

BMW 318is (Cat)



A GTI FOR GROWN-UPS' IS THE BILLING BMW is giving the latest variant to join its long-running, but ever-popular 3-Series range – just the ticket in BMW's eyes for the not-quite-so-young, 'upwardly mobile' executive who's outgrown his (and increasingly, her) hot-hatch.

Powered by a new 16-valve (M42) version of the itself comparatively new M40 engine, the 318is is a more sporty but still 'sensible' version of BMW's small sporting saloon. It's available only in two-door form, but there's also a wind-in-the-hair Cabriolet version. The fast, expensive and left-hand-drive-only M3 remains for the 'unsensible'!

The 318is' engine produces 136bhp at 6000rpm and 127 lb ft of torque at 4600rpm; this compares with 115bhp (5500rpm) and 122 lb ft (4250rpm) for the 8-valve 318i. Chassis changes include firmer and lower M-Technic Sports suspension and disc brakes at the rear instead of drums – in other words, it has essentially the same running gear as the 325i Sport.

Distinguishing features include a lower ride height, black satin 'de-chrome', front and rear spoilers, unique wheel covers (or, optionally, cross-spoke alloys), while inside, hip-hugging BMW Sports seats and the M-Technic leather-covered steering wheel and gear knob complete the sporting theme.

But the 318is is no cut-to-the-bone 'homologation

special'; standard equipment on all 3-Series models includes power steering, central locking with deadlocks and electric windows and door mirrors, plus those thoughtful BMW touches: a boot-lid tool tray, rechargeable glovebox torch, first aid kit and breakdown warning triangle.

As usual, however, there's a comprehensive list of options to bump up the price, such as the metallic paint, (manual) steel tilt-and-slide sunroof and alloy wheels on our test car, which together add nearly £1600 to the price. Like all BMWs, the 318is is also available with the option of a three-way, closed-loop catalytic converter (also fitted to our test car) costing £350.

Although it saves the best urge until last – like most 16-valvers – the 318is' four-cylinder engine doesn't need to be screamed *all* the time. Slow or fast, it's a delightfully smooth and sweet-revving engine and, while the 16-valve urgency is only really apparent from about 4500rpm onwards, it's commendably tractable and tolerant at low speeds, too. Close your eyes, and a 16-valve Honda engine will come to mind.

Of course, being bigger and heavier than many a GTi, the 318is is (and feels) brisk rather than downright quick, yet it delivers the goods in such a civilised, rewarding manner you can forgive it the odd second or so on its 0–60mph time – for the record, a hardly pedestrian 8.8 seconds. The 2-litre Cavalier SRi makes

a fairly good yardstick, whereas the lighter 16-valve Golf is a bit quicker off the mark, and more economical, too. But the 318is could hardly be called thirsty, averaging 34mpg overall in our tests – a mere 1mpg worse than the 316i.

Keen drivers are really in their element at the wheel. Light, fluid and so progressive, the controls are a delight to use, the switchgear is generally well placed and the instruments are impeccably clear, but who wants an economy gauge in such a delightfully sporting machine?

BMW's sports-style front seats, firm though they are and lacking adjustable lumbar support, provide ample comfort and location for many hours at the wheel. In addition, both front seats are equipped with a cushion tilt facility and an extendible thigh-support cushion to allow fine-tuning of the fit of man to machine.

While it keeps steering loads light, the 318's power assistance, with four turns from lock to lock, is unnecessarily low-geared. This deprives the driver of valuable feel of the road surface and can mean a busy time if corrective opposite lock is called for.

Much like the seats, the M-Technic suspension proves to be firm yet surprisingly absorbent over all but the worst road faults, with the sharpened-up response, again, appealing to the keener driver. Though now all but tamed, the small BM's tail can still be provoked out of line, under power on tight bends or by lifting-off halfway round; the resultant tail-slide calls for a degree of know-how to put right.

Up-rated brakes match the 318's performance (our test car managed a neck-jarring 1.05g best stop at the test track), with generally light pedal loads and a

reassuringly progressive action. Anti-lock control is available as a £690 option.

Back seat space – never a 3-Series strong point – is, perhaps, marginally impaired behind the Sports seats, although the firm, supportive seat is fine for a couple of not-too-lanky adults; the transmission tunnel's prominence is not so much fun for a third occupant. Getting in and out of the back calls for the familiar two-door-model contortions, although the flip-forward front seats are more helpful than many, with prominent release levers and a cushion that slides forward in sympathy with the seatback.

Apart from the name, of course, what you're really paying for with a BMW is the refinement and superb build quality. Whether on the road or up on a ramp, it's hard to find fault with this model, and the whole car has a really solid and well-developed feel about it.

