

PEUGEOT PERFECTION

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DISTRIBUTORS PEUGEOT LTD.

MARSHALL HOUSE · 468-472 PURLEY WAY · CROYDON CR9 4BL

SPECIFICATION

Independent rear suspension, Girling all-disc braking, and optional fuel injection for new 1.8-litre saloon.

ENGINE

Cylinders	4 in-line at 45 deg.
Main bearings	5
Cooling system	Water; pump, thermostat and clutched fan
Bore	84mm(3.31in.)
Stroke	81mm(3.19in.)
Displacement	1,796c.c. (109.5 cu. in.)
Valve gear	Pushrods and rockers
Compression ratio	8.35-to-1
Carburettor	Solex 34 PBICA 5
Fuel injection	Kugelfischer (optional)
Max. power	82 bhp (net) at 5,500 rpm (with injection 97 at 5,600)
Max. torque	108 lb ft (net) at 3,000 rpm (with injection 113.5 at 3,000)
Max. brmp	148 psi at 3,000 rpm (with injection 156 at 3,000)

TRANSMISSION

Clutch	Diaphragm spring, 8.46 in. dia.
Gearbox	4-speed, all-synchromesh
Gear ratios	Top 1.0 Third 1.41 Second 2.17 First 3.67 Reverse 3.75
Final drive	Hypoid bevel, 3.89 to 1 (3.78 with fuel injection)

CHASSIS and BODY

Construction	Integral with steel body
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SUSPENSION

Front	Independent, MacPherson struts, coil springs, telescopic dampers, anti-roll bar
Rear	Independent, coil springs, trailing arms, telescopic dampers, anti-roll bar

STEERING

Type	Rack and pinion
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BRAKES

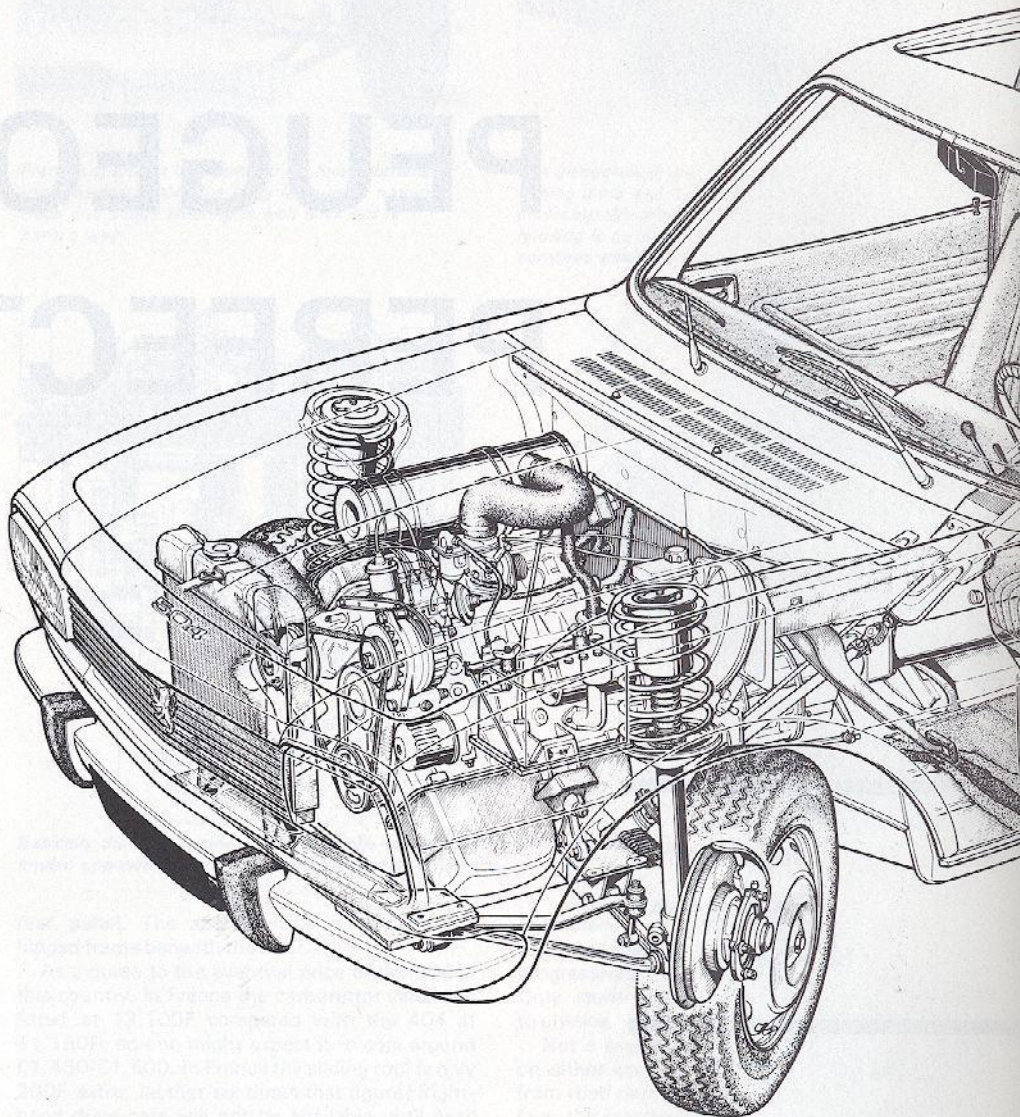
Type	Discs front and rear
Servo	Vacuum type
Dimensions	F. 10.7in. R. 10.7in.
Swept area	F. 236sq.in., R. 202sq.in. Total 438sq.in. (332sq.in./ton laden)

