



**BMW**  
**R65LS**  
**R65**



**The Legendary  
Motorcycles  
of Germany.**

**The BMW Credo  
Since 1923:  
When Production Is  
Limited,  
Attention To Detail  
Isn't.**

Aficionados tend to speak of BMW motorcycles with a reverence not granted to more numerous breeds. Because unlike the waves of "revolutionary" motorcycles that roll from assembly plants only to rattle into obsolescence by the next model year, the machines you see here are the result of a quietly passionate engineering evolution.

Their extraordinary handling, stability, and control first drew impetus from a radically new kind of motorcycle engine developed by BMW in 1923: the horizontally-opposed twin-cylinder engine. Ingeniously simple. Flawlessly balanced. With a remarkably low center of gravity. And still, some 195 speed and endurance records later, at the heart of every BMW.

The generations of meticulous refining that have gone into what many consider the most perfect mechanical foundation for a motorcycle have a logical complement in the painstaking care exercised on the BMW production line. A production line which can justly be said to operate at two speeds: slow and stop.

Motorcycles built by Human Beings.  
Instead of Robots.

Some might find BMW's miserly production pace downright laughable. After all, for each motorcycle BMW builds, Suzuki spews forth 48. Yamaha, 70. And Honda, an eyebrow-raising 96.

You, however, should find it reassuring that we take the time to weld every BMW frame almost entirely by human hand instead of robot claw. (A total of 9 feet of strips and spots is applied, with a sure smoothness that connoisseurs of welding assure us is far more appealing than the usual "glob and blob" effect).

Each frame is aligned and scrutinized by a craftsman who acknowledges full personal responsibility by stamping the metal with his own distinctive seal.

And upon this steady foundation are mounted critical components individually x-rayed to determine their stress value.

To enhance maneuverability, these parts are, whenever possible, made of costly lightweight alloys instead of iron or steel.

Every nimble BMW is the lightest model in its class.

During the assembly, tolerances off by as little as one-tenth of a millimeter are not tolerated.

But the BMW spirit is more than a matter of micrometers and torque wrenches.

When a craftsman has placed a crankshaft into a crankcase, say, he gives it an extra spin to check it by feel.

Or again, he gently taps the connecting rod caps into place with a soft mallet and judges the mating of surfaces by the resulting sound.



We test them whole, because that's how you buy them.

Finally, the last cadmium-coated nut has been tightened.

The artisan who hand-pin-stripes the motorcycle has signed her name under the gas tank.

Any ordinary motorcycle would be speeding from the factory to the dealer. At this point, however, every BMW speeds to the test stand, where it is put through its paces at up to 86.8 mph.

High-volume manufacturers simply do not have the time to lavish such a test on their motorcycles.

But BMW insists that the whole must be as perfect as its parts.

The more obsessed you are with motorcycling, the more you will appreciate this obsessive attention to detail.

An attention whose result is that, as Cycle magazine puts it, "high-mileage, years-old BMW's retain their taut, solid feel when lesser motorcycles have long since gotten loose and rattly."

The only 200,000-mile Motorcycle Club we know of with any members.

How high the mileage? How many the years? No manufacturer can guarantee you a motorcycle Methuselah.

Longevity depends largely upon individual riding habits, maintenance, and other variables.

But we can tell you that while the average mass-produced motorcycle is scrapped after less than 14,000 miles,

BMW-owner Clyde Rees of Shelbyville, Tennessee, can point to 225,000 miles on his odometer. And Clyde is not alone.

The odometer on Carl Goldsby's BMW reads 268,000 miles.

Says Carl, of La Grande, Oregon, "I'm just as attached to my wife as I am to my bike. We've traveled almost every mile two-up."

Miguel A'Llerio of Chicago has logged 245,000. Elwin Russell of Los Angeles has actually accumulated 342,000.

In fact, BMW sponsors a 200,000-Mile Motorcycle Club. Perhaps there are others, but ours is the only one we know of with any members.

Outmaneuver the bank. Lease a BMW.

Now there's a way to put a BMW under you without having a large bank loan over you: the BMW leasing program.

Instead of the usual 25% down payment required by most banks to buy a motorcycle, you pay a refundable security deposit of as little as \$295 to lease a BMW. With monthly payments lower than you would expect. See your participating BMW dealer for complete details.\*

And while we don't break speed records building BMW's, we do make haste when it comes to checking credit. In most cases, you'll have an answer within 24 hours.

If credit is approved, you'll be able to ride a BMW for 24 months. Or 35, if you opt for a three-year lease. After which

time, you can opt to buy your BMW, \*\*lease a new one, or simply walk away.

A motorcycle warranty that outlasts many motorcycles.

When a motorcycle is designed to last, its warranty can be similarly designed. Therefore, BMW's limited three-year warranty protects you against defects in materials and workmanship three times longer than virtually any other motorcycle on the road today.\*\*\*

It even applies retroactively to 1982 and 1983 models. And it's good for unlimited mileage. One of the many reasons why BMW riders have unlimited confidence in their machines.

