



Citroen (DS21) Pallas M 2,175 c.c.

Autocar
Road
Test
 NUMBER 2056

MANUFACTURER

Citroen Cars Ltd., Slough, Bucks.

PRICES

Basic	£1,635	0s	0d
Purchase Tax	£342	3s	9d
Total (in G.B.)	£1,977	3s	9d

PERFORMANCE SUMMARY

Mean maximum speed ..	107 m.p.h.
Standing start ¼-mile ..	19.5 sec
0-60 m.p.h.	14.4 sec
30-70 m.p.h. in 3rd ..	16.2 sec
Overall fuel consumption ..	22.0 m.p.g.
Miles per tankful	315

AT A GLANCE: A more powerful DS model with lower top gear. Engine not quiet but performance better for British roads, at small expense to fuel consumption. Very comfortable journey car with excellent brakes and adhesion. Elaborate equipment and luxurious interior.

OCCASIONALLY time and availability allow us to take a test car for a journey abroad as well as putting it through our full home test routine. Since Citroens seem to be in their element on *routes nationales*, we were pleased to be able to drive the latest Pallas M (for manual change) fully loaded, on a trouble-free 1,500-mile Continental journey, as an extension of its test programme.

What a difficult car this British-assembled Citroen is to sum up. It has many sterling qualities, and owners of DS models rise up in defence if a word of criticism is breathed. Virtually unchanged since its brilliant conception more than 10 years ago, it is now becoming a bit dated in some respects. It calls

to mind the 'cellist who always played the same note. Asked why he did not move his fingers on the strings like other players, he replied confidently: "They are still searching for the note, I have found it." This year the guts of the Citroen have been changed but the difference in note is scarcely distinguishable.

This latest model was described in detail in our 17 September issue. Its new engine is a short-stroke over-square 2,175 c.c. design (previously 1,911 c.c.) with five-bearing crankshaft, giving a net 100 b.h.p. and considerably more torque. Gear ratios have been revised and 1,000 r.p.m. in top now gives 20.7 m.p.h. instead of 23.1. These changes bring rather more punch and greater flexibility, better suited to British roads and traffic, without losing too much of the characteristic Citroen high-geared cruising performance.

Talk about a new engine for Citroens had been going on so long that when it arrived it was something of an anti-climax. Frankly we had hoped for a more radical change and had felt that, with well over 2 litres capacity, the DS now deserves six cylinders. The appreciably higher output has not increased mechanical or power noise from the engine which is smoother than its predeces-



Autocar Road Test 2056

MAKE: **Citroen**

TYPE: **(DS21) Pallas M**

TEST CONDITIONS

Weather .. Cloudy with 0-10 m.p.h. wind
 Temperature 7 deg. C (44 deg. F.)
 Barometer 29.0in. Hg.
 Surfaces Wet concrete and tarmac

WEIGHT

Kerb weight (with oil, water and half-full fuel tank)
 25.7cwt (2,878lb-1,307kg)
 Front-rear distribution, per cent .. F 66.3, R 33.7
 Laden as tested .. 28.7 cwt (3,214lb-1,460kg)

TURNING CIRCLES

Between kerbs .. L, 39ft 4in.; R 38ft 7in.
 Between walls .. L, 40ft 11in.; R, 40ft 2in.
 Steering wheel turns lock to lock 2.9

PERFORMANCE DATA

Top gear m.p.h. per 1,000 r.p.m. 20.7
 Mean piston speed at max. power .. 3,085ft/min
 Engine revs at mean max. speed .. 5,170 r.p.m.
 B.h.p. per ton laden 69.7

