

The new BMW R 18.

Table of contents.



1. Overall concept. (Short version).....	2
2. Drive.	7
3. Suspension, electrical system and assistance systems.	11
4. Design.	17
5. Equipment and customising programme.	21
6. Technical specifications.	28

1. Overall concept. Short version.



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The new BMW R 18: supreme cruiser with historical roots.

With the new R 18, BMW Motorrad now enters the cruiser segment. Like no other BMW motorcycle before it, this model stands entirely in the tradition of historical BMW motorcycles – both technically and in terms of design style. It borrows 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 combined in the 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 abundant torque.

The centrepiece the new BMW R 18 is a newly developed 2-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 since BMW Motorrad began production in 1923. The most powerful 2-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, resonant sound.

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

The centrepiece of the suspension in the new R 18 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 unapparent features such as the welded joints between the steel tubes and the cast or forged parts. Like the legendary BMW R 5, the rear swingarm – 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 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 braking system consists of a twin disc brake at the front and a single disc brake at the rear in conjunction with four-piston fixed callipers. 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 features 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 factory options

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

The R 18 masterfully transposes 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 tear-drop tank, the open-running driveshaft and the pinstriped paintwork (ex factory option) are reminiscent of the legendary boxer dating back to 1936. The classic bodywork features of the 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 swingarm 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 First Edition: exclusive look in paint and chrome.

The new R 18 will be offered worldwide as an exclusive 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 pinstriped paintwork. Other highlights include numerous chrome surfaces, a seat badge and a “First Edition” chrome clasp on the side covers.

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

More so than virtually any other motorcycle, the new R 18 offers a highly conversion-friendly design – a focus even in the early design phases of the basic motorcycle layout. As a result it is equipped with an easily removable rear frame and a simple-to-dismantle painted part set. Carefully conceived attachment points for the hydraulic lines of the brake, clutch and cable harness likewise allow easy 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.

The BMW Motorrad equipment range offers a maximum selection of individualisation options with which to adapt the R 18 to personal taste and preferences. The wide range of different parts available from the

programme of Original BMW Motorrad Accessories allows individual customising that significantly alter the character of the R 18. For the market launch of the new 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: BMW and Mustang seats as well as BMW and Vance & Hines exhaust systems "Made in USA".

For the accessories and customising programme of the new R 18, BMW Motorrad is collaborating with Roland Sands Design and several well-known suppliers including US manufacturer Mustang Seat to offer different versions of high-quality hand-made seats. In addition the customising potential for the exhaust systems in cooperation with Vance & Hines is no less creative.

The highlights of the new BMW 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.
- Exposed drive-shaft based on the classic role model.
- Elaborately crafted double-loop steel tube frame.
- Rear swingarm 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 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 factory option.

- Classically designed circular instrument with integrated display.
- Keyless Ride for convenient function activation by remote control.
- Three standard riding modes, ASC and MSR.
- Reverse assist for convenient manoeuvring and Hill Start Control for easy hill starts as ex factory 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.

2. Drive.

The most powerful BMW boxer engine of all time with historical roots and abundant torque.

The new BMW R 18 is all about motorcycling in its purest form: instinct over mind, technology not for its own sake but as a way of creating powerful emotion. 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 series version enriches 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 is a completely newly developed 2-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



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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.

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 to be 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, with more than 150 Nm available at any time 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.

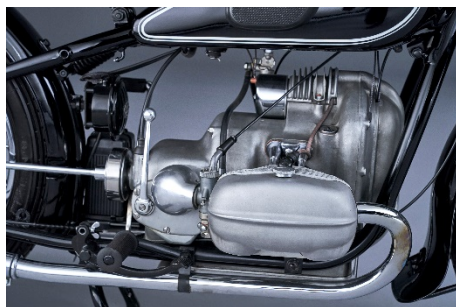
Unlike the classic air-cooled 2-valve boxer engines made by BMW Motorrad, the Big Boxer crankshaft, forged from hardened and tempered steel, has an additional main bearing at the centre. This was necessary due to the large cylinder volume in order to prevent undesirable bending vibrations of the crankshaft.

Like the crankshaft, the two connecting rods with I-shaft are mounted on plain bearings and are also forged from hardened 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 and 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 design, intake manifold injection and the BMS-O engine management system for the best possible torque as well as optimum fuel 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.



