

PIERRE PARANT AUTOMOBILE LTÉE  
ST-ANTOINE DE LAURENTIDES, P.Q.

# AUSTIN mini-cooper

998 cc and 'S' type [REDACTED] 1275 cc

now with hydrolastic suspension

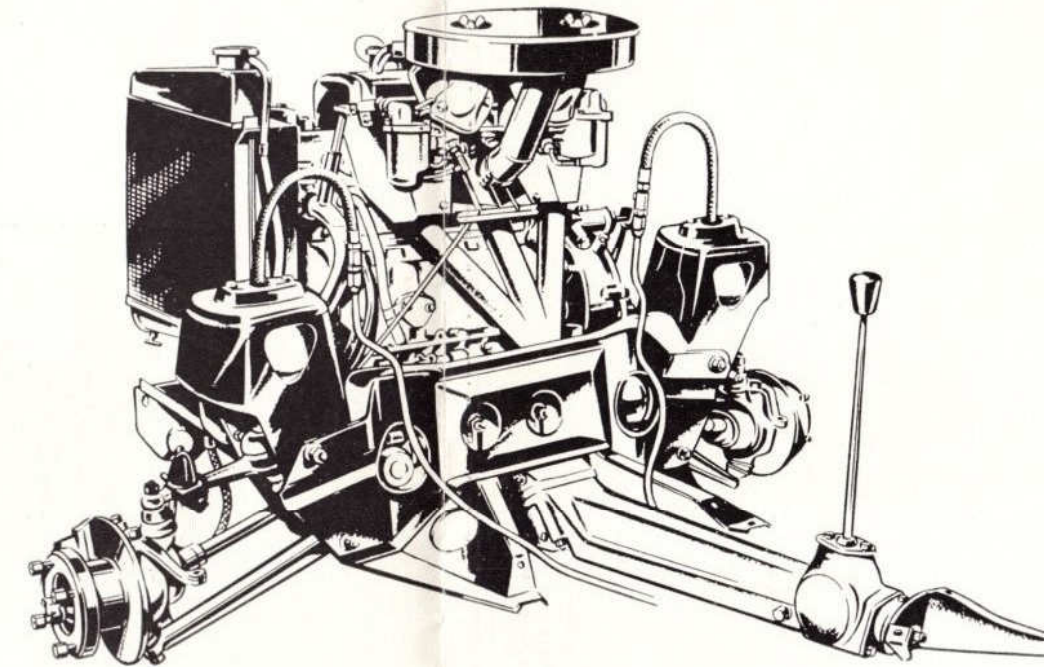


# \* MORE CONTROLLED CORNERING \* FIRMER ROADHOLDING \* AND AN EVEN SMOOTHER RIDE

for the brilliant Mini-Coopers

Winners of the formidable Monte Carlo Rally for two years in succession, now the brilliant Mini-Coopers go one better! Give the real enthusiasts—the competition and rally drivers—something to rave about: Hydrolastic suspension. Hydrolastic suspension, the most advanced system of fluid suspension in the world, gives even greater stability, control, and comfort to the

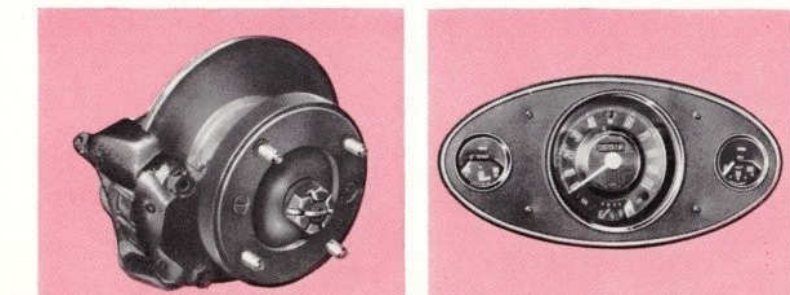
dynamic little Minis. All the superb handling qualities of the Mini are retained, but with even better road adhesion and firmness of ride. Corner fast—the Hydrolastic Mini holds steady and level, and as a result you can use the terrific potential of Mini performance with even greater effect. Hydrolastic suspension gives the Mini-Cooper and Cooper 'S' a keener edge than ever in competition driving and pleasure motoring.



Twin carburetors, disc brakes, Hydrolastic suspension

Vital to any sports or competition car is an efficient braking system. The power to stop quickly is inherent in the Mini-Coopers, which have the sure safety of fast stopping from large-diameter disc brakes on the front and drum brakes on the rear wheels.