\* Lease price does not include applicable taxes and license fees. Annual mileage exceeding 10,000 miles per year will be subject to an additional charge.

\*\* Purchase option price based on a residual value of 40% of the original selling price.

\*\*\* Warranty applies to motorcycles purchased from authorized BMW dealers or through BMW European Delivery only and is transferable within the period specified. See your authorized BMW dealer for details.

The picture shows the BMW R 65 with optional extras and the rider in BMW clothing.



## The BMW R 65 LS. It Possesses The Kind Of Beauty German Engineers Appreciate.

All too often, the alluring lines of sport motorcycles are cosmetic compensation for mediocre engineering. The form of the BMW R 65 LS, on the contrary, follows the same legendary devotion to function as its 650cc engine.

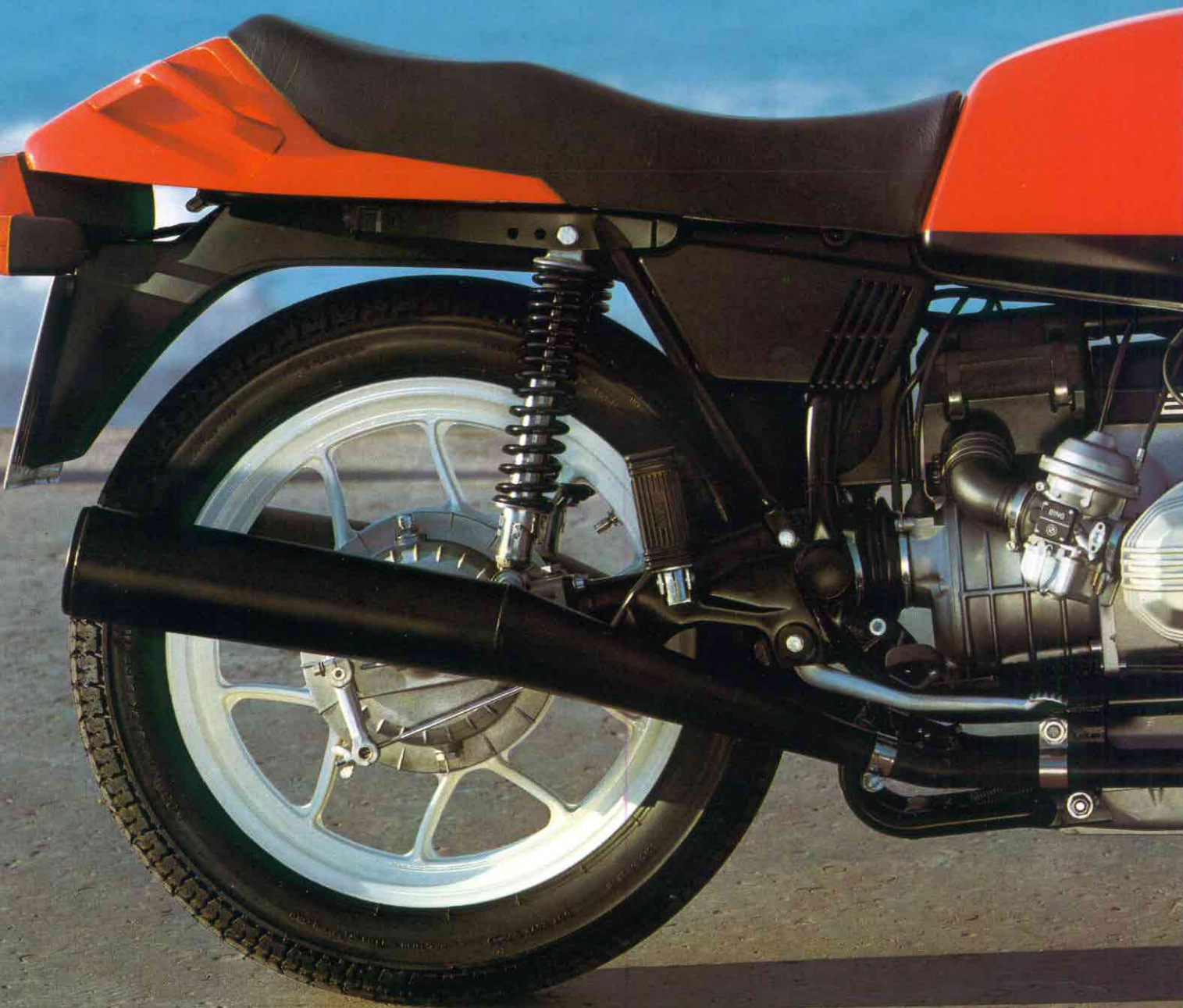
Its pert rear and its comely profile were shaped not by a lusty stylist but the gusty BMW wind tunnel in Ismaning, Germany. The fairing helps reduce front-wheel lift by over 30 percent.

