

Citroën CX 2000

First opportunity to read a full Road Test of the new Citroën. Does it live up to the "Car of the Year" eulogies heard at its introduction?

[Autocar](#) week ending 10 May 1975



**AUTO
CAR**

New Citroën sets high standards of ride, handling and braking. Steering heavy and too low-g geared. Disappointing level of wind noise, but quiet in other respects. Very airy and spacious interior with outstanding passenger comfort. Only average fuel economy. A slight disappointment as the "Car of the Year"



FIRST BRITISH ROAD TEST

Citroën CX

ONE has come to expect much of new cars from Citroën and should expect exceptional things from a Citroën that is “The Car of the Year. Thus if some reservations are necessary over the Citroën CX it is, perhaps, because too much can be expected of any company, especially in these times of rapidly escalating cost.

For the CX is by no means as radical as were the DS or GS at the time of their introduction. Other manufacturers have more than caught up in areas where Citroën were at one time pre-eminent, and although the design is clearly capable of lasting a long time, the CX is not as significantly better than its rivals as were its predecessors.

In terms of other models in the Citroën range, the CX falls closer to the DS series than to the GS. Although the wheelbase falls exactly between the two, the transverse mounting of the engine allows the front seat passengers to be positioned usefully further forward than in the DS and the amount of rear seat space rivals the bigger car. The other thing that puts the CX closer to the DS is its use of the same engine, which even tilted 30 deg forward, is still bulky enough to demand a large car round it. However, the CX, at 15ft lin., is exactly 12in. shorter than the DS.

Compared to its rivals in world markets, the CX shows a useful gain in wheelbase and therefore interior room without the penalty of extra length. In other areas that bear comparison, the CX gives away power output to most. It makes up for this, in part, by superior aerodynamic shape, but not by any inherent lightness, since the very strong body and separate base chassis unit take the kerb weight up to 25.2cwt higher than most competitors. It follows that fuel consumption should show gains at the expense of performance and indeed this proves to be the case, partly because the gearing is chosen with economy in mind.

In these times of ever more expensive petrol, Citroën obviously could not forsake their tradition of good aerodynamic design, and like all their earlier post-war designs, the CX has an extremely low drag coefficient. “CX” is in fact the (French) engineer’s notation for drag coefficient-hence the car’s designation.

It is usually the case, though, that wind-cheating design means compromises between shape and accommodation and the CX is no exception. Headroom is limited for tall people, especially in the front. In other respects there are no such compromises and despite the low overall height, the cabin is light and airy with generous glass areas all round. This is especially so in the back of the car where the rear quarter windows reach almost to the tail, giving the driver and passengers a commanding view all round. As usual with “two-box” designs that fall away to a saloon car tail, and have a low entry point for the nose, the extremes of the car to front and rear are out of sight. A driver does well to remember the frontal overhang, which causes a two-foot difference between the kerb and wall turning circles.



Above: Side view best shows true aerodynamic shape of Citroën CX



Above: Interior design includes futuristic "flying saucer" instrument and minor control binnacle. Single-spoke wheel is in true Citroën tradition

Below left: front view is dominated by big headlamp lenses.



*Above: Rear view emphasizes shrouded rear wheels and concave, sloping window.
Boot opening extends down to bumper level*

Performance and consumption

The engine used in the CX 2000 is the same 1,985 c.c. in-line four-cylinder unit introduced into the DS series in 1966. It is a modern design with a high-mounted camshaft working conventional pushrod and rocker-operated valves. The combustion chamber is hemispherical in shape and a crossover arrangement of the rockers enables the valves to operate in a 60 deg vee to provide a crossflow layout. Maximum power from the slightly over-square engine is 102 bhp (DIN) at 5,500 rpm, and maximum torque of 112 lb. ft. is developed at 3,000 rpm. In its transverse location in the engine bay, the carburettor is placed on the rearward face of the engine with the exhaust pipes sweeping down the front face before turning rearwards alongside, and protected by the sump.

Drive from the five-bearing crankshaft is taken via an 8.5 in. dia clutch to the all-indirect two-shaft gearbox which has synchromesh on all gears. The gear ratios are high, calling for a low final drive ratio to give a speed in top gear of 19.3 mph per 1,000 rpm.

With this ratio, the mean maximum speed of 110 mph takes the engine some 200 rpm over the peak power point, suggesting that a further gain in economy is possible with a slightly higher final drive, without significant loss of all-round performance.

In the event, the CX 2000 gives acceleration that is at least average for its class with a 0-60 mph time of 12.2sec and a respectable time to 80 mph of 22.1sec. Maximum acceleration through the gears reveals a gap between second and third gear with their respective maxima of 51 and 81 mph. The acceleration in each gear does not reveal any flat spots and the engine and transmission show their flexibility by allowing smooth, if leisurely, acceleration from 10 mph in third gear.

