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◆ ROYAL ENFIELD  
METEOR MINOR  
DE LUXE



PHOTOGRAPHY: JACK BURNICLE



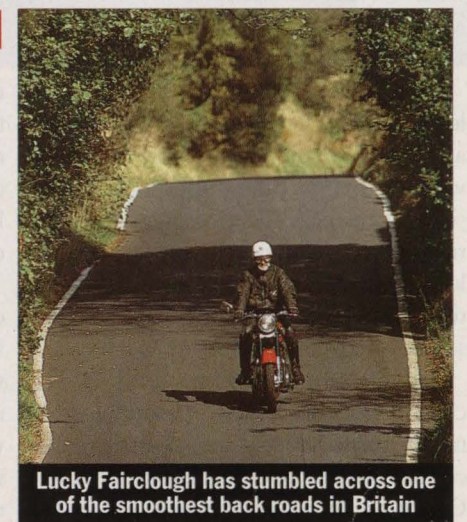
# METEOR RIGHT

*Road testing the not so popular Meteor Minor reveals a capable 500cc twin that doesn't leak oil/John Fairclough*

## Performance

**B**ig Enfields' notoriety for consuming and casting forth significant amounts of lubricant, usually in direct proportion to their capacity rating, is no myth. But apart from a loose filler cap permitting a dribble of lubricant to sully the neck of the oil reservoir, using most of this motor's available performance failed to give substance to the reputation.

The royal oilfield refused to appear. After a long and not particularly gentle run the 1958 Meteor Minor de Luxe only spilt a couple of drops of Duckhams on →



Lucky Fairclough has stumbled across one of the smoothest back roads in Britain



owner Les Riley's driveway. And those were from an engine whose bottom end has not been touched in over 40,000 miles.

Another parallel twin adage — small is sweet — was well proven though, because the 496cc engine was a model of smoothness and revability, with none of the rough lumpiness that can affect vertical twins topping the half litre.

Maximum speed seen on the test was around 85mph, although another 5mph or so could have been wrung out of the motor. At this end of the performance scale the Meteor Minor feels like the 500 it is, but it could still be buzzed along at 70-80mph without tremors attacking rider or cycle parts, and always gave a sense of well engineered toughness to the pilot.

The small twin is also happy to trickle along at 20mph in top. Whatever the throttle opening, the single 1½in Amal Monobloc carburettor provides hiccup-free induction, and a healthy rasp from the single silencer always delights the rider.

The Albion gearbox feels as chunky as it looks. Changes have to be solid, businesslike affairs. But provided the right foot moves with appropriate determination, shifting is silent and precise. The neutral finder lever is redundant because the gearchange lever itself locates neutral with consummate ease at all times, with no searching between first and second even at a standstill.

Only after prolonged town work did the clutch get hot and bothered, producing spare movement in the cable and not freeing sufficiently for clean down changes to be made. Otherwise its behaviour can't be faulted.



There is no snatch or slop in the drive train which is aided by a vane-type cush drive in the rear hub and a shock absorber in the clutch centre.

The Redditch factory never really solved the problem of making their larger motorcycles stop as well as they went: a restless permutation of drum brakes was inflicted on all the twins. Even the modest performance of the Meteor Minor isn't checked particularly well by 7in diameter front and rear drums. Much lever pressure is needed to stir the front into life, though some drum ovality on the test bike didn't help. It's the rear that does most of the work thanks to plentiful leverage available from the huge pedal.

The Meteor's small, stubby appearance doesn't deceive. Its looks

translate into a tiny motorcycle that can be thrown around with contemptuous ease. Proportions feel in the small bike league, though it shares its 54in wheelbase with the Bullet and the Constellation.

Vertically challenged riders can straddle a low, scooped-out seat — 29½in from tarmac — easily and get both feet on the road at traffic lights. The reach to the short, comfortable bars is abbreviated too, and the Enfield's 410lb with a gallon or so of petrol on board is never in evidence on the move.

Steering is light and effortless, the lock generous, and the bike balances itself superbly when easing through traffic jams at a slow walking pace. The sole discomfort any rider is likely to experience is a right leg forced outwards by the kickstart lever which shares the same shaft as the gearchange pedal and unfortunately lives outboard of it. But using

the kickstarter is never a problem because a single lazy kick always suffices.

The usual gripe about footrests being mounted too far forward for high speed cruising applies just as much to the Enfield as it does to its contemporaries.

A shame that a bike that feels so right, so compact, and so chuckable should be cursed with fashionably small 17in wheels and a wide splayed centre stand. The latter provides excellent machine stability when put to its proper use, but brushes the road too easily when retracted — as do the footrests. So



Buyers won't give a middleweight Enfield twin a second look

bend swinging gets a slight smile rating when it should have earned a loud guffaw.

