

Vauxhall Cavalier (catalysed)

Featuring 1.8iL Saloon



VAUXHALL'S BEST-SELLING CAVALIER range has been largely unchanged since our 1988 test of the then-new model in 1.6 and 2.0-litre forms. There have been minor interior and equipment enhancements, which show up when we put our tape measure against a current L saloon.

The inventory now gives L buyers electric front windows, a better-sounding horn and a new fine-reception radio that has RDS and a removable display which renders the set useless without it. More significantly, power steering is now extended down to 1.6 Cavaliers – even though this lighter “Family One” power unit demands it less than the 1.8 (and above) “Family Two”.

Nowadays, the hatchback costs about £150 more than the saloon equivalent – they cost the same when they were launched – but the unturbocharged diesel is

offered at no extra cost compared with the (more powerful) 1.6 petrol version.

However, more changes are on the way, driven by impending tailpipe emission rules. The 1.4/75bhp engine is deleted because the 1.6 in catalysed form is no more powerful – down 7bhp from 82bhp in the form tested (see R8844). It's clear that the major seller already is the no-extra-cost 1.8/90bhp model and as the new cat version retains unchanged power output (only 3 lb ft of torque is lost), this will clearly be the volume seller in the near future.

We know a lot about Cavalier performance and economy figures, and last year we ran tests on the non-catalysed 1.8 carburettor model with its ignition coding plug set in both 95 and 98 octane positions. The full results are shown in report R9051A, but now that we've spent a week with the latest single-point

injection, catalysed version, we thought it would be interesting to summarise all the results. Remember that, unless you're buying secondhand, only the catalysed versions will be on sale in 1993.

has been cleverly quelled in slow traffic, by delaying the fuel injection's response to accelerator movement – very acceptably. The front seats adjust and support well; the back seat is less impressive but there's

	1.4/75bhp	1.6/82bhp		1.8/90bhp Carb		1.8/90bhp	2.0/115bhp
Coding plug position/octane used	None/95	95	98	95	98	None/95	98
Catalyser fitted?	No	No	No	No	No	Yes	No
Maximum speed – mph (gear)	NA	105 (4th)	107 (4th)	110	111 (5/4th)	112 (4th)	123 (5th)
30–70mph through gears (sec)	13.7	12.6	12.2	11.6	11.1	12.3	8.9
30–70mph in 5th/4th (sec)	35.8/23.9	31.4/21.1	29.3/19.9	29.4/20.2	27.3/18.8	31.9/21.7	25.5/17.4
Typical mpg overall	40	39½	40	37½	38½	37	37½
Suburban/motorway/rural touring (mpg)	29½/NA/NA	NA/42/NA	30½/43/47½	NA/40/NA	29½/41/44	28½/40/42	28½/41/42½

Clearly, there's a price to pay for cleaning up the exhaust emissions – the 1.8 catalysed Cavalier is a lot slower than the 2.0 non-cat version that's about to be withdrawn, and uses a little more petrol. Put another way, the non-cat 1.6/82bhp car – a class leader for fuel economy, was also as quick as the 1.8 for 1993, when it came to overtaking.

This problem isn't confined to Vauxhall – indeed some rivals are struggling even more in converting their old power units to “run green”. However, the new Toyota Carina E now leads the way, as our rivals table reveals.

Driving this 1.8L saloon four years into its life demonstrates its user friendly cabin and controls and an overall sense of unremarkable competence. This bigger-engined version continues to feel undistinguished in the ride and handling department and the engine has a harsh edge to it at lower revs – ours didn't idle particularly smoothly, for example. It's quiet on a motorway in its long-striding top ratio (uncustomarily high by current standards). “Shunt”

sufficient room all round. Creature comforts, such as the radio and sunroof, work extremely well but the gearshift can be tetchy down into second at times.

The brakes felt as if they had no servo when we were carrying out our track tests – no-one complains in everyday check braking, but a woman or a less determined man would never attain our 50–0mph emergency best stop – an 80 lb shove is about as much as most could manage. Mind you, it's a wonderful anti-skid device on the cheap and is better and safer for knowing.

Even though this mainstay of the Vauxhall range is beginning to feel outclassed by some younger rivals, its prosaic advantages, such as cheap spares, easy maintenance and competitive insurance (Group 8), make it an admirable family car or fleet rep's smart workhorse.

With new domestic rivals from both Ford and Rover close to launch, it will be interesting to judge whether the Cavalier's latest revisions will retain the model's competitiveness.



