THE Antin Healey 100

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THE RECORD-BREAKING AUSTIN-HEALEY HUNDRED

It's fast! It's dependable! It's record-breaking!

Fast indeed, having recorded 142.636 m.p.h., the fastest speed over a measured mile for a production car of under 3,000 c.c. capacity.

Over 100 other standing records have also been broken by this brilliant sports model, in its own and unlimited classes, American and International grades.

As for dependability, its outstanding and sustained performance under extremely trying conditions provides ample proof—24 hours continuous running at an average speed of 104.3 m.p.h. and 103.9 m.p.h. average for 30 hours covering a distance of 3,117.9 miles. And fuel consumption over several days of all-out effort was better than 21 m.p.g.

Power for the record-breaking runs and for every Austin-Healey '100' is provided by the already famous Austin A90 O.H.V engine, an unstressed production unit working at speeds well within its capacity. Yes, this is a car of rare distinction, a great example of British automobile engineering at its best.

(Records quoted above, certified by the A.A.A., were obtained at the Bonneville Salt Flats, Utah, U.S.A., in September, 1953).









The windshield has two operative positions; raised, for normal driving conditions and lowered to form a scuttle when high speeds are anticipated. The change-over is readily effected and a positive locking device ensures absolute security in either position. The illustration (left) shows the windshield neatly lowered and enclosing such protrusions as windshield wipers and driving mirror.

Moulded perspex side windows are available for use in cold or inclement weather. They can be fitted quickly and easily into the top edge of the doors and give sure protection to driver and passenger. When not required they are contained in a handy wallet which also accommodates the tonneau cover.





The Austin-Healey '100' is a fast car, and looks it, the smooth aerodynamic lines of the body providing a delightful picture from every point of view. Indeed, wherever it is seen this model is the centre of interest and the subject of much favourable comment. The illustration on the left shows the car from a most attractive angle.

In the neatly designed interior which incorporates
two individual bucket seats, there is compact
comfort for driver and one passenger. Controls are
handily positioned, a short central gear lever being
employed, and closely grouped instruments are
readily visible through the steering wheel. Driving
vision is excellent, the low sloping bonnet offering an
uninterrupted view of the road ahead.







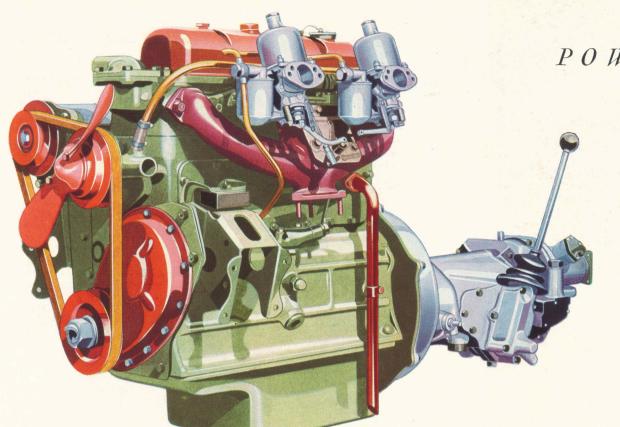
An exceptionally spacious luggage compartment for this type of car is provided at the rear. It also accommodates the spare wheel in a separate recessed shelf and encloses the fuel filler pipe.



The bonnet top is hinged along its forward edge and opens widely to give good access to the engine and ancillary components for routine maintenance.



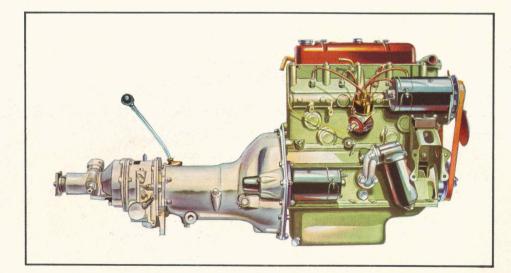
A specially tough fabric hood completes the comprehensive all-weather equipment of the Austin-Healey '100'. It folds away behind the seats when not in use, and can be quickly erected when necessary.



POWER UNIT

This is the record-breaking Austin A90 O.H.V. engine which powers the Austin-Healey '100.' It is a sturdy, four-cylinder unit that has been "blooded" on road and track, and proved capable of sustained high-speeds. It is ideal for long periods of very fast motoring.

The overdrive is mounted to the rear of the three-speed gearbox and comes into automatic operation at 40 m.p.h. when the electrical control switch is in the 'on' position. This provides a higher ratio drive to give the car its great maximum speed while maintaining a modest fuel consumption.





PERFORMANCE DATA

The brief performance figures, extracted from the 'Autocar' road test report of September 11th, 1953 and given below, should be obtainable in suitable conditions by any standard Austin-Healey '100' car. A higher performance may be obtained under certain circumstances as indicated by the outstanding successes recently achieved with this car in the U.S.A.

Mean maximum speed .					111 m.p.h.
From rest to 30 m.p.h				6	. 3.3 secs.
From rest to 50 m.p.h.					. 7.6 secs.
From rest to 60 m.p.h					10.5 secs.
From rest to 70 m.p.h			•		13.4 secs.
From rest to 80 m.p.h.					. 18 secs.
Standing quarter mile .	•				17.5 secs.
Average fuel consumption			•	•	. 25 m.p.g.

S P E C I F

ENGINE: Bore $3\cdot4375$ in. $(87\cdot3$ mm.); stroke $4\cdot375$ in. $(111\cdot1$ mm.); capacity $162\cdot2$ cu. in. (2660 c.c.); b.h.p. 90 at 4,000 r.p.m.; maximum torque 144 lb. ft. at 2,000 r.p.m.; compression ratio $7\cdot5$ to 1.

