# SAFETY FAST.

# The M.G. MIDGET

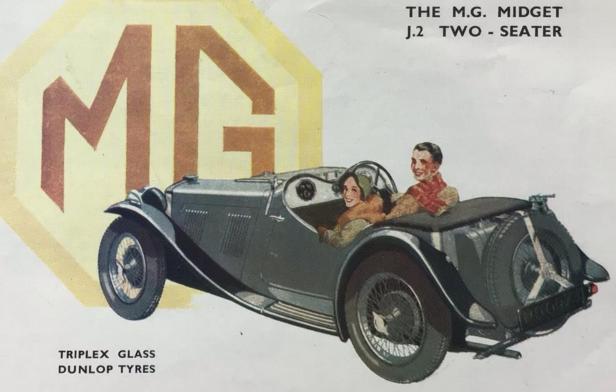
FIRST 750 c.c. CAR TO EXCEED 100 m.p.h.

FIRST 750 c.c. CAR TO COVER OVER 100 MILES IN ONE HOUR

HOLDER OF ALL THE EXISTING INTER-NATIONAL CLASS "H" RECORDS AT 18th SEPTEMBER, 1933

FIRST 750 c.c. CAR TO EXCEED TWO MILES A MINUTE

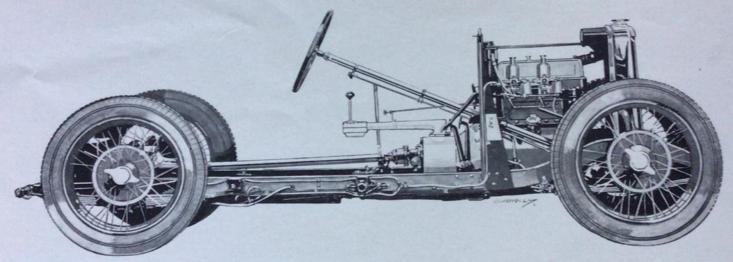
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THE CAR WITH THE RACING PEDIGREE

# CHASSIS SPECIFICATION

The M.G. MIDGET Chassis 'J' Type . .



The chassis price includes full dashboard equipment, head, side and tail-lamps, horn and dipper switch, dumb-iron apron, undershield, starting handle, one spare plug and holder, spare wheel complete, petrol pipes and full tool equipment.

#### CHASSIS DATA

Number of cylinders 4	Wheelbase	86 in.	Overall length, 2-Str 124 in.
Bore and stroke 57×83 mm.  Cylinder capacity 847 c.c.	Track	42 in.	Overall width, 2-Str 51½ in.  Overall height, 2-Str 52½ in.
Treasury rating 8.05 h.p.	Weight (chassis)	9¾ cwt.	Weight (laden), 2-Str 11½ cwt.

#### SPECIFICATION

Engine. 847 c.c. high-compression fourcylinder unit with chromidium cast iron cylinders cast en bloc with the upper half of the crank chamber. The crankshaft is supported by a ball race at the front end and a large diameter sleeve-type white metal bearing at the rear. The overhead valves are operated through overhead camshaft and vertical drive with dynamo interposed and spiral bevel gears top and bottom. Incidentally, this method of drive is capable of operating smoothly and efficiently at very high speeds, and for this reason alone was chosen in preference to chain drive when the engine was designed. The valves are operated by overhead camshaft. The inlet ports are on the off-side, and the exhaust with four separate ports on the near-side. A feature of this design is the absolute straight-through passage for the gases. A special water manifold is also fitted, having three connections to the water jacket on the off-side of the head. The connecting rods are hightensile steel, and the pistons aluminium with three rings. 14 mm. sparking plugs are used instead of the more usual 18 mm. pattern. The ribbed elektron sump holds approximately one gallon of oil, and the special shape of this sump provides the maximum cooling area to the oil and thus enables a low temperature to be maintained. Again, the result of our racing experience. The engine lubrication is pressure throughout by geared pump.

#### DE LUXE EQUIPMENT

Clock (8-day) ... ... ...

Bluemel "Malcolm Campbell" steering wheel ... ...

Stoneguards on headlamps ...

