

**The new BMW R 18 Roctane.**  
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## 1. Overall concept. Short version.



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### **The new BMW R 18 Roctane is the fifth member of the R 18 family - cruising and touring in custom bagger style.**

The new R 18 Roctane joins the R 18, R 18 Classic, R 18 B and R 18 Transcontinental as the fifth member of the R 18 family. Once again, it harks back to the history and tradition of BMW Motorrad and combines state-of-the-art motorcycle technology with the design and charm of times gone by.

Both technically and visually, the BMW R 18 borrows from famous BMW models such as the BMW R 5 and puts the focus back on the essentials of motorcycling: Purist, no-frills technology and the boxer engine as the epicentre of riding pleasure. Classic design and clear, yet contemporary technology merge to form a fascinating overall concept. This combination delivers a unique emotional riding experience and the model is characterised by skilfully staged design language with a rear section in so-called "streamlining design".

**The most powerful BMW boxer engine of all time delivers beefy torque in black metallic matt finish and features black high-gloss covers as well as exhaust system and star counter nuts in dark chrome.**

The heart of the new BMW R 18 Roctane is the familiar 2-cylinder flat twin engine, the "big boxer". Not only thanks to its impressive looks, but also its technical specifications, the engine of the new R 18 Roctane, finished in Avus black metallic matt and with black high-gloss covers, harks back to the traditional air-cooled boxer engines that have provided an exhilarating riding experience for more than seven decades since BMW Motorrad began manufacturing motorcycles in 1923. The most powerful 2-cylinder boxer engine ever built in motorcycle series production boasts an engine capacity of 1,802 cc. It generates an output of 67 kW (91 hp) at 4,750 rpm. In the 2,000 to 4,000 rpm range, it delivers more than 150 Nm of torque at all times as well as elemental pulling power and sonorous sound. The black engine is perfectly matched by the dark chrome exhaust system and the star counter nuts.

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

A double-loop tubular steel frame is at the heart of the chassis of the new R 18 Roctane. Its design perpetuates the longstanding BMW Motorrad tradition of this frame type. The particularly high manufacturing quality and attention to detail are also evident in barely perceptible details such as the welded joints between steel tubes and cast or forged parts. Like the legendary BMW R 5, the rear swinging arm, which is manufactured in a similar design, encloses the rear axle drive in the same style using bolted connections.

**Telescopic forks with fork tubes, cantilever suspension strut and alloy wheels sizes 21 inches at the front and 18 inches at the rear as well as disc brakes.**

The suspension elements of the new BMW R 18 Roctane deliberately feature no electronic adjustment options. Instead, telescopic forks and a directly linked central sprint strut with travel-dependent damping and adjustable spring preload ensure superior wheel guidance and responsive suspension comfort. As in the legendary BMW R 5, the fixed tubes of the telescopic forks are encased in fork sleeves. The fixed fork tube diameter is 49 mm, suspension travel is 120 mm at the front and 90 mm at the rear.

The new BMW R 18 Roctance 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 alloy wheels give the bike a stylish look. 3.5 x 21" at the front with 120/70 B 21 tyres as and 5.5 x 18" at the rear with 180/55 B 18 tyres.

**Well-balanced ergonomics with two-level seat, footboards, gearshift paddle and high handlebars.**

The new BMW R 18 Roctance features a casual, so-called "mid-mounted footpeg" position of the footrests, entirely in keeping with the BMW Motorrad philosophy. This classic position behind the cylinders is not only typical of BMW, it also allows a relaxed and active riding position for optimally controlling the motorcycle. The R 18 Roctane features a two-level seat that tapers slimly towards the rear, with rear passenger straps, and is equipped with running boards in conjunction with a gearshift paddle. The high, black-coated handlebars ensure an upright and relaxed riding position.