WHEELS

Type	Ventilated pressed steel disc, 5in. wide rim
Tyres—make	Michelin, Dunlop or Kléber
—type	XAS. Sport or V10 GT cross ply/radial ply tubed/tubeless
—size	175-14

EQUIPMENT

Battery	12 Volt, 55 Ah
Alternator	Ducellier
Headlamps	Ducellier 80/90-watt (total)
Reversing lamp	Standard
Electric fuses	5
Screen wipers	2-speed, self-parking
Screen washer	Standard
Interior heater	Standard
Safety belts	Extra, anchorages built in
Interior trim	Cloth seats, pvc headlining
Floor covering	Carpet
Starting handle	No provision
Jack	Screw scissors
Jacking points	3, centre of front apron, each side under sills at rear
Windscreen	Laminated or toughened



In its layout the new Peugeot is conventional with front engine and rear wheel drive. MacPherson struts at the front and an independent rear end—with trailing arms—form the suspension systems. The sunroof is a very cheap extra

MAINTENANCE

Fuel tank	12.3 Imp. gallons (no reserve) (56 litres)
Cooling system	14 pints (including heater)
Engine sump	7 pints (4 litres)
Gearbox and overdrive	2 pints
Final drive	2.1 pints
Max. payload	1,058lb. (480kg.)

DIMENSIONS

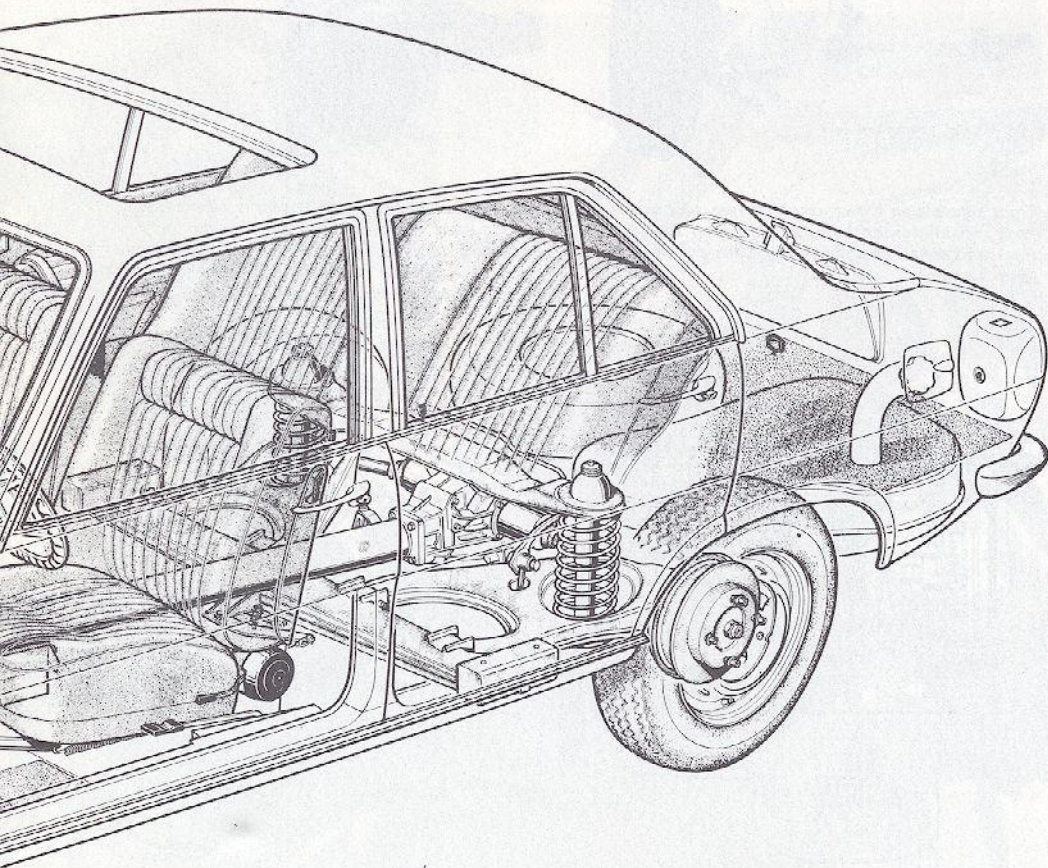
Wheelbase	8ft. 11.9in. (274cm.)
Track: front	4ft. 7.9in. (142cm.)
Track: rear	4ft. 5.5in. (136cm.)
Overall length	14ft. 8.7in. (449cm.)
Overall width	5ft. 6.5in. (169cm.)
Overall height (unladen)	4ft. 9.5in. (146cm.)
Turning circle	35ft. 9in. (10.9m.)
Kerb weight	2,645lb. (1,200kg.)

