

ROAD RACING ON THE CHEAP

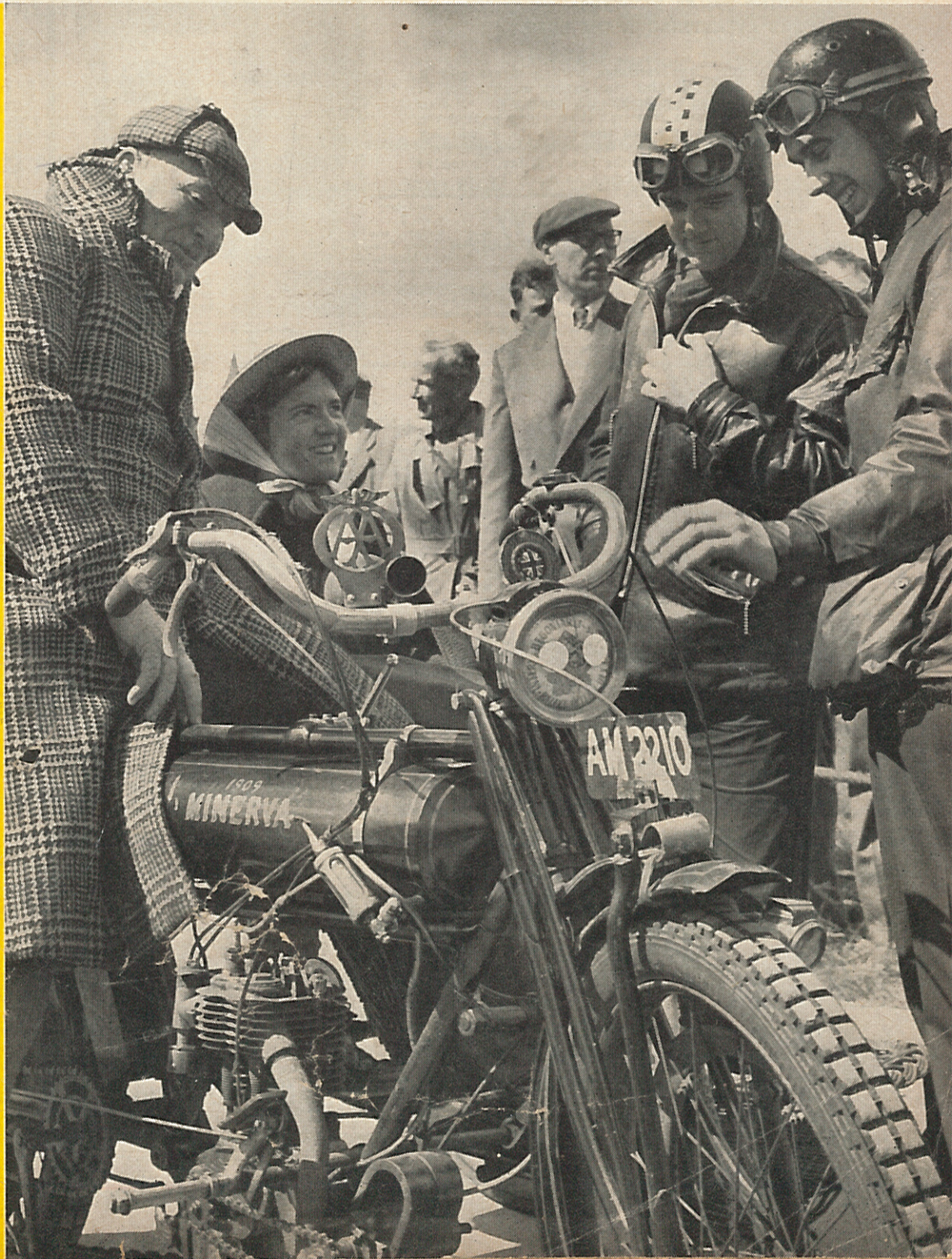
Motor Cycle

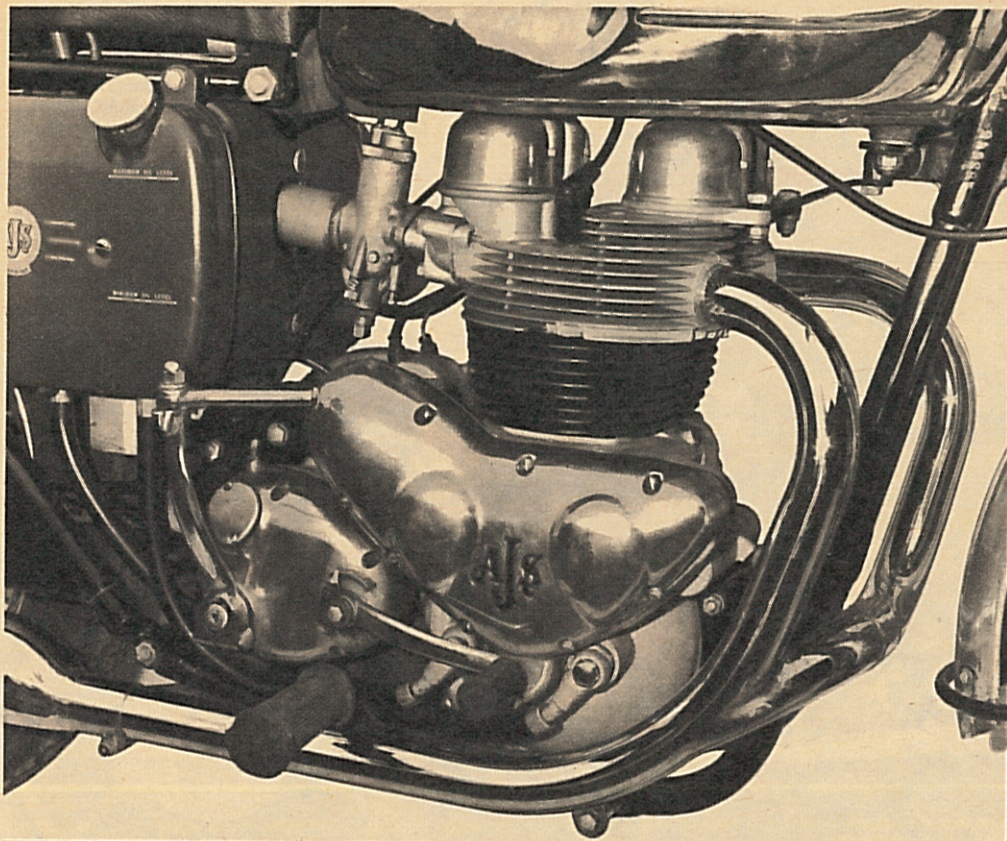
**A.J.S. 650
Hurricane
Test**

**New Twin
Engine for
Bond
3-Wheeler**

**SCRAMBLING
IN AFRICA**

**Pioneer Run
Report**





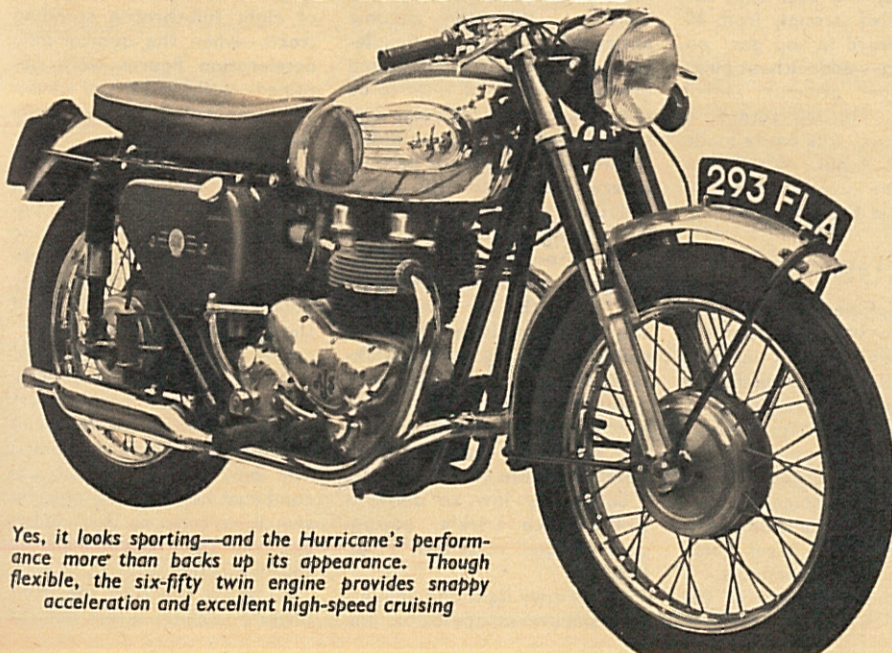
**TIRELESS
HIGH-SPEED
ROAD BURNER**

**WIDE SPREAD
OF BEEFY
PUNCH**

**EXCELLENT
ROADHOLDING**

646 c.c. A.J.S. Hurricane

ROAD TESTS OF NEW MODELS



Yes, it looks sporting—and the Hurricane's performance more than backs up its appearance. Though flexible, the six-fifty twin engine provides snappy acceleration and excellent high-speed cruising

IN skilful hands, there is no safer vehicle on the road than a large-capacity sporting solo. Ample power makes swift, unobtrusive overtaking possible. High average speeds are effortlessly achieved without taking liberties with machinery or road safety. Just how effortlessly was demonstrated most convincingly by the 646 c.c. A.J.S. Hurricane.

