

**316 318**  
**320 323i**









BAR

RE



RESTAURANT • CAFÉ



Optional extra: light alloy wheels.

## The compact BMW – not a bigger small car, but a smaller big car.

The BMW 316, 318, 320 and 323i have all the robustness and technical superiority of the models at the top end of the BMW range, in their power unit and chassis, their safe performance, their refined road behaviour and internal comfort, and their systematic adoption of passive safety features. All the details which give the larger models their exceptional sophistication and reliability have been adapted to suit the medium range, undergoing further development in the process.

Through continual detail improvements and refinement of the overall concept – as for example in the introduction of a new generation of larger-capacity 6-cylinder power units – we ensure that the compact BMWs are always ahead of their time. And this means that they are never less advanced than their drivers.

### Holding the balance between big and small – the compact BMW.

The compact BMW is a technological synthesis between two apparently irreconcilable extremes – the car that is too big for traffic, and the car that is too small for safety.

The compact BMW combines the advantages of both in a vehicle that is both ideal for traffic and designed for maximum safety, whilst remaining a distinct and vital motor car in its own right. It is a unique blend of the characteristics of a fast, comfortable touring machine with those of a lively, manoeuvrable town car.

The compact BMW is avail-

able in four different models: the BMW 316 and 318 with 4-cylinder engines, and the BMW 320 and 323i with 6-cylinder engines. These models are tailored to meet different requirements, while retaining the overall identity of the range.

### A step nearer to the future – the new BMW 320 and 323i.

As the relationship between man and motor car develops, large cars are being bought less and less for the purpose of gaining prestige. As a result, the highest levels of motoring technology and equipment are being realised in an increasingly compact form.

We offer the BMW 320 and 323i as a foretaste of the future. Embodying the concept of maximum performance in the most compact possible form, they take the driver into a new world of motoring experience.

Their power units incorporate the smooth running and high output of the BMW 6-cylinder engine in the smaller capacities of 2 and 2.3 litres. With their silky, vibration-free running, these engines provide a degree of refinement which is unusual in compact motor cars.

The search for motoring perfection is not cheap, but it is worthwhile. For the discerning driver it is not a question of whether to buy a compact BMW, but which one to buy.

The BMW 3 series are unmistakable in appearance – a combination of sporting lines and a shape that is both dis-

creet and straightforward. Internal accommodation is generous in relation to the compact external dimensions. The body shape is low and elongated, with large areas of glass.

316

318

320

323i

The two halves of the range, the BMW 316 and 318 and the BMW 320 and 323i, are clearly differentiated by the use of halogen twin-headlamp units on the 6-cylinder models.

The latter have wide wheel rims and tyres, and bear the model number on the front grille. The rear is identical in all cases, except for the model number, and the twin terminal exhaust pipes on the 323i.

Wrap-round bumpers at front and rear eliminate the possibility of entanglement with another vehicle, and protect the corners of the bodywork from superficial damage while parking (1/2).

The bumpers and rubbing strips along the side of the vehicle are fitted with rubber inserts.

An unobtrusive spoiler at the front lowers wind resistance and diminishes lift on the front axle (3).

Protruding flashers at front

(4) and rear give improved visibility from the side.

The size and power of all signal lights on BMW cars are designed to provide maximum visibility (5).

Specially constructed roof struts and body reinforcements; strong central pillars joined to a roll-over bar (6).

The compact BMWs offer a high standard of construction and exceptional quality of finish, including the paintwork. Scrupulous attention to detail in corrosion protection ensures rugged durability.

The bodywork is treated at an early stage by a special electrophoretic process. It is dipped in an immersion bath and coated with a corrosion-resistant primer, which is followed by several coats of paint. There is comprehensive underbody protection, which has been proved effective in practice, and the special BMW interior cavity protection

reaches into every corner.

Both of these features ensure long life and help the car to maintain its value. The exhaust system is aluminised at critical points, giving considerably longer life – another example of BMW quality and attention to detail.

This brochure partly shows details of items of equipment and metallic colours that are available as optional extras.



4

5

6











320

M:VM 3419



MISC. WORK  
LIGHT





## The technology of relaxation.

The compact BMWs provide exceptional comfort in the interests of exceptional safety. Using modern scientific knowledge of human physiology, we have created sophisticated aids to safety on the road. Our aim has been to provide the motorist with total command of his vehicle, the effortless mastery of advanced vehicle technology which leads to safe, controlled reactions and relaxed driving.

BMW design their cars for drivers. And this means that they make the minimum demands on the driver.

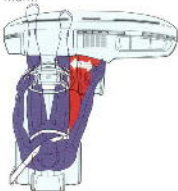
Active safety features include excellent all-round visibility and a modern, ergonomically designed cockpit which permits extremely fast reactions.

All switches and levers are arranged so as to avoid confusion, with markings illuminated in orange.

The concave instrument panel is angled towards the driver, so that he can reach all the controls comfortably, quickly and safely, whatever his arm length or seating position. Active safety is improved by features which aim to maintain a comfortable environment – in particular the outstanding heating and ventilation system, which performs as well as that of much larger saloons. The car heats up quickly, and the temperature is infinitely controllable. Warm air can be directed as required into the foot-wells, and/or through five vents onto the windscreen and side-windows for defrosting.

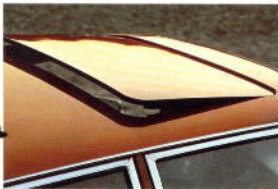
The ventilation system ensures a draught-free supply of fresh air through separate and individually controllable systems for driver and passenger. Both systems can be supplemented by a high-powered three-speed blower unit.

