

# The new BMW R 18 Classic and the new BMW R 18.

## Table of contents.



<b>1. Overall concept.</b> (Short version) .....	2
<b>2. Drive. ....</b>	8
<b>3. Suspension, electrical system and assistance systems. ....</b>	12
<b>4. Design. ....</b>	19
<b>5. Equipment and customising programme. ....</b>	23
<b>6. Made in Berlin – a Big Boxer comes into being. ....</b>	29
<b>7. Technical specifications. ....</b>	31

## 1. Overall concept. (Short version)



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### **The new BMW R 18 Classic and BMW R 18: nostalgic touring and supreme cruising with historic roots.**

Following the premiere of the new BMW R 18, BMW Motorrad now presents the second member of its new model series for the cruiser segment: the R 18 Classic. The new BMW R 18 Classic is a nostalgic touring bike that echoes the beginnings of the great touring cruiser models. While the R 18 is very purist in style, the R 18 Classic features a large windscreen, passenger seat, saddle bags, LED additional headlights and 16-inch front wheel.

The new BMW R 18 Classic and the BMW R 18 stand firmly in the tradition of historic BMW motorcycles. They borrow from famous models such as the BMW R 5 both technologically and visually, shifting the focus back onto the motorcycle essentials: purist, no-frills technology and the boxer engine as the epicentre of riding pleasure, combined with "good vibrations". What is more, classic design is merged in the R 18 Classic and R 18 with clear-cut yet contemporary technology to create a fascinating overall concept – offering a riding experience that is as cultivated as it is emotional.

### **The most powerful BMW boxer engine of all time with full torque.**

The centrepiece of the new BMW R 18 Classic and R 18 is a completely newly developed two-cylinder boxer engine – the

“Big Boxer”. Both its impressive appearance and its technology reflect a continuation of the traditional air-cooled boxer engines that have offered an inspiring riding experience for more than seven decades, ever since BMW Motorrad began production in 1923. The most powerful two-cylinder boxer engine ever used in motorcycle series production has a displacement of 1 802 cc. The peak output is 67 kW (91 hp) at 4 750 rpm. From 2,000 to 4,000 rpm, over 150 Nm of torque is available at all times, and this elemental pulling power is combined with a full, sonorous sound.

**Double-loop steel tube frame and rear swinging arm with enclosed axle drive in rigid-frame look.**

The centrepiece of the suspension in the new R 18 Classic is a double-loop steel tube frame. Its design perpetuates the longstanding BMW Motorrad tradition of this frame type. Outstanding manufacturing quality and a meticulous attention to detail is also evident in barely perceptible features such as the welded joints between the steel tubes and the cast or forged parts. Like the legendary BMW R 5, the rear swinging arm – sporting a comparable design – surrounds the rear axle transmission in authentic style by means of bolted connections.

**Telescopic fork with fork sleeves, cantilever suspension strut, wire-spoked wheels and disc brakes.**

The suspension elements of the new BMW R 18 Classic and R 18 deliberately dispense with electronic adjustment options. Instead, a telescopic fork and a directly mounted central suspension strut with travel-dependent damping and adjustable spring preload ensure superior wheel control and attractive suspension comfort. As in the legendary BMW R 5, the tubes of the telescopic fork are encased in fork sleeves. The fork tube diameter is 49 mm, while the suspension travel is 120 mm at the front and 90 mm at the rear. The new BMW R 18 Classic and R 18 are decelerated by a twin disc brake at the front and a single disc brake at the rear in conjunction with four-piston fixed calipers. Meanwhile the wire-spoked wheels ensure a supremely stylish appearance.

**Harmonious ergonomics for optimum vehicle control.**

In keeping with the BMW Motorrad philosophy, the new BMW R 18 Classic and R 18 feature a laid-back positioning of the footrests – so-called “mid-mounted footpegs”. This classic position

behind the cylinders is not only typical of BMW, it also enables a relaxed and active riding position for optimum vehicle control.

**Three riding modes along with ASC and MSR for a high degree of riding pleasure and safety as standard. Reverse assist and Hillstart Control as ex works options**

The new R 18 Classic and R 18 also offer the three standard riding modes "Rain", "Roll" and "Rock" – unusual in this segment – so as to be able to adapt to individual rider preferences. The standard trim also includes ASC (Automatic Stability Control, disengageable), which ensures a high level of riding safety. In addition, the new R 18 Classic and R 18 are equipped as standard with engine drag torque control (MSR). Among other options, a reverse assist makes manoeuvring convenient, while the Hill Start Control function facilitates uphill starts.

**The new R 18 Classic and R 18: iconic style newly showcased, featuring a rigid-frame look, modern technology and authentic materials.**

The R 18 Classic and R 18 masterfully transpose the iconic style of bygone times to the present day, retaining a purist design in numerous details that is mainly influenced by classics such as the BMW R 5. It is no coincidence that functional and stylistic elements such as the double-loop frame, the pear-drop tank, the open-running universal shaft and the double-lined paintwork (ex works option) are reminiscent of the legendary boxer dating back to 1936. The classic bodywork features of the R 18 Classic and R 18 are also made of metal – as befits an authentic classic. The suspension is likewise aptly reminiscent of the legendary R 5. Together with the double-sided swinging arm and a cantilever suspension strut, the rigid-frame concept of the R 5 is perfectly transported into the modern age in visual terms.

**The R 18 Classic First Edition and R 18 First Edition: exclusive look in paint and chrome.**

The new R 18 will be offered worldwide as an exclusive R 18 Classic and R 18 First Edition right from launch, with a standard model reserved additionally for certain markets. It combines the R 18 look with exclusive equipment features in a classic black finish with white double-lined paintwork. Other

highlights include numerous chrome surfaces, a seat badge and a "First Edition" chrome clasp on the side covers.