PERFORMANCE DATA

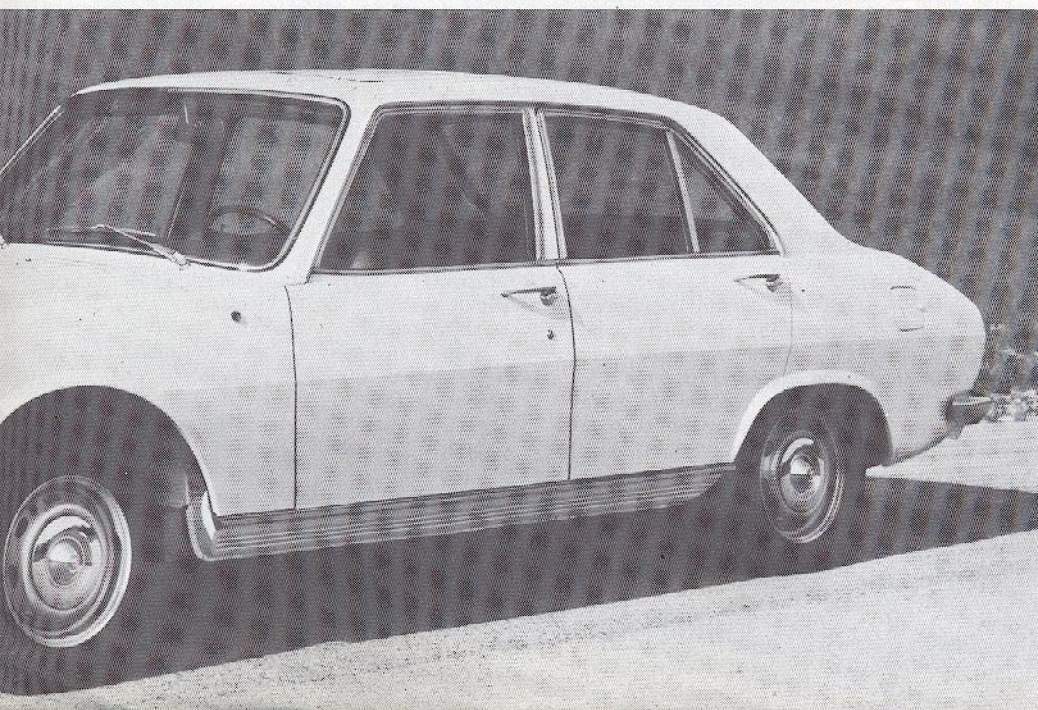
Top gear mph per 1,000 rpm	18.37 (with injection 18.91)
Mean piston speed at max. power	2,920 ft./min. (with injection 2,970)
Bhp per ton laden	62 (with injection 74)



PERFECTION



Pininfarina styling is an harmonious blend of angles with a hip-line crease. Headlamps have been specially developed by Marchal. Radial-ply tyres are standard



ON the surface France may at times appear tempestuous, with furious political storms blowing up fiercely and as quickly dissipating. But beneath it one can picture the technicians at Sochaux quietly and soberly planning, designing and developing products worthy to bear the name Peugeot, established in engineering a century before the motor-car was invented. New models from this factory are projected to remain in production for a decade at least, backed by an established repute for longevity and good service, so that a somewhat conservative attitude to innovations is understandable. Advanced ideas and mechanisms are not incorporated until Sochaux is satisfied that they are free from "bugs".

Today's presentation of a new Peugeot will certainly be an event of consequence for many Frenchmen, even if there is no special drama in it to excite him!

It is no surprise that the 504 bears a close family resemblance to the 404 (which continues in production) with the classic layout of front engine and rear-wheel drive. If the new independent rear end was a surprise, a detailed study shows it to be a thoroughly competent and robust design, and during a day's motoring in two 504s near Paris recently, its behaviour was found extremely impressive.

