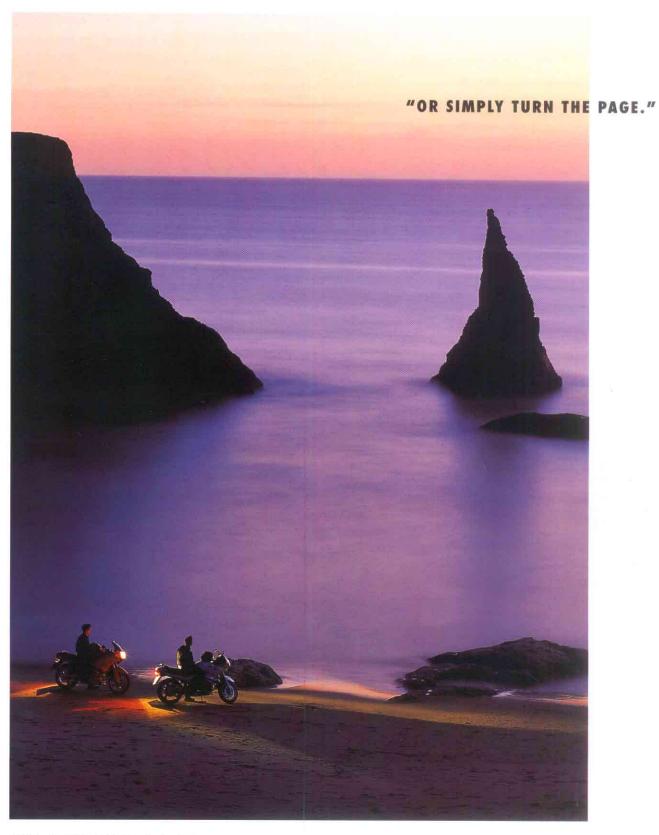
"TO LOOK INTO THE FUTURE,
YOU CAN VISIT A FORTUNE-TELLER."



THE NEW BMW BOXER: THE R 1100 RS.



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Boxer has more fans now than ever before. Because, as always, it is
continuing a proud heritage of offering the thrilling combination of
riding pleasure and sheer fun, the absolute marriage of man and machine.

But along with pleasure comes responsibility. In today's complex world,
the Boxer, more than ever, must respond to new and tougher requirements. And continue to develop new technologies to combine the thrill

of motorcycling on the demands of omy on the other. Boxer meets the fine balance. Com-



the one hand with
ecology and econThe new BMW
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bining the un-

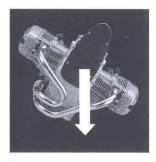
paralleled accomplishments of the past with the technical concepts of the future, linking character and flair with progressive technology.

In short, the new Boxer is a motorcycle that announces the future without forgetting its past. Carrying on the legend that has given pleasure to motorcycling enthusiasts for over 70 years.

## THE NEW BOXER POWER UNIT: EVERY FEATURE SCREAMS "FUTURE!"

It's as simple as this: no other two-cylinder engine offers as many advantages for the future as the new BMW Boxer. A low center of gravity. The perfect compensation of all masses and moving forces. The flow of air past the engine to cool it down. Enormous torque, smoothness and refinement.

In addition to improved output, torque and running



The low center of gravity makes an essential contribution to the motorcycle's excellent handling.



Ideal thermal balance. Protruding to the side, both cylinders are cooled perfectly by the wind rushing by. They also help protect the rider in the event of a fall or side collision.

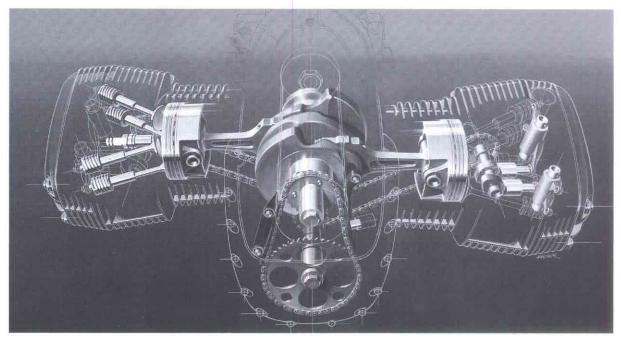
smoothness, the power unit was designed to reduce the cost of ownership,

fuel consumption, and exhaust and noise emissions.

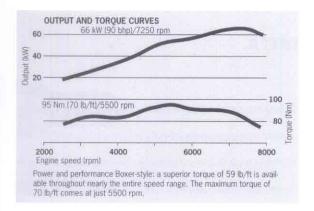
Without compromising on reliability and durability. Perhaps the most futuristic feature of the new power unit is its four-valve technology. Two exhaust and two intake valves per cylinder ensure an improved cylinder charge and a more rapid exchange of fuel/air mixture. In addition to a considerable increase in engine output and torque combined with extraordinary fuel economy. BMW's engine designers have developed high-camshaft (HC) control. Which offers a number of advantages like compact dimensions, supreme reliability, and a low noise level.

The fundamental idea behind HC control is to include the camshaft, tappets, push rods and rocker arms in one central light-alloy housing bolted onto the cylinder head.

