





# BMW R80/7

**B**MWs have always been the alternative. It was true when British motorcycles dominated the market, and it's even more true today when Japanese iron has driven every brand but BMW and Harley-Davidson into relative obscurity. Of the 25 different Japanese models available above 500cc, none resembles a BMW even slightly, either technically, in tradition, feel, looks, reputation or image. Because of this wide gap, the BMW is a radical alternative, but one which must have considerable appeal to sustain healthy annual sales at prices that are often double those of other bikes in the same class.

The new R80/7, punched-out 2mm from last year's 750 to 797cc, probably typifies BMW more than any other of their five models. It has everything the owners defend and the detractors criticize. If you have grown up on Japanese motorcycles which are very much the same in layout, feel, controls, etc., the BMW will seem foreign and unnatural.

Exactly how is the R80/7 different from mainstream motorcycling? Distinctive appearance is most obvious. The Japanese don't make pancake

twins. BMW has stuck with this design since 1923 for many reasons: (1) it facilitates shaft drive; (2) it allows the use of an automotive-type single-plate clutch which has proven to last almost indefinitely; (3) the opposed cylinders cancel primary engine vibrations; (4) no engine layout has better cooling; (5) accessibility of valve mechanisms and electrics for routine maintenance is unsurpassed; (6) The design seems to result in a fully gassed machine 40-50 pounds lighter than Japanese fours, and that's with at least 2 gallons more tank capacity, or another 12 pounds.

The disadvantages are several as well: (1) many people think cylinders boldly jutting sideways are ugly; (2) in vigorous mountain-road cornering the valve covers can be made to bump the road surface; (3) in hot weather the heat pouring off the cylinders can overheat the rider's feet (BMW riders do not get cold feet in winter, however); (4) the cylinders are especially vulnerable in a crash if safety bars are not fitted; (5) when winging the throttle at a standstill, an uncanceled torque reaction tilts the motorcycle to the right. Aside from looks, which is purely personal, the

flat-twins advantages are considered by most to offset these shortcomings.

Japanese bikes do not feature leading-axle forks. BMW uses them to extract extra travel—7.9 inches—the most on the street. BMW has stood alone for years in suspension theory: make it soft, compliant and provide a lot of travel. Softly sprung Boge shocks have 4.9 inches of travel in back. The goal is comfort—comfort of the type that allows uninterrupted hours in the saddle. No one denies that a combination of seating position, seat, engine smoothness and the BMW theory of suspension achieves this goal. But the disadvantages of such soft suspension are highly visible as well: (1) the front end dives harshly during hard braking; (2) the suspension compresses during fast cornering to reduce ground clearance; (3) soft shocks can promote wobbles in high-speed sweepers; (4) indelicate shifting or jerky throttle action can make the bike rock on its springs; (5) cushy as it is on the open road and as well as it handles potholes, the R80/7 still pummels and hops on freeway seams. This unique suspension, alone in motorcycling, is one of the strongest contributors to the BMW's alternative character. Of the above criticisms, the only one which truly effects most BMW riders is the last.

A blindfolded person placed upon a BMW would instantly know he wasn't sitting on a Japanese motorcycle. The difference is subtle, but unquestionable. Narrower bars with less rise tilt the body slightly forward to better buck the wind and add to the rider's endurance. The long-touted German seat does not reach its pinnacle on the R80/7. We feel the BMW S-model seat, the Moto Guzzi seat and Yamaha's XS Eleven saddle are all more comfortable, but this merely reflects the difference between a grade of A and A+.

Our same blindfolded rider would be lost with the BMW's controls. In redesigning the hand switches two years ago, the factory could have conformed to the Japanese turnsignal, beam and horn location, but BMW doesn't care how they do it in Japan. On the R80/7 the right thumb, not the left, activates the turnsignals with a vertical flipper switch. This is OK, except it's too easy to turn on one signal while turning off the other, especially with a gloved thumb. The audible beeper, which cleverly doesn't beep with the gearbox in neutral or the clutch disengaged so as not to be annoying while the rider waits to turn, is way too loud when it does beep. People in fully closed cars and pedestrians half-a-block away abruptly turn to see what's going on. Another verti-



