

# M.G. MGB 1800 1,798 c.c.

HATEVER the diehard enthusiast may say to the contrary, and however hard the traditionalist may cling to a superseded model, there is no doubt that the new M.G. MGB 1800 is a much superior car to its predecessor, the MGA in all its forms. One cannot think of any aspect of this new sports car which does not show appreciable advantage in comparison with the previous model.

In terms of performance, ever important in this class of car, the gains are particularly marked. The standing quarter-mile time is some half a second quicker, at 18-7sec, and acceleration from rest to 90 m.p.h. takes 32-6sec compared with 36-1sec obtained in our last test of the MGA. Throughout the range, all performance figures are progressively faster with the new car.

Both models weigh almost exactly the same, and the improved performance is largely what one would expect to be achieved as a result of the increase in engine capacity from 1,622 to 1,798 c.c. It is significant that the new engine has lost the harshness but none of the low-speed traction of

			PRIC	ES					
2-door sports						£	90		
Purchase tax						£2	259 15s	3d	
		T	otal	(in G	.B.)	£9	49 15s	3d	
Extras (including t	ax)								
Heater							£16 16		
Wire wheels							£34 7		
Folding hood							£5 10		
Full-length tonne	eau co	ver					£II 0		
Anti-roll bar							£2 15		
Ashtray							£1 7		
Luggage grid							£14 15		
Oil cooler							£8 18		
Twin horns							£1 17	s 10d	

its predecessor, while at the upper end of the range the engine has much more freedom to rev. Previously, 6,000 r.p.m. was regarded as a maximum safe limit, but now the engine may be taken up to 6,800 r.p.m. This allows 34, 55 and 91 m.p.h. respectively to be reached in the three indirect ratios, but it also permits an easy 70 m.p.h. in third gear, which is a very useful ratio for fast overtaking and main road cornering. A pink segment marked on the rev. counter from 5,500 r.p.m. changes to red at 6,000, and this should be regarded as a normal safety limit for the owner. Within this range, the engine remains relatively quiet, and runs through no vibration periods. An easy 100 m.p.h. is available with the MGB, and cruising at 5,000 r.p.m. allows 90 m.p.h. to be sustained without evidence of stress. The one-way maximum of 105 m.p.h. is 3 m.p.h. more than with the MGA. For overseas markets an oil cooler is standard, and is an optional extra in the U.K., recommended for those who habitually drive fast. Fitted to the test car, it prevented any reduction in oil pressure from the normal figure of 65 p.s.i. even after sustained high speeds.

Only a moment's use of the choke is necessary for the first start of the day, after which the engine pulls strongly and without hesitation. It seemed that the mixture on the car tested was set fairly rich for highest performance, with the result that the tickover when hot was rather lumpy, with a tendency to stall unless a touch of throttle was used to speed up the idling rate.

The overall fuel consumption of 21.4 m.p.g. is within 1 m.p.g. of the figure (22.3 m.p.g.) obtained with the MGA Mk. II, while all the fuel consumptions measured at constant speeds were more economical with the new car. The overall figure, of course, reflects performance testing, hard driving and considerable high-speed work, but it would be folly to think that anyone will buy the MGB simply to dawdle; and accordingly consumption in the region of 22-24 m.p.g. is to be regarded as normal.

Fuel tank capacity is 10 gallons, and normally less than

Type • MGB 1800 Make · M.G.

Manufacturer: The M.G. Car Co. Ltd., Abingdon-on-Thames, Berks.

#### **Test Conditions**

Test Conditions

Weather ... Mist, brightening later,
with 0-5 m.p.h. wind

Temperature ... 13 deg. C. (56 deg. F.). Barometer
29-9in. Hg. Dry concrete and asphalt surfaces.

