



BMW M535i five speed

The fastest—and most economical BMW in production in South Africa is a true luxury car, as well

This is South Africa's fastest production BMW — even faster than the fabled 530 — and one of the most spectacular road cars available to South African motorists.

Introducing the 160 kW 3,5-litre engine of the "7 Series" flagship, with fuel injection and overdrive-style five-speed gearbox, the new M535i (that "M" is for "Motor Sport") is a carefully-balanced compromise between outright performance and practical everyday motoring requirements.

It can black-stripe away from rest, with the limited-slip diff provoking tyre smoke at both rear wheels, and it goes a shade over a true 200 km/h on a level road. Yet it cruises quietly and gently, has full air-conditioning, and can return

fuel economy figures to rival some four-cylinder models.

NEW FEATURES

The M535i is based on the 530 — which is replaced in local manufacture — with the handsome and efficient "5 Series" coachwork, and the kind of handling and ride which has made this range of fine cars famous. While it has little external difference from its sisters in the "5 Series" range, it is a sedan in the sports car class, and given a touch of distinction by big steel-belt radials on wide Mahle light alloy wheels with cross-spoke styling.

The all-independent suspension is updated on this model, with heavier stabiliser bars front and rear and Bilstein

gas-filled shockabsorbers, and it has a ZF 25 per cent limited-slip differential to give maximum traction.

It has much of the comfort of the top BMW Executive models, with custom air-conditioning, a programmable Pioneer radio/tape deck, central locking system, power windows, and Recaro sports seats. As a final touch, the steering wheel is from the racing M1 coupé.

MUSCULAR MACHINERY

The new big-six 3,5-litre engine made its debut last year in the flagship BMW 735i Automatic (Car Road Test, August 1981) and is remarkable for its willingness and range, with up to 6 200 revs usable. It produces 160 kW at 5 200 revs, and is matched with long-legged

KEY FIGURES

Maximum speed 206,3 km/h
 1 km sprint 29,6 seconds
 Terminal speed 175,5 km/h
 Fuel tank capacity 70 litres
 Litres/100 km at 80 7,16
 Optimum fuel range at 80 978 km
 *Fuel Index 9,31
 Engine revs per km 1 290
 National list price R24 400
 (iBased on ECE figures.)
 (*Consumption at 80, plus 30%.)

gearing in this unusual performance car: a slick four-and-overdrive gearbox with an indirect top.

In the direct-drive fourth the car is geared for 37,8 km/h per 1 000 revs (which already is virtual overgearing) and goes to an amazing 46,4 km/h per 1 000 revs in 5th, which is a true "economy gear".

The clutch has a fairly heavy action, and bites well.

PERFORMANCE

The M535i is a more-refined car, and does not have the fiery character of the earlier 530 (CAR Road Test, January 1978). It is heavier, higher-g geared, and loses some power to the air-conditioning plant under its bonnet.

But don't be deceived: it can still knock spots off almost anything else on the road in various aspects of performance. It can go from rest to 80 in 6,5 seconds, and to 100 (still in 2nd) in 9,3. It covers a kilometre from rest in 29,6 seconds, and has topped a true 175 by the time it crosses the line. Running in its direct-drive fourth, it registered a true 206,3 km/h on a level road, both ways, pulling more than its rated 5 200 revs.

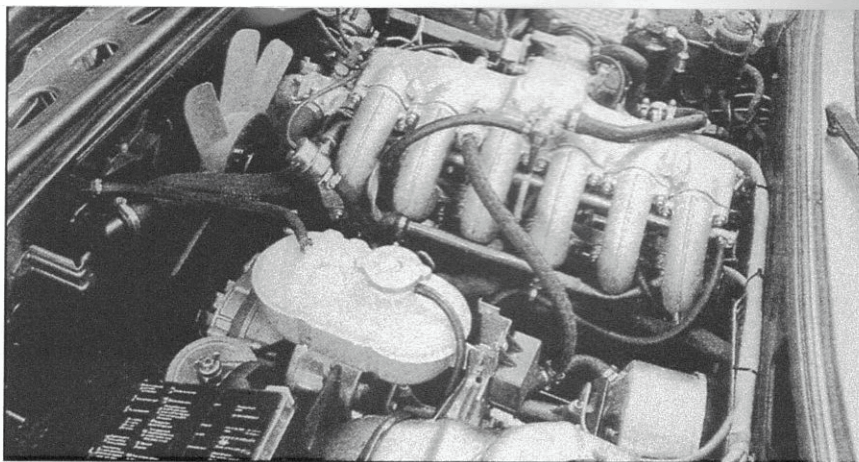
Understandably, there is not much pulling power in 5th (its gradient ability is 1-in-15,2) but this is a usable driving gear from about 60 km/h upwards — and is backed by tremendous climbing and overtaking ability in both 3rd and 4th.