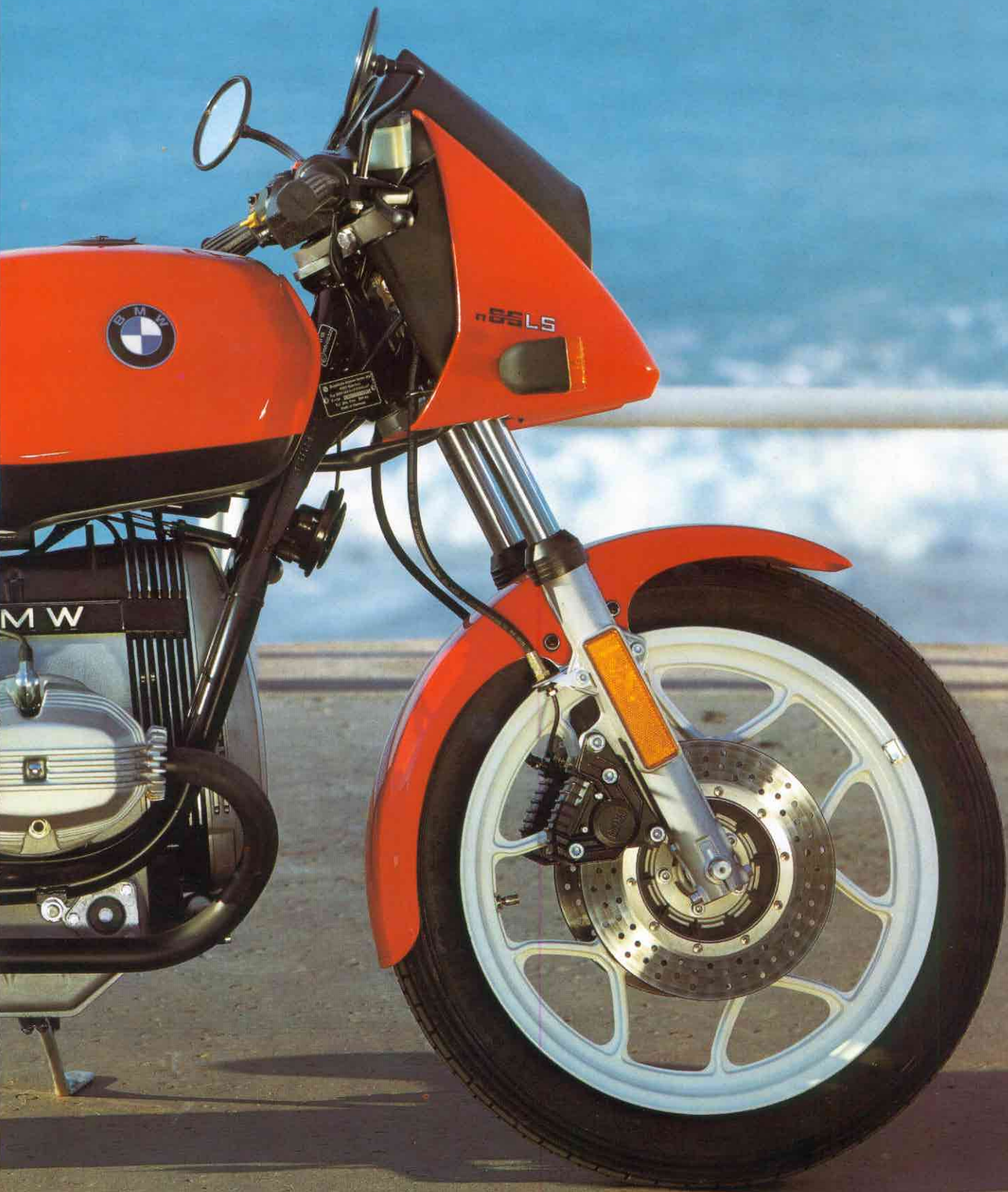
To truly appreciate the compact handlebars, you must grasp how they co-operate with the saddle to provide a seating position Cycle World calls "sporting in a way that Japanese bikes, even with

red paint, have not discovered." Even the beauty of the wheels is more than enamel-deep. Rims of rigid aluminum and hub-and-spoke assemblies of a more elastic alloy are cast as a single unit to yield a resilient "composite" wheel that helps enhance handling and reduce weight.

The price of such refinement may turn some heads. But as a motorcycle columnist in AutoWeek notes, "a bad motorcycle is worthless; a good motorcycle is worth whatever it costs... By that standard, the R 65 LS is a bargain."

An evaluation we find far more gratifying than a wolf whistle.





# The Most Exquisite Collection Of Motorcycle Parts Ever Assembled Under One Rider.

The engineers of BMW are keenly aware of the difference between a motorcycle that functions on the drawing board and one that functions in reality. So to endow each machine with the ability to truly fulfill its mission, they select, refine, and re-invent components as nearly perfect as German engineering can make them. The BMW R 65 LS is a case in point.

