

ROAD TESTS OF NEW MODELS

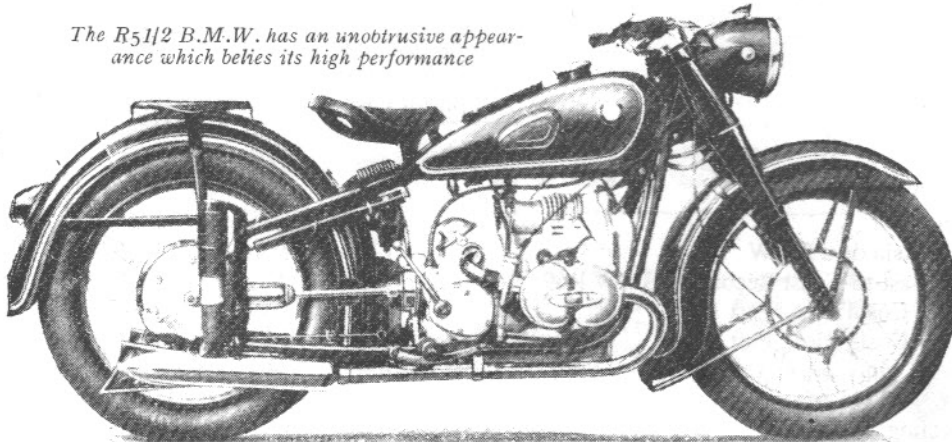
494 c.c. Transverse-twin

A Quality German Machine with an Appeal Alike to the Tourist

WHEN the production of civilian motor cycles restarted after the war years, no machine emerged in its post-war guise with higher goodwill based on earlier products than the R51/2 B.M.W. The pre-war production machines had earned praise throughout the world, a B.M.W. had won the 1939 Senior T.T., and a B.M.W. still holds the maximum speed record.

Nowadays only one horizontally opposed B.M.W. twin is in production. The machine is basically similar to the R/51 of 1939, but incorporates a few modifications, the most interesting of which is the redesigned cylinder heads and overhead rocker

The R51/2 B.M.W. has an unobtrusive appearance which belies its high performance



gear. The pre-war five-hundred was marketed as a sports model, but no such claim is made for the current machine; indeed, it has a general appearance which suggests a touring roadster of demure performance. Therein lies one of its attractions, because while the R51/2 is well mannered and pleasurable to ride at medium speeds, it has a top-end performance that puts it in the sports category and encourages the appellation "Jekyll and Hyde."

Coil ignition is employed and is switched on by depressing the body of the lighting switch fitted in the head-lamp shell. Each cylinder has its own carburettor fed through intake pipes

connected to a single air filter sunk in the top of the crankcase-gear box casing. The carburettors have no air slides; instead, there is an intake shutter at the mouth of the filter.

For cold starting it was found that an adequately rich mixture was given by flooding the carburettors; the shutter was not employed. The kick-starter crank is on the left side and has its axis in line with the machine; the most convenient way to depress the pedal is with the right foot while the machine is on its central stand. By British habits this might seem to be an inconvenient necessity, but two factors lessen any criticism that might be applied to this kick-starter layout. First, the engine

started readily whether it was hot or cold; secondly, the tick-over was absolutely reliable, so that the chance of the engine's stalling was remote. Moreover, the engine idled so quietly and, with the ignition retarded, so slowly that one felt almost encouraged to keep the engine running for lengthy periods, when in similar circumstances with many machines there would have been the inclination to stop the engine and to restart it when ready to move off.

Mixture strength to each cylinder, as supplied by the separate carburettors, was correctly balanced for idling and low speeds and indeed, as far as could be judged, for all speeds. Pick-up of the engine as the twistgrip was turned was clean throughout the range.

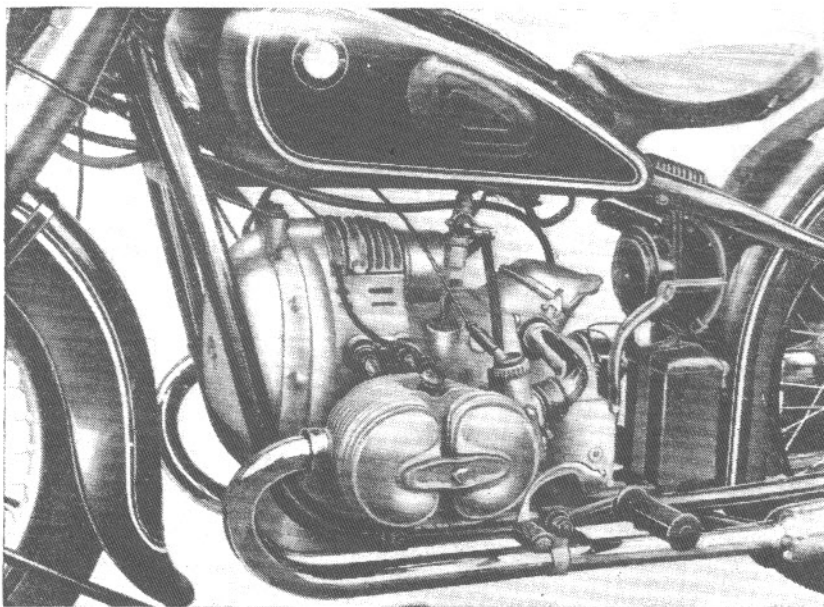
The twistgrip has a longer travel—a slower action—than usual on British machines and was perhaps slightly heavy in operation. The operation of all controls was inclined to be heavy and the foot-change pedal sufficiently stiff in movement to become tiring at the end of a long day's run.

