

Traditional, attractive styling for a British sporting single: the front fork is the "heavyweight" Teledraulic

ROAD TEST

248cc A.J.S. CSR

THE A.J.S. 250 CSR remains as testimony to long-held, and enduring, articles in the faith of a famous British motorcycle maker: it is a single-cylinder four-stroke, relatively simple... "traditional"... in design and manufacture, with pleasing lines, finish and performance. If its way of doing things—apart from the infinitely superior comfort it affords the rider—is not greatly different from that of its forerunner of, say, 25 years ago that should not be taken as detrimental to the 250 CSR. The fact is that in most respects the "traditional" single had reached a near-peak in development a quarter-century back and aside from such trivia as burying the pushrods behind the cylinder finning and making the piston stroke fashionably short, there was not much that *could* be changed... so these comments may be taken as tribute to the precocious skills of the industry in palmier days, rather than as criticism of the ageing face of the 250.

Sociologists and shopkeepers say that teenagers control a great deal of money now... and motor cyclists, in the main, are teenagers, passing on to mimickers when they are older, with less money and more responsibilities. So any motorcycle manufacturer with a keen eye for sales—not so commonplace, apparently, no matter what you may think!—does well to tailor his machines for teenagers' tastes and in this context the two-fifty is specially important for it is the upper limit in engine size permitted to riders still with

L plates. There is much about the 250 CSR to appeal to a chap in leather jacket, jeans and bonedome legally barred from ownership of really fast machinery: all the chrome plating, for instance—on the well-valanced mudguards and the rear-chain guard in addition to the usual parts, and all the polished light alloy, and the narrow, slightly down-turned handlebar... The impression is distinctly sporting, the reality less so.

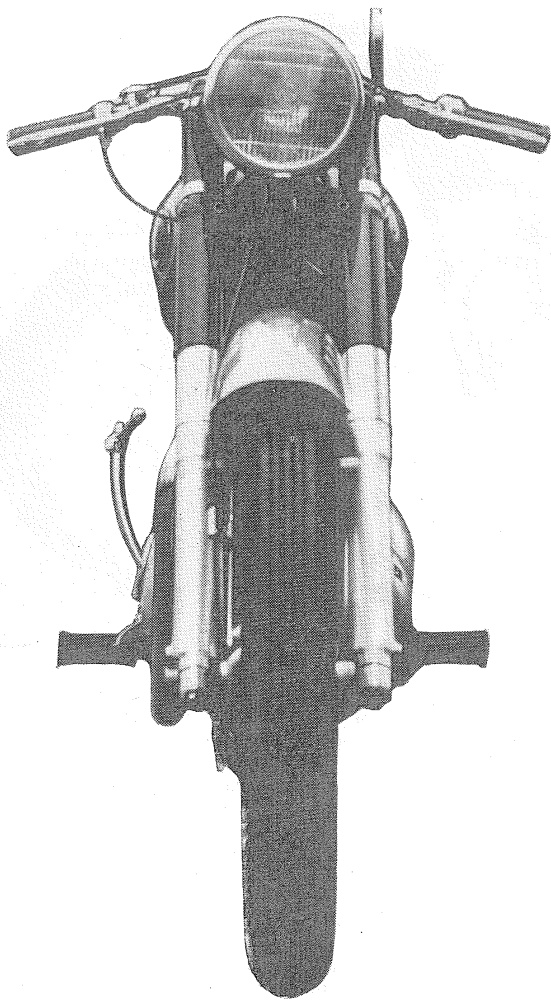
The cylinder, and head in light alloy, are cleanly designed, the pushrods behind the fins, and set at an angle to the wheelbase; the tappet inspection cover is close under the tank but quite accessible. The bore is much bigger than the stroke—69.85mm to 64.84mm—and the axis of the cylinder is offset to reduce piston rock, and slap, when the engine is cold. This model was introduced in May 1962 as a sporting version of the Model 14S, and has continued in the range unchanged. The improvements incorporated in the CSR stem from the Woolwich scrambler and

make impressive reading compared with the standard two-fifty... smoother inlet passage, bigger inlet valve, a bigger ($1\frac{1}{8}$ in choke) carburettor, higher (8 to 1) compression ratio, scrambler hairpin valve springs with high loading to curtail valve float, steel flywheels, larger crankpin, duplex primary chain: the result is a tough little engine which would, presumably, respond to more ambitious tuning than it currently receives at the factory.

