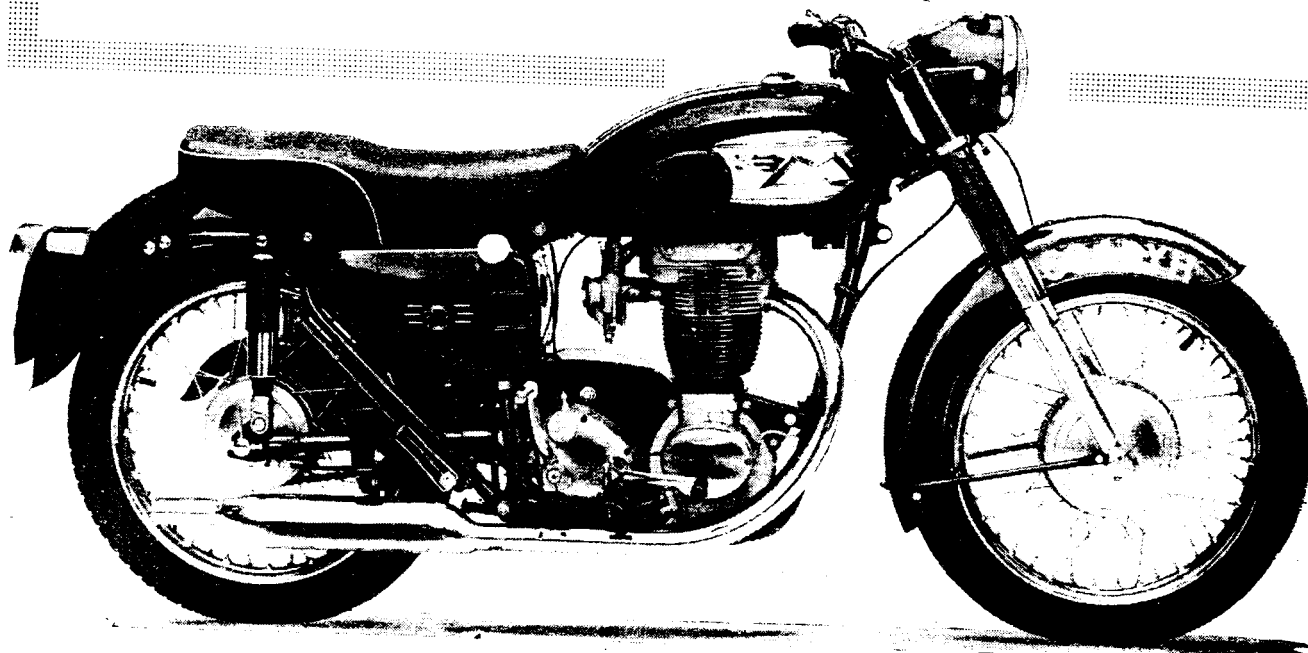


Road tests of new models

348 c.c. Matchless G3 Mercury

LATEST OF FAMOUS LINE HAS ADDED PUNCH, BUT
RETAINS TRACTABILITY : CAN BE RIDDEN HARD ALL DAY



ANY descendant of the ubiquitous G3 Matchless has to uphold a tough, almost historical reputation. Did not the wartime G3, in the hands of countless Don Rs, help to make history? Sceptical old sweats may rest assured—the latest version, the Mercury, is an extremely worthy scion of the D.R. model.

Soft, woolly power and oodles of bottom-end slogging characterized the original G3; and, though the engine revved willingly, the power tailed off in the upper ranges. Revamping the unit has resulted in appreciably more punch higher up the r.p.m. scale, and that without any loss of tractability. Bore and stroke have been altered from 69×93mm to 74×81mm and, taking advantage of the bigger bore, valve sizes have been increased.

