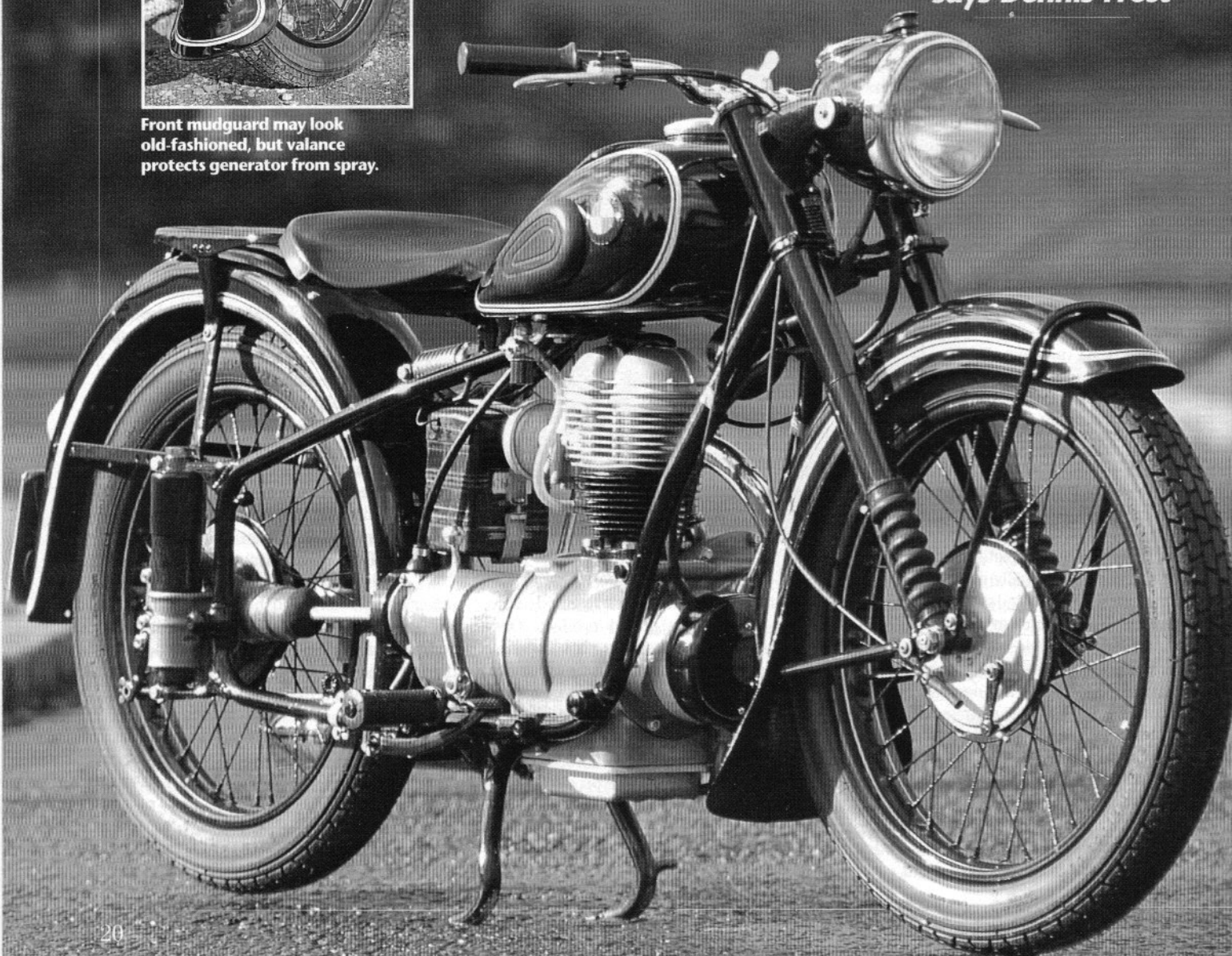


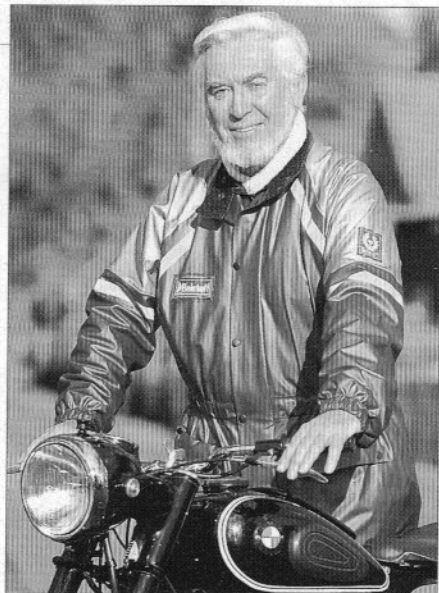
BMW's flat SINGLE



Front mudguard may look old-fashioned, but valance protects generator from spray.

*Although the R25 led
BMW's post-war
revival, its 250 ohv
single is no lively
lightweight
says Dennis Frost*





Tom Gilby bought the 1952 BMW at auction.

We all buy motorcycles for different reasons. Whether it's sentiment or practicality which takes control, our collections reflect a personal vision of what we think is best.

If Tom Gilby garages a 1952 245cc BMW R25/2 alongside a highly desirable 1928 588cc Norton Model 19, you might think that he must have catholic tastes. Not quite. Both motorcycles had been owned by his friend Ian Webb — a workmate at Tom's Hertfordshire engineering firm for 26 years.

In December 1990, he had gone to north London to help Ian collect the BMW. "The 250 was a tired old thing," Tom recalls. Although complete, its tyres were flat and rotted, and the exhaust system was full of holes. Despite being seriously ill with cancer, Ian started work on the BMW right away. But within four months he had died.

Tom bought the R25 — and the flat tank Norton — at auction the following summer. Taking out the wheels and checking that they ran true, he sent them for black polyester powder coating. Refitted to the machine with new Metzeler tyres, Tom could then move the BMW around — it's the right way to start a restoration.

It was two years before Tom began the BMW's full rebuild. Once he started, the work was done in four months. Lifting the cylinder, he found that the piston and crankshaft were in excellent condition, with the sump still full of clean oil. He dismantled the gearbox, which needed no new parts. Wear in the rear wheel's drive splines was the only mechanical problem. But with interchangeable wheels, Tom just swapped them round — the splines in the front wheel were unworn.