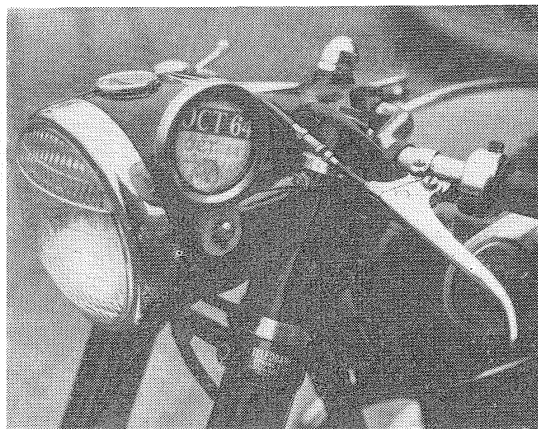
Crankcase and gearbox are separate, a fact difficult to establish from examination of the A.J.S. because the two are enveloped by large, smoothly polished light-alloy cheeks, the righthand one containing the $2\frac{1}{2}$ pint oil tank at the front, the other enclosing the primary chain and provided with two inspection ports for chain and clutch adjustment. The 17in front wheel has a nicely made full-width hub with alloy back plate and shrunk-in cast-iron drum, the shoes being of 6in diameter; the 17in rear wheel has a rather nondescript



Lights are controlled by the lefthand switch in the headlamp, ignition by the righthand one (which has an emergency starting position). The ammeter needle, partially shrouded by a plate in the dial face, can be seen well enough by the rider



Head-on aspect of the A.J.S. is free from knobby obtrusions: the handlebar droop is comfortable



All controls can be individually positioned, the clutch cable is provided with effective, if somewhat fiddling, adjustment



Girling rear-suspension units have three-position adjustment. Rear brake is effective, if not so impressive as front

hub, full width again but obviously deriving from the James and/or Francis Barnett side of the business . . . but it houses a good brake, with very little sponginess in the control and a reluctance to lock the wheel unless applied really heavily. Front suspension is by Tele-draulic fork, with damping on both strokes, rear by long Girlings with three-position adjustment to cope with varying loads or road surfaces.

The finish, as I have remarked, is pleasing—and has quality too as I found after leaving the machine for two or three weeks in a damp, chilly garage . . . there was no dulling of the guards, or of any of the chrome, the only blemish being a slight rusting of front-wheel spindle nuts. After pausing a few minutes to savour this I found my happy mood shortlived as I struggled to start the engine . . . with no success until I changed the FE 250 racing plug for a new FE 80, when the engine fired first kick. Racing-type petrol taps are fitted, the levers stiff to move and so immune to vibration, and all that was necessary for a “cold” start was to push

the tickler once or twice, set the air lever on the right side of the handlebar to a “slack” wire, turn the headlamp switch to “I” . . . and kick. After a few seconds, the air lever could be fully opened and then the engine would settle to a slow, reliable tickover, the exhaust note deep but flat, with very little noise from the valves or piston.

Ignition is by coil, with current from a 54-watt Wipac a.c. generator charging the Exide battery through a rectifier: the “E” position for the headlamp switch is for use when the battery is discharged, when the alternator is connected direct to the ignition coil, so providing current independent of the battery.

