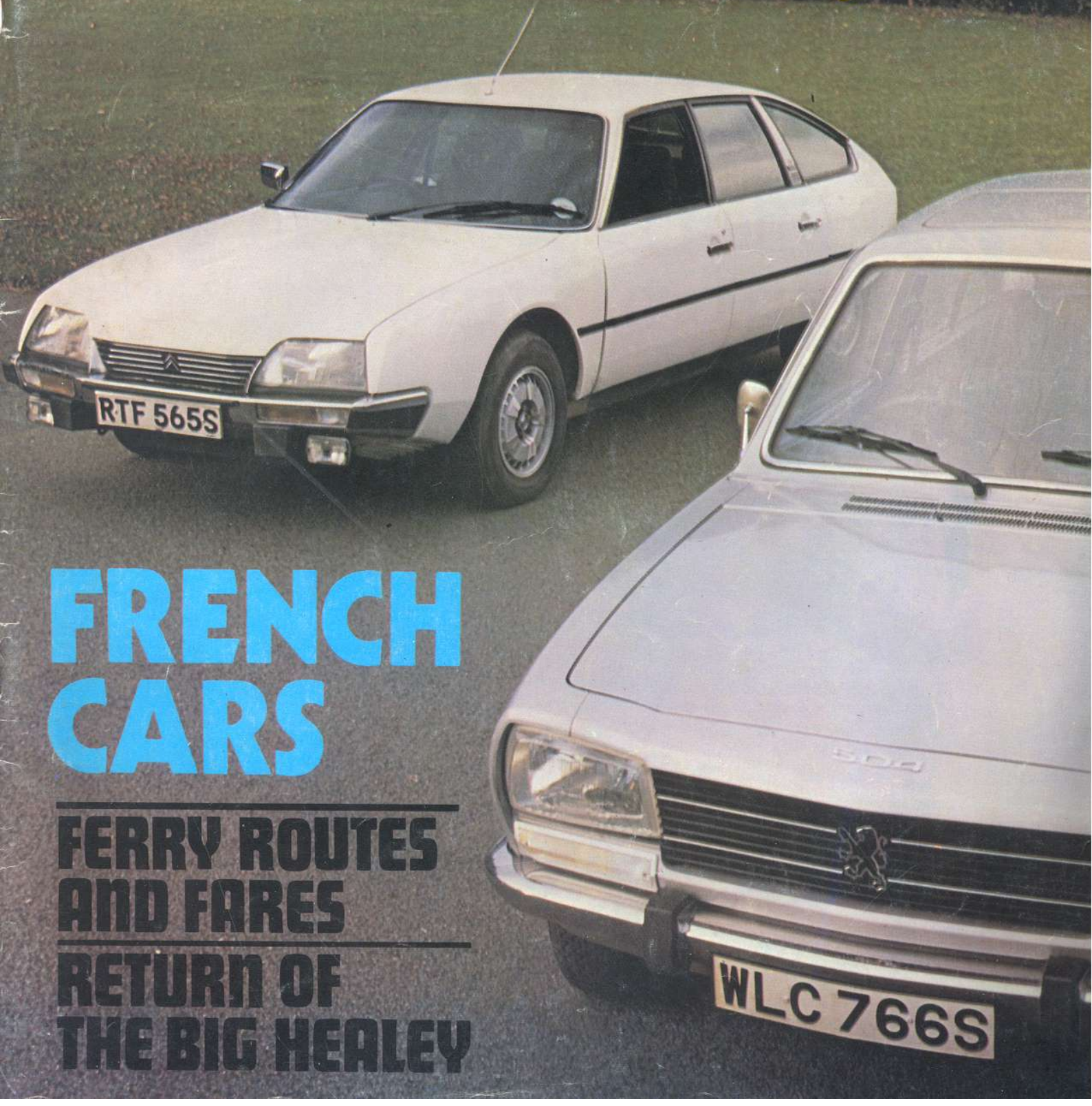


# Motor

**TESTS Citroen 2400 CX GTi • Peugeot 504 T**



## FRENCH CARS

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**FERRY ROUTES  
AND FARES**