## STREET TEST

*We marked a crate at random and that became our test bike. Then we witnessed its routine preparation. BMW wanted to prove we weren't getting a prototype or ringer. Test began with 1 mile on the odometer and finished 3 weeks later with 1157.*

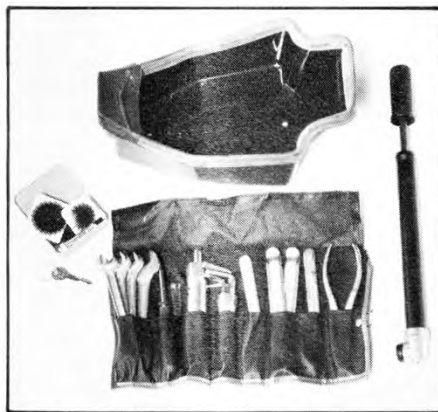
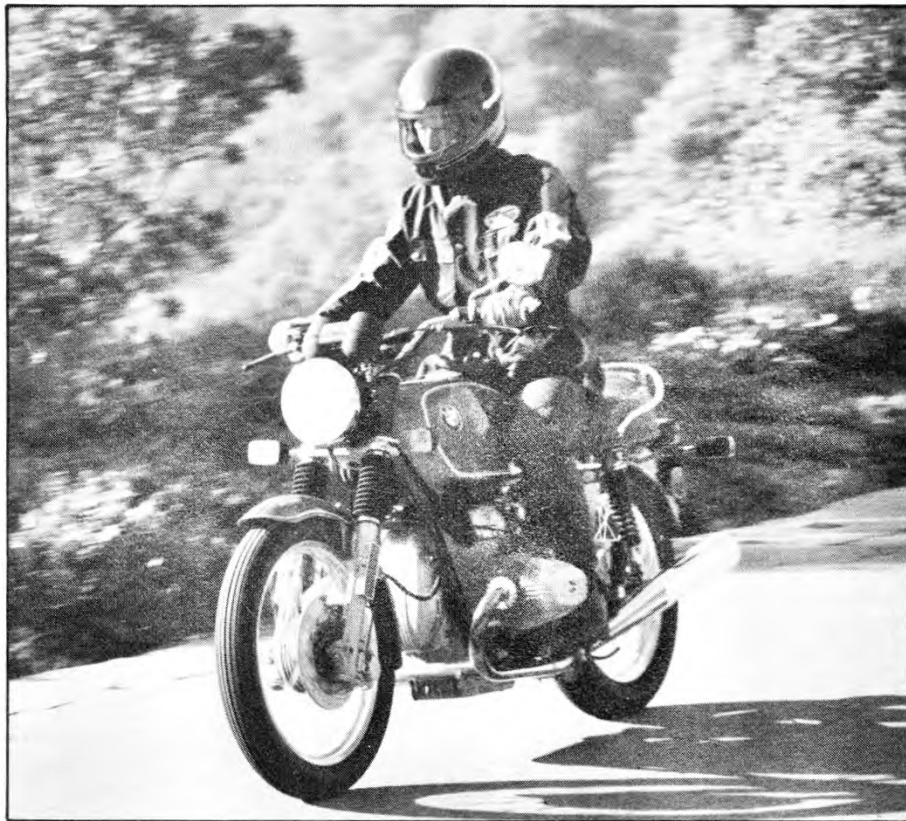
# BMW R80/7

cally operating flipper switch on the left employs your thumb to activate high beam. Unfortunately this flipper blocks quick access to the horn button above it; we often bumped the beam switch enroute to the horn. Once pushed, however, the button blows the loudest and best horn in motorcycling.