**Cases in the respective motorcycle paintwork and windshield as Original BMW Motorrad Accessories. Three attractive paintwork finishes.**

The new R 18 Roctane is ideally equipped for laid-back cruising and touring thanks to cases painted in the colour of the bike. The cases offer 27 litres of luggage space each. For longer tours, the new R 18 Roctane can be equipped with a windshield with auxiliary headlights and suspended turn indicator lights from the Original BMW Motorrad Accessories range.

The new R 18 Roctane features black paintwork as standard. Mineral grey metallic matt and Manhattan metallic matt paint finishes are available as optional equipment.

**Three riding modes as well as ASC and engine drag control are standard equipment and ensure high-level riding fun and safety. Reversing aid, Hillstart Control and heated grips are available as optional equipment ex factory.**

In order to meet individual customer needs, the new R 18 Roctane also features the three riding modes "Rain", "Roll" and "Rock" as standard, which is unusual in this segment. The standard equipment also includes ASC (Automatic Stability Control), which ensures a high level of riding safety. In addition, the new R 18 Roctane is equipped with engine drag torque control as standard. In addition to other options, a reversing aid makes

manoeuvring a comfortable affair and the Hill Start Control function makes starting off uphill easy. The heated grips, which are also available as optional equipment ex factory, keep your hands warm on cold days.

**The new R 18 Roctane: The "big boxer" with rigid frame look, modern technology and authentic materials in custom bagger style. Headlight with integrated, classic-design round instrument.**

The R 18 Roctane skilfully reinterprets the iconic styling of past eras in custom bagger style and many details reflect the purist design that was primarily shaped by classics such as the BMW R 5. Functional and style-defining elements such as the double-loop tube frame, the pear-drop fuel tank, the open propeller shaft drive or the double-line paintwork (optional equipment ex works) are reminiscent of the legendary 1936 boxer. The classic body parts of the R 18 Roctane, such as the fuel tank, front and rear wheel covers or headlight housing, are also made of metal - just 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 layout of the R 5 has been perfectly transferred to modern times.

Wherever the eye wanders, lovingly designed technology can be seen in every detail. This also applies to the headlight with the integrated, classically designed round instrument. The legendary BMW R 5 from 1936 and from then on almost all BMW motorcycles until the early 1970s featured this characteristic combination. The new BMW R 18 Roctane now revives this tradition - with state-of-the-art technology but contemporary design. The "BERLIN BUILT" lettering on the dial is a reference to the bike's origin. The new R 18 Roctane is also manufactured at the BMW Motorrad plant in Berlin-Spandau.

**Conversion-friendly architecture for easy customising and optimal individualisation.**

Like all other R 18 family members, the new R 18 Roctane offers a very conversion-friendly architecture, which was already the focus when the basic design of the R 18 series was being conceived. In addition the visible valve covers (cylinder head covers) and the chest cover (engine housing cover) are designed in such a way that they are located outside the oil chamber, making them very easy to change.

### **The highlights of the new BMW R 18 Roctane:**

- Iconic style thanks to the use of modern technology and 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 propeller shaft drive based on the classic role model.
- Exhaust system and star counter nuts in Dark Chrome.
- Elaborately manufactured double loop tubular steel frame.
- Rear swinging arm with enclosed axle drive in rigid-frame design.
- Telescopic forks with sleeves and cantilever suspension strut featuring travel-dependent damping.
- Well-balanced ergonomics with high handlebars ensure relaxed riding and optimum control.
- Front and rear disc brakes and cast alloy wheels, 21-inch at front and 18-inch at rear.
- Side covers with emblem.
- Headlight housing with integrated classic round instrument.
- State-of-the-art LED lighting technology, classically interpreted.
- Adaptive headlight for even better illumination of the road when cornering as optional equipment ex-factory.
- Keyless Ride for convenient activation of functions remotely (ignition on/off).
- Manual steering lock (with key): Locking on the right-hand side of the handlebar tube:
- Cases locked manually (with key).
- Three riding modes as well as ASC and engine drag control as standard.