Heating and ventilation outlets were designed after careful research into airflow in the interior, and produce distinct warm and cold air zones. The area at face level always remains pleasantly cool and free from draughts even with the blower on maximum.



1. Air outlet grilles for side-window defrosting and ventilation, adjustable vertically and horizontally.
2. Indicator panel with warning lights for direction indicators, handbrake on, low brake fluid level and brake lining wear.
3. Indicator panel with warning lights for oil pressure, battery charge and headlamps on main beam.
4. Illuminated push buttons for heated rear window, fog stop lights and headlamps (optional), pull-out switch for parking and driving lights, knob for adjusting illuminator of dashboard instruments and control markings from BMW 316 upwards.
5. Control stalk for direction indicators, headlamp flasher, main beam and parking lights.
6. Quartz clock or rev counter from BMW 320 (rev counter optional on BMW 316 and 318).

Optional extra BMW 328i  
radio BMW Bavaria 5.





## Rear seats: Respect for the non-driver.

With their luxury finish, the seats of the compact BMWs meet the highest standards in materials and construction. The anatomically shaped rear seats (3) offer support, ensuring a comfortable ride for passengers.

The floor of the luggage compartment is covered with hard-wearing pile carpet (9) and generously dimensioned to provide 460 litres (16 cu. ft.) of space. A small tool-box is attached to the boot lid, and a more elaborate tool-kit is available as an optional extra (10).

### Optional accessories mean cars for individuals.

A comprehensive range of optional extras is available for the compact BMWs, enabling the driver to equip his vehicle according to his personal taste.

Light alloy rims reduce unsprung weight and increase road safety (14).

Chrome-plated wheel-embellishers.

Headlamp washer system and halogen fog-lamps (13).

Outside driving mirror, electrically adjustable from inside. Large, tinted mirror surface (12).

Mechanically operated sliding steel roof with draught-free raised position; includes lower front seats (1/2).

Radio set. Various models available on request. (Fig. 8 BMW Bavaria CR with traffic decoder.) Mono radios have 2 loudspeakers at the front; stereo sets have 4 loudspeakers in all, with the rear loudspeakers integrated in the

parcel shelf.

Three-point automatic safety belts at rear (4).

BMW 3-spoke sports steering wheel. Leather-sheathed rim and padded spokes, specially developed safety boss (7).

Power steering for the BMW 320 and 323i.

Air conditioning from BMW 320 upwards maintains a comfortable temperature in all weather conditions (11).

Rear ventilation window and heat-resistant glass all round (5).

Leatherette upholstery.

Recaro seats covered in black leatherette or cloth with adjustable thigh support (6).

Further optional extras on technical data page.



9



10



13



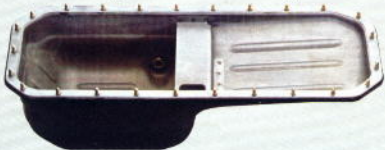
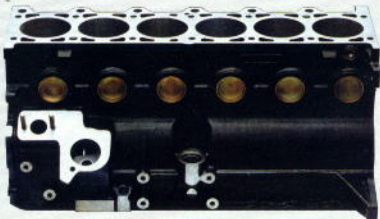
12



13



14



The BMW 316 and 318 are equipped with a DIDTA carburettor with automatic choke. The sophisticated electrically and thermostatically controlled automatic starting control ensures excellent cold-running characteristics and increases economy (1).

The BMW 320 is fitted with a 4A1 twin-choke carburettor, renowned for its performance and reliability.

When the ignition is first switched on, a thermostatically controlled device cuts in to ensure optimum control of the fuel mixture during cold running. It opens the throttle sufficiently to ensure smooth, hesitation-free running of the engine and ready acceleration immediately after starting (2).

The BMW 323i has K-Jetronic fuel injection with metered air intake ensuring the optimum mixture for all running conditions. This gives the engine increased verve

and responsiveness while maintaining fuel economy: more efficient combustion gives a cleaner, environmentally favourable exhaust (3).

The K-Jetronic fuel injection on the BMW 323i is specially matched to the power unit, giving an appreciable increase in performance.

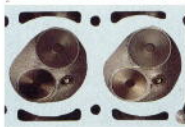
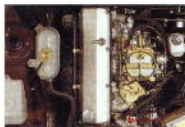
The 6-cylinder models feature a contactless transistorised ignition designed for optimum ignition timing.

As on the large BMW 8-cylinder engines, the crankshaft has 7 main bearings and 12 counterweights. Together with the inherent advantages of the 6 cylinder in-line engine layout, this provides the almost vibration-free running for which the former are renowned (4).

The compact BMW 6-cylinder engines have excellent fuel consumption, thanks to a newly developed spherical combustion chamber in which

the volume is concentrated around the spark plug, with a flat compression surface opposite (5).

The overhead camshaft of the compact 6-cylinder engine has 7 bearings, giving exceptional rigidity and ensuring accurate operation of the valves even at high rpm. (6).



## The power unit of the compact BMW: an improvement on established superiority.

Nowadays the character and performance of a power unit is determined not so much by the designer as by the conditions and requirements of traffic. Modern traffic conditions demand flexibility from both man and machine. And this flexibility is more easily achieved with a high power output than a low one. Thus the superior performance of BMW power units is not an end in itself, but an essential requirement for safe manoeuvrability.

### The start of a new motoring experience.

We have equipped the most compact BMW with an entirely newly developed 6-cylinder engine. In doing so, we have brought the comfort, refinement and sheer driving pleasure of the luxury BMWs into the compact class. We have pushed back the frontiers of middle-range motoring and opened a new range of possibilities to the progressive motorist.