**Conversion-friendly architecture as a prerequisite for straightforward customising and optimum individualisation.**

More so than virtually any other motorcycle, the new R 18 Classic and R 18 offer a highly conversion-friendly architecture – a focus even in the early design phases of the basic vehicle layout. As a result it is fitted with an easily removable rear frame and a simple-to-dismantle painted part set. Carefully conceived interface points for the hydraulic lines of the brake, clutch and cable harness likewise allow entirely problem-free installation of higher or lower handlebars in conjunction with matching hydraulic lines and cable harnesses. In addition, the visible valve covers (cylinder head covers) and the belt cover (engine housing cover) are designed in such a way that they are located outside the oil chamber, making them very easy to change.

**Customising parts and Roland Sands design collections "Machined" and "2-Tone Black" for the new R 18 Classic and R 18.**

The BMW Motorrad equipment range offers a maximum selection of individualisation options with which to adapt the R 18 Classic and R 18 to personal taste and preferences. The wide range of different parts available from the programme of Original BMW Motorrad Accessories enables individual conversions that significantly alter the character of the R 18 Classic and R 18. For the market launch of the new R 18 Classic and R 18, two different design collections of milled aluminium parts are available, created in collaboration with Roland Sands Design: "Machined" and "2-Tone-Black".

**Co-branding with famous brands: Mustang seats and Vance & Hines exhaust systems "Made in USA".**

For the accessories and customising programme of the new R 18, BMW Motorrad is collaborating not just with Roland Sands Design but also several well-known suppliers, including US manufacturer Mustang Seat in order to be able to offer different versions of high-quality hand-made seats. Meanwhile the customising potential for the exhaust systems in cooperation with Vance & Hines is no less creative.

### **The highlights of the new BMW R 18 Classic.**

- Windshield (removable).
- Saddle bags (removable).
- Passenger seat (removable).
- Additional LED headlight.
- 16-inch front wheel.
- Electronic Cruise Control as standard.

### **Common highlights of the new BMW R 18 Classic and R 18:**

- Iconic style blending modern technology with authentic materials.
- Biggest ever BMW boxer engine with a capacity of 1 802 cc.
- Output 67 kW (91 hp) at 4 750 rpm, maximum torque 158 Nm at 3 000 rpm.
- More than 150 Nm available at all times from 2 000 to 4 000 rpm.
- Open-running universal-shaft drive based on the classic role model.
- Elaborately crafted double-loop steel tube frame.
- Rear swinging arm with enclosed axle drive in rigid-frame design.
- Telescopic fork with sleeves and cantilever suspension strut featuring travel-dependent damping.
- Harmonious ergonomics for relaxed riding and optimum control.
- Disc brakes and front and rear, with wire-spoked wheels.
- State-of-the-art LED lighting technology, classically interpreted.
- Adaptive turning light for even better illumination of the road when cornering as an ex works option.
- Classically designed circular instrument with integrated display.
- Keyless Ride for convenient function activation by remote control.
- Two standard riding modes, ASC and MSR.
- Reverse assist for convenient manoeuvring and Hill Start Control for easy hill starts as ex works options.
- The R 18 First Edition: exclusive look in paint and chrome.

- Extensive range of optional extras and Original BMW Motorrad Accessories as well as a cool Ride & Style Collection.



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## 2. Drive.



### **The most powerful BMW boxer engine of all time with historical roots and full torque.**

The new BMW R 18 Classic and R 18 are all about motorcycling in its purest form: instinct over mind, technology not for its own sake but as a way of creating space for fantasy and powerful emotion rather than sober contemplation and objective calculation. The BMW Motorrad Concept R 18 already made its debut with this message at the Concorso d'Eleganza Villa d'Este in May 2019: now the R 18 Classic and R 18 series version enrich the BMW Motorrad Heritage World of Experience as a highly expressive return to the core of the BMW Motorrad brand – the boxer engine.

The centrepiece of the new BMW R 18 Classic and R 18 is a completely newly developed two-cylinder boxer engine – the “Big Boxer”. Not only in terms of its impressive outward appearance but also from a technical point of view, the new “Big Boxer” ties in with the traditional boxer engines that were synonymous with motorcycles from Munich and Berlin-Spandau for around 70 years, from the beginning of BMW Motorrad production in 1923 through to the appearance of the air/oil-cooled successor: these were engines with a clear-cut design, created for optimum reliability and ease of maintenance, and featuring logically arranged yet high-performance technology.



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With its OHV valve drive along with a separate engine and transmission housing, the new “Big Boxer” has the same structural features that distinguished the very first BMW Motorrad boxer engine, which at that time had laterally controlled valves. The highest-capacity twin-cylinder boxer engine ever used in motorcycle series production is a 1 802 cc engine, resulting from a 107.1 mm bore and 100 mm stroke. The engine output is 67 kW



(91 hp) at 4 750 rpm. The maximum torque of 158 Nm is already available at 3 000 rpm. More than 150 Nm are always available from 2 000 to 4 000 rpm.

This ensures enormous pulling power and – in conjunction with a generously sized flywheel mass – exemplary running smoothness as well. These are the crucial benefits of this level of power and torque during riding. The maximum engine speed is 5 750 rpm, while the idling speed is 950 rpm.

**Air/oil cooling, vertically split engine housing and triple plain bearing crankcase.**

The new “Big Boxer” is air/oil cooled, has large ribbed cylinders and cylinder heads and weighs 110.8 kg including gearbox and intake system. It has a vertically split aluminium engine housing.

Unlike the classic air-cooled 2-valve boxer engines made by BMW Motorrad, the Big Boxer crankshaft, forged from quenched and tempered steel, has an additional main bearing at the centre, which was necessary due to the enormous cylinder volume in order to prevent undesirable bending vibrations of the crankshaft.

Like the crankshaft, the two connecting rods with I-shaft are mounted on plain bearings and are likewise forged from quenched and tempered steel. They accommodate cast aluminium pistons with two compression rings and an oil wiper ring. The running surface of the light metal cylinders is coated with NiCaSil.