Burbling quietly through town traffic at 30 m.p.h. in top gear or cruising on half throttle at almost 85 m.p.h., the Hurricane was prepared to burn the candle at both ends. A mean timed maximum speed of 99 m.p.h. may seem unexceptional—but a wind gusting to 35 m.p.h. during the MIRA tests did little to help! Under better conditions, a mean speed in excess of 100 m.p.h. could be expected.

Absolute maximum speed counts for little. Of far more importance are

Top left: Removal of the accessible plastic cover exposes the contact breaker. Below: little effort is needed to lay the Hurricane into sweeping bends



acceleration and optimum cruising speed. The sheer, zestful urge which sent the Hurricane's speedometer needle rocketing to the 90 mark (a true 85 m.p.h.) was exhilarating.

In the gears, exceptionally beefy power soon gave an indicated 55 m.p.h. in second and 80 m.p.h. in third. Tweaking the grip wide open in top would send the needle skipping beyond the ton in a commendably short time—and without the rider adopting more than a slight crouch.

Wind pressure, rather than any mechanical limitation, set a top limit of 85 m.p.h. to the comfortable cruising range. Apart from the odd hold-up for road works, this speed was maintained for the 72 miles of M1. Top-gear cruising speed was well maintained in face of main-road climbs and stiff winds.

Flexibility was such that the engine pulled strongly from 30 m.p.h. upward in top gear on full advance—and without pinking, provided premium petrol was used. On full retard, a standing-start was easily made on a 1 in 4 hill. With some coaxing, the model managed to restart on a 1 in 3 gradient.

RUSTLE

For a high-performance unit, the engine was commendably quiet mechanically. At tickover, no more than a light rattle was heard from the valve gear. On small throttle openings, exhaust noise was well muted. Hard acceleration produced a more throaty note and some restraint was desirable in built-up areas. But the note was never harsh enough to be objectionable.

The sporting nature of the unit was evident from the

slightly hard feeling of the power delivery. Vibration became noticeable through the handlebar at 75 m.p.h. in top gear and gradually increased, later to be felt through the footrests and seat as well, right up to maximum speed. It did not become severe enough to call for a reduction in cruising speed.

Nothing could have been easier than the starting drill—lightly flood the carburettor, close the air lever, pull the ignition lever back a third and swing on the kick-starter pedal. Invariably the engine burst into song at the first or second attempt. And the air lever could be fully opened within the first mile.

Sufficiently low to allow a walking-pace trickle, bottom gear engaged noiselessly at all times. Moderately light and delightfully smooth in operation, the

clutch withstood a succession of eight full-throttle standing starts—when the quarter-mile acceleration figures were obtained—without sign of abuse. The gear change was superbly light and positive.

When delivered, the model was fitted with a downturned handlebar. This proved uncomfortable. With the steering on full lock, the rider's thumbs were trapped between the handlebar and petrol tank and the enforced riding crouch caused cramp in the shoulders.

Reversing the bar resulted in a more relaxed position yet afforded sufficient forward lean to allow high speeds in comfort. The only snag was that the combined horn button and dip switch, screwed to the handlebar, was then on the right by the twistgrip. Excessive reach to the front brake and clutch levers was cut

by inserting a chain connecting link between each lever and its pivot block.

The latest-pattern petrol tank, with knee recesses at the rear, felt considerably more comfortable to grip than the older tank. But the knees of a tall rider tended to chafe against the trailing edges of the chromiumpiated tank embellishments.

The Hurricane has an unusually high dual-seat so that a rider with long legs could only just place both feet firmly on the ground. Softer seat padding would give greater comfort and might obviate a suggestion of cramp at the end of a 300-mile day.

Pleasantly light at low speeds, the steering was reassuringly precise and taut right up the scale. A steering damper is not fitted, nor is there need for one. Because of the high centre of gravity, some effort was required to heel the model into slow corners—or to switch rapidly from left bank to right.

