

# The new BMW S 1000 RR, S 1000 R and S 1000 XR. Table of contents.



<b>1. The sporty BMW Motorrad 4-cylinder models.</b> (Short version) .....	2
<b>2. The new BMW S 1000 RR.</b> .....	4
<b>3. The new BMW S 1000 R.</b> .....	8
<b>4. Output and torque.</b> .....	14
<b>5. Technical specifications.</b> .....	18

# 1. The sporty BMW Motorrad 4-cylinder models. (Short version)



## **The new sporty BMW Motorrad 4-cylinder models.**

Supreme riding dynamics, athletic character combined with maximum safety and everyday practicality – these are the defining characteristics of the BMW Motorrad 4-cylinder models. For the model year 2017 the supersports bike S 1000 RR and the dynamic roadster S 1000 R have undergone the following model revisions:

### **The new BMW S 1000 RR – virtually perfect yet still optimised.**

- Adaptation to EU4 requirements.
- ABS Pro as a new element of the optional equipment item “Riding Modes Pro”.
- DTC as standard.
- The new RR now as standard as a single-seat model with passenger seat cover. The optional passenger package is available free of charge as an alternative.
- Well-established colour concepts Racing Red non-metallic/Lightwhite non-metallic and BMW Motorsport (Lupine Blue metallic/Lightwhite non-metallic/Racing Red non-metallic), though in a new design.
- New colour variant Granite Grey metallic/Blackstorm metallic.
- Design Option Wheels with red rim lines now included as standard as part of the colour concepts Racing Red non-metallic/Lightwhite non-metallic and BMW Motorsport.

### **The new BMW S 1000 R – enhanced dynamic roadster.**

- Adaptation to EU4 requirements.
- Output increased to 121 kW at 11 000 rpm (previously: 118 kW).
- Weight reduction by 2 kg to 205 kg DIN unladen. Payload increased by 2 kg.
- HP titanium rear silencer as standard for an even more potent sound and a sporty look.
- Vibration-free handlebars for a further increase in comfort.
- New frame structure with lighter main frame rear section.
- ABS Pro as a new element of the optional equipment item “Riding Modes Pro”.
- HP Shift Assistant Pro for quick shifting up and down without clutch as an ex-works option.

- Light HP forged wheels (–2.4 kg as compared to the standard version) as a new optional equipment items ex works.
- Design Option Wheels with red rim lines.
- Multifunction instrument cluster with improved readability and including outdoor temperature display.
- Significantly reduced fairing.
- New colour variants Racing Red non-metallic/Blackstorm metallic, Catalano Grey non-metallic and BMW Motorsport (Lupine Blue metallic/Lightwhite non-metallic/Racing Red non-metallic).

## 2. The new BMW S 1000 RR.



### **The new BMW S 1000 RR – the virtually perfect supersports model has been further optimised.**

Ever since BMW Motorrad launched the S 1000 RR in 2009, the first 4-cylinder supersports bike made by BMW, the “Double R” has had a lasting impact on this market segment. Consistent and ongoing development has since ensured that the RR occupies pole position among the superbikes with road traffic certification. For the model year 2017 it was once again possible to optimise the virtually perfect supersports bike even further.

### **Potent in-line 4-cylinder engine, adapted to EU4 requirements.**

The 999 cc in-line 4-cylinder engine has been adapted to meet the requirements of the EU4 pollutant class. The peak output is still 146 kW at 13500 rpm and the maximum torque of 113 Nm is reached at 10500 rpm. In the interests of excellent rideability, the new RR also has a wide engine speed range available for use, and almost the entire maximum torque is available from approximately 9500 (112 Nm) to 12000 rpm (113 Nm).

### **Riding modes “Rain”, “Sport” and “Race” along with Race ABS and Dynamic Traction Control as standard.**

The new RR features the three riding modes “Rain”, “Sport” and “Race” as standard as well as the partial integral Race ABS. New additions to the standard trim include Dynamic Traction control DTC with banking sensor and fine adjustment at +/- seven levels for the best possible performance and safety when accelerating.