The aluminium alloy engine casings were badly corroded. "I'm not keen on blasting crankcases," says Tom, adding that the jet of glass beads (wet or dry) ruin the original casting's semi bright finish. He cleaned the alloy with wire wool soaked in paraffin (kerosene). The work took a long time.

The cycle parts were corroded too. On its return from stove enamelling, the frame still carried the scars of its years in the open. There were too many imperfections for Tom. "I was going to have the other cycle parts stove enamelled as well, but once I saw the frame, I decided to fill and paint them myself," he says.

Both mudguards were full of holes. The front's distinctively flared lower end had been folded upwards. "I think the machine had been pushed over a kerb while its front tyre was flat," says Tom, "but I managed to bend it back." He refinished the headlamp and fork

ing it out and glueing it in place. I asked if he had turned the local toy shops upside down to find a ball of the right size. "No, I took it off the dog," says Tom, laughing.

Already astride his vintage ohv Norton, Tom waited for me to kick the BMW into life. Standing on the left, I reached over to grasp the Magura twistgrip. Pressing down the side on kickstart with my right foot, the engine spins quickly. Against the Norton's boom, the little BMW's exhaust is inaudible. How do I know if it's started? There's no flickering ammeter to watch. It's easy. Just look at those handlebars. At tickover, the in-line crankshaft and heavy flywheel cause the whole machine to shake — and it's most apparent through the handlebars. Removing my hand, I watch them rocking from side to side.

