

Austin Healen 100 Six



On road or track, this new Austin Healey sports car is equally at home.

Even more power from the six-cylinder engine, and consequently a brisker performance, is now possible by the use of a redesigned cylinder head, and a detachable cast aluminium inlet manifold fitted with twin semi-downdraught S.U. carburetters. These modifications add considerably to the all-round brilliance of a car that has already proved itself capable of prolonged high-speed motoring in excess of 100 m.p.h.

Its powerful hydraulic brakes are extremely effective and inspire confidence when travelling at the high speeds of which this car is capable.

... occasional four-seat sports tourer

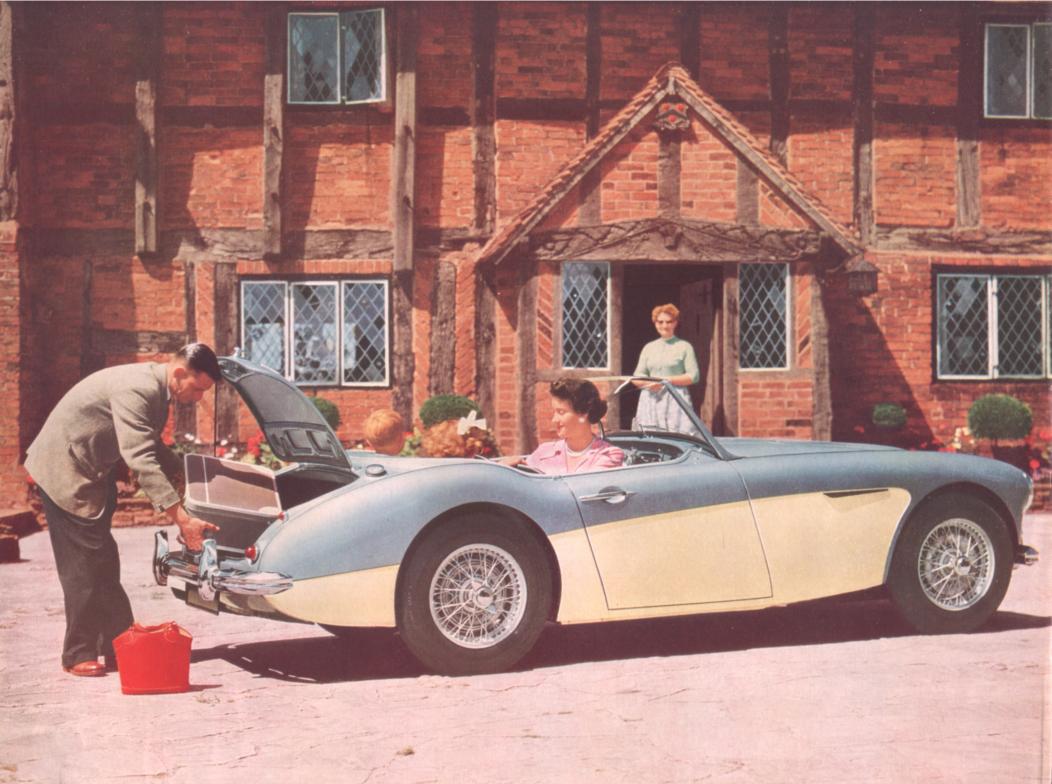
The sparkling performance of the Austin Healey '100' in both private and competition trim brought it world-wide acclaim. And now, as a six-cylinder, four-seater sports tourer it must gain increased popularity.

Sleeker and smarter than ever, the clean, aerodynamic lines of the new '100 Six' are unaffected by the inclusion of two occasional rear seats—and there is still considerable space available in the luggage compartment.

In its standard form, the Austin Healey '100 Six' is equipped with ventilated pressed-steel disc wheels, but wire-spoked "knock-on"

wheels are available at extra cost. The four-speed synchromesh gear-box can, if desired, be fitted with an electrically operated overdrive, which not only provides high cruising speed, but effects considerable economy in fuel. A comprehensive range of optional extras can be fitted to suit the individual requirements of the enthusiast.

