

Autocar

PEUGEOT

*Auto*CODE



The range analysed: 104, 504, 604 and the new 305



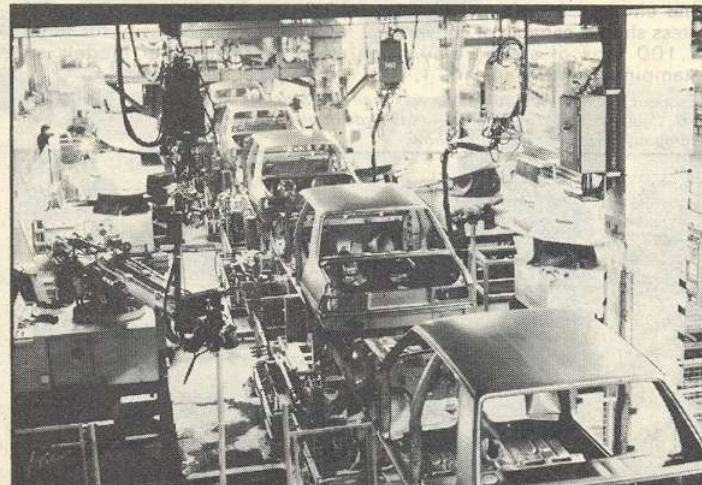
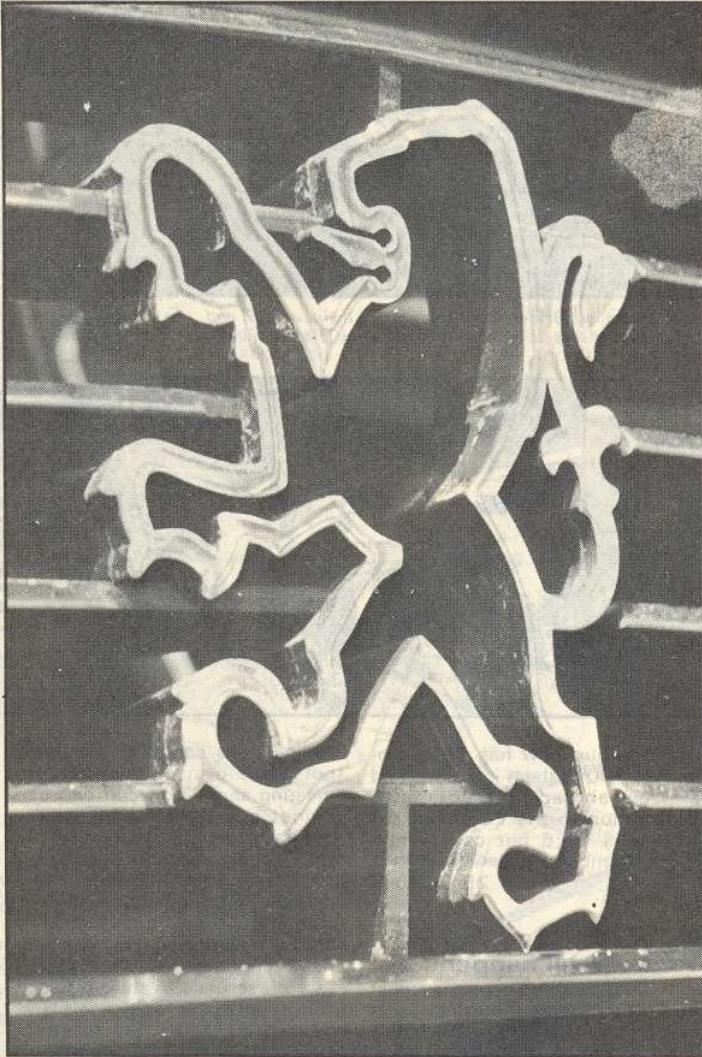
Peugeot 305

PEUGEOT

Auto CODE

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The lion trade mark (top) was first registered 120 years ago by Peugeot. The lower picture shows latest welding gear on the line at Sochaux, Peugeot's main production plant

descendant of the founder is still at the head of the company? How often, indeed, does it appear that the company has grown and become fully modernised to keep pace with modern times, yet has remained still something of a family business?

Thus one finds that the UK importer is wholly owned by the French company, and that chairman of the board of Peugeot Automobiles UK Ltd., is Pierre Peugeot. The managing director reports direct to the European marketing division of the parent company. It has all been kept "nicely in the family," and through the long period of growth the family loyalties and heritage have survived. Even a detail like the lion trade mark was originally registered in November 1858 and was used for the first time on a Peugeot car as long ago as 1907. The familiar numbering system for their models, with 0 in the centre of three digits has ancient origins, being used on the 201 model in 1930 — the first volume production car to have independent front suspension.

After the war, which saw total destruction of the company's factories at Sochaux and Lille, an additional production centre was built at Mulhouse in Alsace. Post-war recovery was founded on the 203 model which, between 1948 and 1954 achieved sales of nearly three quarters of a million, and was supplemented by the much more modern-styled 403 introduced in 1955.

There was some dismay in 1960 when the 404 appeared, styled by Pininfarina and looking embarrassingly similar to the Austin-Morris-MG-Wolseley designs launched shortly before. But if anyone felt the car would not be successful they were misjudging what was to prove one of the longest-surviving shapes of all, since it is still in production in some countries even today. In 1965 came the launch of the 204 featuring a transverse all-aluminium engine with overhead camshaft and front wheel drive, and in four years this had become the best selling car of any make in France. This grew into the 304 with 1300 engine in 1969, which has only just now been supplanted by the new 305. In the previous year, 1968, the 504 was launched, which continues in much the same form today.

