hub/brake disc assembly.

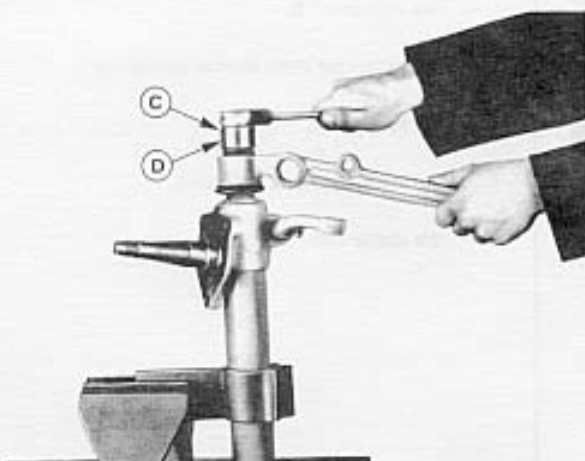


- Remove the three bolts (1)

- Recover :

- the grease nipple protector (2)*
- the disc protector plate (3)
- the brake mounting (4)*

* Not on steering swivel with integral brake caliper bracket



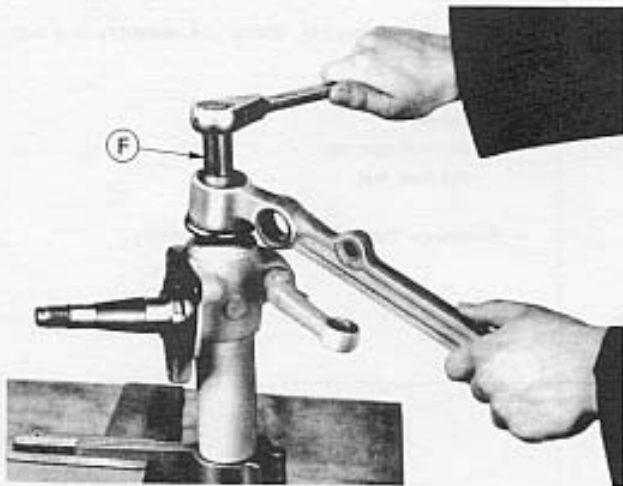
- Unlock the steering swivel ball joint closing nut carefully.

- Remove this using the socket head C or D.

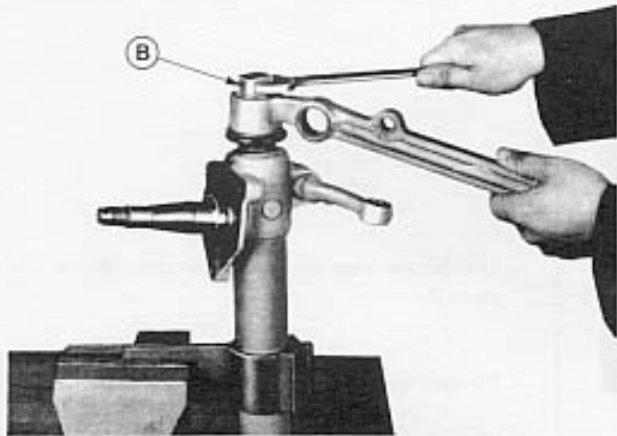
PEUGEOT

06 04 (1)

6

FRONT AXLE
TRIANGLE ARMS

- Remove the steering swivel ball joint securing nut with the castled socket F.

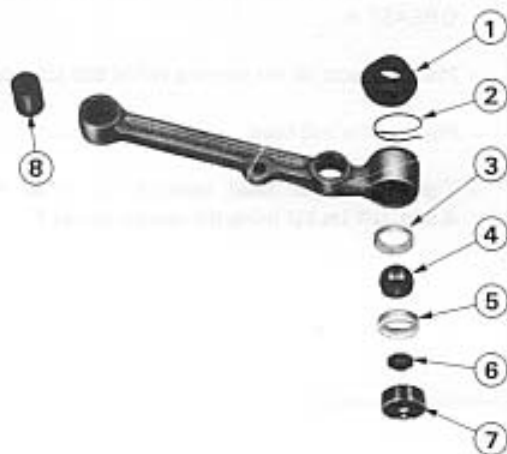


- Remove the triangle rear arm using the extractor B,
- Remove from the arm :
 - the extractor B,
 - the protector boot and its spring clip,
 - the lower cup,
 - the steering swivel ball joint,
 - the upper cup.

FRONT AXLE
TRIANGLE ARMS

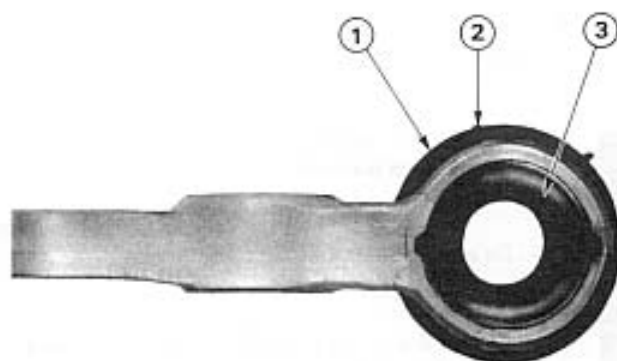
6

06 11⁽²⁾



RE-ASSEMBLY

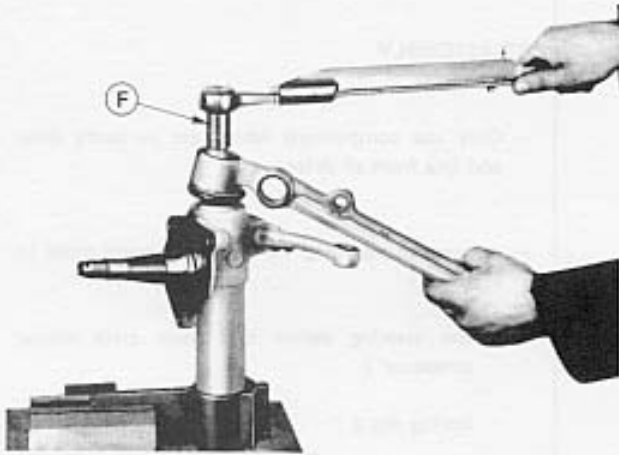
- Only use components which are perfectly clean and free from all defect.
- At each dismantling the following parts must be replaced :
 - the steering swivel ball joint stem rubber protector 1.
 - Spring clip 2
 - Upper ball joint cup 3
 - Steering swivel ball joint head 4 (if necessary)
 - Lower ball joint cup 5
 - Ball joint nut 6
 - Closing nut 7
 - Arm silentbloc B (if necessary)



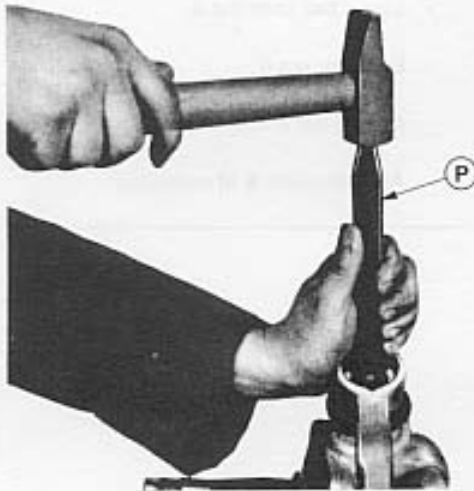
- Fit to the arm :
 - the rubber protector 1 after smearing with tallow
 - Secure this with the spring clip 2
 - The green upper cup 3 (8 mm thick) in the correct direction of fitment.

PEUGEOT

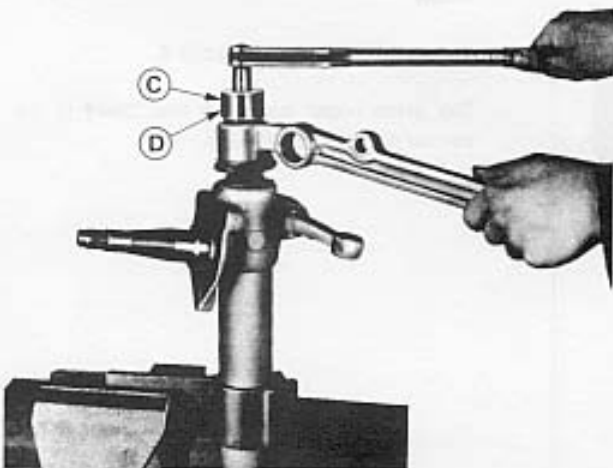
FRONT AXLE
TRIANGLE ARMS



- Grease the housing with ESSO MULTIPURPOSE GREASE H
- Place the arm on the steering swivel ball joint cone
- Position the ball head
- Tighten the ball head securing nut to 33 ft.lb 4.5 m.daN (m.kg) using the castled socket F



- Lock the ball head securing nut using the punch P

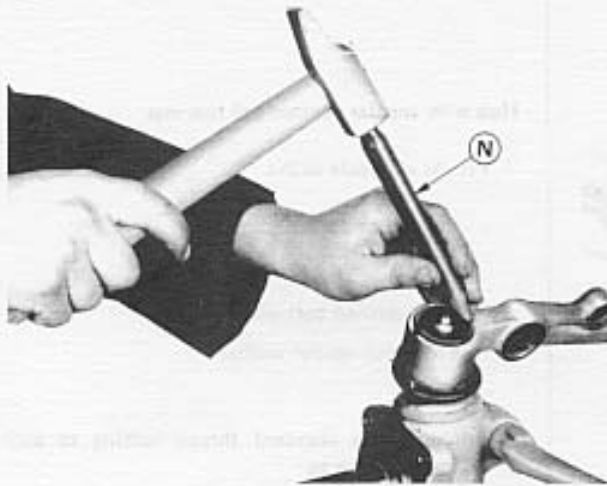


- Position the lower nylon cup, white, (10 mm thick) on the ball head.
- Fit a new closing nut.
- Tighten this to 5.5 ft.lbs 0.75 m.daN (m.kg) using the socket head C or D.
- Move the arm around and retighten the nut to the specified torque until the two half cups are correctly positioned.

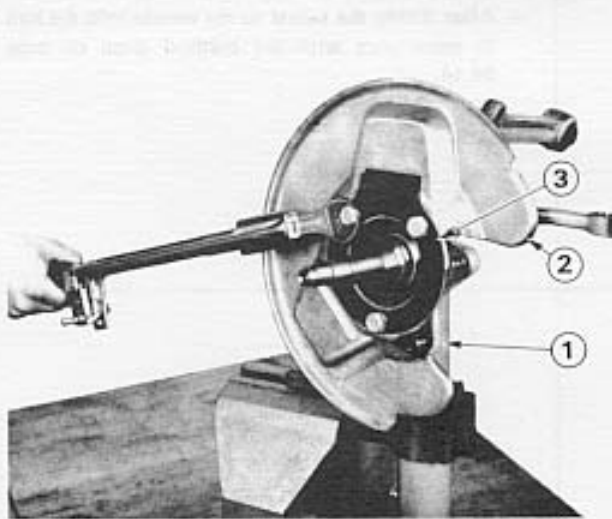
FRONT AXLE
TRIANGLE ARMS

6

06 13⁽¹⁾

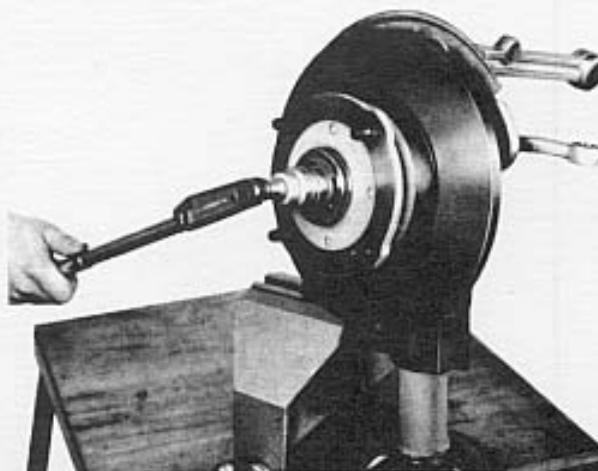


- Lock the nut using the punch N



Hub with angular contact ball bearings

- Place on the steering swivel :
 - the brake mounting 1, securing points on the track arm side
 - the brake disc shield 2
 - the grease nipple protector 3.
- Fit the bolts equipped with new Blocfor washers and tighten to 40 ft.lbs (5.5 m.daN) (m.kg)
- Lock the bolts with a punch mark on the threads protruding from the steering swivel



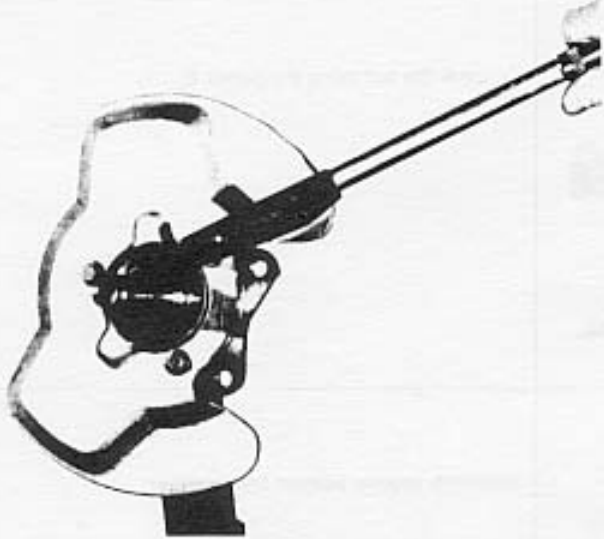
- Place on steering swivel, the hub/brake disc assembly
- Fit the washer with the inner shoulder against the inner race of the bearing
- Use a new nut.
- Pre-tighten to 22 ft.lbs (3 m.daN) (m.kg)
- Slacken the nut and tighten finally to 7.2 ft.lbs (1 m.daN) (m.kg)
- Lock the nut in the two grooves provided, using the punch N .
- Fit the hub nut cap after greasing with ESSO MULTIPURPOSE GREASE H.

PEUGEOT

0614

6

FRONT AXLE
TRIANGLE ARMS



Hub with angular contact ball bearings

- Fit the stub axle with :
 - the disc protector.

- Fit each cleaned bolt with :
 - a new shakeproof washer

- Apply loctite standard thread locking to each bolt and tighten to :
1 m.daN (m.kg) (7.2 ft/lbs)

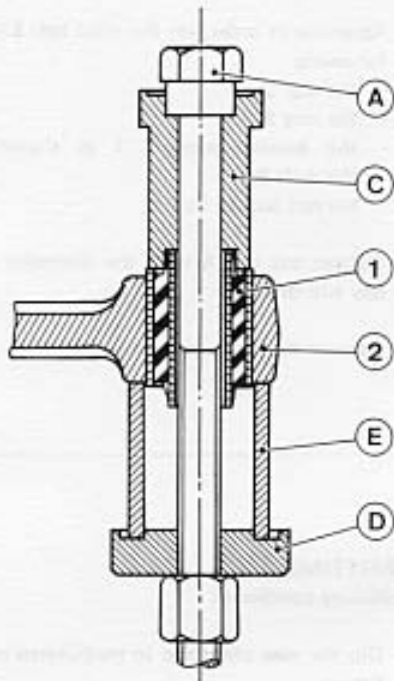
- After fitting the swivel to the vehicle refit the hub in accordance with the method given on page 04.14.

FRONT AXLE
TRIANGLE ARMS

6

06 21⁽²⁾

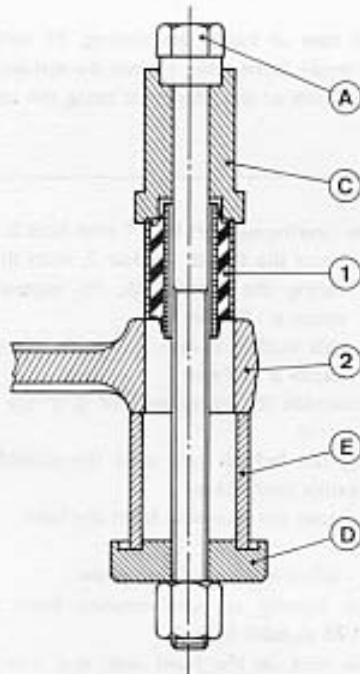
REPLACING THE FLEXIBLE BUSHINGS



FRONT TRIANGLE REAR ARMS

REMOVAL

- Assemble, in order, on the oiled bolt 8.0907 A ;
 - the drift C as shown opposite
 - the inner silentbloc ring 1, of the arm 2,
 - the ring E,
 - the cup D,
 - the nut for the bolt A.
- Hold the nut and tighten the bolt until the silentbloc is withdrawn completely.
- Dismantle the apparatus and recover the silentbloc



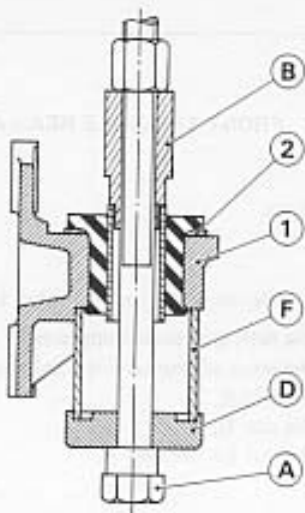
REFITTING

- Smear with tallow the outer face of the silentbloc and the bore of the triangle arm.
 - Place on the bolt A the following :
 - the drift C as shown opposite,
 - the silentbloc 1, with the chamfer facing downwards,
 - the triangle arm 2,
 - the ring E,
 - the cup D,
 - the nut for the bolt A.
 - Tighten until the drift C comes into contact with the arm 2.
- The correct position of the silentbloc in the arm is obtained through the shape of the drift C.
- Dismantle the apparatus.

PEUGEOT

06 22⁽²⁾

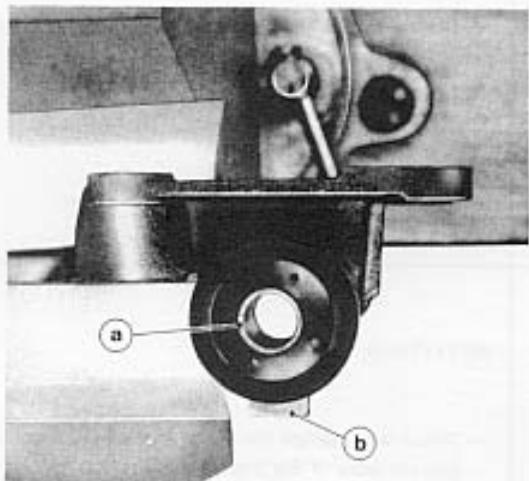
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FRONT AXLE
TRIANGLE ARMS

BEARING SUPPORT

REMOVAL

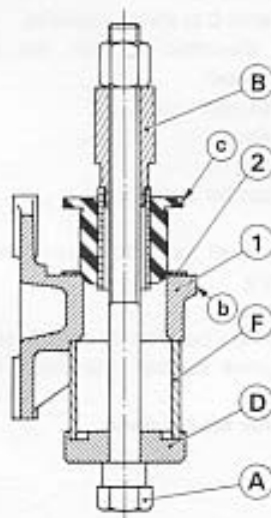
- Assemble in order, on the oiled bolt 8.0907 A the following :
 - the cup D,
 - the ring F,
 - the bearing support 1 as shown opposite
 - the drift B,
 - the nut for the bolt A,
- Tighten the nut A until the silentbloc is completely withdrawn.
- Recover the thrust washer 2



REFITTING

Preliminary conditions

- Dip the new silentbloc in methylated spirit before fitting
- Every silentbloc, including new ones, must be replaced, if removed from the support.
- When positioning the new silentbloc, place the notch a on the inner ring facing the anti-roll bar support side and on a parallel axis to this.
- In case of faulty positioning, fit temporarily the triangle front arm ; tighten the nut and correct the position of the silentbloc using the arm as a lever.



- On bearing support face 1 with boss b :
 - place the thrust washer 2, with the inner edge facing the silentblock, for supports having a depth p : 26 mm
 - this washer is not used with support having a depth p : 28 mm
- Assemble the parts on bolt A in the order as for removal.
- Tighten bolt A nut until the shoulder (C) of the flexible bush abuts.
- Remove the assembly from the bolt.

N.B. - When re-assembled, tighten :

- the bearing support securing bolts to 27 ft.lbs (3.75 m.daN) (m.kg).
- the nuts on the front arm, rear arm and bearing support to 33 ft.lbs (4.5 m.daN) (m.kg).

FRONT AXLE
STEERING SWIVELS
WITH REMOVABLE CALIPER BRACKET

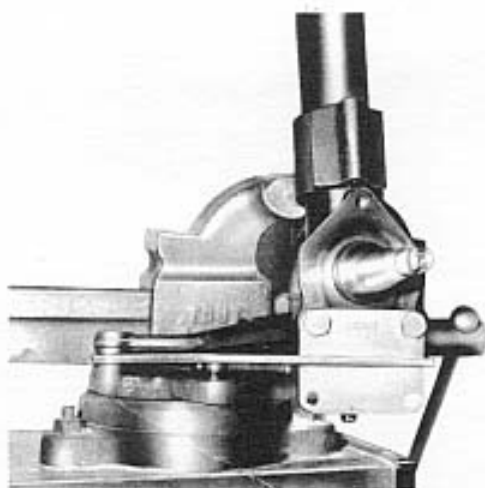
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07 01⁽¹⁾

TOOLS TO BE USED

8.06 10

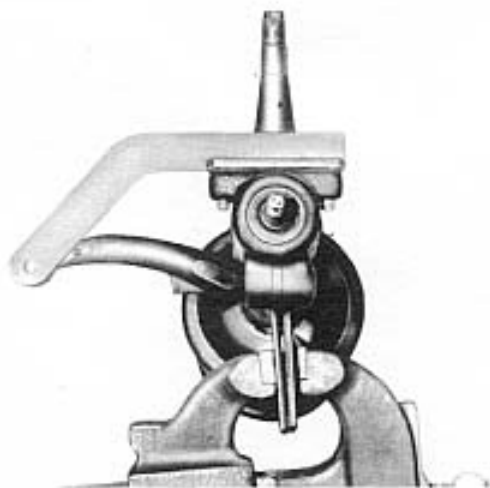
Left and right hand double gauge for checking the track arms on the front steering swivels.



CHECKING THE TRACK ARMS

- Secure the gauge to the stub axle and check :
 - horizontally, the parallelism of the track arm eye with the gauge.
 - vertically that the hole in the gauge lines up perfectly with track arm eye.

N.B. Replace the complete steering swivel if the track arm does not meet exactly with the above tolerances.



PEUGEOT

STEERING

SUMMARY

7

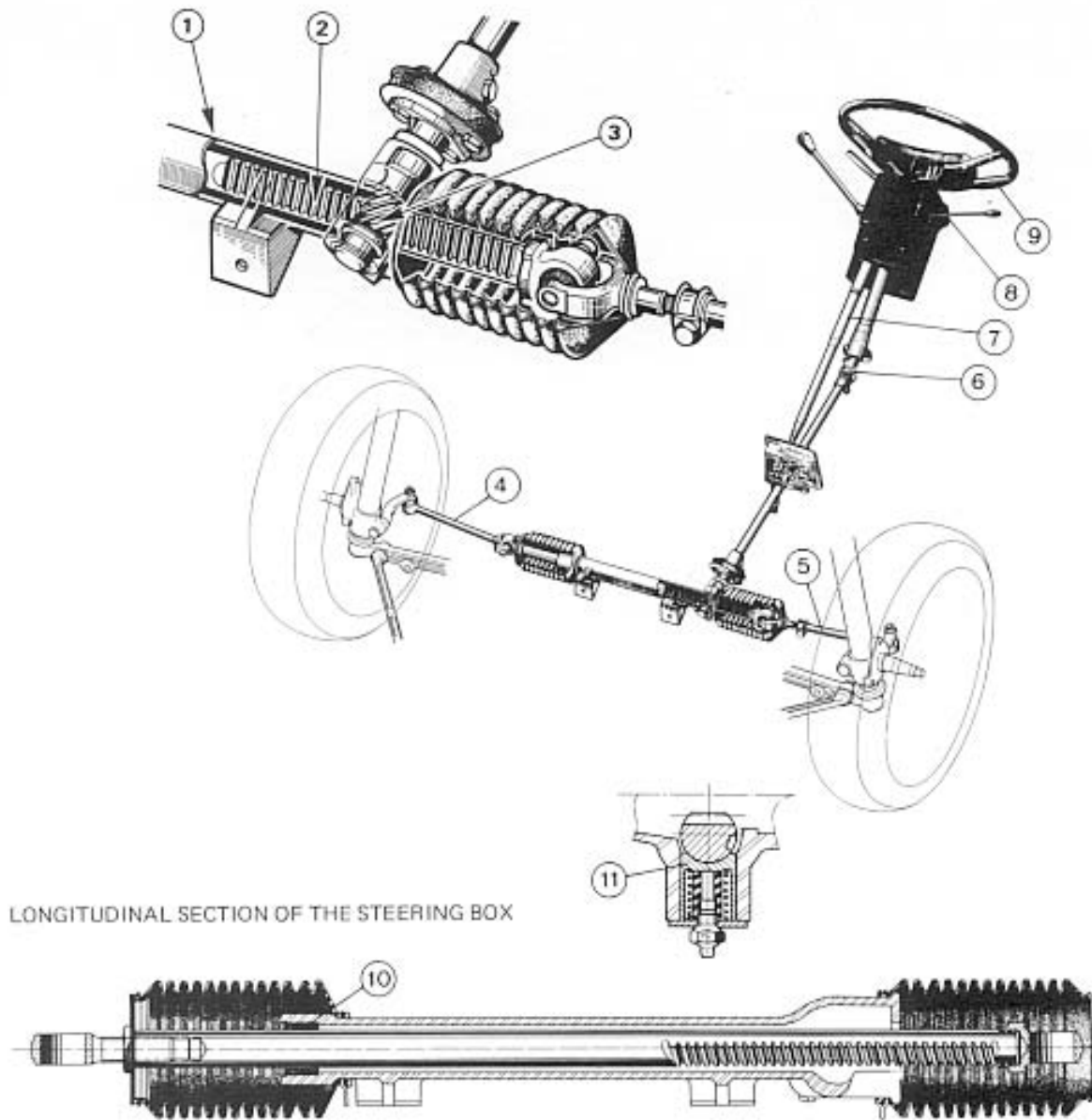
	Page
IDENTIFICATION	
Conventional steering	01 01(1)
Power steering	01 03
REMOVE - REFIT	
Conventional steering	
Tooling required	02 01(1)
Remove	02 02(1)
Refit	02 03(1) and 04(1)
Power steering	
Checking fluid level	02 11
Draining hydraulic system	02 12
Filling hydraulic system	02 13
Remove-refit power steering pump	02 14
Remove-refit pump drive pulley	02 15
Remove housing	02 16 to 19
Refit housing	02 20 to 23
DISMANTLE - REASSEMBLE - ADJUST	
Conventional steering	
Tooling required	03 01(1)
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Power steering	
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Prepare	03 61 to 64
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Steering rack	
Conventional steering	
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Replacement of flexible bushes	05 02(1)
Track rod ball joints	
Conventional steering	
Tooling required	06 01(1)
Dismantle-reassemble	06 02(1)
Steering column	
Conventional steering	
Column mounted gearshift	
Remove	07 01(1) to 04(1)
Refit	07 05(1) to 07(1)
Power steering	
Remove	07 11
Refit - adjust	07 12

CONVENTIONAL STEERING

IDENTIFICATION AND CHARACTERISTICS

7

01 01 (1)



LONGITUDINAL SECTION OF THE STEERING BOX

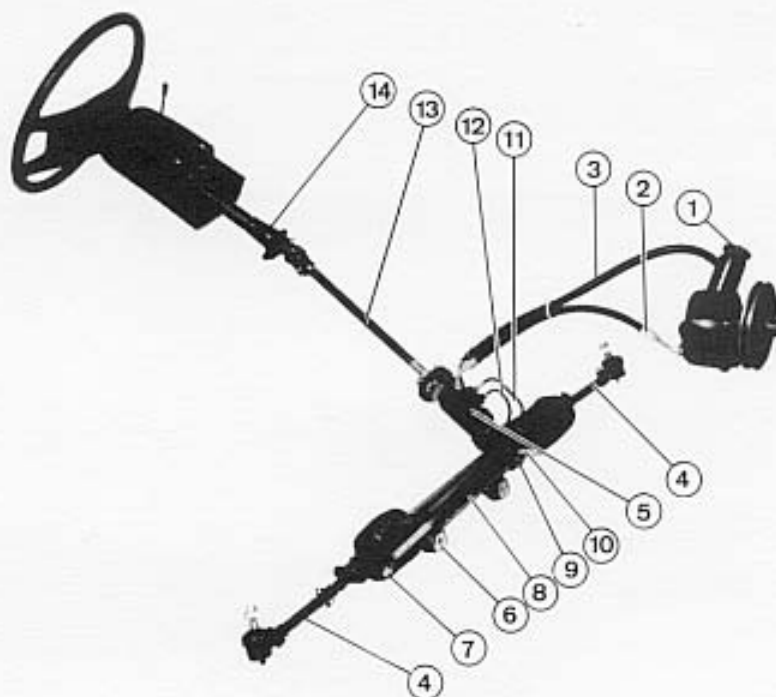
- 1 - Steering box
- 2 - 32 tooth rack
- 3 - 7 tooth pinion
- 4 - R.H. track rod
- 5 - L.H. track rod (adjustable in length)
- 6 - Cardan jointed steering column
- 7 - Gear change control arm
- 8 - Anti-theft steering lock support.
- 9 - Steering wheel
- 10 - Flexible guide bush for the rack
- 11 - Rack plunger

PEUGEOT

POWER STEERING

IDENTIFICATION

7 01 03



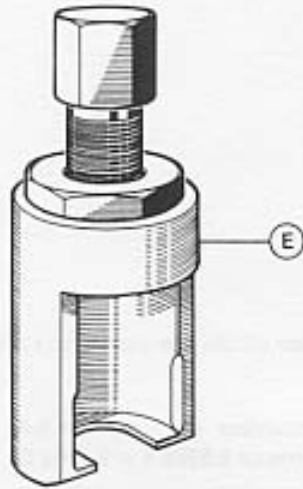
- 1 - Power steering pump with integral reservoir.
- 2 - High pressure (HP) hose
- 3 - Lower pressure (LP) fluid return hose.
- 4 - Track rods.
- 5 - Power steering control valve
- 6 - Steering box
- 7 - Ram/rack connection
- 8 - Ram
- 9 - Spacer
- 10 - Ram attachment pin
- 11 - Feed line to left hand lock
- 12 - Feed line to right hand lock
- 13 - Steering column lower half
- 14 - Jacket, with needle bearings

CONVENTIONAL STEERING

REMOVE - REFIT

7

02 01⁽¹⁾

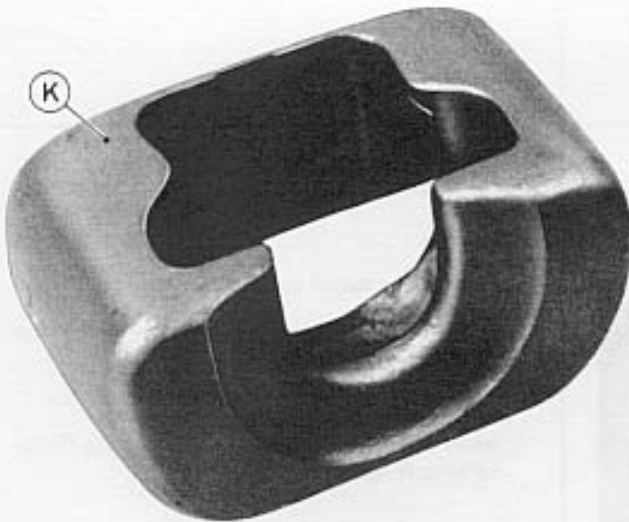


TOOLS TO BE USED

Tool chest for the steering gear.

8.0703

E - Track rod ball joint extractor.



8.0908 D

K - Track rod ball joint extractor.

PEUGEOT

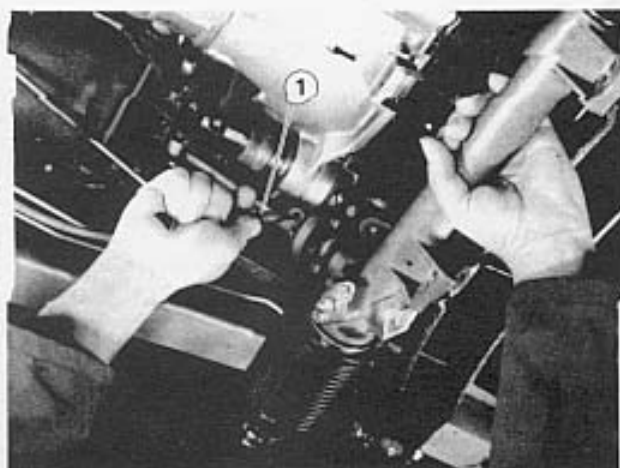
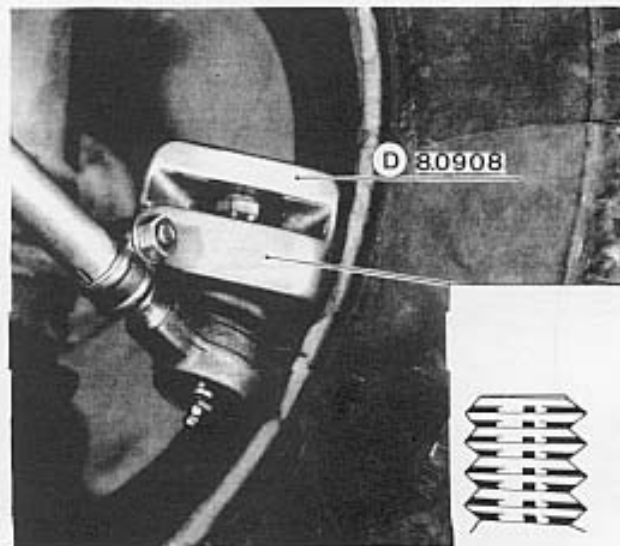
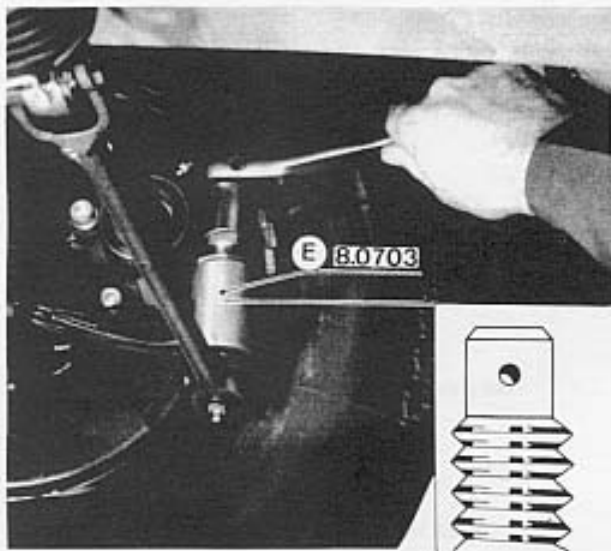
6-76

0202⁽¹⁾

7

CONVENTIONAL STEERING

REMOVE



- Place vehicle over a pit or on a lift.
- Disconnect the track rod ball joints, using an extractor **8.0703 E** or **8.0908 D**.

- Remove :
 - the column flexor collar bolt,
 - the 2 bolts securing the steering box to the cross member.
- Insert a 6 mm dia. pin punch **(1)** in the flexor collar bolt hole.
- Disengage steering box from column by rocking to and fro with the pin punch.

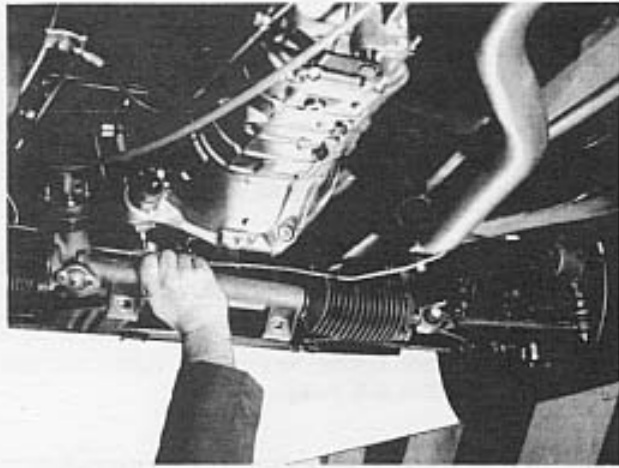
CONVENTIONAL STEERING

REFITTING

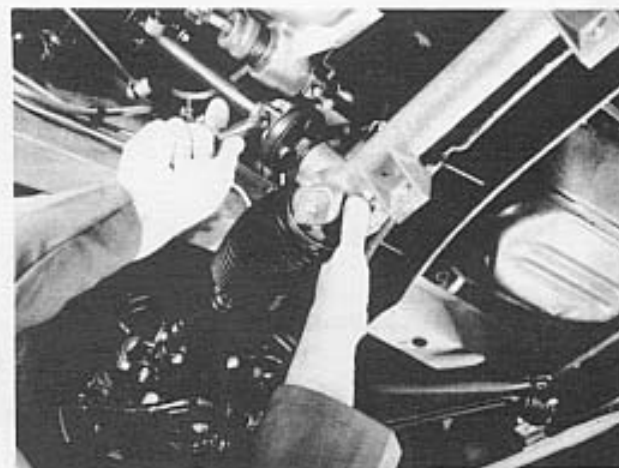
7

02 03⁰⁰

- Position the steering wheel "spokes" vertically.
- Place the front wheel, on the opposite side to the steering wheel, in the "straight ahead" position.
- Turn the other wheel inwards as far as possible.
- Centre the rack in relation to the steering box ("straight ahead position").



- Connect the track rod ball joint, on the opposite side to the steering wheel temporarily.
- Rotate the steering flector 1/4 of a turn, to align the flector damp with the splined end of the steering column.



- Insert a 6 mm centre punch in the bolt hole on the flector collar.
- Insert the steering column end in the flector collar by rocking the flector slightly, using the centre punch as a lever.

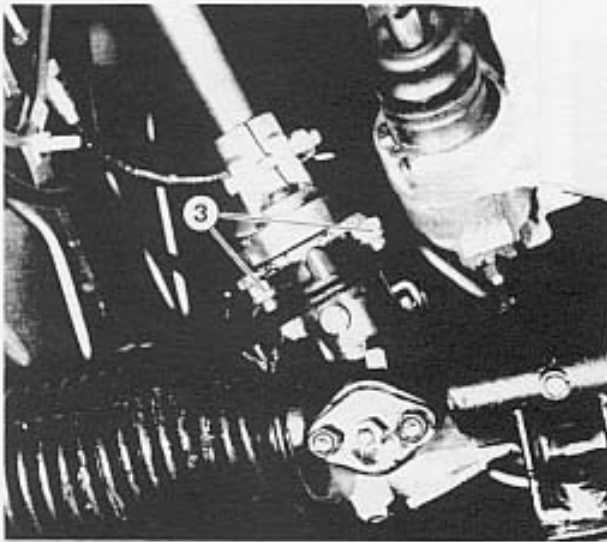
PEUGEOT

02 04^(*)

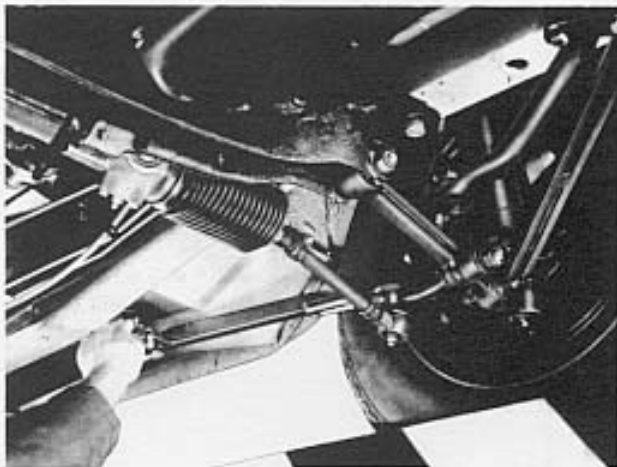
7

CONVENTIONAL STEERING

REFIT



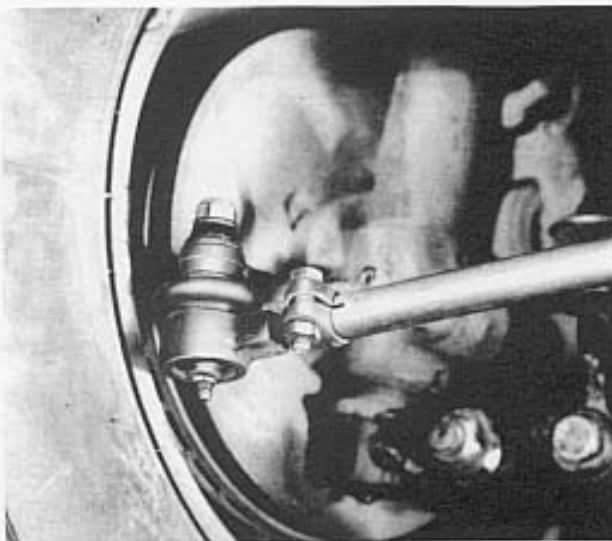
- Bolt the steering box to the cross-member.
- Tighten bolts to **3.25 m.daN (m.kg)** using an 8 mm A/F Allen key.
- Secure the column to the flector always using a new M7 x 38 bolt and a new Nylstop nut.
- Tighten nut to, **1.5 m.daN (m.kg)**.



- Recouple the track rod to steering swivel, check alignment of the 2 flats on the ball joint housing and yoke.

Ball joint stem with split pin hole.

- Position the split pin holes so that they are perpendicular to the axis of the track rods.
- Use new Blocfor washers and tighten the nuts to **4.25 m.daN (m.kg)**.
- Ensure correct fitment of a split pin into each joint.

**Assembly using a skirt nut**

- Couple the track arm ball joints.
- **New skirt nuts only must be used.**
- Tighten to, **3.75 m.daN (m.kg)**.
- Adjust front wheels toe-in (see page 01 03, group 6).

POWER STEERING
CHECKING FLUID LEVEL

7 02 11



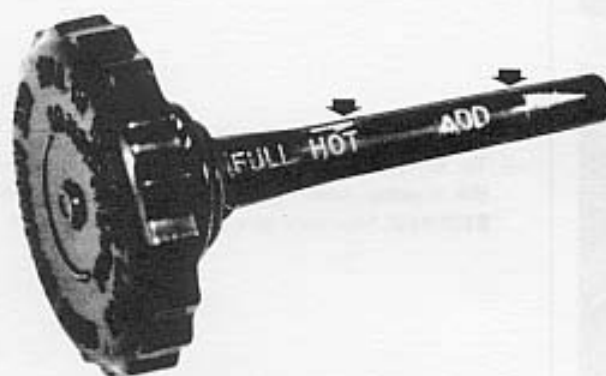
CHECKING POWER STEERING PUMP FLUID LEVEL

WARNING

The fluid level in the reservoir will vary in relation to the temperature in the system.

When cold

- The level should correspond with the **(FULL COLD)** marking.



- If the level is in the **(ADD)** zone, top-up.

When warm

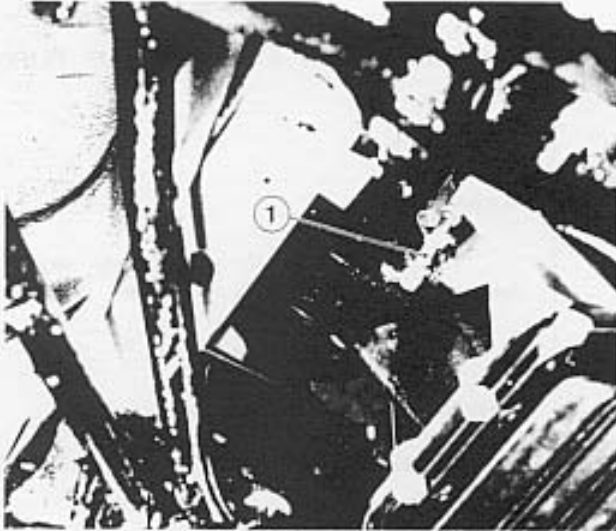
- The level may rise to the **(FULL HOT)** mark.
- Ensure that there are no leaks whatsoever from any part of the steering pump.

0212

7

POWER STEERING

DRAINING THE HYDRAULIC SYSTEM



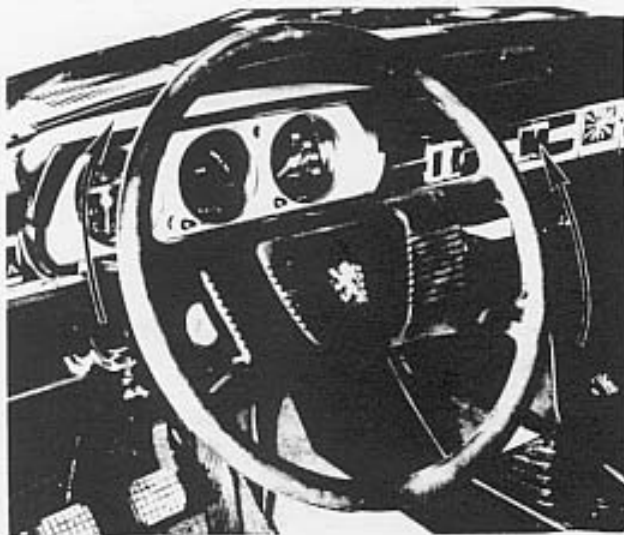
IMPORTANT - To drain the system the following two conditions are necessary :

- **ENGINE STATIONARY**
- **BATTERY DISCONNECTED**

- Remove the filler cap.

- Disconnect the HP hose (1).

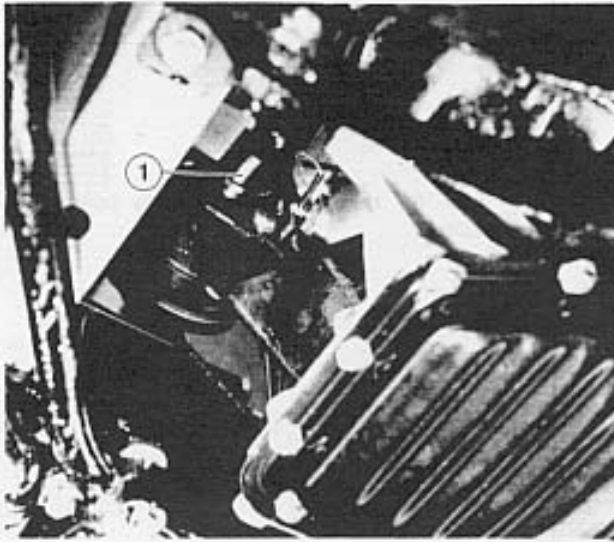
- Allow to drain completely.



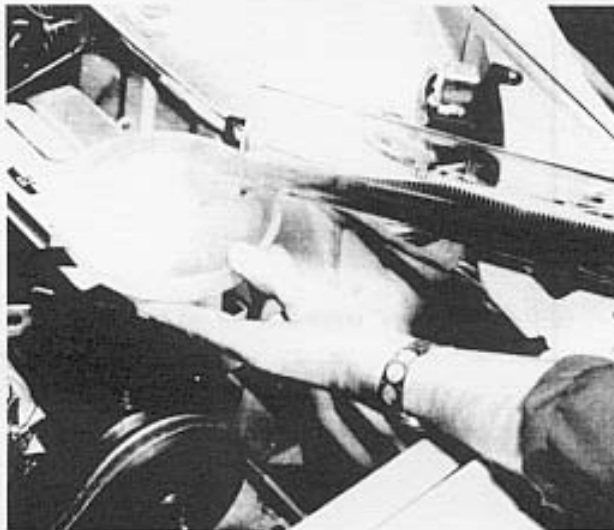
- To completely drain, it is necessary to move the steering wheel gently to and fro, **ENGINE STOPPED**, from lock to lock a number of times.

POWER STEERING
REFILLING THE HYDRAULIC SYSTEM

7 0213



- Connect the HP hose (1) to the steering pump.
- Pour approx. 0,3 dm³ of ESSO B 11216 into the steering pump reservoir.
- With **ENGINE STOPPED**, slowly turn the steering to full lock in both directions.
- Refill the reservoir.



- Start the engine.
- **Bleed the system** by actioning the steering to full lock in both directions.
- Top-up any fall in fluid level.

Total capacity of system : 0,65 dm³



Checking fluid level

WARNING

Fluid level in the reservoir will vary in relation to the temperature in the system.

When cold

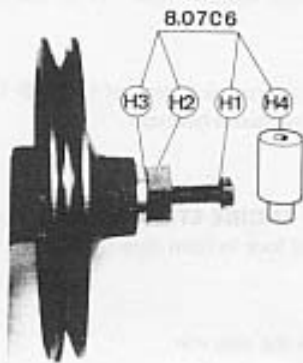
- The fluid level should correspond with the **(FULL COLD)** mark.

02 14

7

POWER STEERING

REMOVE POWER STEERING PUMP



SPECIAL TOOLING

– Tool for refitting power steering pump drive pulley.

8.0706

H1 - Screw

H2 - Nut

H3 - Bronze washer

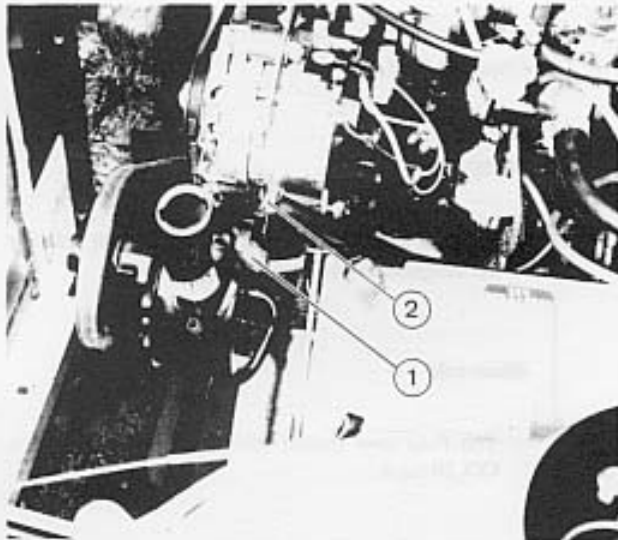
H4 - Collar

555 TAX



APPROVED TOOLING

– "Wilmonda" universal puller, ref. 555 TAX.



– Drain the system.

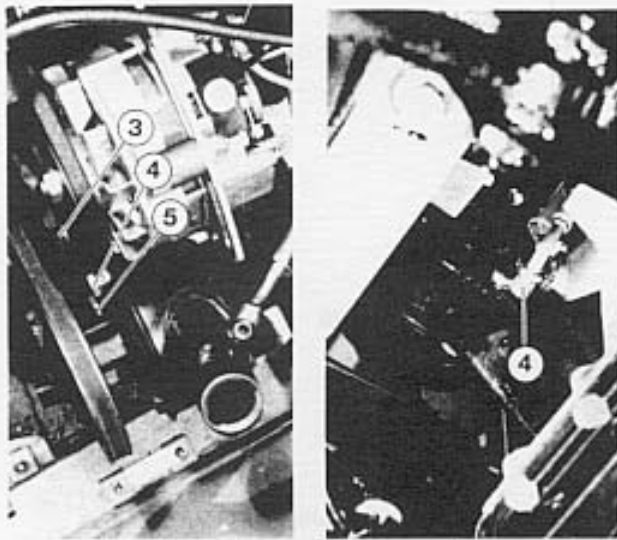
– Disconnect the HP hose (1).

– Drain the system.

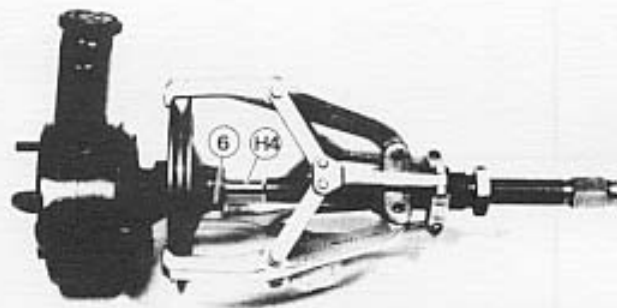
– Disconnect the LP hose (2).

POWER STEERING
 REMOVE POWER STEERING PUMP
 REMOVE - REFIT DRIVE PULLEY

7 02 15

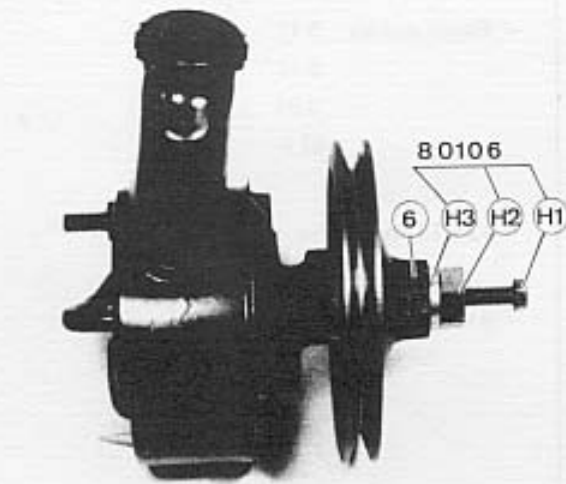


- Remove :
 - belt tensioning nut (3),
 - pump fixing bolts (4).
- Slacken the bolt (5).
- Remove drive belt.
- Recover drive belt.



Removal of the power steering pump pulley.

- Install the collar (H4) between pump spindle and "Wilmonda" (ref. 555 TAX) extractor screw.
- Position the extractor claws as shown opposite.
- Extract the pulley, holding it by the flat (6).



Refit pulley :

- Grease the (H1) screw threads and the pressure face of the (H3) bronze washer.
- Screw down the screw (H1) until it abuts the end of the pump spindle.
- Restrain the pulley by the flat (6).
- Insert the pulley on the shaft by rotating the nut (H2) until the pulley abuts.
- Remove the screw (H1).

NB - Belt tension after refitting : 95 kg/strand.

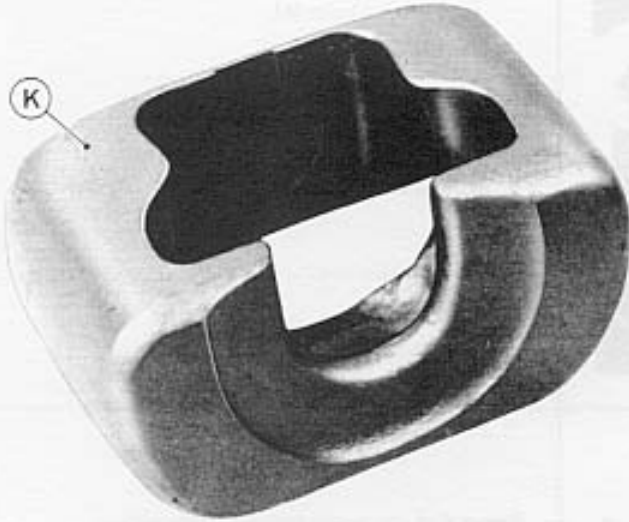
0216

7

POWER STEERING

HOUSING

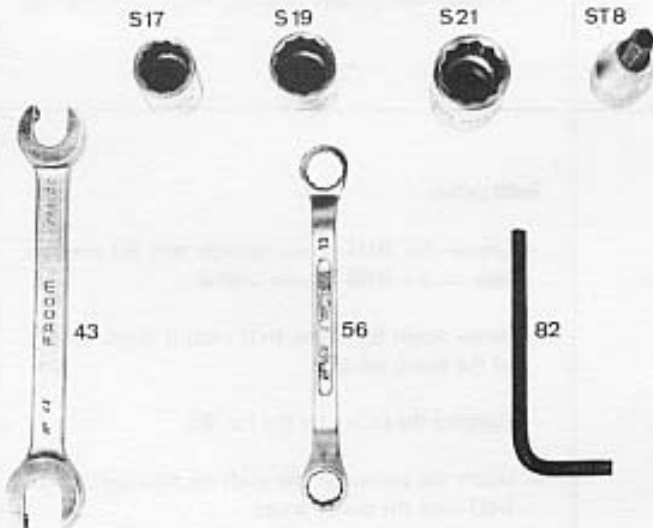
REMOVE



SPECIAL TOOLING

8.0908 D

- Track rod ball joint extractor.



APPROVED TOOLING

- Facom 17/19-mm pipe wrench, ref. 43.
- Facom sockets S 17
S 19
S 21
ST 8
- 12 x 13 ring spanner, ref. 56.
- 8 mm Allen key, ref. 82.

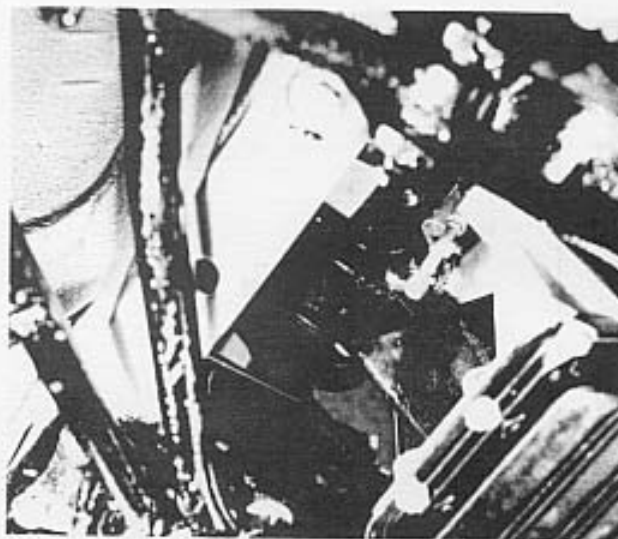
POWER STEERING
HOUSING
REMOVE

7

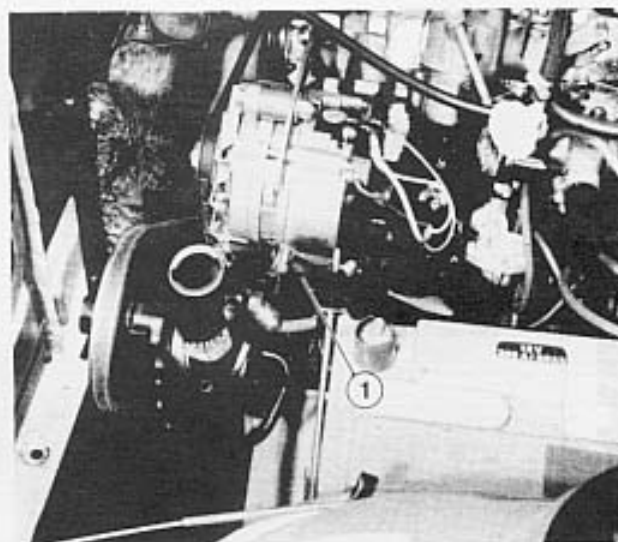
02 17



- Place the vehicle over a pit or a lift.
- Disconnect the battery.



- Drain the hydraulic system.
(see page 02 12).



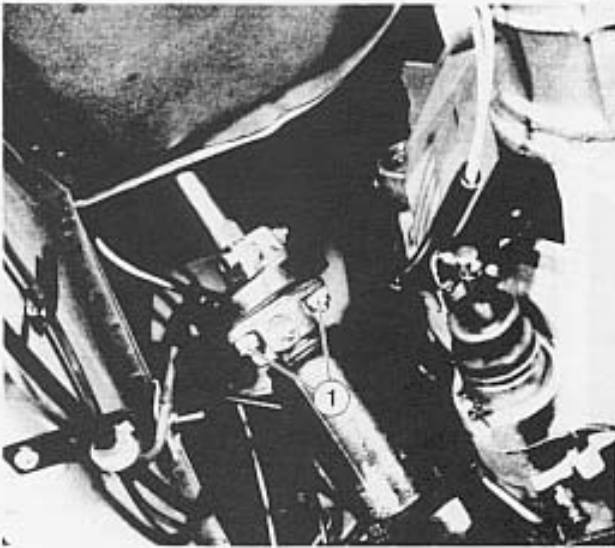
- Disconnect the LP hose (1).

PEUGEOT

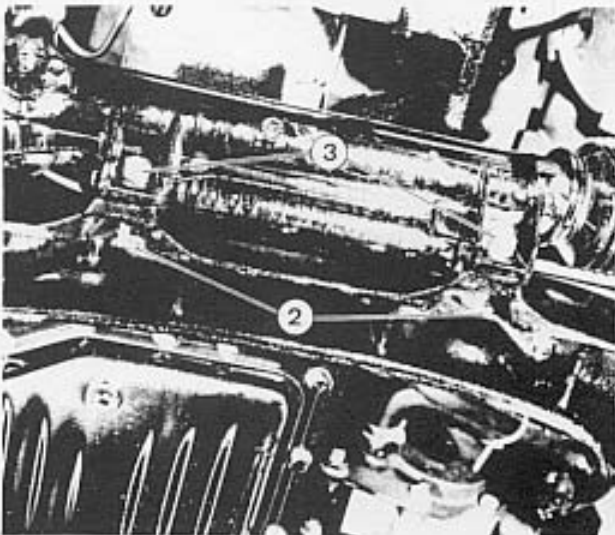
0218

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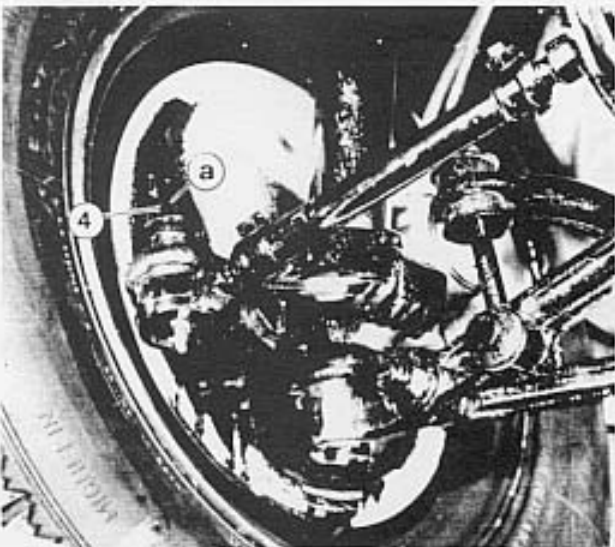
POWER STEERING
HOUSING
REMOVE



- Remove the 2 flexible coupling bolts (1).



- Remove :
- the safety spring clips (2),
- the housing fixing bolts (3).

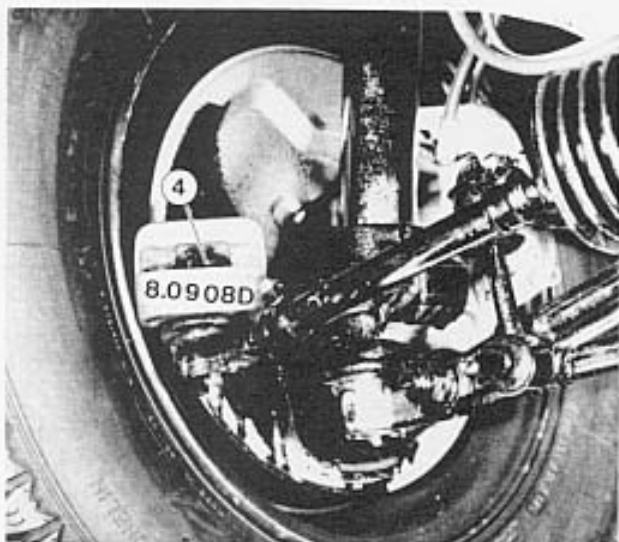


- Slacken screw (4).
- Grease the screw as at (a).

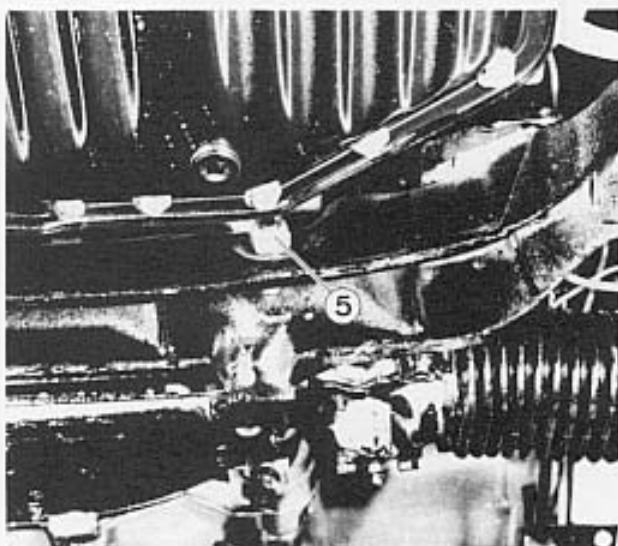
POWER STEERING
HOUSING
REMOVE

7

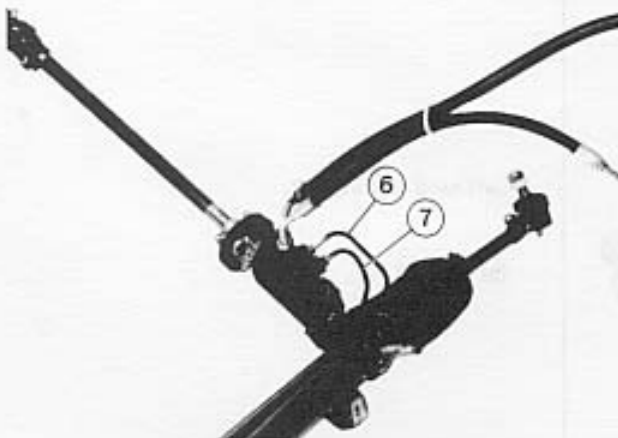
02 19



- Disengage the ball joint stem by unscrewing the nut (4).



- Remove the nut (5) securing the ram to the front cross-member.
- Disengage the housing assembly rearwards.



- Removal and connecting the control valve and the ram is a bench operation.

WARNING

Take care not to distort the pipes (6) and (7).

02 20

7

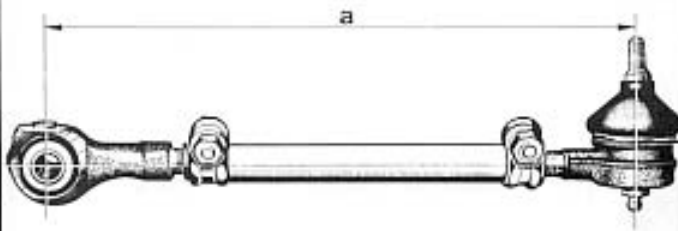
POWER STEERING

REFIT

WARNING

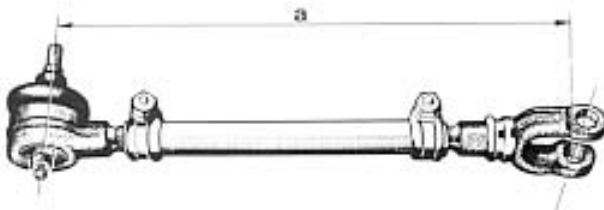
The steering system has two adjustable steering links.

To obtain roughly the correct wheel alignment position before fitting one must adjust the length (a) of the steering links prior to refitting the steering assembly.



– Right hand steering link,

(a) = 278,6 mm.



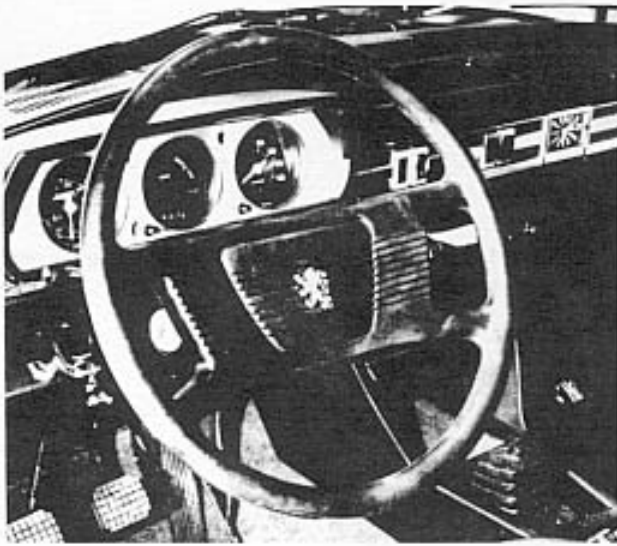
– Left hand steering link,

(b) = 278,6 mm.

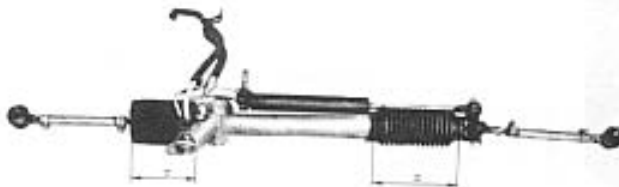
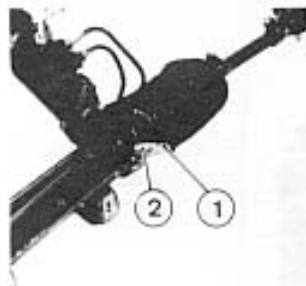
POWER STEERING

REFIT

7 02 21



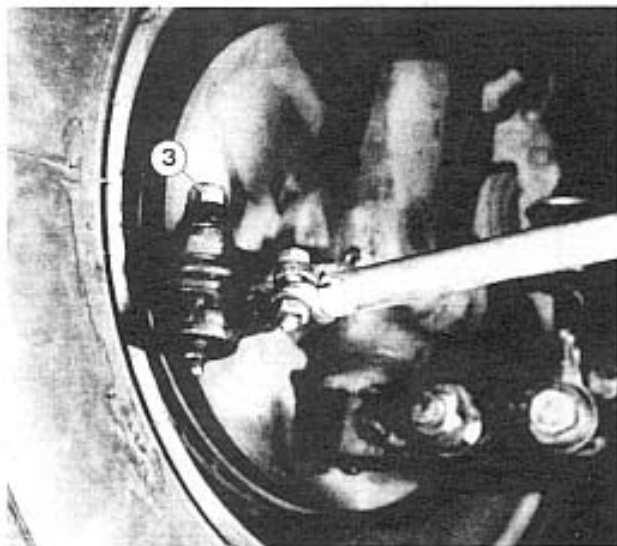
- Place the steering wheel and the front wheels in the straight ahead position.



- Place the steering box in the straight ahead position (the rack should project by an identical amount from either end of the steering box).

WARNING

Pin (1) and spacer (2) should be fitted on the bench.

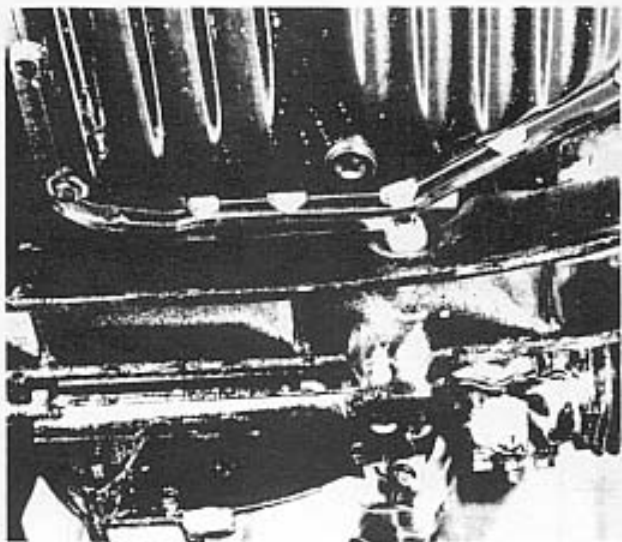


- Insert pin (1) into the cross member.
- Connect up the two steering link ball joints.
- It is essential that new collar nuts (3) should be used.
- Tighten to a torque of 3,75 m.daN (mkg).

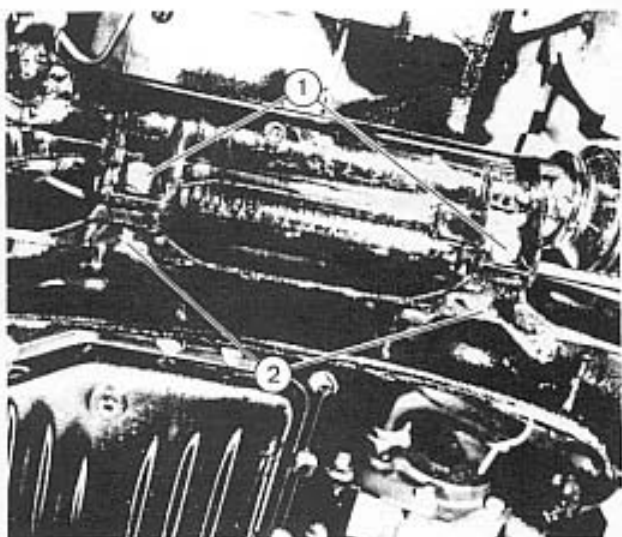
0222

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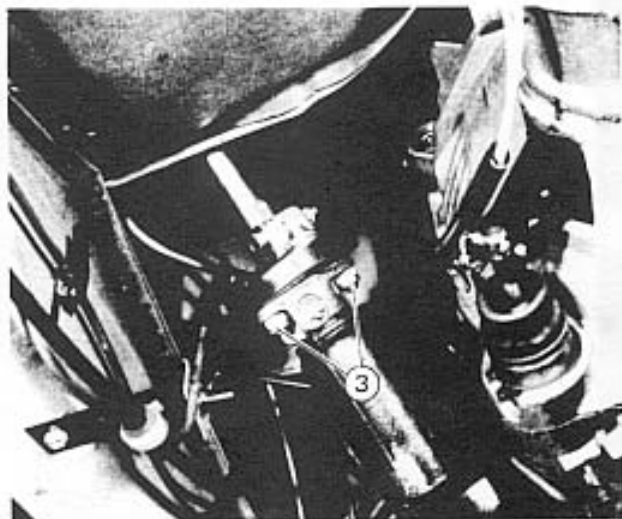
POWER STEERING
HOUSING
REFIT



- Tighten the **new** Nylstop nut for securing the ram to, **5,5 m.daN (m.kg)**.



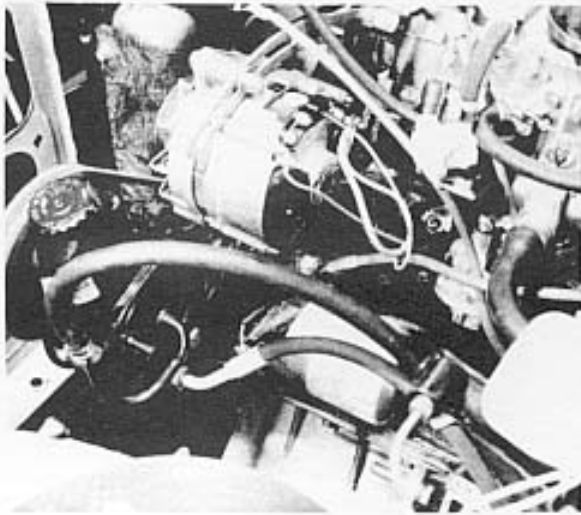
- When putting the housing into position, ensure correct alignment of the steering column with the control valve.
- Fit new "wavy" washers to the housing securing bolts (1), and tighten to **3,25 m.daN (m.kg)**.
- Fit the 2 safety spring clips (2).



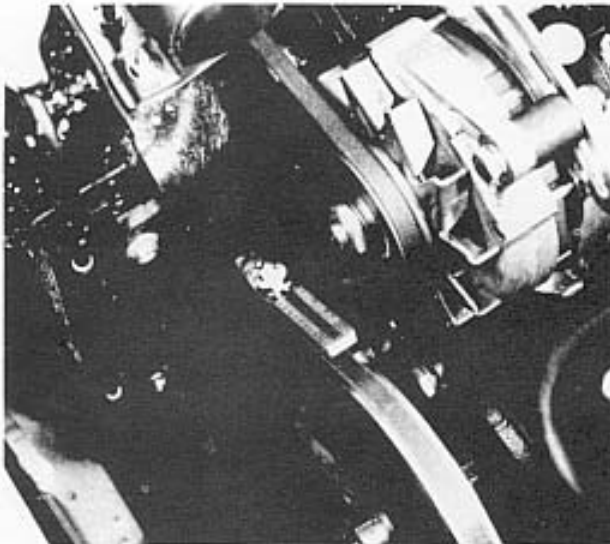
- Fit the flexible coupling connecting bolts.
- Tighten the nuts (3) to **2 m.daN (m.kg)**.

POWER STEERING
HOUSING
REFIT

7 02 23



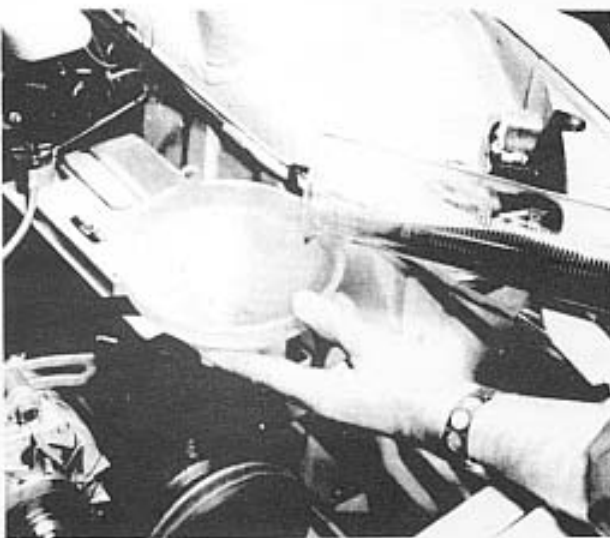
- Connect the LP and HP hoses.



- Check condition and tension of drive belt. Replace as necessary.

Adjustment of tension :

- Make 2 marks 100 mm apart on the untensioned belt.
- Tension the belt until the distance between the 2 marks is :
 - 101,5 mm for a reused belt
(with a tensometer, 35 kg/strand)
 - 102/102,5 mm for a new belt
(with a tensometer, 50 kg/strand)
- Reconnect the battery.



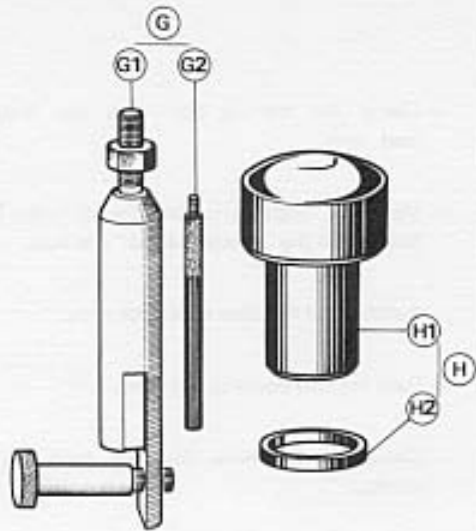
- Refill the hydraulic system.
- Observe the instructions on page 02 13.

CONVENTIONAL STEERING

DISMANTLE

7

0301⁽¹⁾



SPECIAL TOOLING

Steering tool kit

8.0703

G - Dial indicator mounting comprising :

G1 - Dial indicator holder.

G2 - Feeler extension.

H - Tool for refitting the rack pinion bush comprising :

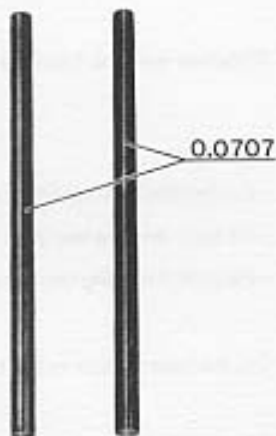
H1 - dolly

H2 - spacer.



8.0704

L - Tool for gaitor collars.



TOOL TO BE MADE

0.0707

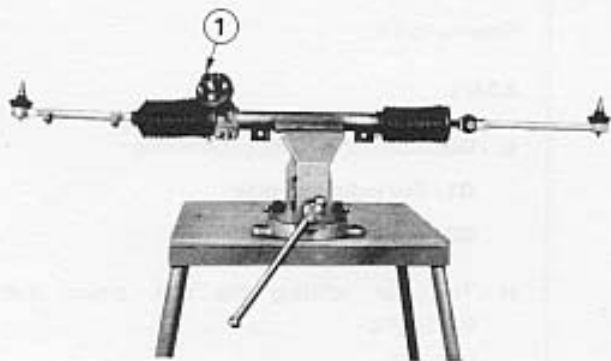
- 2 alignment rods

12 mm Ø x 250 mm long Studs steel.

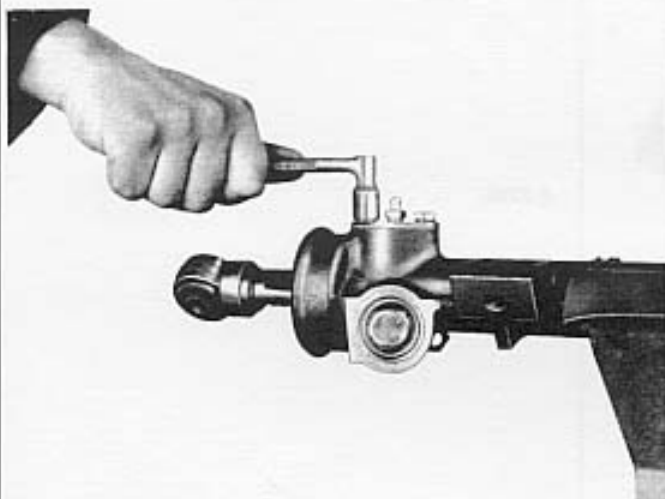
PEUGEOT

CONVENTIONAL STEERING

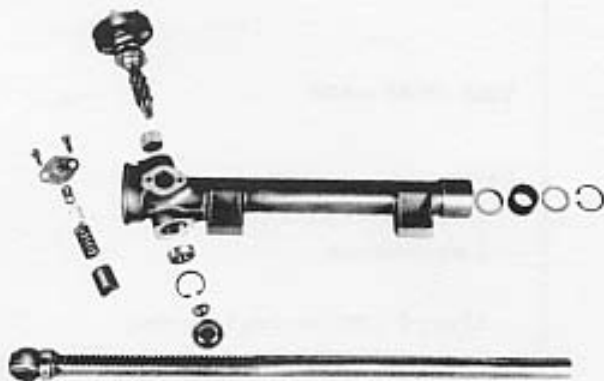
DISMANTLE



- Clamp the steering box in a vice fitted with lead jaws.
- Mark the position of the flexor collar (1) with the rack in the "straight ahead" position.
- Remove the 4 rubber rack boot clips.
- Push the two boots to the right.
- Unlock and remove the two track rod yoke pivots.



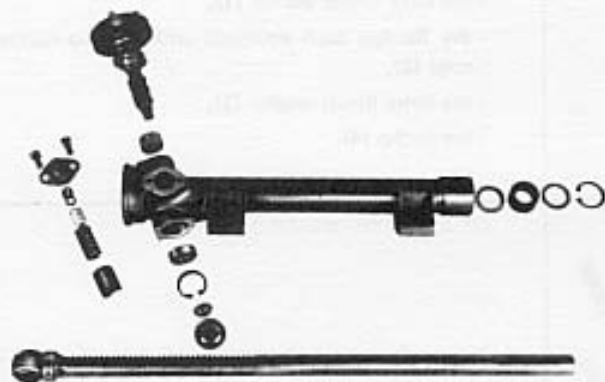
- Remove :
 - the 2 track rods
 - the rack eye on the opposite side to the pinion (clamp the rack directly in the vice, fitted with **aluminium** jaws, to slacken the lock nut).
 - the rack plunger retaining plate, with its grease nipple and nylon stop,
 - the plunger spring,
 - the rack plunger,
 - the bearing sealing cup,
 - the pinion nut,
 - the pinion with its thrust washer and O ring.



- Withdraw the rack from the pinion side.
- Remove :
 - the flexible bush retaining circlips,
 - the bush and the two steel thrust washers,
 - the pinion bearing retaining circlips.
- Dip the steering box in boiling water.
- Recover the bearing.

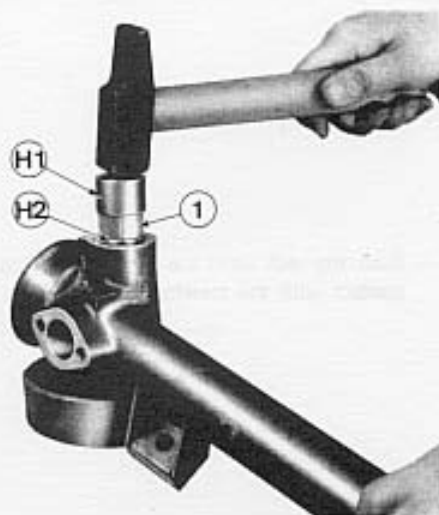
CONVENTIONAL STEERING

RE-ASSEMBLE - ADJUST

7 03 03⁽¹⁾

Preparation

- Clean the steering box and all the mechanical components carefully.
- Check the rack and the pinion (replace if necessary, bearing in mind that the eye on the toothed end is **part of the rack** but the silent-bloc is replaceable : see class 7 page 05 01).
- **Replace if necessary the following parts :**
 - the pinion bearing,
 - the pinion bush,
 - the flexible bush together with its rubber rings,
 - nylon plunger spacer,
 - rack rubber boots and clips.
- **Replace at each dismantling :**
 - the pinion nut,
 - the bearing sealing cup,
 - the Blocfor washers.



Replacing the pinion bush.

- Place on the drift **8.0703 H1** in the following order:
 - a new bush **(1)**
 - the spacer **(H2)**.
- Insert the drift in the old bush and tap the drift until it comes into contact with the steering box.
- Recover from inside the steering box :
 - the used bush
 - the spacer **(H2)**.

PEUGEOT

6-78

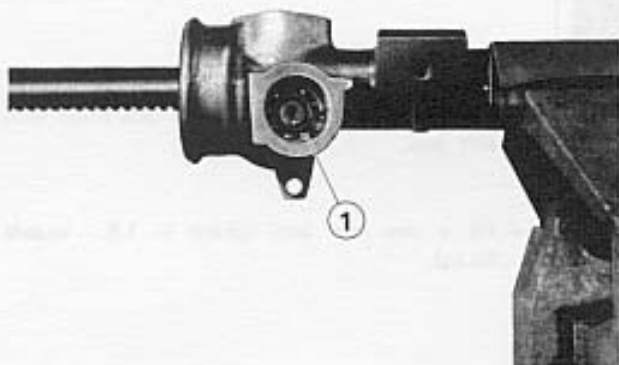
Supersedes pages 03 03 and 03 04 of group 7.

1212 E.

CONVENTIONAL STEERING

RE-ASSEMBLE - ADJUST

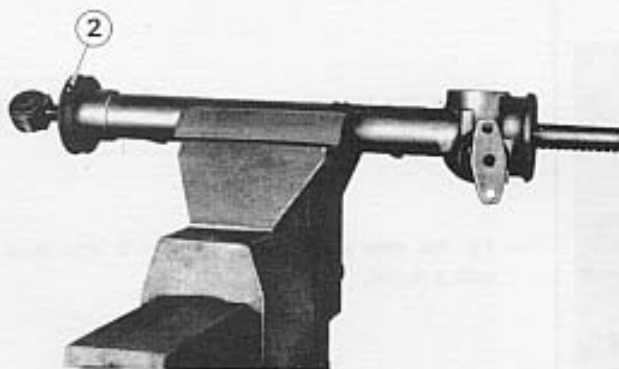
7

03 05⁽¹⁾

- Grease the pinion.
- Place in order in the machined pinion housing
 - the O ring,
 - the thin metal thrust washer.
- Position the pinion in its bore, with the nut locking groove **(1)** facing away from the plunger housing.



- Starting from the vertical position of the pinion flange, rotate it to the left through app 20°.



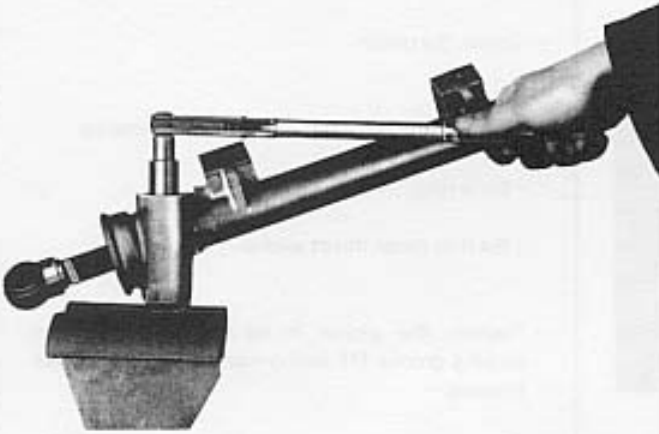
- Push in the pinion until it abuts in the bearing.
- The pinion flange should be vertical, with the lack nut **(2)** still in contact with the extremity of the steering box.

0306⁽¹⁾

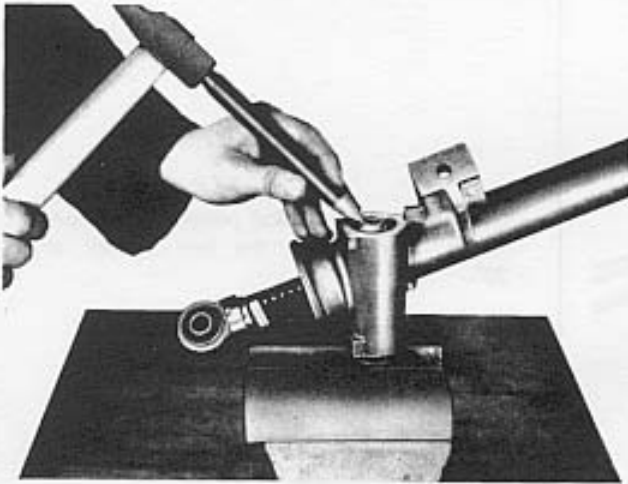
7

CONVENTIONAL STEERING

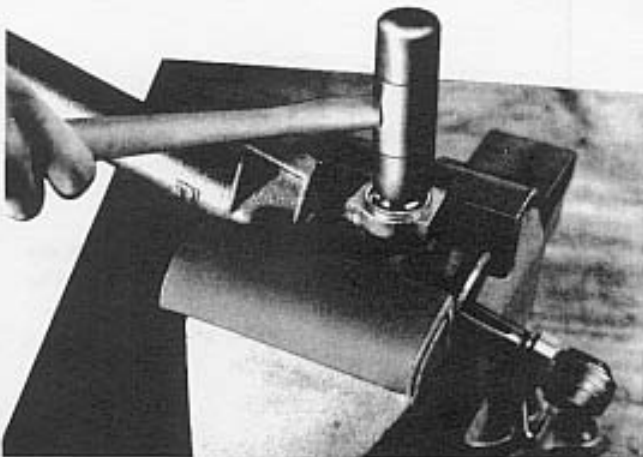
RE-ASSEMBLE - ADJUST



- Clamp the pinion flange in the vice fitted with soft jaws.
- Fit a new nut and tighten to 1,5 m.daN (m.kg).



- Lock the nut by tapping the nut collar into the groove on the pinion.

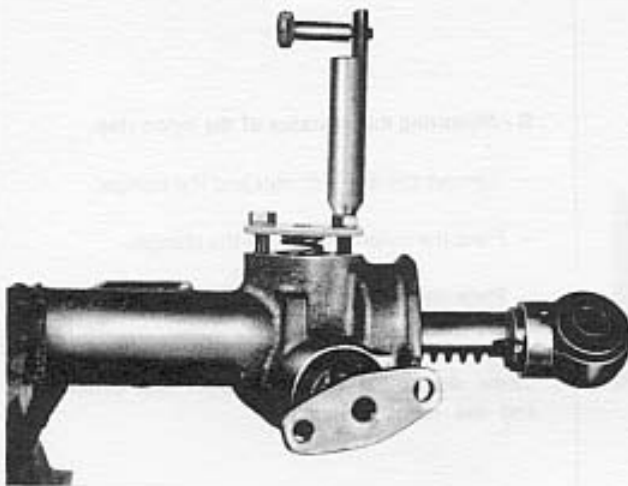


- Grease the bearing housing with ESSO MULTI-PURPOSE GREASE H.
- Fit the new sealing cup, tapping it into place with a mallet.

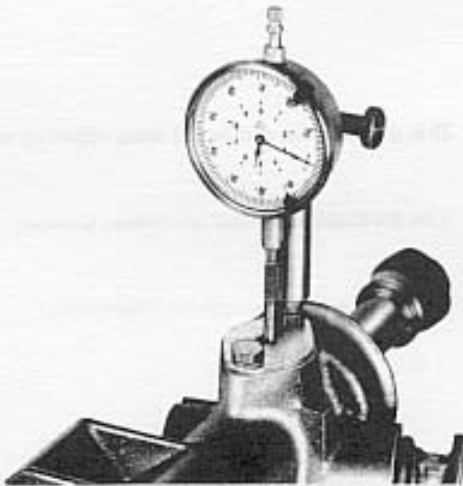
CONVENTIONAL STEERING

RE-ASSEMBLE - ADJUST

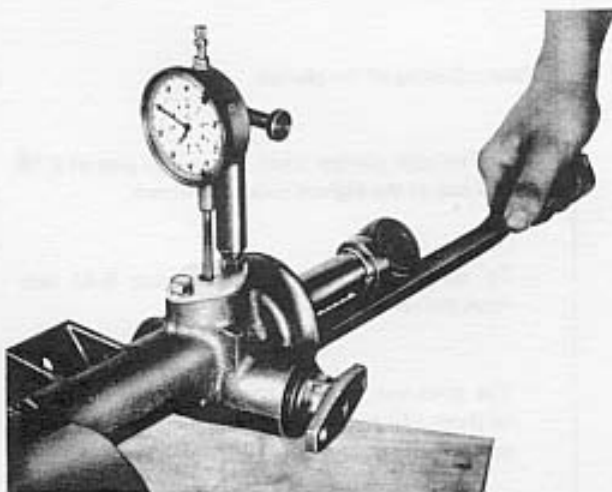
7

03 07⁽¹⁾**A - Measuring the play in the rack plunger.**

- Insert the plunger in its housing.
- Place the spring inside the plunger.
- Mount the thrust plate, **bear**, securing it on one side with 7 mm dia bolt and on the other side with the dial indicator holder **8.0703 G1**.



- Tighten the thrust plate onto the steering box after correctly positioning the dial indicator holder.
- Fit the extension feeler **G2** to the dial indicator and position it in contact with the plunger through the threaded hole in the plate.
- Slide the rack from one side to the other of the steering box using the pinion.
- The hands of the dial indicator will show the high spots in the vertical movement of the rack during its displacement.
- **Mark the highest point indicated by the hand towards the right.**
- Set the dial at Zero at this point and immobilise the rack.



- Using a lever, raise the rack, without forcing it until it abuts.
- Check the degree of movement registered on the dial indicator and **note the value for be time being.**

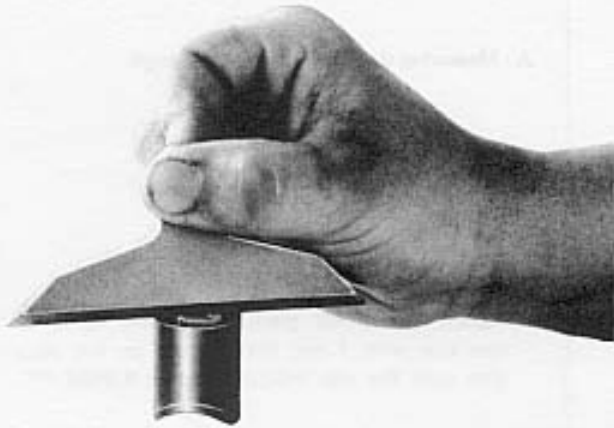
PEUGEOT

0308⁽¹⁾

7

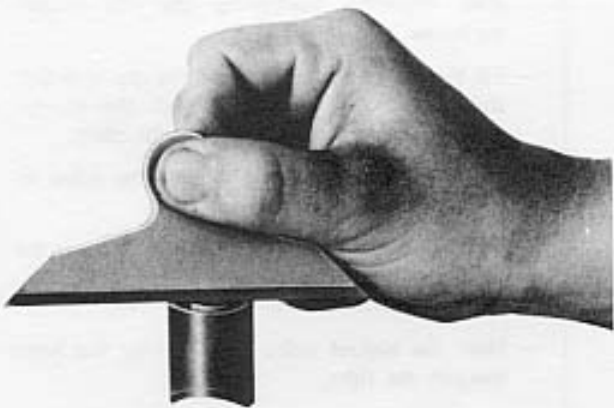
CONVENTIONAL STEERING

RE-ASSEMBLE - ADJUST

**B - Measuring the clearance of the nylon stop.**

- Remove the dial indicator and the plunger.
- Place the nylon stop inside the plunger.
- Place on this a flat rule (or square).

There should be a gap between the nylon stop and the rule.

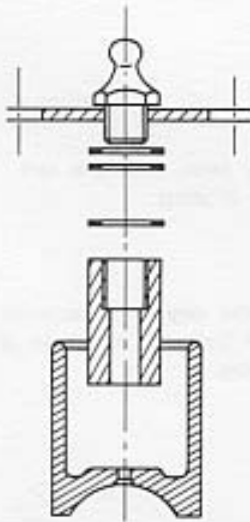


This gap must be eliminated using adjusting washers.

(Use the smallest number of washers possible).

These washers are available in 3 thicknesses :

0,10 - 0,20 - 0,50 mm.

**Final adjusting of the plunger.**

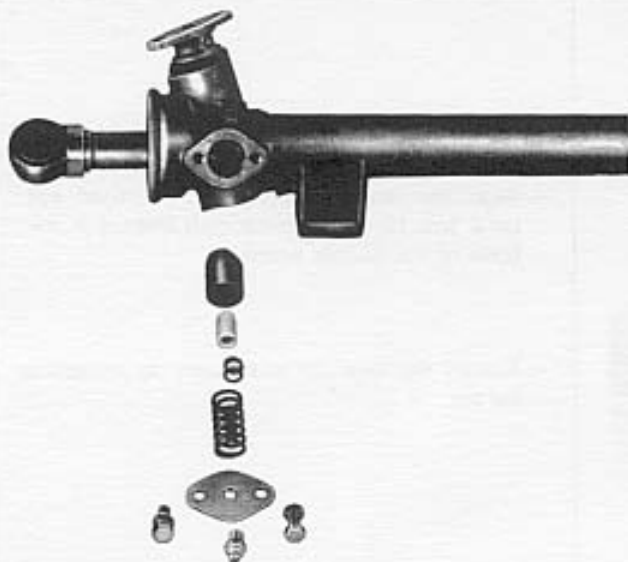
The rack plunger must have a free play of $0,10 \pm 0,05$ mm at the highest point of the rack.

- To obtain this free play, **subtract 0,10 mm** from the value previously obtained.
- The thickness of shims required should be added to those which are used to eliminate the clearance between the plunger and the nylon stop.

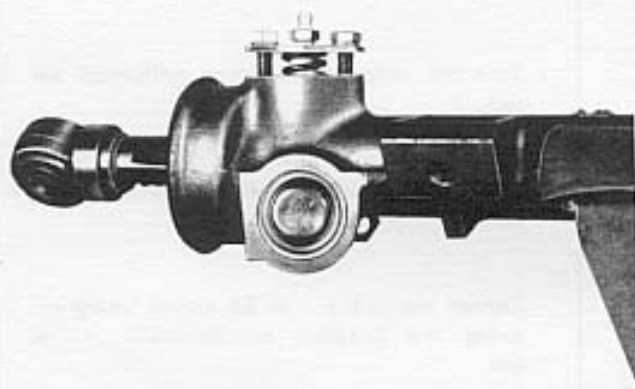
CONVENTIONAL STEERING

RE-ASSEMBLE - ADJUST

7

03 09⁽¹⁾

- Assemble on the thrust plate in the following order :
 - the grease nipple tightened to **1 m.daN (m.kg)**.
 - the shims determined during the previous operation.
 - the nylon stop.
- Place the plunger and spring in its housing in the steering box.



- Secure the thrust plate assembly using the two 7 mm dia bolts equipped with new Blocfor washers.
- Tighten the 2 bolts to **1 m.daN (m.kg)**.
- Grease the plunger with ESSO MULTIPURPOSE GREASE H.

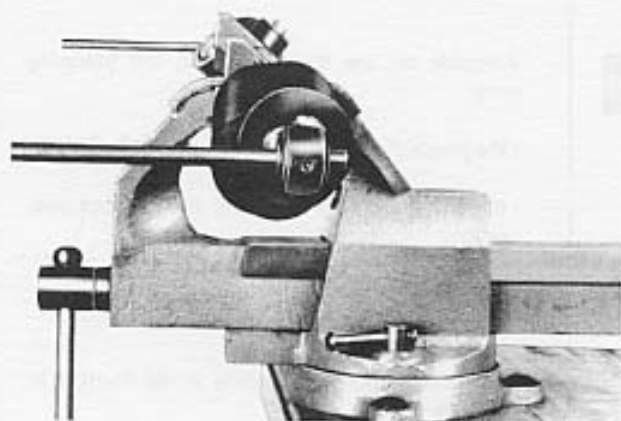


- Remove the eye from the rack on the opposite end to the pinion.
- Fit the rack rubber boot.
- Refit and adjust the rack eye (20 to 21 mm between the lock nut and the shoulder of the eye).

PEUGEOT

CONVENTIONAL STEERING

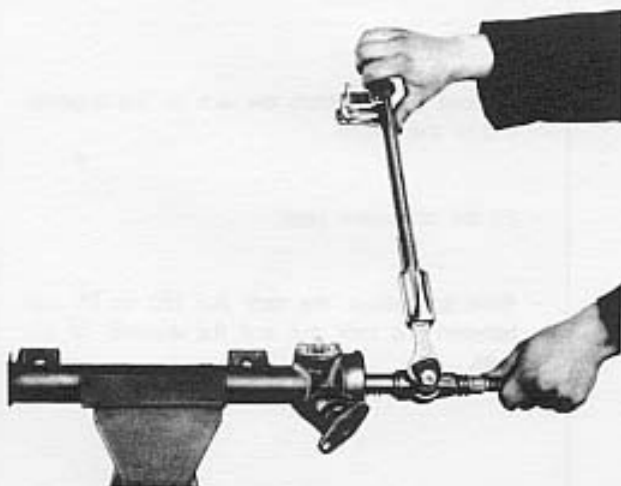
RE-ASSEMBLE - ADJUST



- Align the moveable eye with the fixed eye using two 12 mm diameter rods inserted in the bores of the flexible bushes.
- Tighten the lock nut moderately to immobilise the eye.



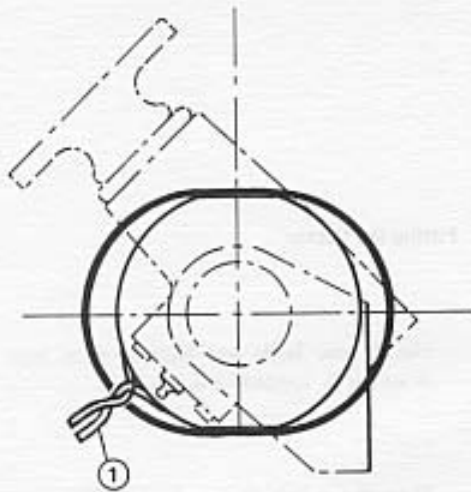
- Turn the pinion to disengage sufficiently the rack.
- Clamp the rack in a vice fitted with aluminium jaws.
- Tighten the lock nut to **3,5 m.daN (m.kg)** ensuring the complete immobilisation of the eye.



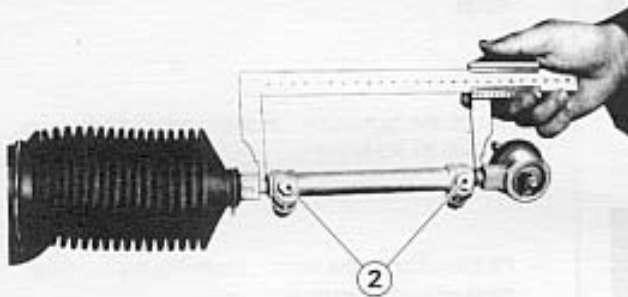
- Position the yoke of the track rod on the pinion side of the rack.
- Place the track rod in line with the track, the head of the bolt on the same side as the pinion flange.
- Use a new tab washer.
- Tighten the bolt to **4,5 m.daN (m.kg)**.
- Bend the tab washer up around the bolt head.

CONVENTIONAL STEERING

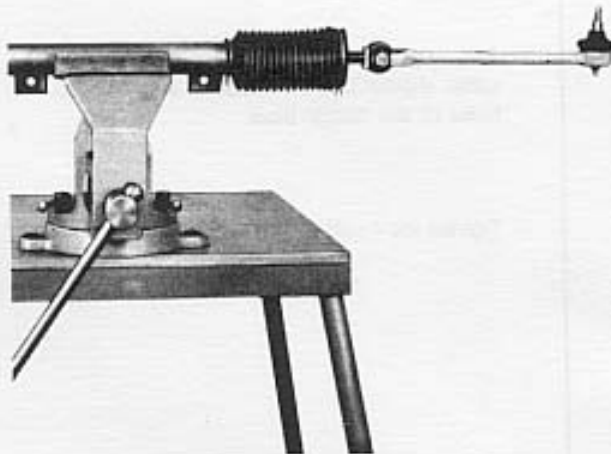
RE-ASSEMBLE - ADJUST

7 03 11⁽¹⁾

- Fit the rack gaitor as shown opposite.
- The tightening prongs (1) of the gaitor clips positioned at the lower rear part of the housing.
- Use the fitting tool, 8.0704 L.

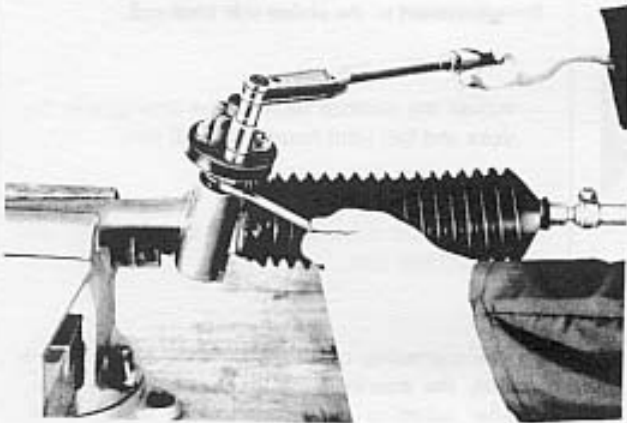
**Pre-adjustment of the pinion side track rod.**

- Adjust the distance between the shoulders of the yoke and ball joint housing to 180 mm.
- Equalise the distance between the shoulders and the adjuster rod.
- The tightening of the two bolts 2 is effected with the steering gear in position on the car, after adjusting the toe in of the front wheels.



- Fit the rack boot on the opposite end to the pinion, following the above mentioned instructions.
- Fit the one piece track rod to the rack,
- Position the track rod in line, with the rack.
- Fit a new tab lock.
- Tighten the bolt to 4,5 m.daN (m.kg).
- Bend the tab up around the bolt head.

PEUGEOT



Fitting the flector

- Use 4 new bolts and Nylstop nuts, bolt heads downwards towards the housing.
- Place the metal discs each side of the flector in such a way as the axis of the holes form a cross.
- Secure the flector in this position to the pinion flange.
- Centre the rack in the "straight ahead" position in relation to the housing.
- Fit the collar to the flector, observing the markings made when dismantling.
- In the "straight ahead" position, the bolt hole for flector to column should be parallel to the rack.
- The abutting faces of the pinion flange and flector collar should be in contact as seen through the holes in the flector discs.
- Tighten the 4 nuts to **2 m.daN (m.kg)**.

POWER STEERING
STEERING BOX
OVERHAUL

7

0351



SPECIAL TOOLING

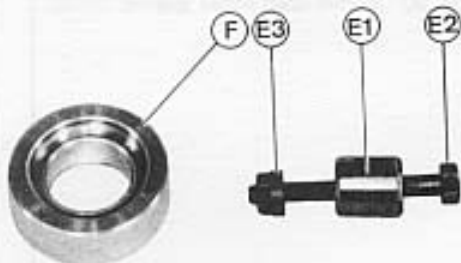
8.0706

New tooling



A - Vice clamping stud.

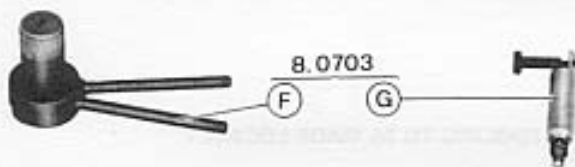
B - Rack guide bush.



E - Ram eye end rubber bush extractor, comprising:
E1 - body,
E2 - screw,
E3 - nut.

F - Bearing fitting support.

G - Rack pinion bearing fitting drift.

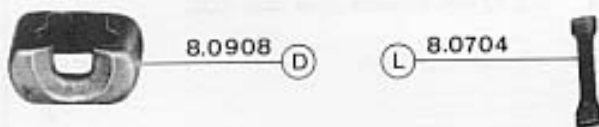


EXISTING TOOLING that may be placed in the new case 8.0706.

8.0703

F - Steering link ball joint snap ring fitting tool.

G - Dial indicator mount.

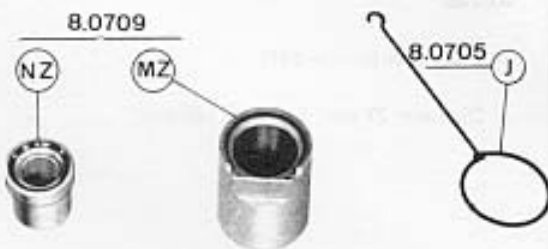


8.0704 L

Bellows ring end fitting.

8.0705 J

Bellows ring fitting hook.



8.0907

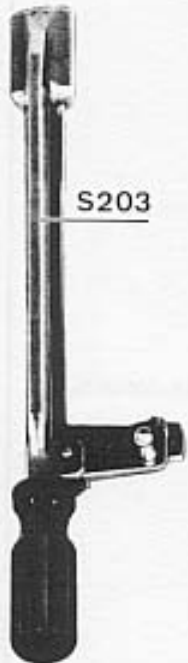
MZ - Pad for fitting and removing the rack and right hand steering link eye ends.

NZ - Drift.

8.0908 D

Steering link ball joint extractor.

POWER STEERING
STEERING BOX
OVERHAUL



ref.20.36



SJ214

OFFICIALLY APPROVED TOOLING

- Facom S 203 torque wrench.
- Facom SJ 214 extension.
- Facom Ref. 20 - 36 mm open ended spanner fitting



0.0707



0.0708



TOOLING TO BE MADE LOCALLY

0.0707

- 2 12 mm diameter silver steel rods.
- Length : 250 mm.

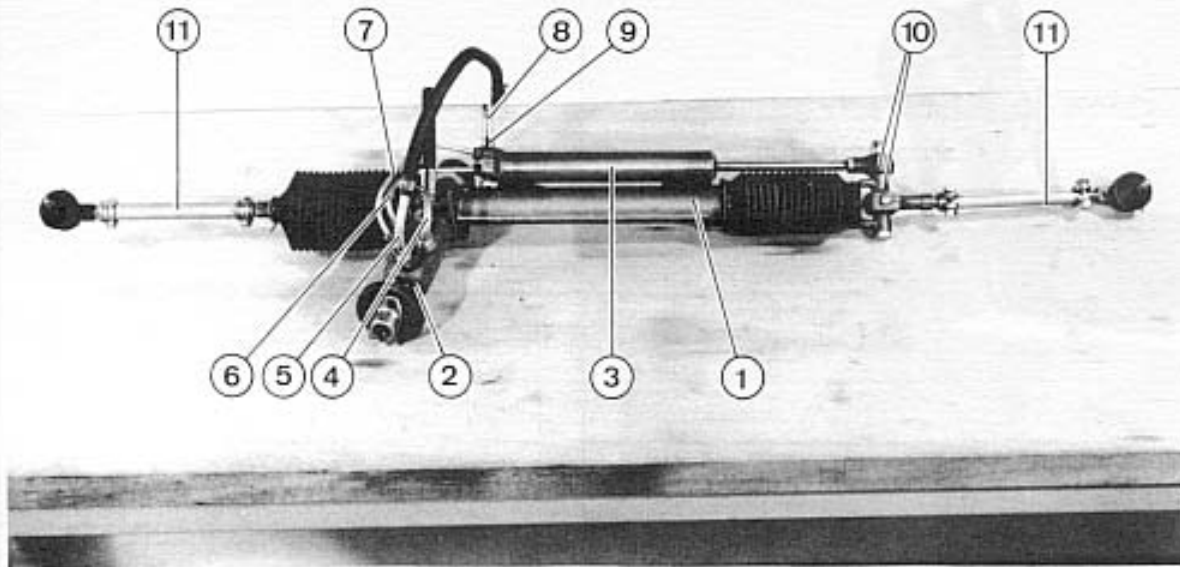
0.0708

- 1 Dural or bronze drift.
- Diameter 27 mm. Length : 140 mm.

POWER STEERING
STEERING BOX
OVERHAUL

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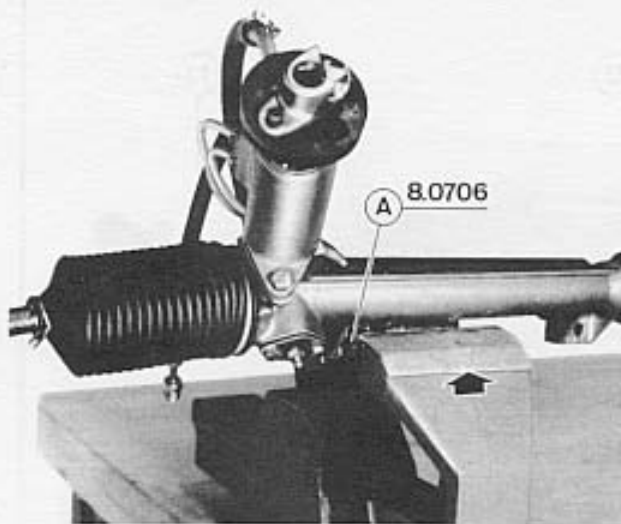


- 1 - Steering box.
- 2 - Power assisted steering control valve.
- 3 - Power assisted steering arm.
- 4 - "HIGH PRESSURE" feed union.
- 5 - "LOW PRESSURE" return union.
- 6 - "Right hand lock" jack feed.
- 7 - "Left hand lock" jack feed.
- 8 - Ram fixed end pivot pin.
- 9 - Spacer.
- 10 - Ram to rack attachment point.
- 11 - Steering links.

IMPORTANT

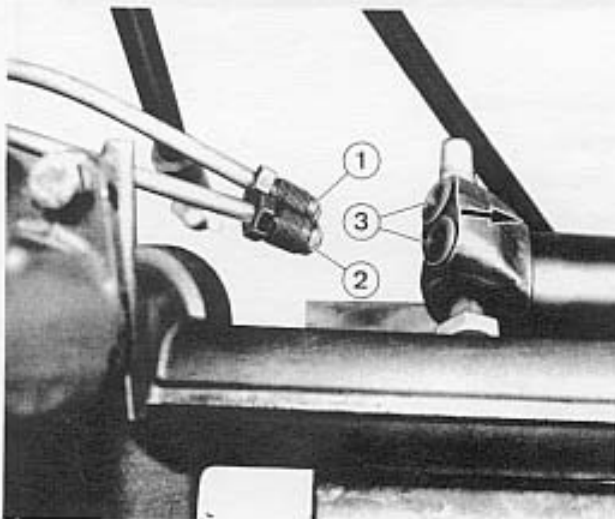
- Plug all the hydraulic system ports to prevent the ingress of dirt.
- The control valve (2) is a high precision mechanism which should be treated with the greatest care.
- Under no circumstances is this valve to be dismantled, subjected to shock or twisted in any way when separated from the steering box assembly.
- Carefully clean the entire assembly before carrying out any work on it.
- Never twist connections (6) and (7).
- Never apply excessive force when screwing the connecting unions into the valve body or the ram. They are to be screwed down by hand as far as possible. Only use the spanner for the final tightening operation.

POWER STEERING

STEERING BOX
OVERHAUL

DISMANTLING

- Grip the assembly in the vice as shown here,

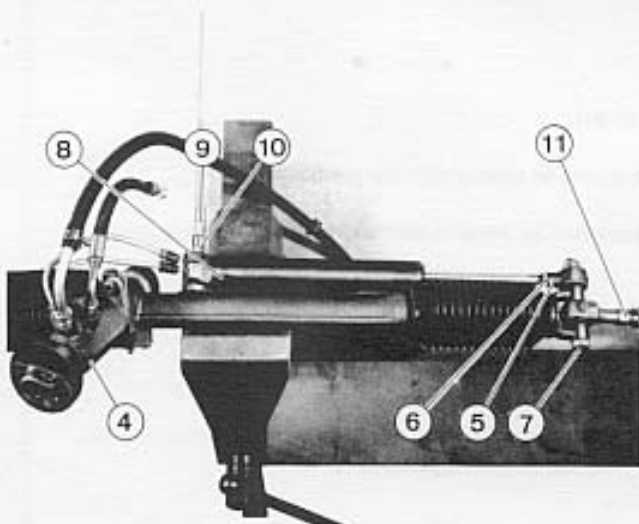


- Remove the ram feed unions :

- 1 - the "left hand lock" union,
- 2 - the "right hand lock" union.

Take care not to twist them.

- Screw plugs into the jack ports (3).



IMPORTANT

- If the control valve (4) is to be reused, do not disconnect the four unions.

- the length of the ram rod determines the total steering travel. The eye end (5) is finally adjusted at the factory before the ram is assembled.

Never loosen the lock nut (6).

- Remove the connecting pin (7).

- Take off :

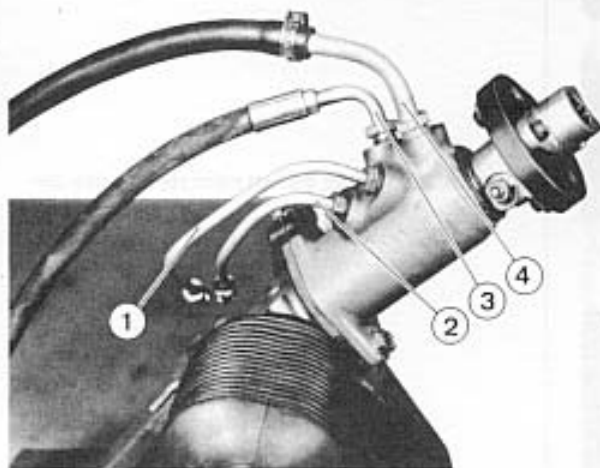
- the ram (8), its securing pin (9) and spacer (10),

- the right hand steering link (11).

POWER STEERING
STEERING BOX
OVERHAUL

7

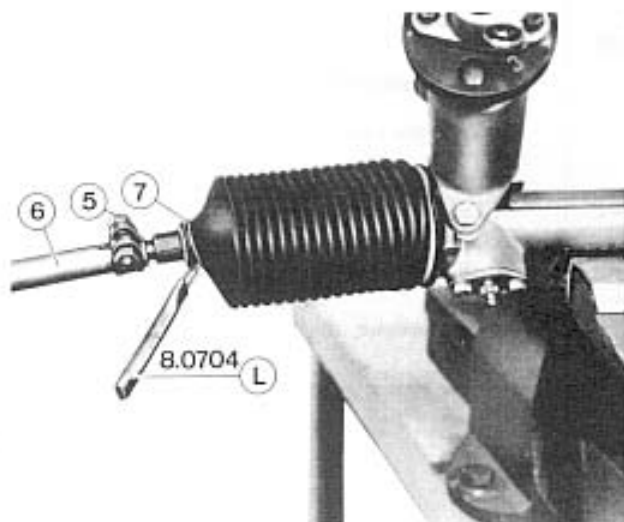
03 55



If it is necessary replace the control valve, remove the unions :

- (1) "left hand lock" feed
- (2) "right hand lock" feed
- (3) "high pressure" input
- (4) "low pressure" return

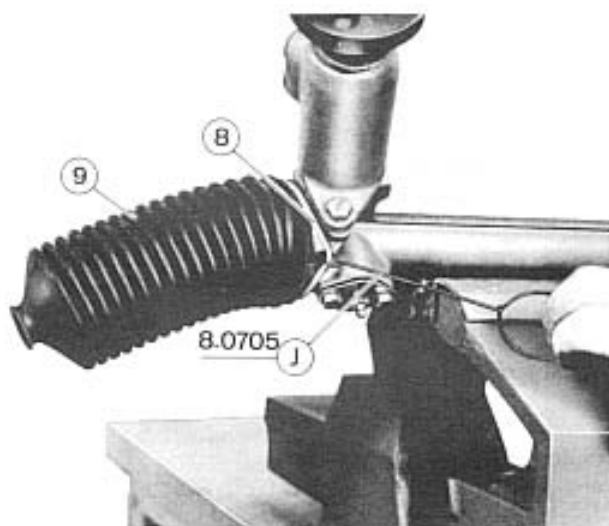
— Place plugs in the valve ports



— Unscrew the bolt (5)

— Remove :

- the left hand track arm (6) (it has a left hand thread)
- the ring (7)

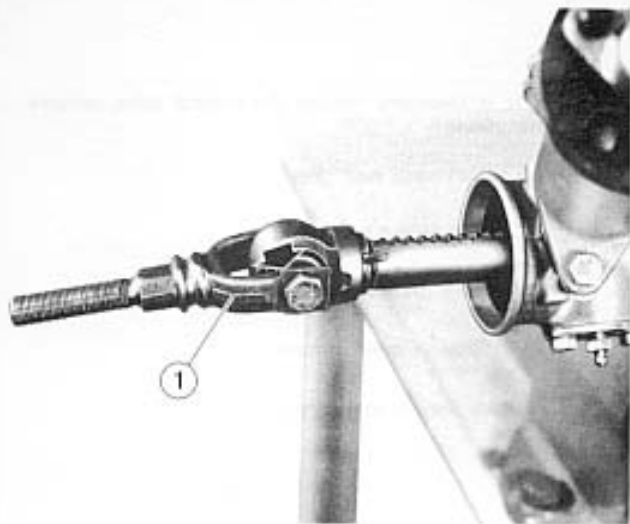


— Free the elastic ring (8)

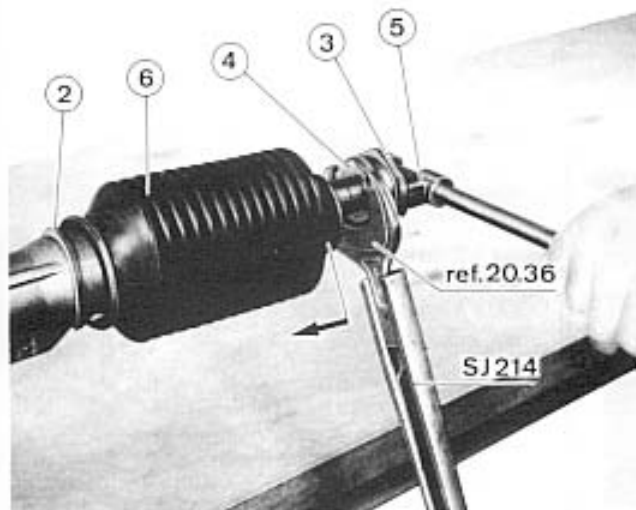
— Remove the left hand bellows (9)

PEUGEOT

POWER STEERING
STEERING BOX
OVERHAUL



Unlock and remove the left hand steering link clevis (1)



- Free the elastic rings (2) and (3)
- Loosen the lock nut (4)
- Remove :
 - . the connecting clevis (5)
 - . the lock nut (4)
 - . the bellows (6)
 - . the elastic rings (2) and (3)

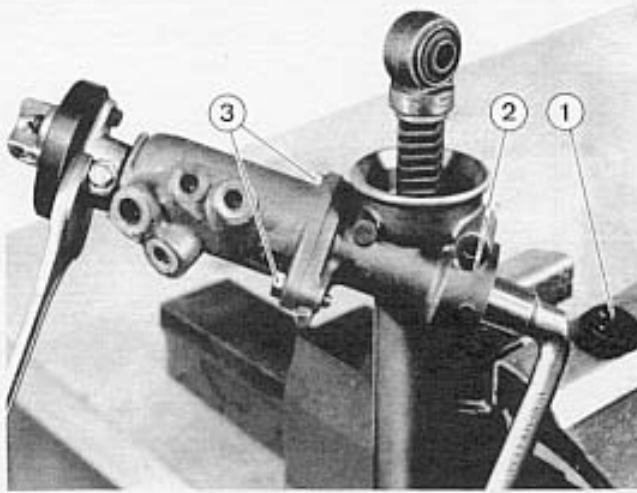


- Grip the steering box as shown in the illustration
- Remove :
 - . the flange (7) with the grease nipple and the nylon stop
 - . the spring (8)
 - . the plunger (9)

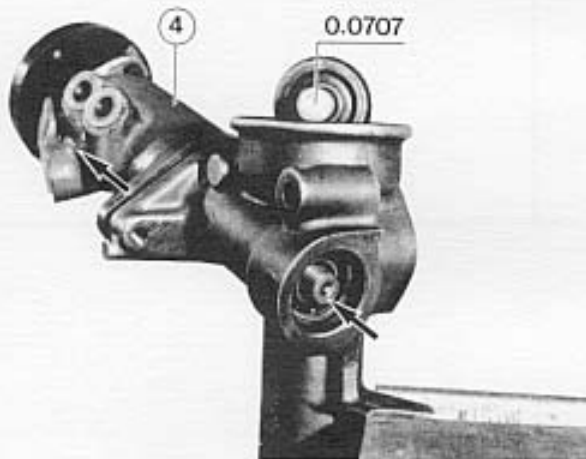
POWER STEERING
STEERING BOX
OVERHAUL

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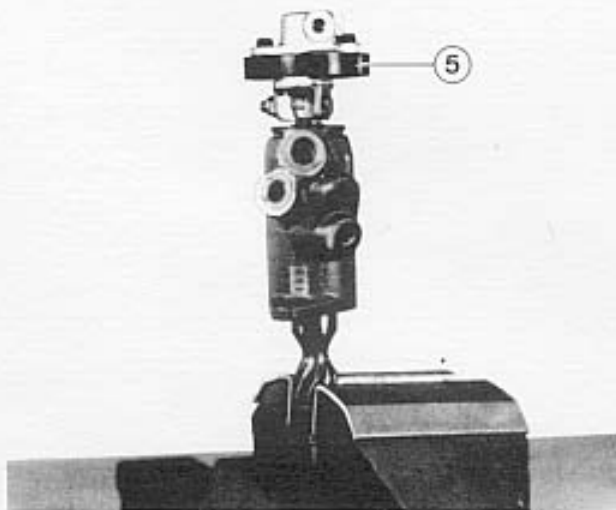
03 57



- Remove the bearing cover (1)
- Grip the flexible coupling lower flange (with a 30 mm spanner)
- Remove :
 - the steering pinion retaining nut (2)
 - the valve securing bolts (3)



- Hold the rack with the pin.
 - Carefully remove the power assisted steering valve (4)
- (if necessary, lightly tap, alternately, on the pinion end and the valve union bosses with a mallet)

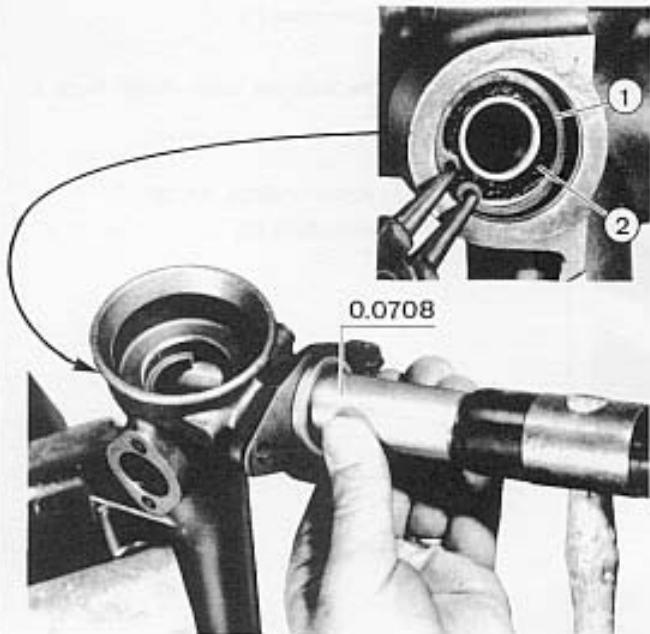


- The control valve forms, together with the Rack pinion, a single, inseparable assembly
- Should any of the parts be defective, the whole assembly should be replaced.
- The flexible coupling (5) can be replaced separately as long as the pinion is :
 - mounted in the steering box (and secured by its nut)
 - or gripped in the vice.