A new production method gives the camshafts an extremely long running life with minimum wear by pressing sintered cams onto the nitrided steel shaft.



HC camshaft control: via chains, the camshafts are driven by the layshaft running below the crankshaft at a reduced ratio of 2:1. The valves are operated in pairs via hard-cast tappets, aluminum push rods, and forged rocker arms. Valve adjustment bolts with a special joint maintain valve clearance with utmost consistency regardless of the mileage covered.



The new BMW Boxer is the first engine of its kind to feature a combination of air and oil cooling reflecting the increase in engine output and performance. The cylinders are cooled by rushing wind currents, while the components around the outlet valves subject to high temperatures have additional cooling provided by the flow of oil. As a result, engine reliability is further enhanced over a long running life.

Through their special design the cooling fins prevent the usual humming noise caused by vibrations.

Inside, the cylinders are coated with a highly stable nickel-silicon alloy (Gilnisil). Its advantages include very low friction, optimum running smoothness even at high speeds, and a long running life. The bottom line, of course, is a further reduction in oil consumption.

Featuring three piston rings, the new cast light-alloy pistons are 30 percent lighter than ever, efficiently reducing any vibration caused by mass forces. These

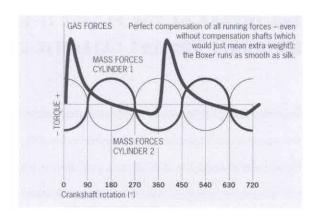
The crankshaft transmits the power of the engine directly to the clutch, the five-speed gearbox, and drive shaft.

Accordingly, all the shafts within the drive system rotate around their longitudinal axis, without loss of power in any joints or pivot points.

lightweight pistons also allow the engine to rev up more

easily to higher speeds.

Since the engine is a load-bearing component within the motorcycle's frame, the new Boxer's engine and transmission housing have been designed for maximum strength and rigidity. Now split up vertically into two



halves, the engine block is made of high-strength light alloy cast through the middle-pressure process.

Oil supply is controlled by two separate oil pumps with separate circuits for lubrication and cooling. An external oil cooler then provides an additional cooling effect through the reflow pipe. The newly developed and highly sophisticated system of bleeding air from the crankcase ensures that any oil in the blowby gas is fed into the oil circuit through an elaborately designed oil separator without leaving any residue behind.

Making the new BMW Boxer not only the ultimate power unit of the future, but also ultimately good for the future of the environment.



The world's first motorcycle connecting rods made of sintered, forged steel. In production, the conrods are intentionally fractured are the crankshaft bearing point to create an adsolutely unique fracture surface. As a result, both halves fit together perfectly afterwards, without requiring complicated alignment in the assembly process.

## THE FUTURE OF THE PLANET IS NOW: MOTRONIC AND THE CATALYTIC CONVERTER.

To meet today's traffic and environmental requirements, the motorcycle calls for far-sighted solutions. And this is precisely what the new BMW Boxer has to offer.

Providing not only more power for a more active style of riding, but also the carefree handling, environmental compatibility and superior economy you'd expect of a motorcycle built for the future.

The technologies required to achieve these goals have already been state-of-the-art with BMW for quite some time: We were the world's first motorcycle manufacturer to use Digital Motor Electronics (Motronic) in BMW's four-cylinder power unit. And the obvious next step was to incorporate DME in the two-cylinder version.

Digital Motor Electronics is the only technology able to

adjust all control functions within the engine to specific running conditions and other parameters affecting the power unit. And Motronic allows us to equip a motorcycle with the most efficient technology for protecting the environment: the fully controlled three-way catalytic converter.

The improved Motronic featured in the new BMW R 1100 RS consists of an all-

inclusive control system built around a central computer.

Applying a multi-dimensional "map" stored within its memory, the computer takes only fractions of a second to



Actively protecting the environment: thanks to sophisticated Motronic engine management, the power unit interacts perfectly with the catalytic converter. The lambda probe serves to monitor the exhaust emissions by measuring the amount of residual oxygen. Since the accuracy of this measurement process depends on operating temperatures, the lambda probe is heated in order to reach its optimum operating temperature after just a short distance on the road.

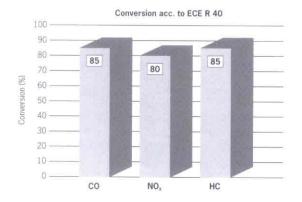
calculate the optimum fuel supply and ignition timing for perfect combustion. In the process it carefully considers all relevant operating conditions within the engine, such as the throttle butterfly angle (load value), engine speed, air temperature, and the data provided by the lambda probe incorporating a number of high-precision sensors. The elaborate system of engine management offers substantial advantages in practice: much better performance and response compared with a carburetor



A special micro-chip makes the Boxer absolutely future-proof: advanced engine management ensures not only greater fuel economy, but also an even higher standard of all-around reliability and ease of service.

Using a diagnostic tester, the dealer can find out quickly and easily whether the Motronic engine management system is working perfectly. engine, optimum fuel economy, superior ease of service provided by the electronically readable defect memory integrated within the system, and superior reliability: the usual deficiencies caused by wear, contamination, or poor maintenance are virtually non-existent. And special failsafe programs within the system allow you to keep on riding even in the unlikely event of a defect.