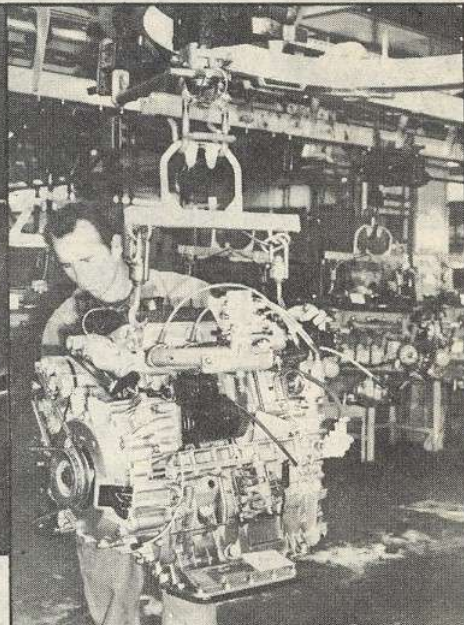
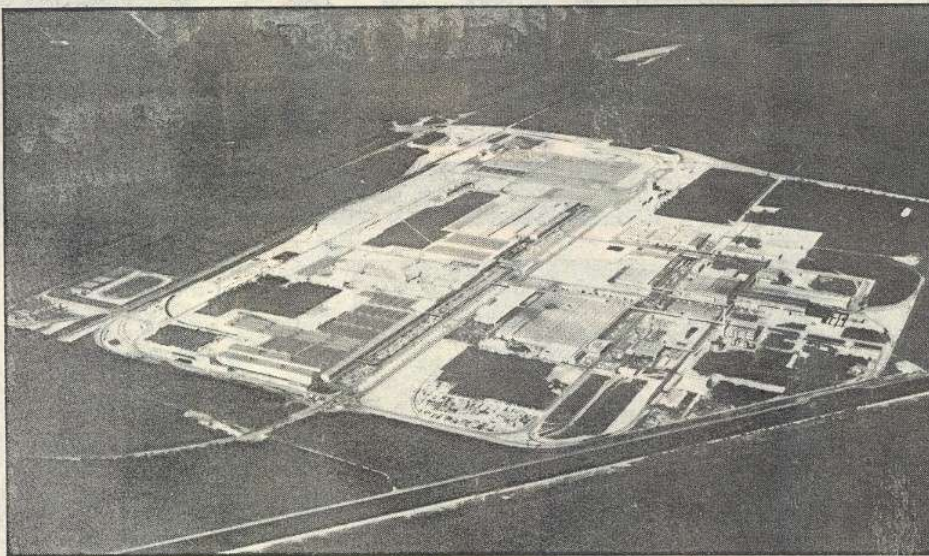
Later new models were the extension into the small car range with launch of the 104 in 1972, and a move up-market with the 604 introduction in 1975. The 404 overlapped the 504 in Britain for several years but was finally discontinued in February 1975. *Continued*

Quite a family

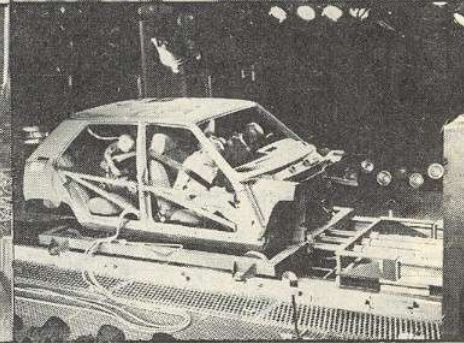
IN A WORLD of big corporations and state enterprises, Peugeot are perhaps the one group one would always use as the example to prove that the old family concept of business can survive and prosper today.

The very name of the company dates back more than 200 years to the establishment by Jean-Pierre Peugeot of a weaving and dye-making business in eastern France. Then came umbrella ribs, hoops and stays for the booming crinoline fashion of the mid '80's, then bicycle spokes, and eventually bicycles themselves. Bicycles led inevitably to construction of the Peugeot car — first a steam-power tricycle in 1889, then a petrol driven four-wheeler in 1891.

There's nothing unusual in that sort of evolution. The great Opel empire of Germany grew up from similar beginnings. But how often can one then point to the fact that a



Above: Centre for the 104 model is the plant at Mulhouse. Below: Paint spraying for the new 305, and assembly at the ever-interesting stage where the body meets its machinery. The engine is an all-aluminium structure. Right: Final approach for crash test



Partners in France

In place of the vigorous rivalry that goes on between companies in some countries, the French favour pooling of resources and co-operative effort. In 1966 Peugeot signed an agreement for industrial liaison with Renault, and the first outcome of this co-operation was the formation of a new factory complex at Douvrin and Rutz in the north of France. It incorporates a foundry and an engines and transmissions plant, with output capability of 4,000 engines a day. Volvo are partners in the arrangement and as is now widely known, the V6 2.6-litre unit which was the first engine to be produced at Douvrin is used also in the Renault 30TS and the Volvo 264.

Peugeot's use of the engine is as power unit for their 604, and although it was first introduced with carburettor only, since the Geneva Show this year it has been offered also with fuel injection.

Involvement with the other big French manufacturer, Citroën, goes back to July 1974, when Peugeot's help was called for by Citroën. In December that year, Peugeot took over the management of Citroën and acquired just over a third interest in the company, increased to nearly 90 per cent in the following April. Soon afterwards a complete merger took place and the holding company of the Peugeot Group changed its name to P. S. A. Peugeot Citroën.

The group now has 180 companies, 100 of them in France and the rest abroad, and combined penetration in the European car market is 11.6 per cent. Total employment of Peugeot-Citroën is 175,000, of whom 25,000 are abroad.

Where it all happens

Main production centre is still at Sochaux, where Peugeot built their first plant as long ago as 1907. This centre now covers 650 acres and employs 36,000 people. The press shop is capable of converting 1,100 tons of steel a day into stampings, and there are 1,100

Peugeot's win in the Safari Rally was their seventh. The victorious car — a 504 V6 Coupé (not sold in Britain) — took pride of place in the company's stand at the Turin Show



welding guns and 300 automatic spot welding machines. The engineering shop is divided between engines and axles. Unlike many manufacturers, Peugeot prefer to make their own suspension dampers, and this is also done in a division of the engineering shop.

Sochaux also houses a body shop, paint shop and final assembly line, producing a finished model every 30 seconds. A short distance to the east is the Mulhouse plant, established in 1961. Still relatively small, with a 12,000 workforce, Mulhouse produces the 104 model, and has ample capacity for future expansion. All other models are produced at Sochaux.

Other key plants are at Lille (diesel engines, water pumps and thermo-clutch fans); Dijon (steering assemblies for Peugeot and Renault); Vesoul (leather seat covers and parts storage); St. Etienne (compressors and light lorry components); Mauberge (body assemblies for Peugeot and Renault, with capacity of 600 units a day); and Douvrin (engines, already covered).

Sporting background

Peugeot have never in recent years bothered with the sports car market or made many pretensions to performance motoring; but they have been proud of a reputation for strength and reliability. Competition in motor sport events has always been used by the company to enhance this reputation, dating back to the first success when Peugeot entrants were first, third and fifth in the 1894 Paris-Rouen trial.