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7

POWER STEERING
STEERING BOX
OVERHAUL



— Remove :

- the rack
- the circlip (1)
- the bearing (2)

WARNING

The bearing must be replaced by a new one each time it is removed.

POWER STEERING
STEERING BOX
OVERHAUL

7

0361

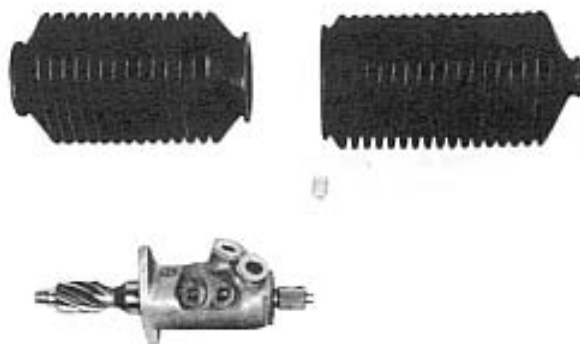


PREPARATION

- Carefully clean all the parts
- Check the rack :
 - . the eye and (1) cannot be removed
 - . replace the silentbloc (2), if necessary (see following page)



- Systematically replace
 - . the pinion bearing (if it has been removed)
 - . the nylostop nuts
 - . the cover cup
 - . the elastic rings
 - . the blocfor washers
 - . the sheet steel locking plate



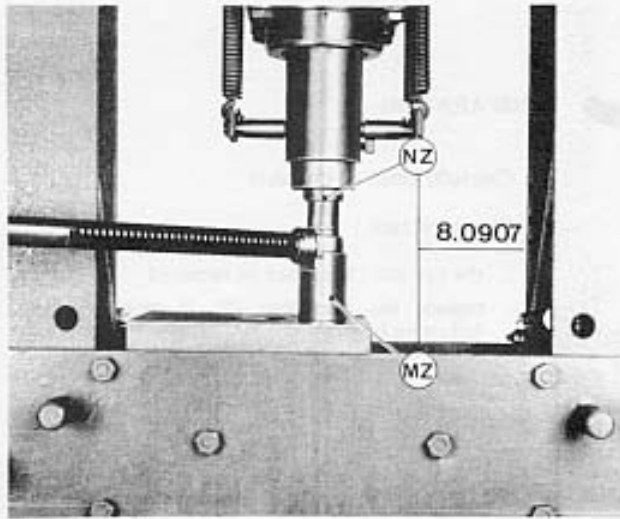
- Replace, if necessary :
 - . the control valve and the pinion (note that this forms a single non-dismantleable assembly)
 - . the nylon plunger spacer
 - . the protective bellows.

PEUGEOT

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7

POWER STEERING
STEERING BOX
OVERHAUL

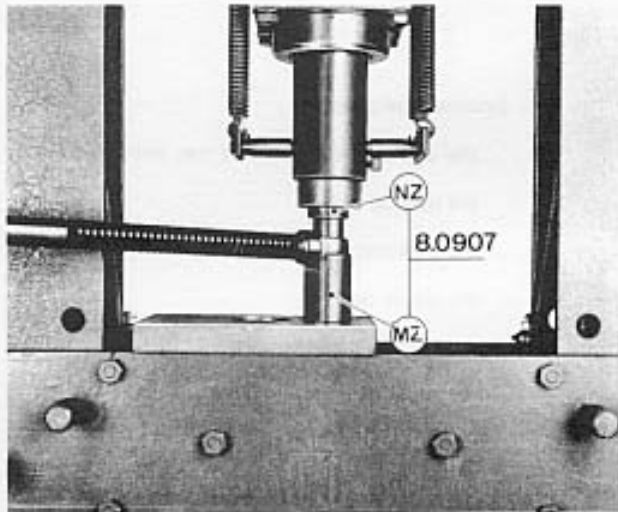


Replacing the silentbloc bushes.

- In the rack
- This operation can be carried out on the dismantled component or when it is fitted to the steering box assembly

Removing

- Prepare the assembly as shown in this illustration, on the press table
- press the bush out with drift (NZ) with its smallest diameter against the bush



Refitting

- Lubricate all the parts :
 - . the bore in the eye end
 - . the outer wall of the bush
- Form exactly the same assembly on the press table that was used for removing the bush

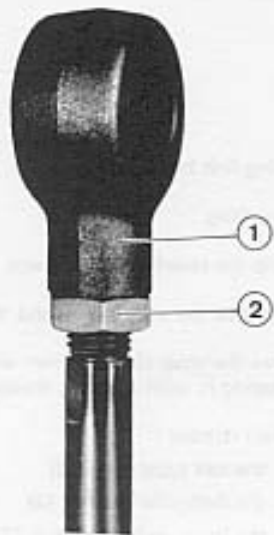


- Press down the flexible bush until it projects by an equal amount on either side of the eye end.

POWER STEERING
STEERING BOX
OVERHAUL

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0363

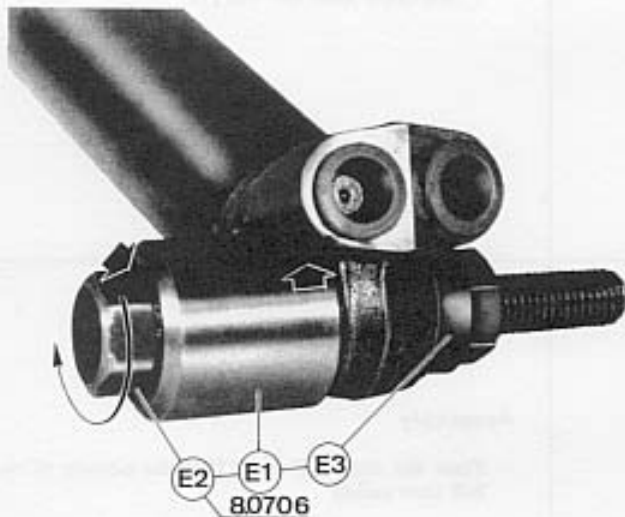


– Power steering ram

– Reminder :

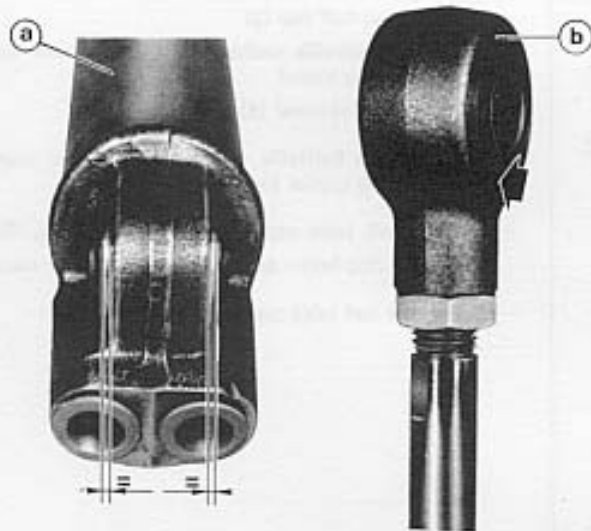
- the jack is a single swaged assembly that cannot be dismantled
- the length of the ram piston determines the total steering travel. The eye end (1) is finally adjusted at the factory before the ram is assembled.

Never slacken the lock nut (2)



Removing

- Set up the tooling as shown in this illustration
- Lubricate the bolt (E2) (especially under its head)



Refitting

a) at the ram head :

- push in the flexible bush so that it projects by equal amounts on either side

b) at the piston rod end :

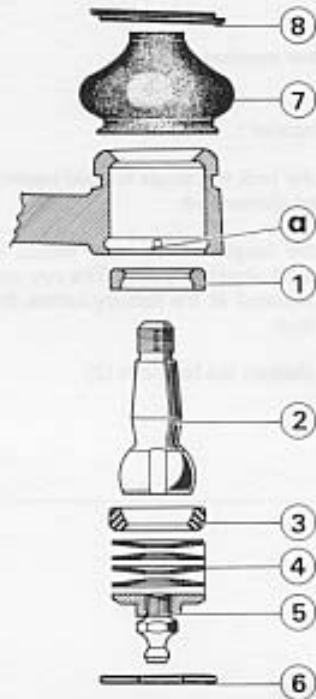
- push in the silentblo bush until it is flush with the edge.

PEUGEOT

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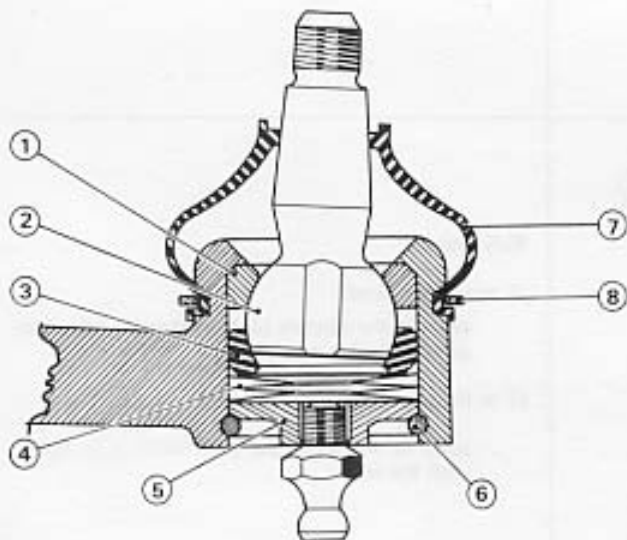
POWER STEERING
STEERING BOX
OVERHAUL



Steering link ball joints

Dismantling

- Grip the steering link in a vice
- Remove the snap-ring 8 and the ball joint cap (7)
- Free the snap ring (6) from the ball joint cover by tapping it, with a punch, through hole (a)
- Then remove :
 - . the ball joint cover (5)
 - . the Belleville washers (4)
 - . the lower nylon half cup (3)
 - . the ball joint shank (2)
 - . the upper steel half cup (1)



Reassembly

- Place the steel half cup (1) in the bottom of the ball joint casing
- Fit :
 - . the ball joint shank (2)
 - . the nylon half cup (3)
 - . 4 new Belleville washers (4), fitting them the correct way round
 - . the ball joint cover (5)
- Compress the Belleville washers and fit a new snap ring (6) using special tool F.
- Fit the ball joint cap (7) and its snap ring (8) (the snap ring horns are to face towards the rear)
- Grease the ball joint casing.

POWER STEERING
STEERING BOX
OVERHAUL

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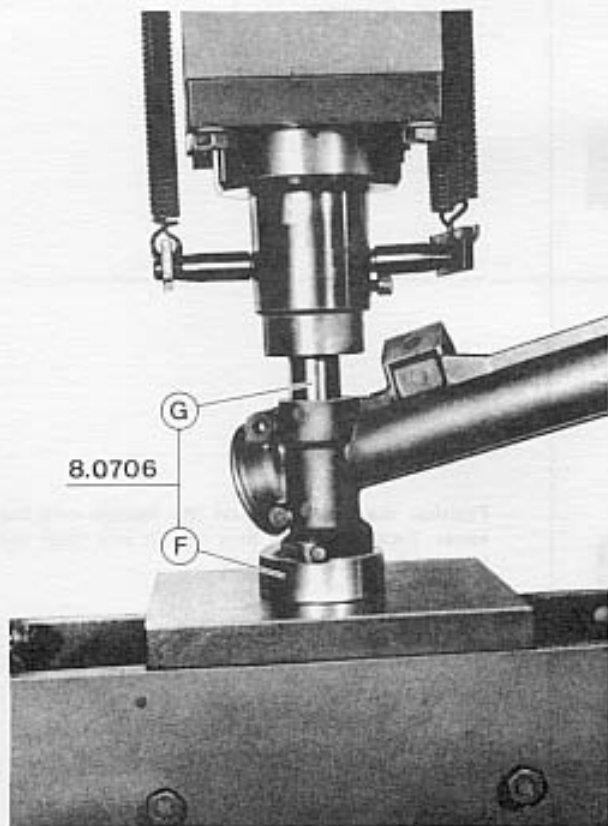


REASSEMBLY

Pinion-bearing assembly

IMPORTANT

- Do not degrease the new bearing
- Ensure that the bearing (1) is a good push fit on the pinion spigot
- If necessary, rub down the spigot, lightly, with emery cloth and then carefully clean the pinion
- Ensure that the new nut (2) screws down easily.



- Lubricate the bearing bore in the housing.
- Copiously grease the bearing with ESSO MULTI-PURPOSE GREASE H.
- Press in the bearing, on the press, using the tools shown here

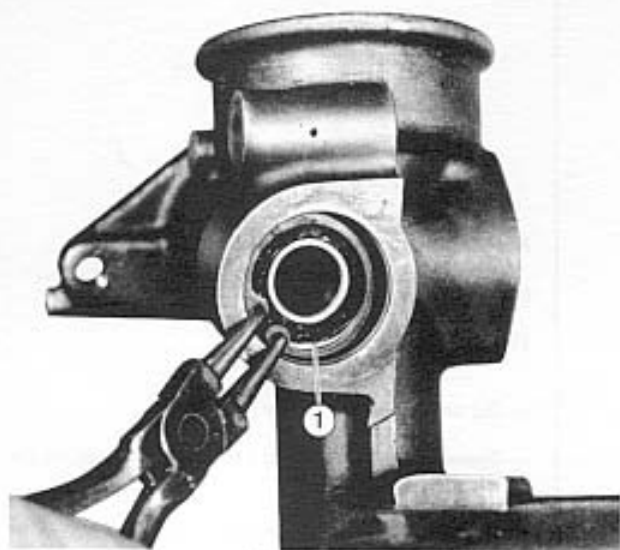
Do not exceed a load of 2 metric tons when the bearing bottoms.

PEUGEOT

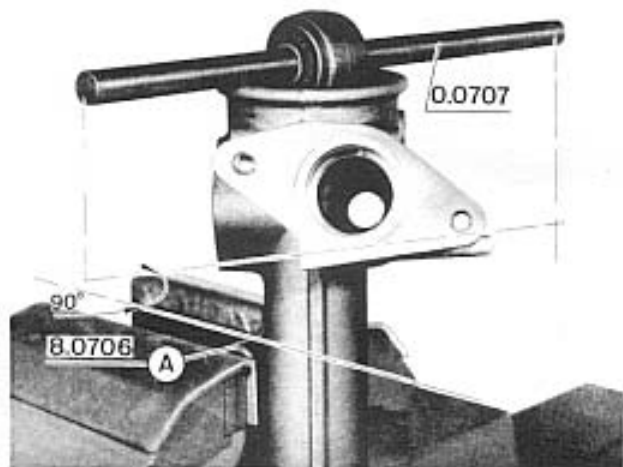
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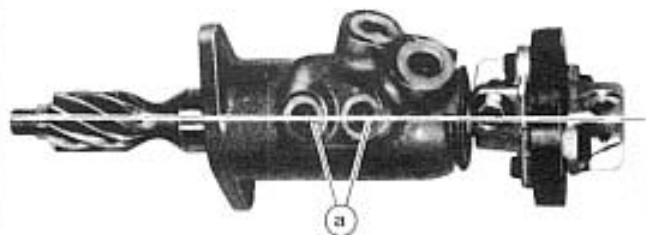
POWER STEERING
STEERING BOX
OVERHAUL



- Fit circlip (1)
- Coat the following with ESSO MULTIPURPOSE GREASE H :
 - . the rack
 - . the pinion
 - . the pinion plunger



- Grip the housing in the vice as shown here.
- Hold the rack with the aid of a rod
 - . rack teeth towards the pinion housing,

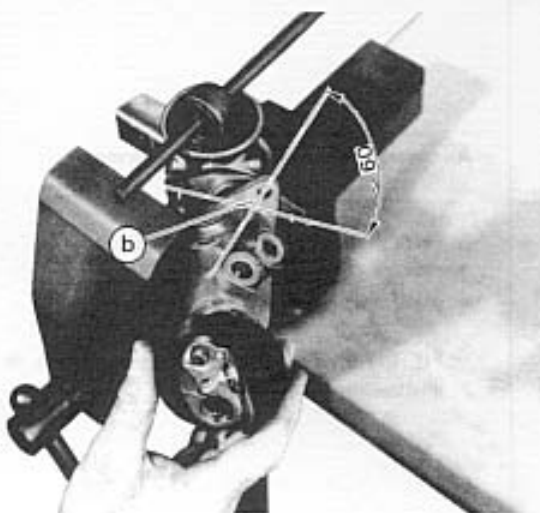


- Position the bolt heads on the flexible coupling lower flange so that they are in line with the bosses (a) on the valve body.

POWER STEERING
STEERING BOX
OVERHAUL

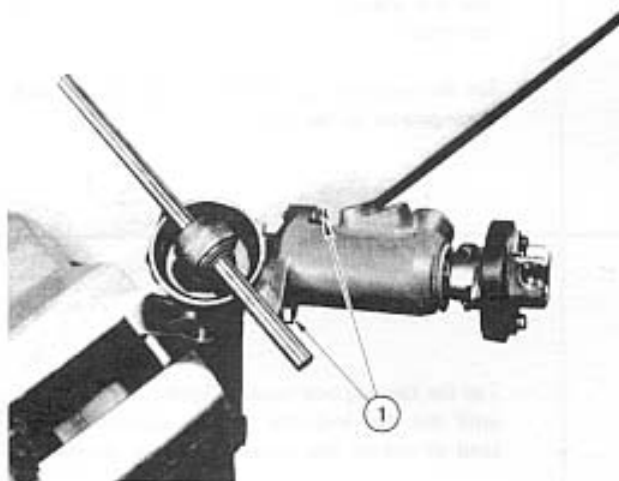
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0367



– Place the valve in its location.

flange (b) is to be offset by 60° in an anti-clockwise direction



– Insert the pinion by turning the assembly clockwise.

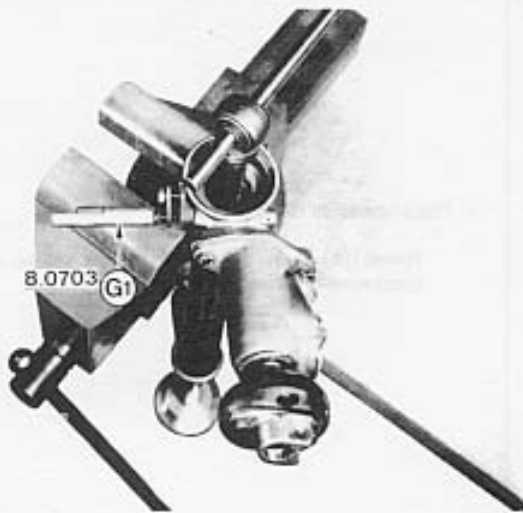
– When it is fully engaged :

- the flanges on the valve and on the steering box housing should be in line with one another.
- the valve flexible coupling flange should be correctly positioned.

– Tighten the bolts (1) to a torque of 1,75 m.daN (m.kg).

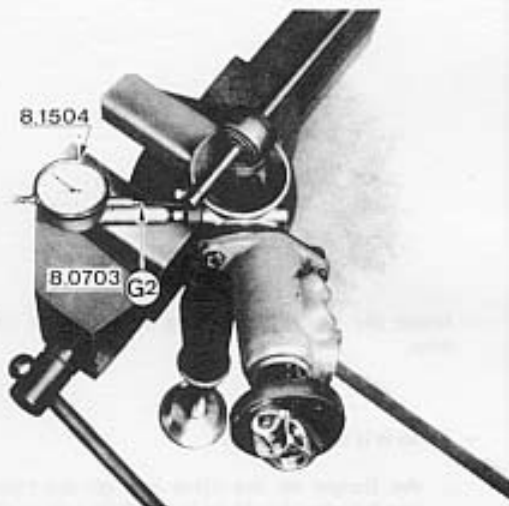
03 68

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POWER STEERING
STEERING BOX
OVERHAUL

A - Measuring the rack plunger clearance.

- Place the rack plunger in its location
- Place the plunger spring in position
- Fit the thrust flange, alone, as shown in this illustration

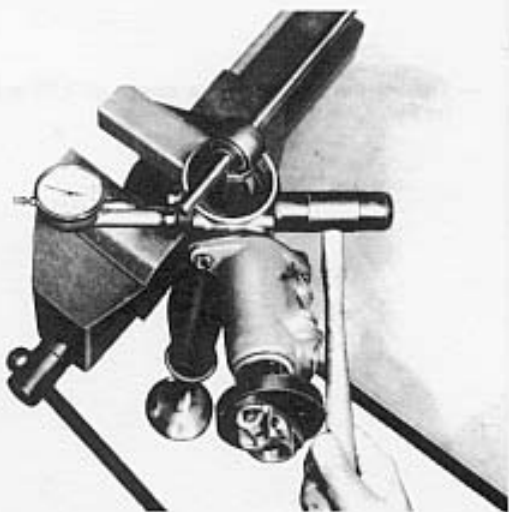


- Pull the thrust flange down against the housing after correctly positioning the dial indicator support

- Fit the dial indicator with its extension (G2) against the bottom of the plunger
- Slide the rack from one end of its travel to the other by turning it with the pinion

The dial indicator pointer will follow the vertical movements of the rack as it moves.

- Set the optimum point reached by the dial indicator pointer on the right.



- Tap the steering box housing lightly, with a mallet, until the dial indicator reading stabilises. It will tend to reduce (the sticking effect of the grease).

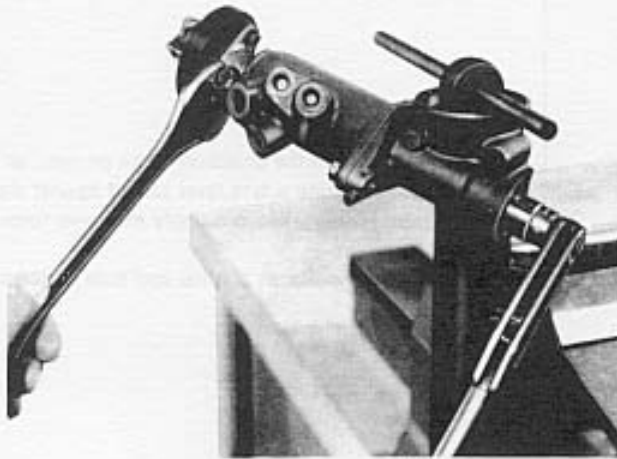
- Zero the dial indicator on the total travel point determined this way.

- Secure the rack in position.

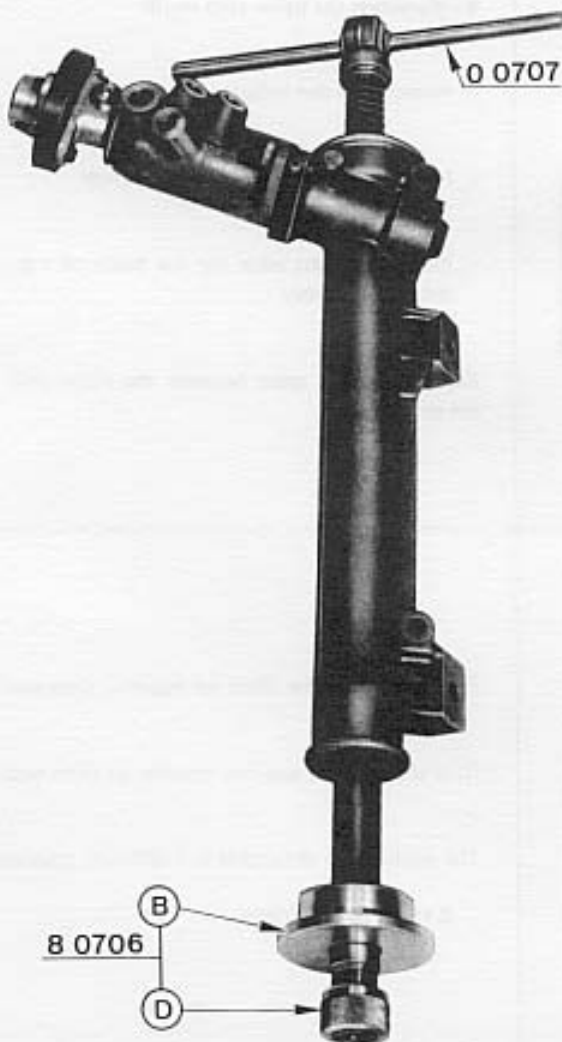
POWER STEERING
STEERING BOX
OVERHAUL

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- Hold the flexible coupling lower flange (30 mm spanner)
- Tighten the now pinion nut to a torque of 1.75 m.daN (m.kg)
- Fill the bearing location with grease
- Fit the bearing cover



Adjusting the rack plunger

IMPORTANT - In order to avoid any error when taking readings, restrict the rack travel by fitting the equipment shown in this illustration.

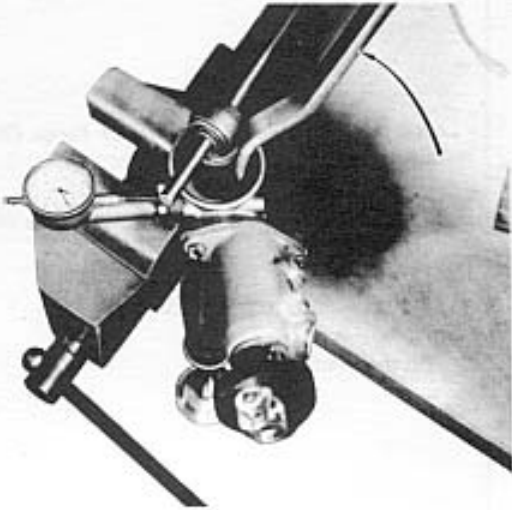
- at the left hand end :
 - rod 0.0707
- at the right hand end
 - guide (B)
 - ring (D) bringing the end into line with the end of the rack.

PEUGEOT

0370

7

POWER STEERING
STEERING BOX
OVERHAUL



Push the rack over in the direction of the plunger, as far as it will go, using a tyre lever placed against the steering box housing. Do not apply excessive force.

- Take the dial indicator reading and note it down.



B - Measuring the nylon stop depth

- Remove the dial indicator and the plunger.
- Place the nylon stop inside the plunger
- Place a straight edge (or the blade of a square) over the assembly

There will be a space between the nylon stop and the straight edge.



This space is to be filled by inserting shim washers.

(Use the smallest possible number of shim washers)

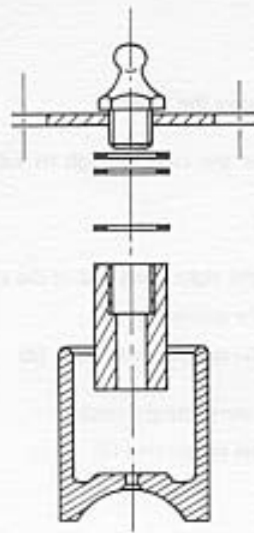
The washers are obtainable in 3 different thicknesses:

0.10 - 0.20 - 0.50 mm

POWER STEERING
STEERING BOX
OVERHAUL

7

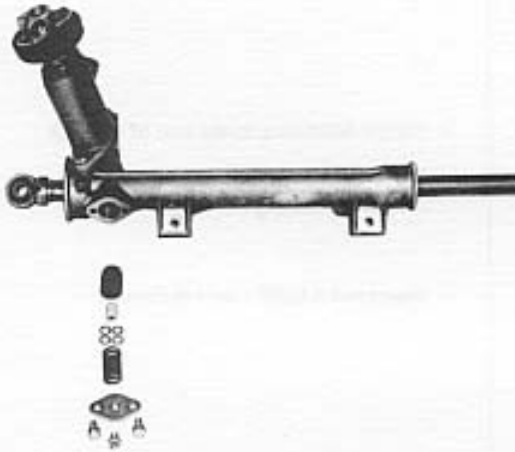
0371



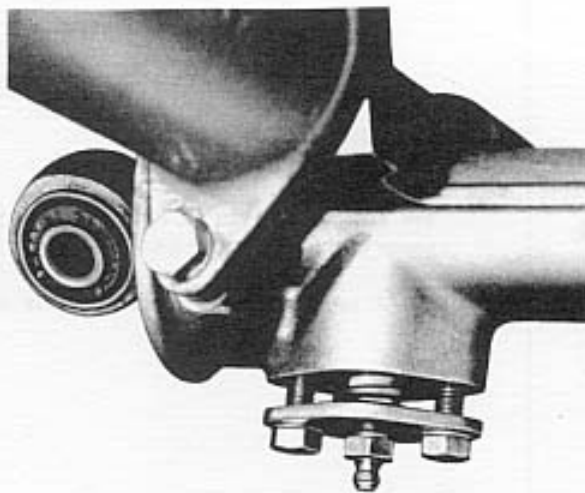
Final plunger adjustment.

The rack plunger should show a clearance of 0.10 ± 0.05 mm at its maximum point along the rack travel.

- To obtain this clearance, take the dial indicator reading already noted and subtract 0.10 mm.
- The resulting shim pack thickness is to be added to that inserted to take up the amount by which the nylon stop was recessed into the plunger.



- Fit the following to the plunger flange, in the order stated below :
 - the grease nipple, tightened to a torque of 1 m.daN (m.kg)
 - the shim pack the thickness of which was determined during the last operation.
 - the nylon stop
- Place the plunger and its spring in the steering box housing
- Grease the plunger location

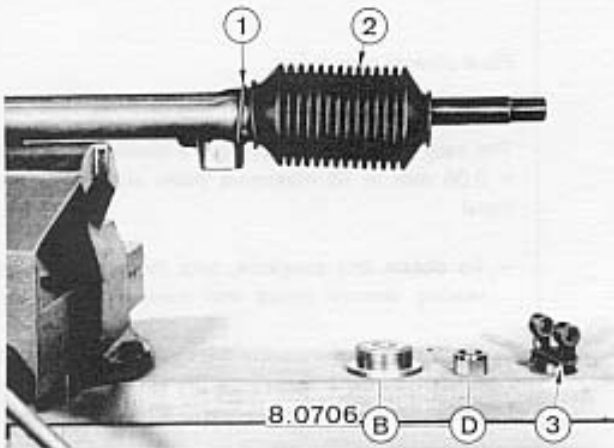


- Fit the thrust flange
- Fit new Blocfor washers
- Tighten the bolts to a torque of 1 m.daN (m.kg)

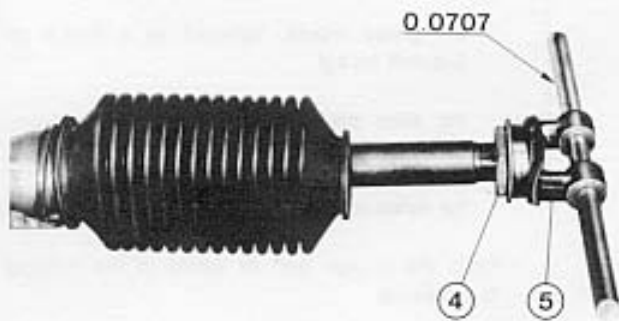
0372

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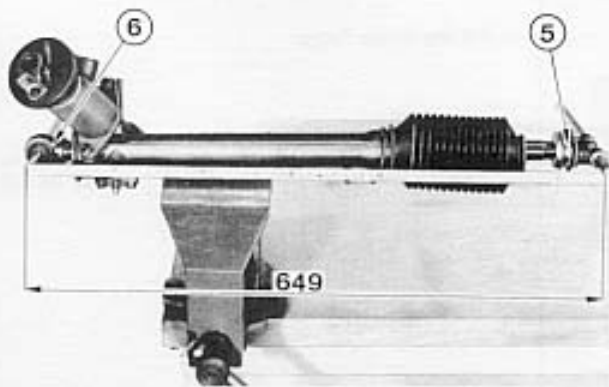
POWER STEERING
STEERING BOX
OVERHAUL



- Remove the tooling.
- Move the rack through its full travel, to the right
- Fit :
 - To the right hand end of the steering box housing:
 - the elastic ring (1)
 - the protective bellows (2)
 - To the connecting clevice
 - the elastic ring (3)



- Fit the following to the end of the rack :
 - the lock nut (4)
 - the connecting clevice (5)
- Insert rod 0.0707 into the clevice,



- Adjust the connecting clevice (5) so that :
 - the distance between its eye center and the center of the rack eye (6) is 649 mm
 - the 2 rods (0.0707) are absolutely in line

POWER STEERING
STEERING BOX
OVERHAUL

7

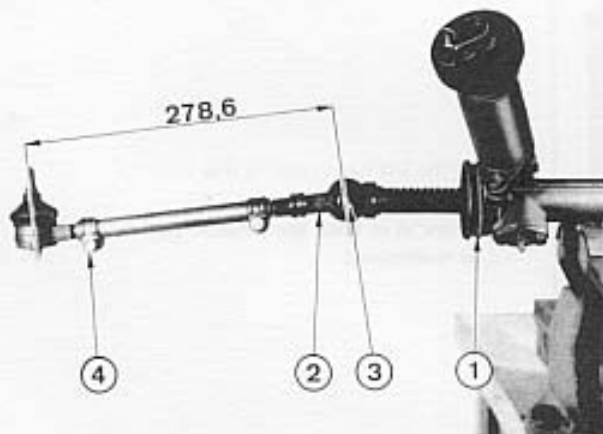
0373



- Tighten the lock nut to a torque of 8 m.daN (m.kg)
- do not alter the clevice alignment



- Secure the bellows "vertically"



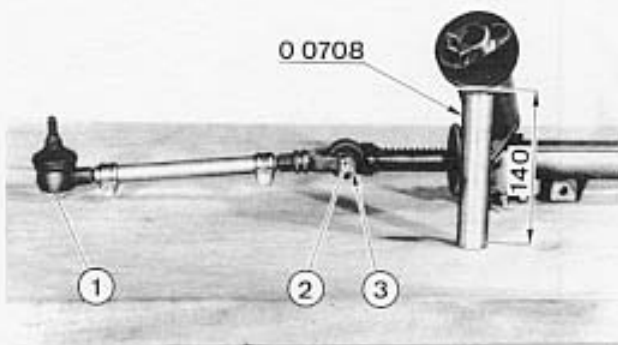
- Fit, to the left hand end :
 - the elastic ring (1)
 - the steering link clevice (2) with the flat towards the rear
 - the bolt (3) together with its sheet steel locking plate. Its head is to be towards the rear.
- Adjust the steering link to obtain a distance between the centre of the ball joint and the centre of the eye end of 278.6 mm
- Tighten the clamp (4) at the ball joint end.

PEUGEOT

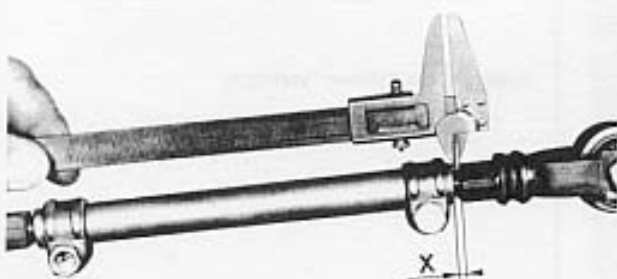
0374

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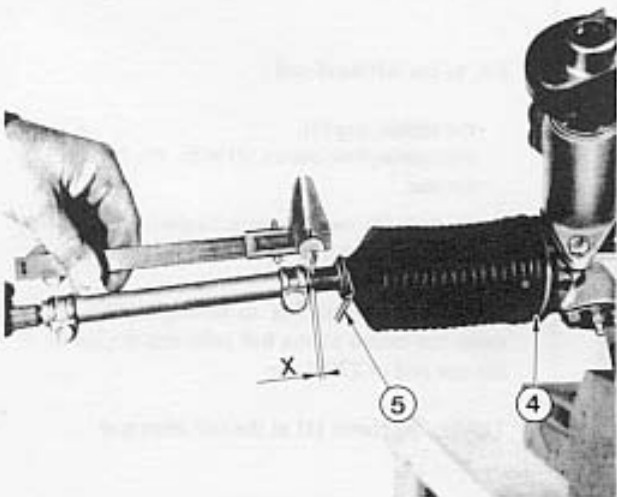
POWER STEERING
STEERING BOX
OVERHAUL



- Position and chock the steering box assembly on the bench as shown here
 - with the grease nipple (1) against the bench
- Tighten the bolt (2) to a torque of 4.5 m.daN (m.kg)
- Fold down the sheet steel locking plate (3) against the bolt head



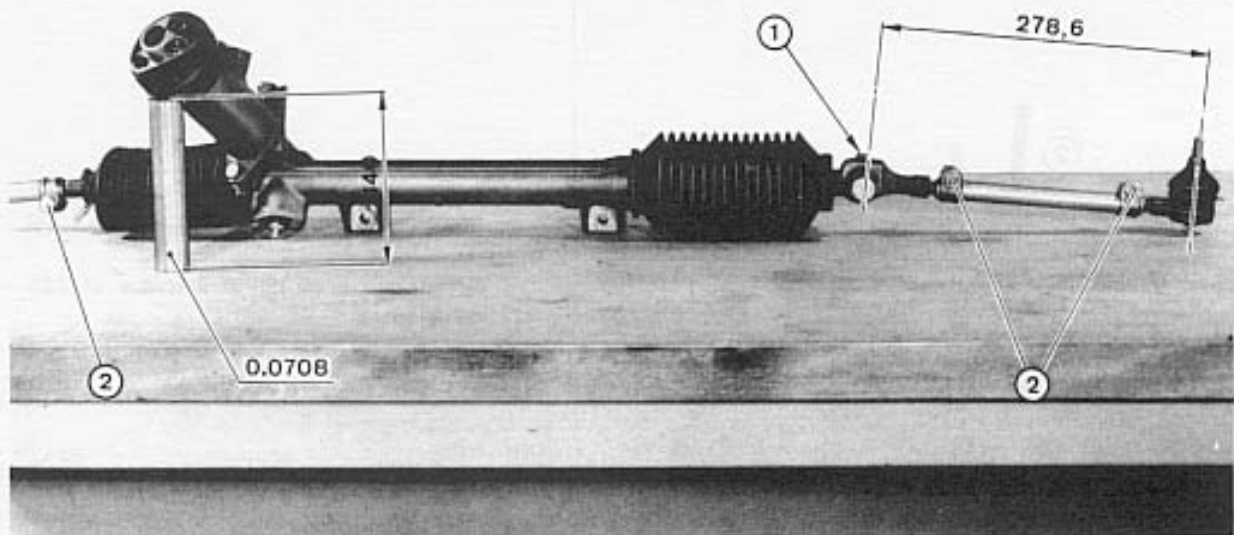
- Measure the distance (x) between the link tube and the shoulder on the clevis and note the figure down
- Remove the tube-ball joint assembly from the clevis
- Place the bellows "horizontally" on the steering box housing and secure it in place with the :
 - elastic ring (4)
 - the twisted wire ring (5) the ends facing towards the rear



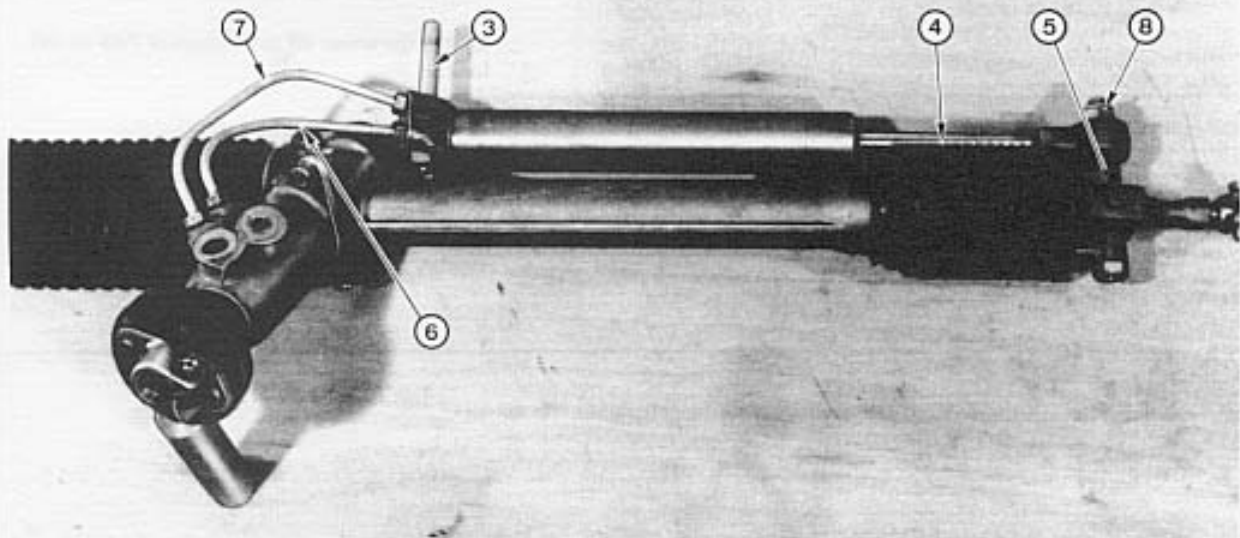
- Refit the left hand steering link :
 - screw it in until the distance already measured is re-obtained.

POWER STEERING
STEERING BOX
OVERHAUL

7 03 75



- Place the steering box assembly on the bench and locate it.
- Fit the right hand steering link, with the boss (1) pointing upwards.
- Adjust the distance between the eye end and the ball joint to 278.6 mm
- Tighten the four bolts (2) on the clamps to a torque of 1 m.daN (m.kg) with the ball joint shanks perpendicular to the bench top.

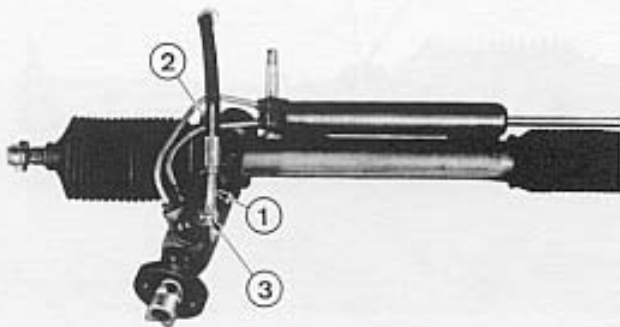


- Pass the securing pin (3) through the jack head eye.
- Connect the ram piston rod (4) to the connecting clevice (5) (using a new nylstop nut).
- Fit the feed pipes :
first (6) on the right then,
(7) on the left.
- Tighten the four unions to a torque of 1.5 m.daN (m.kg).
- Tighten the nut (8) on the clevice to 4.5 m.daN (m.kg) with the assembly still held in position on the bench.

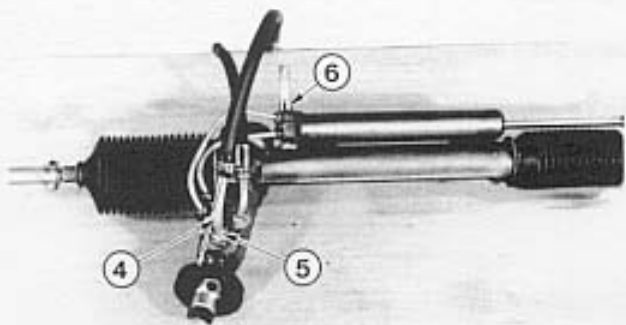
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**POWER STEERING
STEERING BOX
OVERHAUL**

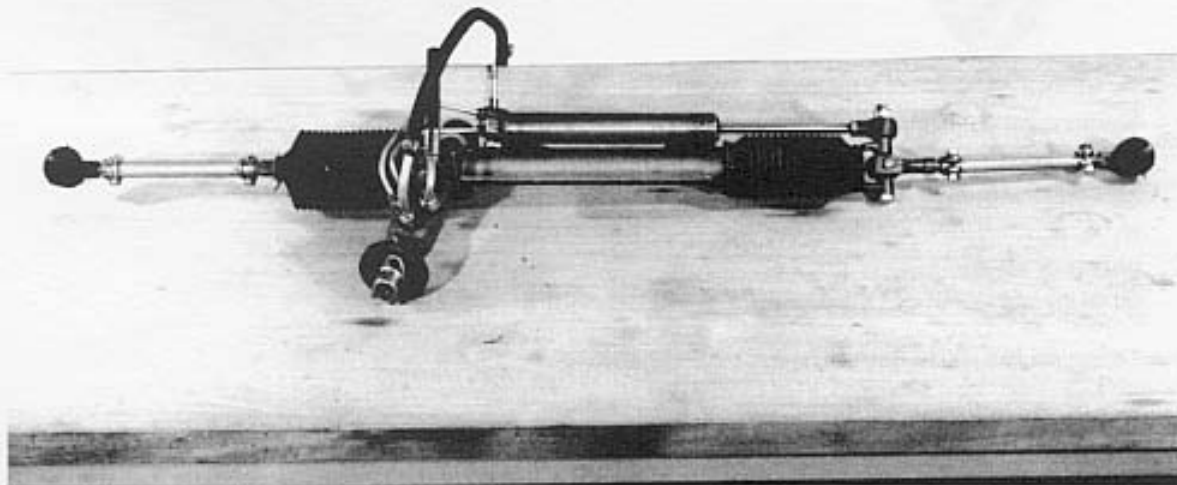


- Fit the high pressure input pipe (1)
- position it so that it passes directly over boss (2)
- tighten the union (3) to a torque of 2.25 m.daN (m.kg)



- Fit the low pressure return pipe (4)
- align it with the valve centreline
- tighten the union (5) to a torque of 2.25 m.daN (m.kg)
- Fit the spacer (6) to the jack securing pin.

- Overall view of the steering bow assembly prior to refitting to the vehicle.

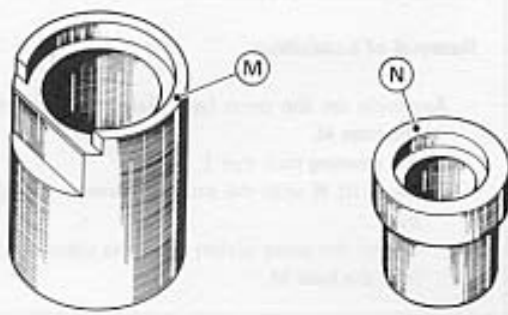


CONVENTIONAL STEERING
RACK

7

05 01⁽¹⁾

REPARER LE BRAS DE SERVO-MOTEUR
REPARER LE BRAS DE SERVO-MOTEUR
REPARER LE BRAS DE SERVO-MOTEUR
REPARER LE BRAS DE SERVO-MOTEUR
REPARER LE BRAS DE SERVO-MOTEUR



SPECIAL TOOLING

Tool chest for front and rear flexible bushes.

8.0907

- M - Removing-refitting base for the steering rack silentblocs
- N - Removing-refitting drift for the steering rack eye silentbloc

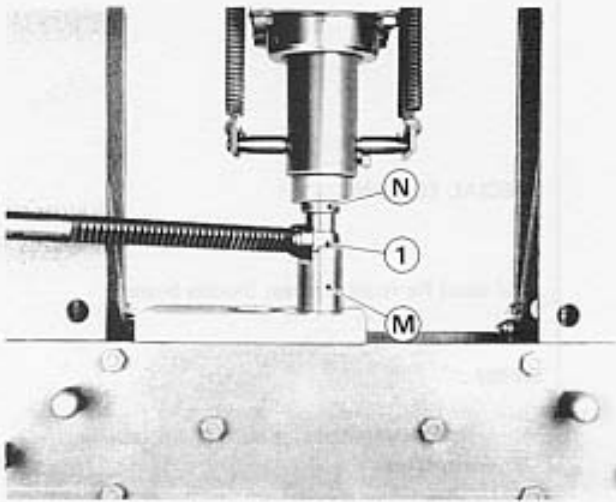
PEUGEOT

6-76

Cancel and replaces pages 05 01 and 05 02, group 7

05 02⁽¹⁾

7

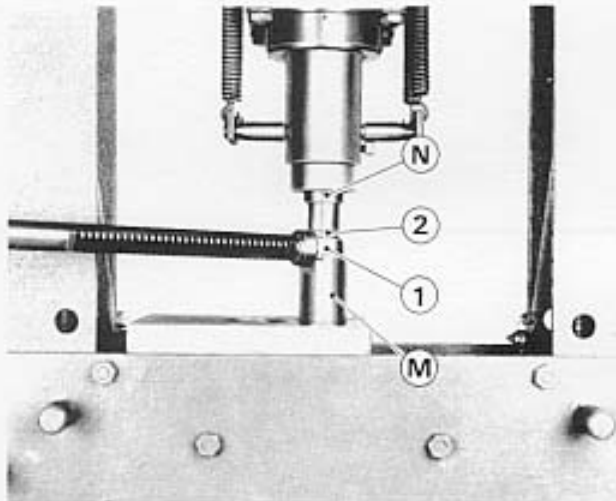
CONVENTIONAL STEERING
RACK

REPLACING THE STEERING RACK SILENT-BLOCS

As the eye on the pinion end of the rack is not removable, the replacement of the silentbloc can be effected with rack removed from the steering box or with the mechanism assembled.

Removal of a silentbloc

- Assemble on the press base plate, the following :
 - the base M.
 - the steering rack eye 1
 - the drift N with the smaller diameter facing the eye
- Lower the press piston until the silentbloc falls into the base M.



Refitting a silentbloc

- Smear, with tallow, the outside of the silentbloc and the inside of the rack eye.
- Assemble on the press base plate the following :
 - the base M
 - the rack eye 1
 - the new silentbloc 2
 - the drift N with the smaller diameter facing the silentbloc as for removal

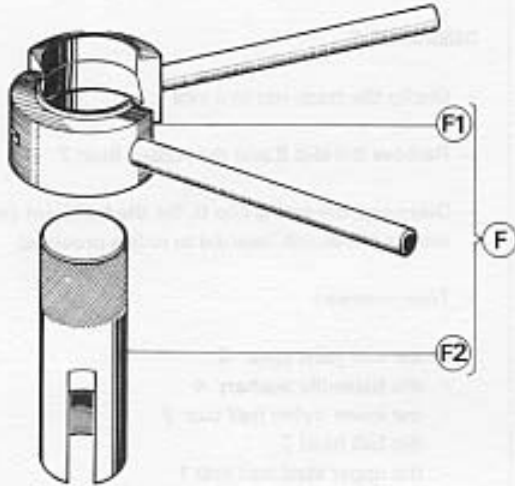


- Lower the press piston until the chamfered edge of the silentbloc protrudes from the eye.
- Equalise the protusion of the silentbloc, on both sides of the eyes, if necessary.

CONVENTIONAL STEERING
TRACK ROD BALL JOINT

7

06 01⁽¹⁾



SPECIAL TOOLING

Tool chest for the steering gear

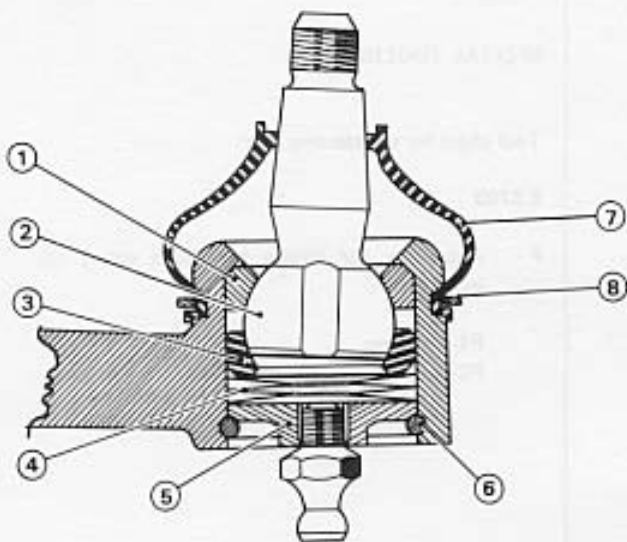
8.0703

F - Apparatus for fitting ball joint spring clip,
including :

- F1 - Clamp
- F2 - Drift

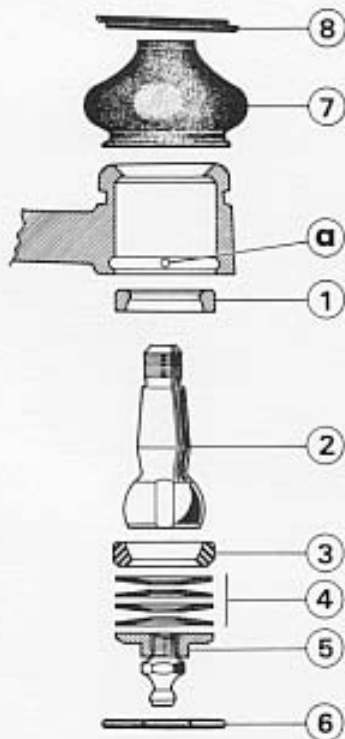
PEUGEOT

CONVENTIONAL STEERING
TRACK ROD BALL JOINT



DISMANTLE

- Clamp the track rod in a vice
- Remove the clip 8 and the rubber boot 7
- Disengage the spring clip 6, for the ball joint cover, using a pin punch inserted in hole a provided.
- Then remove :
 - the ball joint cover 5
 - the Belleville washers 4
 - the lower nylon half cup 3
 - the ball head 2
 - the upper steel half cup 1

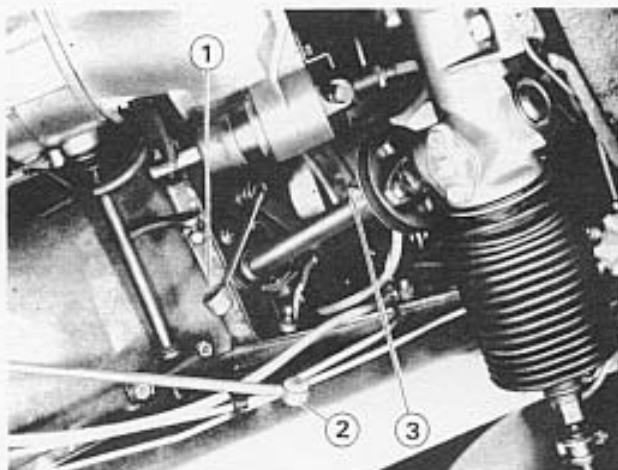


RE ASSEMBLE

- Place the steel half cup 1 in the bottom of the ball joint housing
- Place in position :
 - the ball head 2
 - the nylon half-cup 3
 - the new Belleville washers 4 (note direction of fitment)
 - the ball joint cover 5
- Compress the Belleville washers and position the new spring clip 6 using the apparatus F
- Position correctly the ball head (the pin hole perpendicular to the axis of the track rod)
- Fit the rubber boot 7 and the clip 8
- Grease the ball joint cover

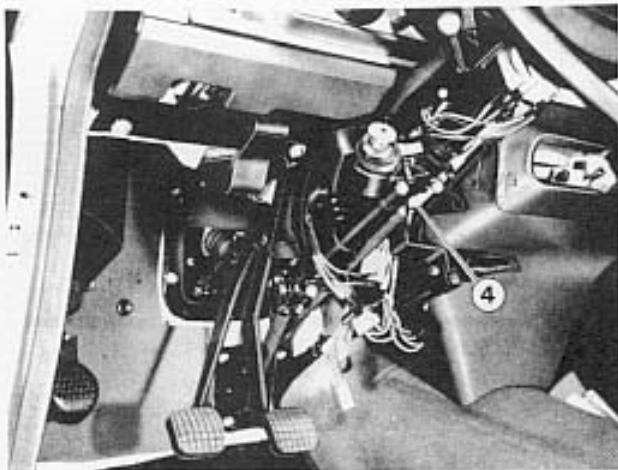
CONVENTIONAL STEERING
WITH COLUMN MOUNTED GEARCHANGE

7

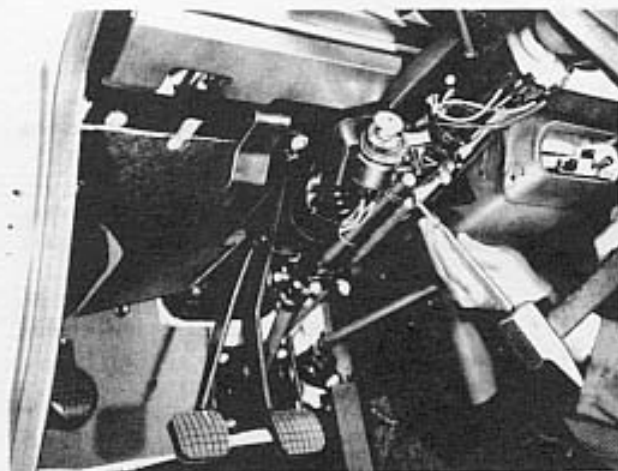
07 01⁽¹⁾

REMOVAL

- Disconnect the battery
- Release :
 - the upper gear change control rod 1
 - the selector rod 2 from its lever
- Remove the bolt 3 from the flexor



- Remove the lower shell from the steering column
- Move upwards the clip 4, which retains the pin assembling the gear change control rods.

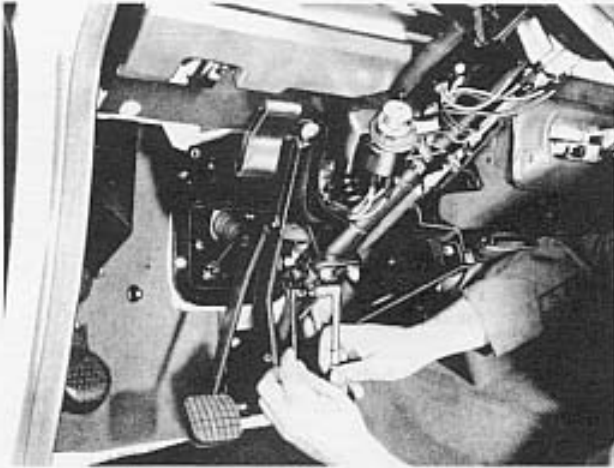


- Remove the pin using a 6 mm drift

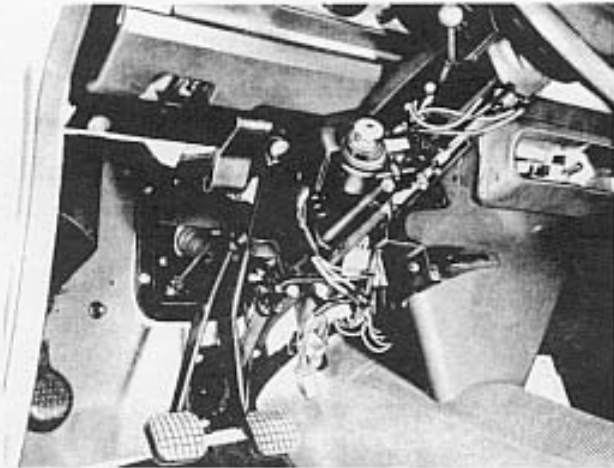
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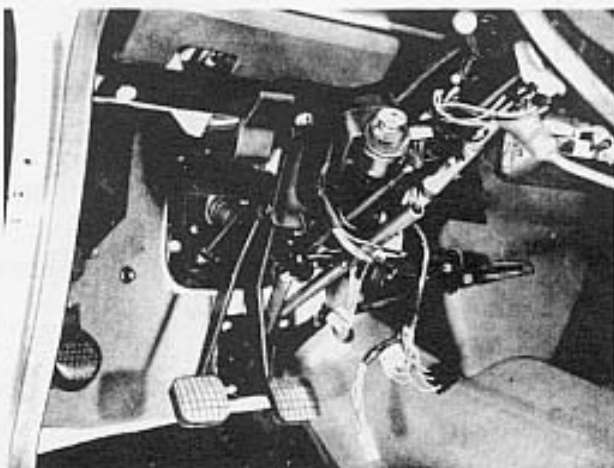
CONVENTIONAL STEERING WITH COLUMN MOUNTED GEARCHANGE



- Remove the clamp bolt from the lower collar of the steering column cardan joint
- Slide the lower part of the steering column downwards until it abuts on the flector



- Disconnect :
 - the Neiman anti-theft lock wires
 - the 3 connectors on the steering column wiring harness
- Remove the 2 bolts securing the handbrake lever support under the dashboard

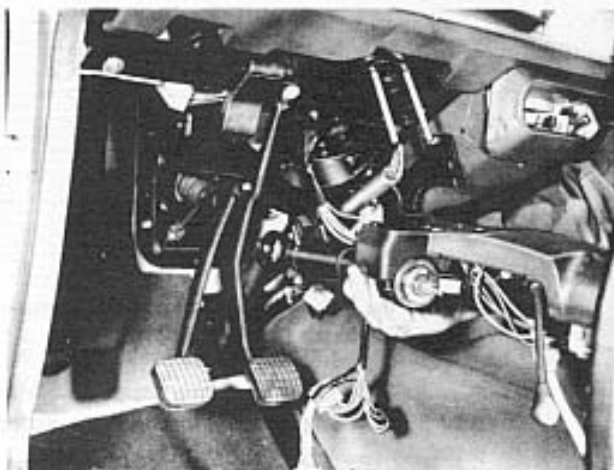


- Remove the 4 bearing nuts of the column, under the dashboard
- Release simultaneously the two parts of the gear change control rod and the steering column.
- Lower the hand brake lever support to enable the freeing of the wiring harness of the steering column.

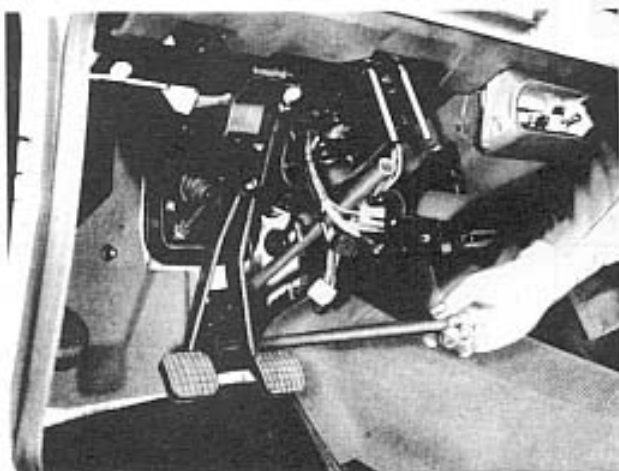
CONVENTIONAL STEERING
WITH COLUMN MOUNTED GEARCHANGE

7

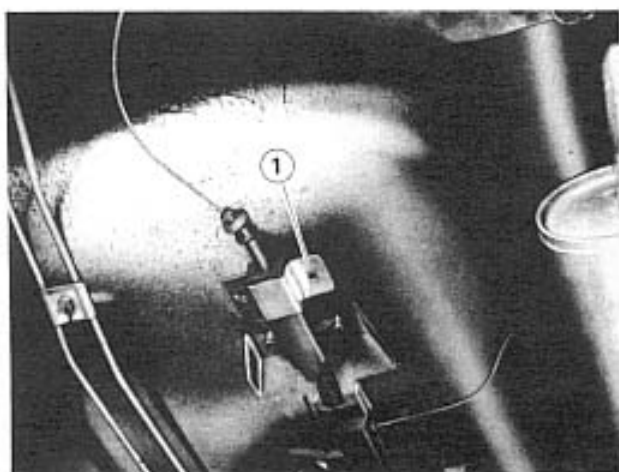
07 03⁽¹⁾



- Withdraw the upper steering column assembly.



- Withdraw the lower bar of the steering column as far as possible and disengage it towards the interior of the car



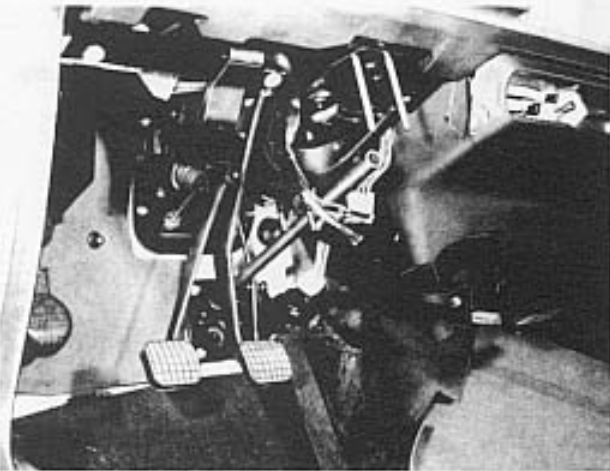
- Remove the hand brake outer cable stop clamp (1) to enable the withdrawal of the handbrake return lever in relation to the scuttle.

PEUGEOT

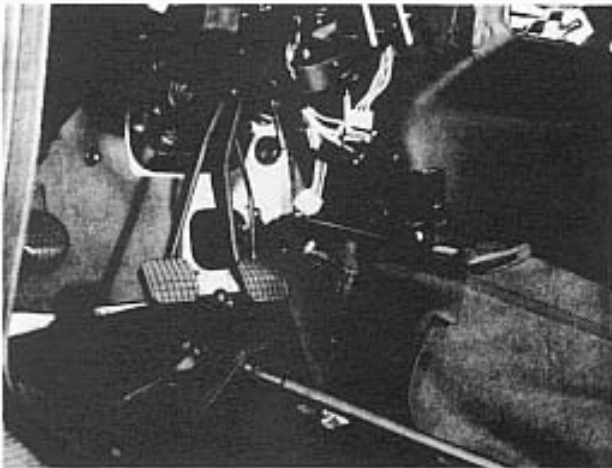
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CONVENTIONAL STEERING
WITH COLUMN MOUNTED GEARCHANGE



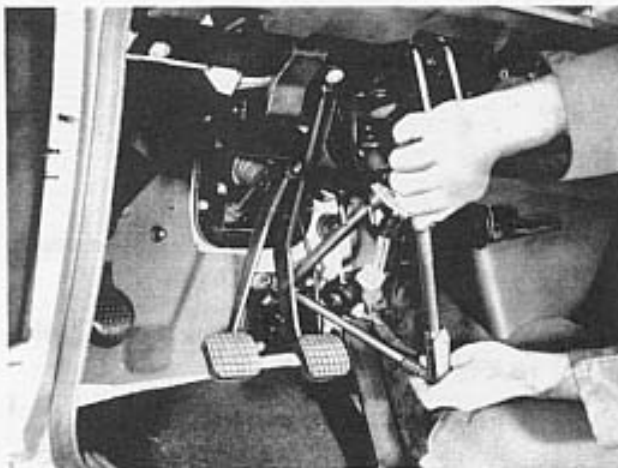
- Remove the 4 nuts securing the steering column closing plate to the scuttle
- Disengage the hand brake lever support from its securing studs to enable the freeing of the closing plate.



- Remove the lower gear change control assembly together with the closing plate and its gasket.

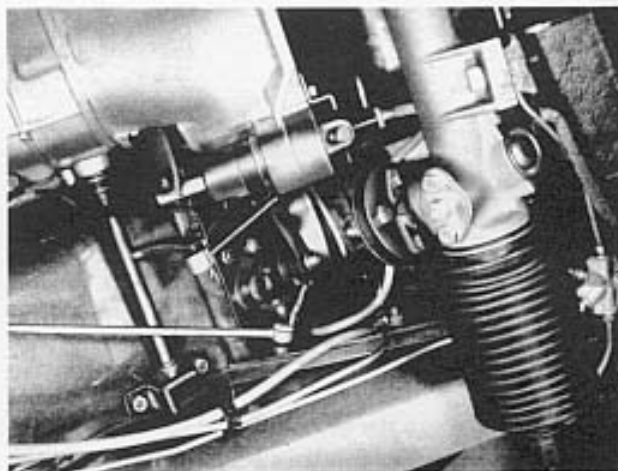
CONVENTIONAL STEERING
WITH COLUMN MOUNTED GEARCHANGE

7 07 05⁽¹⁾

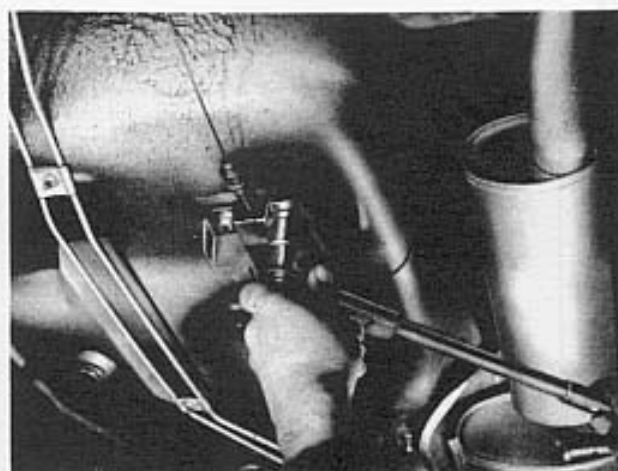


REFIT

- Replace the closing plate gasket as necessary.
- Fill the control rod gaitor with grease.
- Refit the lower assembly and also the handbrake return lever bracket.
- Secure the closing plate and the handbrake bracket, use new star washers.
- Tighten nuts to **1 m.daN (m.kg)**.



- Re-connect the gear selector and change control rods to their respective levers ensuring the correct fitting of the nylon bearing on the ball head of the control rod.



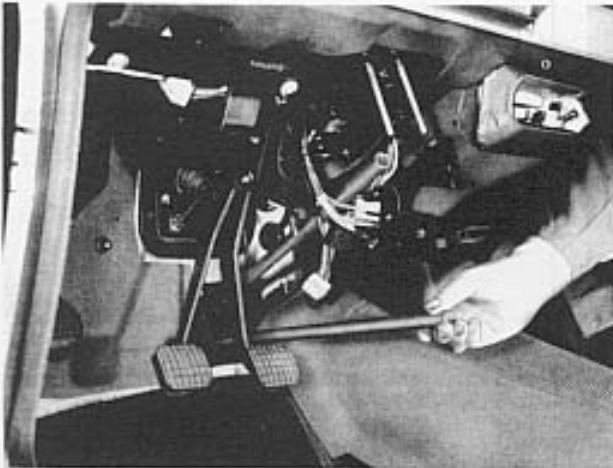
- Secure the hand brake outer cable clamp to the floor.
- Tighten the nuts to **0,5 m.daN (m.kg)**.
- Ensure the free movement of the hand brake lever which should have neither free play nor tightness when in the "at rest" position.

PEUGEOT

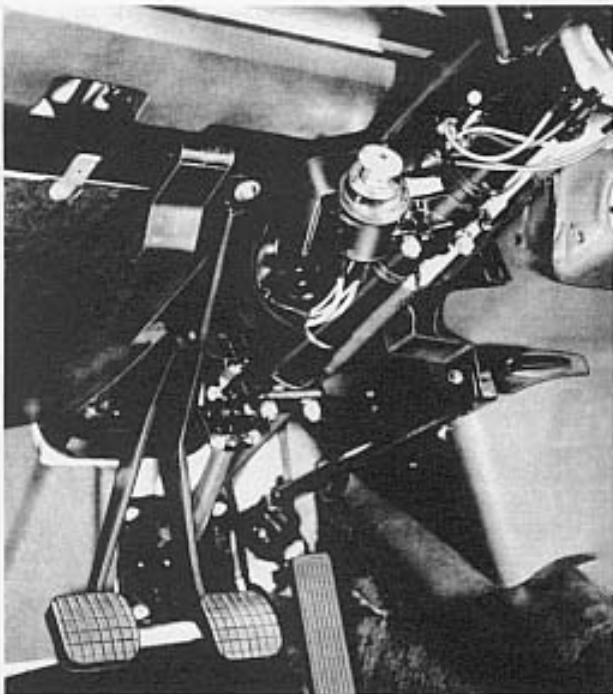
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CONVENTIONAL STEERING WITH COLUMN MOUNTED GEARCHANGE



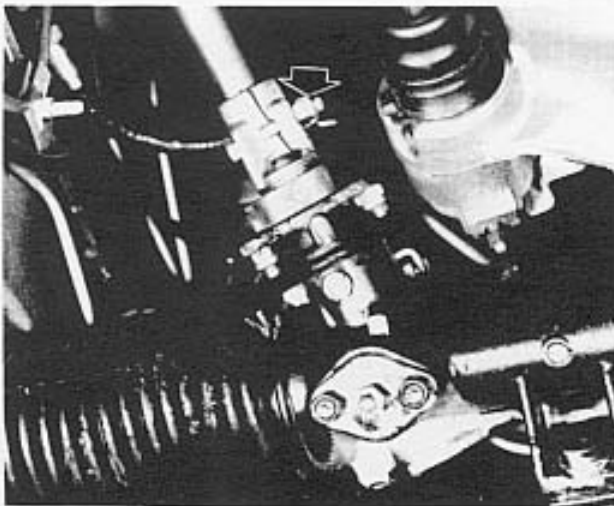
- Grease thoroughly the lower steering column bush, which is fitted in the sealing plate
- Insert the lower steering column rod in its bearing and in the flector collar
- Push the rod home into the flector.



- Fit the upper assembly of the steering column,
- Connect simultaneously the two parts of the gear change control rod and the steering column,
- Using new star washers, fit and tighten the 4 nuts, securing the steering column, under the dashboard to 7.2 ft.lbs 1 m.daN (m.kg)
- Fit a new Mecanindus pin, to assemble the gear change control rods,
- Position the retaining clip over the pin,
- Secure the lower part of the cardan joint on the steering column using an M 7 x 38 bolt and new Nylstop nut.
- Tighten the nut to 7.2 ft.lbs 1 m.daN (m.kg)
- Reconnect :
 - the Neiman anti-theft lock wires
 - the 3 wiring harness-connectors on the steering column
- Secure the harness under the dashboard.

CONVENTIONAL STEERING
WITH COLUMN MOUNTED GEARCHANGE

7

07 07^(*)

- Secure the column to the flexible coupling using in every case, an M 7 x 38 and a new Nylstop nut.
- Tighten the nut to 1.5 m.daN (m.kg) 11 ft/lbs.



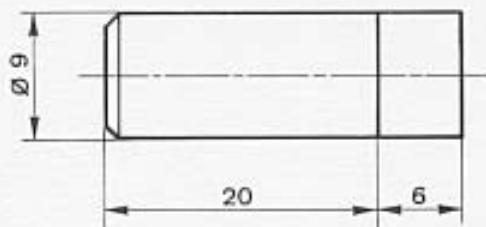
- Secure the hand brake lever support under the dashboard
- Check the operation of the lighting, the indicators and the Neiman anti-theft lock
- Fit the lower shell of the steering column
- Check and adjust if necessary, the gear change control rods and the horns.

PEUGEOT

POWER STEERING
STEERING COLUMN
TOOLING TO BE MADE - REMOVE

7

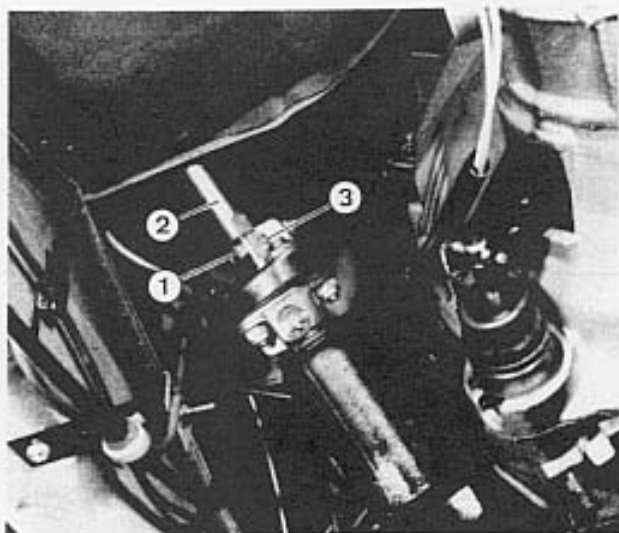
0711



TOOL TO BE MADE

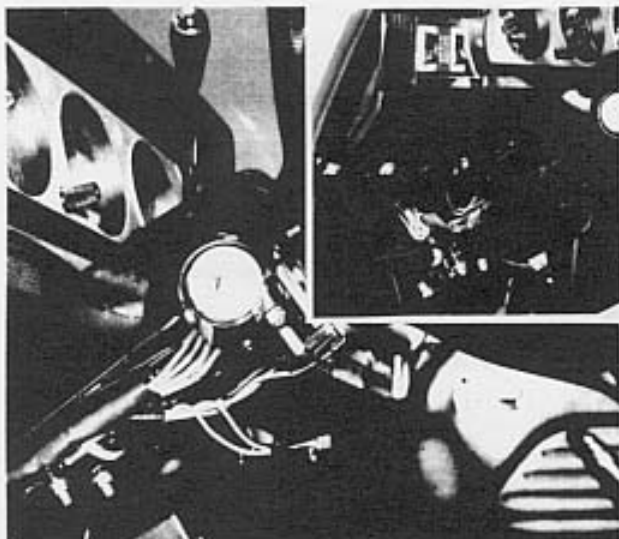
0.0706

Adjusting key to the dimensions opposite.



Remove :

- Disconnect the battery
- Remove the bolt (1) securing the lower half of the column (2) to the upper part of the coupling (3)

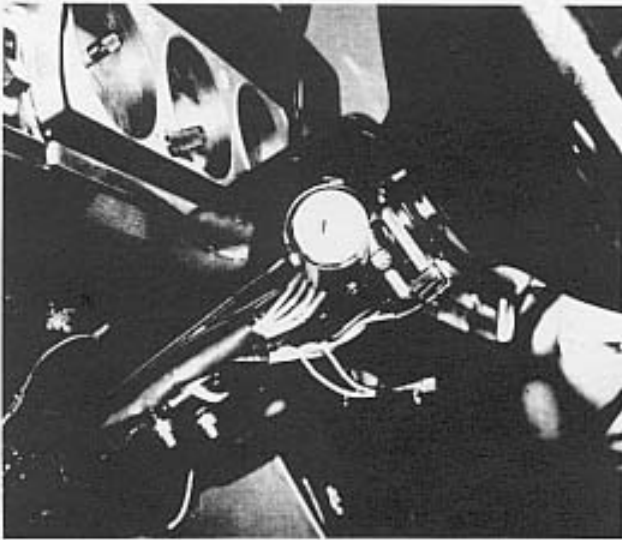
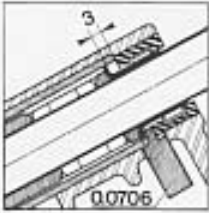


- Remove the column lower casing
- Disconnect the various wiring connections to column
- Remove the 4 nuts (4 and 5) column to fascia.

0712

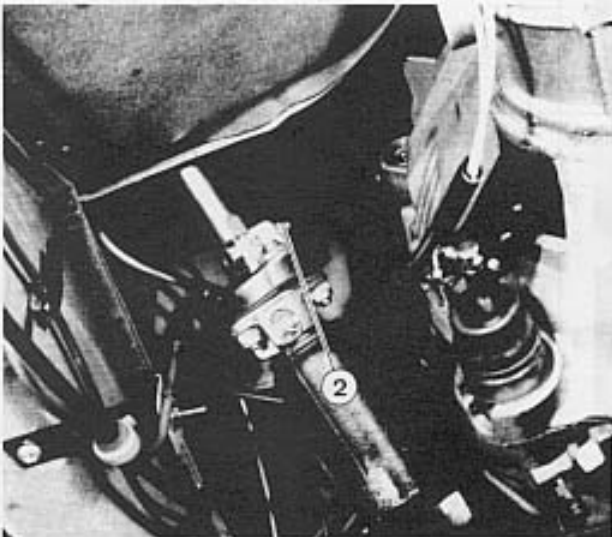
7

POWER STEERING
STEERING COLUMN
REFIT - ADJUST



REFIT

- Road wheels in straight ahead position
- Install the column assembly by engaging the lower half of the column in the top half of the flexible coupling.
- Tighten the 4 securing nuts
- Position the adjustment key (1) 0.0706 in hole (a)



- Whilst in this position, tighten the securing nut (2) to : 1.5 m.daN (m.kg) 11 ft/lbs.
- Withdraw the key (1)
- Reconnect the wiring to the column
- Reconnect the battery
- Check functioning of the electrics
- Refit the column lower casing.

BRAKES

8

SUMMARY

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Rear disc replacement.	06 11(1)
- disc bolted to outer face of hub	06 12 and 13
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{ 1st assembly Coupé/Convertible	06 14 to 17
{ 2nd assembly, all models.	06 18 to 22
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Remove/refit rear caliper.	07 11(1) to 13(1)
Overhaul of a rear caliper.	07 14(1) to 18

MASTER-CYLINDER

Remove-Refit
 Overhaul of a standard cylinder
 Overhaul of a tandem cylinder

Pages

08 01 to 05
 08 11 and 12
 08 21 to 25

BRAKE SERVO

Tools for checking
 Checking

10 01
 10 02 to 06

COMPENSATOR

Adjusting :
 - Saloons { GL and TI
 L
 - Long models { link controlled compensator
 spring controlled compensator

11 01(1)
 11 02
 11 03
 11 04 and 05

HYDRAULIC LINES

Instructions to be observed - connections and layout :
 - flexibles hoses
 - pipework

12 01
 12 03 and 04

HANDBRAKE

Remove-Refit main brake cable

14 01(1) to 04(1)

BRAKES

GENERALITIES

8

 01 01⁽²⁾

– The brakes are the principal safety component in a vehicle.

– A failure of any part of the brake system could result in extremely serious consequences.

Therefore, any work on the brake system must be done under conditions of maximum cleanliness, following to the letter, the relevant instructions with particular reference to :

- periodical maintenance
- the stipulated methods
- material specified.

IMPORTANT - Following the fitting of new parts (pads and/or linings, discs, drums), it is essential that the customer be advised to "bed-in" the brakes, since immediate full application could result in subsequent instability.

Brake fluid

– Brake fluids must satisfy severe conditions in service :

- boiling point (ability to withstand high temperatures - severe braking)
- freezing point (low Winter temperatures in cold countries)
- chemically inert (inhibitors prevent corrosion of metals and the attack of joints and seals).

For this reason use only :

Lockheed 55
Nafic FN3
Peugeot
which can be mixed in any proportion.

– Brake fluids are hygroscopic, and any water absorbed can alter subsequently the boiling and freezing points.

– After a period of time the inhibitors, incorporated in the fluid, will deteriorate.

Therefore :

- Store in full air-tight containers in a dry atmosphere,
- protect them, as far as possible, from shaking,
- replace fluids at the stipulated intervals.

– Brake fluid will attack some chemical compositions, in particular, paint work and some rubber compounds.

Therefore :

- prevent spilling and splashing,
- protect parts which could be affected (clutch, engine mountings etc...) when bleeding, draining and refilling.

BRAKES

ROUTINE SERVICE MAINTENANCE

IMPORTANT - If the warning light (1) is "ON", check,

- 1 - the level of the brake fluid,
- 2 - thickness of brake pads.



EVERY 3.000 miles (5 000 km)

- Check thickness of pads. When this is reduced to 2.5 m/m all 4 - pads, on an axle, **MUST** be replaced.

EVERY 6.000 miles (10 000 km)

- Adjust rear brakes (long models)
- Check and final adjust, handbrake.

EVERY 12.000 miles (20.000 km) (504 with rear drum brakes)

- Dust out drum and shoes.
- Check wheel cylinders for security and leak-proof.

EVERY 25.000 miles (40 000 km), or every 2 years when the vehicle is used unfrequently,

- Replace brake fluid with,

Lockheed 55

Nafic FN3

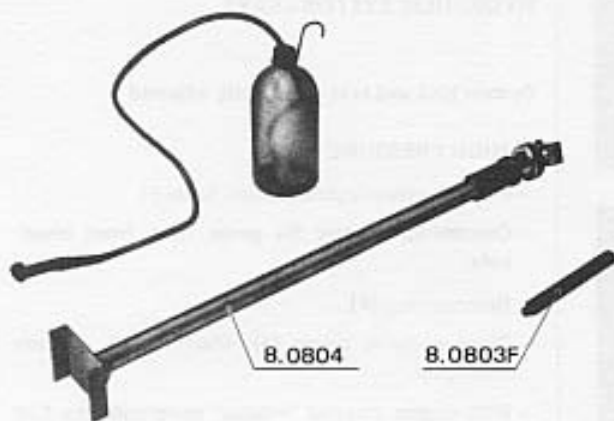
Peugeot

which can be mixed in any proportion.

BRAKES
PRESSURE TESTING

8

02 01 ^{K13}



TOOLS REQUIRED

8.0803 F

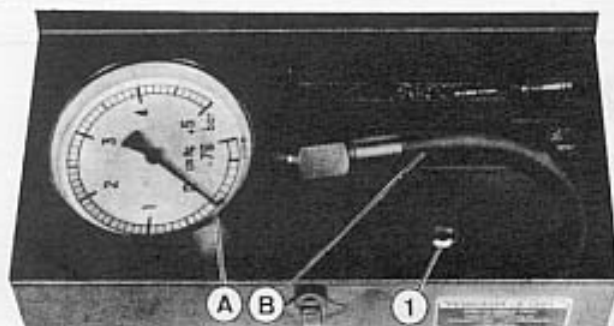
– Rod for plugging master-cylinder.

8.0804

– Fixture for depressing brake pedal.

– an 18" (40 cm) length of transparent flexible hose.

– a transparent vessel.



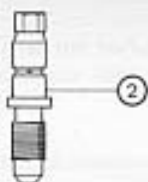
8.1503

– Kit for checking pressures and pressure-drop.

A - pressure gauge.

B - union.

1 - security clip for use with union **(2)**
P.D. 9787.07.



RECOMMENDED TOOLING

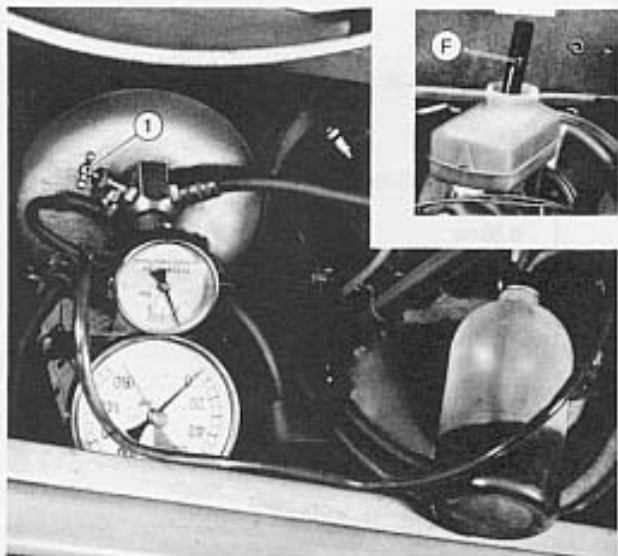
– Testarc 50 apparatus for measuring low pressure, and high pressure with.

1 - security clip.

2 - union P.D. 9787.07.

PEUGEOT

WARNING - Never use a pressure gauge which has been used for any purpose other than the testing of the brakes hydraulic system.

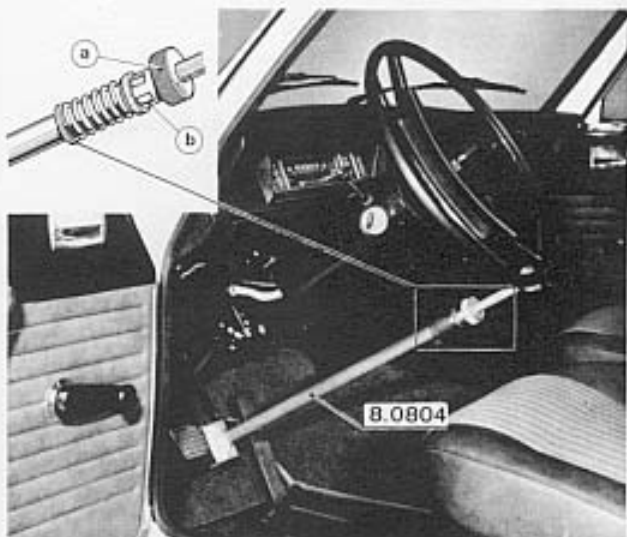


HYDRAULIC SYSTEM LEAKS

System bled and brakes correctly adjusted

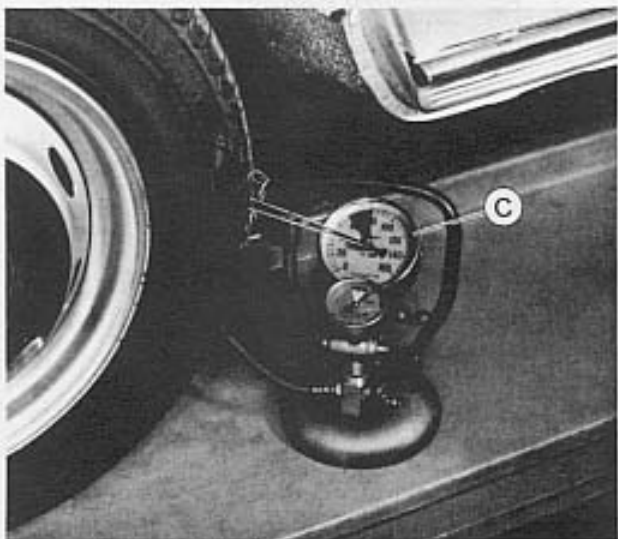
I - HIGH PRESSURE TEST

- Plug the master-cylinder inlet. (plug F).
- Connect-up Testarc 50 gauge to a front bleed hole.
- Remove plug (F).
- Bleed pressure gauge (1) when in the position illustrated.
- With engine stopped "release" servo-unit. (by five applications of the brake pedal).



- 504 with dual circuit master-cylinder :

- release a rear bleed screw (the tube should be immersed in the fluid in the receiving vessel).
- Install brake depressing fixture.
- Screw the knurled nut (a) until the slots (b) are obscured and then continue screwing a further 10 turns.
- Wait a few movements to allow circuit to stabilise.
- Unscrew the nut (a) until the slots are just visible,



- Align the two 2 needles of the H.P. gauge (c).

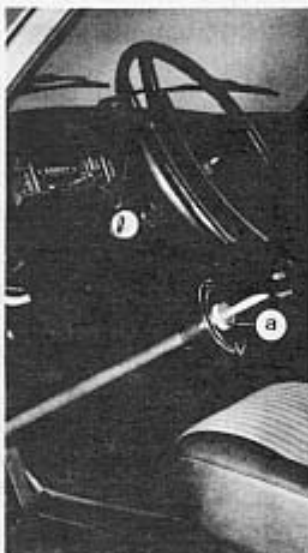
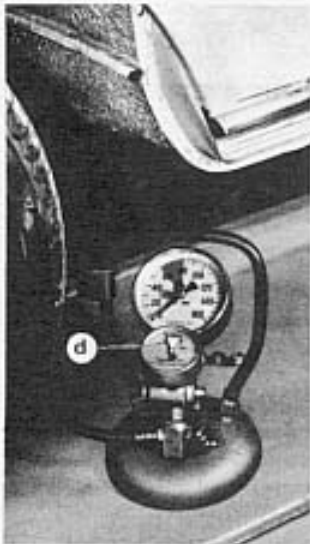
There should be no fall in pressure after an interval of 15 minutes. If there is, then there is a leak. Trace, rectify and re-test.

NOTE - A leak through the main cup of the master-cylinder will not be indicated by a fall in fluid level or by traces of fluid on the outside.

Some leaks through cups and seals only show at low pressure.

BRAKES
PRESSURE TESTING

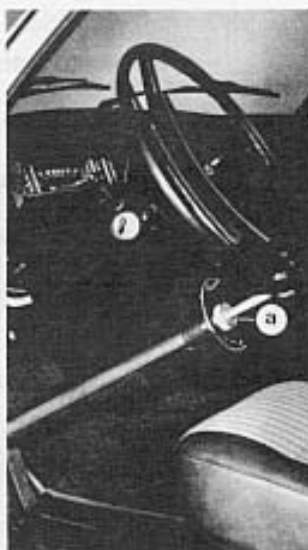
8 02 03⁽¹⁾



II - LOW PRESSURE TESTING

- Unscrew the knurled nut (a) to release pressure to zero ("0") on the L.P. gauge (d).

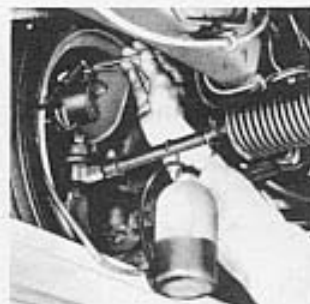
N.B. - If pressure is indicated, however low, refer to servo-unit checking, page 10 06.



- Gently turn the knurled nut clockwise until the pressure is stabilised at, 10 p.s.i. (0,7 bars).

- There should be no fall in pressure after an interval of 15 minutes. If there is, check for leaks around cups and seals. Trace, rectify and re-check.

N.B. - Leakage through the main cup of the master-cylinder will not be indicated by a fall in liquid level, or by traces of fluid on the outside.



- 504 with dual-circuit master-cylinder

- Close the rear bleed screw.

- Connect the Testarc 50 gauge to the rear circuit and the bleed hose and bottle to a rear bleed screw hole.

- Repeat the test as at I and II.

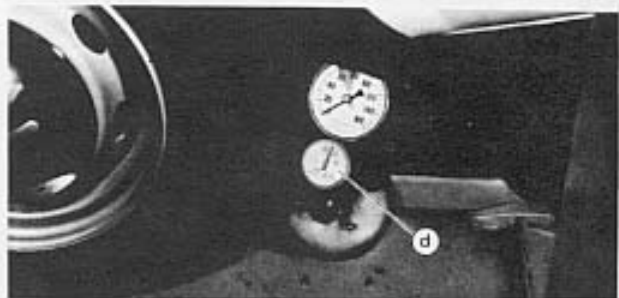
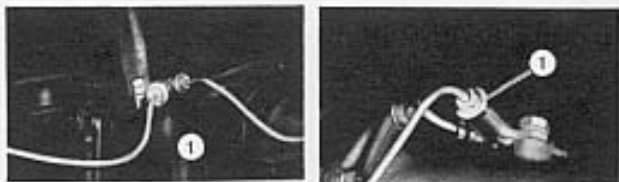
- Top-up fluid level, in the reservoir.



PEUGEOT

BRAKES

PRESSURE TESTING

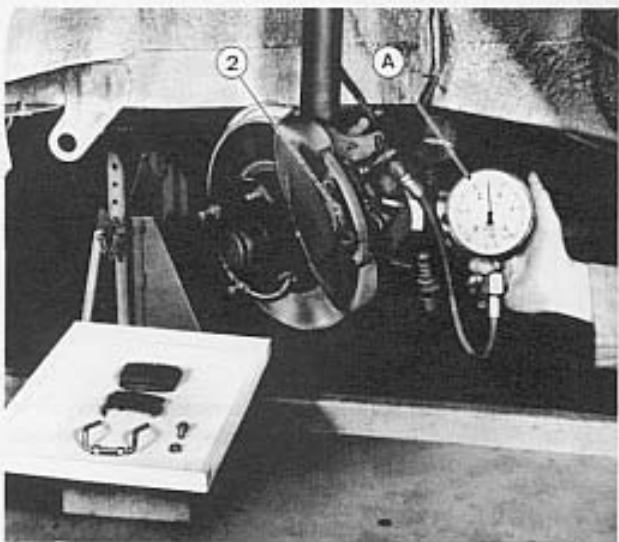


VARIOUS TESTS

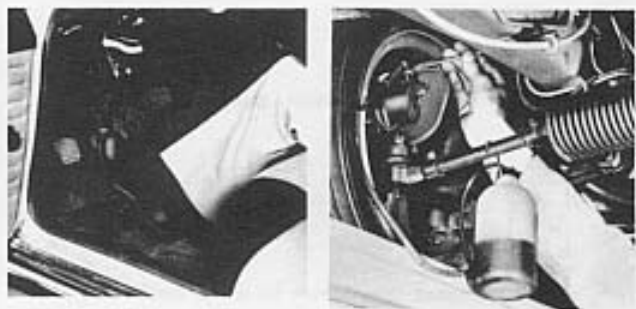
RESIDUAL PRESSURE IN SYSTEM 504 with rear drum brakes.

- Block the master-cylinder inlet (plug F).
- Connect the Testarc 50 gauge to a rear bleed hole.
- Remove plug F.
- After an application of the brake pedal, the pressure in the rear circuit should be stable at **7 to 27 p.s.i. (0,5 to 1,9 bars)** (gauge d).

Given that the system is leak proof, (tests I and II) if the pressures obtained are not within the specified limits, then exchange the union (1) inside which is a valve.

**CALIPER MOVEMENT**

- Connect pressure gauge (A) to a bleed hole.
- Replace the outer pad with a used pad (2).
- Gently operate the brake pedal.
- The calipers should operate at pressures below :
 - front caliper - 43 p.s.i. (3 kg/cm²).
 - rear caliper - 64 p.s.i. (4,5 kg/cm²)
- If this conditions are not met, dismantle body and pistons, clean with meths, Re-assemble and re-test.
- Replace the original pad.

**BRAKE PRESSURE WARNING LIGHT (504 U.S.A.)**

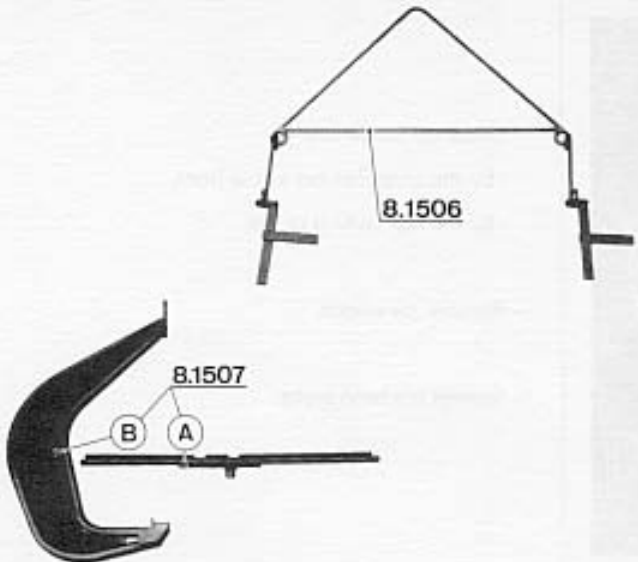
- Slack off handbrake.
- Make contact.
- Depress brake pedal.
- Open a bleed screw.
- The warning light (3) should light-up.
- Close bleed screw.



IMPORTANT - After these tests check travel of brake pedal and bleed, if necessary.

BRAKES
CHANGING THE BRAKE FLUID

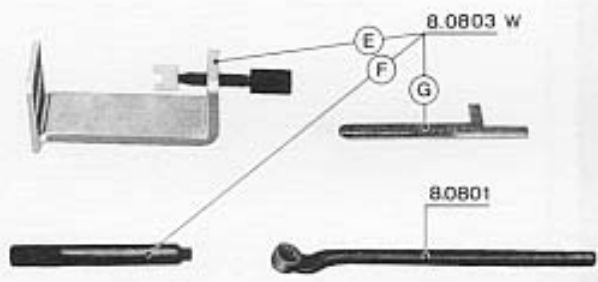
8 02 11



TOOLS REQUIRED

8.1506
 – Front lifting tackle.

8.1507
 – Rear lifting tackle, including :
A - Cross-piece.
B - Hook.



8.0801
 – Key for adjusting rear drum brakes.

8.0803 W
 – Tool kit for disc brakes.
E - Fixture for actuating the pistons.
F - Master-cylinder plug.
G - Key for positioning the rear brake pistons.

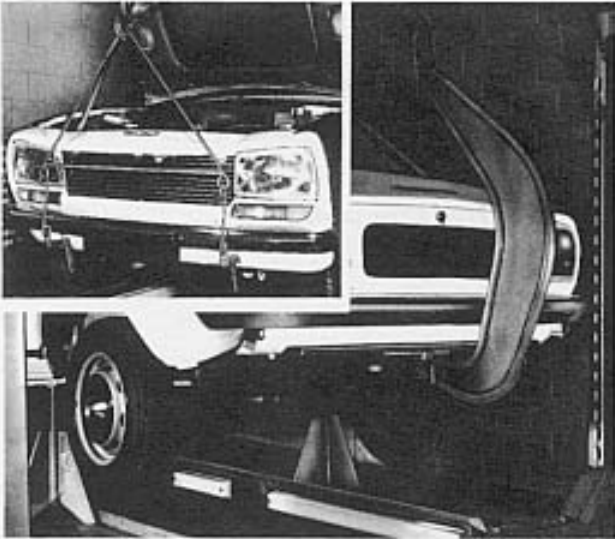


– An 18" (40 cm) length of transparent flexible hose.
 – A transparent vessel.
 – A syringe.

PEUGEOT

BRAKES

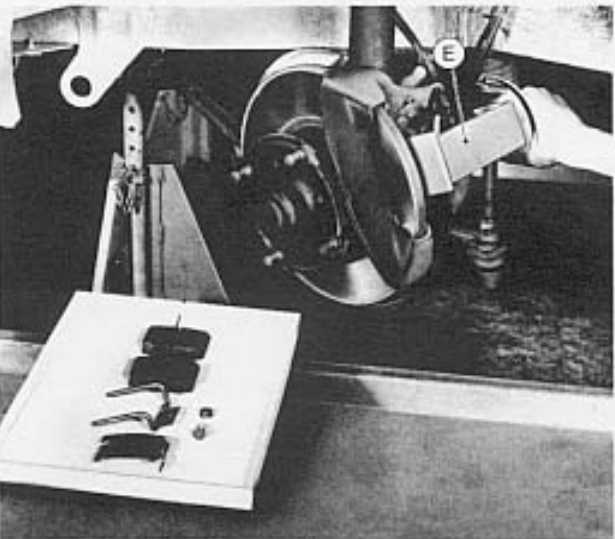
CHANGING THE BRAKE FLUID



- Chock-up the vehicle :
 - by the cross-member at the front,
 - by the rear jacking points.
- Remove the wheels.
- Slacken the hand brake.



- Drain the reservoir.



- Remove the pads.
- Retract the front pistons.

WARNING - Ensure that the screw in fixture (E) is hand-tight.

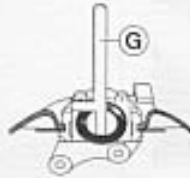
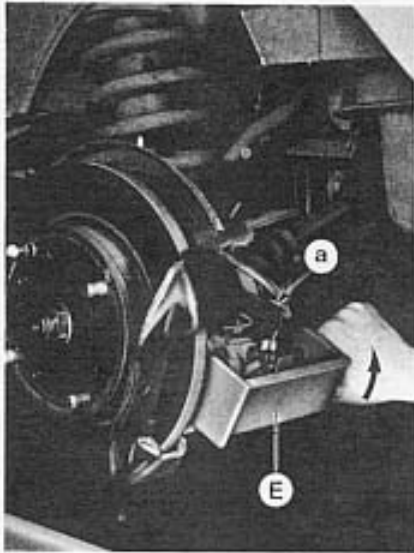
- Replace pads.

BRAKES

CHANGING THE BRAKE FLUID

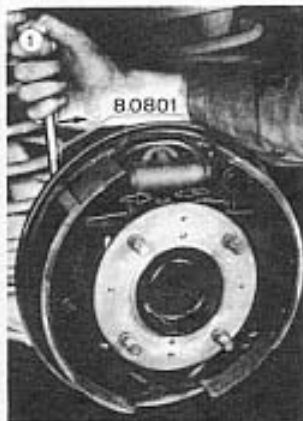
8

02 13



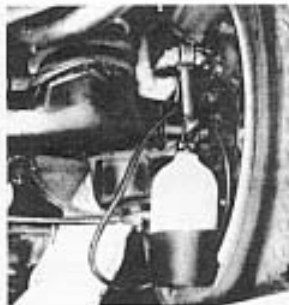
504 with rear disc brakes.

- Remove the pads.
- Retract pistons as far as possible.
- Replace the pads.



504 with rear drum brakes.

- Remove the drums.
 - Dust-out drums and plates.
 - Check wheel cylinders for leaks.
- Shoes to be in position of maximum retraction.
 - 1 - Long models.
 - 2 - 504 L.
- Replace the drums.



- Re-drain the reservoir.

- Drain the wheel cylinders.

WARNING - Do not drain the rear wheel cylinders on 504 with rear disc brakes.

- loosen beld screw farthest away from the master cylinder,
- gently operate brake pedal until all fluid is expelled,
- tighten the bleed screw, and proceed to check the remaining brakes in a similar manner.



PEUGEOT

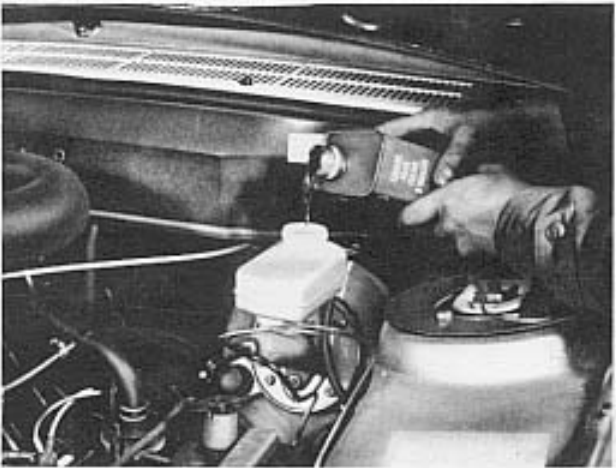
BRAKES

CHANGING THE BRAKE FLUID



FLUSHING AND REFILLING

- Clean out the reservoir with a clean, dry and lint free cloth.



IMPORTANT - Use only brake fluid.

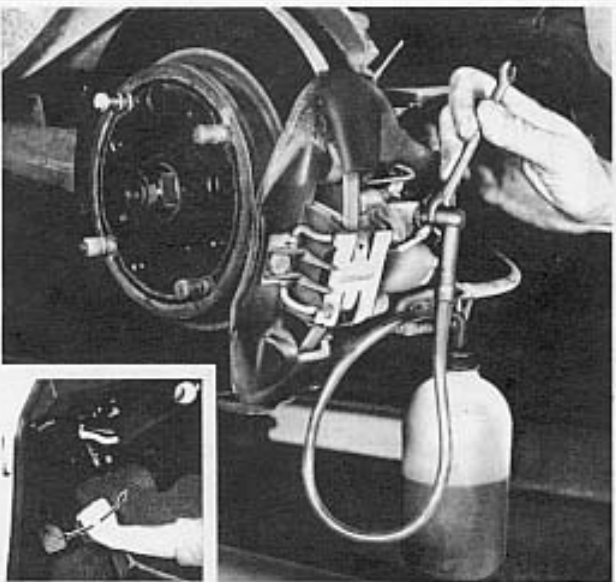
Lockheed 55

Nafic FN3

Peugeot.

which can be mixed in any proportions.

- Slowly refill the reservoir ensuring that the level is maintained during operation of the system.



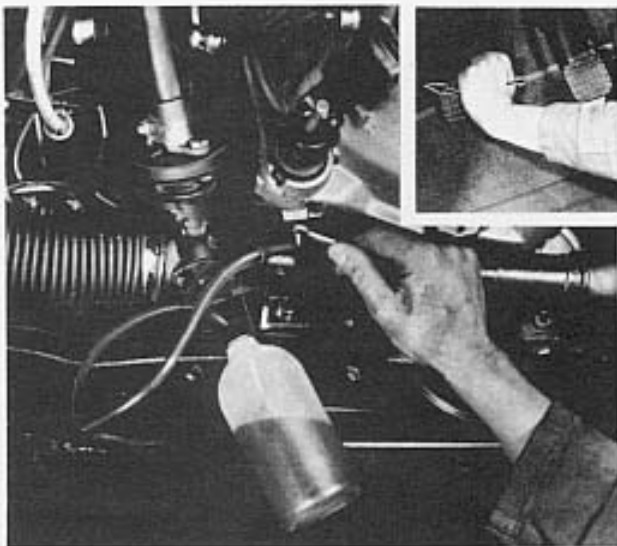
- Slacken a rear bleed screw.
- Pump the brake pedal :
 - depress and releases **slowly** until its complete return.
- After the fluid runs **clean**, tighten the bleed screw.
- Proceed likewise with the remaining 3 - bleed screw.

NOTE - 504 with dual-circuit - (Lockheed tandem)
Before refilling slacken the front RH bleed screw.

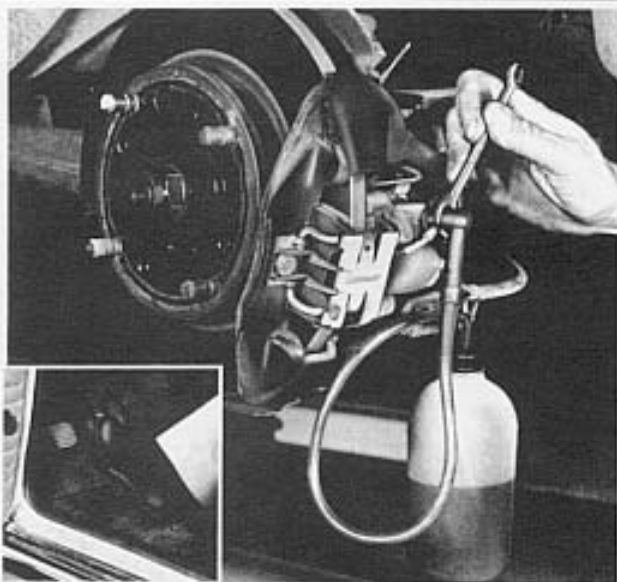
BRAKES

CHANGING THE BRAKE FLUID

8 02 15

**Clutch circuit**

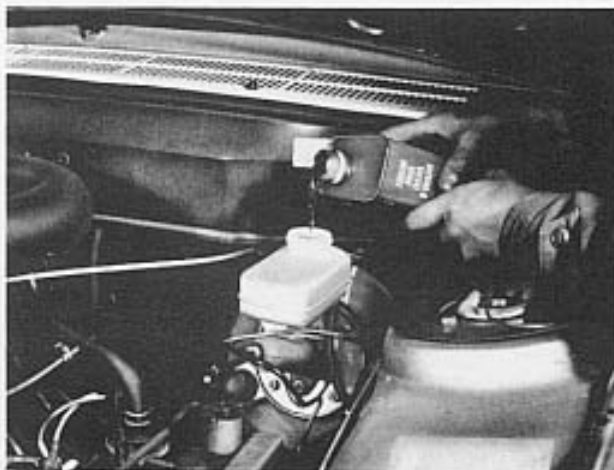
- Depress clutch pedal and hold-down.
- Slacken the bled screw of the slave cylinder.
- When the clutch fork returns to rest, tighten the bleed screw.
- **Slowly** release the clutch pedal.
- Repeat this operation until the fluid runs **clean**.

**Bleed the brake system.**

(see page 02 22).

Adjust :

- rear brake shoes of long models (see page 02 32).
- handbrake, if necessary (see page 02 31).

**Check :**

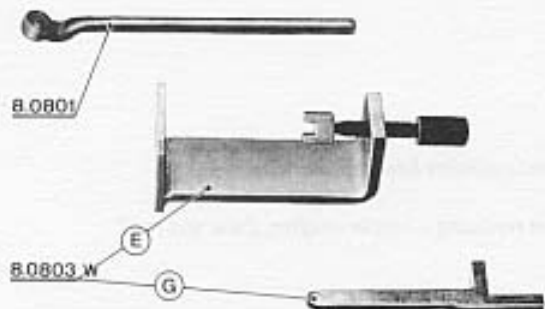
- system for leaks,
- fluid level of reservoir,
- braking efficiency,
- clutch operation,

Tightening torques

- bleed screw - 9 ft/lbs. (1,25 m.kg.).
- wheel nuts - 43 ft/lbs. (6 m.kg.).

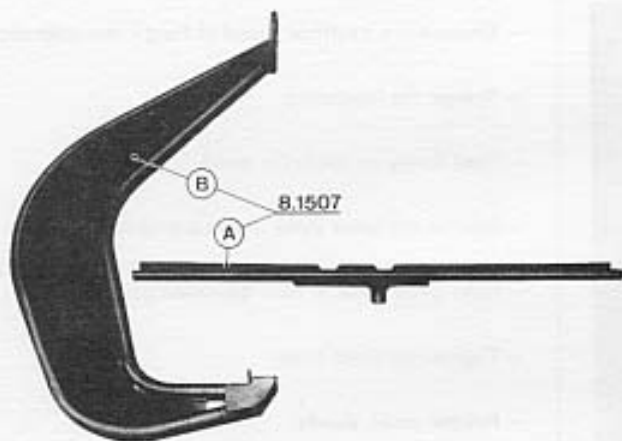
BRAKES
BLEEDING AND ADJUSTING

8 02 21

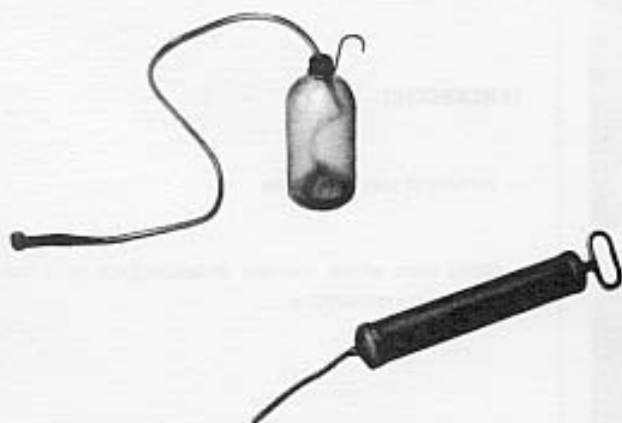


TOOLS REQUIRED

- 8.0801**
– Key for adjusting the rear brakes of long models.
- 8.0803 W**
– Tool kit for disc brakes.
- E** - fixture for movement of pistons.
- G** - key for positioning rear disc brake pistons.



- 8.1507**
– Rear lifting tackle, including :
A - Cross-piece.
B - Hook.



- 18" (40 cm) length of flexible transparent hose.
- A transparent bottle.
- A syringe.

PEUGEOT

BLEEDING

WARNING :

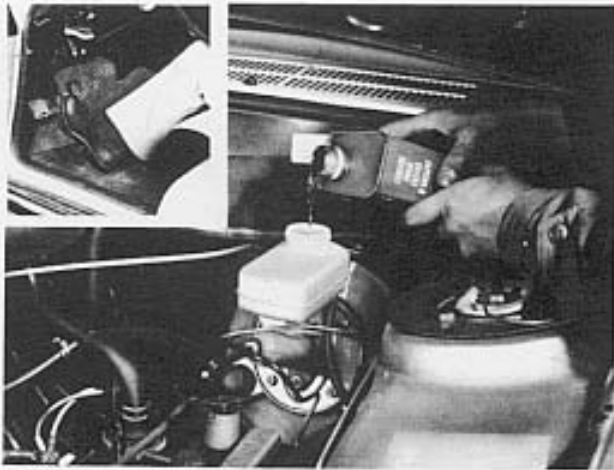
NOTE THE FOLLOWING TWO CONDITIONS

- 1) Bleeding : - 504 with rear drum brakes.
- 50 4 with rear disc brakes when the rear wheel cylinders have not been drained.
- 2) Topping-up and Bleeding : 504 with rear disc brakes, when replacing a caliper or after, drain and refill.

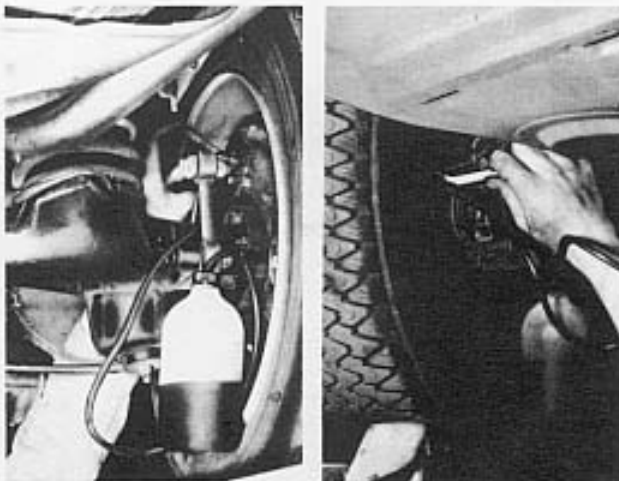
IMPORTANT - Use only the following brake fluids :

Lockheed 55
Nafic FN3
Peugeot

These fluids can be admixed in any proportions.

**Procedure for bleeding** (valid in all cases)

- Ensure there is sufficient level of fluid in the reservoir.
- Release the handbrake.
- Press firmly on the brake pedal.
- Slacken the bleed screw of the appropriate cylinder.
- Hold brake pedal in fully depressed position.
- Tighten the bleed screw.
- Release pedal, **slowly**.
- Repeat operation until fluid is free of air bubbles.

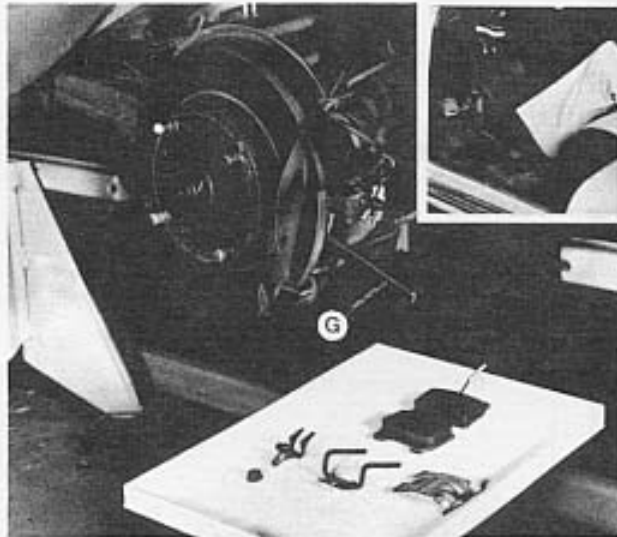
**1) BLEEDING**

- Vehicle at rest on wheels.
- Bleed each wheel cylinder in accordance with the foregoing instructions.

BRAKES

BLEEDING AND ADJUSTING

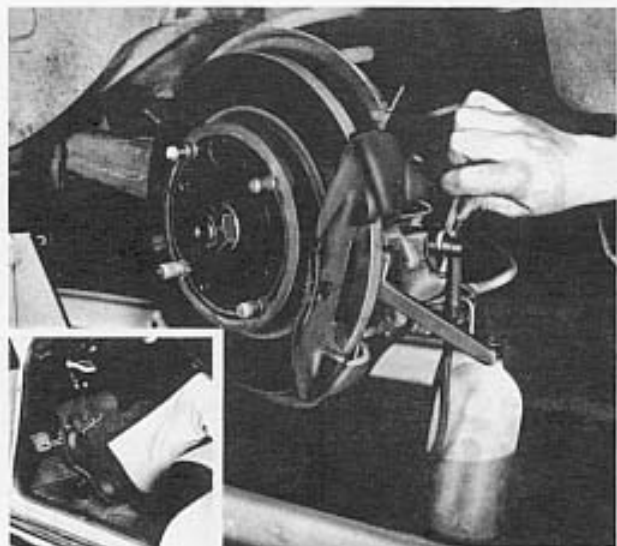
8 02 23



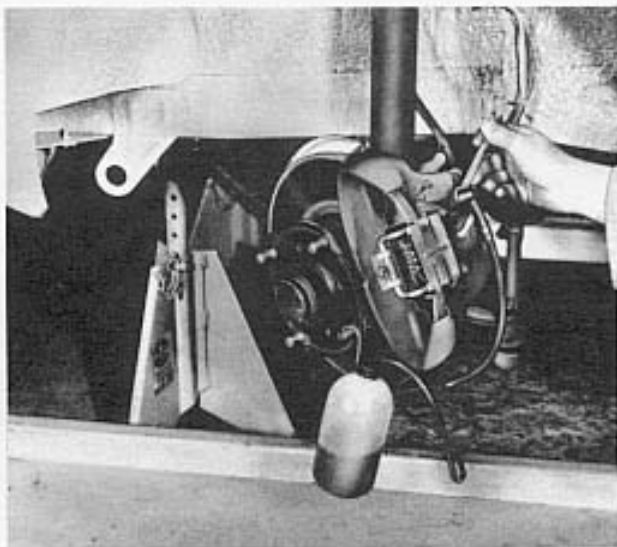
2) TOPPING-UP AND BLEEDING A NEW REAR WHEEL CYLINDER OR AFTER DRAINING AND REFILLING COMPLETE.

Before replacing the pads.