In almost every respect this latest product is a notable advance over its predecessors—roomier, quieter and more comfortable, faster and even more stable, with better brakes and steering. Although front and rear tracks are both 3in. wider than those of the 404 and the wheelbase is increased by 3.7in., it is only 2.7in. longer and 1.25in. wider overall. The extra wheelbase has been used to give back seat passengers more legroom, and curved side windows have augmented interior width.

Pininfarina styled the body, except for detail changes made by Peugeot to suit it for mass-production. It's an international job without special individuality, the best part of it perhaps the harmonious correlation between a simple horizontal grille and trapezoidal headlamp glasses; Peugeot, though, take the credit for inspiring these headlamps, Marchal for developing their optical qualities.

A new electrolytic process during the body's preparation for painting is claimed to make it more than usually resistant to corrosion. The integral structure is designed in the modern manner with a very strong centre section carrying the passengers, and extremities that will absorb shock by collapsing progressively in a serious accident. Burst-proof low-torque door latches are fitted, the steering column is double-jointed and the interior furnishings are well padded and free from potentially harmful projections. The steering-wheel hub is shielded by a rectangular pad of large area. Telescopic headrests in the front seats, adjustable for height, could provide vital protection for the neck during an impact from behind.

Alternative 4-cylinder power units, with either one single-choke Solex carburettor or Kugelfischer fuel injection, are almost identical with those of the 404, and share a common cylinder bore dimension of 84mm, but increasing the crankshaft stroke from 73 to 81mm has brought the swept volume up from 1,618 to 1,796cc., and stepped up power output by about 10 per cent.

NEW
FOR
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PEUGEOT 504 . . .

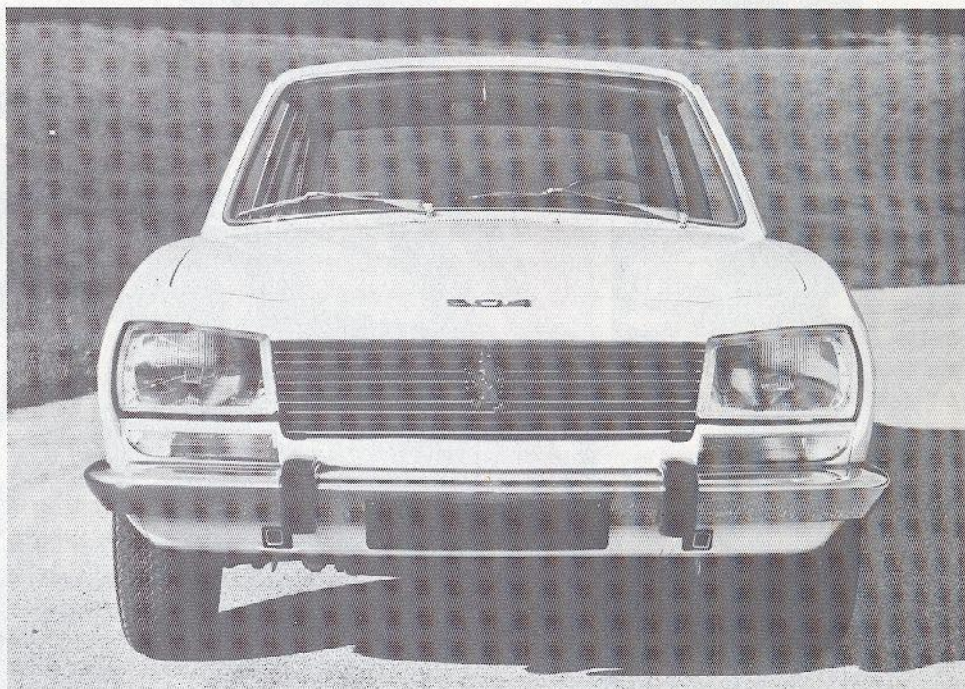
Net figures for the carburettor and injection version respectively are 82 and 97 bhp at 5,500 and 5,600 rpm, these being with the electromagnetic fan coupling disengaged. Maximum torque figures, both at 3,000 rpm, are 99 and 101 lb.ft. As in the 404, the engine is tilted at 45deg, to allow a low bonnet line, lower the centre of gravity and also make some of the accessories easier to reach for attention.

Traditional engine features retained since the original 203 of the late 1940s include wet cylinder liners in a cast iron block and a light alloy head with hemispherical combustion chambers, the opposed valves operated by pushrods and rockers from a single camshaft in the block. Whereas the carburettor version has a common induction chamber incorporated in the head casting, the injection unit has independent ports. In fact, the cylinder blocks, camshafts, timing gear and covers, and induction arrangements are all different, as well as the following accessories: fuel pumps, oil, air and fuel filters, ignition coils, plugs and alternators. Apart from these items, a higher final drive ratio and more powerful headlamps also go with the fuel injection equipment.