## Features that transform the wind from obstacle to ally.

Like the aerodynamic tail with its molded grab handles and inner storage compartment, the fairing of the R 65 LS was designed in BMW's own wind tunnel. It helps reduce front-wheel lift by some 30 percent, thus promoting better handling. Further, it spares the rider's personal breadbox from head-on collision with the wind. Set into the fairing nose is a large quartz halogen headlight and inside, between the sporty, slightly rising handlebars, is a full range of easy-to-read instruments.

## The BMW "composite" wheel. A wheel designed to run rings around others.

The "composite" wheels of the R 65 LS may well be the most durable mag wheels ever created. The rim section, formed from a highly rigid aluminum alloy, is simultaneously cast together with a hub-and-spoke assembly made of a far more elastic alloy that helps ensure flexibility.

The result is an integrated unit that resists severe loads much better than plain pressure-cast wheels, yet weighs up to 20 percent less. A wheel that is also superior to the riveted pattern found in conventional wheels because it cannot lose rigidity through gradual slackening of the rivets.

All in all, the rider benefits from less unsprung weight, improved spring and shock absorber response, and even better handling, while heat from the brakes is dissipated more efficiently.

## We've made our classic engine even more classic.

The compact horizontally-opposed twin-cylinder engine of the R 65 LS builds up to its full capacity rapidly and is remarkably light, thanks to recent innovations such as its reduced-weight single dry-plate clutch assembly and nickel-silicon coated aluminum cylinders.

The clutch employs a diaphragm spring pressure plate for more positive action and lighter clutch pull.

The cylinders are three times better than iron-lined ones for heat transfer, require less break-in, and consume less oil.

## Brakes that realize stopping is as important as going.

The dual disc front brakes with semi-metallic pads have superior resistance to fade. They respond in a perfectly linear fashion, and their wet-weather prowess is augmented by the tenacious grip of the tires.



Figure 1 shows a section of the compound aluminum wheel.



**The BMW R 65.  
BMW Continues Its  
Unswerving Devotion  
To Handling.**

Is your spirit drawn to the legendary prowess of BMW's while your pocket-book flinches at their almost equally legendary price?

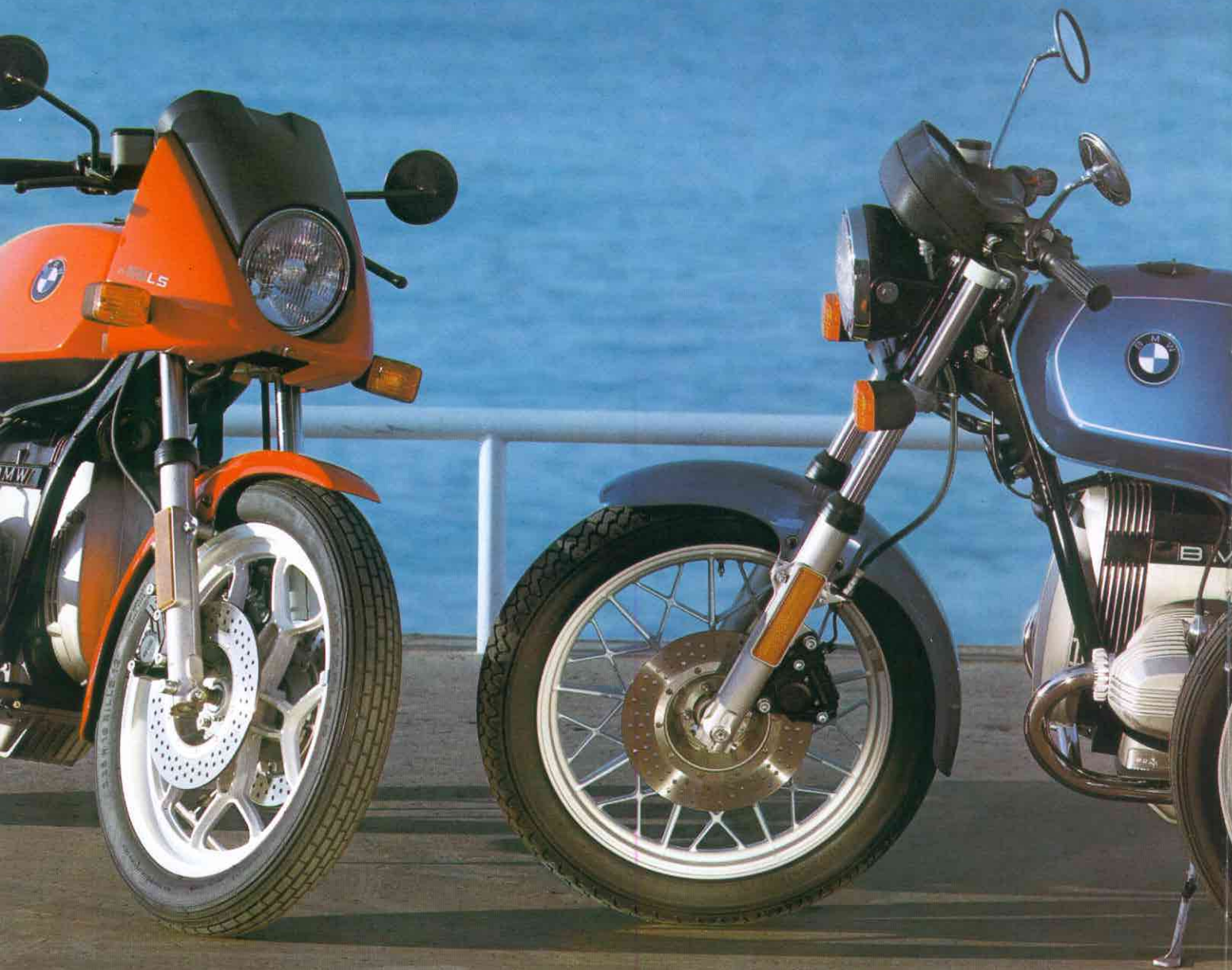
The BMW R 65 is a most satisfying solution to this not uncommon dilemma. "Like the rest of the BMW line – and unlike other 650's," writes Cycle Guide, "the R 65 isn't just a stepping stone to a more sophisticated bike; it's a worthy end in itself."