### **“Riding Modes Pro” with additional riding modes “Slick” and “User”, Launch Control, Pit Lane Limiter and now also ABS Pro now also available as standard.**

With “Riding Modes Pro”, the new RR offers the two additional riding modes “Slick” and “User” as before, as well a Launch Control for active support on racing starts, among other things. A configurable Pit Lane Limiter also enables adherence to the prescribed speed in the pit lane.

ABS Pro is a new component of the equipment item “Riding Modes Pro”. While the existing BMW Motorrad ABS systems already provide a very high degree of safety when braking in a straight line, ABS Pro now takes this a step further to offer increased safety when braking on bends as well. Here, ABS

Pro (available in the modes “Rain”, “Sport” and “Race”) is able to prevent the wheels from locking even when the brakes are applied quickly; this reduces abrupt changes in steering force on shock-braking manoeuvres and stops the motorcycle from rearing up unintentionally.

**The new RR now as a single-seater with passenger seat cover and attractive new colours.**

From now on, the new S 1000 RR is configured as standard as a single-seater with passenger seat cover. However, an ex works option allows the RR to be ordered with a passenger package free of charge: this includes both passenger seat and passenger footrests.

The RR continues to be available in the colour schemes Racing Red non-metallic/Lightwhite non-metallic for the dynamic look and BMW Motorsport (Lupine Blue metallic/Lightwhite non-metallic/Racing Red non-metallic in reference to the bike's motor racing genes), although in a new configuration. The two colour concepts are supplemented as standard with red rim lines.

In addition there is the new colour scheme Granite Grey metallic/Blackstorm metallic, which gives the RR a refined appearance.

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

As usual, an extensive program of optional equipment and motorcycle accessories is available for customisation of the new BMW S 1000 RR.

**Original BMW Motorrad Accessories.**

**HP Parts.**

- HP rider footrest system incl. HP Carbon heel guard, adjustable ergonomics.
- HP passenger footrests.
- HP brake/clutch lever, foldable.
- HP handbrake lever with remote adjustment.
- HP hand lever protector.
- HP engine protector, left/right.
- HP axle protectors.
- HP chain tensioner.
- HP Carbon wheel cover, front.
- HP Carbon wheel cover, rear.
- HP Carbon side trim part, top left/right.
- HP Carbon fuel tank trim, left/right.
- HP Carbon intake silencer cover.

- HP Carbon heel guard.
- HP Carbon pinion cover.
- HP Carbon Engine Spoiler Race.\*
- HP Carbon chain guard.
- HP sports silencer.
- HP cover kit.\*
- HP lap timer.\*
- HP data logger.\*
- HP Calibration Kit 3.\*
- HP Power Kit.\*
- HP brake pads.\*
- HP brake vent valve.
- HP brake vent aid.
- HP wiring harness.\*
- HP seat.
- HP tyre heater.
- HP pit carpet.

\* Only for use on the race track.

### **Storage program.**

- Tank rucksack.
- Rear bag.
- Passenger seat bag.
- Saddlebags.
- Tensioning strap.
- Luggage spider.

### **Ergonomics and comfort.**

- Rider comfort seat.
- Comfort passenger seat.
- Windshield, high (“bubble”).
- Windshield, tinted.
- Windshield, high, tinted.

### **Safety.**

- Brake disc lock with integrated alarm system.
- BMW Motorrad warning triangle.
- First aid set, large.
- First aid set, small.

### **Maintenance and technology.**

- Sport 2 lift stand, front/rear.
- Swinging arm adapter for Sport 2 lift stand.
- BMW Motorrad battery charger 230 V.

- BMW Motorrad battery charger 110 V.
- Multifunction tool.
- Mini foot pump.
- Repair set for tubeless tyres.
- Indoor motorcycle cover.

Price (incl VAT) includes:

- **Race Package:** Riding Modes Pro (riding modes “Slick” and “User”, Launch Control, Pit Lane Limiter and ABS Pro) and cruise control.
- **Dynamic Package:** DDC, LED turn indicators, HP Shift Assistant Pro and heated grips.