OIL CONSUMPTION

Miles per pint (SAE 20) 300

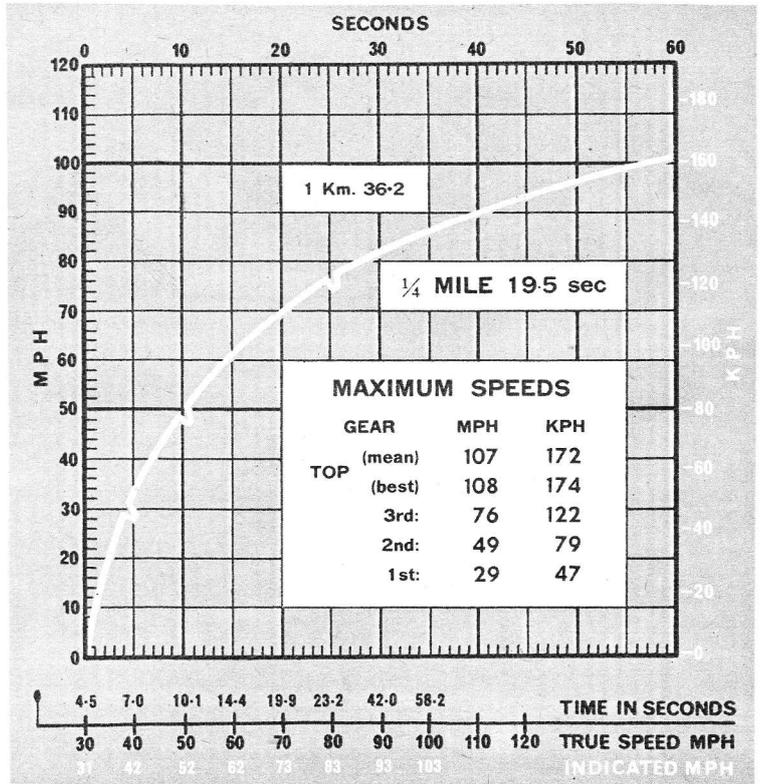
FUEL CONSUMPTION

At constant speeds
 30 m.p.h. 34.8 m.p.g. 70 m.p.h. 25.2 m.p.g.
 40 " 32.0 " 80 " 21.7 "
 50 " 30.0 " 90 " 18.9 "
 60 " 27.5 "

Overall m.p.g. .. 22.0 (12.8 litres/100km)
 Normal range m.p.g. 19-25 (14.9-11.3 litres/100km)
 Test distance 2,539 miles
 Estimated (DIN) m.p.g. 22.9 (12.4 litres/100km)
 Grade Premium (96.2-98.6RM)

Speed range, gear ratios and time in seconds

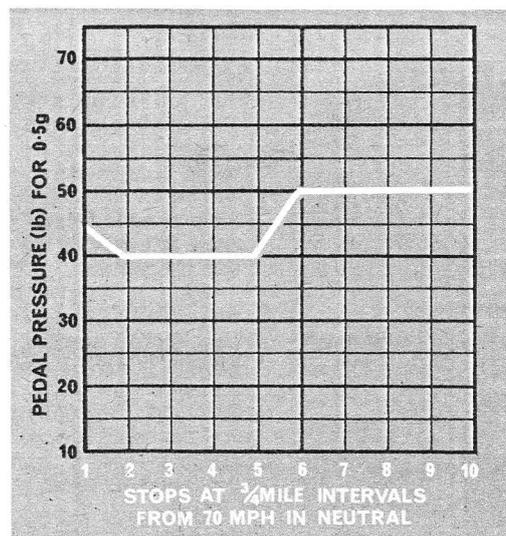
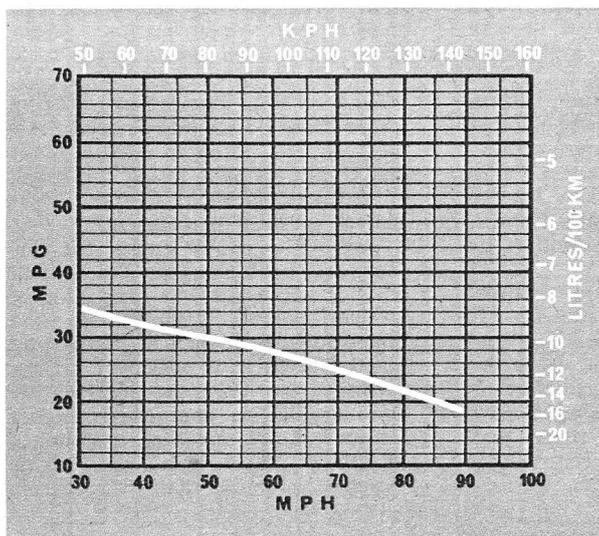
m.p.h.	Top (3-73)	Third (5-58)	Second (8-49)	First (14-21)
10—30	—	7.9	5.0	—
20—40	12.6	7.3	4.7	—
30—50	13.7	7.1	5.2	—
40—60	13.5	7.7	—	—
50—70	13.9	9.1	—	—
60—80	17.7	—	—	—
70—90	21.2	—	—	—
80—100	27.7	—	—	—