Emphasis is on the instrument panel in competition events. Instruments are contained in a centrally placed oval nacelle, the speedometer contains a fuel gauge, and there are separate gauges for water temperature and oil pressure.



Although basically similar in appearance, the power units of the standard Mini-Cooper and the 'S'-type saloon differ considerably in construction. The 998-c.c. unit of the Mini-Cooper is a twin-carburettor development of the BMC 'A'-series engine which was so successfully utilized as a transverse 'power pack' for 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 BMC-powered cars in Formula Junior competition events. Because of the bigger bore diameter, the cylinder centres have been re-spaced in the crankcase, while the top 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 the increased power output the engine is fitted with a massive crankshaft having 2-in. diameter main bearings, together with special

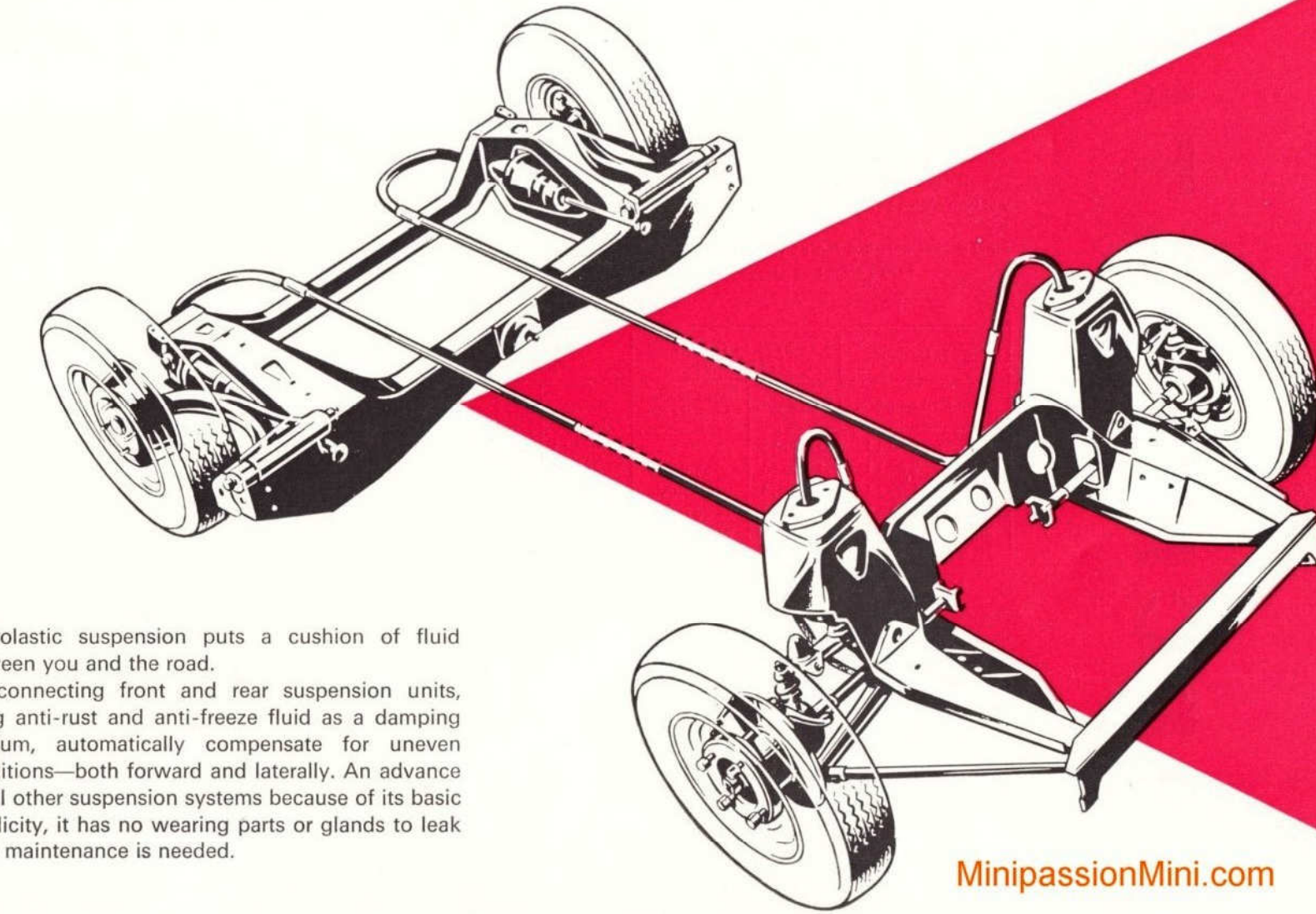
connecting rods and enlarged gudgeon pins. Larger ports in the cylinder head improve gas-flow characteristics and enable bigger valves of Nimonic 80 steel to be fitted. Valve guides are also different, being of copper/nickel construction, and the design of the valve gear generally is such that valve-crash 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.

