

to the **BACK** **FUTURE**

AUTHENTIC & UNRESTORED

Roadrunner rides a German two-stroke twin that was an inspiration for both British and Japanese manufacturers

Yamaha and Ariel were inspired by the MB250 Adler. Honda looked to NSU.



Adler. The English is eagle, and a stylised motif of the winged predator soars over the German company's name. Set up in 1886, Frankfurt based Adler had made 100,000 bicycles by 1888. In 1895 it diversified into producing typewriters — and cars a year later. Motorcycles followed in 1902, but they lasted a mere five years, until 1907.

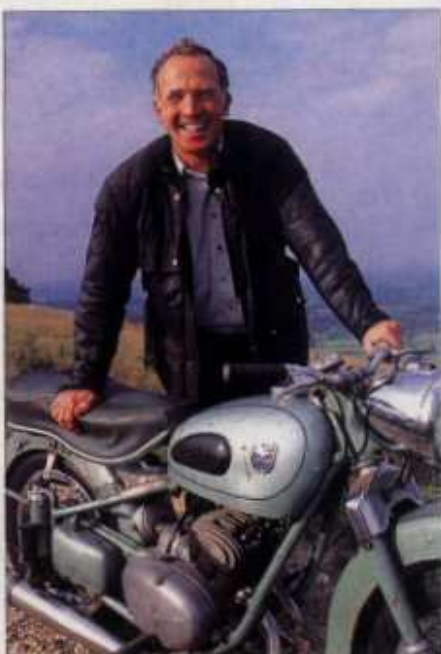
Motorcycle production did not restart until 1950 — prompted by the post-war consumer boom in Germany. But when it did, there was ample evidence of original thought from Adler's design team. The first machine, the M100, was a 50 x 50mm 98cc two-stroke single, with its crankshaft, clutch and gearbox arranged in line. This was an ideal layout for shaft drive, but Adler mounted the engine across the frame — with final drive by chain.

In 1951, 125cc and 150cc versions joined the range, followed at the end of the year by a 200cc twin. With a bore and stroke of 48 x 54mm, this was the forerunner of Adler's most popular motorcycle, the MB250. These three models had short leading link forks, controlled by spiral clock type springs and friction dampers. Plunger units supported the rear wheel. Further motorcycle development at Adler was rapid. The 200cc twin was joined by a 250cc version in 1953 — the bore had been enlarged to 54mm. Both twins were superseded by the improved MB250 in 1954. Although they sold well in Germany, very few Adlers were exported to the United Kingdom.

Londoner Bernie Stevens owns a 1954 247cc MB250 twin. Now delivering the milk in rural Sussex, Bernie is a devotee of Fifties German motorcycles, remarking that he has always been attracted by the quality of their design and manufacture. The design detail on the Adler is indeed astonishing when compared with contemporary British motorcycles. Good examples are the neatly mounted horn — it's in the outer cover of the battery box — and the handlebar lock in the centre of the steering damper knob. Better still, the toolbox hinges down from the frame to reveal a concealed, and locked lid. Once this is



Owners of Ariel two-strokes will spot the similarity of front fork treatment.



Owner Bernie Stevens is a devoted fan of German design and manufacturing quality.

removed, the box becomes a tool tray. Good design always makes the link between form and function. Adler's talented engineers were obviously unfettered by cost accountants and endless project committees.

Bernie was outbid at auction for the authentic and unrestored Adler. But when the twin was again on sale, he just had to have it — at a far higher price than he was prepared to pay originally. Finished in a light metallic green, the faded paintwork has been touched up in places. Bernie explains that the right hand side is in worse shape than the left — reflecting how the Adler was stored. I hope he never restores this wonderful survivor.

The engine is a unit construction parallel twin two-stroke. The separate, cast-iron cylinders have square bore and stroke dimensions of 54mm, giving a capacity of 247cc. Adler claimed a power output of 16bhp at 5600rpm, so the motorcycle would have been considered buzzy in its day. But it doesn't cry out for a five speed gearbox or demand excessive clutch slip and engine revs to pull away.

The drive is via an engine speed clutch and primary gears to an all-indirect gearbox. The final drive chain is fully enclosed. The power unit is housed in a widely-splayed duplex frame, fitted with plunger rear suspension. Unusually, the units are equipped with hydraulic damping, with adjustment for load by means of radially finned cap nuts on top. The front forks are also hydraulically damped and retain the short leading link geometry of the earlier models. But instead of the spiral springs, the MB250 uses coils. These are operated via a cam arrangement within the aluminium housing at the bottom of each fork leg. The leading links also pivot at this point.

The upper ends of the fork legs terminate in a fork crown below the steering head just like a bicycle. Ariel used the idea on their own two-stroke twins, the Leader and Arrow. This results in a neat, uncluttered steering head.

to the **BACK**



Adler toolbox hinges down to reveal a concealed lockable lid — good thinking.





The 250 Adler twin will cruise all day at a smooth 60mph.