- Reversing aid for convenient manoeuvring and Hill Start Control for easy hill starts as optional equipment ex factory.
- Heated grips, anti-theft alarm, TPM and 35 kW version as optional equipment ex factory.
- Extensive range of optional equipment and Original BMW Motorrad Accessories as well as a laid-back Ride & Style Collection.

## 2. Drive.



**The biggest-capacity BMW boxer engine of all time with historical roots and beefy torque in black metallic. Exhaust system and star counter nuts in Dark Chrome.**

The new BMW R 18 Roctane offers motorcycling at its purest: Feelings and sensations instead of reason, technology not as a means of staging oneself but as space for imagination and making room for big emotions instead of observing soberly and calculating objectively. This is the message of the R 18 Roctane in the BMW Motorrad Heritage world of experience. It represents an expressive return to the core of the BMW Motorrad brand: The boxer engine.

The heart of the new BMW R 18 Roctane is the "big boxer". Not only with its impressive appearance, but also in technical terms, the new "big boxer" in matt black metallic picks up where the traditional boxer engines left off. These engines were synonymous with the motorcycles from Munich and Berlin-Spandau for around 70 years from the beginning of BMW Motorrad production in 1923 until the appearance of its air/oil-cooled successor: Clearly designed engines developed for maximum reliability and ease of maintenance, with logically arranged but nevertheless powerful technology. The exhaust system and the star counter nuts are coated in Dark Chrome to match the black boxer engine.

With its OHV valve drive along with a separate engine and transmission housing, the "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 2-cylinder boxer engine ever used in motorcycle series production is an 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 benefits of this level of performance and torque when riding. The maximum engine speed is 5,750 rpm, the idle speed is 950 rpm.

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

The "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.

In contrast to the classic air-cooled two-valve boxer engines from BMW Motorrad, the crankshaft of the "big boxer", which is forged from heat-treated steel, has an additional main bearing in the middle, which became 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 driven by the crankshaft via a sleeve chain.

**Classic OHV valve train with two camshafts like the legendary R 5 up to the R 51/2 paired with modern four-valve technology and dual ignition.**

Although the "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 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 consequence of this more elaborate construction.

**Fork rocker arms 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 rocker arms.

The valve clearance is compensated for - as has been the case for decades with most classic air-cooled BMW two-valve boxers - by means of one adjusting screw with lock nut per valve. As was formerly the case in the classic two-valve boxers, valve clearance adjustment (0.2 – 0.3 mm) in the R18 "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 and thus eliminates the undesired stamping of the rear wheel caused by engine drag torque when shifting down hard.

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

**Open 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 Cardan 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 tripoid joint is applied on the gearbox side for the purpose of length compensation.



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### 3. Chassis, electrical and assistance systems.



#### **Elaborately manufactured double-loop tube frame made of steel and rear swinging arm with enclosed axle drive in rigid frame design as on the legendary BMW R 5.**

The centrepiece of the chassis in the new R 18 Roctane is a double-loop steel tube frame manufactured in the Berlin-Spandau BMW Motorrad plant. 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.

The particularly high manufacturing quality and attention to detail are also evident in barely perceptible details such the steering head struts as well as the welded joints between steel tubes and cast or forged parts. Thus some of the tube joints in the steering head area are deliberately cut at an angle, which makes the connection look particularly pleasing to the eye.

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 drive 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 models 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 Roctane suspension, their rigid-frame layout also provides the so-called flyline – thereby ultimately defining the design of the new "big boxer" models.

Telescopic forks with sleeves and cantilever suspension strut featuring travel-dependent damping.

The suspension elements of the new R 18 Roctane reflect the classic design. Electronic adjustment options have been deliberately

omitted. Instead, telescopic forks and a directly linked central sprint strut with travel-dependent damping and adjustable spring preload ensure superior wheel guidance and responsive suspension comfort. As in the legendary BMW R 5, the fixed tubes of the telescopic forks are encased in fork sleeves. The fixed fork tube diameter is 49 mm, suspension travel is 120 mm at the front and 90 mm at the rear.