Lower exhaust emission. Environmental safety. Superior



BMW's environmental technology in the Boxer' minimizes the three most significant exhaust pollutants; carbon monoxide (CO), hydrocarbons (HC), and nitric oxides (NO $_{\rm X}$ ). "ECE version without Pulse-air System.

economy. Optimum performance. And more good news:
BMW's fully controlled three-way catalytic converter –
the most efficient emission management technology
available today – is available on every BMW R 1100 RS.
So what's our secret? Motronic provides ideal conditions
for the catalytic converter only if exactly the right fuel:
air mixture is supplied to the engine.

And the lambda probe just so happens to provide this optimum fuel: air ratio. A sensor within the exhaust system – the actual probe itself – constantly determines the oxygen content of the exhaust gases flowing by. Receiving this information, the Motronic "brain" determines exactly what kind of fuel mixture is required, and then responds almost immediately. As a result, the catalytic converter is constantly fed perfectly pretreated exhaust emissions and performs its job with maximum efficiency.

The BMW R 1100 RS is fitted with a long-life metal-based catalytic converter designed as a monolithic body with approximately 200 cells/inch². The inner walls of the converter are coated with an ultra-thin layer containing platinum, palladium, and rhodium – the actual catalysts serving to oxidize and reduce the pollutants chemically. As the graph clearly shows, the conversion rates achieved in this process are quite remarkable. Further, the catalytic converter doesn't reduce the motorcycle's output and performance in any way, just as fuel economy remains unchanged.

And in case this doesn't convert you, just read on.

To achieve optimum results, the catalytic converter requires an accurate, carefully balanced fuel:air ratio. The optimum ratio referred to as the stochiometric balance (lambda=1) is 14.7:1. The more precisely this figure is maintained in practice, the better and more efficient the process of emission management becomes. Even minor deviations of just a few thousandths will seriously impair the efficiency of the catalytic converter.

# THE NEW BMW TELELEVER. SUSPENSION THAT ACHIEVES THE IMPOSSIBLE — COMFORT AND CONTROL.

Every rider dreams of being in complete control of his machine. To enjoy the benefit of superior handling and comfort on all roads. To feel more relaxed and to ride more safely. Now the BMW Boxer is making these dreams a reality.

Introducing the new Boxer's all-new front wheel suspension: the BMW Telelever. A suspension that can, for the first time, completely eliminate the problems inherent in the conventional telescopic wheel fork. Inadequate damping. Relatively difficult and far-reaching maintenance requirements. The change in vehicle geometry due to brake dive. The sometimes poor response caused by substantial friction within the forks themselves. Ultimately, these disadvantages result from the fact that the conventional telescopic fork is hardly able to perform all the five important functions of the front wheel suspension at the same time: guiding the wheel, ensuring spring action, acting as a shock absorber, providing steering forces, and supporting the motorcycle against brake forces. So the time has come for a new solution. And since other alternatives currently in use - such as stub axle steering, Hossak or upside-down wheel forks - can't meet all these essential requirements, BMW has taken a new, entirely different approach by combining the advantages of a telescopic fork with those of a swinging arm.

While the Telelever also has fork tubes, they no longer contain any springs or dampers. In addition, the fork is pivoted in two ball bearings to allow movement of the steering. The upper joint connects the upper fork bridge with the frame, the lower joint links the bridge between the two sliding tubes, and the longitudinal control arm pivots itself on the front end of the engine. Spring action

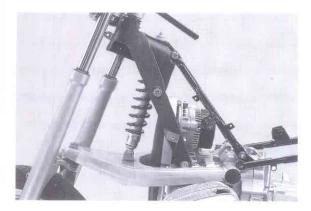
and damping are provided by one single, central spring strut between the longitudinal arm and the frame.

If all this sounds a bit technical, here's something you'll understand completely: the Telelever gives the new Boxer safer handling and riding characteristics than was ever dreamed possible.

The Telelever is extraordinarily stable in its structure;
 due to the long overlapping section of the fixed and
 sliding tubes, the fork arms offer even greater torsional



rigidity than ever. Bending forces acting on the fork arms as well as bearing forces are substantially reduced in this way, because spring action under load is much improved. A further advantage over conventional designs is that the system retains its damping effect despite its high standard of longitudinal and lateral stability.

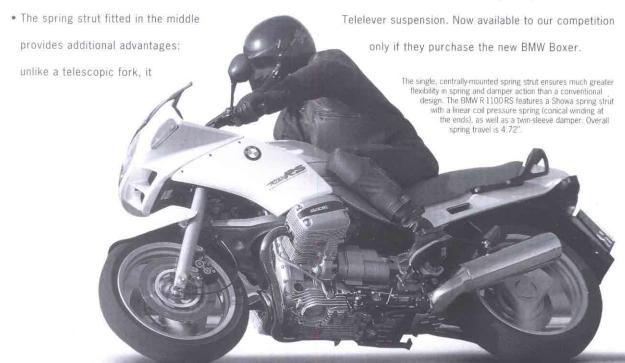


Ideal for many years of riding pleasure: the BMW Telelever doesn't have the typical weaknesses of a conventional telescopic fork. Instead of steering unit bearings highly susceptible to wear, it features ball bearings free of play and requiring no maintenance. In addition, the fork tube seals are hardly subject to any load and there is no need to replace damper fluid because of aging.