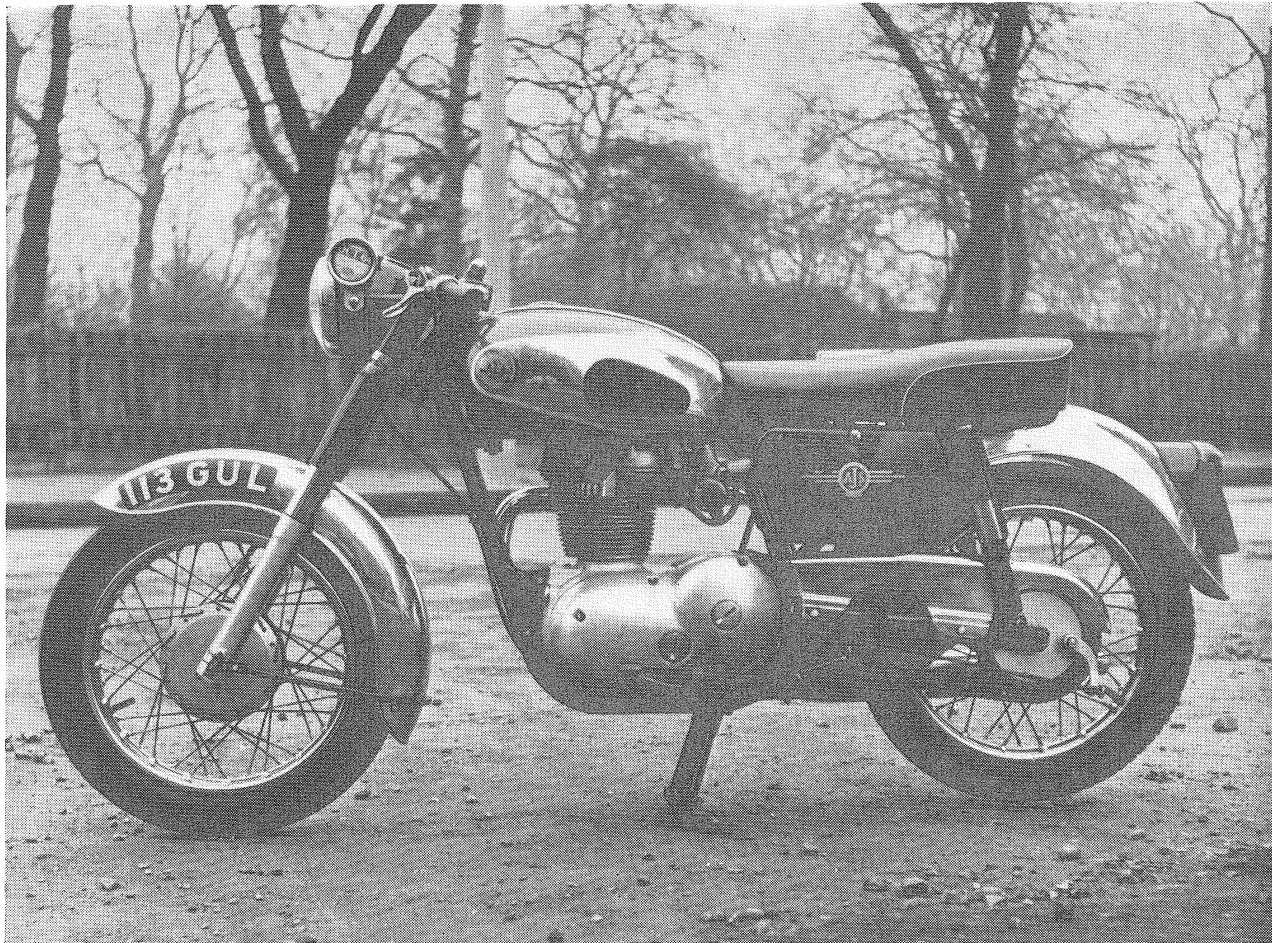
Forgetting to free the clutch plates on a couple of occasions before starting, I had the salutary shock of leaping forward a foot or two, to an agonized “crunch” from gearbox pinions, when I tried to engage bottom gear; thereafter I had no difficulty in remembering to free the clutch plates with an introductory shove on the kickstarter.

The gearbox was delightful—the gear

lever set by the factory to exactly the right spline relative to the footrest and moving lightly and certainly at the gentlest pressure from the foot. It was possible to change gear on the move without clutch accompaniment—and no need for special care or finesse: this exercise probably not to be recommended in general but demonstrating just how hideable was the gearbox on the test machine (and there is no reason to think that “retail” CSR’s are inferior).

All the controls, in fact, worked nicely. The clutch, not particularly light, but smooth and with its action unimpaired by plenty of fast starts and some deliberate slipping; both brake controls well placed for handlebar and footrest, and proving powerful and dependable even when hard-used—the front with just a hint of “sponginess” and good enough to be used alone most of the time, the rear “harder” and reluctant to lock the wheel without excessive pressure.

The front brake on the CSR has a tiny air intake, as you may see from the photograph on page 132. On our machine,



Plenty of chrome plating, of good quality, enhances the CSR's appeal to teenagers. One or two people who rode the machine had criticisms concerning its performance but everybody praised its good looks

and as delivered for roadgoing use, it was inoperative, but a judicious flick with a sharp knife edge, we are told, clears the grille to permit the ingress of cooling air . . . though we could see no sign of the equally important air exit.