**Well-balanced ergonomics with two-level seat, footboards, gearshift paddle and high handlebars. Windshield for longer tours as a special accessory from the Original BMW Motorrad Accessories range.**

As with the previous R 18 models, the new R 18 Roctane also offers well-balanced ergonomics ex factory. Traditionally, the decisive measure for the seating position is BMW Motorrad's ergonomic triangle of handlebar ends, seat and footrests. This, together with other parameters such as seat height, width, height and offset of the handlebars, has a major influence on the rider's feeling of well-being on the bike.

The new BMW R 18 Roctane features a casual, so-called "mid-mounted footpeg" position of the footrests, entirely in keeping with the BMW Motorrad philosophy. This classic position behind the cylinders is not only typical of BMW, it also allows a relaxed and active riding position for optimally controlling the bike. The R 18 Roctane features a slim two-level seat that tapers towards the rear, with rear passenger straps for two, and is equipped with running boards in conjunction with a gearshift paddle. The high, black-coated handlebars and the comfortably low 720 mm seating position ensure an upright and relaxed riding posture.

For longer tours, the new R 18 Roctane can be equipped with a windshield with auxiliary headlights and suspended turn indicator lights from the Original BMW Motorrad Accessories range. In addition the BMW Motorrad equipment programme has numerous options for adapting the R 18 Roctane to individual ergonomic requirements by means of various handlebars and seats.

**Twin disc brake at the front, single disc brake at the rear, cast alloy 21 inch wheel at the front and 18 inch wheel at the rear ensure a rich and pleasant riding experience.**

The new BMW R 18 Roctane 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 is 300 mm each. The brake system is equipped with the proven BMW Motorrad Integral ABS (partially integral). On this brake system, the hand brake lever activates the front and rear brakes together. The foot brake lever only acts on the rear brake.

BMW Motorrad Integral ABS adjusts the brake force distribution between the front and rear brakes during braking in accordance with the dynamic wheel load distribution and the load. The dynamic brake light (not in all markets) effectively signals to road-users behind that the motorcycle is braking. This additional brake light function warns following traffic in two stages when the brakes are applied strongly and in the event of an emergency brake manoeuvre.

The R 18 Roctane's cast alloy wheels have a very distinctive look with a large wheel diameter at the front and a smaller one at the rear. The 3.5 x 21" front wheel is equipped with a tyre of the dimensions 120/70 B21, while a 180/55 B 18 tyre is used on the 5.5 x 18" rear wheel. The 21-inch front wheel extends the castor significantly. This ensures a particularly rich ride with pronounced straight-line stability.

**Adaptive headlight for even better illumination of the road when cornering as optional equipment ex-factory.**

The optional adaptive headlight upgrades the functionality and visual appeal of the main headlight even further.

The adaptive headlight, which is unique in this class, works by activating separate LED elements in the main headlight, which each have their own reflectors, depending on the lean angle. The function is used to compensate for the lean angle in relation to the cut-off of the low beam. The signal of the lean angle sensor is evaluated and the adaptive headlight is switched on. The function is activated when the engine is running, the low beam or high beam is activated and darkness is detected from a driving speed of approx. 10 km/h and lean angle of approx. 7°. The additional lighting effect functions optimally up to a lean angle of approx. 25°. This significantly improves the illumination of the inside of the bend - a big safety plus when riding at night or in other situations with poor lighting conditions.

**The new R 18 Roctane - perfectly equipped for cool cruising and touring with cases in paintwork colour.**

The new R 18 Roctane is ideally equipped for laid-back cruising and touring thanks to cases painted in the colour of the bike. The cases offer 27 litres of luggage space each. Both the cases and top case can be fitted with practical liners (Original BMW Motorrad Accessories). The so-called "filler stripes" to cover the space between the case and the bike are also available as an optional accessory. The Original BMW Motorrad Accessories range also offers further soft luggage elements such as the rear bag in waxed canvas upper fabric combined with genuine leather.