Although the steady-speed fuel figures show the consumption is as good as 28.4 mpg at a steady 80 mph, the overall figure was only 23.2 mpg. The compound carburettor spends a lot of time with both chokes open if all the performance potential is used, and only on a leisurely long-distance run can consumptions in the high twenties be expected. The petrol tank providing a range approaching 350 miles and with some restraint, 400 miles could be covered without need for replenishment.

Brakes

In contrast to the D series, the CX 2000 has outboard-mounted ventilated disc brakes at the front with big scoops to ensure adequate cooling. Although on paper the all-disc braking arrangement appears marginal, in practice it proves fully capable of meeting all demands. In typical Citroën fashion, the brakes are served by the car's high pressure control hydraulic system and the brake pedal is in effect a pressure-bleed control. Unlike the D series, the CX employs a conventional brake pedal which most drivers preferred. The handbrake, operating on the front wheels, produced a laudable 0-5g retardation on its own and proved easily capable of holding the car up or down a 1-in-3 gradient.

On the CX 2000 without power-steering, the pump for the hydraulic system is a single cylinder unit which can no longer be heard making the high-speed "clackety" sound so characteristic of other Citroën models.

Ride and Handling

The CX 2000 employs the familiar Citroën hydropneumatic suspension system that ensures constant ride height irrespective of load, together with provision for changing the ride height. As usual, it is noticeable that the ride is much harder on the high ground clearance setting. It would be no exaggeration to say that the hydropneumatic suspension system has created a legend in its own time and in the CX it gives its usual exemplary performance. Only sharp undulations, or a hump-backed bridge can catch out the system as the wheels fail to drop fast enough but this is not a great failing. Some drivers felt that there was too much roll, while others were unaffected, but there is certainly much less roll than in the D series. Anti-dive geometry is used in the front suspension layout and the car remains nicely stable under braking.

With exactly two-thirds of the car's weight over the front wheels, the CX 2000 is inevitably prone to understeer. This fact, allied to heavy low-g geared steering through a large diameter steering wheel, means that it is hard work to drive fast on a twisting road, or in town. With 185SR14 section tyres at the front, steering effort is high all the time, especially so at low manoeuvring speeds. Parking the car calls for a lot of effort. There is a tendency for the steering to stick on full lock when reversing, and care is needed to place the car accurately.

Although the CX understeers heavily, the grip of the Michelin ZX tyres is excellent in all conditions and the front end weight bias ensures good traction. However, one needs to enter corners consciously early to avoid running unexpectedly wide; there is only limited tuckin if the accelerator is released in mid-corner.

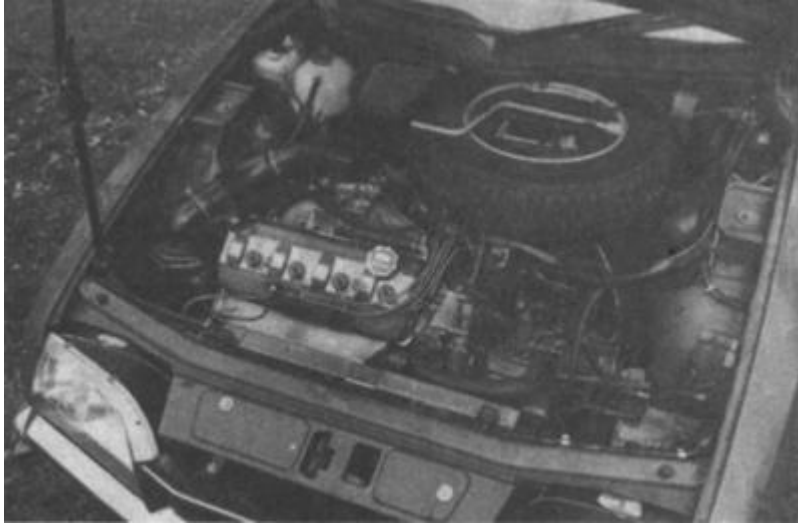
Fast progress is possible on winding roads to the accompaniment of body roll, some tyre squeal and also a noticeable lurching if moving from one lock to the other, for instance in an S-bend. However, the soft, deep seats locate passengers and driver well and the effect is rather more alarming from the outside than it is to the occupants.

Natural stability is excellent with no noticeable deflection by changes of camber of road surface. There were no appreciable sidewinds during the period of the test but from past experience, there should be no qualms in this context.

Noise

The basis of the CX body/chassis unit is a pair of linked sub-frames, the front one supporting the engine/transmission unit on a cantilever while at the back a large-diameter tube and a pair of short extension arms locate the rear suspension. The engine/transmission is rubber-insulated from this base frame, which itself is rubber-insulated from the unitary construction body. Thus there are two insulating barriers to any vibration reaching the passenger compartment, and little mechanical noise reaches the inside of the car. Any engine noise that can be heard is induction noise only; at tickover, the engine is inaudible inside the car.