#### Weight

Kerb weight (with oil, water and half-full fuel tank) 18-5cwt (2,072lb-972kg)
Front-rear distribution, per cent F, 52-4; R, 47-6
Laden as tested ....... 21-5cwt (2,408lb-1,092kg)

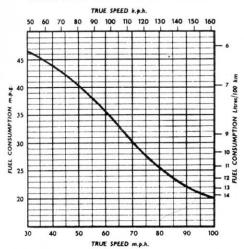
### Turning Circles

Between	kerbs		L,	32ft	0in.;	R,	32ft	10in.
Between	walls		L,	33ft	4in.;	R,	34ft	2in.
Turns of	steeri	ng wheel I	oc	k to	lock .			2.9

#### Performance Data

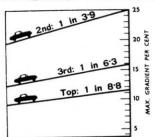
Top gear m.p.h. per 1,000 r.p.m 1	7.9
Mean piston speed at max. power 3,150ft/n	
Engine speed at mean max. speed 5,770 r.p	.m.
B.h.p. per ton laden 8	38.3

#### FUEL AND OIL CONSUMPTION



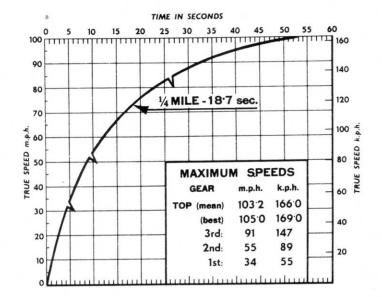
FUEL	Premium Grade (97 octane RM)
Test Distance	
Overall Consumption	1 21·4 m.p.g. (13.3 lit/100 km.)
Normal Range	
OIL: S.A.F. 30 Const	

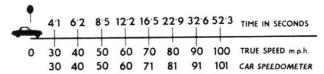
#### HILL CLIMBING AT STEADY SPEEDS



GEAR PULL	<b>Top</b> 255	3rd 350	2nd 550
	I in 8.7	I in 6.3	1 in 3.9
Speed range (m.p.h.)	48-52	42-46	34-38

# MAXIMUM SPEEDS AND ACCELERATION (mean) TIMES



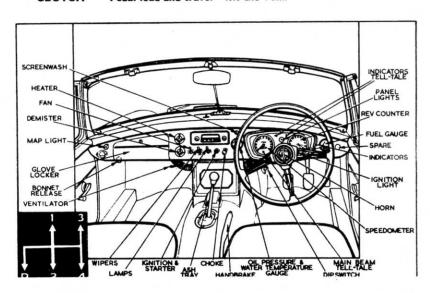


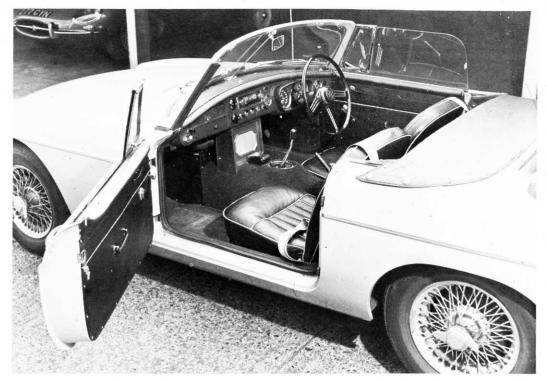
#### Speed range and time in seconds

m.p.h.	Тор	3rd	2nd	İst
10-30		8-1	4-3	3.3
20-40	11.4	6.9	4.4	_
3050	9.7	6-1	4.9	_
4060	8.7	7.0	_	
50-70	10-4	8-1	-	_
60-80	12.0	10.2	_	_
70-90	15.7	18-0	-	_
80-100	29.8	_	_	_

BRAKES	Pedal Load	Retardation	Equiv. distance
(from 30 m.p.h.	25lb	0.20g	152ft
in neutral)	50lb	0.42g	72ft
	75lb	0.75g	40ft
	1001Ь	1.0g	30-2ft
	landbrake	0-40g	75ft

Pedal load and travel-40lb and 4.5in. CLUTCH





A map light on the left of the facia may be turned on when the exterior lamps are in use. The ashtray on the transmission hump is an optional extra. A padded roll above the facia is extended along the top edge of each door

200 miles are covered between refuelling stops, which may be considered only just adequate. For the standard high compression engine fitted to the MGB (8.75 to 1), fuel of at least 98 octane is recommended; but in fact the engine did not pink and only occasionally ran on with the normal premium grades of fuel (97 octane) which were used throughout the test.

