

AUSTIN
Mini-Cooper
AND MINI-COOPER 'S'
MkII
MkII

Take home the world's biggest rally success-and tame it!





**ACTION!
ACTION!
ACTION!**

These are Mini-Coopers—in action. They've seen plenty of action and have an impressive reputation for safety and reliability. They've seen plenty of action, too—like winning the Monte Carlo Rally for three years in a row. Three Reasons for the Mini-Cooper's rally and track success: front-wheel drive for sure, firm stability and comfort; front-wheel drive for sure, firm stopping-power; and the kind of acceleration that puts you in the lead behind you.

It's not only in competition that these qualities matter. The Mini-Cooper 'S' is an eminently practical proposition for the

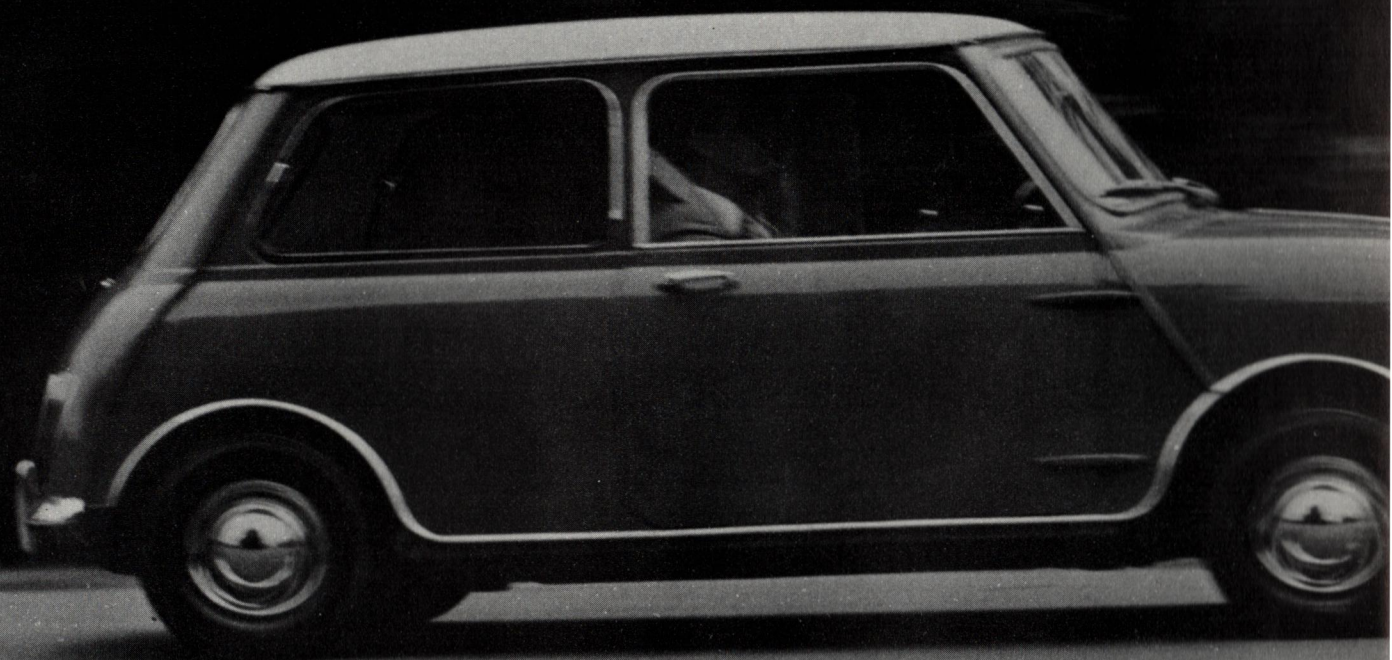


over the last few years—and built up an
notched up a formidable list of honours on the way
(over) years in succession, for instance.

are obvious: Hydrolastic suspension for
ride-holding; disc brakes for really emphatic
overtaking problems where they should be—

is a car either. They make a Mini-Cooper or
assure motorist as well.

 **Mini-Cooper** Mk II



SPECIFICATION

ENGINE: In-line, four-cylinder, water-cooled, overhead valve with three-main-bearing counterbalanced crankshaft. In unit with clutch, gearbox, and final drive. Installed transversely at front of car.

998-c.c. Cooper Standard: Bore 2.543 in. (64.58 mm.); stroke 3.00 in. (76.20 mm.); cubic capacity 60.96 cu. in. (998 c.c.); compression ratio 9 : 1 ; maximum b.h.p. 55 at 5,800 r.p.m. Torque 57 lb. ft. at 3,000 r.p.m.