With such attention to the suppression of mechanical noise, it was disappointing to find considerable wind noise which increases at speed. The noise insulation of the bottoms of the doors could be a culprit here as on wet roads, a good deal of swishing can be heard from the tyres. Another noisy item is the gearchange which makes a distinct clonk each time the lever is pushed into gear; but there is no discernible noise from the gearbox or final drive.



Above: Plenty of room around transverse 2-litre engine for minor adjustments, and spare wheel stowed under the bonnet. Note single-blade wiper.



Right: Plenty of room in back seat too, thanks to long wheelbase. Doors and arches are wide enough to make access easy. Centre armrest is standard.

Comfort and controls

There is a distinctly futuristic atmosphere inside the CX 2000; it is almost reminiscent of the ideas of twenty years ago as to what today's cars would look like - somewhat over-stylized, with much use of shape and apparently needless sculpturing of panels. As a result, opinions varied widely on the overall effect, though most were guardedly in favour.

In typical innovative Citroën fashion, fingertip controls have been made exactly that by the provision of extensions from the facia, almost to the wheel rim, with all the major controls on them. It takes a little time to become accustomed to the controls themselves as most operate in an unfamiliar way. The twin indicators control is, for instance, a rocker switch on the top of the left-hand control extension and takes some getting used to.

The instruments themselves are also different with permanently-lit drums showing only the actual speed or engine revs to the driver. Above the instruments there is a comprehensive display of warning lights, the critical ones of which can be checked for function by depressing a small button in the water temperature warning light.

The large diameter single-spoke steering wheel has a pleasant self-skinned polyurethane rim that is warm and soft to the touch. Its size does, however limit the amount of knee-room available to the driver, and even with the height of the front seat adjusted to its lowest position, there is little room to pass the hands between the wheel and the thighs. Adjustment of the front and rear heights of the seat is best done when one is not seated in the car; the comfortable front seats can both be adjusted for rake.

The upholstery of the test car consisted of a brushed nylon covering for the wearing surfaces with pvc material for the sides and bases. The same pvc is used for the door trim panels but a slightly different colour of the same material is used for the door-cum-arm pull. The facia underside is trimmed in man-made suede-like material which was looking rather faded on the test car.

The overall effect of these different fabrics and materials was not unpleasant, but the interior had a rather worn look that belied the youth of the car.

In the centre of the facia is a built-in console which can house an optional radio and which has the gearlever and gaiter set in it. Behind the gearlever between the front seats are the controls for the heater, air distribution and also the three-speed boost fan. Stowage space is limited to elastic-fronted pockets in each door and a roomy, lockable glove-compartment.

As the spare wheel is stowed under the bonnet, there is no interruption in the shape of the roomy boot, which as in the GS is regular and tall, with the lid opening well out of the way.

Living with the Citroën CX 2000

Starting from cold is instantaneous and the mixture enrichment control can be quickly dispensed with. When the engine is hot, it requires a short period of churning before it fires. The clutch action on the test car was smooth and progressive, but the take-up point was too close to the floor, requiring full disengagement for each gearchange. Provided that the clutch clears completely, the gearchange is clean but rather ponderous with long fore-and-aft movements.

It takes rather less time to familiarize oneself to the CX than to other Citroën models, and once the function of the fingertip controls is learned, they too work well. The single-arm windscreen wiper leaves symmetrical unwiped areas in the top corners of the screen which create blind spots

for really tall drivers and result in some loss of visibility when driving on rising and falling twisty roads. In all other directions visibility is good. At night the powerful lights give good illumination on dipped' and main beam and the shaped headlamp glasses seem to resist the collection of road dirt, as does the deep, heated rear window.

The function of the heater controls is graphically displayed and the controls are lit at night. The fresh air system feeds through eyeball vents at the extremities of the screen and through a flap vent in the centre of the car. The air-blending heater allows good control of temperature, irrespective of car speed.

The seats are most comfortable in either front or back and the doors open wide to give good access to them, despite the low overall height of the car.