**Classically designed round instrument with display integrated into the headlight.**

The round instrument cluster with analogue speedometer display and indicator lights that are "invisible" when not illuminated is integrated into the headlight housing. The legendary BMW R 5 from 1936 and from then on almost all BMW motorcycles until the early 1970s featured this characteristic combination. The new BMW R 18 Roctane now revives this tradition - with state-of-the-art technology but contemporary design. The "BERLIN BUILT" lettering on the dial is a reference to the bike's origin. The new R 18 Roctane is also manufactured at the BMW Motorrad plant in Berlin-Spandau. Featuring the iconic "BERLIN BUILT" lettering, its simple functionality follows the reduction to the essential - and thus the historically grounded approach of the R 18 Roctane. But for all its classic stylishness, it also offers a wealth of information, such as a digital gear indicator and status query as well as the values of the integrated on-board computer.

**Keyless Ride for conveniently activating functions by remote control.**

As with other BMW Motorrad models, the Keyless Ride System also replaces the conventional ignition lock on the new R 18 Roctane. The ignition and anti-theft alarm system (optional equipment) are controlled by means of a transponder integrated in the vehicle key, which transmits a radio signal with a vehicle-specific frequency. The key can therefore remain in the rider's clothes, for example. The ignition is operated via the button on the right-hand handlebar panel. At the touch of a button, the key bit on the radio key folds out, which is needed to lock and unlock

the classic steering lock and the fuel filler cap (optional equipment) as well as to lock and unlock the cases.

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

In order to meet individual customer needs, the new R 18 Roctane also features the three riding modes "Rain", "Roll" and "Rock" as standard, which is unusual in this segment. The standard equipment also includes ASC (Automatic Stability Control, disengageable), which ensures a high level of riding safety.

In addition, the new R 18 Roctane is equipped with engine drag torque control as standard. Electronically controlled, the engine drag control 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 when shifting down. However, 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 engine drag control, the new R 18 Roctane detect this danger at an early stage. Depending on the coefficient of friction between the tyre and the road surface, the throttle valves are 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 engine drag control allow for a wet and therefore more slippery road surface to achieve a very high level of riding safety.

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

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

In each riding mode, the optimum interaction of engine characteristics or throttle response, ASC control and engine drag



torque control is provided. This means that the three riding modes offer optimum adjustment options - both with regard to road conditions (Rain mode) and the rider's personal ride experience (Rock mode).

**Reversing aid for convenient manoeuvring, Hill Start Control for easy hill starts and heated grips as optional equipment ex factory. R 18 Roctane with electronic cruise control as standard.**

The new R 18 Roctane also makes manoeuvring easy thanks to the reversing aid available as optional equipment ex factory. It can be activated via the selector lever when needed. The forward gears are blocked and the reverse gear is engaged. Movement itself is initiated by the rider by pressing on the starter motor button.

The Hill Start Control system, which is available as optional equipment ex factory, makes it particularly easy to start off on an incline. It is activated by briefly operating the hand or foot brake lever. The heated grips, which are also available as optional equipment ex factory, keep your hands warm on cold days.

The R 18 Roctane already features electronic cruise control as standard.

## 4. Design.



### **The new R 18 Roctane: Iconic style harking back to times gone by - all in black. Three attractive paintwork finishes.**

The new R 18 Roctane is a cruiser in custom bagger style and therefore perfectly suited for everyone who wants to customise a BMW R 18 entirely according to their personal preferences. The comprehensive range of Original BMW Motorrad Accessories opens up a wide variety of possibilities.

The style of the new R 18 Roctane is characterised in particular by the large 21-inch front wheel in conjunction with its 18-inch counterpart at the rear. Once again, the new R 18 Roctane continues the BMW Motorrad tradition, confidently taking up the iconic style of times gone by and skilfully transferring it to the present day. The rear section of the new R 18 Roctane follows the so-called "streamlining design" with cases perfectly integrated into the lines.