The CSR riding position seems to show a mild schizophrenia in A.M.C. planning—the handlebar being narrow and downturned (which means “racer,” or at least “sports,” to most people), the arrangement of the dual-seat, petrol tank and footrests belonging very definitely to the touring side of the A.M.C. range. What this means is that—in relation to the handlebar—the footrests are too far forward, the seat a little too low, the tank too wide at the rear. This may appear hypercritical to some but the image set by the CSR is super sports—I believe that is the description favoured by factory publicity—and the price, at £234 10s 11d, is high enough to raise expectations of a truly sporting layout. In open-road cruising at about 70 m.p.h., I quickly arrived on the nose of the dual-seat, knees splayed by the tank and carrying rather too much weight on my arms.

Cruising speed, you will have noted, I put at 70 m.p.h.—this as shown on the speedo, and being in fact a reading

“optimistic” by about 7 m.p.h. There was some vibration via footrests and handlebar at this speed, with probably the worst vibration period at 55-58 m.p.h. (50 “true”), when the licence disc mounted on the lefthand bolt for the headlamp regularly blurred in sympathy with vibration from the engine.

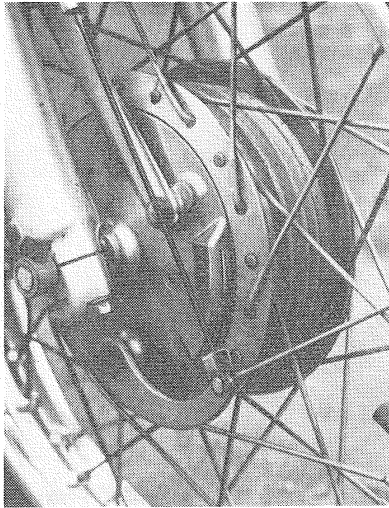
Mechanical noise at tickover was slight, just a little clacking from the valves, and no amount of flat-out riding caused it to increase. But at lowish speeds, before wind roar rendered criticisms of minor noises academic, the petrol tank, closely shrouding the valves, appeared to magnify engine noise and in some way picked up a general whine from engine pinions and transmission. This was noted, I should say, without the sound-deadening effect of a helmet and neck curtain.

In the first few miles of a first trip on M1 I was conscious that the engine was working quite hard in maintaining a 70-75 m.p.h. (speedo) cruising rate, but as the miles ticked up it became obvious that the CSR could cope with any amount of hard driving; the strain was being felt more acutely by the rider than the motorcycle.

Top speeds in the gears were 48 m.p.h. (43 true) in second and 65 (60) in third,

with valve float occurring on both occasions; in top gear, grip against the stop, the A.J.S. would reach a speedometer 82-83 (74) on any slight downgrade. Normal changing-up speeds were: into third at 30 m.p.h., into top at 45—this routine providing pickup to match that from using top revs in the gears. A wide range of (automatic) ignition advance and retard resulted in rather tepid acceleration at low r.p.m., and a “flattish” exhaust note. Always there was the impression that this was a modestly tuned engine working well within its potential and probably—as mentioned earlier—capable of being modified to produce impressive performance.

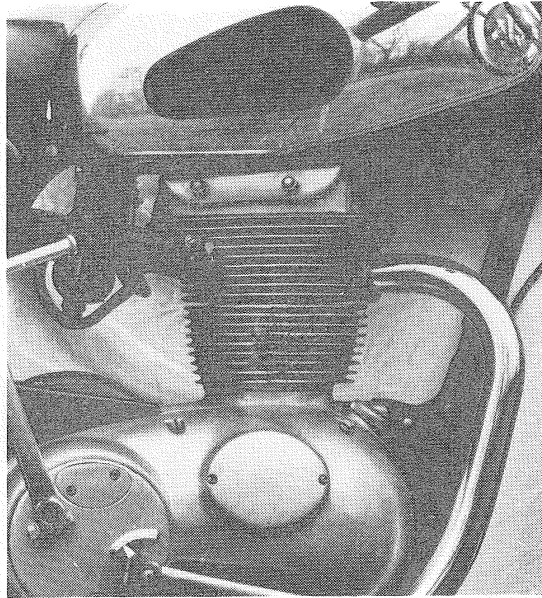
What *was* really impressive about the CSR as tested was its steering: firm but not heavy, absolutely positive, very responsive. There may be more advanced, more truly contemporary, engine units in other (mainly foreign) two-fifties, but the CSR's steering bears comparison with the best. Once, at night, I was unaware that the road surface was damp—it was not wet enough to provoke tyre hiss, but certainly offered diminished grip for the 3.25in tyres—so I was probably negotiating the Leicestershire bends with less caution than if I had known of the slippery



tarmac. But the point is—the A.J.S. performed beautifully, with no disturbing lightness at the steering head.

The suspension was comfortable, perhaps a little firm at the front, softer at the rear.