1275-c.c. Cooper 'S': Bore 2.78 in. (70.61 mm.); stroke 3.2 in. (81.28 mm.); cubic capacity 77.9 cu. in. (1275 c.c.); compression ratio 9.75 : 1 ; standard b.h.p. 76 at 6,000 r.p.m. (78 gross). Maximum torque 79 lb. ft. at 3,000 r.p.m.

GEARBOX: All synchromesh (1275-c.c. only), four-speed; in unit with engine and final drive; remote-control, central-floor gear-change lever. Final drive to front wheels via helical gears, universal joints, and open shafts; drive casing in unit with engine and gearbox.

Final drive: Cooper Standard: 3.765 : 1 (17/64)
Cooper 'S': 3.44 : 1 (18/62)

Gear Ratios	3.765 : 1 (17/64) final drive		3.44 : 1 (18/62) final drive		
	Standard gearbox	Overall	Road speeds at 1,000 r.p.m.	Overall	Road speeds at 1,000 r.p.m.
Reverse	3.20 : 1	12.05 : 1	—	11.022 : 1	—
First	3.20 : 1	12.05 : 1	4.59 m.p.h.	11.022 : 1	5.02 m.p.h.
Second	1.92 : 1	7.21 : 1	7.67 m.p.h.	6.599 : 1	8.39 m.p.h.
Third	1.36 : 1	5.11 : 1	10.83 m.p.h.	4.674 : 1	11.84 m.p.h.
Fourth	1.00 : 1	3.765 : 1	14.70 m.p.h.	3.444 : 1	16.07 m.p.h.

FUEL SYSTEM: Two S.U. carburettors, type HS2, with combined air cleaner and silencer with two paper elements and hot-air intake tube. S.U. electric fuel pump, mounted under tank at rear. Fuel tank capacity 5½ gallons (25 litres). *Cooper 'S'* has additional 5½ gallon (25 litre) fuel tank. Fuel filters in pump and fuel tank.

LUBRICATION SYSTEM: Full pressure to engine bearings; sump forms oil bath for gearbox and final drive; eccentric lobe-type pump driven by camshaft; oil cooler (*Cooper 'S' only*); full-flow oil filter with renewable element, gauze strainer in sump; magnetic sump drain plug. Oil capacity, including transmission, 8 pints (4.5 litres) approximately, plus 1 pint (0.57 litre) for filter.

IGNITION SYSTEM: 12-volt; coil and distributor with automatic control (and vacuum control on standard Mini-Cooper).

COOLING SYSTEM: Pressurized radiator with pump, fan, and thermostat; capacity approximately 5½ pints (3 litres), plus 1 pint (0.57 litre) for heater when fitted.

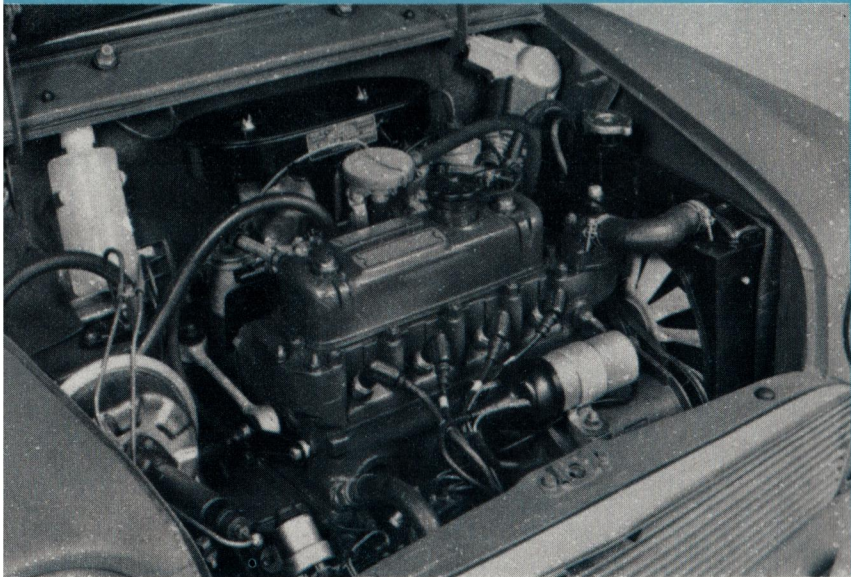
The Minis with the most

The first thing that strikes anybody when they first get into a Mini-Cooper or Cooper 'S' is the fantastic amount of space and leg room available. You don't have to look far to find the reason for it either—just lift the bonnet! The engine lies *east-west* across the chassis and consequently there's a big saving of valuable space. This revolutionary transverse engine is a characteristic of all the Minis—and like all strokes of genius you wonder why no one thought of it before!