- As a result of the Telelever's kinematic behaviour, caster and wheelbase remain virtually unchanged regardless of spring travel. Which means superior stability under all riding conditions, particularly when applying the brakes during a turn.
- So: because brake forces are fed into the engine housing via the longitudinal arm, the results are an exceptional anti-dive effect and adequate spring travel at all times.

keeps spring and damper action absolutely equal on either side, without any discrepancy between right and left.

- Response is also considerably better, as there is hardly
  any friction in the fork tubes. The fixed and sliding tubes
  run in Teflon bushes with extremely low friction (they're
  even lubricated in the process). This design almost
  totally eliminates any risk of leakage from the forks.
- The entire system including the handlebar and steering components is almost absolutely free of wear and requires no maintenance up to 62,000 miles. With less space required between the front wheel and the engine, the entire drive unit has been moved further to the front to provide better front-to-rear weight distribution.
- A final feature that will be welcomed by Boxer aficionados is that with the Telelever, the unique looks and style of the Boxer are in no way compromised.



# THE PARADOX OF THE FUTURE: THE SAFER, YET MORE AGILE NEW SUSPENSION TECHNOLOGY OF THE BMW R 1100 RS.

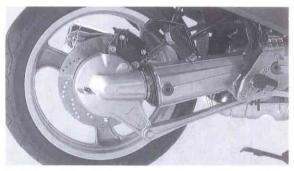
At BMW, it has always been our philosophy to give our high-performance motorcycles an even higher standard of safety and suspension technology. So that we can fulfill the greatest demands while offering substantial reserves at the same time.

Hence, the new Telelever is not the only essential component of the new Boxer's suspension, even if it is its most unconventional feature. Because every other component has also been improved to state-of-the-art status.

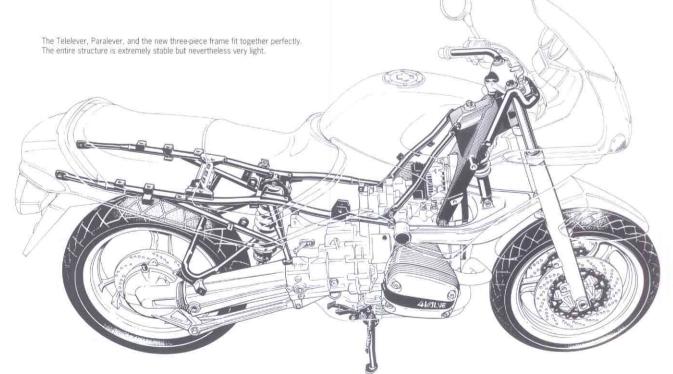
The new and improved frame – the motorcycle's "backbone" – contributes significantly to its safe behavior and handling. The front subframe, made of strong chill-cast aluminum, is fitted to the top of the engine, accommodating the Telelever's upper joint and central spring strut. The rear subframe is a tubular steel structure fastened to the engine and transmission. Saving weight and money while keeping the frame extremely stable and torsionally rigid. Production standards are also very

accurate, ensuring absolute precision in design and machining.

Two further advantages of the new frame concept: superior ease of repair and room for subsequent modifications such as seat height or suspension geometry. The new Boxer naturally features the proven BMW Paralever already fitted on the BMW GS and K Series. The most significant advantage of the Paralever is that it eliminates the usual negative upright forces generated by shaft drive, while at the same time avoiding other



The Paralever patented by BMW some time ago capitalizes on the fundamental advantages offered by its geometry: conceived as an articulated swinging arm in parallelogram arrangement, the Paralever represents a pivoting connection between the wheel drive and swinging arm with adjustable ball bearings. The pivot points provide rear-wheel geometry with all the positive features of a rigid swinging arm measuring no less than 4.6 feet in length.



adverse factors influencing the rear wheel. Brake studder and load change response are minimized. And suspension comfort, traction, and handling even at extremely low angles during turns are much better than with conventional shaft drive.

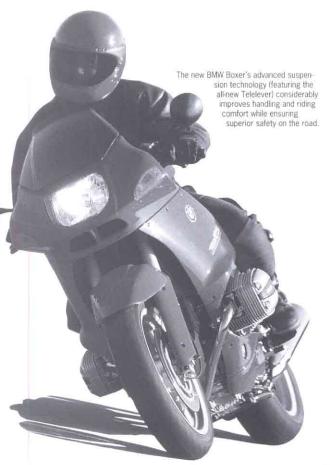
Rear wheel suspension is provided by a spring strut with coil pressure spring and single-tube gas-pressure shock absorber now fitted in the middle. This entire suspension unit can be tuned precisely to the load the motorcycle is carrying, road conditions, and the rider's personal standard of riding comfort. Outward stroke damping is infinite, and spring pre-tension can be set to seven different positions. Total spring travel is 5.3".