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**RETURN OF  
THE BIG HEALEY**



## Road Test

# PEUGEOT 504 TI

**Power steering makes a much nicer car around town, and its performance, economy, ride, handling and refinement are all competitive**

SINCE we last tested a Peugeot 504 (a GL in 1974) there have been many new arrivals in the two-litre class, among them the Citroen CX, Leyland Princess, new Audi 100, and Renault 20TS, so standards have risen appreciably.

In that 1974 test we reported quite favourably on the Peugeot. Its only serious failing was, as it always had been, ponderous low-gear steering.

Now, on the TI version as tested here, power assisted steering is fitted as standard, but apart from this the 504 has remained essentially unchanged since it was voted Car of the Year after its 1968 debut.

We were curious to discover whether the adoption of power steering has been enough to keep the Peugeot abreast of rising standards, or whether it has been surpassed by



the new generation of two-litre executive cars. At £4623 (the carburetted GL costs £4210) the fuel-injected TI is competitively priced — cheaper than the Audi 100LS (£5145), Renault 20TS (£4724) and Volvo 244DL (£4769), but more expensive than the Citroen CX 2000 (£4495), Fiat 132 (£4226) and the Princess 2200 HLS (£4320), all of which also have power steering as

standard. Other alternatives (without power steering) include the Datsun Laurel Six (£4095), Saab 99 GLS (£4575) and the very keenly priced Toyota Cressida at £3,646. Among fuel-injected cars, however, only the VW Golf GTi is cheaper.

In TI form the 504's 1971 cc engine produces 106 bhp (DIN) at 5200 rpm, 10 bhp more than the carburetted GL 8 which has the



The interior is dominated by the huge steering wheel and the fascia is dated and unattractive to our eyes. Electric window switches are on the console

consumption of the injected engine, but with a 12.3-gallon tank capacity a maximum range of 300 miles or more should be quite feasible.

It is difficult to fault the 504's transmission: a smooth and nicely weighted clutch action is combined with a particularly light and precise gearchange. The ratios are well spaced apart from an excessive gap between second and third. Our only other complaint is of some whine in the intermediates. The gearing in top is on the high side for a hefty two-litre (the TI has a 3.8:1 final drive compared to the GL's 3.9) yet, even so, the engine speed is well past peak power revs at maximum speed, suggesting that higher gearing still would improve the top speed and make cruising even more restful.

The 504TI has benefited enormously from the adoption of power steering, which contributes to the car's new easy-driving nature. However, as power-assisted systems go it is not particularly notable compared to those available from Renault, Mercedes and Rover. The opportunity has been taken to make the

steering much "quicker" and it now only requires 3½ turns from lock to lock compared to the non-assisted car's arm-twirling 4½ turns. Thus it is now responsive, accurate, and very light — rather too light and feel-less for our taste. It is a pity that the over-large steering wheel of the non-assisted cars has been retained: so much leverage is no longer necessary and it makes the steering feel lower-g geared than it is.

Although the steering has little feel, on a wet road it is possible to detect impending loss of adhesion. When the limit is reached in the wet it is the tail which goes first — and at fairly modest speeds. In the dry the limit of adhesion is high and most of the time the Peugeot handles neatly with mild understeer and not too much body roll. The transition to oversteer on the limit is fairly abrupt, but few drivers are ever likely to reach this point on a dry road.

With large disc brakes on all four wheels the Peugeot ought to stop well — and it does. We never encountered fade and the car always

same aluminium cylinder head with inclined valves in near-hemispherical combustion chambers, operated by push-rods and twin rocker shafts.