Vital to any sports or competition car is a braking system to match performance. The power to stop

quickly is inherent in the Mini-Cooper and Cooper 'S'. Both have the sure safety of fast large-diameter disc brakes on the front and drum brakes on the rear wheels.

The Mini-Cooper and Cooper 'S' also incorporate the most advanced fluid suspension system in the world—Hydroelastic suspension. This means, in effect, that there's a cushion of fluid between the road and the car. Interconnected front and rear suspension units, using sealed-for-life fluid as a damper, automatically compensate for uneven conditions between front and rear wheels. Apart from



Although basically similar in appearance, the power units of the standard Mini-Cooper and the 'S'-type saloon differ considerably in construction. The power unit of the Mini-Cooper is a twin-carburettor development of the BMC A engine which was so successfully utilized as a transverse 'power plant' in the normal Mini range. For the 'S'-type saloon, however, a completely new power unit has been developed with the help of experience gained in racing powered cars in Formula Junior competition events. Because of the increased diameter the cylinder centres have been re-spaced in the crankcase, the face of the cylinder block has been slightly raised in order to accommodate a piston of adequate length. To withstand the greater stresses resulting from increased power output the engine is fitted with a massive crankshaft.

The spacious interiors of the Mk. II Mini-Coopers have attractive and comfortably styled seating.

BMC MINI-COOPER

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a far more comfortable ride. Hydrolastic suspension means you can use the terrific potential of Mini-Cooper and Cooper 'S' performance to even greater effect. In the new Mk. II versions the rear window has been widened, the parcel shelf rail has been given extra padding and the control switch panel moved nearer the driver. The floor dip switch has been deleted and a new multi-purpose switch on the steering-column controls the self-cancelling direction indicator, headlamp flasher, dip switch, and horn. The seating and rear lights have also been re-styled.



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diameter main bearings, together with special connecting rods and enlarged gudgeon pins. Larger ports in the cylinder head improve gas-flow characteristics and enable bigger valves of Nimonic 80 steel to be fitted. Valve guides are also different, being of copper-nickel construction, and the design of the valve gear generally is such that valve-crash does not occur until approximately 7,000 r.p.m. ! The power curve of the 'S'-type power unit is of a completely different character to the standard Mini-Cooper, and therefore a different distributor, without vacuum control, is fitted together with sparking plugs designed for continued high-speed running. In the gear train of the 1275-c.c. Mini-Cooper 'S' power unit, helical-toothed gears of immense strength are used to take advantage of the full power this amazing engine develops.

TRANSMISSION: $7\frac{1}{8}$ in. (182 mm.) diameter diaphragm-spring clutch designed to withstand high-speed running; hydraulic operation by pendent pedal.

STEERING: *Cooper 'S':* Rack and pinion; $2\frac{1}{2}$ turns lock-to-lock; two-spoke $15\frac{3}{4}$ in. (0.40 m.) diameter steering-wheel; turning circle 28 ft. (8.53 m.). Track (with $3\frac{1}{2}$ -in. rim wheels): front 3 ft. $11\frac{1}{2}$ in. (1.21 m.); rear 3 ft. $10\frac{5}{8}$ in. (1.18 m.). Track (with $4\frac{1}{2}$ -in. rim wheels): front 4 ft. $0\frac{1}{2}$ in. (1.24 m.); rear 3 ft. $11\frac{5}{8}$ in. (1.21 m.). *Cooper Standard* as above, track: front 3 ft. $11\frac{1}{2}$ in. (1.21 m.); rear 3 ft. $10\frac{7}{8}$ in. (1.19 m.).

BRAKES: Foot—four-wheel hydraulic, operated by pendent pedal. Pressure-limiting valve installed in system. *Cooper Standard:* 7-in. diameter discs at front and 7-in. by $1\frac{1}{4}$ -in. drums at rear. *Cooper 'S':* $7\frac{1}{2}$ -in. diameter discs at front and 7-in. by $1\frac{1}{4}$ -in. drums at rear, supplemented by $5\frac{1}{2}$ -in. diaphragm servo. Hand brake—central pull-up lever which operates on rear wheels.

