



**BMW
MOTORRAD**

RIDER'S MANUAL (US MODEL)

G 310 GS



MAKE LIFE A RIDE

Vehicle data

Model

Vehicle identification number

Color number

First registration

License plate

Retailer data

Contact in Service

Ms./Mr.

Phone number

Retailer's address/Phone (company stamp)

YOUR BMW.

We are pleased that you have chosen a BMW Motorrad vehicle and welcome you to the family of BMW riders. Familiarize yourself with your new vehicle so that you can ride safely and confidently in all traffic situations.

About these operating instructions

Read these operating instructions before starting your new BMW. It contains important notes about operating the vehicle that will enable you to make full use of the technical assets of your BMW.

You will also obtain preventive maintenance and care instructions, which are beneficial to operating and road safety and help retain the value of your vehicle as much as possible.

If you should decide to sell your BMW one day, please remember to hand over these operating instructions as well. They are an important part of your vehicle.

We wish you many miles of safe and enjoyable riding with your BMW

BMW Motorrad.

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QUICK & EASY REFERENCE

This rider's manual has been designed to provide quick and efficient orientation. The quickest way for you to find information on specific topics is to consult the comprehensive index at the end of the rider's manual. If you would like to start with a quick overview of your vehicle, this information has been provided in chapter 2. All preventive maintenance and repair procedures carried out on your motorcycle will be documented in the chapter "Service". Documentation of the maintenance work performed is a prerequisite for generous treatment of claims.

ABBREVIATIONS AND SYMBOLS

 **CAUTION** Hazard with low risk. Failure to avoid this hazard can result in minor or moderate injury.

 **WARNING** Hazard with moderate risk. Failure to avoid this hazard can result in death or serious injury.

 **DANGER** Hazard with high risk. Failure to avoid this hazard results in death or serious injury.

 **ATTENTION** Special instructions and precautionary measures. Non-compliance can cause damage to the vehicle or accessories and warranty claims may be denied as a result.

 Special information on operating and inspecting your motorcycle as well as maintenance and adjustment procedures.

- Instruction.
- » Result of a repair procedure.
-  Reference to a page with more detailed information.
- < Indicates the end of accessory or equipment-dependent information.
-  Tightening torque.
-  Technical data.
- ABS Anti-Lock Brake System.
- NV National-market version.

- OE Optional equipment. BMW Motorrad optional equipment is already completely installed during motorcycle production.
- OA Optional accessories. BMW Motorrad optional accessories can be purchased and retrofitted at your authorized BMW Motorrad retailer.

EQUIPMENT

When you ordered your BMW Motorrad, you chose various custom equipment items. This rider's manual describes optional equipment (OE) and selected optional accessories (OA) offered by BMW. This explains why the manual may also contain descriptions of equipment which you have not ordered. Please note, too, that your motorcycle might not be exactly as illustrated in this manual on account of country-specific differences. If your motorcycle features equipment that is not described here, you can find

these features described in a separate manual.

TECHNICAL DATA

All dimensions, weights and performance data contained in this rider's manual refer to the German Institute for Standardization i.e. DIN (Deutsches Institut für Normung e. V.) and comply with their tolerance specifications.

The technical data and specifications in this rider's manual serve as points of reference.

The vehicle-specific data may vary, for instance due to the selected optional equipment, national-market version or country-specific measuring procedures. Detailed values can be obtained from the registration documents or requested from your BMW Motorrad retailer or other qualified service partner or repair shop. The information on the vehicle documents always takes precedence over the information in this rider's manual.

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CURRENTNESS OF THIS MANUAL

The high safety and quality levels of BMW motorcycles are maintained by constant development work on design, equipment and accessories. For this reason, some aspects of your vehicle may vary from the descriptions in this rider's manual. In addition, BMW Motorrad cannot guarantee the total absence of errors. We hope you will appreciate that no claims can be recognized that are based on the data, illustrations or descriptions in this manual.

ADDITIONAL SOURCES OF INFORMATION

Authorized BMW Motorrad retailer

Your BMW Motorrad retailer is always happy to answer any of your questions.

Internet

The rider's manual for your vehicle, the operating and installation instructions for optional accessories and general BMW Motorrad information related to the technology or other features are available at **bmw-motorrad.com/manuals**.

CERTIFICATES AND OPERATING PERMITS

The certificates for the vehicle and the official operating permits for possible accessories are available at **bmw-motorrad.com/certification**.

DATA MEMORY

General information

Control units are installed in the vehicle. Control units process data received from vehicle sensors, self-generated data or data exchanged between control units, for example. Some control units are required for safe vehicle operation or provide riding assistance, such as rider assistance systems. Control units also make comfort and infotainment functions possible.

Information about the stored or exchanged data can be obtained from the vehicle manufacturer, such as in the form of a separate booklet.

Personal references

Every vehicle is marked with a unique vehicle identification number. Depending on the country, the vehicle owner can be identified using the

vehicle identification number and license plate and with the help of the relevant authorities. There are also other ways to trace data obtained from the vehicle back to the rider or vehicle owner, such as via the ConnectedDrive Account that was used.

Data privacy laws

In accordance with applicable data privacy laws, vehicle users have certain rights over the vehicle manufacturer or company that collects or processes personal data.

Vehicle users have the right to obtain comprehensive information without charge from the locations that store the vehicle user's personal data.

These locations may be:

- The vehicle manufacturer
- Qualified service partners
- Specialist workshops
- Service providers

Vehicle users may request information about the type of personal data that is stored, the purpose for which the data will be used and the source of the data. This information can only be obtained by a registered owner or a person with written

proof authorizing use of the vehicle.

The right to information also includes information related to data transmitted to other companies or locations.

The vehicle manufacturer's website contains the appropriate privacy policy notices. The privacy policy notices contain information on the right to delete or correct data. The vehicle manufacturer also provides the manufacturer contact information and the contact information of the data security officer on the Internet.

The vehicle owner can have a BMW Motorrad retailer or other qualified service partner or specialist workshop read out the data stored in the vehicle for a fee if required.

The vehicle data is read out via the vehicle's legally mandated diagnostic socket.

Legal requirements for the disclosure of data

The vehicle manufacture is required by the law applicable in this context to provide authorities with the data stored by the manufacturer. The provision of this data within the scope required is on a case-by-case

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basis, for instance to clarify a criminal offense.

Government agencies are authorized by the law applicable in this context to read out the data from the vehicle themselves in individual cases.

Operating data in the vehicle

Control units process data so that the vehicle can run.

Examples of this include:

- Status messages from the vehicle and its individual components, such as wheel RPM, wheel centrifugal velocity and deceleration
- Ambient conditions, such as temperature

The data is processed only in the vehicle itself and is usually temporary. The data is not stored beyond the period in which the vehicle is operating. Electronic components such as control units contain components for storing technical information. This may be information about the vehicle's condition, component load, events or faults stored temporarily or permanently.

This information generally documents the condition of a component, module, system or the surrounding area; for example:

- Operating conditions of system components, such as fill levels and tire pressure
- Malfunctions and faults in key system components, such as lights and brakes
- Vehicle responses in specific riding situations, such as the activation of riding dynamics systems
- Information about events causing damage to the vehicle

The data is necessary for providing control unit functions. In addition, it is used by the vehicle manufacturer to detect and eliminate malfunctions as well as to optimize vehicle functions.

The majority of this data is temporary and is processed only within the vehicle itself. Only a small amount of event-driven data is stored in the event data recorder and fault memory.

When a vehicle is serviced, such as for repairs, servicing processes, warranty cases and quality assurance measures, this technical information can be read out from the vehicle together with the vehicle identification number.

The information can be read out by a BMW Motorrad retailer or other qualified service partner or specialist workshop. The vehicle's legally mandated diagnostic socket is used to read out the data.

The data is collected, processed and used by the respective service network locations. The data documents the vehicle's technical states and helps with fault finding, compliance with warranty obligations and quality improvements.

The manufacturer also has product monitoring obligations arising from product liability law. The vehicle manufacturer requires technical data from the vehicle in order to fulfill these obligations. The data from the vehicle can also be used to verify customer warranty and guarantee claims. The fault memory and event data recorder in the vehicle can be reset by a BMW Motorrad retailer or other qualified service partner or specialist workshop as part of a repair or servicing.