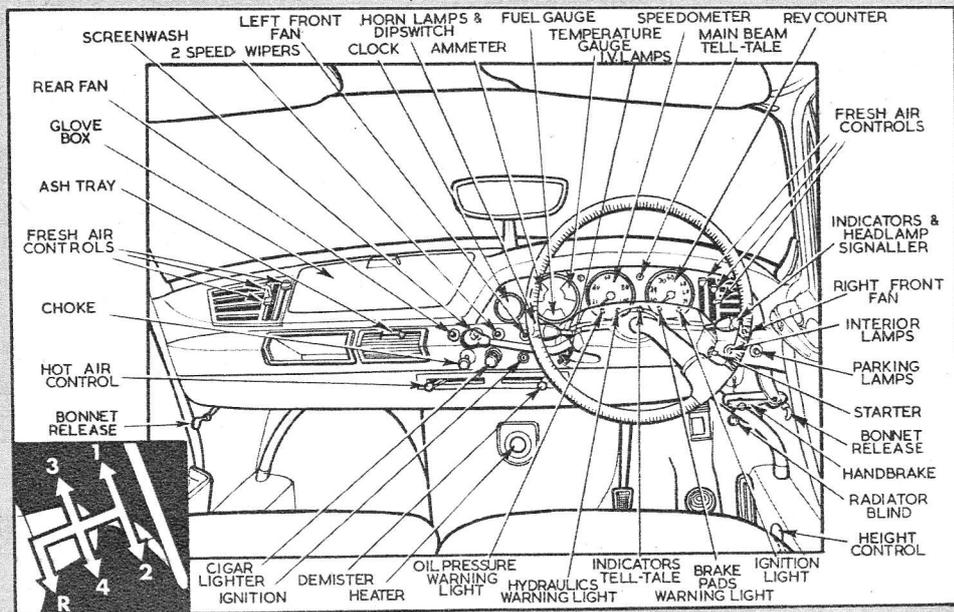


BRAKES

Pedal load	Retardation	Equiv. distance
(from 30 m.p.h. 25lb	0.25g	120ft
in neutral) 50lb	0.46g	65ft
75lb	0.80g	38ft
95lb	1.0g	30.1ft
Handbrake	0.50g	60ft

CLUTCH Pedal load and travel .. 40 lb and 7.5in.





sor. However, when accelerating in the intermediate gears there is a good deal more boom and roar than one expects of such a car today. No doubt the job of quietening the interior is made more difficult by the far-back mounting of the engine, which still necessitates a large bulge under the middle of the fascia.

With four passengers and a full load of luggage, the performance is sedate and a good deal of gear-changing and engine roaring is needed to overtake heavy vehicles. The top cruising speed is about 90 m.p.h., reached on long straights. Above this figure the speed build-up is slow, although when lightly loaded a maximum of almost 110 m.p.h. was eventually reached. Earlier models are hard pressed to reach 100 m.p.h.

Acceleration

Its somewhat elderly image, and the absence of snap in its handling, makes the Pallas seem less lively than it really is. A standing quarter-mile in 19.5sec is good going and its maximum speed is well above the average in its class. Continental readers will note that we have started to record a mean standing kilometre figure too. For this car it is 36.2 sec. The engine's compression ratio is only fractionally increased to 8.7 to 1, so ordinary premium fuel still suits it. Average journey consumption, of about 23 m.p.g., is higher with the more powerful new engine.

This is very docile and gives an even pull down to very low r.p.m. We were surprised to be able to measure third gear acceleration figures from 10 m.p.h. and to obtain gentle but smooth acceleration from 16 m.p.h. in the high top gear. All the same, it is usually better to change down into second to pull away after corners.

A popular feature of the DS models is their soft, level ride, owed mainly to the hydro-pneumatic

suspension, with automatic height control to compensate for different loads. During our Continental journeying the passengers specially appreciated the restful pitch- and bounce-free ride, which is aided by the deep soft upholstery of the seats. The suspension absorbs rough, unmade road edges very well and only exceptionally would passengers be joggled on any made-up road. There is virtually no tyre or road noise.

Suspension height can be adjusted with the aid of a five-position lever. The highest setting is for wheel changing only; the middle three are for driving normally or in either of two slightly higher positions giving increased ground clearance.