VERDICT

The 318is isn't cheap and it isn't especially quick, either, but it's an interesting and very rewarding alternative to some of the more expensive hot-hatches, particularly for those prepared to trade out-and-out performance for rather more sophisticated, 'grown-up' manners. So, is the 318is really the GTi for grown-ups that BMW is claiming? Mmm, we think so!

It's worth saying, however, that the 320i shouldn't be overlooked, because for similar money it provides a slightly more mature package matched to BMW's legendary six-cylinder smoothness – albeit at a rather gentler pace.



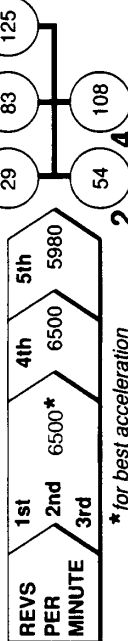
PERFORMANCE

Acceleration time in seconds

STANDING START	0-30mph 2.8	0-60mph 8.8	1/4 mile 16.5		
THROUGH THE GEARS	30	40	50	60	70
		1.7	3.5	6.0	8.9
IN 5TH GEAR	30	40	50	60	70
		6.0	11.8	17.6	24.1
IN 4TH GEAR	30	40	50	60	70
		4.0	7.9	12.2	16.2

20 mph	30	40	50	60	70
		12.7/8.6	11.8/7.9	11.6/8.2	12.3/8.3
5TH/4TH SPEED RANGES					

Maximum speeds



FUEL CONSUMPTION

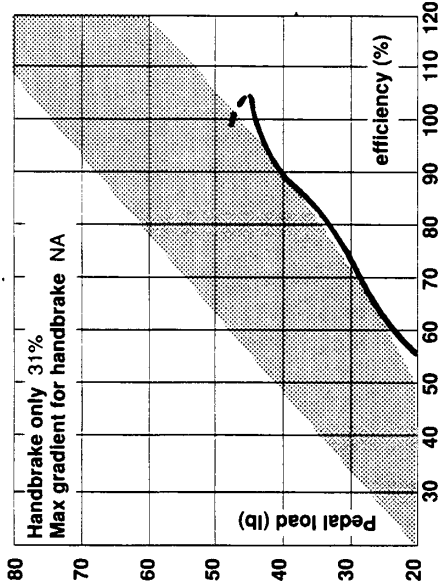
Fuel grade for tests: 95 octane unleaded

Normal range	mpg
Hard driving, heavy traffic	27
Short journeys in the suburbs	28 1/2
Motorway - 70mph cruising	34 1/2
Brisk driving, mixed roads	35
Gentle driving - rural roads	39 1/2
Typical mpg overall	34
Realistic tank range*	47 litres/350 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. When the curve becomes broken, the wheels are skidding.

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"/>
Belts	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 type="checkbox"/>
Interior	thoroughly padded?	<input checked="" type="checkbox"/>
Fuel	shielded filler?	<input checked="" type="checkbox"/>
	protected tank?	<input checked="" type="checkbox"/>

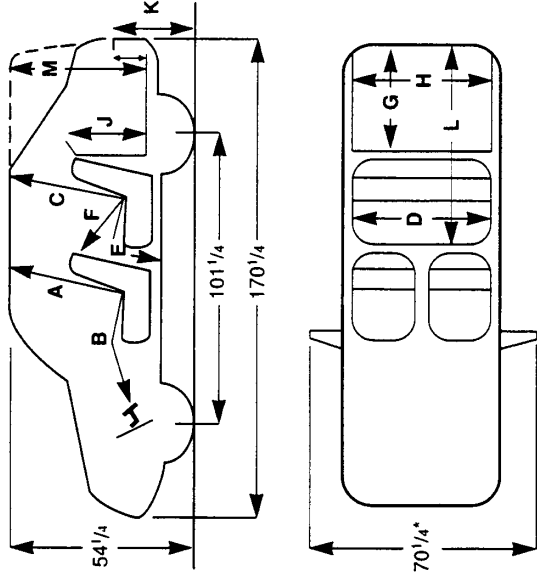
Fade test

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

Pedal load needed for 75% stop (lb)	At start of test	28
	Alter constant use	30
	Alter severe use	35
Interior	Alter watersplash	NA
Fuel	Number of stops to recover	NA

MEASUREMENTS

Dimensions (inches)