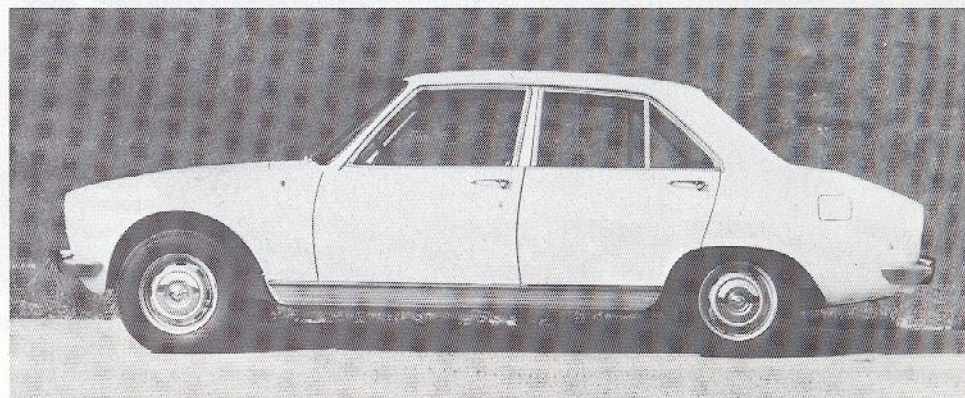
Transmission begins with a hydraulically-actuated diaphragm spring clutch, and an all-synchro four-speed gearbox with column shift, identical with the 404's except that the indirect ratio spacings are closer, first being considerably higher. So the distinctive (though not specially loud) Peugeot whines are still there. New for a rear-drive Peugeot saloon are hypoid final drive gears instead of worm-and-wheel. As in Ferraris with i.r.s., for instance, the propeller shaft is enclosed in a rigid torque tube uniting the gearbox and final drive casings.

Two independent cross-members fabricated from sheet steel and attached to the main structure through resilient mountings function as a sub-frame to carry the entire final drive and suspension assembly. The forward one has widely spaced pick-up points for the semi-trailing arms, and is bolted on to longerons beneath the rear doors. The other is set high beneath the boot floor and incorporates the upper abutments for the coil springs and dampers as well as carrying the final drive unit. Constant speed universal joints at each end of the drive shafts are the sliding pot type, each with three rollers on needle bearings, the shafts having no location functions. The geometry is arranged to give the wheels a negative camber varying between 0 deg 40min and 1deg 40min, and a toe-in between 4 and 6mm, to provide a high degree of stability with a slight understeer characteristic. An anti-roll bar is included, of smaller diameter than the front one.

At the front are MacPherson struts, as used on the 204 and 404. It is worth noting that Peugeot still incorporate a massive cast iron cross member at the front, perhaps a major fact in the car's remarkable freedom from road noise. The transverse suspension links pivot on this, and the steering rack-and-pinion mechanism is bolted behind it. Another fabricated member ahead of this anchors the diagonal links and the anti-roll bar as well as supporting the radiator. Peugeots have always been noted for a good steering lock, and the 504 requires only 34ft

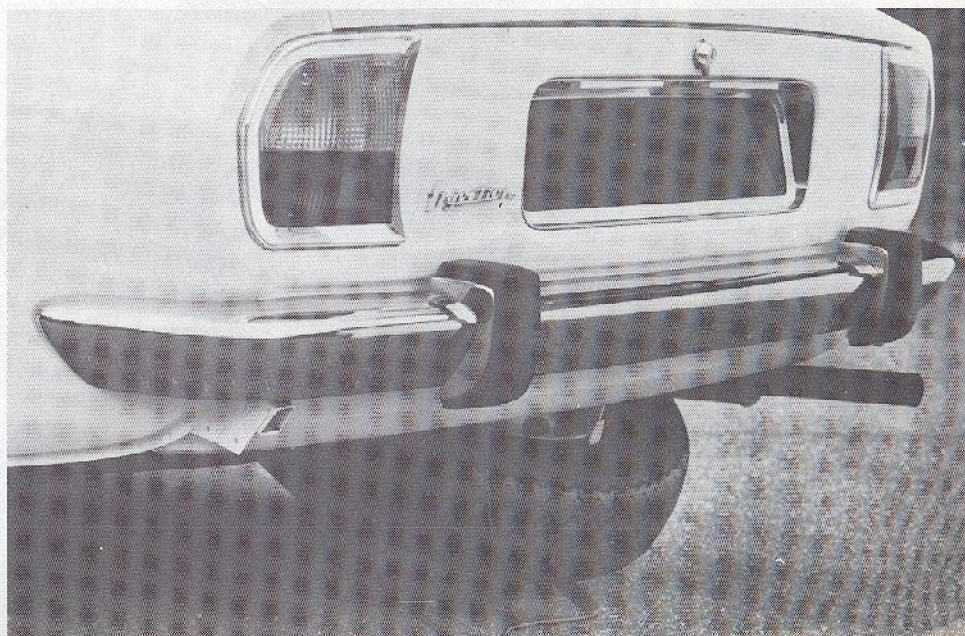


On the fuel injection model, there are auxiliary iodine vapour lamps behind the trapezoidal lens covers. To keep the bonnet line low, the engine is tilted at 45 deg