### The new 6-cylinder engines in the compact BMW – a step towards perfection.

The large BMW 6-cylinder engines are among the best, the most efficient and most reliable piston engines ever designed for a motor car. To produce the same outstanding torque to rpm ratio, and the same turbine-like development of power, other manufacturers have required either more cylinders or increased capacity.

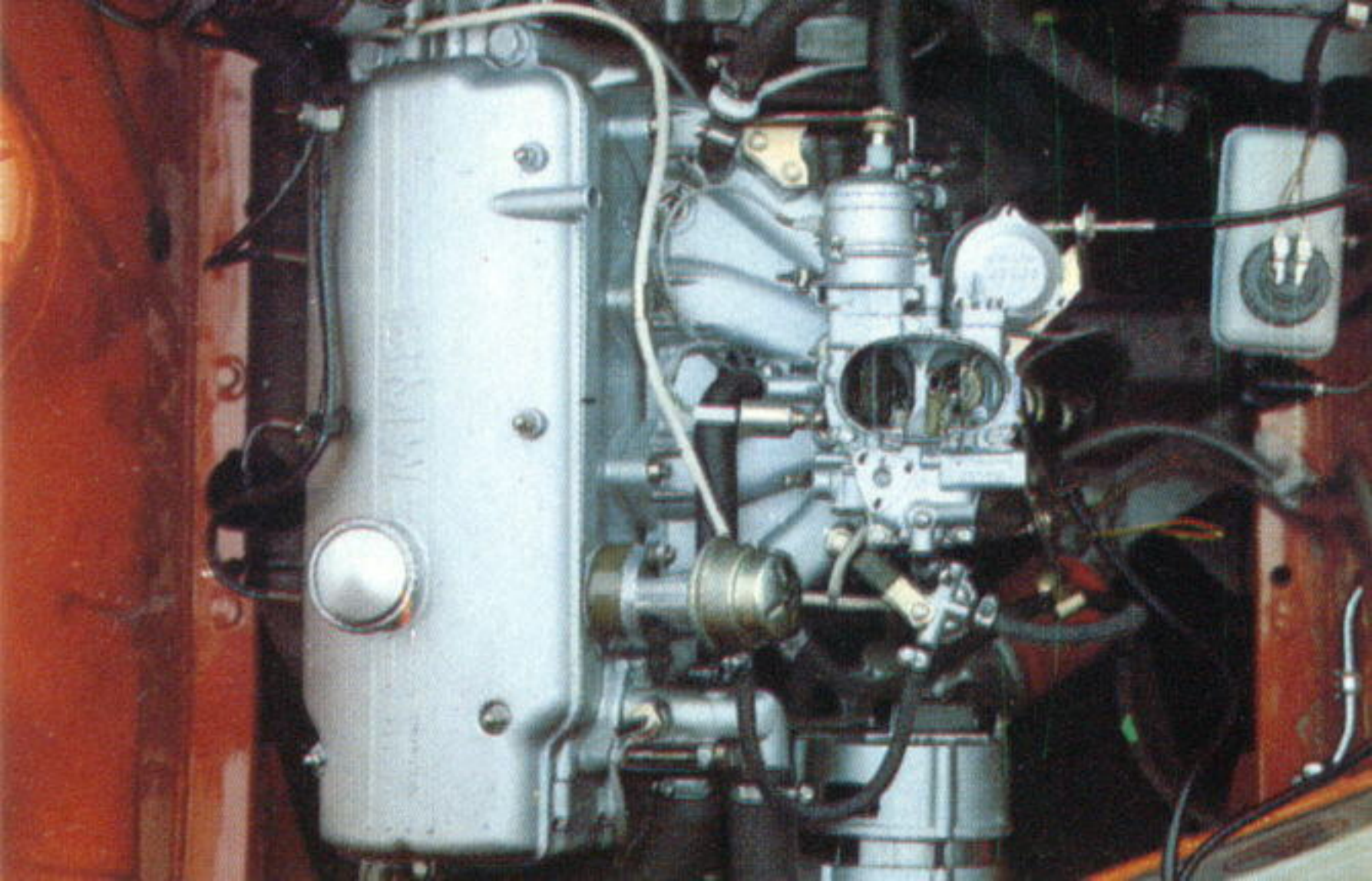
We have now incorporated

the inherent advantages of these engines into power units of 2.0 and 2.3 litres – both unusually low capacities for a 6-cylinder engine. The new units combine the most up-to-date features of engine technology to produce the optimum arrangement for their capacity, and reflect all the detailed knowledge which has produced the exceptional reliability and rugged durability of the large 6-cylinder engines.