The speedometer overreads by a reducing percentage as speed rises (4 per cent at 100, on the test car) and the rev-counter is extremely accurate right through the speed range.

ECONOMY AND SOUND

We have based our fuel consumption tables and graphs on the official ECE (Economic Community of Europe) figures, and these show that the car has the potential for amazing fuel economy at steady speeds. It will achieve 7,16 litres/100 km at 80 and 8,20 at 90 — setting new standards for any BMW model in current production, and giving it an 800 km cruising range.

But a word of caution: while our Fuel Index comes out at 9,31 litres/100 km, it is highly unlikely that anyone will drive this high-performance car in sedate style, and the ECE "urban cycle" figure goes as high as 18,5 litres/100 km.



The 3.5-litre fuel injected motor produces 160 kW and is teamed with an overdrive-style 5-speed gearbox.

Somewhere between those two — in the region of 14,0 litres/100 km — is probably what owners can expect, with the bonus of special economy on long-distance trips.

Mechanical sound levels are very modest for a performance car, thanks both to good build and long-legged gearing. Road rumble is higher than we expected, but the average of 79,2 decibels at 100 is satisfactory.

HANDLING AND BRAKING

The car's ride is not over-firm, but it is well-damped and there is no sloppy body movement in cornering and braking. We have always admired "5 Series" handling — BMW's best — and this new "5" flagship is a delight to drive and handle. Unlike most sports cars, it also has a commanding ride over dirt roads, and it

takes loads with the best of family sedans.

Its brakes are high-performance, and the test car was even a shade over-braked at front. But it stopped firmly from high speeds, and braking actually improved as the discs warmed up.

TEST SUMMARY

The new M535i is difficult to categorise. It's not a pure sports sedan like the 530, nor is it pure luxury car. To some extent, it combines the best elements of both, to produce a really fast car with a high standard of comfort and equipment.

But whatever one's feelings on these aspects, there's no denying that it is a magnificent car: a blend of vigour and glamour, and very different from the general run of cars in its price class.

SPECIFICATIONS

ENGINE:

Cylinders 6 in line
 Fuel supply . . . Bosch L-Jetronic fuel injection
 Bore/stroke 93,4/84,0 mm
 Cubic capacity 3 453 cm³
 Compression ratio 9,3 to 1
 Valve gear o-h-v, single o-h-c
 Ignition electronic
 Main bearings seven
 Fuel requirement . . . 98-octane Coast, 93-octane Reef
 Cooling . . . water, thermo-coupled fan

ENGINE OUTPUT:

Max. power I.S.O. (kW) 160
 Power peak (r/min) 5 200
 Max. usable r/min 6 200
 Max. torque (N.m) 310
 Torque peak (r/min) 4 000

TRANSMISSION:

Forward speeds five (four and overdrive)
 Gearshift console
 Low gear 3,822 to 1
 2nd gear 2,202 to 1
 3rd gear 1,398 to 1
 4th gear direct
 Top gear 0,813 to 1
 Reverse gear 3,705 to 1
 Final drive 3,07 to 1, ZF limited slip
 Drive wheels rear

WHEELS AND TYRES:

Road wheels Mahle light alloy
 Rim width 7,0J
 Tyres . . . 195/70 VR 14 steel radials
 Tyre pressures (front) . . 220 to 260 kPa
 Tyre pressures (rear) 250 to 290 kPa

BRAKES:

Front 280 mm discs, ventilated
 Rear 272 mm discs
 Pressure regulation . . . dual systems, anti-lock at rear
 Boosting vacuum servo
 Handbrake position . . between front seats

STEERING:

Type ZF variable-rate power-assisted
 Lock to lock 4,6 turns
 Turning circle 11,1 metres

MEASUREMENTS:

Length overall 4,620 m
 Width overall 1,690 m
 Height overall 1,425 m
 Wheelbase 2,636 m
 Front track 1,460 m
 Rear track 1,460 m
 Ground clearance 0,140 m
 Licensing mass 1 400 kg

SUSPENSION:

Front independent
 Type coil struts, stabiliser bar, gas-filled shock absorbers
 Rear independent
 Type coils, semi-trailing arms, stabiliser bar, gas-filled shock absorbers

CAPACITIES:

Seating 4/5
 Fuel tank 70 litres
 Luggage trunk 430 dm³ net

WARRANTY:

12 months.