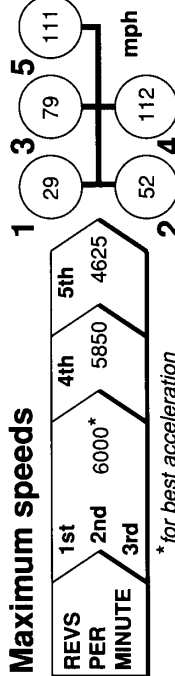
PERFORMANCE

Acceleration time in seconds

STANDING START	0-30mph 3.7	0-60mph 12.0	1/4 mile 18.8
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mph	30	40	50	60	70
THROUGH THE GEARS	2.2	4.6	8.3	12.3	
IN 5TH GEAR	7.8	16.0	24.0	31.9	
IN 4TH GEAR	5.7	11.0	16.1	21.7	

20 mph	30	40	50	60	70
5TH/4TH SPEED RANGES	15.9/11.4	16.2/10.4	16.0/11.0	15.9/10.7	



FUEL CONSUMPTION

Fuel grade for tests: unleaded Premium, 95 octane

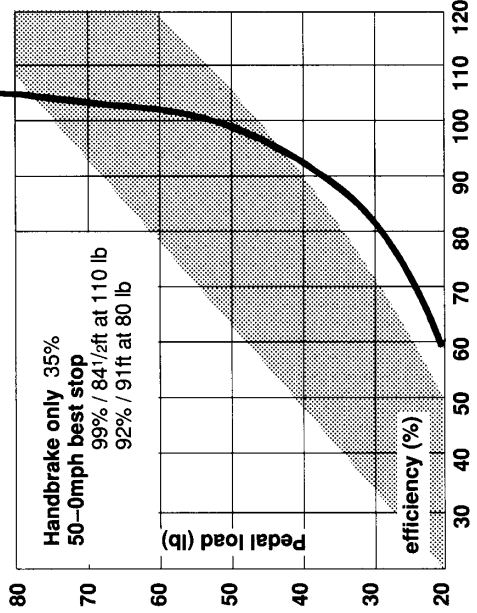
Normal range	mpg
Hard driving, heavy traffic	31 1/2
Short journeys in the suburbs	28 1/2
Motorway – 70mph cruising	40
Brisk driving, mixed roads	36 1/2
Gentle driving – rural roads	42
Typical mpg overall	37
Realistic tank range*	51 litres/415 miles

* based on gauge/warning lamp and filling station experience

SAFETY

Brakes

How pedal loads affect braking



Braking efficiency shown as a percentage of gravity (ie 100% = 1.0g). Ideally the braking curve should fall within the shaded zone of this graph. If it's above, the brakes are too heavy; if it's below, they are too light – particularly on cars without ABS. When the curve becomes broken, the wheels are skidding.

Fade test

How hard use or water affects braking. (Ideal brakes show no change.)

Pedal load needed for 75% stop (lb)

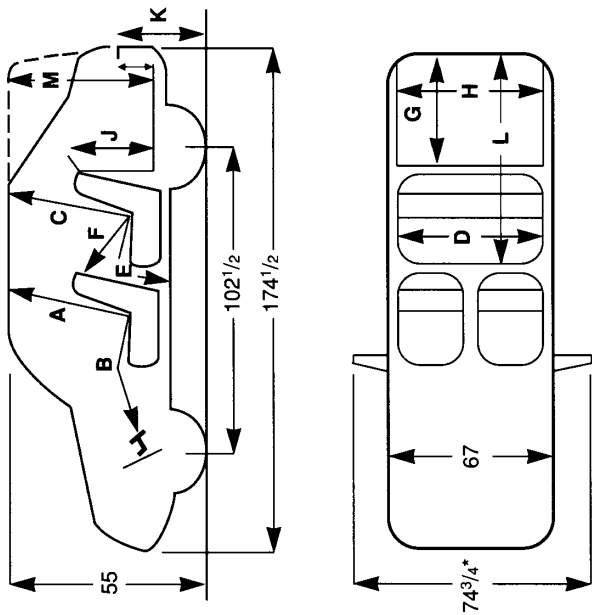
At start of test	26
After constant use	30
After severe use	55
After watersplash	-
Number of stops to recover	-