Data input and data transfer in the vehicle

General information

Depending on the equipment, comfort settings and individualized settings in the vehicle can be saved and changed or reset at any time.

It is possible to introduce data into the vehicle entertainment and communication system via a smartphone, for instance.

Depending on the individual equipment, this includes:

- Multimedia data, such as music for playback
- Address book data for use in combination with a communication system or integrated navigation system
- Entered destinations
- Data about the use of Internet services. This data can be stored locally in the vehicle or is on a device connected to the vehicle, such as a smartphone, USB stick or MP3 player. If this data is saved in the vehicle, it can be deleted at any time.

This data is transmitted to third parties only upon personal request as part of the use of online services. The data transmitted depends on the selected

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settings when using the services.

Incorporating mobile end devices

Depending on the equipment, mobile end devices connected to the vehicle, such as smartphones, are controlled using the vehicle's operating elements.

This enables audio and visual output from mobile end devices through the multimedia system. At the same time, certain information is transmitted to the mobile end device. This includes, for instance, position data and other general vehicle information, depending on the type of incorporation, and makes it possible to optimize the use of selected apps, such as those for navigation or audio playback.

The way the data is processed further is determined by the provider of the particular app used. The range of possible settings depends on the particular app and the operating system of the mobile end device.

Services

General information

If the vehicle has a mobile phone connection, this connection makes it possible to exchange data between the vehicle and other systems. The mobile phone connection is made possible through the vehicle's transmitter and receiver or via personally integrated mobile end devices such as smartphones. Online functions, as they are called, are used over this mobile phone connection. These include online services and apps provided by the vehicle manufacturer or other providers.

Vehicle manufacturer services

In the case of the vehicle manufacturer's online services, the particular functions are described at the appropriate location, such as in the rider's manual or on the manufacturer's website. The relevant legal information on data privacy is also provided there. Personal data may be used in order to provide online services. The data is exchanged over a secure connection, i.e. with the vehicle manufacturer's IT systems which are intended for this purpose.

Any collection, processing and use of personal data that goes beyond the provision of services take place only as permitted by law, on the basis of a contractual agreement or as a result of consent. It is also possible to have the entire data connection activated or deactivated. This is not the case for legally prescribed functions.

Services of other providers

When using the online services of other providers, these services are subject to the responsibility and the term of data protection and use of the respective provider. The vehicle manufacturer has no control over the content exchanged via these services. Information about the type, scope and purpose of collecting and using personal data as part of third-party services can be obtained from the particular service provider.

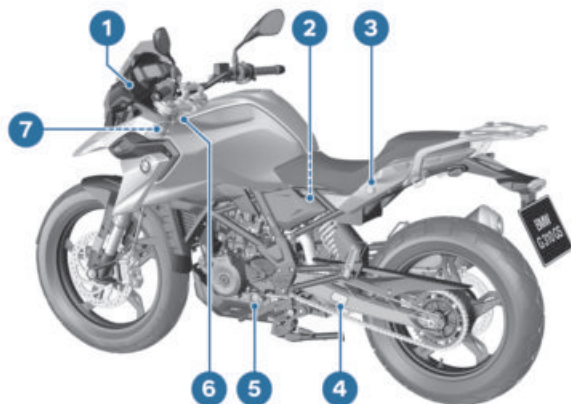
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OVERALL VIEW, LEFT SIDE



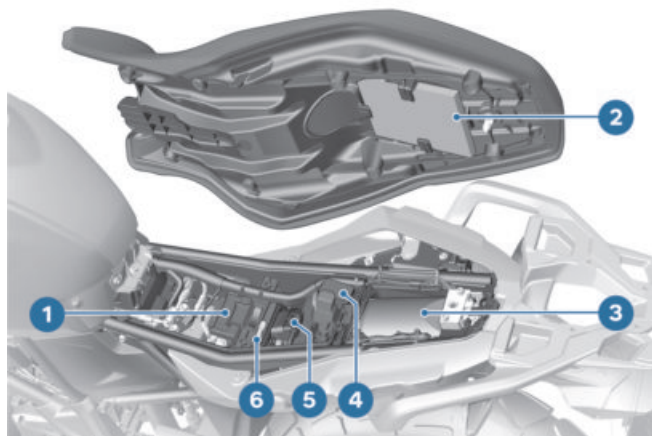
- 1 -with additional onboard socket^{OA}
Power socket (➡ 107)
- 2 Adjusting ring for spring preload (behind the frame cover) (➡ 45)
- 3 Seat lock (➡ 40)
- 4 Chain adjustment values (➡ 94)
- 5 Engine oil indicator (➡ 74)
- 6 Nameplate (on the left steering head)
- 7 Tire pressure table (on the left fork leg) (➡ 84)

OVERALL VIEW, RIGHT SIDE

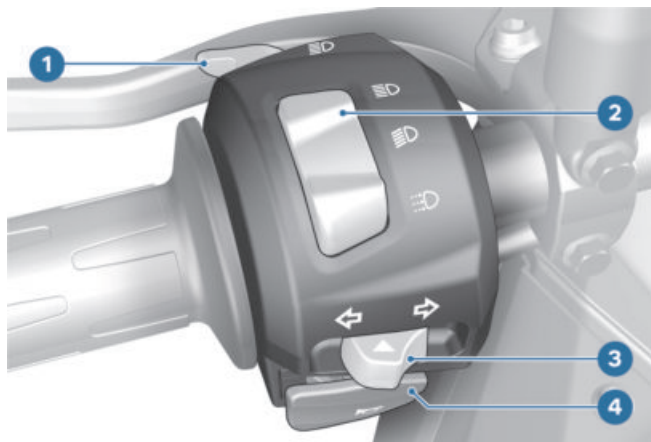
- 1 Fuel filler opening
(60)
- 2 Brake fluid reservoir for front wheel brake (79)
- 3 Vehicle identification number
- 4 Coolant expansion tank
(83)
- 5 Oil filler opening (75)
- 6 Brake fluid reservoir, rear
(behind the frame cover)
(80)
- 7 Luggage rack (50)

16 OVERVIEWS

UNDERNEATH THE SEAT



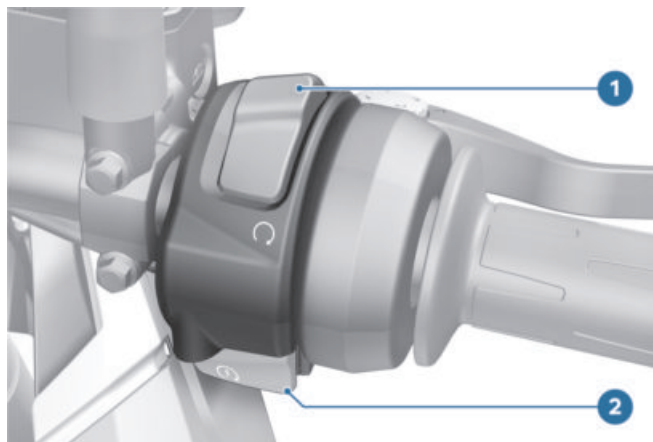
- 1 Battery (➡ 98)
- 2 Rider's manual (➡ 4)
- 3 Onboard vehicle tool kit
(➡ 72)
- 4 Fuses (➡ 101)
- 5 Diagnostic connector
(➡ 102)
- 6 Gripping clamp

MULTIFUNCTION SWITCH, LEFT

- 1 Headlight flasher ( 36)
- 2 Light rocker switch ( 36)
- 3 Turn signals ( 36)
- 4 Horn