Radiator thermometer (dash type) ...

Bonnet strap ... ...

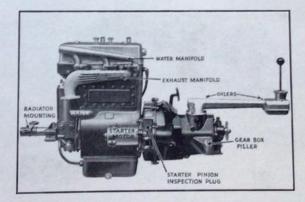
Snap lever type quick filler cap :—
Radiator ... ...

Petrol tank ... ...

Stop and tail-lamp ... ...

D.W.S. four-wheel jacking system

The complete de luxe equipment, including fitting if supplied when the car is ordered, is available at an inclusive figure. Individual items may be ordered with the car.



The near-side of the M.G. Midget engine and gearbox. Note the radiator mounting bracket and the gear change carried on the gearbox top extension.

Carburetters and Petrol. Two S.U. piston-type semi-downdraught carburetters are fitted, with hand mixture and throttle controls mounted on the gearbox extension. Fuel is carried at the rear. The petrol tank has a capacity of twelve gallons, three gallons of which form the reserve supply controlled by a two-way tap mounted on the tank top in a convenient position. Feed to the carburetters is by S.U. electric pump.



Cooling is by thermo syphon, the radiator being of the film type with chromium plated brass shell and stoneguard of exclusive M.G. design. The radiator is centrally mounted in such a way that relative movement with the chassis frame and consequent flexing of the shell is eliminated. A special water manifold with three connections to the cylinder head adds greatly to the cooling efficiency.



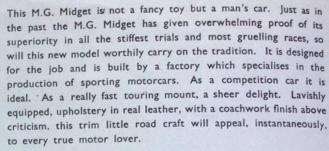
Silencing Arrangements. A very effective degree of silence has been attained by use of a Burgess "straight through" silencer. The exhaust gases are entirely unrestricted in their passage from the engine; at the same time the silencer is remarkably effective, in that noise is reduced to a minimum and back pressure is non-existent.

(Specification continued on page 6.)



## THE M.G. MIDGET SPORTS TWO-SEATER

De luxe equipment extra)





Underslung racing type chassis.

New type wings.

Overhead valves and camshaft.

Twin semi-downdraught carburetters.

Four-speed twin-top gearbox.

Marles Weller steering gear.

Racing type Rudge-Whitworth wheels.

Triplex safety glass.

Dunlop tyres.





The M.G. Midget driven by Norman Black winning the 750 c.c. Class B.R.D.C. Empire Trophy Race, 1932.



The M.G. Midget driven by The Earl of March and Flt.-Lt. C. S. Staniland winning the J.C.C. Double-Twelve Hour Race, 1931.



Norman Black winning the Ulster T.T., 1931, in an M.G. Midget.

#### Its Achievements

Probably no British sports car small or large can lay claim to such a number of successes as the M.G. Midget, which held all the existing International Class "H" records at 18th September, 1933, ranging from the standing kilometre to the 24-hour record, besides which it has the distinction of being the first car of 750 c.c. to exceed 100 m.p.h., to reach the speed of two miles a minute and to cover one hundred miles in the hour.

In addition to its record-breaking achievements the M.G. Midget has to its credit the winning of a number of road and track races, and numerous successes in competitions and sporting trials.

With the exception of the record-breaking M.G. Magic Midget, which has a special chassis, though standard engine, steering and brakes, all M.G. successes have been obtained with standard cars exactly similar to the ones you can buy.

#### Winners of :-

- 1931 J.C.C. Double-Twelve Hour Race. The International Irish Grand Prix. The R.A.C. Ulster Tourist's Trophy.
- 1932 B.R.D.C. 500 Miles' Race at 96.29 m.p.h.
  750 c.c. Sports and Racing Classes at Shelsley Walsh Hill Climb.
- 1933 1000 c.c. Class Le Mans 24-Hour Race.
  750 c.c. Class Avus Track Races (Berlin).
  750 c.c. Class Eifelrennen (Nurburg Ring).
  B.R.D.C. India Trophy Race.

#### Holders of :-

The Brooklands Outer Circuit Lap Record, 115.29 m.p.h. The Brooklands Mountain Course Lap Record, 69.28 m.p.h.