Tickover is uncannily slow. A couple of times I involuntarily add a twist of throttle — certain that combustion is about to

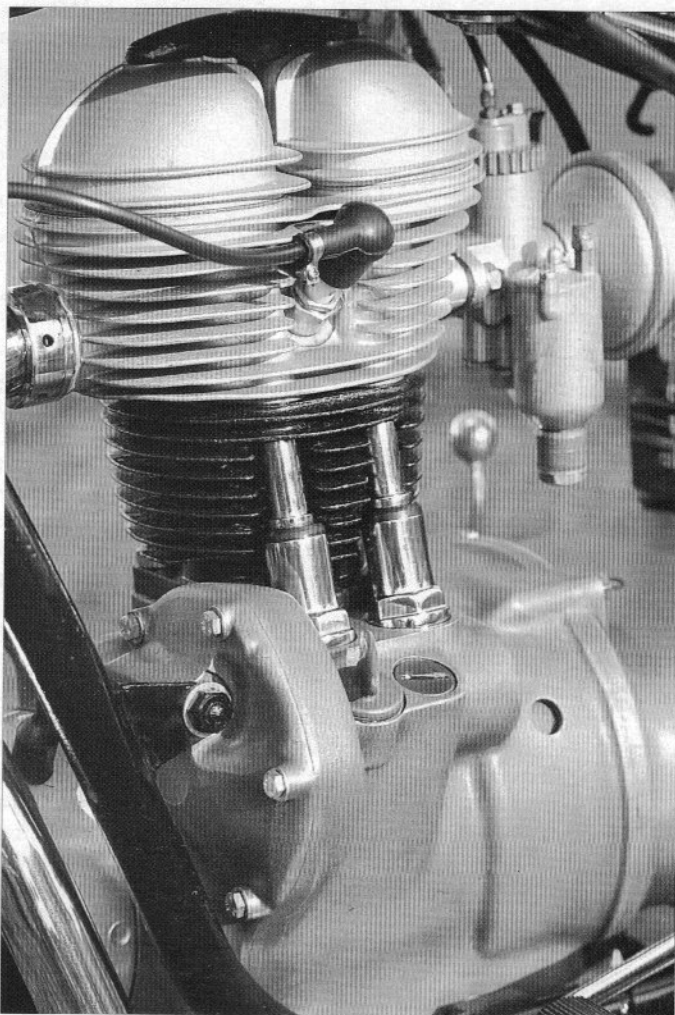
stop. It doesn't. Pressing the gear lever down on the left, first gear engages noiselessly. I ignore the upright hand operated alternative on the opposite side.

The crankshaft mounted dry clutch is light and smooth. But, because the clutch is running at engine speed, my takeoff is a jerky affair until I master the knack. A tiny movement of the handlebar lever and the clutch is home.

There's a knack to changing gear as well. Nothing complicated. Just take your time, or risk a clash of pinions. The BMW has the slowest gearchange imaginable. Pull in the clutch and start counting.

Under way, the lawnmower like chuffing from the exhaust is replaced by a muffled roar. Following Tom along the Hertfordshire lanes, the little 250 feels unburstable. As we round a bend, the road ahead is flat and straight for as far as I can see. Winding the throttle wide open I'm soon doing 55mph, but there's not much in reserve.

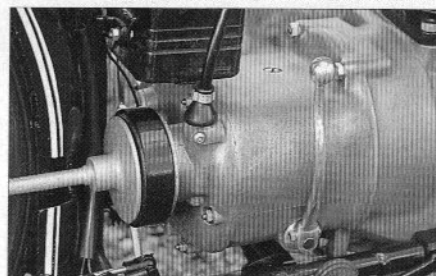
Used to riding Fifties' BMW twins, I was expecting another sedate tourer, with top marks for comfort and handling. But the R25/2 is a disappointment. Smooth it is not. At 45mph the handlebars begin to shake again. This isn't the crazy shimmy at tickover, a function of the engine layout, but the