**R243, 990**

Options

- Forged wheels **R20, 000**
- Motorsport colours (Light Whitel-Lupin, Blue Metallic-Racing Red)  
**R4,200**



### 3. The new BMW S 1000 R.

#### **The new BMW S 1000 R – the dynamic roadster in significantly enhanced form.**

In the autumn of 2013, BMW Motorrad launched a dynamic roadster based on the supersports bike S 1000 RR: the S 1000 R. With its well-conceived overall concept of high performance, low weight Race ABS, ASC and riding modes as standard, it set a new benchmark in the dynamic roadster segment. Since then the S 1000 R has attracted numerous enthusiastic fans with its fascinating blend of emotional roadster looks and supersports riding dynamics. BMW Motorrad has now enhanced the innovative naked bike in a range of different aspects.

#### **EU4-compliant 4-cylinder with higher performance, lower weight and HP titanium rear silencer for an even more potent sound and a sporty look.**

The new S 1000 R features the well-proven 999 cc in-line 4-cylinder engine. Having been adapted to meet all EU4 requirements, it now has an output of 121 kW at 11 000 rpm (previously: 118 kW at 11 000 rpm), 3 kW higher than before, and weighs 2 kg less (previously 207 kg DIN unladen weight, now 205 kg DIN unladen weight). The permitted gross weight is still 407 kg, which means an increase in payload of two kilograms.

Further development of the engine has included an optimised intake and exhaust sound. In conjunction with the standard HP titanium rear silencer, the new S 1000 R now produces an even more potent sound while still adhering to the ECE registration directive R41-04.

#### **Standard equipment: ASC, partial integral Race ABS and two riding modes. “Riding Modes Pro” with two additional modes “Dynamic” and “User”, DTC and ABS Pro.**

For optimum adaptation to the rider's personal preferences and area of use, the new S 1000 R now provides two riding modes as well as ASC (Automatic Stability Control) as standard features. With the riding modes “Rain” and “Road”, the S 1000 R can be adapted in power and torque delivery as well as in terms of the control response of the Race ABS and ASC to road surface conditions. This is a significant safety bonus when riding on changing surfaces in particular.

Dynamic Traction Control DTC features the banking sensor familiar from the RR so it is able to offer the highest series-production level of technology currently available for increased riding safety and dynamic performance.

A new element is “Riding Modes Pro” with its two additional riding modes “Dynamic” and the new, configurable “User” mode is ABS Pro, which operates in relation to banking angle. While the existing BMW Motorrad ABS systems already provide a very high degree of safety when braking in a straight line, ABS Pro offers increased safety when braking on bends as well. In this way, the wheels can be prevented from locking, in particular reducing abrupt changes in steering force on shock-braking manoeuvres and stopping the motorcycle from rearing up unintentionally.

The enormous performance spectrum of the “Riding Modes Pro” is rounded off with a Launch Control for active rider support on racing starts and a programmable Pit Lane Limiter to ensure that the set speed limits are adhered to in the pit lane.

**HP Shift Assistant Pro for quick shifting up and down without clutch activation as standard.**

As already available for the RR and the XR, HP Shift Assistant Pro is now also offered for the new S 1000 R. It enables the rider to shift up through the gears without activating the clutch, thereby allowing perfect acceleration virtually without torque interrupt. HP Shift Assistant Pro also allows downshifting without using the clutch. As a result, very fast shifting is possible, clutch activation is reduced to a minimum and any unwanted load change impact on the rear wheel is perceptibly diminished.

The new S 1000 R already meets many riders’ preference for a so-called “reverse shifting pattern” for use on the race track, with the first gear at the top and gears two to six going downwards. An additional mount for the shift linkage on the gear lever makes for a very quick changeover here.

**New rear frame structure with optimised rigidity and flex as well as lighter main frame rear section for increased traction, greater precision and transparent feedback.**

The main suspension element of the new S 1000 R is still an aluminium bridge-type frame comprising four individual cast components welded together with the in-line 4-cylinder engine integrated as a load-bearing element. In the new S 1000 R, however, the main frame has now been redesigned and given a new, lighter rear section. As part of this revision, the entire composite structure of the main frame, main frame rear section and swinging arm has been optimised in terms of rigidity and flex so as to achieve

improved traction while at the same time providing greater precision and even more transparent feedback. The rider footrest system including brake and gear lever was also redesigned in this connection.