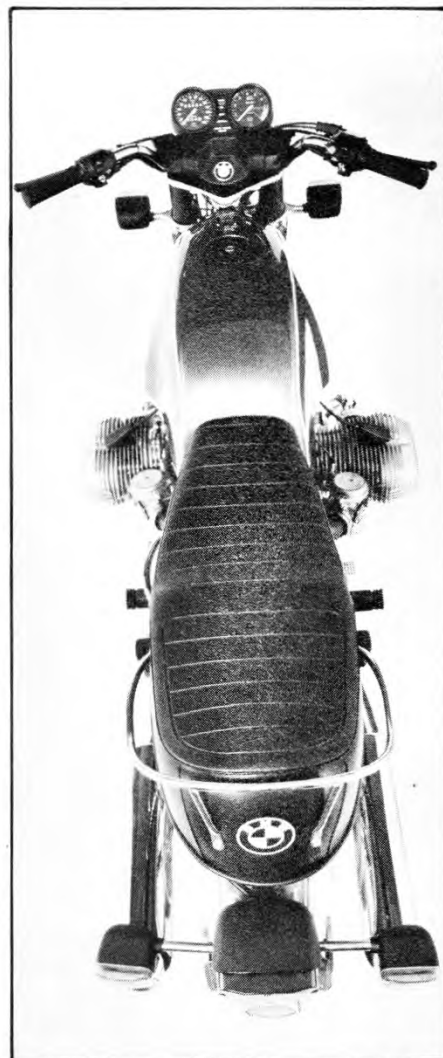
No other components on the BMW illustrate its differentness better than the handlebar switches. They also hold the key to coping with many of the bike's distinctive characteristics: acclimation. Within 1000 miles the rider slowly becomes accustomed to the BMW way of doing things and the BMW version of motorcycling. Soon he isn't comparing it to what he's used to, he's judging it on its own merits, which will continue to be strong enough to win-over a steady percentage of riders. As you ride a BMW it becomes clear that many of the things people consider wrong are merely different. Switching the turn-signals on-and-off with your right hand instead of your left becomes second nature after the acclimation period. You no longer notice the engine's torque reaction or front-end dive while braking. What you continually notice and appreciate is the BMW's long list of strong points, many of them exclusives.

For instance this is one of the few machines with a quartz headlight, complete with a flasher button and a specially designed lens to spread the beam in the manner of European sports cars. If you want to reposition the light, just reach forward and

*Removable rubber dash panel streamlines appearance around bar mounts.*



*Always superior BMW toolkit even comes with a feeler gauge for tune-ups.*



*Footpegs are uneven, just like the cylinders, but you don't notice it.*





# BMW R80/7



## PRICE

BMW R80/7	\$3850
YAMAHA XS75OE	\$2298
SUZUKI GS750	\$2299

Suggested retail price.....\$3850  
 Warranty.....1 year unlimited mileage  
 Number of U.S. dealers.....475  
 Cost of shop manual.....Included

## ENGINE

Type.....Four-stroke OHV opposed twin  
 Displacement.....797.5cc  
 Bore x stroke.....84.8 x 70.6mm  
 Compression.....9.2:1  
 Carburetion.....2, 32mm, Bing  
 Ignition.....Battery with points  
 Lubrication.....Engine 2.2 qts; gearbox 1 qt.  
 Lighting output.....280 watts @ 5500 rpm  
 Battery.....Varta 12V, 28AH

## DRIVETRAIN

Primary transmission.....Does not apply  
 Clutch.....Single-plate dry  
 Secondary transmission.....Shaft 11/37 3.36:1

## CHASSIS

Fork.....BMW 7.9-inch travel  
 Shocks.....Boge 4.9-inch travel  
 Front tire.....3.25-19 H Continental  
 Rear tire.....4.00-18 H Continental  
 Rake/trail.....30°/3.6 in. (91mm)  
 Wheelbase.....58.5 in. (1486mm)  
 Seat height.....32 in. (813 mm)  
 Ground clearance.....5.3 in. (135mm)  
 Fuel capacity.....6.3 gal. (23.8 liters)  
 Wet weight.....484 lbs. (220 kg)  
 GVWR.....881 lbs. (400 kg)  
 Colors.....Blue, burnt orange, metallic black  
 Instruments.....VDO tach and speedo with odometer and trip meter

## PERFORMANCE

Quarter-mile.....13.68 sec. @ 96.66 mph  
 Average fuel consumption.....39.88  
 Touring range.....240 miles  
 RPM @ 60 mph.....3850 rpm  
 Speed in gears @ redline.....1st: 38.07, 2nd: 58.56, 3rd:  
 81.08 4th: 101.59, 5th: 113.02  
 Speedometer error.....30 mph actual 31.79  
 60 mph actual 56.49

## WEIGHT

BMW R80/7	484 lbs.
YAMAHA XS75OE	557 lbs.
SUZUKI GS750	539 lbs.