In all, the suspension and running gear have everything



Modern safety technology must keep up with growing requirements on the road. Accordingly, only the best was good enough for the new Boxer also in terms of its brakes. The R 1100 RS comes with attractively styled three-spoke cast light-alloy wheels fitted with a 120/70 ZR 17 low-profile front tire and a 160/60 ZR 18 lowprofile rear tire.

it takes to get the extra power of the new Boxer onto the road as safely as possible. And featuring brakes with the highest possible technology, the suspension can even curb the power of the engine when necessary:



At the front, a dual-disc brake with four-piston fixed calipers and floating stainless-steel discs (12" in dia.) ensures optimum stopping power. Without fading even in the wettest weather, the sintered metal brake linings meet the toughest standards. The rear wheel features a single disc brake with two-piston fixed calipers, a stainless-steel brake disc (11.2" in diameter) and semimetal linings.

All this results in a brake system virtually unparalleled on a production motorcycle. Now, brakes can be applied with supreme accuracy and ensure superior retardation regardless of weather and riding conditions. Even in extreme cases, such as downhill riding on long gradients.

BMW's new second-generation ABS, available for the new Boxer. No brakes are more agile. And none are safer.

# BMW'S SECOND-GENERATION ABS: FROM 60 TO 0 IN ALMOST NO TIME.

Perhaps BMW's greatest contribution to the cause of motorcycle safety in recent years is the introduction of the anti-lock brake system. In fact, we were the world's first manufacturer to elevate this essential safety technology to the high standard required for production and everyday use. And as we speak, more than 40,000 BMW motorcycles have already been fitted with ABS. Helping the rider particularly in situations that may otherwise demand too much, ABS has provided huge benefits in practise. It is especially in dangerous situations where the rider may take a serious fall by panicking and braking too hard that ABS pays off most.

Now our leadership in ABS technology allows us to help the dedicated rider once again: the new BMW R 1100 RS proudly introduces the second generation of ABS, featuring better brake performance, greater comfort,

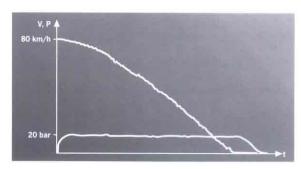


Even the most skillful rider who will otherwise rely on his own ability now appreciates the fundamental benefits offered by ABS. Encountering a dangerous situation after a relatively long and pleasant trip, for example, any rider might make a mistake. In which case it's nice to have an electronic system ensuring maximum safety at all times.

and an even higher standard of functional safety than ever before. ABS II is so efficient, in fact, that even the most experienced BMW test riders have hardly ever succeeded in outperforming the system in brake tests. Even on dry roads providing virtually perfect riding conditions, motorcycles equipped with ABS II average

a far shorter stopping distance than "basic" machines without this technology.

At the same time, the superiority of ABS II increases as road or track conditions become more difficult. After all, even a professional rider will hardly be able to tell



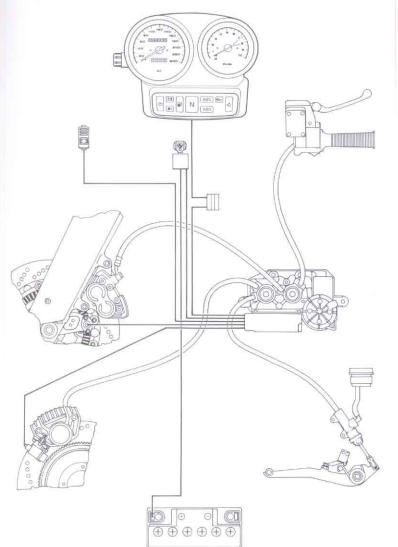
This graph shows the level of technical progress now possible; with the ABS II "piston system", brake power virtually always remains at the same high level. Operating comfort is also much better than before.

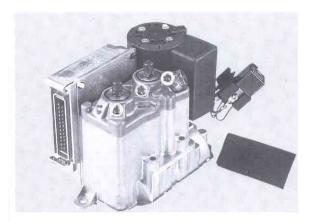
on a bad surface how much brake power he can use without running a risk. ABS II, on the other hand, really brings the motorcycle to a standstill even on icy roads, gravel or sand.

The software of BMW's ABS II is so sophisticated that it can handle the most extreme braking requirements. For example, it can intervene efficiently before the rear wheel starts to lift off by applying excessive brake forces. This superior performance results from years of thorough BMW research. In introducing ABS II, BMW is indeed launching a kind of "piston system" able to build up any level of brake pressure required (relative pressure detection). Only such a system is able to "dose" brake pressure with tremendous sensitivity, keeping pressure at a consistently high level throughout the entire duration of the braking process. In other words, ABS II gives your motorcycle almost ideal retardation close to the shortest possible stopping distances (see graph).

But, you ask, how is this possible? Like ABS I, our second-generation ABS II incorporates monitors permanently checking the rotation of both wheels and passing the signals obtained on to the ABS control unit. The instant the computer "notices" that one or both wheels are about to lock, the pressure modulator is activated and reduces brake pressure until the wheel slowed down too much is able to re-accelerate.

