FOR THE JOY OF RIDING

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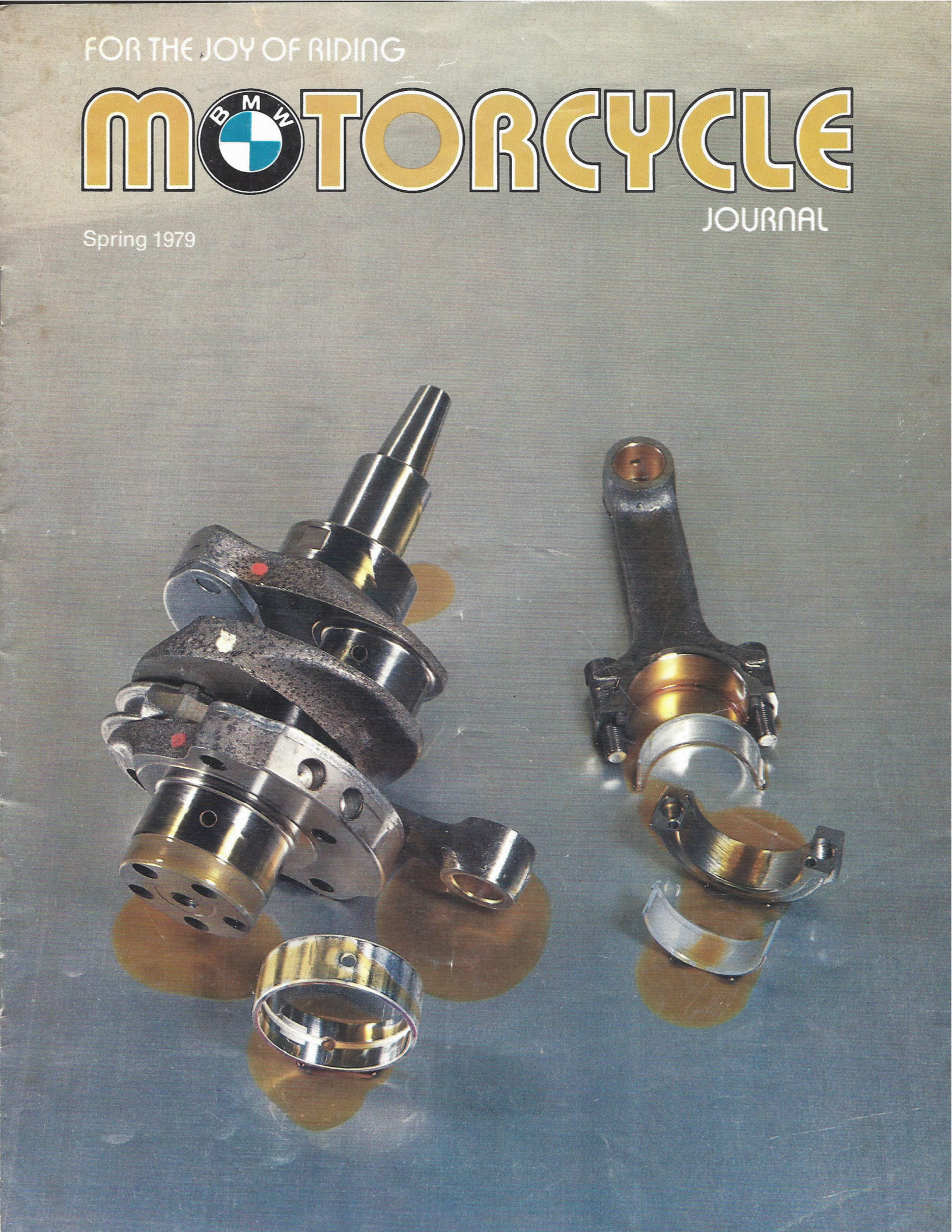


For the Joy of Riding

"Getting there safely precedes merely getting there."

In a time when most motorists are darkly wondering whether they should attempt their trip at all, BMW owners are generally secure. Even the largest BMW motorcycles are good for 40+ miles per gallon and sometimes 50+. In this high-travel season, the BMW rider can concern himself more with getting there safely. He certainly has the equipment to do it—with acceleration, braking, visibility, handling, and lighting virtually unmatched on the road today. For the BMW rider and other cyclists, the real test is putting these elements together with a final element: riding skill.