18 OVERVIEWS

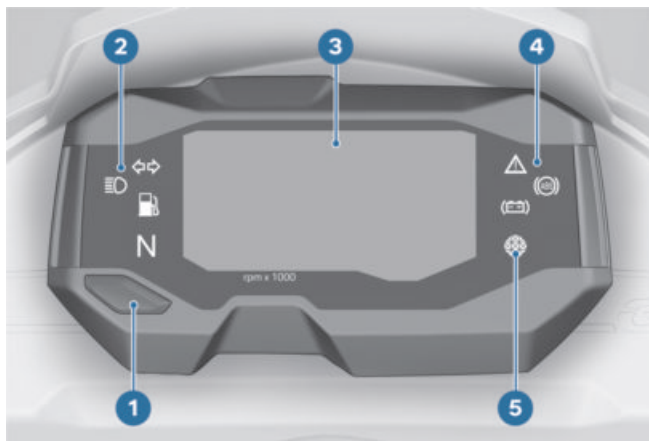
MULTIFUNCTION SWITCH, RIGHT



1 Emergency-off switch
( 35)

2 Starter button ( 35)

INSTRUMENT CLUSTER



- 1** Button (➡ 38)
- 2** Indicator lights (➡ 22)
- 3** Multifunction display
(➡ 23)
- 4** Warning lights (➡ 22)
- 5** Photodiode for brightness
control in the multifunc-
tion display
Engine speed warner
(➡ 56)

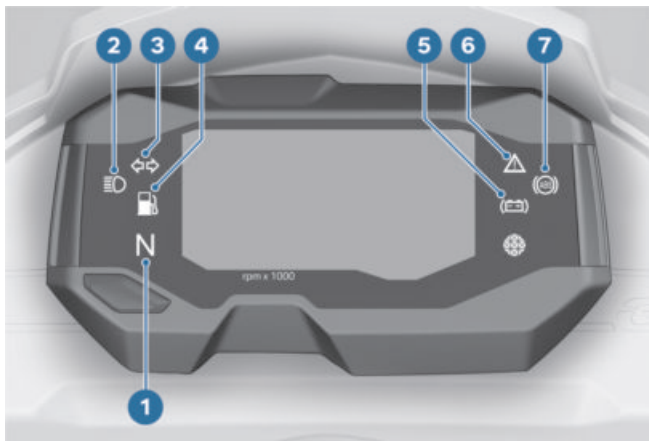
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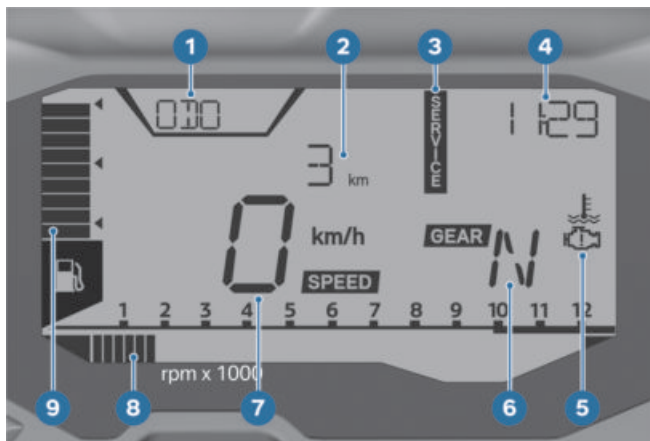
22 DISPLAYS

WARNING AND INDICATOR LIGHTS



- 1 Neutral indicator light
- 2 High beam indicator light
(➡ 36)
- 3 Turn signal indicator light
(➡ 36)
- 4 Low-fuel warning light
(➡ 28)
- 5 Warning light for vehicle
voltage (➡ 26)
- 6 General warning light
(➡ 24)
- 7 ABS warning light
(➡ 28)

MULTIFUNCTION DISPLAY



- 1 On-board computer (➡ 38)
- 2 Indication range for values
- 3 Service display (➡ 29)
- 4 Clock (➡ 39)
- 5 Warning symbols (➡ 24)
- 6 Gear, "N" indicates neutral
- 7 Speed
- 8 Rotational speed (RPM) (➡ 30)
- 9 Fuel level (➡ 28)

24 DISPLAYS

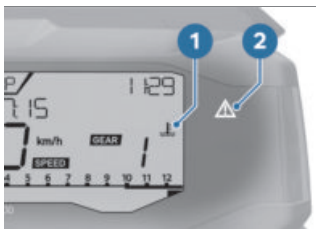
INDICATOR LIGHTS

Layout

Warnings are displayed by means of the corresponding warning lights.

If several warnings are present, all corresponding warning lights and warning symbols are displayed.

You will find an overview of the potential warnings on the following pages.



Warnings that do not have their own warning light are shown as a warning symbol **1** in the multifunction display in conjunction with the general warning light **2**. Depending on how urgent the warning is, the general warning lamp will either light up or flash red or yellow.

Overview of warning indicators

Indicator and warning lights	Display text	Meaning
 lights up.		Voltage of the vehicle electrical system too low (▮▮▮ 26)
 flashes red.	 is displayed.	Coolant temperature too high (▮▮▮ 26)
 lights up yellow.	 is displayed.	Engine in emergency operation mode (▮▮▮ 26)
 lights up yellow.	 flashes.	Engine warning (▮▮▮ 27)
 flashes.		ABS self-diagnosis not completed (▮▮▮ 28)
 lights up.		ABS error (▮▮▮ 28)
 lights up.		Fuel down to reserve (▮▮▮ 28)
 lights up yellow.	SERVICE appears continuously on the display.	Service appointment has passed (▮▮▮ 28)

26 DISPLAYS

Voltage of the vehicle electrical system too low



lights up.



WARNING

Failure of vehicle systems

Accident hazard

- Do not continue riding.

Possible cause:

Battery is faulty.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Coolant temperature too high



flashes red.



is displayed.



ATTENTION

Riding with overheated engine

Engine damage

- Be sure to observe the measures listed below.

Possible cause:

Coolant level is too low.

- Checking coolant level (➡ 83).

If coolant level is too low:

- Topping up coolant (➡ 83).

Possible cause:

The radiator is dirty.

- Clean radiator (➡ 118).

Possible cause:

The fan or fan control is faulty.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Possible cause:

The coolant circuit is faulty.

- If possible, allow the engine to cool down.
- Only ride in partial load range.
- If the coolant temperature is often too high, have the fault rectified as soon as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.

Engine in emergency operation mode



lights up yellow.



is displayed.

**WARNING****Unusual handling when the engine is in emergency operation**

Accident hazard

- Avoid rapid acceleration and passing maneuvers.

Possible cause:

The engine control unit has diagnosed a fault which impairs the engine performance or throttle response. The engine is running in the emergency-operation mode. In exceptional cases, the engine stops and can no longer be started.

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

» It is possible to continue riding, however the engine performance and engine speed range may be impaired and not function as normal.

Engine warning

lights up yellow.



flashes.

**WARNING****Damage to engine during emergency operation**

Accident hazard

- Drive slowly and avoid rapid acceleration and passing maneuvers.
- If possible, have the vehicle picked up and the fault eliminated at a specialist workshop, preferably an authorized BMW Motorrad retailer.

Possible cause:

The engine control unit has diagnosed a fault, which can lead to a severe secondary fault.

The engine is in the emergency-operation mode.

- Avoid high load and engine speed ranges if possible.
- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

» Continued driving is possible, however it is not recommended.

28 DISPLAYS

ABS self-diagnosis not completed



flashes.

Possible cause:



ABS self-diagnosis routine not completed

The ABS function is not available, as the self-diagnosis function has not been completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel sensors: min 3 mph (min 5 km/h))

- Ride off slowly. It must be noted that the ABS function is not available until the self-diagnosis has been completed.

ABS error



lights up.

Possible cause:

The ABS control unit has detected an error. The ABS function is not available at all or is restricted.

- It is possible to continue riding the motorcycle if you make allowance for the failed or limited ABS function. You should also take account of the additional information on

situations that can lead to an ABS fault (► 67).

- Have the malfunction corrected as soon as possible at an authorized service facility, preferably an authorized BMW Motorrad Retailer.

Fuel down to reserve



lights up.



WARNING

Rough engine running or switching off of the engine due to a fuel shortage

Accident hazard, damage to catalytic converter

- Do not drive to the extent that the fuel tank is completely empty.

Possible cause:

The fuel has all been used up; only the fuel reserve remains.



Fuel reserve

Approx. 1.1 quarts (Approx. 1 l)

- Refueling (► 60).