This is precisely where the new piston system offers its particular merits: by means of a moving piston, the





The key to success: a moving piston within the pressure modulator is able to vary the volume within the brake system in fractions.

volume and brake pressure within the system are modulated according to specific requirements. An electric motor and a special clutch with an extremely fast response move the piston as far as necessary – and not a fraction more – to decelerate the wheel just below the point at which it would lock.

A sensor makes sure that the electronic control system always knows the current position of the piston. A further advantage of the piston's very fast movement – the system's response time is approximately 4/1000ths of a second – is that the rider isn't even aware that ABS is working. It almost goes without saying that the anti-lock brake system operates separately on the front and rear wheels. In the event of a malfunction, three computers work together to maintain the motorcycle's conventional brake system. The control unit then memorizes any such malfunctions for simple subsequent diagnosis by the BMW motorcycle dealer.

ABS II is absolutely reliable in every respect. Incorporating three independent but intercommunicating computers, the entire system constantly monitors itself. In the unlikely event of any malfunction while ABS is working, the system concludes its control cycle and then switches itself off automatically. Naturally, as on any conventional motorcycle, the brakes remain fully operative.

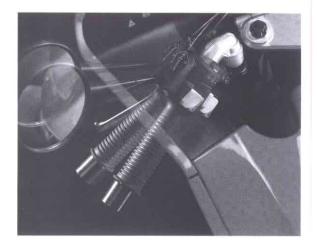
## THE NEW BOXER'S ERGONOMICS AND DESIGN: SOME COMFORTING THOUGHTS.

The BMW R 1100 RS is based on a concept with a long tradition at BMW. A concept appreciated by an increasing number of riders, simply because it is more versatile than other designs and motorcycle configurations:

"RS" stands for a sports tourer able to provide a unique balance of dynamic performance on the one hand, and superior riding comfort on the other.

It is also a concept that applies particularly to the motorcycle's ergonomics and design. Allowing the rider to feel absolutely at home on his Boxer. To experience that inimitable "oneness" with his machine. And to enjoy the most relaxing, pleasant riding conditions possible, even on the longest tours.

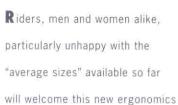
Every single feature of the new Boxer is designed to this end. And the most important new feature is available exclusively from BMW: the BMW R 1100 RS is the first motorcycle in the world tailored precisely to the size and measurements of the individual. And the individual items that make this possible all come in our unique ergonomics package:



 The handlebar is adjustable by 0.79" in 7 fore-and-aft positions and by increments of 6° in three different angles.



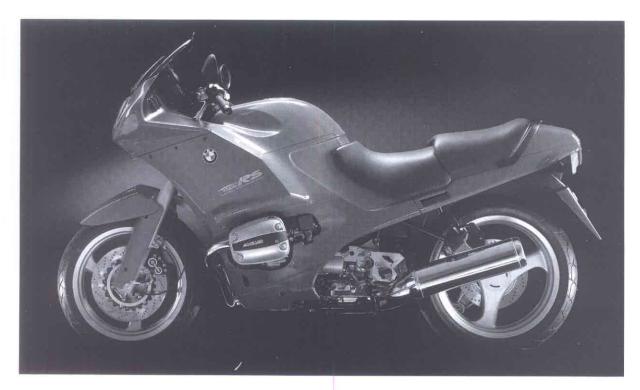
- The adjustable seat is subdivided into two sections.
   The rider's seat can be adjusted by a total of 1.57" in three stages, providing a seat height of 30.7, 31.5,
   32.3 inches, respectively.
- The windshield has infinite adjustment for angle by up to 20°.





package. Aside from this very special feature, the new Boxer offers everything you need for superior riding pleasure. The seat ensures superior comfort also on long distances, as well as lots of space for both rider and passenger. And it goes without saying that the passenger enjoys the usual comfort typical of a BMW.

Another feature typical of BMW is the supreme streamlining of the new Boxer. The standard fairing of the BMW R 1100 RS developed in the wind tunnel efficiently protects both rider and passenger from wind and weather and reduces air drag to an unprecedented  $C_d \times A$  coefficient of 0.439 with the rider sitting upright. It also



prevents front-wheel flatter by reducing lift forces.

As an option, the BMW R 1100 RS is also available with full fairing reducing the drag coefficient with the rider sitting upright to 0.435. And with the rider leaning

forwards, both versions reduce the  $C_d \times A$  coefficient to 0.40.

The fairing also ensures superior safety and protection of the environment: the entire windshield automatically comes



out of its frame under heavy load, and all fairing and plastic components are specially designated for subsequent recycling. Finally, rapid-action catches allow quick removal and re-fitting of the fairing for simple maintenance.