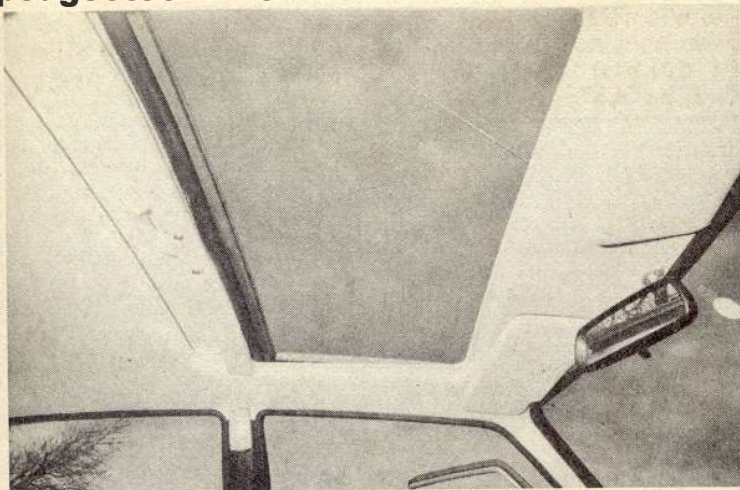
The all-independent suspension is by MacPherson struts at the front and semi-trailing arms at the rear, with coil springs and an anti-roll bar at each end. Braking is by discs on all four wheels and the steering is by rack and pinion.

The advantages offered by the injected engine extend beyond its superior performance. Whereas we have found carburetted 504s to suffer from hesitations and flat spots, the TI is notable for its clean throttle response and smooth power delivery. In poor conditions our test car lapped MIRA at 103.9 mph, and accelerated from rest to 60 mph in 11.4 sec, and did 30-50 mph in top gear in 9.9 sec. These figures are about par for the class. Moreover, this performance is very useable too: although the engine sounds busy from about 4500 rpm, it is commendably smooth and unstrained throughout its rev range.

The TI also proved reasonably economical, returning a consumption of 23.1 mpg overall — a little better than the class norm. We were unable to measure the touring



The seats look good, and are very comfortable, in the rear as well as the front, with a reasonable amount of legroom available. The rear seat central arm rest and the retracting front seat headrests are all part of the standard specification



Not many cars have a sliding steel sunroof, least of all in this price range, but it is standard on the TI and carburetted GL models

pulled up safely without drama. Most of our drivers liked the rather heavy pedal, which made the brakes progressive and easy to feather, but women drivers might find them too heavy for comfort.

Now that many cars in the class have adopted a space-saving front-wheel drive configuration, the Peugeot is no longer unusually capacious, though the accommodation is still generous. The front seats do not go as far back as those of most rivals, so tall drivers could use more legroom. But headroom is generous front and back, and even with the front seats right back there is sufficient legroom behind for a man of average height. The rear seat is particularly comfortable.

The boot is very large, and for interior storage there is a tray on the centre console, map pockets on the front doors, a parcel shelf and a lockable glove box.

There was a time when its ride was arguably one of the 504's best features but rivals have caught up with, and even surpassed it. All the same, the 504 is still a comfortable car to ride in. At low speeds it feels quite firm and sometimes a manhole cover or transverse ridge can transmit a jarring to the interior which is heard more than felt. At higher speeds the ride is very even and well damped on long-wavelength undulations: it is also particularly well behaved on really rough surfaces, and on unmade roads.

Apart from the limited legroom for our tallest driver, the seat and controls suited our testers well, though one commented that the seat cushion seemed rather short, and all would have preferred a smaller steering wheel. Although initially soft, the seats have an underlying firmness and prove comfortable for long distances.

There are two column stalk switches, the right-hand one operating the indicators and horn (the latter by pulling the stalk towards the driver); it has an irritatingly loose and floppy feel, and the self-cancelling tends to be erratic. The over-worked stalk on the left has a lot to do, operating the wash, wipe and lights in a rather confusing way.