Service appointment has passed



lights up yellow.

SERVICE appears continuously on the display.
Possible cause:

The driving performance or the date indicate that servicing is due.

- Have your motorcycle serviced regularly by a specialist workshop, preferably an authorized BMW Motorrad retailer.

- » The motorcycle remains operationally safe and is suitably road-safe.

- » The value of the motorcycle is preserved to the greatest possible extent.

SERVICE DISPLAY

Remaining distance until service is due and service due date

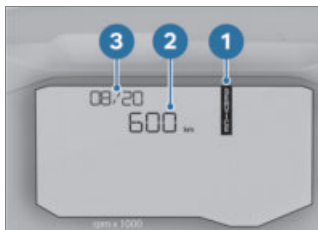


If service is due within 600 miles (1000 km), the **SERVICE** lettering **1** and the remaining distance covered **2** will be displayed and counted

down in steps of 100 miles. The display is shown for a short time following the Pre-Ride-Check.



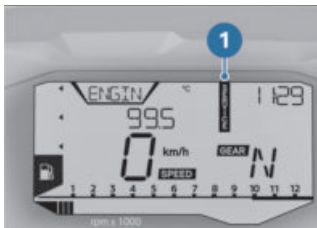
If servicing is due in less than one month, the **SERVICE** inscription **1** and the service due date **3** are shown on the display.



If both the distance covered and the service due date indicate that servicing is due, the **SERVICE** inscription **1**, the remaining distance **2** and the service due date **3** are shown on the display.

30 DISPLAYS

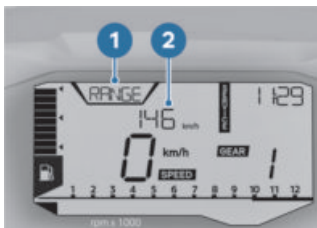
Continuous SERVICE inscription



If the service appointment date has lapsed or the remaining distance until the service is due has been exceeded, **SERVICE 1** is shown continuously during operation.

FUEL RESERVE

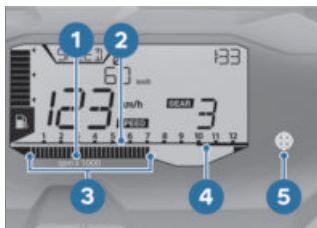
Range



The range **RANGE 1** indicates how far **2** you can ride with the remaining fuel. This distance is calculated on the basis of average consumption and the fuel quantity on board.

- When the motorcycle is propped on its side stand, the slight angle of inclination means that the sensor cannot register the fuel quantity correctly. For this reason, the range is only recalculated when the side stand is folded in.
- The travel range automatically appears in the multifunction display after the fuel reserve level is reached.
- After refueling, the range is recalculated if the fuel quantity is greater than the fuel reserve.
- The calculated range is only an approximate figure.

TACHOMETER



- 1 Unit for tachometer: 1000 RPM
- 2 Low engine speed range
- 3 Segments for tachometer
- 4 High engine speed range

- 5** Engine speed warner
( 56).

OPERATION

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34 OPERATION

IGNITION

Ignition keys

You are provided with 2 vehicle keys.

The same key fits the following locks:

- Ignition switch/steering lock
- Fuel filler cap
- Passenger seat lock

Locking the steering lock



ATTENTION

Handlebars turned in wrong direction when motorcycle propped on side stand.

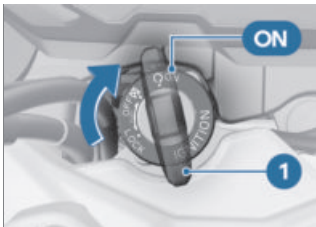
Component damage caused by tipping over

- On level ground, always turn the handlebars to the left to set the steering lock.
 - Otherwise the angle of the ground determines whether the handlebars are set to the left or right.
-
- If the slope of the road permits, turn the handlebars to the left.



- Press the ignition key **1** into the steering lock and turn to the **LOCK** position while moving the handlebars slightly.
 - » Ignition, lights and all electrical circuits are switched off.
 - » Steering lock is locked.
 - » The ignition key can be removed.

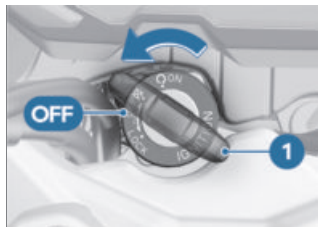
Turning on the ignition



- Insert ignition key **1** into ignition switch/steering lock and turn to the **ON** position.
 - » Parking lights, low beam headlight, and all functional circuits are switched on.
 - » Engine can be started.

- » Pre-Ride-Check is carried out. (▶▶ 54)
- » ABS self-diagnosis is performed (▶▶ 55)

Turning off the ignition



- Turn the ignition key **1** to the **OFF** position.
- » Steering lock is not locked.
- » The ignition key can be removed.

Emergency-off switch



A = Operation mode



B = Emergency off
(engine is off)

Emergency off or operation mode

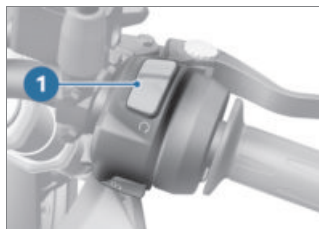


WARNING

Operation of the emergency ON/OFF switch when riding

Danger of falling due to blocking of rear wheel

- Do not operate the emergency ON/OFF switch when riding.



- Push the emergency-off switch **1** forwards to turn off the engine quickly and easily.
- Push the emergency-off switch **1** back to start the engine.

LIGHTS

Low beams and parking lights

The parking lights come on automatically when the ignition is switched on.

36 OPERATION

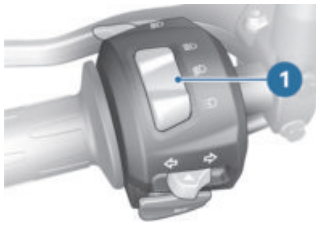
 The parking light is a load on the battery. Turn on the ignition only for a limited period.

The low beams come on automatically under the following conditions:

- If the engine was started.
- If the vehicle is pushed while the ignition is on.

 With the engine switched off, you can switch on the lights by switching on the high-beam headlight with the ignition switched on or by operating the headlight flasher.

Operating high beams



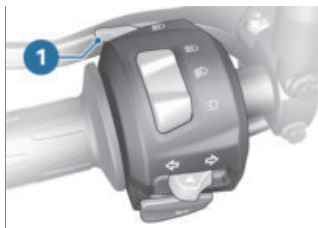
- Press switch **1** forwards.
 - » High beams are switched on.



- Move switch **1** to the center position.
 - » The blue high beam indicator light goes out.

» Low beams are turned on.

Operating headlight flasher

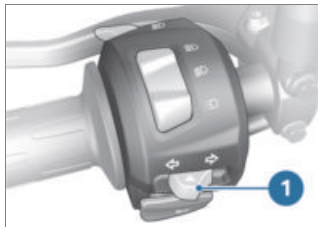


- Press button **1**.
 - » The high beams are switched on for the duration of the operation.

TURN SIGNALS

Operating turn indicators

- Turning on the ignition ( 34).



- Press switch **1** to the left.
 - » Left turn signal is turned on.



- Press switch **1** to the right.

» Right turn signal is switched on.



blinks.

- Move switch **1** to center position to switch off turn indicators.

38 OPERATION

MULTIFUNCTION DISPLAY

SELECTING THE DISPLAY



Requirement

The vehicle is stationary.

- Turn on the ignition.
 - » The trip computer is displayed.
- Repeatedly short-press button **1** until desired value is displayed.

Possible displays:

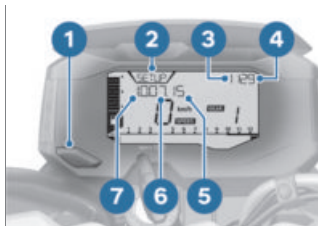
- Total distance traveled: ODO
- Trip distance 1: TRIP1
- Trip distance 2: TRIP2
- Coolant temperature: ENGIN
- Range: RANGE

- Average fuel consumption: CONS1
- Current fuel consumption: CONSA
- Average speed: SPEED
- Date: DATE
- Settings: SETUP

TIME AND DATE

Setting the clock

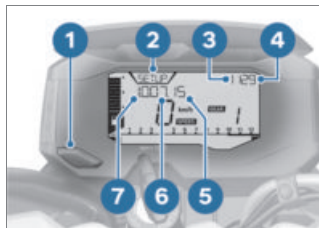
- Selecting the display (▮▮▮ 38).
- » **SETUP 2** is displayed.