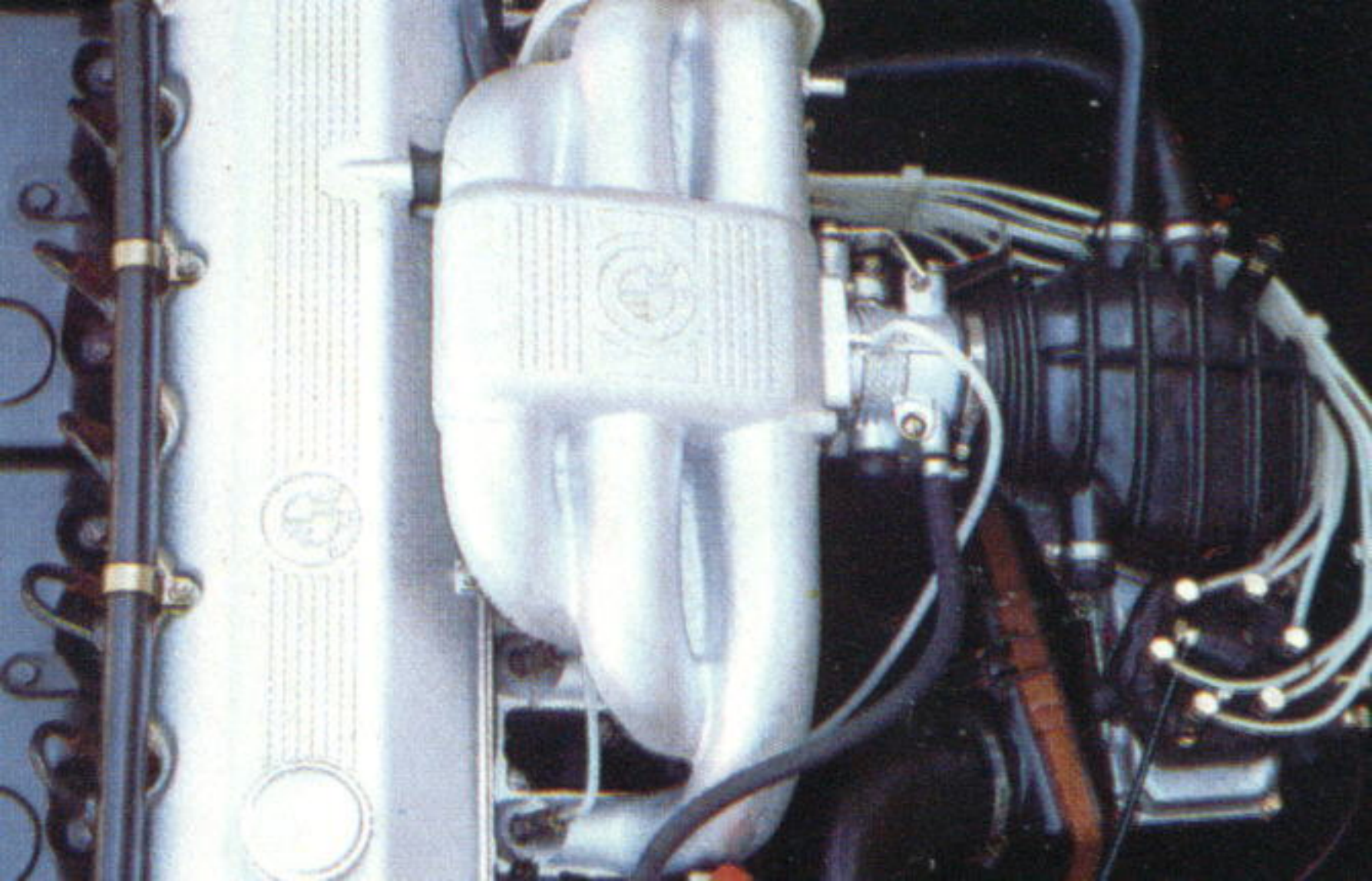
The choice of a 6-cylinder in-line engine for these low capacities was quite deliberate. In order to reproduce the running characteristics and low vibration of the BMW 6-cylinder power units, the first and second order moments of force and the moment of inertia must be in equilibrium, as is the case in a 6-cylinder in-line engine. In a V-6 engine only the first order moments are in equilibrium, and in a 5-cylinder in-line engine neither the first nor the second order moments. So both these arrangements have inherent disadvantages as far as smooth running is concerned.

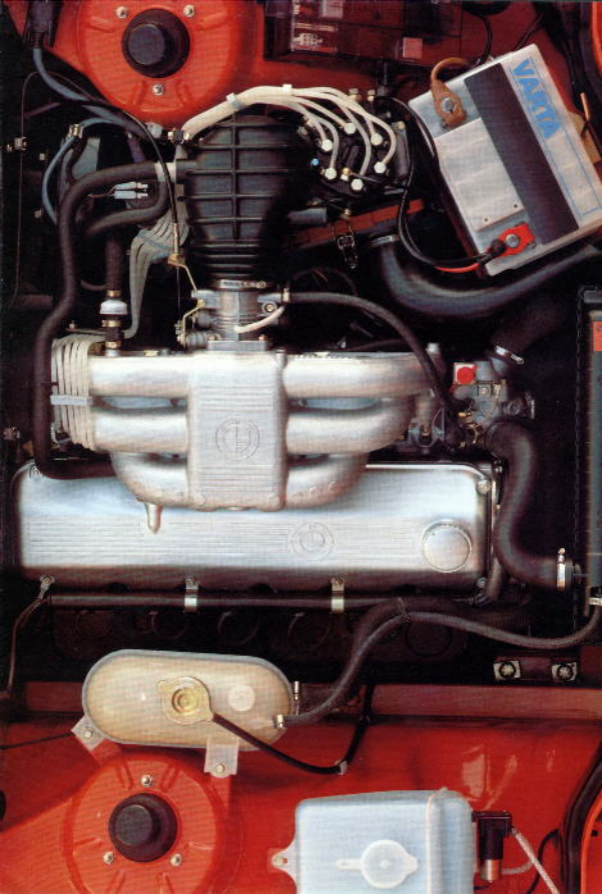
There is no other car which offers top-quality motoring in such a compact form as the BMW 320 and 323i. With more interior space and greater technical refinement, they offer the driver a new step into the middle-weight range of motoring.











1000cc

YAMAHA





## BMW motor sport: the creed of performance.

A company which manufactures cars is like a man. If it is sports-minded from its inception, and takes part in sport, then it will always be fit, enthusiastic and capable of higher performance — and in the end more successful. The products of such a company reflect its nature, and indeed the men who build BMW cars have a keen and healthy competitive attitude. They are proud of their make and their skills, and carry out their jobs with that extra enthusiasm which makes all the difference. This important fact is reflected in everything which BMW designs and manufactures, and it is the BMW driver who finally benefits.