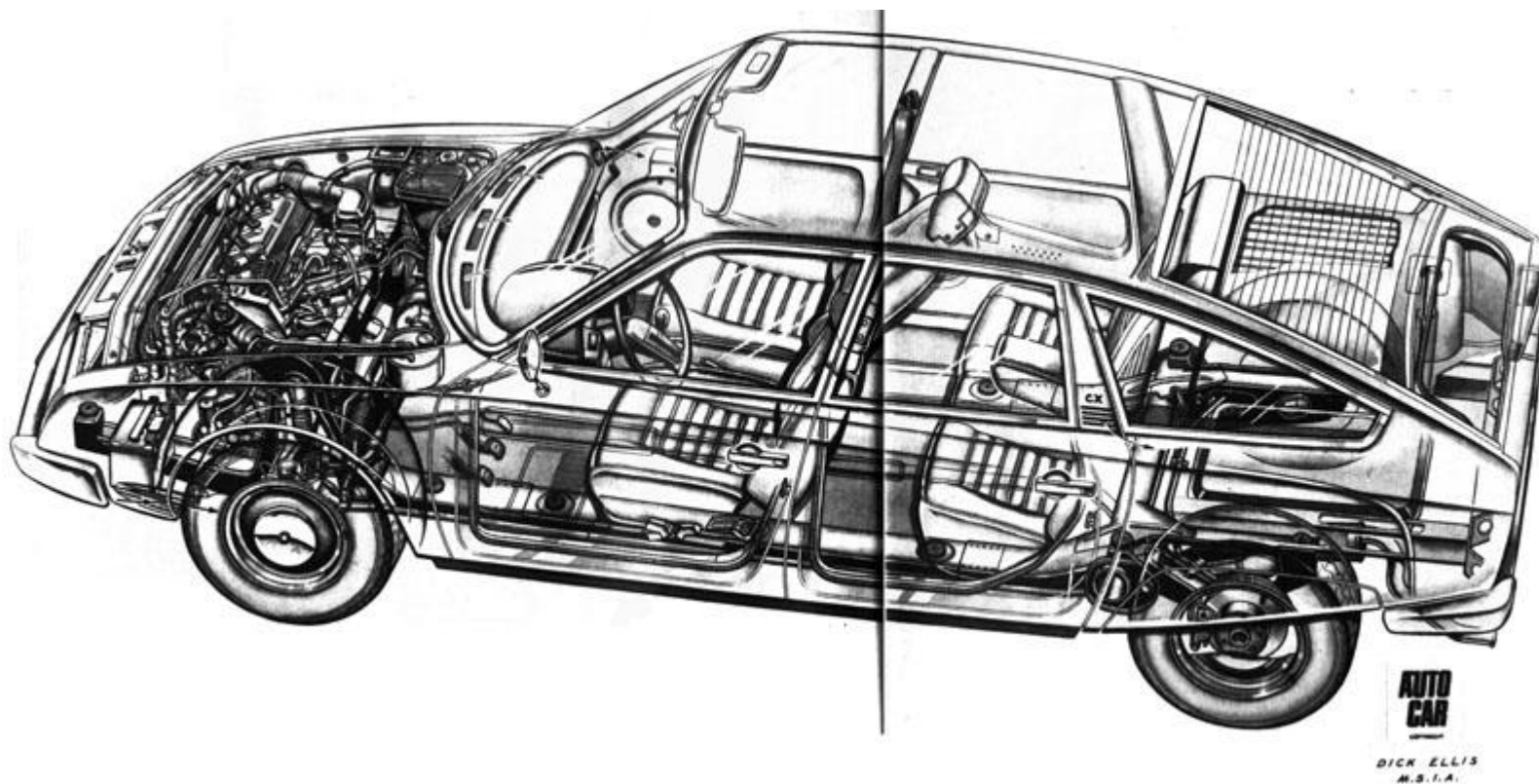
Underneath the bonnet, access is good to all items needing routine maintenance. The distributor is mounted on the top of the engine and the coil is tucked away from points that might admit water. The aluminium-cored radiator is cooled, when necessary, by a thermostatically-controlled fan which is noisy in operation. The spare wheel, which is of the same size as the rear tyres, rather than the front, is easy to remove from its position against the bulkhead. A neat piece of thinking here is that the jack and wheelbrace are stowed in a container that fits into the spare wheel centre where they keep clean and dry.

Citroën servicing requirements for the CX 2000 involve an oil change every 3,000 miles but the filter requires changing only every 12,000 miles. Servicing costs may well be higher as a result of the relatively frequent oil changes, but on the other hand, there are no greasing points.

Conclusions

The Citroën CX 2000 may possibly have been chosen as the "Car of the Year" more because of its novelty than for its virtues. There is no doubt that it would be a much more likeable car with lighter steering, and in fact, this is to be an optional extra later this year. The system will be like that of the Citroën SM but with a slightly lower ratio.

While on paper the insulation of the interior from noise and harshness looks effective, in practice there is more noise than one might expect. However, there is no doubt that the ride and handling are significantly better than anything else in its class and with some attention to a limited number of areas, the CX could be even nicer. Its existing virtues, which include the amount of space and the degree of comfort offered, more than justify the price which is in any case competitive with its European mainland rivals.



Above: Cutaway shows major features of the Car of the Year, including the chassis frame to which the body is rubber-mounted, the typically Citroën suspension and the transverse-mounted engine with transmission alongside. Disc brakes are used all round. Method of construction makes for greater safety but tends to make the car heavier than a pure unitary design.