Clutch take-up is delightfully smooth, and the pedal operating load is relatively light; the car had no difficulty in restarting on the 1 in 3 test hill.

A higher ratio final drive compensates for the smaller wheels fitted (14in. instead of 15in. as on the MGA), and top gear speed per 1,000 r.p.m. is almost the same at 17.9 m.p.h. (previously 17.7 m.p.h). Bottom gear is slightly lower than before, but a higher second gear ratio would be appreciated, though there is the advantage with the present gearing that the car will start from rest smoothly in second without judder. There is thus no need to engage the unsynchronized bottom gear when on the move in traffic, and when bottom gear is reluctant to engage at rest—which does happen occasionally—there is no difficulty in moving away in the next higher gear. The gear change itself is both precise and rigid, and a joy to use. Synchromesh on the three upper ratios was never beaten, even in the snatched gear changes of performance testing. Reverse is easily engaged if the lever is knocked to the left, instead of attempting to lift and push it against the safety spring.

Rack-and-pinion steering is retained, and by incorporating a universal joint in the steering column a "straight-on" wheel angle has been obtained. Some drivers found that the steering wheel was a little too large and mounted rather high, so that the top of the rim interfered with forward vision, but all were agreed that the steering itself is above criticism. It combines the virtues of lightness at low speeds, and a turning circle of only 32ft between kerbs, with a superb degree of accuracy. No lost movement is present, and hairline steering corrections control the course of the car at speed; cross wind effects are scarcely, if ever, noticed. A popular complaint against rack-and-pinion steering—wheel shock and tremor over rough surfaces—does not apply with the MGB.

A fine compromise between the needs for sports car firmness and the superior comfort to be expected from this much improved car has been achieved in the design of the suspension. Small, firm, vertical movement of the car is felt in most conditions, particularly at speed on an indifferent surface; yet there is remarkably good insulation from the larger irregularities of road surface, and the way in which the car rode over a typical badly neglected secondary road at 70 m.p.h. was outstanding. Again, on very rough going, such as irregular pavé taken at 50 m.p.h. (which is decidedly fast for such conditions), the occupants are aware of the work being done by the suspension, but still are not shaken about. Aeon rubber buffers at the rear absorb the shock of severe spring deflection without trans-



Whether with hood raised or with the optional full length tonneau cover fitted, the car looks impressively neat and well-finished. Both doors may be locked with the key; the passenger door has a locking catch





Apart from the distributor, which is obscured by the pipes to the oil cooler, all components are commendably accessible. The oil cooler, which is optional on home market cars, is visible ahead of the radiator



An inconvenient prop has to be fixed in position to hold the boot lid open. Luggage space is severely restricted by the positioning of the spare wheel

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mitting any severe bottoming to the back of the car over the roughest tracks. This car would certainly be at home for high-speed cruising on fast but ill-surfaced roads of the Continent.

For owners of the MGA, one of the greatest joys of the model has always been the tidy, surefooted and easily controllable handling characteristics; and the new MGB is even better. There is slight understeer until the limit of adhesion is approached, when the rear wheels begin gently to break away. The response to steering correction is immediate, and at speed on twisting country roads the M.G. is most satisfying to handle.

Allied to the responsive nature of the car is its feeling of tautness. There is no scuttle shake, and the whole car feels immensely sturdy and rigid. The same is true with the hood in place, when there is still freedom from rattles.

Lockheed brakes are fitted, with discs at the front. There

is no servo assistance, yet reassuring response is available without need for excessively heavy pedal effort. It is certainly creditable that like the last B.M.C. sports car road tested—the Austin-Healey 3000 Mk. II Convertible—the MGB's brakes returned a deceleration figure of 1g (the theoretical maximum) at 30 m.p.h. with 100lb pedal pressure. Higher pedal pressures resulted in a tendency to wheel lock, and slight slewing towards the left, but without any marked loss of efficiency. On the road they are superb brakes for fast driving with safety.

Just to the left of the driving seat is the handbrake lever, ideally placed for convenient use. It held the car securely

on the 1 in 3 test hill.