#### Specification (contd.)

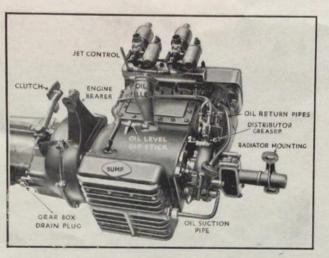
Gearbox. Four-speed, of the twin-top type, with helical gears for constant mesh and third speed. The gear change is central, and a short change speed lever is mounted close to hand on an extension of the gearbox top. The gear ratios have been carefully selected, so that the cars are suitable for all competition and general purposes. Bottom gear is of the low emergency order, whilst second is a convenient step up for a quick get-away. Third and top are of the close ratio variety, selected for high-speed performance.

			Gea	rbo.	x	Overal	I Ratios	
Тор			- 1	to	1	5.37	to I	
Third			1.36	to	1	7.32	to I	
Second			2.14	to	1	11.5	to I	
First			3.58	to	1	19.2	to I	
Reverse	·		3.58	to	1	19.2	to I	
Rear ax	de	ratio				5.37	to I	

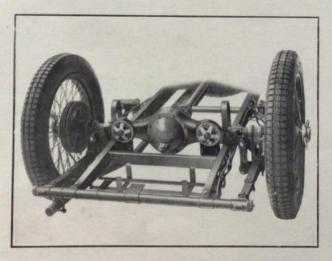


Transmission. A single-plate dry clutch is used in conjunction with the four-speed gearbox. The propeller shaft is Hardy Spicer with metal universal joints at either end. The back axle is of the straightforward three-quarter floating pattern, with spiral bevel final drive, having a ratio of 5.37 to 1.





The M.G. Midget engine viewed from below, showing in particular the elektron sump with its large cooling area. The twin S.U. carburetters and the 14 mm. sparking plugs can also be seen.



The rear part of the chassis, showing how the side members are carried below the rear axle, and the method in which the shock absorbers are mounted in transverse fashion.

Chassis. Of special underslung design, built up with tubular cross members, being extremely rigid and devoid of whip. The side members are carried under the rear axle, and the front ends upswept over the front axle. This chassis design is very largely responsible for the extraordinary road-holding capabilities of this particular car, and round corners it is probably faster than anything else on four wheels. The loading line of the chassis is only II in. from the ground. The chassis is lubricated by Tecalemit grease gun, the nipples serving inaccessible points, being grouped on the back of the dash wall.



Springs. Long semi-elliptic springs, flat under load, underslung both fore and aft, swivel at the front ends, and are mounted in phosphor-bronze slides at the rear ends, there being a maximum of resistance to any transverse movement or oscillation. Springing is damped by Hartford shock absorbers, and those at the rear are mounted in transverse fashion.



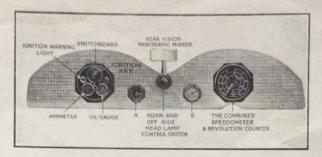
Steering. Marles-Weller steering with transverse operation to M.G. specification is incorporated, being extremely light and positive. The steering column is adjustable for rake, and a spring-spoked steering wheel is standard.

#### Specification (contd.)

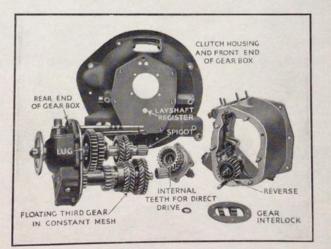
Brakes. The four-wheel brakes, with 8 in, drums and shrunk-on aluminium cooling ribs, are operated by the foot pedal and the hand brake lever, which are inter-connected, through Bowden cables in such a way that axle movements are not communicated to the brake pedal even on the roughest roads. The hand brake lever is of the racing type, with a press-down ratchet which only locks it when required, so that the hand brake can be used continuously, if desired, without any interference from the ratchet. Quick single-point adjustments are provided for both foot and hand brakes. besides individual adjustment for all four wheels. Provision is made for greasing the cables from the centralised oiling points.