MANUFACTURER:

*Citroen
133 Quai A. Citroen
75747 Paris Cedex 15
France*

UK CONCESSIONAIRES:

PRICES

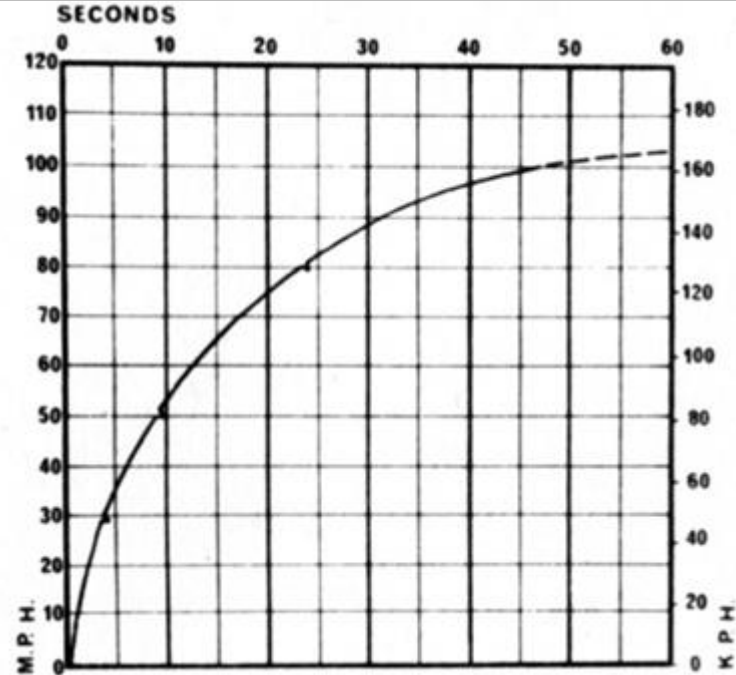
Basic	£2,731.00
Special Car Tax	£277.58
VAT	£236.69
Total in GB	£3,195.27
Seat belts (inertia reel)	f.o.c.
Licence	£40.00
Delivery charge (London) approx	£20.00

Citroen Cars Limited
 Mill Street
 Slough, Berks

Number Plates approx £7.50
Total on the road (exc. insurance) £3,262.27
 Insurance Group 5
EXTRAS (inc VAT)
 Metallic paint t.b.a.
 Power steering t.b.a.
 Headrests t.b.a.
 *Fitted to test car
TOTAL AS TESTED ON THE ROAD £3,262.27

COMPARISONS		
MAXIMUM SPEED MPH		
BMW 520i	(£3,898)	114
Citroën CX 2000	(£3,185)	110
Volvo 244GL	(£3,785)	106
Austin 2200HL	(£2,424)	104
Triumph 2500TC	(£2,907)	104
0-60 MPH, SEC		
BMW 520i	10.5	
Volvo 244GL	11.4	
Triumph 2500TC	11.8	
Citroën CX 2000	12.2	
Austin 2200HL	13.5	
STANDING QUARTER MILE, SEC		
BMW 520i	17.5	
Volvo 244GL	18.0	
Triumph 2500TC	18.7	
Citroën CX 2000	18.8	
Austin 2200HL	19.2	
OVERALL MPG		
Triumph 2500TC	24.1	
Citroën CX 2000	23.2	
BMW 520i	22.4	

PERFORMANCE
ACCELERATION



Volvo 244GL 21.3
 Austin 2200HL 20.7

CONSUMPTION

FUEL

(At constant speed - mpg)
 30 mph 39.2
 40 mph 37.4
 50 mph 35.1
 60 mph 31.5
 70 mph 28.4
 80 mph 25.0
 90 mph 21.9
 100 mph 18.4

Typical mpg 26 (10.9 litres/100 km)
 Calculated (DIN) mpg 25.8 (10.9 litres/100 km)
 Overall mpg 23.2 (12.2 litres/100 km)
 Grade of fuel Premium 4-star (min 98RM)

OIL

Consumption (SAE 20W/50) Negligible

MAXIMUM SPEEDS

Gear	mph	kph	rpm
Top (mean)	110	177	5,700
Top (best)	112	180	5,800
3rd	81	130	6,000
2nd	51	82	6,000
1st	29	47	6,000

CLUTCH

Pedal 40lb and 5 1/4in
 50-70
 60-80
 70-90
 80-100

True speed mph	Time in secs	Car speedo mph
30	3.9	31
40	6.3	41
50	8.7	52
60	12.2	61
70	16.8	71
80	22.1	81
90	31.1	91
100	46.7	102
Standing 1/4 mile	18.6 secs	73 mph
Standing kilometre	34.7 sec	93 mph
Mileage recorder	1.8 per cent under-reading	

GEARING (with 185SR-14in tyres)

Top	19.3 mph per 1,000 rpm
3rd	13.5 mph per 1,000 rpm
2nd	8.4 mph per 1,000 rpm
1st	4.8 mph per 1,000 rpm

GEAR RATIOS AND TIME IN SEC

	Top	3rd	2nd
mph	(3.82)	(5.40)	(8.74)
10-30	-	8.8	4.8
20-40	13.4	8.1	4.6
30-50	12.5	7.5	4.9
40-60	12.7	7.5	-
50-70	12.6	8.8	-
60-80	14.3	10.6	-
70-90	18.8	-	-
80-100	27.0	-	-