Lubricating and cooling oil is supplied by a wet sump lubrication system with a two-stage oil pump via sleeve-type chain driven by the crankshaft.

**Classic OHV valve drive with two camshafts as in the legendary R 5 to R 51/2 combined with modern 4-valve technology and dual ignition.**

Although the new “Big Boxer” has four valves, dual ignition, a modern combustion chamber architecture, intake manifold injection and the BMS-O engine management system for the best possible torque as well as optimum consumption and emissions, it uses the classic OHV configuration for its valve drive – as was the

practice pursued by BMW Motorrad over a period of some 70 years.

When developing the valve drive for the "Big Boxer", BMW Motorrad engineers were inspired by a very special engine design in the history of BMW Motorrad – in keeping with the Heritage concept: the 2-cylinder boxer engine of the R 5/R 51 (1936 – 1941) and R 51/2 (1950 – 1951), the latter having been the first



BMW R 5 from the year 1936. P90386332

BMW motorcycle with a boxer engine after the Second World War. In contrast to other OHV designs by BMW Motorrad, this engine – highly valued by connoisseurs – has two camshafts driven by the crankshaft via a sleeve-type chain.

As in the historical role model, the two camshafts are also positioned to the left and right above the crankshaft in the "Big Boxer". The advantage of this "twin camshaft boxer" is the shorter pushrods. This arrangement reduces the moving masses, decreases deflection and minimises the linear expansions of the push rods. A generally stiffer valve drive with improved control precision and higher speed stability is the consequence of this more elaborate construction.

**Fork rocker arm and manually adjustable valve clearance compensation via adjusting screws as in the traditional BMW boxer role model.**

In the traditional BMW Motorrad boxer design, the two pushrods actuate one pushrod per cylinder side for the intake and one for the exhaust side, guided in a sealed pushrod tube on the top of the cylinders. The two intake and exhaust valves in the cylinder head are actuated in pairs via fork toggle levers. Here, valve clearance compensation is not effected by means of hydraulic elements – as was the case in most classic air-cooled BMW two-valve boxers for decades – but via one adjusting screw with a lock nut for each valve. As was formerly the case in the classic 2-valve boxers, valve clearance adjustment (0.2 – 0.3 mm) in the R 18 "Big Boxer" is

also achieved very quickly. The valves are made of steel, with a disc diameter of 41.2 mm on the inlet side and 35 mm on the outlet side. The valve angle is 21 degrees on the inlet side and 24 degrees on the outlet side.

**Constant mesh 6-speed transmission and self-reinforcing single-plate dry clutch with anti-hopping function.**

As in most BMW Motorrad boxer engines for decades (with the exception of vertical-flow, air/water-cooled boxers since 2012), a single-disc dry clutch transmits the torque generated by the engine to the transmission. For the first time it is designed as a self-reinforcing anti-hopping clutch, thereby eliminating unwanted stamping of the rear wheel caused by engine drag torque in the event of hard downshifting.

The constant mesh 6-speed transmission is located in a dual-section aluminium housing and is designed as a 4-shaft transmission with helical gear pairs. The gearbox input shaft with lug dampers drives the two gearbox shafts with the gear wheel pairs via a countershaft. A reverse gear is available as an optional extra. This is driven by an intermediate gear and an electric motor and can be shifted manually.

**Open-running secondary drive based on the classic role model.**

As in all BMW motorcycles with boxer engines, torque is transmitted from the gearbox to the rear wheel in the R 18 via a propeller-shaft or universal-shaft drive with universal joint, shaft and rear-axle drive with bevel and ring gear. The propeller shaft and universal joint are examples of fascinating classic motorcycle technology since they are nickel-plated and open, as was commonly the case in BMW Motorrad models up to and including model year 1955. A so-called tripod joint is applied on the gearbox side for the purpose of length compensation.



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### **3. Suspension, electrical system and assistance systems.**



#### **Elaborately crafted double-loop steel tube frame and rear swinging arm with enclosed axle drive in rigid-frame look as in the legendary BMW R 5.**

The centrepiece of the suspension in the new R 18 Classic and R 18 is a double-loop steel tube frame. Its design perpetuates the longstanding BMW Motorrad tradition of this frame type.

Numerous cast and forged parts are exceptional in terms of both design and production technology, at the same time serving as positive-locking mounting elements for the frame tubes to be welded together. The two frame down tubes are each bolted together at four points.

Outstanding manufacturing quality and meticulous attention to detail is also evident in barely perceptible features such as the conical inlets on the down tubes, the steering head and the welded joints between the steel tubes and the cast or forged parts. Some of the tube mounts in the area of the steering head and seat are deliberately cut at an angle, for example, making the connection especially attractive to look at.

Reflecting the same design and manufacturing principle, the rear swinging arm is also made of steel tubes and cast or forged parts. Like the legendary BMW R 5, it surrounds the rear axle transmission in authentic style by means of bolted connections. The look of the rigid frame used historically in the R 5 was recreated for the R 18 by BMW developers based on a central cantilever suspension strut that is almost aligned with the frame's top tube and "concealed", along with a tube guide for the swinging arm that connects seamlessly to the main frame. As a result, the frame and swinging arm not only form the core of the R 18 Classic and R 18 suspension, their rigid-frame layout also provides the so-called flyline – thereby ultimately defining the design of the new "Big Boxer" model.

**Telescopic fork with fork sleeves and cantilever suspension strut with travel-dependent damping.**



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The suspension elements of the new BMW R 18 Classic and R 18 reflect the classic design, deliberately dispensing with electronic adjustment options. Instead, a telescopic fork and a directly mounted cantilever suspension strut with travel-dependent damping and adjustable spring preload ensure superior wheel control and attractive suspension comfort. As in the legendary BMW R 5, the tubes of the telescopic fork are encased in fork sleeves. The fork tube diameter is 49 mm, while the suspension travel is 120 mm at

the front and 90 mm at the rear.