## QUARTER-MILE

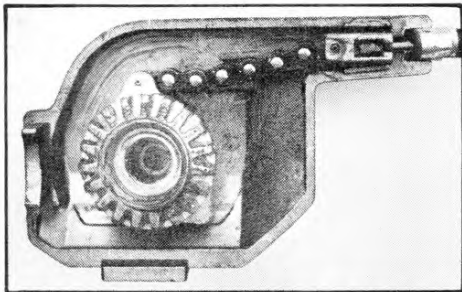
BMW R80/7	13.68 at 96.66 mph
YAMAHA XS75OE	12.94 at 102.56 mph
SUZUKI GS750	12.70 at 101.12 mph

## MILEAGE

BMW R80/7	39.88 mpg
YAMAHA XS75OE	45 mpg
SUZUKI GS750	41 mpg

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push or pull on the headlight body—it moves precisely and stays put. The shock spring preload is adjustable in an instant without tools, a handy feature when passengers hop on and off frequently. Somehow the tank is styled to hold an incredible 6.3 gallons without looking like a jerry jug. The gas cap, fork and seat locks are all secured by the same clever folding key. The German-built speedometer and electronic tach feature perfectly uniform illumination and flutter-free needles, although the speedo



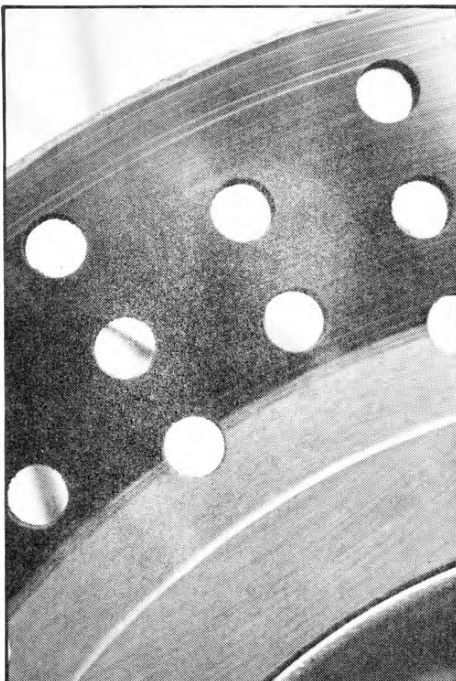
One of the BMW's hidden intricacies is gear-and-chain operated throttle.



Built-in handle allows quick and easy changing of shock-spring preload.

reads about 4 mph fast. No tires are better than the fabulous Conti Twins which came stock on our R80/7. An unprecedented warranty of 12 months with *unlimited mileage* reflects the factory's confidence in durability and reliability. Natural rubber innertubes rather than synthetic rubber ones have far greater resistance to the tearing that causes blowouts. Few rear brakes are better. No other street bike has straight-pull spokes—the strongest type—front and rear on both sides of the hubs. The engineers are so concerned with reliability that the engine, gearbox, drive-shaft and ring-and-pinion chamber all have their own oil, so it can be exactly the type that works best with those components.

We noticed many of BMW's old problems no longer exist on the R80/7. Previous grabby clutches used to be tough on passengers and new riders; this one releases smoothly and gradually. Our shins didn't seem to interfere with the carburetors hardly at all anymore. Shifting was more precise, though still clunky. The engine's torque reaction also seemed to be less, due partially to different flywheel weight. The 80 runs smoother than the big 1000s, especially below 3000 rpm. Starting is practically instantaneous hot or cold and carburetion on this model cannot be faulted—the engine always settles into a stall-free idle and picks up instantly with the first degree of throttle rotation. These refinements definitely reflect BMW's reaction to constantly improving Japanese machinery. If BMW still had only British twins and Harleys to worry about, their bikes might not have evolved so fast. Still the Japanese have yet to



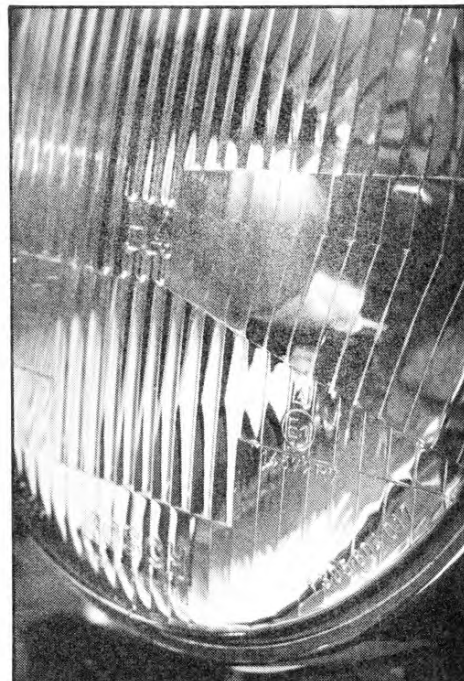
Brake pads squeeze water into 100 holes to help stopping power in rain.

influence how BMWs evolve, much to the delight of their owners.