BMW R 5 from 1936. P90386332

When developing the valve drive for the "Big Boxer" – and in keeping with the Heritage concept – BMW Motorrad engineers were inspired by a very special engine design in the history of BMW Motorrad: 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 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 expansion of the push rods. A generally stiffer valve drive with improved control precision and higher speed stability is the result 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 2-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 R18 “Big Boxer” is also achieved very easily. 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 rear wheel hop 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.

Exposed driveshaft 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 driveshaft and universal joint are examples of fascinating classic motorcycle technology and 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 swingarm with enclosed axle drive in a rigid-frame, as in the legendary BMW R 5.

The centrepiece of the suspension in the new 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. For example, some of the tube mounts in the area of the steering head and seat are deliberately cut at an angle, making the connection especially attractive.



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Reflecting the same design and manufacturing principle, the rear swingarm 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 swingarm that connects seamlessly to the main frame. As a result, the frame and swingarm not only form the core of the R 18 suspension, their

rigid-frame layout also provides the so-called styling 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 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 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 offers consistent cruiser-style ergonomics following the line of the design. The BMW Motorrad ergonomic triangle consisting of handlebar grip, seat and footrests 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 in the standard version.

In keeping with the BMW Motorrad philosophy, the new BMW 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 range of BMW Motorrad Original Accessories includes footboards and additional footrests, while the BMW Motorrad equipment programme has numerous options for adapting the R 18 to individual taste by means of various handlebars and seats.

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

The new BMW 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 (partially integral). This braking system involves use of the handlebar brake 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 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 equipped 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.

State-of-the-art LED lighting technology, classically interpreted.



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The new BMW 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 features a newly developed, strikingly designed LED main headlight with optimised low and high beam light in a high-quality metal housing. The headlight housing is adjustable to accommodate potential conversion and customising. In addition, newly designed LED side indicators – with integrated tail light function at the rear – ensure an unmistakable look.

Adaptive turning light as a factory option for improved illumination of the road when cornering.

The optional adaptive turning light not only allows the main headlight to be visually improved, it also provides a significant improvement 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 turn 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 classic style, the circular instrument designed specifically for the new R 18 features an analogue 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 simplicity – the historically based approach used in designing the R 18. Yet despite its supremely classic style, it also offers a wealth of information such as a digital gear indicator display and 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. 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 factory standard as well as ASC and MSR for a high degree of riding pleasure and safety.

The new R 18 also offers 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 equipment also includes ASC (Automatic Stability Control, disengageable).

The new R 18 is 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 hop – for example in the event of a hard downshift. If the tyre's available grip capacity is below this opening threshold – 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 detects this condition 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 adjusted 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. Throttle response is very spontaneous and direct, while ASC allows a little more slip.

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).



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

The new R 18 also meets the demands of relaxed motorcycling in the form of a reverse assist as an ex factory 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 factory option, makes starting off on a hill particularly easy. It is activated by briefly pressing the hand lever brake or footbrake lever.

The heating grips are also available as an ex factory option: these keep the rider's hands comfortably warm on cold days. An electronic cruise control function is also optionally available.

4. Design.



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

The new R 18 is the modern interpretation of a cruiser that perpetuates the BMW Motorrad tradition, 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 clean design style, combined with functional and style-defining elements such as the double loop frame, open-running driveshaft, black finish with pinstriped paintwork (ex factory 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 are also made of metal, as befits an authentic cruiser: the 16-litre fuel tank with its tear 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, as does the impressive 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 the ability of conversion, customising and modification.

Historically influenced 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 likewise echoes its 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 unnecessary 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 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 is 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 understood mechanics.

Another feature based on the historical model is the open-running driveshaft to the rear wheel with nickel-plated shaft in a high-gloss finish. This underlines the purist styling and character of the new 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 swingarm 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 swingarm top frame tubes visually form a continuous line that functions as a central design feature. In combination with the swingarm down tubes, which are also aligned with the frame down tubes, this gives the new R 18 a distinctly flat, elongated and muscular appearance. The classic enclosure of the rear axle transmission in the swingarm is also a hallmark design feature of classic BMW boxers – implemented in the R 18 in a visually iconic way.

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

Another classic feature 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 strong appearance of the fork is perfectly integrated in the bike's overall proportions.