**Consistent cruiser-style ergonomics and "mid-mounted footpeg" position for casual riding and excellent motorcycle control.**

Like no other BMW motorcycle to date, the new R 18 Classic and R 18 offer consistent cruiser-style ergonomics ex works, following the line of the design. The BMW Motorrad ergonomic triangle consisting of handlebar ends, seat and footrests or footboards is traditionally the key factor in terms of the seating position. Together with other parameters such as seat height, width, handlebar height and sweep, this is crucial in determining the rider's sense of well-being on the motorcycle. The seat height of the R 18 is only 690 mm (R 18 Classic: 710mm) in the standard version.



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In keeping with the BMW Motorrad philosophy, the new BMW R 18 Classic and R 18 features a laid-back positioning of the footrests – so-called "mid-mounted footpegs". This classic position behind the cylinders of

the boxer engine is not only typical of BMW, it also allows a relaxed and active riding position for the best possible motorcycle control. The optionally available footboards (standard in the USA) combine a comfortable seating position with a traditional look, while footrests that are also available as BMW Motorrad Original Accessories ensure a particularly relaxed riding position on the highway. In addition, the BMW Motorrad equipment programme has numerous options for adapting the R 18 Classic and R 18 to individual ergonomic requirements by means of various handlebars and seats.

**The new R 18 Classic – perfectly equipped for nostalgic tours.**

With its windshield, passenger seat and saddle bags, the new R 18 Classic is excellently kitted out for weekend touring for two. The windshield holder is connected to the front of the vehicle at four points. The windshield is inserted at the top into the fork and connected at the bottom with locking brackets on the grab rail, which also carries the additional headlight and indicators. The passenger seat is plugged and screwed in for easy removal. The saddle bags each offer 15.5 litres of luggage volume. If the liners used, the volume is 10 litres each. The stylishly designed metal buckles conceal push-in fasteners for opening and closing. Connection to the motorcycle is via screws. The blind screws supplied close the holes when riding without saddle bags.

**Twin disc brake at the front, single disc brake at the rear and wire-spoked wheels.**

The new BMW R 18 Classic and R 18 is decelerated by a twin disc brake at the front and a single disc brake at the rear in conjunction with four-piston fixed calipers. The brake disc diameter in each case is 300 mm. The brake system is equipped with the well-established BMW Motorrad Integral ABS (part integral). This braking system involves use of the handbrake lever to activate the front and rear brakes together. The footbrake lever only acts on the rear brake. During braking, BMW Motorrad Integral ABS adapts the distribution of brake force between the front and rear brakes to the dynamic wheel load distribution and the load state. In addition, the dynamic brake light signals effectively to road-users behind that the motorcycle is braking (not in all markets). This additional brake light function warns following traffic in two stages when the brakes



are applied sharply and in the event of an emergency brake manoeuvre.

The wire-spoked wheels in the R 18 ensure a stylish cruiser appearance with a large wheel diameter at the front and a smaller one at the rear. The 3.5 x 19" front wheel is fitted with a 120/70 R 19 or 120/70 B 19 tyre (depending on the manufacturer), while the 5.0 x 16" rear wheel takes a 180/65 B 16 tyre.

The R 18 Classic also features wire-spoked wheels, but unlike the R 18 it has a smaller front wheel measuring 3.00 x 16" and a 130/90 B 16 tyre.

**State-of-the-art LED lighting technology, classically interpreted. R 18 Classic with two authentic additional headlights.**



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The new BMW R 18 Classic and R 18 also sets the benchmark in the cruiser segment when it comes to lighting – in terms of both visual design and safety. Once again, BMW Motorrad demonstrates that state-of-the-art LED lighting technology is ideally suited for implementation in classic headlight shapes, too. The R 18 Classic and R 18 feature a newly developed, strikingly designed LED main headlight with optimised low and high beam light in a high-quality metal housing. The headlight pan is adjustable with a view to potential conversion and customising. In addition, newly designed LED indicators – with integrated tail light function at the rear – ensure an unmistakable look. Over and above the LED main headlights, the R 18 Classic is also fitted with two stylish LED additional lights.

**Adaptive turning light for even better illumination of the road when cornering as an optional extra ex works.**

The optional adaptive turning light not only allows the main headlight to be visually upgraded, it also provides a significant extension in terms of functionality.

Unique in this category of motorcycle, the adaptive turning light works by means of separate LED elements in the main headlight

which have their own reflectors and are activated based on banking angle. This function is used to compensate for the banking angle in relation to the cut-off line of the low beam. For this purpose, the signal from the tilt sensor is analysed and the turning light switched on. The function is activated when the engine is running, the high or low beam is activated and darkness is detected, from road speeds of approx. 10 km/h and a banking angle of approx. 7°. The additional lighting is highly effective up to a banking angle of 25°, substantially improving illumination of the inner bend area– a major safety bonus when riding at night or in other situations where lighting conditions are poor.

Classically designed circular instrument with integrated display. Harmoniously blending into the classically reduced style, the circular instrument designed specially for the new R 18 Classic and R 18 features an analog speedometer display and integrated indicator lamps that are “invisible” when not illuminated. Housed in a high-quality metal casing and bearing the iconic “BERLIN BUILT” inscription, its simple functionality follows the principle of reduction to the essentials – the historically based approach used in designing the R 18 Classic and R 18. Yet despite its supremely classic style, it also offers a wealth of information such as a digital gear display and status query as well as the data from the integrated on-board computer.

**Keyless Ride for convenient function activation by remote control.**

As with other BMW Motorrad models, the Keyless Ride system also replaces the conventional ignition steering lock in the new R 18 Classic and R 18. The ignition and alarm system are controlled by a transponder (optional equipment item) integrated in the motorcycle key, which transmits a radio signal with vehicle-specific frequency. The key can therefore remain in the rider's clothes, for example. The ignition is operated using the button on the right-hand handlebar instrument panel. At the touch of a button on the radio key, the key bit folds out that is required to lock and unlock the classic steering lock and fuel filler cap (optional extra).