# \* WITH HYDROLASTIC<sup>®</sup> SUSPENSION

® Regd. Trade Mark



Hydrolastic suspension puts a cushion of fluid between you and the road. Interconnecting front and rear suspension units, using anti-rust and anti-freeze fluid as a damping medium, automatically compensate for uneven conditions—both forward and laterally. An advance on all other suspension systems because of its basic simplicity, it has no wearing parts or glands to leak—no maintenance is needed.

MinipassionMini.com

# AUSTIN MINI-COOPER & MINI-COOPER 'S'

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WITH HYDROLASTIC SUSPENSION

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# SPECIFICATION

**ENGINE:** In-line, 4-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 2.781 in. (70.63 mm.); stroke 3.2 in. (81.33 mm.); cubic capacity 77.9 cu. in. (1275 c.c.); compression ratio 9.5 : 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:** 4-speed with baulk ring synchromesh on second, third, and top; in unit with engine and final drive, remote-control, central floor gear change lever. Final drive to front wheels via helical spur gears, universal joints, and open shafts; drive casing in unit with engine and gearbox.

**Final Drive:** 998 c.c. 3-765 : 1 (17/64)  
1275 c.c. 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	—	
1st 3-20 : 1	12-05 : 1	4-59 m.p.h.	11-022 : 1	5-02 m.p.h.	
2nd 1-92 : 1	7-21 : 1	7-67 m.p.h.	6-599 : 1	8-39 m.p.h.	
3rd 1-36 : 1	5-11 : 1	10-83 m.p.h.	4-674 : 1	11-84 m.p.h.	
4th 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. Petrol tank capacity 5½ gallons (25 litres). 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; full-flow oil filter with renewable element, gauze strainer in sump; oil cooler (Cooper 'S' only); 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.

**TRANSMISSION:** 7½ in. (184 mm.) diameter diaphragm-spring clutch designed to withstand high-speed running; hydraulic operation by pendent pedal.

**STEERING:** 1275 c.c.: Rack and pinion; 2½ turns lock-to-lock; 2-spoke 15½ in. (0.40 m.) diameter steering-wheel, turning circle 31 ft. 7 in. (9.63 m.). Track (with 3½ in. rim wheels): front 3 ft. 11½ in. (1.21 m.); rear 3 ft. 9½ in. (1.18 m.). Track (with 4½ in. rim wheels): front 4 ft. 0½ in. (1.24 m.); rear 3 ft. 10½ in. (1.21 m.). 998 c.c. as above. track: front 3 ft. 11½ in. (1.20 m.); rear 3 ft. 9½ in. (1.16 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. × 1½-in. drums at rear. *Cooper 'S':* 7½-in. diameter discs at front and 7-in. × 1½-in. drums at rear, supplemented by 5½-in. diaphragm servo. Hand brake—central pull-up lever which operates on rear wheels.

**COACHWORK:** Four-seater, 4-light, 2-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 anti-theft 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 5½ cu. ft. (0.154 m.<sup>3</sup>). Bright plastic external finishers fitted to windscreen and rear window. Door window frames and lower panel sills have bright metal finishers. Chromium-plated wheel embellishers, rear number-plate lamp, fuel filler cap, also front/rear bumpers with over-riders and tubular extensions. Entire interior trim complete in washable vinyl-treated 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. Companion box on each side of rear 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 rubber floor covering, with underfelts. Improved fresh-air heater/demister fitted.

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**ELECTRICAL:** 12-volt, 43 amp.-hr. capacity battery at 20-hr. rate located under floor of boot. Double-dipping headlamps with foot-operated dip switch; 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, self-cancelling switch under steering-wheel with warning light in the end of the lever. Twin-blade electrical windscreen wipers. Single Windtone horn with push in centre of wheel. Concealed instrument illumination.

**INSTRUMENTS:** Speedometer, with fuel gauge and warning lights to show dynamo not charging and headlamp high-beam position. 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, 4-stud fixing, 145—10 Dunlop SP41 tubeless tyres.

*Cooper Standard*—3½-in. rims, wheel embellishers fitted; *Cooper 'S'*—Ventilated wheels with 4½-in. rims and tubed tyres.