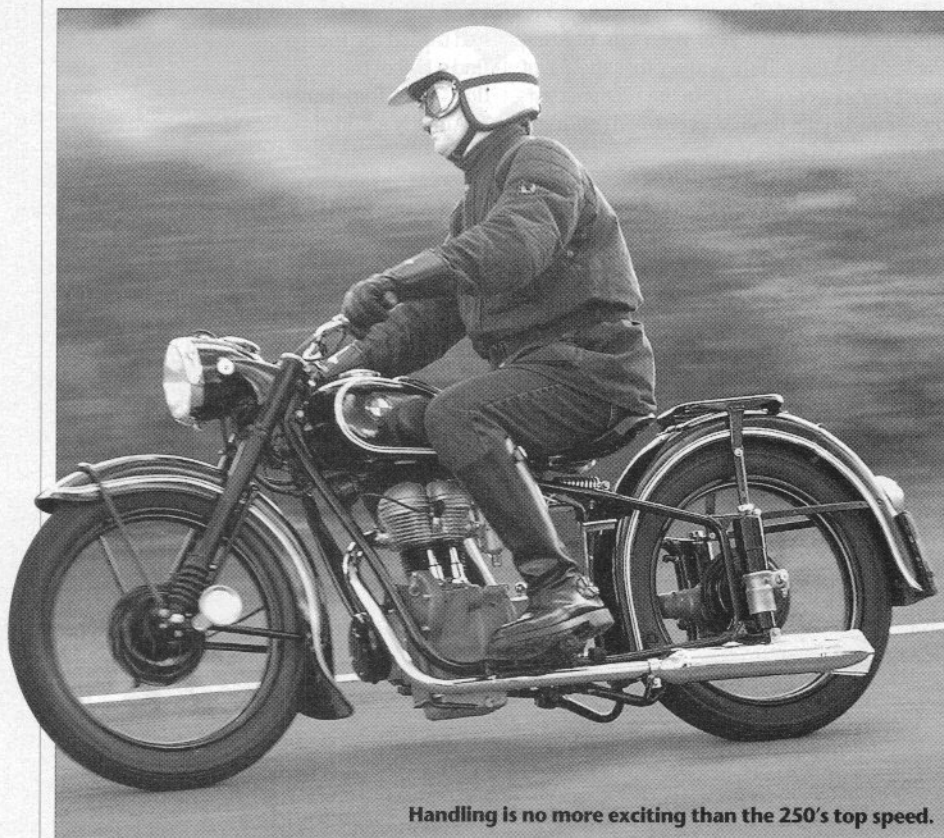
Wet sump single looks like half a flat twin. It performs like one, too.

with aerosols, while his son sprayed the petrol tank and mudguards with cellulose paint. A local signwriter added the distinctive double white lining. The correct layout on a R25/2 includes a thinner outer line, but this is based on the lining scheme from a R51/3 500 twin, Tom's preferred option.

Where the exposed final drive shaft enters the bevel drive casing, the external seal had long since rotted away. For a replacement, Tom cut a sorbo rubber ball in half — hollow-



Hand or foot change — hand lever on right.



Handling is no more exciting than the 250's top speed.

At a glance

1952 BMW R25/2

Engine Type ohv single

Bore x Stroke 68 x 68mm

Capacity 245cc

Power output 12bhp

Transmission four-speed, wet clutch. Final drive by shaft and bevel gears

Frame full duplex cradle

Suspension telescopic front fork, plunger sprung rear wheel

Weight 150kg (330lb) **Seat Height** 28in

Wheelbase 54½in

Top speed 60mph

Fuel consumption 80mpg at 60mph

Club contact Peter Kyle, BMW Club, 1 Barrowsfield, Sanderstead, South Croydon, Surrey CR2 9EA (0181 657 1694).

Price new £276 12s 9d

Guide price now £2000 - £2500. BMW singles have always been rare machines in Britain, but are regularly advertised for sale in Germany.

BMW's flat SINGLE

sort of uncomfortable vibration you'd expect from any poorly balanced single cylinder engine. That lightly tuned power unit is always working hard, hauling along a 330lb motorcycle. Should I be riding the 250 so hard? The speedometer indicated that I was being restrained — the engine told a different tale. Speed drops off alarmingly on hills, and there isn't enough torque for the BMW to really dig into the climb and hold its speed. On every hill I always seemed to be changing down.