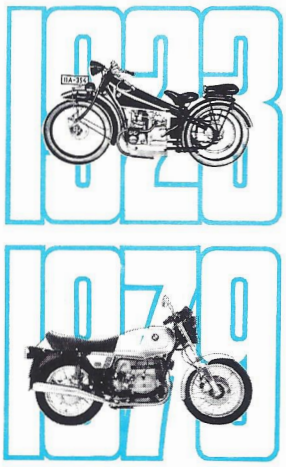
Training, practice, and experience are the keystones of riding skill. BMW riders, as we discuss in this issue, certainly have experience. The demand for 100,000-mile and 200,000-mile medallions grows steadily. And the long-trippers continue to explore the remoter outreaches of this planet on BMW's.

For newer riders, or those just curious, BMW has recently issued a film on riding safety. Photographed in Bavaria not far from BMW headquarters, it shows spectacular mountain scenery as a backdrop to lessons on braking, cornering, riding gear, passing, and other aspects of exciting yet safe and civilized riding. The 16mm sound film is available to clubs and other groups from Butler & Smith through their nearest BMW dealer. Another film offers a sales-pitch on the now superceded R90S, but the scenery and action are worth a viewing anyway.

Readers sometimes write us asking what becomes of the bikes photographed on these pages. Obviously "used", are they available at a good price? The answer is sometimes yes, but not directly. Some bikes are photographed for ads, others are lent to magazines for road tests. Eventually these go to BMW dealers. The BMW R100RT pictured on this page is actually the very first to appear in this country, long before regular production models. And the man standing beside it is the man who bought after the ad and Journal pictures were taken in Alaska. He is BMW dealer George Egloff, head of 'Touch of Class BMW', Stewartsville, NJ. He promptly rode the new bike himself before offering it to his customers. In Philadelphia, he says, the R100RT "drew more attention than the liberty bell."

Riders can occasionally get other specials. For example, a group of 100 new red-and-black R100S's recently appeared in the U.S. as overproduction from an overseas order. These bikes have 70 hp engines and may be available at your dealer (except in California, Oregon or Florida). He also will be offering in all states '78 BMW R100/7's, at '78 prices with free *Luftmeister* fairings and saddlebags. For '79, *Luftmeister* equipment including upper and lower fairings and travel trunks is available in all standard BMW colors to let you tailor your machine exactly to your riding requirements without custom painting.

Next issue we'll illustrate the actual manufacture of BMW motorcycles, showing in detail the hand craftsmanship that goes into each bike. Meanwhile this is the season to ride. The winter is over and gone. Ride safely, but by all means ride.



John P. Covington

FRONT COVER PHOTO: CHRIS MURRAY

Front Cover: BMW forgings last indefinitely if well oiled. Rear Cover: A scene from Al Rosner's long trip to Alaska.

Long Trips— A Special Province of the BMW Rider

A high official at BMW headquarters in Munich recently lamented about a unique problem faced by BMW management. "We get requests from all over the world," he said, "from ambitious riders who want factory support for some incredible motorcycle adventure. Sure, we would like to help them—we would enjoy the publicity and we want the world to know what fine motorcycles we make!""

"But," he continued, "We regretfully have to decline. To help one would be to discriminate against all the others. You see, practically every BMW owner in the world is an adventurer. They're all making incredible journeys. Sometimes I envy the other manufacturers. For them, a cross-continental trip is a real achievement. For a BMW owner, it is almost routine!"

And so it is. Long trips are everyday fare for the BMW rider. Recently we shuffled through our correspondence file to review the many BMW trips reported to us. We divided them into three categories: (1) Long trips on the basis of sheer total mileage, (2) Long trips on the basis of mileage covered in one riding stint, and (3) Long trips based on how remote or exotic the destination. Literally dozens in every category.

Take sheer total mileage. These begin with your paltry New York to Los Angeles run of about 3,000 miles and end with others of over 30,000 miles, virtually navigating the globe. Al Rosner, the 64-year-old BMW veteran who photographed this issue's back cover, recently completed a round-trip to Alaska from New York and a separate trip to Banff and Jasper National Parks in Canada. Then there's the French farmer who decided to traverse every single pass in the Alps in one season—and he succeeded! And a rider from Wisconsin, claiming no unusual single trips, nevertheless managed to run up 122,000 miles on his BMW R60/5 in less than five years of everyday riding.