- Insert piston actuating fixture (G) in slot.
- Actuate brake pedal several times.
- the piston should travel to its maximum.



- Bleed each wheel cylinder accordingly.

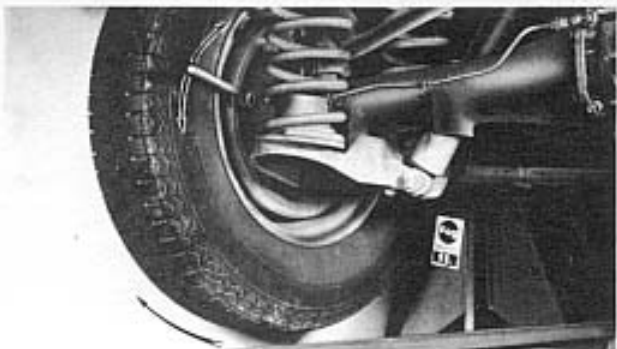


- Replace pads (see page 03 06).
- Proceed to bleed the other rear wheel cylinder and the front cylinders.

IMPORTANT - With engine running, actuate brake pedal several times until strong resistance is encountered.

BRAKES

BLEEDING AND ADJUSTING



FINAL OPERATIONS

- Adjust :

- shoes of rear drum brakes of long models (see page 02 32).
- the handbrake, if necessary (see page 02 31),



- Check :

- system for leaks,
- fluid level in reservoir,
- braking efficiency,
- clutch operation.

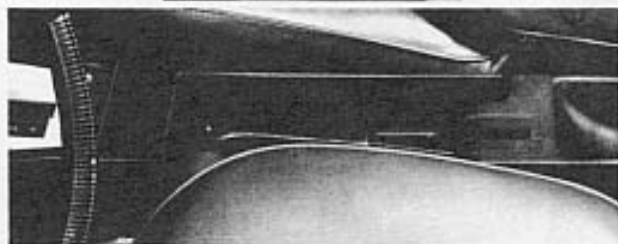
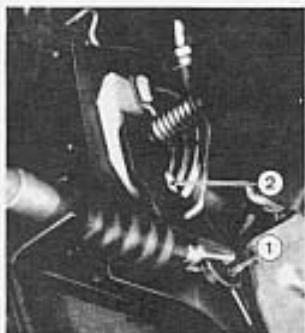
- Tightening torque :

- bleed screw - 9 ft/lbs. (1,25 m.kg)
- wheel nut - 43 ft/lbs. (6 m.kg).

BRAKES

BLEEDING AND ADJUSTING

8 02 31

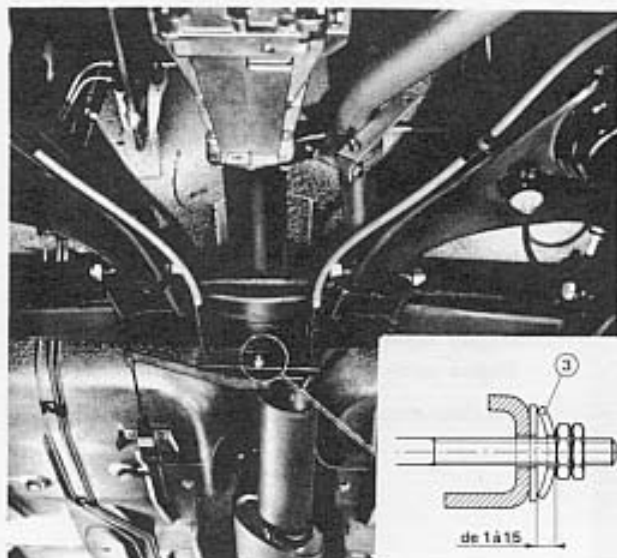


REAR DISC BRAKES

HANDBRAKE ADJUSTMENT

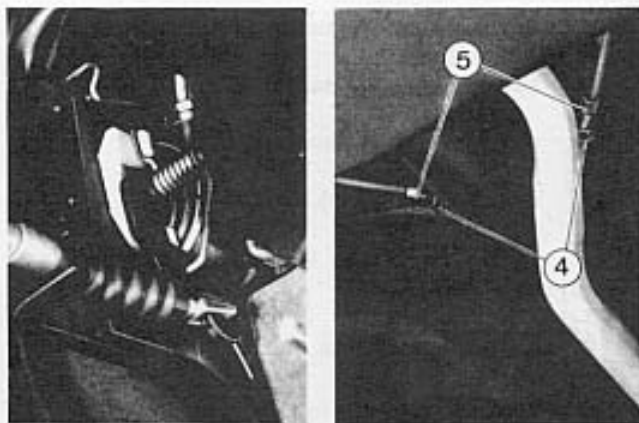
IMPORTANT - When the handbrake has been slackened, the lever (1) for operating the rear brakes should be in contact with the nylon pad (2).

- Prior to making any adjustment :
 - the system must have been bled.
 - actuate firmly the brake pedal a number of times (engine running).



I - Dashboard mounted handbrake

- Slacken the equalising arm nuts.
- Tighten adjusting nut to give 1 to 1,5 mm flexing of the spring washer (3).
- Hold adjusting nut in position and tighten lock-out.



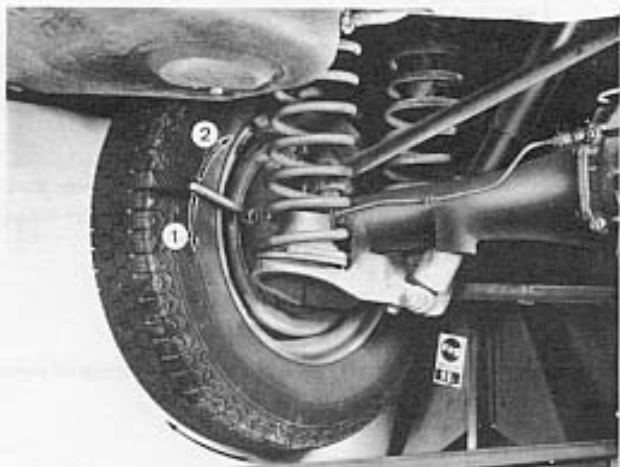
II - Handbrake mounted between front seats.

- Slacken the lock-nuts (4).
- Slacken simultaneously the threaded adjusters (5) until the levers (1) just fail to make contact with the nylon pad (2).
- Re-tighten the adjusters (5) a half-turn and tighten the lock nuts.

IMPORTANT - The threaded adjusters (5) should protrude equally, so that the equalising arm 6 is perpendicular to the handbrake shaft.

BRAKES

BLEEDING AND ADJUSTING



DRUM BRAKES

ADJUSTMENT OF REAR SHOES (long models)

- Jack-up rear of vehicle.
- Turn the wheel in the direction of travel.
- Turn each adjuster :
 - **1st direction** (downward) until wheel locks,
 - **2nd direction** (upwards) until wheel only just revolves freely.



HANDBRAKE ADJUSTMENT

WARNING :

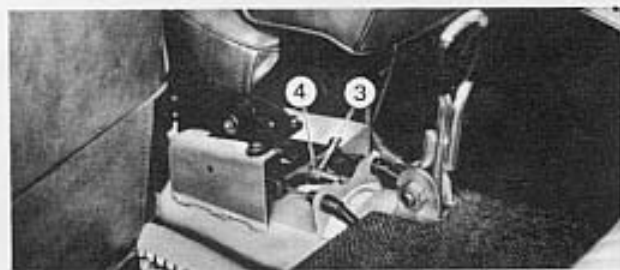
- handbrake must be fully released,
- the system bled,
- actuate firmly the brake pedal a number of times (engine running).
- the shoes should now be in adjustment (long models).



Dashboard mounted handbrake.

Handbrake between the front seats.

- Jack-up rear of vehicle.
- Slacken lock-nut (3).
- Tighten the screw (4) to give a travel of 4 to 7 notches.
- Tighten lock-nut (3).
- Ensure that wheels revolve freely by-hand.

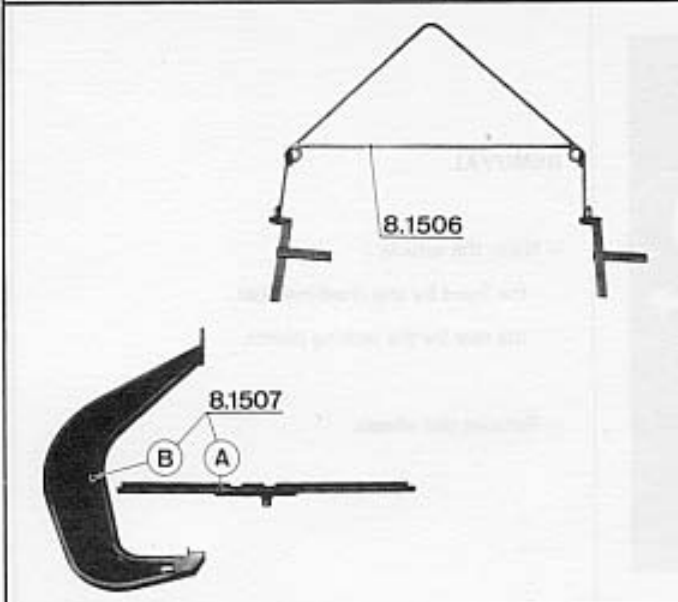


BRAKES

REPLACEMENT OF PADS

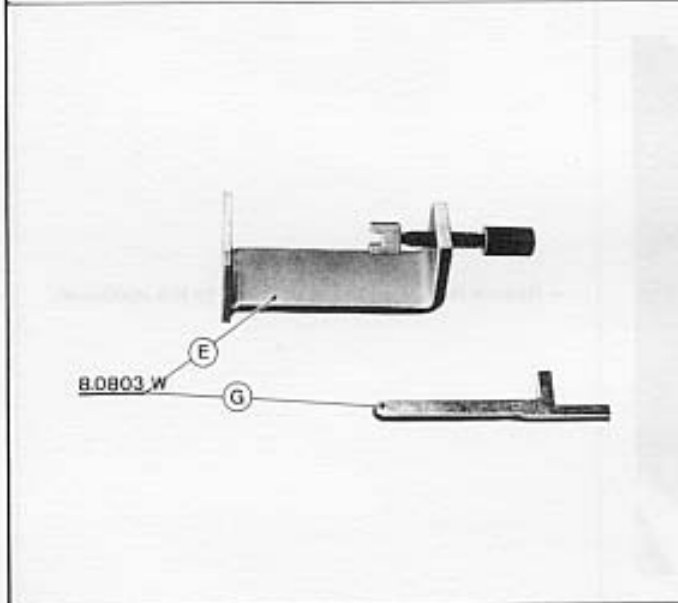
8

0301⁽¹⁾



TOOLS REQUIRED

- 8.1506**
– Front lifting tackle.
- 8.1507**
– Rear lifting tackle consisting of:
 A - Cross-piece.
 B - Hook.



- 8.0803 W**
– Disc brakes tool kit.
- E** - Piston actuating fixture.
- G** - Key for positioning pistons of rear disc brakes.

PEUGEOT

03 02

8

BRAKES

REPLACEMENT OF PADS

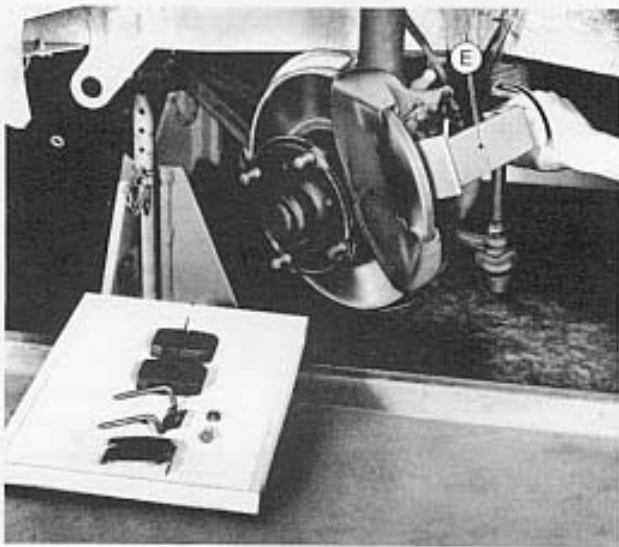


REMOVAL

- Raise the vehicle :
 - the front by the cross-member,
 - the rear by the jacking points.
- Remove the wheels.



- Reduce fluid level in the reservoir to the minimum.



FRONT CALIPERS

- Remove pads.
- Push back pistons as far as they will travel.

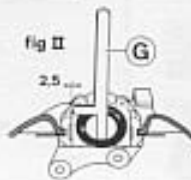
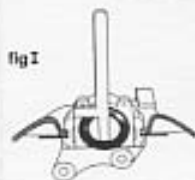
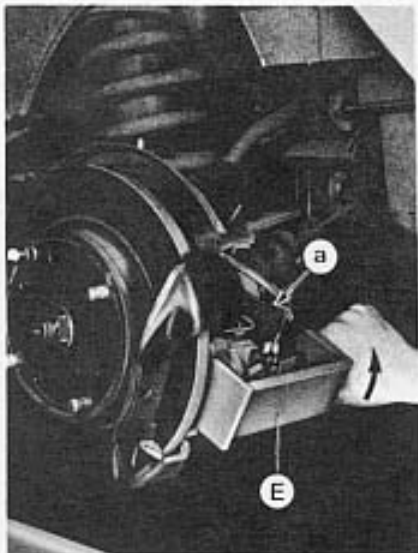
WARNING - Ensure that the screw in fixture (E) is handtight.

BRAKES

REPLACEMENT OF PADS

8

03, 03¹

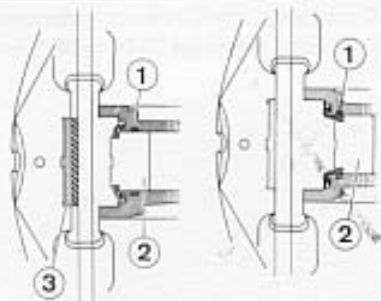


REAR BRAKE CALIPERS

- Remove pads.
- Rotate piston 1/8th of turn.
- Fig. I - MK. I Caliper (rounded at (a)).
- Fig. II - MK. III Caliper (chamfered at (a)).
- Push back pistons as far as they will travel.

WARNING - Ensure that the screw of fixture (E) is hand tight.

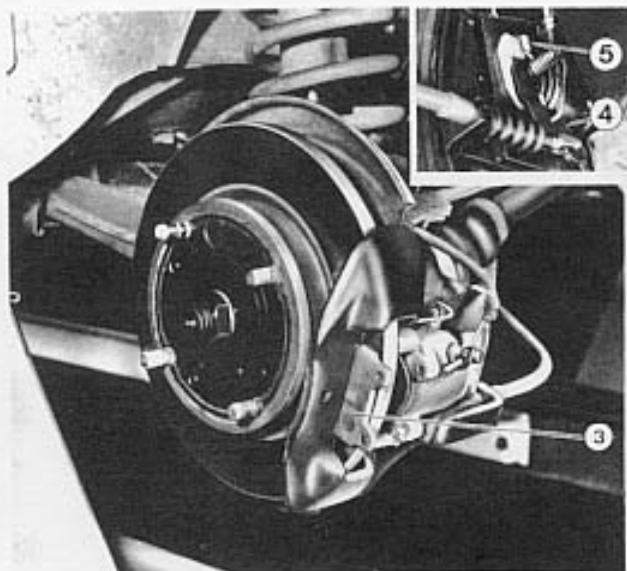
- Return pistons to their initial position.
- Fig. I Caliper MK. I (rounded at (a)).
- Fig. II Caliper MK. III (chamfered at (a)).



PRECAUTIONS TO BE TAKEN

IMPORTANT - To prevent the seal (1) being displaced by the piston (2) put into position used pad (3).

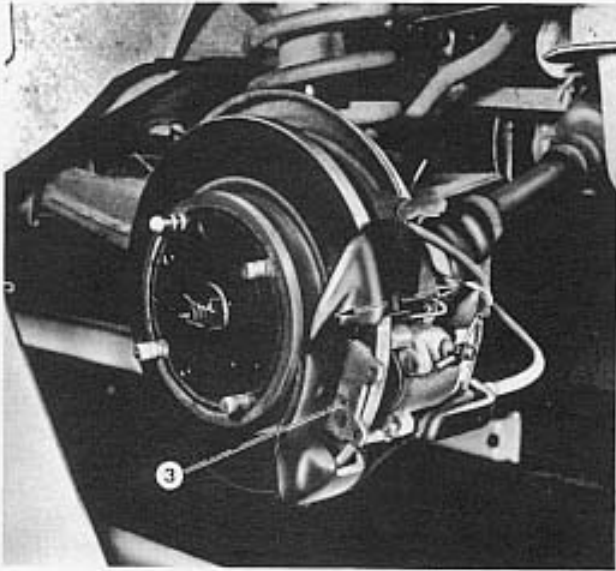
- Clean the caliper assembly and disc with meths.
- Ensure absolute cleanliness of :
 - clip holes in the pads,
 - handbrake linkage and levers,
 - moving parts of the caliper.
- Check :
 - that wheels cylinders are leakproof,
 - condition of rubber protectors.
- With the handbrake fully released ensure that the levers (4) press on their nylon pads (5).



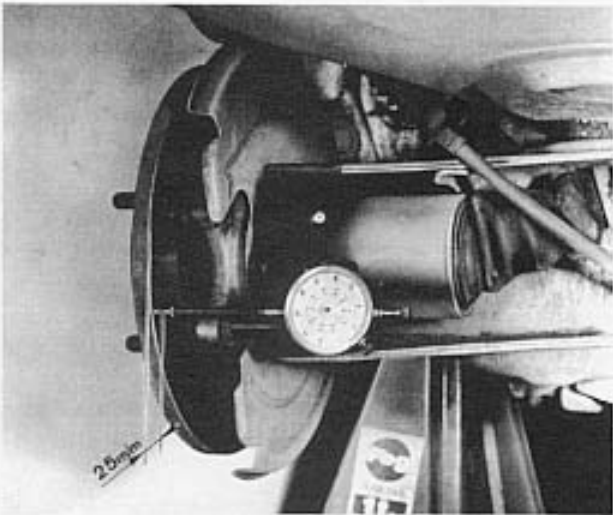
PEUGEOT

BRAKES

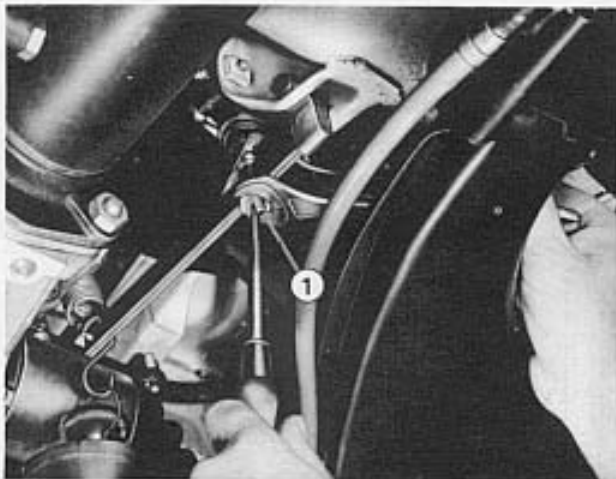
REPLACEMENT OF PADS



- Ensure free movement of the caliper (used pad **(3)** still in place).
- If necessary, check caliper movement (see page 02 08).



- Check condition of the disc.
- If necessary, check run-out : maximum 0", 0028 (0,07 mm.) (see pages 06 06 or 06 13).



IMPORTANT - Adjust the compensator if pad wear, as between front and rear brakes, is appreciably different. (see page 11 01).

BRAKES
REPLACEMENT OF PADS

8 03 05⁽¹⁾

FITTING

IMPORTANT - Fitting of Ferodo 2430 pads.

WARNING :

TWO GRADES OF PADS :

Ferodo EP 2430 - back plate, colour black, marked FER 2430 F FF,

Ferodo F 2430 - back plate, colour grey, marked SAAF 2430 FF.

INTERCHANGEABILITY- These two grades of pad are interchangeable provided that a set of 4 pads of the same grade are fitted to an axle.

Ferodo 2430 pads can be used in place of NS 414 or F 737, or mixed pads, always provided that the near and offside calipers on any axle are fitted with the same grade of pad.

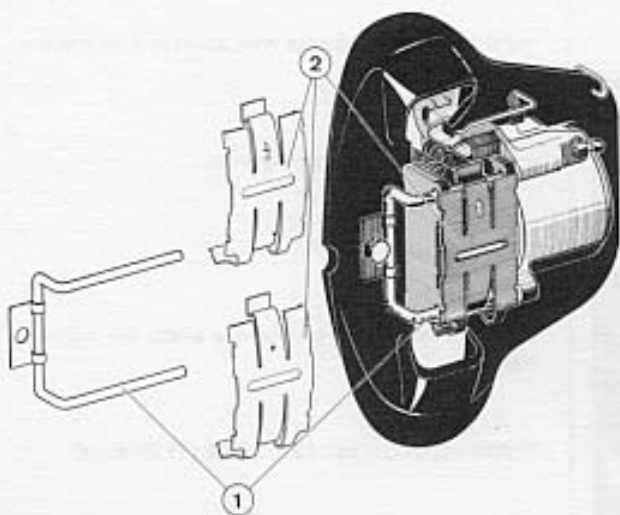


- Protect the pads with masking tape.

- Apply Permatex "High Tack" to the backs of the pads.

- Allow to set for 1 hour.

NOTE - The adhesive becomes stronger whilst retaining elasticity.



IMPORTANT - The retaining clips and springs must be replaced when fitting new pads.

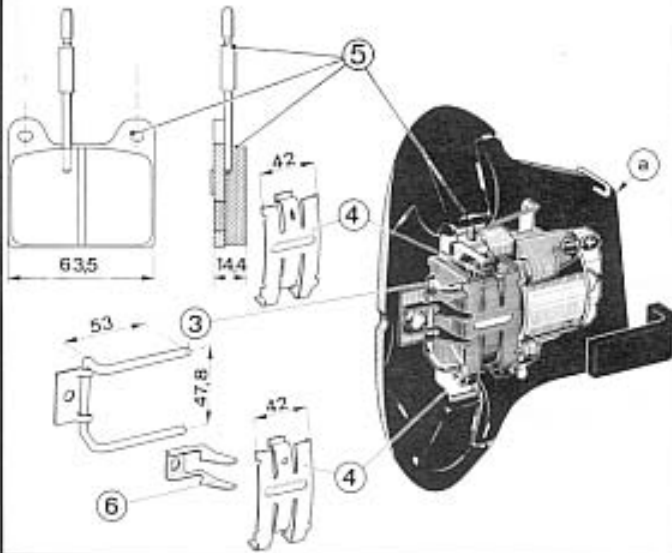
- Install the pads, taking into consideration the following fittings :

- **Front calipers :**

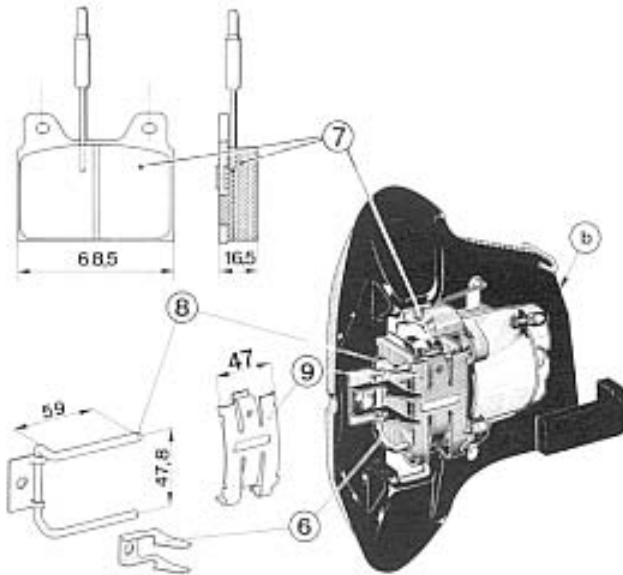
- clips (1),
- pressure spring (2).

BRAKES

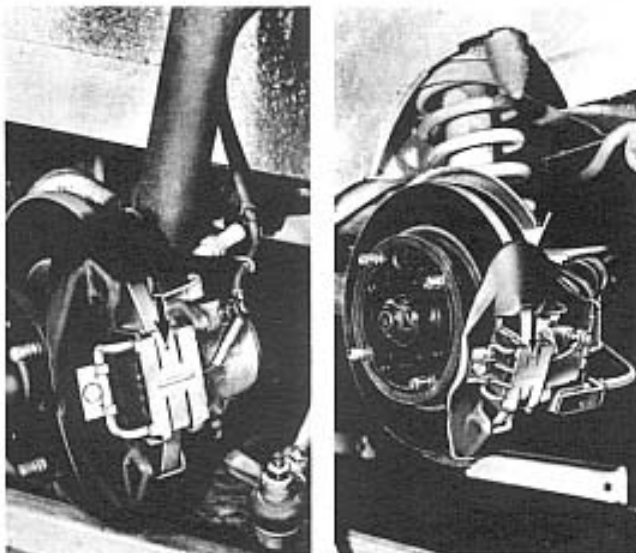
REPLACEMENT OF PADS



- Rear calipers, type MKI (rounded at (a)):
 - clip (3),
 - pressure spring (4).
- Rear calipers, type MKI (rounded at (a)) with Ferodo EP 2430 pads :
 - Ferodo EP 2430 (5),
 - clip (3),
 - pressure spring (4),
 - return spring (6).



- Rear calipers, type MKIII (chamfered at b).
 - pads (7),
 - clips (8),
 - pressure spring (9),
 - return spring (6).



- Fit the pressure springs with arrow or hole towards the top.
- Connect the wear warning wires.
- Fix the pads.

NOTE - Place a new grower ring under the ordinary HM nut.

Tightening torque to : 12 1/2 ft/lbs (1,75 m.kg).

BRAKES
REPLACEMENT OF PADS

8

03 07

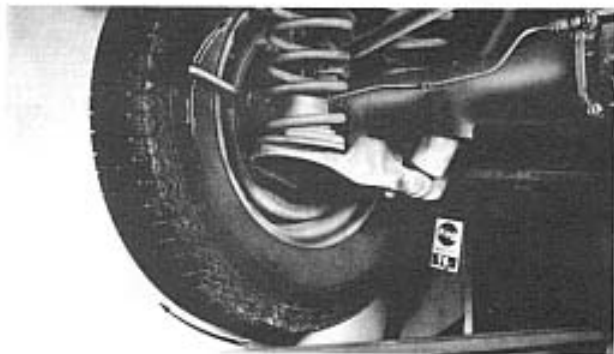


IMPORTANT - Operate the brake pedal several times (engine running) until strong resistance is obtained.



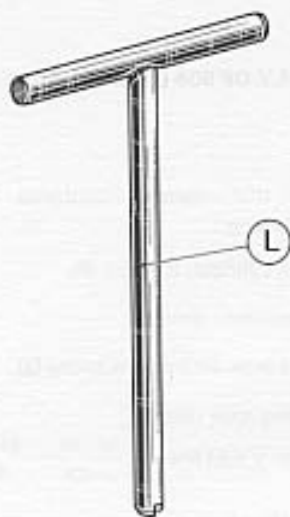
FINAL OPERATIONS

- Check :
- amount of travel of the brake pedal, on 504 derivatives if necessary adjust the brake shoes,
- amount of travel of the handbrake.
- fluid level.
- effectiveness of brakes (road test)



BRAKES
BRAKE PLATES

8 04 01

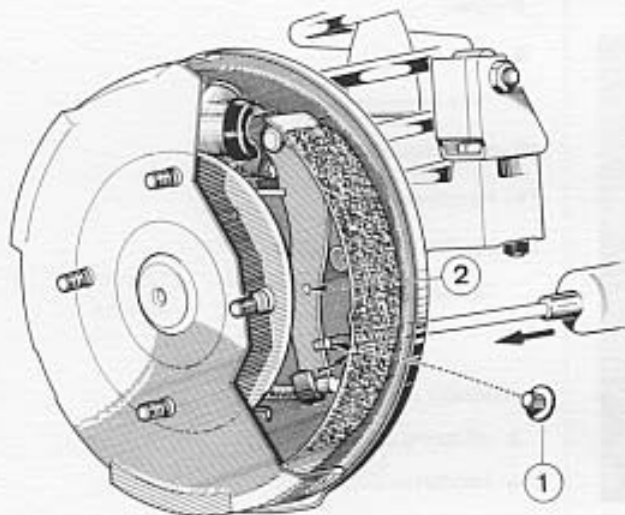


TOOLS REQUIRED

8.0803 W

– Disc brake tool kit.

L - Brake spring key.

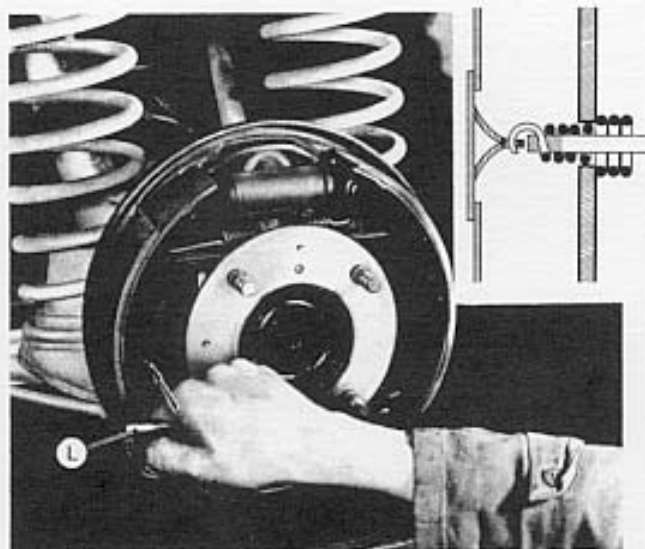


If difficulty is encountered when removing a 504 L drum :

– Remove plug (1).

– Push the brake lever with a screw driver to release it from the stud (2). (Shoes will then be fully retracted).

– Dismantle the drum.



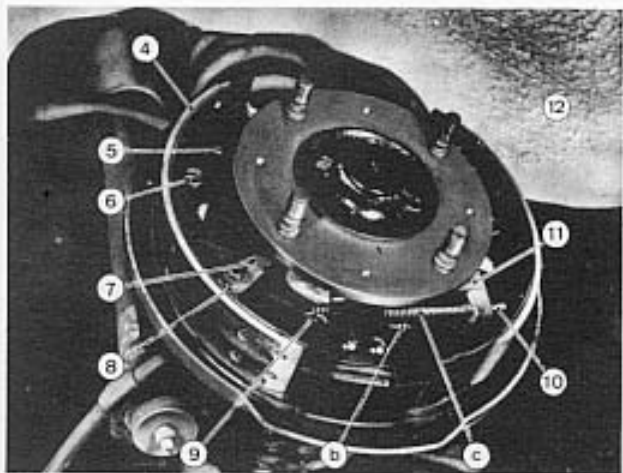
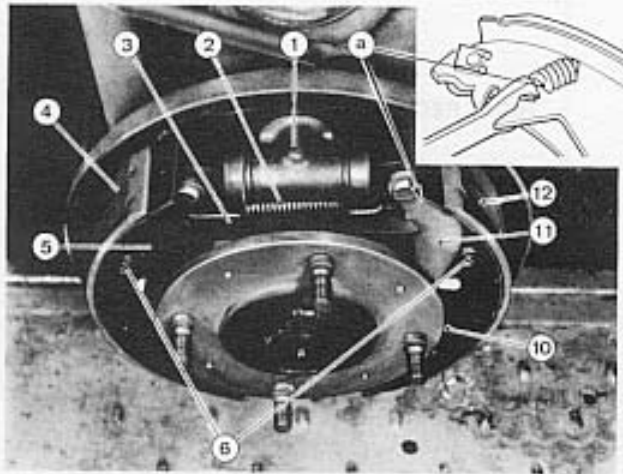
– Use key (L) for the removal and re-fitting of lateral retaining springs.

IMPORTANT - The springs must be renewed after each dismantling.

PEUGEOT

BRAKES

BRAKE PLATES



ASSEMBLY OF 504 L REAR BRAKES

– Ensure that assembly conforms in respect of the following :

- 1 - Wheel cylinder, 22 m/m dia.
- 2 - Shoes return spring.
- 3 - Brake lever with return spring (a).
- 4 - Leading shoe (front).
Textar V 643 lining { length - 267 m/m,
width - 45 m/m.
- 5 - Adjusting lever.
- 6 - Pull-off springs.
- 7 - Pawl.
- 8 - Pawl spring.
- 9 - Shoe retaining springs.
- 10 - Handbrake cable.
- 11 - Handbrake lever.
- 12 - Trailing shoe (rear).
Textar V 643 lining { length - 219 m/m,
width - 45 m/m.

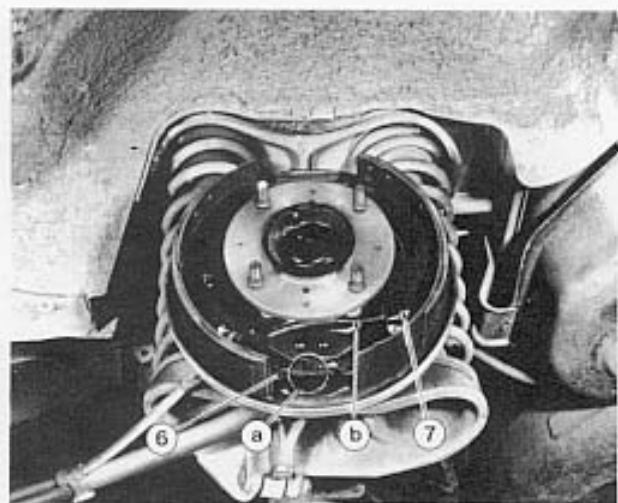
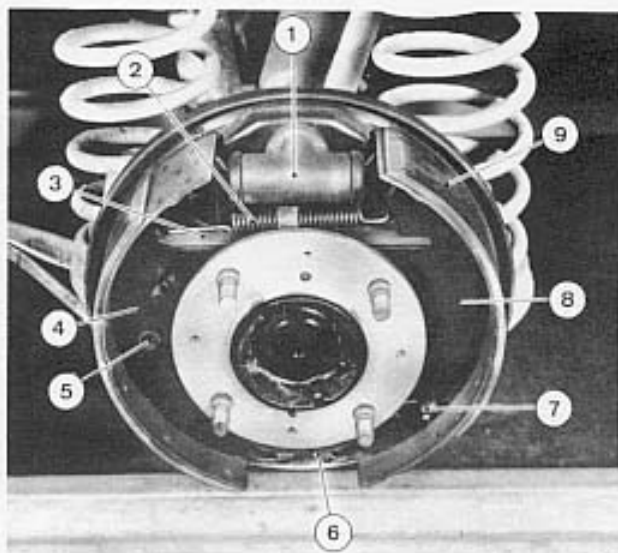
– Assembly and movement.

b - of spring (9).

c - handbrake cable. (10).

BRAKES
BRAKE PLATES

8 04 03



ASSEMBLY OF REAR BRAKES ON 504 DERIVATIVES

– Ensure that the assembly conforms in respect of the following :

- 1 - Wheel cylinder, 22 m/m dia.
- 2 - Pull-of springs.
- 3 - Link.
- 4 - Leading shoe (front)
Lining Textar V 643 { length - 280 m/m.
width - 60 m/m.
- 5 - Lateral retaining clips.
- 6 - Segment retaining springs.
- 7 - Handbrake cable.
- 8 - Handbrake lever.
- 9 - Trailing shoes (rear).
Lining Textar V 643 { length - 248 m/m.
width - 60 m/m.

– Installation :

- a - spring (6).
- b - handbrake cable (7).

BRAKES
DISCS - DRUMS

8

06 01

K21

RECTIFICATION

FRONT AND REAR DISCS

Discs which are badly scored, or show excessive wear of the pad track, can be rectified using the appropriate machine tool.

WARNING - A disc must be replaced if its thickness is less than the appropriate figure given in the following tables.

1 - Rectification and replacement dimensions.

ITEM	FRONT DISCS	REAR DISCS	
		Girling caliper type AH12 MK1	Girling caliper type AH12 MKIII
Original thickness	12,75 mm	10 mm	12 mm
Minimum permissible thickness after rectification	11,25 mm	9 mm	11 mm
A disc must be replaced when its thickness is less than -	10,75 mm	8,5 mm	10,5 mm

2) Run-out maximum permissible, in relation to hub face, is – **0,05 m/m.**

NOTE - After fitting to vehicle maximum run-out is, **0,07 m/m.**

3) Variation in disc thickness, 0,02 m/m (at any point)

REAR DRUMS

WARNING - Both LH and RH drums must be machined to the same diameter (tolérance, 0,20 m/m.)

1) Rectification and replacement dimensions

	LONG MODELS	SALOON L.
Original diameter	280 m/m	255 m/m
Diameter after machining	281 m/m	256 m/m
A drum must be replaced when its diameter exceeds.	281,5 m/m	256,5 m/m

2) Maximum ovality of drum after machining : 0,07 m/m.

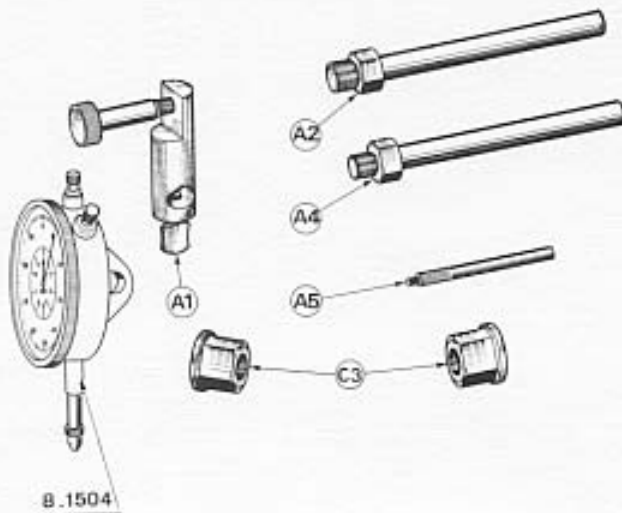
3) Maximum ovality of drum after fitting to vehicle : 0,10 m/m.

BRAKES

DISCS

8

06 03 (2)



TOOLS REQUIRED

8.0803 W

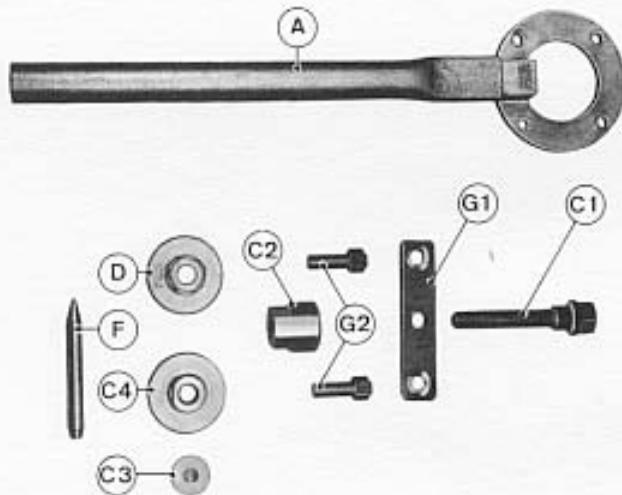
Tool kit for discs

A - Dial indicator assembly comprising :

- A1 - Indicator holder,
- A2 - Threaded spindle, 12 x 150,
- A4 - Threaded spindle, 12 x 125,
- A5 - Extension-piece.

C3 - 2 nuts from set of guides.

8.1504 - Dial indicator with fixing lug.



8.0521 Z

Tool kit for rear hub bearings.

A - Hub holding fixture (in 2 - parts).

C - Device for removing and refitting the disc hub, comprising :

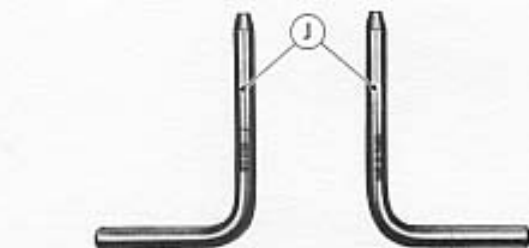
- C1 - special bolt,
- C2 - special nut,
- C3 - thrust pad,
- C4 - Extractor.

D - Spanner head for hub carrier nut.

F - Locking punch.

G - Drive shaft extractor, comprising :

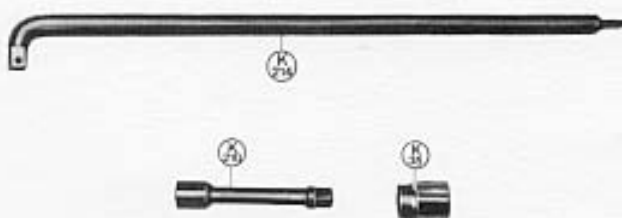
- G1 - extractor plate,
- G2 - Extractor plate screws.



8.0906 Y

Tools for front and rear suspension.

J - Pair of Tommy-bars for retaining rear arms in position on cross-member.



RECOMMENDED TOOLS

Standard Facom tools

K 214 - Extension-piece for torque spanner.

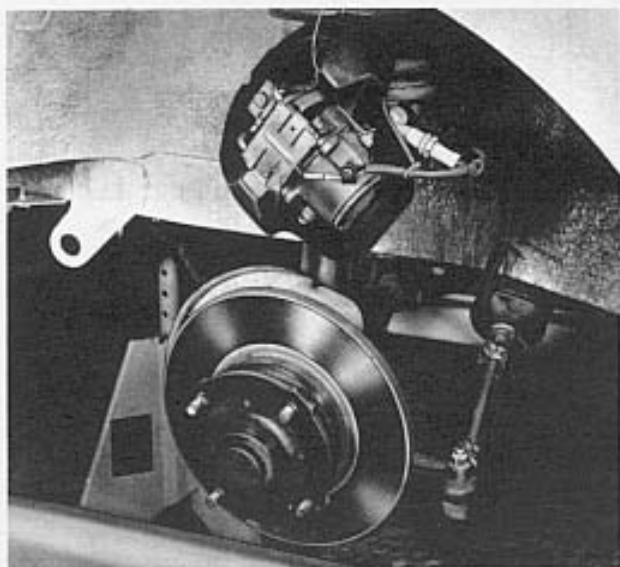
K 210 - 200 m/m long extension-piece.

K 35 - Socket, 35 m/m.

PEUGEOT

BRAKES

REPLACEMENT OF A FRONT DISC

8 06 05⁽²⁾

REMOVAL

- Hoist vehicle by front cross-member.
- Partially remove caliper without disconnecting the flexible hose.



- Remove hub/disc assembly.
- Separate hub and disc.
- Clean thoroughly.
- Check the hub bearing before replacing.



REFITTING

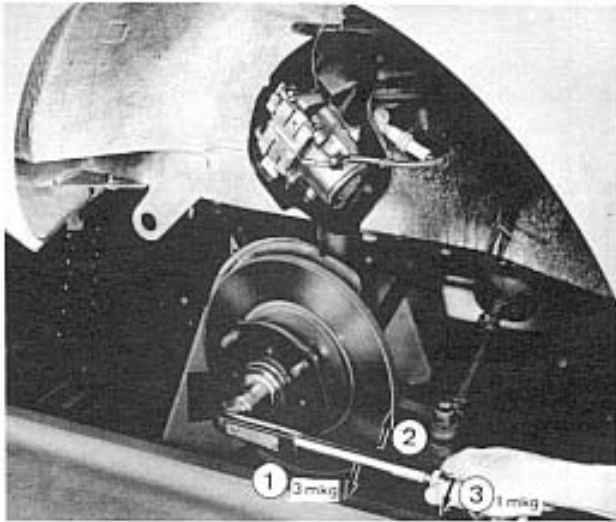
- Assemble hub and disc (ensure that the mating surfaces are clean and free from burrs).
- Assemble each bolt (brushed clean) with :
 - a new "Blocfor" lock washer,
 - a few drops of Loctite, (standard grade).
- Torque bolts to - 36 ft/lbs. (5 m.kg).



8

BRAKES

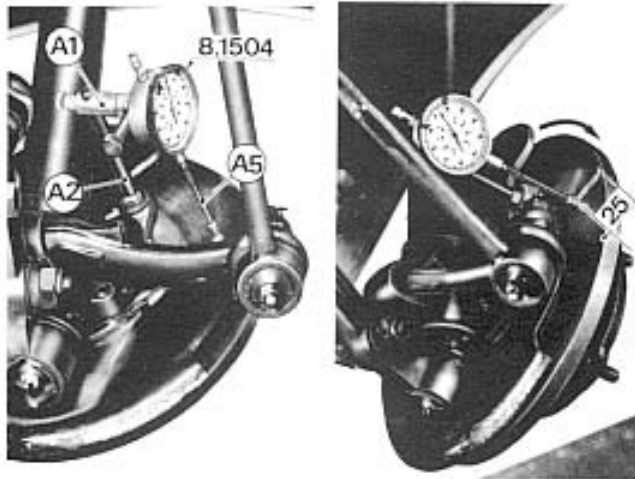
REPLACING A FRONT DISC



– Assembly of hub/disc to carrier :

- 1 - torque a new nut to, 22 ft/lbs. (3 m.kg) then,
- 2 - slacken, and
- 3 - re-torque to 7,2 ft/lbs. (1 m.kg).

– Do not lock the nut at this stage.



CHECK RUN-OUT

– Mount the dial indicator as shown opposite.

– When rotated one complete turn maximum disc run-out should not exceed 0.07 m/m.

– If this limit is exceeded rotate disc, in relation to hub, and re-check for run-out.



– Locking of hub nut.

– Fit the hub plug.

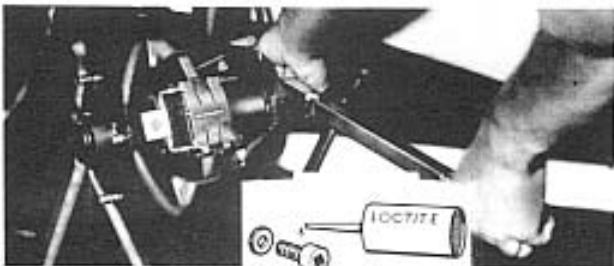
– Clean the disc surface with meths.

– Refit caliper (mating surfaces and bolt threads clean).

– Assemble each bolt (brushed clean) with :

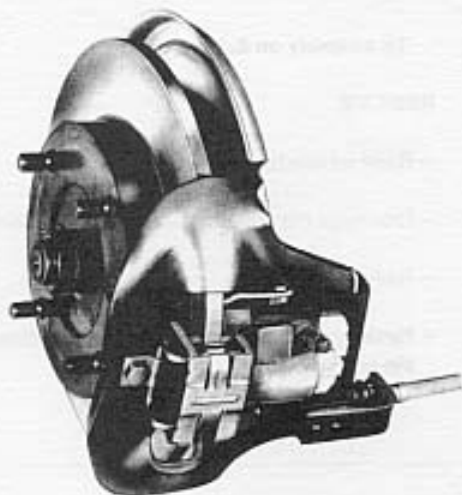
- a new "Blocfor" lock washer.
- a few drops of Loctite, (standard grade).

– Torque to 51 ft/lbs. (7 m.kg.).



BRAKES
REPLACING A REAR DISC

8 06 11⁽¹⁾

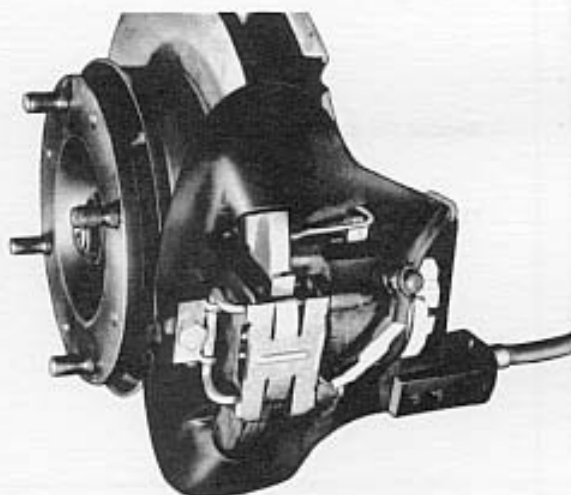


WARNING :

THERE ARE 3 DIFFERENT METHODS OF REPLACING A REAR DISC, depending on the type of assembly.

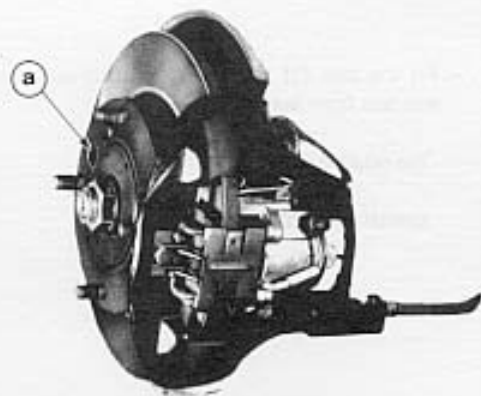
1st fitting to Saloon :

I - Disc mounted on the outside face of hub.



1st fitting to Coupé/Convertible :

II - Discs fitted to the inside face of hub.



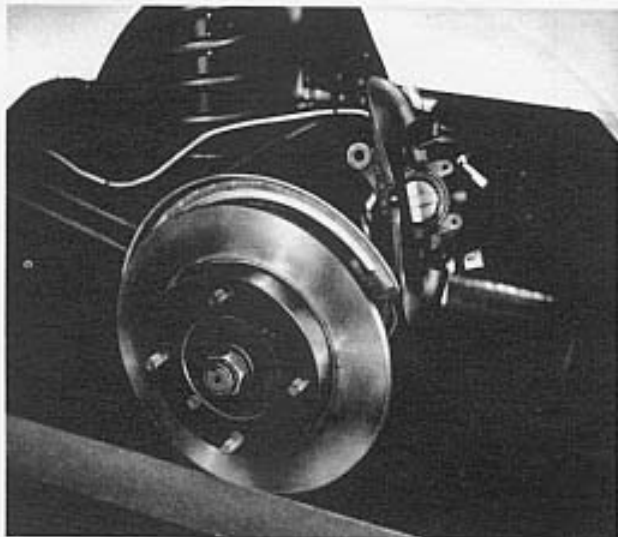
2nd fitting, all models :

III - Disc fitted to the inside face of hub which has an access hole (a) to the carrier nut.

PEUGEOT

BRAKES

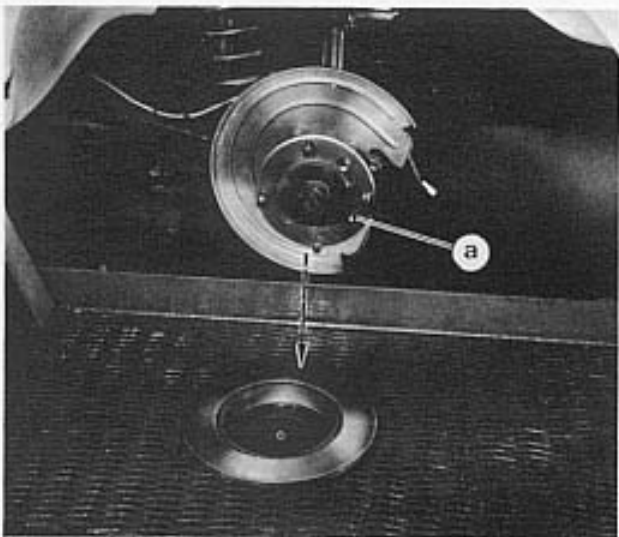
REPLACING A REAR DISC

**I - DISC MOUNTED OUTSIDE HUB**

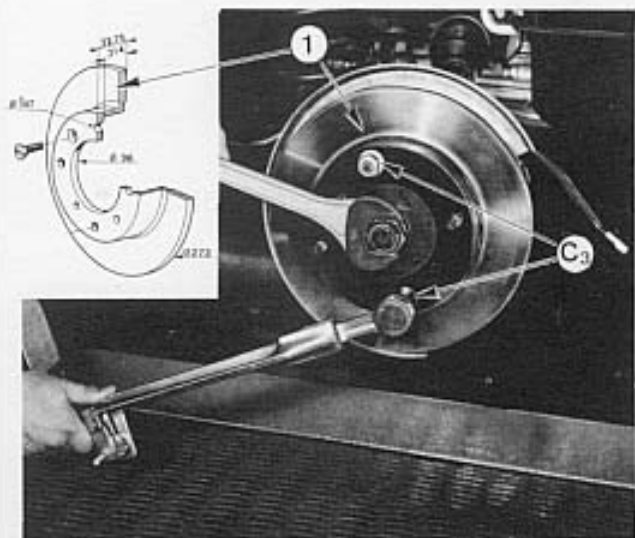
1st assembly on Saloon

REMOVE

- Raise vehicle by the rear jacking points.
- Disengage the arms, brakes pipes and flexible hose.
- Remove brake pads.
- Partially dismantle the caliper without disconnecting the brake hose.



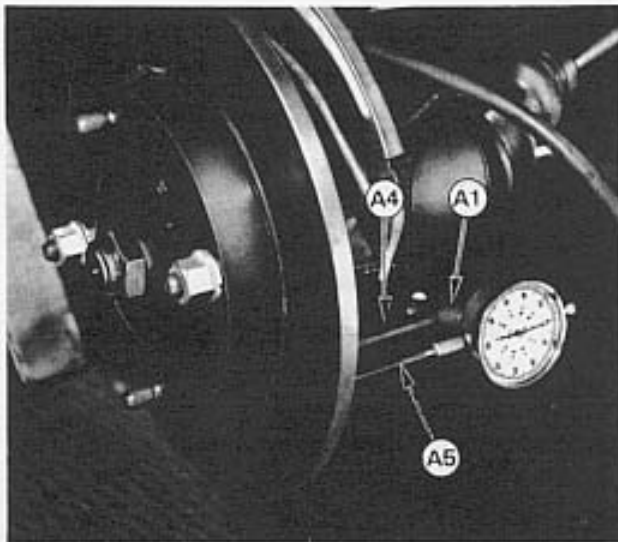
- Remove the disc.
- Thoroughly clean hub face (a).

**REFIT**

- Fit the disc (1) to the hub (mating surfaces clean and free from burrs) using :
 - the retaining bolt,
 - special nuts (C3).
- Torque nuts to : 43 ft/lbs. (6 m.kg.).

BRAKES
REPLACING A REAR DISC

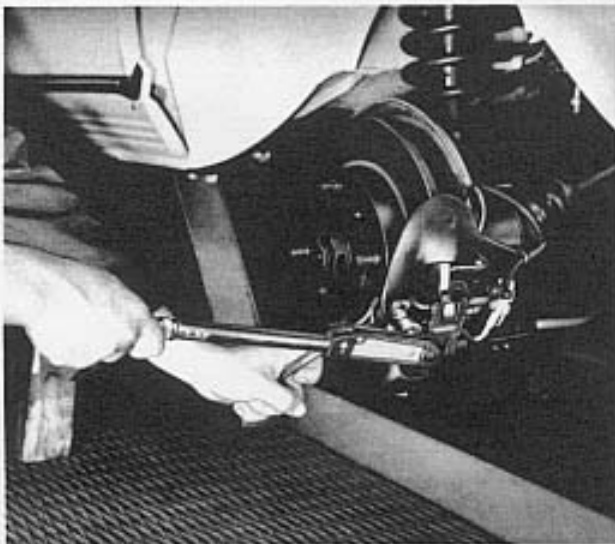
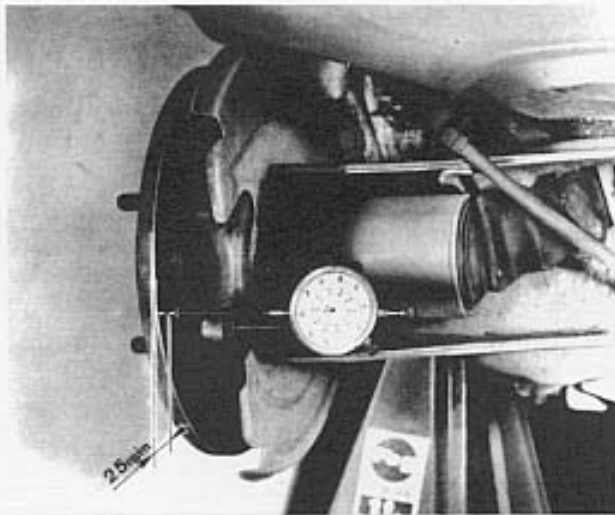
8 0613



CHECKING RUN-OUT

- Mount dial indicator as shown
- When rotated one complete turn maximum disc run-out must not exceed 0,07 m/m.
- If this limit is exceeded, rotate the disc one half-turn, in relation to the hub carrier, and re-check run-out.

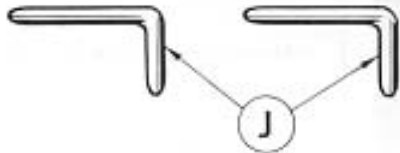
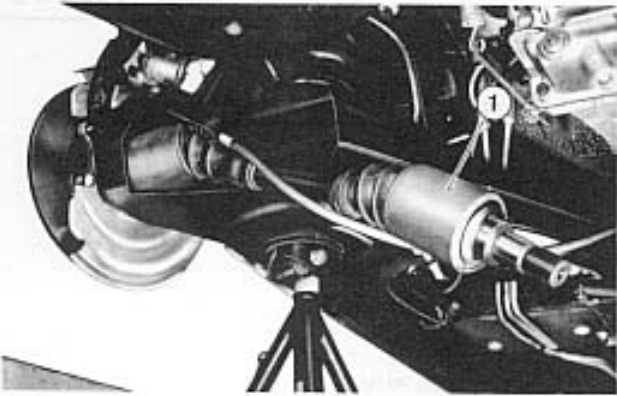
NOTE - If run-out is still in excess of 0,07 m/m, check the hub.



- Clean the disc surfaces with meths.
- Replace the caliper (ensure mating surfaces contact, and all threads clean).
- Mount each bolts (brushed clean) with :
 - a new "Blocfor" lock washer.
 - a few drops of Loctite (standard grade).
- Torque bolts to 36 ft/lbs. (5 m.kg.).
- Replace disc pads.
 - torque to, 12,7 ft/lbs. (1,75 m.kg.).

BRAKES

REPLACING A REAR DISC

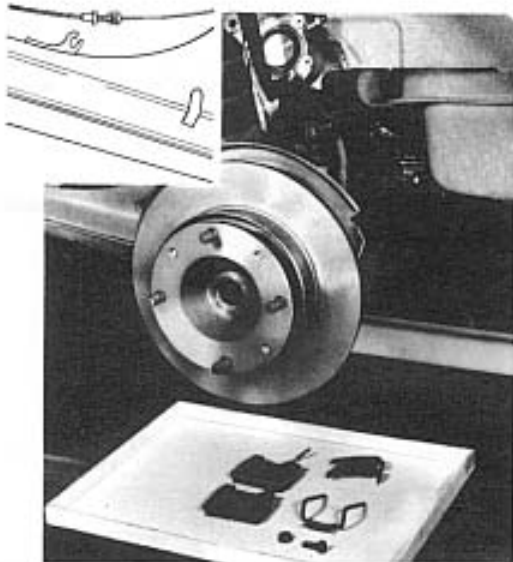


II - DISC MOUNTED ON THE INSIDE OF HUB.

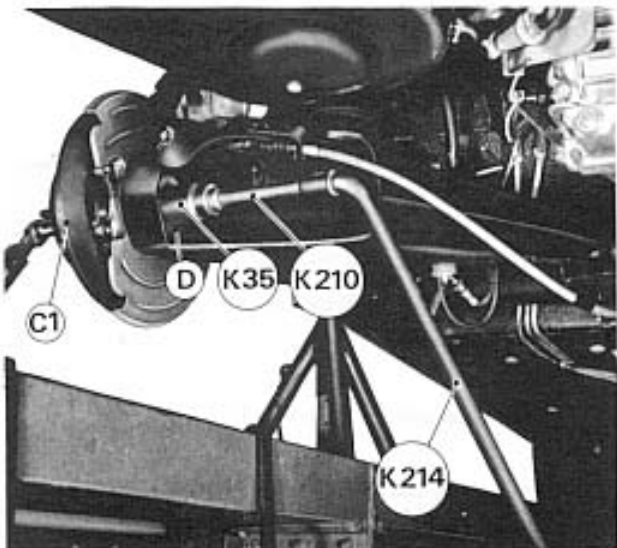
1st fitting to Coupé/Convertible

REMOVE

- Raise vehicle at rear jacking point.
- Disengage the arms, brake pipe and flexible hose.
- Dismantle the drive shaft (1) by disconnecting the rear cross-member.
- Hold the cross-member temporarily in place by means of the tommy-bars (J).



- Remove the pads.
- Partially dismantle the caliper without disconnecting the brake pipe.

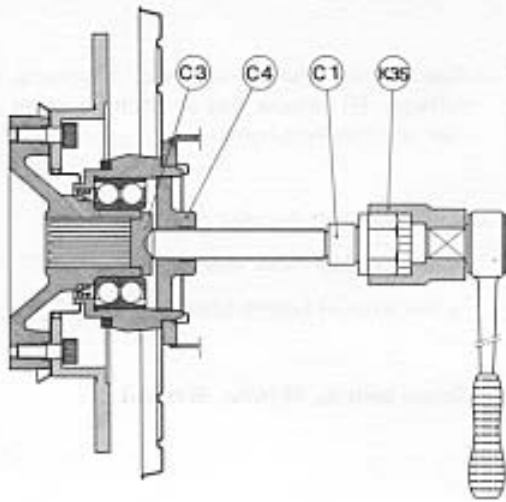


- Proceed as shown to remove the hub nut.
- retain the screw C1 whilst in this position.

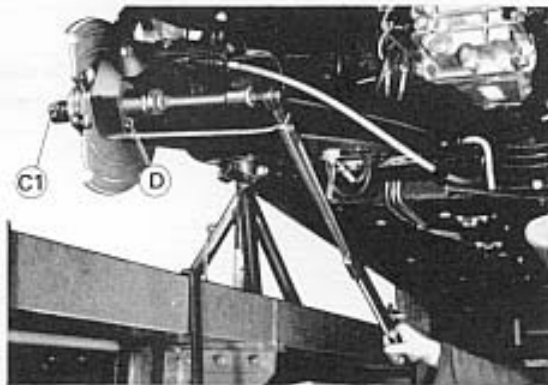
BRAKES
REPLACING A REAR DISC

8

06 15



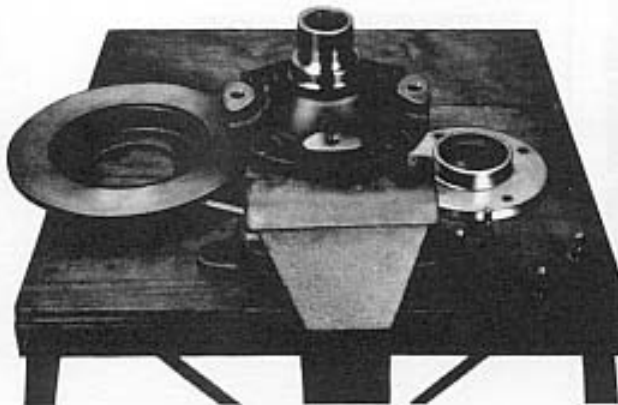
– Remove the hub/disc assembly.



– Check condition of oil seal (2) and fit hub nut.

– Torque nut to , 181 ft/lbs. (25 m.kg.).

– Do not lock hub nut at this stage.

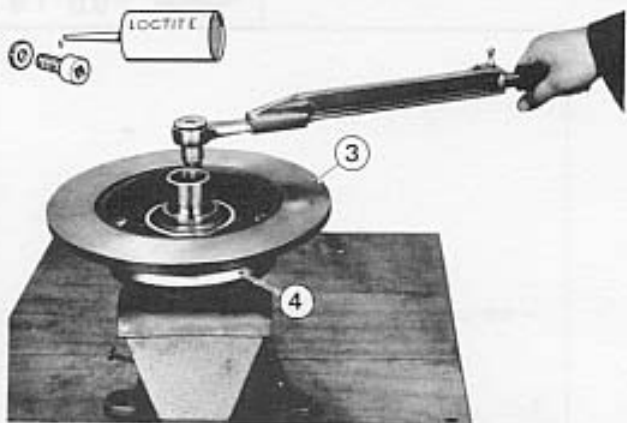


– Dismantle the disc.

– Salvage the deflector.

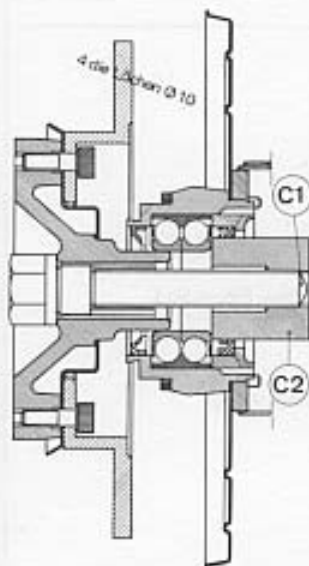
– Thoroughly clean all parts.

REPLACING A REAR DISC

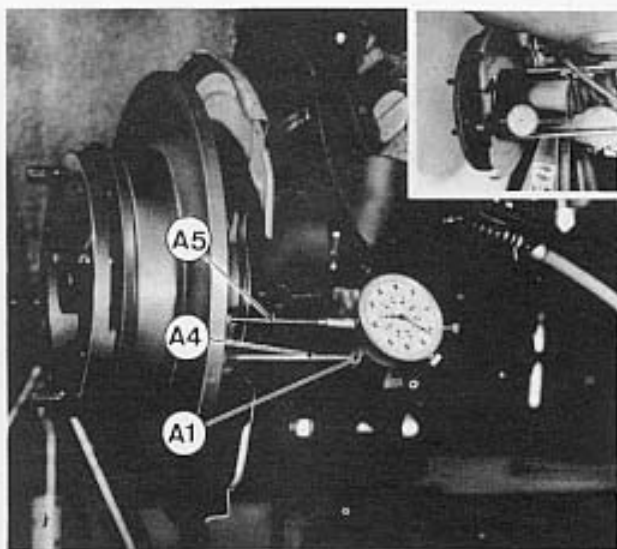


REFIT

- Assemble the disc (3) and hub, interposing the deflector (4) (ensure that all mating surfaces are clean and free from burrs).
- Mount each bolt (brushed clean) with :
 - a new "Blocfor" lock washer.
 - a few drops of Loctite (standard grade).
- Torque bolts to, 36 ft/lbs. (5 m.kg.).



- Replace the disc/hub assembly.
- The hub butting against the bearing, leave in position the tools (C1), (C2), for checking run-out.

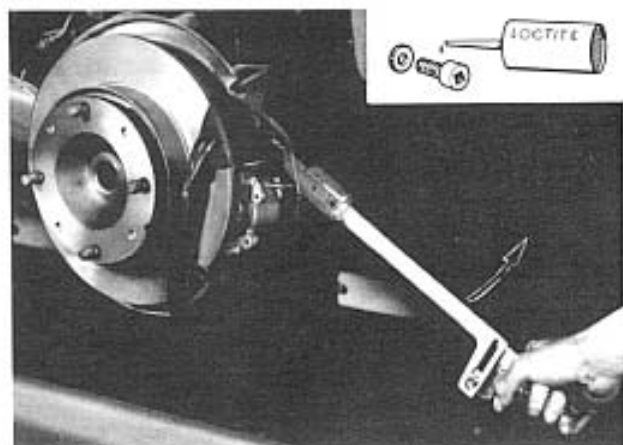
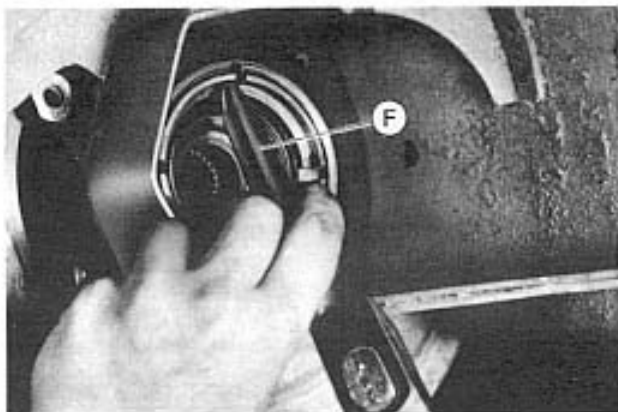


- Mount the dial indicator as shown.
- When rotated one complete turn the disc run-out must not exceed, 0,07 m/m.
- If this limit is exceeded, rotate disc, in relation to hub, a 1/4 or 1/2 turn and re-check run-out.

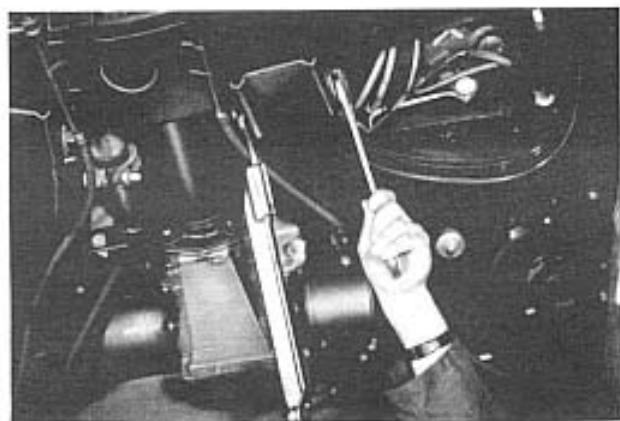
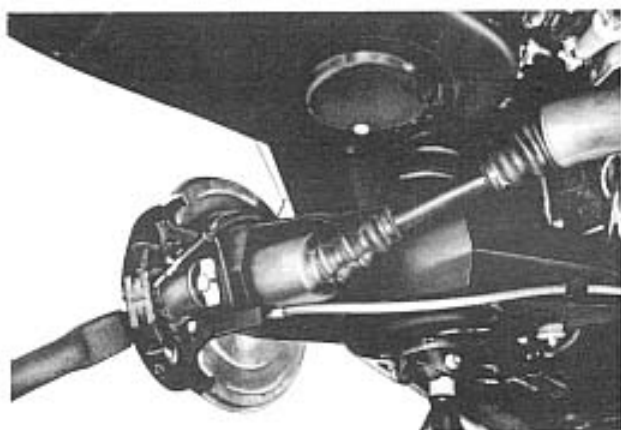
BRAKES

REPLACING A REAR DISC

8

06 17


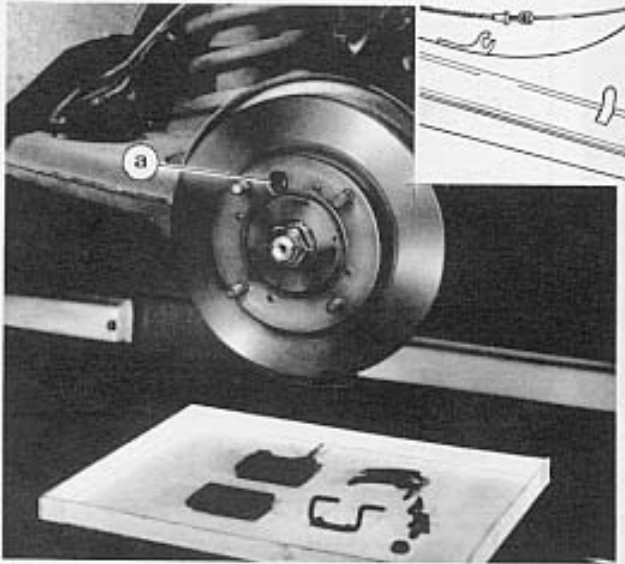
- **Securing the hub nut.**
- Clean disc surface with meths.
- Refit caliper, mating faces in contact and all threads clean.
- Mount each bolt (brushed clean) with :
 - a new "Blocfor" lock washer.
 - a few drops of Loctite (standard grade).
- **Torque nut to, 31 ft/lbs. (4,25 m.kg.).**
- Replace pads.
 - Torque to, 12,7 ft/lbs. (1,75 m.kg.).



- Replace drive shaft.
- Torque nut to, 181 ft/lbs. (25 m.kg.) and stake.
- **With the vehicle on the ground and 2 - persons seated in the rear, torque rear suspension arm pivots to, 47 ft/lbs. (6,5 m.kg.).**

BRAKES

REPLACING A REAR DISC

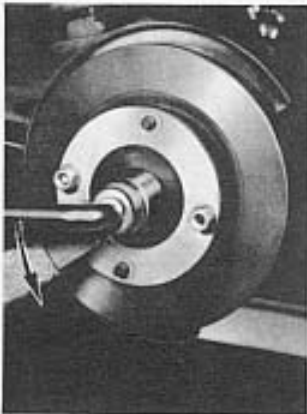


III - DISC MOUNTED ON INSIDE OF HUB (hub with access hole to bearing housing bolt (a)),

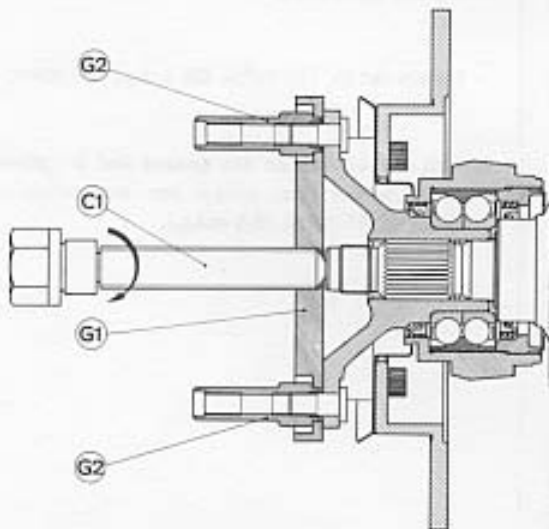
2nd assembly on all models

REMOVE

- Raise vehicle at rear jacking points.
- Disengage the brake pipe and flexible hose from the arm.
- Remove brake pads.
- **Partially dismantle caliper without disconnecting the brake pipe and hose.**



- Remove shaft nut.
- Remove the shaft, hub, disc assembly after removal of the bearing housing bolt.

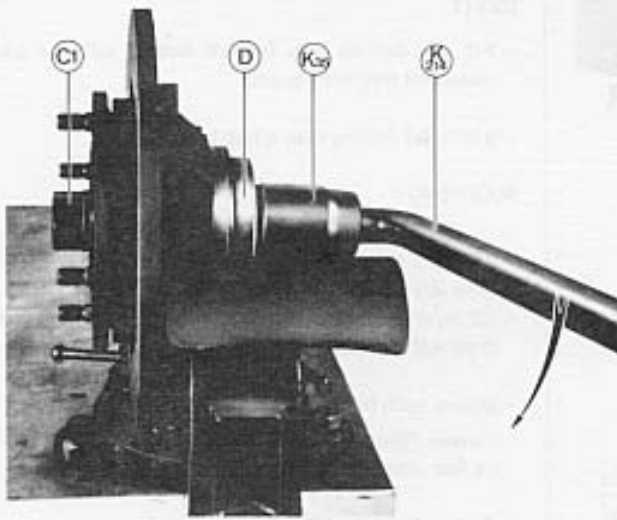


- Dismantle drive shaft using the tools shown opposite.

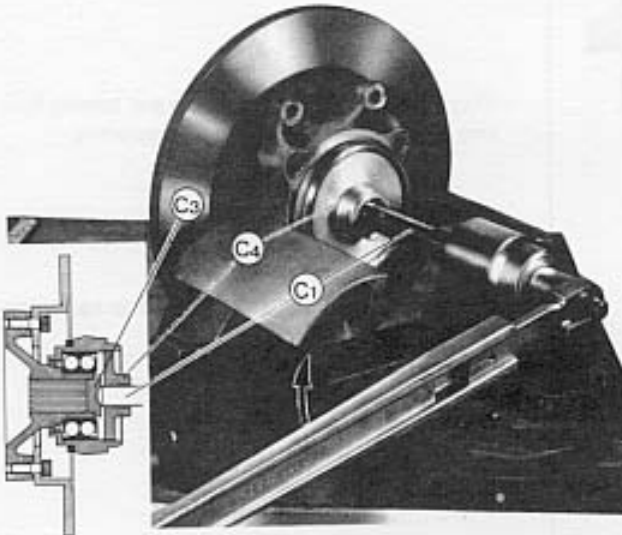
BRAKES
REPLACING A REAR DISC

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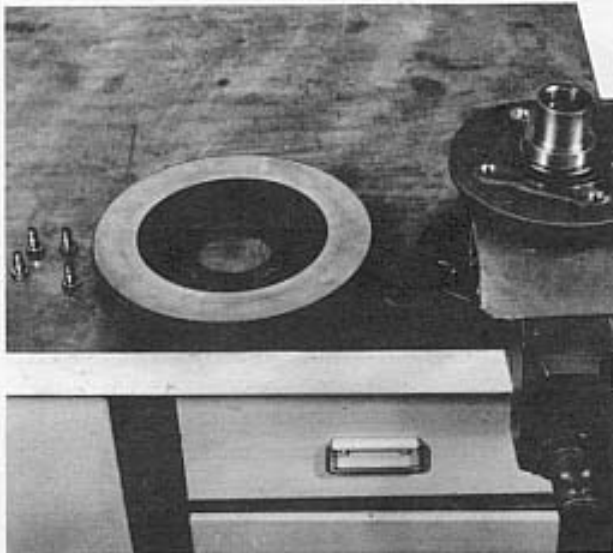
06 19



– Remove bearing housing nut.



– Remove hub/disc assembly.



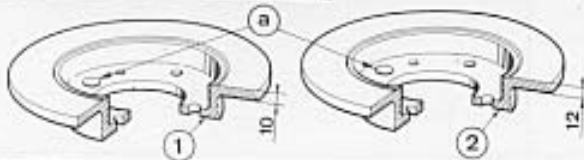
– Remove the disc.

– Thoroughly clean all parts.

PEUGEOT

BRAKES

REPLACING A REAR DISC



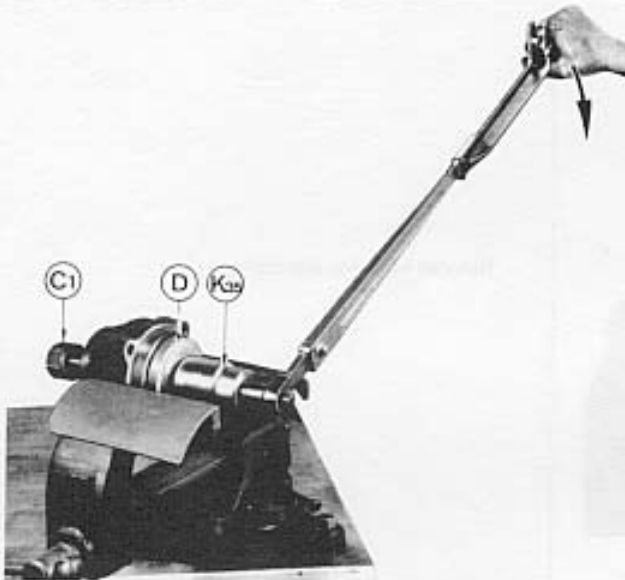
REFIT

- Fit the disc to hub (ensure mating surfaces are clean and free from burrs).
- a hole (a) mating with a hub hole.

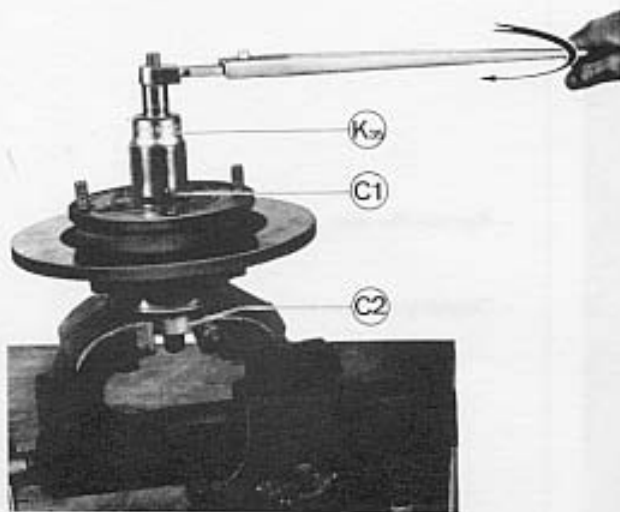
WARNING :

TWO TYPES OF DISC

- 10 m/m thick disc fitted to vehicles with calipers type AH 12 MKI.
- 12 m/m thick disc fitted to vehicles with calipers type AH 12 MKIII.
- Mount each bolt (brushed clean) with :
 - a new "Blocfor" lock washer
 - a few drops of Loctite (standard grade).
- Torque bolts to, 36 ft/lbs. (5 m.kg.).



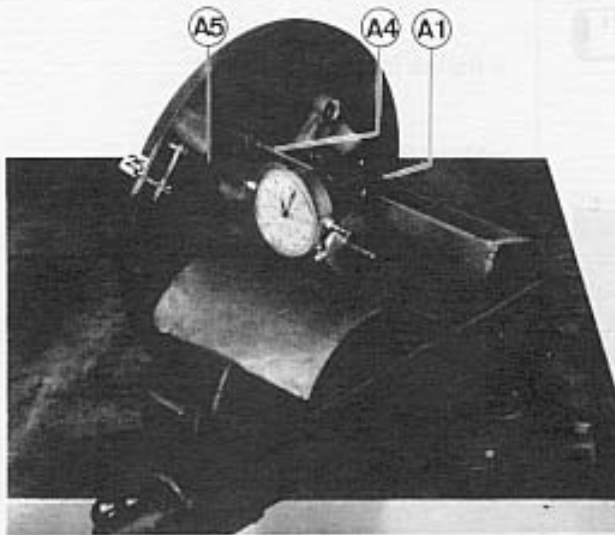
- Check the condition of the seals and bearing housing bolt in the event they require replacing.
- Tighten the bearing housing nut.
- Torque the nut to, 181 ft/lbs, (25 m.kg.) using the tools as illustrated.
- Do not lock the nut at this stage.



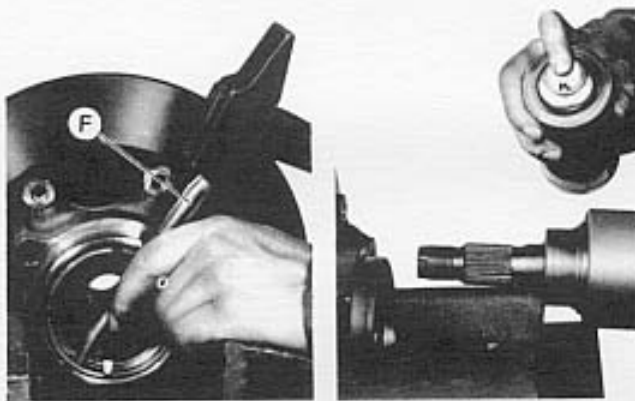
- Assemble hub/disc to bearing housing.
- Leave tools (C1) and (C2) in position.

BRAKES
REPLACING A REAR DISC

8 06 21



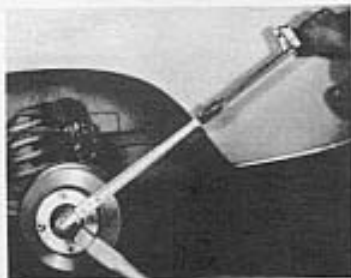
- Mount the dial indicator as shown.
- When rotated one complete turn disc run-out must not exceed, 0,07 m/m.
- If this limit is exceeded, rotate the disc one-half turn, in relation to the hub, and re-check run-out.



- Remove tools (C1) and (C2).
- Stake the hub carrier nut.
- Coat the drive shaft splines with Molykote 321.
- Fit drive shaft to hub.



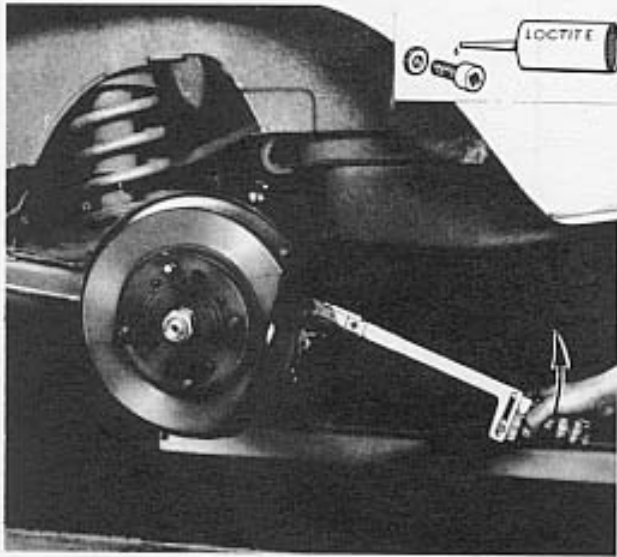
- Replace the assembly in vehicle.
- Mount each bolt (brushed clean) with :
 - a **new** washer.
 - a few drops of Loctite, (standard grade).



- Torque to, 31 ft/lbs. (4,5 m.kg.).
- Torque shaft nut to, 181 ft/lbs. (25 m.kg.) and stake.

BRAKES

REPLACING A REAR DISC



– Replace the caliper.

– Mount the bolts (brushed clean) with :

- a new "Blocfor" lock washer
- a few drops of Loctite, (standard grade).

– Torque to, **31 ft/lbs. (4,25 m.kg.)**.

– Replace disc pads.

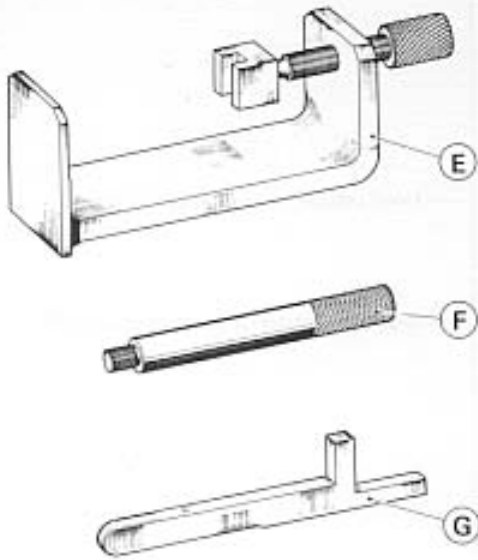
Torque to, 12,7 ft/lbs. (1,75 m.kg.).

BRAKES

CALIPERS

8

07 01 ⁽¹⁾



TOOLS REQUIRED

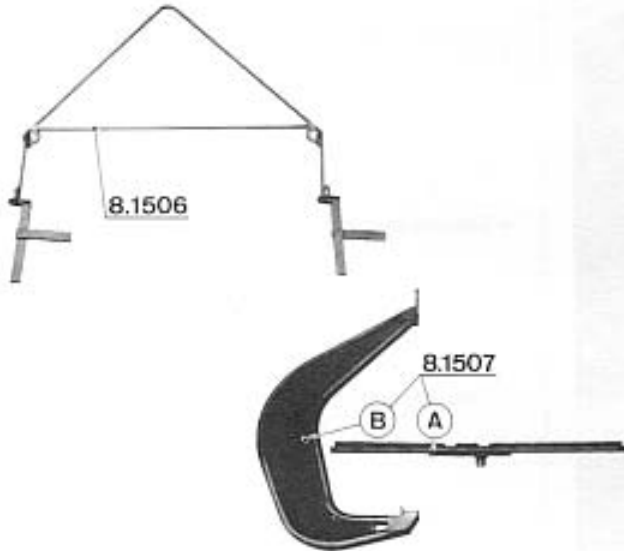
8.0803 W

– Tool kit for disc brakes.

E - Fixture for actuating front and rear pistons.

F - Screwed rod for plugging master cylinder.

G - Key for positioning the rear pistons.



8.1506

– Front hoisting tackle.

8.1507

– Rear hoisting tackle, comprising :

A - cross-piece,

B - hook.

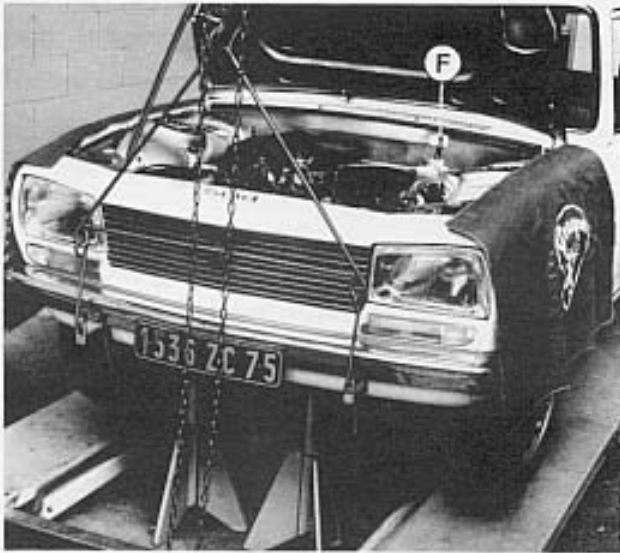
PEUGEOT

07 02^(*)

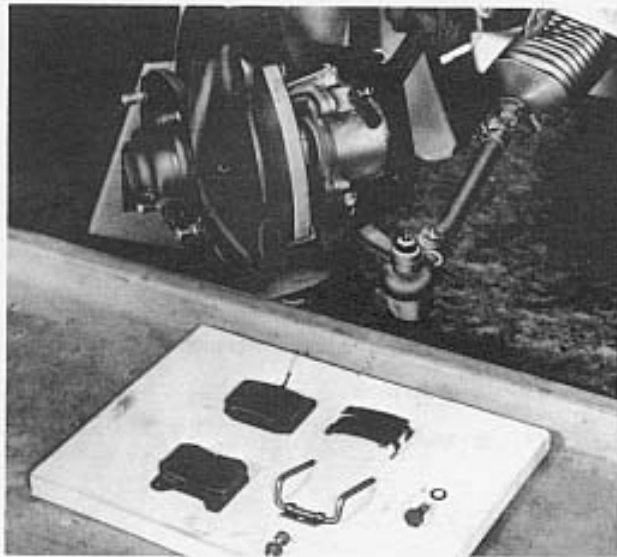
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BRAKES

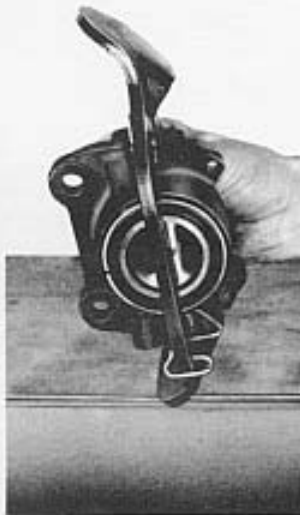
REMOVING A FRONT BRAKE CALIPER



- Hoist vehicle by front cross-member.
- Block the master-cylinder inlet (plug F).



- Remove the wheels.
- Remove the pads.
- Disconnect from the caliper.
 - warning light lead,
 - flexible hose.

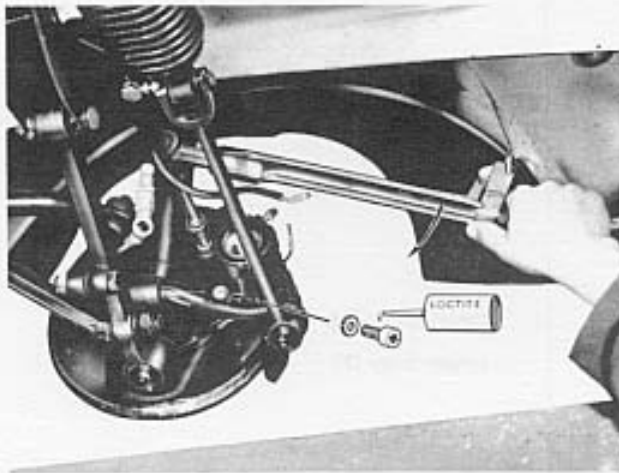


- Remove the caliper.
- Remove the bleed screw.
- Drain the cylinder.

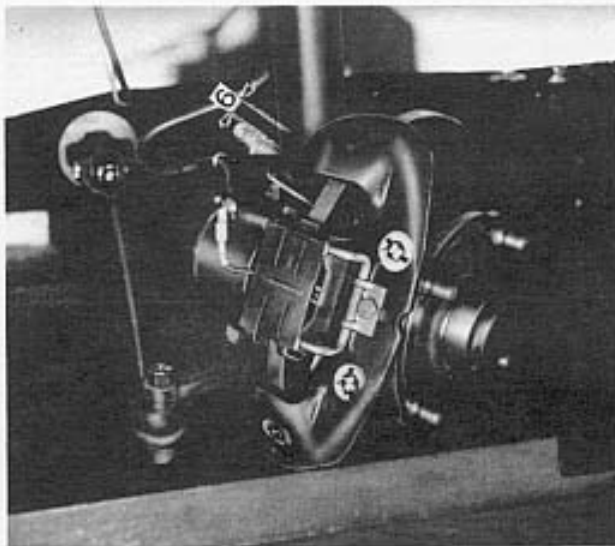
BRAKES

REPLACING A FRONT BRAKE CALIPER

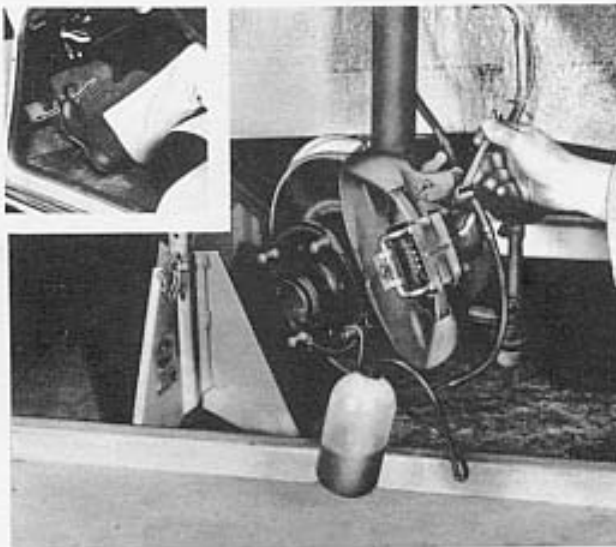
8

07 03⁽¹⁾

- Replace the caliper (ensure that mating surfaces and all threads are clean).
- Mount each bolt (brushed clean) with :
 - a new "Blocfor" lock washer,
 - a few drops of Loctite, (standard grade).
- Torque to, 50,5 ft/lbs. (7 m.kg.).



- Connect the flexible hose using **new** sealing washers
- **make certain run of hose is correct.**
- Replace pads (see page 03 01).

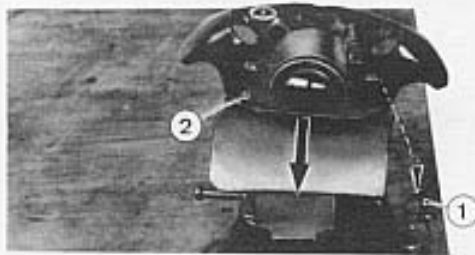
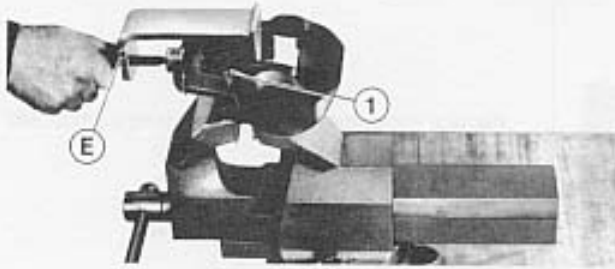


- Remove the plug (F).
- **Bleed the system** (see page 02 22).

FINAL OPERATIONS

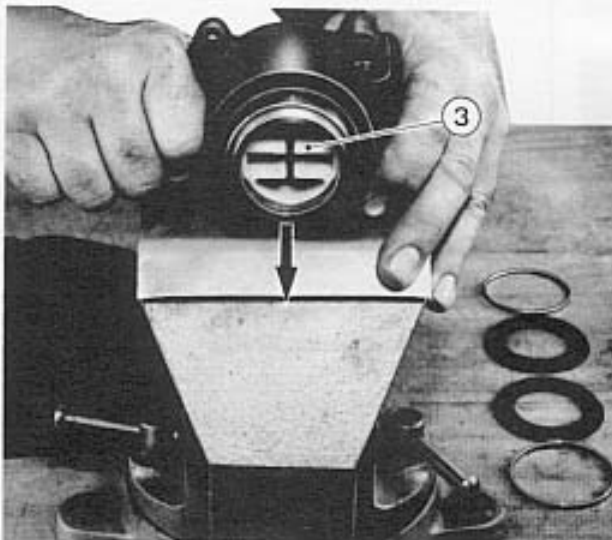
- Replace the wheels (torque to, 43,5 ft/lbs. (6 m.kg.)).
- Check :
 - brake pedal travel,
 - brake fluid level,
 - effectiveness of brakes (road test).

PEUGEOT

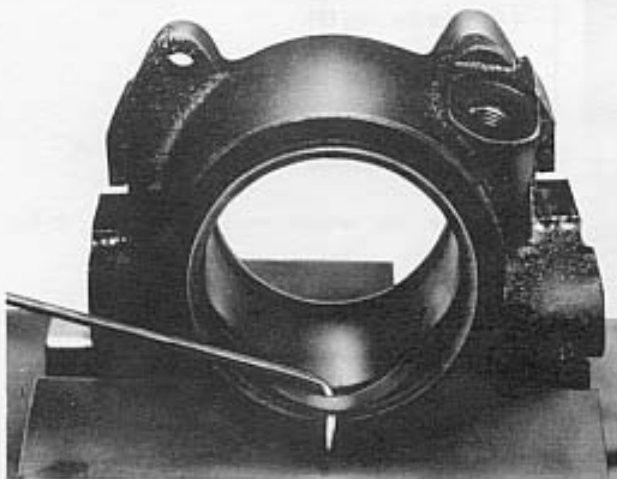


DISMANTLING

- Draw pistons forwards,
- Remove :
 - thrust spring **(1)**,
 - caliper body **(2)**.



- Remove :
 - protector retaining circlips,
 - protectors,
- The two pistons from their cylinder,
- The nylon spacer **(3)**.



- Remove the seals.
- **With meths** clean pistons and cylinders (ensuring that all grooves are clean).
- If the pistons and/or cylinders show signs of wear, scoring or corrosion, replace them.

BRAKES

OVERHAULING A FRONT BRAKE CALIPER

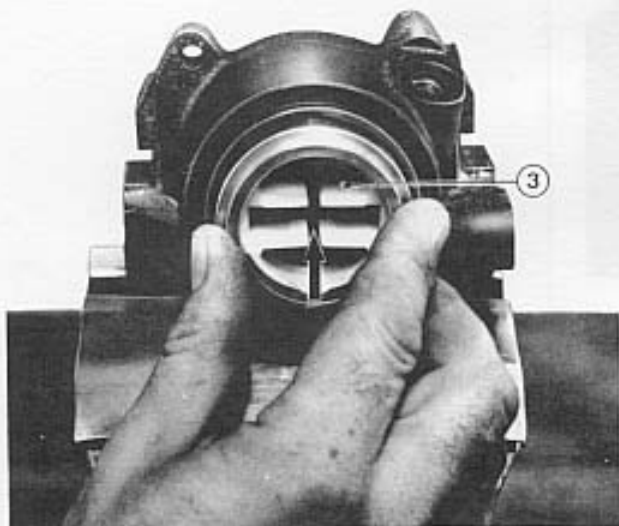
8

07 05⁽¹⁾

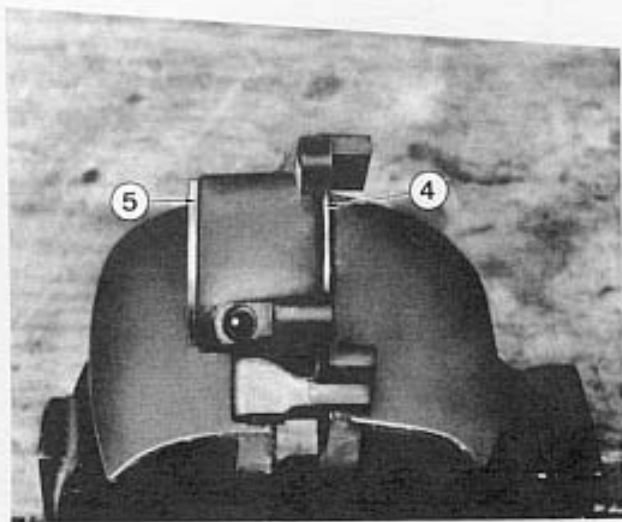


RE-ASSEMBLY

- Coat the new seals with Lockheed Spagaph grease.
- Locate the seals in cylinder throat.



- Lightly coat the pistons with Lockheed Spagaph grease.
- Insert pistons in cylinder body:
 - with the nylon spacer (3), caliper plate side.



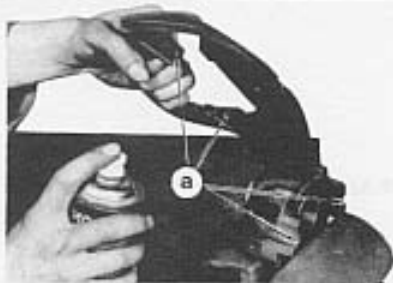
- Fit :
 - the rubber protectors,
 - retaining circlips
 - narrow clip (4), disc side,
 - wide clip (5), caliper side.

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BRAKES

OVERHAULING A FRONT BRAKE CALIPER



– Lightly coat moving parts **(a)** with Molykote 321.

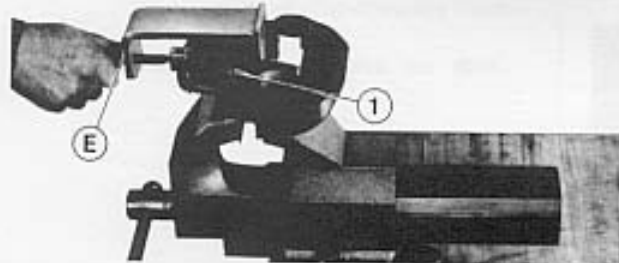


– Fit the caliper plate **(b)** with the aid of two pieces of 0,20 m/m thick shim **(6)**.



– Fit the thrust spring **(1)**.

– Assemble in place the pistons and caliper plate (hand tighten the fixture **E**).



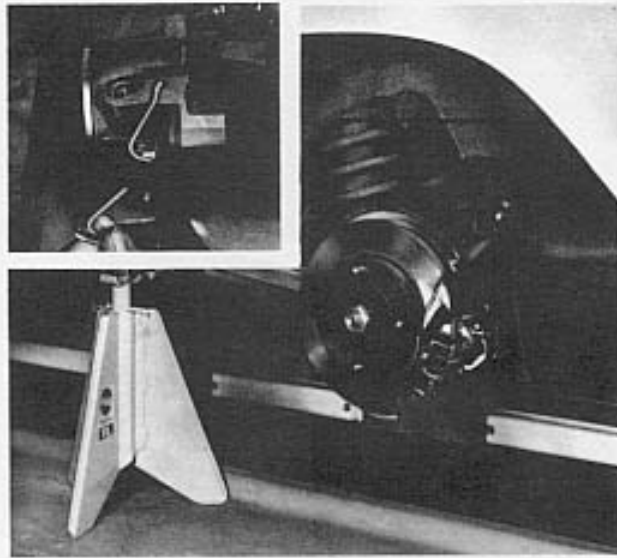
– Re-fit the bleed screw.

BRAKES

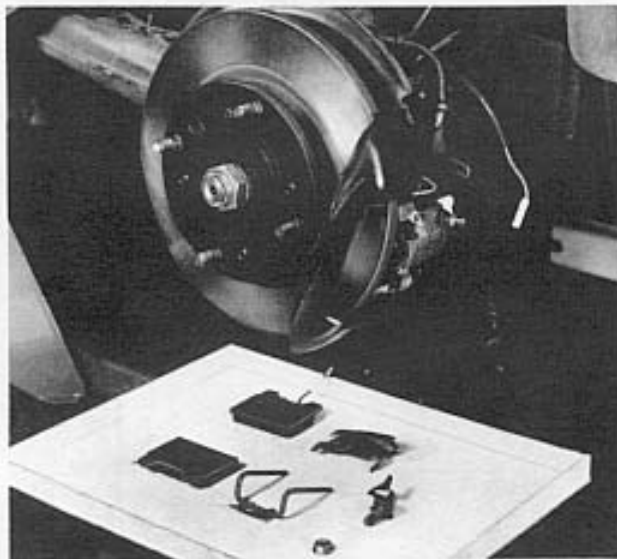
8

0711^(C)

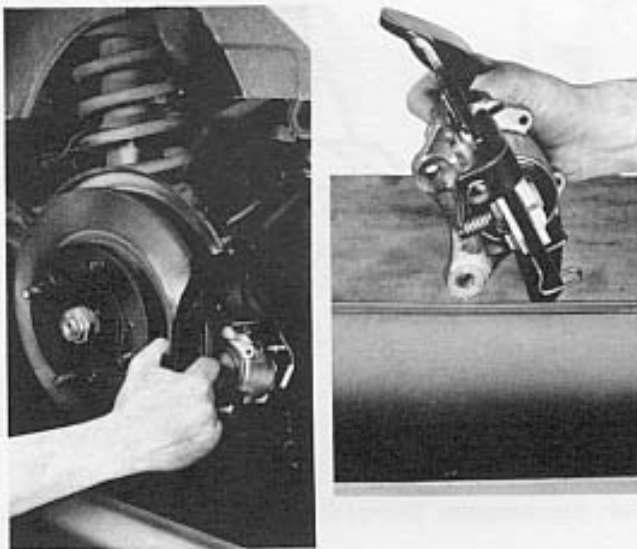
REMOVING A REAR BRAKE CALIPER



- Raise vehicle on rear jacking points.
- Block master-cylinder inlet (plug F).
- Remove the wheels.



- Remove the pads.
- Disconnect, from the caliper :
 - brake warning light lead,
 - fluid feed hose,
 - handbrake cable and outer casing,



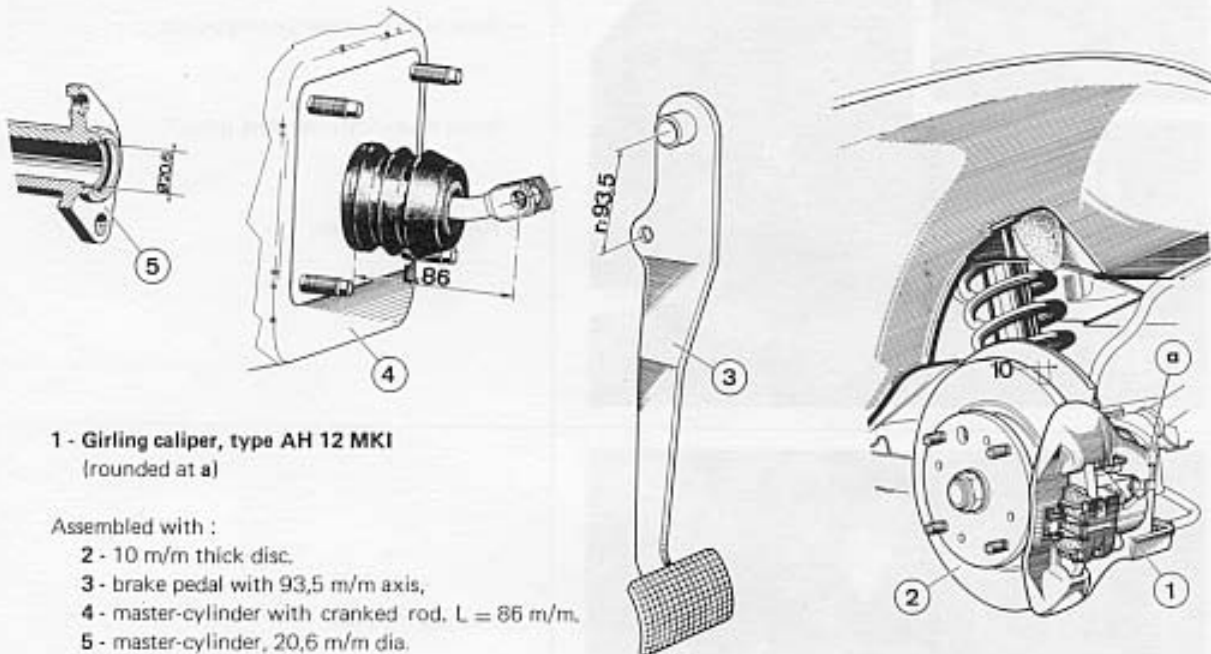
- Remove the caliper,
- Remove the bleed screw.
- Drain the cylinder.

PEUGEOT

WARNING :

TWO TYPES OF REAR BRAKE CALIPERS.

1st Assembly

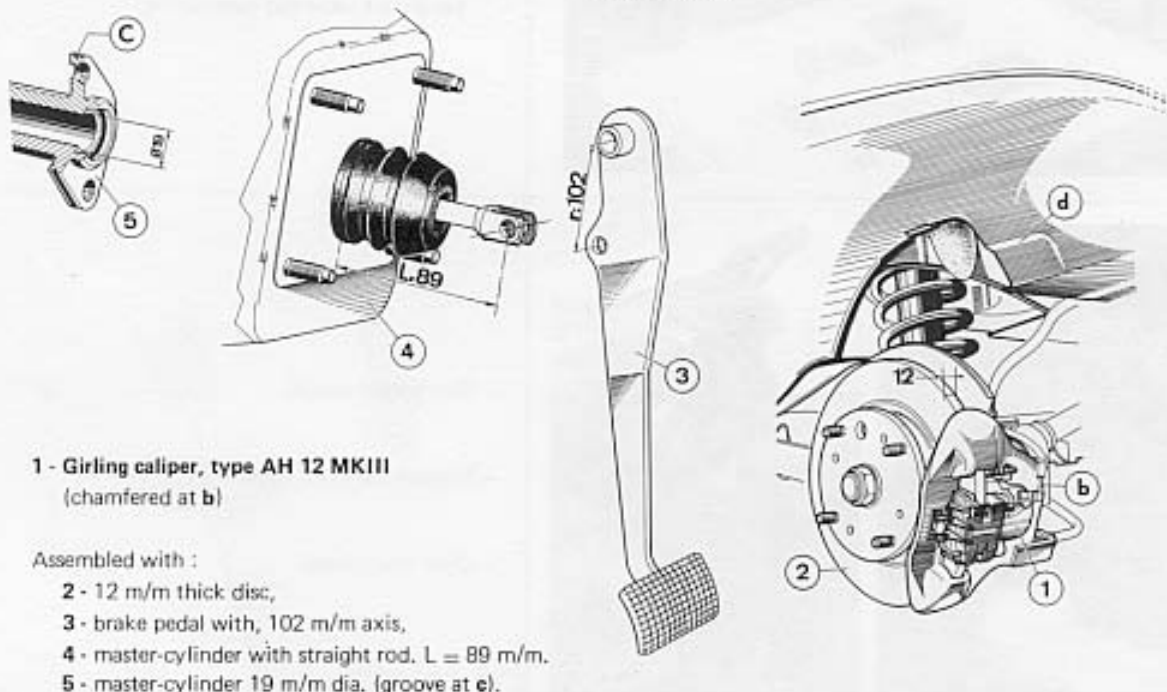


1 - Girling caliper, type AH 12 MKI
(rounded at a)

Assembled with :

- 2 - 10 m/m thick disc,
- 3 - brake pedal with 93,5 m/m axis,
- 4 - master-cylinder with cranked rod, L = 86 m/m,
- 5 - master-cylinder, 20,6 m/m dia.

2 nd Assembly



1 - Girling caliper, type AH 12 MKIII
(chamfered at b)

Assembled with :

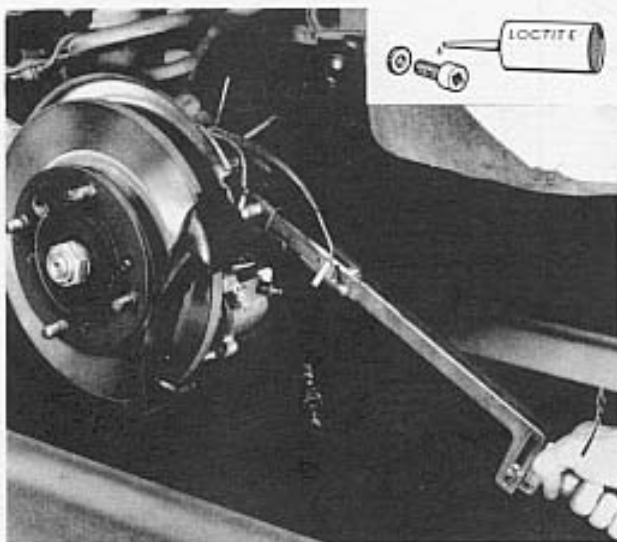
- 2 - 12 m/m thick disc,
- 3 - brake pedal with, 102 m/m axis,
- 4 - master-cylinder with straight rod, L = 89 m/m,
- 5 - master-cylinder 19 m/m dia. (groove at c).

WARNING - Parts from either assembly are not separately interchangeable. Girling calipers AH 12 MKIII are fitted only to vehicles whose hull is shaped as at (d).

BRAKE

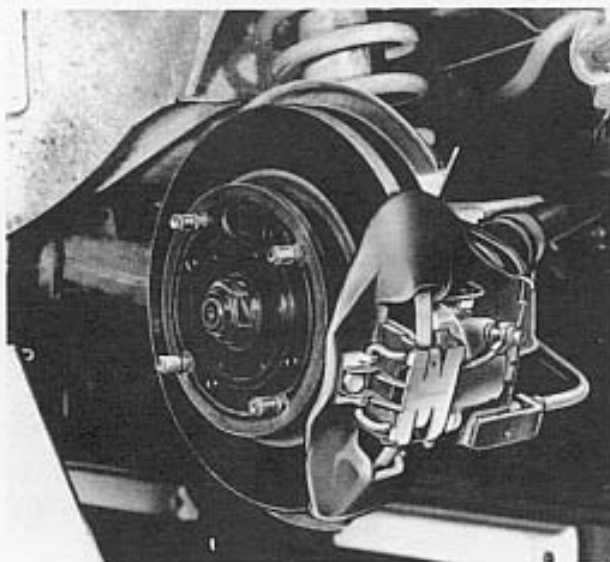
FITTING A REAR BRAKE CALIPER

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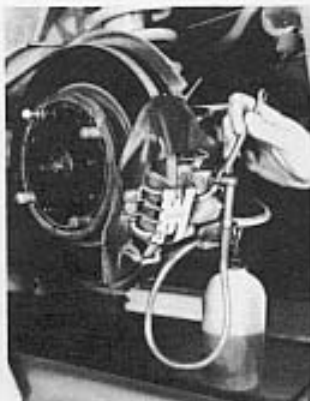
0713⁽¹⁾

– Fit the caliper (mating surfaces in contact, all threads clean).

- Mount each bolt (brushed clean) with :
 - a new "Blocfor" lock washer,
 - a few drops of Loctite, (standard grade).
- Torque bolts to, 31 ft/lbs. (4.25 m.kg.).



- Connect :
 - the brake hose,
 - handbrake cable and casing.
- Replace the pads (see page 03 06).



- Remove the plug (F).
- Bleed the system (see page 02 22).
- Adjustment of the handbrake (see page 02 31).

FINAL OPERATIONS

- Replace the wheels (torque to, 43,5 ft/lbs. (6 m.kg.)).
- Check :
 - brake pedal travel,
 - handbrake travel,
 - hydraulic fluid level,
 - effectiveness of brakes (road test).

07 14 (1)

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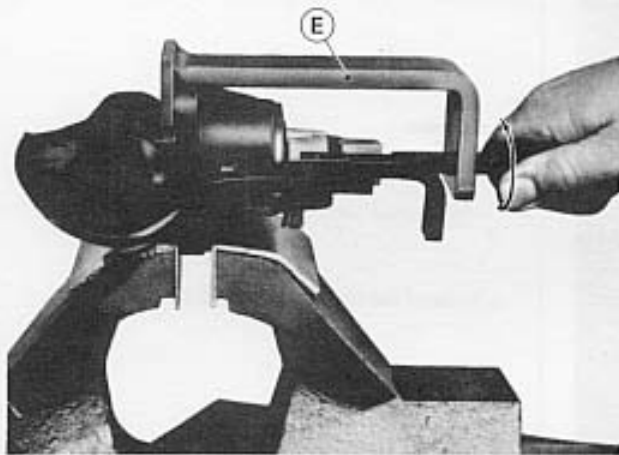
BRAKES

OVERHAULING A REAR BRAKE CALIPER

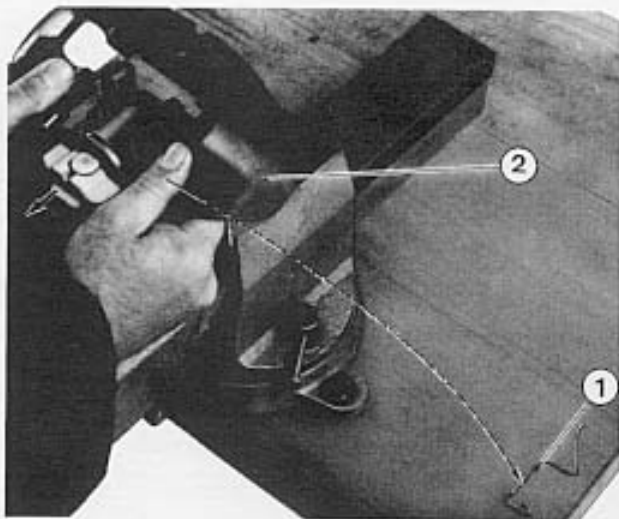


DISMANTLING

- Rotate the piston 1/8 of a turn,
- caliper MKI (Fig. I),
- caliper MKIII (Fig. II).



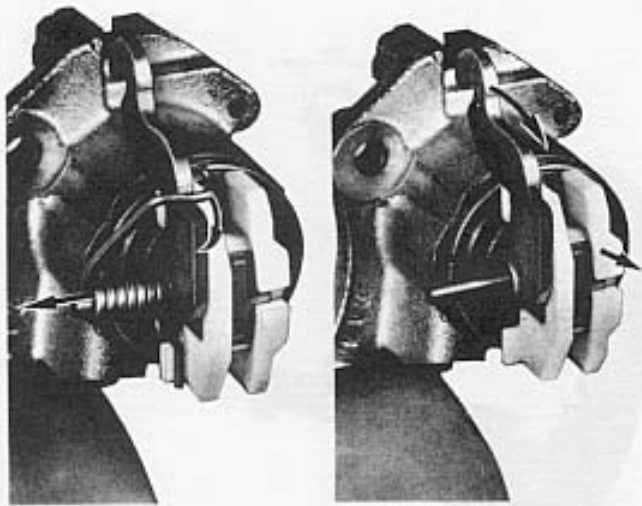
- Return the pistons,
- (fixture E hand tight).



- Remove :
- the thrust spring (1),
- caliper plate (2).

BRAKES

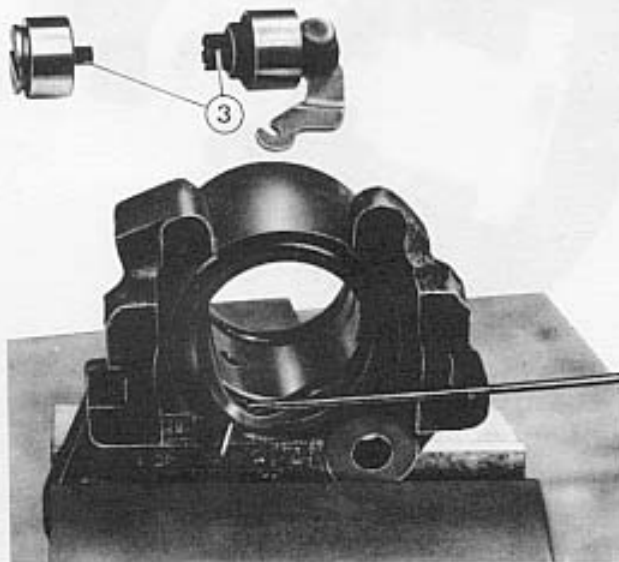
OVERHAULING A REAR BRAKE CALIPER

8 0715⁽¹⁾

- Remove :
 - the Truarc ring, if necessary,
 - handbrake lever return spring.
- Remove the nylon spacer,
 - (lift-up the handbrake lever).



- Remove :
 - the protector retaining circlips,
 - the protectors.
- Remove the pistons.



- Remove seals from cylinder body.
- With meths, clean the pistons and cylinder body (ensure that all grooves are clean).
- If pistons and/or cylinders show signs of wear, scoring, or corrosion, replace them.
- Check wear compensation system **(3)**.

PEUGEOT

OVERHAULING A REAR BRAKE CALIPER

REASSEMBLY

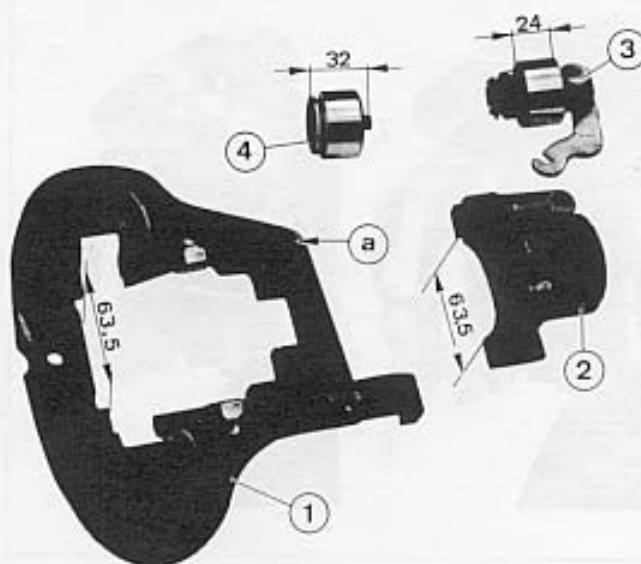
WARNING

TWO TYPES OF REAR BRAKE CALIPER.

I - Girling caliper, type AH 12 MKI.

Assembled with :

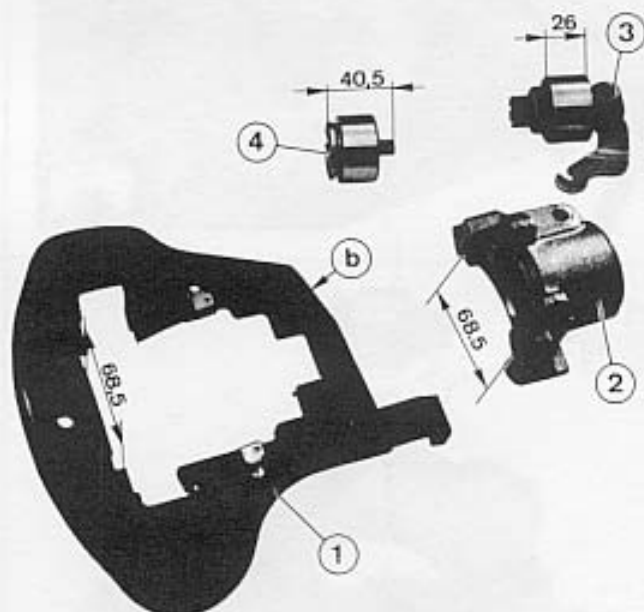
- 1 - caliper plate rounded at (a) $L = 63,5$ m/m,
- 2 - cylinder body $L = 63,5$ m/m,
- 3 - piston $L = 24$ m/m,
- 4 - piston $L = 32$ m/m.



II - Girling caliper type AH 12 MKIII

Assembled with :

- 1 - caliper plate chamfered at (b) $L = 68,5$ m/m,
- 2 - caliper body $L = 68,5$ m/m,
- 3 - piston $L = 26$ m/m.
- 4 - piston $L = 40,5$ m/m.