In 1951 Peugeot took the first three places in the Moroccan Rally, and achieved a similar result in the 1954 East African Safari Rally. Since 1963 Peugeots have won this rally outright seven times, including this year and three years when they won in succession (1966-67-68).

Since 1974 they have won seven major African rallies: the Safari in 1975 and 1978, Bandama 1974, 1975 and 1976, and the Moroccan in 1975 and 1976. □

Enter the 305

Peugeot's new medium-small car spreads the range



square, and producing another 7 bhp at 5,700 rpm and a more impressive increase of 15 lb ft torque at 3,000 rpm.

The new car is only 25 lb heavier than its predecessor, at 2,073 lb, in spite of more interior space and stronger, more safety-conscious construction. The biggest change under the skin is to the suspension, which is similar in principle to that of the 304, but with useful improvements. The MacPherson strut front end uses — by French standards — a quite stiff anti-roll bar, which doubles as a bottom wishbone member; the track is wider at both ends. Previously, the later 304's anti-roll bar did no location work. At the rear, there are still trailing arms but now with a linking anti-roll bar, intended to offset some of the usual understeer of any front-wheel-drive design. Steering remains by rack and pinion, and as usual Peugeot supply their own dampers. Unlike many rivals, who ride on 13in. wheels, Peugeot have stuck to 14in. size in the interests of the best possible ride and better road noise insulation, something Peugeot have always known a lot about.

FIRST SEEN in November last year, the Peugeot 305 comes to British showrooms this month. Contrary to what some expected, it is more of a mixture of new car and carefully developed predecessor than something absolutely novel. This is typical of Peugeot and very sensible — why throw away everything when the original is still successful?

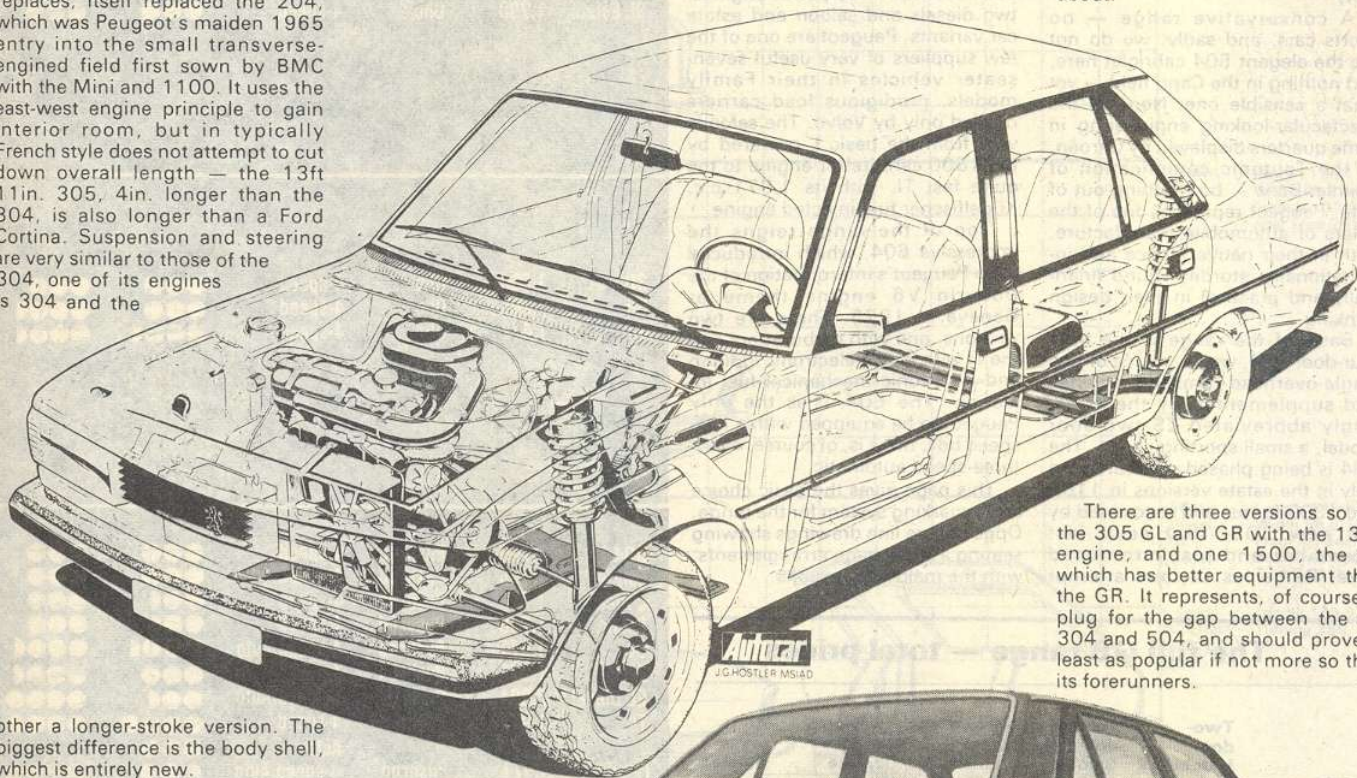
The 304, which the 305 replaces, itself replaced the 204, which was Peugeot's maiden 1965 entry into the small transverse-engined field first sown by BMC with the Mini and 1100. It uses the east-west engine principle to gain interior room, but in typically French style does not attempt to cut down overall length — the 13ft 11in. 305, 4in. longer than the 304, is also longer than a Ford Cortina. Suspension and steering are very similar to those of the 304, one of its engines is 304 and the

ment. The fan drive has a thermostatically-controlled clutch, and is out of action until engine temperature rises in low speed running.

The gear box is all-indirect, with two overall ratio choices according to engine size obtained not by changing the final drive gears but by step-down gearing. Its output is taken to the wheels by equal-length

drive shafts (Fiat and Ford use unequal lengths) each with double constant velocity joints.

The smaller engine is the bigger of what were the 304 all-alloy units, of 1,290 c.c. with 78x67.5mm bore and stroke and 60 bhp at 5,750 rpm; maximum torque is 68 lb ft at 3,750. The larger 1,472 c.c. unit has the same bore and a 77mm stroke, making it still just over-



There are three versions so far, the 305 GL and GR with the 1300 engine, and one 1500, the SR which has better equipment than the GR. It represents, of course, a plug for the gap between the old 304 and 504, and should prove at least as popular if not more so than its forerunners. □

other a longer-stroke version. The biggest difference is the body shell, which is entirely new.