Carburettor choke size has risen from 1 $\frac{1}{8}$ to 1 $\frac{1}{4}$ in and exhaust pipe diameter is stepped up, by $\frac{1}{16}$ in, to 1 $\frac{1}{2}$ in. The in-

cluded angle of the valve stems has been reduced and the compression ratio raised from 7.5 to 8.5 to 1. The shorter stroke means that the engine is more compact than its predecessor; another external difference is that the pushrod tubes are cast integrally with the cylinder and head.

The result of these changes was immediately apparent. The unit was noticeably lively, producing a harder punch and developing considerably more urge in the middle r.p.m. range. The model was happy to cruise all day on two-thirds throttle, at close on 70 m.p.h. A further twist of the grip produced even more urge; it was possible to hold a steady 70 for long stretches.

Most main-road gradients were surmounted effortlessly in top gear. The only indication the engine gave of being driven hard was a slightly blued exhaust pipe at the cylinder head and a straw-coloured section on the silencer: there were no oil

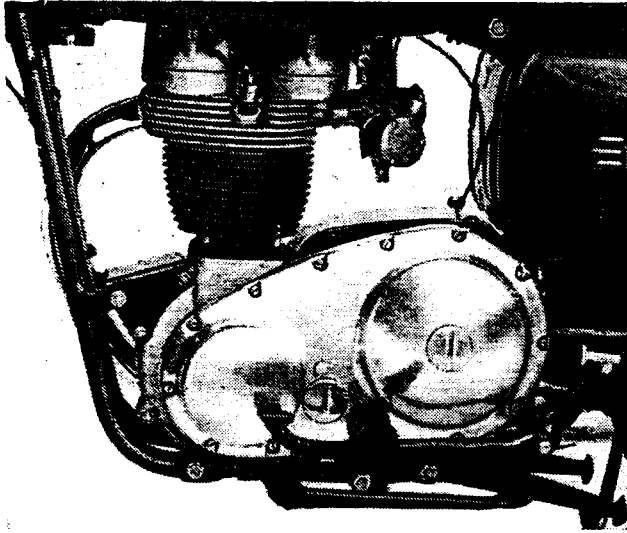
leaks anywhere on the unit after 500 miles' hard riding.

Because of its harder punch, the engine felt very slightly less docile at the bottom end of the range than the old G3. Nonetheless, it was extremely tractable and would accelerate cleanly from 12 m.p.h. in third.

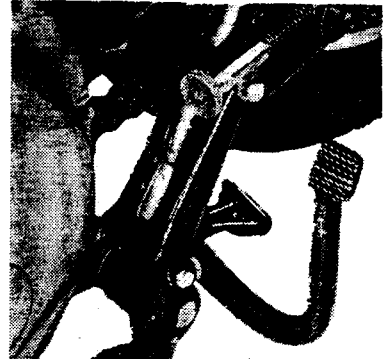
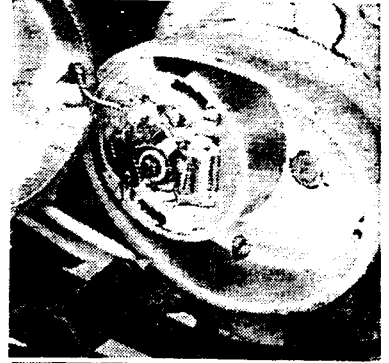
Third proved an admirable gear for ambling along below 25 m.p.h. in dense traffic or for overtaking on the open road. The ratio provided brisk, useful acceleration up to 60 m.p.h. when top was normally engaged. Reasonably easily read, the speedometer was six per cent fast at all speeds.

At 8.5 to 1, the compression ratio is high for a touring three-fifty but pinking could be provoked only under extreme conditions. Premium-grade fuel was used throughout and the overall fuel consumption worked out at 70 m.p.g.