- Press and hold button **1**.
 - » The hours **3** flash.
- Briefly press button **1** to increment the hours **3**.
- When the hours have been set as desired, press and hold button **1**.
 - » The minutes **4** flash.
- Briefly press button **1** to increment the minutes.
- When the minutes have been set as desired, press and hold button **1**.
 - » The time has not yet been saved!
- Setting the date (▮▮▮ 39).

Setting the date Requirement

Clock has been set.



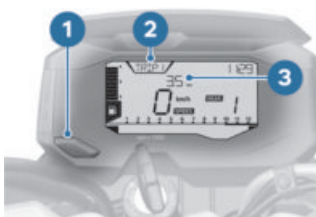
- Briefly press button **1** to increment the month **7**.
- When the month has been set as desired, press and hold button **1**.
 - » Day **6** flashes.
- Briefly press button **1** to increment the day.
- When the day has been set as desired, press and hold button **1**.
 - » Year **5** flashes.
- Briefly press the button **1** to increment the year.
- When the year has been set as desired, press and hold button **1**.
 - » The clock and date settings have been saved.

RESETTING THE TRIP DISTANCE

- Selecting the display (▮▮▮ 38).

40 OPERATION

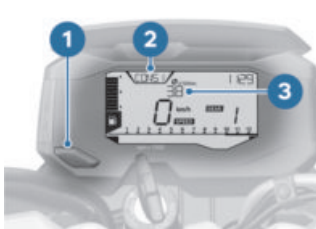
- » The trip distance to be re-set **2** has been selected.
- TRIP1 or TRIP2 is displayed.



- Press and hold button **1** until value **3** has been reset.

RESETTING AVERAGE VALUES

- Selecting the display (III 38).
- » The average value to be re-set **2** has been selected.
- "CONSI" or "SPEED" is indicated.

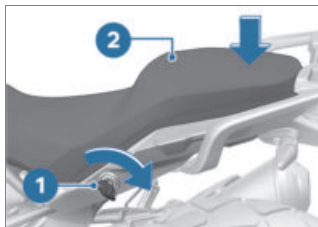


- Press and hold button **1** until value **3** has been reset.

SEAT

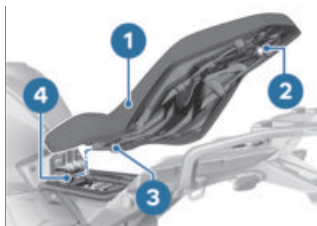
Removing the seat

- Park the motorcycle, making sure the ground is level and firm.



- Push down on rear part of seat **2** to relieve the strain on the lock and at the same time unlock the seat lock with ignition key **1** clockwise.
- Lift the seat **2** at the rear and remove it.
- Lay the seat **2** on a clean surface.

Installing seat



- Insert seat **1** with the mount **3** centered into the battery tray **4**.
- Put on detent pin **2** and press into the lock.

SETTING

05

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SPRING PRELOAD	45
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44 SETTING

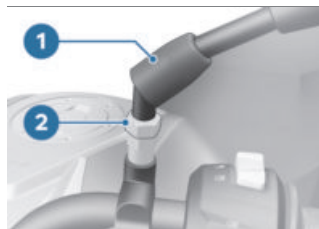
MIRRORS

Adjusting mirrors



- Move mirrors into desired position by rotating them.

Adjusting mirror arm



- Slide up protective cap **1** for screw connection on mirror arm.
- Loosen lock nut **2**.
- Turn mirror arm into desired position.
- Tighten lock nut to specified torque while holding mirror arm in place.



Right mirror (lock nut)
to adapter

M10 x 1.25

16 lb/ft (22 Nm) (Left-hand
thread)



Left mirror (lock nut) to
adapter

M10 x 1.25

16 lb/ft (22 Nm)

- Slide protective cap **1** over
screw connection.

HEADLIGHTS

Headlight adjustment, right-hand/left-hand traffic

This motorcycle's headlight features a symmetrical low beam. No special measures are required prior to operating the motorcycle in a country where traffic travels on the side of the road opposite to that of your home country (left-hand drive to right-hand drive or vice versa).

Headlight range and spring preload

The headlight range generally remains constant due to the adjustment of the spring preload to the load status. The headlight beam throw is correctly adjusted at the factory.

 If there are doubts as to the correct headlight range, have the adjustment checked by a specialized workshop, preferably by an authorized BMW Motorrad retailer.

Adjusting the headlight range Requirement

Despite adjustment of the spring preload, oncoming traffic is still blinded when the vehicle has a high payload.



- Slacken screw **1**.
- Swivel the headlight to adjust the headlight range.
- Tighten screw **1** while holding the headlight.

If the motorcycle is ridden again with lower payload:

- Have the headlight base setting restored by a repair shop, preferably an authorized BMW Motorrad retailer.

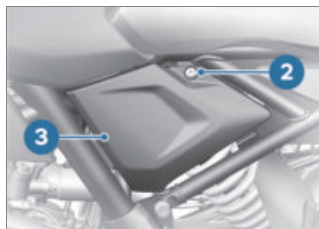
SPRING PRELOAD

Setting

The spring preload must be adjusted to the weight of the rider, passenger and load. Higher weight requires a higher spring preload, lower weight requires a lower spring preload.

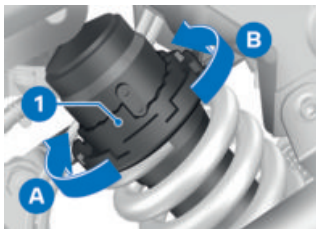
Adjusting the spring preload at the rear wheel

- Park the motorcycle, making sure the ground is level and firm.



- Remove screw **2**.
- Pull frame cover **3** out of the grommets and take off.

46 SETTING



- To increase the spring preload, turn adjustment ring **1** in arrow direction **A** using the onboard vehicle tool kit.
- To reduce the spring preload, turn adjustment ring **1** in arrow direction **B** using the on-board vehicle tool kit.



Basic setting of spring preload, rear

Stage 1 (One-up without load)

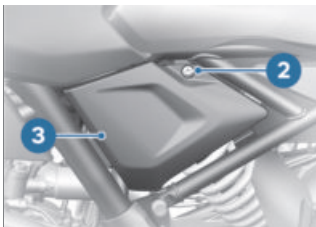
Stage 5 (One-up with load)

Stage 10 (Two-up and load)



- Insert frame cover **3** into grommets **4**.

- Align frame cover **3** with push-in nut **5**.



- Install frame cover **3** with screw **2**.

BRAKES

Setting the brake lever



WARNING

Modified position of the brake fluid reservoir

Air in the brake system

- Do not twist the handlebar fitting or the handlebars.

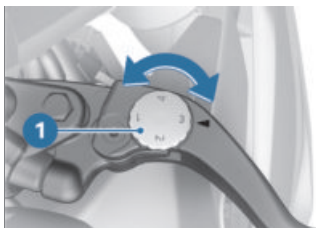


WARNING

Adjusting the brake lever while driving

Risk of accident

- Do not attempt to adjust the brake lever unless the motorcycle is at a standstill.

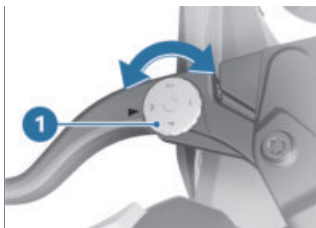


- Turn the adjustment screw **1** into the desired position by applying gentle pressure from the rear.

 The adjustment screw is easier to turn when the brake lever is pressed forward.

» Adjustment options:

- From position 1: shortest distance between handlebar grip and brake lever
- To position 4: longest distance between handlebar grip and brake lever



- Turn the adjustment screw **1** into the desired position by applying gentle pressure from the rear.