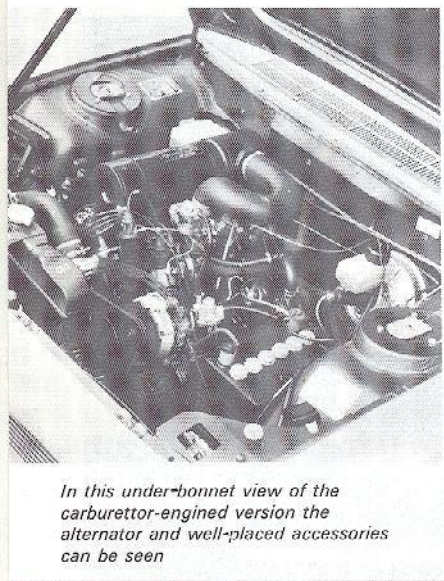


Profile looks slimmer because of the moulding strip under the doors and the tumble-home sills. The car has a very long wheelbase and lots of room inside

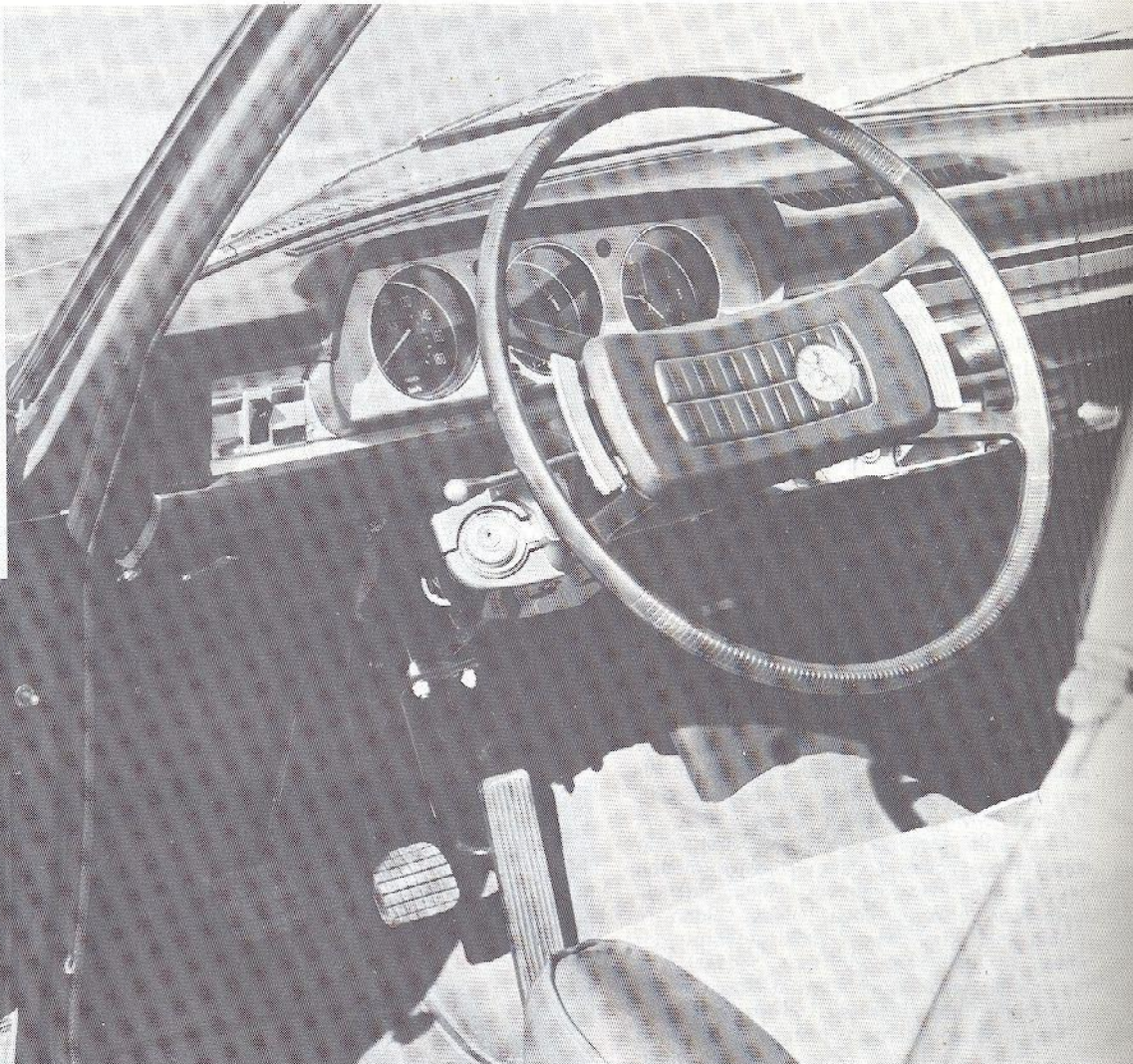
Rubber-faced over-riders are standard. The spare wheel lives in a cradle under the boot