COACHWORK: Four-seater, four-light, two-door saloon of all-steel unitary construction. Bonnet top hinged at rear edge and supported in open position by pivoted rod. Bonnet lock and safety catch incorporated behind radiator grille. Curved, toughened-glass windscreen with twin-jet windscreen washer. The doors are hinged at their forward edges by outside hinges. Each door has a large inside pocket and is fitted with two independently adjustable sliding windows. Exterior handle on driver's door has private lock, passenger's door locked from inside by trip catch. The doors are opened from inside by chromium-plated, lever-type handles. Hinged rear side-windows. Wide, curved rear window. Rear luggage compartment contains spare wheel and tyre and has drop-down, luggage-carrying lid with hinged number-plate and locking handle; capacity with lid closed $5\frac{1}{2}$ cu. ft. (0.154 m.³). Bright plastic external finishers fitted to windscreen and rear window. Door window frames and lower panel sills have bright metal finishers. Wheel trims, rear number-plate lamp, fuel filler cap, also front/rear bumpers with over-riders. Entire interior trim in washable vinyl-coated fabric; windscreen bottom rail and side cappings trimmed black to eliminate windscreen reflections. Ashtray incorporated in fascia. Large, oval instrument panel, trimmed black, contains speedometer with oil pressure and water temperature gauges. Full-width parcel shelf beneath fascia containing central switch panel. Interior anti-glare mirror and dual sun visors. Adjustable front seats. Front and rear seat cushions upholstered with polyether; squabs upholstered with rubberized hair. Built-in anchorage points, to which your Distributor or Dealer can fit BMC approved accessory seat belts. Companion box on each side of rear

MK II & MINI-COOPER 'S' MK II

seat includes ashtray. Interior lamp fitted in roof. Parcel shelf behind rear seat and supplementary luggage space beneath. Kicking protectors fitted to doors and door sills. Entire floor, including plywood spare wheel cover in luggage compartment, covered in Veltone floor covering with underfelts. Fresh-air heater/demister fitted.

ELECTRICAL: 12-volt, 43 amp.-hr. capacity battery at 20-hr. rate located under floor of boot. Double-dipping headlamps, sidelamps in headlamps with separate bulbs; rear lamps, stop lamps, reflectors, and flashers are all combined in single units; rear number-plate lamp; roof lamp with integral switch; separate front amber flashers. Single lever on steering-column controls horn, headlamp flasher, dip switch, and self-cancelling direction flashers. Twin-blade self-parking windscreen wipers. Single Windtone horn. Concealed instrument illumination when sidelights are on.

INSTRUMENTS: M.p.h. or Km.p.h. speedometer, with fuel gauge and warning lights to show dynamo not charging, headlamp high-beam position, direction indicator and dirty oil filter. Separate gauges for oil pressure and water temperature. The various switches, including combined ignition/starter switch, are mounted on a panel in the centre of the parcel shelf.

ROAD WHEELS: Pressed-steel, four-stud fixing, 145—10 Dunlop SP41 tyres. *Cooper Standard:* 3½-in. rims, with tubeless tyres, wheel trims fitted; *Cooper 'S':* ventilated wheels with 3½-in. or 4½-in. rims, and tubed tyres.

SUSPENSION: Front: independent suspension with Hydrolastic displacers (interconnecting front to rear). Rear: independent; trailing arms. Hydrolastic displacers incorporating auxiliary springs.

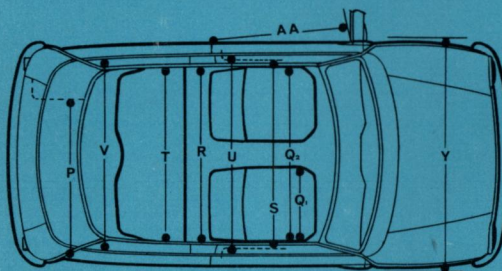
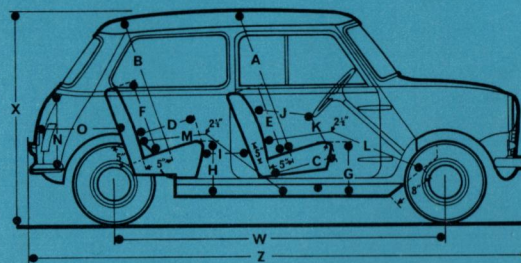
OPTIONAL EQUIPMENT: Reclining front seats. Electrically heated rear window. *Cooper 'S' only:* sump guard.

EXPORT AVAILABILITY: For the specific Export requirements encountered throughout the world numerous production variations are available. The following items can therefore be alternatively supplied at no extra cost: right- or left-hand steering; headlamp and flasher equipment to suit any overseas territory. Optional equipment at extra cost includes: fresh-air heater; radio; laminated windscreen; locking fuel filler cap; electrically heated rear window.