Record mileage covered in a single stint brings to mind the coast-to-coast elapsed-time attempts of the '50's and '60's. For many years John Penton, then and now a BMW dealer, held the record with a time of around 55 hours. In a more casual spirit, a New York securities dealer recently made the same journey in less than 72 hours (with two 7-hour layovers). The next weekend he set out for Quebec City, Canada, and returned home via Greenville, South Carolina, for another 1700 miles. And a rider from Buffalo, New York, named Gary Corkum reports a 9,000 mile journey to Key West, Florida, Los Angeles, Portland, Oregon, and Buffalo. The last 2600 miles covered in exactly 60 hours!

As for extraordinary destinations, one can hardly name a place on this planet that has not been visited by BMW. A few issues ago we reported a trip from Point Barrow, Alaska, to the southern *(continued overleaf)*

PHOTO: JOHN SENZER

tip of South America—in the dead of winter. Trips above the Artic Circle, across Australia, through Central America, Africa, Asia. . . . You name it, a BMW's been there. Europe, of course, has been crisscrossed many times by BMW owners from all over the world.

The fact that so much has been done is not to suggest that there is not much more to do. As one philosopher noted, "All the great pleasures of life are repeatable." Long trips by motorcycle require certain mental preparation, but the very fact of being a BMW owner means that you have completed much of that preparation. The rest is mainly getting your bike and gear ready. Pick a season, a destination, and set off.

Some riders like to get their feet wet in groups—and some just prefer companionship on long rides. See the motorcycle magazines for listings of organized tours. Those to Europe often provide for the purchase of a new BMW and shipment of the bike back to the U.S. after the trip. Typically these trips cover both the capitals and the countryside. They include an informed and experienced guide and sometimes a support vehicle with a mechanic, spare parts, and room for those souvenirs that won't fit in your saddle-bags.

Riding in a group does limit your mileage somewhat, however. Few groups plan to cover more than 200 miles in a day, or 300 at most. That provides time for rest stops, meals and sightseeing, as well as for running down strays. Still, in two weeks you can cover over 2000 miles, and that's on its way to being a long trip.

For greater mileage in groups, limit yourself to two-to-five riders, all of whom are experienced. Travel light and set goals for the day. In the long run, riding is a very private experience. At the end of a three-hour stretch, it's always nice to group over coffee and re-hash the sights, the near-misses, the wrong turns.

But whether alone or in a group you will have the satisfaction of knowing that only a motorcyclist can really know the meaning of long-distance travel. A motorcycle provides the sensory experience of the countryside and the speed to cross great amounts of it. A motorcycle works on expressways as well as backroads and cowpaths. Even at speed, the cyclist gets the feeling he has more than crossed the country, he has experienced it.

So if BMW management laments about too many motorcycle adventurers, be glad that it is a problem they created by making the finest touring bike in the world. Instead of concerning yourself with management or the long trips of others, begin a motorcycle adventure of your own.

PHOTO: CHRIS MURRAY

BMW Riders Cope with Diminishing Leaded Premium and the Gasoline Crunch

Not all trends of modernity are to be viewed with dismay: witness the recent appearance of the female pump jockey whose freshness and enthusiasm are welcome respite to the much-traveled BMW rider. But the diminishing availability of all gas, and in particular leaded premium, are trends of darker implication.

Most post-'69 and many pre-'69 BMW's depend upon leaded premium fuel to deliver valve-train protection plus maximum engine performance without pre-ignition (detonation or "pinging"). Compression ratios over about 8.5:1 require premium fuel. The combination of compression ratio and spark advance determines *how* premium it must be. That is, what octane rating is required. The newer unleaded premiums tend to have somewhat lower ratings than their leaded cousins. And lack of lead means less lubrication and wear protection to engine valves and valve-guides.

BMW engineers in Munich are aware of U.S. leaded-premium scarcity and are working on acceptable alternatives to BMW owners. But in the true BMW tradition they are careful and methodical and will not pronounce unitl their answers are fully researched and tested.

Meanwhile, the *BMW Motorcycle Journal* has received suggestions from friends and owners on how today's rider may cope with the shortage. Although not factory endorsed, they may at least help.