Wheels. Detachable Rudge-Whitworth wire wheels of racing pattern with splined hubs and knock-off caps are standard. The 19 in. by  $3\frac{1}{2}$  in. rims are fitted with Dunlop 19 in. by 4.00 in. tyres. A spare wheel is supplied, carried at the rear in a special bracket with quick detachable fasteners.



The layout of the M.G. Midget facia board. The panel on the left contains the switch for the head, side and tail-lamps, and the key switch controlling the ignition, also the ignition warning lamp, the ammeter and engine oil pressure indicator. In the centre of the board is the horn button and dipper switch. On the right of the panel is the combined speedometer and revolution counter; the outer scale is graduated in miles per hour, and the two inner scales show the engine revolutions on top and third gears. This instrument also carries a mileage and trip indicator. The items A and B are fitted only when de Luxe equipment is called for. The starter switch is foot operated and is mounted on the back of the dash wall.



The four-speed gearbox showing the internal mechanism, and the double helical pinions for the third and constant mesh gears.

Electrical. Ignition is by 12-volt Rotax coil, battery and fully automatic distributor so designed to have the correct amount of advance at all speeds. Separate starter motor of normal type, with Bendix pinion drive, and dynamo which forms part of the vertical camshaft drive. A two-arm electric windscreen wiper is standard.



Instruments. 5 in. speedometer and revolution counter, calibrated oil gauge, ammeter, head, side and tail-lamp and dynamo switch. The ignition switch is key operated, and a warning lamp is fitted on the electrical panel.



Chassis Extras. When ordering chassis the following items may be obtained at an extra charge.

Petrol tank (12 gallons) (unpainted) with filler cap ...

Set of four wings and running-boards (unpainted) ... ...

Bonnet (unpainted and without fittings) ... ... ...

Spare wheel carrier (unpainted)

De Luxe equipment may also be ordered with chassis if desired, at extra charge.







Finishes. The bodywork of the M.G. Midget is available in a variety of pleasing shades, and the real leather upholstery can be had also in a number of colours. Details of these colour finishes are given in the table on this page.

Deviation from the standard exterior finishes entails an additional charge. Deviation from any one of the three standard leathers also entails an additional charge.

Owing to the wide range of duotone colour finishes it is possible that delivery on these cars may be a little longer than in the case where Black is called for.

The right is reserved to vary this specification without notice.

October, 1933

#### Manufacturers:

## The M.G. Car Company Ltd.

Governing Director:
Sir Wm. R. Morris, Bt. Abingdon-on-Thames Cecil Kimber, M.I.A.E.

Sole Exporters:

### Morris Industries Exports Ltd.

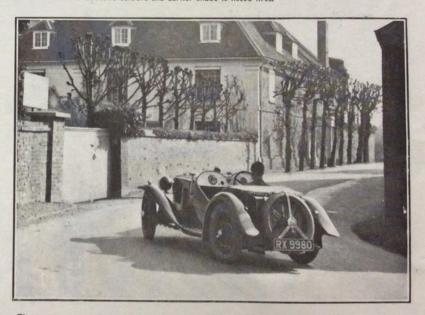
Governing Director: Sir Wm. R. Morris, Bt. Cowley, Oxford, England Managing Director: S. G. K. Smallbone

Telegrams and Cables: Morex, Oxford

#### EXTERIOR AND INTERIOR COLOUR FINISHES

Exterior	Body	Wings	Wheels	Upholstery	Hood
Black/Green	Black	Black	Dublin Green	Apple Green	Black
Black/Blue	Black	Black	Cambridge Blue	Cerulean Blue	Black
Black/Red	Black	Black	Saratoga Red	Deep Red	Black
* Ulster Green Dublin Green	Dublin Green	Ulster Green	Dublin Green	Apple Green	Green
Oxford Blue Cambridge Blue	Cambridge Blue	Oxford Blue	Cambridge Blue	Cerulean Blue	Blue
Carmine Red Saratoga Red	Saratoga Red	Carmine Red	Saratoga Red	Deep Red	Red

\* In the case of duotone colours the darker shade is listed first.



Three-quarter rear view of the M.G. Midget. Note the pleasing sweep of the new type wings, the large rear petrol tank, and the spare wheel mounting.