From the overall impression down to the smallest detail, the design here lives on as established by classics such as the BMW R 5. The typical proportion with sloping lines as well as the clear and reduced design language, combined with functional and style-defining elements such as the double-loop tube frame or open propeller shaft are reminiscent of the legendary boxers of past years. And the heart of it all is the boxer engine. Unmistakably BMW, a homage to classic engine construction, a sculpture in metal. On the new R 18 Roctane the boxer is Avus black metallic matt with matching exhaust system and star counter nuts in dark chrome.

The classic body parts of the R 18 Roctane are also made of metal. Accordingly, the 16-litre tank in its teardrop shape derived from the R 5, the front and rear mudguards, the fork sleeves and the headlight housing are traditionally made of sheet steel. Also known as the painted parts set, these peripherals shape the character and overall appearance of the new R 18 Roctane just as much as the monumental boxer engine. Deliberately designing the body parts as individual components reinforces the classic look and at the same

time leaves plenty of room for converting, customising and modifying the R 18 Roctane.

The new R 18 Roctane features Blackstorm metallic paintwork as standard. Mineral grey metallic matt and Manhattan metallic matt paint finishes are available as optional equipment. These elegant matt paint sets contrast with the high-gloss black chassis and ensure a classically modern look.

**Historically motivated design with "big boxer", unique open propeller shaft drive and rigid frame look.**

The new R 18 Roctane also echoes the days of its famous ancestor, the R 5 from 1936, with regard to drive and chassis. The focus is on the essentials and the style-defining details.

The iconic BMW boxer engine is unmistakably the centre of attention. Clear-cut design without any distracting technical details. This required the highest level of integration of all the peripherals necessary for today's modern engines.

The "big boxer" - as in the R 5 - stages the valve control on the upper side of the cylinder with the overhead bucket tappet guides and also the control cover resulting in the so-called "hero chest" (engine housing cover). The valve covers (cylinder head covers) are also formally based on the legendary 500 cc engine, which caused a sensation in the motorcycle world more than 80 years ago thanks to its dynamic riding performance. The entire sensor system does not distract from the essentials, and even the mighty airbox has been formally integrated into the overall context. There is hardly any other engine concept where the working principle of a four-stroke petrol engine can be understood as clearly as in a boxer engine: Intake, compression, combustion, exhaust. Mechanics made visible.

The open propeller shaft drive to the rear wheel features a highly polished and nickel-plated shaft and also follows the historical example. It significantly underlines the purist and deliberately reduced character of the new R 18 Roctane with regard to technology. A boxer BMW without a propeller shaft - completely unthinkable for around 100 years now. In short: The propeller shaft of the R 18 Roctane is a fascinating, beautifully designed piece of drive mechanics. Here, too, the rule is to make function visible.

The chassis 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 frame spine and swinging arm top frame tubes visually form a continuous line as a central design feature. In conjunction with the swinging arm's lower beam tubes, which are also aligned with the frame down tubes, it gives the new R 18 Roctane an emphatically flat, elongated and muscular look. The classic housing of the rear-axle gear unit in the swinging arm is also a typical design feature of classic boxer BMWs - implemented in the R 18 Roctane in a visually iconic way.

### **Homage to days long past through stylishly designed construction details.**

Another classic quotation is also to be found in the telescopic forks: This is because the entire area of the fork tubes is clad with a cover extending to the slider tubes in the form of contemporary fork sleeves made of sheet steel. This type of fork covering was technically necessary at the time of the R 5, as it protected the sensitive sliding surfaces of the fork tubes from stone impacts and thus from damage on the bad roads of the time. The powerful look of the forks fits the overall proportions of the bike perfectly.

Wherever the eye wanders, lovingly designed technology can be seen in every detail. This also applies to the headlight with the integrated, classically designed round instrument. The legendary BMW R 5 from 1936 and from then on almost all BMW motorcycles until the early 1970s featured this characteristic combination. The new BMW R 18 Roctane now revives this tradition - with state-of-the-art technology but contemporary design. The "BERLIN BUILT" lettering on the dial is a reference to the bike's origin. The new R 18 Roctane is also manufactured at the BMW Motorrad plant in Berlin-Spandau. There is high-quality detailing everywhere: In the handlebar levers, handlebar clamp, fuel filler cap, seat bolts and much more.