The prevailing recommendation is that riders mix leaded regular with unleaded premium to arrive at a premium that has at least some lead. A suggested ratio is one gallon of leaded regular to three gallons of unleaded premium. If unleaded premium works in your machine without pinging, then use it, but substitute at least one tankful of leaded premium for every five-thousand mlies of riding. This should provide enough lead for valve protection. New motorcycles *must* use leaded premium for the first 600 miles of operation. The Journal will publish more on this situation as the information becomes available.

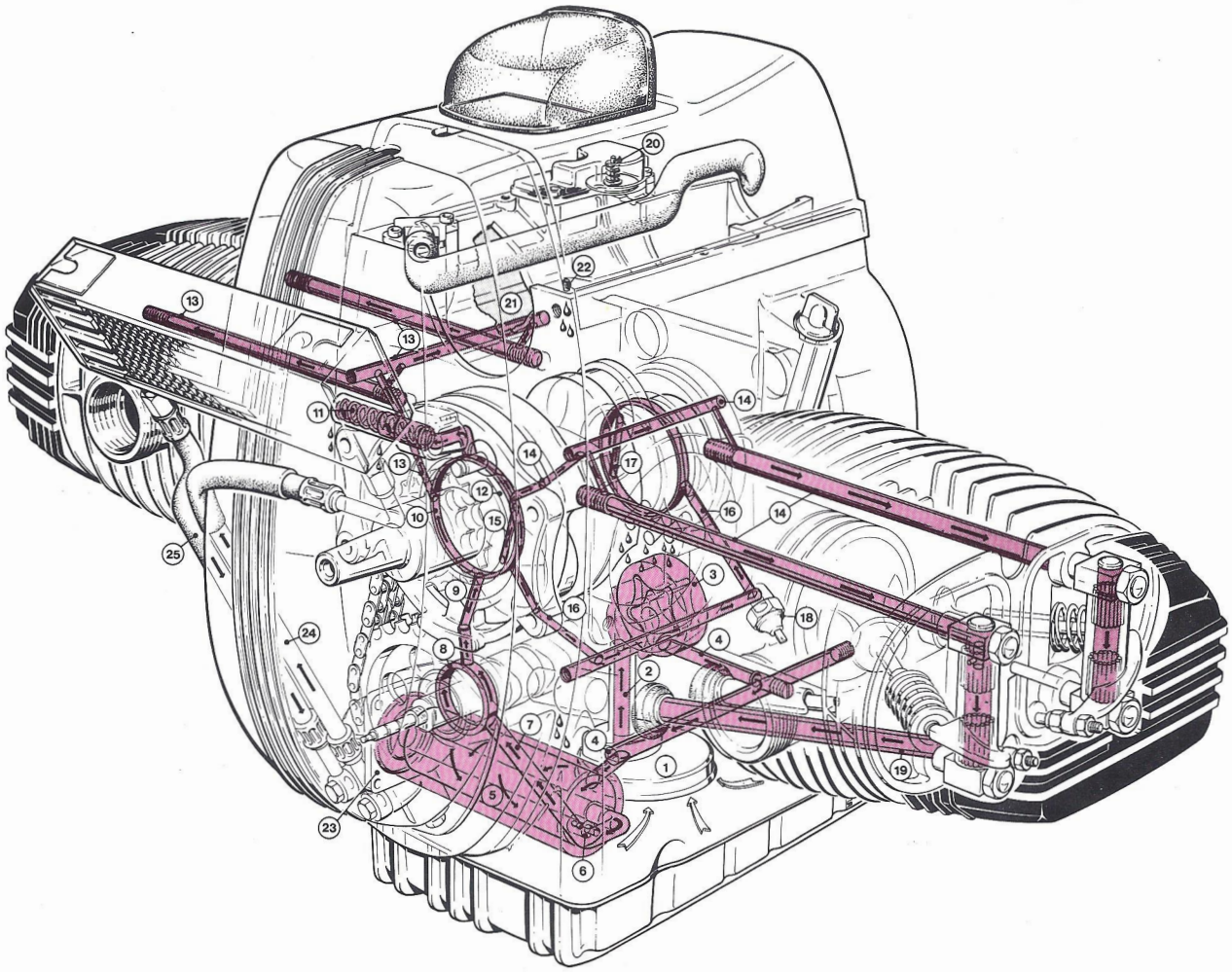
BMW Engine Lubrication: Key to Reliability