With its heavy duplex frame and plenty of ground clearance, the BMW felt safe on the approach to bends. But leaning the R25 over too far in anticipation of a higher cornering speed, I had to suddenly haul it upright. This is a motorcycle which promises more than it can deliver.

After the sophistication of BMW's smooth flat twins the under-powered, heavy and vibra-

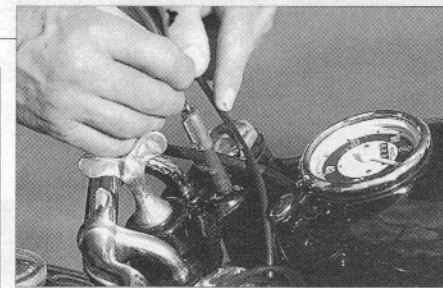
tion prone R25 makes no sense. And rubber mounting the engine from 1957 was BMW's admission that the single's faults were locked into its original design.

In pre-WWII Germany, a relatively cheap single which exploited the under 200cc concession of no road tax or driver's licence proved to be a sales success for BMW. But selling the R25 after the company was allowed to make machines of over 250cc by the Allies looks like slavish adherence to a flawed design.

Meanwhile in Britain, buying a 250 BMW when only \$5 more would have netted you an Ariel Square Four must have seemed like lunacy. Worse still, it would have been outperformed by a 249cc BSA C11.

I think that BMW forgot the basic rules of motorcycle design when they made the R25. If it's got a small engine, make your motorcycle a lightweight. The smallest BMW may have led the company back to prosperity, but set alongside their twins it's a pretty poor introduction to a marque whose products are famed for covering high mileages with quiet efficiency.

Quiet the R25 may be — efficient, never. ■



Insert steering lock barrel in fork yoke.

Further reading

Here's what we can supply you with on the BMW singles in photocopy form from our archives. Prices include postage.

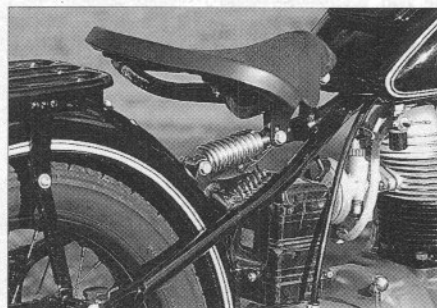
Motor Cycling road test of 245cc R25: 15 May 1952

The Motor Cycle road test of the R26: 2 August 1956. £2.50.

Motor Cycling road test, also of the R26: 27 September 1956. £2.50.

Write to: Richard Rosenthal, The Classic MotorCycle, 20-22 Station Road, Kettering, Northants NN15 7HH.

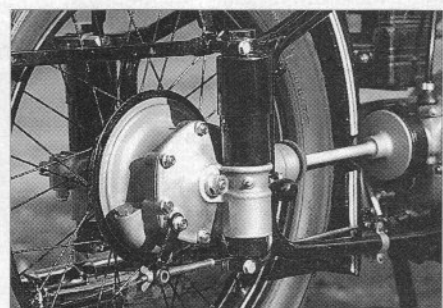
Make cheques payable to *The Classic MotorCycle*, or call with your Visa/Access number on 01536 386790.



Rubber topped saddle has plenty of travel.



Toolbox is built into the top of the fuel tank.



Plunger suspension and an exposed shaft.

Single purpose

BMW's FIRST single cylinder motorcycle — the 1925 R39 — was a 250. Not surprisingly its semi-unit construction engine with a single, vertical cylinder, followed the general design already adopted for the horizontally opposed twins. The crankshaft was placed in line rather than across the frame, with final drive by shaft and bevel gears. Only 855 machines were made. A high selling price and mechanical problems made BMW's first single a failure.

From April 1928, Germany allowed motorcyclists to ride machines up to 200cc without road tax or a drivers' licence. While DKW fully exploited this concession with their two-stroke lightweights, BMW stuck with their high priced, large capacity twins. But as the effects of the Wall Street Crash swept around the world, BMW were forced to reconsider. A 63 x 64mm 198cc single, the R2, looked like it could be a sales success. It was. Over 4200 R2 models were made in 1931 — the model's first production year.