**Riding modes “Rain”, “Roll” and “Rock” as well as ASC and MSR for a high degree of riding pleasure and safety as standard.**



The new R 18 Classic and R 18 also offer the three standard riding modes "Rain", "Roll" and "Rock" – unusual in this segment – so as to be able to adapt to individual rider preferences. The standard trim also includes ASC (Automatic Stability Control, disengageable).

The new R 18 Classic and R 18 are fitted with engine drag torque control (MSR), too. Electronically controlled, MSR prevents the rear wheel from slipping as a result of abrupt throttling or downshifting. An anti-hopping clutch is opened from a mechanically preset threshold in order to prevent the rear wheel from stamping – for example in the event of a hard downshift. If the tyre's available grip capacity is below this opening threshold, however – for example in wet conditions – the rear wheel could still exceed the static friction limit due to the engine drag torque and simultaneous activation of the rear wheel brake and then slip. Thanks to MSR, the new R 18 Classic and R 18 detect this danger at an early stage. Depending on the coefficient of friction between the tyre and the road surface, the throttle valve is opened in milliseconds in such a way that the drag torque is compensated and the rear wheel remains in the static friction range. This results in further enhanced safety, especially on slippery roads.

In "Rain" mode, throttle response is gentler and the control characteristics of ASC and MSR allow for a wet and therefore more slippery road surface in terms of their regulation characteristics, thereby ensuring a particularly high level of riding safety.

In "Roll" mode, the engine offers optimum throttle response, while ASC and MSR are set to achieve ideal performance on all roads.

The "Rock" riding mode allows the rider to tap into the full dynamic potential of the new R 18 Classic and R 18. Throttle response is very spontaneous and direct, while ASC allows a little more slip.



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Each riding mode ensures optimum interaction between engine characteristics or throttle response, ASC control and engine drag torque control. As such, the three riding modes offer optimum adjustment options – both in terms of road surface (Rain Mode) and personal riding experience (Rock Mode).

**Reverse assist for convenient manoeuvring, Hill Start Control for easy hill starts and heated grips as an ex works options.**

**R 18 Classic with electronic cruise control as standard.**

The new R 18 Classic and R 18 also meet the demands of relaxed motorcycling in the form of a reverse assist as an ex works option. This can be activated as required using the selector lever. This blocks the forward gears and engages the reverse gear. Movement itself is initiated by the rider by pressing on the starter button.

Hill Start Control, available as an ex works option, makes setting off on a hill particularly easy. It is activated by briefly pressing the handbrake or footbrake lever.

The heating grips are also available as an ex works option: these keep the rider's hands comfortably warm on cold days.

The R 18 Classic comes with electronic cruise control as standard.

## 4. Design.



### **The new R 18 Classic and R 18: iconic retro style masterfully showcased, featuring modern technology and authentic materials.**

The new R 18 Classic is a nostalgic touring bike that echoes the beginnings of the great touring cruiser models. While the R 18 is very purist in style, the R 18 Classic features a large windscreen, passenger seat and saddle bags as well as LED additional headlights and the small 16-inch front wheel. The new R 18 Classic and R 18 are the modern interpretation of a cruiser that perpetuates the BMW Motorrad tradition, supremely echoing iconic retro style while transposing it masterfully to the present day. From the overall impression down to the smallest detail, the purist design lives on as established by classics such as the BMW R 5. It is no coincidence that the hallmark proportions with sloping lines and a clear-cut, reduced design style, combined with functional and style-defining elements such as the double loop frame, open-running universal shaft, black finish with double-lined paintwork (ex works option) are reminiscent of the legendary Boxer of bygone years. And the centrepiece is the boxer engine: unmistakably BMW, a homage to classic engine construction – a sculpture in metal.

The classic bodywork features of the R 18 Classic and R 18 are also made of metal, as befits an authentic cruiser: the 16-litre fuel tank with its pear shape derived from the R 5, the front and rear fenders, the side panels below the seat, the fork sleeves and the housings of the headlights and circular instrument panel are all made of sheet steel. Also known as the painted part set, these features define the character and overall appearance of the new R 18 Classic and R 18, as does the monumental boxer engine. The deliberate design of the bodywork in the form of individual components reinforces the bike's classic look, while at the same time allowing scope for conversion, customising and modification.

In keeping with this philosophy, the windshield, saddle bags and passenger seat of the R 18 Classic are designed to be removable, so nothing stands in the way of a truly purist riding experience.

**Historically motivated design with “Big Boxer”, unique open-running universal-shaft drive and rigid-frame look.**

In terms of its drive and suspension, the new R 18 Classic and R 18 likewise echo their famous ancestor – the R 5 of 1936. The focus here is on a reduction to the essentials as well as style-defining details.

The iconic BMW boxer engine is unmistakably the centre of attention – clear-cut in design with no distracting technical details. Given the full range of peripherals necessary for today's modern engines, a very high level of integration was required here.

As a result, the new “Big Boxer” – like the R 5 – presents the valve control system with overhead tappet guides on the upper side of the cylinder, while the so-called belt cover (engine housing cover) and the valve covers (cylinder head covers) likewise formally echo the legendary 500 series engine, which caused a sensation in the motorcycle world more than 80 years ago with its dynamic performance. Concealed cables and lines as well as the entire system of sensors do not distract from the essentials, even the imposing intake silencer formally integrated in the overall context. There is virtually no other engine concept that visually conveys the operating principle of a four-stroke petrol engine as clearly as a boxer engine: intake, compression, operation, exhaust – visibly comprehensible mechanics.