### **Light HP forged wheels, new optional equipment and Design Option Wheels standard.**

For further optimisation of the new S 1000 R, BMW Motorrad now offers HP forged wheels as an optional equipment item ex works that enable a weight reduction of 2.4 kg as compared to the standard wheels. The resulting reduction in inertia moment and gyroscopic movement benefits the new S 1000 R in terms of acceleration, deceleration and manoeuvrability. Design Option Wheels, which come standard, further underscore the sporting character of the new S 1000 R with a red decorative line which runs around the rim edge of the aluminium cast wheels.

### **Optimised multifunction instrument cluster with improved readability.**

As before, the new S 1000 R still draws on motor racing elements in terms of its cockpit design, too. An LCD screen in conjunction with an analog engine speed display allows a wealth of information to be displayed to the rider, from gears to the relevant riding mode and lap time recording. There is also an individually programmable shift indicator on board for optimum gear shifting.

For use in the new S 1000 R, the tilt angle of the instrument cluster has been optimised with a view to achieving improved readability, especially of the upper lines of the LCD screen. An additional Malfunction Indicator Light (MIL) ensures the EU4 norm is met, and the display has been extended to include the outdoor temperature.

### **Even more dynamic design with reduced fairing.**

While the aspirations of the S 1000 R as a dynamic roadster have been perfectly captured up to now in the “tail up – nose down” principle with a low front section and steeply rising rear, the new S 1000 R nonetheless adopts an even more strikingly dynamic pose in terms of its styling.

The new S 1000 R is still instantly and unmistakably recognisable as a face that stands out in a crowd. In the front view, the asymmetrical breakdown of the headlamp is the dominating feature along with the large central air inlet, the latter clearly demonstrating that fresh air and the airstream are being converted into forward propulsion and power.

The styling of the new S 1000 R has been further developed in the front section and also in the side trim parts. Straighter and more sharply designed

while also being significantly reduced in size, these give the new S 1000 R an even more athletic and dynamic appearance. The passenger seat pad now also has a new design.

**Vibration-free handlebars for further increased comfort.**

Vibration-free handlebars ensure further increased comfort in the new S 1000 R. These effectively prevent even the finest vibrations from being passed onto the handlebar ends. The upper fork bridge was also newly designed in this connection.

**New, attractive colour concept in three variants.**

The even more dynamic appearance of the new S 1000 R is reflected in a new colour concept comprising three colour schemes: Racing Red non-metallic/Blackstorm metallic, Catalano Grey non-metallic and the limited BMW Motorsport (Lightwhite non-metallic/Lupine Blue metallic/Racing Red non-metallic).

In Racing Red non-metallic/Blackstorm metallic the new S 1000 R highlights its sporty, aggressive character, at the same time underscoring its leading position in terms of performance in the dynamic roadster segment.

Catalano Grey non-metallic gives the new S 1000 R a particularly powerful and potent appearance, interpreting the combination of technology and dynamic performance in a strikingly masculine way.

In the traditional BMW Motorsport colours of Lightwhite non-metallic, Lupine Blue metallic and Racing Red non-metallic, the new S 1000 R combines its athletic genes with a dash of distinctive refinement, giving it a light and agile look.

**Optional equipment and Original BMW Motorrad Accessories for further individualisation.**

The customary extensive BMW Motorrad program of optional equipment and motorcycle accessories are available for further customisation of the new HP forged wheels.

**Original BMW Motorrad Accessories.**

**HP Parts.**

- HP rider footrest system incl. HP Carbon heel guard, adjustable ergonomics.
- HP passenger footrests.

- HP brake/clutch lever, foldable.
- HP hand lever protectors.
- HP engine protectors, left/right.
- HP axle protectors.
- HP chain tensioner.
- HP Carbon wheel cover, front.
- HP Carbon wheel cover, rear.
- HP Carbon windshield.
- HP Carbon fuel tank trim, left/right.
- HP Carbon intake silencer cover.
- HP Carbon pinion cover.
- HP Carbon heel guard.
- HP Carbon chain guard.
- HP lap timer.\*
- HP data logger.\*
- HP tyre heater.
- HP pit carpet.