For the R 65 possesses to an uncanny degree precisely the qualities needed for maneuverability: perfection of balance and low center of gravity combined with overall lightness.

A combination that grows from BMW's insistence upon continuous refinement, as opposed to continuous revampment.

BMW places life's complexities behind you. Not beneath you.

In 1923, long before its competitors were gleams in marketing men's eyes, the R 65's essential ingredient was



born: the horizontally-opposed twin-cylinder engine.

An engine which helped to inject, in the words of motorcycle historian L.J.K. Setright, "a measure of civilization into an activity that had always shown a tinge of barbarity."

Rather than abandon this stable, low-slung mechanical premise in the face of legislative dictates or demands for the "new and improved," BMW has imperturbably evolved hundreds of enhancements.

Many of these, in turn, have helped make the R 65 what it is: among the lightest of all 650's, and lighter than all but a handful of 550's. In the last few years alone, the R 65 has been graced with a new flywheel and clutch assembly that is 40 percent lighter and leads to faster acceleration. The usual iron cylinder liners have been eliminated in favor of an electronically impregnated nickel-silicon coating, for a net saving of 6 pounds.

And a lively 5 horsepower has been added, without significant weight gain, by refinement of intake tuning. It is through problem-solving of such caliber that, observes Cycle Guide, "the BMW engineers have brought their motor into the Eighties without resorting to needless complexity." And, we might add, brought the R 65 into the esteem of motorcycle enthusiasts everywhere.

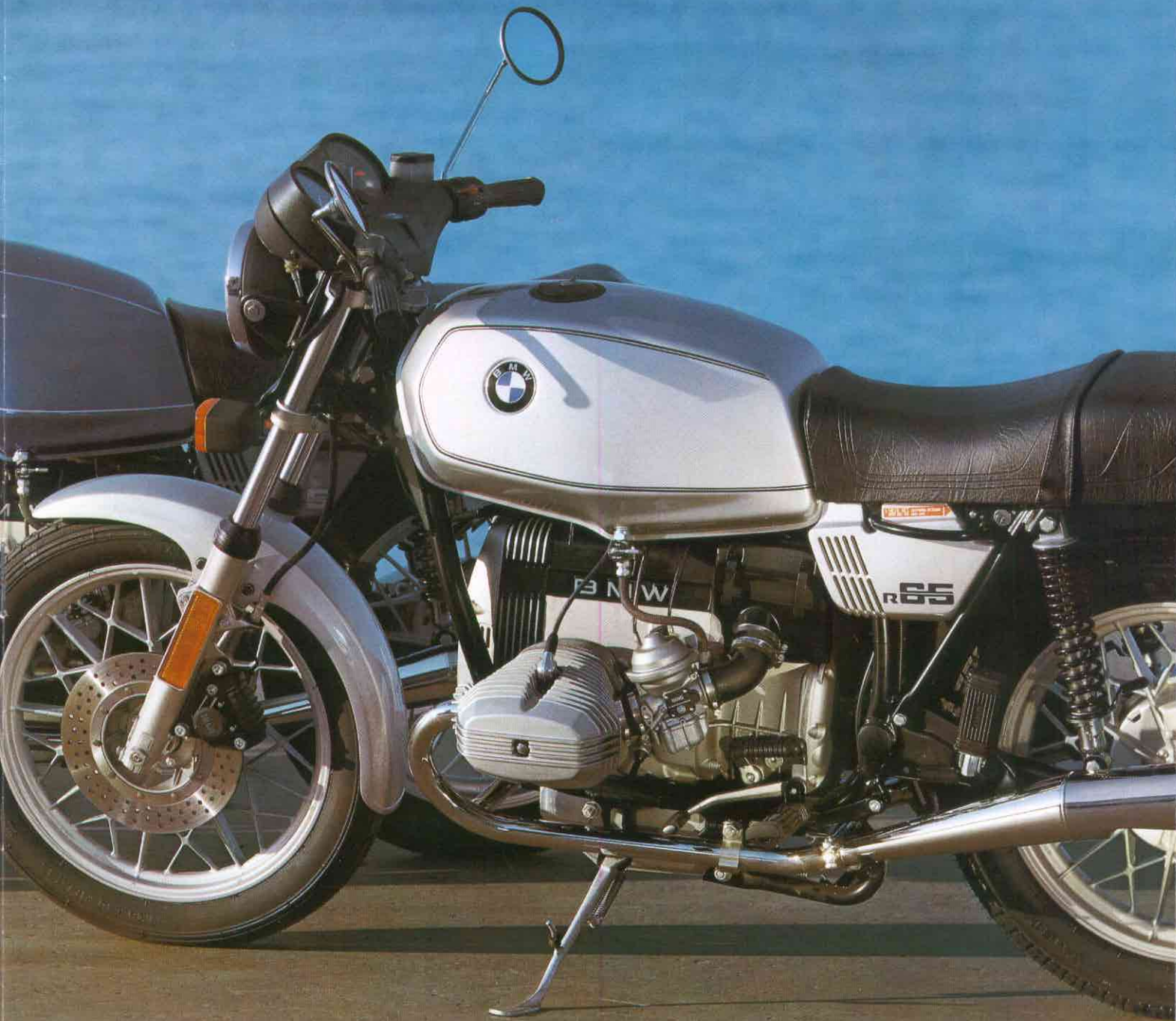
Beautiful on the road, in the shop, and on the resale lot.