504



In this under-hood view of the carburetor-engined version the alternator and well-placed accessories can be seen



Driving position and control layout is first class. The wheel has a generously padded centre, with horn bars each side



The front seats have novel adjustable headrests built in

Front seats recline to form an almost flat bed. Standard covers are cloth with pvc edges; leather is an extra

PEUGEOT 504 . . .

between kerbs. Double-acting telescopic dampers for front and rear suspensions are made by Peugeot.

Girling brake discs of 10.7in diameter are fitted all round, those at the back having pads of smaller area. The floating calipers each have two pistons on the one side only. Servo assistance is provided by a Bendix Mastervac, and a pressure-regulating valve to vary fore-and-aft braking effort according to load is linked to the rear suspension anti-roll bar. Whereas the 404 rides on 15in. road wheels, 14in. ones shod with 175 section low-profile radial tyres have been adopted for the 504. Standard covers are Michelin XAS, Dunlop SP Sport or Kléber V10GT.

Performance figures given by the factory, which are probably reliable for a fully run-in car, include the following:—

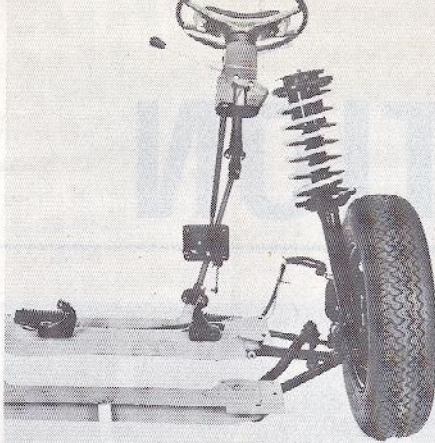
	Carburettor	Fuel Injection
Maximum Speed:	97 mph	104 mph
0-60 mph:	14.5 sec	12.0 sec
Standing ¼-mile:	19.3 sec	18.1 sec
Fuel consumption at steady 62 mph	24.3 mpg	25.0 mpg

For the fuel injection version only, each headlamp incorporates two parabolic reflectors, one having a normal 40/45 watt twin-filament bulb, the other a 55-watt iodine vapour (halogen) bulb. All exterior bright metal, including bumpers wheel hub plates, window surrounds and even door handles and name badges, is in stainless steel. Automatic reversing lamps are included in the tail clusters.

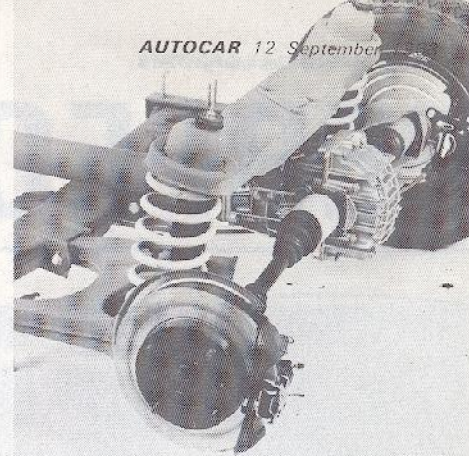
Individual front seats have fully-reclining adjustable backrests (including the headrests already mentioned) and slide on inclined ramps with low-friction nylon inserts in the runners. Trim is either in cloth with pvc, or leather at extra cost. The rear seat has comfortably raked backrests divided by a folding armrest, and full cushions that leave lots of knee room between them and the front seats. There are combined armrests and grips on all doors; the back door locks include 'child-proof' triggers that prevent them being opened from inside. Stowage for odds and ends is rather limited in front, with a small locker in the fascia and a shallow receptacle between the front seats, its padded lid helping to cushion the middle passenger when three are riding abreast.

Instruments include a voltmeter to record the battery's state of charge, a water thermometer and clock with centre-sweep second hand. Among the tell-tale lamps is one to indicate low fluid level in the brake and clutch reservoirs, or to warn when any of the disc brake pads is in need of replacement. Twin air horns are sounded by a pushbar at either extremity of the steering-wheel protective pad.