Here indeed is a first-class example of British engineering design and constructional skill at its best—a car to maintain the reputation for dependability and quality held by its forerunner.



SPECIFICATION

ENGINE: 2,639 c.c. (161.1 cu. in.); bore 3.125 in. (79.4 mm.); stroke 3.5 in. (89 mm.); b.h.p. 117 gross (SAE 121.5) at 4,750 r.p.m.; maximum torque 149 lb. ft. at 3,000 r.p.m.; compression ratio 8.5 to 1.

Cylinders: Six cylinders cast integral with crankcase.

Cylinder Head: Detachable in cast-iron with separate six-port cast aluminium inlet manifold. Two-piece cast-iron exhaust manifold fitted with twin exhaust system.

Crankshaft: Forged steel supported by four steel-backed white metal bearings.

Connecting Rods: Forged steel with steel-backed white metal bearings.

Pistons: Solid-skirt, flat top pistons in aluminium alloy with tin-plated finish. Three compression rings and one slotted oil control ring fitted.

Camshaft: Forged steel in four steel-backed white metal bearings. Cams of patented design to give efficient and quiet operation. The camshaft gear is driven by duplex roller chain which has an integral oil feed and an automatic slipper type tensioner to maintain chain lubrication and tightness respectively.

Valves: Overhead, operated by push-rods and designed for silent operation. Valve oil seals are fitted. KE965 steel exhaust valves.

Lubrication: Oil is forced under pressure to all main, connecting rod and camshaft bearings and to each tappet. It is also fed to the timing chain and overhead valve rocker gear. The connecting rods have jet holes to provide oil for cylinder walls when starting up. Both main and connecting rod oil feeds are of patented design to ensure longer crankshaft life. A full-flow oil filter is fitted. It has a renewable element. Oil capacity approximately 12 pints (6.8 litres).

Cooling: Circulation by fan and centrifugal pump with thermostat control. Water is delivered to the cylinder block and thence to ample passages surrounding the valve pockets and sparking plugs. A 4-bladed fan is fitted to export models. Cooling system capacity approximately 20 pints (11.37 litres).

Ignition: Coil and 12-volt battery. Automatic advance and retard and built-in vacuum control.

Fuel System: Fuel from a rear tank is fed by electric pump to two semi-downdraught S.U. HD6 carburetters fitted with "pancake" air cleaners. A stop-tap is provided on the fuel tank. Tank capacity 12 gallons (54.6 litres).



Clutch: Single dry plate, 9 in. (0.23 m.) diameter.

Gearbox: Ratios: Reverse 4.176; First 3.076; Second 1.913; Third 1.333; Top 1.0. Oil capacity: approximately 4 pints (2.27 litres). Change speed: short central lever on floor.

Propeller Shaft: Open, with needle roller bearing universal joints.

Rear Axle: Ratio 3.91 to 1 (11/43). Oil capacity: approximately 3 pints (1.7 litres).

Road Speeds at 1,000 r.p.m.: First 6.152 m.p.h.; Second 9.879 m.p.h.; Third 14.177 m.p.h.; Top 18.898 m.p.h.

Transmission with Overdrive: (Road Speed tyres must be

Clutch: Single dry plate, 9 in. (0.23 m.) diameter.

Gearbox: Ratios: Reverse 4.176; First 3.076; Second 1.913; Third 1.333; Top 1.0; Overdrive Third 1.037; Overdrive Top 0.778. Change speed: short central lever on floor. Oil capacity: approximately 5½ pints (2.98 litres), including overdrive.

Propeller Shaft: Open, with needle roller bearing universal

Rear Axle: Ratio, with overdrive: 4.1 to 1 (10/41). Oil capacity: approximately 3 pints (1.7 litres).

Road Speeds at 1,000 r.p.m.: First 5.86 m.p.h.; Second 9.42 m.p.h.; Third 13.52 m.p.h.; Top 18.02 m.p.h.; Overdrive Third 17.39 m.p.h.; Overdrive Top 23.18 m.p.h.