As the product of such breeding, the R 65 can flick left and right almost effortlessly along corkscrew roads or, for that matter, through city traffic. Its basic design, simplified over generations rather than laden with the latest model year's complications, helps the R 65 shine over the proverbial long haul. Which, with its temperate drinking habits and 5.8-gallon fuel tank, is long indeed.

The exhilaration of riding such a beautifully simple machine is also keen as your path repeatedly takes you past motorcycle repair shops instead of into them. For there is simply less to repair. Maintenance? Your mechanic will appreciate that there are half the number of valves and carburetors to adjust as on a four-cylinder engine. And, due to the breakerless transistorized ignition, there are no points to replace or adjust.

In view of all this, it's understandable that the R 65 outperforms the competition on one last swatch of territory: The resale lot. Where even a 5-year-old R 65 retains 77.1 percent of its original purchase price.\*

\*Average selling price based on May-August, 1983 NADA Used-Motorcycle Handbook. Your selling price may vary depending on the condition of your motorcycle and whether you sell it privately or to a dealer.





## An Extravagance Of Features At A Not-So-Extravagant Price.

The BMW R 65 is one of those rare creatures, a motorcycle that looks as good on the inside as it looks on the outside. And that inside begins with the R 65's horizontally-opposed twin-cylinder engine. Virtually unbeatable in its balance and low center of gravity. Possessing refinements like nickel-silicon lined cylinders for extra wear resistance and heat dissipation, shorter break-in time, and reduced oil consumption.

### Our drive shaft maintains performance without maintenance.

Because it is totally enclosed, the simply-designed drive shaft is virtually maintenance-free. An integral torsional vibration damper greatly reduces peak loads during acceleration and braking. Which means a smoother ride and easier gear shifting.

### Tapered roller bearings whose performance doesn't taper off.

The R 65's telescopic forks are carried on large tapered roller bearings in the steering head, for the most accurate possible steering. The rear swing arm also uses tapered roller bearings. True, such bearings are costlier than the typical ball bearing variety, but the reduced maintenance and the longterm strength and stability that result are worth it. In the years BMW has employed tapered roller bearings there has not been a single reported case of worn steering head.

### Brakes so effective, our engineers stake their lives upon them.

BMW was the first motorcycle manu-

facturer in the world to fit its models with brakes whose wet-weather performance is approximately 94 percent of their dry-weather efficiency: with a large-diameter fixed caliper front disc brake with semi-metallic pads and a large-diameter rear drum brake. It's a combination that BMW engineers, who are motorcycle enthusiasts themselves, did not design casually.

### Wheels that help you go straight even if your tires go flat.

The R 65's cast alloy wheels are lacquered for protection and easy cleaning. Among the lightest available. And definitely stylish. But they also have a safety rim profile that helps prevent the tire from slipping into the rim well should the tire lose air and go flat. There are quick release axles to facilitate easy wheel removal, too.

### Very few motorcycles can offer you all this for the money.

An extremely long spring travel of 6.9 inches up front and 4.3 inches in the rear, for added safety and comfort. A large H-4 halogen headlight.

A corrosion-resistant 5.8 gallon fuel tank.