With a chain-driven overhead camshaft, the engines are both cross-flow and slightly inclined forwards, with the carburettor behind on the less accessible side. Most people in 1965 thought it sensible to put the radiator in front to gain full benefit from ram air but odd to depend on an appropriately forward-facing fan driven by a belt led on idler pulleys round the corner from the crankshaft nose. It still looks odd, especially when the rest of the world seems to have gone mostly for the more efficient and less power-consuming electric fan, but it must work, since the 305 perseveres with this arrange-



PEUGEOT Auto CODE

The Peugeot range

Our advice, your choice

PEUGEOT claim rightly to be one of the world's oldest motor car firms, and as befits elder statesmen of the scene, they present a conservative range. In the following pages, we offer an easy guide to the Peugeot line-up, which stretches from Europe's smallest four-door saloon to the statuesque V6 604, which competes healthily in exalted company.

A conservative range — no sports cars, and sadly, we do not see the elegant 504 cabriolet here, and nothing in the Capri field — yet what a sensible one. None of the spectacular-looking engineering in some quarters displayed by Citroën, or the Teutonic complication of Daimler-Benz — but nothing out of date. Peugeot represent one of the pillars of automobile manufacture, both in their native France and internationally, sturdily sound financially and practical in their design thinking.

Basis of the range is the little four-door 104, with a choice of two single-overhead-camshaft engines and supplemented by the arrestingly abbreviated ZS two-door model, a small sporting coupé. The 304 is being phased out, surviving only in the estate versions in 1100 and 1300 forms, and succeeded by the new 305, first seen last November and just introduced here. Rather as Leyland attempt

with the Allegro, and Fiat with the Ritmo, the 305 forms a wide base to the range, with 1300 and 1500 versions in three choices of trim.

As is usual for many makers today, front-wheel-drive has taken over the bottom half of the Peugeot gamut. The 504, in 10 versions excluding automatics, takes up its quietly effective middle ground position with three petrol engines, two diesels and saloon and estate car variants. Peugeot are one of the few suppliers of very useful seven-seater vehicles in their Family models, prodigious load carriers rivalled only by Volvo. The saloons vary from the basic L powered by the 1800 carburettor engine to the quite fast TI, with its 1,971 c.c. Kugelfischer fuel-injected engine.

Top of the range reigns the impressive 604, which introduced us to Peugeot's interpretation of the Douvrin V6 engine theme at Geneva in 1975. There are two versions, one with carburetors and the TI with Bosch electronic ignition and K-Jetronic mechanical fuel injection. The 604 TI is the only Peugeot to be equipped with a five-speed box; there is, of course, also a three-speed automatic.

This page gives the basic choice and a marking system for the range. Opposite are line drawings showing seating and luggage arrangements, with the major dimensions.

The full GB range — total prices

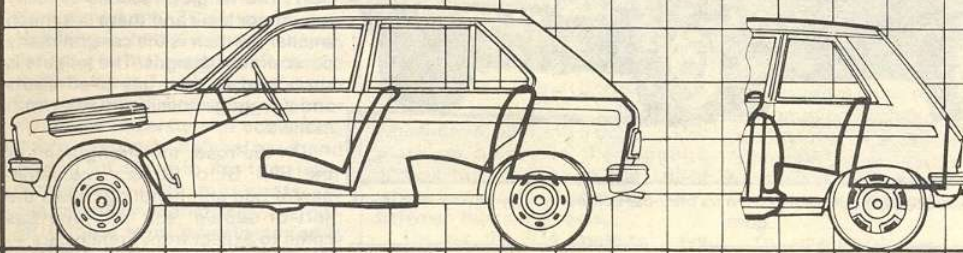
	Two-door Hatchback	Four-door Saloon	Five-seat Estate	Seven-seat Estate	Automatic Version
104 GL	—	£2,395	—	—	—
SL	—	£2,695	—	—	—
104 ZS	£2,815	—	—	—	—
304 Estate	—	—	£2,911	—	—
SL Estate	—	—	£3,143	—	—
305 GL	—	£2,999	—	—	—
GR	—	£3,299	—	—	—
305 SR	—	£3,599	—	—	—
504 L	—	£3,767	—	—	—
Estate	—	—	£4,148	—	—
504 L Diesel	—	£4,297	—	—	—
Estate	—	—	£4,679	—	—
504 GL	—	£4,252	—	—	£4,714
Estate	—	—	£4,624	—	£5,086
504 GL Diesel	—	£4,884	—	—	£5,347
504 TI	—	£4,669	—	—	£5,130
504 Family	—	—	—	£4,655	£5,120
FAMILY Diesel	—	—	—	£5,290	£5,753
604 SL	—	£6,611	—	—	£7,073
604 TI	—	£7,582	—	—	£7,903

The basic choice

	Engine capacity C.C.	Valve gear	Transmission	Performance	Equipment
104 GL	954	Ohc	4-speed	●●	●●
SL	1,124	Ohc	4-speed	●●●	●●●
ZS	1,124	Ohc	4-speed	●●●	●●●
304 Estate	1,127	Ohc	4-speed	●●●	●●●
SL Estate	1,290	Ohc	4-speed	●●●	●●●
305 GL	1,290	Ohc	4-speed	●●●	●●●
GR	1,290	Ohc	4-speed	●●●	●●●
SR	1,472	Ohc	4-speed	●●●	●●●
504 L	1,796	Pushrod	4-speed	●●●	●●●
Estate	1,796	Pushrod	4-speed	●●●	●●●
L Diesel	1,948	Pushrod	4-speed	●●●	●●●
Estate	1,948	Pushrod	4-speed	●●●	●●●
GL	1,971	Pushrod	4-speed/Auto	●●●	●●●
Estate	1,971	Pushrod	4-speed/Auto	●●●	●●●
GL Diesel	2,304	Pushrod	4-speed/Auto	●●●	●●●
TI	1,971	Pushrod	4-speed	●●●	●●●
Family	1,971	Pushrod	Auto	●●●	—
Diesel	2,304	Pushrod	4-speed/Auto	●●●	●●●
604 SL	2,664	Ohc	4-speed/Auto	●●●●	●●●●
TI	2,664	Ohc	4-speed/Auto	●●●●	●●●●

If you are a Peugeot devotee, here are the basic statistics of the range — what is available in Britain, prices, transmissions, body styles, and sizes. The interior dimensions are median ones, with the front seat in mid-adjustment; knee room is the distance measured between the back seat squab and the back of the front seat. Turning circle dimension is the largest one measured between kerbs in the relevant *Autocar* Road Test. Moons and half moons for Performance and Equipment are *Autocar's* assessment of the models, comparing Peugeots with each other — five moons represents the fastest or the best.