TEST CAR FROM:

BMW South Africa, Rosslyn, Pretoria.

test BMW M 535i five-speed

PERFORMANCE

MAKE AND MODEL:
 Make BMW
 Model M 535i five-speed

PERFORMANCE FACTORS:
 Power/mass (W/kg) net 114,3
 Frontal area (m²) 2,41
 km/h per 1000 r/min (top) . . . 46,4

INTERIOR NOISE LEVELS:

	Mech	Wind	Road
Idling	66,0	—	—
80	71,0	—	—
80	73,5	76,0	78,0
100	76,0	80,0	81,5
Average dBA at 100	79,2		

ACCELERATION (seconds):
 0-60 4,5
 0-80 6,5
 0-100 9,3
 1 km sprint 29,6

OVERTAKING ACCELERATION:

	3rd	4th	Top
40-60	3,6	5,2	7,6
60-80	3,5	5,6	7,9
80-100	3,3	5,6	8,8

MAXIMUM SPEED (km/h):
 True speed 206,3
 Tachometer reading 5 000
 Speedometer reading 216

Calibration:
 Indicated: 60 70 80 90 100
 True speed: 55 65 75,5 86 96

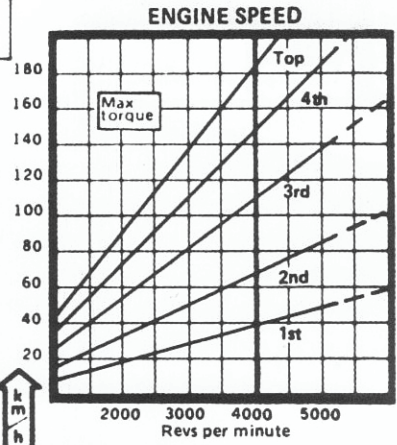
FUEL CONSUMPTION (litres/100 km):
 60 6,51
 70 6,79
 80 7,16
 90 7,60
 100 8,20

BRAKING TEST:
 From 100 km/h
 Best stop 3,4
 Worst stop 3,9
 Average 3,59

GRADIENTS IN GEARS:
 Low gear 1 in 2,2
 2nd gear 1 in 3,4
 3rd gear 1 in 5,8
 4th gear 1 in 9,3
 Top gear 1 in 15,2

GEARED SPEEDS (km/h):
 Low gear 51,4
 2nd gear 89,1
 3rd gear 140,4
 4th gear 196,3
 Top gear 241,5

TEST CONDITIONS:
 Altitude at sea level
 Weather fine and hot
 Fuel used 98 octane
 Test car's odometer 18 010

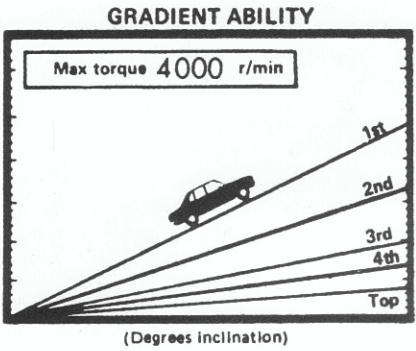


IMPERIAL DATA

ACCELERATION (seconds):
 0-60 8,7

MAXIMUM SPEED (m-p-h):
 True speed 128,2

FUEL ECONOMY (m-p-g):
 50 m-p-h 39,3
 60 m-p-h 35,4
 (I based on ECE figures.)



CRUISING AT 100

Mech noise level 76,0 dBA
 0-100 through gears 9,3 seconds
 Litres/100 km at 100 8,20
 Optimum fuel range at 100 854 km
 Braking from 100 3,59 seconds
 Maximum gradient (top) 1 in 15,2
 Speedometer error 4% over
 Speedo at true 100 104
 Tachometer error negligible
 Engine r/min at 100 2 155
 (I based on ECE figures.)