BRAKES

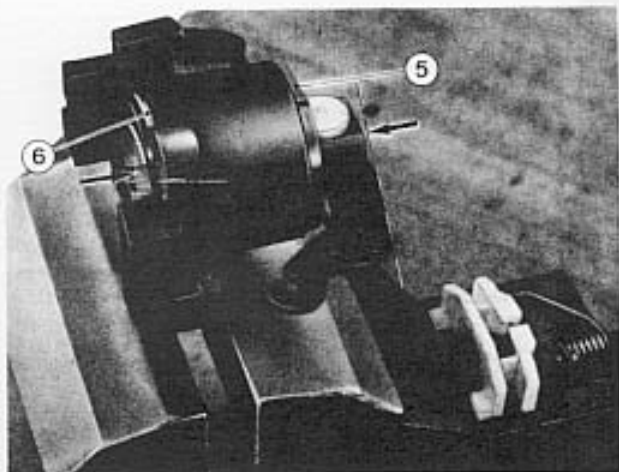
OVERHAULING A REAR BRAKE CALIPER

8 0717⁽¹⁾



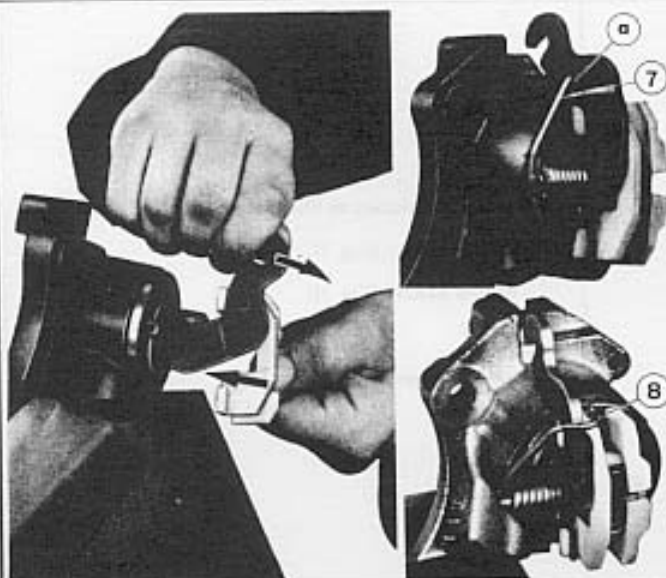
REASSEMBLY

- Coat new seals with Lockheed Spagraphe grease.
- Locate seals in throat of cylinder.



- Lightly coat the pistons with Lockheed Spagraphe grease.
- Insert the pistons in their respective positions (as illustrated opposite).

- Fit :
 - the rubber protectors
 - retaining circlips
 - narrow clip (6) disc side,
 - wide clip (5) caliper plate side.

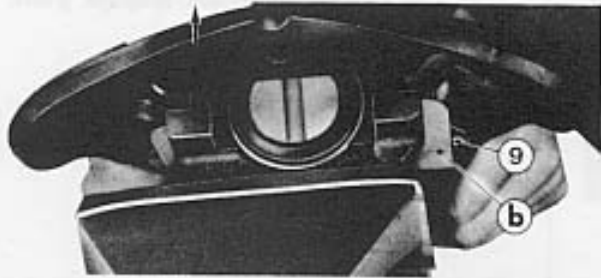


- Fit nylon spacer (raise brake lever).
- Hook handbrake lever return spring,
- fit a **new** Truarc ring in the hole (a) for spring (7).
- spring (8) anchors without a Truarc ring.

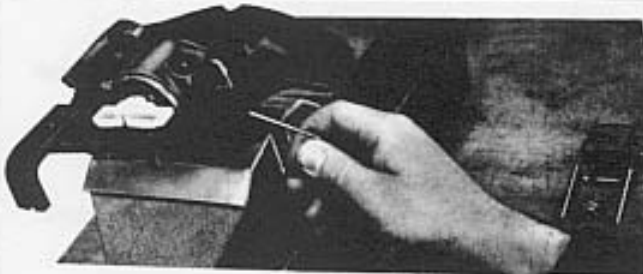
PEUGEOT

BRAKES

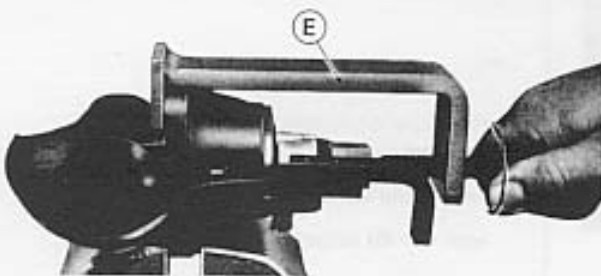
OVERHAULING A REAR BRAKE CALIPER



- Lightly coat moving parts **(a)** with Molykote 321.
- Assemble the armature plate with the aid of 2 - pieces of 0,20 m/m thick shim steel **(b)** placed under the thrust plates **(9)**.



- Fit the thrust spring.



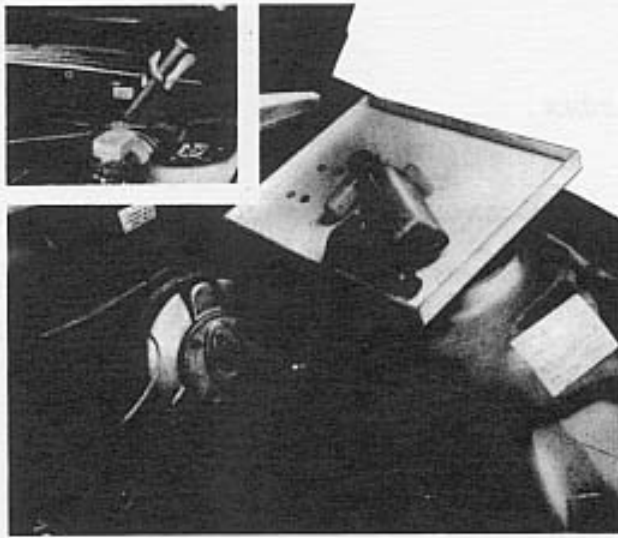
- Assemble pistons and caliper plate (hand tighten fixture **E**).



- Pistons positioned as illustrated opposite :
 - caliper MKI (Fig. II),
 - caliper MKIII (Fig. II).

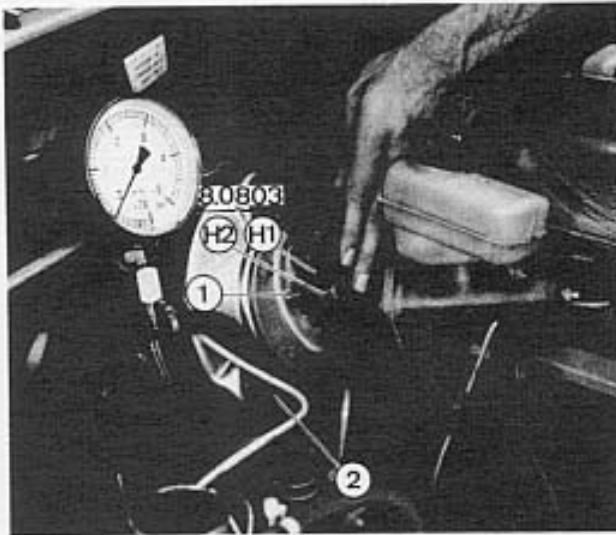
- Replace bleed screw.

BRAKES
MASTER - CYLINDER



REMOVE

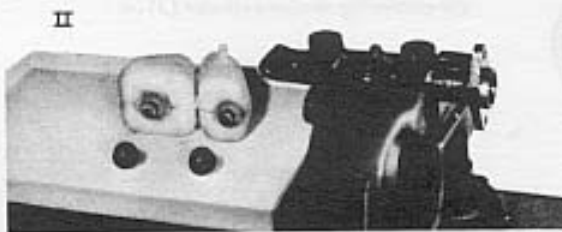
- Drain the reservoir.
- Remove the master-cylinder.



WARNING

- Do not pull the thrust rod (1).
- Check the distance the rod protrudes, engine idling after acceleration (see page 10 06).

No attempts can be made to repair a servo-unit, other than replacement of the valve (2) and adjustment of the thrust rod. If it is faulty, it must be replaced.

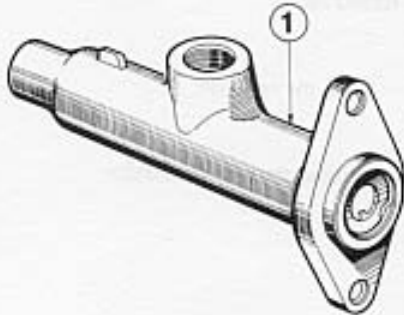


- Remove the reservoir :
- Lockheed master cylinder (Fig. I).
- Teves tandem cylinder (Fig. II).

REPLACEMENT

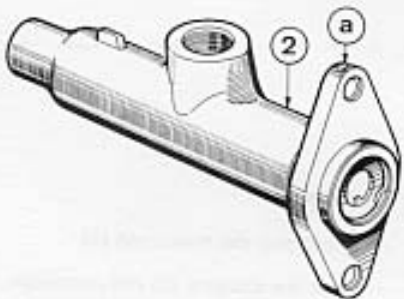
WARNING :

TWO TYPES OF STANDARD MASTER-CYLINDER



1 - 20,6 m/m dia. (not marked) fitted to :

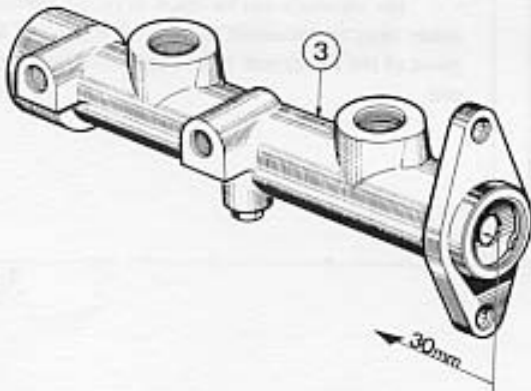
- 504 with Girling type AH 12 MKI rear calipers.
- 504 derivatives.



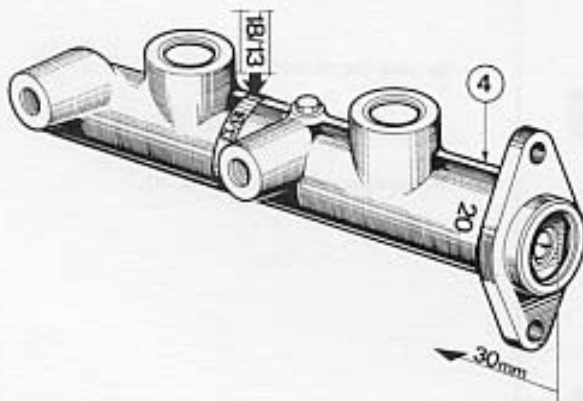
2 - 19 m/m dia. (groved a) fitted to :

- 504 with Girling type AH 12 MKIII rear calipers.
- 504 L.

SIX TYPES OF TANDEM MASTER-CYLINDER



3 - 20,6 m/m dia. Lockheed, 30 m/m travel (not marked).



4 - 20,6 m/m dia. Teves, 30 m/m travel. (figure 20 and band marked 18 - 13) fitted as replacement for the preceding master-cylinder (3) on :

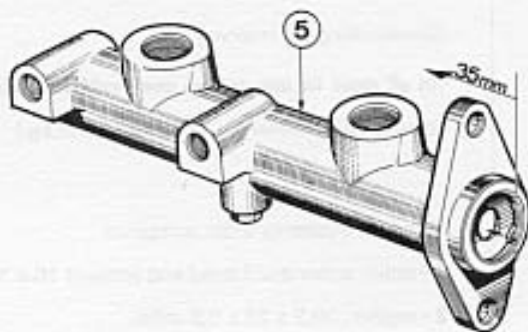
- 504 with Girling type AH 12 MKI rear brake calipers.

BRAKES

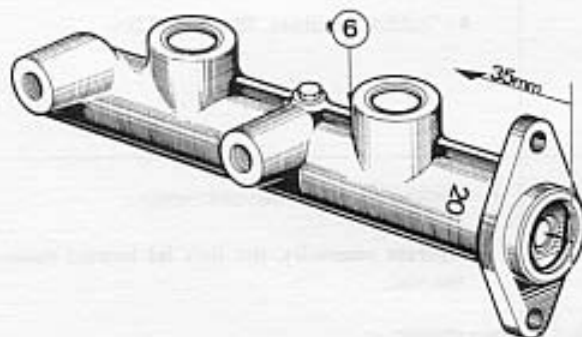
MASTER-CYLINDER

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08 '03

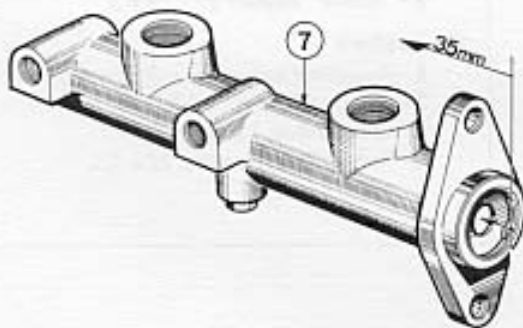


5 - 20,6 m/m dia. Lockheed, 35 m/m travel (not marked).

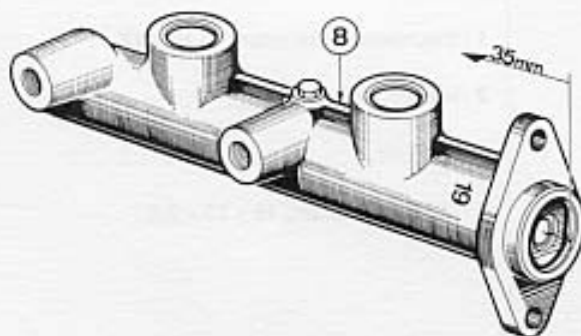


6 - 20,6 m/m dia. Teves, 35 m/m travel (figured 20) replacement for the preceding master-cylinder on :

- 504 derivatives.



7 - 19 m/m dia. Lockheed, 35 m/m travel (not marked).



8 - 19 m/m dia. Teves, 35 m/m travel (figured 19) fitted to :

- 504 L,

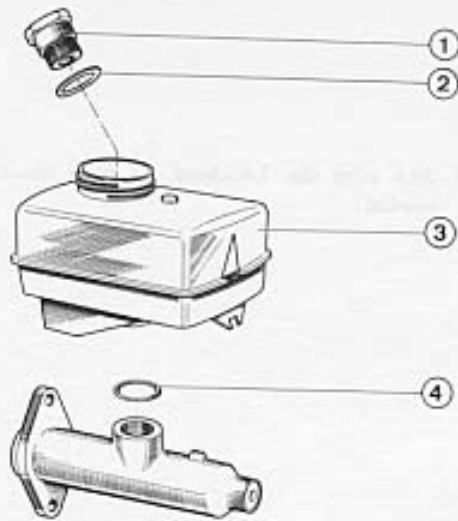
and as replacement for the preceding master-cylinder on :

- 504 fitted with Girling type AH 12 MKIII rear calipers.

PEUGEOT

BRAKES

MASTER-CYLINDER

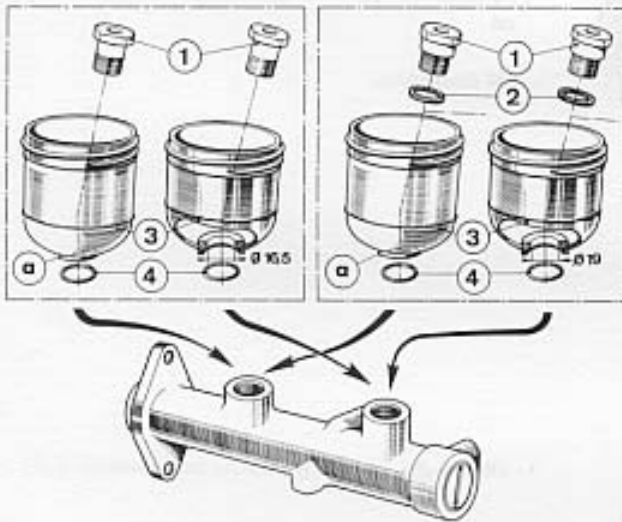


— Reassembling the reservoir :

- in all cases fit one or two new "rubber" seals "S";
- torque union screw to, 11 ft/lbs (1,5 m.kg.)

I - Standard master-cylinder comprises :

- 1 - union screw shouldered and screwed 16 x 18,5.
- 2 - washer, 19,2 x 27 x 0,5 m/m.
- 3 - reservoir,
- 4 - "rubber" washers, 18 x 23 x 2,5,



II - Lockheed tandem master-cylinder,

separate reservoirs, the flats (a) located towards the rear.

WARNING :

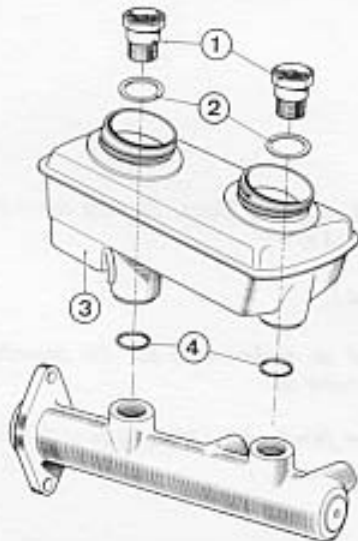
TWO DIFFERENT ASSEMBLES

1° - U.S.A.

- 1 - Union screw 16 x 18 ϕ ,
- 3 - reservoir-hole 16,5 ϕ ,
- 4 - "rubber" washers 17 x 23 x 3.

2° - SWEDEN

- 1 - shouldered union screw ϕ 16 x 18,5.
- 2 - washers 19,2 x 27 x 0,5.
- 3 - reservoir-hole 19,5 m/m ϕ
- 4 - "rubber" washers 18 x 23 x 2,5.

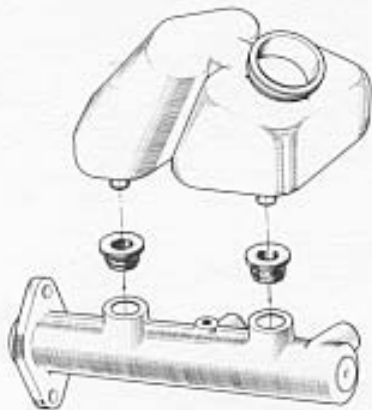


dual reservoir

- 1 - shouldered union screw, ϕ 16 x 17,
- 2 - washer, 19,2 x 27 x 0,5.
- 3 - reservoir,
- 4 - "rubber" washers, 18 x 23 x 2,5.

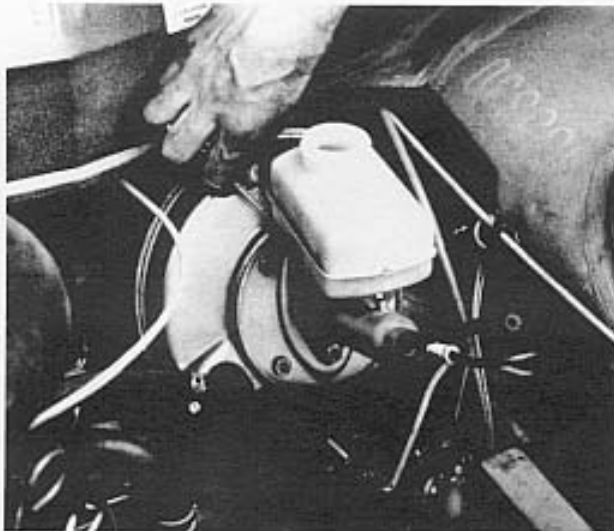
BRAKES
MASTER-CYLINDER

8 08 05



III - On Teves tandem master-cylinder,

- Dip **new** seals in brake fluid, and insert in recesses in master-cylinder,
- Fully engage the rear ferrule of the reservoir,
- Likewise the front ferrule (if necessary, use a hammer handle).



- Replace the master-cylinder.
- Torque the nuts mounted with **new** lock washers, to - 7,2 ft/lbs. (1 m.kg).
- Connect clutch feed hose.



- Gently-fill the reservoir.
- When the fluid flows connect the pipe.

WARNING :

TWO DIFFERENT CONNECTIONS FOR TANDEM MASTER-CYLINDERS

I - Lockheed master-cylinder

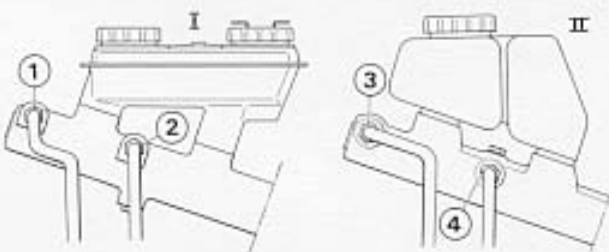
- 1 - feed to rear brakes,
- 2 - feed to front brakes.

II - Teves master-cylinder

- 3 - feed to front brakes
- 4 - feed to rear brakes.

The pipes (1) - (2) and (3) - (4) are not the same shape, hence they are not interchangeable.

- Bleed brakes (see page 02 22).

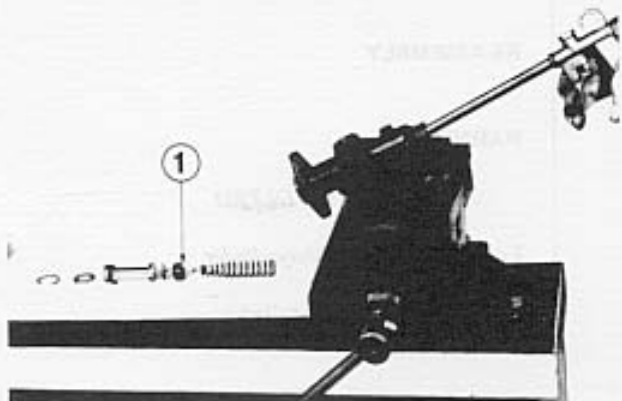


PEUGEOT

BRAKES
STANDARD MASTER-CYLINDER

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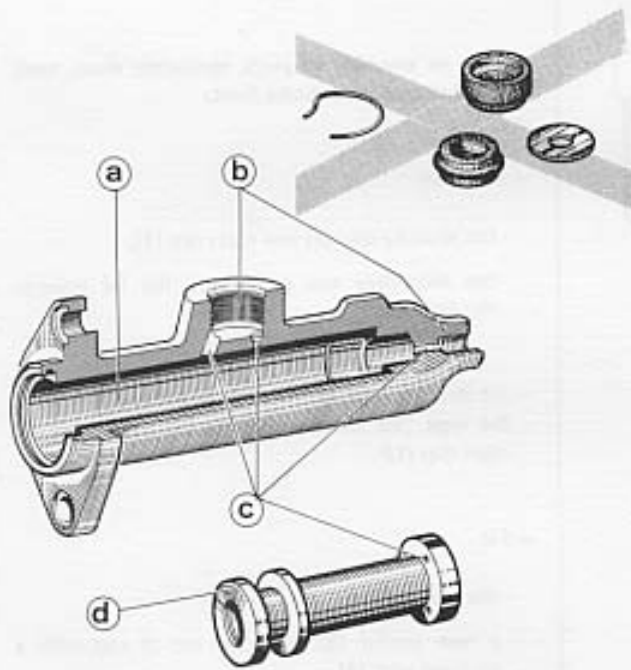
08 11



OVERHAULING

DISMANTLING

- Remove the securing circlip and adjoining washer,
- Withdraw the piston and spring (eject the main cup (1) using an air-line).



- Thoroughly clean with meths, and dry all parts.

VISUAL CHECK

- Any defect which could be the cause of leakage or faulty operation of the cylinder cannot be tolerated.

Look for : scale, scoring, burrs, corrosion, wear distortion,

- Check in particular :

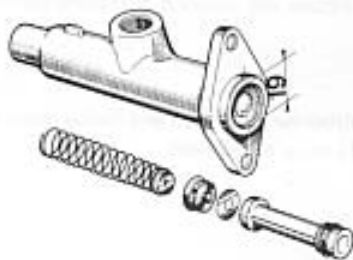
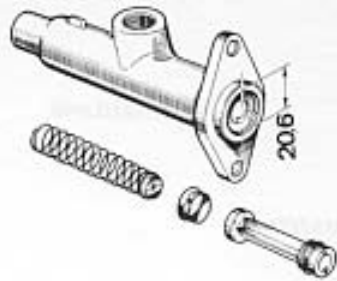
- a - cylinder bore,
- b - threads,
- c - all orifices,
- d - piston .

IMPORTANT :

- Polishing the cylinder bore or the piston with emery cloth is absolutely forbidden.
- Cups, security disc, and circlip must all be replaced.
- The master-cylinder must not be re-assembled with the residual pressure valve in-place.

BRAKES

STANDARD MASTER-CYLINDER

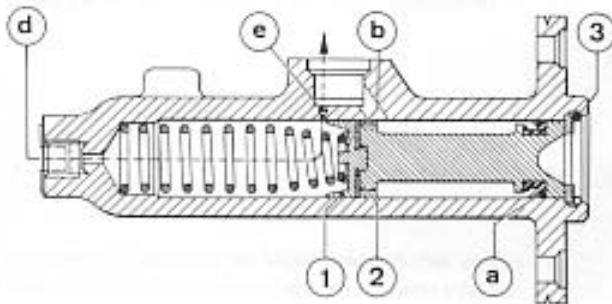


RE-ASSEMBLY

WARNING :

TWO TYPES INVOLVED

- 1 - 20,6 m/m dia. master-cylinder,
- 2 - 19 m/m dia. master-cylinder.



- Prior to assembly all parts, absolutely clean, must be lubricated with brake fluid.

- Assemble :

- the security disc (2) and main cup (1),
- the secondary cup and piston lip (a) towards the front).

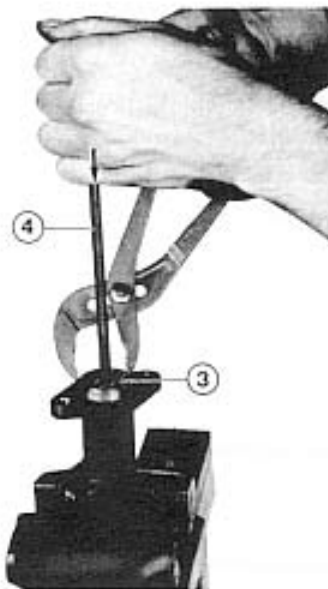
- Fit the sequence of components **without damaging the cups** (the metal spring cup (b) bearing on the main cup (1)).

- Fit :

- the stop washer,
- a **new** circlip (3), with the aid of rod with a rounded end (4).

- Pass air through the outlet (d). Air should escape by the return orifice (e) without any apparent leakage.

- Operate the piston a number of times in order to ensure that it returns to its stop, and that there are no "hard-spots".

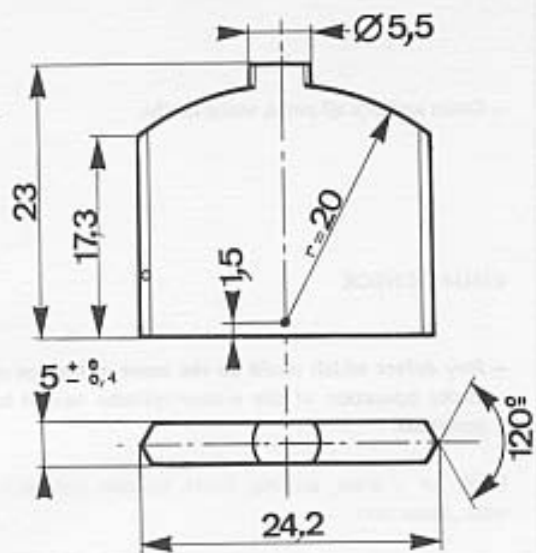


BRAKES

TANDEM MASTER-CYLINDER

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TOOLS REQUIRED

To be made in Workshop

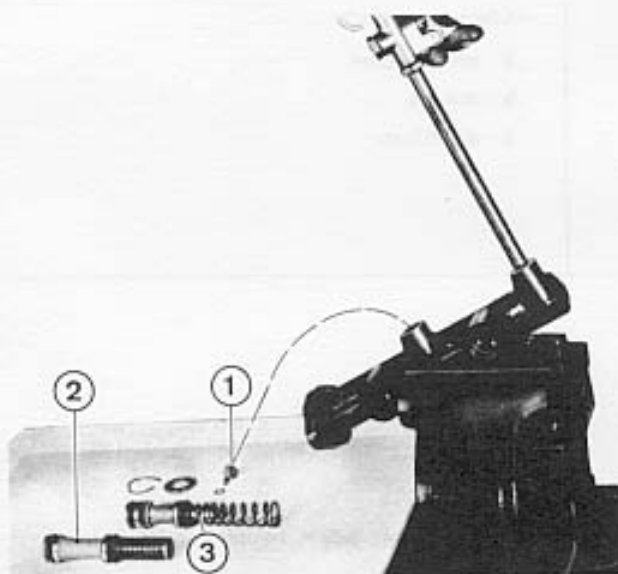
0.0804

- Key for removing and replacing the plug of Lockheed tandem master-cylinder.

Tool steel

- heat to 830° C and quench in oil.

- temper at 200° C.



OVERHAUL

DISMANTLING

- Remove :

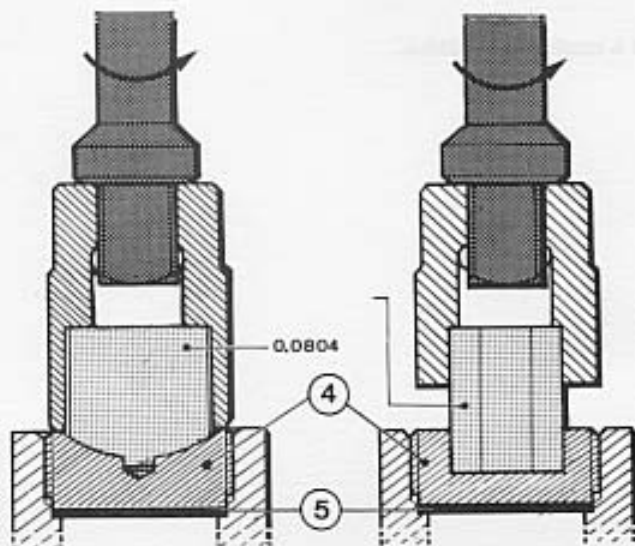
- the stop screw (1),
- the circlip,
- stop washer.

- Extract the primary piston (2).

- Eject the secondary piston (3), using an air-line.

- With a 20,6 m/m Ø Lockheed tandem master-cylinder.

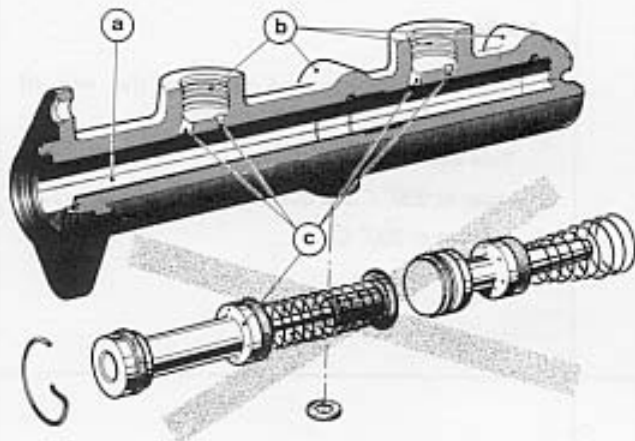
- If necessary, remove the screwed plug (4) in order to replace the copper seal (5).



PEUGEOT

BRAKES

TANDEM MASTER-CYLINDER



– Clean and dry all parts, using meths.

VISUAL CHECK

– Any defect which could be the cause of leakage or faulty operation of the master-cylinder cannot be tolerated.

Look for : scale, scoring, burrs, bruises, corrosion, wear, distortion,

– Check in particular :

- a - cylinder bore.
- b - threads,
- c - all orifices.

WARNING - The primary and secondary piston sub-assemblies should not be dismantled. In the event of deterioration of either piston, replace both, sub-assemblies.

Polishing the cylinder bore with emery cloth is absolutely forbidden.

BRAKES
TANDEM MASTER-CYLINDER

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ASSEMBLY

WARNING - Never remove the piston cup and spring.

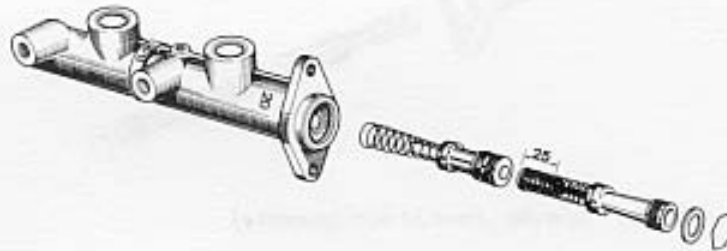
In the event of deterioration of any of these parts (cups, pistons, springs) replace complete.

WARNING :

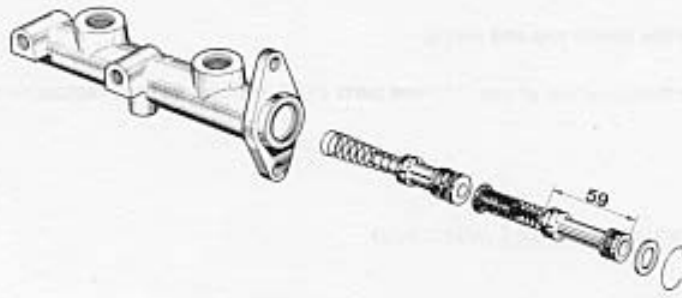
SIX DIFFERENT MODELS ARE INVOLVED .



3 - For Lockheed master-cylinder, 20,6 m/m dia., 30 m/m travel.



4 - For Teves master-cylinder, 20,6 m/m dia., 30 m/m travel. (numbered 20 and with identification band, 18-13).



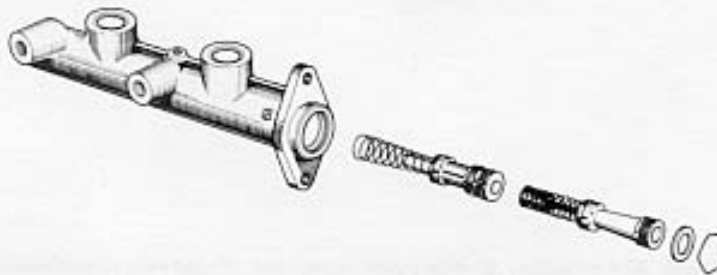
5 - For Lockheed master-cylinder, 20,6 m/m dia., 35 m/m travel.



6 - For Teves master-cylinder, 20,6 m/m dia., 35 m/m travel. (numbered 20).



7 - For Lockheed master-cylinder, 19 m/m dia., travel 35 m/m (grooved a).



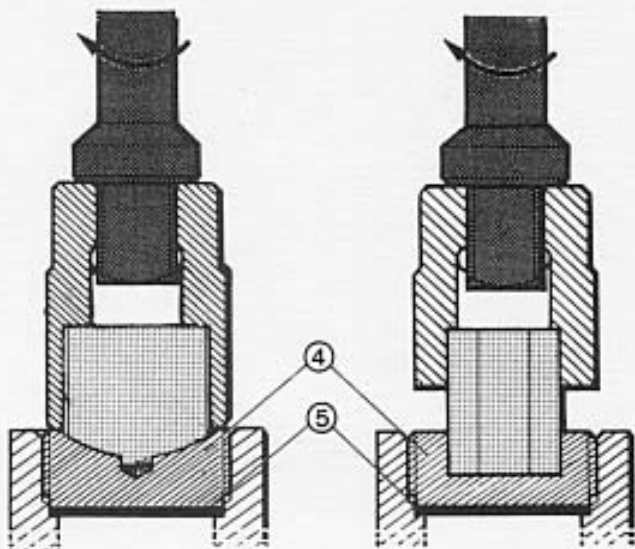
8 - For Teves master-cylinder, 19 m/m dia., 35 m/m travel (numbered 19).

BRAKES

TANDEM MASTER-CYLINDER

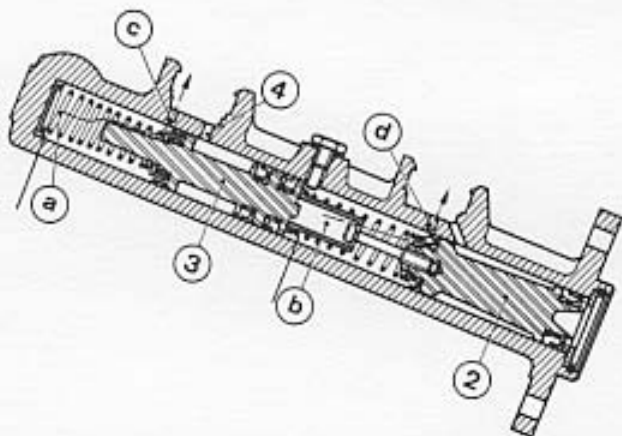
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08 25



- With a Lockheed tandem master-cylinder replace, if necessary, the seal (5) for the screwed plug (4).

- torque to, 72 ft/lbs. (10 m.kg.).



- Insert the sub-assemblies :

- the primary piston (2).

- the secondary piston (3).

- Fit :

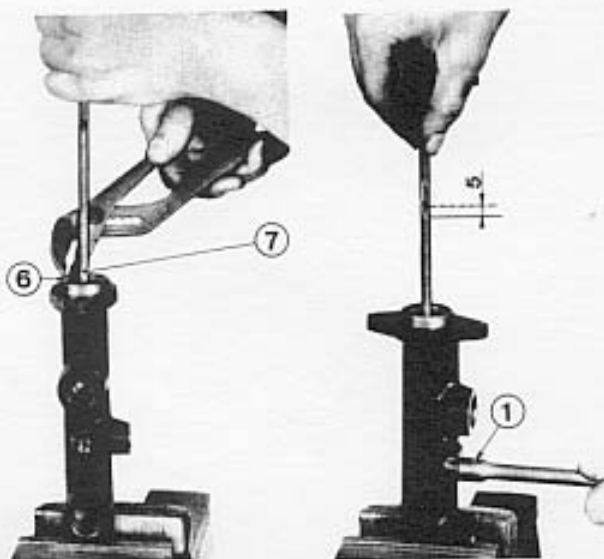
- The stop washer,

- a new circlip (6) and with a rounded end rod (7).

- force-in the primary piston for a distance of approx. 5 m/m and fit the stop-screw (1) together with a new seal washer.

- Blow air into the outlets (a) and (b). It should exhaust via the return orifices (c) and (d) and no apparent leakage should occur.

- Actuate the primary piston a number of times ; to ensure it returns against its stop, without any "hard-spot".

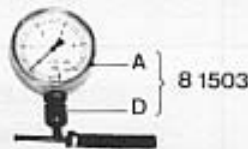
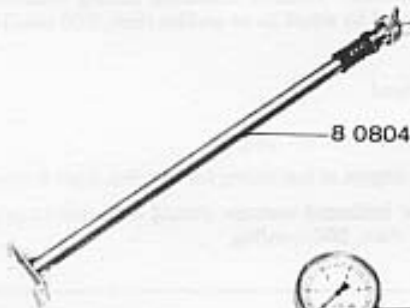


PEUGEOT

BRAKES
CHECKING A SERVO-UNIT

8

10 01



TOOLS REQUIRED

8.0803 W

– Kit for disc brakes.

F - Plug for master-cylinder.

H - Thrust rod checking gauge :

H1 - body,

H2 - contact-piece, (504)

J - Key for holding thrust-rod.

K - Fixture for checking the return to "stop" of the thrust-rod, comprising :

K3 - body,

K4 - spindle.

8.0804

– Pedal depressor.

8.1503

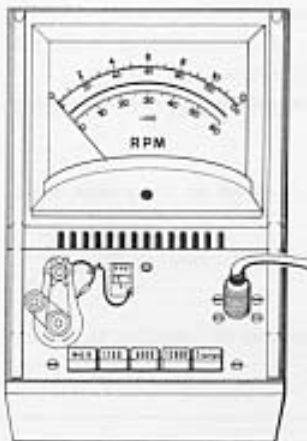
– Apparatus for checking pressure and pressure drop.

A - Double reading vacuum gauge, calibrated, 76 cm/Hg, to 0 and 0 to 5 bars (73,5 p.s.i.).

D - T - piece with rubber tube.

– 16" (400 m/m) length of transparent flexible bleed hose.

– A transparent vessel.



RECOMMENDED TOOLS

– Tachometer, Souriau 1494.

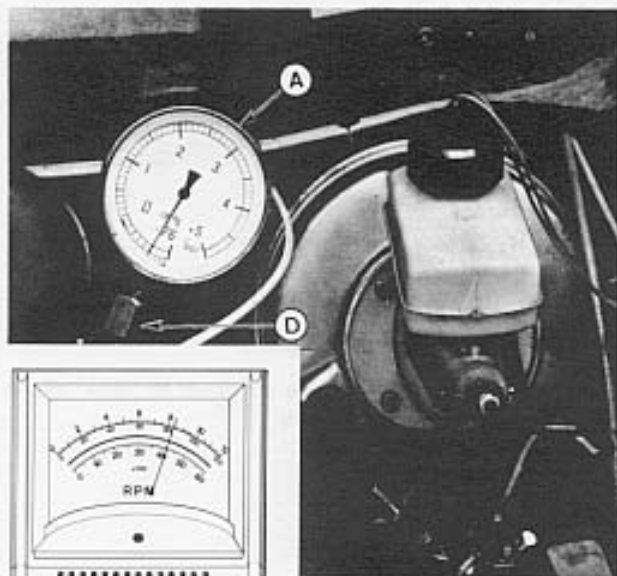
– TESTARC

Instrument for measuring high and low pressures, complete with a union (1) (pt/N° 9787.07) and a safety clip.

PEUGEOT

BRAKES

CHECKING A SERVO-UNIT



I - CHECKING VACUUM

504 petrol engine

- Connect :
 - vacuum gauge,
 - tachometer.
- **Run engine until fan cuts-in.**
- Check idling speed (504 carb, 800 r.p.m., inj. 850).
- Accelerate to 4,500 r.p.m.
- Decelerate abruptly.

Maximum vacuum indicated during deceleration should be equal to or greater than, 500 mm/Hg.

504 Diesel

- Connect vacuum gauge,
- **Run engine at fast idling for not less than 1 minute.**

The indicated vacuum should be equal to or greater than, 500 mm/Hg.



IF VACCUM IS LESS THAN 500 mm/Hg.

- Disconnect the valve (1).
- Re-check, blocking the valve connection with the thumb.

1st example . Vacuum is still less than 500 mm/Hg.

Air losses adjacent of the valve.

In particular : **on 504 petrol.**

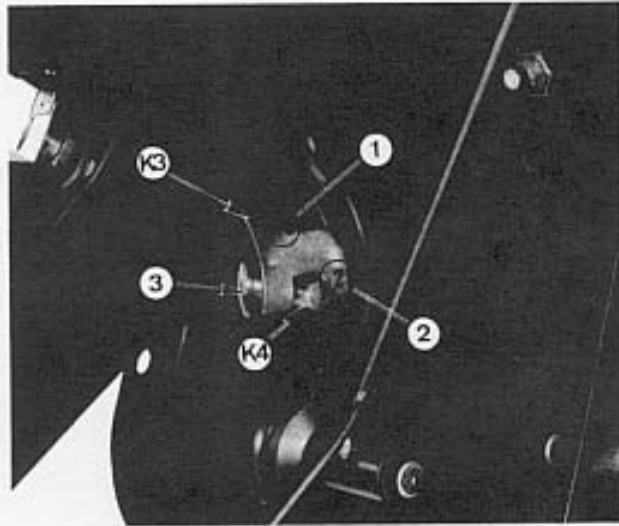
- **abnormal air entry** : deterioration and/or lack of tightness of :
 - the valve,
 - hoses and pipes,
 - carburettor mounting flange,
 - the air distribution chamber "rubber" bushes on 504 injection;
- **condition of engine** : check compression in each cylinder **on 504 Diesel.**
- **abnormal air-entry** : deterioration or lack of tightness of the valve and/or hoses and pipes.
- **condition of the vacuum pump** : first check belt tension.

2nd example . Vacuum is equal to or greater than, 500mm/Hg.

- Replace the valve fitted with a **new seal (2).**
- Repeat tests.

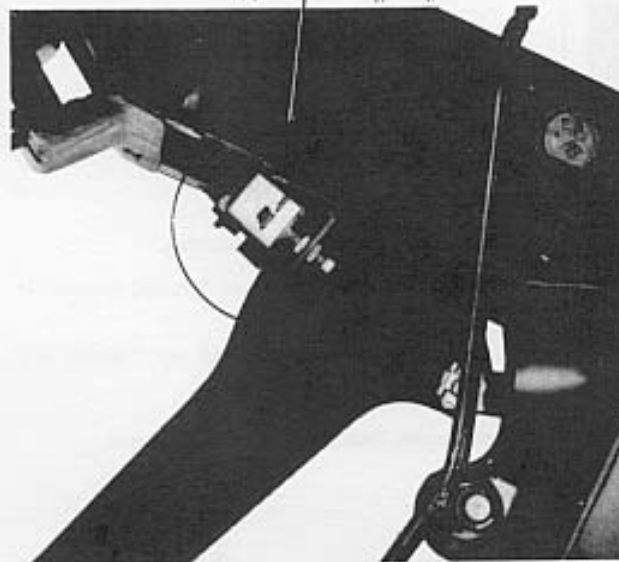
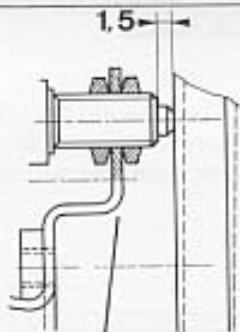
If the vacuum is again less than 500 mm/Hg, the servo-unit is suspect.

NOTA - Take into account the fall in atmospheric pressure above an altitude of 1 000 m. Thus, a vacuum of 370 mm/Hg. is acceptable at 2 000 m.



II - CHECKING RETURN TO "STOP"

- Free the servo-unit (five applications of the brake pedal with engine switched-off).
 - Replace the pivot pin with gauge rod (K4) "pushed home".
 - Slacken a bleed screw (connect bleed tube and vessel).
 - Depress the brake pedal, fully.
 - Re-tighten the bleed screw.
 - Slowly release the brake pedal.
 - Position the gauge (K3) so that it presses against the servo-unit at the foot of the rubber bellows. the gauge rod (K4) should engage freely in the notch.
- 1 - On all 504 LH drive saloon models, Mastervac with cranked thrustrod (3).
- On 504 RH drive saloons equipped with a 20,6 m/m dia. master cylinder.
- 2 - On 504 LH drive saloon models Mastervac with straight thrustrod (3).
- Derivatives of 504.
 - On 504 L.
 - On 505 RH drive saloons equipped with a 19 m/m dia. master-cylinder.



If the thrust rod does not engage with the corresponding notch.

- Check :
 - the adjustment of the stop light switch (working clearance 1,5 m/m.).
 - the free movement of the brake pedal.

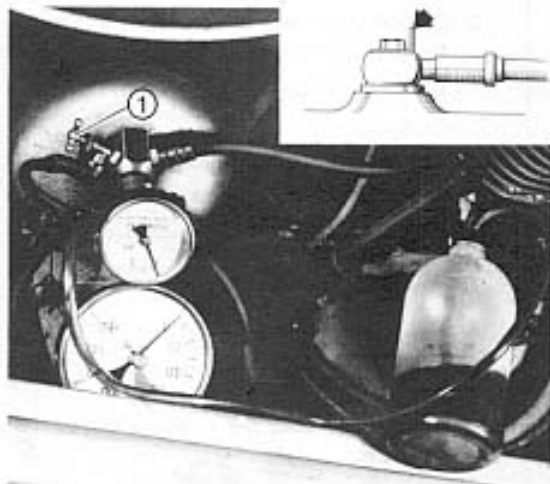
If adjustment of the stop light switch and the brake pedal is correct, then the servo-unit is suspect

- Replace pivot pin and secure with a new clip.



III - CHECKING THE MAIN VALVE

- Block master-cylinder intake.

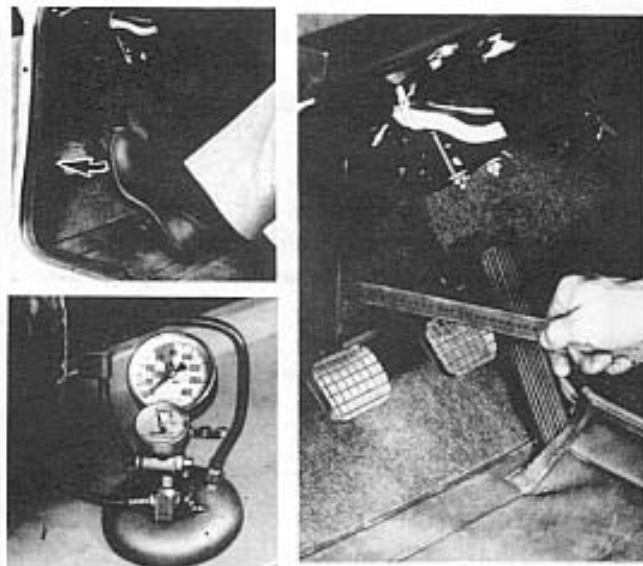


- Remove a front bleed screw and connect the Testarc 50 instrument.

- Remove the plug (F).

- Bleed the instrument (1), renew the brake fluid level in the reservoir.

WARNING - With the pedal at rest, there should not be any pressure in the system (low pressure gauge registering zero). If not, then refer to the instructions at check V.



- **Free** the servo-unit (five applications of the brake pedal **with the engine at rest**).

- Start-up engine **without accelerating**.

- the pedal should not move forward more than 3 m/m.

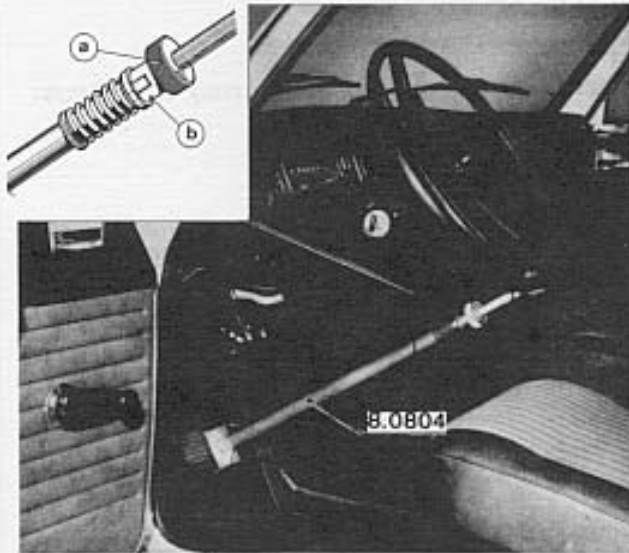
- the Testarc 50 gauges should not indicate any pressures.

If otherwise, then the servo-unit is suspect.

BRAKES

CHECKING A SERVO-UNIT

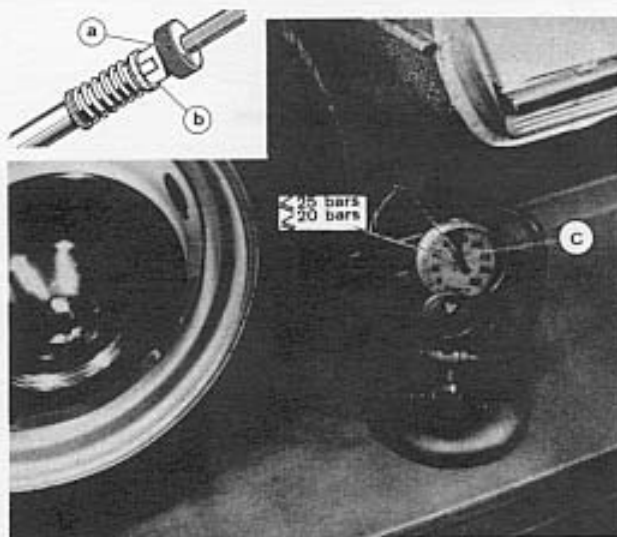
8 10 05



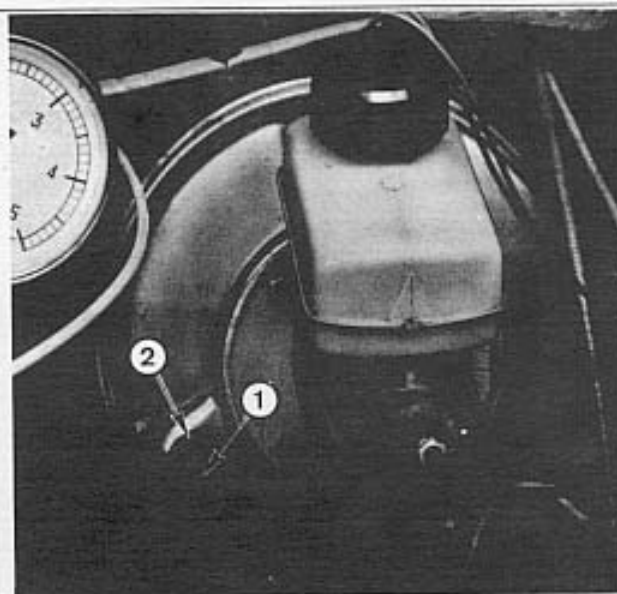
IV - CHECKING FOR AIR LEAKS

WARNING - This check must only be carried out after checking of the fluid system (see instructions for pressure checking).

- Free the servo-unit (five applications of the brake pedal, **engine at rest**).
- Install pedal depressor.
- Turn the knurled nut **(a)** until the slots **(b)** are closed-off.



- Start the engine :
 - the pedal should descend, and
 - hydraulic pressure increase.
- Re-tighten the knurled nut **(a)** until slots **(b)** are just closed-off.
- Line-up the two needles of the H.P. gauge **(c)**.
- Stop the engine.
- One minute later the indicated pressure should not be less than :
 - 504 RH drive - 290 p.s.i. (20 bars)
 - 504 LH drive - 362 p.s.i. (25 bars).

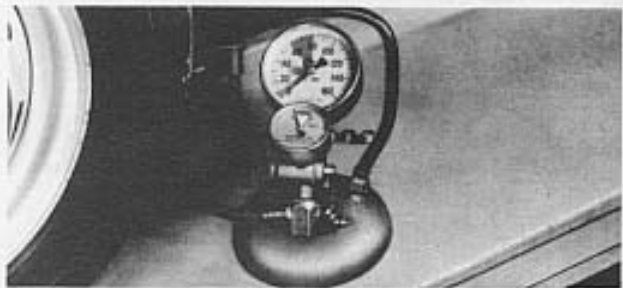


If the fall in pressure is excessive.

- Fit a **new valve (1)** and **new seal (2)**.
- Repeat the tests, if the fall in pressure is still excessive the servo-unit is suspect.

BRAKES

CHECKING A SERVO-UNIT

**V - CHECKING AND ADJUSTING THE THRUST ROD**

WARNING - Adjustment of this rod can only be made if the conditions of I, II and III have been satisfied.

– Depress and release the brake pedal, abruptly, pressure should fall instantly and completely (**zero on the L.P. gauge, connected at the front.**)

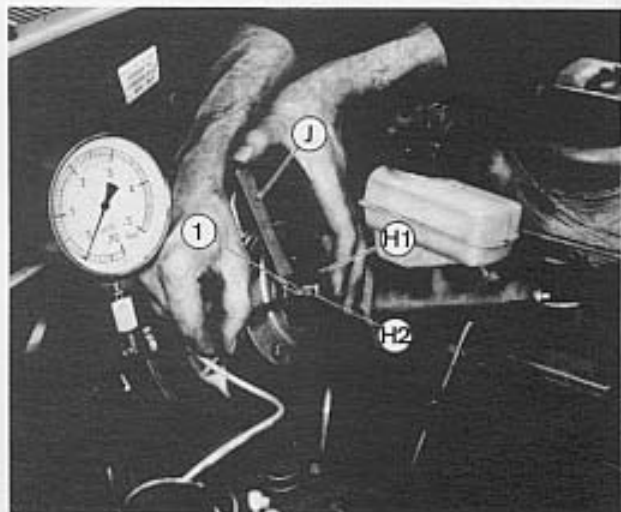


If pressure does not fall to zero

– Remove the master-cylinder without disconnecting the pipework.

If the pressure still does not fall, overhaul the master-cylinder.

WARNING - Never pull the thrustrod (1);



If the pressure falls to zero after removal of the master-cylinder.

Master-vac giving a reading of 500 mm/Hg. : (see check I) adjust the thrust-rod (1) in such a manner as it **just grazes** the base of the gauge (fig. 1) when the gauge is bearing on the mounting flange of the master cylinder,

– Accelerate the engine and briskly release the throttle drum several times. **If not instance should the thrust rod abut on to the base of the gauge.**

BRAKES

COMPENSATOR ADJUSTMENT

8

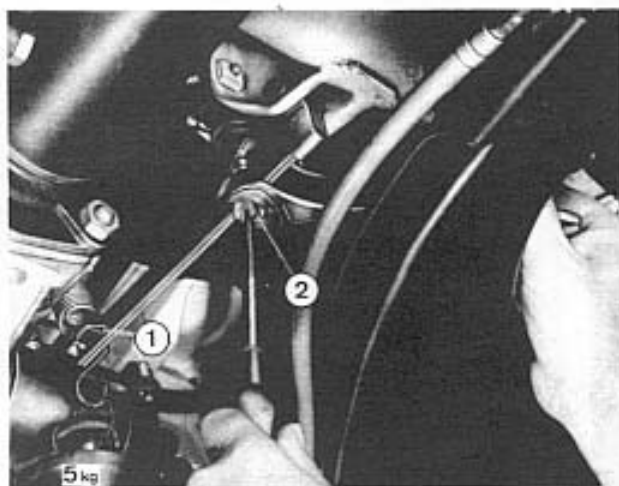
1101⁽¹⁾

504 SALOONS

I - 504 GL and TI

BENDIX COMPENSATOR

- Empty vehicle in working order (complete with, tools, water, oil and petrol ; spare wheel in place).
- Locate vehicle over a pit or on a horizontal ramp.



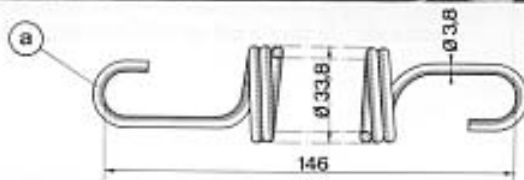
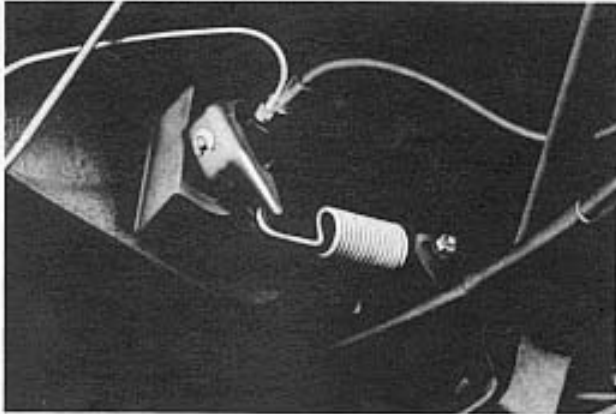
- Vehicle at rest on 4 wheels.
- Suspend an 11 lb. (5 kg.) weight from the compensator lever slot.
- Push-in the compensator piston.
- Adjust the screw (2) until a 1.4 m/m thick feeler is a good sliding fit.

NOTE - With an empty reservoir, adjust using a 1.6 m/m thick feeler.

- Remove the weight.

BRAKES

COMPENSATOR ADJUSTMENT



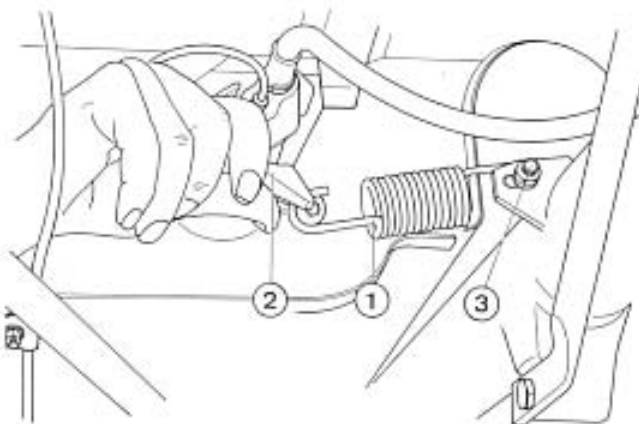
II - 504 L

TEVES COMPENSATOR

- Restraining spring
- (a) "yellow" flash.
- dimensions as illustrated.



- Position the vehicle on a ramp and hoist the rear.



- Rear wheels free of any load.

- Press the lever (2) towards the torque tube.

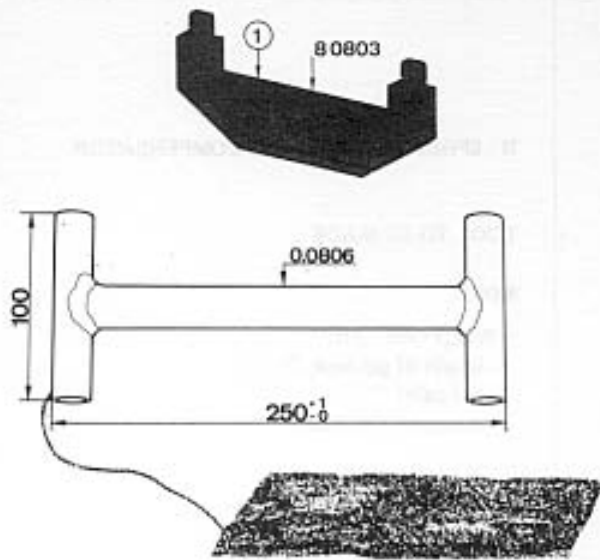
- Adjust and tighten the slot nut (3) so that the spring (1) is without tension or play.

BRAKES

COMPENSATOR ADJUSTMENT

8

11 03



504 - DERIVATIVES

I - ROD RESTRAINED COMPENSATOR

TOOLS REQUIRED

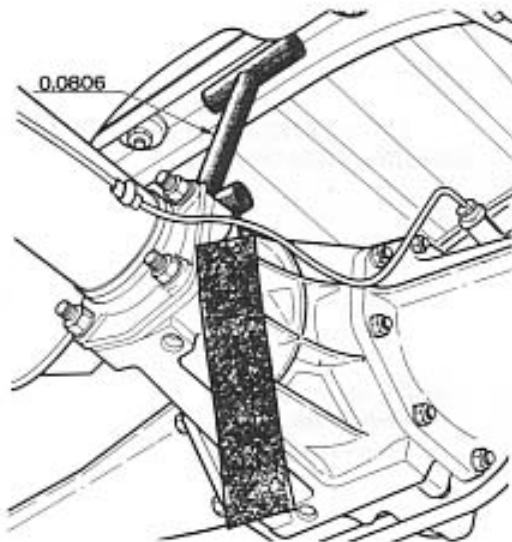
8.0808 W

- Disc brake tool kit
- 1 - adjustment gauge for rod restrained compensator.

TOOLS TO BE MADE

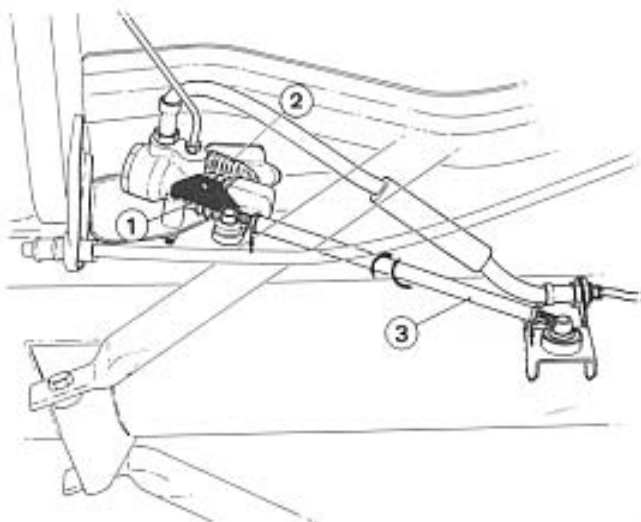
0.0806

- Wedge, hull/diff,
- length of gas pipe, 15 x 21,
- red paint,
- red signal flag (skai).



- Position the vehicle over a pit, or on a horizontal ramp.

- Insert the wedge (0.0806) between hull and diff. housing, as illustrated.



WARNING - Do not interfere with the adjustment of the spring (2).

- Locate the gauge (1) in the holes in the compensator by acting on the adjustable rod (3).

- Re-tighten the lock nuts of the adjustable rod.

- Remove both the gauge (1) and the distance-piece 0.0806.

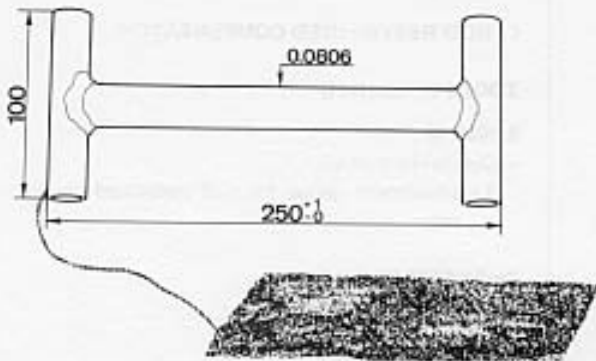
PEUGEOT



8

BRAKES

COMPENSATOR ADJUSTMENT

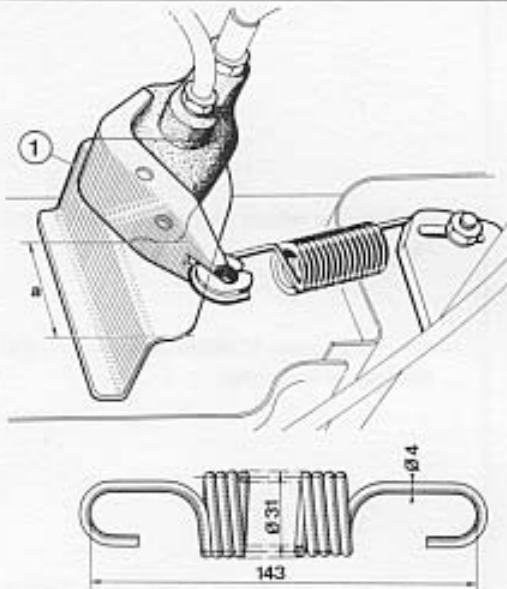


II - SPRING RESTRAINED COMPENSATOR

TOOL TO BE MADE

8.0803

- Wedge - hull/diff.
- length of gas pipe, 15 x 21.
- red paint,
- red signal flag (skai).

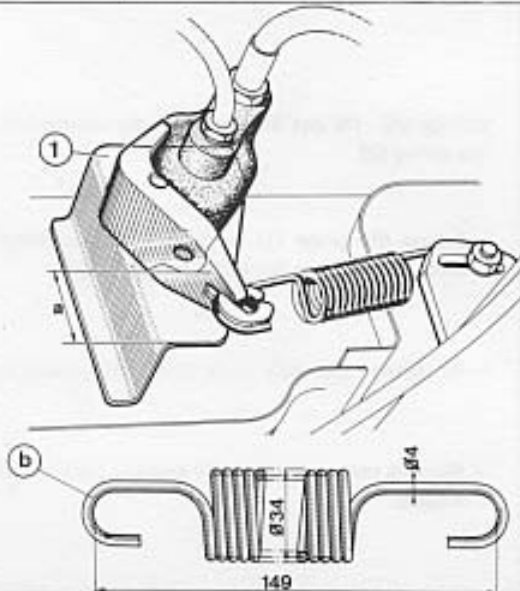


WARNING

TWO DIFFERENT ASSEMBLIES REQUIRING DIFFERENT ADJUSTMENT

1st assembly

- Compensator mounted on bracket (1) at ≈ 45 mm. (a).
- Restraining spring,
- no identification mark,
- dimensions as illustrated



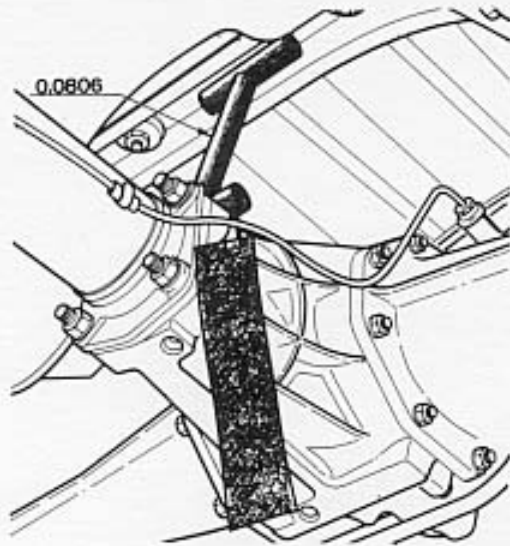
2nd assembly

- Compensator mounted on bracket (1) at ≈ 25 m/m (a).
- Restraining spring
- identification - blue flash (b).
- dimensions as illustrated.

BRAKES

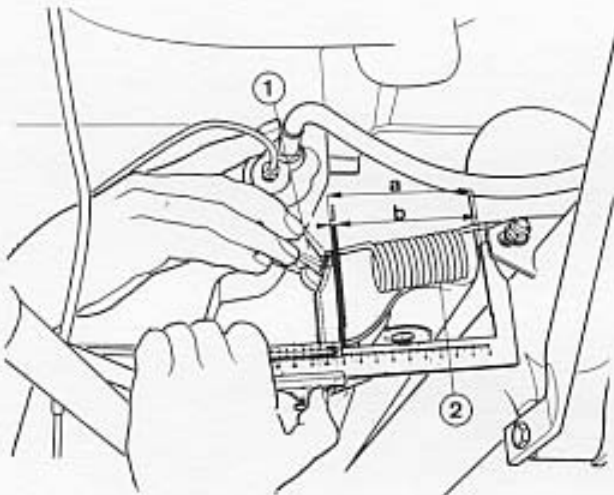
COMPENSATOR ADJUSTMENT

8 11 05



CHECK - ADJUSTMENT

- Position vehicle over a pit or on a horizontal ramp.
- Insert wedge between hull crossmember and diff. housing, as illustrated.



CHECKING

- Take the measurements at (a) and (b) with a vernier caliper.
- a - lever (1) moved, but spring to be without tension or play,
- b - lever (1) pressed in direction of torque tube.

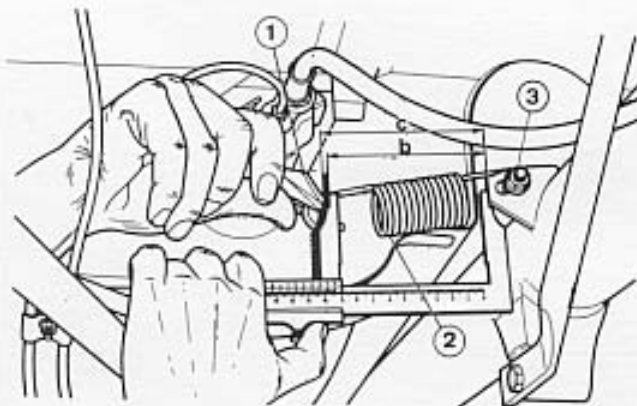
PLAY :

1st Assembly

$$J = (a) - (b) = 1,2 \text{ to } 2,2 \text{ m/m.}$$

2nd Assembly

$$J = (a) - (b) = 2,2 \text{ to } 3,2 \text{ m/m.}$$



ADJUSTMENT

- Slacken the slot nut (3).
- Measure :
b - lever (1) pressed in direction of torque tube.
- Adjust :
- caliper pre-set, and held in place, at :

1st Assembly

$$(c) = (b) + 1,7 \text{ m/m,}$$

2nd Assembly

$$(c) = (b) + 2,7 \text{ m/m.}$$

- ensure that the spring (2) is without tension or play by adjusting the slot bolt (3).
- Remove the wedge, 0.0806.
- Road test the vehicle in order to ascertain if there is any appreciable difference in braking effort as between front and rear.

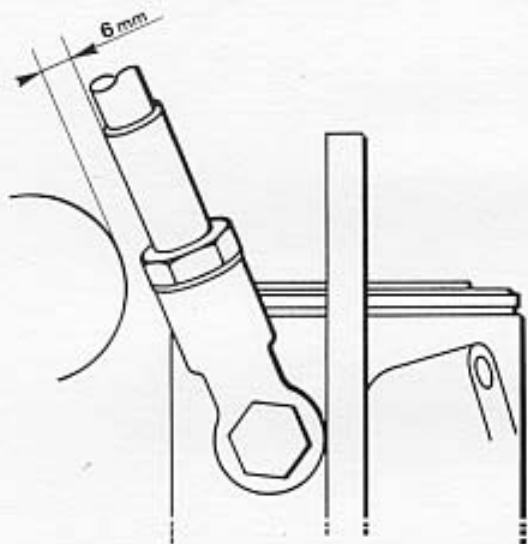
BRAKES
HYDRAULIC LINES**8** | **12** | **01****FLEXIBLE HOSES**

The brake hoses are susceptible to attack by hydrocarbons, hence avoid contact with grease, lubricating oil, petrol, etc...

The condition of hoses must be checked under maximum pressure-by hard application of the brake pedal, with engine running.

Hoses must be fitted without distortion as indicated below, ensuring that there is no risk of contact with the bodywork or with mechanical parts when,

- operating the steering,
- action of the suspension.

**FRONT HOSES**

- 6 m/m between union and knuckle.

BRAKES

HYDRAULIC LINES

8

12 03

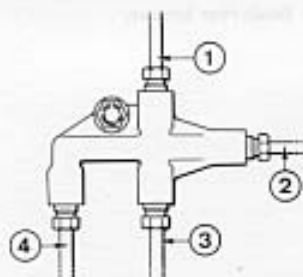
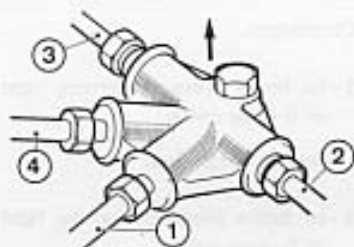
METALLIC PIPES

Conform rigidly to the original size, shape, run and fixing of pipes.

Brake pipes can be formed by hand without risk or distortion, always provided that they are not bent several times in the same place, or efforts made to produce small radius bends (use a pattern the displaced pipe, or a pipe in good condition).

Assuming that all fastenings are tight, ensure there is no vibration or contact with metal parts when the steering mechanism is in any position, or during any action of the suspension.

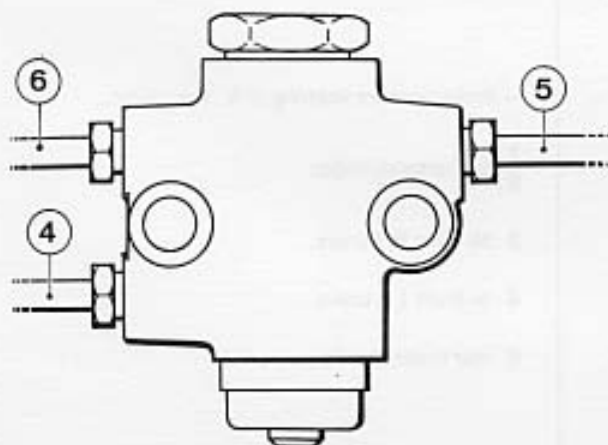
Torque copper pipe union nuts to 9,3 ft/lbs. (1.3 m.kg.).



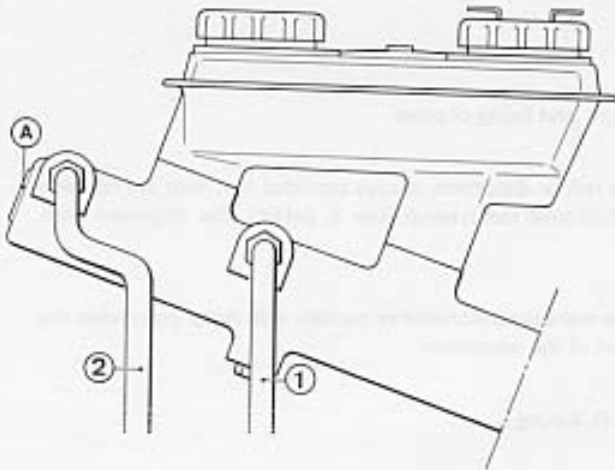
PIPE CONNECTIONS

Single circuit brake system

- 4 - Way union fixed to front cross-member.
- 1 - main feed-pipe to master-cylinder,
- 2 - to front RH. brake,
- 3 - to front LH. brake,
- 4 - rear brakes feed-pipes.



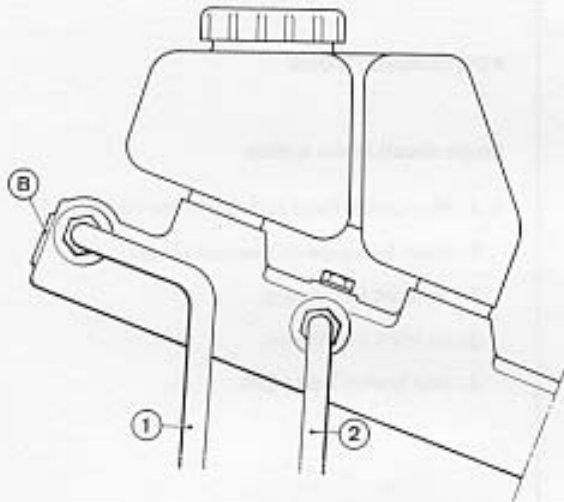
- 504 GL compensator,
- 4 - rear brakes feed-pipe,
- 5 - to rear RH brake,
- 6 - to rear LH brake.



DUAL CIRCUIT BRAKE SYSTEM

A - Lockheed tandem master-cylinder.

B - Teves tandem master-cylinder.



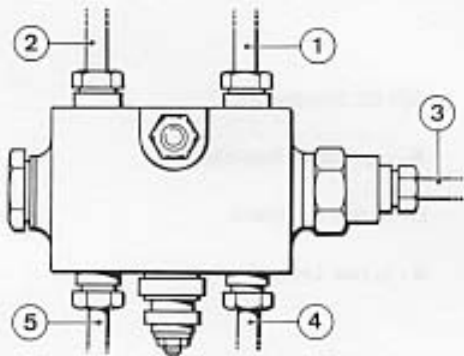
Connection :

1 - to brake pressure warning light transmittor, or 5 - way union,

feeds front brakes.

2 - to brake pressure warning light transmittor, or 5 - way union,

feeds rear brakes.



- Brake pressure warning or 5 - way union.

1 } to master-cylinder.
2 }

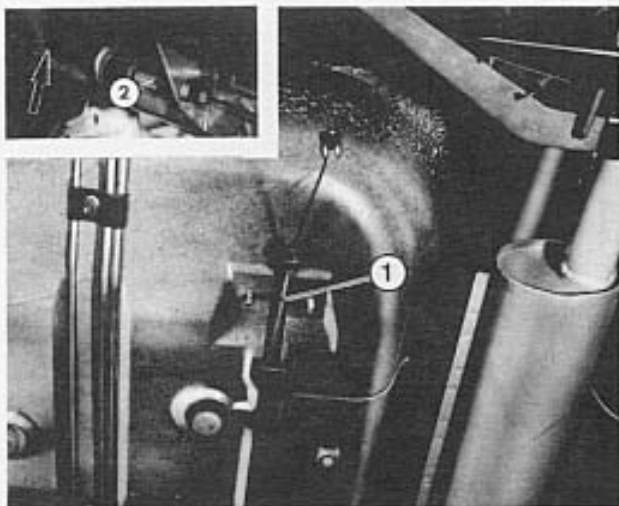
3 - to front RH brake,

4 - to front LH brake,

5 - rear brakes feed-pipe.

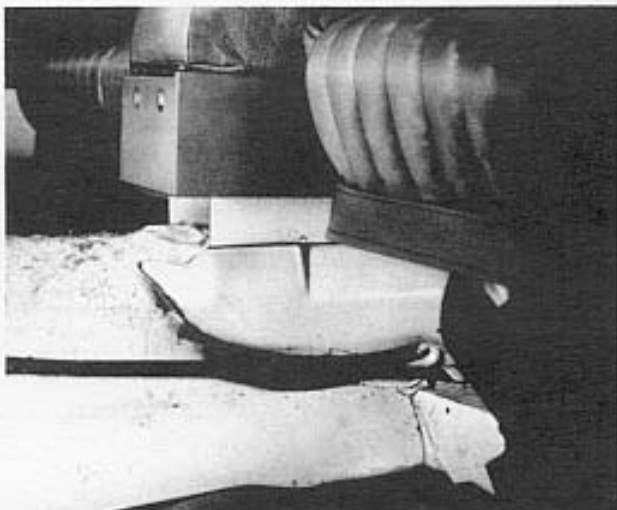
BRAKES
 HANDBRAKE
 DASHBOARD MOUNTED

8 14 01⁽¹⁾



REMOVAL OF CABLE OUTER CASING

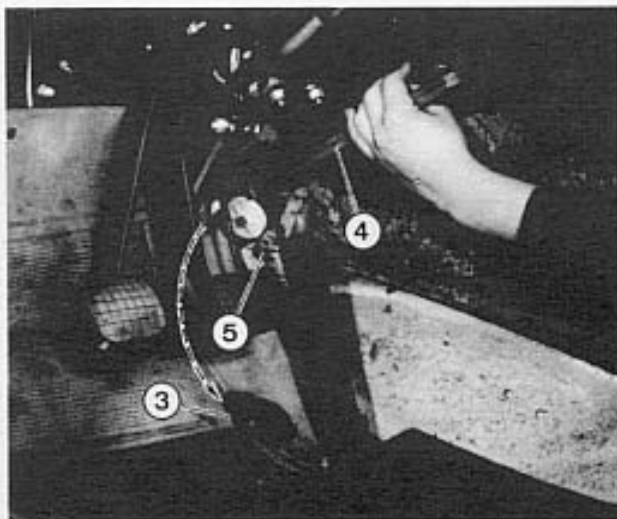
- Disconnect the operating cable.
- Remove rear clamp of cable tube.
- 1 - Saloons.
- 2 - Derivatives.



- Lift the carpet and sound proofing at gearbox tunnel.

On saloons

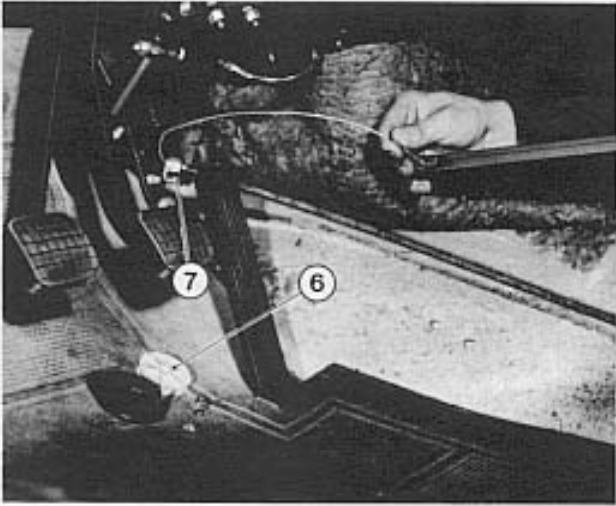
- Remove the mat and sound proofing material from the rear left hand floor.
- Unclip the cable beneath the front seat support.



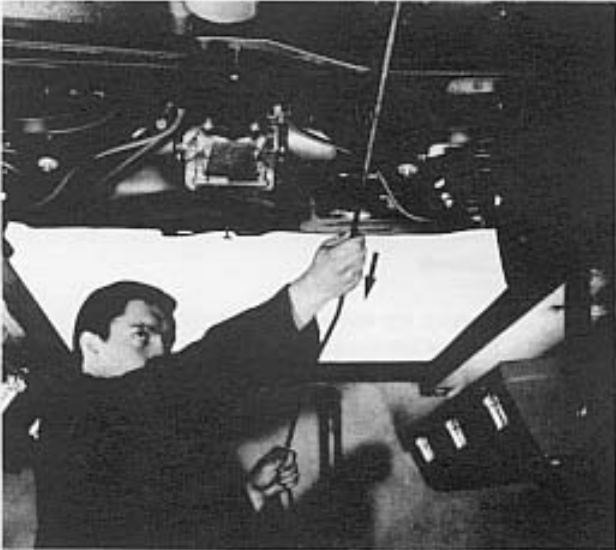
- Remove :
 - remove the pulley shield (3),
 - lever casing fixing nuts (4),
 - the stop collar (5),
 - disengage the lever casing at the top and towards the pulley.

PEUGEOT

BRAKES
HANDBRAKE
DASHBOARD MOUNTED



- Remove the pulley (6) and collar (7).
- Push-home the handbrake lever in its casing.
- Unhook the cable.

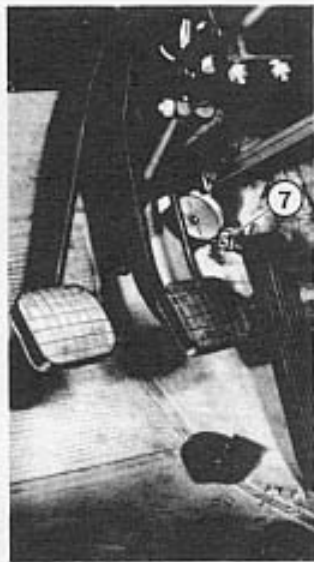


- Remove cable tube.

BRAKES
HANDBRAKE
DASHBOARD MOUNTED

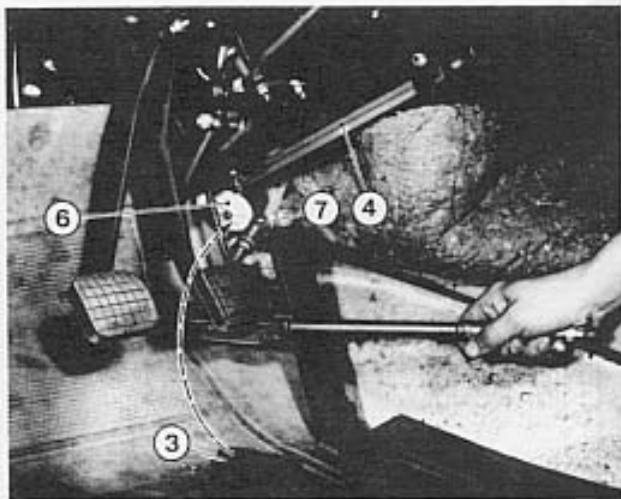
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14 03⁽¹⁾

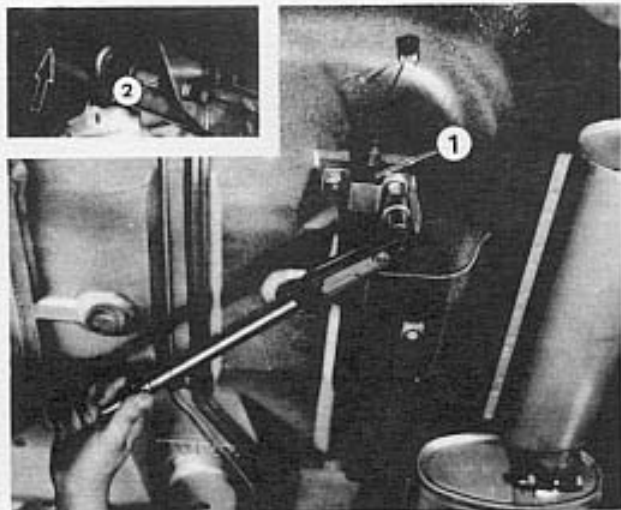


REPLACING THE OPERATING CABLE

- Insert the cable through the aperture in the underbody (a).
- Fit the collar (7) to the cable casing.



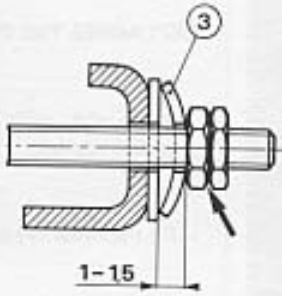
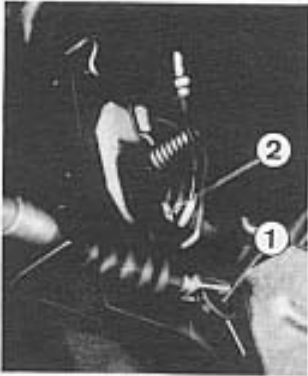
- Hook the cable to the lever.
- Replace the pulley (6).
- Fit the casing (4) and collar (7).
- Replace the shield (3).



- Clip cable casing to the front seat support.
- Replace the carpets.
- Fit :
 - the operating cable,
 - 1** - saloons,
 - 2** - derivatives.
- fit a new split pin to the equalising arm clevis pivot.

PEUGEOT

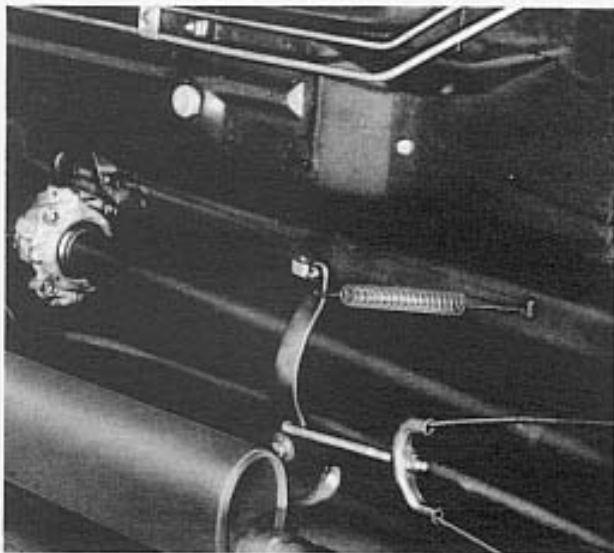
BRAKES
HANDBRAKE
DASHBOARD MOUNTED



On saloon models check adjustment of the handbrake

Handbrake "off"

- the operating lever (1) of the rear brake mechanism should seat on the nylon block (2).
- If necessary, act on the nuts in order to obtain a flexion of the spring washer (3) between 1 and 1,5 m/m.



On derivatives :

- If necessary, adjust by acting on the nuts to give 4 - 7 notches of the handbrake.

SUSPENSION

9

I - FRONT SUSPENSION

	Page
IDENTIFICATION AND CHARACTERISTICS	01 01 (1)
Front springs	01 02
REMOVAL - REFITTING	
Removal of one suspension element	02 01
Refitting of one suspension element	02 02
RE-ASSEMBLING/DISMANTLING	
Tools to be used	03 01 (1)
Dismantling	03 02 (1)
Re-assembling	03 11 (2)

II - REAR SUSPENSION

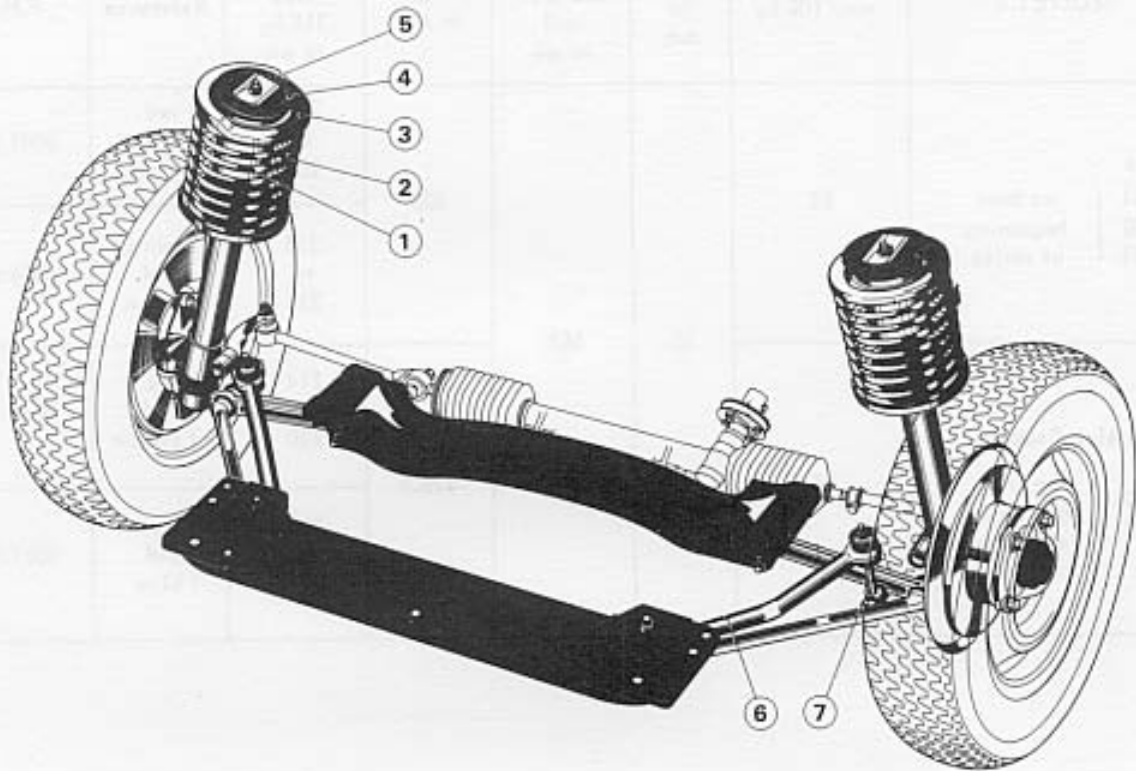
IDENTIFICATION AND CHARACTERISTICS	11 01 (1)
Rear springs	11 02
Suspension crossmember	11 03
REAR SHOCK ABSORBERS	
Tools to be used	15 01 (1)
Removal - Refitting	15 02 (1)
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SUSPENSION CROSSMEMBER	
Tools to be used	17 01
Removal :	
A - on car	17 02
B - on mechanical assembly	17 04
Refitting :	
A - on car	17 06 (2)
B - on mechanical assembly	17 08 (1)

PEUGEOT

FRONT SUSPENSION
IDENTIFICATION - CHARACTERISTICS

9

01 01⁽¹⁾



- 1 - Shock absorber
- 2 - Suspension spring
- 3 - Spring upper seating cup
- 4 - Upper flexible mounting
- 5 - Safety cup
- 6 - Anti-roll bar
- 7 - Anti-roll bar connecting link

PEUGEOT

0102

9

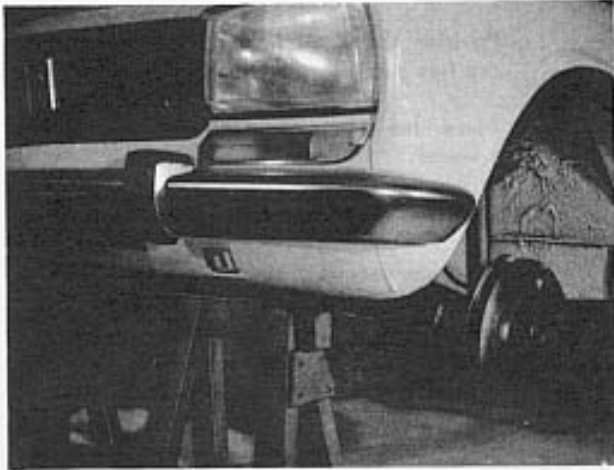
FRONT SUSPENSION
IDENTIFICATION - CHARACTERISTICS

FRONT SPRINGS

MODELS	Flexibility mm/100 kg	Coil dia in mm	Outer dia. of the last coil in mm	Free Height in mm	Height under load 318 kg in mm	Reference	P.N.
Saloons 504 A01 as from 504 A02 beginning 504 A03 of series	85	13	163	500	225 to 230	1 red and 1 green	5001.63
					230 to 235	1 white and 1 green	5001.64
Convertibles-Coupés 504 B02 as from 504 C02 beginning of series	65	13	163	426.5	214 to 220	1 red and 1 yellow	5001.75
					220 to 224	1 green and 1 blue	5001.76

FRONT SUSPENSION
SUSPENSION ELEMENT REMOVAL

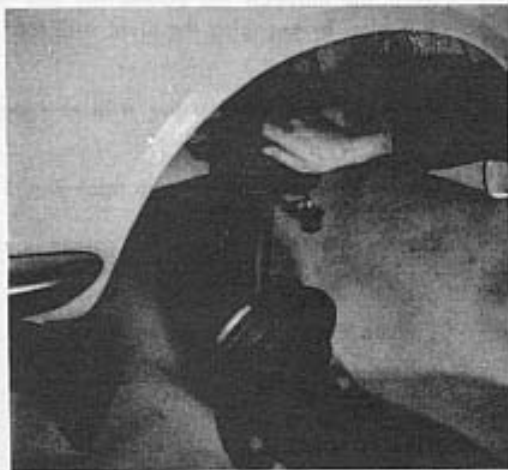
9 0201



- Raise the car by the front jack guides using the block and trackle chain hoist or a trolley jack placed under the front cross member.
- Chock under each side of the front cross member.
- Remove the wheel.



- Remove :
- the brake caliper and suspend it from the bodywork without disconnecting the flexible hose.
- the track rod ball joint using extractor 8.0703 E.
- the securing pivot of the anti-roll bar connecting link on the rear triangle arm.
- the rear triangle arm pivot by tapping to disengage the splined part.
- the silentbloc nut securing the front arm to the rear arm.



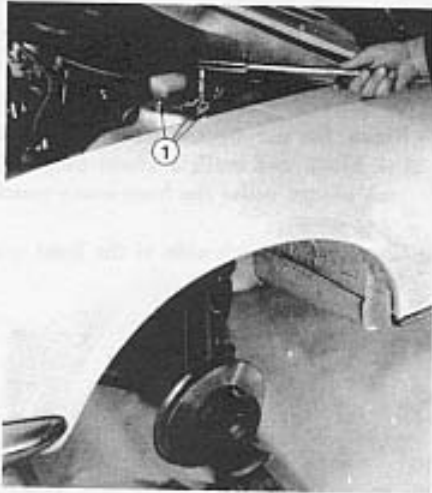
- Place a jack under the wheel hub.
- Remove the three bolts securing the upper spring holder to the wing valance.
- Hold the spring on one of its coils.
- Lower the jack and remove the element from the car.

PEUGEOT

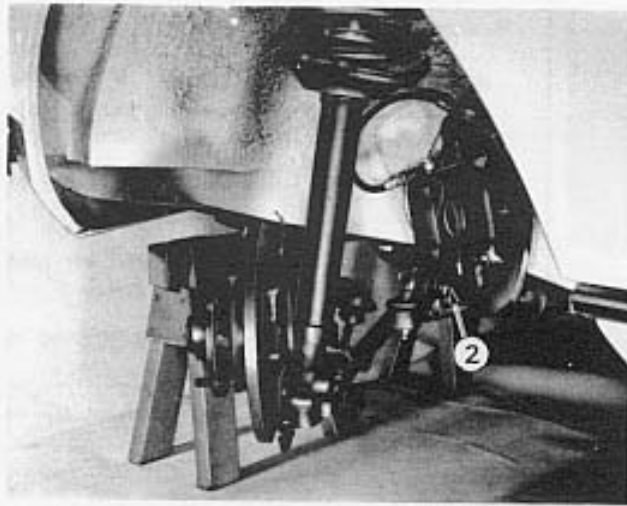
0202

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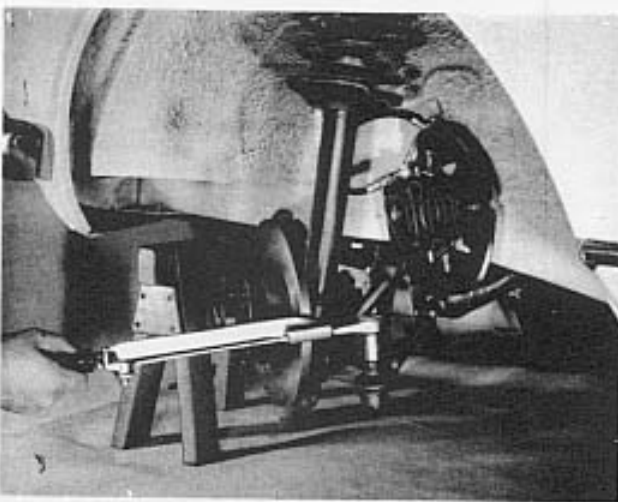
FRONT SUSPENSION
REFITTING A SUSPENSION ELEMENT



- Position the upper holder so that the safety cup lies parallel with the car axis.
- Place the element on a trolley jack fully lowered.
- Position the element under the front wing.
- Raise the assembly aligning the securing holes
- Secure the suspension element using three bolts 1 equipped with new double tooth washers. Tightening torque 7.2 ft.lbs (1 m.kg).



- Remove the jack.
- Fit the following parts on the front arm in the indicated order :
 - the thrust washers,
 - the cup,
 - the half silentbloc.
- Then fit the arm thus equipped in the rear arm eye and mount in the following order :
 - the silentbloc second half,
 - a new nylstop nut.
- Engage the pivot 2 of the rear triangle arm the head pointing rearwards and flush with the splines.
- Fit a new nylstop nut but do not tighten yet.



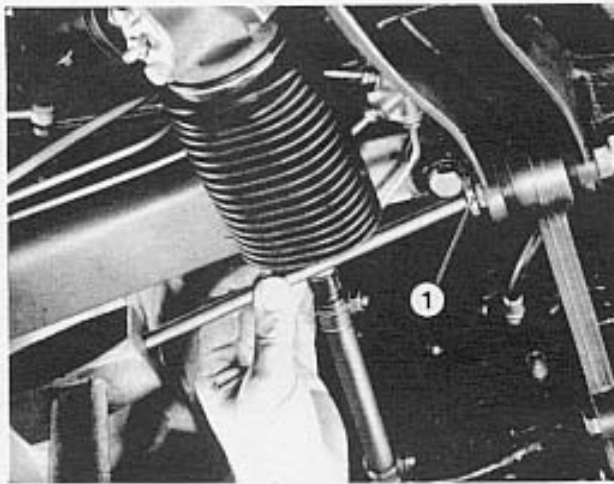
- Refit the anti-roll bar connecting link on the rear arm, by engaging the pivot with top facing rearwards.
- Place a washer and a nut without tightening the latter.
- Couple the track rod with the track arm.
- Ensure that the pin hole is perpendicular to the rod axis.
- Tighten the ball joint nut equipped with a new Blocfor washer. Tightening torque 33 ft.lbs (4.5 m.kg).
- Fit a split pin.

FRONT SUSPENSION
REFITTING A SUSPENSION ELEMENT

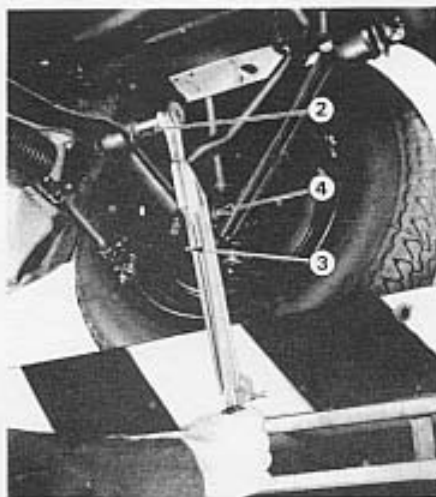
9 0203⁽¹⁾



- Refit brake caliper.
- Tighten the bolts equipped with new Blocfor washers. Tightening torque 51 ft lbs (7 m.kg).
- Refit the wheel.
- Tighten the wheel nuts to 43.5 ft lbs (6 m.kg).
- Rest the vehicle on its wheels.



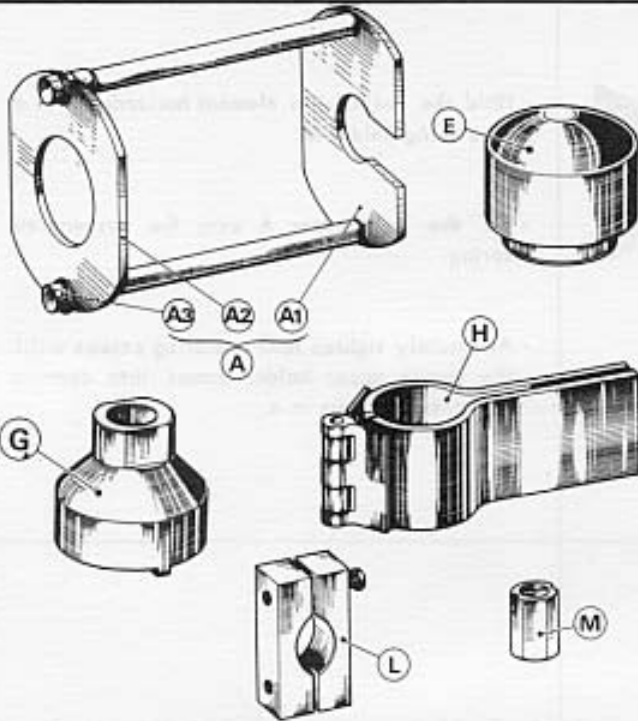
- Push the car over a pit or onto a car lift.
- Fit the rear articulation pivot 1.



- Using a torque wrench tighten the following to 33 ft lbs (4.5 m.kg) :
- pivot nut 2 on cross member,
- silentbloc nut 3,
- nut 4 securing anti-roll bar connecting link to rear arm.

PEUGEOT

FRONT SUSPENSION
DISMANTLING - REFITTING A SUSPENSION ELEMENT



TOOLS TO BE USED

8.0906

Tool chest for front and rear suspension.

A - Front and rear springs compressor comprising of :

A1 - Lower clamp assembly

A2 - Upper clamp

A3 - Set of two operating screws

E - Lower needle bearing seal fitting drift.

G - Front shock absorber closing nut socket wrench.

H - Holder

L - Front shock absorber rod holding clamp.

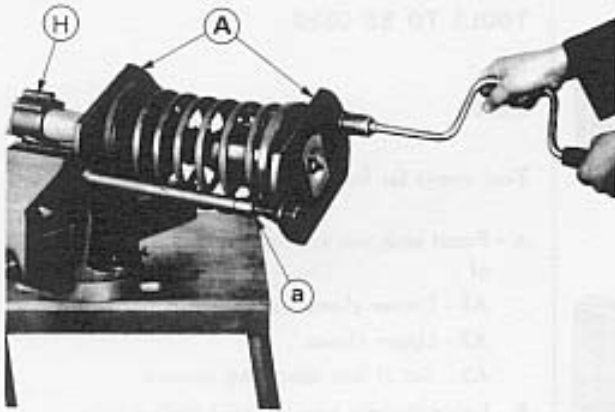
M - Front shock absorber rod holding socket.

PEUGEOT

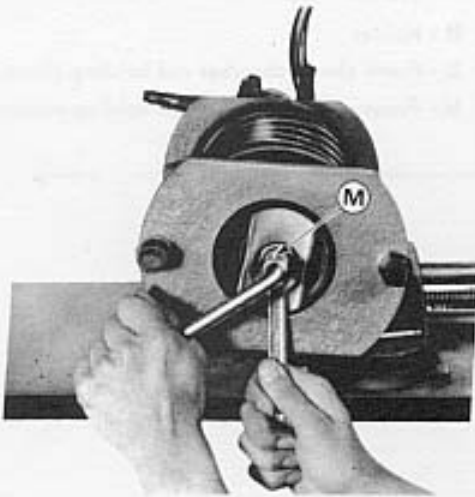
0302⁽¹⁾

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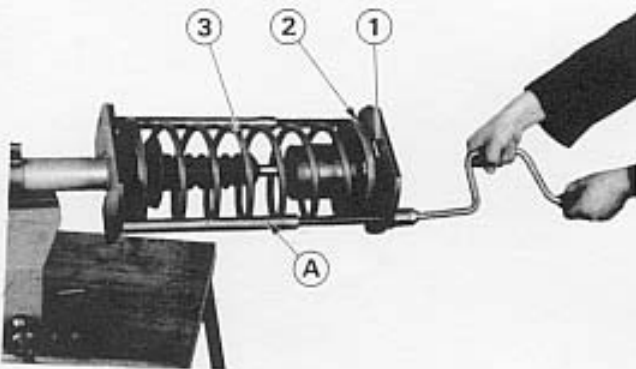
FRONT SUSPENSION DISMANTLING OF A FRONT SUSPENSION ELEMENT



- Hold the suspension element horizontally in a vice using holder H.
- Fit the compressor A over the suspension spring.
- Alternately tighten both operating screws until the spring upper holder comes into contact with the apparatus in a.



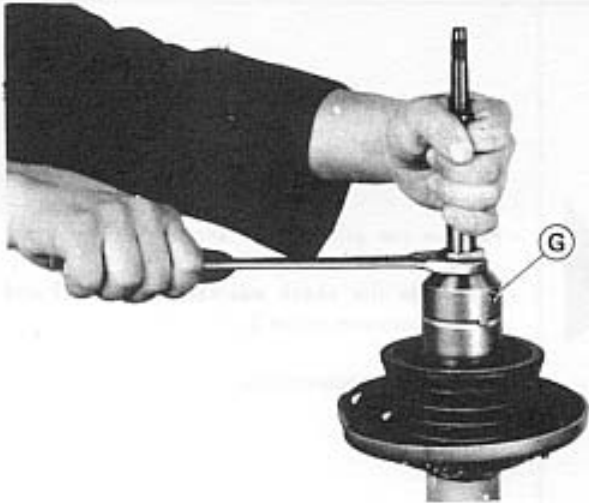
- Hold the shock absorber rod using socket M and remove the nut.



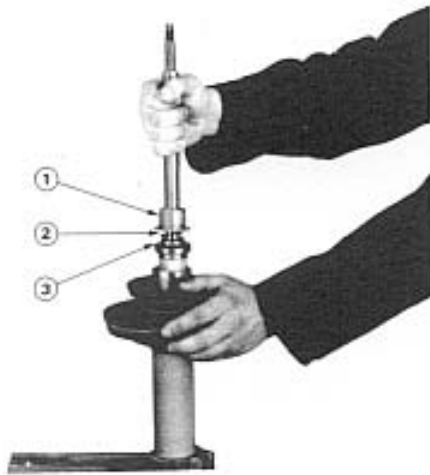
- Slacken both operating screws until spring is fully extended.
- Remove :
 - compressor A,
 - upper holder 1,
 - spring upper cup 2,
 - suspension spring 3.

FRONT SUSPENSION
DISMANTLING OF A FRONT SUSPENSION ELEMENT

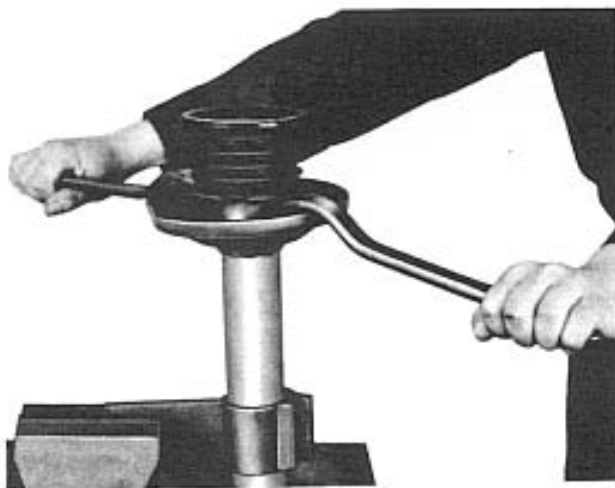
9 0303



- Remove the shock absorber rod rubber boot.
- Hold the suspension element vertically in a vice.
- Remove the shock absorber closing nut using socket G and an open ended spanner.



- Pull rod slowly so that oil does not splash and remove rod and piston assembly.
- Then removing the following from the rod :
 - support cup with rod seal 1.
 - thrust washer and upper spring 2.
 - "O" seal ring of bushing 3.



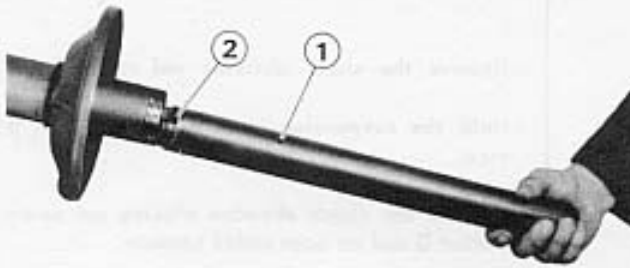
- Remove the rebound block using two tyre levers.

PEUGEOT

0304

9

FRONT SUSPENSION DISMANTLING A SUSPENSION ELEMENT

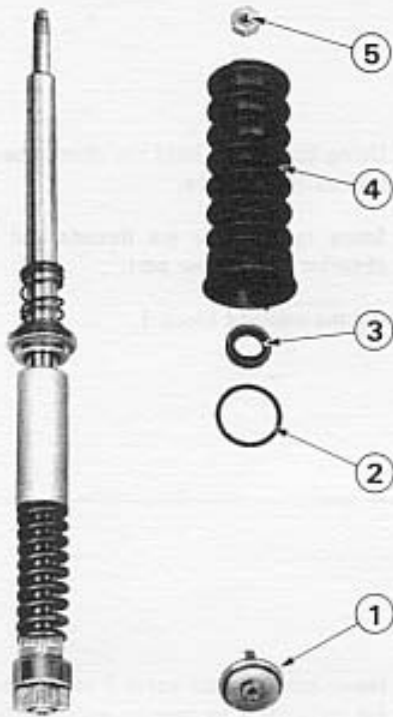


- Remove the shock absorber from the vice.
- Remove the oil from the shock absorber body.
- Set aside the shock absorber cylinder 1 and the compensator valve 2.
- Remove the compensator valve.



FRONT SUSPENSION
REFITTING A FRONT SUSPENSION ELEMENT

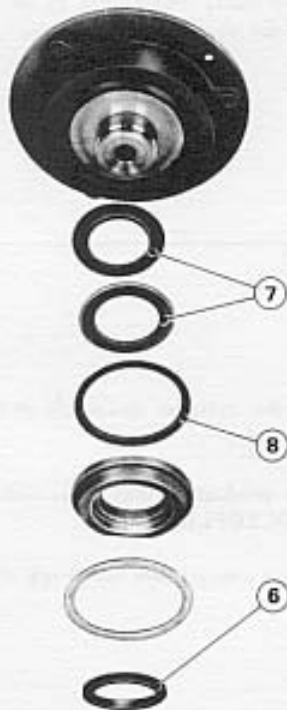
9 0311⁽²⁾



- Use clean and faultless parts.
- The following parts must be replaced at each dismantling operation :

Shock absorber

- Valve compensator assembly 1 if necessary.
- "O" seal ring of bushing 2.
- Rod seal 3.
- Rubber boot 4.
- Nylstop nut 5.



Upper Support

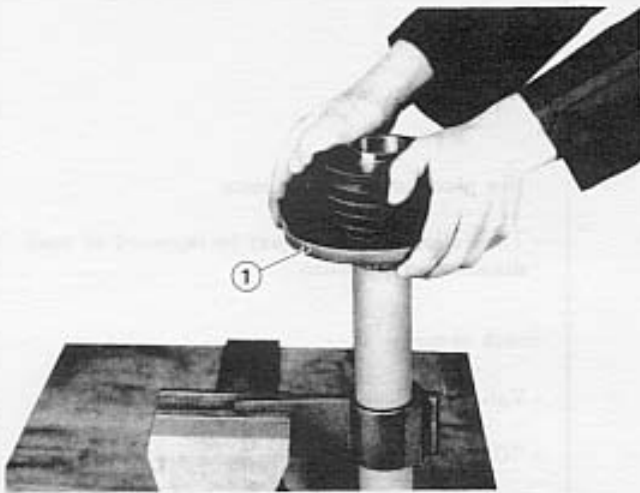
- Lower rubber seal 6.
- Needle bearing 7 if necessary.
- Seal ring of needle bearing 8.

PEUGEOT

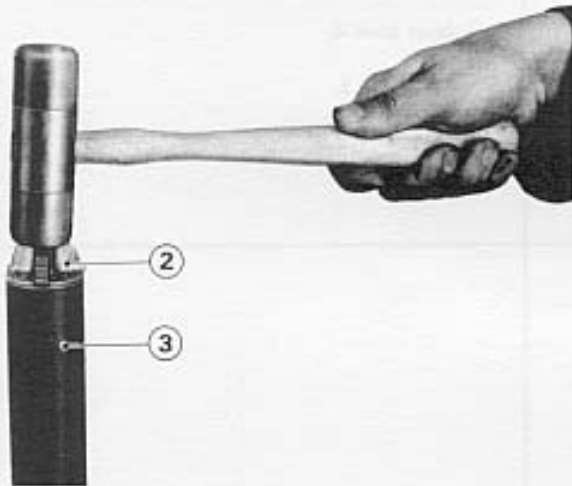
0312⁽²⁾

9

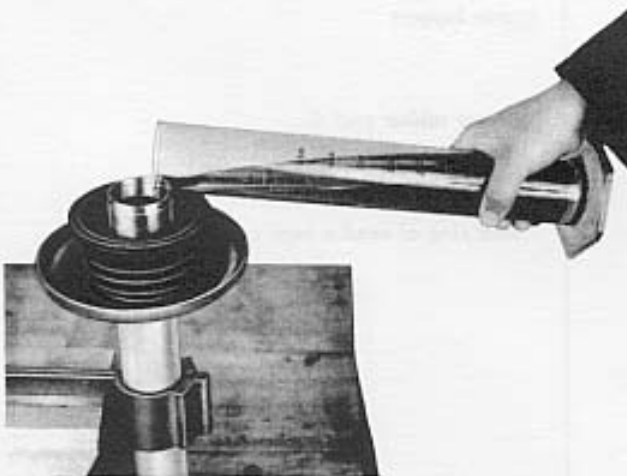
FRONT SUSPENSION
REFITTING OF A FRONT SUSPENSION ELEMENT



- Using support H, hold the shock absorber body vertically in a vice.
- Smear tallow over the threads and the shock absorber body upper part.
- Fit the rebound block 1.



- Insert compensator valve 2 in the shock absorber cylinder 3 by tapping gently with a mallet.
- Blow carefully these parts as well as the inner part of the shock absorber body.



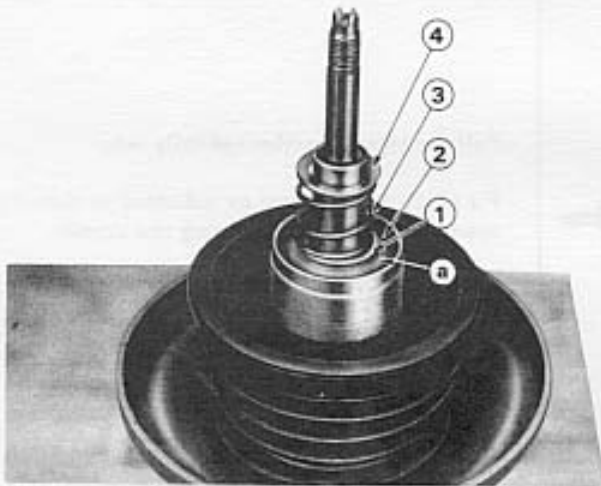
- Place the cylinder assembly in the shock absorber body.
- Fill a graduated test tube with 300 cm³ of ESSO OLEOFLUID 40X.
- Pour this amount into the shock absorber body.

FRONT SUSPENSION
REFITTING A FRONT SUSPENSION ELEMENT

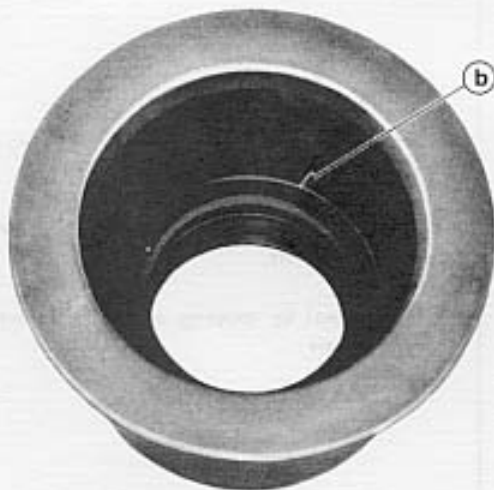
9 0313



- Gradually insert the mechanism into the cylinder to avoid any loss of oil.



- Ensure correct engagement of the upper bush 1. Face a must have a clearance of three mm with regard the shock absorber body.
- Fit the new "O" seal ring 2 tallowed.
- Install the following on the shock absorber rod:
 - upper spring 3,
 - thrust washer 4 with domed side facing spring



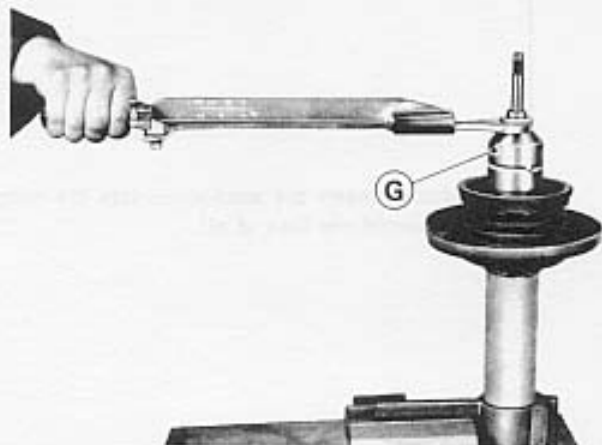
- Smear tallow over the new rod seal.
- Insert the seal in the cup in order that edge b is visible.

PEUGEOT

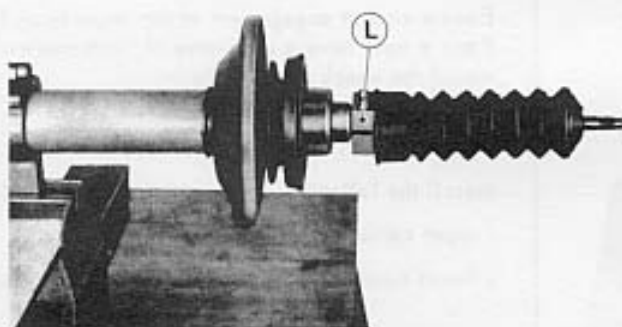
0314

9

FRONT SUSPENSION REFITTING A FRONT SUSPENSION ELEMENT



- Carefully fit the cup equipped with its seal on the rod. Engage it until the thrust washer comes into contact with the spring.
- Fully tighten the closing nut on the body and tighten to 58 ft.lbs (8 m.kg) using socket G.
- Hand check the rod rotation and displacement.



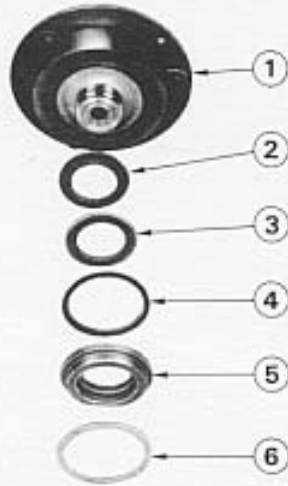
- Pull the shock absorber rod fully out.
- Fit clamp L on the rod as indicated on drawing opposite. Tighten firmly using two screws.
- Install rubber boot on the shock absorber rod.
- Hold suspension element horizontally in a vice.



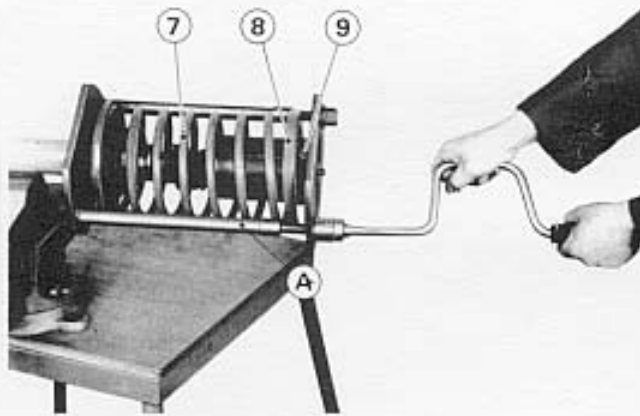
- Place rebound buffer thrust ring on a lead base with the seal recess facing upwards.
- On drift E, place seal ring with its lips pressed against the drift.
- Fit the seal by tapping on the drift until the seal bottoms.

FRONT SUSPENSION
REFITTING A FRONT SUSPENSION ELEMENT

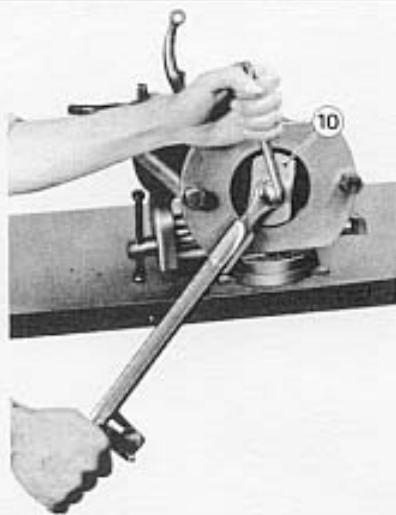
9 0315



- Amply grease the needle thrust bearing using ESSO MULTIPURPOSE GREASE H.
- Place the following on the upper spring holder 1 :
 - thrust plate 2 with its collar facing downwards,
 - needle bearing 3, with the needles facing upwards,
 - bearing oil seal 4 with the big lip pointing downwards,
 - bearing thrust plate 5, its seal facing downwards,
 - Shim 6.