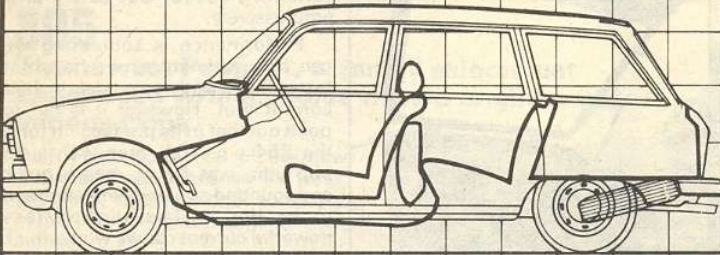
104



104 GL SL Length 11ft 9in.
Width 4ft 10in.
Front leg 35¼in.
Rear knee 24¼in.
Turning 31ft 4in.

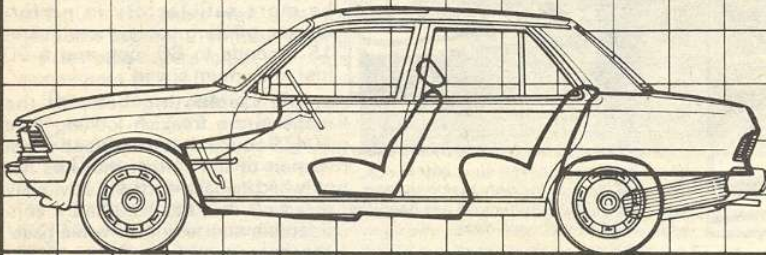
104 ZS Length 10ft 10in.
Width 4ft 11.8in.
Front leg 36½in.
Rear knee 20¼in.
Turning 29ft 7in.

304 estate



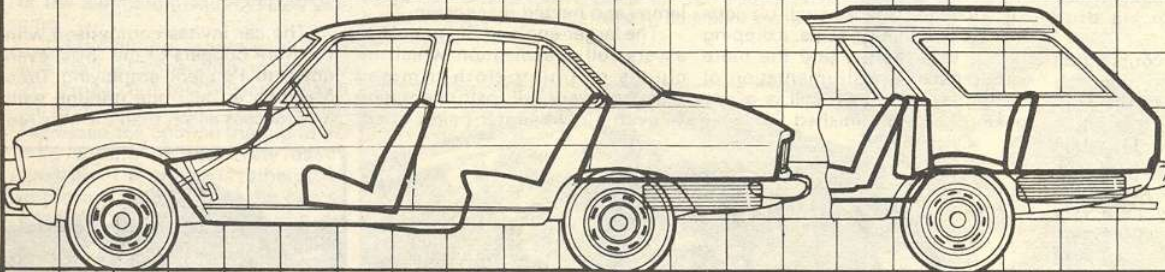
304Estate SL Estate Length 13ft 7in.
Width 5ft 1¼in.
Front leg 35¼in.
Rear knee 27½in.
Turning 33ft 9in.

305



305GL GR SR Length 13ft 11in.
Width 5ft 4½in.
Front leg 37½in.
Rear knee 29½in.

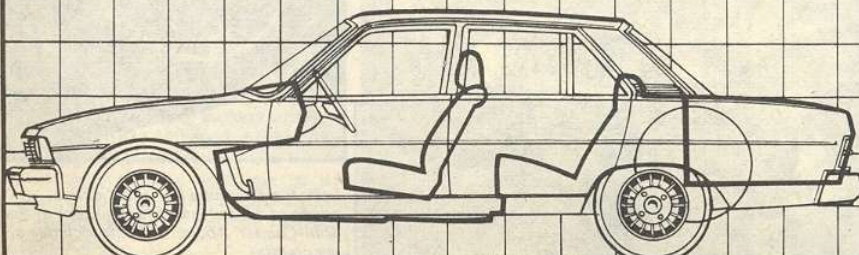
504



504L Diesel GL Diesel Length 14ft 8.7in.
Width 5ft 6½in.
Front leg 34in.
Rear knee 30¼in.
Turning 33ft 10in.

L Estate GL Estate Family & Diesel Length 15ft 9in.
Turning 35ft.

604



604 SL TI Length 15ft 5½in.
Width 5ft 9½in.
Front leg 35in.
Rear knee 35½in.
Turning 35ft 3in.

Get to know your choice

104

Four door hatchback available with two engine sizes. Also a two-door sporting coupé version

THE PEUGEOT 104 has never had quite the same impact as some of its mini-car rivals. This was due in the past to pricing policies which dictated its position in the market at a slightly more expensive level than most of its competitors and also to a subtle difference in emphasis regarding the nature of the car itself. For the 104 has, of course, four passenger doors, a design that separates it from all the rest of the minis. It was originally marketed as the smallest four-door saloon in an effort to capitalise on this fact, but more recently a major face-lift brought the car a rear hatchback and put it into direct competition with the rest. The 1976 facelift to the 104 also saw the range broadened and it now comprises two saloons and a coupé, with a choice of engine capacities. Bottom of the range is the 954 c.c. 104 GL. It is followed by the 1,124 c.c. SL saloon which has a 57 bhp version of the engine while the ZS coupé has 66 bhp.

It is perhaps a little unfair glibly to describe the 104 as a mini-car, for though it is small in outside dimensions — just 11 ft 9 in. long — its use of space gives it interior room to rival much bigger cars. It stands on a wheelbase of 95 in., virtually that of a Ford Escort, and bigger than almost all the minis save the similar "wheel-at-each-corner" Renault 5. A clever engine/transmission arrangement adds to the available interior space. The engine lies transversely and is canted to the rear. Power is taken to the front drive transmission, which lies below the engine via drop gears.

The power unit is, of course, that now shared by Renault for their 14; the Douvrin production line supplying both companies. It is an all alloy engine with a single, chain driven, overhead camshaft. In the 954 c.c. unit the bore and stroke are 70 mm x 62 mm while a very mild camshaft and low compression ratio have been used to aid economical running. Power output is 44.5 bhp, but economy on two-star fuel is said to be good.