* 64 3/4 with mirrors folded

Inside (inches)	Kerb weight in lb (full of fuel)
A Front headroom	2576
B Front legroom (min - max)	36 3/4 - 37 3/4
C Rear headroom	41 1/2
D Back seat width (between armrests)	32 1/2 - 40 1/4
E Typical rear * legroom	37 1/2
F Typical rear * kneeroom	36 1/2
G Load length	37 1/2
H Load floor width (min - max)	16 1/2
J Load height	14 1/2 / 33 1/2
K Sill height (inner/outer)	NA
L Load length	NA
M Load height (to tailgate hinge)	NA

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

TECHNICAL SPECIFICATION

ENGINE

Type and size front-mounted, longitudinal 4 in line; water-cooled. 84.0mm bore x 81.0mm stroke = 1796cc. Iron block and aluminium head; 5 main bearings

Compression ratio 10.0:1

Valve gear chain-driven double overhead camshafts actuating 4 valves per cylinder via hydraulic bucket tappets

Fuel system Bosch Motronic DME 1.7 electronic multi-point fuel-injection with (optional) catalytic converter, fed by 55-litre (12.1-gallon tank) with low-level warning lamp. Fuel required: unleaded only, 95 octane min on 318is Cat; leaded or unleaded, 91 octane min on non-Cat

Ignition system electronic, fully-mapped, distributorless (integral with Motronic engine management system) with knock control

Maximum power (DIN-net)
136 bhp at 6000rpm

Maximum torque (DIN-net)
127 lb ft at 4600rpm

TRANSMISSION

Clutch 8.5in diaphragm spring, dry plate; hydraulically operated. Pedal load/travel : 25 lb/5¹/₂in

Gearbox 5-speed (all synchro-mesh) and reverse. Ratios: first 3.72, second 2.02, third 1.32, fourth 1.00, fifth 0.81 and reverse 3.45:1

Final drive 4.10:1 to rear wheels

Mph per 1000rpm 20.90 in top, 16.87 in 4th

Rpm at 70mph 3350 in top, 4150 in 4th

CHASSIS

Suspension front: independent, MacPherson damper/struts with coil springs, lower links and up-rated anti-roll bar. Rear: independent, semi-trailing arms with coil springs and anti-roll bar. Dampers: gas-filled telescopic all-round

Steering power assisted rack and pinion with 4 turns between full locks. Turning circles average 32³/₄ft between kerbs, with 61¹/₂ft for one turn of the wheel

Wheels 5.5J steel (standard), 6.5J cross-spoke alloy (optional) on test car, with 195/65R14 89H tyres (Pirelli P6 on test car)

Brakes 10.2in ventilated discs front, 10.2in plain discs rear, with vacuum servo. Anti-lock control optionally available (£690)

HOW IT COMPARES

	Engine cap/power (cc/bhp)	Max speed (mph)	30-70mph through gears (sec)	30-70mph in 5th/4th gears (sec)	Fuel overall (mpg)	Brakes best stop (%g/lb)	Maximum legroom - front (in)	Typical leg/kneeroom - rear (in)	Steering † turns/circle (ft)	Overall length (ft/in)
BMW 318is Cat (2 door)	1796/136	125	8.9	24.1/16.2	34	105/45	40 ¹ / ₄	37 ¹ / ₄ /27	4/32 ³ / ₄	14' 2 ¹ / ₄ "
Audi 80 2.0 Sport Cat (4 door)	1984/112	118	10.7	19.5/16.0	35 ¹ / ₂	102/40	43 ¹ / ₄	40 ¹ / ₄ /28 ³ / ₄	3.1/34 ¹ / ₂	14' 5"
Citroen BX GTi 16-valve (5 door)	1905/160	132	6.8	22.1/14.9	32	* 96/45	40 ¹ / ₂	40 ¹ / ₄ /29	2.8/34 ¹ / ₂	13' 11"
Vauxhall Cavalier 2.0SRi (4/5 door)	1998/128	127	8.7	21.3/14.7	35 ¹ / ₂	NA	42	38 ³ / ₄ /28 ³ / ₄	3.5/34 ¹ / ₂	14' 3 ¹ / ₄ "
VW Golf GTi 16-valve (3/5 door)	1781/139	124	7.9	20.8/15.1	37	100+/60	41 ³ / ₄	38/29	3.8/33 ¹ / ₂	13' 1"
BMW 325i (2 door)	2494/171	131	7.2	20.5/14.1	29 ¹ / ₂	95/45	42	38 ¹ / ₄ /26 ¹ / ₂	4/32 ¹ / ₂	14' 2 ¹ / ₄ "
BMW 316i (4 door)	1596/102	112	11.3	28.0/19.1	35	94/33	42	38 ¹ / ₄ /26 ¹ / ₂	4/32 ¹ / ₂	14' 2 ¹ / ₄ "

* with ABS

† = all power assisted