Instrumentation and the fascia design remain weak points, the former consisting of a speedometer calibrated only at 20 mph intervals, a tachometer that gives no indication of the maximum revs allowed, a volt-

meter, and water temperature and fuel gauges. All are readable, but unattractive in appearance, and the bold chrome strip along the fascia was universally disliked.

The heating and ventilation systems have four slide controls which, once mastered, operate a flexible system, with a rheostat fan speed control. Warmth takes a long time to come through after a cold start, and even at its best the heat output is modest. For the same reason demisting is slow, especially that of the side windows by means of the cheese-cutter vents at the outer ends of the fascia. On the other hand the ventilation, through two rather ugly vents atop the centre of the fascia, is effective and throughput and distribution easy to control.

Overall the 504 has a pleasant air of refinement, while not being exceptionally quiet in any department. The engine becomes busy, though not unpleasant, when revved over 4500 rpm, and is relaxed when cruising at 70 mph — indeed, it is possible to cruise without mechanical strain at speeds of 90 mph or more. Road roar is fairly well suppressed, while wind noise is particularly sensitive to the strength and the direction of the wind outside: on a still day or with a tail-wind it is negligible, but in a cross-wind or head-wind becomes noticeable at speeds as low as 50 mph and gets progressively worse as speed rises further.

The interior decor is a mixture of good and bad. We don't like the dated, rather austere fascia and the door trims are rather plasticky in appearance. But the seats, with their built-in retractable headrests, look as good as they feel, being attractively trimmed in brushed nylon. Included in the TI specification is a sliding steel sunroof, and electric front windows operated by handy switches on the centre console behind the gearlever. Other worthwhile standard fittings include halogen headlamps and a rear seat central armrest.

For about £400 more than the GL, the 504 in TI form offers a lot extra: not only has it superior performance and better driveability, but the power steering makes it much easier to drive, especially in town.

Compared to the opposition, the 504 is still a worthy contender in its class.

# MOTOR ROAD TEST NO 4/78 ● PEUGEOT 504 TI

## PERFORMANCE

CONDITIONS	
Weather	Wind 6-16 mph
Temperature	48-50°F
Barometer	29.6 in Hg
Surface	Wet tarmac/adam

MAXIMUM SPEEDS		
Banked Circuit	mph	kph
Best 1/4 mile	103.9	167.2
Terminal Speeds:		
at 1/4 mile	76	122
at kilometre	92	148
Speed in gears (at 6000 rpm):		
1st	32	51
2nd	54	87
3rd	83	134

ACCELERATION FROM REST			
mph	sec	kph	sec
0-30	3.5	0-40	2.7
0-40	5.5	0-60	5.0
0-50	7.9	0-80	7.9
0-60	11.4	0-100	12.3
0-70	15.5	0-120	17.9
0-80	20.9	0-140	26.8
0-90	30.6		
Stand'g 1/4	18.3	Stand'g km	34.4

ACCELERATION IN TOP			
mph	sec	kph	sec
20-40	10.2	40-60	6.4
30-50	9.9	60-80	6.3
40-60	10.2	80-100	6.2
50-70	10.9	100-120	7.8

60-80	12.9	120-140	10.2
70-90	17.4		

FUEL CONSUMPTION	
Overall	23.1 mpg 12.2 litres/100 km
Fuel grade	95 octane 4 star rating
Tank capacity	12.3 gallons 56 litres
Test distance	1125 miles 1810 km

SPEEDOMETER (mph)							
Speedo	30	40	50	60	70	80	90
True mph	27	36.5	46	56	66	75	84.5
Distance recorder:	1.5 per cent fast						

WEIGHT		
Unladen weight*	cwt	kg
Weight as tested	23.8	1209
*with fuel for approx 50 miles	27.5	1397

Performance tests carried out by Motor's staff at the Motor Industry Research Association proving ground, Lindley.

Test Data: World Copyright reserved; no unauthorised reproduction in whole or part.