The 1,124 c.c. unit has different bore and stroke — 72 mm x 69 mm, while the ZS coupé gains its extra power from twin choke carburettors. Incidentally, the Renault 14 engine is 75 mm x 69 mm for a capacity of 1,214 c.c. and a power output also of 57 bhp.

The 104GL is very much the economy car of the range, not just because of its de-tuned small engine, but also for its low sale price. It competes with the basic versions of



The 104 saloon is distinguished from its mini-car competitors by having four doors



Above left: fascia of the 104 GL, the economy model of the range. Left: the engine is completely masked by the spare wheel and lies transversely, canted rearward. Above: the only major change since the 104's introduction has been the addition of a hatchback door

the other hatchback minis.

To achieve this low price, it necessarily has a fairly basic specification. It lacks such obvious luxuries as reclining seats, a dipping mirror, cigar lighter and the more comprehensive instrumentation of the bigger car, but it still is a tidy looking and well finished little car.

The vinyl seats have cloth inserts on the seating faces, it has electric screen washers, adjustable headlamps and heated rear screen.

The larger-engined SL model has a very full specification which includes reclining cloth-trimmed seats and very full instrumentation — even a rev counter being fitted.

Inertia reel front seat belts are also standard equipment.

The rear hatchback door was a long time coming: when it was announced in 1976 the car had been on the market three years in competition with other small hatchbacks — but now it is here it is one of the best. The tailgate reaches virtually to bumper level and there is a much smaller sill than is the case on many other similar designs. The tailgate is supported by two gas filled struts and a luggage cover is fitted to both models.

On the road, the strong point of the 104, GL or SL, is its combination of ride and handling. It has the sort of supple, soft ride one has come to expect from French cars — though with less body roll than some. Handling is predictable; a steady build up of understeer with cornering speed, but safely and progressively.

Performance is something we can only estimate as we have not tested either of these models in their current trim. However it is fair to point out that in its pre-face-lift form the 954 c.c. 104, then with a 46 bhp unit, was by no means quick and sounded strained when pressed to its limits. The slightly less powerful current car we would think unlikely to match its road test 0-60 mph time of 19.0 sec, though the 83 mph top speed may be almost within reach. The 104SL is likely to be more satisfactory in performance, offering somewhere nearer 15 seconds to 60 mph and a 90 mph maximum speed.

The fascinating baby of the range is the freakish looking little 104ZS coupé. It is a chopped down version of the saloon that has not only had its back-end very obviously sliced off, but has also had a considerable shortening in wheelbase. This is reduced from 95 in. to just 88 in. and the overall length of the car is only 6 in. more than a Mini 1275GT.

The car invites comparison with the Mini Coopers of the '60s, even down to Peugeot employing Timo Makinen to rally one (though with less success as yet than the little red



Left: the ZS coupé has a distinctive chopped-off tail and is reminiscent of the Mini-Cooper. Above: its fascia includes a rev counter

cars). Performance is certainly lively — our *Autotest* car recording 0-60 mph in 13.6 sec. It is a screamer of an engine, with peak power at 6,200 rpm and willing to rev as high as 7,000, but does understandably lack some flexibility. Fuel consumption also suffers from the over-choked carburation and overall we returned only 29.5 mpg on test. Handling is both lively and safe as the car's format suggests. It can be thrown around with ease and the keen driver will find no problem in killing the understeer or converting it into oversteer. Ride is good and seating for those in the front very comfortable. But rear seats are naturally very restricted by the cut-off tail and short wheelbase, as is the boot space. For extra space, the rear seat can be folded flat. Like the saloons, the ZS is a hatchback.

304 estate

A 1.3 litre front wheel drive estate car

IT MAY BE presumed that in due course there will be an estate car version of the new 305, but until such should appear the existing 304 continues in estate form.

It has the smaller 1,288 c.c. ohc four-cylinder engine, again of aluminium construction and mounted transversely. It has front-wheel-drive, allowing a usefully low platform height in the luggage compartment, though the spare wheel is mounted under the floor, between the rear wheels.

On test, the 304 estate car gave a top speed of 91 mph, and accelerated briskly from rest to 60 mph in 14.6 sec. Again, the fuel



The 304 estate remains in the Peugeot range, though the saloon models are discontinued in favour of the 305

consumption suffered the familiar penalty that a small engine in a relatively big car is not the best formula for economy, and the overall consumption figure was only 25 mpg.

The estate body has a top hinged tailgate opening to a height of 6ft 1in., and the interior load entrance dimensions are 2ft 8in., to clear the

hinges, and a width of 2ft 9in., between the wheel arches.

Again we gave credit for a good ride on bumpy roads, a practical interior layout and logical controls, and described the car as "eager and comfortable." The smaller engine (than the 305) proved noisy at high revs, otherwise the 304 was rated as a quiet car.

305

The newest Peugeot, a family saloon just announced with a choice of two engines and various trims

OUR FULL Road Test of the new 305 model was published last week (20 May), so only a brief summary of this interesting newcomer should suffice.

As explained in the description on P5, the 305 is a deceptively big car, and one in which the front-seat occupants can spread themselves and push the seats well back for adequate legroom, without asking the rear passengers to put their legs somewhere else.

The car tested was the SR version, with 1,472 c.c. engine, and it performed impressively well, giving a 13.0 sec time for acceleration from rest to 60 mph, and covering the standing quarter-mile in 19.3 sec. Top speed was a creditable 95 mph, and third gear proved good for 84 mph, making use of the commendable free-revving ability of the aluminium four-cylinder engine.

Disappointing aspect of the car was its fuel consumption of only 26.1 mpg; but this reflects quite a lot of hard driving, and the test expressed the opinion that up to 30 mpg should be relatively easily available. The engine is rather small in relation to the size of the car, so although it is an efficient ohc design, this is the inevitable penalty when the performance is used freely.

Outstanding features of the 305 are its ride comfort and seating, coupled with the generous accommodation. It steers well, has very effective brakes, and sits down square and securely on the road, giving level and well-balanced cornering without any excess understeer or unpredictable dive-in on closing the throttle.