Three things detract a little from the journey comfort, particularly for

the driver: the abrupt response to tiny corrective movements of the steering-wheel, necessary to stop wander—a characteristic of the powered steering—surge on the over-run, arising from springiness in the short drive shafts and their joints, and a similar surge effect when braking with the "rubber button" which serves in place of a normal brake pedal. Any attempt to drive fast on winding roads, such as those through the mountains, results in a lot of roll.

So far as stopping power is concerned, on wet or dry roads, the brakes with a new fixed-caliper disc design in front (and the help of Michelin XAs grip), are excellent and fade-free. The handbrake, working independently through the front

A very accessible spare wheel, holding the tools, serves as a buffer in the nose, which has the cooling air intake underneath it. Note the auxiliary iodine vapour lamps which have tremendous beams





Plenty of room inside: The big front seats do not move far back on their slides but their reclining backs are lavishly padded, for comfort, and for the added safety of the rear passengers

Citroen Pallas M...

wheels, is a bit awkward to pull on, but easily holds the car on a 1-in-3 test slope and serves well for emergency use on the road.

A button under the handbrake ratchet bar can be turned to lock the brake for additional security in case, for example, children should be left in the car when parked on a slope. The power system for brakes, suspension and steering is phased so that in the event of failure, warning is given first by heavy steering, second by suspension and finally, after a number of applications, failure of power assistance to the brakes. There is also a brake pressure warning lamp.

The Slough-assembled Pallas is fitted with 180-380 XAs tyres, Michelin's latest asymmetric design. They have to be fitted the right way round as the asymmetry is between the inside and the outside "halves" of the cover.

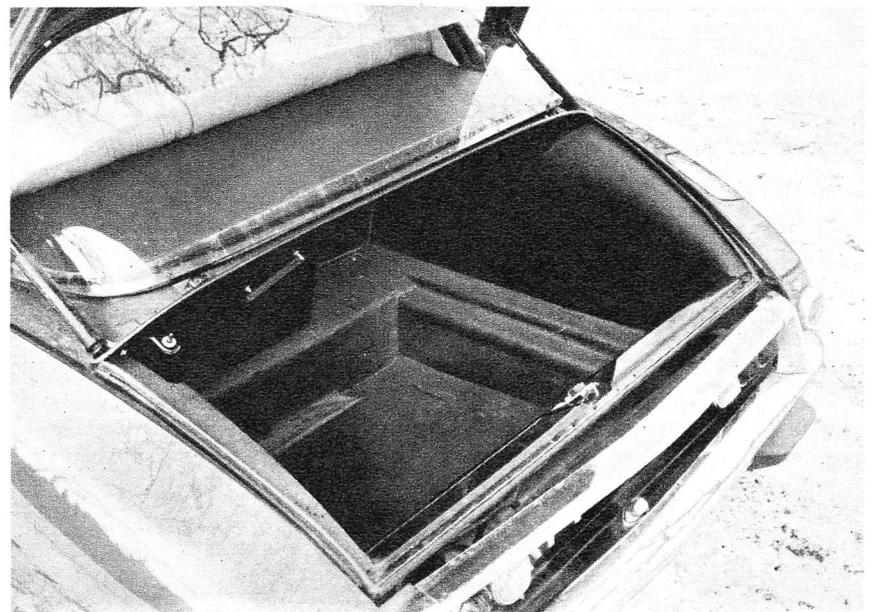
Few cars are surer footed than the Citroen; it follows its nose precisely round bends without the need to slow down. If the speed is high and power on, the car tends to run wide; if power is cut during such a bend, there is a scarcely perceptible tightening of the curve, as the front tyres concentrate

wholly on turning the car instead of driving it as well. Because of the notchy nature of the power assistance, sharp corners are less easy to steer round immaculately, and slow speed manoeuvring seems to be a rather clumsy business. This, too, shows up one of the few disadvantages of such a long wheelbase. Our test car took some time after a cold start to develop power to assist the steering, so we needed muscle to de-park. Its remarkably reliable plumbing systems still produce interesting gastric noises from time to time.

A feature of the DS, which remains as attractive as on the day of introduction, is the exceptionally slender

screen pillar design. One does not even notice the absence of quarter-lights. For all the occupants, the view out is excellent, although if and when Citroen design a new body, the time will have come to lower the base of the screen by an inch or two and, incidentally, to reduce the diameter of the steering-wheel. No doubt the pillars and window shapes contribute to the marked absence of wind noise when driving fast; in fact the overall aerodynamic shape of the body, which must be largely responsible for the final 10 m.p.h. of speed, would account for the quietness on this score.