BRAKES

FADE (from 70 mph in neutral)

RESPONSE (from 30 mph in neutral)

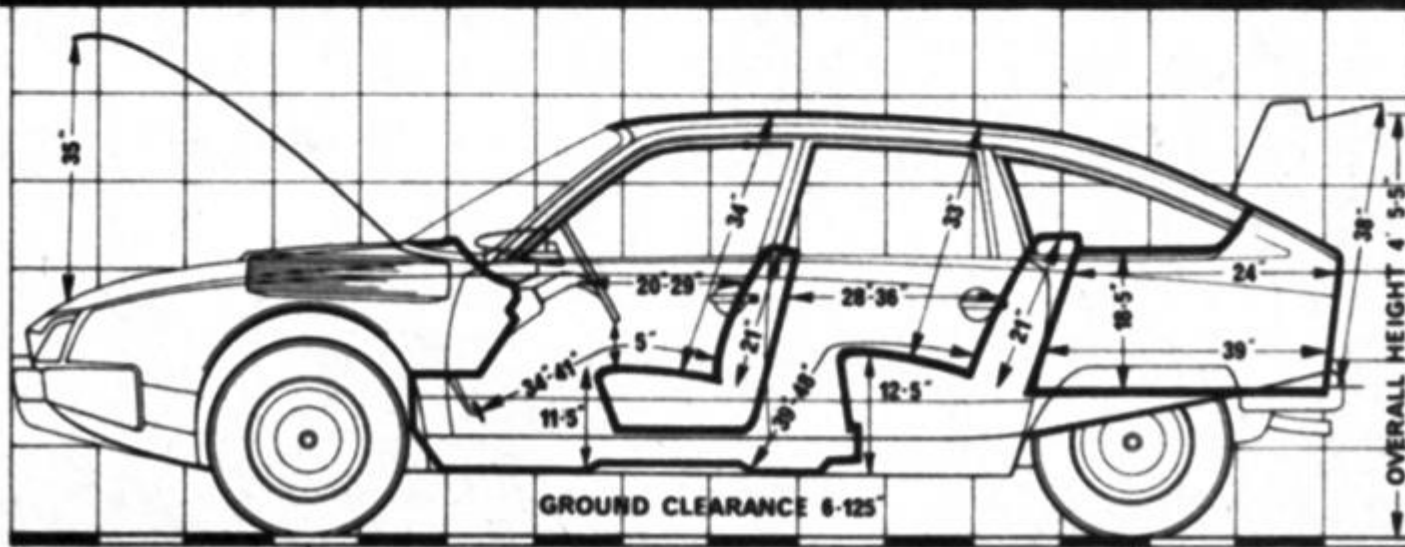
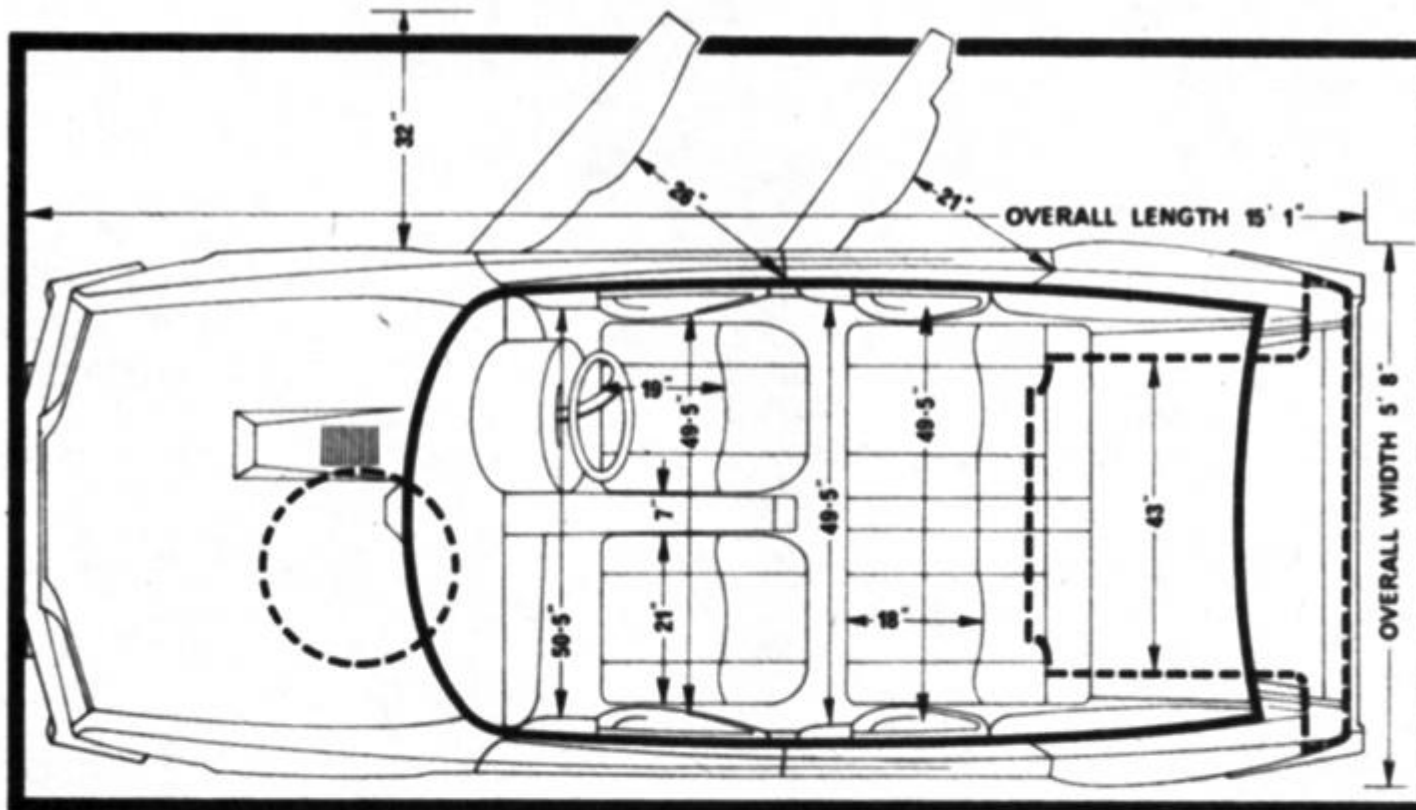
Pedal load for 0.5g stops in lb)