\* Only for use on the race track.

### **Storage program.**

- Tank rucksack.
- Rear bag, left/right.
- Passenger seat bag.
- Saddlebags.
- Tensioning strap.
- Luggage spider.

### **Design.**

- Plastic hump cover (in body finish).
- Engine spoiler, left/right (in body finish).

### **Ergonomics and comfort.**

- Sport windshield.
- Rider comfort seat.
- Comfort passenger seat.

### **Navigation and communication.**

- BMW Motorrad Navigator V.
- BMW Motorrad Navigator Street.
- BMW Motorrad smartphone cradle.
- Holder for BMW Motorrad navigation system.

- First aid set, large.
- First aid set, small.

Price (incl VAT) and includes:

- **Sports Package:** Dynamic Traction Control (DTC), Riding Modes Pro (riding Modes “Dynamic”, “Dynamic Pro”, ABS Pro) and cruise control.
- **Dynamic Package:** Gear Shift Assist Pro, Dynamic Damping Control (DDC), heated grips and LED turn indicators.

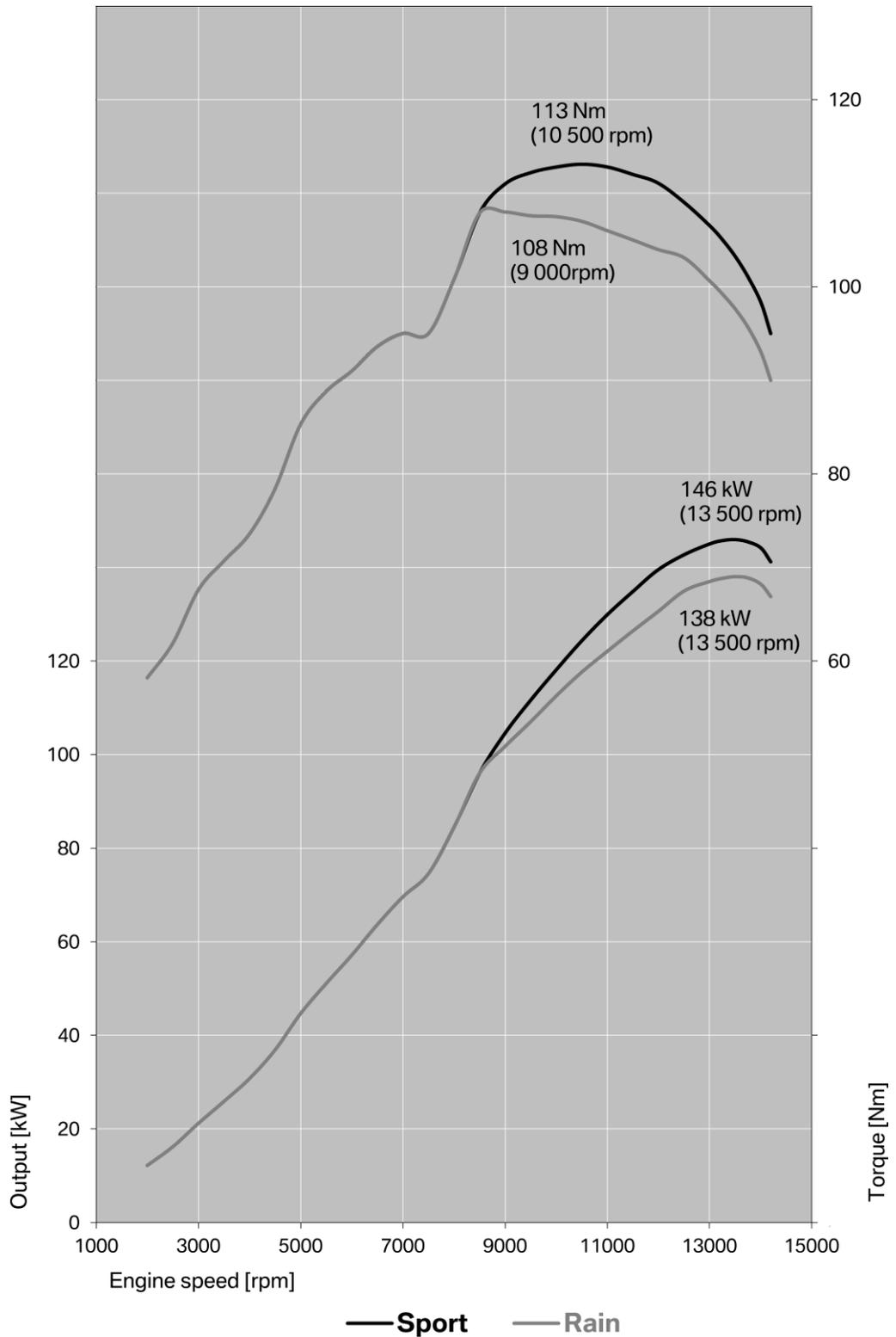
**R203, 990**

Optional:

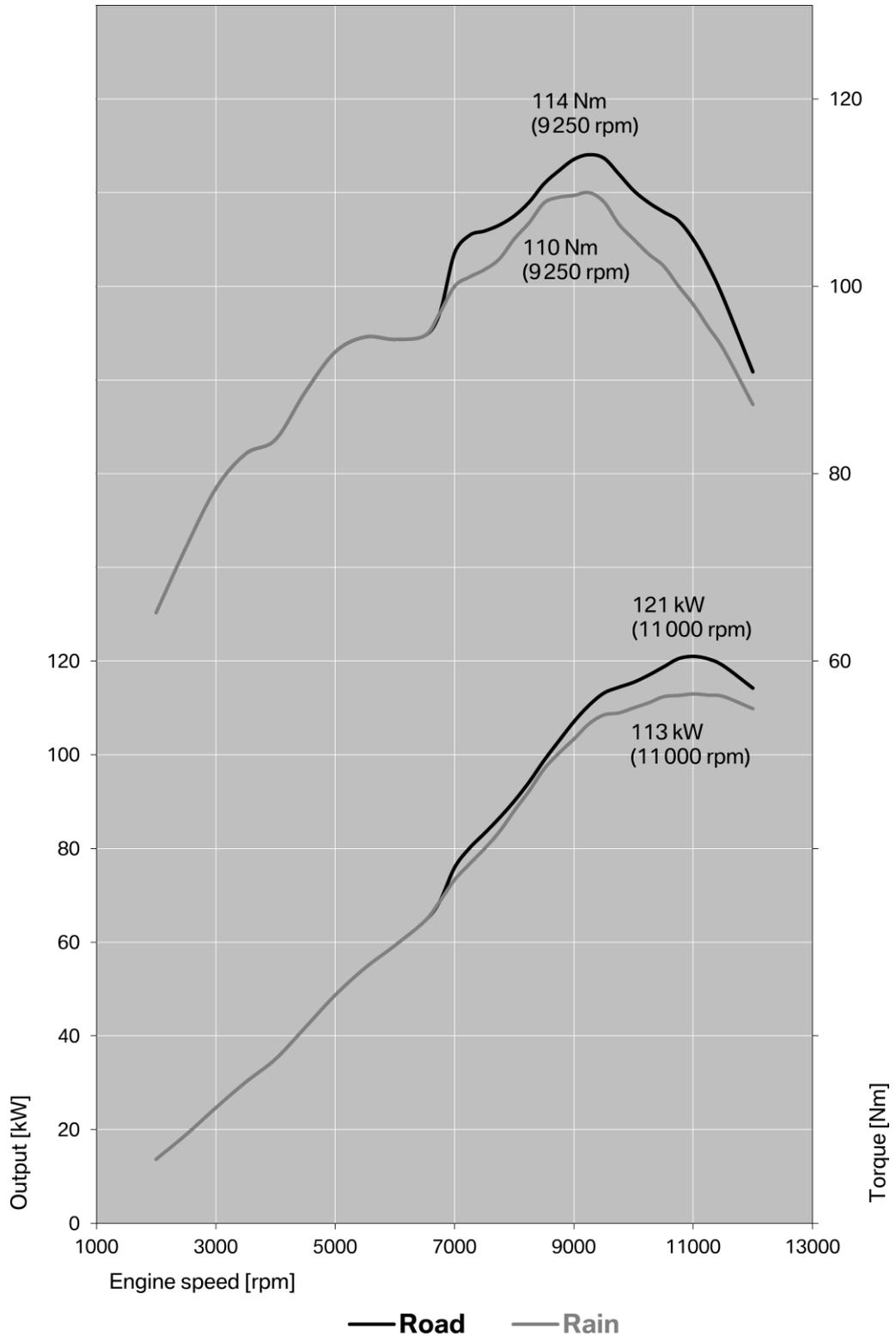
Forged Wheels **R20,000**

Motorsport Colours **R3,500**

## 5. Output and torque. BMW S 1000 RR.



# BMW S 1000 R.



## 5. Technical specifications.



		S 1000 RR	S 1000 R
<b>Engine</b>			
Capacity	cc	999	999
Bore/stroke	mm	80/49.7	
Output	kW/hp	146	121
at engine speed	rpm	13 500	11 000
Torque	Nm	113	114
at engine speed	rpm	10 500	9 250
Type	Water-cooled in-line 4-cylinder engine		
Compression; fuel		13.0:1 / at least premium unleaded (95 RON)	12.0:1 / at least premium unleaded (95 RON)
Valve control	DOHC (double overhead camshaft) Valve activation via individual rocker arms		
Valves per cylinder		4	
Ø intake/outlet	mm	33.5/27.2	
Ø throttle valve	mm	48	
Engine control		BMS-MP	
Emission control		Two closed-loop three-way catalytic converters	Two closed-loop three-way catalytic converters
Homologation standard		EU4	
<b>Electrical system</b>			
Alternator	W	406	406
Battery	V/Ah	12/9, maintenance-free	12/9, maintenance-free
Headlight		Low beam H7 12V 55W	
		High beam H7 12V 55W	
Rear light		LED brake light/rear light	
Starter	kW	0.8	
<b>Power transmission - gearbox</b>			
Clutch		Multi-plate anti-hopping wet clutch, mechanically activated	
Gearbox		Constant mesh 6-speed gearbox	
Primary ratio		1.652	
Gear transmission ratios	I	2.647	
	II	2.091	
	III	1.727	
	IV	1.500	
	V	1.360	
	VI	1.261	
Rear wheel drive		Chain	
Transmission ratio		2.647	