- Fit the following on the supporting element :
 - suspension spring 7,
 - upper spring cup 8,
 - upper holder assembled 9.
- Hold this assembly using compressor A.
- Compress the spring by tightening alternately both operating bolts. Ensure free engagement of the shock absorber rod in the Support recess.



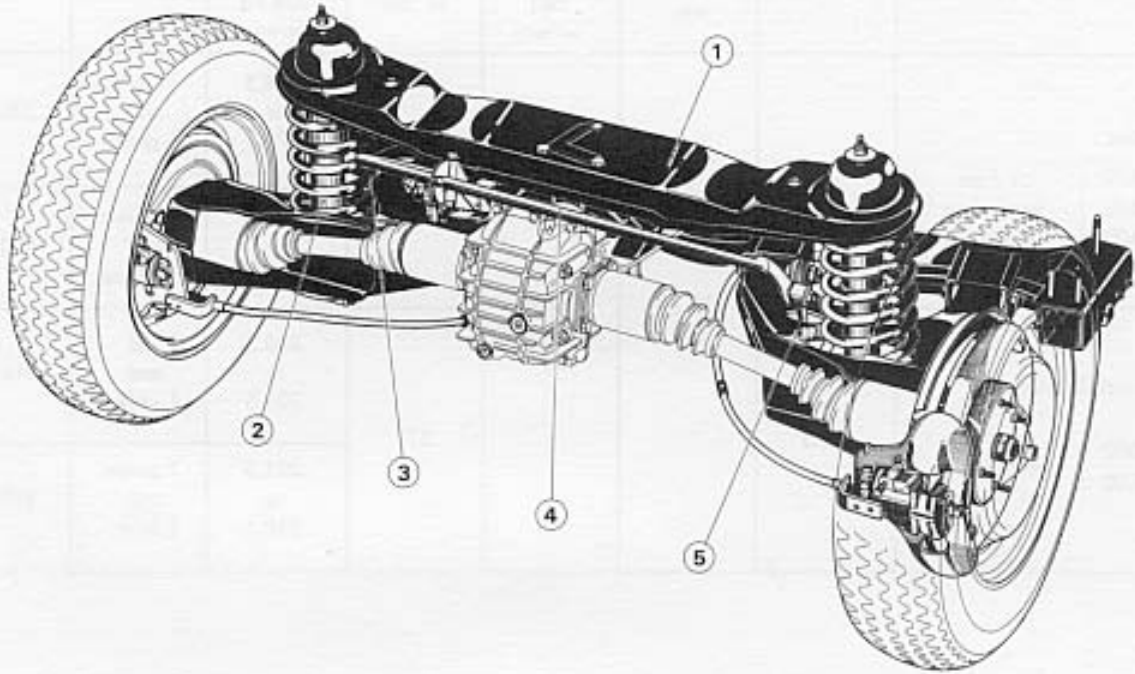
- Fit safety cup 10 with its tab in the Support groove.
- Fit a new Nylstop nut and tighten to 33 ft.lbs (4.5 m.kg) while holding the rod with socket M
- Remove :
 - spring compressor A,
 - rod holding clamp L,
- Engage rod rubber boot over the closing nut.

PEUGEOT

REAR SUSPENSION
IDENTIFICATION AND CHARACTERISTICS

9

11 01⁽¹⁾



- 1 - Suspension crossmember
- 2 - Shock absorber
- 3 - Suspension spring
- 4 - Anti-roll bar
- 5 - Anti-roll bar connecting link

PEUGEOT

11 02

9

REAR SUSPENSION
IDENTIFICATION - CHARACTERISTICS

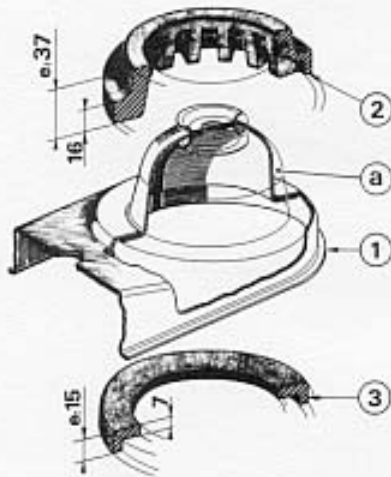
REAR SPRINGS

MODELS	Flexibility mm/100 kg	Coil dia in mm	Outer dia of the last coil in mm	Free Height in mm	Height under load 318 kg in mm	Reference	P.N.
Saloons 504 A01 as from 504 A02 beginning 504 A03 of series	26	15.75	135.75	412	324.5 to 329.5	1 yellow and 1 green	5101.89
					329.5 to 334.5	1 blue and 1 white	5101.90
Convertibles-Coupés 504 B02 as from 504 C02 beginning of series	22.5	15.75	135.75	377	300.5 to 305.5	1 red and 1 yellow	5101.93
					305.5 to 310.5	1 green and 1 blue	5101.94

REAR SUSPENSION
IDENTIFICATION AND CHARACTERISTICS

9

1103



SUSPENSION CROSSMEMBER

1st FITTING

Up to serial numbers :

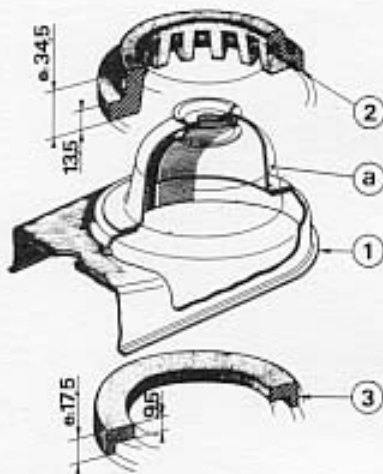
504 A01 - 1 007 476

504 A02 - 1 004 862

The shock absorbers securing cups (a) are welded at the lower part of the suspension crossmember 1.

2 - Suspension crossmember spacer, thickness 37 mm.

3 - Rubber seating cup, thickness 15 mm.



2nd FITTING

As from serial numbers :

504 A01 - 1 007 477

504 A02 - 1 004 863

The shock absorbers securing cups (a) are welded at the upper part of the suspension crossmember 1.

2 - Suspension crossmember spacer, thickness 34.5 mm.

3 - Rubber seating, thickness 17.5 mm.

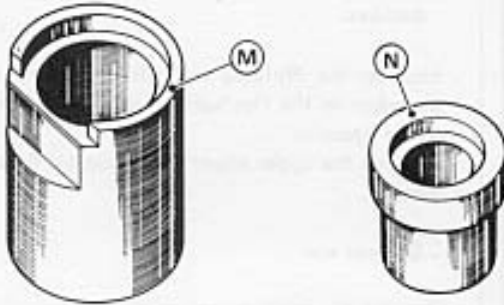
INTERCHANGEABILITY

The parts of the 2nd fitting can be mounted as an assembly on cars manufactured prior to this modification but they are not interchangeable separately with the parts of the 1st fitting.

PEUGEOT

REAR SUSPENSION
REAR SHOCK ABSORBERS

9 15 01



TOOLS TO BE USED

8.0907

Tool chest for front and rear flexible bushings.

M - Fitting and removal tool for rear shock absorber lower silentbloc.

N - Fitting and removal drift for rear shock absorber lower silentbloc.

PEUGEOT



1502

9

REAR SUSPENSION

REAR SHOCK ABSORBERS



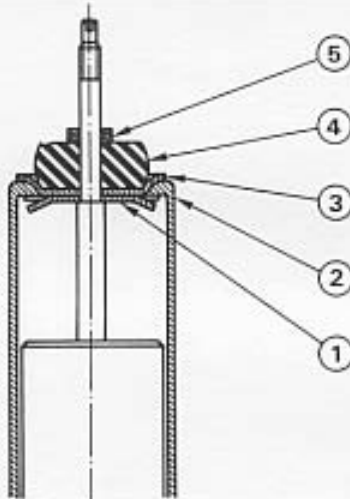
REMOVAL

a - Inside the boot on the suspension cross member.

- Slacken the Nylstop nut while holding shock absorber on the flat surface using a 5 mm open ended spanner.
- Remove the upper sheet metal cup and the rubber washer.

b - On rear arm

- Remove the lower securing pivot.
- Remove the shock absorber by disengaging it from the hole provided in the rear arm.



REFITTING

- At each dismantling operation replace the following parts :

- the rubber washers,
- the upper sheet metal cup,
- the nylstop nut.
- Fully extend the shock absorber rod.
- Fit the following parts on the rod :
 - thrust cup 1,
 - rod protector 2,
 - centering cup 3,
 - rubber washer 4,
 - nylon spacer 5.



- Engage the shock absorber in its recess with the rod positioned in the suspension cross member hole.

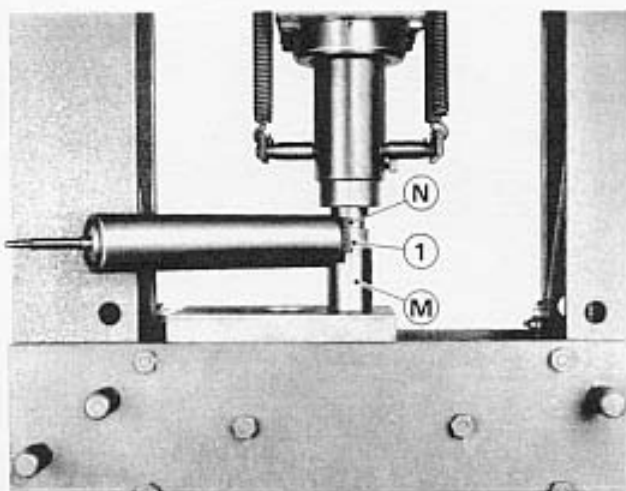
- Fit the lower securing pivot using a new Bloc-for washer and engage the nut without tightening

- Place the following on the shock absorber rod :
- rubber washer,
 - the upper sheet metal cup raised edge facing upwards,
- Nylstop nut tightening torque 9 ft.lbs (1.25 m.kg)

- Tighten the shock absorber lower pivot securing nut to 33 ft.lbs (4.5 m.kg).

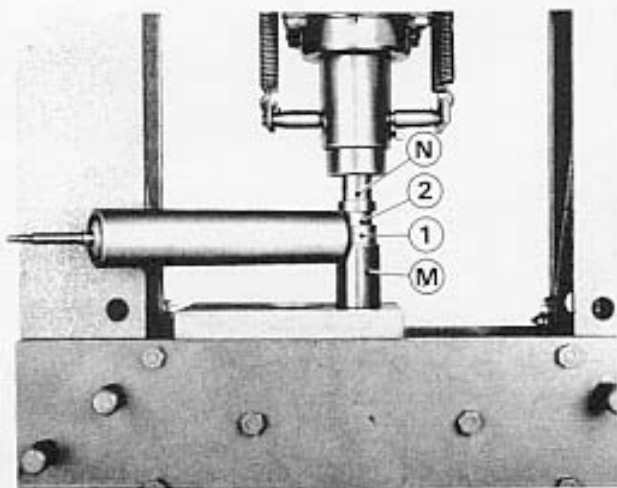
REAR SUSPENSION
REAR SHOCK ABSORBERS

9 1503



REPLACEMENT OF A FLEXIBLE BUSHING
REMOVAL

- Assemble the following on the press base plate :
 - fitting tool M,
 - shock absorber eye 1,
 - removal drift N with the smaller diameter pointing towards the shock absorber.
- Lower the piston until the silentbloc falls inside tool M.



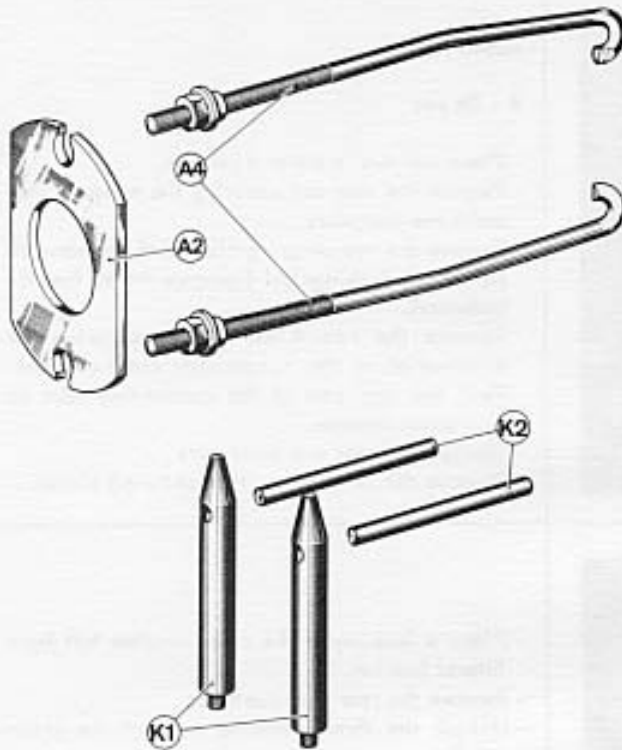
REFITTING

- Smear the silentbloc outer surface and the shock absorber eye bore with tallow.
- Assemble the following on the press base plate :
 - fitting tool M,
 - shock absorber eye 1,
 - new silentbloc 2 with chamfer pointing towards shock absorber eye.
 - fitting drift N with its greater diameter pointing towards the shock absorber.
- Lower piston, using the press, until drift N comes into contact with shock absorber eye.
- Correct positioning of the silentbloc is ensured by the shape of drift N

PEUGEOT

REAR SUSPENSION
SUSPENSION CROSS-MEMBER

9 1701



TOOLS TO BE USED

8.0906

Tool chest for front and rear suspension.

A - Rear spring compressor tool comprising of :

A2 - Upper clamp

A4 - Set of two rods with nuts

K1 - Set of two guide rods for rear cross-member.

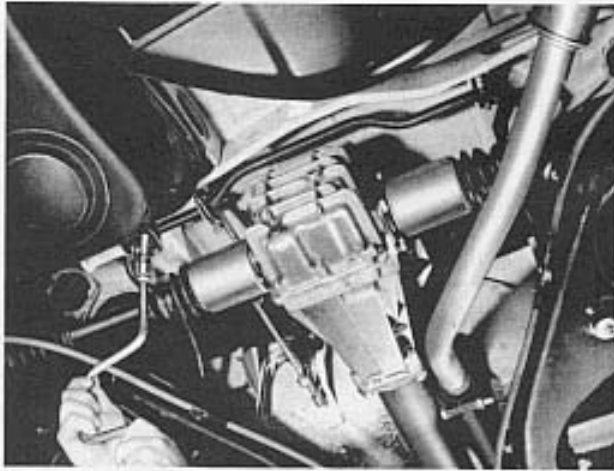
K2 - Set of two bars.

PEUGEOT

1702

9

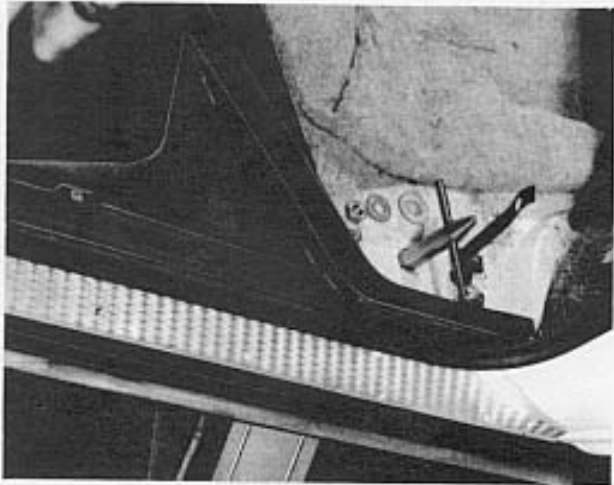
REAR SUSPENSION SUSPENSION CROSS-MEMBER



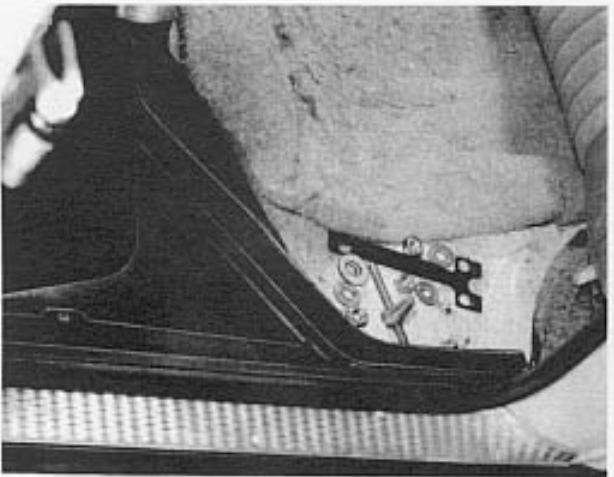
REMOVAL

A - On car

- Place car over a pit or a car lift,
- Remove the rear nut securing the exhaust pipe under the bodywork.
- Remove the two securing clamps of the anti-roll bar flexible bushings and disengage the bar from the bodywork.
- Remove the two Allen screws securing the differential, to the suspension cross-member. Rest the rear part of the connecting tube on rear cross-member.
- Slacken the rear arm pivot nuts.
- Remove the petrol line rear securing clamp.



- Place a jack under the cross-member left hand lateral bracket.
- Remove the rear seat cushion.
- Unlock the three securing nuts of the cross-member.
- Remove the front securing nut.
- Raise the lock washer.
- Remove the plastic plug from the guide hole.
- Fully tighten guide rod 8.0906 K1 in the hole. Tighten using bar K2.

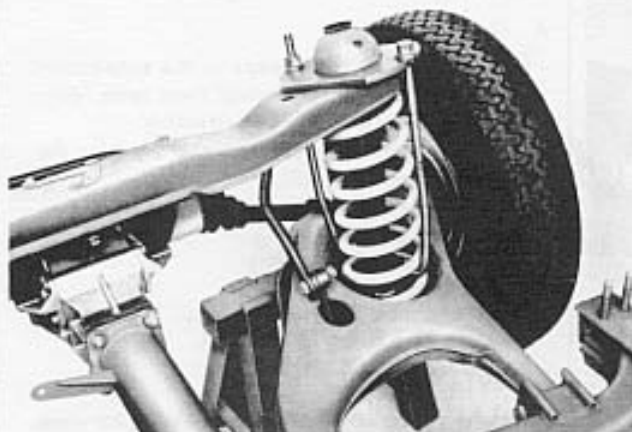


- LEAVE THE BAR IN THE GUIDE HOLE
- Remove the cross-member rear securing nuts and the thrust washers.
- Lower the cross member until the bar comes into contact with the floor.
- Carry out the same operation on the right hand side.

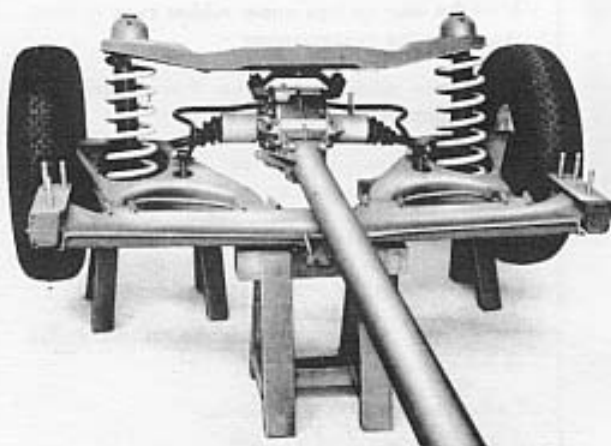
REAR SUSPENSION
SUSPENSION CROSSMEMBER

9

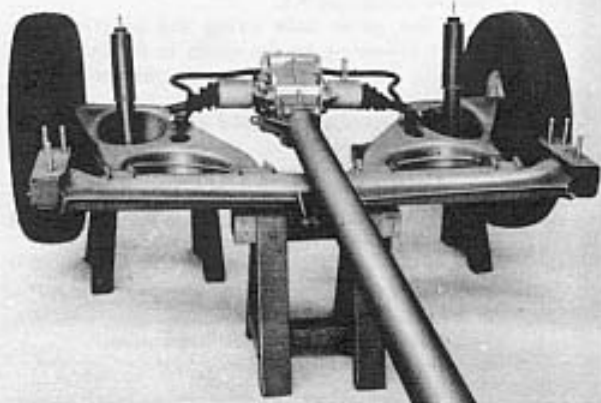
17 05⁽²⁾



- Release the spring by untightening simultaneously rods A4.
- Remove the spring compressor tool.
- Carry out the same operation for the opposite spring.



- Remove both allen screws securing the differential under the suspension crossmember.
- Rest the differential/connecting tube assembly on the rear crossmember.



- Remove the suspension crossmember and the rear springs.

PEUGEOT

FOREWORD

Each operation described in a logical order, has been divided into 7 sub-operations :

1 - PREPARATION

E.G.: In operation «11.0512 - Replacement of the front components», the removal and refitting of the front components is described on page 11.0501.

2 - REMOVAL OF DETACHABLE PARTS

Operations which are not described in the method.

3 - INTERVENTION ON THE CAR

Straightening - Cutting - Unfastening

4 - PREPARATION OF NEW COMPONENTS

5 - ADJUSTING AND ASSEMBLY

Adjusting - Welding - Finishing

6 - PROTECTION AND SEALING

Protective paint - Sealing compounds.

7 - FINISHING - CHECKING - ADJUSTING

Refitting the detached elements
Checking and adjusting the safety components

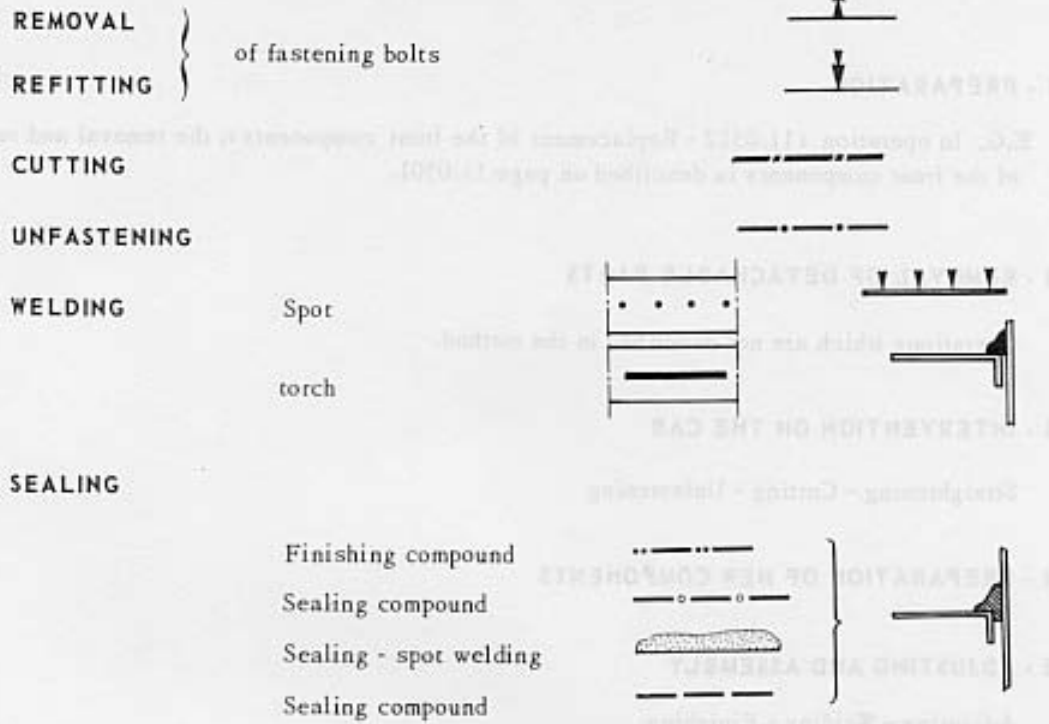
In the event of consultation during intervention, this method enables the work in progress to be easily pin-pointed without going through the complete text.

NOTE -

The mechanical operations and those concerning final paintwork are not included in the class.

FORWARD

The operations of removal, fitting, cutting, unfastening, welding and sealing described in the text are emphasized in the illustrations by the following code :



To simplify the operation illustrations on the bench, they are shown without the body components to which they are attached.

NOTE CONCERNING THE CHOICE OF OPERATIONS

As each accident is a particular case, typical operations treated individually here can be interchanged as required.

Example (front)

Replacement of a wing by unfastening can be carried out with either the bonnet cross piece or the lower panel.

NOTE - If more than 2 components are to be replaced, it is advisable to remove the front assembly to carry out the intervention.

Example (rear)

In the event of impact low down, the replacement of a L.H. rear wing for example, can be effected by cutting away, with partial replacement of the boot panel R.H. side.

NOTE - This avoids repainting of the roof and the rear R.H. wing.

**HULL
AND BODY JIG**

11

HULL

REMOVAL AND REFITTING	02 01
LIST OF MAIN PARTS USED IN REPAIR	04 01
CLEARANCES OF THE MOVING COMPONENTS	04 11

BODYWORK - FRONT PART

REMOVAL AND REFITTING THE FRONT ASSEMBLY	05 01
REPLACING THE FRONT ELEMENTS (assembly removed)	05 11
REPLACING THE BONNET FRONT CROSS PIECE (by unfastening on the car)	05 21
REPLACING THE FRONT PANEL (by unfastening on the car)	05 31
REPLACING A FRONT WING (by unfastening on the car)	05 41
WELDING OF THE FRONT UNDERBODY COMPONENTS	06 01
REPAIRING A BUTTRESS	06 03
REPLACING THE LOWER CROSS PIECE	06 11
REPLACING THE FRONT FRAMEWORK UPPER CROSS PIECE	06 21
REPLACING THE FRONT FRAMEWORK	06 31
REPLACING A FRONT PART OF THE BUTTRESS AND A FRONT FRAMEWORK	06 41
REPLACING A COMPLETE BUTTRESS AND THE FRONT FRAMEWORK	06 51
REPLACING A WING VALANCE, A FRONT PART OF THE BUTTRESS AND THE FRONT FRAMEWORK	06 61
REPLACING A CONNECTING ANGLE BRACKET	06 66

BODYWORK - CENTRAL PART

REPLACING AN OUTER DOOR PANEL	07 01
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BODYWORK - REAR PART

REPLACING A REAR WING	09 01
REPLACING A REAR WING (by cutting away)	09 11
REPLACING THE BOOT PANEL, THE LOWER PANEL AND THE CROSS PIECE (by cutting away)	09 21
REPLACING THE BOOT PANEL (by cutting away)	09 31

BODY JIG

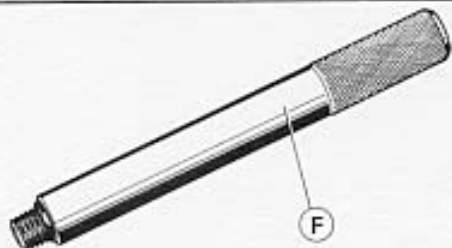
DESCRIPTION AND CHARACTERISTICS	11 01
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PEUGEOT

BODYWORK
REMOVAL - REFITTING

11

0201



TOOLS TO BE USED

8.0803

- Tool chest for disc brakes.

F - Stopper rod for brake master cylinder.

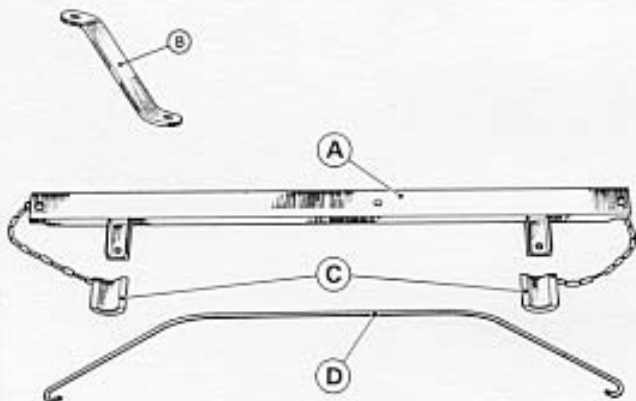


8.0906

- Tool chest for front and rear suspension.

K1 - Set of two guide rods for rear cross member.

K2 - Set of two bars.



8.1101

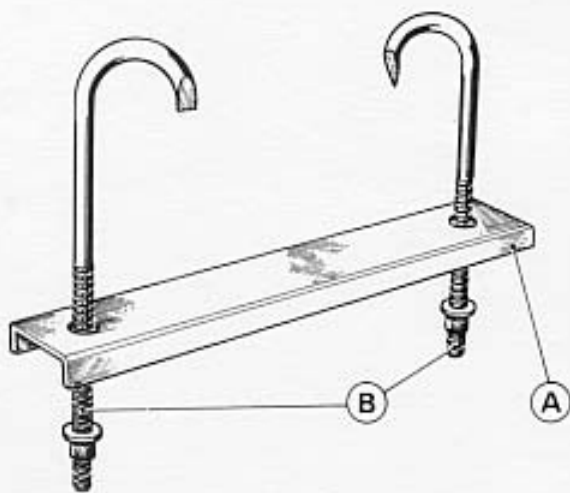
- Apparatus for front mechanical components including :

A - Front triangle holding crossbar.

B - Engine support bar.

C - Front steering knuckle thrust washer.

D - Front suspension connecting bar.



8.1102

- Rear cross member holding apparatus including

A - Crossbar

B - Set of two pullers with nuts.

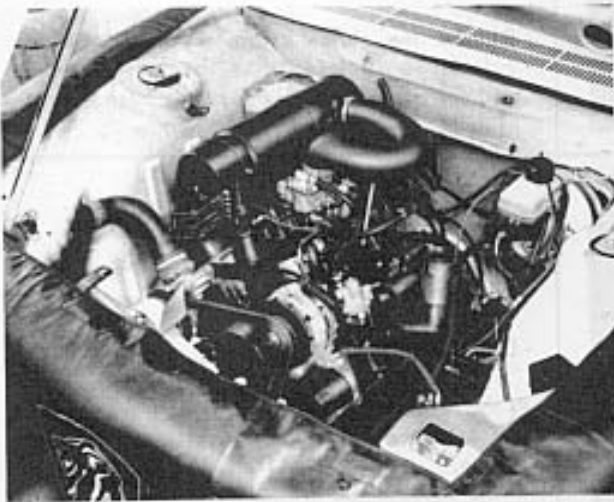
PEUGEOT

BODYWORK REMOVAL

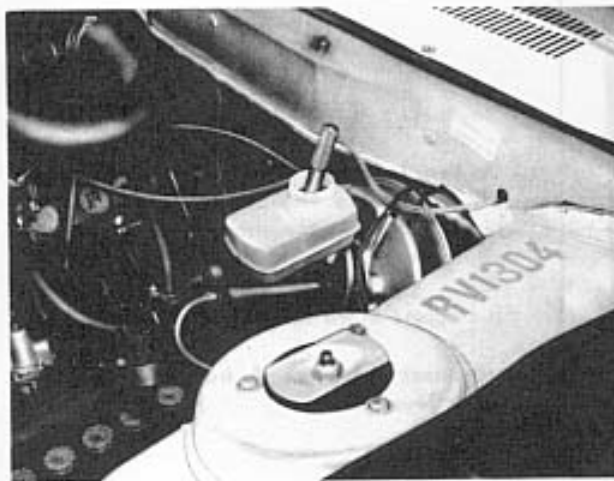
11 0203

PRELIMINARY OPERATIONS

Place the car over a pit or on a car lift.
 Protect the wings with the covers.
 Disconnect the battery.
 Drain the cooling system and recover the liquid if it contains anti-freeze.



- Remove the battery.
- Disconnect :
 - the radiator hoses,
 - the heater hoses on the engine,
 - the carburettor heater hose from the 3 way union near the scuttle.
 - the petrol feed pipe,
 - the Mastervac vacuum pipe from the inlet manifold.
 - the wires from :
 - the alternator,
 - the oil pressure switch,
 - the ignition coil,
 - the thermostatic connector,
 - the starter motor,
 - the self disengaging fan switch,
 - the choke and throttle controls.
- Remove the radiator.



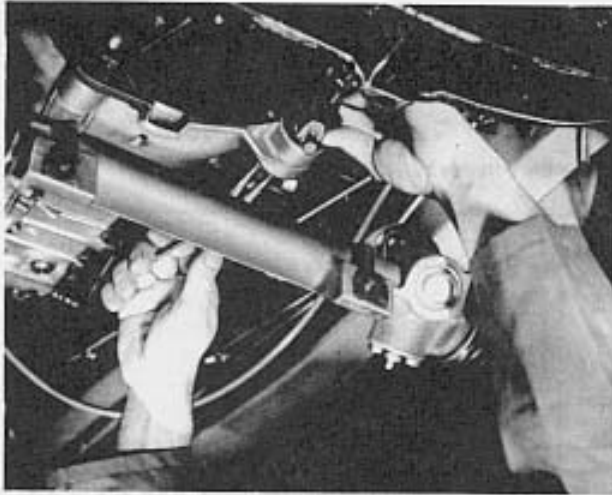
- Insert the master cylinder stopper rod 8.0803 F and screw it in tight to prevent draining the brake fluid system.
- Disconnect from the 4 way union :
 - the brake fluid supply pipe,
 - the rear brake supply pipes,
- Slacken the securing supports on the flexible left and right brake hoses, on the front wing valances.
- Disengage the hoses from the supports without disconnecting them from the brakes.

PEUGEOT

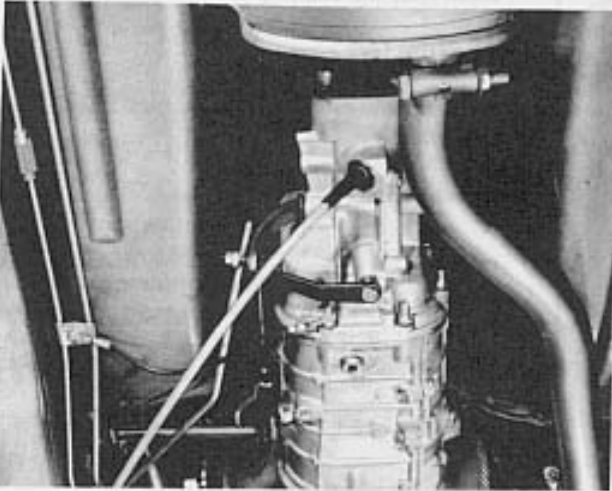
0204

11

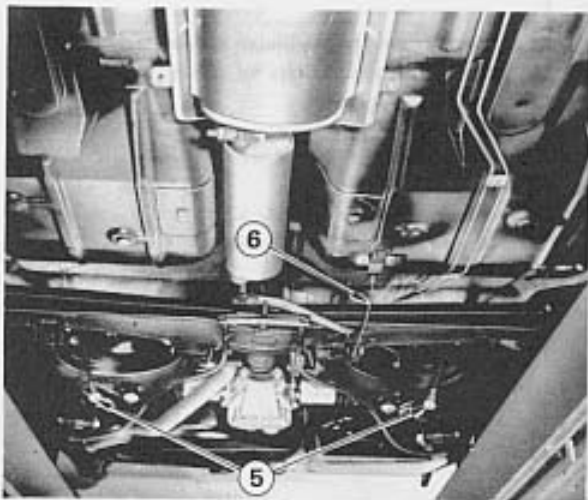
BODYWORK REMOVAL



- Remove :
 - the steering column flector securing bolt.
 - the 2 Allen screws securing the steering box to the cross member.
- Insert in the flector, in place of the bolt, a 6 mm centre punch.
- Disengage the steering column by rocking the flector using the centre punch as a lever.
- Remove the clutch control cylinder or slave cylinder and place it on the battery cradle without disconnecting the supply hose.



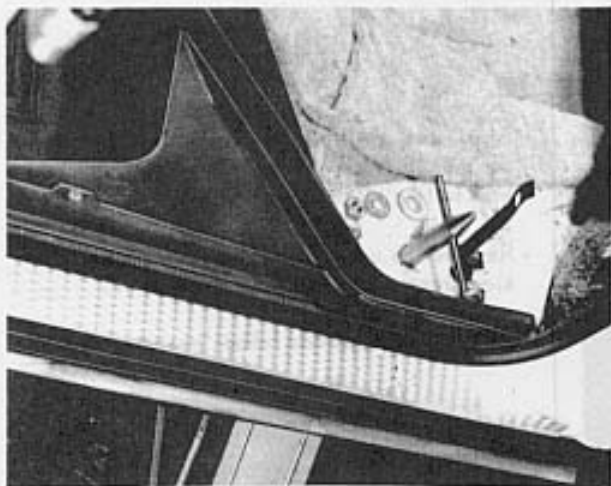
- Disconnect the gear change controls and remove the counter arm 1.
- Disconnect :
 - the reverse light wires 2,
 - the gearbox earthing wire 3 from the body side,
 - the speedometer drive 4.
- Remove the 4 bolts securing the heat dissipation plate to the floor.



- Disconnect :
 - the petrol pipes from the tank.
 - the rear brake flexible hoses 5 from the pipes and disengage them from the supports on the bodywork.
- Fit stoppers in the brake fluid pipes.
- Disconnect the cable 6 from the handbrake counter lever.

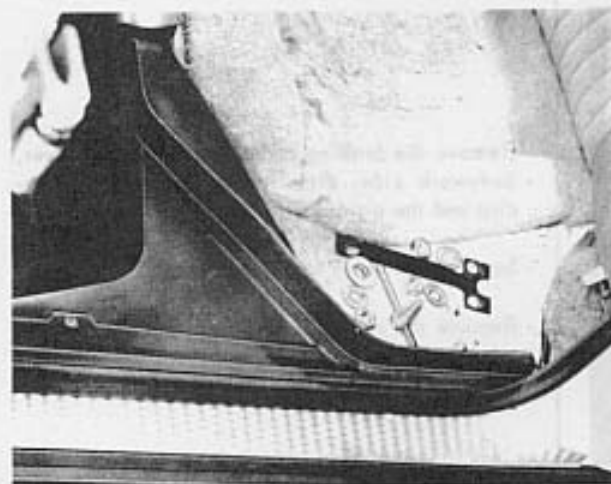
**BODYWORK
REMOVAL**

11 0205

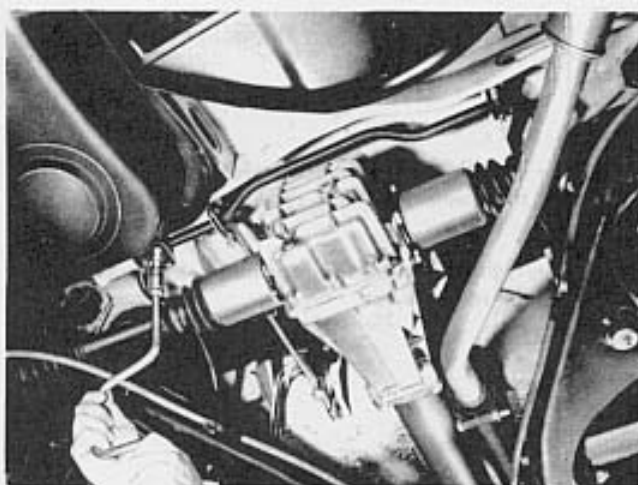


Separate the rear axle from the bodywork

- Place a jack under the cross member lateral left hand support.
- Remove the rear seat cushion.
- Unlock the three securing nuts of the cross member.
- Remove the front securing nut.
- Raise the tab lock and remove the guide hole plastic plug.
- Fully screw in guide rod K1 in the hole thus exposed and tighten using bar K2.



- Leave bar K2 in the guide hole.
- Remove the cross member rear securing nuts and thrust washers.
- Lower the cross member progressively until the bar comes into contact with the floor.
- Carry out the same operation on the right hand side.



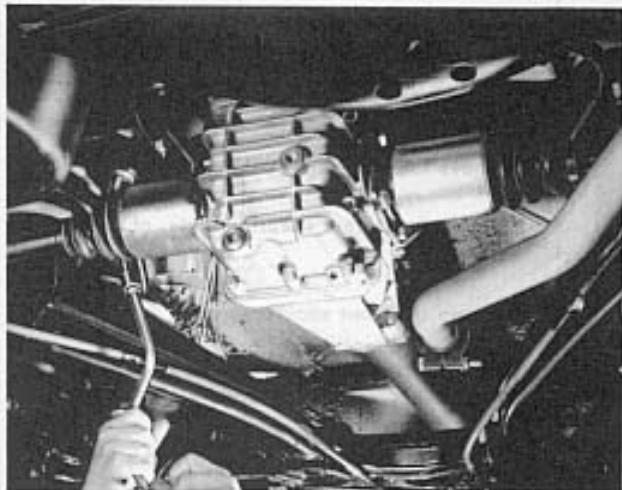
- Remove both tightening clamps of the anti-roll bar flexible bushes under the bodywork.

PEUGEOT

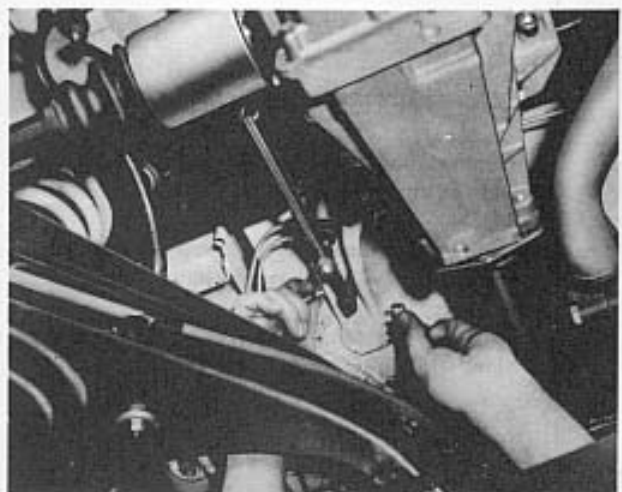
0206

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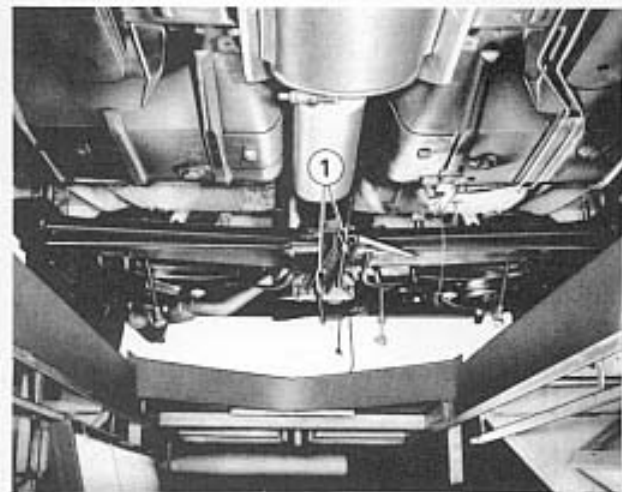
BODYWORK REMOVAL



- Block the anti-roll bar connecting rod holes on the rear arms with cloth to prevent parts from falling into the arms.
- Remove the upper securing nuts of the suspension cross member under the bodywork.
- Recover the cups and rubber washers.



- Remove the braking compensator control lever, bodywork side, after having removed the circlip and the articulation pivot.
- Suspend the lever from its spring.
- Remove the rear securing nut from the exhaust pipe under the body.

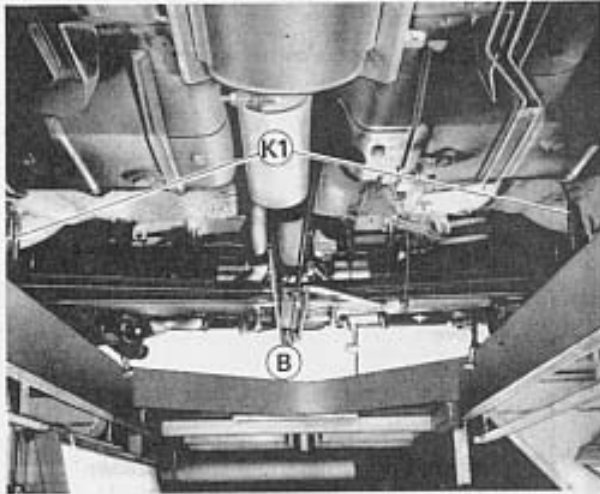


- Install the holding apparatus 8.1102 joining the connecting tube to the rear cross member.
- Tighten the holding apparatus by screwing in the rod nuts 1.

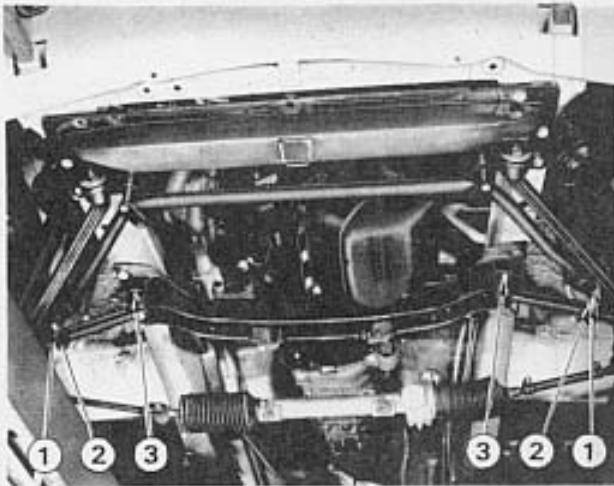
PEUGEOT

BODYWORK
REMOVAL

11 0207

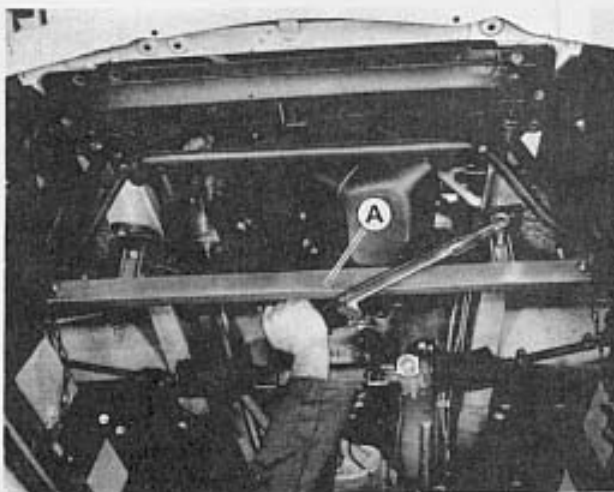


- Remove bars K2 and guide rods K1 from inside the car.
- Simultaneously unscrew puller nuts B until complete disengagement of guide rods K1.



Separate the front axle from the bodywork.

- Remove both nuts of the anti-roll bar connecting rod pivots 1 from the rear triangle arm.
- Do not remove the flat washers 2.
- Remove the two nuts of the rear triangle arms articulation pivot nuts 3 from the main cross member.



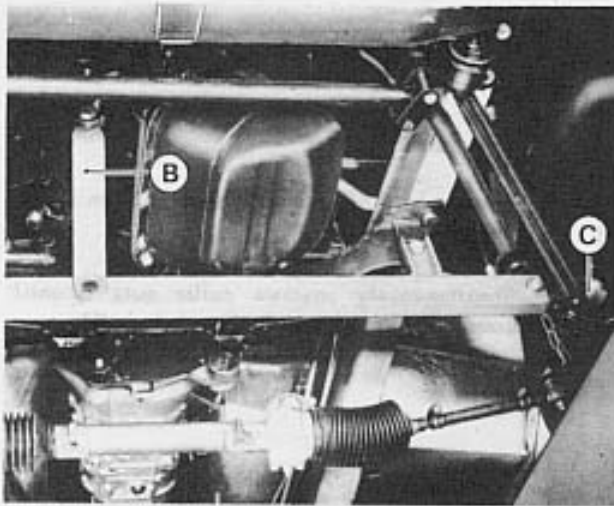
- Progressively raise the front of the car through the jack guides using hoist chain until the front axle four articulation pivots align with the holding apparatus 8,1101 A holes.
- Position the holding apparatus A and tighten the nuts.

PEUGEOT

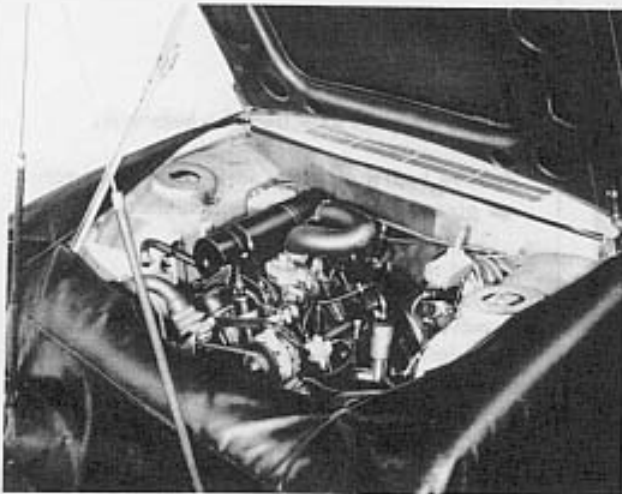
0208

11

BODYWORK
REFITTING



- Reposition the car on its wheels.
- Fit the following :
 - engine support bar B and tighten the bolts.
 - both thrust shims C between silentbloc eyes of triangle arms and the bosses of the front steering knuckle connecting rods.
- Remove :
 - the four securing bolts from the main cross member,
 - the six bolts of the front cross member.



- Remove the six front suspension elements securing bolts from the wing valances.
- Place a second hoist chain at the rear of the car.

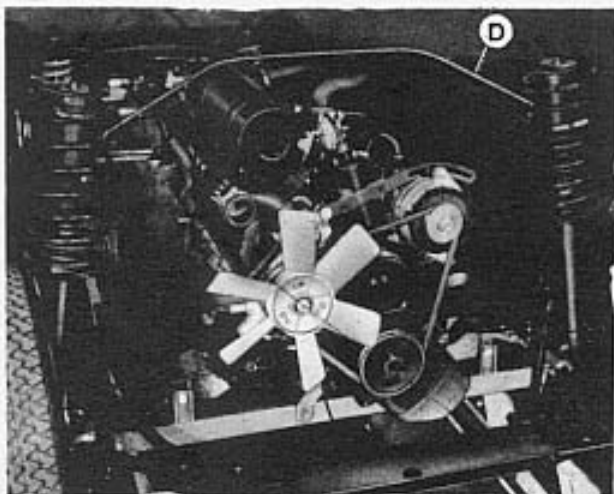


- Raise the bodywork using the two hoist chain.
- Raise simultaneously to allow for disengagement of the mechanical components.
- Temporarily secure the steering gear housing (Steering box) to the main cross member.

BODYWORK
REMOVAL

11

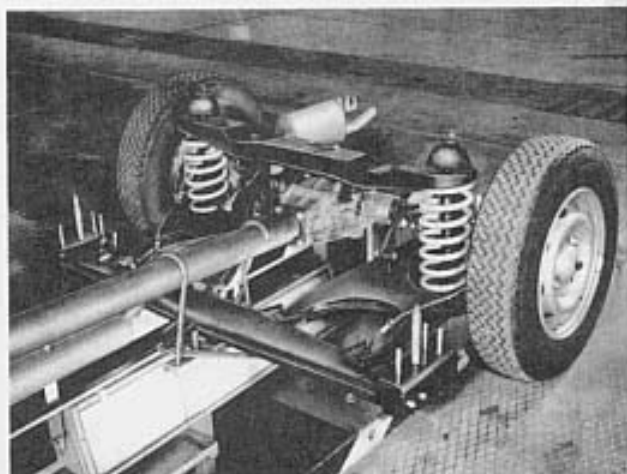
0209



- Using connecting bar D hold the front suspension spring coils.
- The mechanical assembly can thus be moved freely.

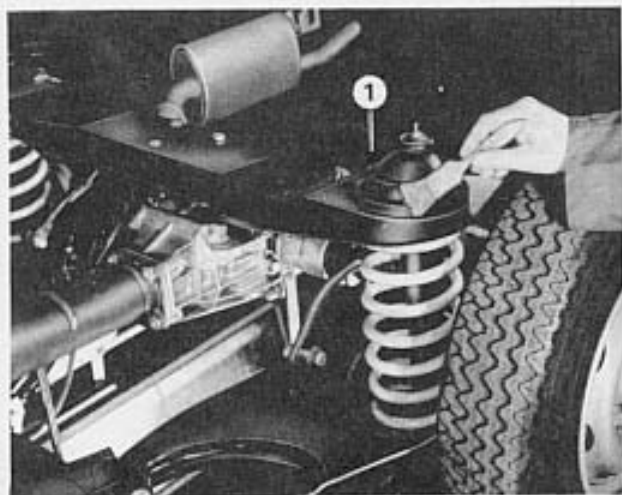
BODYWORK REFITTING

11

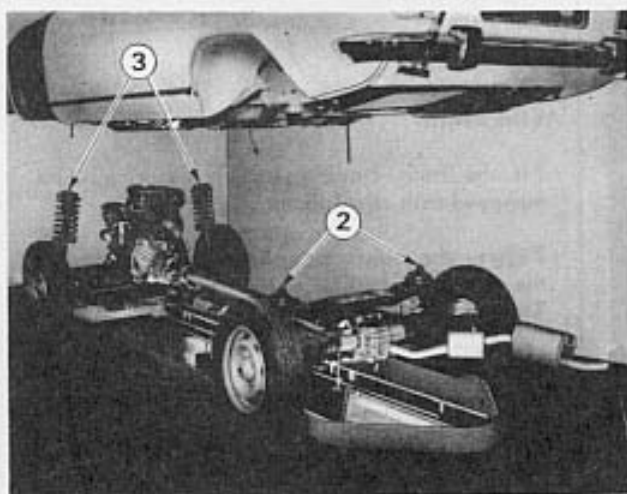
0221⁽¹⁾

Preliminary conditions

- Rebuild the mechanical assembly using clean and faultless parts.
- Hold the front axle/engine and rear cross member/connecting tube assembly exactly as for removal.
- Ensure that the rear crossmember is lowered as far as the holding apparatus will allow.



- Fit the rubber thrust cups 1 on the suspension crossmember, making sure of their interchangeability.
- Smear them with pure Teepol.
- Install the hull on the mechanical assembly.
- Remove the following :
 - connecting bar D holding both front springs.
 - the steering box from the main crossmember.



- Simultaneously lower both hoist chains and guide the bodywork onto the mechanical assembly :
 - at the rear :
 - the upper part 2 of the shock absorbers into the bodywork compartments.
 - at the front :
 - the spring upper supports 3 into the front wing top valances.

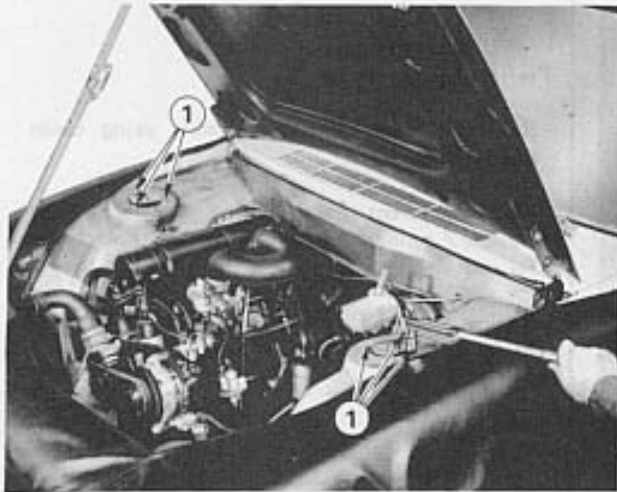
PEUGEOT

0222

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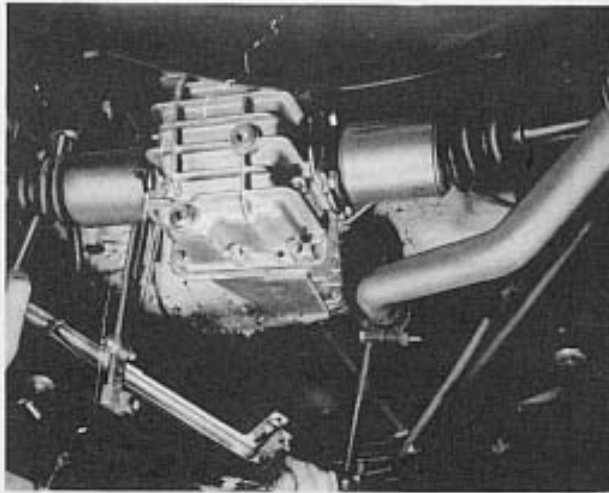
BODYWORK

REFITTING



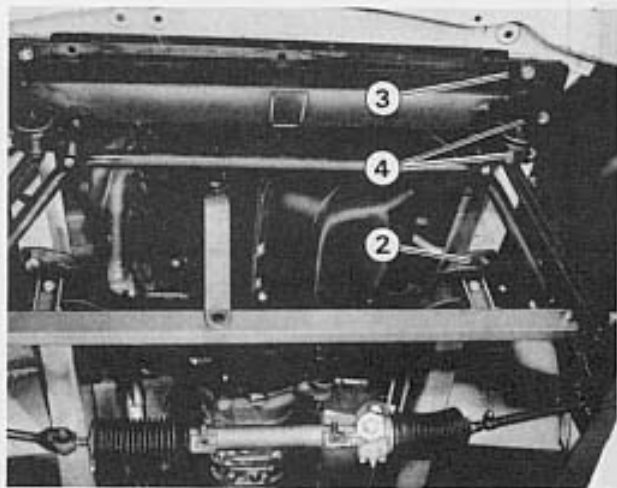
At the front :

- Fit the suspension elements six bolts 1 equipped with new double tooth washers. Tightening torque 7.2 ft.lbs (1 m.kg).
- Install the main crossmember four attachment bolts fitted with new Blocfor washers without tightening.



At the rear :

- Place the rubber washers and the sheet metal cups on the suspension crossmember two securing studs.
- Fit the nuts equipped with new Blocfor washers. Tightening torque 23.5 ft.lbs (3,25 m.kg).



At the front :

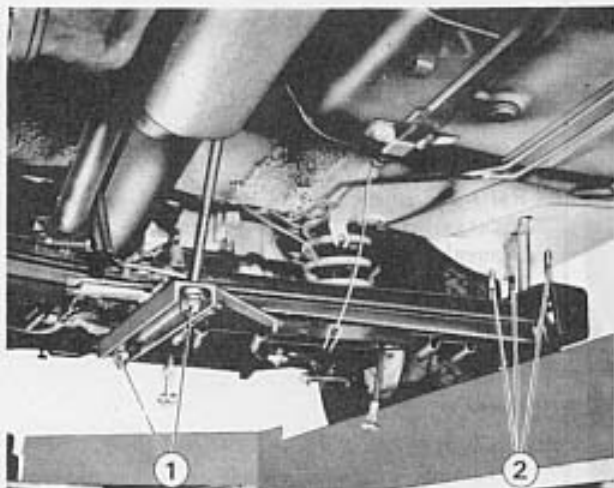
- Fit the front crossmember six securing bolts equipped with new Blocfor washers.
- Tighten the main crossmember four bolts 2 and the two bolts M 12 3 of the front crossmember. Tightening torque 31 ft.lbs (4.25 m.kg).
- Then tighten the four bolts M10 4 of the front crossmember. Tightening torque 27 ft.lbs (3.75 m.kg).

BENCOC

BODYWORK REFITTING

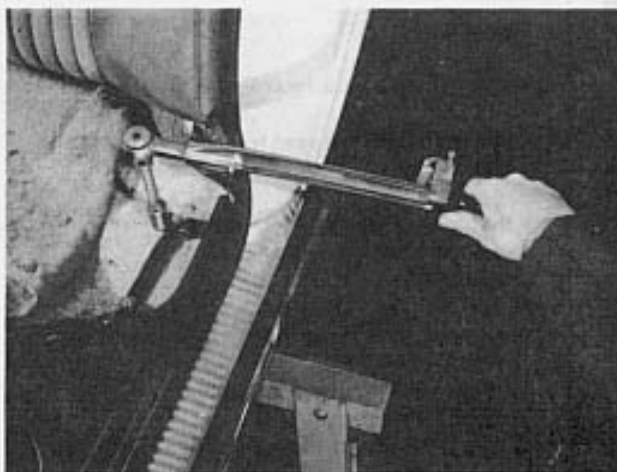
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0223⁽²⁾

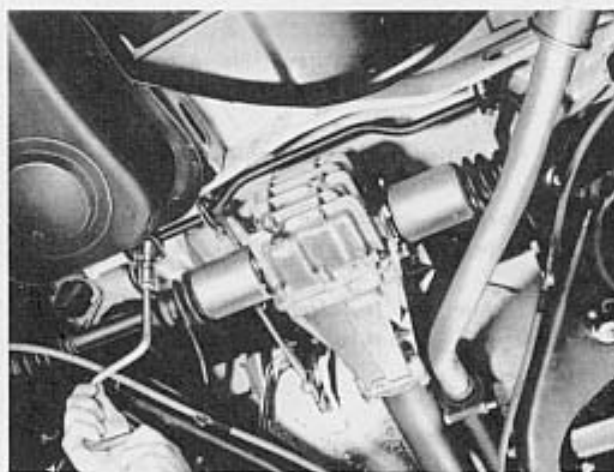


At the rear :

- Raise the body to allow for engagement of guide rods K1 into the guide holes.
- Simultaneously screw in both nuts 1 of the holding apparatus until crossmember support studs 2 on the body start to engage.



- Chock from under the crossmember lateral supports.
 - Lower the rear of the car until the crossmember securing studs are in their position.
 - Remove guide rods K1 and fit in the following order :
 - the guide hole plastic plugs,
 - the six flat washers,
 - the two tab locks
 - the six nuts. Tightening torque : up to the following serial numbers : 29 ft.lbs (4 m.kg) and as from the following numbers : 47 ft.lbs (6.5 m.kg).
- | | |
|-------------------------------|---------------------|
| 504 A01 - 1 005 546 | 504 B02 - 1 032 357 |
| 504 A02 - 1 003 649 | 504 C02 - 1 009 769 |
| 504 A03 - beginning of series | |
- Lock by bending the tab lock tongues over the nuts.
 - Refit the rear seat cushion.



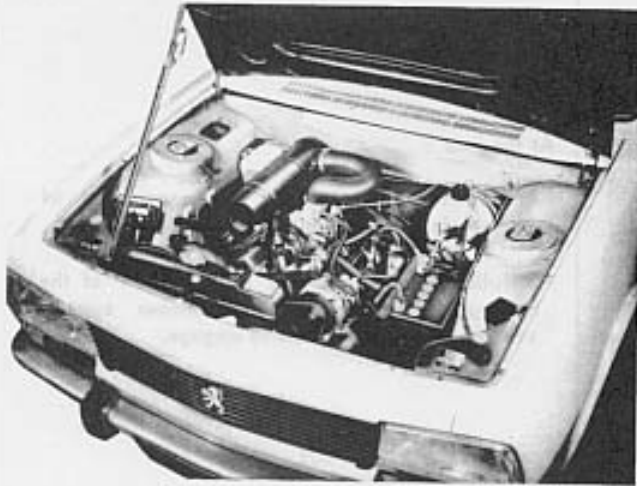
- Lower the rear of the car on its wheels.
- Remove :
 - the chain hoist,
 - the rear crossmember holding apparatus.
- Refit the braking compensator lever using a new circlip.
- Smear the anti-roll bar bushes with molykote G.
- Position and secure the anti-roll bar under the bodywork.
- Refit the rear exhaust pipe.
- Remove the cloth placed at removal in the anti-roll bar connecting rod holes on the rear crossmember.

PEUGEOT

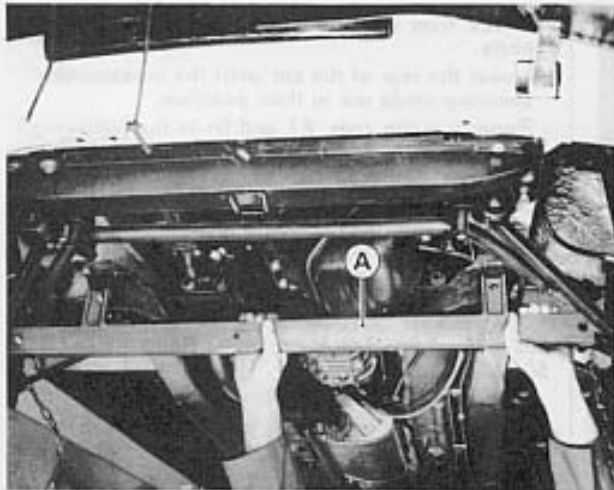
0224⁽¹⁾

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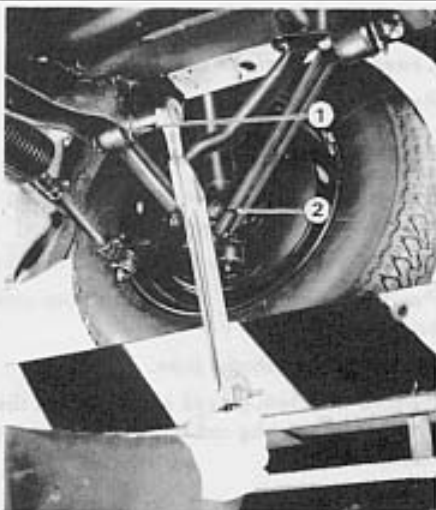
BODYWORK
REFITTING



- Refit and reconnect the mechanical assembly accessories and lines in the reverse order of removal.



- Remove :
 - front triangle holding crossbar B,
 - thrust shims C between triangle arm and steering knuckles.
 - the four securing nuts of the mechanical components holding apparatus A.
- Raise the car from the front using chain hoist until apparatus A is disengaged from the corresponding pivots
- Remove holding apparatus A.

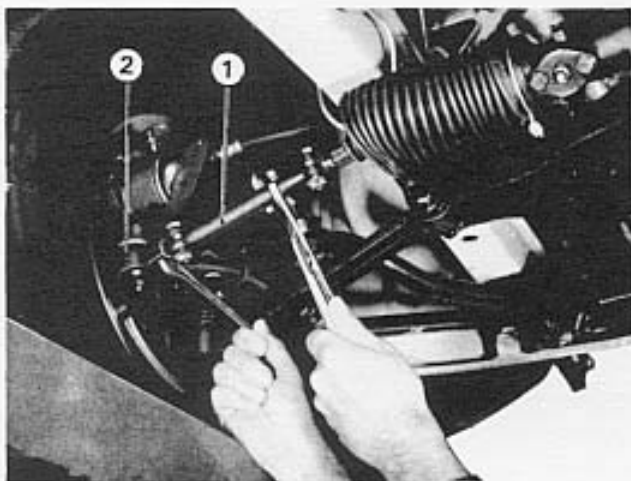


- Position the two new Nylstop nuts 2 on the rear arm articulation pivots without tightening.
- Reposition the vehicles on its wheels.
- Move the car forward and backward to ensure correct positioning of the flexible bushes.
- Tighten the four front axle nuts 1 and 2 to 33 ft.lbs (4.5 m.kg).

ST. BENOÎT

BODYWORK
REFITTING

11 0225

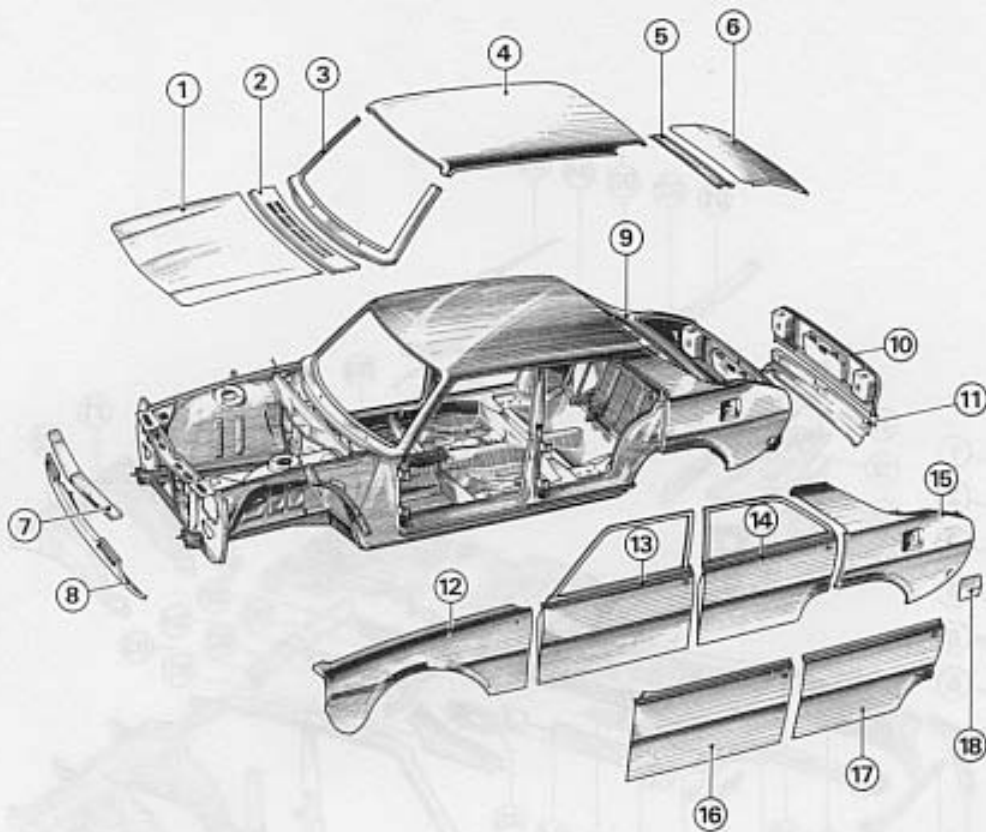


- Bleed the brake system completely (refer to class 8).
- Fill the cooling system.
- Check :
 - mechanical components oil level.
 - tyre inflation pressure.
- Check the front and rear axle geometry.
- Road test the vehicle.

PEUGEOT

BODYWORK
LIST OF THE MAIN PARTS USED
IN REPAIR (504 Saloon)

11 04 01



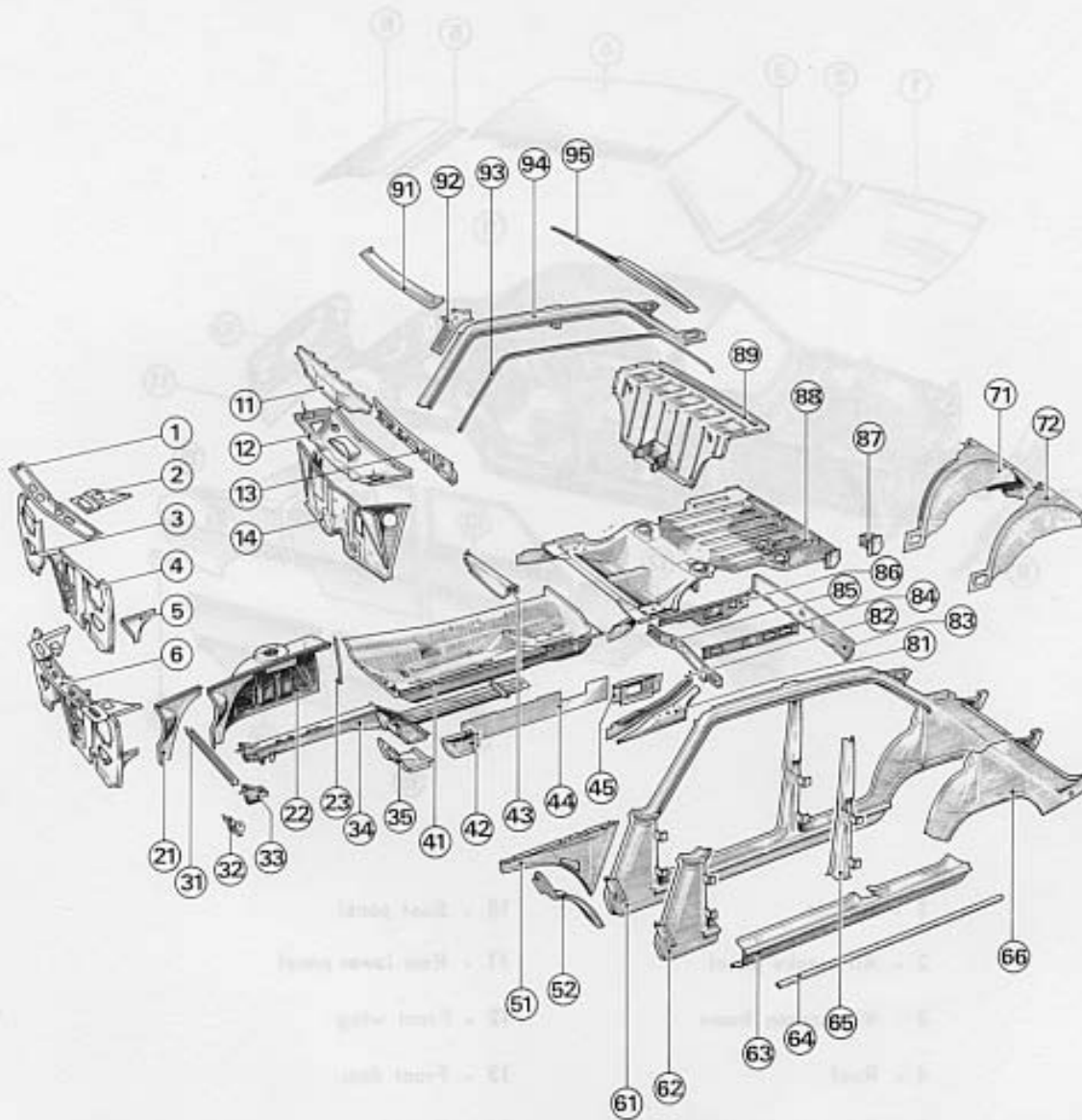
- | | |
|---|-------------------------|
| 1 - Bonnet | 10 - Boot panel |
| 2 - Air intake panel | 11 - Rear lower panel |
| 3 - Windscreen frame | 12 - Front wing |
| 4 - Roof | 13 - Front door |
| 5 - Rear window lower frame
cross member | 14 - Rear door |
| 6 - Boot lid | 15 - Rear wing |
| 7 - Bonnet front panel | 16 - Door panel (front) |
| 8 - Front lower panel | 17 - Door panel (rear) |
| 9 - Hull | 18 - Fuel filler flap |

PEUGEOT

04 02

11

HULL LIST OF THE MAIN PARTS USED IN REPAIR (504 Saloon)



PEUGEOT

HULL
LIST OF THE MAIN PARTS USED
IN REPAIR (504 Saloon)

11

04 03

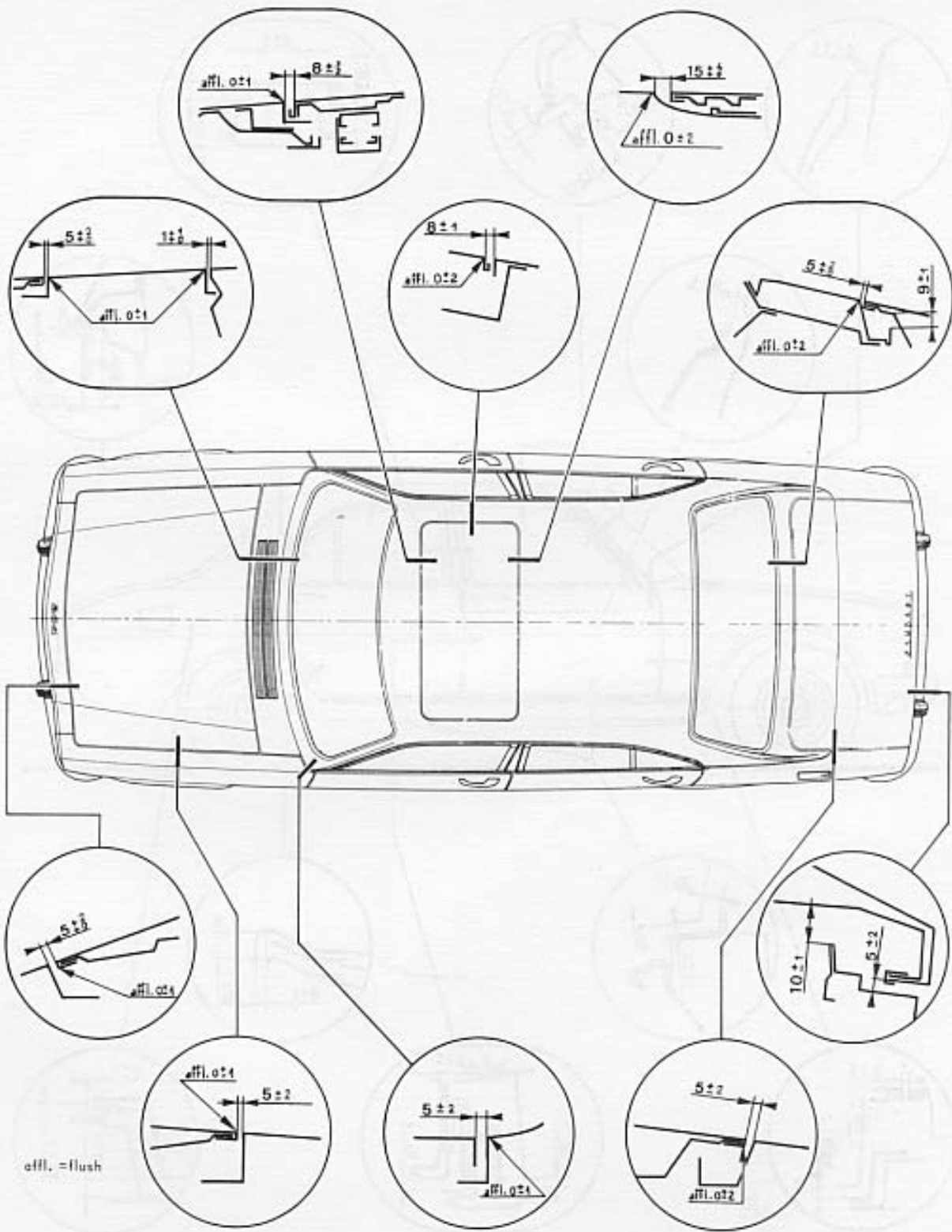
- | | |
|----------------------------------|------------------------------------|
| 1 - Upper frame crossmember | 51 - Gusset |
| 2 - Side gusset | 52 - Mud deflector |
| 3 - Frame side panel (R.H.) | |
| 4 - Frame side panel (L.H.) | 61 - One piece side |
| 5 - Lower gusset | 62 - Front hinge pillar |
| 6 - Front frame | 63 - Side member |
| | 64 - Trim support angle |
| | 65 - Centre pillar |
| | 66 - Rear body lock pillar |
| 11 - Air intake panel crosspiece | |
| 12 - Apron top panel | |
| 13 - Dash panel | |
| 14 - Front apron | 71 - Wheel arch |
| | 72 - Rear body lock pillar valance |
| | |
| 21 - Wing valance front panel | |
| 22 - Wing valance | 81 - Rear floor gusset |
| 23 - Valance support angle | 82 - Side plate |
| | 83 - Rear cross panel |
| | 84 - Centre reinforcement |
| | 85 - Cross reinforcement |
| | 86 - Side reinforcement |
| 31 - Lower front crosspiece | 87 - Jack guide |
| 32 - Crosspiece support | 88 - Rear floor |
| 33 - Jack guide | 89 - Rear shelf panel |
| 34 - Underbody frame | |
| 35 - Connecting side member | |
| | |
| 41 - Front half floor | 91 - Windscreen frame top |
| 42 - Front web | 92 - Side panel gusset |
| 43 - Crossmember | 93 - Water drip channel |
| 44 - Centre web | 94 - Side panel |
| 45 - Rear web | 95 - Rear window frame lining |

HULL

CLEARANCE OF THE MOVING COMPONENTS

11

04 11



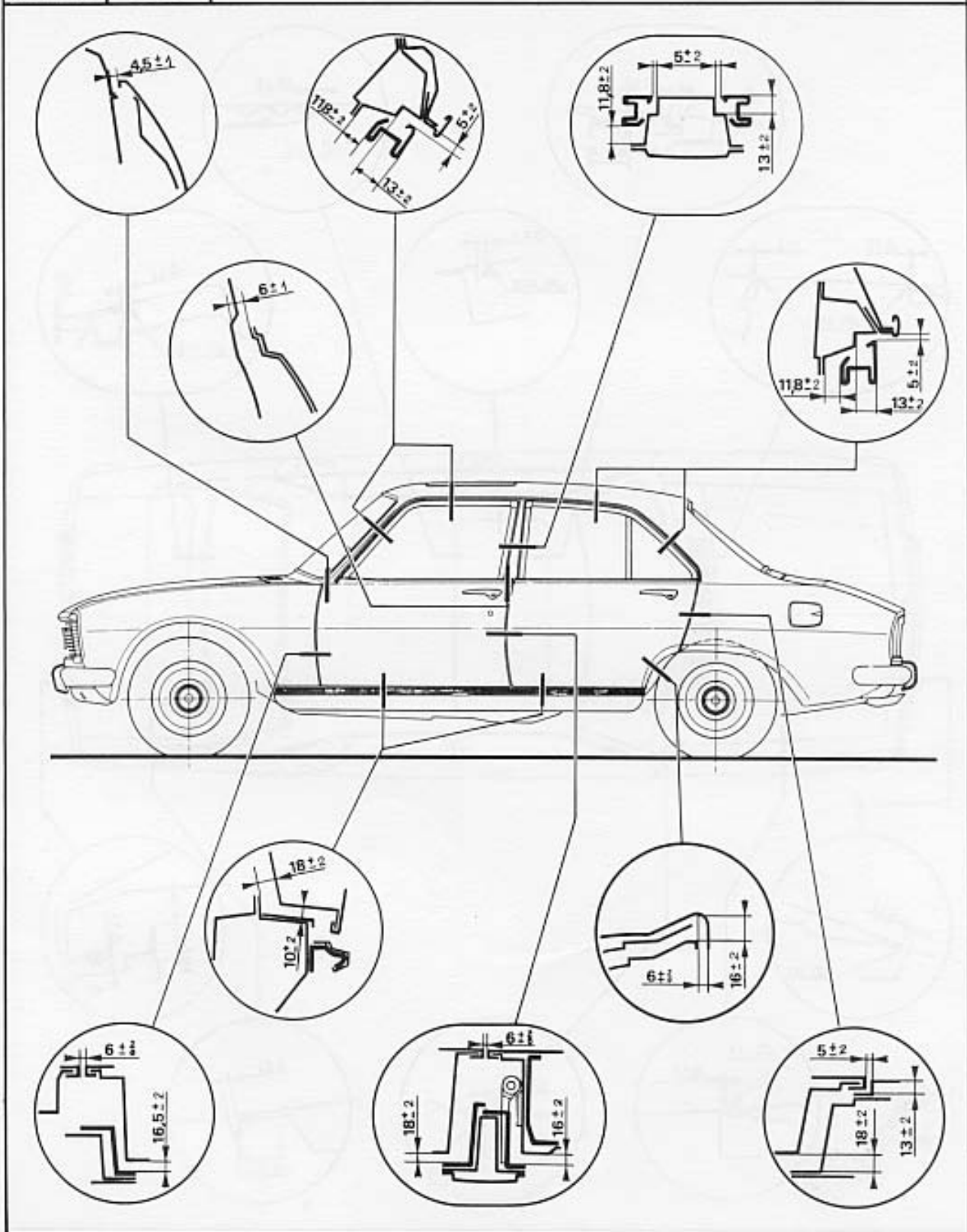
PEUGEOT

04 12

11

HULL

CLEARANCE OF THE MOVING COMPONENTS



BODYWORK - FRONT PART

REMOVAL AND REFITTING THE FRONT ASSEMBLY

11 05 01



REMOVING THE DETACHABLE PARTS

- Disconnect the battery
- Remove
 - The parking lights
 - The headlights
 - The front direction indicators
 - The windscreen washer nozzles
 - The grille
 - The bumper
 - The air intake panel
 - The bodywork trims



INTERVENTION ON THE CAR

REMOVAL OF THE FRONT ASSEMBLY

- ▲ Remove
 - From the upper part
 - The 4 screws from the L.H. wing
 - The 4 screws from the bonnet front panel
 - The 4 screws from the R.H. wing
 - From the lower part
 - The 2 screws from the R.H. wing
 - The 3 screws from the panel
 - The 3 screws from the cross member
 - The 2 screws from the L.H. wing
- Remove the front assembly



PREPARATION ON THE CAR

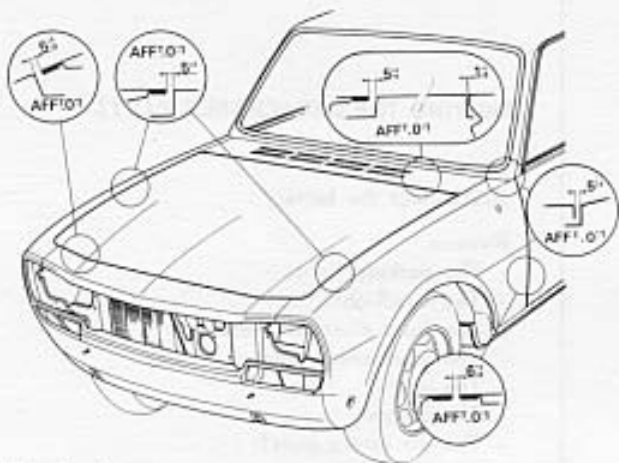
- Remove the filler from :
 - The front frame
 - The wing valances
 - The mud deflector
- Check and if necessary replace the cage nuts.

NOTE : The cage nuts which secure the bottom of the wings are accessible from inside the one piece sides, by removing the side cardboard panels.

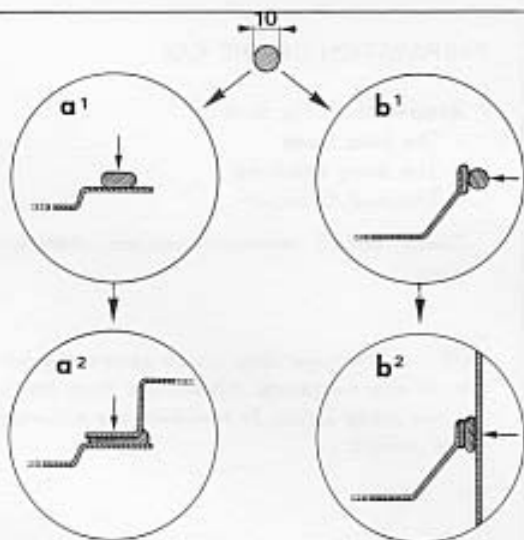
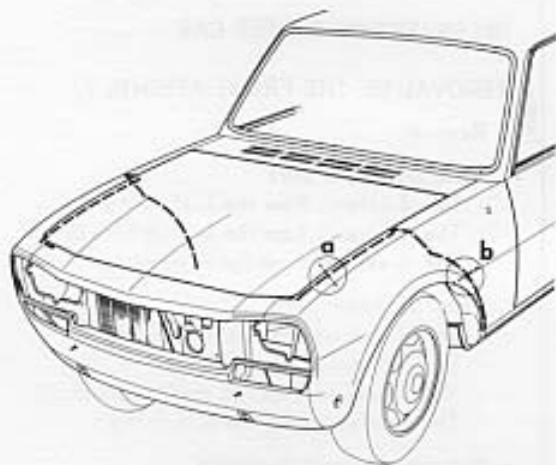
0502

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BODYWORK - FRONT PART
REMOVAL AND REFITTING THE FRONT ASSEMBLY



AFF. = Level



ADJUSTMENT AND ASSEMBLY

REFITTING THE FRONT ASSEMBLY

- Before installing the front assembly, apply the filler as described in the paragraph below "Protection and sealing".

- Position and fix the assembly using new screws after aligning the panels as indicated below.

Gap between :

- wings and windscreen frame 5 ± 2 mm
- wings and front doors : $6 \begin{matrix} + 2 \\ + 0 \end{matrix}$ mm
- front assembly and bonnet : $5 \begin{matrix} + 2 \\ + 0 \end{matrix}$ mm

- Check and set the level between :
 - wings and front doors $0 \text{ mm} \pm 1$
 - front assembly and bonnet $0 \text{ mm} \pm 1$

PROTECTION AND SEALING

- Applying the sealing compound

NOTE : To obtain a good adherence of the compound between the panels they must be perfectly dry and free from grease and mud.

Apply

- (a1) A single strip of filler on the upper part of the wing valances.
- (b1) A double strip on the edge of the mud deflector.

BODYWORK - FRONT PART

REMOVAL AND REFITTING THE FRONT ASSEMBLY

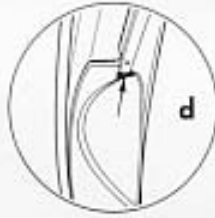
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0503



After fitting the front assembly

- Check the filler which has been applied and complete if necessary.
- (c) - Apply a strip of filler at the junction between the wings and the front frame.
- (d) - Plug the hole in the angle between the valance, the wing and the frame from both sides.
- Apply a strip of finishing filler at the joint (e) between the wings and the front panel.



EQUIPMENT AFTER WORK

- CHECKING - ADJUSTING

- Refit .
 - the bumper
 - the grille
 - the air intake panel
 - the lower body trims
- Refit and check the operation of the electrical equipment.
- Adjust the headlights.

PEUGEOT

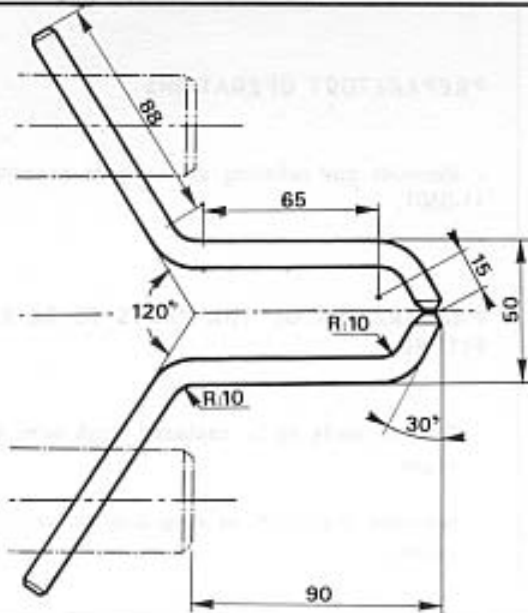
HULL - FRONT PART

REPLACING THE FRONT COMPONENTS (Assembly removed)

TOOLS TO BE MADE IN THE WORKSHOP

11

0511



ELECTRODES FOR INTERNAL WELDING OF THE FRONT WINGS WITH CROSSMEMBER AND FRONT PANEL.

- These electrodes can be made cold using 200 mm long straight electrodes.
- These electrodes are sold by the ARO company under reference : 8 000

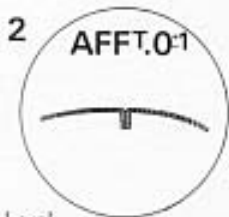
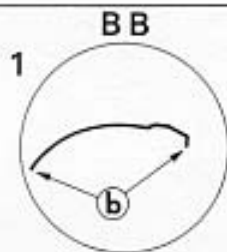
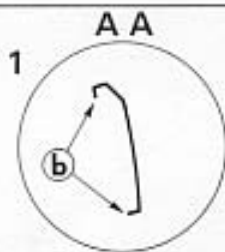
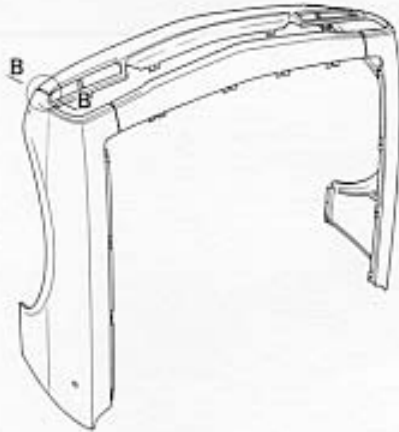
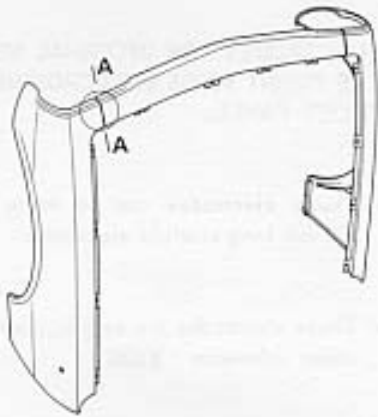
Machines à souder ARO
33, Rue de la Colonie PARIS (13e)

PEUGEOT

05 12

11

HULL - FRONT PART
REPLACING THE FRONT COMPONENTS
 (Front assembly removed)



AFF. = Level

PREPARATORY OPERATIONS

- Removal and refitting of the front assembly 11-0501.

PREPARATION OF THE PARTS TO BE RE-FITTED

- Cut the parts to be replaced flush with the edges.
- Separate the spot welding and smooth the edges.

PREPARATION OF NEW PARTS

- Check and retouch the surface of the parts
- Paint the inside of the new parts
- Bare the edges to be welded.

ALINEMENT AND ASSEMBLY

- Position the wings vertically and hold them assembled on the crossmember using "mole" grips.
- Level the panel : (0 mm ± 1)
- Spot weld the ends : AA 1 (b)
- Position and hold the panel and wings using a number of "mole" grips.
- Adjust the curve and the level (0 ± 1)
- Spot weld the inner edges of the panel and then those of the crossmember.
- Reinforce the angles by brazing (b)
- Repaint the welded parts.

HULL - FRONT PART
 REPLACEMENT OF THE BONNET FRONT PANEL
 (by unfastening on the car)

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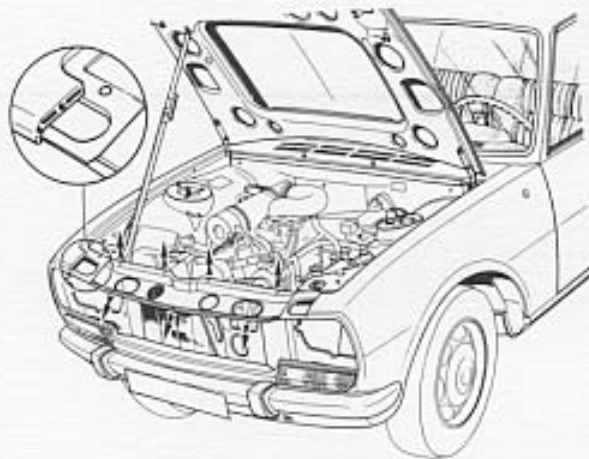


REMOVAL OF THE DETACHABLE COMPONENTS

- Disconnect the battery
- Remove
 - the headlamps
 - the grille
 - the monogram

INTERVENTION ON THE CAR

- ▼
- Removing the panel
 - Remove
 - the 4 upper screws
 - the 3 lower screws
 - Cut the panel flush with the wings
 - Separate the spot weld points and smoothen the edges of the wing
 - Straighten and smoothen the frame crossmember if necessary.

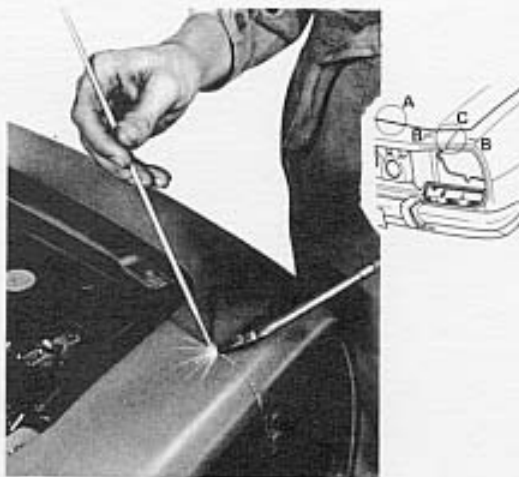
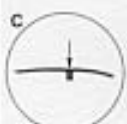


PREPARATION OF THE NEW ELEMENT

- Check and retouch the surface of the panel if necessary.
- Bare the edges to be welded.

ADJUSTMENT AND ASSEMBLY

- Adjust the level ($0 \text{ mm} \pm 1$) and secure the crossmember to the wings with 2 welding points.
- Check the gap (A) and the centering with the bonnet. Weld the joints of the components (BB)
- Smoothen the surface
- Reshape the groove (C) with a file
- ▼ - Secure the upper and lower parts using new screws.



NOTE :

- The quality of the work depends on :
- 1 - the care taken when preparing the edges
 - 2 - the penetration of the welding between the edges.

PEUGEOT

8-70 AFF, = Level

05 22

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HULL - FRONT PART
REPLACEMENT OF THE BONNET FRONT PANEL
(by unfastening on the car)

EQUIPMENT AFTER THE WORK

- CHECKING - ADJUSTING

- Adjust the bonnet position
 - level = $0 \text{ mm} \pm 1$
- Refit :
 - the grille
 - the headlamps
 - the monogram
- Check the operation of the electrical accessories
- Adjust the headlamps.



BODYWORK - FRONT PART
REPLACING A FRONT PANEL
 (by unfastening on the car)

11

05 31



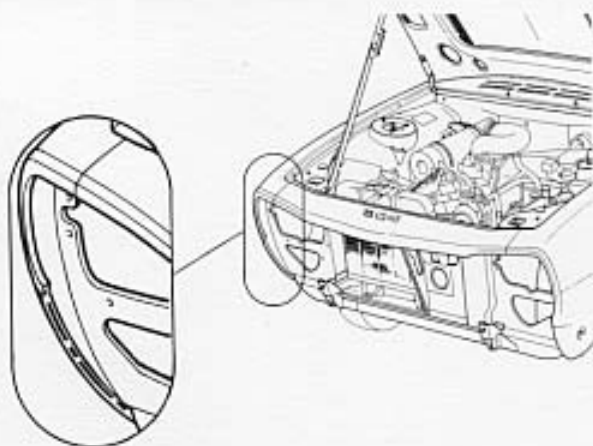
REMOVAL OF THE DETACHABLE PARTS

- Disconnect the battery
- Remove :
 - the front direction indicators
 - the headlamps
 - the bumper
 - the grille



INTERVENTIONS ON THE CAR

- REMOVING THE PANEL
- Remove the 3 lower screws
- Cut the panel away flush with the wings
- Separate the spot weld points and smoothen the edges of the wings.
- Straighten the jack guides if necessary



PREPARATION OF THE NEW ELEMENT

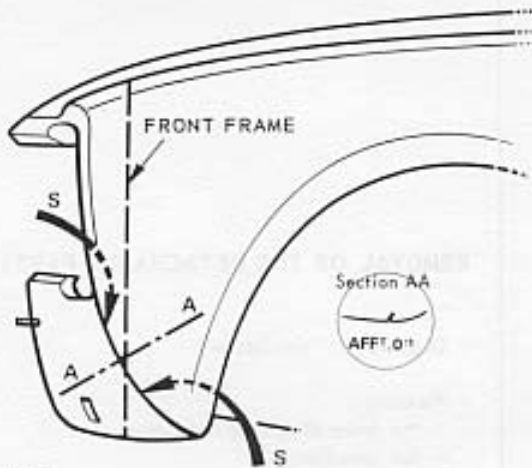
- Check and touch up the panel surface if necessary.
- Paint the panel
- Strip the edges to be welded

PEUGEOT

05 32

11

BODYWORK - FRONT PART
REPLACING A FRONT PANEL
 (by unfastening on the car)



AFF. = Level

ADJUSTING AND ASSEMBLY

- Position the panel and hold it using mole grips.
- Adjust the curve and the alinement with the wings.
- Spot weld and weld the assembly, using a blow pipe, from the inner edges (S)
- Secure the lower part using new screws

PROTECTION AND SEALING

- Repaint the parts which have been heated
- Apply a strip of finishing filler at the joints between panel and wings.

EQUIPMENT AFTER WORK

- CHECKING - ADJUSTING

- Refit :
 - the bumper
 - the grille
- Refit and check the operation of the electric components.
- Adjust the headlamps



BODYWORK - FRONT PART

REPLACING A FRONT WING

(by unfastening on the car)

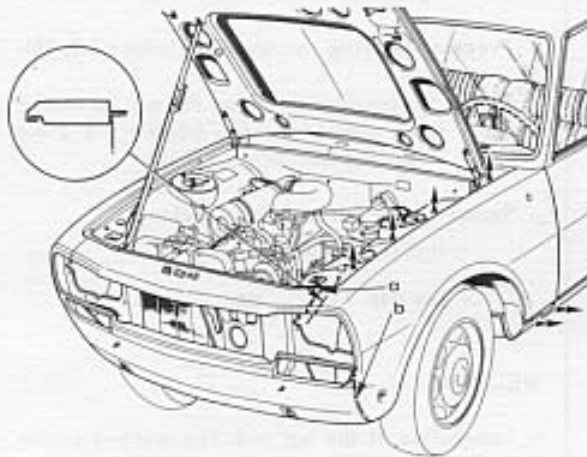
11

0541



REMOVAL OF THE DETACHABLE PARTS

- Disconnect the battery
- Remove :
 - the side light
 - the headlamp
 - the direction indicator
 - the windscreen washer jets
- Remove :
 - the grille
 - the bumper
 - the air intake panel
 - the sill board trim



INTERVENTION ON THE CAR

REMOVAL OF THE FRONT WING

- Remove the screws
 - 4 at the top
 - 2 at the bottom
- Cut the wing away :
 - flush with the bonnet front panel (a)
 - flush with the lower panel (b)
- Remove the wing
- Separate the spot welding points and smoothen the edges of bonnet and lower panels.
- Check the front frame
- Straighten and smooth the damaged parts where necessary.
- Remove the filler from :
 - the front frame
 - the wing valance
 - the mud deflector
- Check and replace the cage nuts



NOTE - The cage nuts which secure the bottom of the wings are accessible from inside the one piece sides, by removing the cardboard panels.

PEUGEOT

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11

BODYWORK - FRONT PART
REPLACING A FRONT WING
 (By unfastening on the car)



PREPARATION OF THE NEW PART

- Check and if necessary touch up the wing surface.
- Paint the lower part.
- Strip the edges to be welded.

ADJUSTING AND ASSEMBLY

POSITIONING THE FRONT WING

NOTE - Before positioning the wing apply the filler as described in the paragraph - Protection Sealing -

- Use new screws and bolts.

- Present the wing and align the edges (a), (b).



- Secure the top after checking the gap between :
 - (c) - wing and windscreen frame : 5 ± 2 mm
 - wing and bonnet : 5 ± 2 mm



- Secure at the bottom after checking :

- the level : 0 ± 1 mm

- (d) - the gap : $6 \begin{smallmatrix} +2 \\ +0 \end{smallmatrix}$ mm

WELDING

- Immobilise at the top with two welding points (e.f)

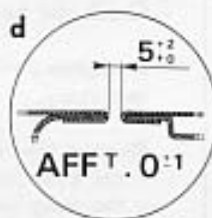
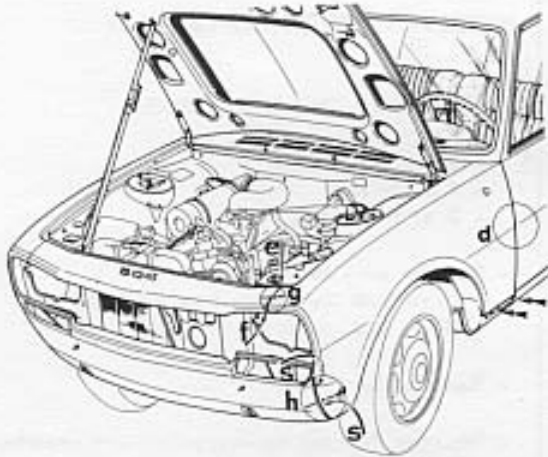
- Hold the wing and panel together with 2 mole grips.

- Adjust the curve and level of both parts (g,h)
- Weld them together from the inside using a blow torch (S).

- Run the welding into the groove formed by the wing and crossmember.

- Smooth the face and reshape the groove with a file (1).

NOTE - The quality of the finish depends on .
 1 - the care taken in preparing the edges,
 2 - the penetration of the welding.

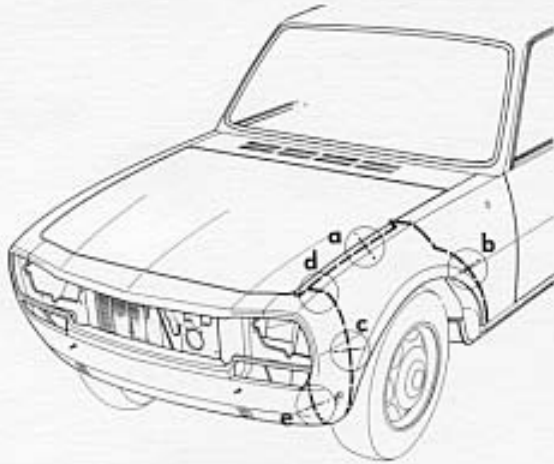


AFF. = Level

BODYWORK - FRONT PART
REPLACING THE FRONT WING
 (By unfastening on the car)

11

05 43



PROTECTION AND SEALING

- Applying the filler for the front wing

NOTE - In order that the filler adheres, the surfaces must be free from grease and perfectly clean and dry.

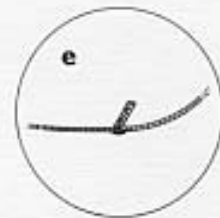
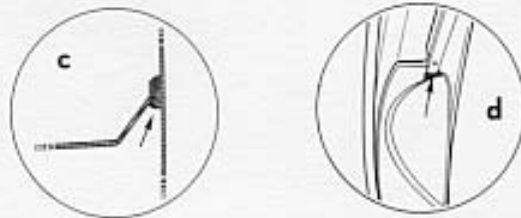
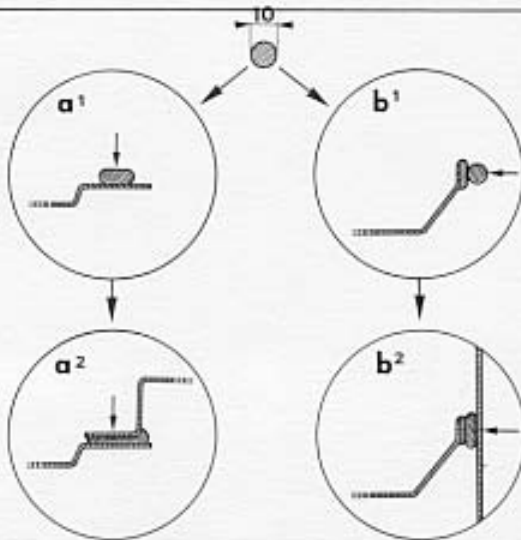
- Before positioning the wing

Apply :

- (a1) - a single strip of filler on the top part of the valance.
- (b1) - a double strip of filler on the edge of the mud deflector.

- After positioning the wing

- (a2 b2) - Check the positioning of the filler and complete if necessary.
- (c) - Apply a strip of filler where the wing joins the front frame.
- (d) - Plug the hole in the angle between the wing, the frame and the valance.
- Apply a strip of finishing filler in the joint (e).



EQUIPMENT AFTER WORK

- CHECKING - ADJUSTING

- Refit :
 - the bumper
 - the grille
 - the air intake panel
 - the sill board trim
- Refit and check the operation of the electric accessories.
- Adjust the headlamps.

PEUGEOT

HULL - FRONT PART
WELDING OF THE FRONT UNDERBODY COMPONENTS



06 01

CHARACTERISTICS OF THE WELDING
EQUIPMENT

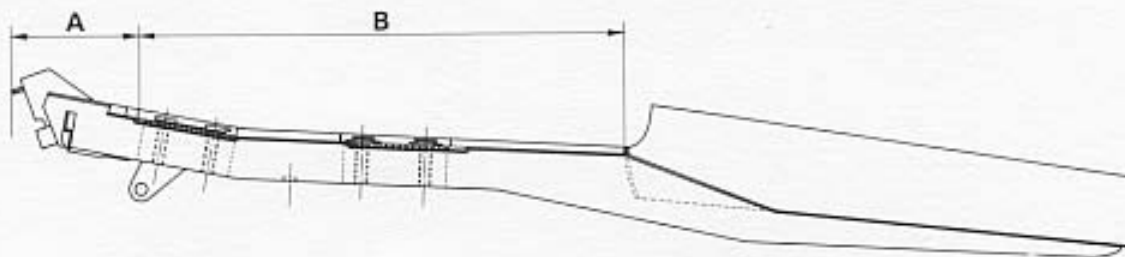
Reference of the assemblies used	A	B	C	D	E
ELECTRODES straight		145 / 70		200 / 80	
ELECTRODE-HOLDER straight	• •	• •	• •	•	
bent				•	• •
Useful depth	120	250	400	600	250
Gap	*	*	*	200	140

* Standard gap

PEUGEOT

HULL - FRONT PART
REPAIRING A BUTTRESS

11 06 03



To enable you to decide whether the buttress is to be replaced or straightened, two sections have been determined according to the extent and position of the distortion.

- A. Between the jack support and the hoisting crossmember.
- B. Between this crossmember and the bulkhead.

SECTION A

This section carries no mechanical parts.

There are therefore no particular restrictions in repairing this part of the buttress.

SECTION B

This section carries the mechanical parts and determines the characteristics of the front axle.

Two types of repair are possible :

- 1° - Distortion without cracks which can be repaired without heating.

THE REPAIR IS POSSIBLE

- Smoothing the buttress entails replacing the sole plate.

- 2° - Distortion which must be repaired by heating or distortion with cracks.

THE BUTTRESS MUST BE REPLACED :

- Either in part : page 11.06 41 or 11.06 61
- or completely : page 11.06 51

HULL - FRONT PART

REPLACING THE LOWER CROSS PIECE

11 0611



PREPARATION

- Replacing the front panel 11.0531.

INTERVENTION ON THE CAR

To avoid distortion of the parts to be kept, free the electric welded spots by drill :

- (a) - on the lower cross piece
- (b) - on the cross piece supports

- Push back the lower framework panel, free the cross piece.

- Refill the holes, smooth the framework panel and the cross piece supports.

- Electric spot weld using the assembly **C** :

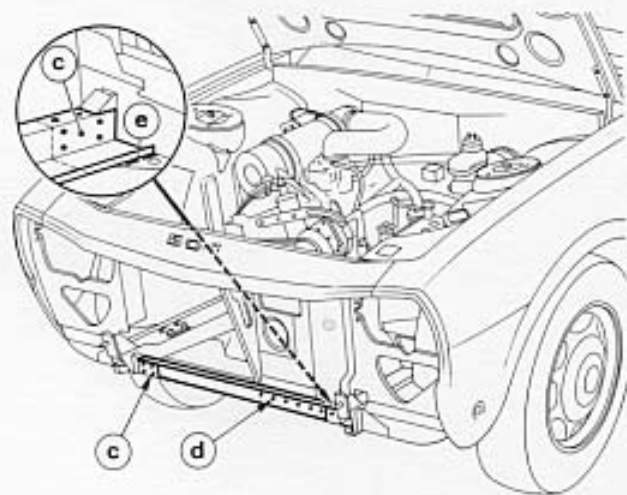
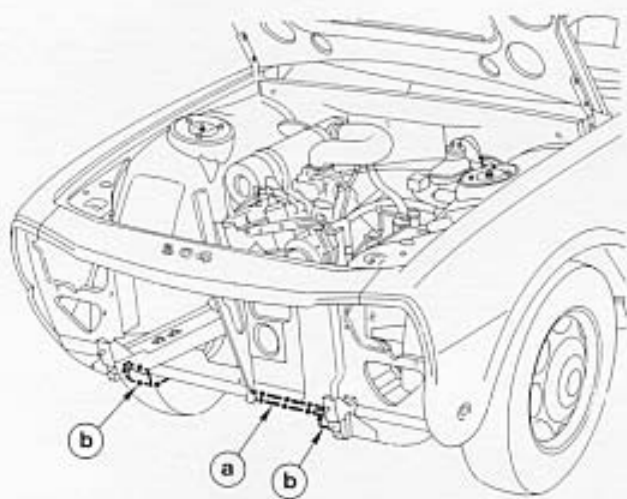
- (c) - the cross piece supports
- (d) - the framework panel.

to the lower cross piece.

- Torch weld the lower part of the cross piece to its support (e).

PROTECTION AND SEALING

- Paint the lower cross piece and the parts cleaned for welding.



PEUGEOT

B-70

HULL - FRONT PART

REPLACING THE UPPER FRAMEWORK CROSS PIECE AND THE SIDE BRACKETS



0621



PREPARATION

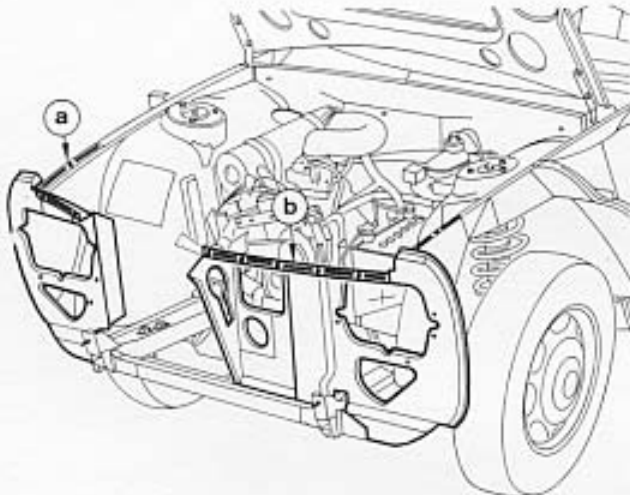
- Removal and refitting the front assembly - 11-0501
- Replacing the front components - 11-0512

REMOVAL OF THE DETACHABLE COMPONENTS

- Removal of the bonnet

INTERVENTION ON THE CAR


- To avoid distortion of the parts to be kept, free the electric welded spots by drill.
- (a) - the side brackets
- (b) - the framework upper cross piece.
- Refill the holes and smooth the adjoining edges.

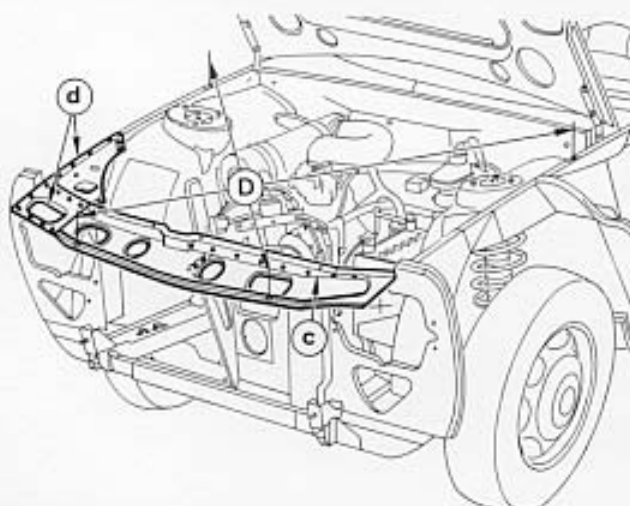


PREPARATION OF THE NEW COMPONENTS

- Clean the edges to be welded.

ADJUSTMENT AND ASSEMBLY

- Fit the cross piece. Check its centering by taking 2 diagonal readings between the front and rear fastening points of the front assembly $D = 1287 \pm 2$
- With the assembly 
- (c) - spot weld the cross piece to the framework panels
- (d) - the side brackets on the wing valances to the upper panel cross piece.



PROTECTION AND SEALING

- Paint the brackets, the panel cross piece and the parts cleaned for welding.

PEUGEOT

HULL - FRONT PART

REPLACING THE FRONT FRAMEWORK

11

0631



PREPARATION

- Removal and refitting of the front assembly - 11.0501
- Replacing the front components - 11.0512

REMOVAL OF THE DETACHABLE COMPONENTS

- Removal of the bonnet

INTERVENTION ON THE CAR

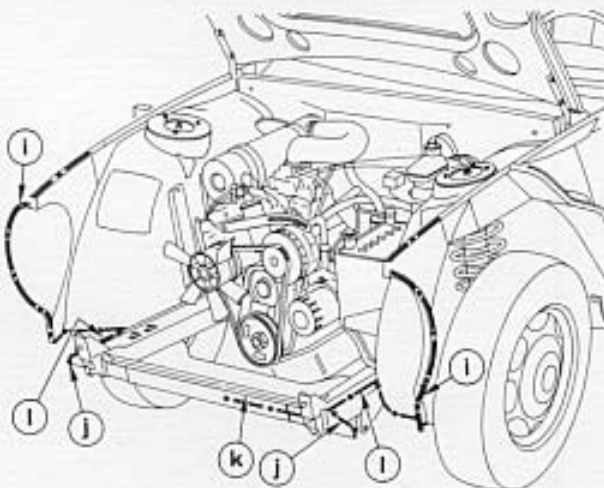
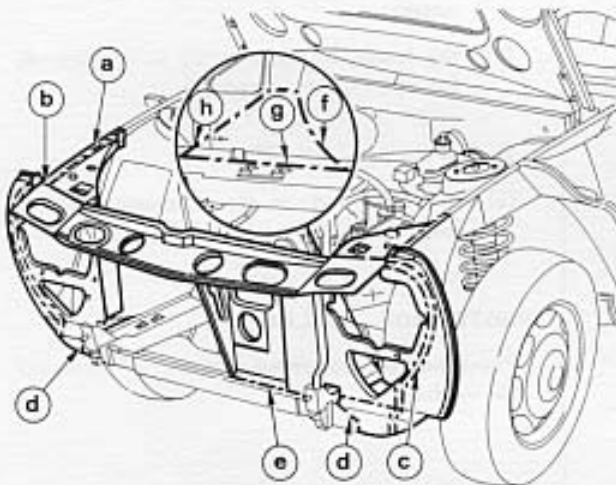
- Straighten the damaged parts.
- Cut the side brackets flush with :
 - (a) - the wing valances
 - (b) - the upper framework cross piece.
- Cut the front framework flush with :
 - (c) - the front parts of the valances
 - (d) - the cross piece supports
 - (e) - The lower cross piece.
- Cut the lower brackets flush with :
 - (f) - the wing valances
 - (g) - the buttresses
 - (h) - the framework
- Free the electric welded spots
 - (i) - on the wing valances
 - (j) - on the cross piece support
 - (k) - on the inside of the lower cross piece
 - (l) - on the buttresses

NOTE - To avoid distortion of the components to be kept, unfasten the thick panels by drilling the electric welded spots.

- Straighten and smooth the damaged parts of the components to be kept, refill the holes, smooth the adjoining edges.

PREPARATION OF THE NEW COMPONENT

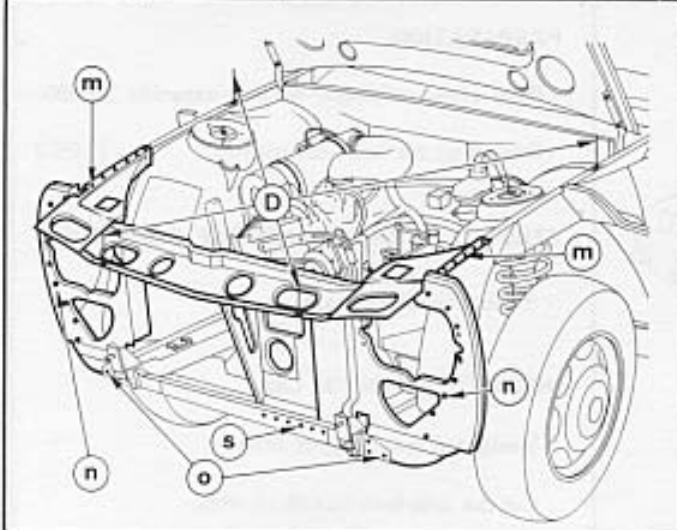
- Clean the edges to be welded.



PEUGEOT

HULL - FRONT PART

REPLACING THE FRONT FRAMEWORK



ADJUSTMENT AND ASSEMBLY

- Fit on the front framework and hold in place with mole grips. Check its centering by taking 2 diagonal readings between the front and rear fastening points of the front assembly $D = 1287 \pm 2$.

- Electric spot weld :

1) with the assembly **A**

(m) - the side brackets

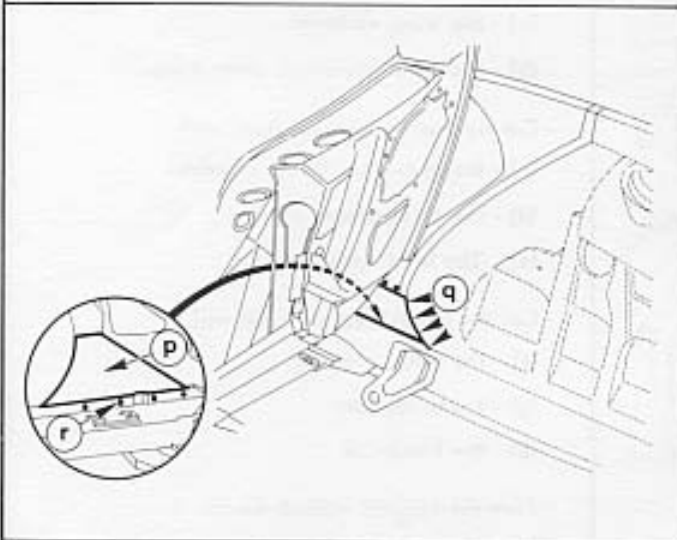
(n) - the framework panels to the front parts of the wing valances

(o) - the cross piece supports to the framework panels

(p) - the lower brackets to the wing valances (q) and the buttresses (r)

2) with the assembly **C**

(s) - the lower part of the framework to the lower cross piece.



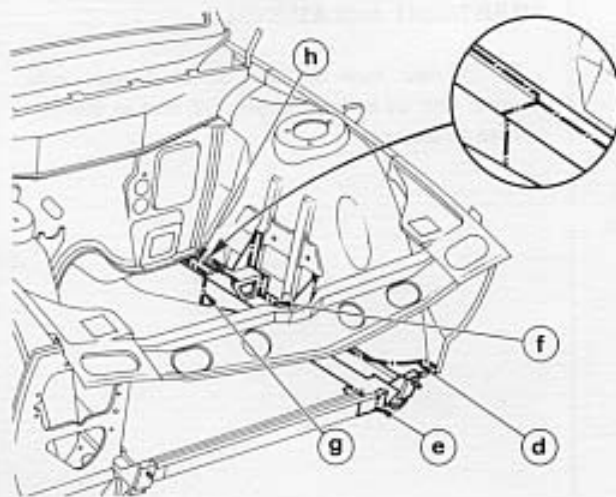
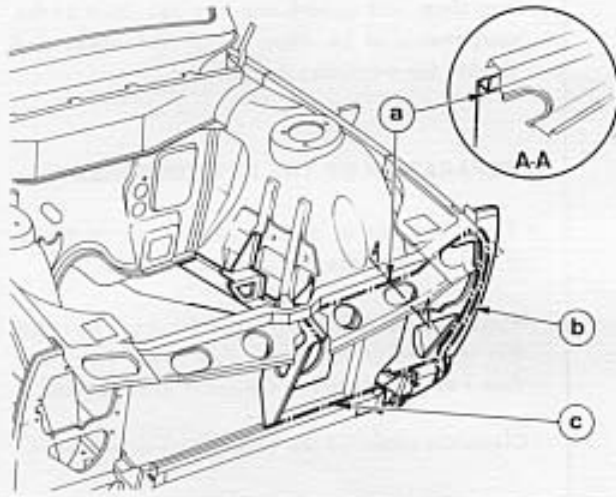
PROTECTION - SEALING

- Paint the front framework and the parts cleaned for welding.

HULL - FRONT PART

11 06 41

REPLACING A FRONT PART OF THE BUTTRESS AND A FRONT FRAMEWORK PANEL



PREPARATION

- Removal and refitting of the hull 11.0201
- Removal and refitting of the front assembly 11.0501
- Replacing the front components 11.0512.

INTERVENTION ON THE BENCH

- Place, centre and tighten the hull on the bench starting from the points furthest away from the impact point.
- Straighten the damaged parts. Check, with the jack free, the progress of the operation by referring to the fastening holes of the buttresses and the wing valances.
- Straighten out the distorted parts if necessary.

CUTTING

- Cut the framework panel as follows :
 - (a) - the lower part of the front upper cross piece
 - (b) - the edge of the front part of the wing valance
 - (c) - the edge of the lower cross piece and its support.
- Cut the lower bracket following its shape (d).
- Cut the battery supports (left hand side)
- Cut the buttress :
 - (e) - At the end of the lower cross piece
 - (f) - Following the base of the valance.
 - (g) - At a right angle ≈ 150 mm from the bulk-head
- Cut the remaining part of the sole plate (h).

