

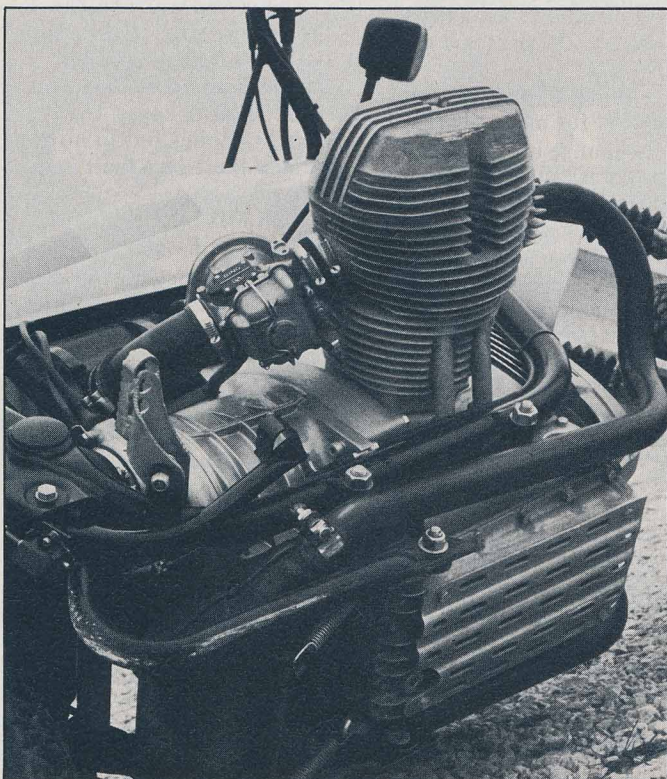
BMW R80G/S

BMW GET ROUGH



Above: What might otherwise be very un-BMW-like antics are business as usual for the new R80G/S. That's BMW's Kalli Hufstadt of the PR dept aloft.

Right: This is the info pod with just a speedo.



If you were expecting radically new engines from BMW in 1981, you'll be disappointed. But the new range does have several new welcome features, including would you believe, an 800cc trail bike, the R80G/S with new single leg rear suspension. *John Nutting* tried the bike in the South of France.

BMW certainly had us all guessing. Talk was that the German factory were to launch an 800cc enduro machine of the type they had been campaigning for the past two years in European events, a move that many suggested would fail because a heavyweight off-road racer just couldn't be competitive with the light two-strokes.

Fact is that the new R80G/S is a dual-purpose machine, a super trail bike with probably better road performance than on the dirt. And BMW are the first to admit it. Their strategy is to expand the market appeal of their bikes in new categories by exploiting the light weight and simplicity of the classic flat-twin engine layout.

In addition to incorporating many of the lessons learnt racing in enduros, the R80G/S also uses many new features that are common to the rest of the 1981 model range shown for the first time at the Cologne Show at the end of September. These are aimed at saving weight, improving rider comfort, increasing braking performance in the wet and simplifying servicing, all of which have been made possible by the successful 1979 trading year when production was boosted by a third to 33,000 machines.

On the R80G/S (short for Geländen/Strasse, or off-road/street) the sum total of the design changes result in an extremely nimble bike weighing 374lb dry, though this will probably increase in practice because an electric starter and heavier battery are optional extras. Even so, all-up weight will be around 410lb, quite an achievement when some Japanese 250cc twins weigh the same tanked up.

Despite having most of the features of many trail bikes such as 3.00 x 21 and 4.00 x 18 wheels with Akront alloy rims, plastic mudguards with extra clearance, a braced handlebar 32 inches wide, more ground clearance, a sump guard and cleated foot-pegs, the bike is also fully equipped with road gear like a lockable dual seat, passenger pegs, mirrors and a disc front brake powerful enough to stop a fully loaded bike.

The engine is similar to the version fitted in the latest R80 with a bore and stroke

of 84.8 x 70.6mm. Experiments were made with an overbored R65 motor but the shorter stroke and connecting rods resulted in unacceptable high-frequency vibration.

Several welcome engine changes have been made. The clutch has been redesigned and along with being much lighter has altered disengagement leverages that lighten the action at the handlebar lever. Result is a wider friction point and an even

BMW R80G/S

Price inc. VAT:	tba
Warranty:	12 months/ unlimited mileage
Engine:	Ohv flat-twin
Capacity:	797cc (84.8x70.6mm)
Lubrication:	Wet sump
Comp. ratio:	8.2 to 1
Carburetion:	Two 32mm Bing CV
Ignition:	Electronic
Max power:	49.6bhp @ 6,500rpm
Primary drive:	Helical gears
Clutch:	Dry single plate
Gearbox:	Five speed
Final drive:	Shaft and bevels
Mph/1,000rpm:	15 in top
Electrics:	12v 9ah battery (16ah optional), 280w alternator, 60w H4 140mm headlamp.
Frame:	Duplex cradle
Fuel capacity:	4.3 gal
Suspension:	Leading axle telescopic fork (f). Single- strut swing arm with single damper and five-pos. spring preload adj. (r).
Brakes:	10.4in Brembo disc (f). 7.87in drum (r).
Tyres:	Metzeler 3.00x21 (f) 4.00x18 (r)

DIMENSIONS

Wheelbase:	56.7in
Seat height:	33.8in
H'bar width:	32in
Grnd clrnce:	n/a
Rake/trail:	61¼deg/4.6in
Dry weight:	374lbs

EQUIPMENT

Mirrors, turn signals, seat lock, steering lock, speedo, toolkit, centre stand, optional starter motor.