1	30	6	35-40
2	30-35	7	35-40
3	35	8	35-40
4	35	9	35-40
5	35	10	35-40

Load	g	Distance
30lb	0.35	86ft
40lb	0.55	55ft
50lb	0.73	41ft
60lb	0.88	34.2ft
70lb	0.92	32.8ft
Handbrake	0.50	60ft
Max gradient	1 in 3	

DIMENSIONS

STANDARD GARAGE 16ft x 8ft 6in.



Turning circles

Between kerbs

L 35ft 9in R 35ft 4in

Between walls

L 38ft 8in R 38ft 6in

Turns lock to lock 4 1/2

Test conditions

Fine and dry

Wind: 0-6 mph

Temperature: 16 deg C (60 deg F)

Barometer: 29.6 in. Hg

Humidity: 58 per cent

Surface: dry asphalt and concrete

Test distance: 780 miles

*Figures taken by our own staff at the Motor Industry
Research Association proving ground at Nuneaton.*

Specification

ENGINE

Cylinders	4 in line
Main bearings	5
Cooling system	Water; pump, thermostat, electrically operated fan
Bore,	86mm (3.39in)
Stroke	85.5mm (3.37in)
Capacity	1985cc (132.7cu in)
Valve gear	ohv
Compression ratio	9 to 1
Octane rating	98RM
Carburettor	Weber 34 DMTR25/200 compound 2 choke
Fuel pump	AC Delco mechanical
Oil filter	Disposable canister
Max power	102 bhp (DIN) at 5,500 rpm
Max torque	112 lb ft at 3,000 rpm

TRANSMISSION

Clutch	Single dry plate diaphragm spring
Type	Cable operation 8.5in dia
Type	4 speed, all syncromesh

CHASSIS and BODY

Construction	Unitary body rubber mounted to interconnected front and rear subframes
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SUSPENSION

Front	Single top and bottom links, wide-based at inner end, hydropneumatic spring/damper units, anti-roll bar (0.9in dia)
Rear	Light alloy trailing arms, hydropneumatic spring/damper units, anti-roll bar (0.7in dia)

STEERING

Type	Rack and pinion - 25.5 to 1 ratio
Wheel dia	16in

BRAKES

Make and type	4 wheel discs, ventilated at front 4 piston calipers front, 2 piston rear Load sensitive valve for rear divided circuit
Dimensions	F: 10.235in dia R : 9.230in dia
Swept area	F: 34 sq in R: 15 sq in Total: 49 sq in (34 sq in/ton laden)

WHEELS

Gear	Ratio
Top	0.80
3rd	1.13
2nd	1.83
1st	3.17
Reverse	3.15
Final drive gear	Helical spur
Ratio	4.77 to 1