 The adjusting screw is easier to turn when the clutch lever is pressed forward.

» Adjustment options:

- From position 1: smallest distance between handlebar grip and clutch lever
- To position 4: largest distance between handlebar grip and clutch lever

CLUTCH

Adjusting the clutch lever



WARNING

Adjusting the clutch lever while driving

Accident hazard

- Adjust the clutch lever when the motorcycle is stationary.

RIDING

06

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50 RIDING

SAFETY INSTRUCTIONS

Rider's equipment

Do not ride without the correct clothing! Always wear:

- Helmet
- Rider's suit
- Gloves
- Boots

This applies even to short journeys, and to every season of the year. Your authorized BMW Motorrad retailer will be happy to advise you and has the correct clothing for every purpose.



WARNING

Seizure of loose textile fabrics, luggage items or straps in open running rotating vehicle parts (wheels, prop shaft)

Risk of accident

- Make sure that no loosely worn textile fabrics can get caught in open, running and rotating vehicle parts.
- Keep luggage items as well as tension belts and lashing straps away from open, running and rotating vehicle parts.

Vehicle load



WARNING

Reduced riding stability caused by overloading and uneven loading

Accident hazard

- Do not exceed the gross weight limit and observe the loading information.

- Set spring preload to suit gross vehicle weight.
 - with topcase^{OA}
- Observe the maximum payload and maximum speed; also see the Accessories chapter (► 110).



Payload of Topcase

max 11 lbs (max 5 kg)◁

- with topcase Light^{OA}
- Observe the maximum payload and maximum speed; also see the chapter "Accessories" (► 112).

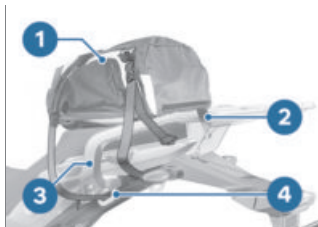


Payload of Topcase

max 7 lbs (max 3 kg)◁

- Make sure that weight is uniformly distributed between right and left.

- Store heavy luggage items at the bottom.



- Lash the luggage **1** down securely.
- Thread the retaining straps **2** through the eyelets **4** of the luggage rack **3** and tighten.

Speed

If you ride at high speed, always bear in mind that various boundary conditions can adversely affect the handling of your motorcycle:

- Wrong spring system setting
- Unevenly distributed load
- Loose clothing
- Insufficient tire inflation pressure
- Tire tread in poor condition
- Etc.

Maximum speed



DANGER

Maximum speed of the motorcycle is higher than the permissible maximum rated speed of the tires.

Risk of accident due to tire damage at high speed.

- Observe the maximum permissible speed for the tyres.

Risk of poisoning

Exhaust gas contains carbon monoxide, which is colorless and odorless but highly toxic.



WARNING

Harmful exhaust gas

Danger of suffocation

- Do not inhale exhaust fumes.
- Do not run the engine in closed rooms.



WARNING

Inhalation of vapors that are harmful to health

Damage to health

- Do not inhale vapors from operating fluids and plastics.
- Only use the vehicle outdoors.

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Risk of burning



CAUTION

Intense heating up of engine and exhaust system while riding

Burn hazard

- After parking the motorcycle, make sure that no persons or objects come into contact with the engine and exhaust system.



WARNING

Opening the radiator cap

Risk of burning

- Do not open the radiator cap when it is hot.
- Check the coolant level exclusively at the expansion tank and top up if necessary.

Catalytic converter

There is a danger of overheating and damage if misfiring causes unburned fuel to enter the catalytic converter.

The following must be observed:

- Do not run the fuel tank dry.
- Do not run the engine with the spark plug connector removed.

- Stop the engine immediately if it misfires.
- Use unleaded fuel only.
- Comply with all specified maintenance intervals.



ATTENTION

Unburned fuel in the catalytic converter

Damage to catalytic converter

- Note the points listed for protection of the catalytic converter.

Danger of overheating



ATTENTION

Engine idling for a lengthy period while at a standstill

Overheating due to insufficient cooling; in extreme cases vehicle fire

- Do not allow the engine to idle unnecessarily.
- After starting, ride off immediately.

Modifications



ATTENTION

Modifications to the motorcycle (e.g. engine control unit, throttle valves, clutch)

Damage to the affected parts, failure of safety-relevant functions, expiration of warranty

- Do not make any modifications.

REGULAR CHECK

Observe checklist

- Use the following checklist to check your motorcycle at regular intervals.

Always before riding off

- Check brake operation (▮▮▮ 76).
- Check that the lights and signaling equipment function.
- Check clutch function (▮▮▮ 81).
- Check tire tread depth (▮▮▮ 84).
- Check tyre pressure (▮▮▮ 84).
- Check that the luggage is secure.

At every third refueling stop

- Check the engine oil level (▮▮▮ 74).
- Check the front brake pad thickness (▮▮▮ 76).

- Check the rear brake pad thickness (▮▮▮ 77).
- Check the front brake fluid level (▮▮▮ 79).
- Check the rear brake fluid level (▮▮▮ 80).
- Check coolant level (▮▮▮ 83).
- Lubricate chain (▮▮▮ 94).
- Check chain tension (▮▮▮ 94).

STARTING

Starting the engine

- Turn on the ignition.
 - » Pre-Ride-Check is carried out. (▮▮▮ 54)
 - » ABS self-diagnosis is performed (▮▮▮ 55)
- Shift to neutral.



lights up.



is displayed.

- Alternative: If a gear is engaged, pull the clutch.

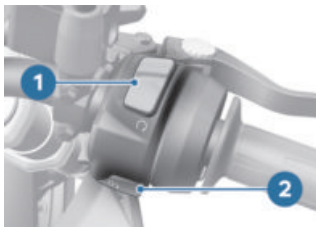


You cannot start the motorcycle with the side stand extended and a gear engaged. The engine will switch itself off if it is started with the transmission in neutral and then a gear is engaged before retracting the side stand.

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 Hold the throttle grip closed, or only operate it slightly.

- In the case of cold start or under cold temperatures: Pull back clutch lever.



- Set the emergency-off switch **1** to operation.



Switch is in operation mode.

- Press the starter button **2**.



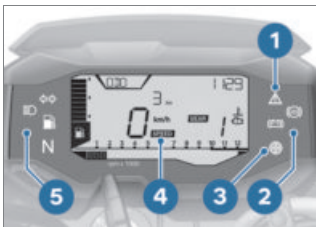
Engine starts.

» Consult the troubleshooting chart if the engine refuses to start. (122)

Pre-Ride-Check

The instrument cluster runs a test, the Pre-Ride-Check, of the warning and indicator lights and the display after the ignition has been switched on. Starting the engine before the test is completed will cancel the remainder of the test.

Phase 1



The general warning light **1** lights up red.

The indicator lights **5** light up.

The last active display is shown on the screen **4**.

The engine speed warner **3** lights up.

The warning lights **2** light up.

Phase 2

The general warning light **1** changes from red to yellow.

Phase 3

The warning and indicator lights and the engine speed warner go out or adopt their functions for operation.

If service is due, this is shown briefly on the screen.

If one of the warning or indicator lights does **not** light up:



WARNING

Defective warning lights

Lack of display of malfunctions

- Check the display of all indicator and warning lights.
- Have the malfunction corrected as soon as possible at a repair shop, preferably an authorized BMW Motorrad retailer.

ABS self-diagnosis

The self-diagnosis routine is determining whether BMW Motorrad ABS is ready for operation. The self-diagnosis routine launches automatically when you switch on the ignition.

Phase 1

- » Check on system components monitored by diagnostic system while motorcycle is parked.



flashes.

Phase 2

- » Check wheel sensors while starting off.



flashes.

ABS self-diagnosis completed

- » The ABS indicator and warning light goes out.



ABS self-diagnosis routine not completed

The ABS function is not available, as the self-diagnosis function has not been completed. (The motorcycle must reach a specified minimum speed before the system can check operation of the wheel sensors: min 3 mph (min 5 km/h))

If an ABS error is displayed after the ABS self-diagnosis is completed:

- It remains possible to continue riding. It must be noted that the ABS function is not available.
- Have the malfunction corrected as soon as possible at an authorized specialist workshop, preferably an authorized BMW Motorrad retailer.