The LED headlight proves that even the most modern lighting technology can be skilfully integrated into the design language of a classic motorcycle. Particularly in conjunction with the optional LED daytime running lights, whose design in the shape of a crescent, shape the characteristic BMW Motorrad Heritage face and make it instantly recognisable.

## 5. Equipment and customising program.



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

A particularly extensive range of optional equipment and Original BMW Motorrad accessories is available for customising the new BMW R 18 Roctane as well as a laid-back 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 factory 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 for easy customising and optimal individualisation.**

Like the whole R 18 family, the new R 18 Roctane offers a very conversion-friendly architecture, which was already the focus when the basic design of the R 18 series was being conceived. In addition the visible valve covers (cylinder head covers) and the chest cover (engine housing cover) are designed in such a way that they are located outside the oil chamber, making them very easy to change.

### **A large variety of parts available for the R 18 family enables a wide range of creations.**

The Original BMW Motorrad Accessories range for the BMW R 18 family also offers a maximum of customisation options for designing the R 18 Roctane according to your own personal taste and preferences. The extraordinary variety of parts from the Original BMW Motorrad Accessory range enables individual conversions that significantly change the character of the R 18 Roctane. For example, the new R 18 Roctane can also be effortlessly transformed into an extreme style icon by means of high-quality milled parts right up to the rear silencers and many other high-grade components.

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

The following features of the Original BMW Motorrad Accessories range are now available in conjunction with the new R 18 Roctane:

#### **Storage.**

- **NEW!** Luggage rack chrome-plated.
- **NEW!** Luggage rack black.
- Tank bag black.
- Tank bag black, small.
- Rear bag black, 27 l.
- Pack bag set.
- Bag for smartphone.
- Folding backpack.
- Rider equipment organiser
- Tank bag Edition 100 Years black, 11 l.
- Backpack Edition 100 Years black, 20 l.
- Rear bag Edition 100 Years black, 27 l.

#### **Design.**

- Rear silencer Round chrome-plated.
- Rear silencer Round black.
- Rear silencer end cap set.
- Expansion tank lid Machined, front.
- Expansion tank lid 2-Tone-Black, front.
- Trim strip engine housing cover Machined.
- Trim strip engine housing cover 2-Tone-Black.
- Trim strip cylinder head cover Machined.
- Trim strip cylinder head cover 2-Tone-Black.
- Cylinder head cover Machined.
- Cylinder head cover 2-Tone-Black.
- Option 719 Aero cylinder head cover, left.
- Option 719 Aero cylinder head cover black, left.
- Engine housing cover Machined.
- Engine housing cover 2-Tone-Black.
- Option 719 Aero engine housing cover.
- Option 719 Aero engine housing cover black.

- Option 719 Aero intake snorkel cover brushed, right.
- Option 719 Aero intake snorkel cover brushed, left.
- Spoked wheel front black 3.0×16".
- Spoked wheel rear black 5.0×16".
- Option 719 front wheel Icon 3.5x19".
- Option 719 rear wheel Icon 5.0x16".
- Option 719 front wheel Aero 3.5x19"
- Option 719 rear wheel Aero 5.0x16".
- Front wheel 2-Tone-Black, 3.00 x 19".
- Rear wheel 2-Tone-Black, 5.00 x 16".
- Front wheel Machined 3.00×19".
- Rear wheel Machined 5.00×16".
- Front wheel chrome-plated, 3.00×19".
- Rear wheel chrome-plated, 5.00×16".
- Front wheel cover for respective wheel Blackstorm metallic.
- Front wheel cover for respective wheel Manhattan metallic.
- Front wheel cover primed for respective wheel.
- Mirrors Machined.
- Mirrors 2-Tone-Black.
- Expansion tank lid for brake fluid Machined, rear.
- Expansion tank lid for brake fluid 2-Tone-Black, rear.
- End cap for fork leg Machined, top.
- End cap for fork leg 2-Tone-Black, top.
- Fork leg cover Machined, top.
- Fork leg cover 2-Tone-Black, top.
- NEW! Filler panel Blackstorm metallic.
- NEW! Filler panel primed.
- Fuel filler cap Machined.
- Fuel filler cap 2-Tone-Black.