## GENERAL SPECIFICATION

ENGINE	
Cylinders	Slant 4, in-line
Capacity	1971 cc (120.2 cu in)
Bore/stroke	88/81 mm (3.46/3.19 in)
Cooling	Water
Block	Cast iron
Head	Aluminium
Valves	ohv
Valve timing	
inlet opens	3° bt/dc
inlet closes	44° ab/dc
ex opens	33° bb/dc
ex closes	9° at/dc
Compression	8.8:1
Carburettor	Kugelfischer fuel injection
Bearings	5 main
Max power	106 bhp (DIN) at 5200 rpm
Max torque	124.4 lb ft (DIN) at 3000 rpm

TRANSMISSION	
Type	4-speed manual, rwd
Clutch	Sdp, diaphragm spring
Internal ratios	and mph/1000 rpm
4th	1.00:1/18.9
3rd	1.37:1/13.8
2nd	2.11:1/9.0
1st	3.56:1/5.3
Rev	3.64:1
Final drive	3.8:1

BODY/CHASSIS	
Construction	Monocoque all steel
Protection	Wax over underbody, bitumen compound* under wheel arches and door sills, wax injection into box sections and doors

SUSPENSION	
Front	MacPherson struts, coil springs, anti-roll bar
Rear	Ind: semi-trailing arms, coil springs, anti-roll bar

STEERING	
Type	Rack and pinion
Assistance	Yes
Toe in	3±1 mm
Camber	0°38'±30'
Castor	2°40'±30'
King pin	8°54'±30'
Rear toe-in	4.5 mm±1 mm -2

BRAKES	
Type	Discs all round
Servo	Yes
Circuit	Split front/rear
Rear valve	Yes
Adjustment	Automatic

WHEELS	
Type	Steel 5J x 14 steel
Tyres	175 x 14 Michelin XAS
Pressures	23/27 psi front/rear

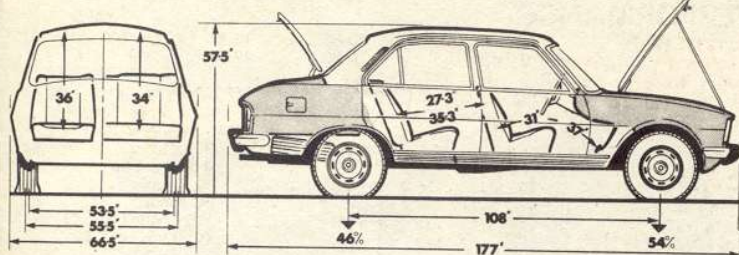
ELECTRICAL	
Battery	12V, 44Ah
Polarity	Negative earth
Generator	500W alternator
Fuses	6
Headlights	2 x Halogen H4 55W

**Make:** Peugeot  
**Model:** 504 TI  
**Makers:** Automobiles Peugeot, 75 Ave de la Grande Armee, Paris 16e  
**UK Concessionaires:** Peugeot UK, Peugeot House, Western Ave, London W3 0RS. Tel: 01-993 2331.  
**Price:** £3,951 Basic plus £329.25 Car Tax plus £342.42 VAT equals £4,622.67. Extra fitted to test car was metallic paint finish, £79.56

# The Rivals

There is no shortage of 2-litre competition for the Peugeot. Other cars include the Citroen CX 2000 (£4,495), Colt Sigma (£4,220), Fiat 132 (£4,226), Audi 100LS (£5,145) and Saab 99 GLS (£4,575).