Another feature based on the historical model is the open-running universal-shaft drive to the rear wheel with nickel-plated shaft in a high-gloss finish. This underlines the purist and technologically deliberately reduced character of the new R 18 Classic and R 18. A boxer BMW without a universal-shaft drive is something that has been completely unthinkable for more than nine decades. In short, the universal shaft in the R 18 is presented as a fascinating, beautifully designed piece of drive mechanics. Once again, the underlying principle is that of making function visible.

The suspension is likewise aptly reminiscent of the legendary R 5. Together with the double-sided swinging arm and a cantilever suspension strut, the rigid-frame concept of the historical BMW boxers is perfectly transported into the modern age in visual terms. Starting from the steering head, the central frame tube and

swinging arm top frame tubes visually form a continuous line that functions as a central design feature. In combination with the swinging arm down tubes, which are also aligned with the frame down tubes, this gives the new R 18 Classic and R 18 a distinctly flat, elongated and muscular appearance. The classic enclosure of the rear axle transmission in the swinging arm is also a hallmark design feature of classic BMW boxers – implemented in the R 18 Classic and R 18 in a visually iconic way.

**Homage to long past times based on stylishly designed construction details.**

Another classic quote is also to be found in the telescopic fork: as in the historical model, the entire area of the fork tubes has a cover extending to the slider tubes that consists of fork sleeves made of sheet steel. Back in the days of the R 5 this type of fork fairing was a technical requirement since it protected the sensitive sliding surfaces of the fork tubes from stone chip and damage resulting from the poor roads of the time. The powerful appearance of the fork is perfectly integrated in the bike's overall proportions.

There are carefully crafted technical details to be seen wherever the eye wanders. Another example is the classically designed circular instrument, which is enclosed in a metal housing with a decorative chrome ring. Meanwhile the "BERLIN BUILT" inscription on the face provides a clear reference to the bike's origins: the new R 18 Classic and R 18 is manufactured in Berlin-Spandau. Finely wrought details are to be found everywhere: in the manual instruments, the handlebar clamp, the filler cap, the seat bolt connection and much more besides.

The LED headlight demonstrates how even the most state-of-the-art lighting technology can be skilfully integrated into the design style of a classic motorcycle – in particular in combination with the optional LED daytime running light, whose sickle-shaped graphic captures the hallmark BMW Motorrad Heritage face, thereby ensuring maximum recognition.

**The R 18 Classic First Edition and R 18 First Edition: exclusive look in paint and chrome.**

The new R 18 Classic and R 18 will be offered worldwide as an exclusive R 18 Classic "First Edition" and R 18 "First Edition" right

from launch, with a standard model reserved additionally for certain markets. They combine the classic R 18 look with exclusive equipment features in paint and chrome. The selected equipment extras include high-quality chrome components, while the finish in Blackstorm metallic with elaborate double-lined paintwork in Lightwhite unmistakably echoes the bike's historical roots.

At the same time, refined details and stylish elements give the bike a fresh appearance that is both contemporary and emotional, ensuring the bike will not only appeal to fans of classic motorcycles. In addition to the elaborate double-lined paintwork, the highlights of the special model include numerous chrome surfaces, a seat badge and a "First Edition" chrome clasp on the side cover. Another highlight of the "First Edition" is the Welcome Box reserved exclusively for "First Edition" buyers, which includes the following:

- Box with picture of the engine on the lid
- Historical tank emblems (copper-coloured lettering)
- Historical slotted screws (copper-coloured)
- Assembly gloves
- Assembly screwdriver (can also be used as key ring)
- "R 18 First Edition" cap
- Leather belt with exclusive "R 18 First Edition" clasp
- Book about the almost 100-year history of BMW Motorrad

## 5. Equipment and customising programme.



### **Optional equipment and Original BMW Motorrad Accessories.**

For further individualisation of the new BMW R 18 Classic and R 18, a particularly extensive range of optional extras and Original BMW Motorrad Accessories is available as well as a cool Ride & Style Collection. The programme of optional equipment and accessories will be further expanded in the future. As is common BMW Motorrad practice, optional equipment items are supplied ex works and integrated in the production process. Original BMW Accessories are installed by the BMW Motorrad dealer or by customers themselves. These items can also be retrofitted.

### **Conversion-friendly architecture as a prerequisite for straightforward customising and optimum individualisation.**

More so than virtually any other motorcycle, the new R 18 Classic and R 18 offer a highly conversion-friendly architecture – a focus even in the early design phases of the basic vehicle layout. As a result it is fitted with an easily removable rear frame and a simple-to-dismantle painted part set. This allows a high degree of freedom for conversion of the rear end of the new R 18 Classic and R 18 to suit personal preferences with comparatively little effort and change the paint finish in line with personal taste. Carefully conceived interface points for the hydraulic lines of the brake and clutch as well as the cable harness likewise allow entirely problem-free installation of higher or lower handlebars in conjunction with longer or shorter hydraulic lines and cable harnesses. The matching mounting kit is available for all handlebars in the Original BMW Motorrad Accessories range. In addition, the valve covers (cylinder head covers) and the belt cover (engine housing cover) are designed in such a way that they are located outside the oil chamber, making them very easy to change.

### **Diverse range of parts for widely varying styles**

The range of Original BMW Motorrad Accessories offers a maximum selection of individualisation options with which to adapt the R 18 Classic and R 18 to personal taste and preferences. The exceptional diversity of parts available from the programme of



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Original BMW Motorrad Accessories enables individual conversions that significantly change the character of the R 18 Classic and R 18. In this way, the new R 18 Classic and R 18 can be effortlessly transformed into varying icons with extreme design features – low, very wide or medium-height handlebars, for example, or even an apehanger. A wide range of matching seats is available, too – including not just the comfort seats but also the Solo Hommage Seat reminiscent of the free-floating individual seats to be found on old BMW motorcycles.