The finish and styling of the CSR are highly satisfactory, in the best traditions of the British sporting machine, and in our experience are unlikely to be sullied by oil leaks; in several hundred miles of motorway driving we found never a smear on the engine.



Front brake measures 6in and is housed in an impressive full-width Motology hub; note the air intake, inoperative until cleared by a knife blade. As for the engine—“smooth” would seem to be the word. The kick-starter had to be depressed for the toolbox to be opened fully

But if oil kept to its place, inside the engine, petrol insisted on vacating the tank . . . admittedly via the proper, carburettor, path . . . at an impressive rate. Cruising at 60-70 m.p.h., we found it necessary to fill the 3½ gallon tank at frequent intervals. Exact consumption worked out at 64 m.p.g. At around 50 m.p.h. the CSR's thirst improved to a little over 70 m.p.g. C. A.

And a second opinion . . .

WHEN I first rode the 250 CSR I had come straight off another two-fifty—one of an entirely different type, the T10 Suzuki, a twin two-stroke touring machine. Frankly, I was disappointed in the change. I had expected the “sports” machine to have more snap and better acceleration, but the two-stroke could leave it pretty well any time.

Admittedly the Ajay was faster given a long enough run to work its speed up but on roads where there was not a lot of straight and a few hills it had a job to keep up with the twin.*

The fact that the CSR has an automatic advance and retard mechanism may have an adverse effect on its acceleration—give me a manual control every time. The rather flat exhaust note when one opens up seems to confirm this.

Naturally, compared with a twin the engine did not feel particularly smooth and at low and medium speeds had a lot of “thump,” but it did smooth out, and at maximum—in my case 80 on the clock, getting down to it but with rather bulky clothing—there was very little vibration.

What I did like was the riding position, comfortable without being too “sporty,” good handling and really excellent brakes; the back stopper in particular was very powerful and smooth in operation. F. P. H.

* Perhaps a slightly higher third gear might have helped but as it was I did not feel happy about “knocking down a cog” as soon as the revs dropped slightly.

A.J.S. 250CSR SPECIFICATION

Engine A.M.C. overhead-valve single cylinder; 65×70mm, 248 c.c. Double-row roller bearing for big-end; ball and roller bearing and plain bearing for crankshaft. Light-alloy cylinder head, cast-iron barrel. Compression ratio, 8 to 1. 1½in-choke Amal Monobloc carburettor with handlebar-controlled air slide.

Gearbox A.M.C. four-speed with foot change bolted to rear of engine. Overall ratios: 18.68, 11.32, 8.31, 6.39 to 1. Multi-plate clutch with vane-type shock absorber. Primary drive by duplex chain in cast-aluminium case with oil bath. Chain final drive.

Electrical Equipment Coilignition, Wipac 54-watt a.c. generator charging 6-volt, 12 amp-hour Exide battery through rectifier. 6in-diameter headlamp with 30/24 watt main bulb.

Wheels and Brakes Chrome-plated steel rims carrying 3.25×17in tyres; 6in diameter brakes in full-width hubs, front with air intake.

Suspension Front Teledraulic fork with two-way damping. Pivoted-fork rear suspension controlled by three-position Girling spring-and-damper units.

Tank Capacities Petrol, 3½ gallons. Oil, 2½ pints.

Dimensions Wheelbase, 53in. Seat height, 30½in. Weight, 320 lb.

Makers Matchless Motor Cycles, Plumstead Road, London, S.E.18.
Price £234 10s. 11d. including tax.

Performance

1st gear	26 m.p.h.
2nd gear	43 m.p.h.*
3rd gear	61 m.p.h.*
Top gear	72 m.p.h.

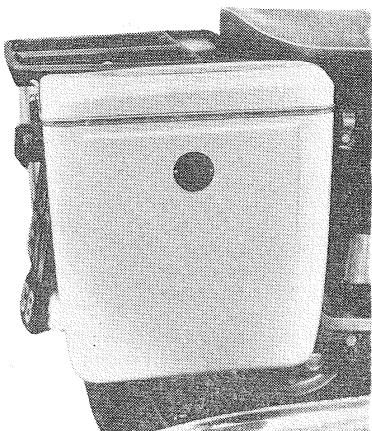
*Valve crash occurring.

Braking From 30 m.p.h., using both brakes—32ft.

Fuel Consumption 75 m.p.g. in town and country use; 64 m.p.g. for 65-70 m.p.h. cruising. Premium fuel.

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