

## BMW R100RS And Company

### The Bavarians Unleash Their Latest Beauty And Update Some Old Friends

**T**HE BMW PEOPLE seldom make large-scale changes in their highly respected motorcycle line. Improvements are blended in gradually, much like flour is added to a recipe. Thus, owners of last year's models are not going to be offended by riding obsolete motorcycles that bear little resemblance to the latest ones. One can also be assured that the BMW philosophy of sticking to a sound basic design, underscored by functionalism and simplicity, will continue year after year.

BMW has stood pat with its policy for 1977, yet the new motorcycles incorporate enough changes to warrant a new designation for the series. So, we find amongst us now the new BMW "slash-sevens" (/7). One of the major changes has been enlarging the 900cc models to 1000cc and adding the new, top-of-the-line R100RS to the series. This makes a total of five motorcycles to choose from, beginning with the R60/7 and including the R75/7, R100/7 and R100S in between.

BMW has arrived at the "one litre" figure with its 900cc engines by increasing the bore from 90mm to 94mm; the stroke remains at 70.6mm, keeping the concept of the short-stroke engine in force. The increase in displacement was undertaken to increase torque throughout the rpm range rather than to achieve a higher top-speed figure. After riding each of the new 100 series models, we have to admit that BMW has accomplished what it was after. Throttle response and torque output can truly be appreciated.

Of course, one doesn't simply add cubic inches without attending to details in other areas. Because of the larger cylinder volume and rotating mass, BMW has beefed up the alloy engine housing considerably. On all models O-ring seals are now found on the cylinder bases, as are new crankcase ventilation systems. Oil consumption is said to be reduced by these changes. Cooling fins on the cylinders have been shortened, but their thickness increased. Coupling these changes to new cylinder heads makes for less mechanical noise and improved heat dissipation.

Aluminum alloy pushrods that are 20 percent lighter in weight also contribute to the reduction of mechanical noise, while simultaneously incorporating an improved rev limit safety factor. Rocker arms are now located in the cylinder head with seat rings, making valve clearance less critical and simplifying alignment.

Last year's R90S used a Dell'Orto carburetor; but the 1977 R100S and RS models switch to a newly designed 40mm Bing constant-velocity carb that offers improved gas mileage without loss of performance. A change in the gear ratio of the electric starter motor helps in cold weather and other hard-starting situations.

Enthusiasts will immediately recognize styling changes in the 1977 model lineup. Contributing most to the new look is the 6.3-gal. fuel tank, the same unit that was standard equipment on R90S models of the past. But this year they've gone one better by adding a flush-mounted, lockable fuel closure that contains a pressure valve with integral overflow to eliminate the possibility of fuel loss through expansion in hot weather.

Also noticeable is the absence of chrome spring covers on the rear shocks. Other nice touches include thicker rubber on both passenger and rider footrests, a deeper oil pan sump, and improved spark plug caps.

Only the R100RS model retains a steering damper knob, which features three-position adjustment. The need for the damper has been eliminated by a new horizontal tube welded to the frame downtubes just below the steering head, and a stronger swinging arm.

The R60/7 finally receives a perforated front disc brake in place of the drum of yore; dual front discs are used on the R100S and RS versions. As before, lever pressure is on the high side, something we'd like changed.

Suspension remains soft for the touring models; still the finest touring suspension in the industry. But the Sport models get the benefit of stiffer suspension front and rear for improved high-performance riding without much sacrifice in straight-line comfort.

Surprisingly, the changes made to frame and swinging arm, though minor, make for a big difference in feel on the road. There is a much greater feeling of stability at all speeds, particularly when things are whizzing by in a blur. Continental tires, also now standard, stick better than the Metzlers used in the past and are unaffected by rain grooves; by all indications they wear better, as well.

The big news in the line is, of course, the R100RS, which will probably hover in the astronomical price range of \$4800. Whether or not people are ready for a BMW with a tag like that remains to be seen, but the same people who balked temporarily at the price of the first R90S bought all they could get