The wide range also includes backrests for both driver and passenger. Particularly relaxed cruising on the highway is made possible by the rider's leg rest for a "feet forward" seating position. Other refinement options include a frame bag featuring an exclusive material mix of canvas/leather, side bags (R 18 only), rear bags and much more besides. The R 18 Classic has saddle bags as standard. The Original BMW Motorrad Accessories range also allows further style-defining alterations such as different wheels, including the large, slim 21-inch front wheel or in the R 18 a rear mudguard that is particularly close-fitting, as well as a variety of number plate holders.

### **Customising parts and Roland Sands design collections "Machined" and "2-Tone Black" for the new R 18 Classic and R 18.**

For the market launch of the new R 18 Classic and R 18, two different design collections of milled aluminium parts are available, created in collaboration with Roland Sands Design: "Machined" and "2-Tone-Black".

"Machined" parts are components milled from high-quality aluminium that feature an attractive colour contrast between black and silver. In order to achieve this, the parts coated in black are milled and then polished again at specific points after the initial



milling process in order to lend emphasis to the original aluminium look and create the desired colour contrast.

Meanwhile the "2-Tone-Black" design collection consists of components which are also made of high-quality milled aluminium but feature a double black anodised surface with glossy and matt textured areas.

The "Machined" and "2-Tone-Black" ranges include front and rear wheels available in dimensions deviating from the standard sizes for the purpose of more adventurous individualisation. In addition, the range of these exclusive milled parts includes speedometer housings, handlebar clamps, risers, handlebar grips, hand levers and mirrors as well as engine housing trim elements, filler caps, intake silencer covers and much more besides. In short, "Machined" and "2-Tone-Black" offer a wide range of options for upgrading the R 18 Classic and R 18 to the very highest level of individualisation according to the owner's personal preferences and ideas.

### **Co-branding with famous brands: Mustang seats and Vance & Hines exhaust systems "Made in USA".**

For the accessories and customising programme of the new R 18 Classic and R 18, BMW Motorrad is collaborating not just with Roland Sands Design but also several well-known suppliers, including US manufacturer Mustang Seat in order to be able to offer different versions of high-quality hand-made seats. Meanwhile the customising potential for the exhaust systems in cooperation with Vance & Hines is no less creative.

In cooperation with Mustang Seats, high-quality, hand-made seats and benches are offered in different variants for a variety of purposes. Whether one or two-seater, giving more emphasis to comfort or design, in black or brown, with or without backrest – there are almost no limits to the potential variations of the high-quality seats "Made in USA".

Meanwhile the customising potential for the exhaust systems in conjunction with the well-known Vance & Hines designs "Tapered" (R 18) and "Round" (R 18 Classic) is no less creative. Developed in cooperation with Vance & Hines and validated and approved by BMW Motorrad, the exhaust systems – available in chrome or with

a scratch-resistant black ceramic coating – not only offer an individual and exclusive customising look, they also meet the rigorous BMW Motorrad quality standards. In addition to optimum power and torque output, they underline the inimitable, sonorous sound of the boxer engine.



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### **Warranty extensions and service packages.**

Even after years of safe riding, the BMW Motorrad optional warranty extensions enable you to be on the safe side and ensure repair services after the statutory warranty period has expired. The optional Oil Inclusive service package includes regular oil changes according to the maintenance schedule and oil filter replacement, while the Service Inclusive package covers the full range of services (excluding wear-and-tear parts) according to the maintenance schedule at a one-off fixed price.

### **Original BMW Motorrad Accessories.**

#### **Storage.**

- Fuel tank rucksack black.
- Fuel tank bag, small, black.
- Frame bag right, black.
- Side bag 16 L, left/right, black (R 18 only).
- Rear bag 27 L, black.
- Windshield bag, black.

#### **Design and appearance.**

- Headlight cover Machined / 2-Tone-Black (R 18 only).
- Fork rod top end cap Machined / 2-Tone-Black (R 18 only).
- Fork rod top end cover Machined / 2-Tone-Black.
- Fork rod bottom end cap Machined / 2-Tone-Black.

- Speedometer housing Machined / 2-Tone-Black.
- Handlebar clamp top Machined / 2-Tone-Black.
- Handlebar grip Machined / 2-Tone-Black.
- Handlebar end cap Machined / 2-Tone-Black.
- Mirror Machined / 2-Tone-Black.
- Expansion tank lid, front Machined / 2-Tone-Black.
- Expansion tank lid for brake fluid, rear Machined / 2-Tone-Black.
- Filler cap Machined / 2-Tone-Black.
- Filler cap, lockable Machined / 2-Tone-Black.
- Front wheel cover 21" wheel primed.
- Front wheel 16-inch Spoke (standard in the R 18 Classic).
- Front wheel 19" Machined / 2-Tone-Black / chrome.
- Front wheel 21" Machined / 2-Tone-Black / chrome.
- Rear wheel 16" Machined / 2-Tone-Black / chrome.
- Rear wheel 18" Machined / 2-Tone-Black / chrome.
- Rear wheel cover Bobber style primed (R 18 only).
- Number plate holder side, black / chrome (R 18 only).
- Engine guard chrome.
- Engine housing cover Machined / 2-Tone-Black.
- Decorative strip engine housing cover Machined / 2-Tone-Black.
- Cylinder head cover Machined / 2-Tone-Black.
- Decorative strip cylinder head cover Machined / 2-Tone-Black.
- Intake silencer cover Machined / 2-Tone-Black.
- Tapered rear silencer tapered chrome / black (R 18 only).

### **Ergonomics and comfort.**

- Speaker, single-section, chrome / black.
- Riser 1.5"l Machined / 2-Tone-Black / chrome (R 18 only).
- Riser 4" Machined / 2-Tone-Black / chrome.
- Hand lever, adjustable Machined / 2-Tone-Black.