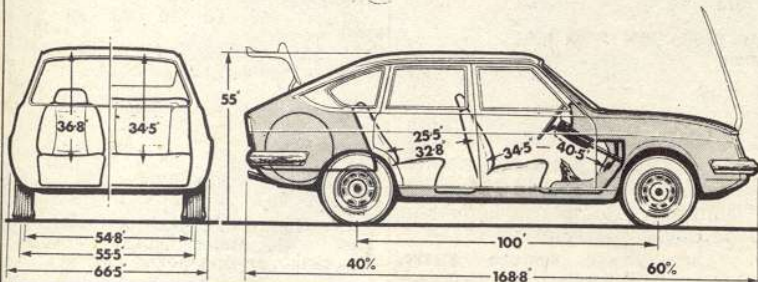
## PEUGEOT 504 Ti £4,623



Power, bhp/rpm	106/5200
Torque, lb ft/rpm	124.4/3000
Tyres	175HR14
Weight, cwt	23.8
Max speed, mph	103.9
0-60 mph, sec	11.4
30-50 mph in 4th, sec	9.9
Overall mpg	23.1
Touring mpg	—
Fuel grade, stars	4
Boot capacity, cu ft	11.9
Test Date	January 28, 1978

Power steering, now standard on TI, now combines with smooth engine and transmission to make the 504 a pleasant and relaxed car in town as well as on the open road. Respectable performance and economy, and still good ride and refinement though no longer top of its class. Comfortable, spacious and well equipped (sliding sun roof and electric windows standard, it also has good ventilation. Feeble heating and ugly fascia remain weak points.

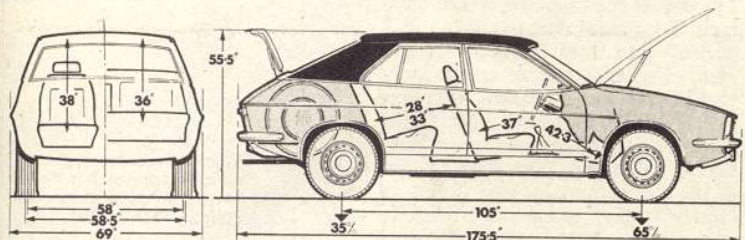
## LANCIA BETA 2000 ES £4,457



Power, bhp/rpm	119/5500
Torque, lb ft/rpm	128/2800
Tyres	175/70SR14
Weight, cwt	21.3
Max speed, mph	106.6
0-60 mph, sec	11.0
30-50 mph in 4th, sec	7.4
Overall mpg	22.9
Touring mpg	26.0
Fuel grade, stars	4
Boot capacity, cu ft	10.2
Test Date	July 2, 1977

An excellent car that has recently been improved by styling changes, more power and higher gearing. Fuel consumption is mediocre, the brakes are too sensitive, the gear change notchy, and the steering still low geared at low speed — but roadholding is excellent, the ride good, the performance above average, the interior capacious and it is very comprehensively equipped. A car we like and respect.

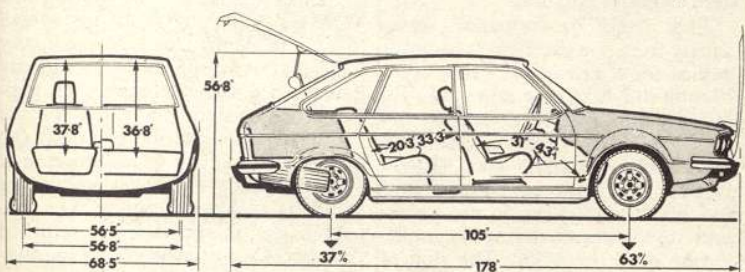
## LEYLAND PRINCESS 2200 HLS £4,320



Power, bhp/rpm	110/5250
Torque, lb ft/rpm	125/3500
Tyres	185/70SR14
Weight, cwt	22.9
Max speed, mph	105.4
0-60 mph, sec	11.8
30-50 mph in 4th, sec	9.8
Overall mpg	22.2
Touring mpg	26.4
Fuel grade, stars	4
Boot capacity, cu ft	12.4
Test Date	July 26, 1975

Tested by us as a Wolseley 2200, but only name and nose changed since. Version assessed was a manual but automatic versions available. Hydragas suspension gives excellent handling (aided by good power steering) and smooth ride. Comfortable and refined with multi-adjustable seat and low noise levels. Very roomy but boot is difficult to load and the instrument faces reflect. One of Leyland's best efforts for years.