A load allowance of 425 pounds for touring and two-up riding.

These are just some of the further features the R 65 gives you.

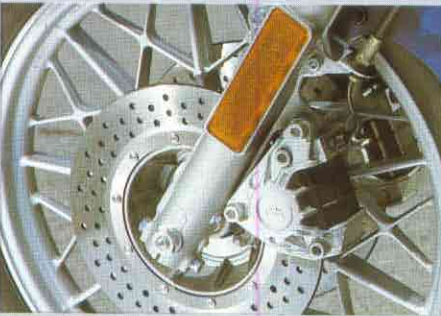
Figures 1 to 4 show special equipment available at extra cost: "Touring" holders with cases and luggage rack, rear mudguard, windshield, auxiliary headlights and instruments, additional front disc brake, and cylinder protection bars.



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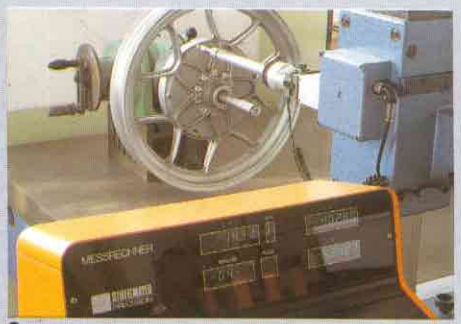


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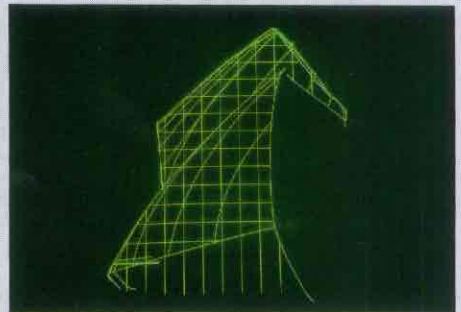
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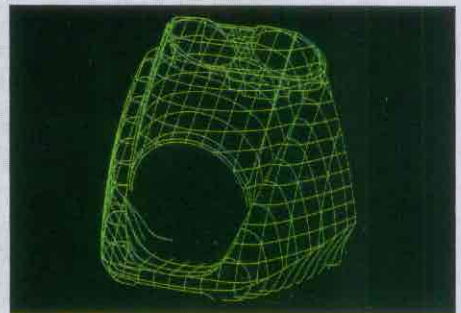
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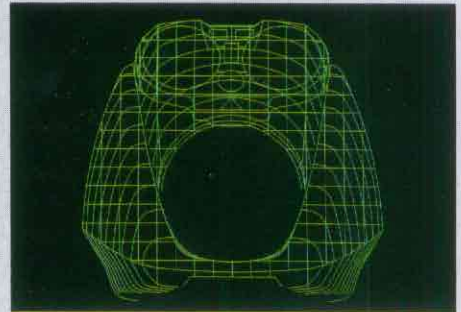
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# Why You're Less Of A Test Rider On A BMW Than On Any Other Motorcycle.

It has long been a BMW conviction that the unpredictability of a road should not be augmented by unpredictability in a motorcycle.

And so, to a degree that other motorcycle manufacturers may envy, surprises lie in front of BMW riders rather than under them.

Part of the credit must go to the patient ingenuity of BMW engineers who, instead of seizing upon one chunk of transient technology after another, have devoted over 60 years to refining our basic horizontally-opposed twin-cylinder engine.

An engine whose remarkable balance and low center of gravity help ensure that the thrill of thundering down a straightaway will not escalate into sheer terror upon encountering a curve.

At BMW, even the inspectors are inspected by inspectors.

On the actual production line itself, one out of every 10 BMW workers is involved in some aspect of quality control. The inspectors themselves are inspected by inspectors.

This allows us to scrutinize the average BMW once every 72 seconds, employing a battery of techniques ranging from x-rays to micrometers. Single-part components such as pistons receive 22 separate inspections.

The results of this pitiless regimen? To cite but one instance, there have been absolutely no complaints concerning any of the 250,000 BMW frames produced and delivered since 1968.

The fact that BMW will not be driven by the exigencies of mass marketing is nowhere more apparent than in one last, unprecedented procedure: crucial testing of each road-ready machine at speeds of up to 86.8 mph. Only after all major functions acquit themselves in actual operation is a BMW packed for delivery. But even here there is a telling difference.

While other manufacturers pack their motorcycles in pieces to help save on shipping costs, we pack ours fully assembled.

At BMW, you see, we believe there is a sense of security that comes from knowing your motorcycle has been put together by a fully-assembled technician.

1) A coordinates measuring device can detect minute deviations in dimensions.

2) Wheels are x-rayed and checked for runout deviations.

3 and 4) BMW frames are checked for strength on this pulsar test stand.

5-7) A three-dimensional electronic drawing of the R 65 LS fairing is calculated and drawn by a computer.

8) The multi-component test stand helps BMW engineers simulate the actual stresses on the frame from a variety of riding conditions.