- Handlebars Beachbar 36/7" chrome/black.
- Handlebars Apehanger 16" chrome/black.
- Handlebars Apehanger 6.5" chrome/black.
- Windshield clear / masked (standard in the R 18 Classic).
- Windshield, low, clear/masked.
- Windshield, medium, clear/masked.
- Windshield holder with LED additional headlights chrome / black (standard in the R 18 Classic).
- Rider footboard Machined / 2-Tone-Black.
- Passenger footboard Machined / 2-Tone-Black.
- Rider leg rest chrome.
- Single seat Solo Hommage black (single seat in the style of historical BMW motorcycles).
- Single seat Custom brown/black.
- Seat Custom Fastback brown/black.
- Seat Day Rider brown/black.
- Seat Weekender black.
- Seat Cross Country black.
- Rider backrest brown/Day Rider black/Tour black.
- Passenger backrest brown/black/Tour black.
- Passenger backrest mount chrome.

## 6. Made in Berlin – a Big Boxer comes into being.



**The world's only fully fitted production facility for BMW motorcycles and scooters is situated in the Berlin district of Spandau, covering a total surface area of some 220,000 square metres.** Two-wheel vehicles have been coming out of the tradition-steeped Berlin plant ever since 1969, and more than 155,000 are now produced here per year, complete with their engines, suspension and engine components. As many as 800 two-wheelers from the Sport, Tour, Roadster, Heritage, Adventure and Urban Mobility segments roll off the assembly line in Berlin on a daily basis.

Production of the new R 18 started in June 2020, followed by the R 18 Classic a little later. This entry into the cruiser segment adds new facets to the BMW Motorrad Heritage experience. The result: cruiser models full of character fitted with the most powerful boxer engine ever built at the Berlin plant. Structural and innovative adjustments were made so as to integrate the R 18 and R 18 Classic in the ongoing assembly process, particularly in the areas of gearbox assembly, paint shop and welding shop.

### **The iconic BMW boxer engine - "Berlin built".**

In addition to the centrepiece of the new models – the completely newly developed 2-cylinder boxer engine with 1800 cc and modern air-oil cooling – the Berlin plant also assembles the gearbox for the R 18 and R 18 Classic. For this purpose, a new gearbox assembly line was set up in the engine construction department, further increasing production depth at the Berlin plant. Meanwhile, manufacture of the new and larger crankshaft, connecting rods, crankcases and cylinder heads in the mechanical production department was integrated in the existing manufacturing process.

### **Innovative lining facility and expansion of the welding shop.**

Eight robots in four cabins provide the iconic pear-drop tank with double line marking in the new automated line marking facility. This application technology is currently a novelty in the motorbike

industry, thereby reflecting the Berlin plant's high degree of innovation.

One particular eye-catcher on the chassis is the powder-coated double-loop steel tube frame. In order to make this, the production process of the existing powder coating plant was adapted to the specifications for coating the shiny black frame. The Berlin production technicians developed a special infrared dryer so as to ensure the new, glossy powder coating had the necessary degree of adhesion. A particularly high level of manufacturing quality and attention to detail are evident in the parts produced at the plant's own welding shop – including the welded joints between the steel pipes and castings, and also the forged parts such as the swinging arm. For this purpose, the welding shop was extended with the addition of four new welding cells and three new machining centres.



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## 7. Technical specifications.



<b>Engine</b>	<b>BMW R 18 Classic</b>	<b>BMW R 18</b>
Capacity	cc / cui	1,802 / 110
Bore/stroke	mm	107.1/100
Output	kW/hp	67/91
at engine speed	rpm	4,750
Torque	Nm	158
at engine speed	rpm	3,000
Type	Air/oil-cooled 2-cylinder 4-stroke boxer engine	
No. of cylinders	2	
Compression/fuel	9.6:1 / premium unleaded (95-98 RON)	
Valve/accelerator actuation	OHV	
Valves per cylinder	4	
Ø intake/outlet	mm	41.2/35.0
Ø throttle valves	mm	48
Engine control	BMS-O	
Emission control	Closed-loop 3-way catalytic converter, EU5 exhaust standard	
<b>Electrical system</b>		
Alternator	W	600
Battery	V/Ah	12 / 26, maintenance-free
Headlight	LED low beam with projection module LED high beam with projection module 2 LED additional headlights	LED low beam with projection module LED high beam with projection module
Starter	kW	1.5
<b>Power transmission – gearbox</b>		
Clutch	Hydraulically activated single-disc dry clutch	
Gearbox	Constant-mesh 6-speed gearbox	
Primary ratio	1.16	
Transmission ratios	I	2.438
	II	1.696
	III	1.296
	IV	1.065
	V	0.903
	VI	0.784
Rear wheel drive	Universal shaft	
Transmission ratio	3.091	
<b>Suspension</b>		
Frame construction type	Double-loop steel tube frame	
Front wheel control	Telescopic fork, fork tube Ø 49 mm	
Rear wheel control	Cantilever	
Total spring travel, front/rear	mm	120/90

Wheel castor	mm			150.0
Wheelbase	mm			1,731
Steering head angle	°			57.3
Brakes	front			Twin disc brake Ø 300 mm
	rear			Single disc brake Ø 300 mm
ABS				BMW Motorrad Integral ABS (part integral)
Wheels				Wire-spoked wheels
	front	3.0 x 16		3.5 x 19"
	rear			5.0 x 16"
Tyres	front	130/90 B 16	120/70 R 19 or B 19	(dependent on manufacturer)
	rear			180/65 B 16

#### Dimensions and weights

Total length	mm			2,440
Total width with mirrors	mm			964
Seat height	mm	710		690
DIN unladen weight, road ready	kg	365		345
Permitted total weight	kg			560
Fuel tank capacity	l			16

#### Performance figures

Fuel consumption (WMTC)	l/100 km			5.6
CO <sub>2</sub> emissions (WMTC)	g/km			129
0–100 km/h	s			4.8
Top speed	km/h			180