NOTE - The final cutting of the buttress is done during adjusting of the new part.

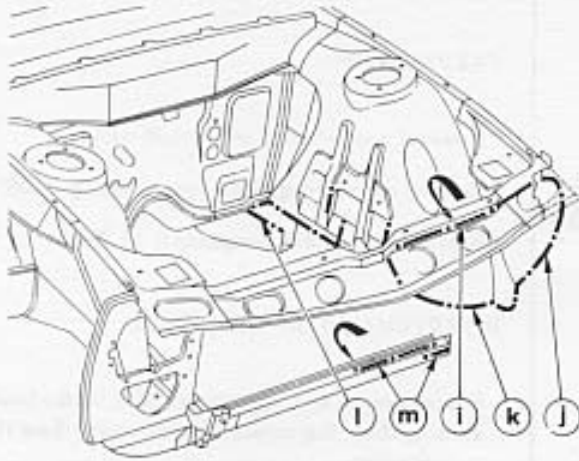
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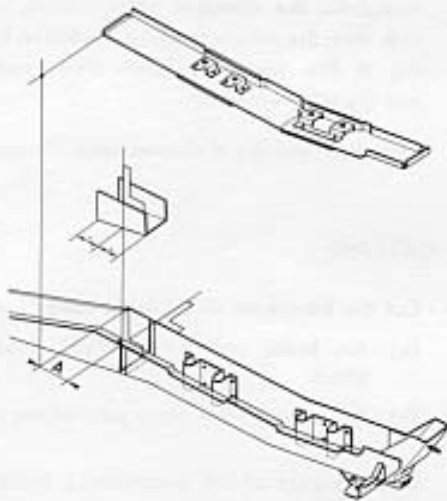
HULL - FRONT PART

REPLACING A FRONT PART OF THE BUTTRESS AND A FRONT FRAMEWORK PANEL



UNFASTENING

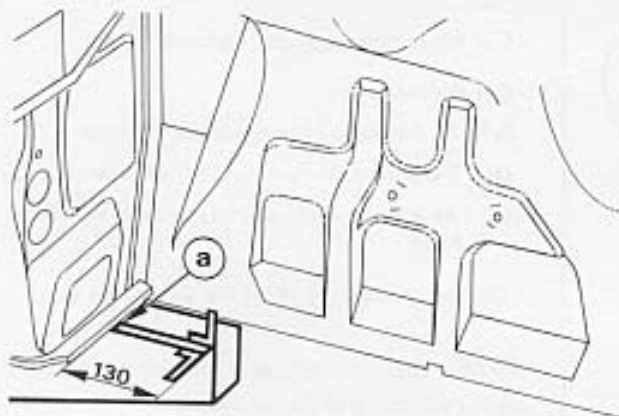
- Free the electric welded points :
 - (i) - on the framework cross piece
 - (j) - on the front part of the valance
 - (k) - on the lower part of the wing valance
 - (l) - on the part of the buttress to be kept
 - (m) - on the end of the lower front cross piece



- Straighten and smooth the damaged parts of the components to be kept. Refill the holes and smooth the adjoining edges.

PREPARATION OF THE NEW COMPONENTS

- Trace and cut at a right angle the buttress at 130 mm from the end of the sole plate (A).
- When making the final cut of the front part and this is fitted on the bench there should be less than 1 mm gap between the parts to be welded.
- Clean the edges of the components to be welded.



ADJUSTMENT AND ASSEMBLY

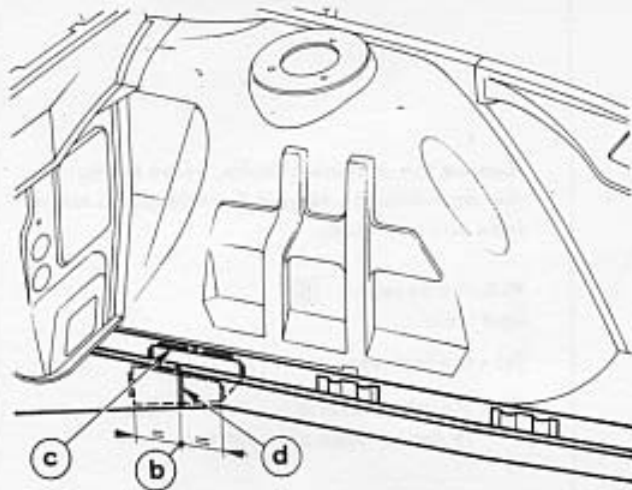
- At 130 mm from the end of the buttress sole plate, cut at a right angle the part of the buttress to be kept.

HULL - FRONT PART

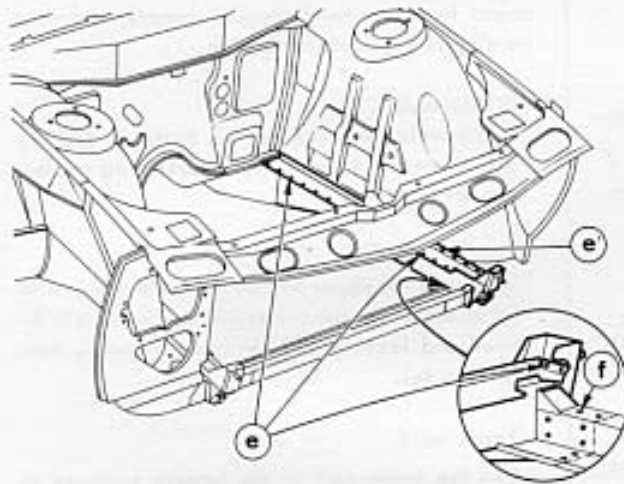
REPLACING A FRONT PART OF THE BUTTRESS AND A FRONT FRAMEWORK PANEL

11

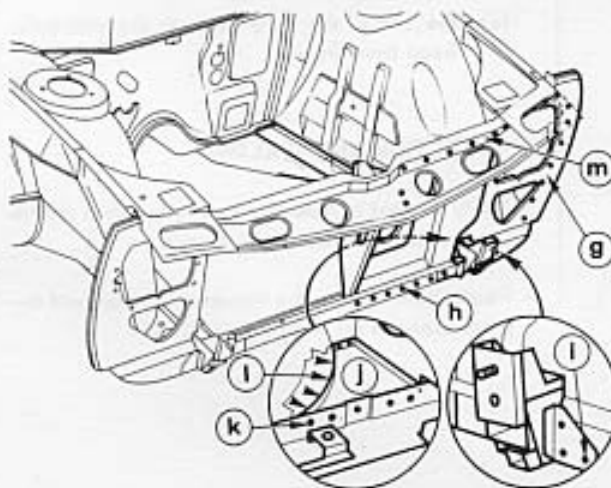
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- Fit the front part of the buttress on the bench.
- Place the plate on the end of the buttress and centre it in relation to the cut (b).
- Torch weld :
 - (c) - By overlapping the plate to the inside of the buttress
 - (d) - Edge to edge on the outside, the adjustment cut. Smooth the welding.



- Place and fit the buttress sole plate.
- With the assembly **A**
Electric spot weld :
 - (e) - the inner part and the end of the sole plate
 - (f) - the lower cross piece to the buttress.
- Spot weld the end of the wing valance (e)
- Hold the framework panel with mole grips.



- Electric spot weld :
 - (g) - the front part of the valance
 - (h) - the lower cross piece
 - (i) - the cross piece support to the framework panel.
 - (j) - the lower bracket to the buttress (k) and the valance (l)
- With the assembly **B**
Spot weld :
 - (m) - the upper cross piece to the framework panel.

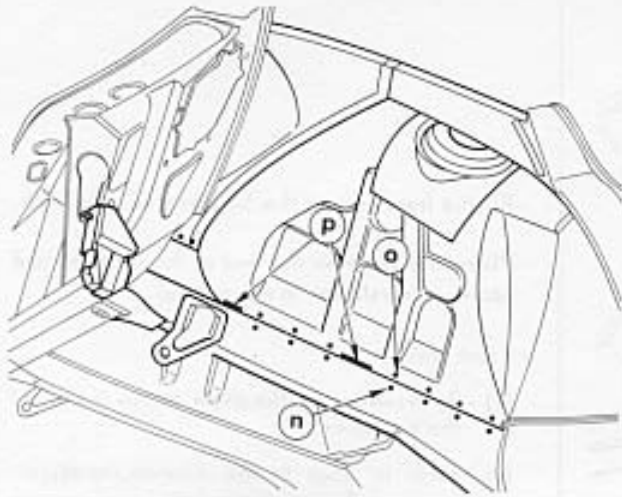
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HULL - FRONT PART

REPLACING A FRONT PART OF THE BUTTRESS AND A FRONT FRAMEWORK PANEL



- Remove the fastening bolts, raise the hull (by the door frames), remove the telescopic towers (new butress side).

- With the assembly **B**

Spot weld :

(n) - the butress

(o) - the wing valance
to the butress sole plate.

NOTE - Because of the paint between the mechanical fastening reinforcement panels, correct welding is not always possible.

- In this case :

Torch weld the valance, the butress and the sole plates at the mechanical fastening reinforcement level (p).

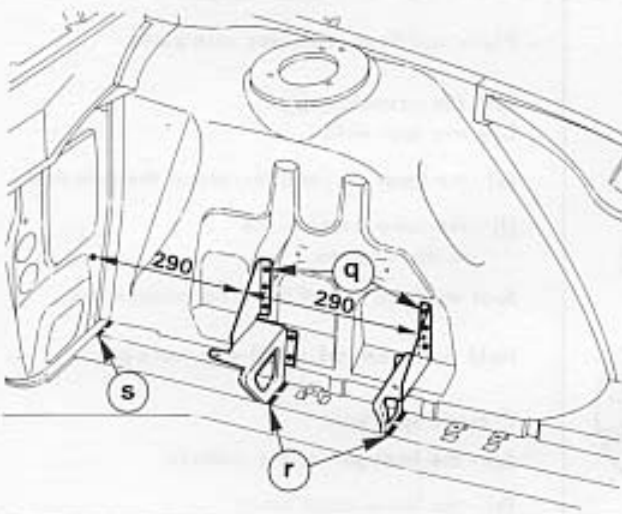
- With the assembly **C**

Spot weld the upper part of the battery supports (q) to the wing valance at 290 mm from the bulkhead and leaving 290 mm space between them (L.H. side).

- Torch weld :

(r) - the lower part of the battery supports to the butress sole plate.

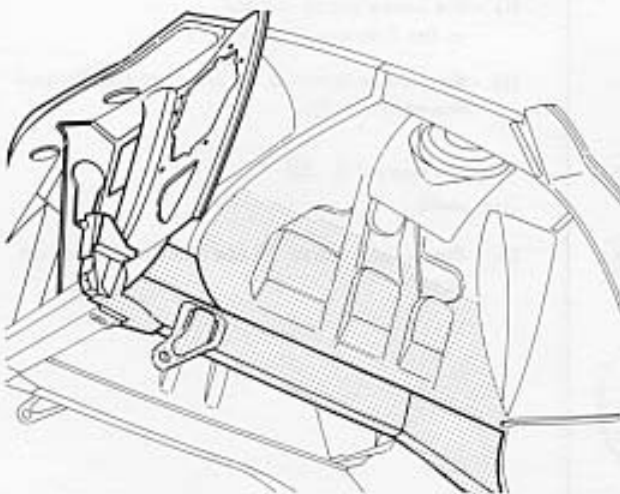
(s) - the end of the sole plate to the joint bulkhead-front floor.



PROTECTION AND SEALING

- Apply a coat of sound proofing product on the outer surface of the wing valance.

- Paint the butress, the framework panel and the parts cleaned for welding.



HULL - FRONT PART

11 06 51

REPLACING A COMPLETE BUTTRESS OF THE FRONT FRAMEWORK



PREPARATION

- Removal and refitting of the hull 11.0201
- Removal and refitting of the front assembly 11.0501
- Replacing the front components 11.0502

REMOVING THE DETACHABLE COMPONENTS

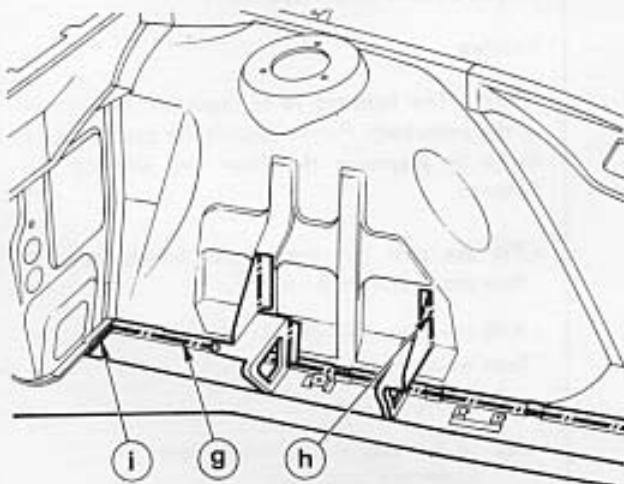
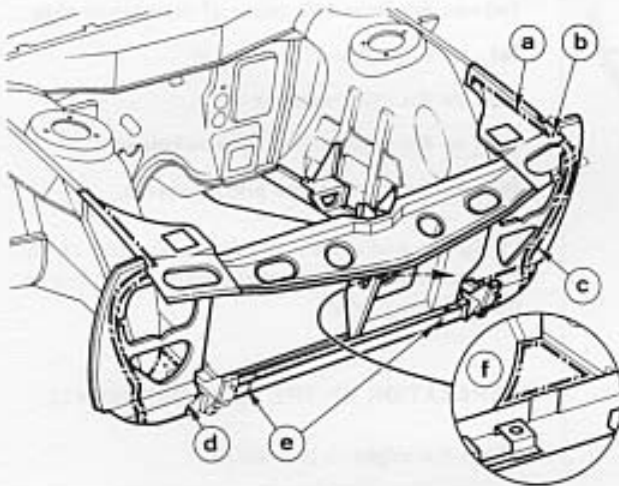
- Remove :
 - the bonnet
 - the seats
 - the mats and floor coverings

INTERVENTION ON THE BENCH

- Place, centre and tighten the hull on the bench, starting from the points furthest away from the impact point.
- Straighten the damaged parts. Check, with the jack loose, the progress of the operation by referring to the fastening holes of the buttresses and the wing valances.
- Check the play and the closing of the doors.

CUTTING

- Cut the side brackets flush with :
 - (a) - the wing valances
 - (b) - the framework cross piece.
- Cut the front framework flush with :
 - (c) - the front parts of the valances
 - (d) - the cross piece supports.
- Cut the lower cross piece flush with :
 - (e) - the supports.
- Cut the lower brackets (f) following their shape.
- Cut the front part of the buttress (g) following the base of the valance.
- Cut :
 - (h) - the battery supports (L.H. side)
 - (i) - the buttress sole plate at the base of the bulkhead.



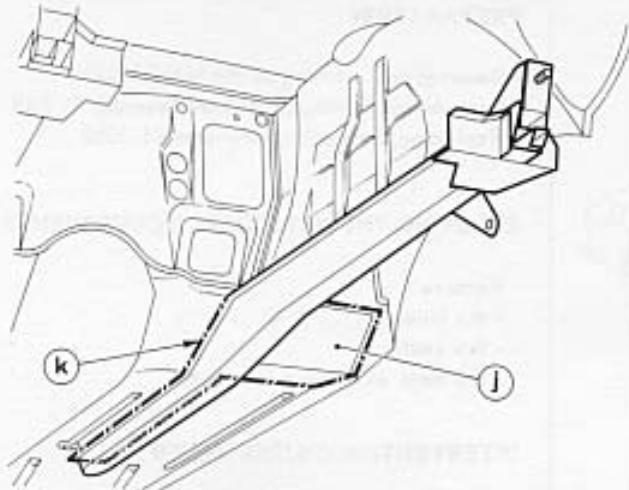
PEUGEOT

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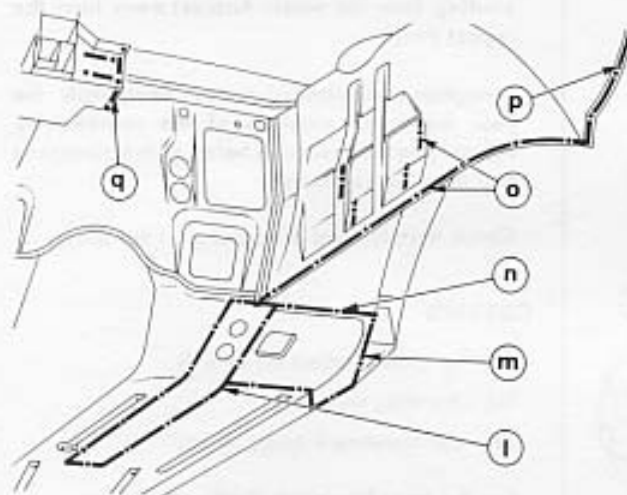
HULL - FRONT PART

REPLACING A COMPLETE BUTTRESS OF THE FRONT FRAMEWORK



CUTTING (cont'd)

- Remove the fastening bolts and raise the front of the hull.
- Cut :
 - (j) - the connecting side member following its shape.
 - (k) - the rear part of the buttress flush with the floor.

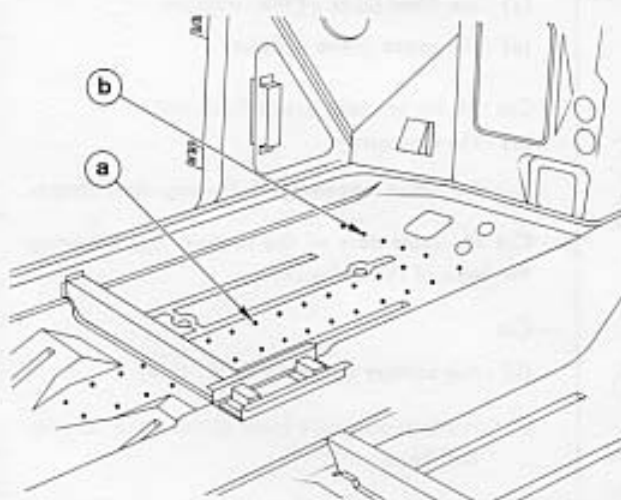


UNFASTENING

- Free the electric welded spots :
 - (l) - under the front floor
 - (m) - on the front sole plate of the sidemember
 - (n) - at the bulkhead-floor joint
 - (o) - on the wing valance
 - (p) - on the front parts of the valances
 - (q) - on the lower cross piece support.
- Straighten and smooth the damaged parts of the components to be kept. Refill the holes, smooth the adjoining edges.

PREPARATION OF THE NEW COMPONENTS

- Clean the edges to be welded.



ADJUSTMENT AND ASSEMBLY

Welding

NOTE - The buttress is an important component of the underbody. Further, particular care must be taken in preparing the floor and welding the buttress.

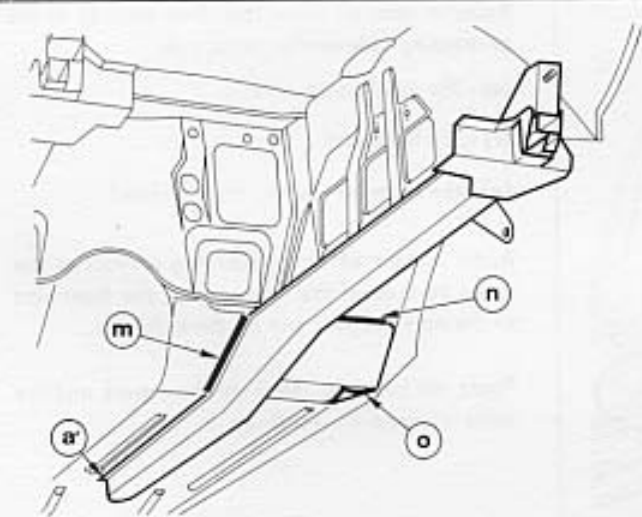
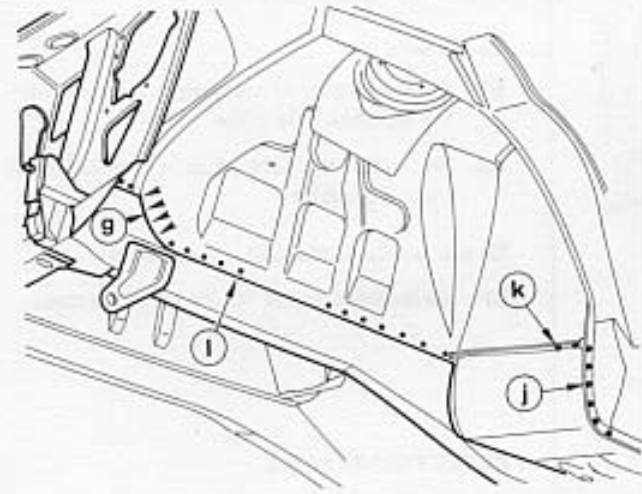
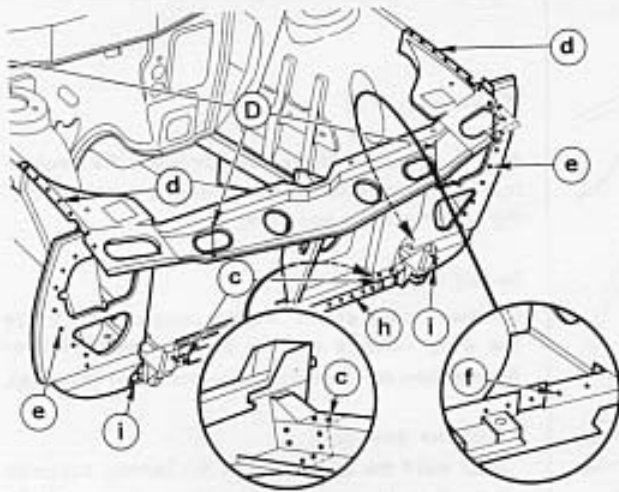
- Fit the new buttress on the bench supports, then place and fit the hull.
- With the assembly **D**
 - Spot weld the rear part :
 - (a) - of the buttress
 - (b) - of the connecting sidemember under the front floor.

HULL - FRONT PART

REPLACING A COMPLETE BUTTRUSS OF THE FRONT FRAMEWORK

11

06 53



Welding (cont' d)

- With the assembly **A**
- Fit and spot weld
 - (c) - the lower cross piece on its supports
- Place and hold with mole grips the front framework. Check its centering by taking 2 diagonal readings between the front and rear fastening points of the front assembly. $D = 1287 \pm 2$
- Spot weld :
 - (d) - the side brackets
 - (e) - the framework panels on the front parts of the wing valances
 - (f) - the buttresses
 - (g) - the wing valances to the lower brackets
 - (h) - the lower cross piece
 - (i) - the cross piece supports - to the lower part of the front framework
 - (j) - the front sole plate of the side member
 - (k) - the bulkhead-front floor joint to the connecting sidemember.
- Remove the bolts, raise the hull (by the door frames). Remove the telescopic tower (new buttress side).
- With the assembly **B**
- Spot weld :
 - (l) - The buttress to the wing valance
- Torch weld :
 - (m) - the buttress
 - (n) - the connecting sidemember to the front floor
 - (o) - the bottom of the sidemember and the floor to the rear part of the connecting sidemember
- With the assembly **D**
- Spot weld :
 - (a') - the end of the buttress

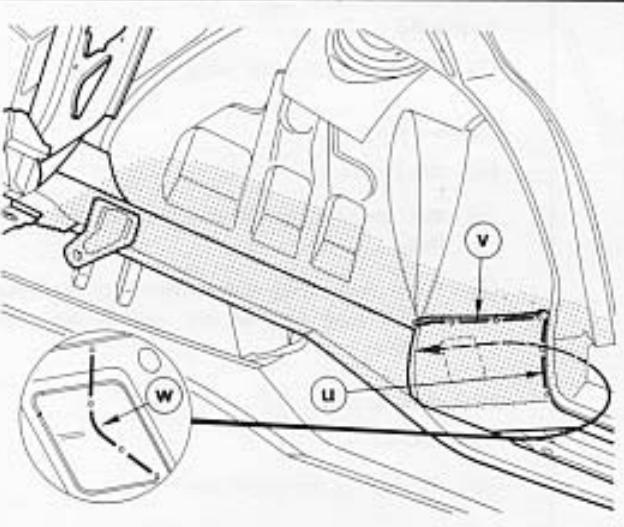
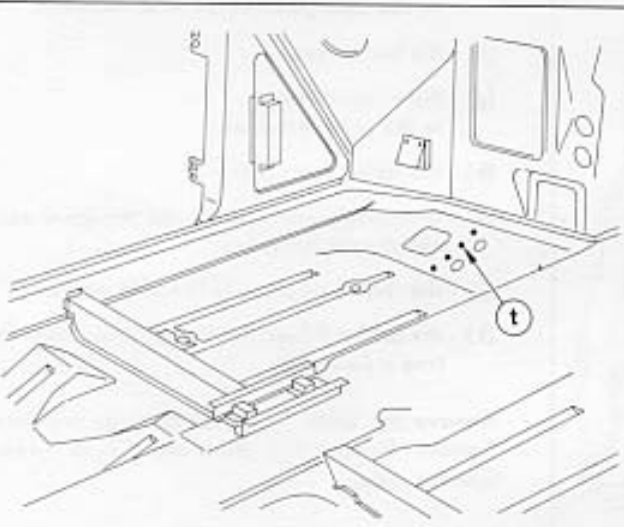
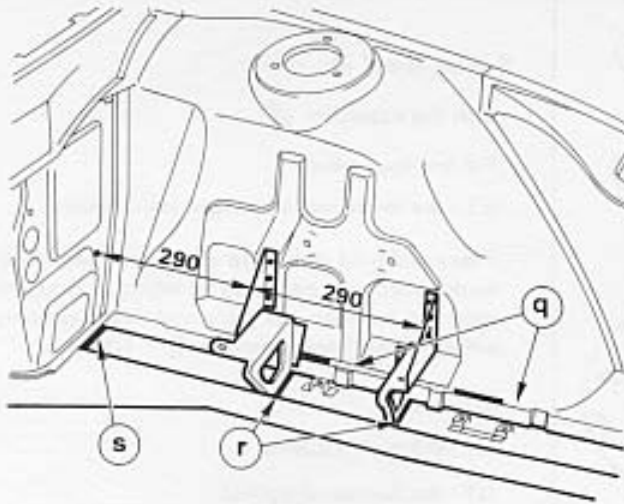
PEUGEOT

06 54

11

HULL - FRONT PART

REPLACING A COMPLETE BUTTRESS OF THE FRONT FRAMEWORK



Welding (cont'd)

NOTE - Because of the point between the mechanical fastening reinforcement panels, correct welding is not always possible.

In this case :

On the inside of the engine compartment, braze the wing valance and the butters sole plate at the mechanical fastening reinforcement level (q).

- With the assembly C
Spot weld the upper part of the battery supports onto the wing valance at 290 mm from the bulkhead, leaving a space of 290 mm between them
- Torch weld :
 - (r) - the lower part of the battery supports onto the butters sole plate.
 - (s) - the end of the sole plate to the bulkhead front floor joint.
- On the inside of the hull, torch weld :
 - (t) - the butters to the front part of the floor.

PROTECTION-SEALING

- Apply a coat of sound proofing product to the connecting sidemember joint with:
 - (u) - the single part side
 - (v) - the bulkhead
 - (w) - the butters (by the floor orifice).
- Apply a coat of sound-proofing product on the outer surface of the valance, on the front part of the crossmember and on the bulkhead.
- Paint the butters, the front framework and the parts cleaned for welding.

HULL - FRONT PART

REPLACING A WING VALANCE, A FRONT PART
OF THE BUTTRESS AND THE FRONT FRAMEWORK

11 06 61



PREPARATION

- Removal and refitting of the hull 11.0201
- Removal and refitting of the front assembly 11.0501
- Replacing the front components 11.0512

REMOVAL OF THE DETACHABLE PARTS

- Removal of the bonnet.

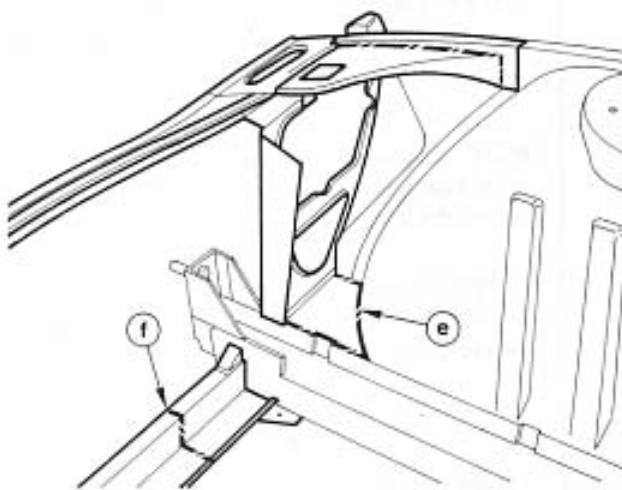
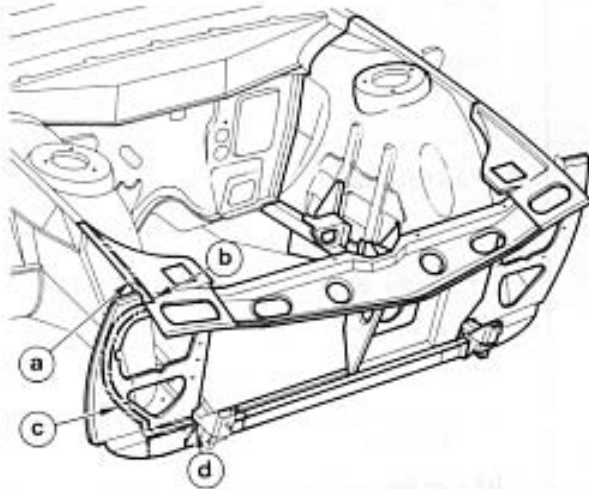
INTERVENTION ON THE BENCH

- Place, centre and tighten the hull on the bench, starting from the points furthest away from the impact point.
- Straighten the damaged parts. Check, with the jack free, the progress of the operation by referring to the fastening holes of the buttresses and the wing valances.
- Check the play and the closing of the doors.

CUTTING

Non-damaged side

- Cut the side bracket following :
 - (a) - the wing valance
 - (b) - the upper framework cross piece.
- Cut the front framework following :
 - (c) - the front part of the wing valance
 - (d) - the cross piece support.
- Cut the lower bracket (e) following its shape.
- Cut the lower cross piece (f) flush with the support.



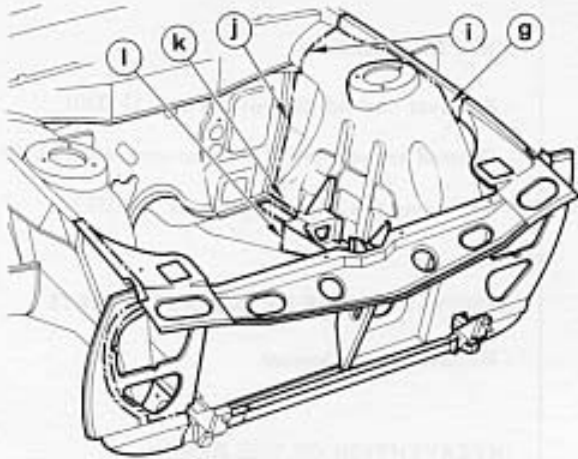
PEUGEOT

06 62

11

HULL - FRONT PART

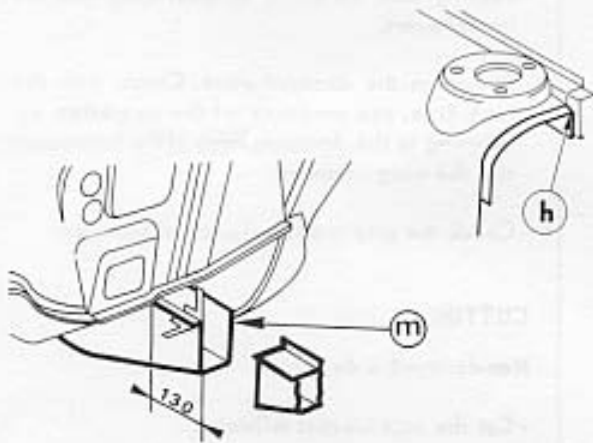
REPLACING A WING VALANCE, A FRONT PART OF THE BUTTRESS AND THE FRONT FRAMEWORK



CUTTING (cont'd)

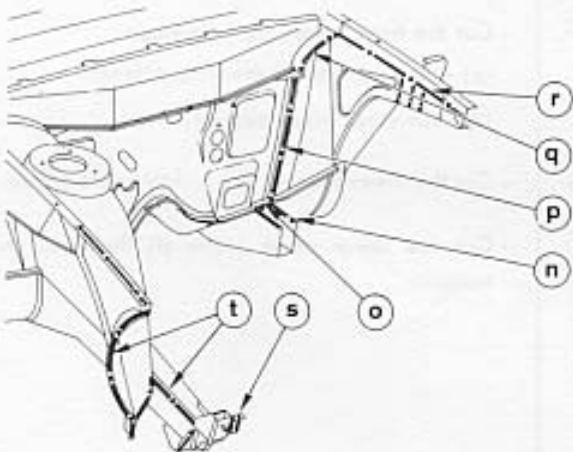
Damaged side

- * Cut the wing valance following :
 - (g) - the upper part of the connecting bracket (cut the shock absorber reinforcement (h).
 - (i) - the top of the bulkhead
 - (j) - the corner angle of the wing valance
 - (k) - the butress for 150 mm
- Cut the front part of the butress (l) at 150 mm \approx from the rear end of the sole plate.
- Free the assembly to be replaced.
- At 130 mm from the end of the butress sole plate (m) cut at right angles the part of the butress to be kept. Cut the rest of the sole plate.



UNFASTENING

- Free the welded spots :
 - (n) - on the part of the butress to be kept
 - (o) - at the base of the bulkhead
 - (p) - on the valance corner angle
 - (q) - under the front part of the lower part of the bulkhead
 - (r) - on the connecting bracket
 - (s) - on the lower cross piece support
 - (t) - on the front part of the wing valance and butress.



NOTE - To avoid deterioration of the components to be kept, unfasten the thick panels by drilling the welded spots.

- Straighten and smooth the damaged parts of the components to be kept. Refill the holes smooth adjoining edges.

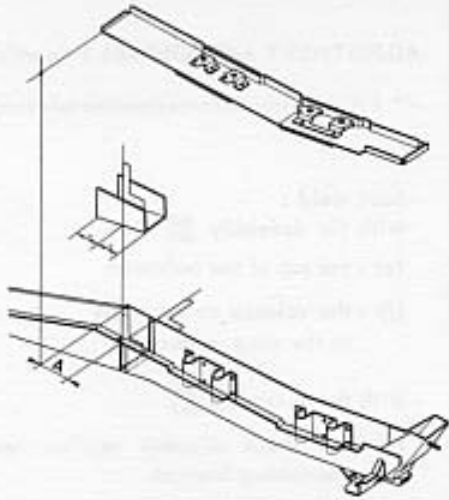
* As additional work :
Replacing a connecting bracket 11.6666

HULL - FRONT PART

REPLACING A WING VALANCE, A FRONT PART
OF THE BUTTRESS AND THE FRONT FRAMEWORK

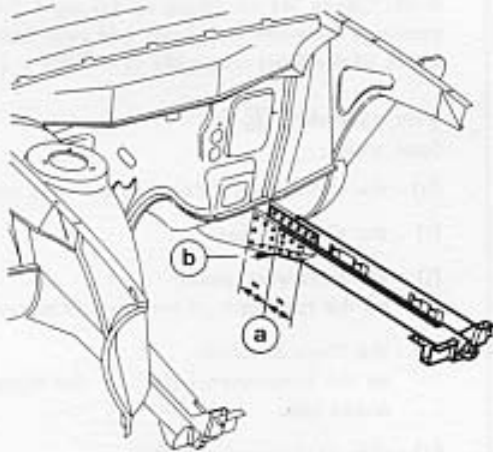
11

06 63



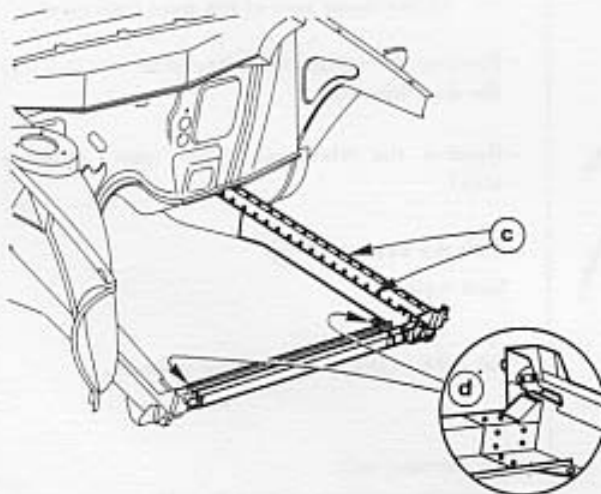
PREPARATION OF THE NEW COMPONENTS

- Trace and cut at a right angle the buttress at 130 mm from the end of the sole plate (A).
- When making the final cut of the front part and this is fitted on the bench, there should be less than 1 mm gap between the parts to be welded.
- Clean the edge of the components to be welded, including the plate.



ADJUSTMENT AND ASSEMBLY

- Fit the front part of the buttress on the bench.
- Place the plate at the bottom of the buttress, centre it according to the cut (a).
- With the assembly **A**
Spot weld the plate to the front and rear parts of the buttress.
- Torch weld the cut of the buttress (b).
- Fit and spot weld :
(c) - the buttress to the sole plate
(d) - the lower cross piece on its supports.



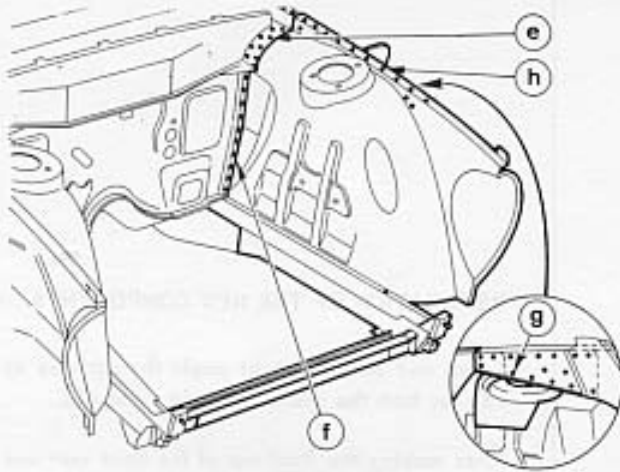
PEUGEOT

06 64

11

HULL - FRONT PART

REPLACING A WING VALANCE, A FRONT PART OF THE BUTTRESS AND THE FRONT FRAMEWORK

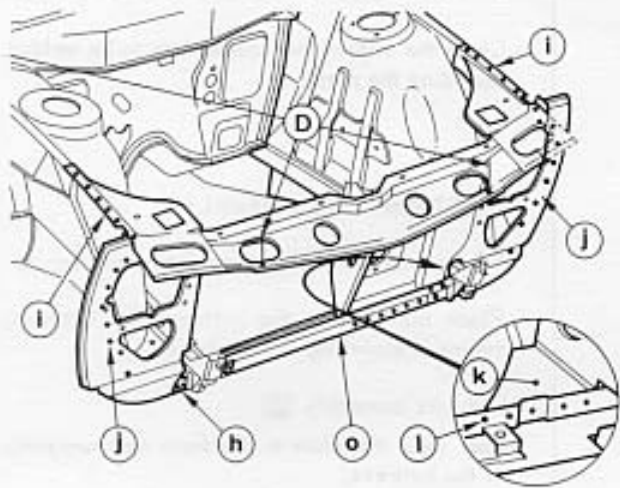


ADJUSTMENT AND ASSEMBLY (cont'd)

- * Fit the wing valance onto the telescopic tower.

- Spot weld :
with the assembly **D**
(e) - the top of the bulkhead
(f) - the valance corner angle to the wing valance.

- With the assembly **E**
(g) - the shock absorber reinforcement to the connecting bracket.



- Place and hold with mole grips the front framework. Check its centering by taking 2 diagonal readings between the front and rear fastening holes of the front assembly $D = 1287 \pm 2$.

- With assembly **A**
Spot weld :
(h) - the connecting bracket to the wing valance
(i) - the side brackets
(j) - the framework panels on the front part of the wing valances
(k) - the lower brackets on the buttresses **l** and on the wing valances (m).

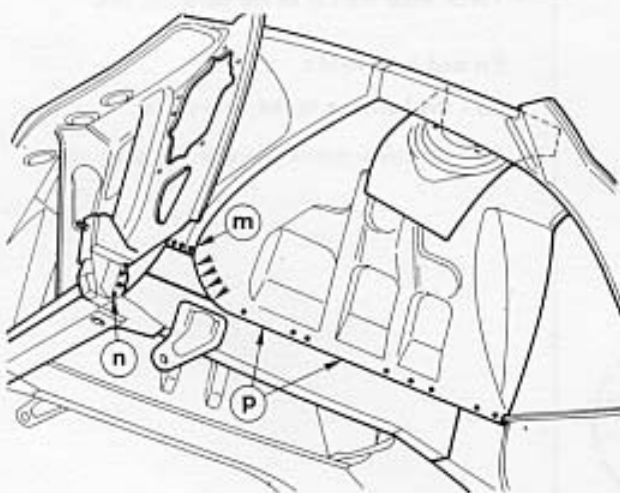
(n) - the cross piece supports
(o) - the lower cross piece to the lower part of the front framework.

- Remove the fastening bolts, raise the hull (by the door frames).

- Remove the telescopic tower (new valance side).

- With the assembly **B**
Spot weld

(p) - the buttress to the wing valance.

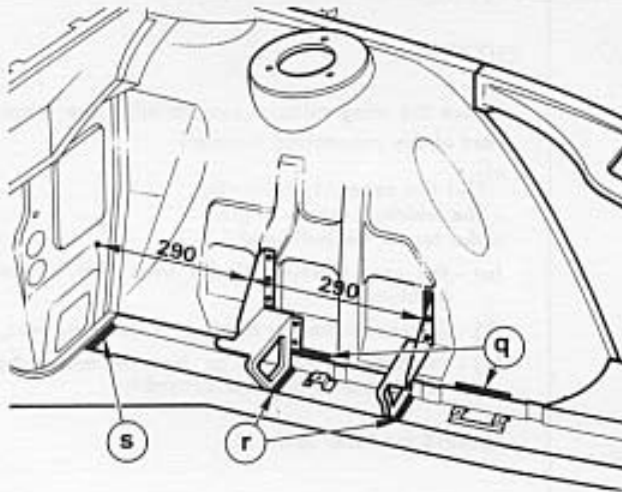


* As additional work :
Replacing a connecting bracket 11.66 66.

HULL - FRONT PART

REPLACING A WING VALANCE, A FRONT PART
OF THE BUTTRUSS AND THE FRONT FRAMEWORK

11 06 65



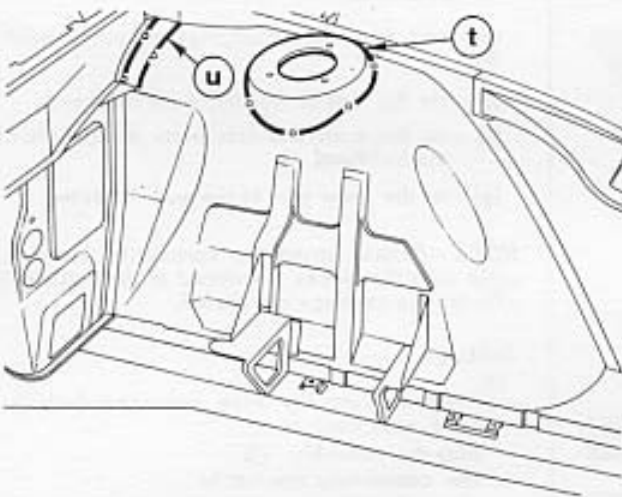
NOTE - Because of the paint between the mechanical fastening reinforcement panels, correct welding is not always possible.

In this case :

On the inside of the engine compartment, braze the wing valance and the buttress sole plate at the mechanical fastening reinforcement level (q).

With the assembly 

Spot weld the upper part of the battery supports to the wing valance at 290 mm from the bulkhead with a 290 mm space between them.



Torch weld :

(r) - the lower part of the battery supports

On the buttress sole plate

(s) - the end of the sole plate to the bulkhead-front floor joint.

PROTECTION - SEALING

- Apply a coat of sealing compound (by brush).

(t) - at the shock absorber reinforcement joint.

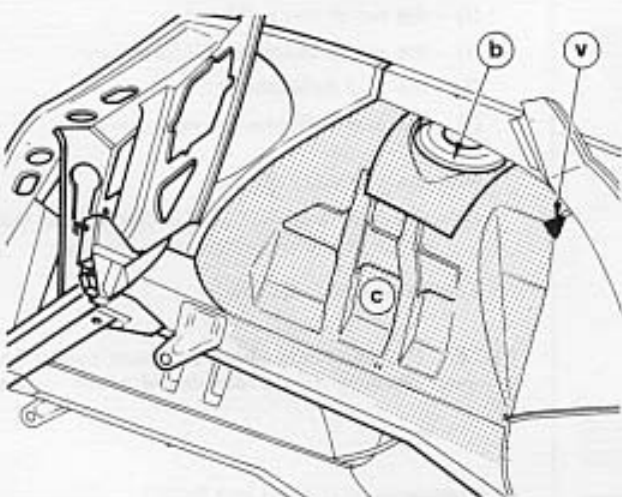
(u) - above the bulkhead and the scuttle cross piece and wing valance joint.

- Apply a ball of filler to the bulkhead wing valance angle (v).

- Protect the thrust face (b) of the shock absorber fastening plate.

- Apply a coat of sound-proofing product on the outer face of the wing valance (c).

- Paint the wing valance, the buttress, the front framework and the parts cleaned for welding.



PEUGEOT

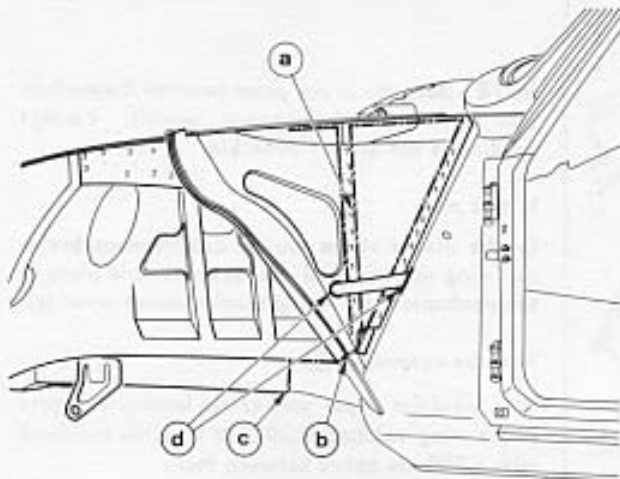
06 66

11

HULL - FRONT PART

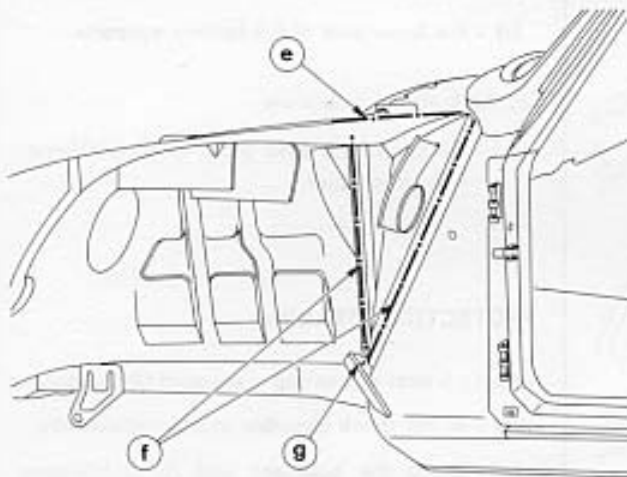
REPLACING A CONNECTING BRACKET

(Supplement to replacing the wing valance)



CUTTING

- Leave the wing valance assembled to the front part of the connecting bracket.
- ^{*1} Cut the assembly following :
 - the valance corner angle
 - the top of the bulkhead
- (a) - the spot welding of the front part of the bulkhead.
- (b) - the mud deflector flush with its lower part,
- (c) - the buttress 150 mm \approx from the end of the sole plate to free the assembly.
- Unweld the tube (d).



UNFASTENING

- Cut and free the connecting bracket spot welding.
- (e) - On the side of the top of the bulkhead
- (f) - on the front and rear parts of the side of the bulkhead
- (g) - on the lower part of the mud deflector.

NOTE - Before fitting the connecting bracket, make sure the places mentioned in the paragraph «Protection sealing» are sealed.

Welding

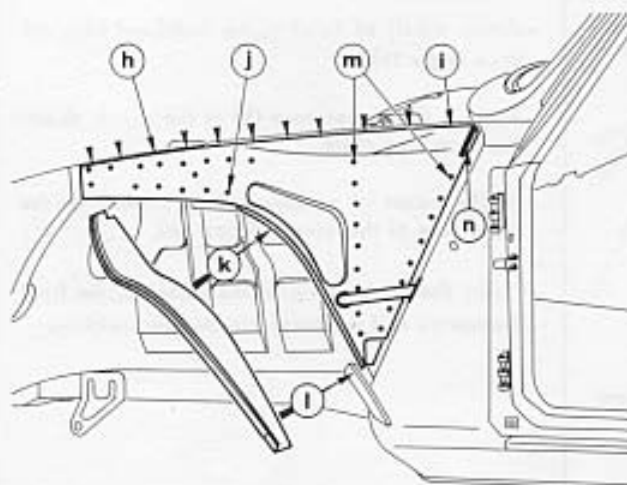
- ^{*2} After welding the wing valance to the bulkhead, spot weld : :
 - With the assembly **A**
 - the connecting bracket to
 - (h) - the upper part of the valance
 - (i) - the top of the bulkhead
 - (j) - the shock absorber reinforcement
 - (k) - the mud deflector
 - (l) - the mud deflector to its lower part.

With the assembly **C**

- (m) - the front and rear part of the side of the bulkhead to the connecting bracket.

- Torch weld the tube (d).

NOTE - The upper end of the bulkhead cannot be reached because of the dashboard cross piece (n).



*1 Continuation of «cutting» page 0662-11

*2 Continuation of «welding» page 0664-11

HULL - FRONT PART
 REPLACING A CONNECTING BRACKET
 (Supplement to replacing the wing valance)

11 06 67



PROTECTION - SEALING

Before fitting the connecting bracket

- Apply a strip of filler :
 - (a) - under the last wing fastening nut
 - (b) - in the angle of the top of the bulkhead, and the lower part of the front door frame.

After fitting the connecting bracket

INSIDE

- Apply a strip of sealing compound to the joint between the connecting bracket and the side of the bulkhead threading it through the ventilator hole.

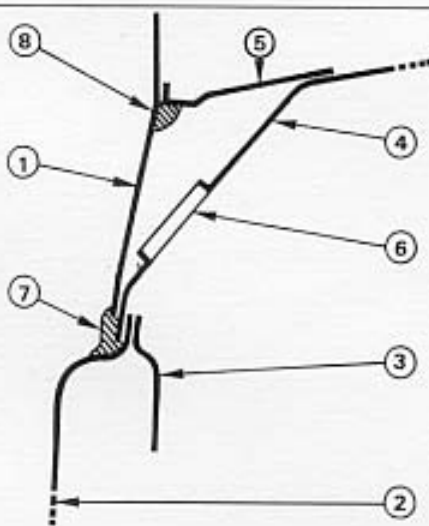
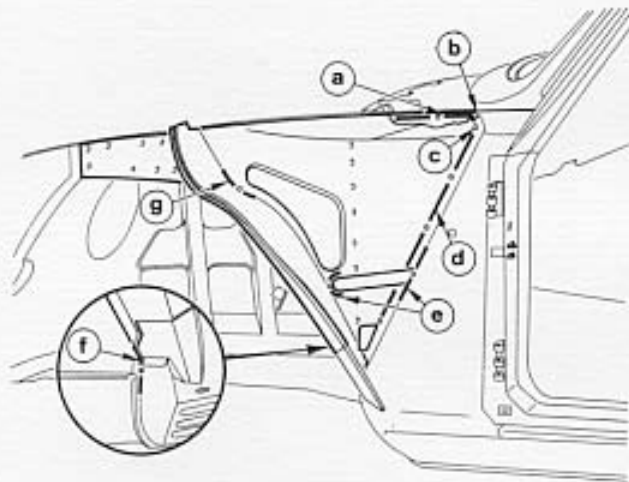
OUTSIDE

- Apply a strip of sealing compound to :
 - (c) - the windscreen frame lower gusset
 - (d) - the lower front door frame
 - (e) - the tube (d) with the connecting bracket.

NOTE - Do not fill the water outlet hole at the base of the windscreen frame lower gusset.

- Apply a strip of sealing compound between :
 - (f) - the lower and upper mud deflector and the side of the floor
 - (g) - the mud deflector and the connecting bracket

- Paint the connecting bracket, the mud deflector and the parts cleaned for welding.



- 1 - Connecting bracket
- 2 - One piece side
- 3 - Front lower door frame valance
- 4 - Bulkhead
- 5 - Front bulkhead plug
- 6 - Ventilator hole
- 7-8 - Filler.

PEUGEOT

BODYWORK - CENTRAL PART
REPLACING AN OUTER DOOR PANEL

11

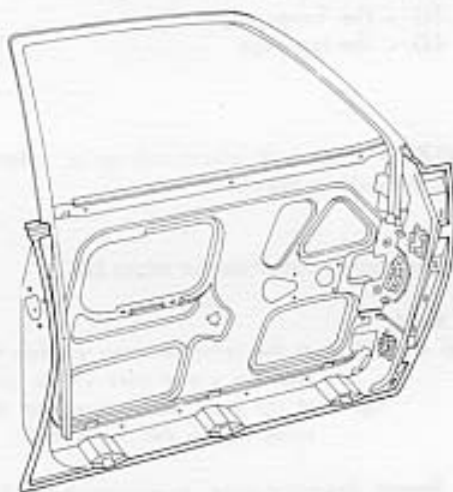
07 01



PREPARATION

- Removal of the door
- Stripping down of the door - 13 - 0211

NOTE - This also applies to the rear doors.

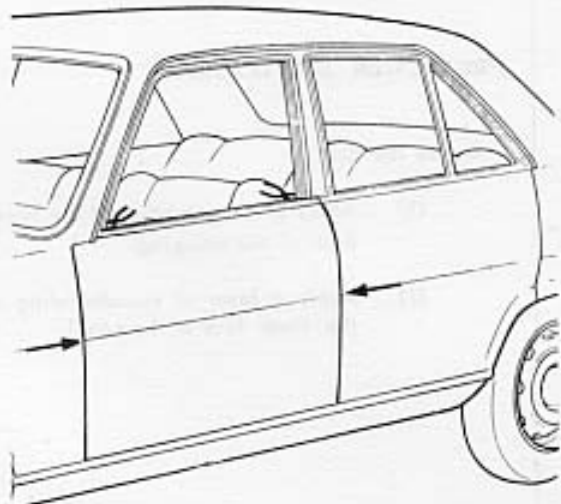


PREPARATION OF THE PART TO BE REPLACED.

- Smooth down the 3 sides of the panel to cut away the bent back edges.
- Stone away the welding.
- Drill out the spot welding and remove the panel.
- Smooth the edges of the lining to obtain a clear joint with the new panel.

PREPARATION OF THE NEW PANEL

- Check and touch up the surface of the panel.
- Bare the parts to be welded.

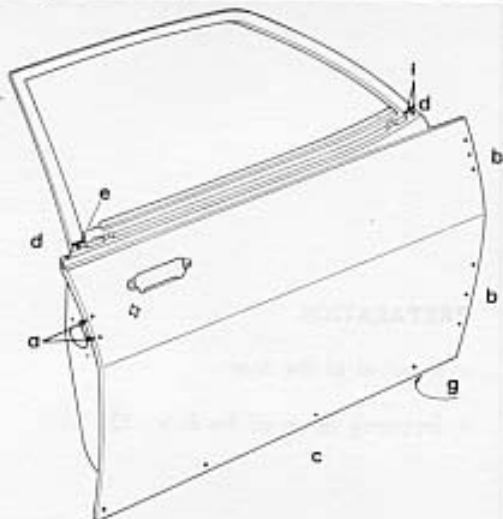


PEUGEOT

07 02

11

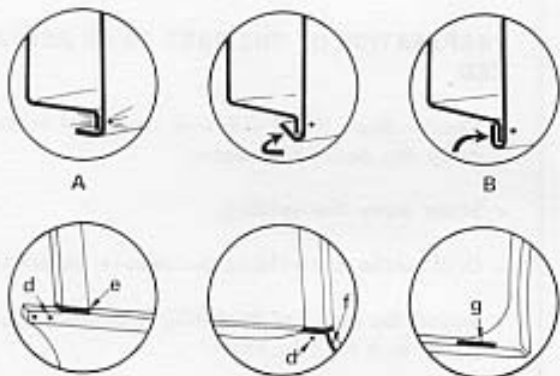
BODYWORK - CENTRAL PART
REPLACING AN OUTER DOOR PANEL



ALINEMENT AND ASSEMBLY

- Fit the door to the car.
- Position and hold the panel on the door using mole grips. Align it to obtain a perfect positioning in relation to the adjacent parts.
- Remove the door.
- Spot weld (A) :
 - (a) - at the level of the lock
 - (b) - at the level of the hinges
 - (c) - the lower edge
 - (d) - the top edge

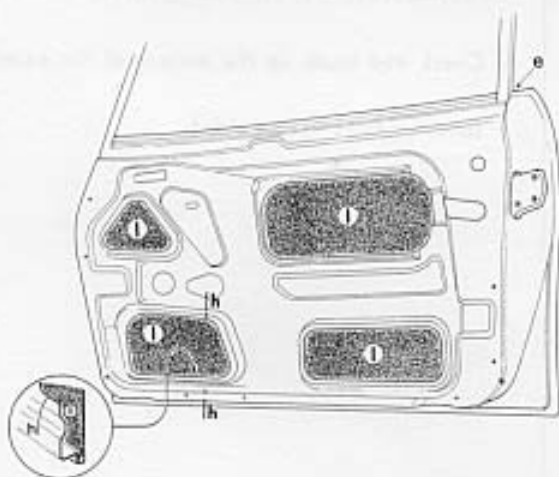
NOTE - Use ball electrodes or a palette to avoid marking the panel.



- Bend over and crimp the edges (B)
- Weld
 - (e) and (f) - at the joint between window frame and the upper part of the panel.
 - (g) - at the base of the rear part of the crimping on the door panel.
- Smooth down the panel to eliminate the traces of welding.

PROTECTION AND SEALING

- Inside the door :
 - (h) - Apply protective paint at the lower part of the crimping.
 - (i) - Apply a layer of soundproofing in the inner face of the panel.



BODYWORK - REAR PART
REPLACEMENT OF A REAR WING
TOOLS TO BE MADE IN THE WORKSHOP

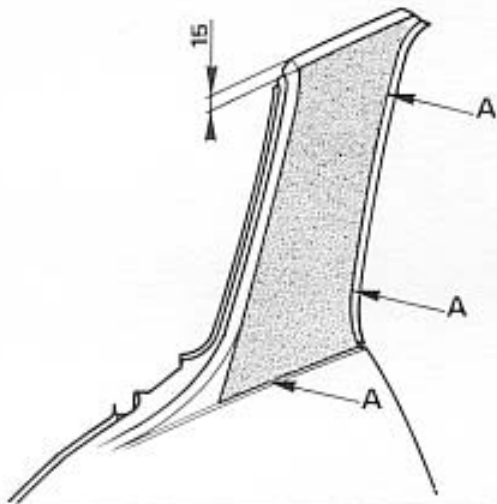
11

09 01

PATTERNS

Using a new rear wing as a model cut out 2 flexible patterns :

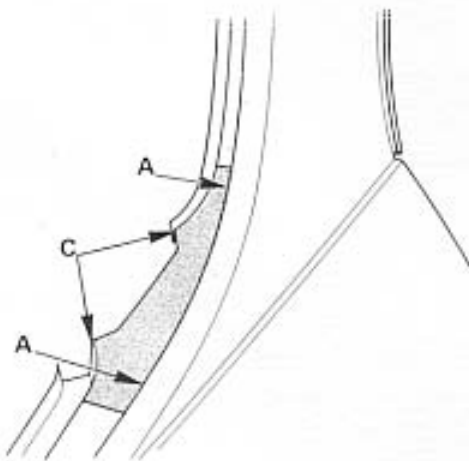
- one for tracing the quarter panel
- one for tracing the lower rear window frame crosspiece.



I - QUARTER PANEL PATTERN

A - Bearing face

To avoid the cutting being effected on the original welding cut the pattern 15 mm lower down.



II - LOWER WINDOW FRAME CROSSPIECE PATTERN.

A - Bearing face

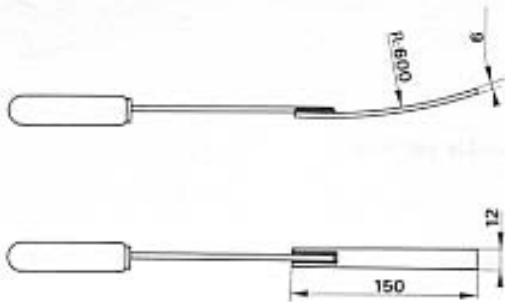
C - Centering

PEUGEOT

09 02

11

BODYWORK - REAR PART
REPLACEMENT OF A REAR WING
TOOLS TO BE MADE IN THE WORKSHOP



III - PALETTE

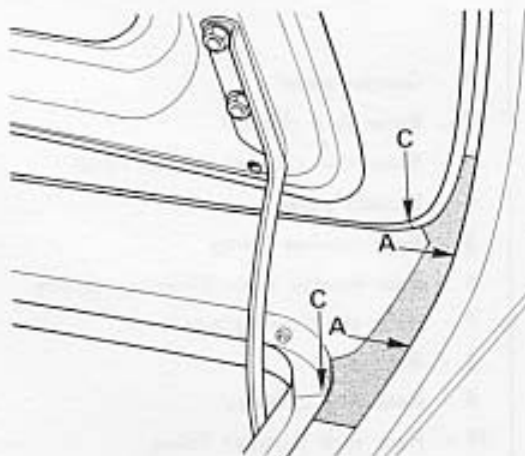
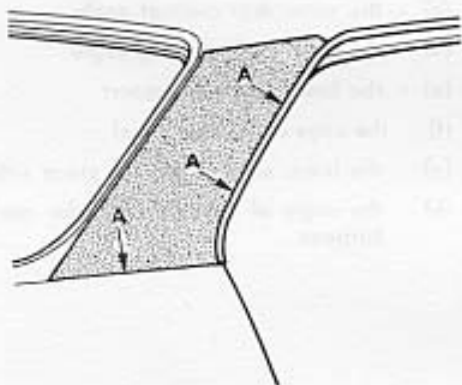
Material : copper

NOTE - This tool enables one to avoid marking on the door side when spot welding the quarter panel to the water drip channel.

BODYWORK - REAR PART

REPLACING A REAR WING

11 09 03



REMOVAL OF THE DETACHABLE PARTS

- Disconnect the battery
- Remove the rear light
- Withdraw the harness in the luggage boot.
- Strip the luggage boot
- Remove :
 - The rear seat
 - the rear window
 - the rear shelf
- Strip the rear part of the roof lining
- Remove :
 - the water drip channel trim
 - the rear bumper

INTERVENTION ON THE CAR

STRAIGHTENING OUT (where necessary)

- Straighten out the damaged panels

NOTE - Replace and adjust the detachable damaged parts before straightening out.

CUTTING AWAY

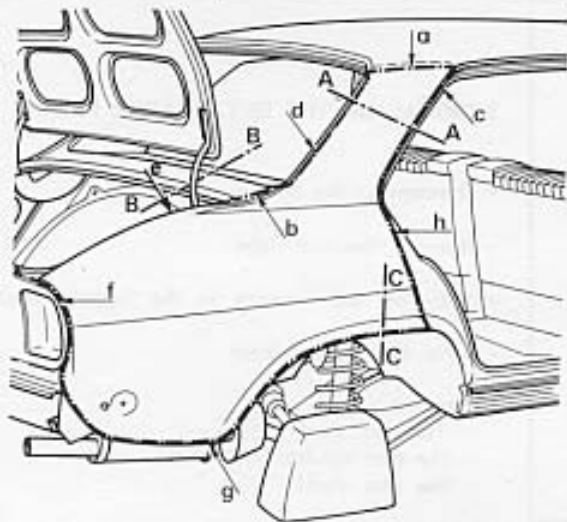
- Trace the cut out :
 - on the quarter panel (pattern I)
 - on the lower rear window frame cross piece (pattern II)

NOTE - The visible welding (c) at the boot and window frame serve as a guide to situate the beginning of the original cutout.

- (A) Bearing face of the patterns.

BODYWORK - REAR PART

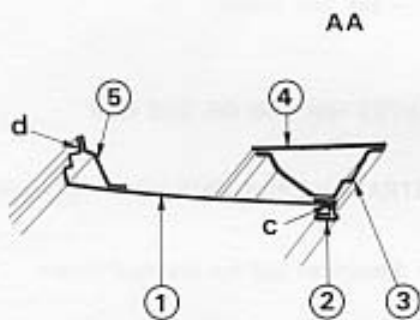
REPLACING A REAR WING



Cut away the wing at :

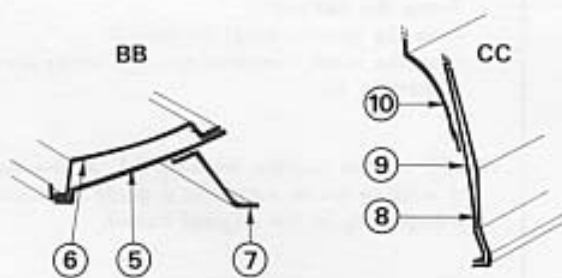
- (a) - 10 mm below the line drawn on the quarter panel.
- (b) - 3 mm from the line drawn on the lower rear window frame crosspiece.

NOTE - The final cutting will be made when aligning the new wing.



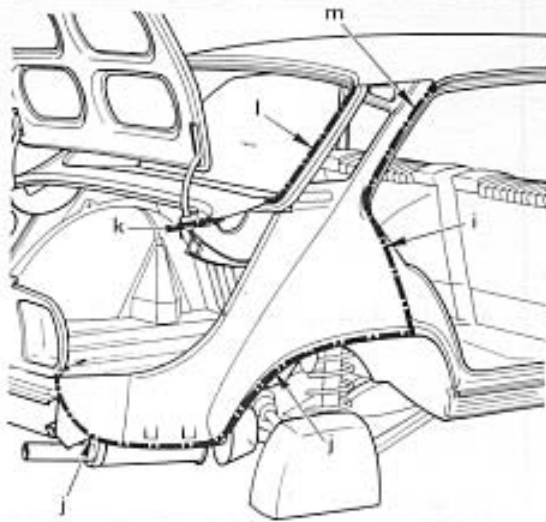
Cut away the wing following :

- (c) - the water drip channel angle
- (d) - the rear window lining angle
- (e) - the boot lid hinge support
- (f) - the edge of the rear panel
- (g) - the lower edge of the one piece side
- (h) - the angle of the wing with the rear door buttress



- 1 - Quarter panel
- 2 - Water drip channel
- 3 - Water drip channel support panel
- 4 - Support panel
- 5 - Rear window lining
- 6 - Rear window frame lower crosspiece
- 7 - Rear shelf crosspiece
- 8 - Rear wing
- 9 - Rear door buttress
- 10 - Rear door buttress lining

BODYWORK - REAR PART REPLACING A REAR WING

11 09 05


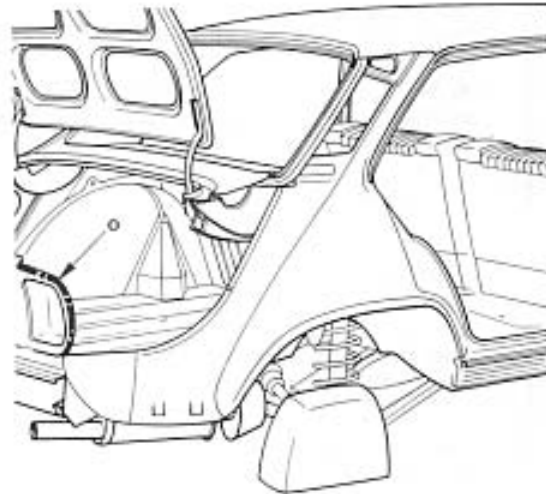
UNFASTENING

Separate the spot welding points taking care not to distort the components :

- (i) - on the rear door butress
- (j) - on the lower edge of the one piece side
- (k) - on the hinge support
- (l) - on the rear window frame
- (m) - on the water drip channel

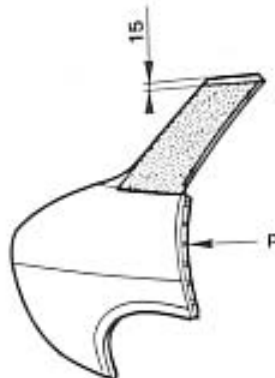
NOTE - Take care not to distort the water drip channel as it serves as a stop for the quarter panel and aids the centering of the wing.

- Stone away welding on the boot panel (o)
- Block the holes, and smooth down the edges.



PREPARING THE NEW WING

- Check and touch up the surface of the wing if necessary
- Paint the inner face
- Bare the edges to be welded
- (p) Drill a number of \varnothing 6 mm holes at 60 mm intervals on the front part of the wing.
- Trace the line to be cut for the quarter panel (pattern l).
- Cut along the line



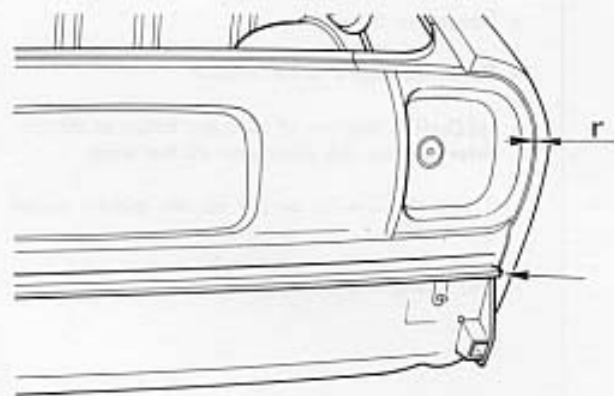
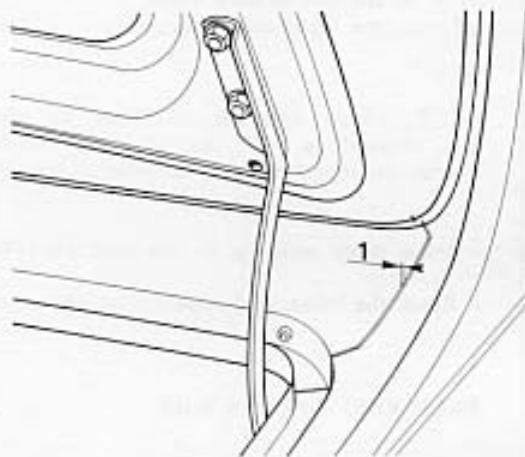
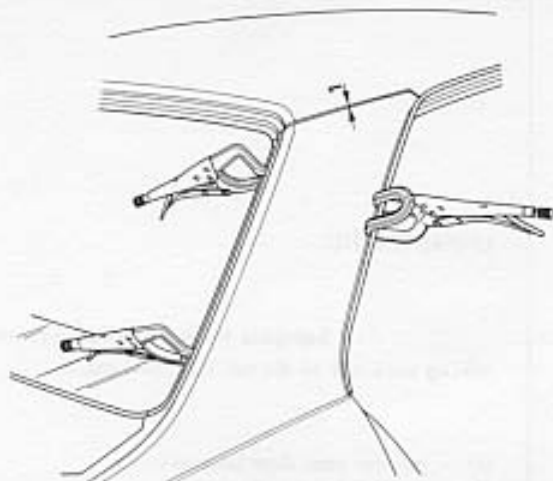
PEUGEOT

09 06

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BODYWORK - REAR PART

REPLACING A REAR WING



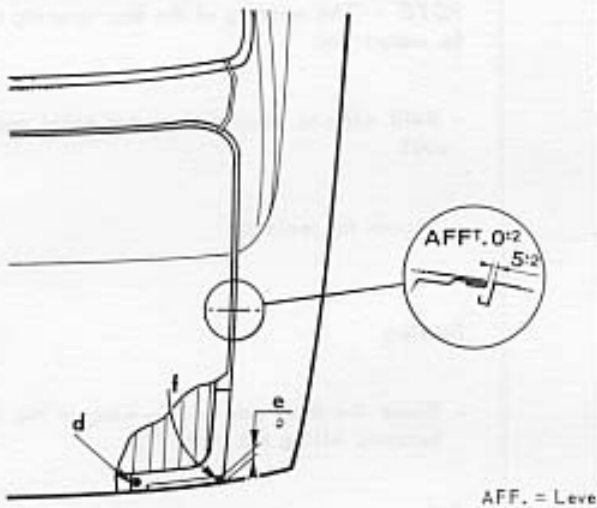
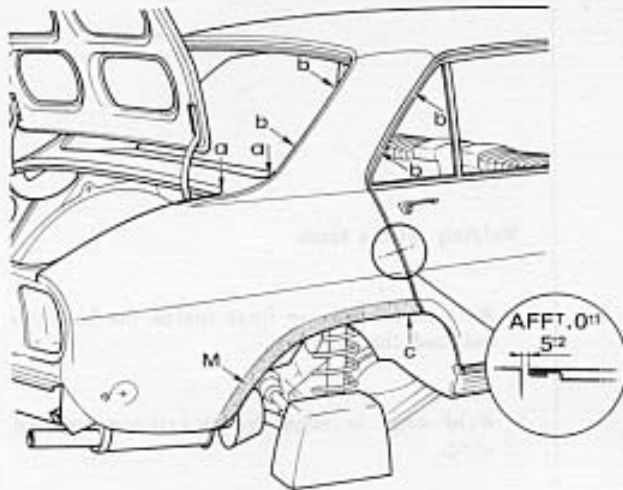
ALINING AND ASSEMBLY

- Alining the edges
- Line up edge to edge :
 - 1st - the crosspiece cutaway
 - 2nd - the quarter panel cutaway
- With the wing in position there should be a maximum gap of 1 mm between the cutaway edges.
- Alining the wing
- Hold the quarter panel against the water drip channel and the rear window lining,
- The front part should rest against the rear door buttress.
- The lower edge should rest on the wheel edge, have the same curve and rest on the base of the one piece side.
- The central part of the wing panel should line up that of the door.
- The angle of the boot lid and that of the wing should be at the same level, the edges being parallel with a minimum of clearance (r).
- Remove the wing and correct the alinement where necessary.

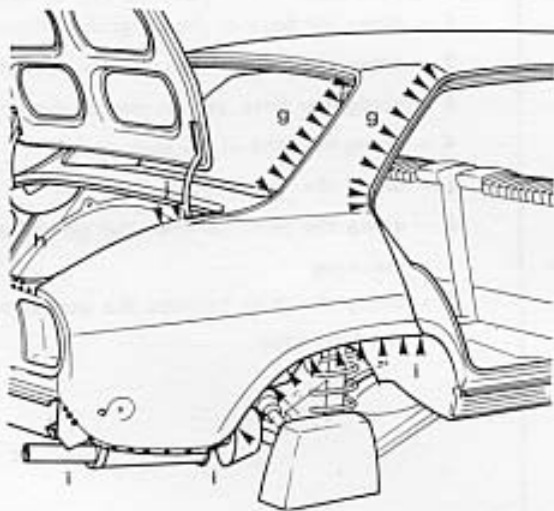
BODYWORK - REAR PART
REPLACING A REAR WING

11

09 07



AFF. = Level



Aligning of the wing - welding

- Apply a strip of filler inside the edge of the wheel arch on the rear wing (M)
- Position and maintain the wing using mole grips weld :
 - (a) - the wing and the crosspiece
 - (b) - the quarter panel
- With the rear door adjusted with a gap of 5 mm \pm 2 check the level of the wing : 0 mm \pm 1
- (c) - spot weld at the bottom of the wing
- Adjust the position of the wing to obtain a clearance of 5 mm \pm 2 at the boot lid
- (d) - Spot weld at the extremity of the gusset
- (e) - Hold the boot panel 5 mm away from the end of the wing
- (f) - Weld the inside

WELDING

- Spot welding
 - (g) (g') - The quarter panel to the window frame lining and the water drip channel. Use the palette III on the door side to prevent welding marks.
 - (h) - The boot panel to the gusset
 - (i) - The wing panel to the lower part of the one piece side
 - (j) - The hinge support.

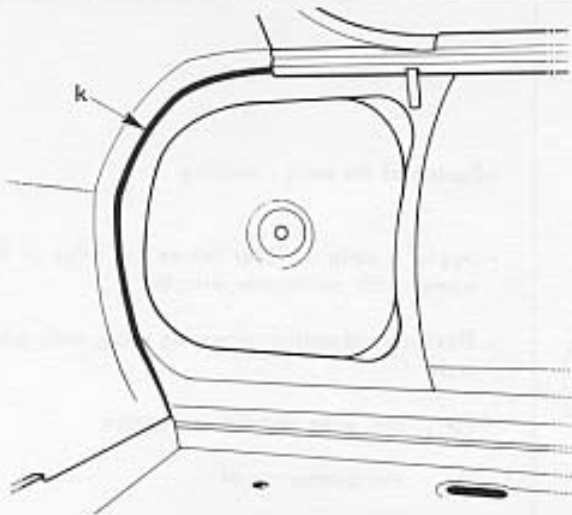
PEUGEOT

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BODYWORK - REAR PART

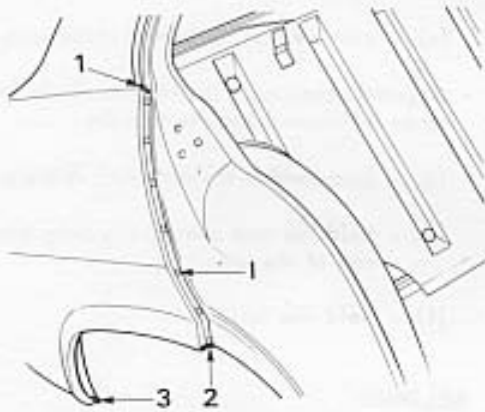
REPLACING A REAR WING

**Welding with a torch**

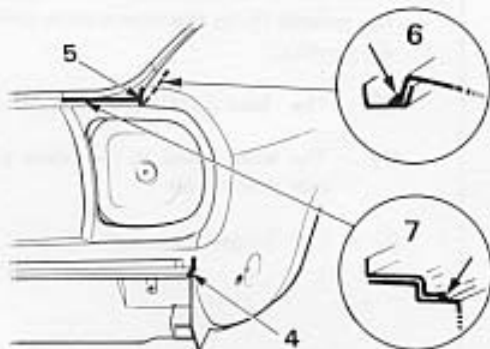
- Weld in successive lines inside the boot panel and the wing (k).
- Weld edge to edge the crosspiece and the wing.

NOTE - The welding of the boot opening must be waterproof.

- Weld edge to edge the quarter panel and the roof.
- Smooth the welding.

**Brazing**

- Braze the front part of the wing to the door buttress filling the holes (1)
- To ensure the waterproofing run the brazing :
 - 1 - along the base of the water drip channel
 - 2 - along the base of the front of the wing
 - 3 - along the base of the rear of the wing
 - 4 - along the base of the boot panel
 - 5 - along the wing support angle
 - 6 - along the joint between the gusset and the wing
 - 7 - along the joint between the gusset and the boot panel.

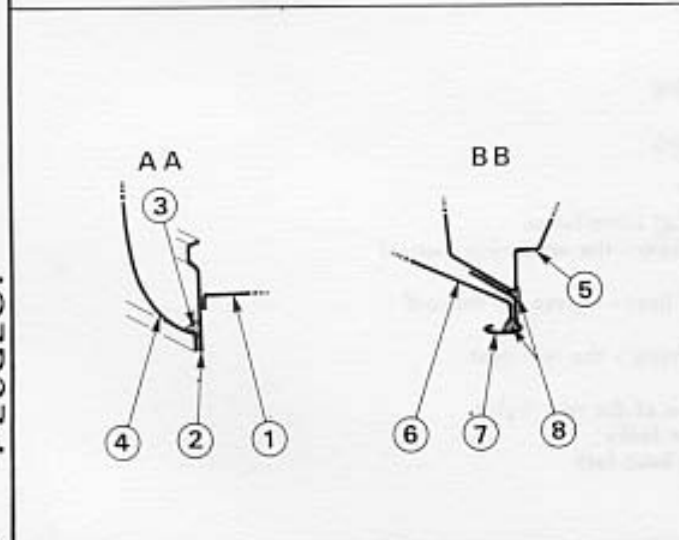
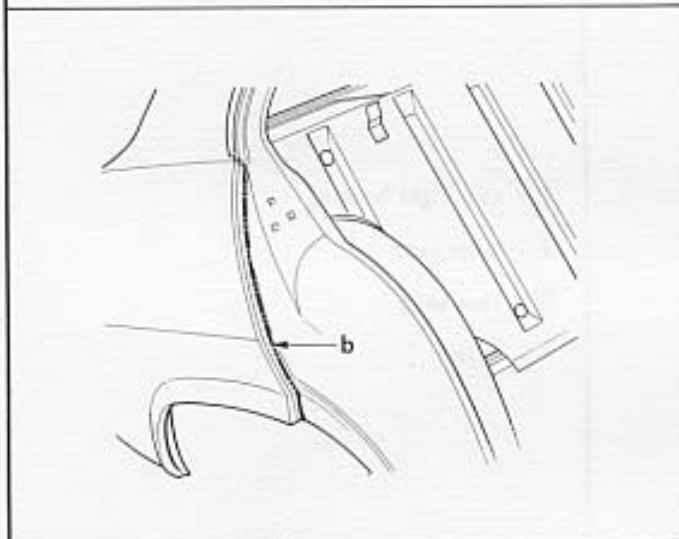
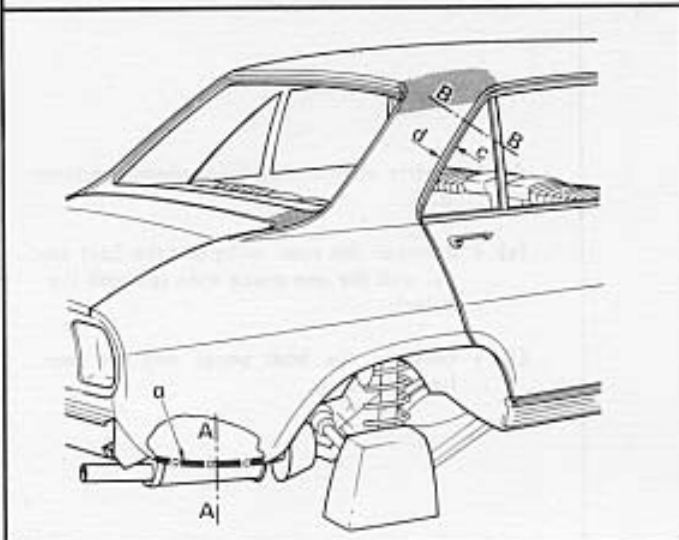


BODYWORK - REAR PART

REPLACING A REAR WING

11

09 09



FINISHING

- Finish the welding along the roof and rear window frame by tinning if necessary.

PROTECTION - SEALING

- Paint the parts bared by the welding.
- Apply a strip of filler on the joint between the base of the wing and the one piece side (a) - A.A.
- Apply a strip of finishing filler :
 - (b) - on the joint between the wing and the buttress (smooth the filler).
 - (c) - on the joint between the water drip channel and the one piece side B.B.
 - (d) - on the joint between the water drip channel and the rear wing B.B.

- 1 - luggage boot floor
- 2 - one piece side
- 3 - filler
- 4 - rear wing
- 5 - one piece side
- 6 - roof
- 7 - water drip channel
- 8 - filler

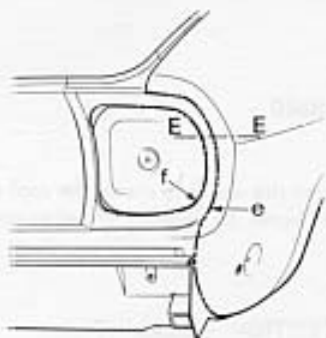
PEUGEOT

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BODYWORK - REAR PART

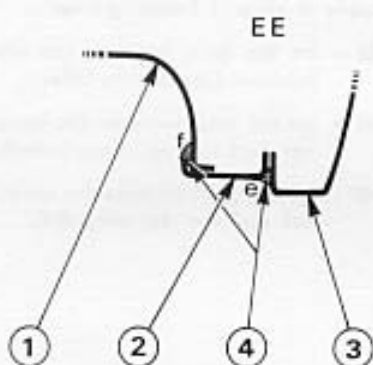
REPLACING A REAR WING



- Apply a strip of finishing filler along the junction : E, E.

(e) - between the rear wing and the boot panel and the one piece side (smooth the filler):

(f) - between the boot panel and the rear light housing.



1 - rear light housing

2 - boot panel

3 - rear wing

4 - filler

EQUIPMENT AFTER WORK

- CHECKING - ADJUSTING

- Refit : - the electrical installation
 - the rear bumper - the water drip channel
- Reline : - the luggage boot - the rear of the roof
- Refit : - the rear window - the rear seat
- Check : - the operation of the rear lights
 - the rear door locks
 - the luggage boot lock

BODYWORK - REAR PART

REPLACING A WING
(by cutting away)

11

0911



REMOVING THE DETACHABLE PARTS

- Disconnect the battery
- Remove the rear light
- Withdraw the wiring harness
- Strip the luggage boot
- Remove :
 - the rear seat
 - the door seal from the bodywork
 - the rear bumper

INTERVENTION ON THE CAR

- Straighten out the damaged part

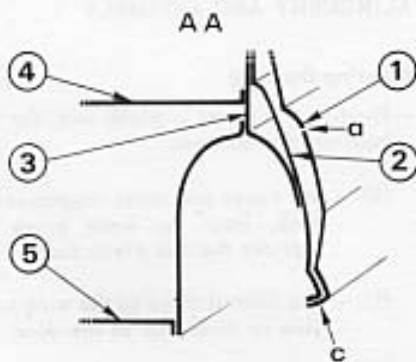
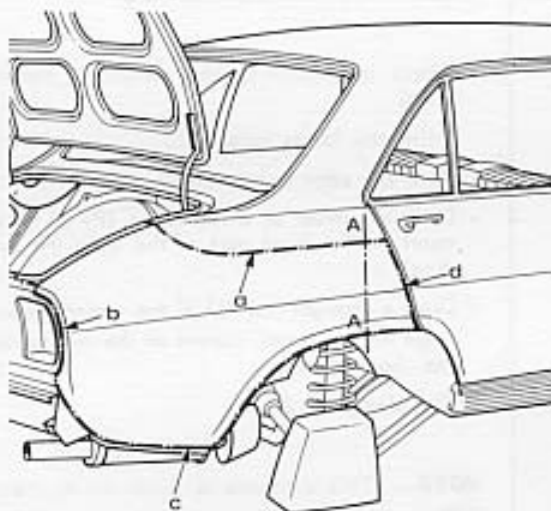
NOTE - Replace and align the damaged detachable parts before straightening out the bodywork.

CUTTING AWAY :

- Cut away the wing panel along (a) approximately 70 mm from the line just above this.

NOTE - The final cutting will be realised when aligning the new wing.

- Cut away the wing following :
 - (b) - the edge of the boot panel
 - (c) - the lower edge of the one piece side
 - (d) - the front angle on the buttress up to the first cut of the panel.



- 1 - Rear wing
- 2 - Buttress lining (one piece side)
- 3 - Wheel arch
- 4 - Rear shelf
- 5 - Luggage boot floor

PEUGEOT

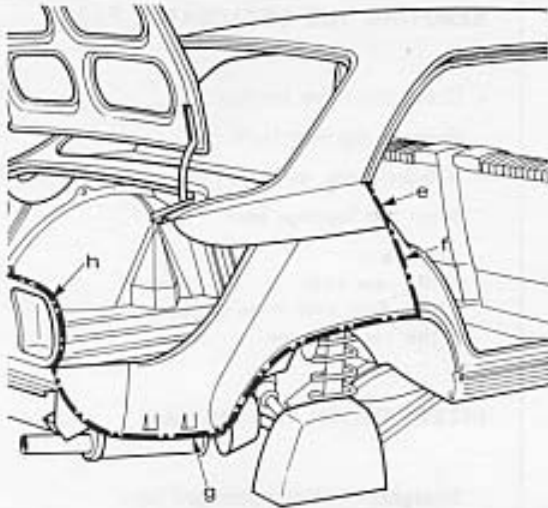
0912

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BODYWORK - REAR PART

REPLACING A WING

(by cutting away)



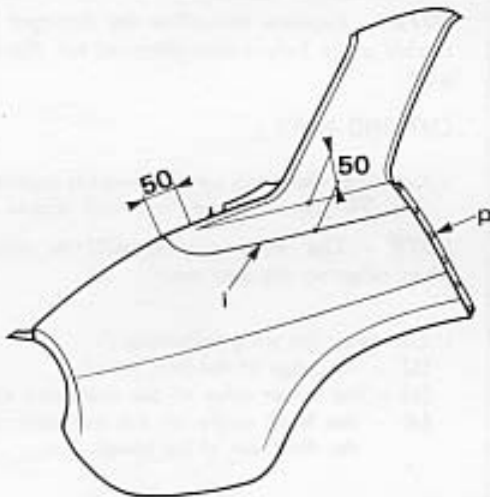
UNFASTENING

- To render the upper part of the wing more accessible, unfasten the front part of the wing (e) without distorting it.
- Separate the spot welding (f) - along the buttress
- (g) - on the lower edge of the one piece side.
- Smooth the welding on the boot panel (h).

PREPARING THE NEW PANEL

- Check and touch up the surface of the new wing.
- Paint the lower face
- Bare the edge to be welded
- Drill a number of 6 mm holes (P) at 60 mm apart on the front part of the wing (for welding).
- Draw a straight line (i) 50 mm under the upper ridge on the panel, curved at the end to meet the boot opening.
- Cut along this line

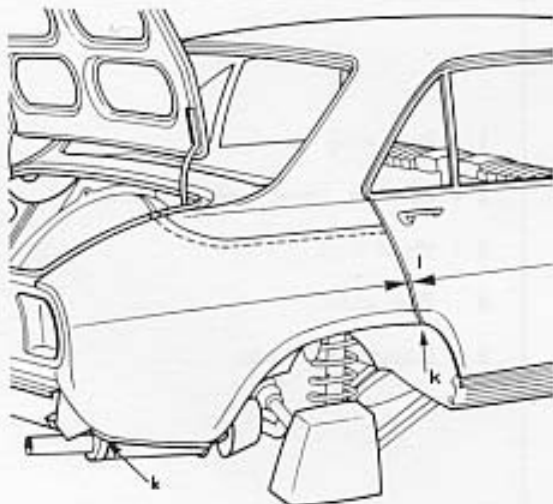
NOTE - This distance is given as an indication.



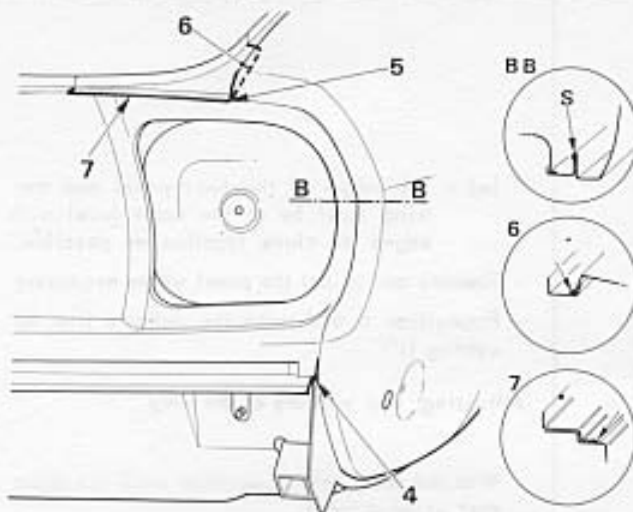
ALINEMENT AND ASSEMBLY

Aligning the wing

- Holding the panel in place with the front part against the buttress
- (k) - its lower part must engage in the wheel arch, have the same curve and rest against the one piece side.
- (l) - the central ridge on the wing panel must line up with that of the door.



BODYWORK - REAR PART
REPLACING A WING
(by cutting away)



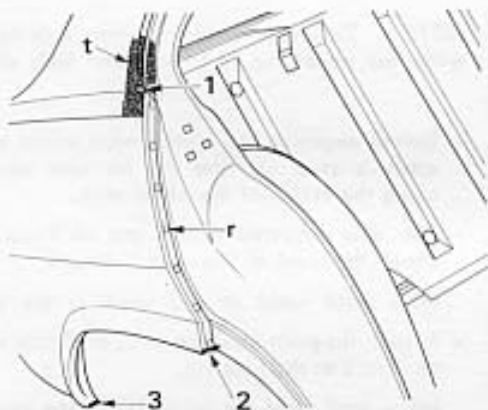
- Using a torch weld in successive strips inside the boot panel and the wing (S)

Brazing

- Braze the front part of the wing to the buttress filling the holes (r)

- To ensure the waterproofing run the brazing :

- 1 - along the base of the water drip channel protecting it and the wing with a strip of damp asbestos (t).
- 2 - along the base of the front part of the wing.
- 3 - along the rear base of the wheel arch.
- 4 - along the base of the boot panel.
- 5 - along the upper angle of the wing.
- 6 - 7 - along the joint between the gusset the wing and the boot panel.

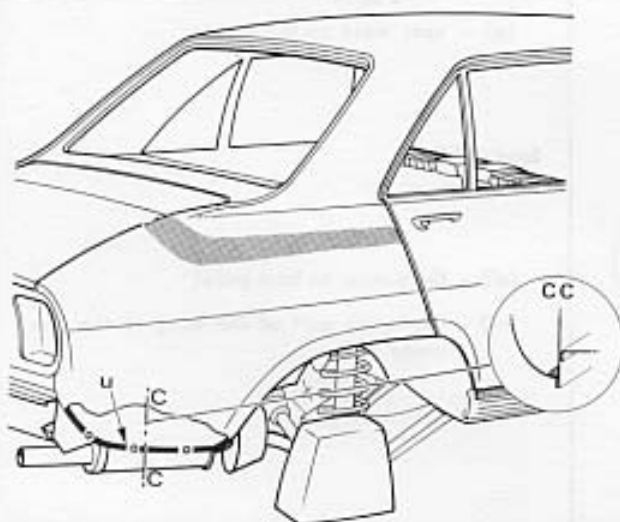


FINISHING

- Finish the soldering on the upper part of the panel by tinning if necessary.

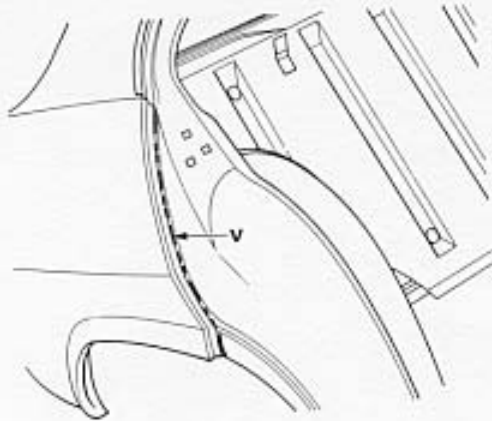
PROTECTION - SEALING

- Apply a strip of filler along the joint between the base of the wing and the one piece side (u) from the inside.



BODYWORK - REAR PART
REPLACING A WING
 (By cutting away)

11 0915



- Apply a strip of finishing filler on the joint :
 - (v) - between the rear wing and the butress (smooth it).
 - (x) - between the wing and the boot panel and one piece side
 - (y) - between the rear light housing and the boot panel
- Paint the parts bared by the welding.

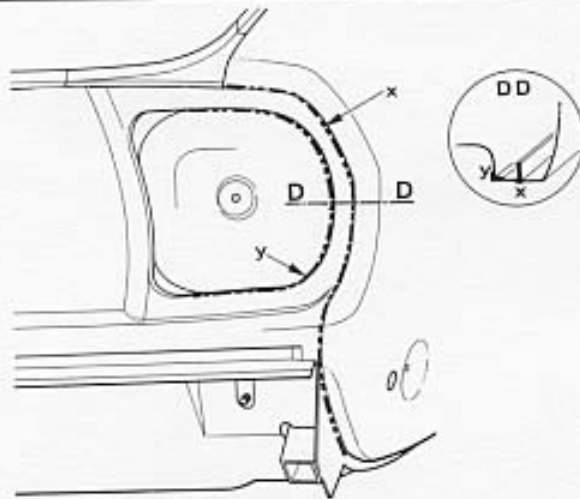
EQUIPMENT AFTER WORK

- CHECKING - ADJUSTING

- Refit :
 - the Electrical equipment
 - the rear bumper
 - the door seal on the bodywork
 - the rear seat

Reline the boot

- Check :
 - the operation of the rear lights
 - the rear door lock
 - the boot lock



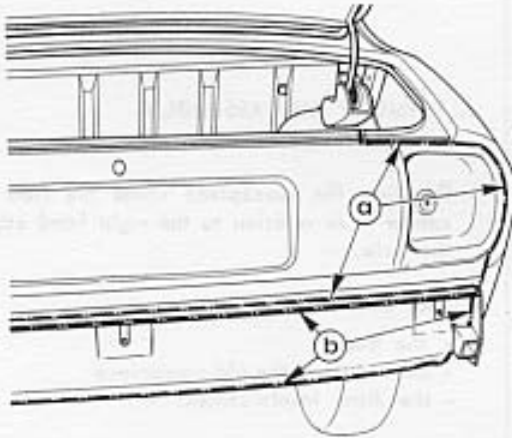
BODYWORK - REAR PART
THE REPLACEMENT OF ONE BOOT PANEL
LOWER PANEL AND LOWER CROSS PIECE (by cutting away)

11 09 21



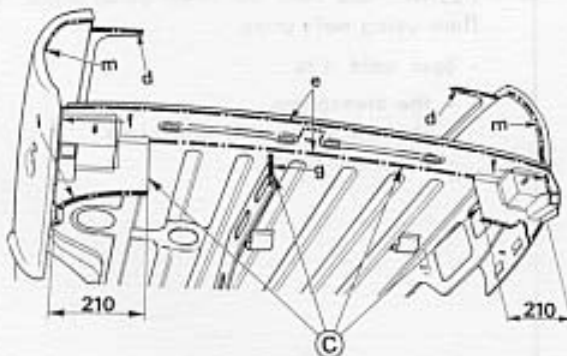
REMOVAL OF THE DETACHABLE PARTS

- Disconnect the battery
- Remove :
 - the rear lights
- Withdraw the harness into the boot
- Strip the boot
- Remove
 - the boot lock
 - the spare wheel carrier lock
 - the badge
 - the number plate trim
 - the rear bumper



INTERVENTION ON CAR

- Straighten out the damaged parts if necessary.
- Cut away :
 - (a) - the boot panel
 - (b) - the lower panel along :
 - the floor
 - the one piece side extensions
 - (c) - the rear cross piece along
 - the line 210 mm from the one piece side extensions
 - the floor
 - the floor reinforcement
- Unfasten the spot welding on :
 - (d) - the gussets
 - (e) - the boot floor
 - (f) - the side extensions
 - (g) - the floor reinforcement
 - (i) - the remainder of the crosspiece
- Smooth the welding on the edges of the wings (m).
- Smooth the other bare edges.

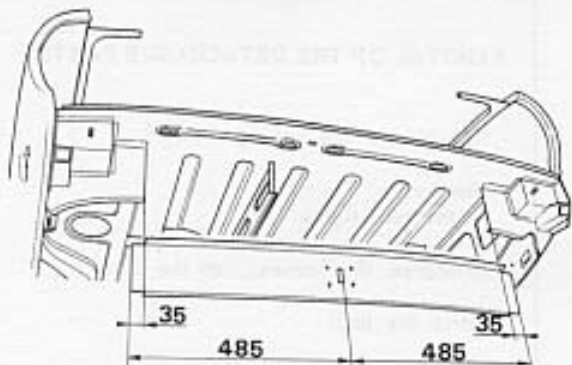


PEUGEOT

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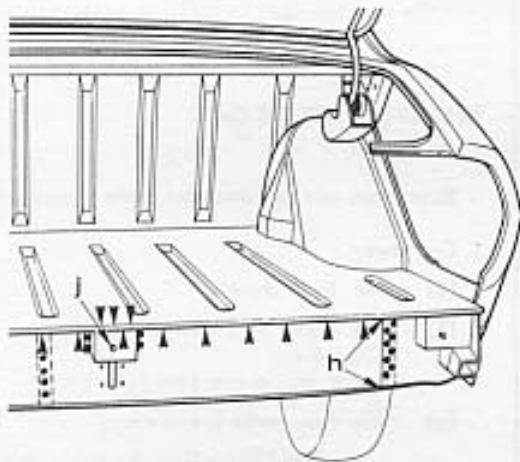
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BODYWORK - REAR PART
THE REPLACEMENT OF ONE BOOT PANEL
LOWER PANEL AND LOWER CROSSPIECE (by cutting away)



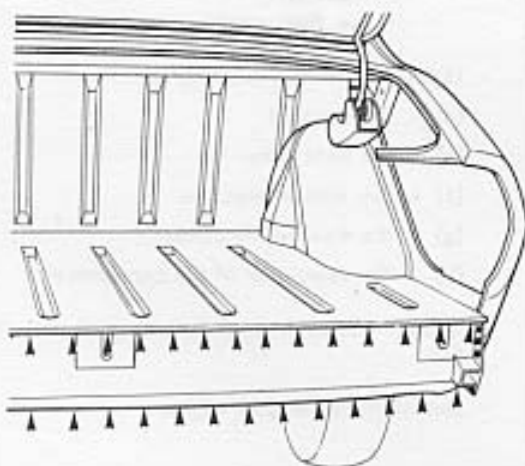
PREPARING THE NEW PANELS

- Check and touch up if necessary
- Paint the inner faces
- Cut away the extremities of the crosspiece 485 mm from the lock aperture.
- Cut away bent edges along 35 mm.
- Bare the edges to be welded.



ALINEMENT AND ASSEMBLY

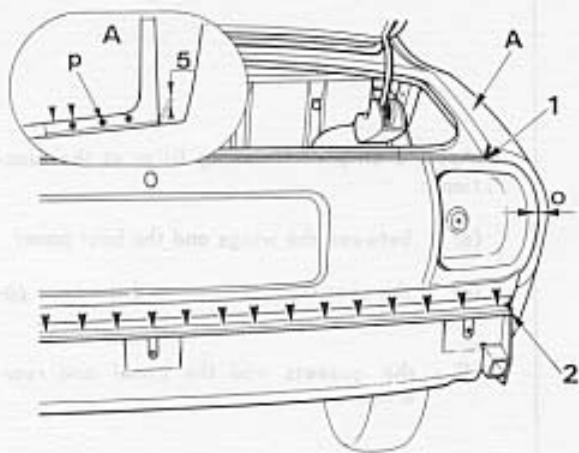
- Position the crosspiece under the floor and centre it in relation to the right hand edge of the hole.
- Spot weld it to :
 - the floor
 - the ends of the old crosspiece
 - the floor reinforcement
- Using a torch weld the ends of the crosspiece (h).
- Centre and weld the central support (j).
- Position and hold the lower panel under the floor using mole grips
 - Spot weld it to :
 - the crosspiece
 - the one piece side extensions
 - the boot floor



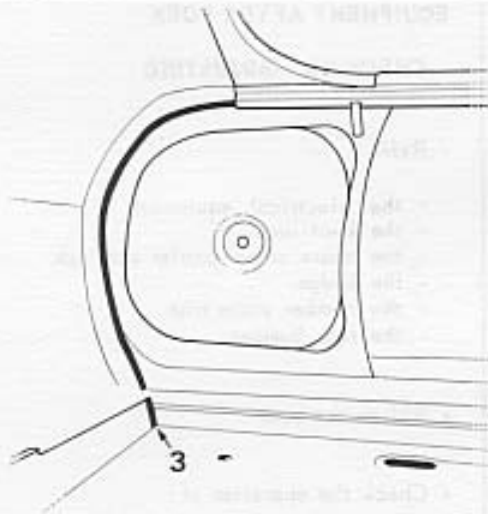
BODYWORK - REAR PART
THE REPLACEMENT OF ONE BOOT PANEL
LOWER PANEL AND LOWER CROSSPIECE (by cutting away)

11

0923

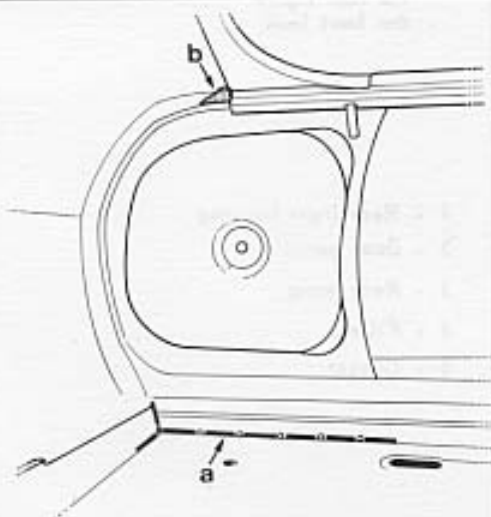


- Position and align the boot panel
- The edges must be parallel to the wings with a minimum of gap (o).
- Spot weld the panel to the boot floor



- Hold the panel 5 mm from the extremity of the rear wings (A).
- Spot weld the gusset (p)
- Using a torch weld the inside of the panel to the wings in successive lines.
- Brase (to waterproof) :
 - 1 - the upper angles of the wings
 - 2 - the lower angles of the panel
 - 3 - the rear angles of the boot

PROTECTION - SEALING



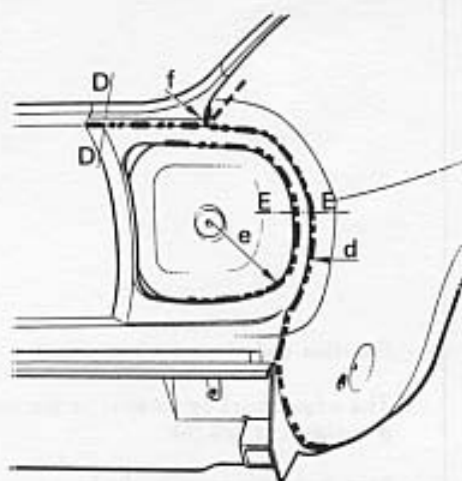
- Paint the crosspiece and the parts bared by the welding
- Apply a strip of filler (a) to the junction between the boot panel and the boot floor.
- Apply a ball of filler inside the angles of the rear wings (b).

PEUGEOT

09 24

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BODYWORK - REAR PART
THE REPLACEMENT OF ONE BOOT PANEL
LOWER PANEL AND LOWER CROSSPIECE (by cutting away)



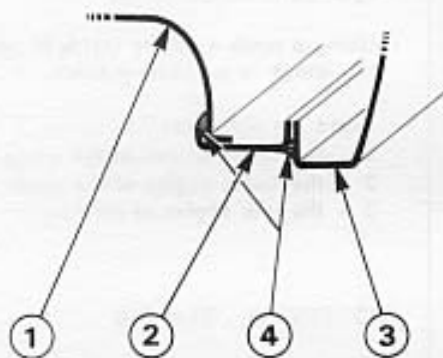
- Apply a strip of finishing filler at the junction :
 - (a) - between the wings and the boot panel
 - (e) - the rear light housing and the boot panel
 - (f) - the gussets and the panel and rear wings

EQUIPMENT AFTER WORK

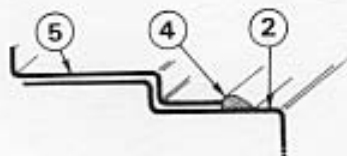
- CHECKING - ADJUSTING

- Refit
 - the electrical equipment
 - the boot lock
 - the spare wheel carrier and lock
 - the badge
 - the number plate trim
 - the rear bumper
- Reline the boot
- Check the operation of :
 - the rear lights
 - the boot lock

EE



DD



- 1 - Rear light housing
- 2 - Boot panel
- 3 - Rear wing
- 4 - Filler
- 5 - Gusset

BODYWORK - REAR PART
REPLACING THE BOOT PANEL
 (by cutting away)

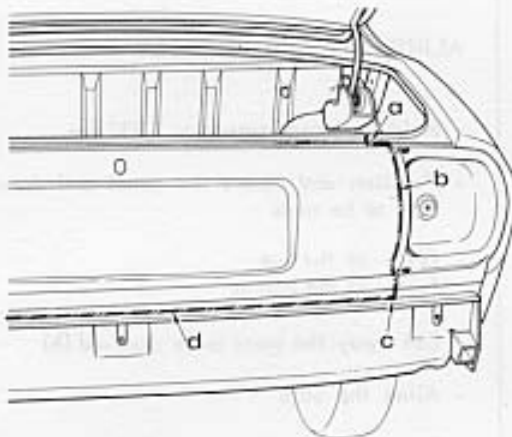
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09 31



REMOVING THE DETACHABLE PARTS

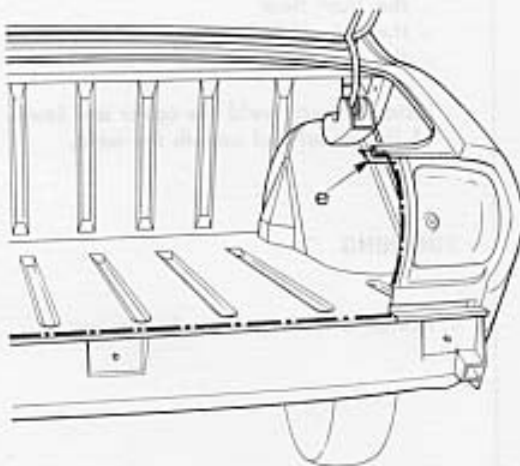
- Disconnect the battery
- Remove :
 - the rear lights
 - the side lights
- Withdraw the wiring harness into the boot
- Strip the boot
- Remove :
 - the boot lock
 - the spare wheel carrier and lock
 - the badge
 - the number plate trim
 - the rear bumper



INTERVENTION ON THE CAR

- Cut away the boot panel along :
 - (a) - up to the level of the rear light housing.
 - (b) - the inner edge of the rear light housing
 - (c) - vertically to the boot floor
 - (d) - the level of the boot floor
- Separate the spot welding
 - on the floor
 - on the rear light housing
 - on the ends of the gusset

NOTE - The cutting of the part to be removed (e) is to be realised after aligning the new panel



- Smooth the edges.

PEUGEOT

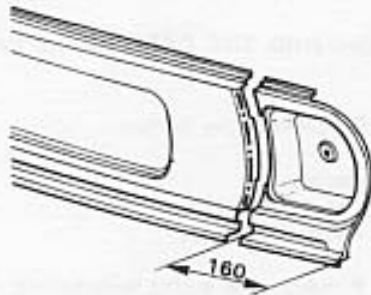
09 32

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BODYWORK - REAR PART

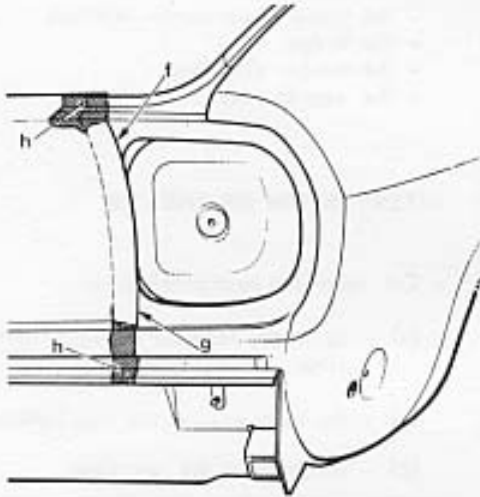
REPLACING THE BOOT PANEL

(by cutting away)



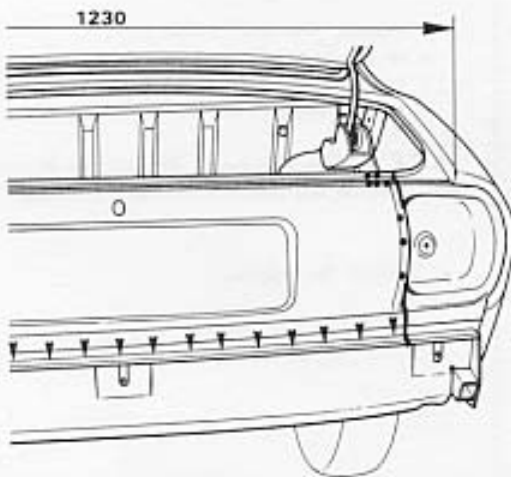
PREPARATION OF THE NEW PARTS

- Cut the panel, 160 mm from the edge, vertically across the ridges.
- Cut the rear light housings away following the form then the upper part level with this cut.
- Separate the spot welds and smooth the edges.
- Check and if necessary touch up the surface of the panel.



ALINEMENT AND ASSEMBLY

- Hold the wings spread to 1,230 mm.
- Position and centre the panel and draw the cuts to be made :
 - (f) - at the top
 - (g) - at the bottom
- Cut away the parts to be removed (h)
- Aline the cuts
- Secure the panel using mole grips
- Spot weld the panel to :
 - the boot floor
 - the rear light housings
 - the gussets
- Using a torch weld the upper and lower parts of the panel and smooth the weld.



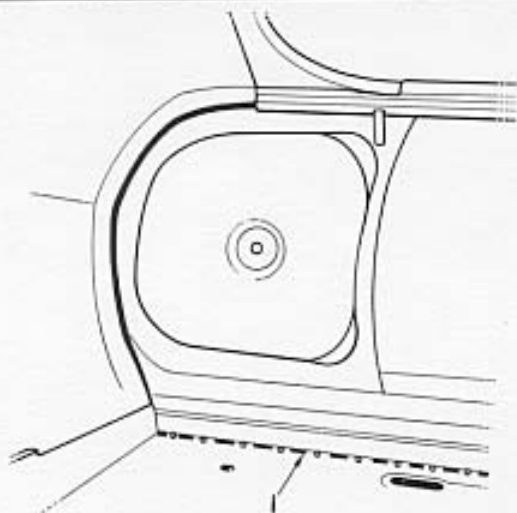
FINISHING

- Finish off the welding by tinning

BODYWORK - REAR PART
REPLACING THE BOOT PANEL (by cutting away)

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0933



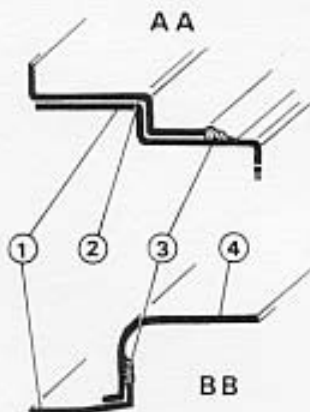
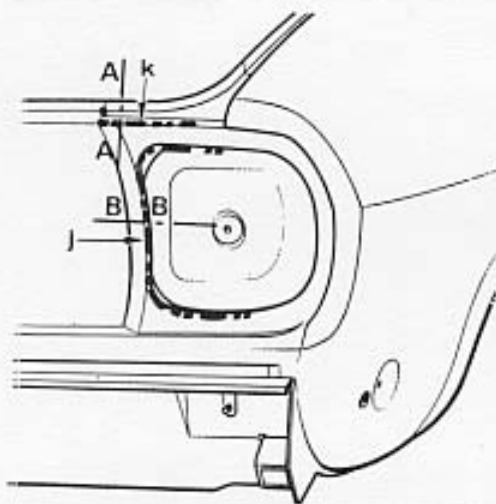
PROTECTION - SEALING

- Paint the parts bared by the welding
- Apply a strip of filler (i) at the junction between the boot panel and floor
- Apply a strip of finishing filler at the joint :
 (j) - between the rear light housing and panel
 (k) - between the gussets and the panel

EQUIPMENT AFTER WORK

- CHECKING - ADJUSTING

- Refit :
 - the electrical equipment
 - the boot lock
 - the spare wheel carrier locks
 - the badge
 - the number plate trim
 - the rear bumper
- Reline the boot
- Check the operation of :
 - the rear lights
 - the boot and spare wheel carrier locks



- 1 - Boot panel
- 2 - Gusset
- 3 - Filler
- 4 - Rear light housing

PEUGEOT

BODY BENCH
DESCRIPTION AND CHARACTERISTICS



BENCH EQUIPMENT FOR
CELETTE - MUF1 - MUF2 - EUROMUF

ENS. 128

(no longer manufactured)

- To be used only for 504 Saloons

ENS. 128 bis

(Complement for the 128 assembly)

- Usable for 504 Saloons - Convertibles - Coupés

ENS. 128-01

(New assembly)

- Usable for 504 Saloons - Convertibles - Coupés

PEUGEOT

1102

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BODY BENCH
DESCRIPTION AND CHARACTERISTICS**504 - SALOON**

ENS. 6010

ENS. 128

COMPOSITION OF THE ASSEMBLY

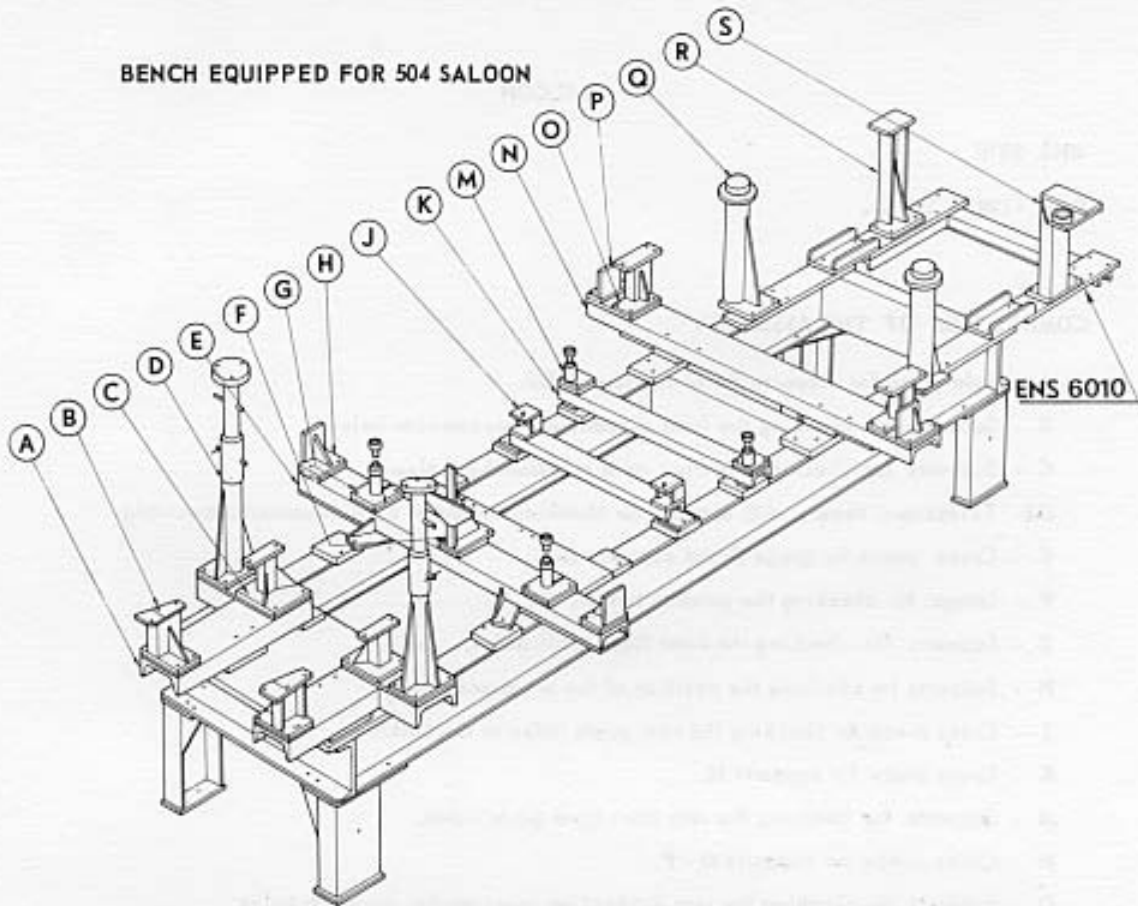
- A - Sole plate for supports B - C and towers D
- B - Supports for checking the front suspension crossmember mounting holes
- C - Supports for checking the main front crossmember mounting holes
- D - Telescopic towers for checking the upper front suspension mounting
- E - Cross piece for gauge F and supports G - H
- F - Gauge for checking the gearbox tunnel
- G - Supports for checking the front guide holes in the front floor
- H - Supports for checking the position of the one piece sides
- J - Cross piece for checking the rear bulkhead guide holes
- K - Cross piece for the supports M
- M - Supports for checking the rear guide holes of the front floor
- N - Cross piece for supports O - P
- O - Supports for checking the rear suspension crossmember mounting holes
- P - Supports for checking the position of the one piece sides
- Q - Supports for checking the rear spring housings
- R - R.H. support for the rear floor
- S - L.H. support for the rear floor with centering for the fuel filler tube.

BODY BENCH
DESCRIPTION AND CHARACTERISTICS

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11 03

BENCH EQUIPPED FOR 504 SALOON



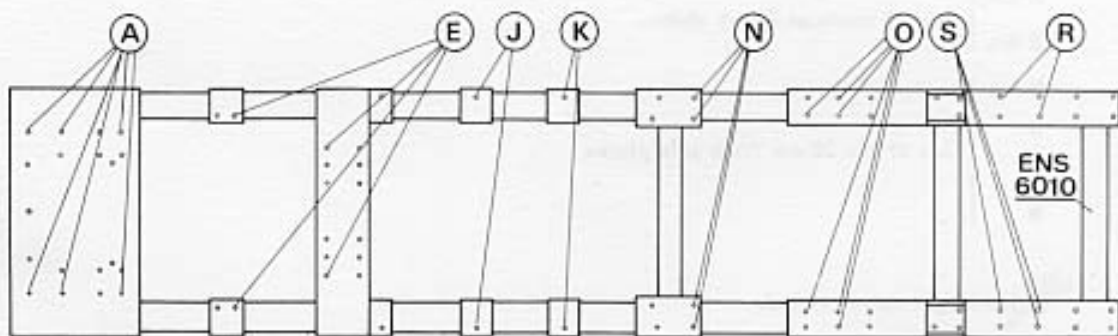
ENS. 6010 - Universal extension

Red

ENS. 128 - ABCDEFGHJKMNOPQRS

Light beige

POSITION OF THE SUPPORTS ON THE JIG



PEUGEOT

1104

11

BODY BENCH

DESCRIPTION AND CHARACTERISTICS

504 - SALOON

ENS. 6010

ENS. *128 + 128 bis

COMPOSITION OF THE ASSEMBLY

- A - Sole plate for supports B - C and towers DZ.
- B - Supports for checking the front suspension crossmember holes.
- C - Supports for checking the front main crossmember holes.
- DZ - Telescopic towers with spacers for checking the upper front suspension mounting.
- E - Cross piece for gauge F and supports G-H.
- F - Gauge for checking the gearbox tunnel.
- G - Supports for checking the front floor guide holes.
- H - Supports for checking the position of the one piece sides.
- J - Cross piece for checking the rear guide holes in the bulkhead.
- K - Cross piece for supports M.
- M - Supports for checking the rear front floor guide holes.
- N - Cross piece for supports O - P.
- O - Supports for checking the rear suspension crossmember mounting holes.
- P - Supports for checking the position of the one piece sides.
- Q - Supports for checking the rear spring housings.
- R - R.H. support for the rear floor.
- S - L.H. support for the rear floor with centering for the fuel filler tube.

A bis }
E bis } Set of fourteen 20 mm shims.