BREAKING IN

Engine

- In the period preceding the initial inspection attempt to change rpm and engine load as frequently as possible, avoiding extended periods at constant rpm.
- Choose curvy, slightly hilly sections of road if possible.
- Observe the engine run-in speeds.



Engine run-in speed

<6000 min⁻¹ (Odometer reading 0...186 miles (0...300 km))

No full throttle (Odometer reading 0...621 miles (0...1000 km))

- Observe mileage, after which the running-in check should be performed.



Mileage until running-in check

311...746 miles (500...1200 km)

Brake pads

New brake pads have to bedded in before they can achieve their optimum frictional force. This initial reduction in braking efficiency can be compensated

for by exerting greater pressure on the brake levers.



WARNING

New brake pads

Extension of the braking distance, accident hazard

- Brake early.

Tyres

New tires have a smooth surface. This must be roughened by riding in a restrained manner at various lean angles until the tires are run in. Only once the surface has been roughened can the tires achieve maximum grip.



WARNING

Loss of adhesion of new tires on wet roads and at extreme angles

Accident hazard

- Always think well ahead and avoid extreme angles.

ENGINE SPEED WARNER

Requirement

The vehicle is not yet in 6th gear and the maximum acceleration is to be reached.



- Accelerate.



The engine speed warning **1** lights up when the following engine speed is reached:

$>10000 \text{ min}^{-1}$

- Ensure that the following RPM is not exceeded:



Maximum engine speed

max 10800 min^{-1}

- Shift up to the next gear.

BRAKES

How do you achieve the shortest braking distance?

The dynamic load distribution between the front and rear wheel changes during braking. The heavier you brake, the greater the weight transfer to the front wheel. Increases in the load on an individual wheel are accompanied by a rise in the effective brake force that the wheel can provide.

To achieve the shortest braking distance, the front wheel brake must be rapidly pulled to the point where ABS activates, the pressure point must be held and the rear wheel brake must be activated at the same time. This procedure provides ideal utilization of the dynamic load increase to the front wheel. The clutch should also be engaged at the same time. Locking up of the front wheel is prevented by BMW Motorrad ABS.

With the frequently instructed "emergency braking", where brake pressure is generated as quickly as possible and with great force, dynamic load distribution lags behind the progressive increases in deceleration rate and the braking force cannot be completely transferred to the road. Due to the missing wheel load, the ABS must prevent a tendency of the front wheel to lock up with even minimal braking effect. This results in a reduced braking effect.

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Descending mountain passes



WARNING

Braking should be done predominantly using the rear wheel brake when riding on downhill routes

Loss of braking effect, destruction of the brakes due to overheating

- Apply the front and rear wheel brake and use the engine brake.



DANGER

Driving with overheated brakes

Risk of accident due to brake failure

- Adapt driving style.
- Use the engine brake to avoid frequent braking.



WARNING

Failure to observe maintenance intervals

Accident hazard

- Comply with the maintenance intervals applicable for the brakes.

Wet, soiled brakes

Moisture and dirt on the brake discs and the brake pads result in a decrease in the braking effect.

Delayed or poorer braking effect must be expected in the following situations:

- When riding in the rain and through puddles.
- After washing the vehicle.
- When riding on roads spread with salt.
- After working on the brakes due to oil or grease residues.
- When riding on soiled roads or offroad.



WARNING

Poorer braking action due to moisture and dirt

Accident hazard

- Brake until brakes are dry or clean; clean if necessary.
- Brake early until the full braking action is available again.

PARKING THE MOTORCYCLE

Side stand

- Turn off engine.

**ATTENTION****Poor ground conditions in area of stand**

Component damage caused by tipping over

- Always check that the ground under the stand is level and firm.

**ATTENTION****Loading of the side stand with additional weight**

Component damage caused by tipping over

- Do not sit on the motorcycle when it is parked on the side stands.
- Fold out side stand and park motorcycle.
- If the slope of the road permits, turn the handlebars to the left.
- On slopes point the motorcycle uphill and engage 1st gear.

REFUELING**Fuel grade****Requirement**

For optimum fuel consumption, fuel should be sulfur-free or with the lowest sulfur content possible.

**ATTENTION****Refueling with leaded fuel**

Damage to catalytic converter

- Do not refuel with leaded gasoline or gasoline with metallic additives, e.g. manganese or iron.

**ATTENTION****Use of Ethanol E85 as fuel**

Damage to the engine and fuel supply

- Do not refuel with E85, i.e. fuel with an ethanol content of 85 %, or with Flex Fuel.

- Pay attention to the fuel grade.



Fuel additives clean the fuel injection system and the combustion area. Fuel additives should be used when refueling with low-quality fuels or during longer periods of downtime. Your authorized BMW Motorrad retailer can

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provide you with more detailed information.



Recommended fuel
quality

Regular unleaded (max.
15 % ethanol, E15)
87 AKI (91 ROZ/RON)
87 AKI

Refueling procedure



WARNING

Fuel is highly flammable

Fire and explosion hazard

- Do not smoke. Never bring a naked flame near the fuel tank.



ATTENTION

Component damage

Component damage due to overfilled fuel tank

- If the fuel tank is overfilled, the excess fuel will flow into the carbon canister and lead to component damage there.
- Only fill the fuel tank to the lower edge of the fuel filler neck.



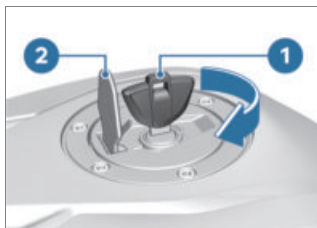
ATTENTION

Contact of fuel and plastic surfaces

Damage to surfaces (become unattractive or cloudy)

- Immediately clean plastic surfaces after contact with fuel.

- Make sure the ground is level and firm and put the motorcycle on its side stand.



- Open the protective flap **2**.
- Unlock the fuel tank cap in a clockwise direction using the ignition key **1** and open it.



- Refuel with a fuel meeting the specifications listed above until the maximum fuel level is the lower edge of filler neck **3**. While doing so, pay attention to the bridge in the fuel filler neck and use caution so that fuel does not spray out.

 If refueling is carried out after running on fuel reserve, the resulting filling capacity must be greater than the fuel reserve so that the new fill level is detected and the fuel reserve indicator light is switched off.

 The "usable fuel quantity" specified in the technical data is the fuel quantity, which can be refueled if the fuel tank was completely emptied, i.e., if the engine dies off due to lack of fuel.



Usable fuel quantity

Approx. 3 gal (Approx. 11.5 l)



Fuel reserve

Approx. 1.1 quarts (Approx. 1 l)

- Press the fuel tank cap down firmly to lock it.
- Remove the ignition key and close the protective flap.

SECURING MOTORCYCLE FOR TRANSPORTATION

- Protect all components where tensioning straps are routed from being scratched. For example, use adhesive strips or soft cloths.

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ATTENTION

Motorcycle tips to the side when raising

Component damage caused by tipping over

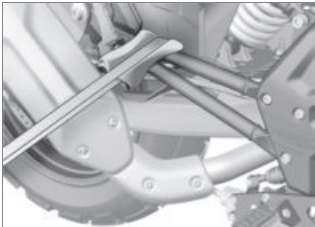
- Secure the motorcycle against tipping to the side, preferably with the assistance of a second person.
- Push motorcycle onto transport surface, and do not place on side stand.



ATTENTION

Pinching of components

Component damage

- Do not pinch components, e.g. brake lines or wiring harnesses.
 - Lay tensioning straps at front over lower fork bridge on both sides.
 - Tension straps downward.
- 
- A close-up black and white photograph of a motorcycle's rear section, showing the rear wheel, suspension, and passenger footrests. A strap is shown being fastened to a bracket on the footrest.

- Fasten rear straps on both sides to the brackets for the passenger footrests and then tighten them.
- Tighten all tensioning straps evenly.

- » The vehicle is pulled down against its springs with the suspension compressed strongly.