At a glance

1954 Adler MB250

Engine type two-stroke parallel twin

Bore x stroke 54 x 54mm

Capacity 247cc

Power output 16bhp

Transmission four-speed, wet clutch

Frame full duplex cradle

Suspension short leading link front fork,

hydraulically damped plungers at rear

Weight 304lb Seat Height 29½in

Wheelbase 49½in

Top speed 72mph

Petrol consumption 70mpg at 50mph

Club contact Alan Abrahams, British Two-Stroke Club, 38 Charles Drive, Cuxton, Kent ME2 1DR.

Price new £210

Guide price now As few as five complete Adler twins may remain in Britain. They rarely appear for sale in Germany. So if you're looking for an MB250 Adler, be prepared for a long search.



Plunger suspension is sophisticated, with hydraulic damping and adjustment for load.

The interchangeable wheels are fitted with 16in rims and shod with 3.50in section tyres (they would have been 3.25in originally). Dunlop flanged aluminium alloy rims have replaced the chromed steel originals. This change may have been made at the Adler factory, because the strange spoking pattern — they cross twice on the brake side of the hub and once on the other — is the same on both wheels. Later machines had the spoke flange holes equally spaced, along with a more conventional spoking pattern.

Those gigantic full-width aluminium alloy hubs house 180mm (7½in) diameter brakes, and to my surprise I found them to be the Adler's least impressive feature. The front seemed to lack any bite, while the rear locked its wheel all too easily. In May 1954, *Motor Cycling's* John Thorpe found them "the sort of which one dreams — powerful, smooth, fadeless." The 40 year old brake linings on Bernie's machine need replacing!

Two well valanced rear mudguards are typical of the luxury package — the rear incorporates the single carburettor's air intake silencer. After slackening four chromed tommy bars, the hinged rear section can be

lifted upwards when removing the rear wheel.

The tank holds 15 litres (3½ gallons) of 25:1 petrol mixture. The optional Denfeld seat is wonderfully comfortable. Most models were fitted with a sprung Brunighause single saddle. The VDO speedometer is calibrated in miles per hour — indicating that this Adler was built for export to Britain. The odometer records under 16,000 miles.

With a high quality Bosch electrical system, the Adler starts readily with a lazy prod on the inward folding kickstarter. It settles down to a subdued burble from the long, efficient twin silencers. Sitting on the machine I realise that this compact motorcycle is not uncomfortably small, even for a six footer like me.

Gear selection is strange at first. Neutral is at the bottom of the left hand pedal's selection range. Thus all four gears are up for up. This caught me out in traffic until familiarity took over. But each time I came to a stop, I still found myself glancing for reassurance at the green neutral lamp in the speedometer's face. Rocking pedal gearchanges are very Continental, almost alien to English riders. I found the one on the Adler difficult to use. The heel pad is rather too small — forcing my ankle into uncomfortable contact with the kickstarter crank.

The change from first to second is comparatively slow — there is a fairly wide gap in the ratios — but the other changes were quick and smooth, although not as slick as on my Velocette single. The Adler's engine speed clutch is probably more to blame than the gearbox.

Once under way the engine is a little rough if upward gearchanges are made too early. This isn't vibration, more a feeling of the individual power impulses. But from about 35mph in top gear the engine smooths out. Apart from a little tingle at around 50mph, and the onset of more severe vibration at peak revs, the Adler is creamy smooth.

Excellent handling is a by-product of the low centre of gravity, resulting as it does from the small wheels and limited travel suspension. It was not long before I grounded the centre stand on a left-hand corner. The sus-



A sporting engine, but the mudguards are deeply valanced and the final drive chain is fully enclosed: typically German.

to the **BACK** **FUTURE**

pension copes well with the odd bump or pothole. Unfortunately I didn't encounter any rippled surfaces during my ride. Despite its limited travel, especially at the rear, the suspension works quite impeccably.

I quickly reached a comfortable 60mph cruising speed, which felt as if it could be held all day. Adler claimed a maximum of 72mph and *Motor Cycling's* John Thorpe recorded 70mph without pushing his loaned machine too hard.

The Adler twin is a very impressive motorcycle. Its design was copied, if not improved. It was an open secret in the British industry that Val Page's last design for Ariel, the Leader, relied heavily on the Adler. And no wonder Yamaha's two-strokes bore more than a passing resemblance to Adlers. All designers have to start somewhere, so they might as well start from something good.

Adler's MB250 continued until 1956, when it was replaced by updated models — the Sprinter and the Favorit. Their pivoted rear fork frames had been developed from racing and International Six Days Trials successes.

In 1957 Adler, along with Triumph (TWN) of Nürnberg, were bought by Grundig, Germany's largest producer of radios and televisions. Grundig stopped motorcycle production, concentrating their office machinery output at the two factories. Adler motorcycles were once again ousted by typewriters, as they had been in 1907. The soaring eagle had landed for good — in the office, where the quality of Adler design was still recognised as second to none. ■



Rear mudguard hinges up to release rear wheel: note armoured wiring over hinge.



Leading link front fork with large 180mm full-width hub brake.

Further reading

Here's what we can supply you with on the Adler twin in photocopy form from our archive. Prices include postage.

Motor Cycling Continental report by John Thorpe: 13 May 1954 £2.50

The Motor Cycle road test: 18 August 1955. £2.50

Adler MB250 Instruction Book: 79 pages. £5.50

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.