Manufactured until 1937, the R2 was replaced that year by the R20 — with a tubular rather than a pressed steel frame. A telescopic front fork replaced the R2's pressed steel trailing link fork controlled by a laminated leaf spring.

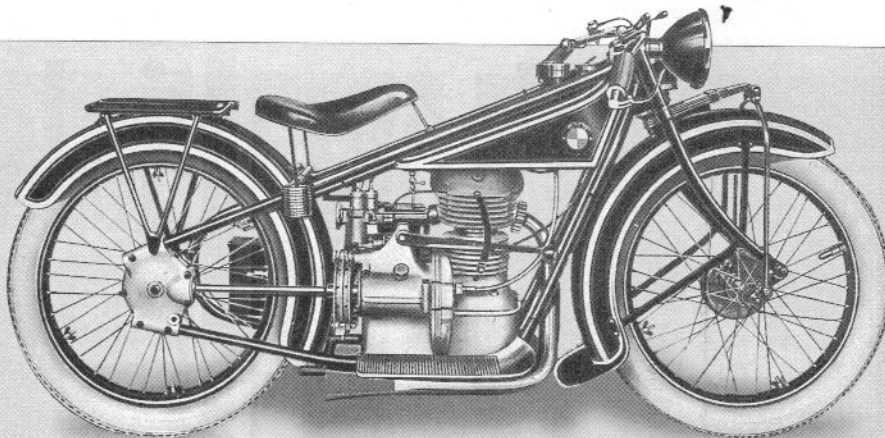
In June 1938 German traffic laws were changed again. A restricted driving licence for machines up to 250cc replaced the tax and licence free concession of ten years before. With its 200cc R20 being instantly uncompetitive, BMW re-introduced a 250 single, the 68 x 68mm 245cc R23.

In 1952 a new R25/3 BMW cost £276 12s 9d in Britain. Hardly appealing as a cheap commuter, it was £147 more expensive than its capacity rival, the BSA C11. Even that 'everyman' motorcycle, the LE Velocette — whose mass appeal was always limited by its selling price — was £103 cheaper.

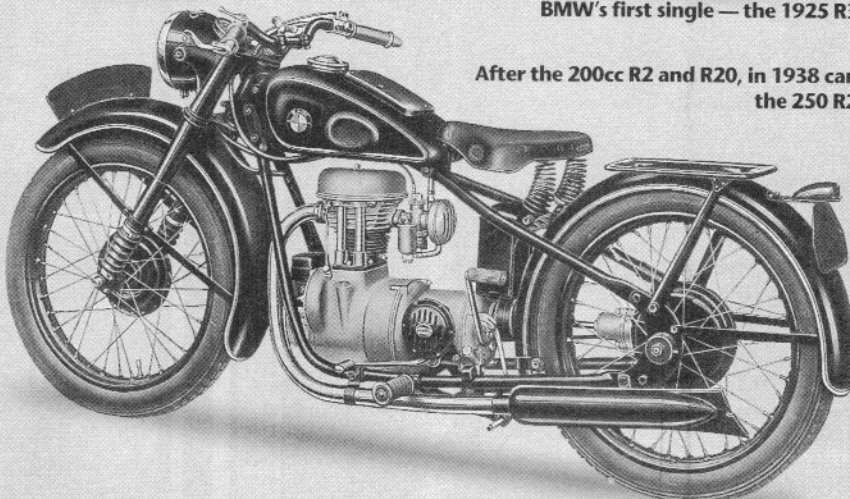
But in West Germany, the 250 single had been responsible for BMW's post-war revival. Initially banned by the Allies from making motorcycles, by mid-1946 the restriction was lifted — at least for machines up to 250cc. By March 1948 BMW were ready to produce a machine of nearly that capacity, the 247cc R24. Based heavily on the pre-war R23, its rigid bolted-up frame housed an updated engine with inclined pushrod tubes and a new cylinder head. Its gearbox contained four speeds. By May 1949, 800 workers were building the R24. Total production for the year was 9400 machines.