BMW approach motor sport with the same enthusiasm, but also regard it as an industrial exercise to be carried out in a professional and scientific manner. For BMW, motor sport is a means of proving

their competence in a highly technical field — a yardstick by which they can measure their ability to solve complex technical and organisational problems.

A current example is the highly successful performance of the BMW Junior Team with the Group 5 BMW 320s. During the 1977 season, this unique combination of enthusiastic commitment and sophisticated automobile technology did much to fire public interest in the German motor-racing championship, and won many new friends for motor sport.

Group 5 special production cars must be derived from mass-produced models, but their technical specification is less restricted than that of vehicles in other racing categories. The main considerations in this class are weight and maximum tyre width — 735 kg and 14 inches on cars

of up to 2 litres. The aerodynamic aids necessary for track use must not protrude beyond the outline of the vehicle when viewed from the front. The power unit must be based on the engine block of the standard model.

Technic of speed: Group 5 of the Group 5 320s compared with the standard 320 engine

|                   |      | Standard Group 5 |        |
|-------------------|------|------------------|--------|
| Stroke            | mm   | 71.6             | 69.0   |
| Bore              | mm   | 69.0             | 69.0   |
| Capacity          | cc   | 1700             | 1500   |
| Compression ratio | 1    | 9.5              | 11     |
| Max. velocity     | km/h | 177              | 217    |
| 0-100             | sec  | 16.7             | 10.0   |
| 0-200             | sec  | 32.2             | 24.5   |
| 0-300             | sec  | 49.8             | 38.0   |
| 0-400             | sec  | 70.2             | 52.0   |
| 0-500             | sec  | 92.0             | 68.0   |
| 0-600             | sec  | 115.0            | 85.0   |
| 0-700             | sec  | 140.0            | 105.0  |
| 0-800             | sec  | 165.0            | 125.0  |
| 0-900             | sec  | 190.0            | 145.0  |
| 0-1000            | sec  | 215.0            | 165.0  |
| 0-1100            | sec  | 240.0            | 185.0  |
| 0-1200            | sec  | 265.0            | 205.0  |
| 0-1300            | sec  | 290.0            | 225.0  |
| 0-1400            | sec  | 315.0            | 245.0  |
| 0-1500            | sec  | 340.0            | 265.0  |
| 0-1600            | sec  | 365.0            | 285.0  |
| 0-1700            | sec  | 390.0            | 305.0  |
| 0-1800            | sec  | 415.0            | 325.0  |
| 0-1900            | sec  | 440.0            | 345.0  |
| 0-2000            | sec  | 465.0            | 365.0  |
| 0-2100            | sec  | 490.0            | 385.0  |
| 0-2200            | sec  | 515.0            | 405.0  |
| 0-2300            | sec  | 540.0            | 425.0  |
| 0-2400            | sec  | 565.0            | 445.0  |
| 0-2500            | sec  | 590.0            | 465.0  |
| 0-2600            | sec  | 615.0            | 485.0  |
| 0-2700            | sec  | 640.0            | 505.0  |
| 0-2800            | sec  | 665.0            | 525.0  |
| 0-2900            | sec  | 690.0            | 545.0  |
| 0-3000            | sec  | 715.0            | 565.0  |
| 0-3100            | sec  | 740.0            | 585.0  |
| 0-3200            | sec  | 765.0            | 605.0  |
| 0-3300            | sec  | 790.0            | 625.0  |
| 0-3400            | sec  | 815.0            | 645.0  |
| 0-3500            | sec  | 840.0            | 665.0  |
| 0-3600            | sec  | 865.0            | 685.0  |
| 0-3700            | sec  | 890.0            | 705.0  |
| 0-3800            | sec  | 915.0            | 725.0  |
| 0-3900            | sec  | 940.0            | 745.0  |
| 0-4000            | sec  | 965.0            | 765.0  |
| 0-4100            | sec  | 990.0            | 785.0  |
| 0-4200            | sec  | 1015.0           | 805.0  |
| 0-4300            | sec  | 1040.0           | 825.0  |
| 0-4400            | sec  | 1065.0           | 845.0  |
| 0-4500            | sec  | 1090.0           | 865.0  |
| 0-4600            | sec  | 1115.0           | 885.0  |
| 0-4700            | sec  | 1140.0           | 905.0  |
| 0-4800            | sec  | 1165.0           | 925.0  |
| 0-4900            | sec  | 1190.0           | 945.0  |
| 0-5000            | sec  | 1215.0           | 965.0  |
| 0-5100            | sec  | 1240.0           | 985.0  |
| 0-5200            | sec  | 1265.0           | 1005.0 |
| 0-5300            | sec  | 1290.0           | 1025.0 |
| 0-5400            | sec  | 1315.0           | 1045.0 |
| 0-5500            | sec  | 1340.0           | 1065.0 |
| 0-5600            | sec  | 1365.0           | 1085.0 |
| 0-5700            | sec  | 1390.0           | 1105.0 |
| 0-5800            | sec  | 1415.0           | 1125.0 |
| 0-5900            | sec  | 1440.0           | 1145.0 |
| 0-6000            | sec  | 1465.0           | 1165.0 |
| 0-6100            | sec  | 1490.0           | 1185.0 |
| 0-6200            | sec  | 1515.0           | 1205.0 |
| 0-6300            | sec  | 1540.0           | 1225.0 |
| 0-6400            | sec  | 1565.0           | 1245.0 |
| 0-6500            | sec  | 1590.0           | 1265.0 |
| 0-6600            | sec  | 1615.0           | 1285.0 |
| 0-6700            | sec  | 1640.0           | 1305.0 |
| 0-6800            | sec  | 1665.0           | 1325.0 |
| 0-6900            | sec  | 1690.0           | 1345.0 |
| 0-7000            | sec  | 1715.0           | 1365.0 |
| 0-7100            | sec  | 1740.0           | 1385.0 |
| 0-7200            | sec  | 1765.0           | 1405.0 |
| 0-7300            | sec  | 1790.0           | 1425.0 |
| 0-7400            | sec  | 1815.0           | 1445.0 |
| 0-7500            | sec  | 1840.0           | 1465.0 |
| 0-7600            | sec  | 1865.0           | 1485.0 |
| 0-7700            | sec  | 1890.0           | 1505.0 |
| 0-7800            | sec  | 1915.0           | 1525.0 |
| 0-7900            | sec  | 1940.0           | 1545.0 |
| 0-8000            | sec  | 1965.0           | 1565.0 |
| 0-8100            | sec  | 1990.0           | 1585.0 |
| 0-8200            | sec  | 2015.0           | 1605.0 |
| 0-8300            | sec  | 2040.0           | 1625.0 |
| 0-8400            | sec  | 2065.0           | 1645.0 |
| 0-8500            | sec  | 2090.0           | 1665.0 |
| 0-8600            | sec  | 2115.0           | 1685.0 |
| 0-8700            | sec  | 2140.0           | 1705.0 |
| 0-8800            | sec  | 2165.0           | 1725.0 |
| 0-8900            | sec  | 2190.0           | 1745.0 |
| 0-9000            | sec  | 2215.0           | 1765.0 |
| 0-9100            | sec  | 2240.0           | 1785.0 |
| 0-9200            | sec  | 2265.0           | 1805.0 |
| 0-9300            | sec  | 2290.0           | 1825.0 |
| 0-9400            | sec  | 2315.0           | 1845.0 |
| 0-9500            | sec  | 2340.0           | 1865.0 |
| 0-9600            | sec  | 2365.0           | 1885.0 |
| 0-9700            | sec  | 2390.0           | 1905.0 |
| 0-9800            | sec  | 2415.0           | 1925.0 |
| 0-9900            | sec  | 2440.0           | 1945.0 |
| 0-10000           | sec  | 2465.0           | 1965.0 |