A very slight whine from the primary



Left: Though showing a distant relationship to the wartime G3, the power unit of the Mercury has been noticeably tidied up. Top right: Only two screws and a cover plate have to be removed to gain access to the contact breaker. Next: A convenient pedal facilitates use of the roll-on centre stand. Roomy compartment for battery and tool-kit is shown in the adjoining illustration



drive was the only mechanical noise audible. Even with the engine idling, and the machine at a standstill, it was difficult to discern any other well-defined mechanical sound. At small throttle openings, the exhaust was reasonably well subdued but, with the engine working hard, the note became harsher. More efficient silencing would enable better use to be made of the performance.

Frequently left overnight in the open, the model usually responded to the first swing on the kick-starter in the morning. Apart from switching on the ignition and easing the piston over compression, the only drill observed was to flood the carburettor lightly and close the air lever.

Bottom gear usually engaged silently, or with no more than a barely audible click; the ratio was low enough to permit a standing start on the 1 in 3 test hill at the M.I.R.A. proving ground. Moderately light in operation, the clutch engaged the drive sweetly without snatch and was sturdy enough to withstand half-a-dozen full-throttle standing-starts in quick succession without signs of complaint.

Unquestionably, the current A.M.C. gear box provides one of the most crisp, sweet gear changes it is possible to experience on any roadster. Light and utterly positive, the change was pure delight.

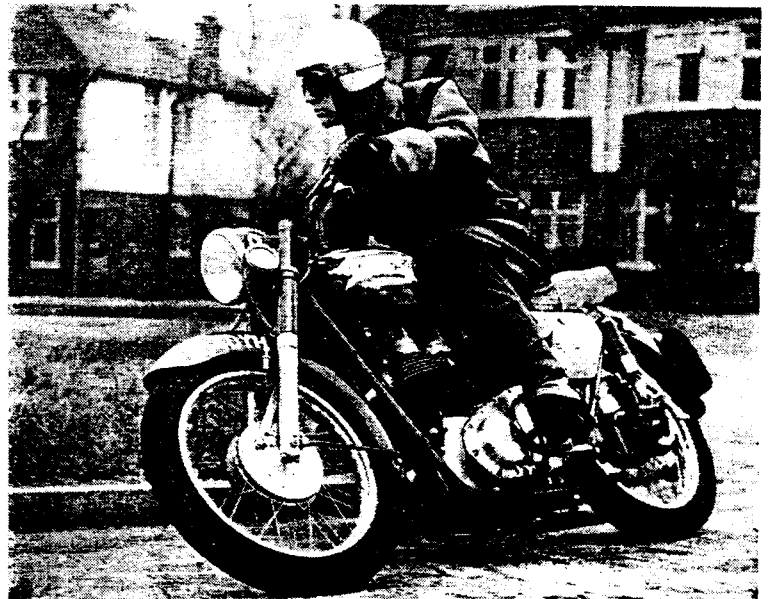
Relationship of the seat, handlebar and footrests allows a comfortable, relaxed riding position for town travel. But for sustained cruising above 60 m.p.h., footrests an inch or so farther to the rear would enable some of the strain to be transferred from the rider's arms to his legs.

Wide and well shaped, the seat provided good support for rider and passenger; slightly deeper and softer padding, however, would have obviated saddle cramp felt after some hours. All controls were well positioned but the plastic grips pro-

vided insufficient friction in wet weather, so that a rubber band had to be looped round the twistgrip to provide purchase. A well-located rubber on the kick-starter crank would have counteracted the tendency for rubber overboots to slide off the naked crank when wet.

Although the Mercury is purely a touring mount, it could be ridden all day to the limit of its performance. Both front and rear suspension adequately absorbed road shocks—though the front fork occasionally topped over sharp rises, or bottomed while the front brake was applied downhill.