And if all these features aren't enough, here are a few more special features that make the new Boxer even more special to the serious riding enthusiast:

- The extremely powerful headlight offers more than ample light for riding at night.
- The extra-large (5.1 gal) fuel tank gives the new Boxer a cruising range of approximately 235 miles, thanks to the average fuel consumption of 47.1 mpg.
- . The handlebar is specially cushioned to avoid vibrations.
- . The seat is also cushioned against vibration.
- . The handbrake lever is adjustable to four different positions.
- The mirrors rest on flexible mounts and offer excellent visibility to the rear, free of vibration.
- One key fits all locks (ignition/handlebar, fuel tank, seat). Touring cases and panniers are also available with the same lock.
- The central ignition and handlebar lock can be used with the handlebar facing to the left or right.
- The separate speedometer and rev counter are exactly in the rider's line of vision for perfect visibility.
- . The side-stand comes with BMW's proven starter interruption.
- The extra-powerful alternator develops ample power for recharging the battery even when idling.
- A large tool kit and tire repair kit are housed in the rear compartment.
- The R 1100 RS offers a power accessory socket as standard equipment.
- The BMW R 1100 RS is available in three different colors:
   Marrakech red, turquoise green metallic, pearl silver metallic.

## HOW TO EQUIP YOURSELF FOR THE FUTURE.

One of BMW's very special commitments is to offer the rider everything he needs to equip his motorcycle for the thrill of sheer riding pleasure. Naturally, this also applies to the new Boxer.

To further equip yourself, your BMW motorcycle dealer



offers you more than 400 other features for your Boxer, including:

- · Special equipment such as:
- · BMW's anti-theft warning system,
- · a second socket,
- · soft rubber handles,
- · knee-pads,
- · the BMW tank bag,
- touring cases also available with locks for the motorcycle's main key,
- inner bags
- and many other useful features ranging from motorcycle care kits to a battery preserver.

BMW's multi-functional Active

Line sportswear (not only for
motorcycling, but also for many other
sports), including accessories, lifestyle
products, and motorcycle equipment.

Motorcycle Safety Foundation training programs are also available for the motorcycle beginner and for riders returning to riding after a long break.

Your BMW motorcycle dealer can also help you quickly and efficiently in financing your dream machine. And the BMW Bank offers you low-cost financing – to purchase or lease – with monthly payments and financing periods



tailored to your specific needs. Just talk to your BMW dealer to find out what's best for you.



R 1100 RS	R 1100 RS/ABS	R 1100 RSL/ABS	Equipment
NA		<b>10</b> 0	ABS II
Optional	Optional	<b>10</b> 00	Full Fairing*
Optional	Optional	•	Rider Information Display**
٠	(*)	*	Hazard Warning Flashers
*	٠	•:	Adjustable Seat, Handlebars, Windshield
*	•	•	3-Way Catalytic Converter
*	*	•	Saddle Bag Mounts
Optional	Optional	Optional	Luggage Rack
Optional	Optional	Optional	Heated Handleba Grips

<sup>\*</sup> Telescopic Fork Covers

Ease of service, reliability, a long running life, and superior economy are acknowledged by many as the most important virtues of the BMW Boxer. Accordingly, one of the most important criteria in developing the new BMW R1100RS was to keep the cost of ownership to a minimum. Some examples of the Boxer's cost-efficient solutions:

- Easy access to all parts requiring service.
- Simple removal and refitting of all components.
- Very good fuel economy averaging 47.1 mpg.
- Service intervals extended to 6,000 miles.
- Telelever and Paralever maintenance-free.
- . Motronic free of wear and requiring no maintenance.
- · Electronic diagnosis of Motronic and ABS.
- Chrome-plated stainless-steel exhaust; superior rustproofing ensured by powder-coated aluminum parts.
- . Low-maintenance battery.
- · Highly functional and reliable electrical system.



<sup>\*\*</sup> Clock, Gear Indicator, Fuel Gauge and Oil Temperature Gauge.

# THE NEW BMW BOXER RIIOORS: THE IDEAL MARRIAGE OF PRIMAL INSTINCTS AND SOCIAL CONSCIENCE.

Clearly, every passionate rider wants to enjoy his freedom on two wheels the way he always has. At BMW, we're committed to making this happen. Because we believe that the motorcycle will fit into tomorrow's world only if it responds to new requirements with the right kind of technology.

But action speaks louder than words: the new BMW
Boxer, the BMW R 1100 RS, is taking the two-cylinder
into the future. At the same time, it is

retaining many of the Boxer's outstanding traditional features. Which is certainly good news for the many riders who have come to enjoy this unique machine. Riders with happy memories of the "old" Boxer will find everything they have always appreciated: that special type of power, superior smoothness and refinement — all outstanding virtues in everyday riding. And at the same time, they will experience

many future-oriented solutions previously not available with the two-cylinder.

Featuring highly advanced engine technology and electronics, as well as the fully controlled three-way catalytic converter, the new Boxer has only about 15 per cent of its predecessor's emissions despite a substantial increase in engine output. Many parts are recyclable, and the noise level naturally complies with the strictest standards for today and the future.

All of which allows the rider to pursue his passion in harmony with today's world. The most advanced

suspension technology enhances this riding pleasure to an even higher level: the combination of the new Telelever and Paralever, the High-Tech brake system together with ABS, among many other new ideas, all create unequaled safety and agility on the road.

Exemplary seating comfort for both rider and passenger, all-around protection from wind and weather, a service load of more than 463 lb. and many other well-conceived

solutions give the Boxer even greater touring qualities than ever before.