PERFORMANCE (claimed)

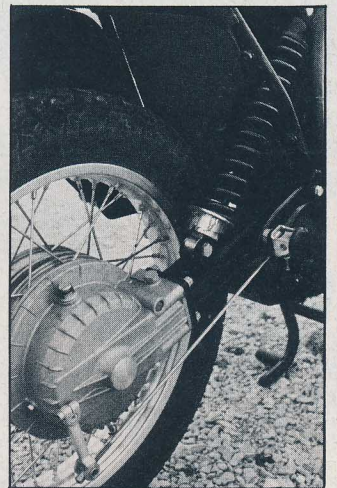
Top speed:	103mph
Speeds in gears:	33mph, 51mph, 71mph, 88mph, and 98mph
revs:	
0-to-60mph:	5.6 secs
St. ¼-mile:	13.8 secs
Fuel csmption:	56mpg

Importer: BMW (GB) Ltd.,
Ellesfield Ave,
Bracknell, Berks



Below: Sump on all the 1981 models is deeper, the R80G/S using a bash plate.

Below centre: Kick start is standard, self starter optional. Below: Single Monolever strut is controlled by De Carbon-type damper.



better gear change action.

The cylinders have no steel liners, the bores of the alloy barrels having hard nickel-alloy surfaces called Galnikal, similar to the Nikaseal process used in two-stroke racers. The overall 10lb weight saving is welcome but the inertial reduction lessens the effort to flick the bike from lock to lock. Additionally, the lubrication circuits have been revised so that the oil pump supplies the main bearings direct instead of via the camshaft, bringing, along with the new bores, reduced oil consumption.

Servicing has been simplified by the adoption of magnetically-triggered electronic-inductive ignition and a new air filter with a clip-on lid that is far easier to get at than the old two-piece vertically split component.

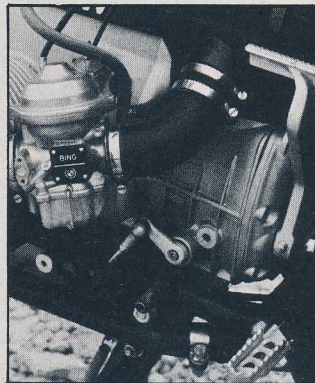
Disc brakes are now all Italian Brembo-made and use handlebar mounted master cylinders and asbestos-free semi-metallic pads claimed to improve wet-weather braking.

However, the most interesting feature that is presently unique to the R80G/S is the use of a single-leg Monolever rear suspension system and a redesigned bevel housing. The strut, tested in competition, is claimed to be 50 per cent torsionally stiffer than the rear fork still used on the other 1981 bikes and saves 4½lb, plus offering the advantage of easier wheel removal.

It is controlled by a single suspension strut with a De Carbon-type damper (damping oil is separated from a high-pressure inert gas by a floating piston) and a spring with five-position preload adjustment. In road use, the rear wheel action is indistinguishable from the conventional fork with a stiff action

suited to dirt road use. There's no doubt that the Monolever will work just as well on the BMW road machines and if public reaction to the feature is favourable it will appear on all the 1982 models.

The road handling of the R80G/S was the most surprising aspect of the bike. It's light weight made it extremely responsive, though stability in a straight line is compromised by the lack of any fork slider brace because of the



high mudguard.

With something like a 50lb saving over the stock R80 BMW, you'd expect the performance to be brisk — and it is. The factory claim 13.8 seconds for the quarter mile and if the bike gets close to this on the road it'll be good. Top speed claimed is just over the ton: 103mph. Not bad for a trail bike.

Dual-purpose tyres developed with Metzeler have a rounded but shallow tread that's better than most trials tyres. You could feel the tread moving around at maximum lean on tarmac and on the rough they made use of the touchy brakes a heart-stopping experience. To be fair, the loose hard and rocky roads in the south of France where the bike was tested were hardly the best sort of going for evaluation but the general consensus among the dirt experts was that better tyres would be needed if most of the bike's use was off-road.

If you treat the R80G/S as it is intended, that is, a less than hard-edged trail bike, you'll no doubt be well pleased. The engine is much more smooth and flexible than current 500cc trail bikes and has the distinct advantage of shaft drive.

But if you think that this luxury trailster will have a lightweight price tag, forget it. Price ex-factory in Germany will be 8,350DM, so the bike will cost at least as much as the standard R80/7, or about £2,400.

One thing is sure, the R80G/S is an attention getter in its off-white livery with a brick-red seat and black-chrome exhaust system. You can look sporty without putting up with a rough-and-ready trail bike.