Steering: Cam and Peg. Ratio: 14 to 1. Steering Wheel: 3 spring spokes, 16½ in. (0.42 m.) diameter.

Suspension: Front—Independent wishbones, coil springs, shock absorbers and stabilizing bar. Rear—Leaf springs, shock absorbers and panhard rod. Shock absorbers: Lever type, hydraulic.

Brakes: Girling hydraulic. 2 Leading-Shoe on front. Diameter: 11 in. \times 2½ in. wide.

Road Wheels: 15 in. ×4J, Ventilated Steel Disc. Fixing: 5 nuts. Tyres: 5.90—15, tubeless. (Models having disc wheels and overdrive, and those having wire wheels, with or without overdrive, must be fitted with Road Speed tyres.)

Electrical: 12 volt, 50 ampere-hour capacity battery at 10 hour rate (57 ampere-hour at 20 hour rate). Headlamps with dipping switch and equipment to suit regulations of different countries. Combined side lamps and flashing direction indicators. Combined twin stop-tail lamps and flashing direction indicators. Concealed instrument panel lamps. Twin horns. Twin windscreen wipers.

Instruments: Trip speedometer. Revolution counter. Fuel gauge. Combined oil and water temperature gauge. Red warning lights indicate no dynamo charge and headlamp high beam position. Green warning light, indicating direction indicators working. Switches for starter, lighting, screen wiper, and control for windscreen washer (also for heater and overdrive when fitted) on instrument panel. Panel light switch on lower edge of fascia.

Coachwork: Occasional four-seater, two-door, open sports tourer with all-weather protection. Steel/aluminium construction. Bonnet top—with chrome grille vent to assist engine cooling—hinged at rear edge and supported in open position by a pivoted rod. Bonnet lock operated from inside car. Wide rear-opening doors fitted with outside handles. A large open pocket is

provided in each door. Fixed curved windscreen of laminated plate glass fitted with double screen wipers. Folding hood of vinyl treated fabric includes large transparent backlight and can be stored—with hood sticks—behind rear seats when not in use. A tonneau cover completely covers all seats but can be opened for driver only. Luggage compartment with lockable lid at rear, lined with Armacord and containing battery with master switch and spare wheel. Front and rear chrome bumpers. Twin rear reflectors. Adjustable front bucket seats, the backs of which tilt forward to give access to the rear seats. All instruments grouped on driver's side of fascia, grab handle on passenger side. Interior driving mirror and trimmed crash pad fitted to top of scuttle, behind windscreen. Parcel tray fitted below fascia. Flush fitting ash tray in centre transmission tunnel. Fascia finished in leathercloth. Fitted carpet over floor. Overriders fitted to bumpers. Seats trimmed with hide facings. Padded hide and leathercloth armrest between front bucket seats. Detachable side windows having polished alloy frames with one fixed and one slidding Perspex panel. Paint finish in single or dual colours.

Optional extras: Radio. Hardtop. Heater. Electrically operated overdrive. $_{15}$ in. \times 4J wire spoke 'knock-on' wheels. $_{590-15}$ Road Speed tyres. (See note under 'Road Wheels'.)

Leading Dimensions: Wheelbase 7 ft. 8 in. (2.336 m.); overall length 1_3 ft. $1_{\frac{1}{2}}$ in. (4.000 m.); overall height (hood up) 4 ft. 2 in. (1.244 m.); overall height (hood down) 3 ft. 1_1 in. (1.168 m.); overall width 5 ft. $0_{\frac{1}{2}}$ in. (1.536 m.); height over scuttle 2 ft. $1_{\frac{1}{2}}$ in. (0.914 m.); ground clearance 5 in. (0.140 m.); track, front at ground level 4 ft. $0_{\frac{3}{2}}$ in. (1.238 m.); track, rear 4 ft. 2 in. (1.270 m.); turning circle 35 ft. o in. (10.668 m.); approximate unladen weight, with spare wheel and tyre, tools, oil and water, with disc wheels, heater and overdrive, less fuel: 2422 lb. (1099 kg.)

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