There were a few items we simply didn't like. The sidestand props the bike safely with ideal positioning only and it drags too easily in left-handers. Through fitted with non-reflective glass, the instrument lenses still blind your eyes when the sun hits them just right; convex lenses such as those on the GS1000 Suzuki all but eliminate this problem. The hand grips are too short and too hard; squarish grips with rounded corners are due next year. The fork tops-out rather easily, but this is said to be normal and harmless. Within 500 miles the pipes blued severely, but this only effects cosmetics since bluing does not signify lean carburetion or overheating. A passenger's feet too easily bump the rider's feet as he moves them to reach the controls or change position.

Perhaps our main complaint about the whole motorcycle centered around the front brake. To us it didn't seem strong enough. BMW purposely designs the brake so it won't lock because they feel the strongest stopping power occurs just before lock-up. They also feel a brake that locks is dangerous to new riders. BMW told us their extremely hard puck material takes 1000 miles to break-in, but even after that figure the brake wasn't strong enough for us. It also dragged, even after careful adjustment by a technician at the distributor. BMW mounts their floating caliper with a single live puck on an eccentric axle to facilitate wheel removal, a system not as conducive to eliminating drag as dual retractable pucks. On the plus side, how-

*continued on page 95*



Headlight lens is faceted to direct quartz beam without blinding traffic.





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**Blistik—  
The lip shield**

## BMW

continued from page 35

ever, we found that the holes in the stainless steel disc reduced weight, added to styling and contributed to better braking in rain by giving water a place to go as the pads squeezed it away. Mounting the brake fluid reservoir under the tank is also good because it isolates the unit from damage in a crash and frees it from tampering by the public.

Riding the R80/7 reveals further, more important differences than the ones evident on the specification chart. A distinctive, but quiet exhaust note is punctuated by intake drone during hard acceleration and the combination sounds powerful and pleasing. BMW virtually invented the quiet motorcycle long before Federal noise regulations, and this was a great selling point to many touring riders. Pushrods and valve clearances of .004-6 generate a ticking noise in the cylinder head, but it's an efficient sounding tick that isn't irritating or disconcerting. At 80 mph the sound is only a clean, tight, crisp hum from the engine—resulting in a sense of security and safety. There's something about German engineering and BMW's reputation that's calming while you fly along the road.

Conversely BMWs have never been known for their high-speed mountain-road prowess. You don't assault a set of switchbacks and pretend you're at Daytona. Ridden briskly instead of breakneck, the R80/7 will do just fine with its neutral steering and superb tires. In the city the machine is agile because of light weight and easy to ride because neutral isn't elusive and the clutch releases smoothly. Clunky shifts can be avoided with a little practice. BMW riders are the type who would pride themselves at developing the finesse and technique to shift with Dynaflo smoothness.

To want a BMW a person must have the sophistication to recognize what this motorcycle offers and understand himself well enough to be sure this is what he wants. People don't buy them spontaneously because of their high price.

The BMW is a counter-culture motorcycle. Because it is so different, and so personal, *Motorcyclist* can't say, "This is the greatest thing since Raquel Welch, go out and buy one today." We can only say that the R80/7 is an excellent example of the BMW experience. Some *Motorcyclist* staffers aren't overly impressed with this experience. Others have down payments ready. There are more of the latter than the former. **M**

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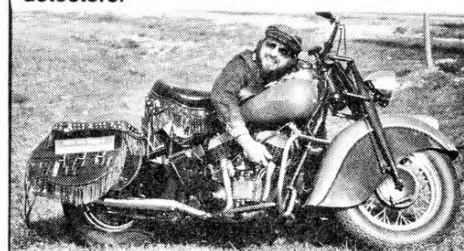
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