The big side windows are, of



Its regular shape as much as its size makes it possible for the boot to accommodate a mound of luggage and oddments

After 10 years, the DS is still both elegant and interesting in appearance. The side windows are frameless and look the bigger for having no quarter panes



course, frameless. When fully closed, they squash into deep rubber seals which then support them. If freed from the seals at high speeds, or wound up above about 80 m.p.h., they may be sucked outwards and may not close tightly again unless the car is first slowed down.

Citroen have provided elaborate hot and cold air systems to keep the interior atmosphere comfortable without need to open any windows. The air flows and heat can be finely adjusted. Insects but no noise emerge the instrument panel.

Fresh air from the two grilles is controlled by three levers on each side; one reduces or increases the quantity; a second deflects the flow from chest level up to the roof; and the third, independently, diverts air down to the feet. The heater system delivers air to the screen through the normal slits and through the extra ducts at the base of the screen pillars. At the back, a large separate heater and fan demist a small area of the rear window in return for too much fan whir and a loss of space beneath the rear shelf inside the big boot.

We hardly know what to make of the controls; in the course of the test we grew used to them but still feel that some of them are different for difference's sake. At least they are robust and of top quality. It may be that a fraction of a second can be

gained in an emergency by dropping the right foot from the accelerator to a brake button on the floor almost beneath it. In contrast, the clutch pedal is too high and presents its edge to the driver's sole. Its operation is satisfactory; its movement is long and heavy and there is nowhere except under the pedal to rest the clutch foot.

Gears are selected by a firm, positive lever on the left of the steering wheel, set much more conveniently than the other selector for automatic changes. It is a little heavy to move but otherwise good.

For the electrical equipment there is a dispersal of unmarked chromium "collar studs" on the subsidiary panels and steering column enclosure. The driving lamps and horn are controlled from the lever on the left of the column; the lamp flasher, however, goes with the non-self-cancelling turn indicators on the right-hand lever.

This year Citroen provide a rev counter as one of the three clearly marked main dials. There are several tell-tale lamps, one of which warns of excessive brake pad wear. The fuel gauge needs watching because it misreads during and after accelerating or braking, and, on dropping to the empty mark, it really means it. There is no reserve. A good feature is the big 14.3-gallon (65-litre) tank which, at around 23 m.p.g. consump-

tion, took us across France with only one fill-up.

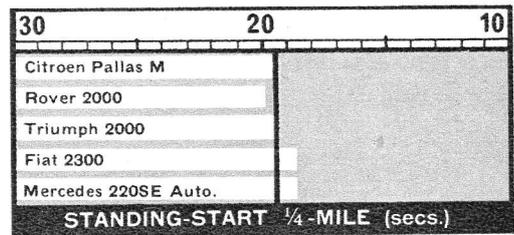
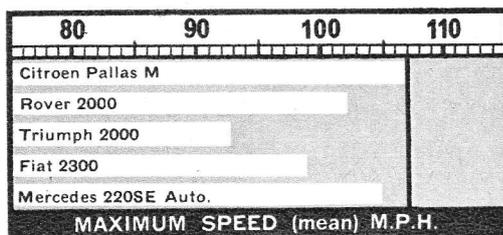
The front panel itself is "busy" with a variety of curves and angles. It gets by because it is very well finished. The shallow wedge of a cubbyhole, without lock, would hold the proverbial camera—provided it was no bigger than a Minox. The wide rear-view mirror makes a blind spot at the base of the screen and gives only a limited idea of what is behind.

All the interior is of good solid quality and the comfortable reclining seats, already mentioned, are as thick and bulky as any we have tried. The same is true of the back carpets and their foam-rubber underlays.

A special word is needed about the lamps. DSs used to plunge their noses when braking and still are inclined to raise them when accelerating. The suspension's height control looks after headlamp beam angle in dazzle-conscious France when big loads are carried at the back. Even so, Citroen have hinged their normal headlamps horizontally and provided a lever and wire system, with damped action, coupled to the front and rear anti-roll bars, to steady the headlamp beams and make them less sensitive to suspension ups and downs. In addition, the Pallas has two powerful iodine vapour auxiliary lamps which can be switched into the normal



TOTAL PRICE	\$1,977
	\$1,298
	\$1,119
	\$1,331
	\$2,695



HOW THE CITROEN PALLAS M COMPARES :