Vital to the legendary durability of the BMW motorcycle powerplant is its extraordinary lubrication system. Bearing surfaces are bathed in a continuously recirculating oil supply, which also helps to cool them. At 60 mph, today's BMW R100RT in top gear is turning about 3400 rpm. Its oil pump is delivering freshly filtered oil to the bearings at a rate of about 212 gallons per hour. Which means the entire oil supply of the engine is recirculated about six times every minute, once every ten seconds, or once every 880 ft. of highway travelled.

That's a lot of lubrication, especially when you consider the circuitous path oil must travel. The diagram at right outlines the basic system. Oil is drawn in from the sump through a pick-up screen (1), pumped by the Eaton-type trochoidal oil pump (3) to the full-flow oil filter chamber (5), and then to the camshaft front bearing (8). In case the oil filter is clogged, a by-pass valve (6) guarantees that engine components will nevertheless get a continuous oil supply.

From the front camshaft bearing, the oil goes directly to an oil distribution gallery in the front mainbearing cap (10). Two sets of channels (13, 14) carry oil from this point to hollow cylinder-securing bolts and thus to the rocker arm pivots and valve stems. After lubricating the valve gear, this oil drains through the pushrod tubes to the cam followers, cam lobes, and then back to the crankcase and pump.

There are three other oil takeoffs at the front mainbearing cap. One applies oil pressure to a spring-loaded pressure relief valve (11) which limits oil pressure to a maximum of 74 psi at high rpm. Another feeds the oil-pressure pick-up sensor (18) and then the rear mainbearing. The third is a drilled oil gallery (15) in the crankshaft itself which feeds the lower-end bearing of the left connecting rod. A similar gallery (17) from the rear main bearing



feeds the right lower-end bearing.

The cylinder walls and wristpin (upper-end) bearings are lubricated generously by splash oil from the rotating crankshaft; the rear camshaft bearing is lubricated by seepage from the oil pump mounted at the rear of the camshaft. On those models equipped with an oil cooler, a thermostatically controlled pickup (23) in a special oil-filter cap bleeds off a certain amount of oil under pressure for circulation through the oil filter. The higher the temperature, the more oil gets routed through this heat radiator located directly in the airstream.

Oil that has been vaporized by the activity and heat of engine operation rises to a special condensation chamber and breather valve (20) at the top of the crankcase. Oil condensed here flows back through a drain (22) into the crankcase.

Although seemingly intricate, the BMW pressurized oil system is both positive and simple in comparison to most other systems. More important, it is precise. Each oil gallery is dimensionally engineered for the correct flow and pressure throughout the system. Galleries are precision drilled in castings, forgings and other components. If a rider were to replace the minimum-pressure warning sensor with an oil pressure gauge, he would find pressure measuring 14.5 to 29 psi at 800-1000 rpm (idle) and measuring 60-74 psi at 4000 rpm and up. Tolerances are set within wide margins because the BMW engine delivers *so much* life preserving oil.

Even the best lubrication system cannot function well if the proper lubricants are not used. Riders are especially warned against the prolonged use of oils that have seen much stop-start riding. Such oils accumulate water, acids, particulate matter and other wastes that can significantly reduce their bearing strength. Change oil frequently if stop-start, short-run riding is your predominant mode. And *be sure* to change if you're about to set out on a long, high-speed run.

After break-in, the same oil selection is recommended for all BMW motorcycle engines since 1949. Use only major-brand mineral-based four-cycle oil of no less than SE rating. If you know you will be travelling almost exclusively at high speeds in temperatures above 65°F, use SAE 40. For mixed general riding at temperatures above freezing (32°F), use SAE 20W50 multigrade. For riding when temperatures are likely to dip below freezing, use SAE 10W50 or SAE 10W40. For riding in extreme cold, use an SAE 10W30 multigrade.

With proper maintenance, including the right lubricants and oil-change frequency, your BMW engine will power for longer than most motorcycle engines and even conservatively tuned auto engines. Many engineering considerations go into that longevity, but a highly-advanced fully-filtered, pressurized lubrication system is one of the most important.

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