With the machine stationary and the engine idling, the clutch freed satisfactorily so that bottom gear could be engaged without noise; one could not feel the operation of the gear-change mechanism through the pedal, which sometimes resulted in doubt as to whether the gear had been selected. The clutch took up the drive smoothly, though rather quickly. The

machine as a whole is nicely balanced and could be ridden at very low speeds and manoeuvred slowly in confined spaces feet-up without any special skill. In such circumstances the steering was light and entirely free from roll—as it was throughout the speed range.

The transverse disposition of the cylinders makes it necessary for the footrests to be slightly farther back than on the majority of machines. Handlebar width is above average—30in direct from tip-to-tip. At first, the riding position felt slightly unconventional, but after a few miles' experience was considered to have its merits, especially for the ease with which the footrests could be used for support. This is not to imply that the saddle was not up to its work—it was, in fact, commendably comfortable. Footrests, saddle and handlebar are adjustable.

The B.M.W. is quiet mechanically, and the silencers give an admirably subdued exhaust note. There is something more than absence of mechanical clatter. What noise does



Power unit is of attractively neat design and is beautifully finished. Throughout the test no oil leaks occurred

B.M.W.

and the Sportsman

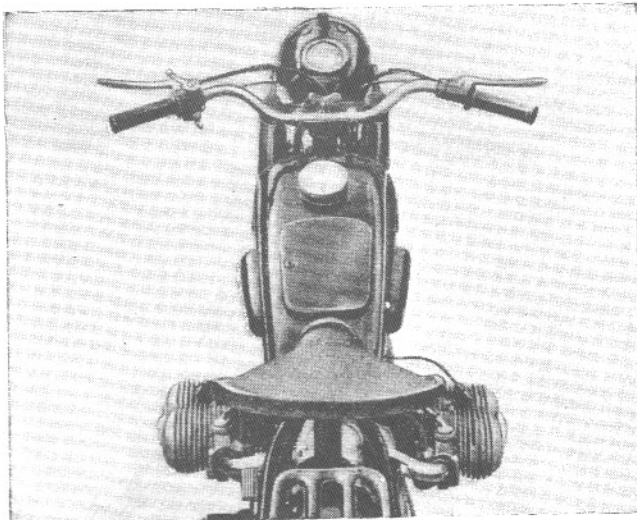
emanate from the engine is dull and as if insulated by, say, very heavy oil. At town speeds the B.M.W. is pleasurable to ride. It encourages one to be in gentlemanly mood by reason of its quietness and easy acceleration. The engine pulls well and incites ambling in a highish gear in relation to road speed though there was the objection that there is a hardness in power delivery that can, indeed, be felt at speeds as high as nearly 40 m.p.h. when accelerating in top gear. Each power stroke can be felt.

The "Jekyll and Hyde" characteristic of the machine is soon apparent when open roads are encountered. There is a complete absence of high-frequency vibration, and as the revolutions mount the engine has the smooth, noiseless power flow of a turbine. Performance is zestful, and, because of the smoothness, quietness and effortlessness of the engine, speeds achieved can be deceptive. When driven as hard as open road conditions permitted, the engine proved tireless and remained unusually cool, as might be expected with the light-alloy cylinder heads so fully exposed to the air stream. Any top-gear speed above 40 m.p.h. to the maximum could be regarded as a comfortable cruising speed so far as the engine was concerned.

To avoid clashing, gear changes had to be leisurely. When obtaining the quarter-mile acceleration figures it was found that third gear, if engaged as rapidly as possible irrespective of the clashing of pinions, slipped out of mesh. Perforce, therefore, gear changing had to be slow for this type of performance data, and the hindrance is reflected in the time and speed figures recorded.

Both front and rear suspensions are inclined to be hard by modern British standards. For example, at dawdling speeds—say, 10 m.p.h.—over cobbles and tram-track inspection covers, the amount of front fork and rear plunger movement was negligible so that suspension was largely provided by the tyres. Under average conditions, the suspensions have a well-controlled movement, the slight hardness perhaps contributing to the marked degree of stability of the machine especially apparent during high-speed cornering. The steering was pluperfect (the damper was never brought into use) and the machine handled in the most confidence-inspiring manner without the lightest signs of drift or chopping-out when cornering fast on indifferent surfaces. Stability was also of a high order under wet road conditions; skidding was never experienced.

The brakes of the machine tested did not match the perform-



Handlebar controls are neatly grouped. Lid of the tool-box in a tank recess has a lock

ance, largely because the front brake lacked real power, no matter how much effort was given to applying the lever.