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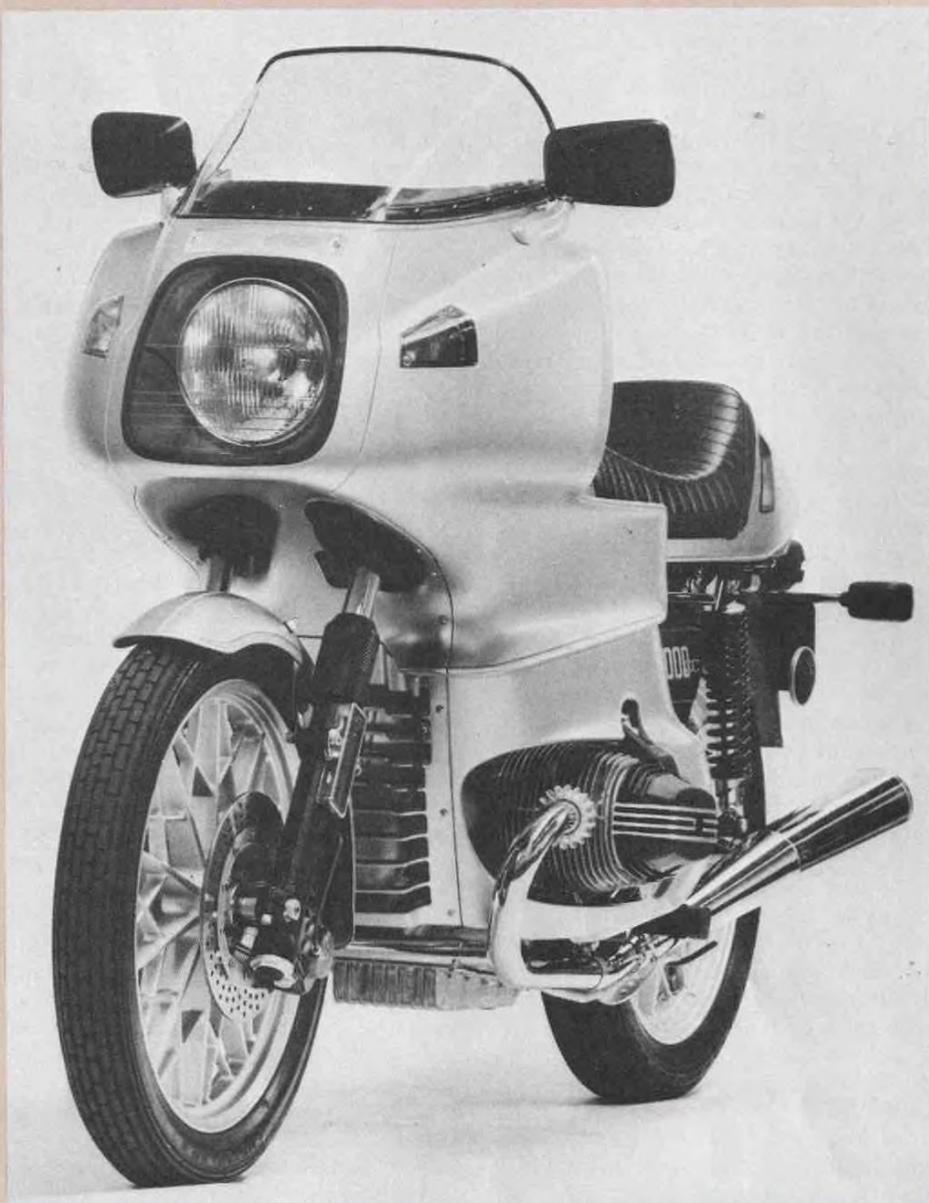
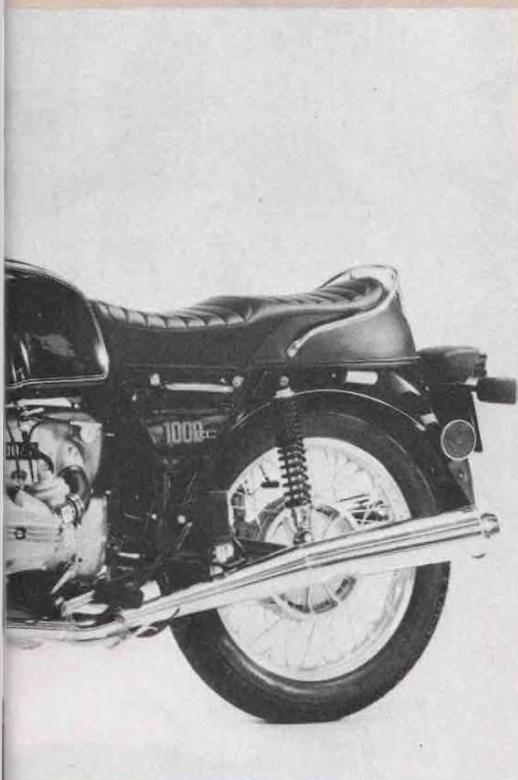
R75/7 exhibits stylish new cylinder design and 6.3-gal. fuel tank. The /6 model was CYCLE WORLD's choice for best touring bike of 1976 . . . and this one's even better.

Photography: Bavarian Motor Works, D. Randy Riggs





1000cc roadsters are going to be getting stiff competition from the new R100/7. From a roll this one will out-accelerate them all.



Top-of-the-line R100RS pictured here has optional cast alloy wheels. The integrated fairing concept provides much in the way of rider comfort and striking styling. Headlight cover is safety glass, passes all federal regulations. Seat is good for one person only, paint is disappointing, and the rear brake is still a drum. But this one's still a honey.



High-beam and turn-indicator switches are new and easier to use; steering damper remains only on the R100RS.

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