Cylinders: Four cylinders cast integral with crankcase. Full-length water jackets. Cast-iron cylinder head carrying all valve gear.

Crankshaft: Forged-steel, counterbalanced crankshaft supported in three detachable steel-backed white-metal bearings.

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

Pistons: Split-skirt type in low expansion aluminium alloy with aluminite finish. Three compression rings and one oil control ring fitted.

Camshaft: Forged steel, supported in three detachable steel-backed white-metal bearings. Cams of patented design for quiet operation. Driven by Duplex roller chain from crankshaft with oil catchers and a tensioner ring of synthetic rubber to maintain chain lubrication and tightness respectively.

Valves: Overhead valves operated by push-rods. Large inlet valves of silicon chrome steel; exhaust valves in "XB" steel designed to resist corrosion from leaded fuels.

Lubrication: Pressure gear pump forces oil to all main, big-end, camshaft and overhead-valve rocker-shaft bearings. Holes in the big-end bearings provide for jet lubrication of the cylinder walls, and the front camshaft bearing provides a controlled feed of oil to the timing chain. Both main and big-end bearing oil feeds are of patented design which ensures longer crankshaft life. A full-flow filter with renewable element is fitted. Oil capacity approximately 11¾ pints (6.68 litres).

Cooling: Circulation by centrifugal type of pump with thermostat control. Fancooled pressurised radiator. Water is directed to sparking plug bosses and exhaust port walls. Cooling system capacity 20 pints (11·37 litres).

Fuel System: Fuel from a rear tank of 12 gallons (54.6 litres) capacity is fed by an S.U. electrical pump to twin S.U. carburetters fitted with air cleaners.

Ignition: Coil and battery ignition with automatic advance and retard and additional vacuum control.

Dynamo: 12-volt fan-ventilated unit with compensated voltage control.

Starter: Operated by push-button solenoid type of switch.

CLUTCH: Flexible dry single-plate Borg and Beck clutch is fitted, with spring cushion drive. Clutch diameter 9 in. (0.23 m.).

GEARBOX: Three forward speeds and reverse controlled by a short central gear lever and with synchromesh engagement for all gears. Oil capacity $4\frac{1}{2}$ pints (2.56 litres).

I C A T I O N

OVERDRIVE: An overdrive unit is fitted behind the gearbox and engaged by a control switch mounted on the fascia panel. The overdrive may be engaged in 2nd and top gears, which in effect provides a choice of five gear ratios. An over-ride governor prevents accidental use of the overdrive at low speed.

PROPELLER SHAFT: Hardy Spicer propeller shaft with needle roller bearing universal joints. Lubrication nipples to each joint and to the sliding splines.

REAR AXLE: Spiral bevel three-quarter floating in a banjo-type casing. The pinion is carried by pre-loaded taper roller bearings. Oil capacity $2\frac{1}{2}$ pints (1·29 litres). Normal ratio $4\cdot125$ to 1; alternative ratio available $3\cdot66$ to 1.

OVERALL GEAR RATIOS: Without overdrive—9·28, 5·85 and 4·125, with 20·53 reverse. With overdrive engaged—4·42 and 3·12 when fitted with 4·125 axle.

ROAD SPEEDS AT 1,000 R.P.M.: Without overdrive—Top 17.92 m.p.h.; second 12.63 m.p.h.; first 8 m.p.h. Overdrive comes into operation at 40 m.p.h.

STEERING: Burman cam and lever steering gear.

SUSPENSION: Front—Independent coil springs controlled by double-acting hydraulic shock absorbers interconnected by an anti-roll torsion bar. Rear—Semi-elliptic springs controlled by double-acting hydraulic shock absorbers and anti-sway bar.

BRAKES: Girling hydraulic with two leading shoes in front. Brake drum diameter 11 in, (0.28 m.).

WHEELS AND TYRES: Wire-spoke knock-on wheels with 5.90×15 tyres. Alternative size 6.00×15 .

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THE AUSTIN MOTOR COMPANY LIMITED LONGBRIDGE BIRMINGHAM

In Association with the

DONALD HEALEY MOTOR COMPANY LIMITED Holland Park Hall, London, W.11



ELECTRICAL: Two 6-volt batteries of 50 ampere-hour capacity at 10-hour rate; positive earth; built-in head-, side- and twin tail-lamps; twin windshield wiper; directional flashing lights available to conform with U.S. regulations; twin horns.

INSTRUMENTS: Fuel gauge; oil pressure and water temperature gauges; 120 m.p.h. speedometer; o-6,000 r.p.m. tachometer.

COACHWORK: Open two-seater with individual bucket seats; large enclosed rear luggage compartment; full weather protection, including folding windshield, disappearing hood and detachable moulded perspex side-screens.

OVERALL DIMENSIONS: Wheelbase 7 ft. 6 in. (2·29 m.); track at front 4 ft. 1 in. (1·24 m.); track at rear 4 ft. 2 $\frac{3}{4}$ in. (1·29 m.); overall length 12 ft. $7\frac{1}{2}$ in. (3·85 m.); overall width 5 ft. 0 $\frac{1}{2}$ in. (1·54 m.); height over scuttle 2 ft. 11 $\frac{7}{8}$ in. (0·91 m.); height over windshield 3 ft. 11 $\frac{1}{4}$ in. (1·20 m.); height over hood 4 ft. 1 in. (1·24 m.); ground clearance 5 $\frac{1}{2}$ in. (0·14 m.); turning circle 35 ft. (10·66 m.); approximate weight with oil, water, spare wheel and tools, less petrol 2,176 lb. (987 kg.).

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