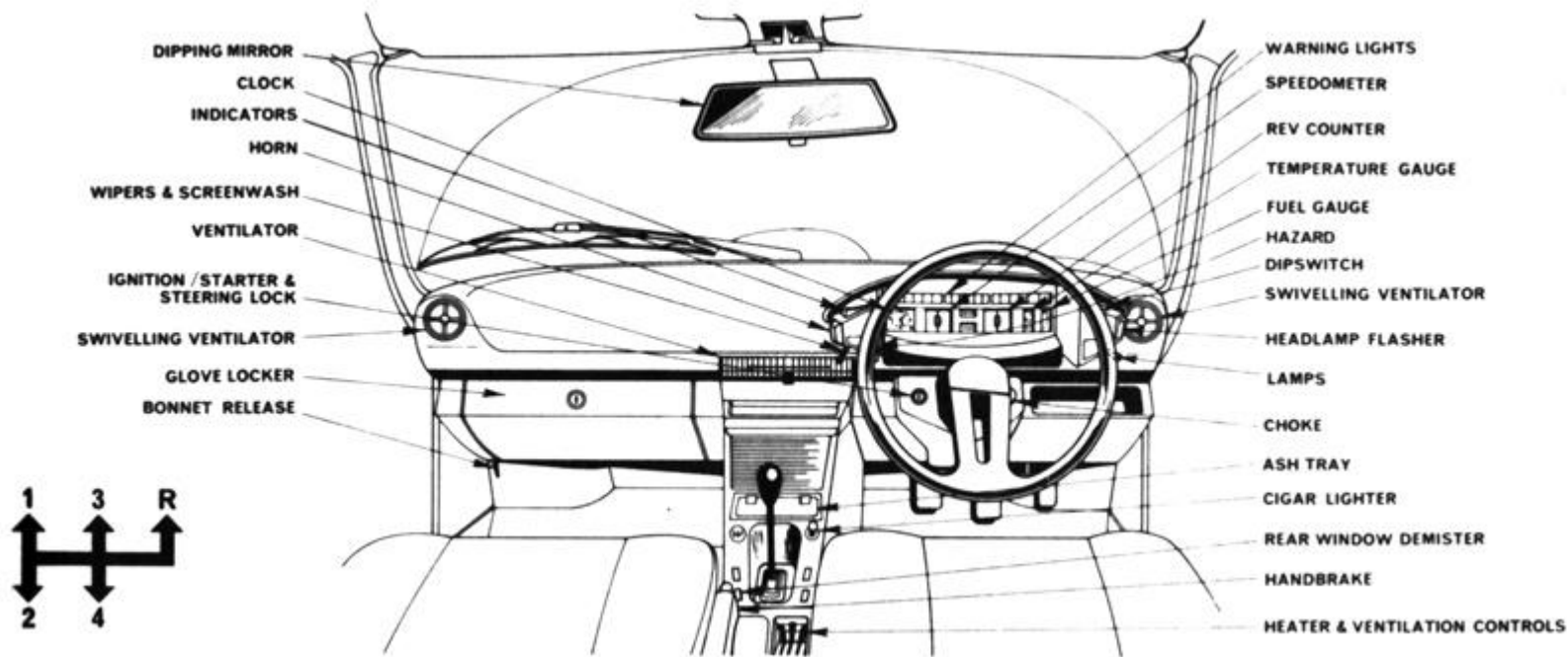
EQUIPMENT

Battery	12 volt 50 Ah
Alternator	53 amp a.c.
Headlamps	Quartz halogen main beam 80/110 watt (total)
Reversing lamp	Standard
Electric fuses	9
Screen wipers	Two-speed
Screen washer	Standard electric
Interior heater	Standard, air blending type
Heated backlight	Standard
Safety belts	Extra
Interior trim	Fabric seats, pvc headlining
Floor covering	Carpet
Jack	Screw type
Jacking points	2 each side beneath sills
Windscreen	Thick inter layer laminate
Underbody protection	Bitumastic on all underbody surfaces; Tectyl in all other vulnerable surfaces

Type	Pressed steel disc 5 stud fitting
Rim width	5 1/2in. J
Tyres - make	Michelin ZX
Type	Radial ply tubeless
Size	F: 185SR-15 R: 175SR-15
Note - the tyre sizes are wrong and should be F: 185SR-14 R: 175SR-14	

MAINTENANCE

Fuel tank	15 Imp gallons (68 litres)
Cooling system	18.7 pints (inc heater)
Engine sump	10 pints (5.7 litres)
	SAE 20W/50. Change oil every 3,000 miles. Change filter every 12,000 miles.
Gearbox and final drive	2.8 pints SAE 80EP. Change every 12,000 miles.
Grease	No points
Valve clearance	Inlet 0.006in (cold)
	Exhaust 0.008in (cold)
Contact breaker	0.016in gap 55deg dwell
Ignition timing	10deg BTDC (static)
	10deg BTDC (stroboscopic at 850/900 rpm)
Spark plug	Type: AC42FS or Bosch W225T 35 or Champion L87Y. Gap 0.026in
Tyre pressures	F 28; R 30 psi (all conditions)
Max payload	1,116lb (506kg)



SERVICING 3,000 miles 6,000 miles 12,000 miles
Times for servicing and routine replacements not finalized

Parts prices unavailable

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