Bend-swinging could be indulged in with every confidence; any chosen line could be followed, even over the roughest surfaces. Negligible effort was required

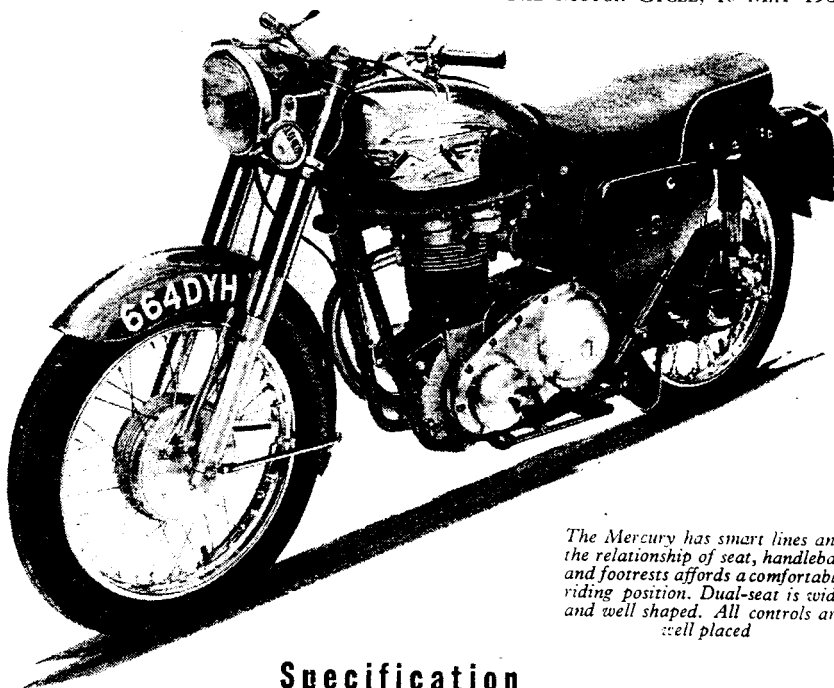


to lay the model into a fast curve but slower bends caused for some conscious effort—the result of top hamper. The model was rock steady over smoothly surfaced bends but rippled surfaces, taken fast, caused slight front-wheel flutter.

Both footrests could be grounded by exuberant cornering and the retaining clip on the silencer and the extension on the centre stand touched easily—especially when there was a passenger aboard.

Light and smooth in operation, both brakes were extremely controllable, progressive and deceptively powerful; neither showed any undue tendency to lock the wheel. Adjustment was not required during the test.

Lighting power was adequate for mile-a-minute cruising after dark and cut-off of the dipped beam was satisfactory. The horn note was insufficiently powerful on the open road. Emergency starting was experimentally tried with a flat battery and the engine responded readily after a couple of prods on the kick-starter. The battery recharged within a few hours.



The Mercury has smart lines and the relationship of seat, handlebar and footrests affords a comfortable riding position. Dual-seat is wide and well shaped. All controls are well placed

Specification

ENGINE: Matchless 348 c.c. (74 x 81mm) overhead-valve single. Crankshaft supported in plain and ball bearings; roller big-end bearing, light-alloy cylinder head; compression ratio 8.5 to 1. Dry-sump lubrication; oil-tank capacity, 4 pints.

CARBURETTOR: Amal Monobloc; air slide operated by handlebar lever.

IGNITION and LIGHTING: Lucas coil ignition with auto-advance. Lucas RM15 alternator, with rotor mounted on drive side of crankshaft, charging Lucas 6-volt, 11-amp-hour battery through rectifier. Lucas 7in-diameter headlamp with pre-focus light unit.

TRANSMISSION: A.M.C. four-speed foot-change gear box. Gear ratios: bottom, 14.85 to 1; second, 9.85 to 1; third, 7.08 to 1; top, 5.8 to 1. Multi-plate clutch with bonded friction facings running in oil. Primary chain, $\frac{3}{8}$ x 0.305in in light-alloy oil-bath case. Rear chain, $\frac{3}{8}$ x $\frac{1}{2}$ in with guard over top run. Engine r.p.m. at 30 m.p.h. in top gear, 2,300.

FUEL CAPACITY: 4½ gallons.

TYRES: Dunlop 3.25 x 19in; ribbed front, Universal rear.

BRAKES: 7in-diameter front and rear; finger adjusters.