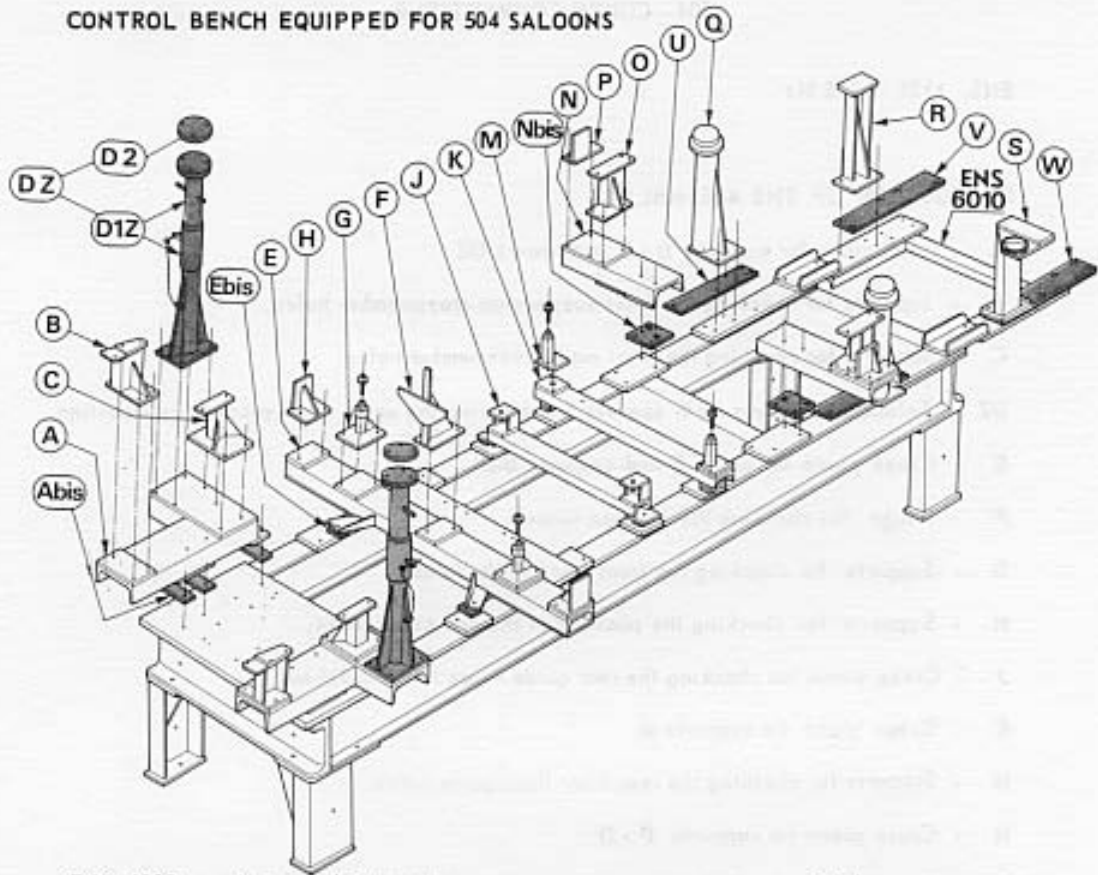
N bis }
U }
V } Set of six 20 mm thick sole plates
W }

* No longer manufactured.

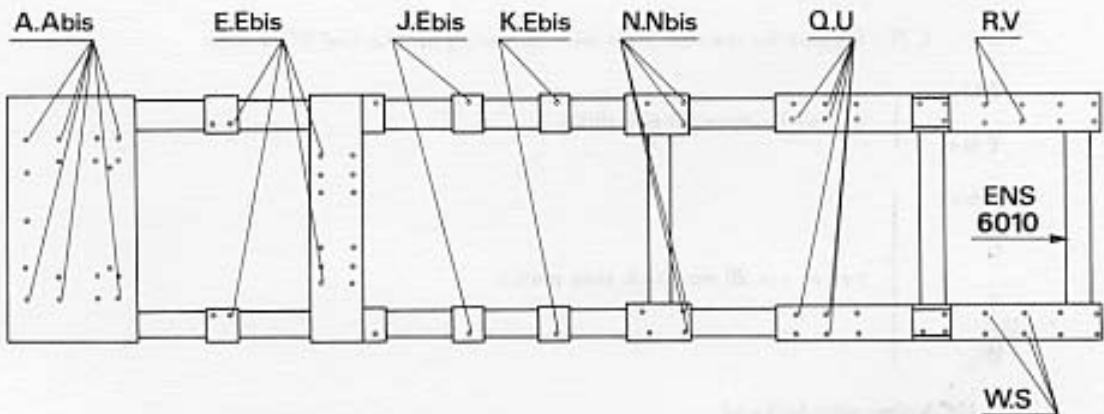
BODY BENCH
DESCRIPTION AND CHARACTERISTICS

11 11 05

CONTROL BENCH EQUIPPED FOR 504 SALOONS



- | | | |
|----------------|--|-------------|
| ENS. 6010 | - Universal Extension | Red |
| ENS. 128 | - A B C D E F G H J K M N O P Q R S | Light beige |
| ENS. 128 (bis) | - A (bis) - DZ - E (bis) - N (bis) - U V W | Light beige |



LOCATION OF THE SUPPORTS ON THE BASIC JIG

PEUGEOT

BODY BENCH DESCRIPTION AND CHARACTERISTICS

504 - COUPE CONVERTIBLE

ENS. *128 + 128 bis

COMPOSITION OF THE ASSEMBLY

- A - Sole plate for supports B - C and towers DZ
- B - Supports for checking the front suspension crossmember holes.
- C - Supports for checking the front main crossmember holes.
- DZ - Telescopic towers with spacers for checking the upper front suspension mounting.
- E - Cross piece for gauge F and supports G-H.
- F - Gauge for checking the gearbox tunnel.
- G - Supports for checking the front floor guide holes.
- H - Supports for checking the position of the one piece sides.
- J - Cross piece for checking the rear guide holes in the bulkhead.
- K - Cross piece for supports M.
- M - Supports for checking the rear front floor guide holes.
- N - Cross piece for supports P - O
- O - Supports for checking the rear suspension crossmember mounting holes.
- P - Supports for checking the position of the one piece sides.
- Q - Supports for checking the rear spring housings.
- R - R.H. support for the rear floor.
- S - L.H. support for the rear floor with centering for the fuel filler tube.

- | | | |
|-------|---|-------------------------------------|
| A bis | } | set of fourteen 20 mm shims |
| E bis | | |
| N bis | } | set of six 20 mm thick sole plates. |
| U | | |
| V | | |
| W | | |

* No longer manufactured.

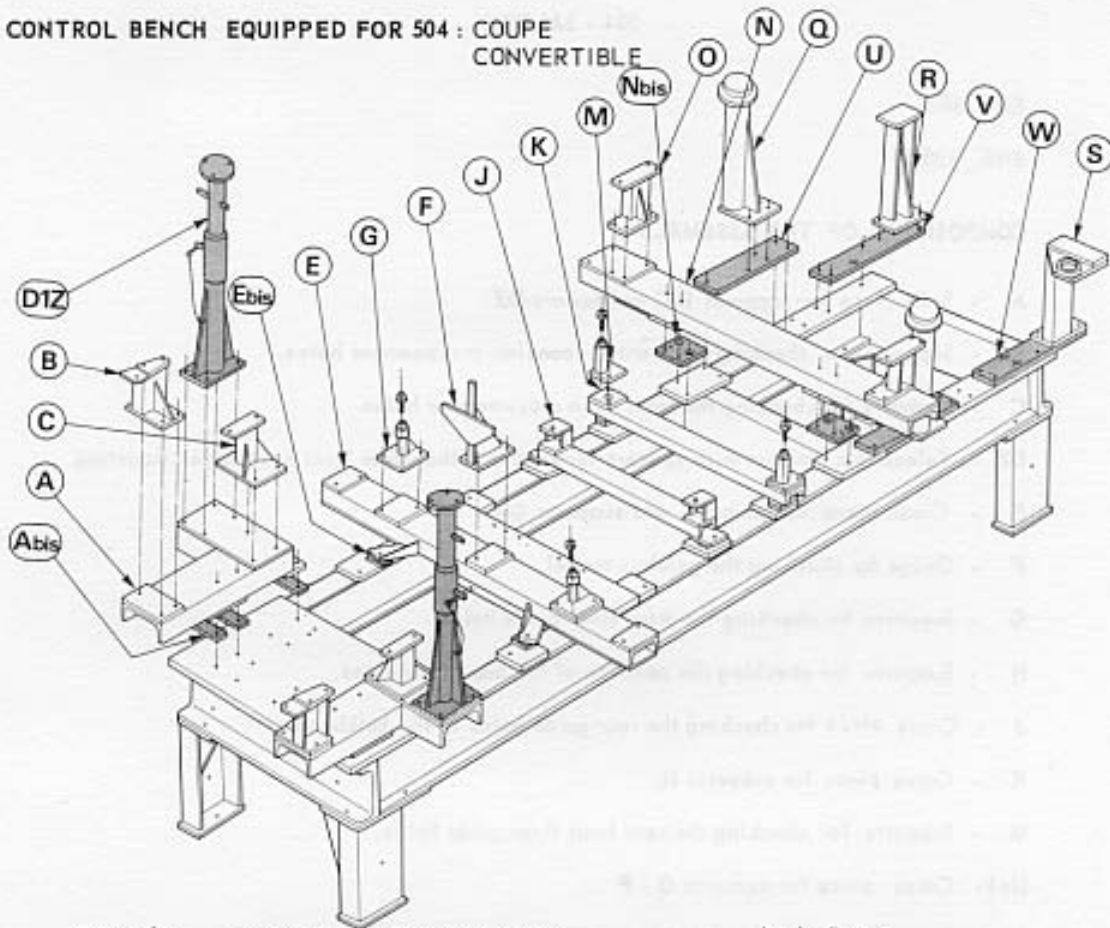
BODY BENCH

DESCRIPTION AND CHARACTERISTICS

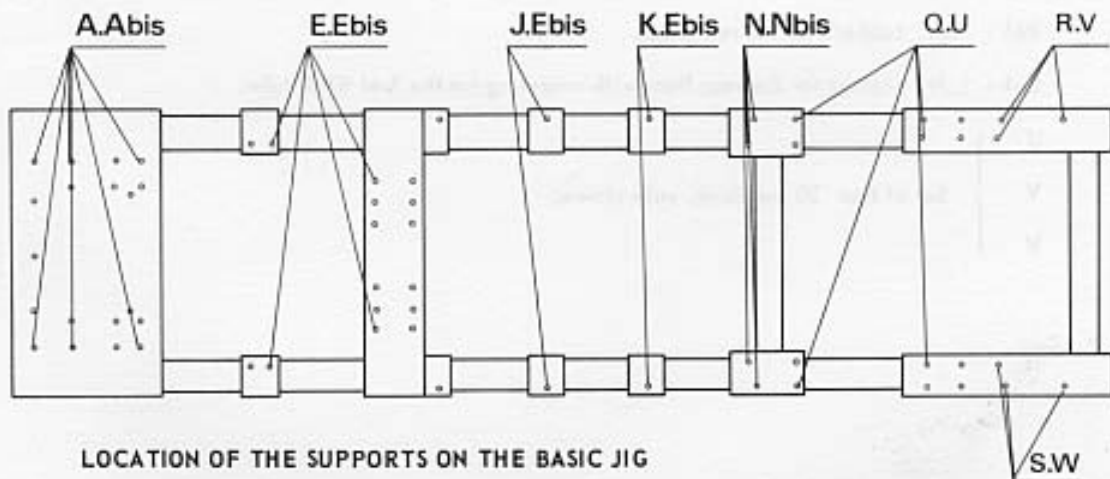
11

1107

CONTROL BENCH EQUIPPED FOR 504 : COUPE
CONVERTIBLE



ENS. 128 - A B C E F G J K M N O Q R S Light Beige
ENS. 128 bis - A bis - D1Z - E bis - N bis - U - V - W Light Beige



LOCATION OF THE SUPPORTS ON THE BASIC JIG

PEUGEOT

1108

11

BODY BENCH
DESCRIPTION AND CHARACTERISTICS

504 - SALOON

ENS. 6010

ENS. 128.01

COMPOSITION OF THE ASSEMBLY

- A - Sole plate for supports B-C and towers DZ
- B - Supports for checking the front suspension crossmember holes.
- C - Supports for checking the front main crossmember holes.
- DZ - Telescopic towers with spacers for checking the upper front suspension mounting
- E - Cross piece for gauge F and supports G-H.
- F - Gauge for checking the gearbox tunnel.
- G - Supports for checking the front floor guide holes.
- H - Supports for checking the position of the one piece sides.
- J - Cross piece for checking the rear guide holes in the bulkhead.
- K - Cross piece for supports M.
- M - Supports for checking the rear front floor guide holes.
- No1 - Cross piece for supports O - P
- O - Supports for checking the rear suspension crossmember mounting holes.
- P - Supports for checking the position of the one piece sides.
- Qo1 - Supports for checking the rear spring housings.
- Ro1 - R.H. support for the rear floor.
- Sp1 - L.H. support for the rear floor with centering for the fuel filler tube.
- U }
V } Set of four 20 mm thick, sole plates.
W }

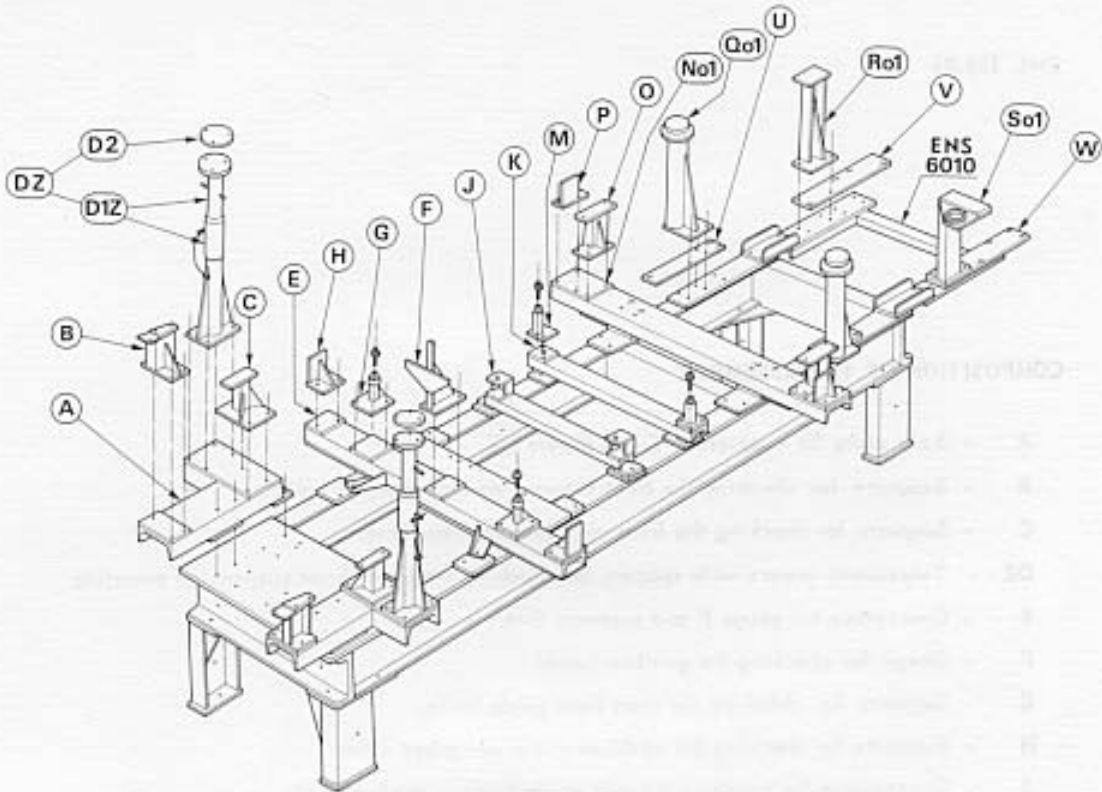
BODY BENCH

DESCRIPTION AND CHARACTERISTICS

11

1109

CONTROL BENCH EQUIPPED FOR 504 SALOON



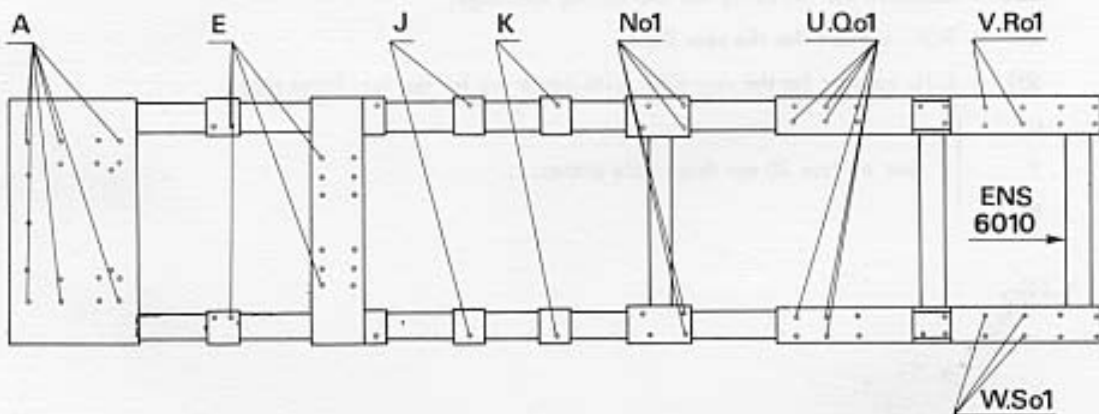
ENS. 6010 - Universal extension

Red

ENS. 128.01- A-B-C-DZ-E-F-G-H-J-K-M-NO1-O-P-QO1-RO1-SO1-U-V-W-

Dark Beige

LOCATION OF THE SUPPORTS ON THE BASIC JIG



PEUGEOT



BODY BENCH
DESCRIPTION AND CHARACTERISTICS

504 - COUPE - CONVERTIBLE

ENS. 128.01

COMPOSITION OF THE ASSEMBLY

- A - Sole plate for supports B-C and towers DZ.
- B - Supports for checking the front suspension crossmember holes.
- C - Supports for checking the front main crossmember holes.
- DZ - Telescopic towers with spacers for checking the upper front suspension mounting
- E - Crosspiece for gauge F and supports G-H.
- F - Gauge for checking the gearbox tunnel.
- G - Supports for checking the front floor guide holes.
- H - Supports for checking the position of the one piece sides.
- J - Crosspiece for checking the rear guide holes in the bulkhead.
- K - Crosspiece for supports M.
- M - Supports for checking the rear front floor guide holes.
- N01 - Crosspiece for supports O - P.
- O - Supports for checking the rear suspension crossmember mounting holes.
- P - Supports for checking the position of the one piece sides.
- Q01 - Supports for checking the rear spring housings.
- R01 - R.H. support for the rear floor.
- S01 - L.H. support for the rear floor with centering for the fuel filler tube.
- U
- Y | Set of four 20 mm thick sole plates.
- W

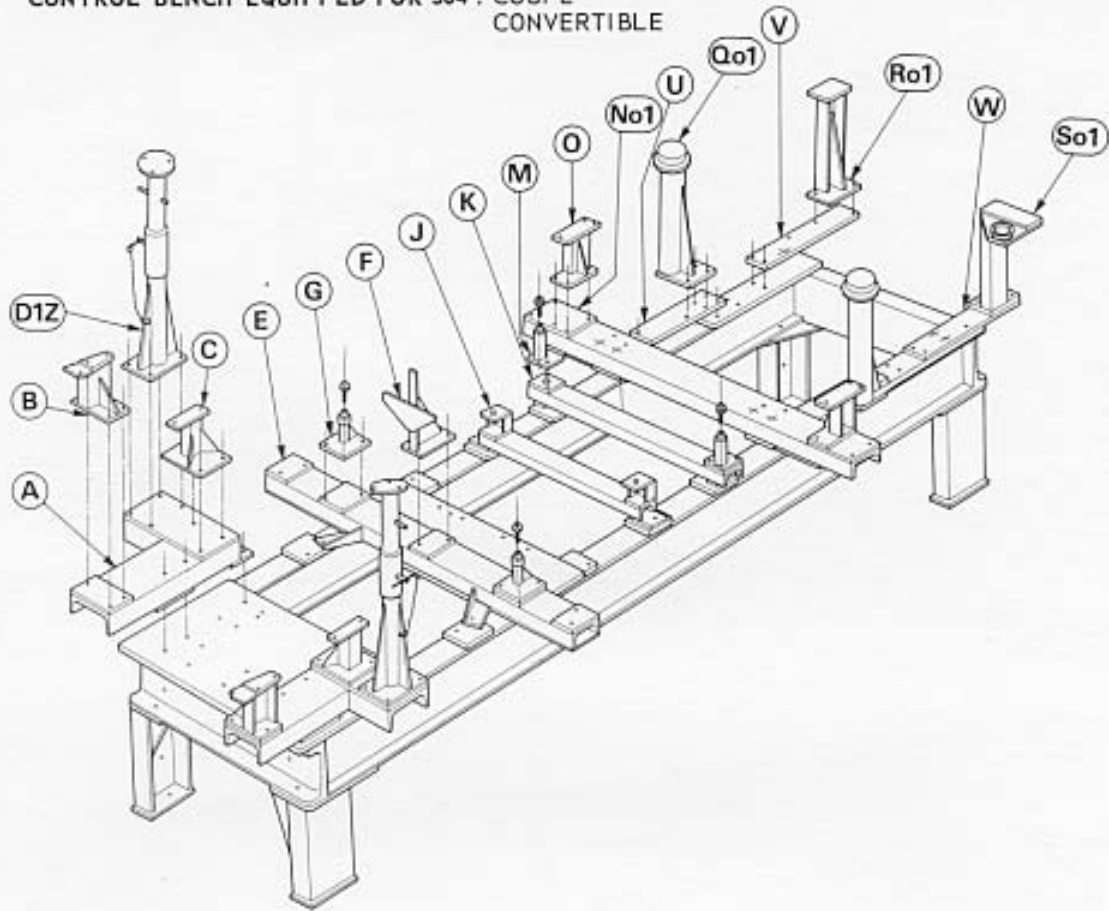
BODY BENCH

DESCRIPTION AND CHARACTERISTICS

11

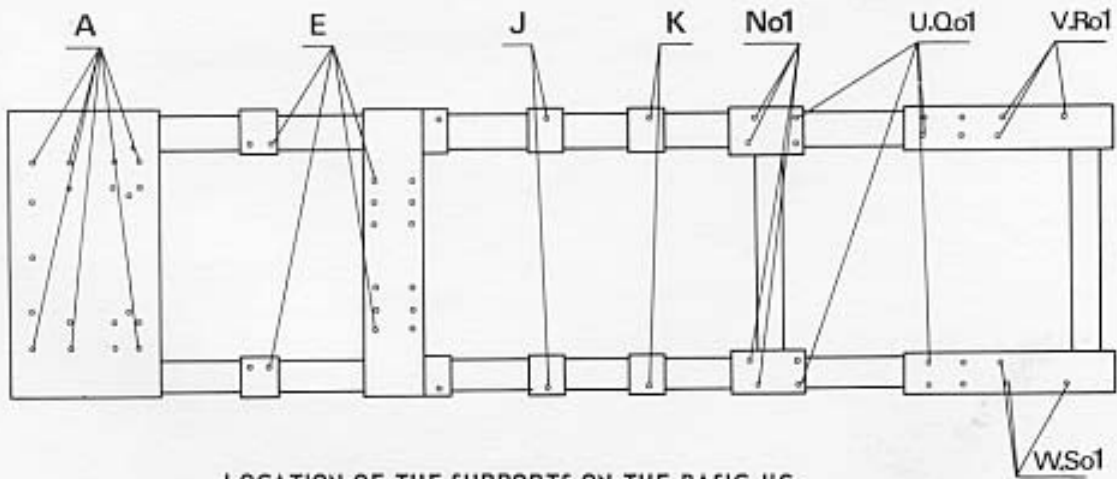


CONTROL BENCH EQUIPPED FOR 504 : COUPE
CONVERTIBLE



ENS. 128.01 - A-B-C-D1Z-E-F-G-K-M-N01-O-Q01-R01-S01-U-V-W

Dark Beige

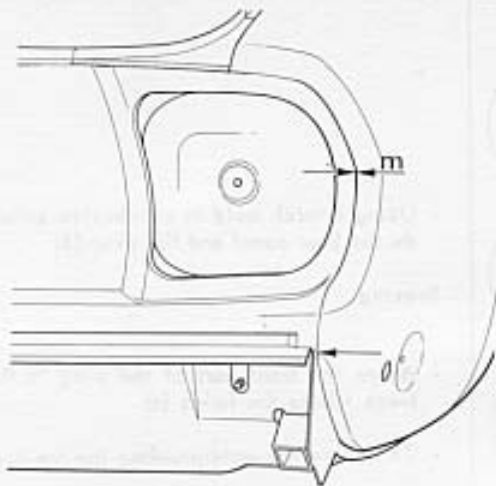


LOCATION OF THE SUPPORTS ON THE BASIC JIG

PEUGEOT

BODYWORK - REAR PART
 REPLACING A WING
 (by cutting away)

11 0913

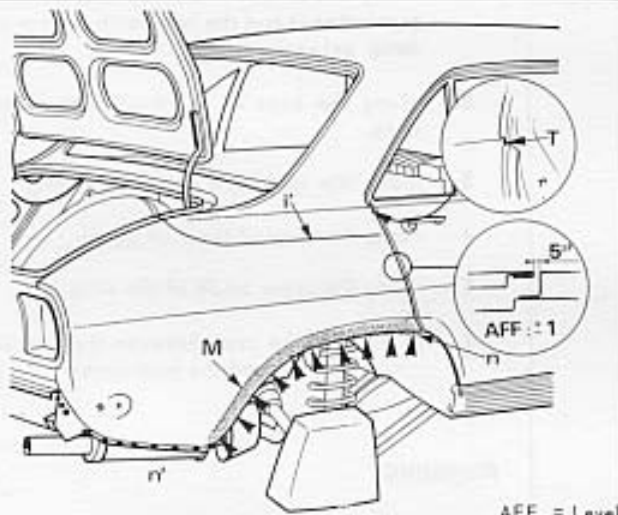


- (m) - the angle of the boot panel and the wing must be at the same level with edges as close together as possible.
- Remove and adjust the panel where necessary
- Reposition it and trace the definite line for cutting (i').

Adjusting, and welding of the wing

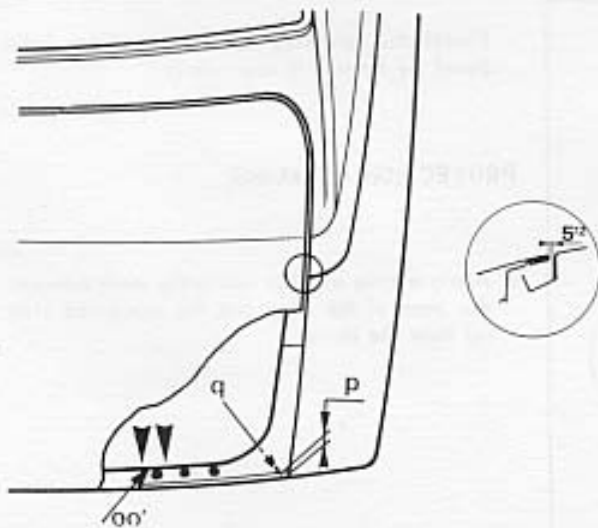
- With the wing held in position weld the upper part using a torch.
- Smooth down the joint.

NOTE - To avoid splitting when raising the wing for smoothing, drill a 4 mm hole at (T).



- Before engaging the bottom edge of the wing, apply a strip of filler (M) for spot welding along the inside of the wheel arch.
- The door adjusted with a gap of $5 \text{ mm} \pm 2$ check the level of the wing $0 \text{ mm} \pm 1$
- (n) - spot weld at the base of the wing
- Adjust the position of the wing to obtain a gap of 5 ± 2 at the boot lid.
- (o) - spot weld the extremity of the gusset.
- Hold the boot panel 5 mm inside the extremity of the wing (p).
- (q) - spot weld on the inside.

AFF. = Level



Spot welding :

- (o') - the gusset to boot panel
- (n') - the lower part of the wing to the one piece side.

PEUGEOT

1972 WIRING DIAGRAM

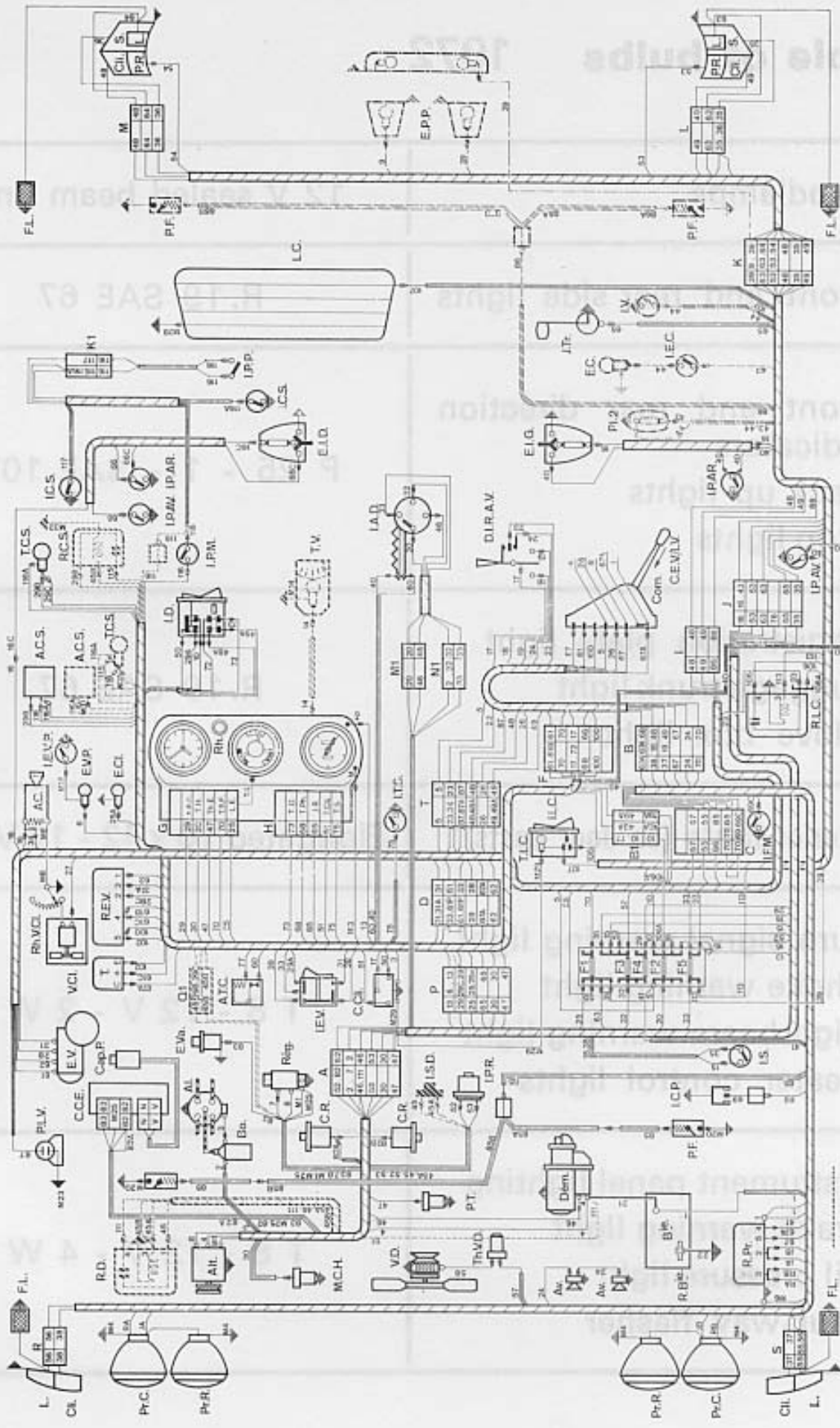


Table of bulbs 1972

Headlamps	12 V sealed beam units
Front and rear side lights	R.19 SAE 67
Front and rear direction indicators Back up lights Stop lights	P 25 - 1 - SAE 1073
Registration plate light Luggage trunk light Glove box light	R.19 SAE 67
Interior lights (on door posts)	Elongated 10×42 - 12 V-7 W
Turn signal warning light Choke warning light High beam warning light Heater control lights	T 8 - 12 V - 2 W
Instrument panel lighting Brake warning light Oil pressure light Four-way flasher	T 8 - 12 V - 4 W

1972 WIRING IDENTIFICATION

A to T	Connectors	I.C.P.	Pressure drop indicator	P.T.	Temperature gauge transmitter
A.C.	Cigarette lighter	I.C.S.	Safety belt warning system switch	R. Bie	Battery master switch
A.C.S.	Safety belt warning system	I.E.C.	Luggage trunk light switch	RC.S.	Safety belt relay
Al.	Distributor with condenser	I.E.V.	2 speed windshield wiper switch	R.D.	Starter relay
Alt.	Alternator	I.E.V.P.	Glove box light switch	R.E.V.	Windshield wiper relay
A.T.C.	Buzzer	I.L.C.	Rear window heater switch	R.L.C.	Rear window heater relay
Av.	Horns	I.F.M.	Hand brake switch	R.Pr.	Headlamp relay
Bie.	Battery	I.P.AV.	Front door operated switch	Reg.	Regulator
Bo.	Ignition coil	I.P.AR.	Rear door operated switch	Rh.	Instrument lighting rheostat
Cap.P.	Governor	I.P.P.	Passenger seat switch (safety belt)	Rh.V.CL.	Heater fan rheostat
C.C.E.	Electrovalve control box	I.P.M.	Neutral position switch	S.	Stop
C.Cli.	Flasher unit	I.P.R.	Back up light switch	T.	Temporisor
CEV/LV	Windshield wiper/washer control	I.S.	Stop light switch	T.Cli.	Turn signal warning light
Cli.	Flashing indicator	I.S.D.	Inhibitor switch	T.C.S.	Safety belt warning light
Com.	Lighting commutator	I.T.S.	Choke warning light	T.D.	4 way flasher warning light
C.R.	Idling cutout	I.V.	Tailgate switch (station wagon)	T.H.	Oil pressure warning light
Dém.	Starter (solenoid type)	J.R.	Gauge receiver	T.L.	Marker lights warning light
DIRAV	Horn and flasher control	J.Tr.	Gauge transmitter	T.L.C.	Rear window heater indicator
E.C.	Luggage boot light	L.	Parking lights	T.ph.	High beam warning light
E.Cl.	Heater control lighting	L.C.	Heated rear window	T.S.	Choke warning light
E.1.D.	Right hand interior light	L.E.	Dashboard lights	T.S.D.	Four-way flasher warning light
E.1.G.	Left hand interior light	M.	Instrument panel earth	T.S.F.	Brake safety warning light
E.P.P.	Registration plate light	M.C.H.	Oil pressure switch	Th.E.	Water temperature warning light
E.V.	2 speed windshield wiper	P.F.	Brake wear warning pad	T.V.	Gear shift pattern
E.Va	Electrovalve	P.L.2.	Rear roof light (station wagon)	Th.V.D.	Self disengaging fan thermoswitch
E.V.P.	Glove box light	P.L.V.	Windshield washer pump	V.Cl.	Heater fan
F.1.	5 amp. Fuse	P.R.	Reverse light	V.D.	Self-disengaging fan
F.2.	15 amp. Fuse	Pr.	Headlamp	+ a.c.	Live after contact
F.3.	10 amp. Fuse	PR.C.	Dipped headlamps	+ P.	Live
F.4.	10 amp. Fuse	PR.H.	Halogen headlamps		
F.5.	10 amp. Fuse				
F.L.	Side Marker Lights				
I.A.D.	Ignition/starter switch				
I.D.	Four-way flasher switch				

1973 WIRING DIAGRAM

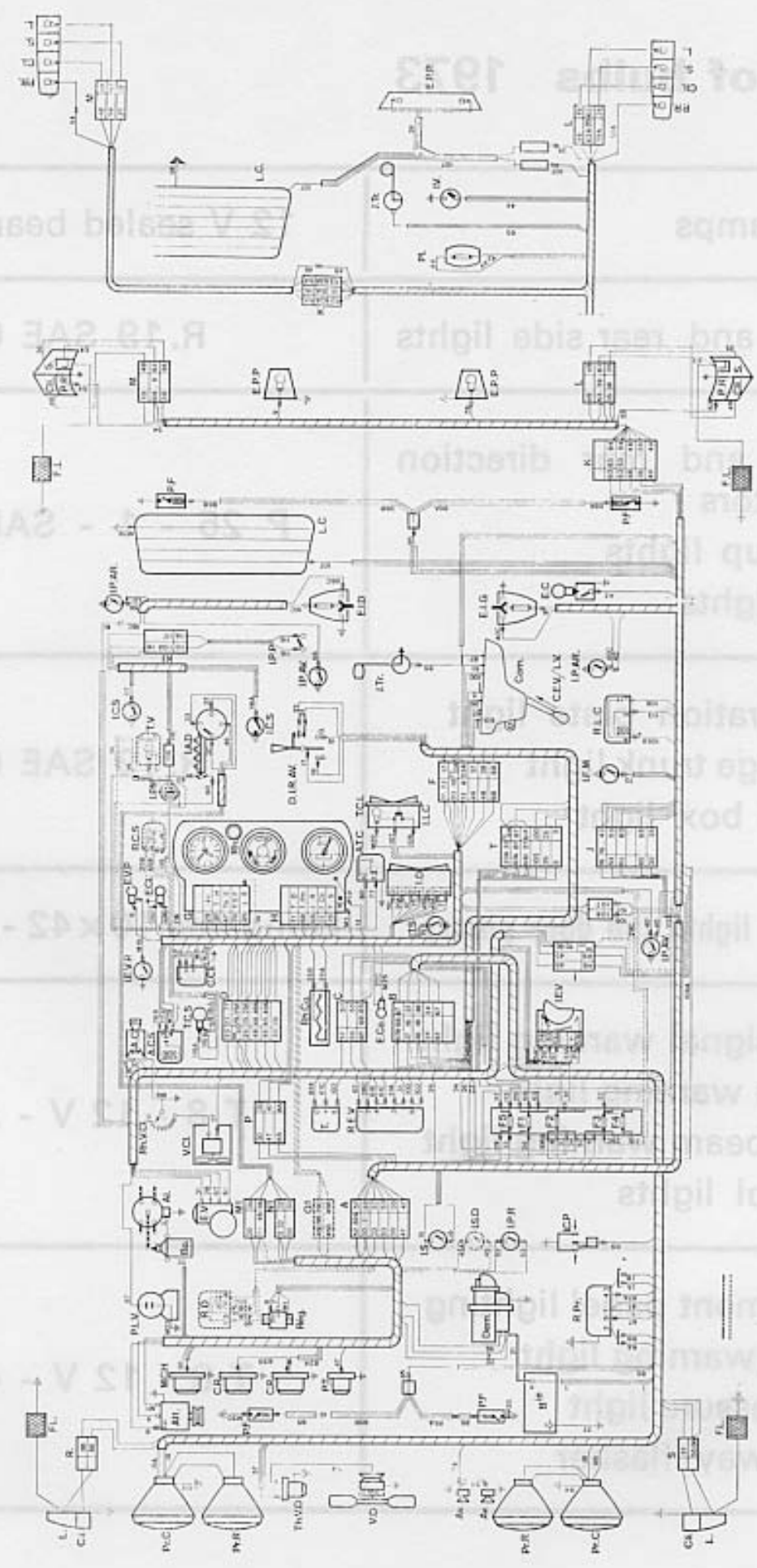


Table of bulbs 1973

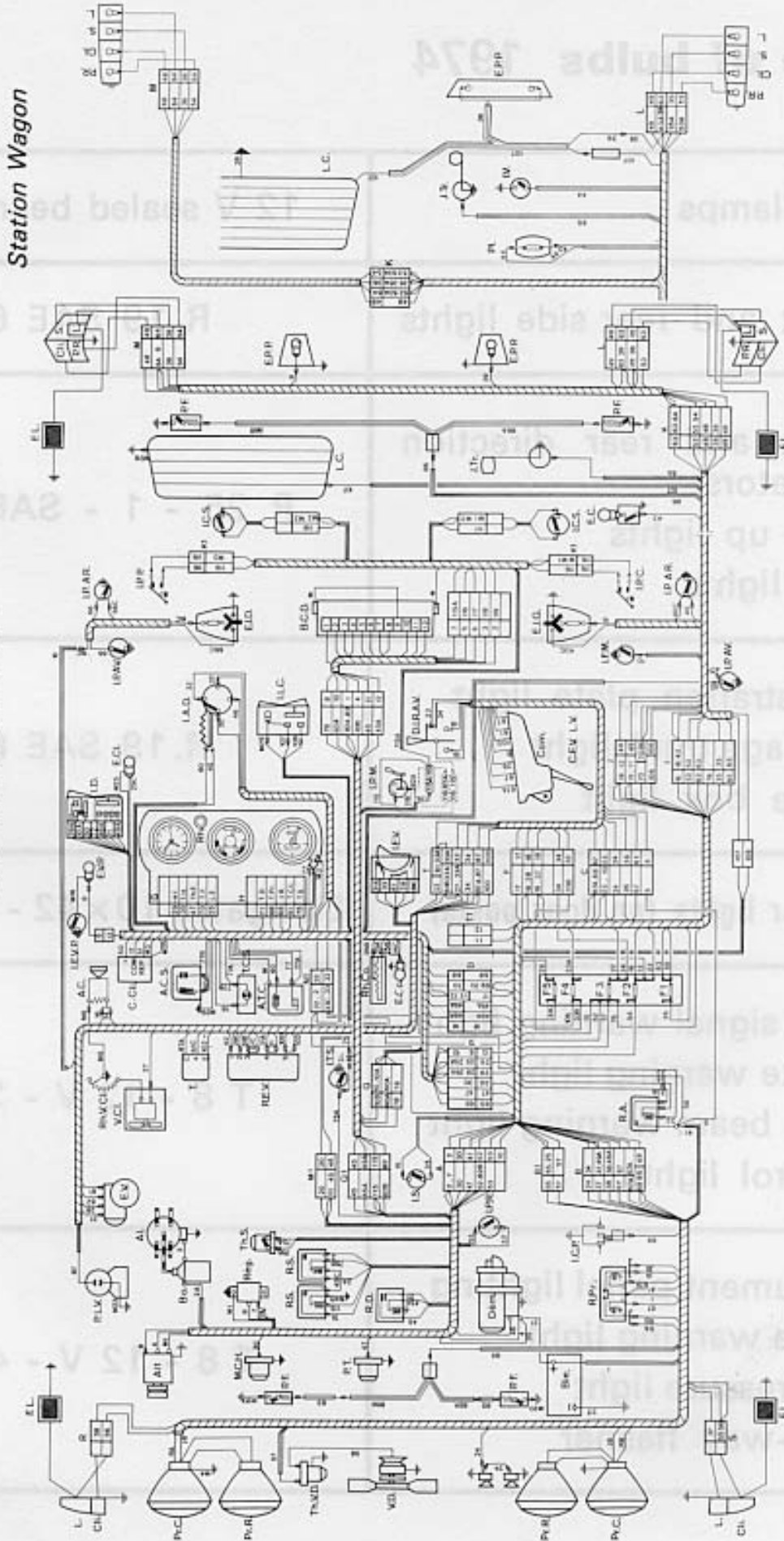
Headlamps	12 V sealed beam units
Front and rear side lights	R.19 SAE 67
Front and rear direction indicators Back up lights Stop lights	P 25 - 1 - SAE 1073
Registration plate light Luggage trunk light Glove box light	R.19 SAE 67
Interior lights (on door posts)	Elongated 10×42 - 12 V-7 W
Turn signal warning light Choke warning light High beam warning light Control lights	T 8 - 12 V - 2 W
Instrument panel lighting Brake warning light Oil pressure light Four-way flasher	T 8 - 12 V - 4 W

1973 WIRING IDENTIFICATION

A to T	Connectors	I.C.P.	Pressure drop indicator	P. T.	Temperature gauge transmitter
A.C.	Cigarette lighter	I.C.S.	Safety belt warning system switch	R. Bie	Battery master switch
A.C.S.	Safety belt warning system	I.E.C.	Luggage trunk light switch	R.C.S.	Safety belt relay
Al.	Distributor with condenser	I.E.V.	2 speed windshield wiper switch	R.D.	Starter relay
Alt.	Alternator	I.E.V.P.	Glove box light switch	R.E.V.	Windshield wiper relay
A.T.C.	Buzzer	I.L.C.	Rear window heater switch	R.L.C.	Rear window heater relay
Av.	Horns	I.F.M.	Hand brake switch	R.Pr.	Headlamp relay
Bie.	Battery	I.P.AV.	Front door operated switch	Reg.	Regulator
Bo.	Ignition coil	I.P.AR.	Rear door operated switch	Rh.	Instrument lighting rheostat
Cap.P.	Governor	I.P.P.	Passenger seat switch (safety belt)	Rh.V.CL.	Heater fan rheostat
C.C.E.	Electrovalve control box	I.P.M.	Neutral position switch	S.	Stop
C.Cli.	Flasher unit	I.P.R.	Back up light switch	T.	Temporisor
CEV/LV	Windshield wiper/washer control	I.S.	Stop light switch	T.Cli.	Turn signal warning light
Cli.	Flashing indicator	I.S.D.	Starting safety switch	T.C.S.	Safety belt warning light
Com.	Lighting commutator	I.T.S.	Choke warning light	T.D.	4 way flasher warning light
C.R.	Idling cutout	I.V.	Tailgate switch (station wagon)	T.H.	Oil pressure warning light
Dém.	Starter (solenoid type)	J.R.	Gauge receiver	T.L.	Marker lights warning light
DIRAV	Horn and flasher control	J.Tr.	Gauge transmitter	T.L.C.	Rear window heater indicator
E.C.	Luggage boot light	L.	Parking lights	T.ph.	High beam warning light
E.Cl.	Heater control lighting	L.C.	Heated rear window	T.S.	Choke warning light
E.1.D.	Right hand interior light	L.E.	Dashboard lights	T.S.D.	Four-way flasher warning light
E.1.G.	Left hand interior light	M.	Instrument panel earth	T.S.F.	Brake safety warning light
E.P.P.	Registration plate light	M.C.H.	Oil pressure switch	Th.E.	Water temperature warning light
E.V.	2 speed windshield wiper	P.F.	Brake wear warning pad	T.V.	Gear shift pattern
E.Va	Electrovalve	P.L.2.	Rear roof light (station wagon)	Th.V.D.	Self disengaging fan thermoswitch
E.V.P.	Glove box light	P.L.V.	Windshield washer pump	V.Cl.	Heater fan
F.1.	5 amp. Fuse	P.R.	Reverse light	V.D.	Self-disengaging fan
F.2.	15 amp. Fuse	Pr.	Headlamp	+ a.c.	Live after contact
F.3.	10 amp. Fuse	PR.C.	Dipped headlamps	+ P.	Live
F.4.	10 amp. Fuse	PR.H.	Halogen headlamps		
F.5.	10 amp. Fuse				
F.L.	Side Marker Lights				
I.A.D.	Ignition/starter switch				
I.D.	Four-way flasher switch				

1974

Standard transmission

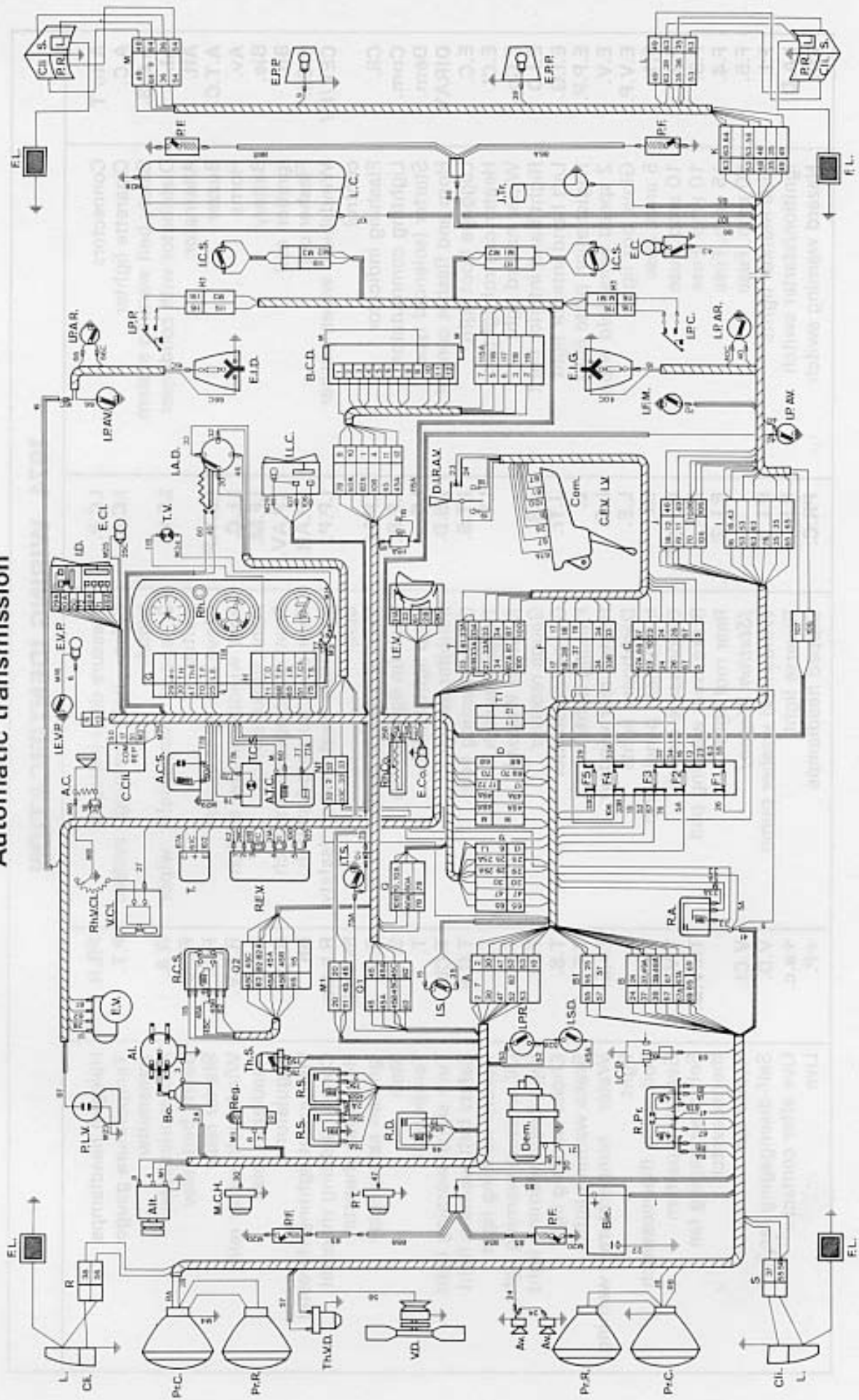


Station Wagon

Table of bulbs 1974

Headlamps	12 V sealed beam units
Front and rear side lights	R.19 SAE 67
Front and rear direction indicators Back up lights Stop lights	P 25 - 1 - SAE 1073
Registration plate light Luggage trunk light Glove box light	R.19 SAE 67
Interior lights (on door posts)	Elongated 10×42 - 12 V-7 W
Turn signal warning light Choke warning light High beam warning light Control lights	T 8 - 12 V - 2 W
Instrument panel lighting Brake warning light Oil pressure light Four-way flasher	T 8 - 12 V - 4 W

1974
Automatic transmission



1974 WIRING IDENTIFICATION

A to T	Connectors	I.C.P.	Pressure drop indicator	PR.R.	Halogen headlamps
A.C.	Cigarette lighter	I.C.S.	Safety belt warning system switch	P.T.	Temperature gauge transmitter
A.C.S.	Safety belt warning system Distributor with condenser Alternator	I.E.V.	2 speed windshield wiper switch	R.A.	Accessories relay
Al.	Buzzer	I.E.V.P.	Glove box light switch	R.C.S.	Safety belt relay
A.T.C.	Horns	I.L.C.	Rear window heater switch	R.D.	Starter relay
Av.	Battery	I.F.M.	Hand brake switch	R.E.V.	Windshield wiper relay
Bie.	Ignition coil	I.P.AV.	Front door operated switch	R.Pr.	Headlamp relay
Bo.	Flasher unit	I.P.AR.	Rear door operated switch	Reg.	Regulator
C.Cli.	Windshield wiper/washer control	I.P.P.	Passenger seat switch (safety belt)	R.h.Co.	Instrument lighting rheostat
CEV/LV	Flashing indicator	I.P.M.	Neutral position switch	Rh.V.Cl.	Control lighting rheostat
Cli.	Lighting commutator	I.P.R.	Back up light switch	R.S.	Heater fan rheostat
Com.	Starter (solenoid type)	I.S.	Stop light switch	S.	Ignition safety relay
Dem.	Horn and flasher control	I.S.D.	Inhibitor switch	T.	Stop
DIRAV	Luggage boot light	I.T.S.	Choke warning light	T.Cli.	Temporisor
E.C.	Heater control lighting	I.V.	Tailgate switch	T.C.S.	Turn signal warning light
E.Cl.	Wiper hazard light	J.R.	Gauge receiver	T.D.	Safety belt warning light
E.Co.	Right hand interior light	J.Tr.	Gauge transmitter	T.H.	Hazard warning light
E.I.D.	Left hand interior light	L.	Parking lights	T.Pr.	Oil pressure warning light
E.I.G.	Registration plate light	L.C.	Heated rear window	T.S.	High beam warning light
E.P.P.	2 speed windshield wiper	LE.	Dashboard lights	T.F.	Choke warning light
E.V.	Glove box light	M.	Instrument panel earth	Th.E.	Brake warning light
E.V.P.	5 amp. Fuse	M.C.H.	Oil pressure switch	Th.S.	Water temperature warning light
F.1.	10 amp. Fuse	P.F.	Brake wear warning pad	Th.V.	Coil safety thermostat
F.2.	10 amp. Fuse	P.L.2.	Rear roof light	Th.V.D.	Gear shift pattern
F.3.	15 amp. Fuse	P.L.V.	(Station Wagon)	V.Cl.	Self disengaging fan
F.4.	10 amp. Fuse	P.R.	Windshield washer pump	V.D.	Heater fan
F.5.	Side marker lights	PR.C.	Reverse light	+a.c.	Self-disengaging fan
F.L.	Ignition/starter switch		Dipped headlamps	+P.	Live after contact
I.A.D.	Hazard warning switch				Live

Standard transmission

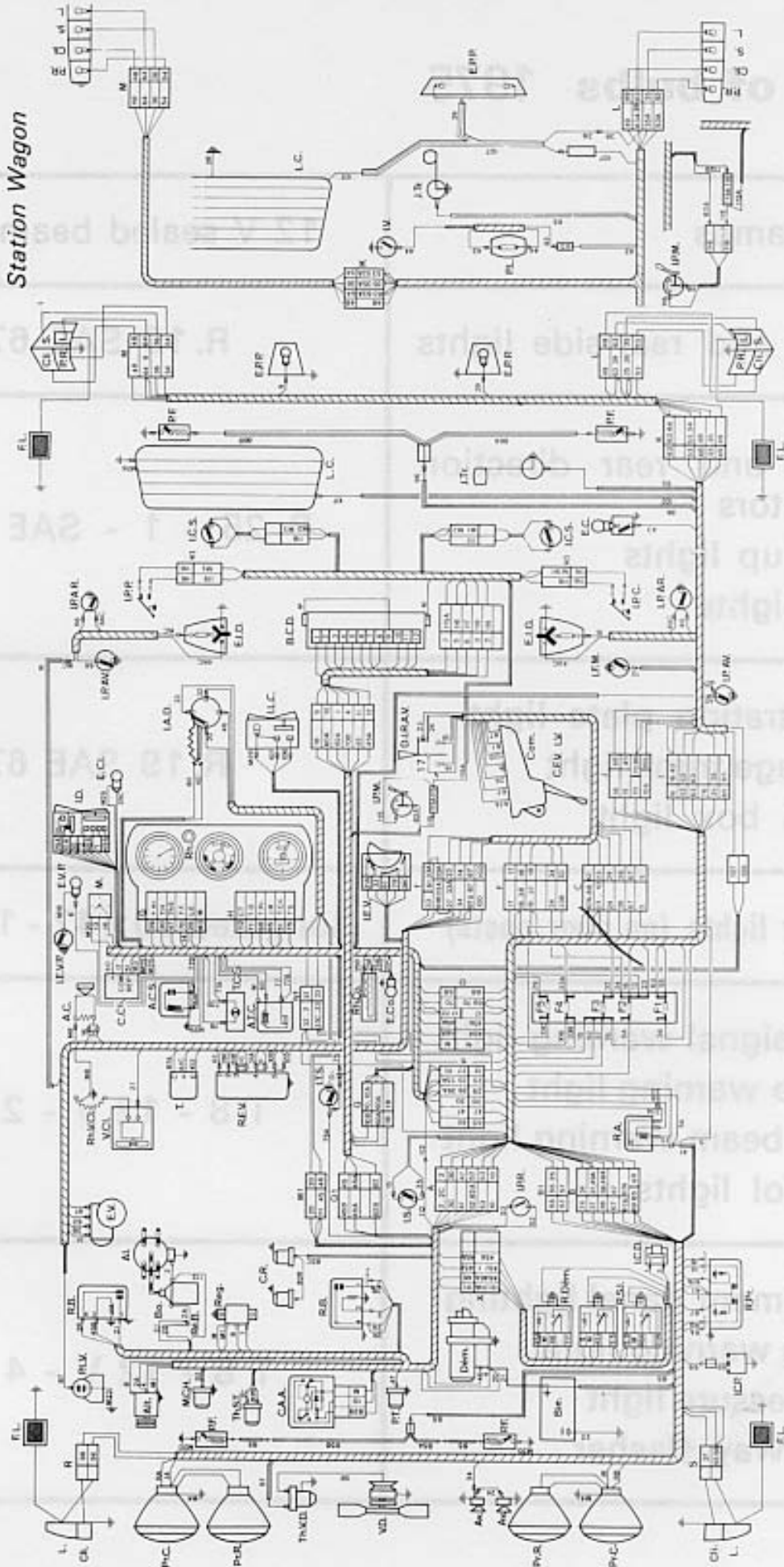
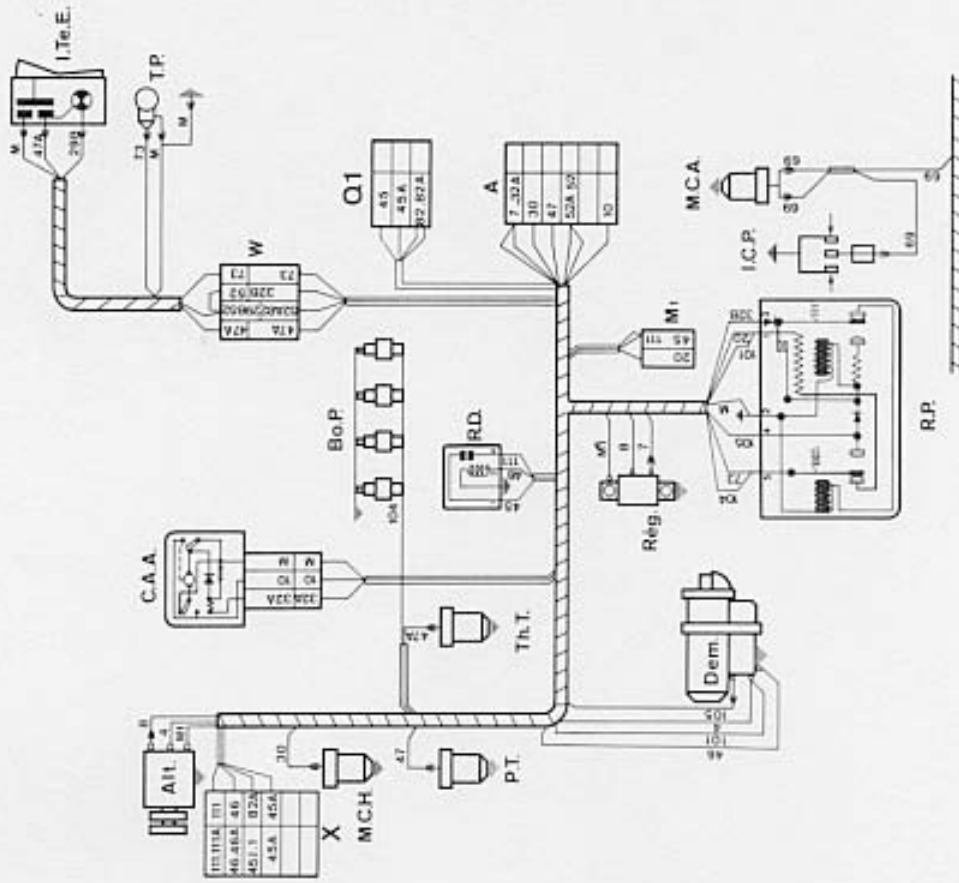


Table of bulbs 1975

Headlamps	12 V sealed beam units
Front and rear side lights	R.19 SAE 67
Front and rear direction indicators Back up lights Stop lights	P 25 - 1 - SAE 1073
Registration plate light Luggage trunk light Glove box light	R.19 SAE 67
Interior lights (on door posts)	Elongated 10×42 - 12 V-7 W
Turn signal warning light Choke warning light High beam warning light Control lights	T 8 - 12 V - 2 W
Instrument panel lighting Brake warning light Oil pressure light Four-way flasher	T 8 - 12 V - 4 W

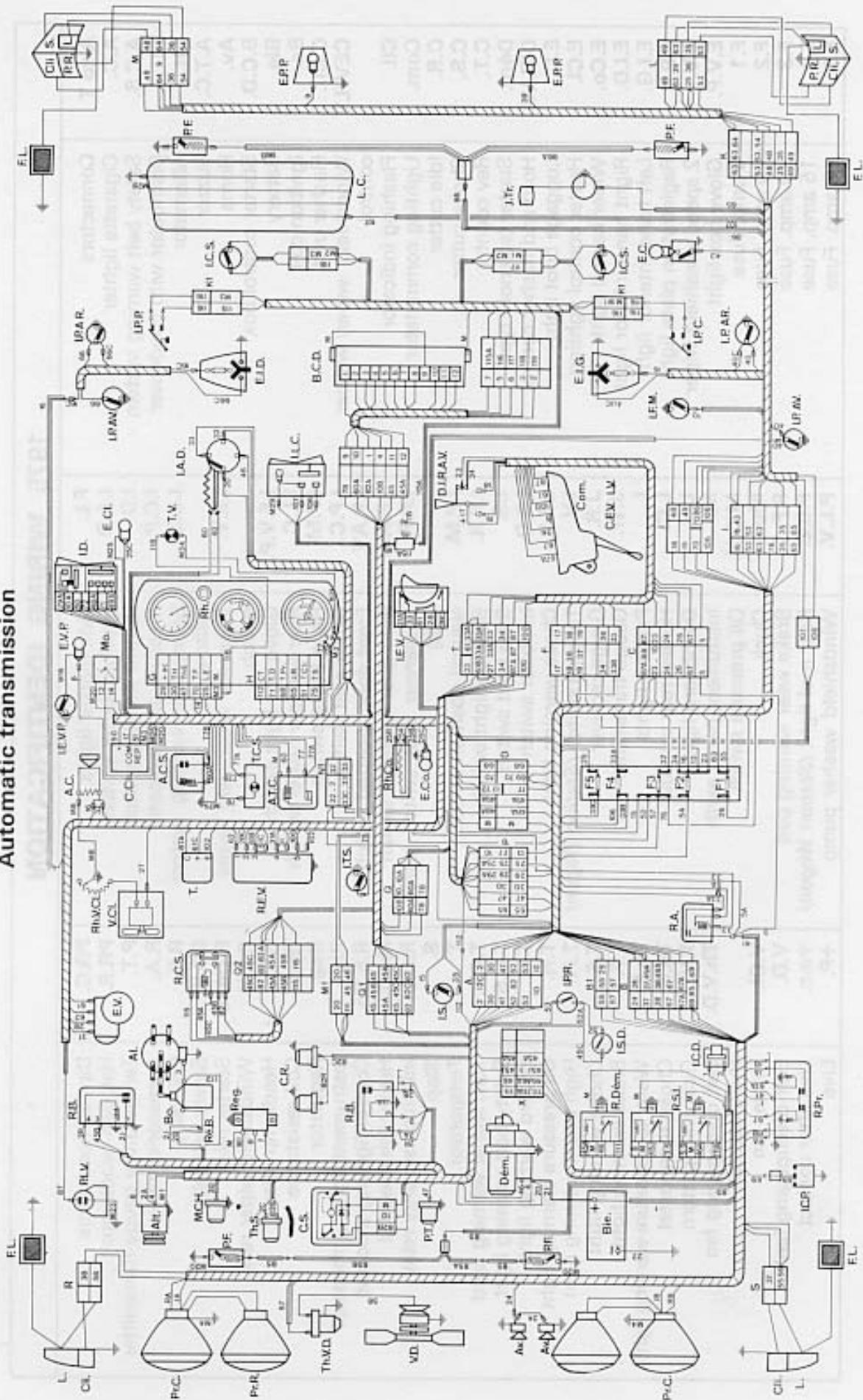
1974 DIESEL SUPPLEMENT



Alt.	Alternator
Bo.p.	Preheating plug
C.A.A.	Automatic stop control
Dém.	Starter control : solenoid
I.C.P.	Brake fluid tank
I.Te.E.	Water temperature switch
M.C.A.	Brake warning switch
M.C.H.	Oil pressure switch
P.T.	Temperature gauge transmitter
Rég.	Regulator
R.P.	Preheating relay
T.P.	Preheating warning light
Th.T.	Water temperature switch

1975

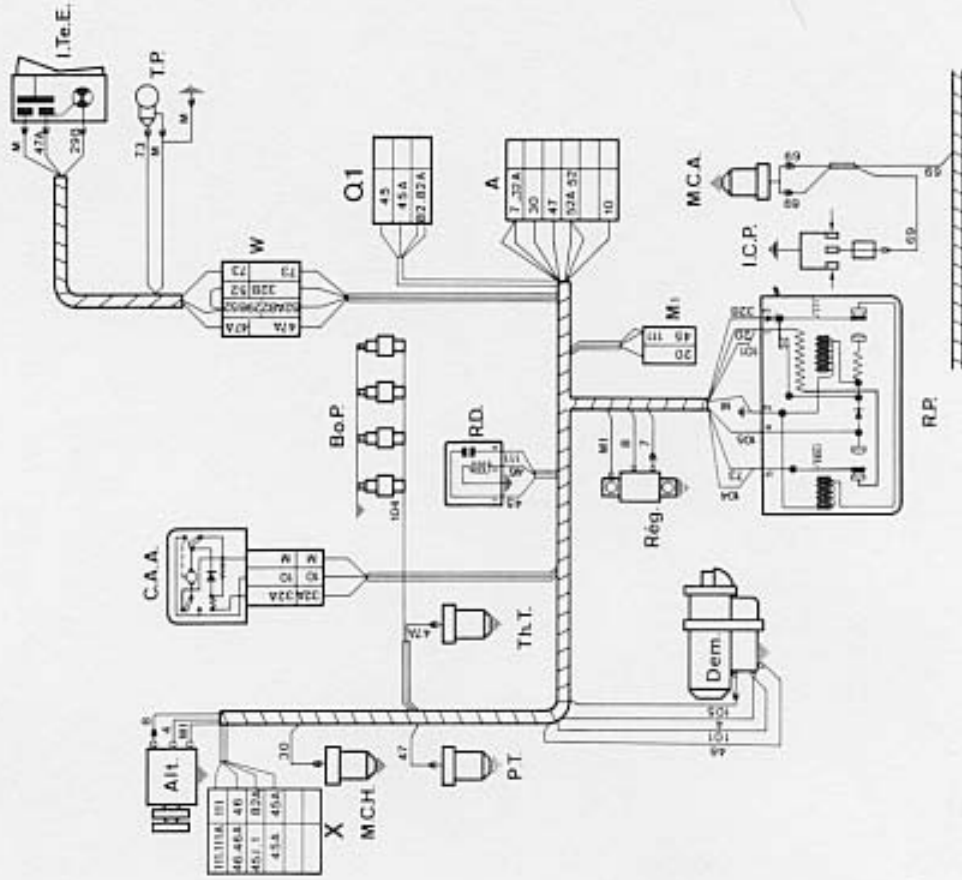
Automatic transmission



1975 WIRING IDENTIFICATION

A to T	Connectors	F.L.	Side marker lights	PR.C.	Dipped headlamps
A.C.	Cigarette lighter	I.A.D.	Ignition/starter switch	PR.R.	Halogen headlamps
A.C.S.	Safety belt warning system	I.D.	Hazard warning switch	P.T.	Temperature gauge transmitter
Al.	Distributor with condenser	I.C.P.	Pressure drop indicator	R.A.	Accessories relay
Alt.	Alternator	I.C.S.	Safety belt warning system switch	R.B.	Coil relay
A.T.C.	Buzzer	I.E.V.	2 speed windshield wiper switch	RC.S.	Safety belt relay
Av.	Horns	I.E.V.P.	Glove box light switch	R.Dém.	Starter relay
B.C.D.	Starter control box	I.L.C.	Rear window heater switch	R.E.V.	Windshield wiper relay
Bie.	Battery	I.F.M.	Hand brake switch	R.Pr.	Headlamp relay
Bo.	Ignition coil	I.P.C.	Driver seat switch	Ré.B.	Coil resistance
C.Cli.	Flasher unit	I.P.A.V.	Front door operated switch	Reg.	Regulator
CEV/LV	Windshield wiper/washer control	I.P.A.R.	Rear door operated switch	R.h.Co.	Instrument lighting rheostat
Cli.	Flashing indicator	I.P.P.	Passenger seat switch (safety belt)	Rh.V.CL	Control lighting rheostat
Com.	Lighting commutator	I.P.M.	Neutral position switch	R.S.I.	Heater fan rheostat
C.R.	Idle cutter	I.P.R.	Back up light switch	S.	Interlock security relay
C.S.	Choke cutter	I.S.	Stop light switch	T.	Stop
C.T.	Rev counter	I.S.D.	Inhibitor switch	T.Cli.	Temporisor
Dém.	Starter (solenoid type)	I.T.S.	Choke warning light	T.C.S.	Turn signal warning light
DIRAV	Horn and flasher control	I.V.	Tailgate switch (<i>Station Wagon</i>)	T.D.	Safety belt warning light
E.C.	Luggage boot light	J.R.	Gauge receiver	T.H.	Hazard warning light
E.Cl.	Heater control lighting	J.Tr.	Gauge transmitter	T.Pr.	Oil pressure warning light
E.Co.	Wiper hazard light	L.	Parking lights	T.S.	High beam warning light
E.I.D.	Right hand interior light	L.C.	Heated rear window	T.F.	Choke warning light
E.I.G.	Left hand interior light	LE.	Dashboard lights	Th.E.	Brake warning light
E.P.P.	Registration plate light	M.	Instrument panel earth	Th.S.	Water temperature warning light
E.V.	2 speed windshield wiper	M.C.H.	Oil pressure switch	T.V.	Choke thermostat
E.V.P.	Glove box light	Mo.	Clock	Th.V.D.	Gear shift pattern
F.1	5 amp. Fuse	P.F.	Brake wear warning pad	V.Cl.	Self disengaging fan
F.2	10 amp. Fuse	P.L.2.	Rear roof light (<i>Station Wagon</i>)	V.D.	Heater fan
F.3	15 amp. Fuse	P.L.V.	Windshield washer pump	+a.c.	Self-disengaging fan
F.4	10 amp. Fuse				Live after contact
F.5	10 amp. Fuse			+P.	Live

1975/76 DIESEL SUPPLEMENT



A.M.W.	Connectors
Alt.	Alternator
Bo.p.	Preheating plug
C.A.A.	Automatic stop control
Dém.	Starter control : solenoid
I.C.P.	Pressure drop indicator
I.Te.E.	Water temperature switch
M.C.A.	Brake warning switch
M.C.H.	Oil pressure switch
P.T.	Temperature gauge transmitter
Rég.	Regulator
R.D.	Starter relay
R.P.	Preheating relay
T.P.	Preheating warning light
Th.T.	Water temperature switch

1976

Sedan GL

Station Wagon

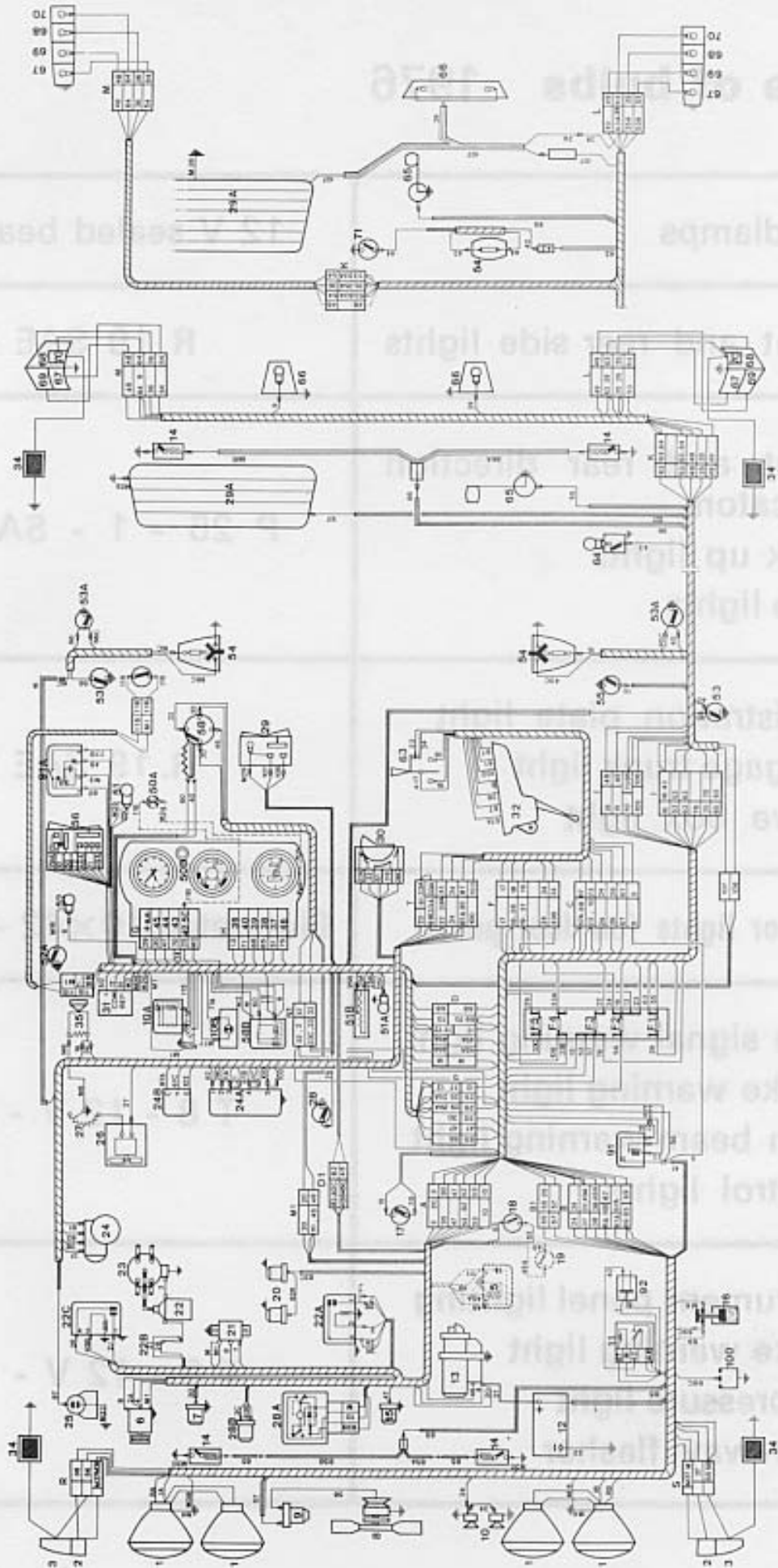
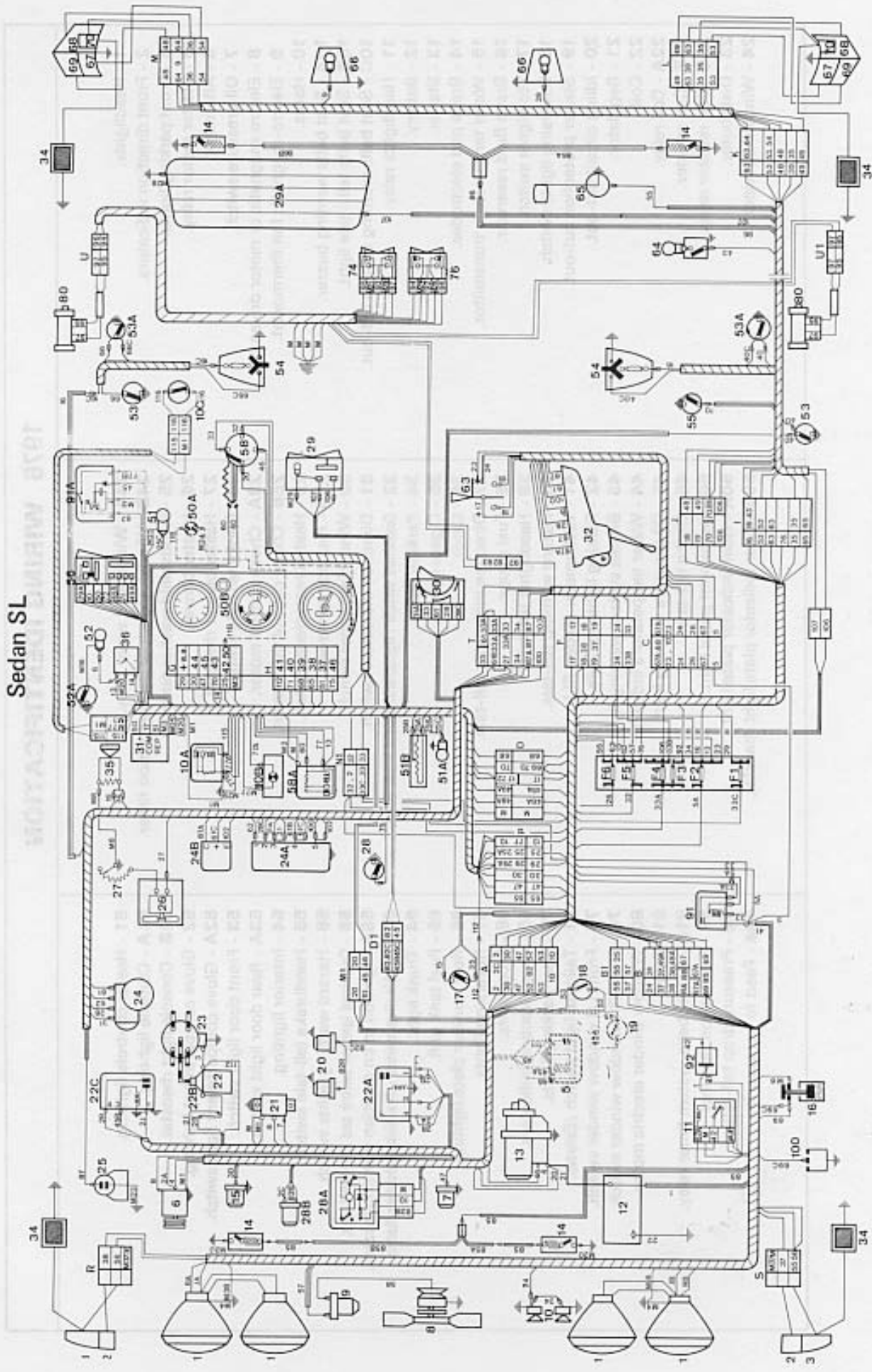


Table of bulbs 1976

Headlamps	12 V sealed beam units
Front and rear side lights	R.19 SAE 67
Front and rear direction indicators Back up lights Stop lights	P 25 - 1 - SAE 1073
Registration plate light Luggage trunk light Glove box light	R.19 SAE 67
Interior lights (on door posts)	Elongated 10×42 - 12 V-7 W
Turn signal warning light Choke warning light High beam warning light Control lights	T 8 - 12 V - 2 W
Instrument panel lighting Brake warning light Oil pressure light Four-way flasher	T 8 - 12 V - 4 W

1976

Sedan SL



1976 WIRING IDENTIFICATION

<p>1 - Headlights. 2 - Front direction indicators. 3 - Front parking lights. 5 - Starter motor relay. 6 - Alternator. 7 - Oil pressure switch. 8 - Electro-magnetic or motor driven fan. 9 - Electro-magnetic fan thermostat. 10 - Horns. 10A - Seat belts warning buzzer. 10B - Seat belts tell - tale light. 10C - Seat belts warning system cut-out. 11 - Headlights relay. 12 - Battery. 13 - Starter. 14 - Brake pad electrodes. 15 - Water temperature transmitter. 16 - Brake fluid reservoir. 17 - Stoplights switch. 18 - Reversing lights switch. 19 - Starter protection cut-out. 20 - Idling circuit cut-out. 21 - Regulator. 22 - Coil. 22A - Coil relay. 22B - Coil resistor. 22C - Coil resistor relay. 23 - Distributor. 24 - Windshield wiper.</p>	<p>24A - Windshield wiper relay. 24B - Windshield wiper delayed action timer. 25 - Windshield washer pump. 26 - Heater blower. 27 - Heater blower rheostat. 28 - Choke tell-tale switch. 28A - Choke control motor. 28B - Choke control thermostat. 29 - Heated rearscreen switch. 29A - Heated rearscreen. 30 - Windshield wiper switch. 31 - Direction indicators switch. 32 - Combined switch : lights/windshield wash-wipe. 34 - Parking lights. 35 - Cigare lighter. 36 - Clock. 37 - Direction indicators tell-tale. 38 - Fuel gauge. 39 - Headlights tell-tale. 40 - Hazard warning tell-tale. 41 - Tachometer (<i>Sedan SLJ</i>). 42 - Parking lights tell-tale. 43 - Brakes system warning light. 44 - Water temperature indicator. 45 - Oil pressure warning light. 46 - Choke tell-tale. 50 - Instrument panel light. 50A - Gear indicator plate light. 50B - Gear indicator plate light rheostat.</p>	<p>51 - Heater controls lighting. 51A - Console lighting. 51B - Console light rheostat. 52 - Glove compartment lighting. 52A - Glove compartment light switch. 53 - Front door light switch. 53A - Rear door light switch. 54 - Interior lighting. 55 - Handbrake tell-tale switch. 56 - Hazard warning lights switch. 58 - Combined ignition switch and anti-theft lock. 58A - Ignition in on position warning buzzer. 63 - Combination switch : direction indicators/horns. 64 - Trunk light. 65 - Fuel tank unit. 66 - Rear number plate lighting. 67 - Reversing lights. 68 - Stop lights. 69 - Rear direction indicators. 70 - Rear parking lights. 71 - Tailgate light switch (<i>Estare</i>). 74 - Front LH window winder switch. 76 - Front RH window winder switch. 80 - Window winder electric motor. 91 - Relay. 91A - Safety belts system timer relay. 92 - Connection terminal. 100 - Pressure drop tell-tale. +aa - Feed to accessories.</p>
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Station Wagon

1977
Sedan SL

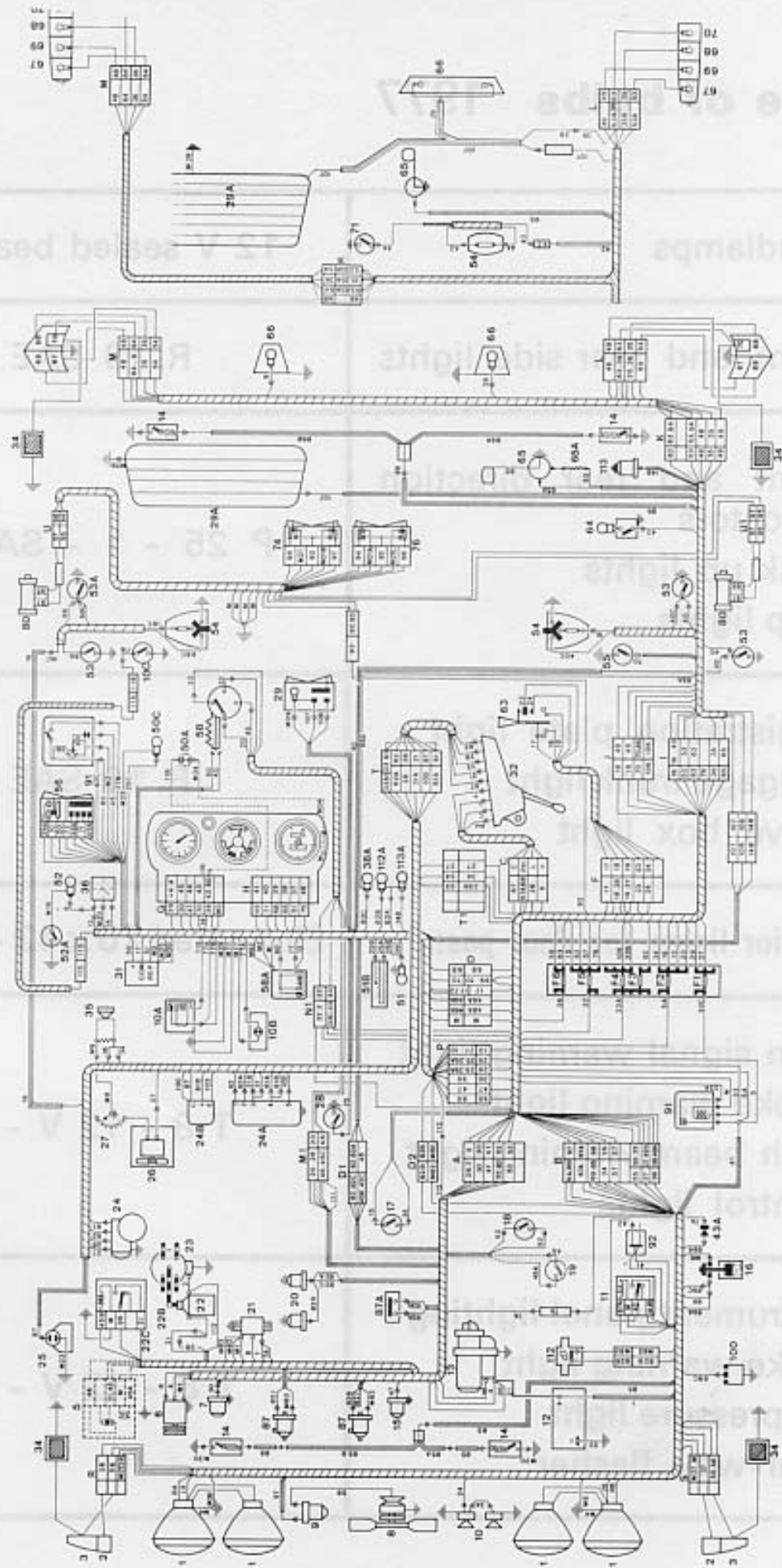


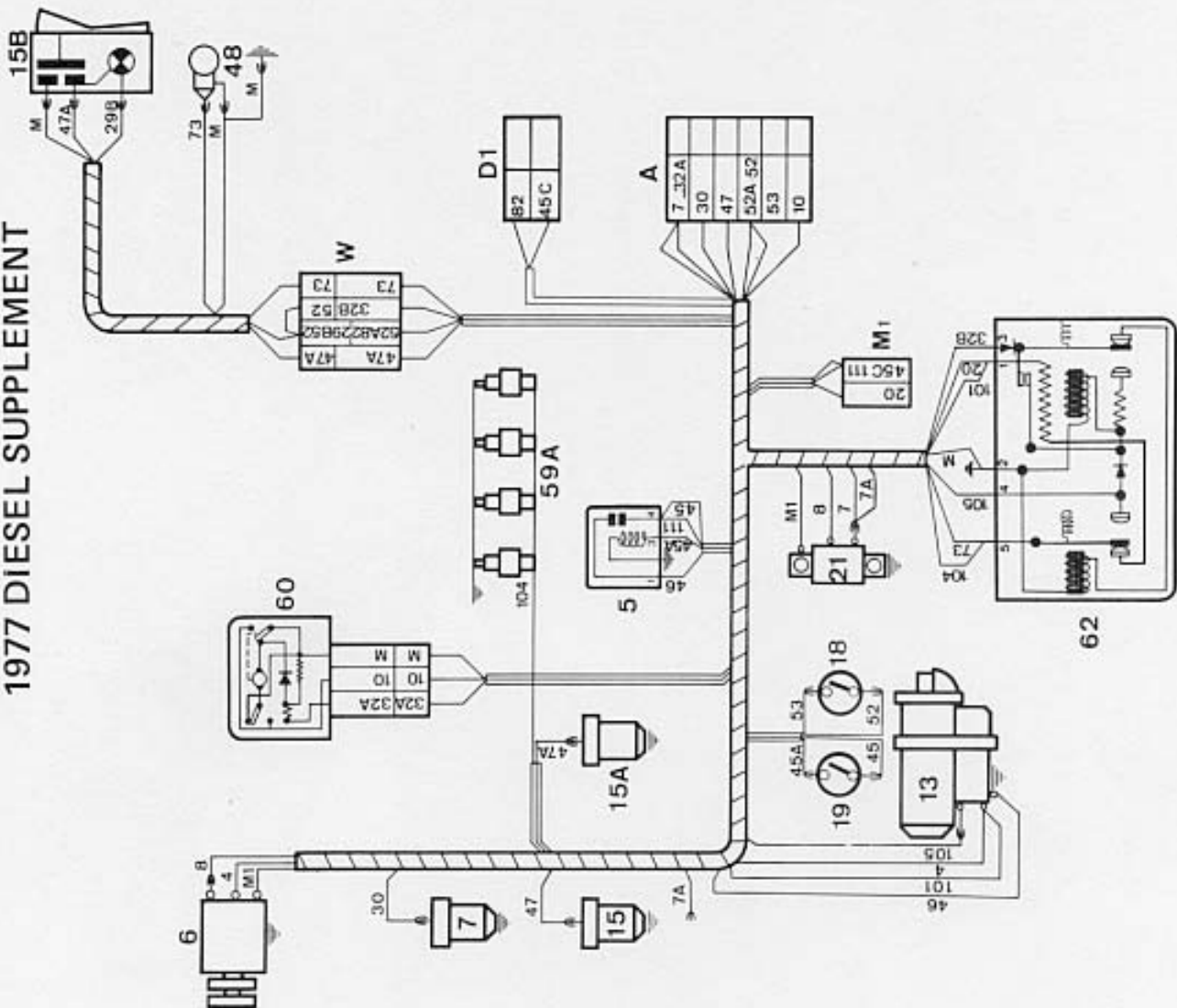
Table of bulbs 1977

Headlamps	12 V sealed beam units
Front and rear side lights	R.19 SAE 67
Front and rear direction indicators Back up lights Stop lights	P 25 - 1 - SAE 1073
Registration plate light Luggage trunk light Glove box light	R.19 SAE 67
Interior lights (on door posts)	Elongated 10×42 - 12 V-7 W
Turn signal warning light Choke warning light High beam warning light Control lights	T 8 - 12 V - 2 W
Instrument panel lighting Brake warning light Oil pressure light Four-way flasher	T 8 - 12 V - 4 W

1977 WIRING IDENTIFICATION

<p>1 - Headlight. 2 - Front direction signal. 3 - Front parking light. 5 - Starter motor relay. 6 - Alternator. 7 - Oil pressure switch. 8 - Self disengaging fan. 9 - Self disengaging fan thermostat. 10 - Horns. 10A - Seat belts warning buzzer. 10B - Seat belts warning light. 10C - Seat belt switch. 11 - Headlights relay. 12 - Battery. 13 - Starter. 14 - Brake pad wear-warning indicator. 15 - Water temperature transmitter. 16 - Brake fluid reservoir. 17 - Brake light switch. 18 - Back-up lights switch. 19 - Starter safety switch. 20 - Idling solenoid. 21 - Regulator 22 - Coil. 22B - Coil resistor. 22C - Coil resistor relay. 23 - Distributor. 24 - Windshield wiper. 24A - Windshield wiper relay. 24B - Windshield wiper time delay relay.</p>	<p>25 - Windshield wiper pump. 26 - Heater blower. 27 - Heater blower rheostat. 28 - Choke tell-tale switch. 29 - Rear window heater switch. 29A - Rear window heater. 31 - Directional signal unit. 32 - Lighting/windshield wiper/washer switch. 34 - Side market light. 35 - Cigar lighter. 36 - Clock. 37 - Directional signal indicator. 38 - Fuel gauge. 38A - Fuel gauge warning light. 39 - High beam indicator. 40 - Hazard warning indicator. 41 - Tachometer (<i>Sedan SL</i>). 42 - Parking light indicator. 43 - Brake function indicator. 43A - Brake warning light diode. 44 - Water temperature gauge. 45 - Oil pressure indicator. 46 - Choke indicator. 50 - Dashboard lighting. 50A - Gear selection panel lighting. 50C - Hazard switch lighting. 51 - Heater controls lighting. 51B - Heater controls and hazard switch lights rheostat. 52 - Glove compartment lighting. 52A - Glove compartment light switch.</p>	<p>53 - Front door switch. 53A - Rear door switch. 54 - Interior lighting. 55 - Handbrake switch. 55 - Hazard warning switch. 58 - Ignition switch. 58A - Ignition warning buzzer. 63 - Direction signal/horns switch. 64 - Trunk light. 65 - Gauge transmitter (fuel). 66 - License plate light. 67 - Back-up light. 68 - Brake light. 69 - Rear directional signal. 70 - Rear parking light. 71 - Tailgate light switch (estate) 74 - Front LH power window regulator. 76 - Front RH power window regulator. 80 - Power window regulator motor. 87 - Anti-pollution electrovalve. 87A - Electrovalve contact control. 91 - Relay. 91A - Seat belt time delay relay. 92 - Connector terminal. 100 - Brake pressure indicator. 112 - Periodic maintenance switch. 112A - EGR periodic maintenance warning light. 113 - Under body overheating thermost. switch. 113A - Under body overheating warning light.</p>
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1977 DIESEL SUPPLEMENT



5	Starter relay
6	Alternator
7	Oil pressure switch
13	Starter control : solenoid
15	Temperature gauge transmitter
15A	Water temperature switch
15B	Water temperature switch
18	Reversing lights switch
19	Starter protection cut-out
21	Regulator
48	Preheating warning light
59A	Preheating plug
60	Automatic stop control
62	Preheating relay

BODYWORK

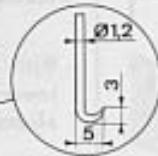
13

SUMMARY

	Pages
SALOON DOORS	
Windows { FRONT	02 11 to 14
{ REAR	02 21 to 26
Locks	02 31 to 32
 CONVERTIBLE AND COUPE DOORS	
Upholstery panel	02 41 to 44
Window-winding mechanism	02 51 to 55
Window { Coupé	02 61 to 65
{ Convertible	02 67 to 69
Deflector	02 71 to 73
 WINDSCREEN	
U.S.A. 504 Models adhesive mounted front screen	05 11 to 16

BODYWORK
FRONT SIDE WINDOWS - SALOON

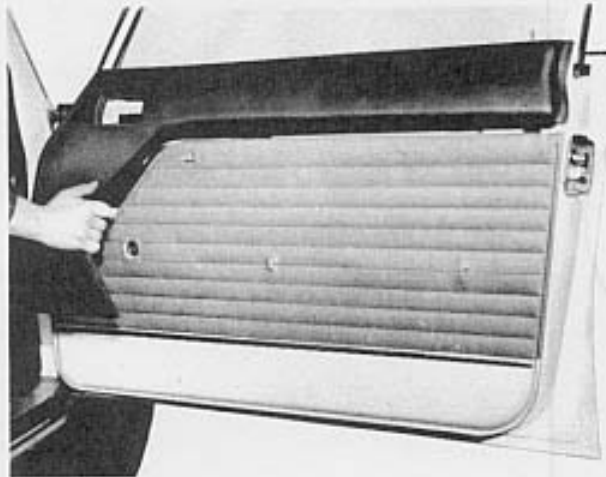
13 0211



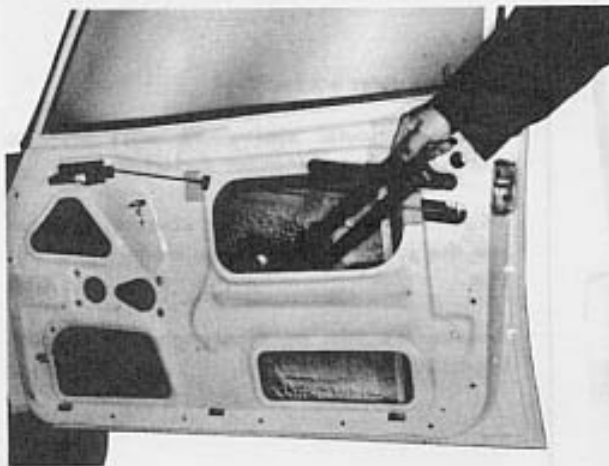
REMOVAL

Upholstery panel

- Remove the window raising handle using a hook made of a piano wire as shown in the drawing opposite. Pass this hook between the handle and its thrust cup to withdraw the spring clip.
- Remove the inner door opening control lever.



- Remove the armrest.
- Unscrew the interior door locking button.
- Disengage the clips retaining the upper padded panel, and raise this to remove it.
- Remove the upholstery panel.



Window raising mechanism

- With the window raised, remove the nuts retaining mechanism.
- Holding the window in the raised position, push the mechanism in and disengage the rollers from the slide, towards the rear.
- Withdraw the mechanism.

0212

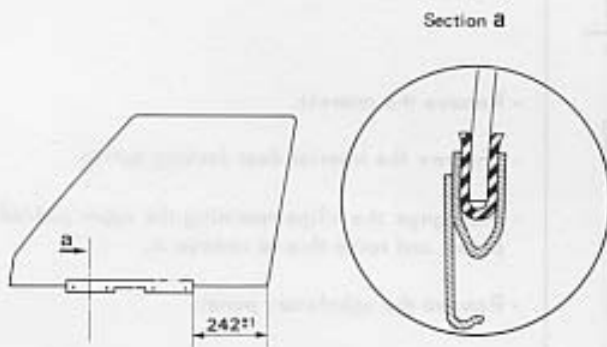
13

BODYWORK
FRONT SIDE WINDOWS - SALOON



Window

- With the window in the raised position lift it towards the front to disengage it from its slides.
- Holding it in this position, disengage it upwards.



In the event of replacement of the glass :

- Clean the window support mounting carefully.
- Coat the new rubber section with talc.
- Fit the assembly to the glass with the extremity of the mounting 242 mm from the rear of the glass.

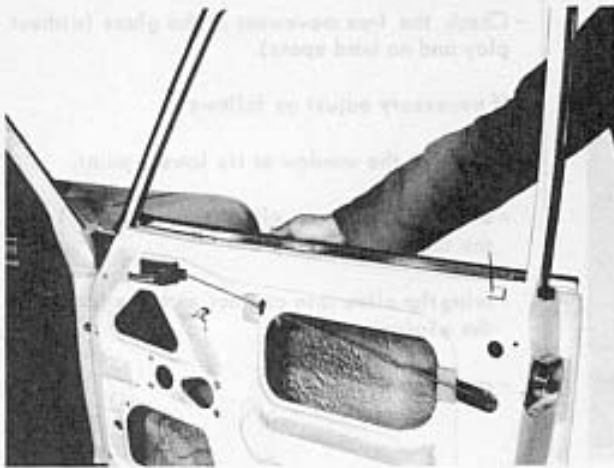


Door trim - outer window seal

- Check the outer seal which must have no cracks, cuts or permanent distortion.
- To remove the trim, insert a screwdriver between the plastic clips and the inner edge of the trim.
- Remove the trim by disengaging it upwards beginning at the front end.

BODYWORK
FRONT SIDE WINDOWS - SALOON

13 0213



REFITTING

Trim - outer window seal

- Position the plastic clips on the door panel.
- Place the trim on the clips.
- Fix the trim by pushing it down by hand.



Window

- Clean the bottom of the door (removal of broken glass).
- Engage the window, tilted towards the front, from the top of the door.
- Position it in the slides by straightening it up.
- Place the window in the raised position and hold it firmly.



Raising mechanism

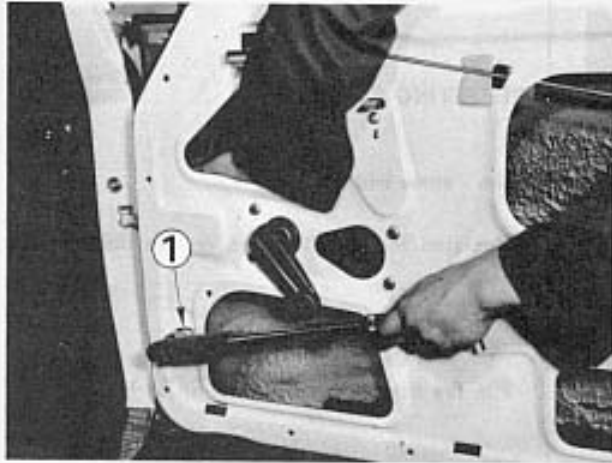
- Grease the toothed quadrant and the pivots.
- Position the quadrant as shown opposite.
- Refit the mechanism in the reverse order to removal.
- Secure it with the four nuts.

PEUGEOT

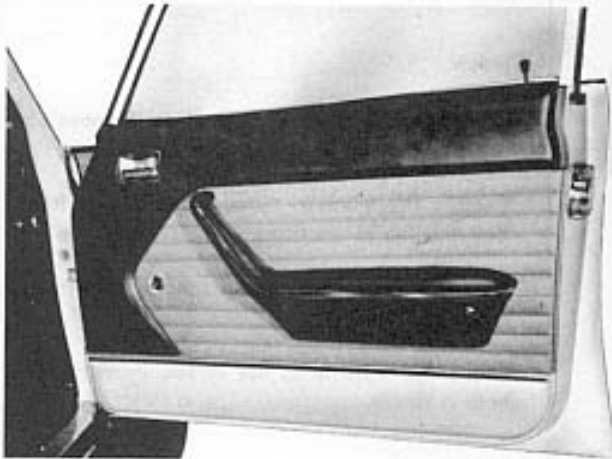
0214

13

BODYWORK
FRONT SIDE WINDOWS - SALOON

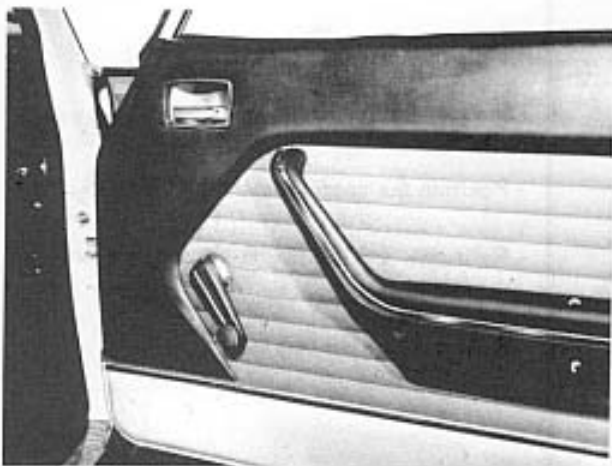


- Check the free movement of the glass (without play and no hard spots).
- If necessary adjust as follows :
 - position the window at its lowest point,
 - slacken the lower slide securing nut 1, on the inner door panel,
 - bring the slide into contact with the bottom of the window,
 - retighten the nut 1.



Upholstery panel

- Fit :
 - the panel,
 - the arm rest,
 - the door trim,
 - the inner door opening lever,
 - the inner door locking button.

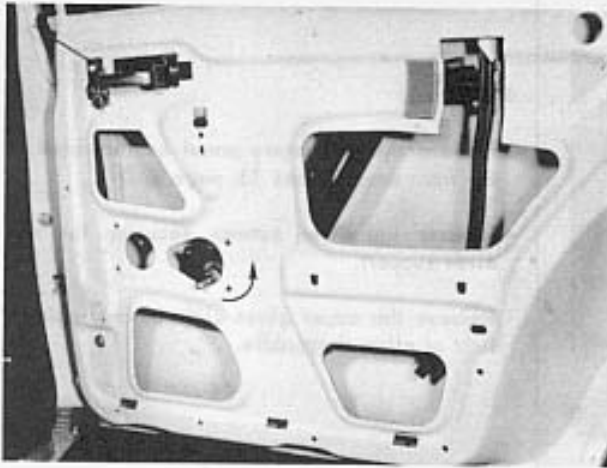


- Close the window.
- Place a new spring clip on the raising handle.
- Fit the handle in the position indicated opposite after fitting the thrust cup.
- Fit the handle by pushing onto the shaft.

0222

13

BODYWORK REAR SIDE WINDOWS - SALOON



- Using the raising handle, without the spring clip in place, turn the mechanism to the maximum "raised" position.

- Remove the handle.



- Push the mechanism inwards again and move it forwards to disengage the rollers from the slide.

- Withdraw it through the upper rear opening in the interior door panel.



Movable window

- Lower the window as much as possible.

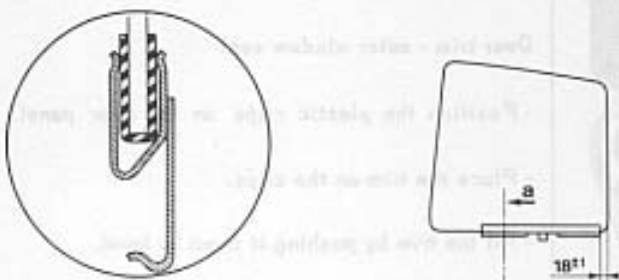
- Push the upper slide support 1 forwards and disengage it upwards.

- Withdraw the window, in its normal position, through the top of the door.

BODYWORK
REAR SIDE WINDOWS - SALOON

13 02 23

Section B



- In the event of replacement of a broken glass :
- clean the glass support mounting carefully.
 - coat the new rubber section with talc.
 - fit the assembly to the glass with the extremity of the mounting 18 mm from the rear of the glass.



Fixed window

- Push it hard towards the front.
- Withdraw the glass with its seal.



Door trim - outer window seal

- Insert a screwdriver between the plastic clips and the inner edge of the trim.
- Raise the trim slightly and disengage it upwards, beginning at the front.
- Slide it forwards to disengage it from the last clip.

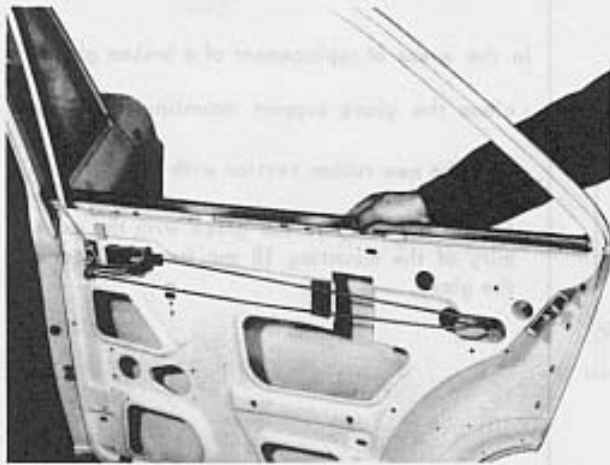
PEUGEOT

0224

13

BODYWORK

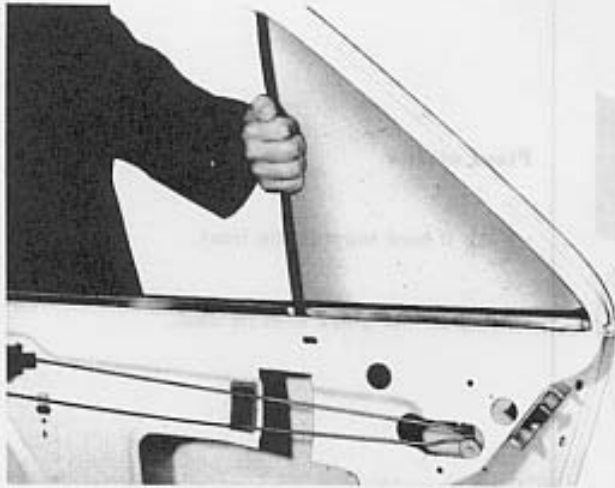
REAR SIDE WINDOWS - SALOON



REFITTING

Door trim - outer window seal

- Position the plastic clips on the door panel.
- Place the trim on the clips.
- Fit the trim by pushing it down by hand.



Fixed window

- Fit a new seal on the glass and smear the outer edge with tallow.
- Place it in its frame using a rubber hammer if necessary.



Movable window

- Clean the bottom of the door (removal of broken glass).
- Engage the window in its normal position in the door.
- Allow it to rest in the bottom of the door.
- Place the upper rear slide support in position making sure that it engages correctly on the fixed window seal.
- Position the window in its slides, move it to the fully raised position, and immobilise it.

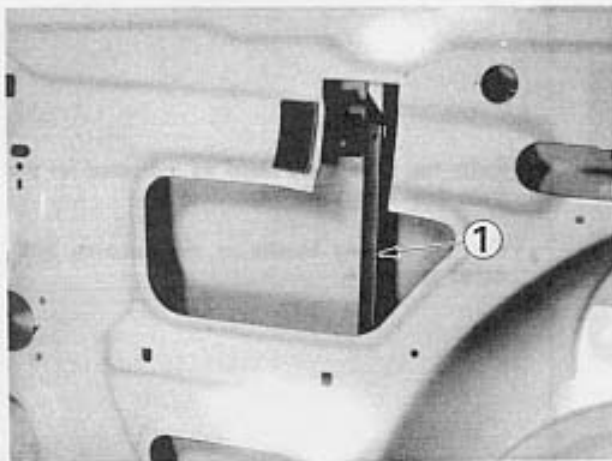
BODYWORK
REAR SIDE WINDOWS - SALOON

13 02 25



Raising mechanism

- Grease the toothed quadrant and the mechanism pivots.
- Position the quadrant to obtain a distance of 6 mm between the two arms.
- Refit the mechanism in the reverse order to removal.
- Secure it by tightening the four nuts.



- Refit the lower slide support 1 proceeding in the reverse order to removal.
- Assemble the slide on the lower support.



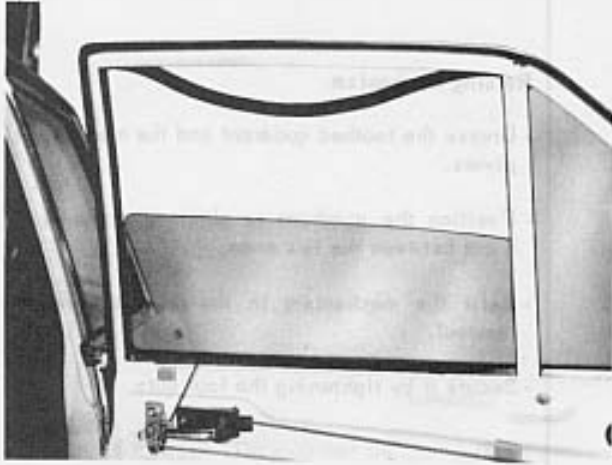
- Secure the upper slide support 2, using the two upper screws, beginning at the top.
- Lower the window as far as possible using the handle.
- Hold the lower slide support against the glass and tighten the lower mounting screw.

PEUGEOT

0226

13

BODYWORK
REAR SIDE WINDOWS - SALOON



- Control the free movement of the window (without play and no hard spots).
- Engage the two ends of the new slide in the upper frame.
- Complete the fitting working from one end to the other. (These slides are fitted with glue or clips).
- Hold the window in the raised position.



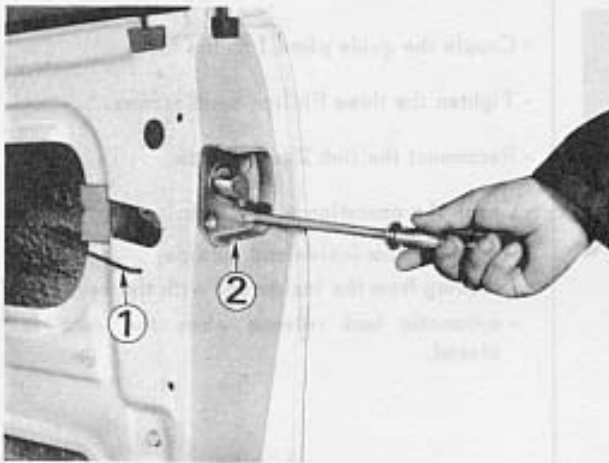
- Refit the upholstery panel as indicated for the front door (class 13, page 02 04).
- Fit the raising handle in the position indicated opposite.



PEUGEOT

BODYWORK
REAR DOOR CONTROLS - SALOON

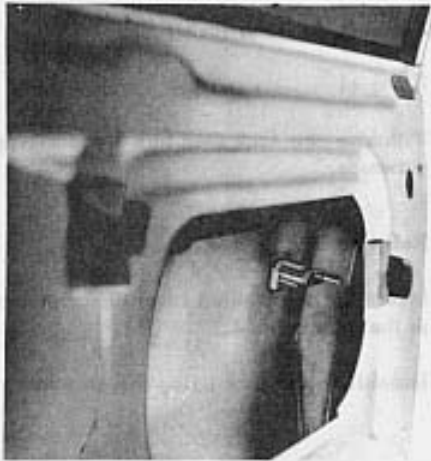
13 0231



FRONT DOOR LOCKS

REMOVAL

- Remove the upholstery panel, as indicated in class 13, page 02 01.
- Disconnect the control link 1 at the lock end.
- Remove the three door lock screws.
- Remove the guide plate 2.



- To remove the lock :
- insert the key in the lock.
- slide the lock downwards until the locking crank disengages from the catch.
- pivot the lock around the slide support.
- Withdraw the lock.



REFITTING

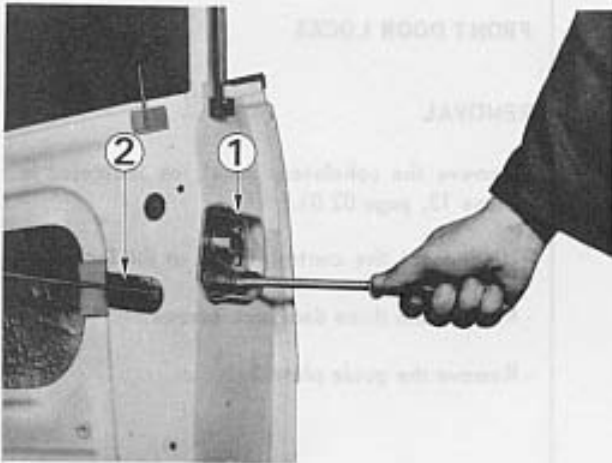
- Check the operation of the lock mechanism and the condition of all the return springs.
- Grease all the pivots.
- Place the locking puller in the "unlocked" position.
- Refit the lock in the reverse order of removal, making sure that the locking crank engages correctly, the key being in the lock.

0232

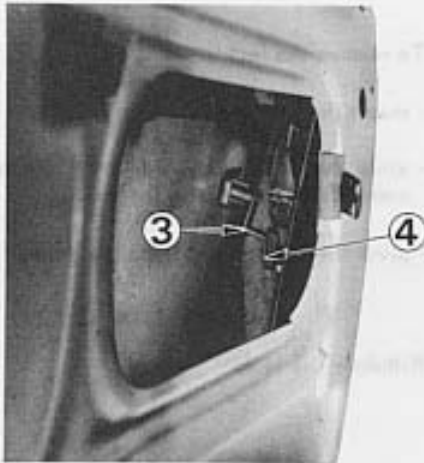
13

BODYWORK

FRONT DOOR CONTROLS - SALOON



- Couple the guide plate 1 to the lock.
- Tighten the three Philips head screws.
- Reconnect the link 2 to the lock.
- Check the operation of the lock :
 - opening from inside and outside,
 - locking from the inside and with the keys,
 - automatic lock release when the door is closed.



Replacing the outer lock

- Removal
 - Withdraw the lock stop fork 3 and disengage it outwards.
- Refitting
 - Insert the lock taking care to engage the crank in the lock catch 4.
 - Immobilise the lock using the stop fork.

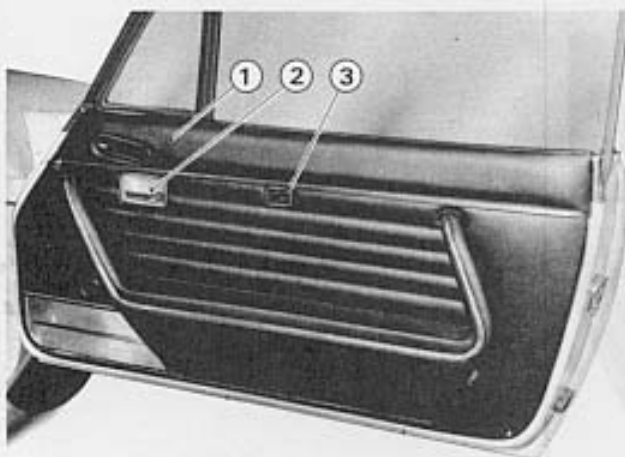


- Refit the door upholstery panel as indicated in class 13, page 02 04.
- Adjust the door catch to obtain a protrusion of 0 to 2 mm in relation to the rear door.
- Check the gap between the upper door frame and the water drip channel which must be 5 mm \pm 1 mm.

BODYWORK

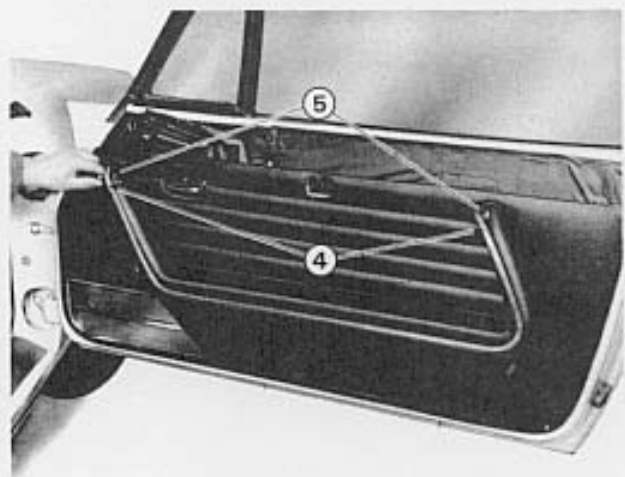
DOOR UPHOLSTERY PANEL - COUPES AND CONVERTIBLES

13 0241

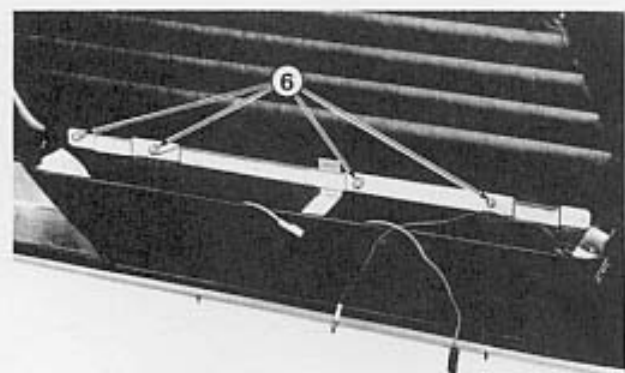


REMOVAL

- Lower the window as far as possible, then raise it 15 to 20 mm.
- Disconnect the battery
- Remove :
 - the door panel trim 1
 - the door handle and trim 2
 - the lock trim 3



- Raise the extremities of the plastic strip 4 to expose the armrest screws 5.
- Remove the armrest by sliding it upwards and recover the plastic thrust cups.



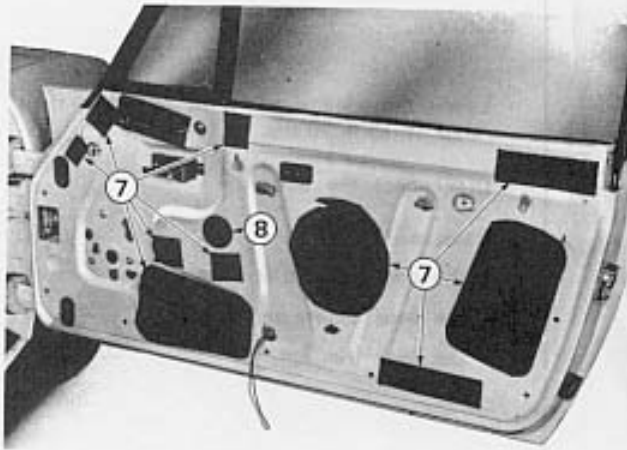
- Remove :
 - the four screws 6,
 - the lower upholstery panel screws.
 - Disconnect the door courtesy light leads.
- Remove :
 - the door upholstery panel
 - the clip protectors
 - the waterproof panel

PEUGEOT

02 42

13

BODYWORK DOOR UPHOLSTERY PANEL - COUPES AND CONVERTIBLES



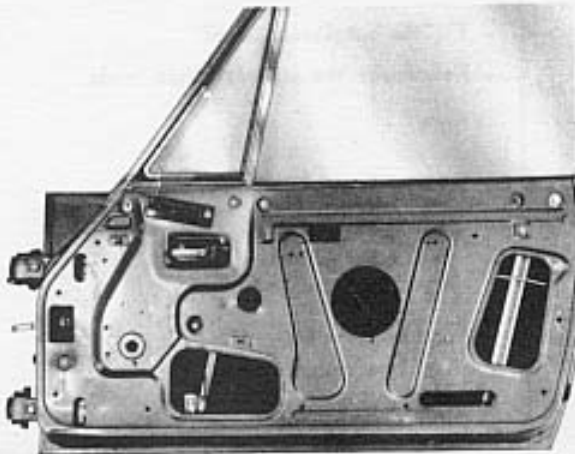
- Remove
- the plastic strips 7 from the inner door panel.
- the plastic plug 8



BODYWORK

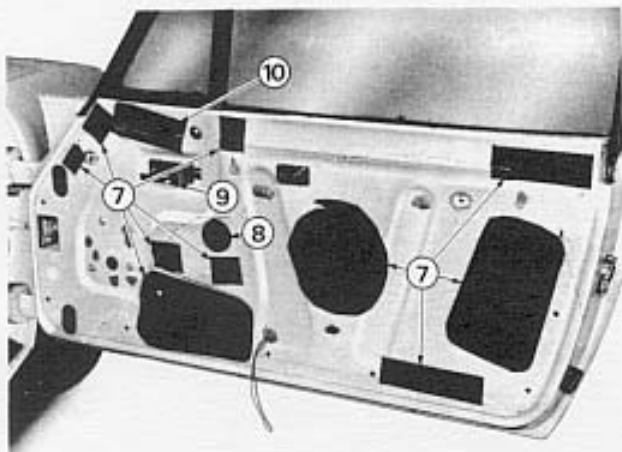
DOOR UPHOLSTERY PANEL - COUPES AND CONVERTIBLES

13 0243

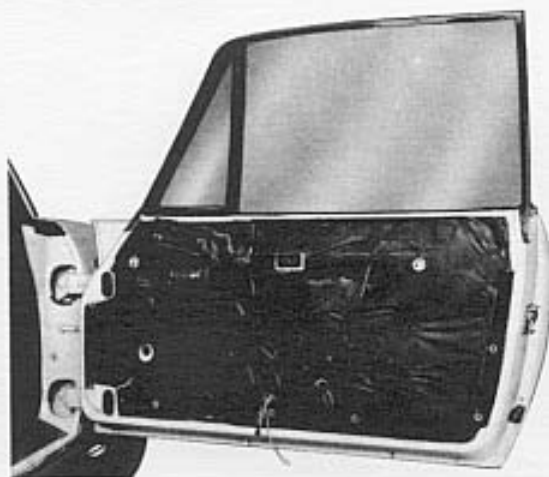


REFITTING

- Remove all traces of glue and plastic material from the door panel using F petrol.
- Particular care must be taken when waterproofing the inner door panel to prevent the entry of dust etc.
- If the original sealing components are not available, they should be made out of 0.12mm thick plastic strip, using the holes in the panel for a pattern.
- Plug the small, unused holes in the panel with filler.