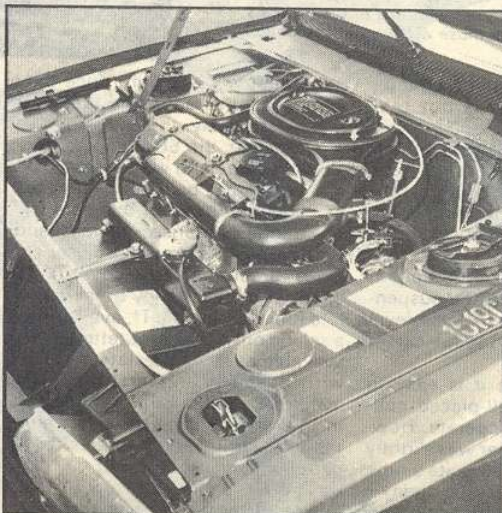
It is a worthy addition to the range, being very much in the Peugeot tradition for comfort and practicality.



Above: the new 305 follows Peugeot traditions of ride and handling. It was fully road tested last week

Below: the all-alloy engine is a development of that originally seen in the 304 model with either the same 1,288 c.c. capacity or an extended 1,472 c.c.

Right: facia is a merging of modern styling with Peugeot tradition — note the typically Peugeot small rev counter
Below right: interior room is one of the 305's strongest points, fwd allowing ample room for both front and rear passengers



Get to know your choice

504

Mainstay of the Peugeot range, a two-litre family saloon and estate range with carburettor, fuel injection or diesel engines and a wide trim choice. Also large Family estates

PEUGEOT'S reputation is for producing sound, timeless cars that do not necessarily set the heart beating faster. The 504, Peugeot's biggest seller, is no exception. It has been with us now for nine years and two million have been built in France.

Re-acquaintance with the 504 soon showed why it has proved consistently successful. Despite a lack of any immediately apparent technical innovation and looks that are discrete rather than strikingly fashionable, the car has many endearing characteristics.

Gallic practicality is a keynote. The 504 may appear somewhat austere compared with others in its price range. But it is an extremely effective "people transport system." It is comfortable, roomy for its size has a generous (19.3 cu. ft.) boot and long-legged performance. The latter was particularly true of the 504 TI saloon we drove recently.

It has the 1,971 c.c. engine fitted with Kugelfischer indirect fuel injection. In this form, the unit's output is raised from 96 bhp (DIN) at 5,200 rpm and 119 lb. ft. (DIN) maximum torque at 3,000 rpm for the GL carburettor version to 106 bhp and 124.4 lb. ft. at the same revs.

The effect of the TI engine with manual transmission is to raise the claimed top speed from 101 mph to 107 and bring the 0-60 mph time down from 13.1 sec to 11.3 sec. Department of Energy fuel consumption figures show the TI to be marginally worse than the GL at 13.1 mpg on the Urban Cycle, but better at 56 and 75 mph with 37.6 and 28.2 mpg respectively. Over 1,714 hard driven miles, we achieved 24.24 mpg.

Instead of using the advantages of fuel injection only to give the 504 snappier acceleration, Peugeot chose to go for longer overall gearing. The internal gearbox ratios remain the same, but a higher final drive gives the TI 19.2 mph/1,000 rpm in the direct top gear instead of the GL's 18.6 mph.

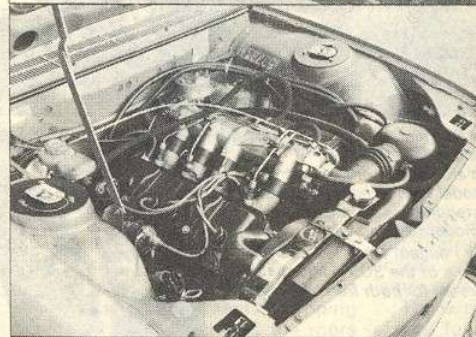
The TI now has power steering as standard, nevertheless the large steering wheel is retained. The relatively low geared rack gives 3.5 turns lock-to-lock compared with 4.5 for the GL. We thought the car would have benefited from a smaller wheel, at least, to give quicker steering and take more advantage of the power assistance at low speeds. The TI "package" also includes a steel sunshine roof, electric



The 504 is the mainstay of the Peugeot range. The Pininfarina styling has been altered little and has aged well



Left: The facia of the higher models in the 504 range has been considerably improved
Below left: The pushrod 1,971 c.c. engine develops 96 bhp in carburettored tune, while fuel injection adds another 10



Right: The massive Family estate is one of the few cars on the market suitable for those with very large families. It is a seven seater



front windows, and a rev counter which, rather oddly, is not red-lined.

Initially, one's posture behind the wheel is something of a "bus driver's crouch." One soon becomes accustomed to this, however, and appreciates the seat comfort and good leg room. The cloth seats are generously proportioned, soft and well tuned to the suspension. This and the low noise level make the 504 TI a restful car in which to ride.

At the same time it is easy to drive because of well-placed controls that are light to operate. However, we did feel the car was slightly "under-tyred" and had quite a high degree of roll stiffness by today's standards. As a result, while cor-

nering limits were high, once they were reached, adhesion was lost relatively quickly.

Of course, the 504TI is the flagship of a large and widespread 504 range; this car being the mainstay of Peugeot's sales in this country. The range comprises saloons and estates, using petrol and diesel engines, amounting to a total of 16 different models. They break down into four classes: the TI, available as a saloon only; the carburettored GL, available as saloon, estate and also with a diesel engine; the 504L available in a similar range, but including also a diesel estate and the ultra-large Family estates, both petrol- and diesel-powered.

The GL shares the 1971 c.c. engine of the TI and has a broadly

similar specification apart from the latter's fuel injection and power steering. The L is a rather more basic model, with a 1,796 c.c. engine that produces 79 bhp and hence rather reduced performance. Interior trim and fittings are also simpler with an old fashioned rectangular instrument panel. Estate car versions of both the L and GL models use a live rear axle (as does the Family estate) in place of the semi-trailing arm independent rear suspension of the saloons.

The L diesel uses similar rear suspension to the estates. It was the first of the Peugeot diesels introduced to this country and uses a 1,948 c.c. power unit. Maximum power is just 56 bhp so performance is modest, to say the least, the top speed being 83 mph and 0-60 mph taking 21.7 sec. But fuel consumption is the bonus: our Autotest average was 31.1 mpg. The GL diesel has the same specification as its petrol equivalent and is thus a more sophisticated alternative than the L. Its power unit is 2,304 c.c. and produces 70 bhp. Both the diesel models start and stop on the ignition key, needing some 20 seconds' warm-up from

a cold start.