## The chassis of the compact BMW – designed for the future and safe for the future.

The BMW combination of spring struts at the front and semi-trailing arms at the rear is amongst the safest and most efficient suspensions in the world.

For the compact BMW, this design was completely overhauled. Its already outstanding handling characteristics were tailored to suit the overall character of the vehicle, and improved even further to provide maximum manoeuvrability.

As a result of those refinements, the compact BMW has outstandingly predictable road behaviour at both high and low speeds and on every type of surface. It offers a high degree of refinement and comfort, increased safety when travelling at critical speeds, and unusually sporting performance.

Inclined spring struts at the front provide increased resistance to lateral forces and lighter steering, especially when parking. The wide track and long wheelbase allow high cornering speeds with ample safety margins.

Spring struts attached to the rear trailing arms combine the functions of springing and damping. An additional support slung from the differential housing increases the self-steering characteristics of the rear axle when cornering.

Careful tuning of springing and shock-absorbers has resulted in a new balance between the hard suspension required for sporting performance and the softness needed for comfort.

Thanks to its harder suspension, the BMW 323i

adds to the thrill of sporty driving. In addition to the torsion bar stabilizer at the rear (also fitted on the BMW 320), tilt angle limiters in the front spring struts keep the car extremely stable even at very high cornering speeds, improve roadability to an even higher standard, and guarantee even greater active safety up to the utmost limit in bends.

The steering is light but precise, eliminating the need for constant correction at high speeds which takes such a toll of the driver's nerves, and ensuring rapid, fatigue-free motoring.

The 3 series BMWs can be fitted with power-assisted steering as an optional extra. This is related to engine speed, so that the servo-assistance is diminished at higher revs, and the direct feel of the steering is retained at high speeds.

The braking system of the compact BMW is more than a match for its high performance. The front disc brakes (ventilated on the 323i) have specially thick discs giving improved heat dissipation and resistance to fading.

There are large drum brakes at the rear, except on the BMW 323i where disc brakes take care of the higher performance. The hand brake operates by means of extra drums on the rear axle.

A powerful brake servo reduces pedal pressure and permits a much finer control of braking. The twin-circuit braking system has a pressure-reducing device on the rear axle (not available for BMW 323i), plastic coated brake lines, and a brake-fluid level gauge, as well as sensors for brake lining wear with warning light on the dashboard.

Illustration shows the rear axle of the BMW 323i.

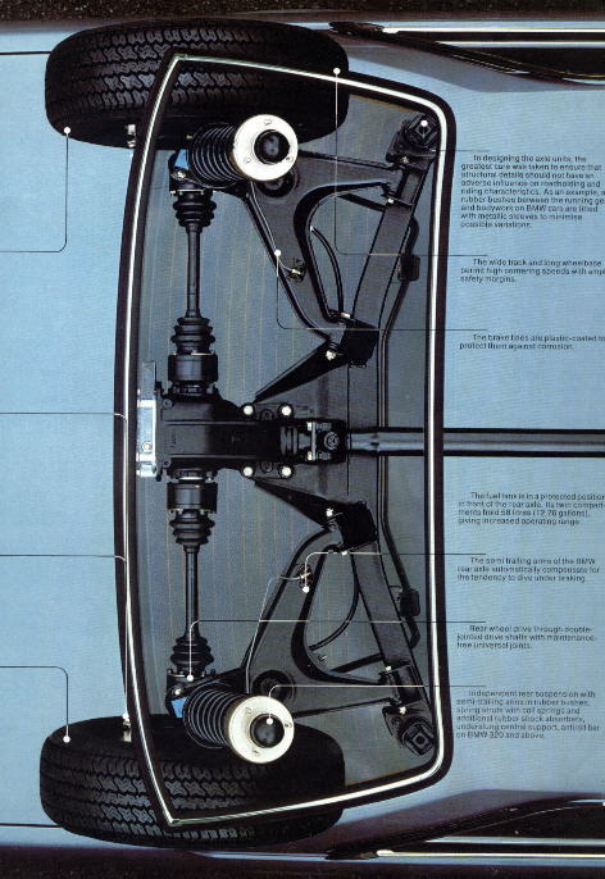
The bodywork is designed to meet the highest safety standards. The main body is rigid on all sides and the passenger compartment and floor pan are welded into a single distortion-free unit. There is no independent movement of the bodywork in relation with the precise geometry and functioning of the suspension.