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

**OPTIONAL EQUIPMENT:** Laminated windscreen, additional 5½ gal (25 litre) fuel tank, oil cooler, sump guard.

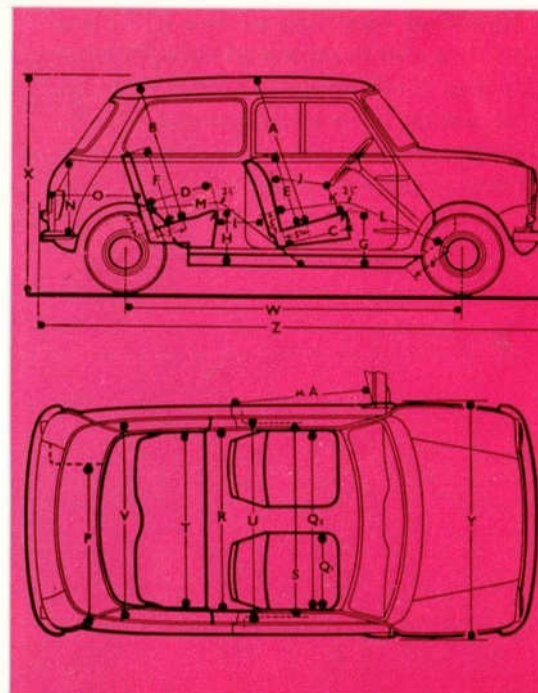
**EXPORT AVAILABILITY:** For the specific Export requirements encountered throughout the world numerous production variations are available. The following items can therefore be alternatively supplied at no extra cost: m.p.h. or km.p.h. speedometer; right- or left-hand steering; headlamp and flasher equipment to suit any overseas territory. Optional equipment at extra cost includes: fresh-air heater (heater is not considered standard equipment for Export markets); radio; laminated windscreen.

**COLOURS:**

<i>Body</i>	<i>Roof</i>	<i>Upholstery</i>
Fiesta Yellow	Old English White	Grey/Powder Blue
Tartan Red	Black	Grey/Tartan Red
Surf Blue	Old English White	Grey/Powder Blue
Tweed Grey	Old English White	Grey/Dark Grey
Old English White	Black	Grey/Tartan Red
Almond Green	Old English White	Grey/Porcelain Green

All road wheels—Old English White.

# Dimensions



<b>AA</b> 2 ft. 8 in. (0.81 m.)	<b>A</b> 3 ft. 1½ in. (0.95 m.)	<b>B</b> 2 ft. 10½ in. (0.88 m.)	<b>C</b> 1 ft. 6 in. (0.46 m.)
<b>D</b> 1 ft. 5 in. (0.43 m.)	<b>E</b> 1 ft. 7 in. (0.48 m.)	<b>F</b> 1 ft. 8 in. (0.51 m.)	<b>G</b> 1 ft. 1½ in. (0.34 m.)
<b>H</b> 1 ft. 1 in. (0.33 m.)	<b>I (max.)</b> 11½ in. (0.29 m.)	<b>I (min.)</b> 7 in. (0.19 m.)	<b>J (max.)</b> 1 ft. 4¼ in. (0.42 m.)
<b>J (min.)</b> 1 ft. 0½ in. (0.32 m.)	<b>K</b> 6 in. (0.17 m.)	<b>L (max.)</b> 3 ft. 7½ in. (1.10 m.)	<b>L (min.)</b> 3 ft. 5 in. (1.04 m.)
<b>M (max.)</b> 3 ft. 8½ in. (1.13 m.)	<b>M (min.)</b> 3 ft. 2½ in. (0.98 m.)	<b>N</b> 1 ft. 4 in. (0.41 m.)	<b>O</b> 1 ft. 7½ in. (0.49 m.)
<b>P</b> 3 ft. 2 in. (0.97 m.)	<b>Q1</b> 1 ft. 8 in. (0.51 m.)	<b>Q2</b> 3 ft. 7½ in. (1.10 m.)	<b>R</b> 3 ft. 5 in. (1.04 m.)
<b>S</b> 3 ft. 9¼ in. (1.16 m.)	<b>T</b> 3 ft. 5 in. (1.04 m.)	<b>U</b> 3 ft. 10 in. (1.17 m.)	<b>V</b> 3 ft. 8 in. (1.13 m.)
<b>W</b> 6 ft. 8½ in. (2.03 m.)	<b>X</b> 4 ft. 5 in. (1.35 m.)	<b>Y</b> 4 ft. 7 in. (1.41 m.)	<b>Z</b> 10 ft. 0½ in. (3.05 m.)
<b>Boot Capacity</b> 5½ cu. ft. (0.16 m. <sup>3</sup> )		<b>Weight</b> 12½ cwt. (635 kg.)	

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