The Family estate, available with both the 1971 c.c. petrol engine and the 2304 c.c. diesel unit, is a very specialised vehicle which delights those large families who find normal estates cramped. It is a seven-seater, having three rows of seats arranged in its lengthy body. Behind the pair of front seats are a second pair of individual seats and behind them is a bench seat that will hold three. Accommodation here is a little restricted by the intrusion of the wheel arches, but there is plenty of room for three children, or adults if they are prepared to suffer some cramping. This final rear bench can be folded flat to increase the load capacity of the estate whilst still leaving four seats free.

604

Prestige flagship using the co-op 2.7 litre V6 with either fuel injection or carburettors

THE 604 was announced at the Geneva Show in 1975 but supplies did not start reaching Britain until October. The last is in some ways the most conventional of the bunch — its rivals being the Volvo 264 and Renault 30. With conservative styling it has a family resemblance to its smaller brethren but an impressive size, both inside and out. Our figures for the original road test car (November 1975) and the automatic version that we ran on long-term test show that the 604SL is no slouch: 0-60 mph in 9.4 sec (manual) and maximum speed of 113 mph place it well up with its immediate competitors.

This year Peugeot quietly launched a more powerful fuel injected version of the 604 at the Geneva Show. Now the first 604TIs have come to Britain and although we have yet to carry out a full *Autotest*, a few hundred miles' recent experience suggest that it is a worthwhile improvement in most dynamic respects over the earlier car — which continues, some £1,000 cheaper.

The 604TI uses Bosch K-Jetronic mechanical fuel injection which increases the 2.7-litre engine's maximum power to 144 bhp, eight more than the carburettor version. It is a sweeter power unit in injected form, but the TI's most worthwhile improvement is the five-speed manual gearbox that goes with it (if automatic transmission is an option). This provides an overdrive top gear reduction of 0.82-to-1 and a long-legged 25 mph per 1,000 rpm which makes for both quiet and relatively economical high-speed cruising. The gearchange itself is light and precise and arranged with first to fourth in the conventional pattern with fifth up and to the right, opposite reverse.

In other respects the 604TI is all



The 604 is a large, conventionally engineered car that puts Peugeot into the Mercedes Benz, Rover and Citroën market

but identical to its carburetted counterpart with only the badging to identify it as Peugeot's top — and most expensive car.

The 604 was launched to satisfy the growing demand in a more affluent market, both at home in France and abroad, for a larger car than Peugeot's former top model, the 504.

It is considerably larger, though it shares the same conservative design philosophy, using MacPherson strut front suspension and an independent semi-trailing arm rear end. Its size puts it into the small Mercedes-Benz, Citroën CX, BMW and larger Ford Granada market — a lucrative and competitive one at present.

Below: The 604's engine is the co-op V6 shared by Volvo and Renault. This is the TI's fuel injected unit

Right: The fascia is crisp and organised in the modern vogue

Below right: A very long wheelbase gives the car exceptionally good rear seating space

Once again, ride comfort is the car's forte. Long suspension travel and superb damping give the 604 an enviable ride that is unbeatable on most surfaces, without being unduly soggy.

Its wheelbase, one of the longest in the class, means that interior accommodation is also excellent. There are plush and comfortable front seats and even when these are moved to the rearmost limit of their adjustment there is still more than ample legroom in the rear. The well shaped back seat bench will hold three people with ease.

Handling has not suffered as a result of achieving a comfortable ride. It has near neutral handling with little body roll and can be

hustled along quite speedily for a large car. Power steering is standard — the system giving good feel if being rather light and a little low geared at 3.3 turns from lock to lock.

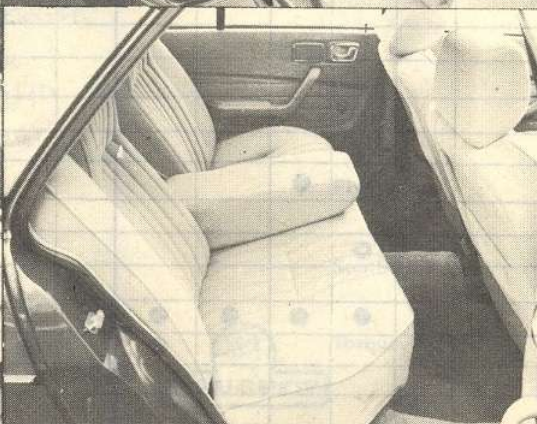
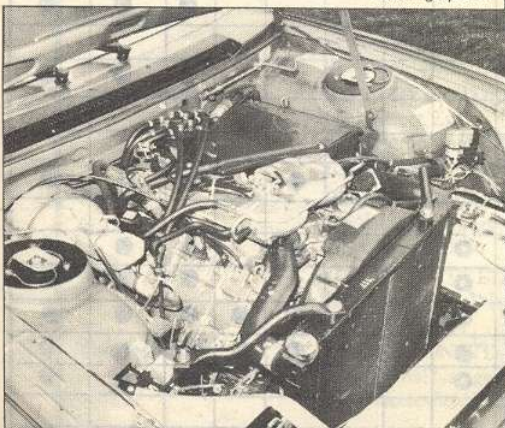
Incidentally, we noted at the time of our original *Autotest* that the engine could pull a fifth overdrive ratio — which it now has in the TI. The V6 is a smooth, unfussed unit, with a good flat torque curve that offers plenty of acceleration in the gears.

Fuel consumption of our test car was reasonable considering its size and weight — averaging out over the test period at 19.6 mpg. We described the 604 then as a "professional" car, being impressed with Peugeot's usual attention to details — the size of the boot, power of the headlamps and so on.

Our feelings were confirmed by our long-term test 604 SL with automatic transmission, whose performance in this guise makes an interesting comparison. Top speed of 108 mph is 5 mph down, while the 0-60 mph time is well down at 12.3 sec. These sort of figures suggest that the real benefits of the TI's extra horsepower will be felt only with the five-speed gearbox where they will also be mitigated by the economy of overdrive gearings.

The automatic transmission fitted to the car is the GM Strasbourg unit, one of the smoothest available, with almost imperceptible upchanges and a very ready part throttle kick-down. Economy appears to suffer only a little with automatic, and our long-term test car returned an average of 17.8 mpg.

As the top model in the Peugeot range, the 604 comes with a very full specification that includes electric window lifts and an electrically powered sun roof. Among the options for it is leather upholstery to replace the standard cloth trim. It is a car of conservative lines whose merits may seem less obvious than those of rivals like Ford or BMW but which show through in a pleasantly understated way.





Peugeot 504 Estate



Peugeot 604