SUSPENSION: A.M.C. Teledraulic telescopic front fork with hydraulic damping. Pivoted rear fork controlled by Girling spring-and-hydraulic units with three-position adjustment for load.

WHEELBASE: 56in unladen. Ground clearance, 5½in unladen. Seat height, 31in unladen.

WEIGHT: 399 lb fully equipped, with full oil tank and approximately half a gallon of petrol.

PRICE: £248 4s 5d including British purchase tax.

ROAD TAX: £4 10s a year; £1 13s for four months.

MAKERS: Matchless Motor Cycles, Plumsstead Road, London, S.E.18.

DESCRIPTION: The Motor Cycle, 14 September, 1961.

PERFORMANCE DATA

(Obtained at the Motor Industry Research Association's proving ground at Lindley, Leicestershire)

MEAN MAXIMUM SPEED: Bottom: *34 m.p.h.
 Second: *51 m.p.h.
 Third: *71 m.p.h.
 Top: 77 m.p.h.
 *Valve float occurring.

HIGHEST ONE-WAY SPEED: 78 m.p.h. (conditions; still air, rider wearing two-piece suit and overboots).

MEAN ACCELERATION:	10-30 m.p.h.	20-40 m.p.h.	30-50 m.p.h.
Bottom	3.4 sec	—	—
Second	5.4 sec	4.6 sec	5 sec
Third	—	6.4 sec	6.8 sec
Top	—	9.4 sec	8.6 sec

Mean speed at end of quarter-mile from rest: 67 m.p.h.
 Mean time to cover standing quarter-mile: 19.6 sec.

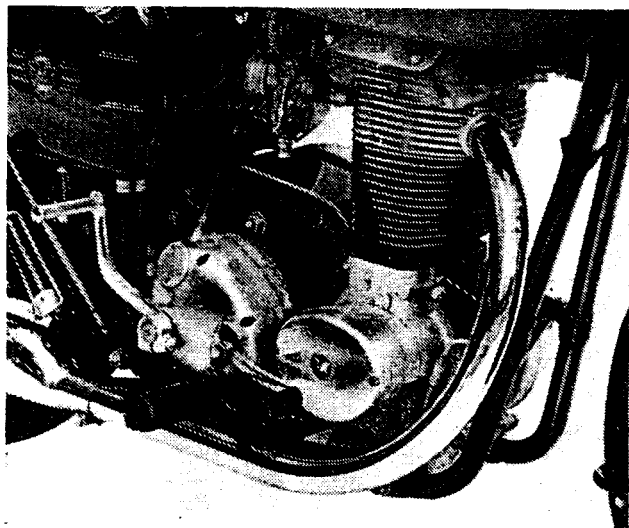
PETROL CONSUMPTION: At 30 m.p.h., 93 m.p.g., at 40 m.p.h., 88 m.p.g.; at 50 m.p.h., 80 m.p.g.; at 60 m.p.h., 67 m.p.g.

BRAKING: From 30 m.p.h. to rest, 30ft. (surface, dry tarmac).

TURNING CIRCLE: 16ft.

MINIMUM NON-SNATCH SPEED: 19 m.p.h. in top gear.

WEIGHT PER C.C.: 1.15 lb;



For a conventional power unit, the Matchless Mercury engine has clean lines. The neat appearance is enhanced by enclosure of the pushrods within tunnels cast in the cylinder and head; this obviates use of separate tubes

No maintenance was required during the 1,000-mile test period but accessibility for routine work is good and the standard tool kit was sufficient for routine adjustments. The valve clearances may be set without the tank having to be removed; contact-breaker points are revealed by removing two screws and a cover on the right, and the battery is easily reached by undoing the tool-box cover.

Prop and centre stands are fitted; and the easily used roll-on centre stand is an innovation. Smartly finished in black, with all the usual parts chromium plated, the Mercury is a very pleasant, extremely robust and economical mount, capable of genuine hard work, all day, every day.