With the BMW suspension system, each wheel is mounted so as to react independently, and in a predictable and controlled fashion, to every road surface and driving situation. During cornering, or when changing wheels at high speed or skid-steer, the camber angle of the wheel on the outside of the curve changes in accordance with its speed. This means that the suspension can withstand great lateral forces, and offers better support and higher acceleration in these situations.

The twin-circuit braking system and disc geometries of the compact BMWs 320-323 offer 10 times wet-brake response performance and roadholding in every situation. A pressure-limiting valve powers the rear wheels from locking under heavy braking, and avoids the danger of unproportionate wheel-slip. BMW's ring wear is checked by a sensor on the front left disc brake (also on the rear right disc brake with the BMW 323i).

The models in the BMW 3 series have disc brakes at the front and drums at the rear (the BMW 323i has disc brakes on both axles), venting, and avoids the danger of unproportionate wheel-slip. BMW's ring wear is checked by a sensor on the front left disc brake (also on the rear right disc brake with the BMW 323i).

The BMW 316 and 318 have 105 DIN 130 hp and 53 mm, the BMW 320 and 323i have 115 to 130 hp. Gasoline, turbine, optionally available on BMW 316 and 318, 2.5 a 1.5 litre (also) are available as optional extras on all models - with the wheel track only on the BMW 316 and 318.



In designing the axle units, the greatest care was taken to ensure that structural details should not have an adverse influence on rideholding and riding characteristics. As an example, a rubber bushing between the running gear and bodywork on BMW cars are fitted with metallic sleeves to minimize possible vibration.

The wide track and long wheelbase permit high cornering speeds with ample safety margins.

The brake lines are plastic-coated to protect them against corrosion.

The fuel tank is in a protected position at front of the rear axle. Its two compartments hold 28 liters (7.5 gallons), giving increased operating range.

The semi-trailing arms of the BMW rear axle automatically compensate for the tendency to dive under braking.

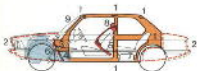
Rear wheel drive through acutely-angled drive shafts with maintenance-free universal joints.

Independent rear suspension with semi-trailing arms in rubber bushes, spring struts with coil springs and shock absorbers, and optional rubber shock absorbers, under-riding control support, optional bar on BMW 325i and above.

**The safety features included in the compact BMW are not cheap. But the benefits obtained are invaluable.**

Safety in the motor car must obey the necessities of practice as well as the possibilities of theory. The safest vehicle in theory would be too large, too heavy – and impractical. As far as traffic is concerned, the most practical vehicle would be too small, too short and – unsafe. BMW offers a forward looking, technologically high-powered and traffic-orientated solution to this problem: the compact BMW range.

This superior degree of safety is not brought about by sheer size and weight, but by carefully thought out, highly stable design. This guarantees highly efficient safety technology without any compromises. The vehicle remains mobile in traffic, with good all-round visibility and extreme flexibility. Its aim is not to impress by sheer weight but by design and styling.



**In BMWs, safety makes sense.**

For the compact BMW models, BMW developed a systematic safety procedure in one of the most modern plants in Europe for the testing and research of vehicle safety equipment, which combines the most advanced knowledge into compact dimensions. The name for the technical safety procedure, which is exceptions for both its cost and its extent, is the BMW Life Conception System.



## The BMW Life Conservation System.

Extremely strong safety cell with specially constructed roof pillars, roof reinforcements above the windscreen and rear windows with integrated roll-over bars, cross struts in the vicinity of the instrument panel, in the form of a hat rack, and behind the rear seat—as well as special, rigid longitudinal struts (1).

Five-link in a projected position in front of the rear axle (7).

The outer door handles are recessed and child-proof locks are fitted (5).

Laminated front windscreen (9).

The vehicle interior is designed to absorb energy and is fitted with non-inflammable upholstery, 3-point automatic seat belts with the belt lock on the seats and height-adjustable head restraints as standard for front seats (8).

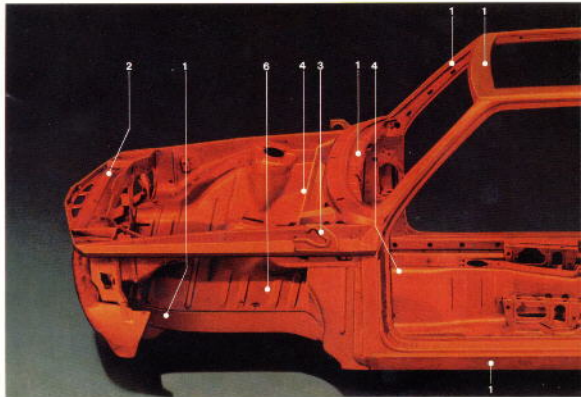
Buckling safety steering column, safety steering wheel, steering mechanism situated well away from the crumple zone (6).