And to make sure you enjoy this riding pleasure as long as possible, we've made the new Boxer even more reliable and economical than ever. With features ranging from Motronic to the rust-free exhaust system, from superior fuel economy to inspection intervals extended to 6,000 miles. And with the production

and material quality typical of BMW workmanship, the new BMW Boxer is, in the final analysis, an impressively economical machine.

As a result, the new Boxer still has all the outstanding features it has offered for 70 years. It is still a partner for supreme riding pleasure. A motorcycle with lasting character and flair. And above all, it is a motorcycle setting new standards for freedom on two wheels.

Now you can experience the new Boxer yourself. Just ask your BMW motorcycle dealer when you can test ride the new BMW R 1100 RS.

### Power unit

Type:

Two-cylinder four-stroke Boxer engine

Valves:

Four per cylinder

Capacity:

1085 cc (66.2 cu in)

Output: Max torque: 90 bhp (66 DIN kW) at 7250 rpm 95 Nm (70 lb/ft) at 5500 rpm

Bore/stroke:

99 x 70.5 mm (3.90 x 2.78")

Stroke/bore ratio: Compression ratio 0.71 10.7:1

Valve timing:

HC, chain Single disc, dry

Clutch: Transmission:

5 gears

Transmission ratios:

I 4.03; II 2.58; III 1.89; IV 1.54; V 1.32

Final drive ratio:

1:3.09

#### Electrical system

Engine management and

fuel supply (Motronic):

Electronic ignition and fuel

injection with overrun control

Alternator:

700 W 12 V/19 Ah

Battery:

Lights:

front: rectangular halogen headlamp

rear:

double-chamber rear light

#### Dimensions and weight

Length:

2175 mm (85.6")

Width (handlebar):

738 mm (29.1")

Height (without mirrors):

1286 mm (50.6") 800 mm (31.5").

Seat height (standard): Tank capacity:

23 ltr (5.1 lmp gals)

Weight, unladen in

road trim:

239 kg (527 lb)

max permissible:

450 kg (992 lb)

### Performance and fuel consumption

Top speed:

200 km/h (125 mph) plus

Fuel consumption to

ISO 7118:

at 90 km/h:

4.3 ltr/100 km (65.7 mpg lmp)

at 120 km/h:

5.2 ltr/100 km (54.3 mpg lmp)

Fuel grade:

Premium, unleaded (95 ROM)

Noise level:

79 db (A)

#### Suspension and running gear

Wheelbase, unladen:

1467 mm (57.8")

Caster, unladen:

104 mm (4.1")

Steering angle, unladen:

65.9°

Wheelbase in normal road trim:

1473 mm (58.0")

Caster in normal road trim:

111 mm (4.4")

Ground clearance, unladen:

159 mm (6.3")

Ground clearance in normal road trim: 132 mm (5.2")

Max side angle in bends:

Front/rear axle load

distribution, unladen:

Frame:

- 52,7/47,3

Max handlebar lock,

left/right.

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Three-piece; front and rear sub-

frame, engine/transmission

with load-bearing function

Front wheel suspension: Telelever with central spring

Spring travel:

120 mm (4.7")

Swinging arm:

Single swinging arm (BMW Paralever)

Drive system: Shaft drive

Spring strut:

Gas-pressure spring strut 135 mm (5.3°)

Spring travel: Brakes:

front:

Dual disc brake

(dia 305 mm/12.0"), floating, four-piston fixed calipers with compensation for uneven wear

rear:

Single disc brake

(dia 285 mm/11.2") with fixed

caliper

Sintered metal at the front, semi-metal at the rear, both

non-fading even in wet conditions

Rim dimensions:

Brake linings:

front:

rear: Tires:

front:

rear:

3.50 x 17 MT H 2

4.50 x 18 MT H 2

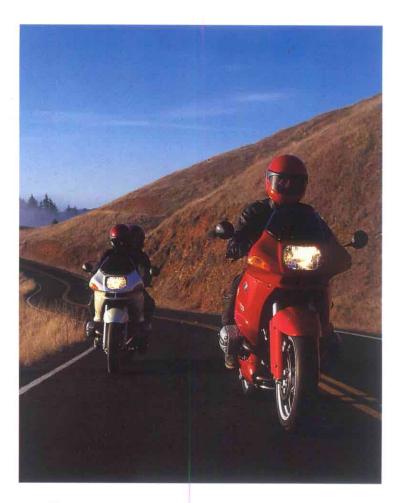
120/70 ZR 17 (tubeless)

160/60 ZR 18 (tubeless)

### Standard equipment

- . Touring sports fairing with windshield
- · Integrated ignition and handlebar lock
- . One key for all locks (ignition, handlebar, fuel tank, and seat)
- · Rear storage box with large tool kit
- · Handbrake lever adjustable to four different positions
- · Side-stand with starter interruption
- · Stainless-steel, chrome-plated exhaust system
- · Tire service set
- · Socket (power take-off)





The models illustrated are to the equipment specification for the Federal Republic of Germany and may include special equipment which is not part of the standard specification and is only available at extra charge. Due to varying national legislation and regulations, some models may be unavailable in certain countries.

Helmets shown in this brochure are not available in USA.

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