Fashion was certainly well ahead of function here, since the Meteor Minor wasn't designed with 17in wheels in mind. The 500 twin had the 250 Crusader's rims dumped on it in deference to late Fifties' trends. The 350 and 500 Bullets, plus the larger twins, thankfully continued on 19in rims and more ground clearance.

There isn't much wrong with the Enfield's suspension. Surprisingly, the front fork's leggy looks don't equate with much move-

ment, and the 30 year old rear units are unyielding. At least the lack of travel means the suspension doesn't steal much clearance when sweeping through poorly surfaced bends, even if a harsh, choppy ride is the trade-off. At no time are the skinny but correct 3.25in section tyres troubled by the modest cornering angles permitted. Sad really, because they should be.

#### Equipment

If the Meteor Minor's engine and gearbox look to be squeezed into the frame, that's

because they are. The latter is essentially 350/500 Bullet tubework, itself a close relation of the 250 Crusader frame which supplies the rear chaincase. This augments the bike's bulky outline as do the headlamp shroud and deeply valanced mudguards.

Bulkiness continues with the impressive, heavily finned engine. Its iron crankshaft, a massive dynamically balanced one-piece affair supported by a single row ball bearing on the drive side and a roller on the timing end, is a major contributor to the motor's smoothness. The crank turns the high

## ◆ ROYAL ENFIELD METEOR MINOR DE LUXE

mounted camshafts by chain — the cam lobes are placed at the corners of the crankcase mouth for optimum cooling — and drives the twin plunger oil pump housed just below it. Big-end bearings are split shells; iron barrels and alloy heads hide 8:1 pistons.

Tucked away between engine and gearbox is a four pint oil compartment cast integrally with the crankcase but separate from it, which has the uninitiated believing that the motor has a wet sump lubrication system. It wasn't until the appearance of the 736cc Interceptor II in 1968 that true wet sump oiling was adopted.

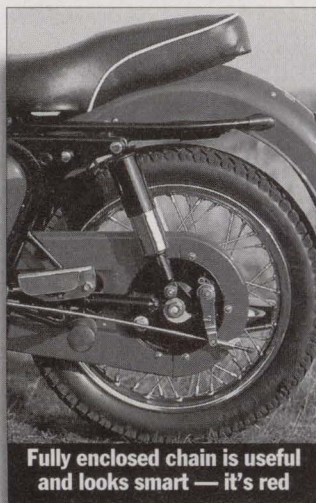
Primary drive is by  $\frac{1}{2}$ in duplex chain to the multi-plate wet clutch. The Albion gearbox is bolted to the rear of the crankcase. Final drive is by  $\frac{3}{8}$  x  $\frac{1}{2}$ in chain protected by the full chaincase, factory fitted to the Meteor Minor but an optional extra for the larger twins.

Electrics comprise a crankshaft alternator and a distributor which is chain driven from the exhaust cam. Distributor and auto-advance unit are shrouded by a steel cover behind the cylinders and the coil is tucked away in the nearside tool box. Battery and ignition switch use the offside compartment and the regulator lives behind the central pressing. The Lucas HF1849 horn emits a tinny squawk.

Much of the other equipment is typical of a late Fifties middleweight — 120mph Smiths chronometric speedometer, Lucas 7in

headlight and Girling rear suspension units. But Royal Enfield individuality is asserted by the distinctive headlamp casquette with its two pretty but pretty useless pilot lights; snail cam adjustment for the rear chain; alloy centrestand on which the small wheel Meteor doesn't roll too easily; sidestand with foot piercing spike; quickly detachable rear wheel, and leading axle forks.

The siamese exhaust system — a standard fitment from 1958 onwards — emphasises the cobby Enfield look at the nearside and allows Solvol fanatics unhindered access to that big alloy primary chaincase.



Fully enclosed chain is useful and looks smart — it's red

### History

Like other manufacturers, Royal Enfield were unable to follow Triumph's 1937 lead in the 500 vertical twin race until after WWII, but the Redditch firm managed to trail BSA by a couple of years before coming up with their runner.