Safety check list

Steering	true 'feel' of the road?	<input checked="" type="checkbox"/>
Brakes	powerful?	<input checked="" type="checkbox"/>
	sensible effort?	<input checked="" type="checkbox"/>
	fade resistant?	<input checked="" type="checkbox"/>
Seatbelts	front – effective?	<input checked="" type="checkbox"/>
	convenient?	<input checked="" type="checkbox"/>
	rears – effective?	<input checked="" type="checkbox"/>
	convenient?	<input checked="" type="checkbox"/>
Head restraints	front – effective?	<input checked="" type="checkbox"/>
	rear – effective?	<input checked="" type="checkbox"/>
Interior	thoroughly padded?	<input checked="" type="checkbox"/>
Fuel	shielded filler?	<input checked="" type="checkbox"/>
	protected tank?	<input checked="" type="checkbox"/>

MEASUREMENTS

Dimensions (inches)



* mirrors don't fold easily

Inside (inches)

A Front headroom	36-38 1/4	G Load length	40
B Front legroom (min - max)	34-42 1/2	H Load floor width (mid - max)	38 1/4-55
C Rear headroom	35 1/2	J Load height	18-19
D Back seat width (between armrests)	51 1/4	K Sill height (inner/outer)	9 1/4/26
E Typical rear * legroom	39 1/2	L Load length (max)	66
F Typical rear * kneeroom	28 1/4	M Load height (to tailgate hinge)	-

* "Typical" represents the mean measurement behind the driver's seat set at 39in legroom and the passenger's seat set at 41in

HOW IT COMPARES	Engine cap/power (cc/bhp)	Max speed (mph)	30-70mph through gears (sec)	30-70mph in 5th/4th gears (sec)	Fuel economy (mpg)	Brakes best stop (%g/lb)	Maximum legroom - front (in)	Typical leg/kneeroom - rear (in)	Steering turns/ circle (ft)	Overall length (in)
Vauxhall Cavalier 1.8L	1796/90	112	12.3	31.9/21.7	37	107/90	42 ¹ / ₂	39 ¹ / ₂ /28 ¹ / ₄	3.4/34 (p)	174 ¹ / ₂
Peugeot 405 1.6GLi	1580/89	106	13.3	31.3/21.5	36 ¹ / ₂	93/85	42 ¹ / ₄	39 ¹ / ₂ /28 ¹ / ₂	4.2/34 ¹ / ₂	173 ¹ / ₂
Toyota Carina E 1.6XL	1587/106	115	11.0	30.4/22.0	40	100/27	43	42 ¹ / ₂ /30	3.2/35 ¹ / ₂ (p)	178 ¹ / ₄
VW Passat 1.8L	1781/90	111	12.6	25.1/19.0	35 ¹ / ₂	95/38	42 ¹ / ₂	43/32	4.3/33	180
Rover Montego 2.0LX*	1994/104	107	11.9	31.6/19.7	32	99/45	42	40 ¹ / ₂ /28 ¹ / ₂	3.5/36	176
* non-catalysed version									(p) power assisted	

TECHNICAL SPECIFICATION

1.8 litre catalysed version

ENGINE

Type and size front-mounted, transverse 4 in line; water-cooled.

84.8mm bore x 79.5mm stroke = 1796cc. Iron block and aluminium alloy head; 5 main bearings

Compression ratio 9.2:1

Valve gear belt-driven overhead camshaft actuating two valves per cylinder via hydraulic tappets

Fuel system single-point fuel injection, three-way closed loop catalyser, with lambda sensor. 61-litre (13.4-gallon) tank with low-fuel warning lamp on GL and above. Fuel required: unleaded only, 95 octane minimum

Ignition system fully programmed electronic, integrated with fuel system

Maximum power 90bhp at 5400rpm

Maximum torque 107 lb ft at 3000rpm

TRANSMISSION

Clutch diaphragm-spring; dry plate; cable-operated. Pedal load/travel: 18 lb/6in

Gearbox 5-speed (all synchromesh) and reverse. Ratios: first 3.55, second 1.96, third 1.30, fourth 0.89, fifth 0.71 and reverse 3.33:1

Final drive 3.94:1, to front wheels

Mph per 1000rpm 24.0 in top, 19.1 in 4th

Rpm at 70mph 2920 in top gear

CHASSIS

Suspension front: independent by MacPherson damper/struts with integral coil springs and an anti-roll bar. Rear: torsion beam axle with coil springs, trailing arms and an anti-roll bar. Dampers: telescopic all round

Steering power-assisted rack and pinion with 3.4 turns between full locks. Turning circles average 34¹/₂ft between kerbs, with 59ft circle for one turn of the wheel

Wheels 5¹/₂J steel with 195/60R14 85V tyres (Firestone Firehawk 690 on test car)

Brakes 9.3in solid discs front, 7.9in drums rear, with vacuum servo