Throughout the test the engine remained free from oil leaks; the degree of cleanliness was outstanding, with the crankcase retaining a "just-from-the-showroom" appearance. Mudguarding was above average in effectiveness. The beam from the head lamp gave a wide spread of light of higher-than-average intensity, and the dipped beam, while adequate for the rider, had a clean cut-off that ensured oncoming drivers were not dazzled.

Many detail features of the B.M.W. appeal to the experienced rider. Both wheels are quickly detachable; the tools are carried in a tank recess provided with a lock; a locking bar is supplied which fits into mating fork and frame lugs and, when in position, ensures that it would be impracticable for the machine to be wheeled or ridden away.

It is understood that modifications which are being introduced for the R51/2 will include the fitting of a prop-stand, and a narrower handlebar; on the new bar the clutch and brake levers will require a smaller hand span, and the operation of horn and dipper controls will be more convenient.

Information Panel

SPECIFICATION

ENGINE: 494 c.c. (68 x 68 mm) o.h.v. horizontally opposed twin. Fully enclosed valve-gear operated by push-rods and twin chain-driven camshafts. Light-alloy cylinder heads and cast-iron barrels. Light-alloy pistons. Crankshaft supported by two ball bearings. Oil-pump in crankcase reservoir driven by skew gear and shaft from offside camshaft; reservoir capacity, 3½ pints. Compression ratio, 6.3 to 1.

CARBURETTOR: Bing-Spezial 1/22/29 and 1/22/30; twistgrip throttle control, air shutter on intake cleaner in upper gear-box cover.

IGNITION and LIGHTING: Bosch coil, with manual advance by handlebar lever. Bosch 70-watt dynamo; 7in head lamp.

TRANSMISSION: B.M.W. four-speed gear box with positive-stop foot control and hand lever. Gear ratios: Bottom, 11.8 to 1. Second, 9.87 to 1. Third, 6.61 to 1. Top, 4.85 to 1. Single-plate clutch in flywheel. Shaft secondary drive with flexible coupling at front and universal joint at rear. Spiral-bevel final drive gears in oil bath; reduction ratio, 3.89 to 1. R.p.m. at 30 m.p.h. in top gear, approx. 1,900.

FUEL CAPACITY: 3 gallons.

TYRES: Metzeler, 3.50 x 19in studded, front and rear.

BRAKES: 7.87in dia front and rear.

SUSPENSION: B.M.W. telescopic front fork with hydraulic damping; plunger-type rear-springing, with coil compression springs and rubber deflection stops.

WHEELBASE: 55in.

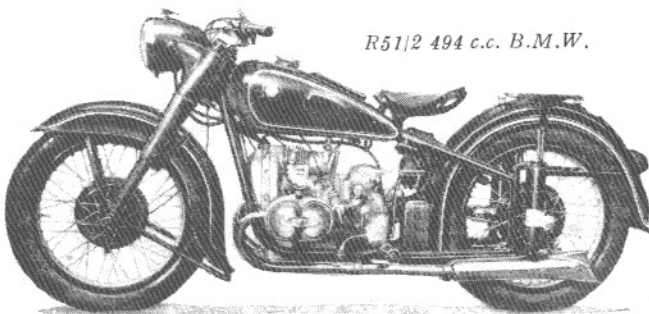
SADDLE: Pagusa, rubber pan-type, with tension spring anchored to nose pivot. Unladen height, 29in.

WEIGHT: 396lb, with approximately 2 gallons of fuel.

PRICE: Not yet available in Great Britain.

ROAD TAX: £3 15s 6d a year; £1 0s 8d a quarter.

MAKERS: Bayerische Motoren Werke A/G., Munchen 13, Germany. Concessionaires: A.F.N., Ltd., Isleworth, Middlesex.



R51/2 494 c.c. B.M.W.

PERFORMANCE DATA

MEAN MAXIMUM SPEED: Bottom: 38 m.p.h.

Second: 56 m.p.h.

Third: 75 m.p.h.

Top: 88 m.p.h.

MEAN ACCELERATION

	10-30 m.p.h.	20-40 m.p.h.	30-50 m.p.h.
Bottom	2.4 secs	—	—
Second	3.4 secs	4.0 secs	3.8 secs
Third	5.6 secs	5.4 secs	5.6 secs
Top	—	9.2 secs	9.0 secs

Mean speed at end of quarter-mile from rest: 65 m.p.h.

Mean time to cover standing quarter-mile: 19.8 secs.

PETROL CONSUMPTION: At 30 m.p.h., 94 m.p.g. At 40 m.p.h., 72 m.p.g. At 50 m.p.h., 61 m.p.g. At 60 m.p.h., 48 m.p.g.

BRAKING: From 30 m.p.h. to rest, 31ft (surface, damp tar-macadam).

TURNING CIRCLE: 16ft.

MINIMUM NON-SNATCH SPEED: 16 m.p.h. in top gear.

WEIGHT PER C.C.: 0.89 lb.