Rigid car seat, tunnel and instrument panel zone (4) help prevent the engine and gearbox from penetrating into the interior of the car in the event of a frontal collision.

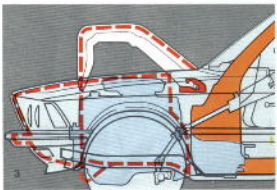
Pre-determined crumpling zone in the bonnet with special safety locking system (3).

Controlled, energy absorbing crumpling effect at the front end, with controlled deformation of the front of the vehicle co-ordinating with the action of the automatic front seat belts (2).

The safety concept of BMW: even the most expensive safety features are worthwhile. They are only paid for with money.



Crash tests to optimize the deformation behavior of the front and rear vehicle ends.



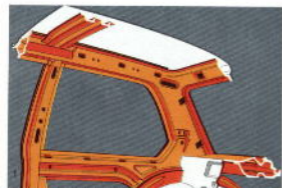
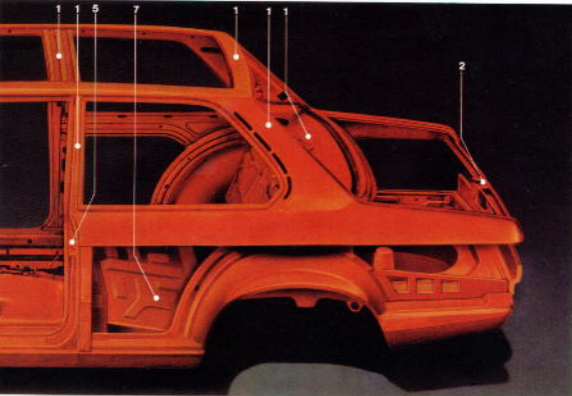
Controlled crushing behavior of the corner, which has no cutbacks and no back cross members of the vehicle.



Systematic search for a standard comparison of the photo-graphable head restraints, achieved by the touch of a button, and three-point automatic safety belts.



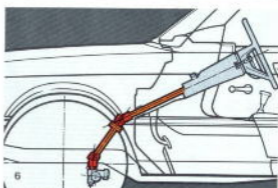
Search for the locking system with safety hooks.



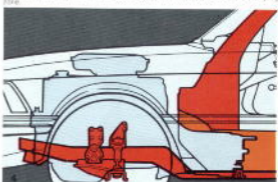
Roof is overhanging as result of integrated roll-over bars and reinforced cross member in the instrument panel, hat strip and B-pillars for the rear seat.



The interior design is based around structural safety features - the instrument panel continue being air-deflectors.



Collapsible steering column and steering system protected outside of the occupant zone.



Specifically constructed carbon tunnel and rigid front face prevents the engine and gearbox from being propelled into the passenger compartment in the event of a frontal collision.





Lateral stability - Keeping the stability of the carly out.



Testing the strength of roof and the over-top - safety structure.



Strength tests on the front panel, the roof, and seat belt anchoring points.



Testing the strength of a side door.



Collision detectors at low speeds on the car's body.



Testing the safety structure in the occupant through a side-impact approaching test zone.

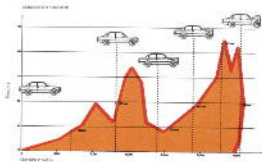


Load-testing the integrated seat belt fixture.



Repeatable impact test on the instrument, energy-absorbing gear, and steering wheel.

**In extreme situations, a BMW does not give up, but gives in. Systematically.**



Curve of the pre-programmed front deformation (shown at BMW 3 (E). Collision speed 50 mph (31 mph). Deformation approx. 0.6 m (2 ft.). Delay up to 45 g. The system-controlled, deformable, energy-absorbing front part of the BMW does not just "brake" continuously. It intervenes, through pre-determined detail zones, the braking process with the aim of providing a

perfect balance with the hold-back system.

At the point when the bodywork deformation of the front part is at its greatest, and therefore when the delaying forces are at their lowest (bottom of the curve), the occupants of the car are held by their seat belts, producing a delay that is acceptable for both the vehicle and its occupants.

In the compact BMW range, the exact relationships between all possible vehicle deformations and the effectiveness of safety measures are tested and improved to the point of perfection in unusual and systematic collision tests. The objective was not just to produce high performance and effective safety and detail constructions, but also to develop a system of exactly interrelated, individual elements, which effectively complement each other in sequence.

The deformable front part, for example, interrupts (through pre-determined detail zones) the delaying process in a frontal collision in such a manner that an ideal balance of function and hold-back system is obtained. The front part was provided with specific buckling points and special crumpling zones in the front wings and wheel housings.

To deal with side-on collisions or overturning, the compact BMW has a specially-designed, exceptionally stable cell with systematically calculated and carefully tested reinforcing.

The roof is fitted with an integrated roll-over bar, and special bearing elements are incorporated above the windscreen and the rear window.

The anti-roll aspect of the safety cell is further reinforced by doors with window frames and unusually resistant roof pillars.

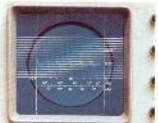
All of these technical achievements have their price. But the price is not the price of the car — it is the price of your safety.

The joy of motoring.  
The driver of the compact BMW two-door model will not only take his pleasure in the

precise mechanics of the design, the careful finish and the efficiency of the most up-to-date interrelated individual components. He will also appreciate the independent superiority that stems from the best possible combination of man and machine, which results in the total mastery of the car's lively mobility on the road.



The high-quality standards of finish... unique attention to detail... and a first-class service network are your guarantee of the compact BMW's worth. Superiority always makes itself known.



This, too, is one of the pleasures of driving. Expertly trained specialists in BMW servicing departments around the entire world are guaranteed that BMW cars are treated and serviced with the same expertise and professional care with which they were designed and built.





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