- Make sure that a strip of plastic covers the inside of the door opening control 9.
- Refit the plastic plug 8
- Stick :
 - the ten plastic strips 7
 - a plastic strip forming a water deflector on the deflector window control 10.



- Stick the waterproof panel in place.
- Cover the edges of this panel with adhesive tape to ensure the holding of the glue.
- Refit the seven plastic clip caps.

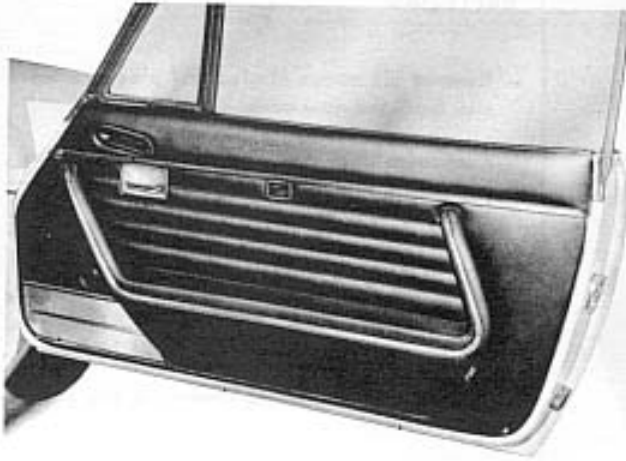
PEUGEOT

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13

BODYWORK

DOOR UPHOLSTERY PANEL - COUPES AND CONVERTIBLES

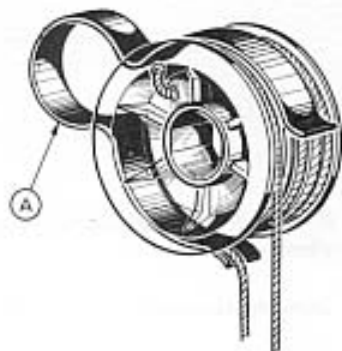


- Fit the upholstery panel
- Reconnect the courtesy light leads.
- Fit :
 - the armrest frame
 - the armrest
 - the door lock control trim
 - the door handle and trim
 - the door panel trim
- Reconnect the battery and set the clock
- Check the operation of :
 - the courtesy light
 - the door handle, the door lock and the deflector controls.

BODYWORK

WINDOW OPENING CONTROLS - COUPES - CONVERTIBLES

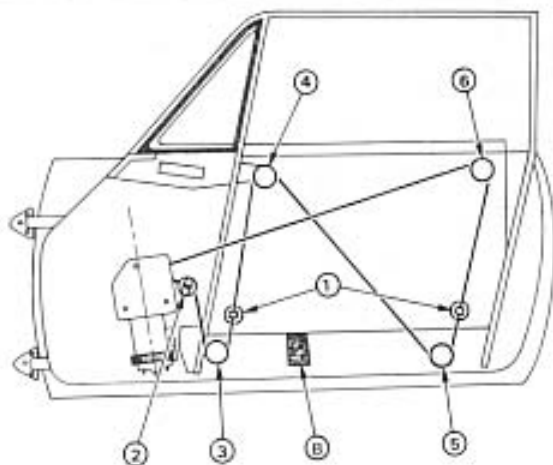
13 02 51



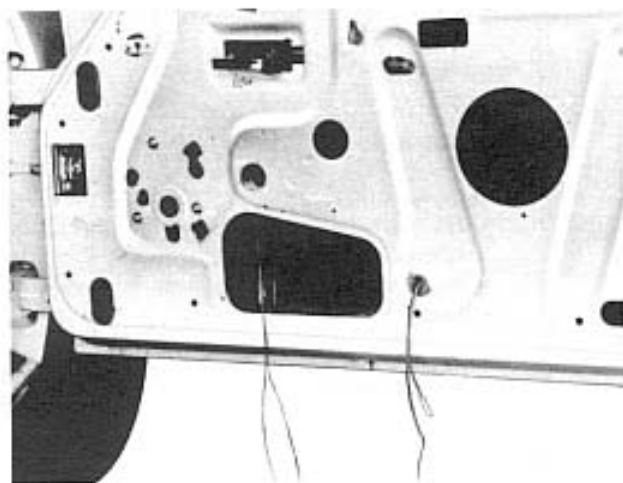
REMOVAL

- Remove the door panel as indicated on page 0241, class 13.
- Fit a clip **A** to retain the cable on the window winder drum.

NOTE - This clip is supplied with each new control.



- Check the window with a block of wood **B** to gain access to the cable clamps **1**.
- Remove the two cable clamps **1** and recover the components.
- Remove the adjustable idler pulley **2**
- Disengage the cable from the pulleys **3**, **4**, **5** and **6**.



- Disconnect the motor feed leads.
- Remove the three nuts securing the motor.
- Withdraw the motor/cable assembly through the opening in the panel.

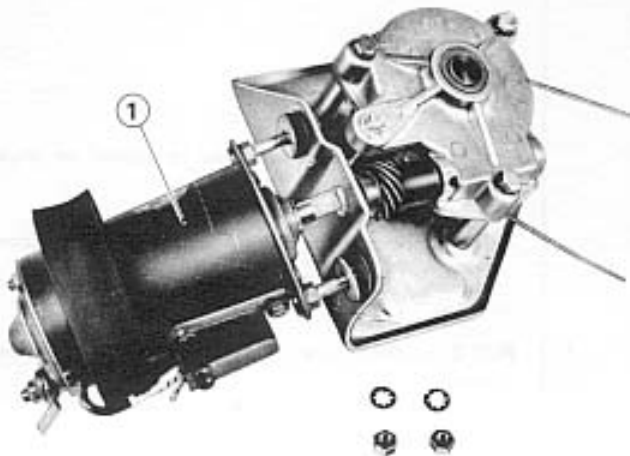
PEUGEOT

0252

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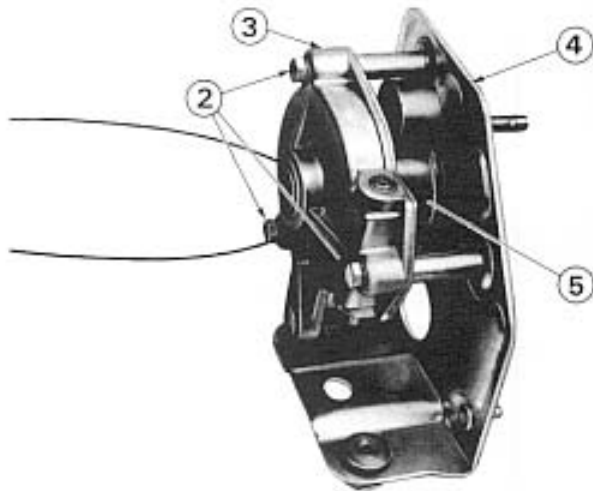
BODYWORK

WINDOW OPENING CONTROLS- COUPES - CONVERTIBLES

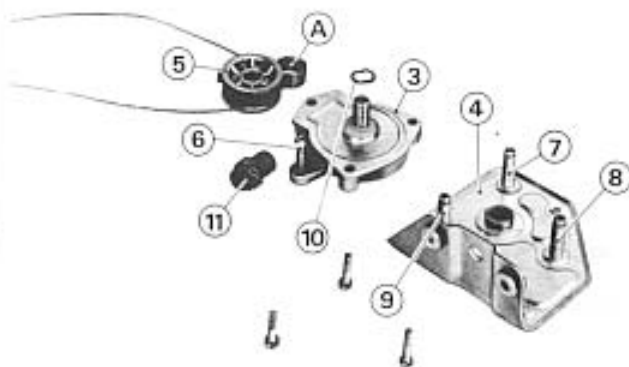


DISMANTLING

- Remove the nuts securing the motor to the mechanism,
- Separate the motor from the mechanism,



- Remove the three bolts 2
- Remove the mechanism 3 from the frame 4.
- Recover :
 - the flexible washer
 - the drum with the cable 5
 - the flexible drive seal.



REASSEMBLY

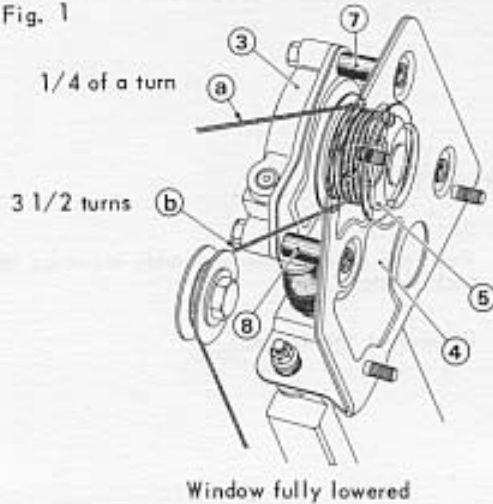
Preparation

- Make sure that :
 - the cable is well wound on the drum 5 and retained by the clip A.
 - the support shaft of the crank 6 is perfectly inset.
- Raise the cover of the mechanism 3 and check the condition of the pinions. Ensure that they are greased.

BODYWORK
WINDOW OPENING CONTROLS - COUPES - CONVERTIBLES

13 02 53

Fig. 1



- Mount the drum 5 on the shaft of the mechanism 3.

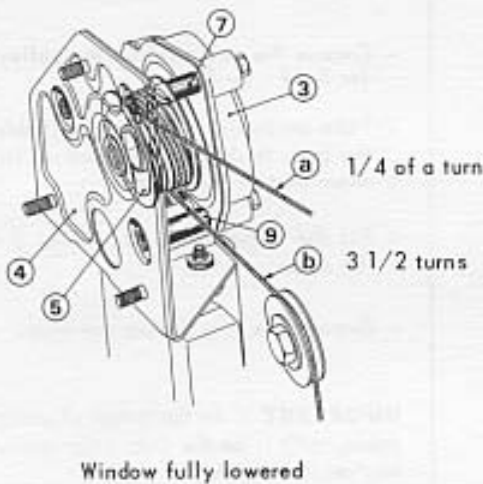
- L.H. door (fig. 1)

Position the cable, wound 1/4 of a turn (a) against the mechanism 3 and position the strands (a) and (b) in such a way that they pass between the spacers 7 and 8 of the frame 4.

- R.H. door (fig. 2)

Position the cable, wound 1/4 of a turn (a) away from the mechanism 3 and position the strands (a) and (b) in such a way that they pass between the spacers 7 and 9 of the frame 4.

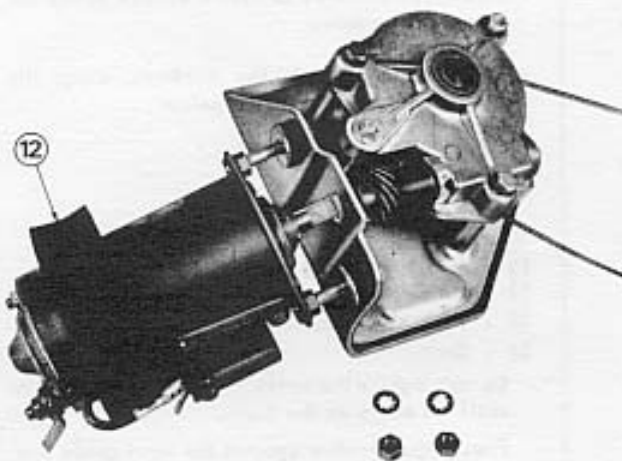
Fig. 2



- Place the flexible washer 10 on the shaft.

- Fit the flexible drive seal 11.

- Assemble the mechanism 3 and frame 4 making sure of the correct positioning of the cable.



- Replace the flexible motor mounting blocks on the frame.

- Assemble the motor and frame positioning the motor to render the connectors accessible when the motor is mounted in the door.

- Make sure that the silencing collar 12 is in position on the motor body.

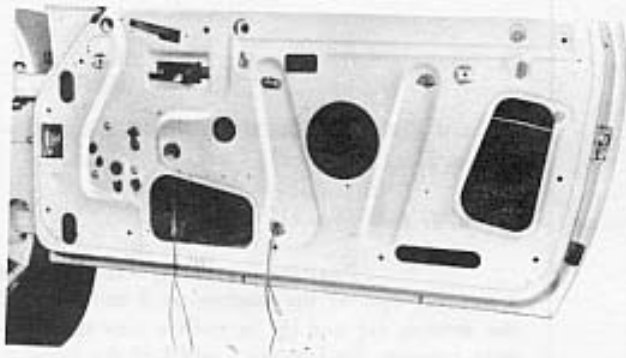
PEUGEOT

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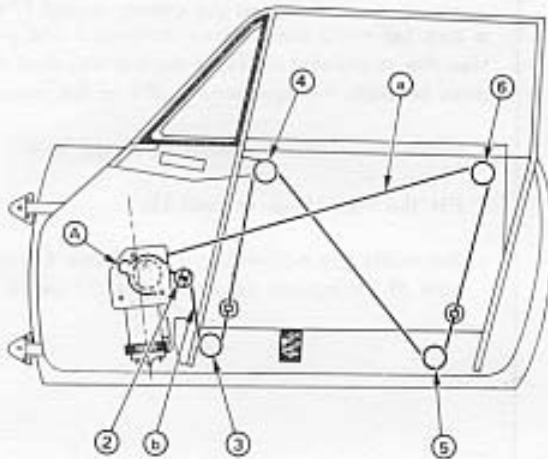
BODYWORK

WINDOW OPENING CONTROLS - COUPES - CONVERTIBLES



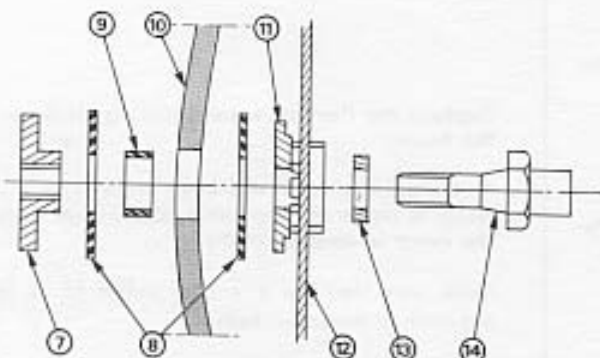
REFITTING

- Refit the motor/cable assembly inserting new lock washers.
- Reconnect the leads.



- Engage the cable (b) on the pulleys in the order 3 - 4 - 5 - 6.
- Take particular care that the cable (a), linking the drum to the pulley 6, passes in front of the other part of the cable.
- Fit the adjustable idler pulley 2 and tension the cable.
- Remove the clip A from the drum.

IMPORTANT : In the event of unwinding of the cable, refit it on the drum after removing the motor/cable assembly.



- Lower the windows to obtain access to the cable securing holes.
- Secure the cable to the windows, using the clamps, in the order given below :

- 7 - Threaded plate
- 8 - Rubber washers
- 9 - Rubber bush
- 10 - Window
- 11 - Cable clamping plate
- 12 - Cable
- 13 - Flat steel washer 8 x 14
- 14 - Bolt

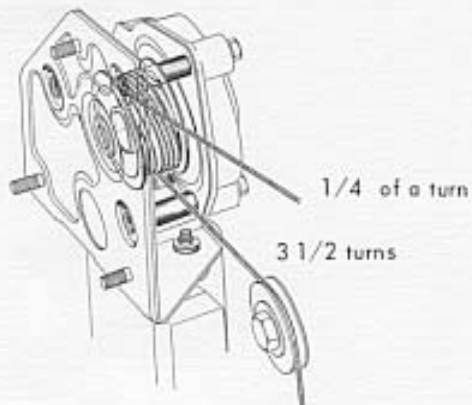
- Do not tighten the cable yet. Lower the window until it abuts on the block.
- Press the window against the front guide and tighten the cable moderately.

BODYWORK

WINDOW OPENING CONTROLS - COUPES - CONVERTIBLES

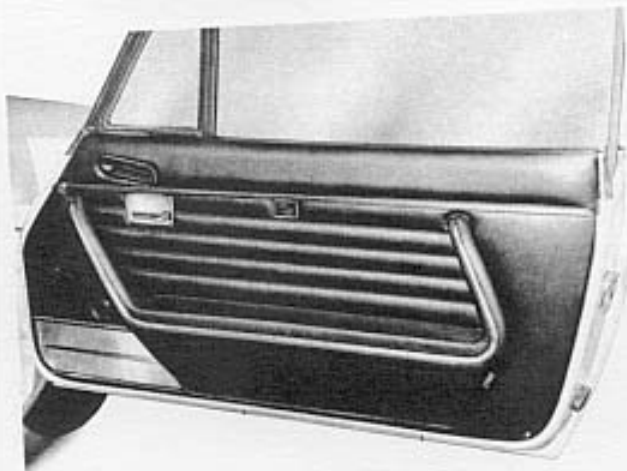
13

0255



Window fully lowered

- Connect the battery up temporarily and operate the window raising motor to move the window in both directions, to fully open and fully closed, to ensure that it slides freely.
- The motor is equipped with a thermal cut out which stops when the window abuts up and down.
- With the window fully up or down one of the two cable strands must be wound at least 1/4 of a turn around the drum.
- Correct the window position to obtain this.
- Finally tighten the cable clamps.



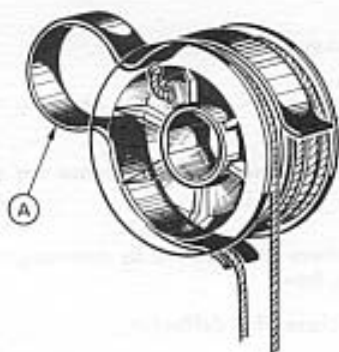
- Refit the door upholstery panel as indicated on page 02 43 class 13.

NOTE. - If the motor operates in the reverse order to that indicated on the switch, turn the switch round in its housing without disconnecting it.

PEUGEOT

BODYWORK
DOOR WINDOWS - COUPES

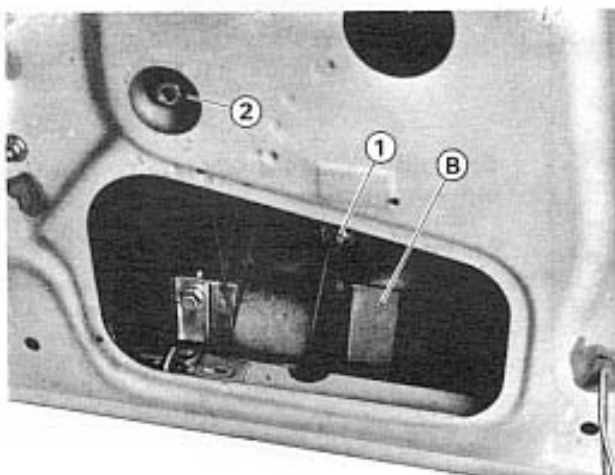
13 0261



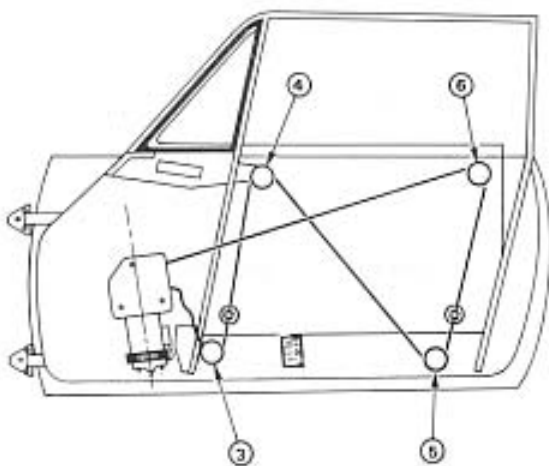
REMOVAL

- Remove the upholstery panel as indicated on page 0231 class 13.
- Fit the clip A to hold the cable in place on the drum.

NOTE - The clip is supplied with each new drive



- Check the window with a block of wood B to gain access to the cable clamps.
- Remove the two clamps 1 and recover the components.
- Remove the adjustable idler pulley 2.



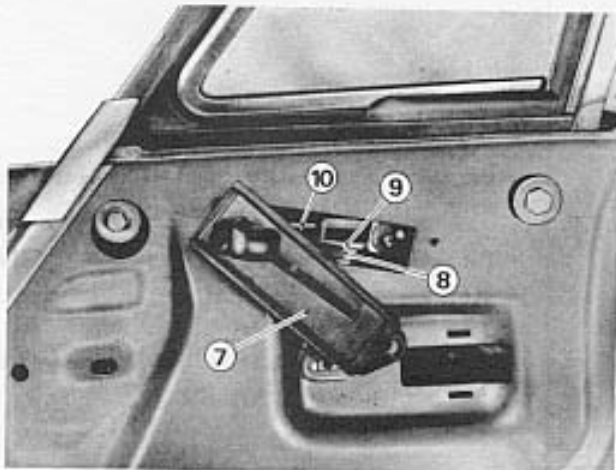
- Disengage the cable from pulleys 3, 4, 5 and 6.
- Leave the cable hanging through the lower opening in the door panel.

PEUGEOT

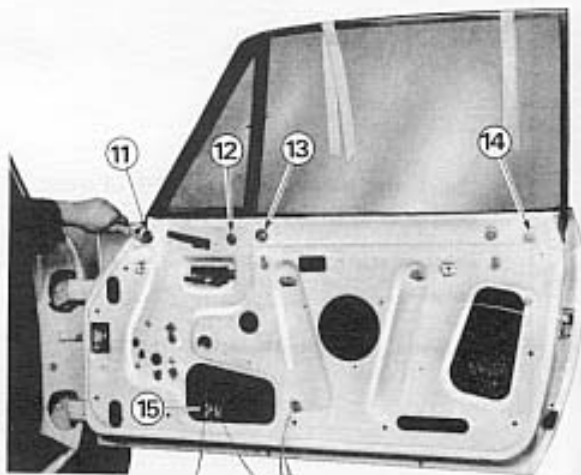
02 62

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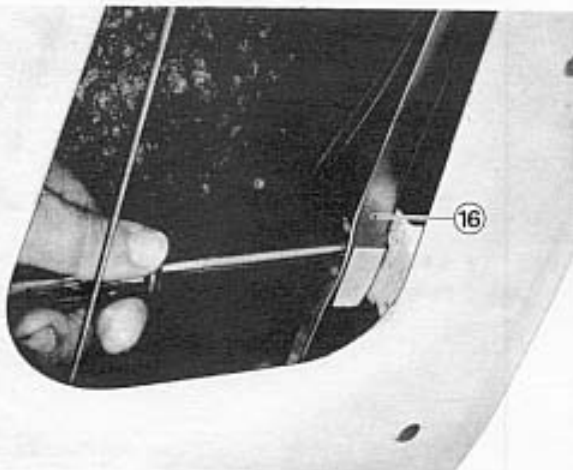
BODYWORK
DOOR WINDOW - COUPES



- Remove the door trims.
- Remove the two screws securing the deflector control 7.
- Slacken the nut 8 to release the bracket 9 of the lever 10.
- Remove the lever 10 by disengaging it towards the front.
- Reclose the deflector.



- Raise the window and hold it in this position with adhesive tape.
- Remove the screws 11, 12, 13, 14.
- Recover the tubular spacer from the screw 12.
- Remove the front guide screw 15.

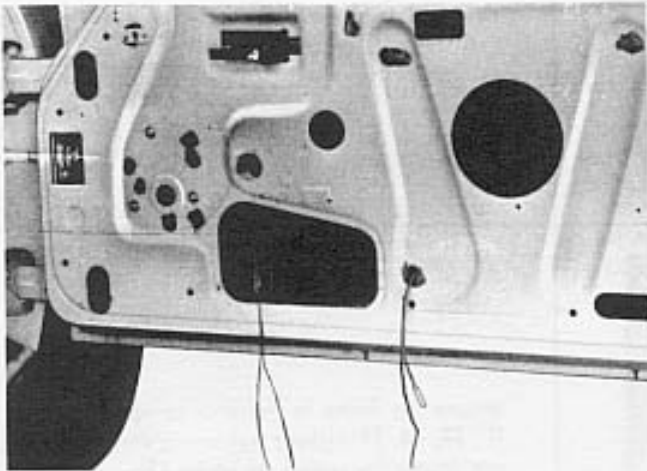


- Unclip the lower part of the window guide 16 and remove its securing screw.
- Remove the frame/deflector assembly carefully.

BODYWORK
DOOR WINDOW - COUPES

13

02 63



REFITTING

- Check :
 - the control cable, which must be in perfect condition. The slightest trace of fraying necessitates replacement of the cable and drum,
 - the five pulleys which must bear no signs of wear.
- Make sure that the pulleys rotate freely and grease them.
- Check the exterior trim/window seal and replace if necessary.



- Place the window in its frame.
- Hold it in the raised position using adhesive tape.

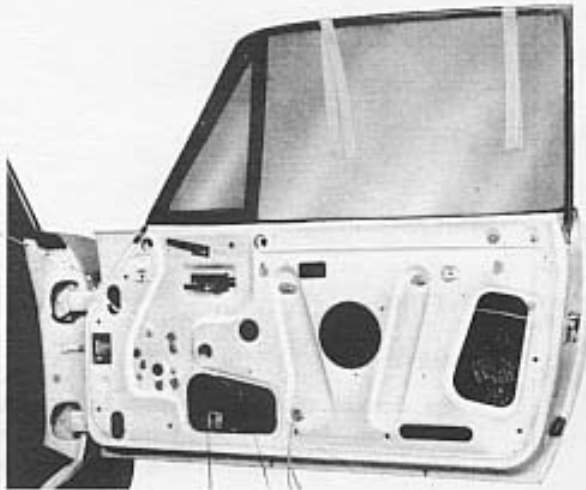
PEUGEOT

02 64

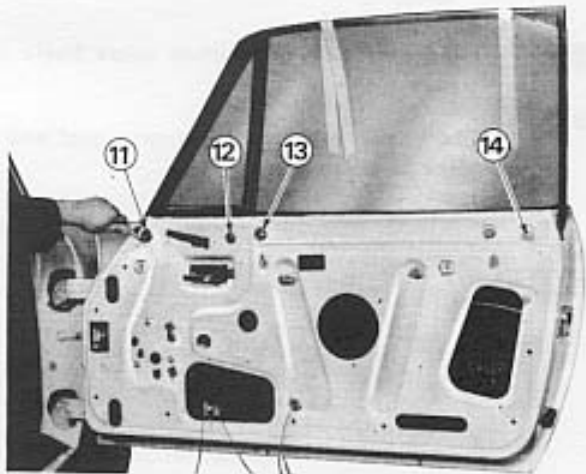
13

BODYWORK

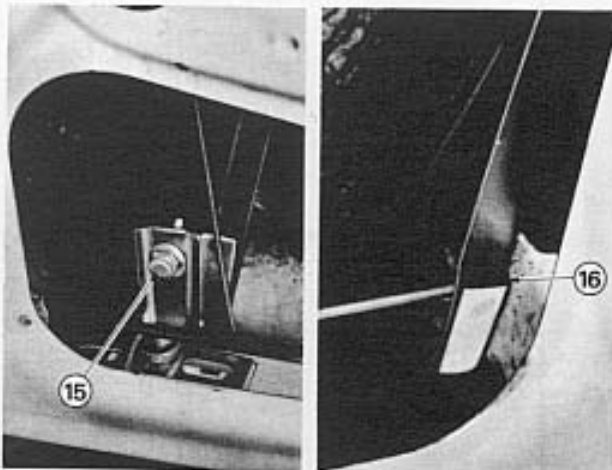
DOOR WINDOW - COUPES



- Fit the frame-window/deflector assembly taking care not to damage the exterior window seal.



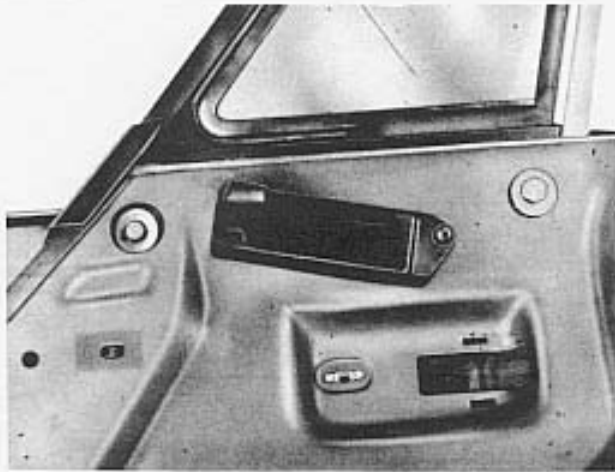
- Secure the frame to the door using the screws 11, 12, 13, 14 without tightening them fully (do not forget the spacer on screw 12).
- Check the frame position and if necessary adjust it until the rear upright is parallel to the door post.
- Tighten the screws 11, 12, 13, 14.



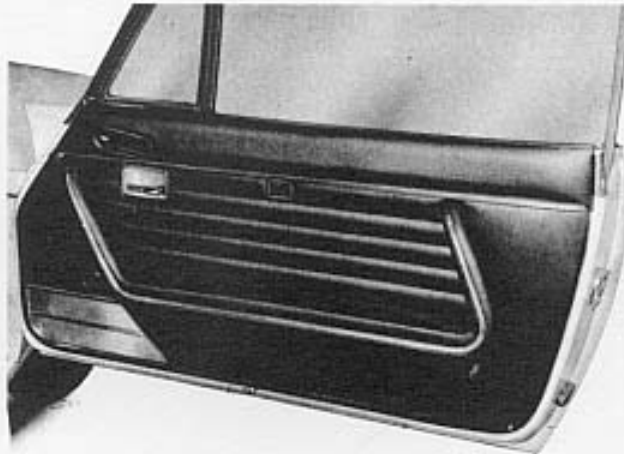
- Secure the frame at the bottom using the screws 15 and 16.
- Refit the cable on the pulleys, secure it to the window (page 02 54 class 13).

BODYWORK
DOOR WINDOW - COUPES

13 02 65



- Refit the deflector control :
 - Pass the lever through the slot and position the rubber seal.
 - Raise the lever in the plastic pivot support.
 - Make sure that the bracket engages in the cutaway on the lever.
 - Tighten the pivot nut.
- Adjust the support, making use of the elongated holes, to obtain complete closing of the deflector.
- Refit the door trims.



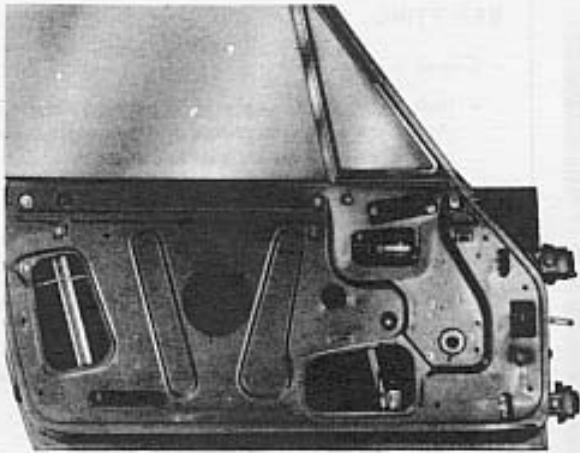
- Refit the upholstery panel (page 02 43 class 13)

PEUGEOT

BODYWORK
DOOR WINDOW - CONVERTIBLES

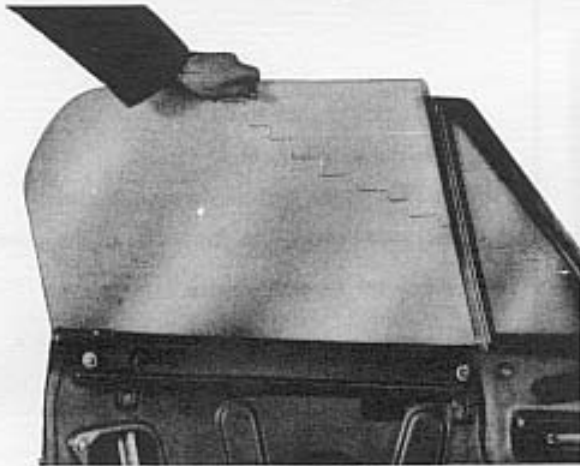
13

02 67



REMOVAL

- Strip the doors indicated on page 02 41 class 13.



- Chock the window to gain access to the cable clamps.
- Remove the two clamps and recover the components.
- Withdraw the window, together with its mobile slide.

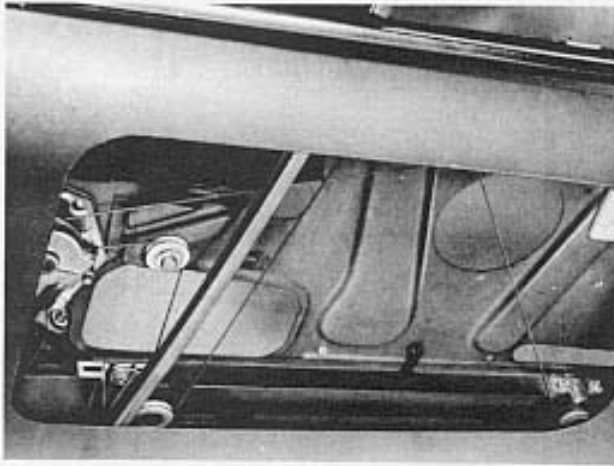
NOTE - If the cable is to be reused it is not worthwhile removing the mechanism components.

0268

13

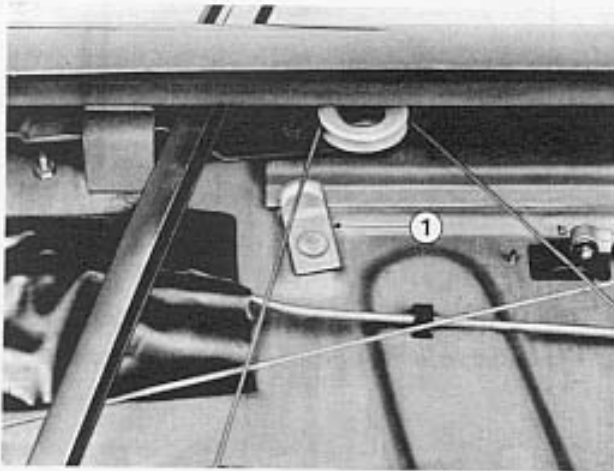
BODYWORK

DOOR WINDOW - CONVERTIBLES

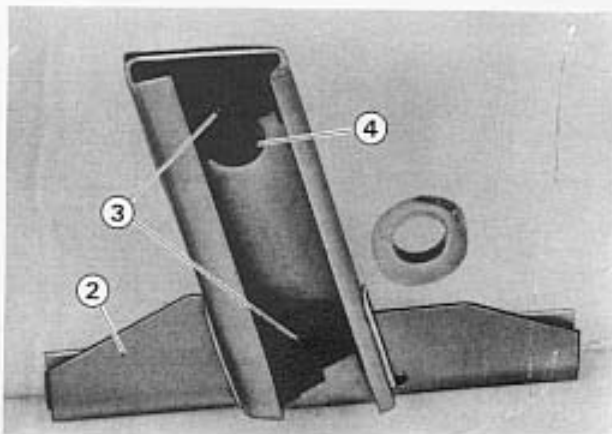


REFITTING

- Check :
 - that the control cable is in perfect condition. Any sign of fraying necessitates replacement of the cable and its control drum.
 - the five pulleys which must bear no trace of wear.
 - the cable and adjust the tension if necessary
 - the exterior window trim and seal ; replace if necessary.
- Make sure that the pulleys rotate freely and grease them.



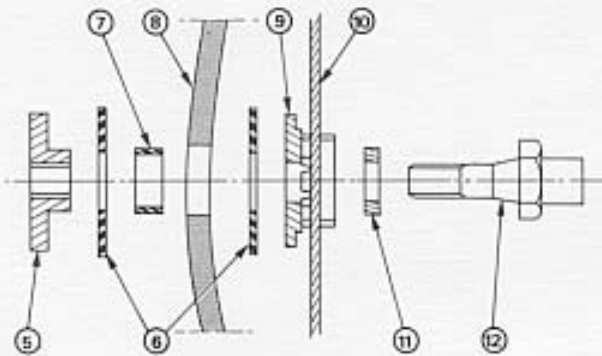
- Check the condition of :
 - the two nylon lugs on the mobile slide.
 - the upper stops 1 on the inside of the panel.
- Replace all defective parts.
- Grease the rear guide.



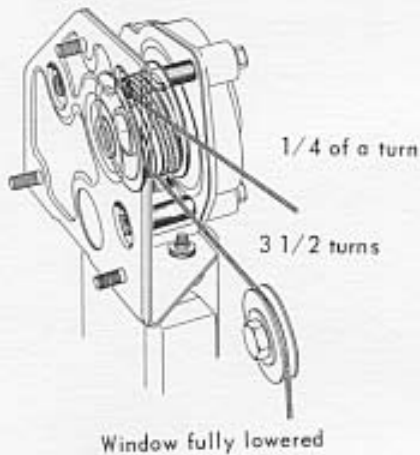
- Fit the mobile slide 2, equipped with its seal and nylon lugs 3, on the window.
- Tighten the screw 4, after inserting the rubber bush and washer between the threaded plate and the glass.
- Engage the glass in the front and rear guides
- at the same time, taking care not to damage the seal and trim or the nylon stops.
- Adjust the rear guide if necessary.

BODYWORK
DOOR WINDOW - CONVERTIBLES

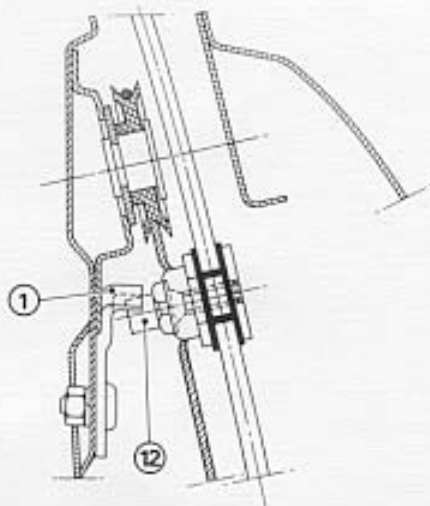
13 02 69



- Position the window to render the cable clamp holes accessible.
- Secure the cable using the clamps assembled in the following order :
 - 5 - threaded plate
 - 6 - rubber washers
 - 7 - rubber bush
 - 8 - window
 - 9 - cable clamp plate
 - 10 - cable
 - 11 - flat steel washer (8 × 14)
 - 12 - bolt
- Do not tighten the clamps yet. Lower the window onto its steps.
- Hold the window against the front guide and tighten the clamps moderately.



- Connect the battery up and operate the window in both directions to check its free movement in the guides.
- The motor is fitted with a thermal cut out which stops it when the window is fully up or down.
- With the window fully raised or lowered one of the cable strands must be at least 1/4 of a turn around the drum.
- Correct the position of the window to obtain this.
- Finally tighten the clamps.



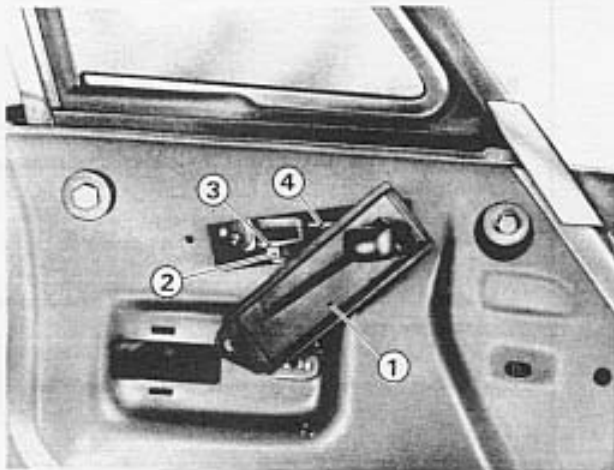
- Operate the window to check its free movement.
- Make sure that the heads of the clamp bolts 12 are in contact with the stops 1 when the top of the glass is flush with that of the deflector.
- Adjust if necessary by moving the stops 1
- Refit the upholstery panel as indicated on page 02 43 class 13.

PEUGEOT

BODYWORK

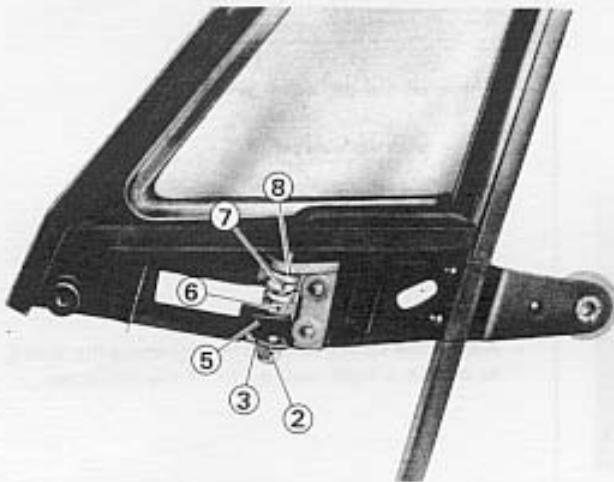
DEFLECTORS - COUPES - CONVERTIBLES

13 0271



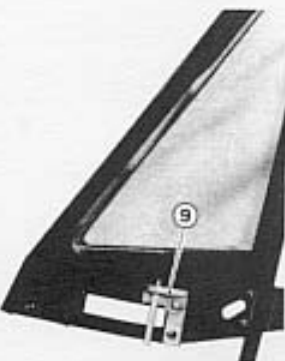
REMOVAL

- Remove the upholstery panel as indicated on page 0241 class 13.
- Remove the screws from the lever frame 1.
- Slacken the nut 2 to free the bracket 3 of the control lever 4.
- Remove the lever 4, disengaging it towards the front.



- Remove :

 - the deflector pivot nut 2
 - the bracket 3
 - the plastic support 5
 - the tension adjuster nut 6
 - the spring 7
 - the washers 8



- Slacken the 2 lower guide nuts 9.
- Lower the guide as far as possible.
- Press on the deflector to disengage the upper hinge.
- Withdraw the deflector upwards.
- Recover the steel and plastic washers.

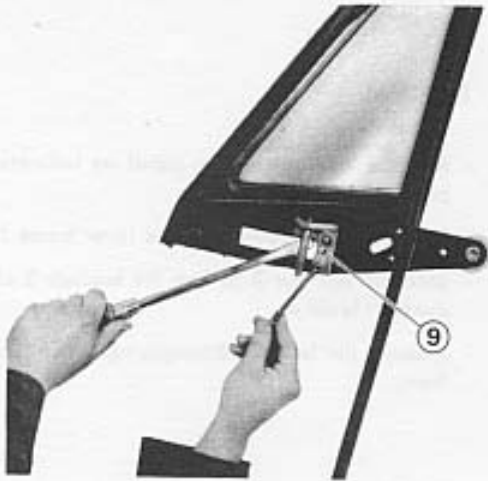
PEUGEOT

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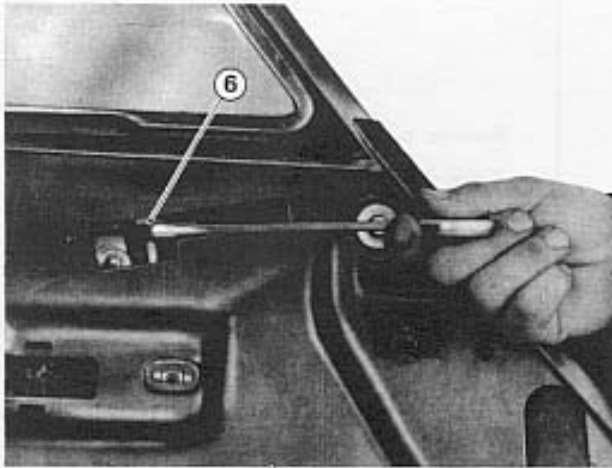
BODYWORK

DEFLECTORS - COUPES - CONVERTIBLES

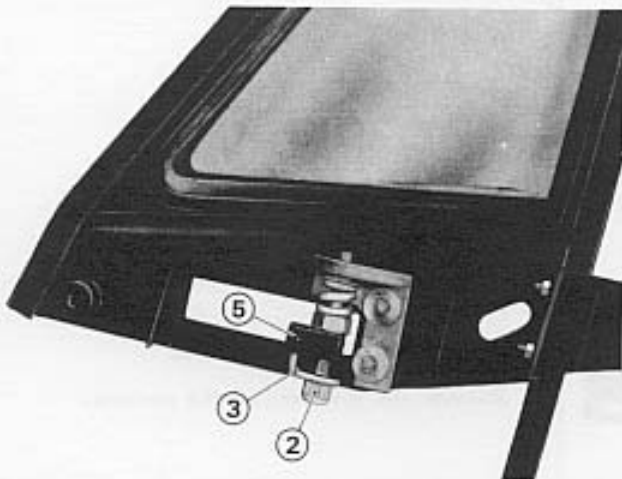


REFITTING

- Fit the metal washer and the plastic washer on the pivot.
- Insert the deflector in the lower guide 9.
- Engage the upper hinge and raise the lower guide as far as possible.
- Tighten the two guide nuts in this position.



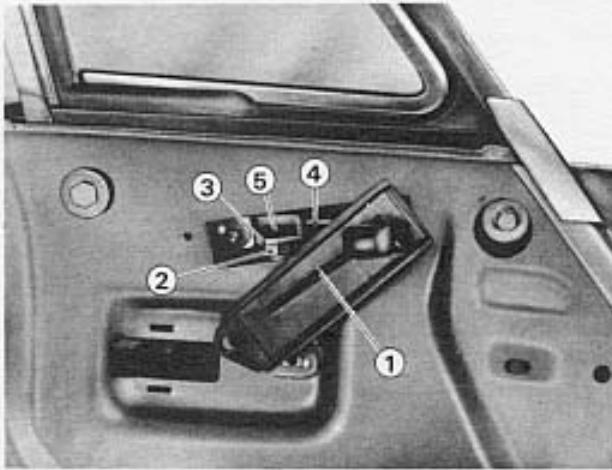
- Place on the deflector pivot :
 - the plastic washer
 - the metal washer
 - the thrust spring
 - the adjusting nut
- Adjust the spring tension by tightening the bolt 6, to obtain a tight moving fit of the deflector.



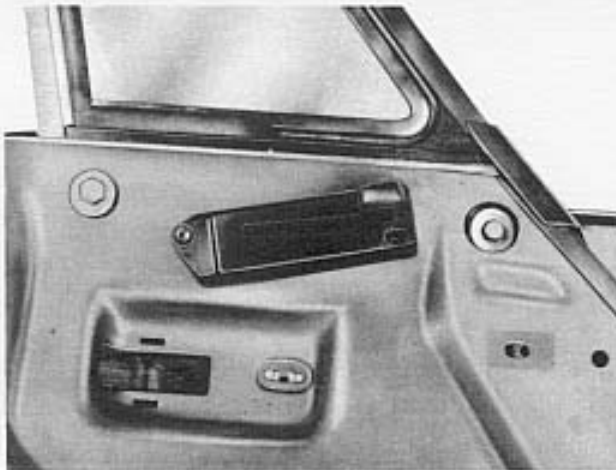
- Fit :
 - the plastic support 5
 - the bracket 3
 - the new nylon stop nut 2

BODYWORK
DEFLECTORS - COUPES - CONVERTIBLES

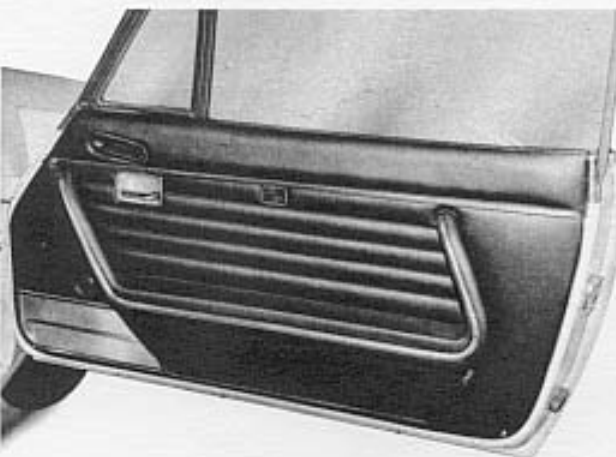
13 0273



- Pass the lever 4 through the slot in the trim 1 and position the rubber gasket.
- Fit the lever in the support 5.
- Make sure that the bracket 3 is engaged in the lever.
- Tighten the pivot nut 2.



- Adjust the trim position, using the elongated holes, to obtain a perfect sealing of the deflector.



- Refit the upholstery panel as indicated on page 02 43 class 13.

PEUGEOT

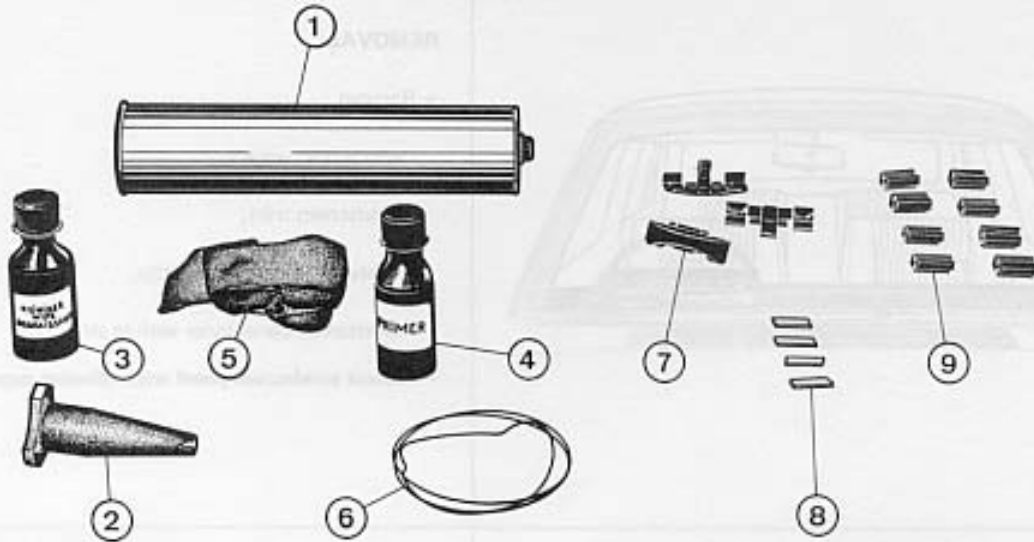
WINDSCREEN (STUCK-ON)

REMOVAL - REFITTING

13

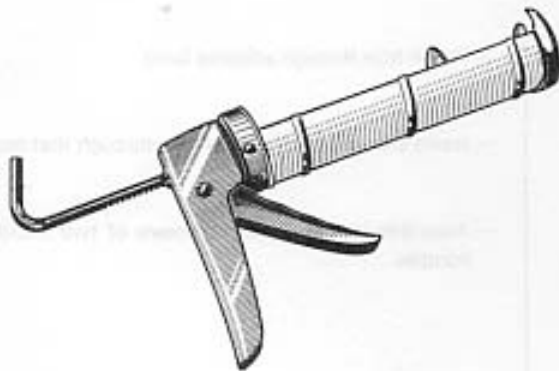
05 11

REPAIR KIT CONTENTS



- 1 - Windscreen bonding compound cartridge
- 2 - Cartridge tube
- 3 - Degreaser (Wipe)
- 4 - Primer
- 5 - Rubbing-down paper
- 6 - Piano wire
- 7 - Windscreen trim clips (20)
- 8 - Shims (4)
- 9 - Packing pieces (8)

PEUGEOT



RECOMMENDED TOOLS

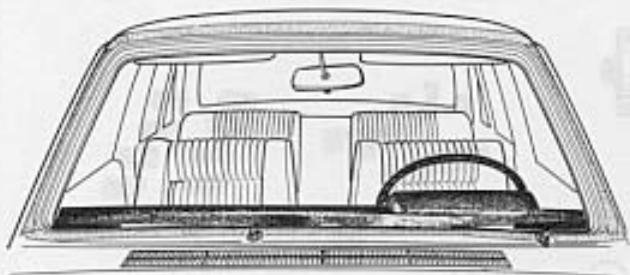
Extrusion gun for compound cartridge.
P.N. 9 798.14.

05 12

13

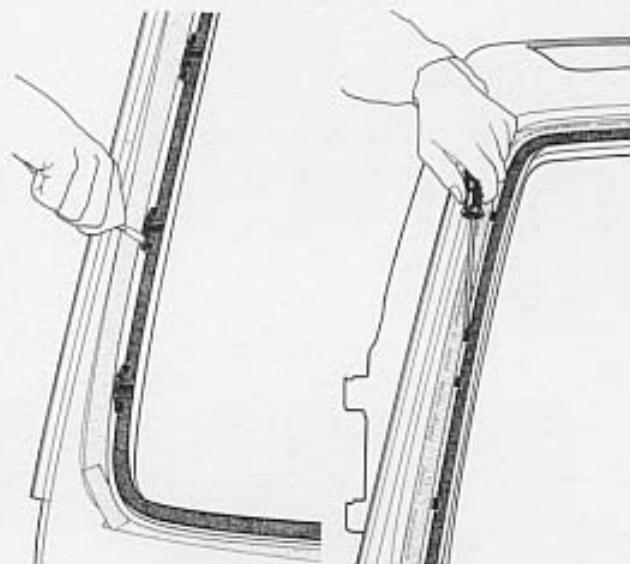
WINDSCHEEN (STUCK-ON)

REMOVAL - REFITTING

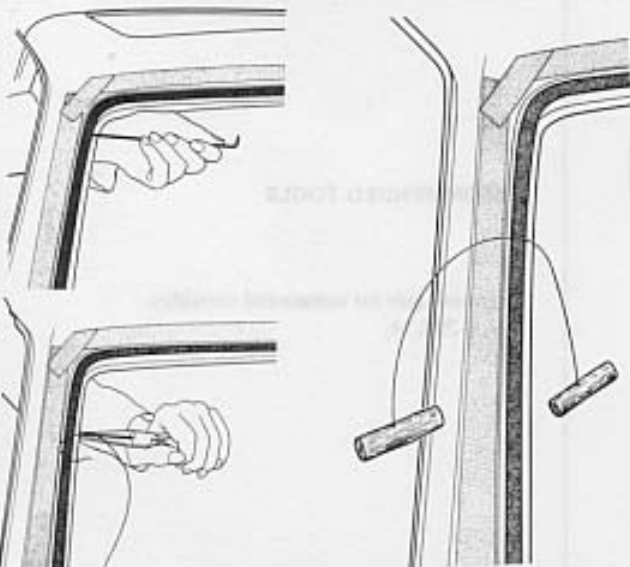


REMOVAL

- Remove :
- windscreen wipers,
- windscreen trim,
- safety instrument panel top,
- windscreen panel inner sealing strip
- **Protect windscreen panel with adhesive paper.**



- Remove clips,



- Punch hole through adhesive band.
- Insert one end of the piano wire through that hole
- Assemble tool as drawn by means of two wooden handles.

WINDSCREEN (STUCK-ON)

REMOVAL - REFITTING

13

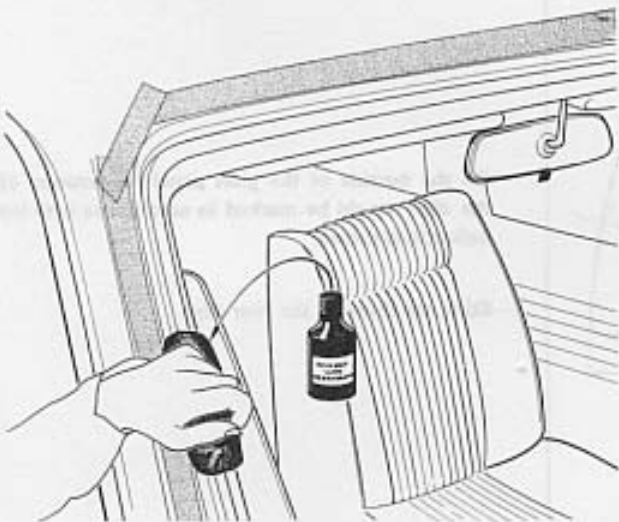
05 13



- Cut the adhesive band by a slow back and forth movement.

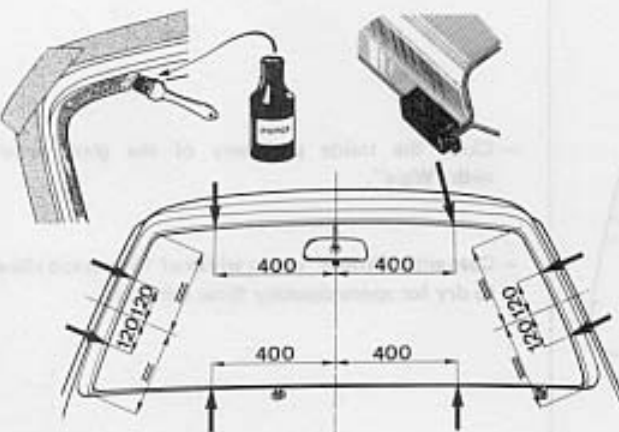
During this operation :

- inside, maintain the piano wire against the glass panel,
 - outside, draw the wire parallel to the windscreen panel.
- Remove glass panel.



PREPARING WINDSCREEN PANEL

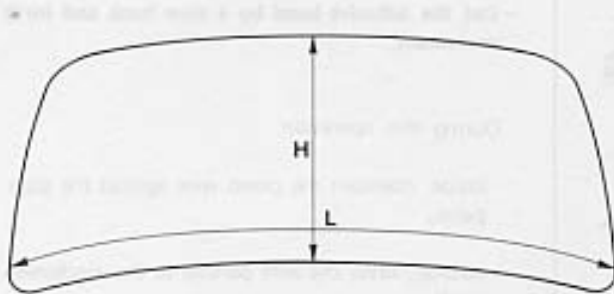
- Remove bonding compound.
- Proceed with a finishing coat of paint in the panel as required.
- Clean out the groove with the diluant (Wipe).



- If any traces of product remain, coat the groove with Primer.
- Place spacer shims along the groove as shown in the picture.

WINDSCREEN (STUCK-ON)

REMOVAL - REFITTING



PREPARING THE GLASS PANEL

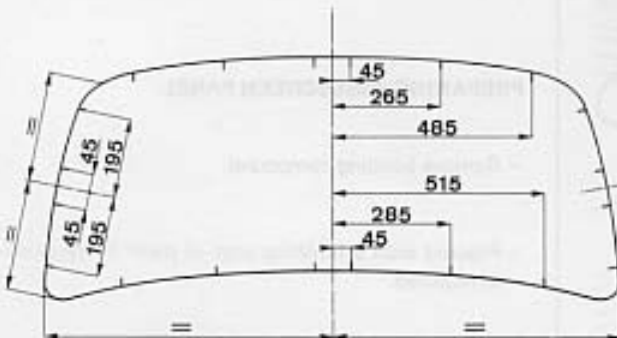
BEWARE

Fit a new windscreen of the following dimensions :

H = 593.5 mm x L = 1406 mm

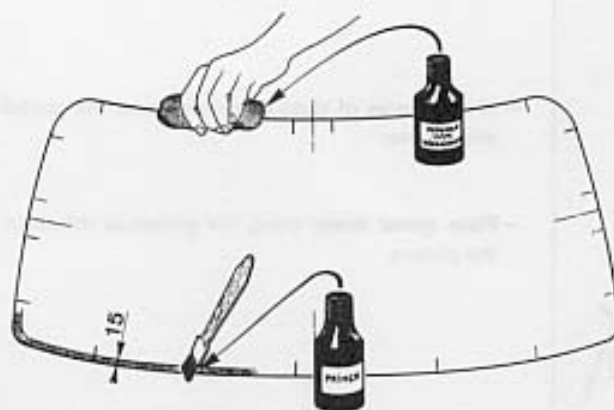
NOTE - Windscreen dimensions after assembly with a rubber strip :

H = 587.5 mm x L = 1400 mm.



- On the outside of the glass panel the position of the clips should be marked in accordance with the indications shown.

- Stick the shims to the four clips.



- Clean the inside periphery of the glass panel with "Wipe".

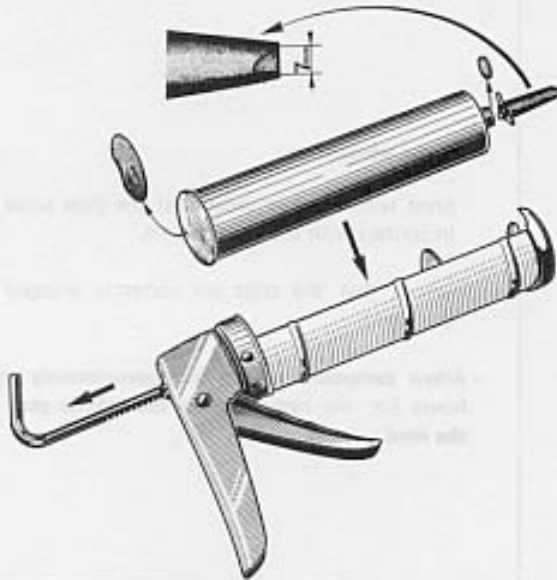
- Coat with "Primer" over a width of 15 mm and allow to dry for approximately three minutes.

WINDSCREEN (STUCK-ON)

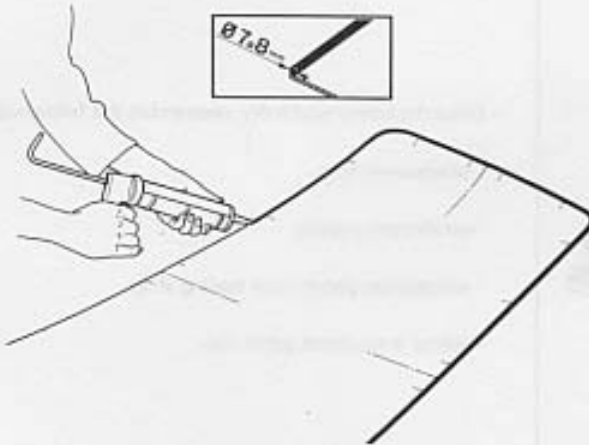
REMOVAL-REFITTING

13

05 15



- Cut the end of the plastic nozzle according to the diagram opposite to obtain an interior diameter of 7 mm.
- Remove caps from the ends of the cartridge.
- Screw on plastic tube.
- Place the assembly in the extrusion gun.



- Extrude a bead of bonding compound of 7 to 8 mm diameter along the inner edge of the windscreen.
- The windscreen will have to be fitted within the next following five minutes.



- Place four clips with spacer shims as shown.
- Fit the next 16 clips as shown.

PEUGEOT

WINDSCREEN (STUCK-ON)

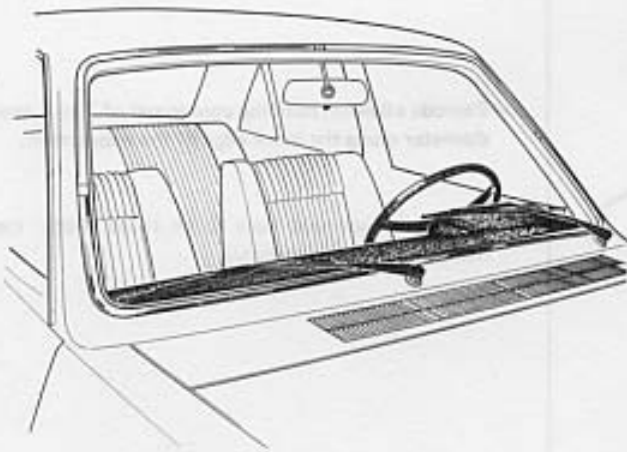
REMOVAL - REFITTING



– Fit the windscreen :

- press with hand in order that the glass panel be in contact with the spacer shims,
- ensure that the clips are correctly engaged in the frame.

– Allow compound to dry for approximately eight hours (or one night) before the vehicle goes on the road.



– Once the compound is dry, reassemble the following :

- windscreen trim,
- windscreen wipers,
- windscreen panel inner sealing strip,
- safety instrument panel top.



LUBRICATION AND MAINTENANCE CHARTS

Pages

Service Station

Lubrication chart for mechanical parts	{	504 GL	05 01 (1)
		504 Injection	05 11 (1)
		504 L - 504 Long Vehicles	05 21

Lubrication chart for bodywork	{	504 Saloon	05 31 (1)
		504 Long Vehicles	05 41

Workshop

Recommended maintenance	{	504 Carburetor	05 51 (1)
		504 Injection	05 52 (1)

INDUSTRIAL - MONTREUIL

LE DÉPART DE LA MAINTENANCE - MONTREUIL



LUBRICATION - MECHANICAL COMPONENTS
PEUGEOT 504 Injection
XM-KF6-KF5-XN2 Engines

ITEM	DESCRIPTION	UNIT	QUANTITY
1	Oil	L	10
2	Oil	L	10
3	Oil	L	10
4	Oil	L	10
5	Oil	L	10
6	Oil	L	10
7	Oil	L	10
8	Oil	L	10
9	Oil	L	10
10	Oil	L	10
11	Oil	L	10
12	Oil	L	10
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100	Oil	L	10

STANDARD CYCLE NUMBER

PEUGEOT

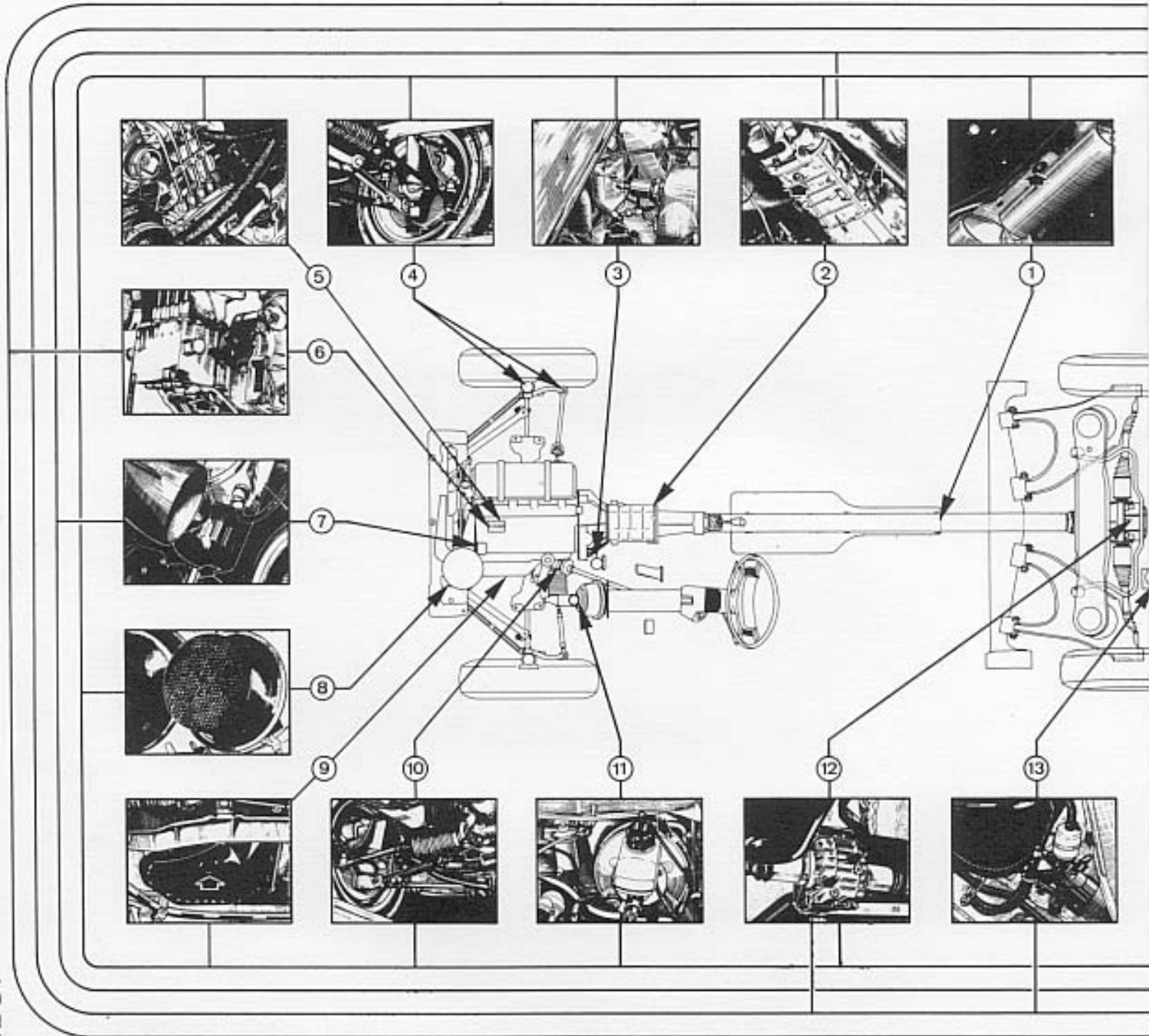
LUBRICATION AND MAINTENANCE

LUBRICATION CHART - MECHANICAL COMPONENTS

14

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PEUGEOT 504 Injection
XM-KF6-KF5-XN2 Engines



PEUGEOT

SERVICE STATION MAINTENANCE

FREQUENCY OPERATION	UNIT	FIG.	
Every 3,000 m (5,000 km)	Drain and Refill Engine	9	
	Top-Up	Injection Pump	5
		Gearbox	2
		Differential	12
		Radiator	
		Screen Washer	
	Battery		
Hydraulic System	11		
Lubricate	Mechanical components and Bodywork	1.4	
		10	
Clean	Air filter element	8	
Purge	Petrol filter	3	
Check	Hydraulic system for leaks Tyres for condition and pressures		
At 3,000 m (5 000 km) At 6,000 m (10 000 km) and every 6,000 m (10 000 km)	Replace	Oil Filter Cartridge	7
At 3,000 m (5 000 km) and every 9,000 m (15 000 km)	Drain and Refill	ZF Automatic Transmission	
	Drain and Refill	5A7 Gearbox	2
Every 6,000 m (10 000 km)	Check	Condition of rubber protector protectors and gaitors. Fuel lines for leaks	
Every 9,000 m (15 000 km)	Drain and Refill	Differential	12
	Replace	Petrol filter element and Prefilter	3 13
Every 30,000 m (50 000 km)	Drain and Refill	Injection pump	6

RECOMMENDED LUBRICANTS

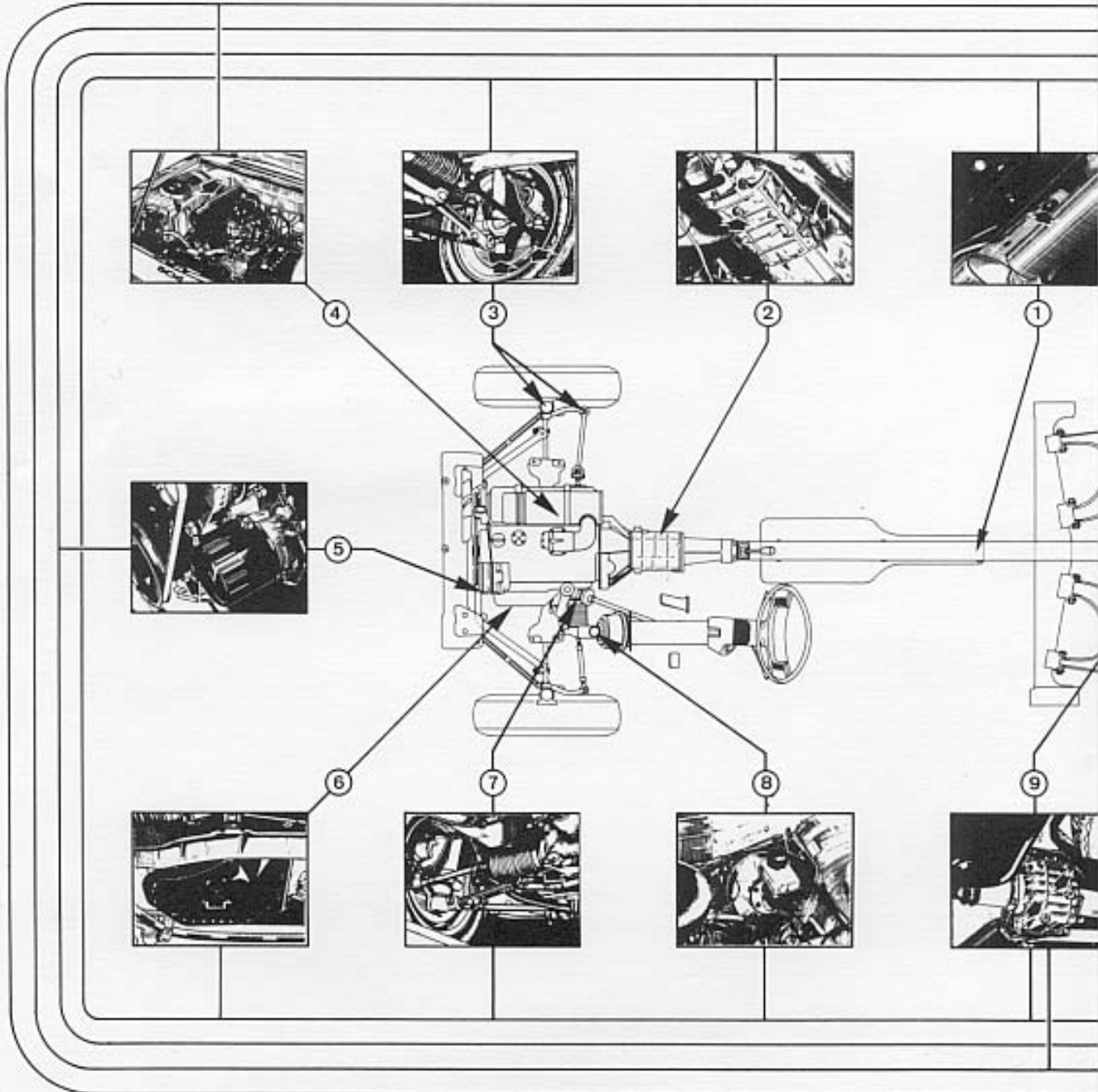
LUBRICANT	UNIT	QUANTITY
ESSO UNIFLO 10 W 50	Engine	7 pts. (4 l)
	Gearbox	2.1 pts. (1,15 l)
	Air filter bowl	0.9 pts. (0,5 l)
ESSO GEAR OIL GX 80	Differential	2.1 pts. (1,2 l)
ESSO MULTIPURPOSE GREASE H	Mechanical Components	8 nipples
LOCKHEED 55 NAFIC FN 3 PEUGEOT	Hydraulic System	
ESSOLUBE 10 W	Injection Pump	0.7 pts. (0,4 l)
ESSO AUTOMATIC TRANSMISSION FLUID DEXRON B10	ZF Automatic Transmission	8.5 pts. (2 l)

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LUBRICATION CHART - MECHANICAL COMPONENTS
PEUGEOT 504 GL



PEUGEOT 504 GL



PEUGEOT

SERVICE STATION MAINTENANCE

FREQUENCY OPERATION		UNIT	FIG.
Every 3,000 m (5 000 km)	Drain and Refill	Engine	6
	Top-Up	Gearbox	2
		Differential	9
		Radiator	
Screen Washer			
Battery			
Hydraulic System	8		
Lubricate	Mechanical Components and Bodywork	1-3	
Check	Hydraulic system for leaks. Tyres for condition and pressures		
At 3,000 m (5 000 km) At 6,000 m (10 000 km), and every 6,000 m (10 000 km)	Replace	Oil filter cartridge	5
Every 6,000 m (10 000 km)	Drain and Refill	BA7 Gearbox	2
	Check	Condition of rubber protectors and gaitors	
At 3,000 m (5 000 km) and every 9,000 m (15 000 km)	Drain and Refill	ZF Automatic Transmission	
Every 9,000 m (15 000 km)	Drain and Refill	Differential	9
Every 12,000 m (20 000 km)	Replace	Air filter element	4



RECOMMENDED LUBRICANTS

LUBRICANT	UNIT	QUANTITY
ESSO UNIFLOW 10 W 50	Engine	7 pts. (4 l)
	BA7 Gearbox	2.1 pts. (1,15 l)
ESSO GEAR OIL GX 80	Differential	2,8 pts. (1,2 l)
ESSO MULTIPURPOSE GREASE H	Mechanical components	6 nipples
LOCKHEED 55 NAFIC FN3 PEUGEOT	Hydraulic System	
ESSO AUTOMATIC TRANSMISSION FLUID DEXRON B10	ZF Automatique Transmission	3.5 pts. (2 l)

5000

10000

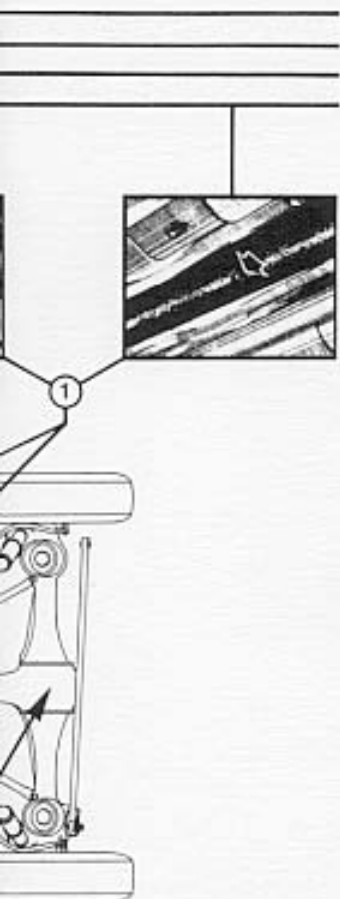
15000

20000

LUBRICATION CHART - MECHANICAL COMPONENTS
PEUGEOT 504 L and related carburettor models



LIBRICATION CHART - SERVICE STATION MAINTENANCE



FREQUENCY OPERATION	UNIT	FIG.	
Every 3,000 m (5 000 km)	Drain and Refill	Engine	6
	Top-Up	Gearbox	2
		Differential	9
		Radiator Screen Washer Battery Hydraulic System	8
Lubricate	Mechanical Components and Bodywork	1-3 7	
Check	Hydraulic System for leaks, Tyres for condition and pressures		
At 3,000 m (5 000 km) At 6,000 m (10 000 km), and every 6,000 m (10 000 km)	Replace	Oil Filter Cartridge	5
Every 6,000 m (10 000 km)	Drain and Refill	BA7 Gearbox	2
	Check	Condition of rubber protectors and gaitors	
At 3,000 m (5 000 km) and every 9,000 m (15 000 km)	Drain and Refill	ZF Automatic Transmission	
Every 12,000 m (20 000 km)	Replace	Air Filter Element	4
Every 19,000 m (30 000 km)	Drain and Refill	Differential	9

RECOMMENDED LUBRICANTS

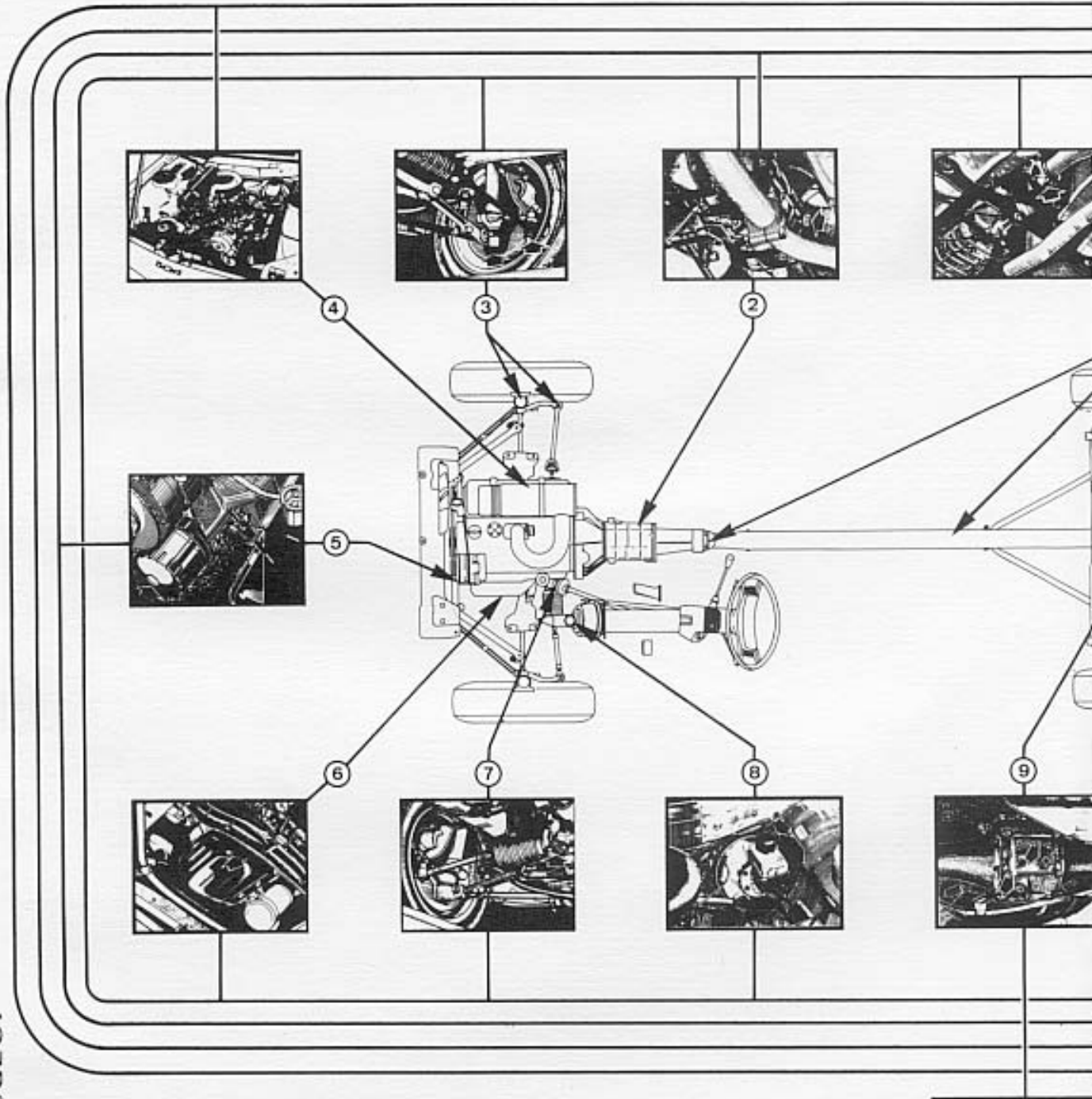
LUBRICANT	UNIT	QUANTITY
ESSO UNIFLO 10 W 50	Engine	7 pts. (4 l)
	BA7 Gearbox	2,1 pts. (1,15 l)
ESSO GEAR OIL GX 80	Differential	2 pts. (1,6 l)
ESSO MULTIPURPOSE GREASE H	Mechanical Components	7 nipples
LOCKHEED 55 NAFIC FN3 PEUGEOT	Hydraulic System	
ESSO AUTOMATIC TRANSMISSION FLUID DEXRON B10	ZF Automatic Transmission	3,5 pts. (2 l)

- 5 000
- 10 000
- 15 000
- 20 000
- 30 000

LUBRICATION AND MAINTENANCE
LUBRICATION CHART - MECHANICAL COMPONENTS

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PEUGEOT 504 L and related carburettor models



PEUGEOT



LUBRICATION CHART FOR MECHANICAL PARTS PEUGEOT 504 Saloon

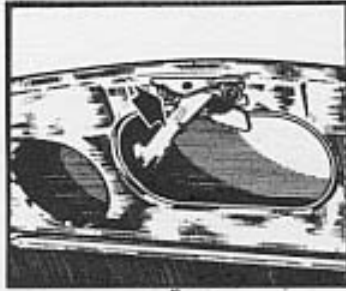


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LUBRICATION AND SERVICING
LUBRICATION CHART FOR MECHANICAL PARTS

14 05 31⁽¹⁾

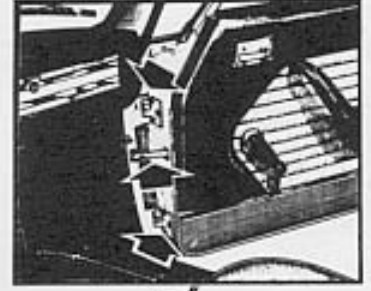
PEUGEOT 504 Saloon



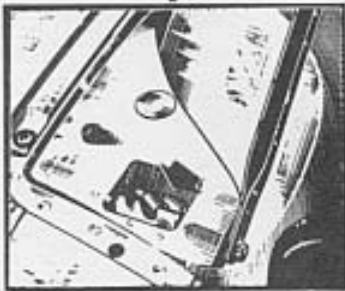
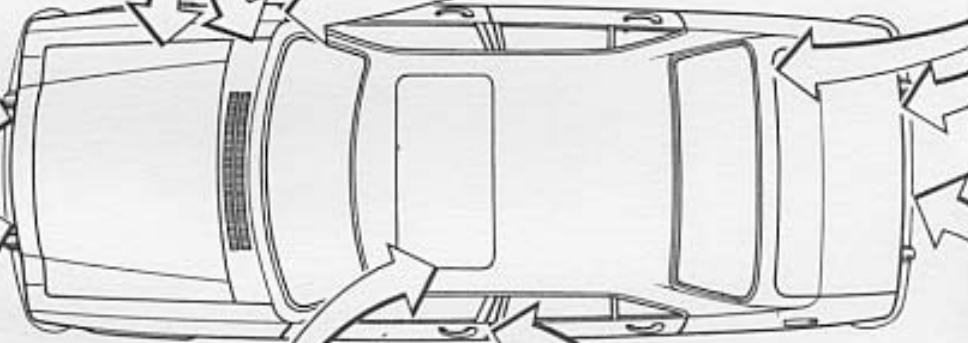
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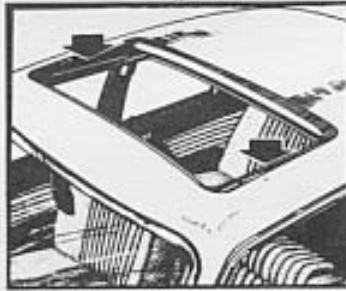
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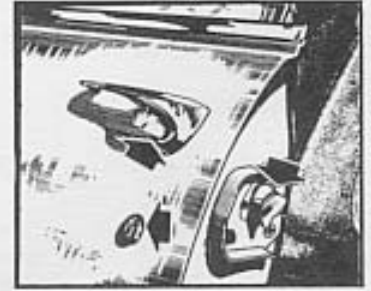
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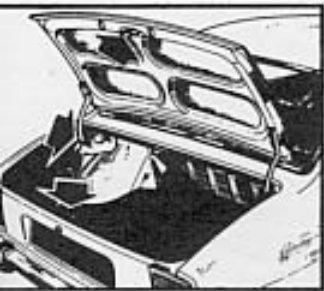


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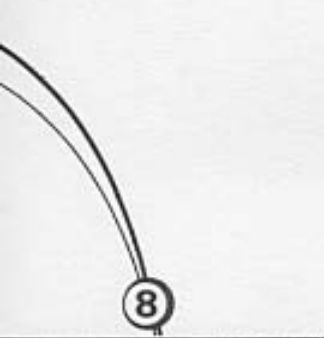


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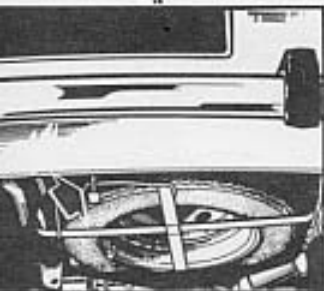
PEUGEOT



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8



BODYWORK LUBRICATION	
	Figures
With ESSO HANDY OIL	
Bonnet safety hook Bonnet hinges and stay Door hinges and catch plates Boot hinges and lock Bonnet safety catch Spare wheel carrier and lock	
With glycerine	
Door locks	
With motor oil	
Linkage : - handbrake - gear change	
Cables : - heater control - bonnet release	

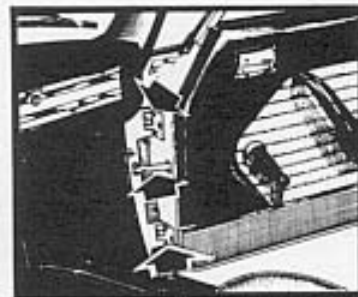
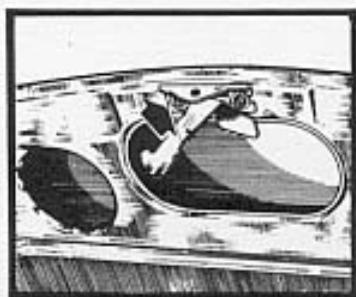


LUBRICATION CHART OF BODYWORK
PEUGEOT 504 Long Vehicles



PEUGEOT

PEUGEOT 504 Long Vehicles



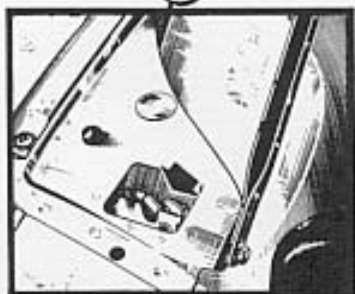
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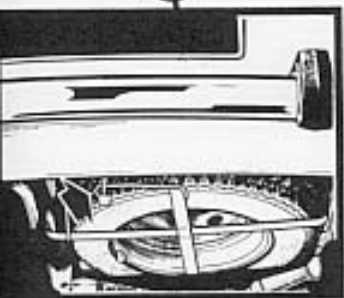
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PEUGEOT

LUBRICATION CHART OF BODYWORK
 PEUGEOT 504 Coupé Variant



LUBRICATION OF BODYWORK	
	Figures
With ESSO HANDY OIL	
Bonnet safety catch	1
Bonnet hinges and stay	2
Door hinges and check straps	3
Boot hinges and locks	4
Boot lock assembly	5
Spare wheel carrier and lock	7
With glycerine	
Door locks	6
With engine oil	
Linkages :	
- handbrake	
- gear change control	
Cables :	
- heater control	
- bonnet release	

LUBRICATION AND MAINTENANCE
 PERIODICAL WORKSHOP SERVICING - 504 CARBURETOR TYPE

14

05 51⁽¹⁾

FREQUENCY		PARTS
Every 3,000 miles (5 000 km)	Inspection	- Thickness of brake pads
At 6,000 miles (10 000 km)	Checking	- Tightness of gearbox rear support (504 L - 504 Long Vehicles)
Every 6,000 miles (10 000 km)	Checking	- Spark plugs (replace as required)
	or	- Cam angle
At 12,000 miles (20 000 km)	Adjusting	- Timing (advance)
		- Idling
		- Air gap and running of disengaging fan
At 12,000 miles (20 000 km)	Cleaning	- Tension and state of alternator belt
		- Adjusting hand brake and linings (504 Long Vehicles)
Every 12,000 miles (20,000 km)	Replacing	- Tightening of safety devices and door catches
	Dusting out	- Road or bench test and inspection
At 12,000 miles (20,000 km), 24,000 miles (40 000 km) and at every 24,000 miles (40 000 km)	Adjusting	- Carburetor - fuel pump
		- Air filter element
Every 24,000 miles (40 000 km)*	Bleeding	- Rear brakes (504 L - 504 Long Vehicles)
		- Rockers
Every 24,000 miles (40 000 km)*	Bleeding	- Hydraulic system

* Or every 2 years if the vehicle is infrequently used.*

PEUGEOT

0552⁽¹⁾

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LUBRICATION AND MAINTENANCE
 PERIODICAL WORKSHOP SERVICING - 504 INJECTION TYPE

FREQUENCY		PARTS
Every 3,000 miles (5000 km)	Checking	- Thickness of brake pads, - Spark plugs (replace as required) - Fuel filter
	Purging	
Every 6,000 miles (10000 km)	Checking	- Cam angle - Timing (Advance) - Idling - Air gap and running of the disengaging fan - Tension and state of alternator and water pump belts - Tightening of safety devices and door catches - Road or bench test and inspection
	or Adjusting	
Every 9,000 miles (15000 km)	Replacing Lubrication	- Fuel prefilter - Fuel filter Cartridge - Injection pump piston
At 12,000 miles (20000 km), 24,000 miles (40000 km) and at every 24,000 miles (40000 km)	Adjusting	- Rockers
Every 24,000 miles (40000 km)*	Bleeding	- Hydraulic system
Every 30,000 miles (50000 km)	Purging	- Injection pump

* Or every 2 years if the vehicle is infrequently used.

BENECOL

Pages

Tools for replacing the throttle flap spindle KF 5 and XN 2

01 01

ACCESSORIES

504 Saloon towing attachment

- Identification

02 11

- Adaptation

02 12

- Wiring

02 15

504 Derivatives towing attachment

- Identification

02 21

- Adaptation

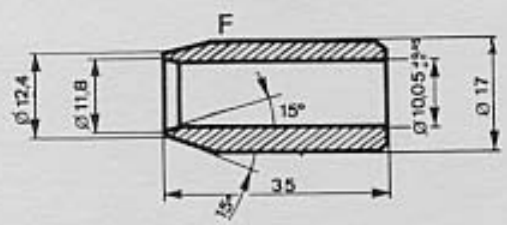
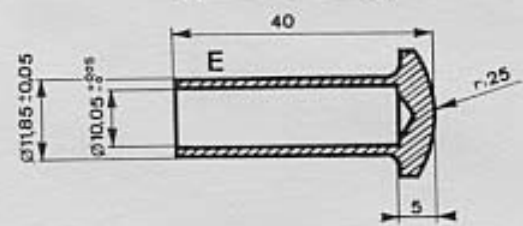
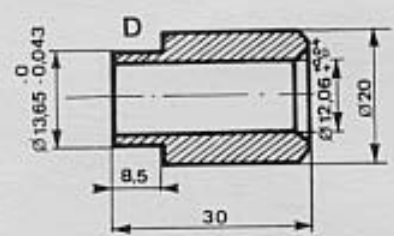
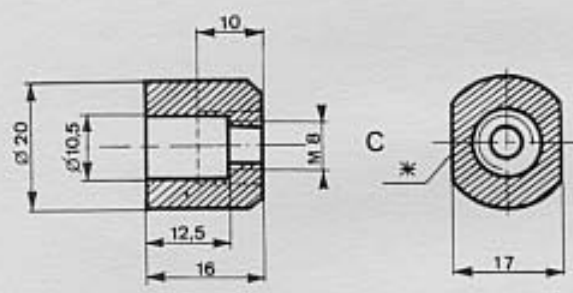
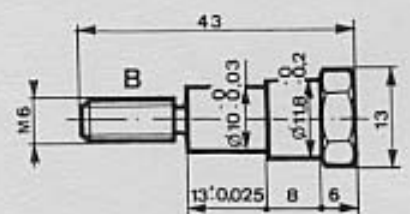
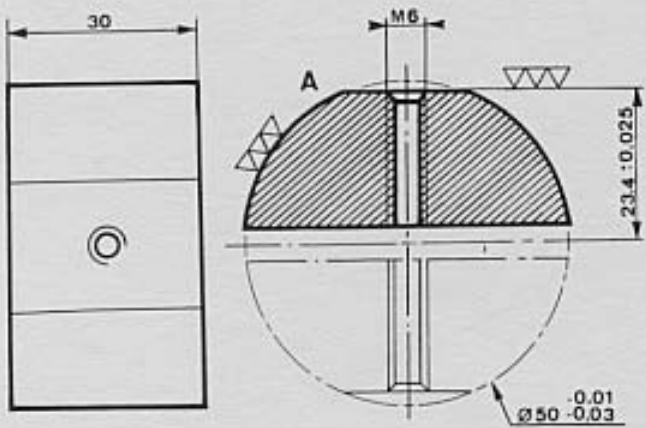
- Wiring

02 23

TOOLS

TOOLS TO BE REALISED

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18 CD4 steel

A - Nut for installing the DU bush,

B - Draw bolt,

C - Throttle spindle retaining nut,

D - Guide for the 2nd bush,

E - Drift for the 2nd bush

F - Drift for the seals,

PEUGEOT

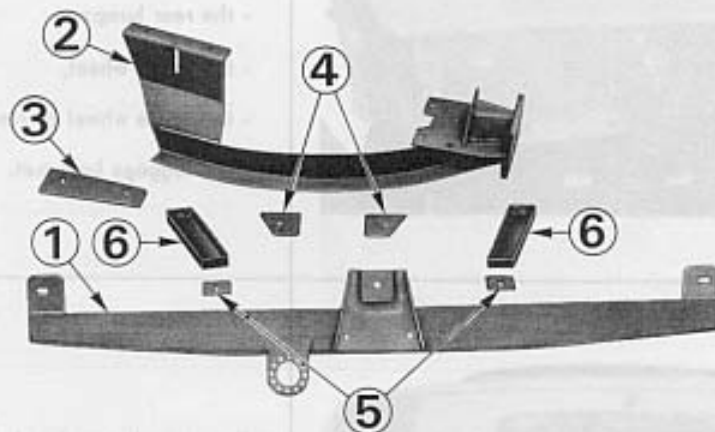
GENERAL

504 SALOON - TOWING ATTACHMENT

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IDENTIFICATION



- 1 - Angle plate - secured to the rear floor crossmember.
- 2 - Anti-torque arm - transferring the thrust to the floor reinforcement plate.
- 3 - Counter-plate - Front (1).
- 4 - Counter-plates - Rear (2).
- 5 - Thickness plates (2).
- 6 - Spacers (2).

The homologated towing attachment, described above, is sold by the Spare Parts Department under reference 9748.54, and is to be used for 504 Saloons.

Reminder

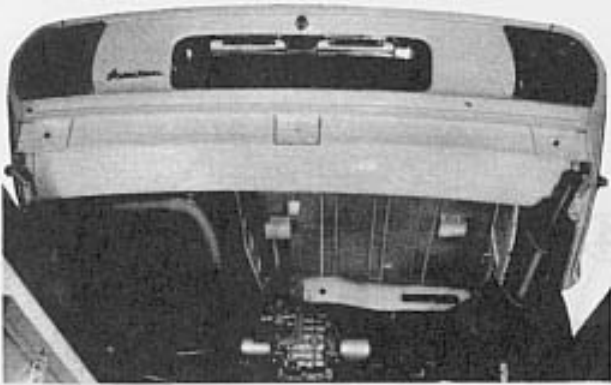
Towing capacity of the 504 Saloon : 2,425 lbs (1,100 kg).

Maximum towing speed (France : 50 m.p.h. (80 km/h).

NOTE :

The securing nuts and bolts must be retightened after the first 600 miles (1,000 km) of towing.

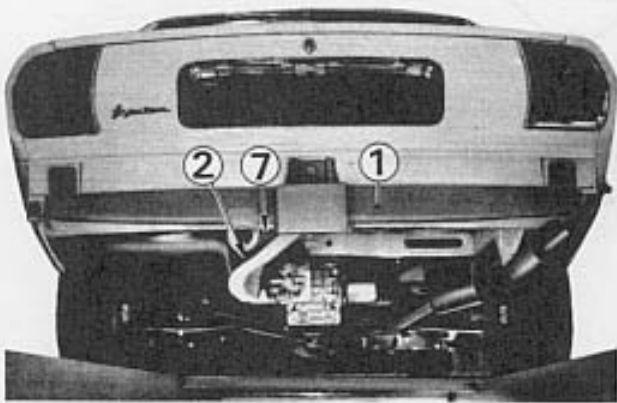
GENERAL
504 SALOON - TOWING ATTACHMENT



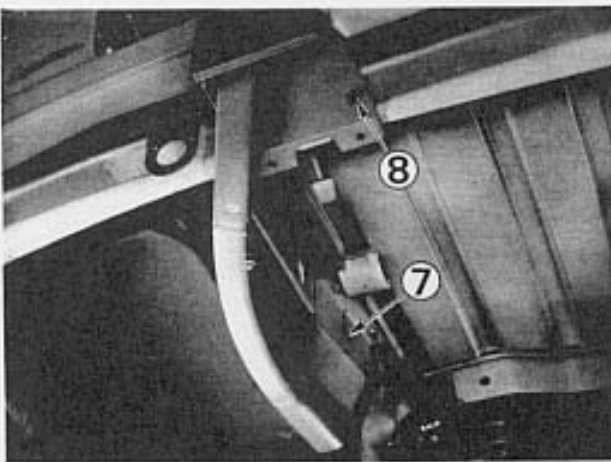
FITTING

- Remove :

 - the rear bumper,
 - the spare wheel,
 - the spare wheel carrier,
 - the luggage boot mat.



- Position the angle plate 1 and secure it with the central bumper bolt.
- Position the anti-torque arm 2.
- Hold this in place, with a bolt, on the cross-bar of the plate 1 and with the bolt 7 which secures the spare wheel carrier.

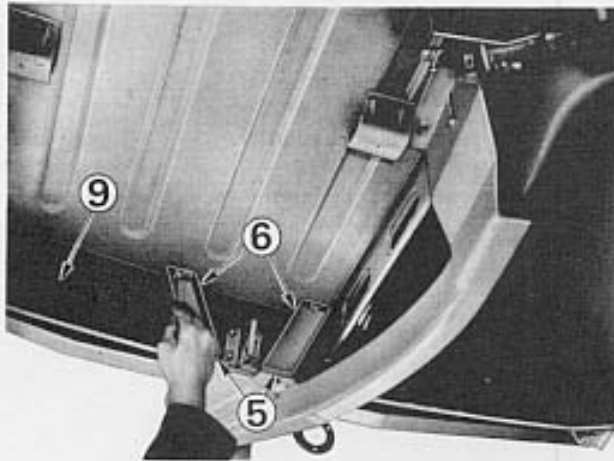


- Press the front of the anti-torque arm against the floor and tighten the nut 7.
- Also tighten the bolt 8 to obtain a correct positioning of the arm.
- Trace the position of the front arm mounting holes.

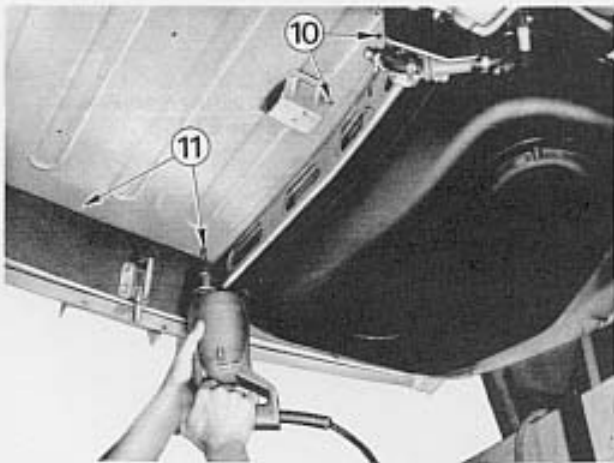
GENERAL

504 SALOON - TOWING ATTACHMENT

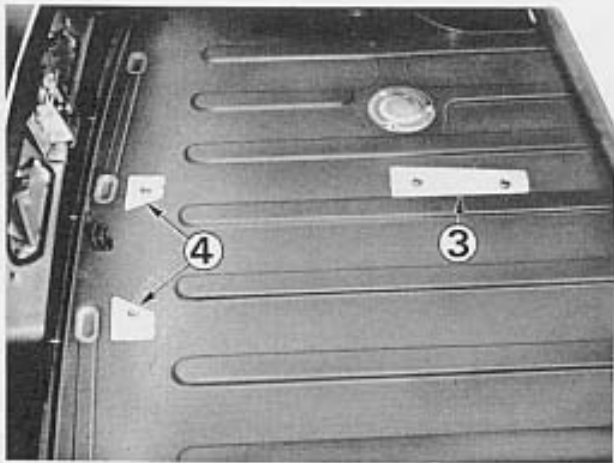
15 0213



- Position the spacers 6 placing the thickness plates 5 between them and the anti-torque arm. These plates incorporate a shouldering designed to take up the thickness of the underbody plates held between the iron fittings.
- Using two bolts secure the spacers to the anti-torque arm taking care to position them parallel to the lower sheet metal crossmember 9.
- Mark the position of the holes for the top spacer mountings.



- Remove the anti-torque arm.
- Drill two holes of 8.5 mm diameter in the floor to enable the front, 10 and rear, 11 securing of the anti-torque arm.



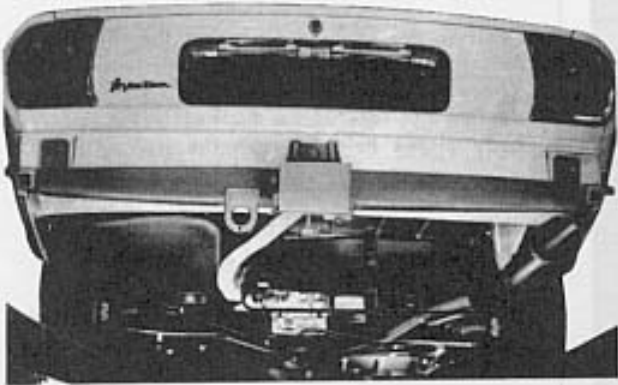
- Refit the anti-torque arm. Secure it to the crossmember and rear floor after positioning the spacers 3 and 4.
- Tighten down the bolts securing the towing attachment.

PEUGEOT

0214

15

GENERAL
504 SALOON - TOWING ATTACHMENT



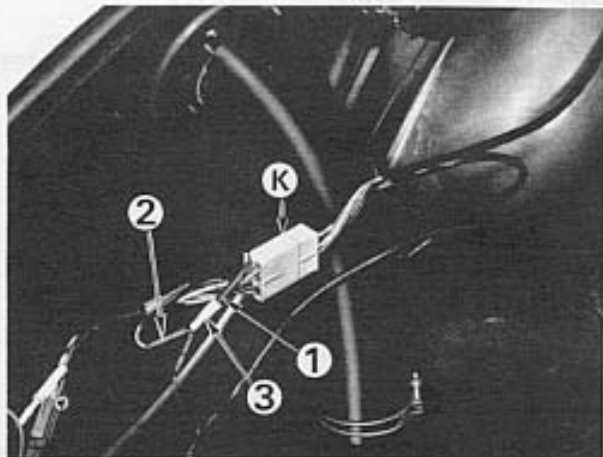
- Fit the spare wheel carrier.
- Make sure that the carrier locks and releases easily with the towing attachment in place.



- Fit and connect up the wiring harness and current feed (class 15, page 02 15).
- Fit the bumper.
- Re-install the spare wheel.
- Fit the luggage boot mat.

GENERAL
504 SALOON - TOWING ATTACHMENT

15 0215



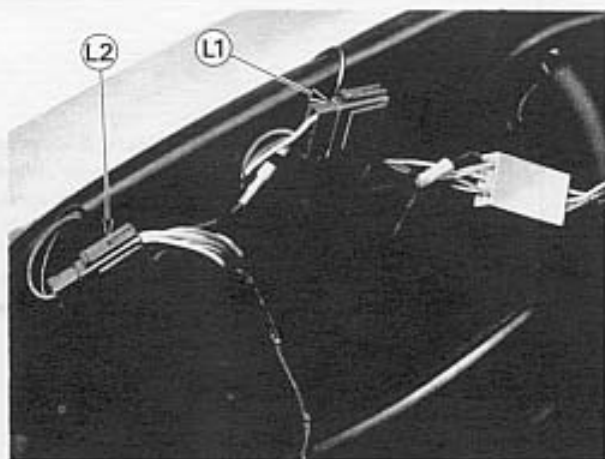
ELECTRICAL CONNECTIONS

Fitting the harness

Use the harness delivered by the Spare Parts Department under reference 9688.01.

Inside the car

- Remove the left hand lateral luggage boot panel.
- Unclip the rear light and luggage boot wiring from the brackets between the boot lid lock and the left hand rear light.
- Cut the direction indicator wire, n° 48, at app. 40 mm from the connector K.
- Bore the end of the wire.
- Fit on the wire n° 48 :
 - a female connector 1 equipped with a retractable fitting.
 - a male connector 2 equipped with a retractable fitting.
- Link up the two ends of the wire n° 48 using a Y connector 3.
- Connect the female end of the wire n° 48, coming from the caravan harness, to the remaining male end of the Y connector.



- Disconnect the wire n° 43 from the luggage boot light.
- Reconnect, inserting the caravan interior light lead.

NOTE - The section of the wire n° 43 (0.6 mm²) limits the lighting consumption from the caravan to 30 watts.

- Separate the two parts of the connector L and link the connectors L1 and L2 of the caravan wiring harness.
- Reconnect the wiring harness using the clamps.
- Refit the left hand lateral luggage boot panel.

PEUGEOT

0216

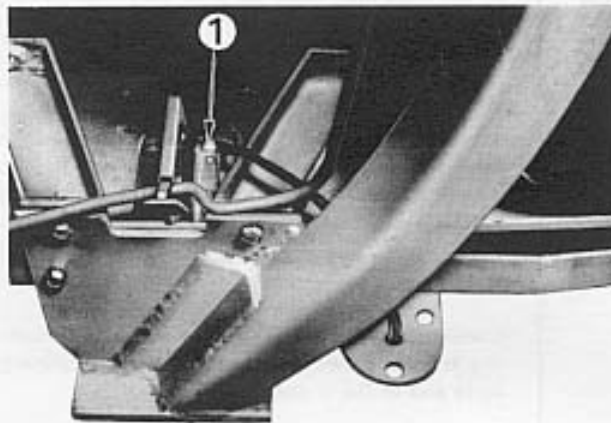
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GENERAL

504 SALOON - TOWING ATTACHMENT

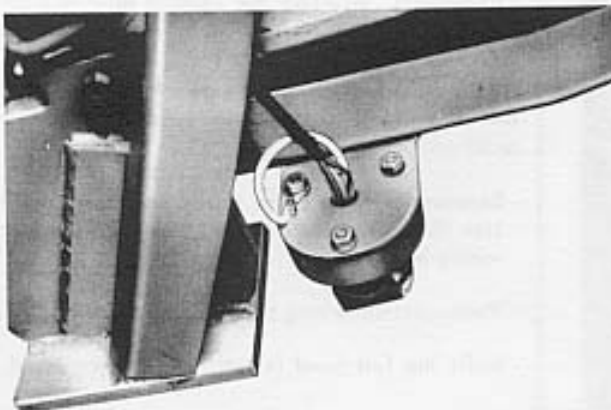


- Raise the luggage boot mat.
- Drill a hole of 10 mm diameter in the luggage boot floor as indicated opposite.
- Insert a rubber grommet and pass the caravan harness through it.
- Hold the harness in place on the luggage boot floor using adhesive tape.
- Replace the luggage boot mat.



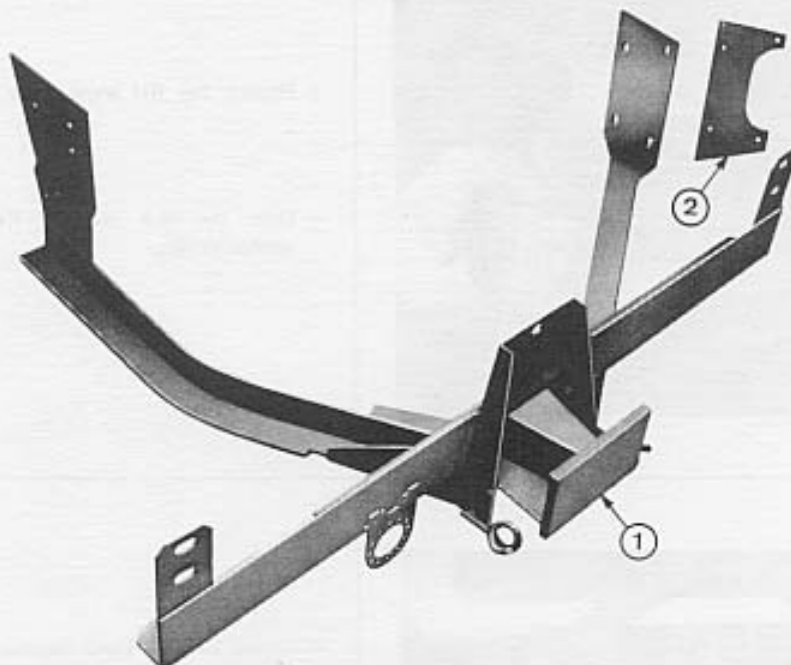
Under the car

- Secure a bracket using spare wheel carrier mounting screw 1.
- Hook the harness onto this bracket.
- It is advisable to fit a 70 mm washer fitted with a rubber grommet through which the harness should be passed. Mounted behind the socket this washer will ensure the water tightness of the socket.



- Connect up the wires, 63 - side lights, 35 - stop lights, 43 - caravan lights, 48 - right hand flasher, 49 - left hand flasher, and the earth wire to the corresponding terminals.
- Fit the socket, with the washer behind it which will ensure tightness, to the support and secure the flat connector under one of the nuts.

IDENTIFICATION



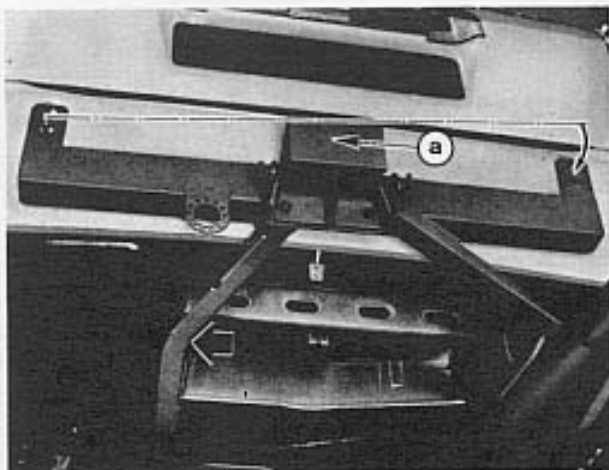
- 1 - One-piece towing bracket
2 - Torsion arm RH counter-plate.

This approved towing attachment as shown above is obtainable from Parts Dept. under ref. 9627.17 and is the attachment which should be fitted.

REMINDER :

- Towing capacity : 1500 kg
- Maximum towing speed : 80 km/h (50 m.p.h.) France

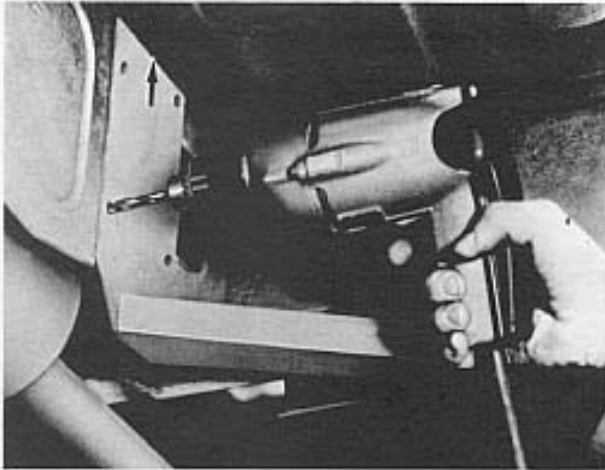
IMPORTANT - Retighten the bolts and nuts after the first 600 miles of towing



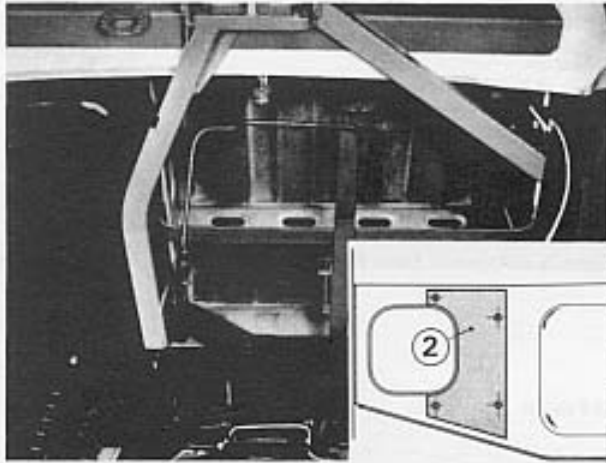
FITTING

- Remove :
 - rear bumper
 - spare wheel carrier.
- Place the towing bracket in position
 - start by engaging the left hand lug.
 - position the right hand lug inside the reinforcement.
 - engage the 3 welded studs in the torsion arm.
- Hold the towing bracket by the bumper central securing nut (a).

TOWING ATTACHMENT FOR 504 DERIVATIVES

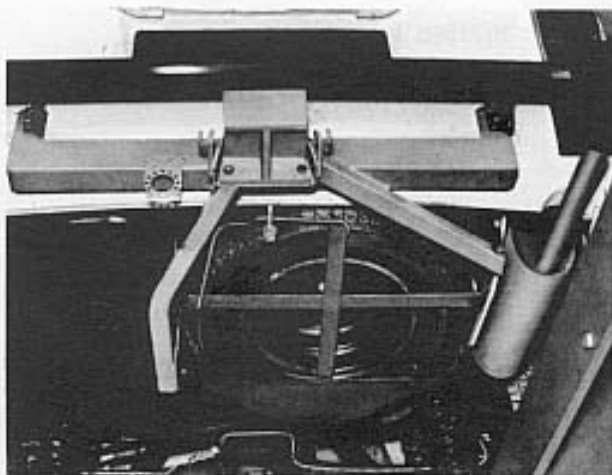


- Present the RH angle plate to the floor panel.
- Drill the 8.2 mm \emptyset fixing holes in the reinforcement.



- Secure the RH plate together with the counter-plate (2).
- Refit the spare wheel carrier using **new** spring washers.

NOTE - Torque to, 1.75 m.kg.



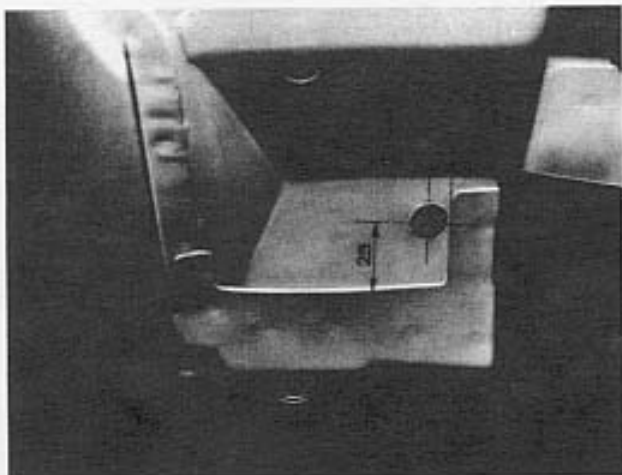
- Refit :
 - spare wheel,
 - rear bumper,

NOTE - When refitting the bumper 5 new spring washers must be fitted and the nuts tightened to 4 m.kg.

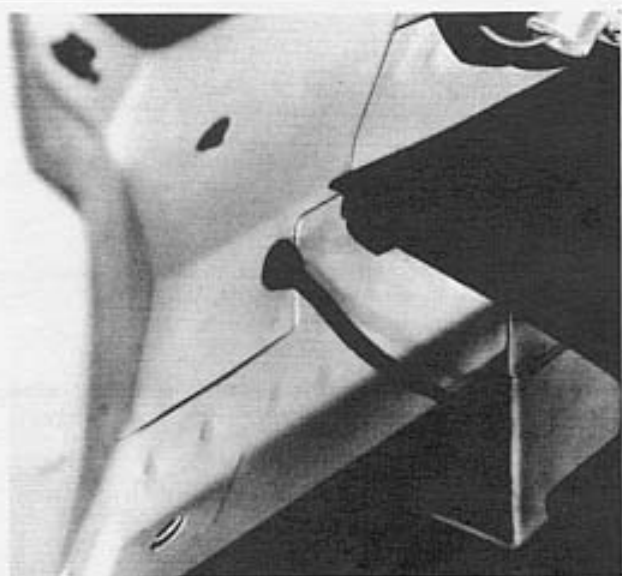
GENERAL

TOWING ATTACHMENT WIRING HARNESS - 504 DERIVATIVES (SALON 73

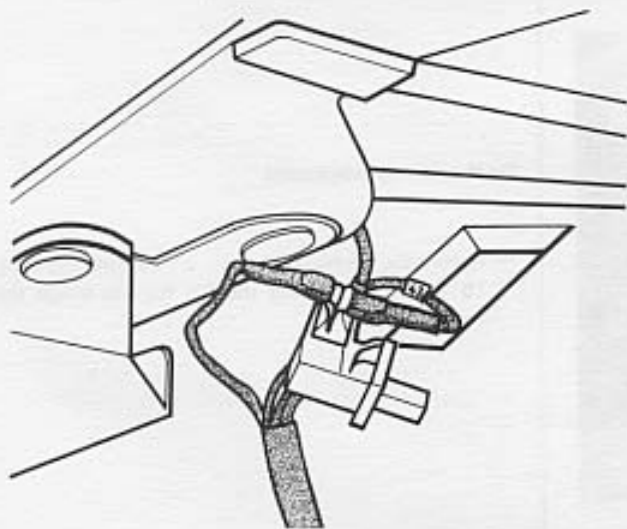
15 02 23



- Remove both rear lights and bumper buffers.
- Drill a 12.5 mm \varnothing each side in the position as shown opposite.



- Fit a rubber grommet in each of these two 12.5 mm \varnothing holes.
- Insert harness PN 9688.12

**LH side**

- Remove roof light switch.
- Connect wire no. 43 A to wire no. 43 of the switch, using a "T" connector PN 6540.29.

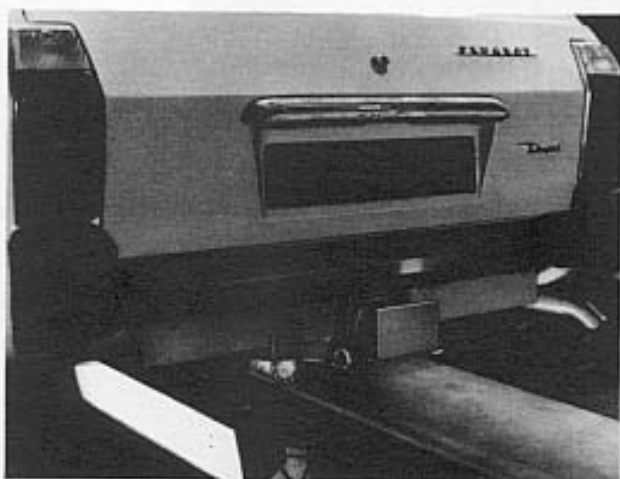
NOTE - For station wagon, see page 0225 "SPECIAL CONDITIONS".



- Cut wire no. 49 to the rear LH lights connector, leaving a length of 5 cm.
- Connect wire no. 49 A of the towing attachment harness, using a "Y" connector PN 6540.39.

**RH SIDE**

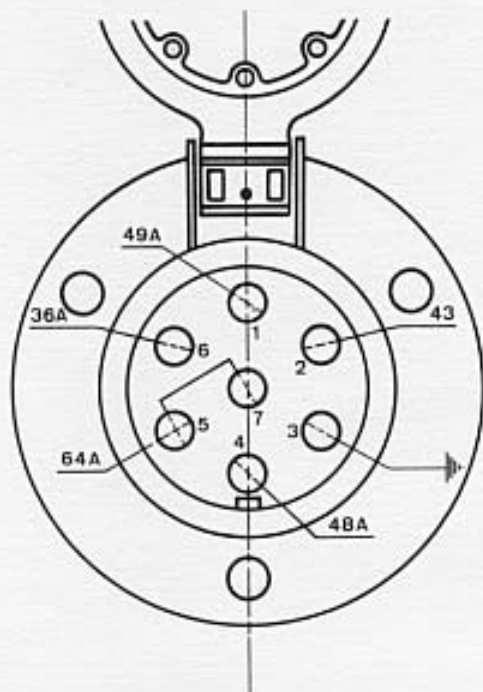
- Introduce the towing attachment harness into the 2-parts of the rear RH connector, for the RH rear light.
- Connect the brown wire M to one of the existing earth wires.

**On the towing attachment**

- Unite the 2-harnesses in a flexible covering 15 x 100 by passing the RH harness inside the torsion bar.

504 DERIVATIVES – SALON 73
TOWING ATTACHMENT WIRING HARNESS

15 02 25



– Wire-up the socket as shown opposite.

CONNECTIONS

- 49 A - HL direction indicator
- 43 - Roof Light.
- 48 A - RH Direction Indicator.
- 64 A - Rear lights and registration plate.
- 36 A - Stop lights.

SPECIAL CONDITIONS

Station wagons do not have a rear roof light, hence it is necessary to connect the caravan interior lighting feed wire to fuse F2 in the fuse box located under the HL side of the fascia.

This wire, 3800 mm in length, can be connected by following the route of the vehicle rear wiring harness. It is connected to wire no. 16 at fuse F2 by means of a flat 6,32 "L" tag connected to wire no. 43 of the tow harness.