### **Ergonomics and comfort.**

- Hand lever Machined, adjustable.
- Hand lever 2-Tone-Black, adjustable.

- **NEW!** Single seat bench.
- Seat bench Cross Country black.
- Seat bench Weekender black.
- Seat bench Day Rider brown.
- Seat bench Day Rider black.
- Rider backrest brown.
- Rider backrest Day Rider black.
- Rider backrest Tour black.
- Seat bench Custom Fastback brown.
- Seat bench Custom Fastback black.
- Single seat bench Homage.
- Single seat bench Custom brown.
- Single seat bench Custom black
- Rider leg rest chrome-plated.
- Rider footboard Machined.
- Rider footboard 2-Tone-Black.
- Passenger footboard machined.
- Passenger footboard 2-Tone-Black.
- Windshield
- Windshield masked.
- Windshield low.
- Windshield masked, low.
- Windshield medium.
- Windshield masked, medium.
- Windshield holder with LED side indicators black.
- Windshield holder with LED side indicator chrome-plated.

#### **Navigation and communication.**

- Dual USB charger 120 cm.
- Dual USB charger 60 cm.
- BMW Motorrad USB cable.
- Loudspeaker chrome-plated, one-piece.
- Loudspeaker black, one-piece.
- Safety.



- Hill Start Control activation code.
- Additional headlight black.
- Additional headlight black.
- Additional headlight chrome-plated.
- Additional headlight chrome-plated.
- Engine protection bar chrome-plated.
- Engine protection bar black.
- Cheese head screw.
- First aid set, large.
- First aid set, small.
- Brake disc lock with anti-theft alarm.
- Anti-theft alarm.

**Maintenance and technology.**

- Power reduction 35 kw.
- Travel set tyre inflation pressure.
- Puncture repair kit tubeless tyres.
- LED torch.
- Motorcycle Carpet Edition 100 Years 280×140 cm.

## 6. Technical specifications.



Engine		BMW R 18 Roctane
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/water-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	Low beam LED with projection module High beam LED with projection module	
Starter	kW	1.5
Power transmission – gearbox		
Clutch	Hydraulically activated single-plate dry clutch	
Gearbox	Constant-mesh 6-speed gearbox	
Primary ratio	1.16	
Transmission ratios	2.438	
	I	
	II	1.696
	III	1.296
	IV	1.065
	V	0.903
	VI	0.784
Rear wheel drive	Universal shaft	
Transmission ratio	3.091	
Chassis		
Frame construction type	Steel double-loop tube frame	
Front wheel suspension	Telescopic forks, fixed fork Ø 49 mm	
Rear wheel suspension	Cantilever	
Total spring travel, front/rear	mm	120/90
Wheel castor	mm	185
Wheelbase	mm	1,720
Steering head angle	°	55.3
Brakes	front	Twin disc brake Ø 300 mm
	rear	Single-disc brake Ø 300 mm
ABS	BMW Motorrad Integral ABS (partially integral)	
Wheels	Wire-spoke wheels	

	front	3.5 x 21"
	rear	5.5 x 18"
<b>BMW R 18 Roctane</b>		
Tyres	front	120/70 B 21
	rear	180/55 B 18

#### Dimensions and weights

Total length	mm	2,615
Total width with mirrors	mm	953
Seat height	mm	720
DIN unladen weight, road ready	kg	374
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	5.46
Top speed	km/h	>180