It is obvious that a great deal of work has gone into the design of the bad weather equipment for this more refined model. A choice of hoods is available, the standard version being entirely detachable and stowed in the luggage compartment. On the test car, the optional version was fitted, which costs £5 10s extra including tax. When lowered, it lies in the well behind the driving seat, while when raised it makes a thoroughly neat and weatherproof finish to the car. It could not be said that raising and lowering the hood were simply the "work of a moment," as with some true convertibles. On each side there are three press studs, four Lift-the-Dot fasteners, two slides and one over-centre windscreen clip to be operated; and if the driver is alone he is involved in quite a battle, and a succession of trips from one side to the other, to convert the car from the open or closed condition. With practice, times can be reduced.

#### A Valued Extra

A short tonneau cover is provided as standard equipment and there is also available a full-length tonneau cover with detachable rail, which makes a smart finish to the MGB when open. This is virtually essential for the effort saved by not having to erect the hood, in case of rain, every time the car is parked. It is well tailored, covering the lowered side windows, and including zip-up slots for use with safety belts.

More attention is needed to draught-sealing when the hood is raised, at the point where the side window nestles against the hood flap; but in other respects the car is very cosy when closed. The hood seal along the top of the windscreen is first class, and is tightly secured by the two over-centre clips mentioned earlier. With the hood lowered, the cockpit seems to enclose a pocket of fairly still air, and the occupants are not buffeted or exposed to severe draughts. The side windows wind smoothly and easily.

On the test car the efficiency of the optional extra heater was impaired because its fan was not working, and the usual low-temperature thermostat fitted to B.M.C. cars left the coolant too cold to be of much use in the heater. However, air delivery by ram effect above the scuttle is good, and is governed by rotary controls on the facia; and with better temperature maintenance the heater would be amply effective. A small trap door on each side of the heater console allows the supply of hot air to be cut off absolutely in warm weather, and for use when it is very hot there is a cold air vent with two-position control beneath the facia. This had the rare distinction of admitting air which was really cold.

Ahead of the heater console is a large loudspeaker mounting which serves a second duty by assisting in the commendable scuttle rigidity. On the test car the Smiths all-transistor Radiomobile receiver provided good tone quality and a wide range of undistorted volume. Speech from the radio is clearly audible even at 100 m.p.h. with the hood down. This also emphasizes the low level of wind noise.

A windscreen tie rod securing the upper rail is also used as the mounting for the rear mirror, with the useful feature that the mirror can be adjusted to the correct height for maximum rearward vision, to suit the individual driver. Although the screen is shallow and fairly far forward, visibility is good, and the quarter windows are not unduly obstructive. Comfortable and softly padded seats, upholstered in leather, are appreciated, and give good support in the small of the back and right under the thighs, as well as holding the occupant securely in fast cornering. They have ample range of fore-and-aft adjustment to suit all drivers,

and the angle of rake of the squab may also be reset. A sturdy hook at the bottom of each backrest prevents it from tilting forward, but if, as we found, it is preferred to be able to tilt the seats forward to give easy access to the rear trench" for luggage, these may be unbolted and reversed.

For some drivers the pendant pedals are mounted too high, as also is the foot-operated dipswitch. Heel-and-toe operation of brake and accelerator is not practicable; the side of the foot has to be used, which is possible, but awkward.

Instrumentation is excellent, and it is worthy of special note that the speedometer was accurate within 1 m.p.h. right up to maximum speed. Ignition and headlamp main beam warning lights are incorporated in the rev counter and speedometer, and there is variable brightness control for the instrument illumination. The oil pressure gauge and coolant thermometer are in a combined dial to the left of the speedometer. A singularly vague and inaccurate fuel gauge indicated anything between full and empty according to whether the car was accelerating or braking.

Three identical tumbler switches to the left of the ignition-starter keyhole control the heater blower, wipers and lights. As a result of the layout, it is difficult to find the switch for the lights quickly-a specially bad point as a headlamp flasher which such a car certainly should have is not fitted. The wipers work quite vigorously, at one speed, and clear a good area of the windscreen. A direct-

pressure windscreen washer is fitted, and is convenient to use. A finger-tip control beneath the steering wheel operates the winking indicators, which are self-cancelling and have well-placed repeater lights ahead of the driver-valuable advances over the MGA time switch arrangement.