There are carefully crafted additional technical details to be seen. Another example is the classically designed circular instrument, which is enclosed in a metal housing with a decorative chrome ring. The "BERLIN BUILT" inscription on the face also provides a clear reference to the bike's origins: the new 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.

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 First Edition: exclusive look in paint and chrome.

The new R 18 will be offered worldwide as an exclusive R 18 First Edition right from launch, with a standard model additionally reserved for certain markets. It combines 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 pinstriped 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 pinstriped 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)
- "R18 First Edition" cap
- Leather belt with exclusive "R 18 First Edition" clasp
- Book about the near 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, 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 from the factory and integrated in the production process. Original BMW Accessories are installed by the BMW Motorrad dealer or by customers themselves. Many of these items can also be retrofitted.

Design specifically allows for customising and individualisation.

More so than virtually any other motorcycle, the new R 18 offers a highly customizable design – 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 to suit personal preferences with comparatively little effort and change the paint finish in line with personal taste. Carefully conceived connections for the hydraulic lines of the brake and clutch as well as the cable harness allow for an 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 to personal taste and preferences. The exceptional diversity of parts available from the programme of Original BMW Motorrad Accessories enables individual conversions that significantly change the character of the R 18. In this way, the new R 18 can be effortlessly transformed into varying icons with extreme design features – for example low, wide or different height handlebars, or even an Apehanger. A wide range of matching seats is available, too – including the Solo Hommage Seat reminiscent of the

free-floating individual seats to be found on old BMW motorcycles. Another option example is a frame bag featuring an exclusive material mix of canvas/leather with side or rear pouches. 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 a rear mudguard that is particularly close-fitting, as well as a variety of license plate holders.



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

For the market launch of the new 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.



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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 different dimensions from the standard sizes. 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. In short, "Machined" and "2-Tone-Black" offer a wide range of

options for customising the R 18 to the very highest level of individualisation according to the owner's personal preferences and ideas.

Co-branding with famous brands: BMW & Mustang seats and BMW & 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 with several well-known suppliers, including US manufacturer Mustang Seat in order to be able to offer different versions of high-quality hand-made seats. In addition, the customising potential for the exhaust systems is in cooperation with Vance & Hines.

In cooperation with Mustang Seats, high-quality, hand-made seats 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".



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Meanwhile the customising potential for the exhaust systems in cooperation with Vance & Hines is no less creative. Developed in cooperation with Vance & Hines and approved by BMW Motorrad, the exhaust system – available in chrome or with a scratch-resistant black ceramic coating – not only offers an individual and exclusive customising look, it also meets the rigorous BMW Motorrad quality standards. In addition to optimum power and torque output, it underlines the unique, resonant sound of the boxer engine.

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.
- Rear bag 27 l, black.

Design and appearance.

- Headlight cover Machined / 2-Tone-Black.
- Fork rod top end cap Machined / 2-Tone-Black.
- 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, 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 19" Machined / 2-Tone-Black / chrome.
- Front wheel 21" Machined / 2-Tone-Black / chrome.
- Front wheel 16" Machined / 2-Tone-Black / chrome.
- Front wheel 18" Machined / 2-Tone-Black / chrome.
- Rear wheel cover Bobber style primed.
- License plate holder side, black / chrome.
- 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 chrome / black.

Ergonomics and comfort.

- Riser 1.5" Machined / 2-Tone-Black / chrome.
- 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.
- Windshield, low, clear/masked.
- Windshield, medium, clear/masked.
- Windshield holder with LED auxiliary headlights chrome/black.
- 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. Technical data.



Engine		BMW R 18
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	
Electrical system		
Alternator	W	600
Battery	V/Ah	12/26 maintenance-free
Headlight	LED low beam with projection module LED high beam with projection module	
Starter	kW	1.5
Power transmission – gearbox		
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	
Suspension		
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)	

			BMW R 18
Wheels			Wire-spoked wheels
	front		3.5 x 19"
	rear		5.0 x 16"
Tyres	front	120/70 R 19 or B 19 (manufacturer-dependent)	
	rear	180/65 B 16	

Dimensions and weights

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

Performance figures

Fuel consumption (WMTC)	l/100 km	5.6
CO2 emissions (WMTC):	g/km	129
0–100 km/h	s	4.8
Top speed	km/h	180