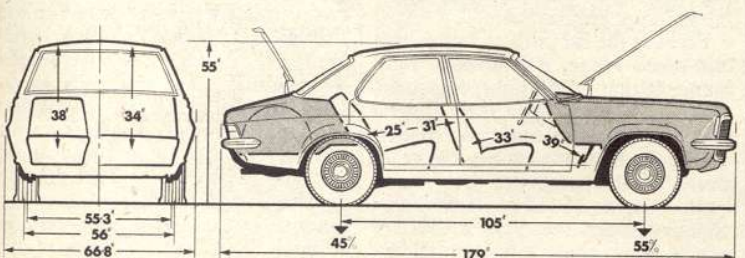
## RENAULT 20 TS £4,724



Power, bhp/rpm	110/5500
Torque, lb ft/rpm	125/3000
Tyres	165SR14
Weight, cwt	24.2
Max speed, mph	103.8
0-60 mph, sec	12.2
30-50 mph in 4th, sec	11.9
Overall mpg	22.1
Touring mpg	26.6
Fuel grade, stars	4
Boot capacity, cu ft	11.8
Test Date	December 3, 1977

Excellent addition to Renault's executive car line-up. New 2-litre engine gives fair performance and average fuel consumption. Pleasant power steering enhances very good handling, and the ride is excellent. Comfortable seats, commodious interior, very high level of equipment. Too much noise from engine and the ventilation. Dearer than most competitors, but has the advantage of a lifting tailgate.

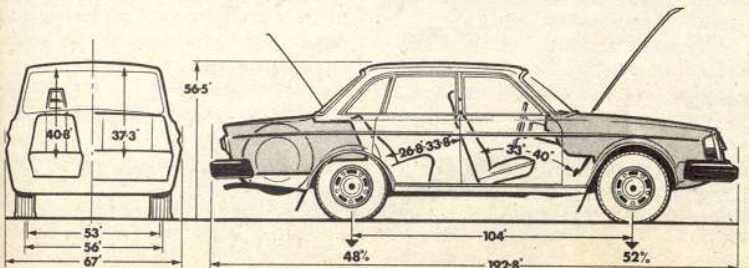
## VAUXHALL VX 2300 GLS £4,792



Power, bhp/rpm	103/5000
Torque, lb ft/rpm	138/3000
Tyres	175SR13
Weight, cwt	22.8
Max speed, mph	103.5
0-60 mph, sec	11.3
30-50 mph in 4th, sec	8.6
Overall mpg	25.2
Touring mpg	29.2
Fuel grade, stars	4
Boot capacity, cu ft	10.1
Test Date	July 24, 1976

Worthy successor to FE Victor which itself has benefited from continuous improvement since its 1972 introduction. Torquey engine with eased breathing endows this spacious, four-/five-seater with good performance and economy in the manual version tested. Safe handling (though low geared steering), well appointed and comfortable.

## VOLVO 244 DL £4,769



Power, bhp/rpm	100/5250
Torque, lb ft/rpm	125/3000
Tyres	175SR14
Weight, cwt	25.2
Max speed, mph	98.0
0-60 mph, sec	12.6
30-50 mph in 4th, sec	10.2
Overall mpg	22.3
Touring mpg	26.8
Fuel grade, stars	3
Boot capacity, cu ft	13.1
Test Date	July 30, 1977

A much more competitive car than it used to be, not only because of notable improvements but also because currency exchange rates have made it relatively less expensive. Still not the most satisfying of cars to drive but good comfort and refinement make it an excellent long-distance tourer. Performance mediocre, running costs better than consumption indicates as it uses cheap fuel. Strong points are its quality, great solidity, and in-built safety.