COLOURS: A wide range of colours and trim is available. Current colour combinations can be obtained from your Distributor or Dealer.

The issue of this publication does not constitute an offer, and the right is reserved to alter specifications at any time without notice. Sales are made subject to and with the benefit of the standard Conditions of Sale and Warranty given by the Distributor or Dealer by agreement with The British Motor Corporation Limited.

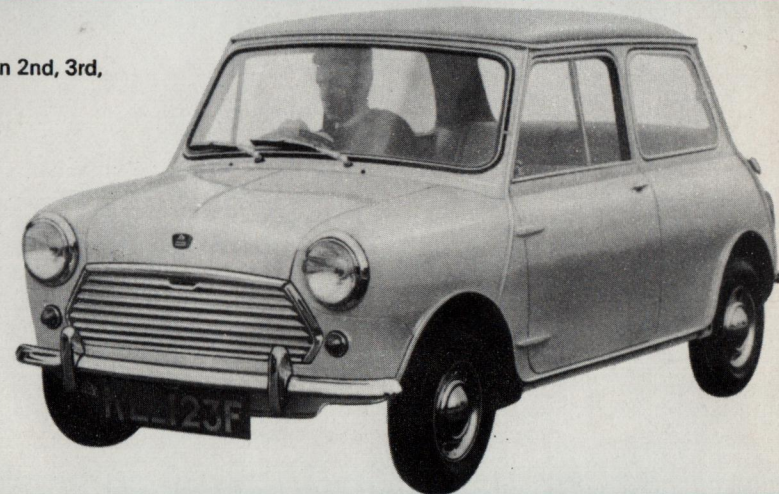
Dimensions



	English	Metric
Front seat cushion to roof ..	A 2 ft. 11 in.	0.89 m.
Rear seat cushion to roof ..	B 2 ft. 11 in.	0.89 m.
Front cushion depth ..	C 1 ft. 6 in.	0.46 m.
Rear cushion depth ..	D 1 ft. 5 in.	0.43 m.
Front squab height ..	E 1 ft. 7 in.	0.48 m.
Rear squab height ..	F 1 ft. 8 in.	0.51 m.
Height of front cushion ..	G 1 ft. 1½ in.	0.34 m.
Height of rear cushion ..	H 1 ft. 1 in.	0.33 m.
Back of front squab to front of rear cushion ..	I max. 11½ in.	0.29 m.
	min. 7½ in.	0.19 m.
Steering-wheel to front squab ..	J max. 1 ft. 4½ in.	0.42 m.
	min. 1 ft. 0½ in.	0.32 m.
Steering-wheel to cushion ..	K 6½ in.	0.17 m.
Leg room—front ..	L max. 3 ft. 7½ in.	1.10 m.
	min. 3 ft. 5 in.	1.04 m.
Leg room—rear ..	M max. 3 ft. 8½ in.	1.13 m.
	min. 3 ft. 2½ in.	0.98 m.
Luggage boot height ..	N max. 1 ft. 4 in.	0.41 m.
Luggage boot depth ..	O max. 1 ft. 7½ in.	0.49 m.
Luggage boot width ..	P max. 3 ft. 2 in.	0.97 m.
Width of front bucket seat ..	Q1 1 ft. 8 in.	0.51 m.
Overall width of front seats ..	Q2 3 ft. 7½ in.	1.10 m.
Width of rear cushion ..	R 3 ft. 5 in.	1.04 m.
Max. front seat width at cushion level ..	S 3 ft. 9½ in.	1.16 m.
Max. rear seating width at cushion level ..	T 3 ft. 5 in.	1.04 m.
Width over front seat at shoulder height ..	U 3 ft. 10 in.	1.17 m.
Width over rear seat at shoulder height ..	V 3 ft. 8½ in.	1.13 m.
Wheelbase ..	W 6 ft. 8 in.	2.03 m.
Overall height ..	X 4 ft. 5 in.	1.35 m.
Overall width ..	Y 4 ft. 7½ in.	1.41 m.
Overall length ..	Z 10 ft. 0½ in.	3.05 m.
Door entry width ..	AA 2 ft. 8 in.	0.81 m.
Kerbside weight (approx.) ..	11½ cwt.	584 kg.
Ground clearance ..	6½ in.	15.73 cm.

ERRATUM

GEARBOX: Four-speed, synchromesh on 2nd, 3rd, and top.



THE BRITISH MOTOR CORPORATION LIMITED
BIRMINGHAM, ENGLAND