<b>Suspension</b>			
Frame construction type		Aluminium composite bridge frame, self-supporting engine	

		<b>S 1000 RR</b>	<b>S 1000 R</b>
Front wheel control		USD telescopic fork, fork tube diameter 46 mm, spring preload, compression and rebound stage adjustable, DDC optional	DDC optional
Rear wheel control		Aluminium double-sided swinging arm with central spring strut, spring preload, adjustable compression and rebound stage, DDC optional	DDC optional
Spring travel, front/rear		120/120	120/120
Wheel castor	mm	96.5	98.5
Wheelbase	mm	1 438	1 439
Steering head angle	°	66.5	65.2
Brakes	front	Twin disc brake, floating, Ø 320 mm, radial 4-piston fixed calipers	
	rear	Single-disc brake, Ø 220 mm, single-piston floating caliper	Single-disc brake, Ø 220 mm, single-piston floating caliper
ABS		BMW Motorrad Race ABS (partial integral, disengageable), ABS Pro optional	
Traction control		DTC	BMW Motorrad ASC BMW Motorrad DTC optional
Wheels		Die-cast aluminium	
	front	3.50 x 17"	
	rear	6.00 x 17"	
Tyres	front	120/70 ZR17	
	rear	190/55 ZR17	
<b>Dimensions and weights</b>			
Total length	mm	2 050	2 057
Total width with mirrors	mm	826	845
Seat height	mm	815	814
DIN unladen weight, road ready, fully fuelled	kg	208	205
Permitted total weight	kg	407	407
Fuel tank capacity	l	17.5	17.5
<b>Performance figures</b>			
Fuel consumption (WMTC)	l/100km	6.7	
Acceleration	0-100 km/h	s	3.1
Top speed	km/h	200	