In 1950 the further modernised R25 used an all welded plunger sprung frame and interchangeable wheels. Its most distinctive feature was a valanced front mudguard with an almost vintage flared lower end. Detailed changes on the 1951 R25/2 included a leading stay curling over rather than inside the front mudguard, and a Stegen Franke rubber topped saddle controlled by a horizontal spring.

The R25/3 was launched at the Frankfurt Motorcycle Show in October 1953. Hydraulic damping improved the front fork, while full width hubs were spoked into 18in diameter wheels (previously 19in) with alloy rims. Made until 1956, R25/3 output topped 25,000 machines in 1954 — the single's peak production year.

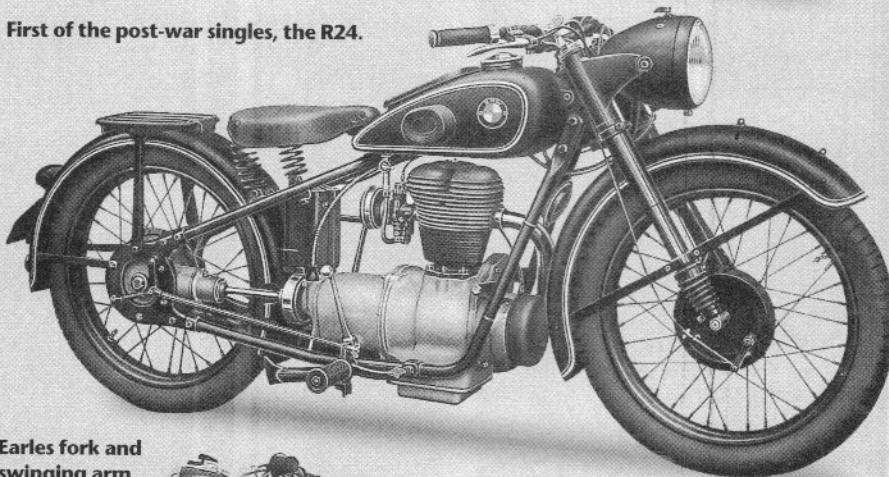


BMW's first single — the 1925 R39.

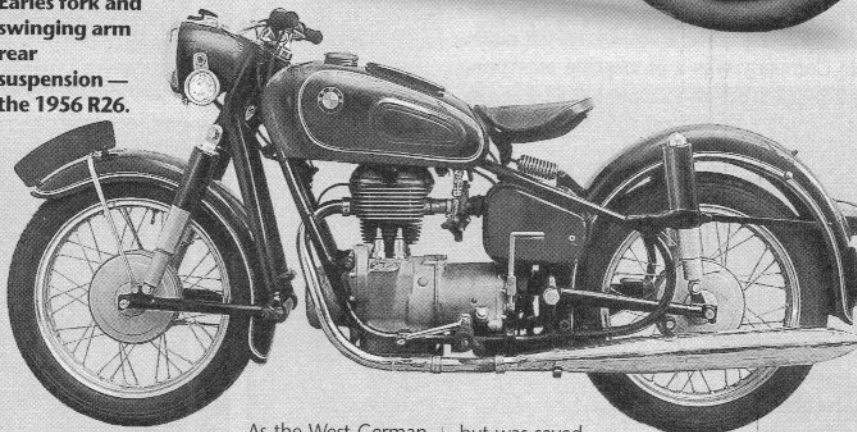


After the 200cc R2 and R20, in 1938 came the 250 R23.

First of the post-war singles, the R24.



Earles fork and swinging arm rear suspension — the 1956 R26.



As the West German economic powerhouse gained strength, an increasingly affluent population turned from motorcycles to cars. The country's motorcycle industry rapidly declined. BMW's production went into a tailspin — 5400 machines in 1957, a fifth of 1954's total. By 1959 the company faced bankruptcy,

but was saved by a flat twin car.

Despite the upheavals, the 250 single — with English designed long leading link Earles forks, and pivoted fork rear suspension — remained in production until 1966. By then called the R27, a final 2400 were built that year.