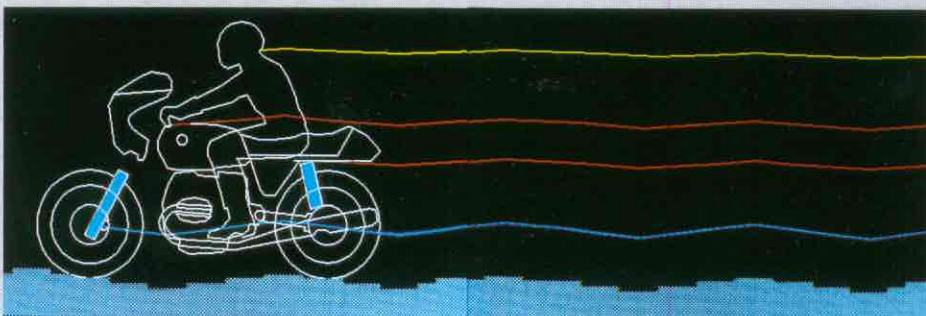
9) Unique ride comfort due to BMW's long spring travel, as shown on the computer.

10) Material stresses are displayed on this computer screen.

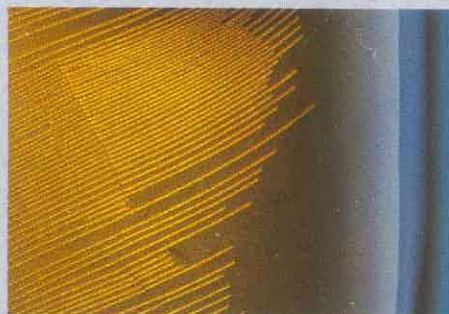
11) The crankshaft is checked for runout precision by a computer that is specially programmed with the strict tolerances required by BMW's engineers.



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R 65 LS

R 65

**Dimensions and Weights**

Length: 83.1"; Wheelbase 55.1"; Seat height (unladen) 31.9"

Handlebar width 23.6"

Handlebar width 25.6"

Width across engine 27.1"

Width across engine 27.1"

Overall height (unladen) 42.9"

Overall height 42.5"

Dry weight 408 lbs. Weight ready for road, incl. fuel 452 lbs. Maximum permissible weight 877 lbs

Fuel tank capacity: 5.8 gallons incl. .53 gallon reserve

**Engine and Electrical System**

Air-cooled transverse flat twin, 4-stroke; light alloy construction for good heat dissipation, "Nikasil" coated aluminum cylinders

Displacement 650 cc; stroke 61.5 mm; bore 82 mm

Breakerless electronic ignition; 280-watt alternator, .7-kilowatt starter, 12 volt, 16-amp/hour battery, double-spark ignition coil

**Transmission**

Single dry-plate clutch with increased-leverage diaphragm spring

5-speed gearbox. Gear Ratios: 1st: 4.40, 2nd 2.86, 3rd: 2.07, 4th: 1.67, 5th: 1.50 to 1

Rear wheel driven by totally-enclosed shaft with torsional vibration damper, universal joint and coupling with convex splines, crown wheel and pinion with Palloid tooth pattern.

**Frame, Suspension and Brakes**

Twin-loop steel tube frame with bolted-on rear sub-frame

Front axle: telescopic fork with double-acting hydraulic dampers; suspension travel 6.89"; Quick-release axle; taper roller bearings for steering head.

Rear axle: double swinging arm in taper roller bearings with progressive-rate spring-damper struts with three settings; Suspension travel 4.33"; quick-release axle

Front brakes: fixed-caliper; twin disc brake with drilled-out steel discs, dia. 10.2"

Fixed-caliper single disc brake, dia. 10.2"

Rear brakes: Simplex full-hub drum brake, dia. 8.7"

dia. 7.9"

BMW aluminum compound wheels

Front: 2.15 B x 18; Rear: 2.50 B x 18

Light alloy pressure-cast wheels

Front: 1.85 B x 18; Rear: 2.50 B x 18

Tube tires. Front: 3.25 H x 18; Rear: 4.00 H x 18

**Equipment**

Single key for ignition, steering, fuel tankcap and dualseat; speedometer with trip odometer; tachometer; H-4 halogen headlight; plastic fenders, adjustable handlebars, footrests and control levers; center and side stands; corrosion-resistant sport fuel tank; two-compartment rear light; lockable sports dualseat with storage compartment and toolbox with complete toolkit.

Sport cockpit with fairing fixed to handlebars with integral instruments; sport handlebars; dualseat with integral handles

Handlebar center section, crash pad and instrument cluster, combined into a single control and information unit

This brochure contains some items of equipment which are only available upon request and at extra cost.

Models illustrated are to the specifications sold in the Federal Republic of Germany.

In some other countries, the model and equipment specifications may differ on account of legal requirements.

For precise details of local specifications, please contact your BMW importer or dealer.

We reserve the right to amend designs and equipment.

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