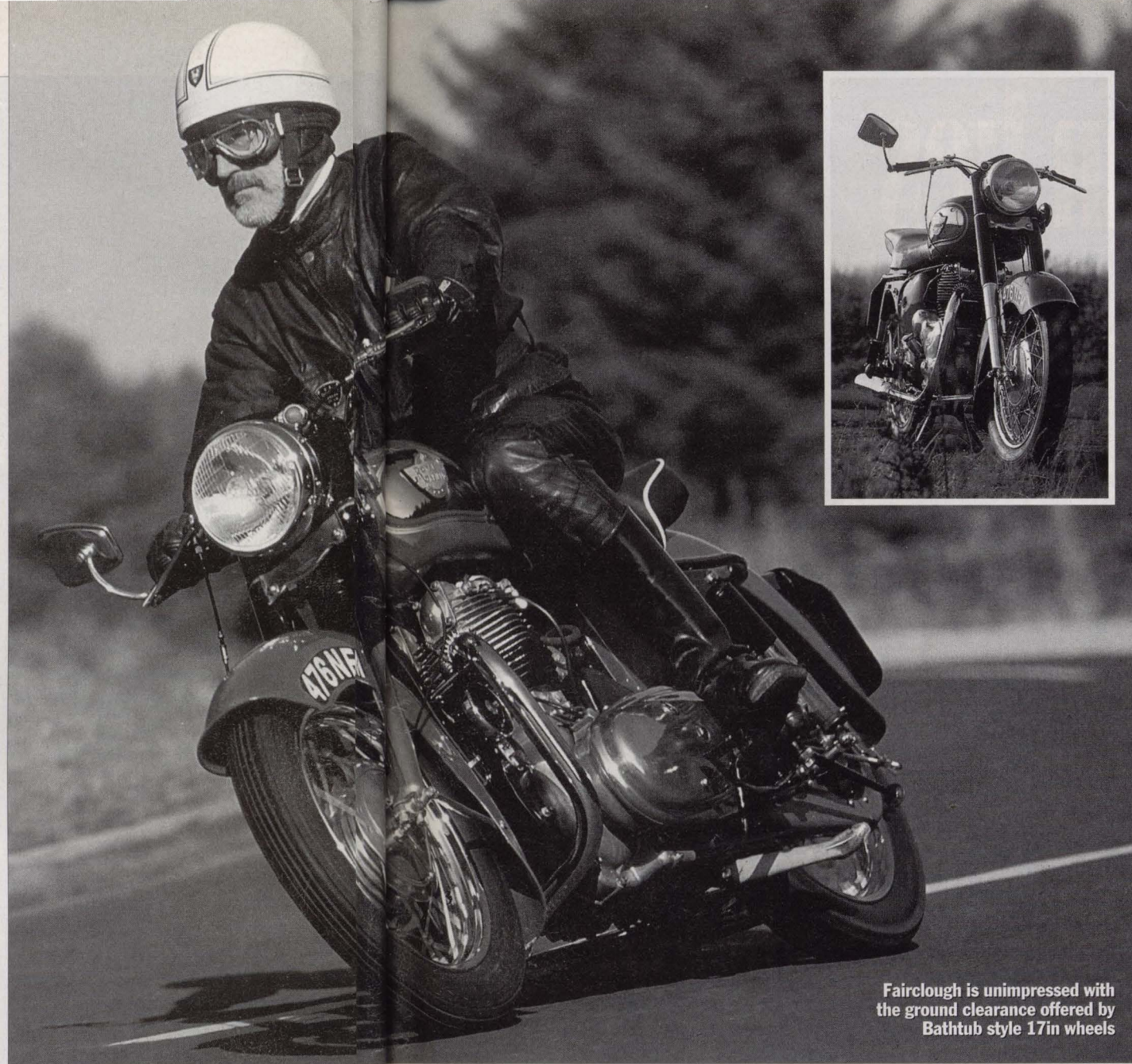
The unimaginatively named 500 Twin was launched in November 1948 and even then the first ones went abroad as part of the post-war export drive. The factory started as continued, with the one-piece dynamically balanced crank incorporating a large central flywheel and small outer flywheels, plus separate barrels and cylinder heads.

Long stroke dimensions of 64 x 77mm giving 495cc belonged to a pre-war 250 single and reappeared in the sluggish 248cc Clipper marketed between 1953 and 1957. The single cylinder Bullet provided the rest of the machine: Albion gearbox, frame, fork,

petrol tank, 6in diameter brakes and 19in rims. Electrics consist of a chain driven dynamo aft of the cylinders which itself drives a distributor via skew gears and shaft.

The early Fifties saw few cosmetic changes to the Twin, but it was cast as supporting player with the arrival of the new 692cc Meteor in 1953. But it received the alloy headlamp casquette the following year and was fitted with Magdyno electrics and a dual front brake in 1955.

Compression was upped from a lowly 6.5:1 to 7.5:1 the next year. The crankshaft mounted alternator was introduced in 1957. Coil ignition was reverted to, with a distributor ousting the magneto. The Twin also gained the new frame, first used for



Fairclough is unimpressed with the ground clearance offered by Bathtub style 17in wheels

the Bullet the previous year, which it retained until the end of its days.

The 500 Twin's only significant engine revamp occurred early in 1958 when, somewhat belatedly, it was christened the Meteor Minor. Revisions boosted power from 27bhp to 30bhp at 6250rpm. Most significant were the new 70 x 64.5mm dimensions which were now the same as the sporty post-war 250 singles. With the shorter stroke came larger valves and more generous engine finning. Now two models were offered, both with 17in wheels: a basic standard model finished in black with a single seat, and the de Luxe in burgundy, blue or silver grey.