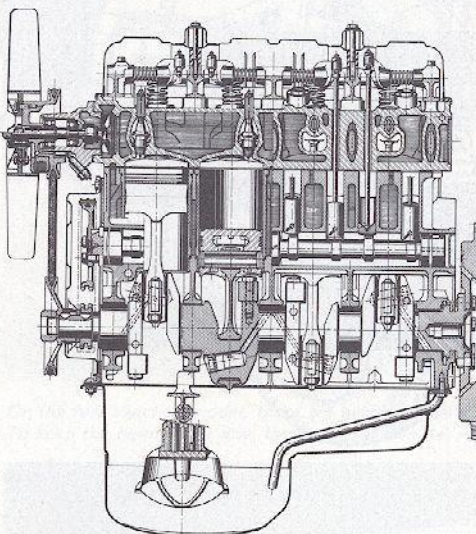
A somewhat complex heating and ventilation system has thermostatic temperature control, but no ducts to the rear compartment. Fresh air independent of the heater element is ducted to adjustable outlets inset above the fascia and also below it at each side, and there are through-flow outlets in the rear quarters. In the tail is a roomy luggage boot with unobstructed flat floor, although one has to lift things over a rather high



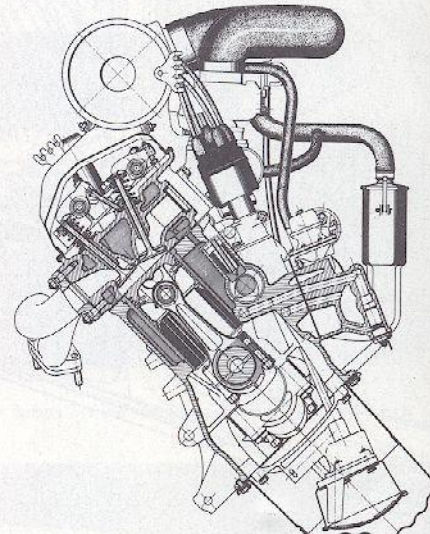
Front suspension is supported on two subframes, each insulated from the body for quieter running. Rack and pinion steering is well back out of harm's way



The independent rear suspension is all new, with trailing arms and a rigid tubular housing enclosing the propeller shaft. Hypoid bevel axle housing is an alloy casting and there are two constant velocity pot joints for each drive shaft



Basically the new engine is a long-stroke version of the 404 unit, tilted over. Inclined pushrods enable opposed valves to be used for greater efficiency



rear panel. The spare wheel is carried in a hinged frame beneath the boot.

As a guide to the eventual price of the 504 in this country, in France the carburettor version is listed at 13,100F compared with the 404 at 11,150F, so one might expect it to cost around £1,450-£1,500. In France the sliding roof is only 200F extra, leather six times that figure! Right-hand drive cars will not be available until April next year.

On the road.

One notices immediately a much better relationship between driving seat, steering wheel and pedals than in the 404, and the seating is first-class back and front. Visibility all round is excellent, the bonnet appearing unusually low and short. The steering is geared just right for easy manoeuvring at parking speeds, yet despite 4½ turns of the wheel lock-to-lock it does not feel low-geared on the open road, as there's no lost movement or springiness in it. There was no trace of vibration or kick in either of the cars tried.

Even at low speeds on indifferently surfaced roads in the Paris suburbs the suspension seemed exceptionally supple, and free even from minor shocks. On the open road the ride is superb, whether you're sitting in the front or back, and there's very little roll at high cornering speeds. From the driver's viewpoint, the rear end location is obviously right because there's never any sense of 'float', nor any handling peculiarities; in fact the directional stability is exceptional, even at high speed with strong, gusting side-winds. The steering

characteristic remains about neutral until you really press the car into bends, when it progressively develops a little understeer. Only stunt methods can get the rear wheels to unstick.

Not a sound was audible from the final drive on either car, and this make's familiar freedom from road noise is still as remarkable as ever. In fact, the standard of general running refinement suggests a much more expensive car. This combined with effortless high-speed cruising—at up to 100 mph with fuel injection—will make this a wonderful family touring car for unrestricted French *autoroutes*.

On the first example tried the front windows could not be closed with the car moving fast, creating a lot of wind roar; but on the second example all was well, so the problem cannot be endemic. A light and easy gear change, even if some drivers would prefer a floor lever, and brakes as powerful and progressive as we have experienced, all for a very light and sensitive pedal.

Criticisms? On this rather brief acquaintance, only that the seat adjustment levers are a bit tricky to reach between cushion and door armrest. Nothing (except those windows) had to be excused on the basis of "this being only a development car". It's ready for its public from the onset, and one can safely predict very good business for Sochaux with the 504 for many years to come.

Coupé and convertible bodied versions are being developed, but no estate car is planned as yet.