Ample illumination for the top performance to be used at night is provided by the sealed filament headlamps, although these were set too high on the test car. Twin horns, sounded by the steering wheel boss button (with MG octagon), are optional at £1 17s 10d extra.

Considerable improvement has been made in the provision of luggage accommodation, both behind the seats, and in the lockable boot. The spare wheel occupies much of the boot space, but there is still room for a fair amount of well-stowed luggage; a self-fixing stay would be preferable to the prop provided. A different key from that for the ignition and door locks is used for the boot, and for the diminutive facia locker. The passenger door is locked from the inside by turning a catch. Neither door, when locked, can be opened by its interior handle—a wise provision to discourage theft when the car is left with the tonneau cover

There was much desirable optional equipment on the car tested-to a total value of some £83 which would have increased the tax-paid cost of the car to £1,032. But in standard form, this MGB is still an altogether superior car to its predecessor.

## Specification

ENGINE

Cylinders ... Bore ... Stroke ...

... 90-3mm (3-16in.) ... 89-0mm (3-5in.) ... 1,798 c.c. (109-6 cu. in.) ... Overhead, pushrods and rockers Displacement

Valve gear ... Compression ratio Carburettors ...

Overnead, pushrods and rockers 8-8 to 1
Twin S.U. HS4 semi-downdraught S.U. HP electric
Tecalemit full flow 95 b.h.p. (net) at 5,400 r.p.m. 110 lb. ft. at 3,000 r.p.m.

Fuel pump Oil filter ... Max. power

Max. power Max. torque

TRANSMISSION Clutch ... ... DN
... Borg and Beck, 8in. dia. single dry plate, diaphragm spring type
... Four-speed synchromesh on 2nd, 3rd and top, central floor change
... Top 3-91, 3rd 5-37, 2nd 8-66, 1st 14-21, Reverse 18-59
... Hypoid bevel, 3-91 to 1 Gearbox ...

Overall ratios

Final drive

CHASSIS Construction

... Integral with steel body

SUSPENSION

Independent, coil springs and wishbones; Armstrong lever-type dampers forming top link. Liveaxle;semi-elliptic leafsprings; Armstrong lever-type dampers Rack and pinion. Wheel dia., 16-5in. Front Rear

Steering ...

BRAKES Type

Lockheed, hydraulic, disc front, drum rear; no servo F. 10-75 in. dia. discs; R. 10in. dia. drums, 1-75in. wide shoes. F. 203 sq. in; R. 107 sq. in. Total: 310 sq. in (335 sq. in. per ton laden) Dimensions Swept area

WHEELS Type Pressed steel disc, 4 studs; centre-

lock wire wheels extr ... 5:60-14in. Dunlop RSS Tyres

EQUIPMENT

12-volt 58-amp. hr (2  $\times$  6-volt) Lucas sealed-filament 50-40-watt None Battery ... Headlamps

Reversing lamp Electric fuses

2
Single speed, self-parking
Standard, manual plunger
Extra, Smith's fresh air with
electric booster
Extra, anchorages provided
Leather on wearing surfaces
Pvc mats; carpet over transmission tunnel
Standard Screen wipers Screen washer Interior heater

Safety belts ... Interior trim ... Floor covering ...

Starting handle ...

Standard
Side lifting, rotary handle
I below each door

Jack ... Jacking points Other bodies

MAINTENANCE Fuel tank ... Cooling system ... Engine sump

Gearbox ...

Final drive

E
10 Imp. gallons
9-5 pints (plus 0-5 pints in heater)
7-5 pints. Change oil every
3,000 miles; change filter element
every 6,000 miles
4-5 pints SAE30. Change oil
ever 6,000 miles
2-25 pints SAE90. Change oil
every 6,000 miles
8 points every 3,000 miles
8 points every 3,000 miles
7-17; R. 20 p.s.i. (normal driving)
F. 23; R. 26 p.s.i. (fast driving)
F. 20; R. 24 p.s.i. (full load) Grease Tyre pressures

Scale: 0.3in, to Ift.

Cushions uncompressed.