The standard model proved a little too basic to sell well, and was deleted in 1959. The gap was filled by the dapper Meteor Minor Sports with hot cams and chrome petrol tank and mudguards. The de Luxe continued unchanged. Neither, however, had much to offer in a marketplace increas-

ingly dominated by sporting motorcycles, which Enfield now had in the Crusader Sports and Constellation. So the 500 twins bowed out quietly in the early Sixties: the de Luxe in 1962 and the Sports a year later.

The test Meteor Minor de Luxe is correct for 1958 even down to the ugly front mudguard it shared with the standard 250 Crusader. Plenty of 'experts' keep telling Les Riley the mudguard is wrong.

The retired Bolton industrial pattern-maker bought the Meteor near enough complete in 1989 and took a leisurely couple of years to restore it, with no intention of spending excessive amounts of cash. So despite slight wear the bottom end was

judged serviceable and left alone.

Not much was done to the top end either, apart from cleaning and replacing piston rings and one exhaust valve. A new primary chain was fitted and a new timing chain was needed too, but the timing cover could be replaced using the cross-head screws that were in it when Les bought the bike. The wiring loom was reusable too. New seals sufficed in the fork.

The paintwork is the owner's handiwork. Black cellulose for the frame and a synthetic for the other parts to match the factory burgundy preserved inside the chaincase.

Les has added home made stainless steel items — covers for the brake light switch and



### Specifications

#### 1958 500 Royal Enfield Meteor Minor de Luxe

ENGINE	
Type	ohv parallel twin
Bore x stroke	70 x 64.5mm
Capacity	496cc
Compression ratio	8:1
Carburation	1 $\frac{1}{2}$ in Amal Monobloc 376
Output (claimed)	30bhp @ 6250rpm
Electrical	6v battery, Lucas AC generator, coil ignition with auto-advance
TRANSMISSION	
Clutch	wet multiplate
Gearbox	Albion four speed
Primary drive	duplex chain
CYCLE PARTS	
Frame	tubular steel cradle
Suspension	(front): telescopic (rear): swinging arm
Tyres	(front): 3.25 x 17in Dunlop (rear): 3.25 x 17in Avon SM
Brakes	(front): 7in s/s drum (rear): 7in s/s drum
Wheelbase	54in (1371mm)
Seat height	29 $\frac{1}{2}$ in
Ground clearance	6in (152mm)
Kerb weight	410lb (186kg)
Fuel capacity	3 $\frac{3}{4}$ gallons (17 litres)
Oil capacity	4 pints (2.27 litres)
PERFORMANCE	
Top speed	90mph (est)
Fuel consumption	60mpg

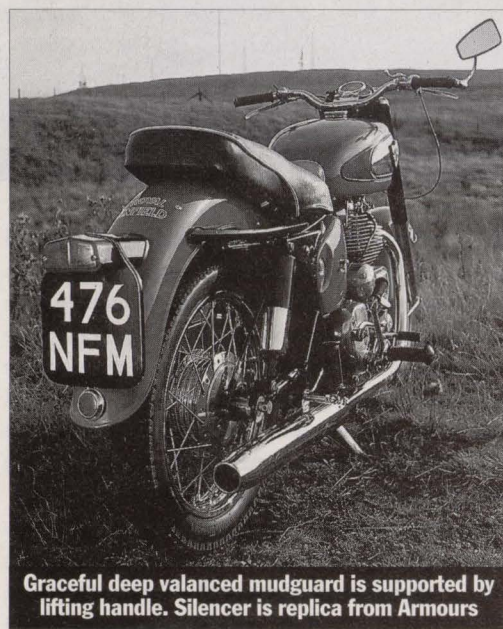
bottom yoke, spindle spacers, exhaust pipe brace, front mudguard stay, and even a splash plate to protect the top of the distributor cover from petrol spillage. There's no over polishing though. "I've never restored a bike just to show," he laughs.

### Conclusion

The Royal Enfield Meteor Minor is a fine motorcycle which merits a higher rating than the relative anonymity it has succumbed to.

This is partly because of the tastes of buyers who won't give a middleweight Enfield twin a second look, but gaze longingly at the equivalent Triumph or BSA. And partly the upshot of factory failure to give the bike any identity, let alone a name. On top of that, the 500 Twin was tinkered with for 10 years instead of having its faults eradicated.

The 1958 guise shows the factory toying with enclosure. Not for them the uncompromising statement of a bathtub Triumph. Rather they nodded to fashion with 17in wheels but left the rest of the motorcycle alone, highlighting the half-heartedness that dogged this 500s brief history. It deserved better then and, on the evidence of the test machine, certainly deserves better now.



Graceful deep valanced mudguard is supported by lifting handle. Silencer is replica from Armour's