But little effort was needed to lay the Hurricane into sweeping 80-90 m.p.h. bends. On smooth surfaces it would remain glued on line. Bumpy bends taken at over 70 m.p.h. provoked some mild weaving. On slippery roads the high-cling tyres provided noticeably good grip.

A shade hard at low speeds, front and rear suspension were well matched; they absorbed road irregularities well at high speeds.

Smooth in operation, the brakes were adequately powerful, although the front called for fairly heavy lever pressure. Adjustment was not required throughout the 600-mile test.

The headlamp threw a long, wide beam of sufficient intensity to allow a safe 70 m.p.h. on unlit roads.

OIL-TIGHT

In spite of being driven hard throughout the test, the Hurricane remained completely oil-tight.

Lack of automatic lubrication for the rear chain hastened adjustment at 400 miles—that was the only maintenance required. For other routine jobs that would be called for in time, the tool kit was adequate. The roll-on centre stand was just too easy to use; an excellent prop stand is also provided.

Finished in dark blue and black, with the usual parts chromium-plated and with polished light-alloy mudguards, the Hurricane not only looks a sporty mount—it is thoroughly well made and as rapid as they come: a most attractive road-burner.

SPECIFICATION

ENGINE: A.J.S. 646 c.c. (72 x 79.3mm) overhead-valve twin. Crankshaft supported in one plain and two roller bearings; roller bearings. Light-alloy cylinder heads, compression ratio 8.5 to 1. Dry-sump lubrication; oil-tank capacity, 4 1/2 pints.

CARBURETTOR: Amal Monobloc; air slide operated by handlebar lever. **IGNITION and LIGHTING:** Lucas magnetos, with manually operated advance and retard. Lucas RM15 alternator, with rotor on left-hand end of crankshaft, charging 6-volt 12-amp hour battery through rectifier. Lucas 7-in-diameter prefocus light unit with 30/24 watt main bulb.

TRANSMISSION: A.M.C. four-speed gear box. Gear ratios: bottom 12.23 to 1; second 8.13 to 1; third 5.83 to 1; top 4.78 to 1. Multi-plate clutch with bonded friction facings running in oil. Primary chain, 1/2 x 0.305 in light-alloy alloy case. Rear chain 1/2 x 1/4 in with guard over top run. Engine r.p.m. at 30 m.p.h. in top gear, 1,850.

FUEL CAPACITY: 4 gallons. **TYRES:** Dunlop; front, 3.25 x 19 in GS ribbed; rear, 3.50 x 19 in K70 Gold Seal.

BRAKES: Both 7-in diameter x 1 1/4 in wide; finger adjusters. **SUSPENSION:** A.M.C. telescopic front fork with hydraulic damping. Pivoted rear fork controlled by Girling spring-and-hydraulic units with three-position adjustment for load.

WHEELBASE: 55 1/2 in unladen. Ground clearance, 6 1/4 in unladen. Seat height, 32 in unladen. **WEIGHT:** 412 lb fully equipped, with full oil tank and approximately a gallon of petrol.

PRICE: £314 8s including British purchase tax. **ROAD TAX:** £14 10s a year; £1 13s for four months. **MAKERS:** A.J.S. Motor Cycles, Plumstead Road, London, S.E.18. **DESCRIPTION:** Motor Cycle, 27 September 1962.

PERFORMANCE DATA

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

MEAN MAXIMUM SPEED: *Bottom 44 m.p.h.; *second 66 m.p.h.; *third 93 m.p.h.; top 99 m.p.h. *Valve float occurring. **HIGHEST ONE-WAY SPEED:** 104 m.p.h. (conditions: tail wind gusting to 35 m.p.h.; rider wearing two-piece waxed-cotton suit and overboots).

MEAN ACCELERATION:

Bottom	10-30 m.p.h.	20-40 m.p.h.	30-50 m.p.h.
Second	2.6 sec	2.6 sec	2.6 sec
Third	3.4 sec	3.2 sec	3.6 sec
Top	5 sec	6.8 sec	6.2 sec

Mean speed at end of quarter-mile from rest: 90 m.p.h.
Mean time to cover standing quarter-mile: 14.8 sec.

PETROL CONSUMPTION: At 40 m.p.h., 66 m.p.g.; at 50 m.p.h., 64 m.p.g.; at 60 m.p.h., 51 m.p.g.

BRAKING: From 30 m.p.h. to rest, 35 ft. (surface, dry tarmac). **TURNING CIRCLE:** 15ft. 6in. **MINIMUM NON-SNATCH SPEED:** 19 m.p.h. in top gear with ignition fully retarded. **WEIGHT PER C.C.:** 0.64 lb.