TECHNOLOGY IN DETAIL

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GENERAL NOTES

More information on the topic of technology is available at bmw-motorrad.com/technik.

ANTI-LOCK BRAKE SYSTEM

How does the ABS work?

The maximum braking force that can be transferred to the road surface is partially dependent on the friction coefficient of the road surface. Gravel, ice, snow and wet roads offer a considerably poorer friction coefficient than a dry, clean asphalt surface. The poorer the friction coefficient of the road surface is, the longer the braking distance will be.

If the maximum transferable brake force is exceeded when the driver increases the brake pressure, the wheels begin to lock and driving stability is lost. A fall can occur. Before this situation can occur, ABS intervenes and adapts brake pressure to the maximum transferable brake force, so the wheels continue to turn and driving stability is maintained irrespective of the condition of the road surface.

What happens when rough roads are encountered?

Bumpy or rough roads can briefly lead to a loss of contact between the tires and the road surface, until the transferable braking force is reduced to zero. If braking is carried out in this situation, ABS must reduce the brake pressure to ensure driving stability when restoring contact to the road. At this point in time, the ABS must assume extremely low friction coefficients (gravel, ice, snow) so that the running wheels turn in every imaginable case and the driving stability is ensured. After detecting the actual conditions, the system adjusts the optimum brake pressure.

Lifting off rear wheel

Even during severe braking, a high level of tire grip can mean that the front wheel does not lock up until very late, if at all. Consequently, ABS does not intervene until very late, if at all. Under these circumstances the rear wheel can lift off the ground, and the outcome can be a highsidings situation in which the motorcycle can flip over.

**WARNING****Lifting off of the rear wheel due to heavy braking**

Accident hazard

- When braking heavily, bear in mind that the ABS control cannot always be relied on to prevent the rear wheel from lifting off the ground.

What are the design characteristics of the BMW Motorrad ABS?

The BMW Motorrad ABS ensures riding stability on any surface within the limits of riding physics.

From a speed greater than 2.5 mph (4 km/h), the BMW Motorrad ABS can ensure riding stability on any surface within the limits of riding physics. At lower speeds, the BMW Motorrad ABS cannot provide optimal support on all surfaces due to system limitations.

The system is not optimized for the special conditions encountered under the extreme conditions of competitive off-road and racetrack use.

Special situations

To detect the tendency of the wheels to lock up, the speeds of the front and rear wheel are compared. If the system registers implausible data for an extended period of time it will deactivate the ABS as safety precaution and a display will alert you to an ABS error. A self-diagnosis routine must be completed before the error will be displayed.

Apart from problems on the BMW Motorrad ABS, unusual riding conditions can also cause a fault message to be generated.

Should a fault code occur due to one of the driving conditions described above, the ABS function can be reactivated by switching the ignition off and then on again.

Unusual riding conditions:

- Heating up on an auxiliary stand at idle speed or with gear engaged.
- Rear wheel locked-up for a longer period of time by engine brake, e.g. when riding down steep hills.

68 TECHNOLOGY IN DETAIL

How important is regular maintenance?



WARNING

Brake system not regularly serviced

Accident hazard

- To ensure that the BMW Motorrad ABS is in a properly maintained condition, it is vital that the specified service intervals are kept to.

Reserves for safety

The potentially shorter stopping distances which BMW Motorrad ABS permits must not be used as an excuse for a careless driving style.

ABS is primarily a means of ensuring a safety margin in genuine emergencies.



WARNING

Braking in curves

Risk of accident despite ABS

- The rider is always responsible for adapting his/her driving style.
- Do not reduce the additional safety function with careless riding or unnecessary risks.

MAINTENANCE

08

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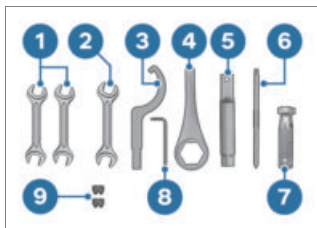
GENERAL NOTES

The "Preventive maintenance" chapter describes work involving the checking and replacement of wearing parts that can be performed with a minimum of effort.

If specific tightening torques are to be taken into account for installation, these are listed. An overview of all required tightening torques is contained in the chapter "Technical data".

Special tools and thorough specialized knowledge are required to carry out some of the work. If you are in doubt, consult a repair shop, preferably your authorized BMW Motorrad retailer.

ONBOARD VEHICLE TOOL KIT



- 1** Open-ended wrench
Wrench size: 12/13 mm
-Adjusting chain tension (➡ 93).
- 2** Open-ended wrench
Key range: 10/16 mm
-Adjusting mirror arm (➡ 44).
-Removing the battery (➡ 100).
- 3** Hook wrench
-Adjusting the spring preload at the rear wheel (➡ 45).
- 4** Box wrench
Wrench size: 27 mm
-Removing the rear wheel (➡ 90).
-Adjusting chain tension (➡ 93).
- 5** Extension for hook wrench and ring wrench

- 6 Reversible screwdriver insert with Phillips heads
- 7 Screwdriver handle
- 8 Allen screw
5 mm
-Adjusting the headlight range (➡ 45).
- 9 Spare fuses
Miniature fuses, 7.5 A and 15 A
-Insert the reserve fuses into the fuse box.

FRONT WHEEL STAND

Attaching front wheel stand



ATTENTION

Use of BMW Motorrad front wheel stand without additional center or auxiliary stand

Component damage cause by tipping over

- Place the motorcycle on a center or auxiliary stand before lifting the front wheel with the BMW Motorrad front-wheel stand.
- Place motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad rear-wheel stand.

- Mounting the rear-wheel stand (➡ 74).



- For a description of the correct installation, please refer to the instructions for the front-wheel stand.
- BMW Motorrad offers a suitable auxiliary stand for each motorcycle. Your authorized BMW Motorrad retailer will be very happy to assist you in choosing the suitable auxiliary stand.

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REAR-WHEEL STAND

Mounting the rear-wheel stand



- For a description of the correct installation, please refer to the instructions for the rear-wheel stand.
- BMW Motorrad offers a suitable auxiliary stand for each motorcycle. Your authorized BMW Motorrad retailer will be very happy to assist you in choosing the suitable auxiliary stand.

ENGINE OIL

Checking the engine oil level

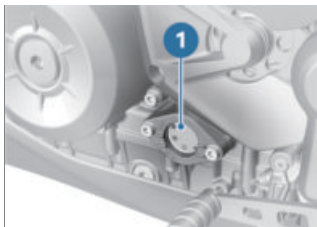


ATTENTION

Misinterpretation of the oil filling quantity, as the oil level is temperature-dependent (the higher the temperature, the higher the oil level)

Engine damage

- Only check the oil level after a longer journey or when the engine is warm.
- Place motorcycle on an auxiliary stand; BMW Motorrad recommends the BMW Motorrad auxiliary stand.
- Alternative: Hold the motorcycle upright, ideally with help from another person.



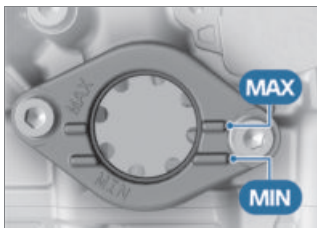
ATTENTION

Lateral tipping of the vehicle

Component damage caused by tipping over

- Secure the vehicle from tipping over laterally, preferably with the support of a second person.

- Read oil level on the display **1**.



Specified level of engine oil

Between **MIN** and **MAX** mark
(Engine is at operating temperature, motorcycle is up-right)



Engine oil, quantity for topping up

0.2 quarts (0.18 l) (Difference between **MIN** and **MAX**)

If the oil level is below the minimum mark **MIN**:

- Topping up the engine oil (→ 75).

If oil level is above maximum mark **MAX**:

- Have the oil level corrected at a specialist workshop, preferably an authorized BMW Motorrad retailer.



BMW Motorrad recommends occasionally checking the engine oil after a journey of min 31 miles (min 50 km) in order to reduce the environmental impact.

Topping up the engine oil

- Park motorcycle. Ensure that the ground is firm and level.
- Wipe the area around the oil filler opening clean.

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- Remove cap **1** of oil filler opening.



ATTENTION

Use of too little or too much engine oil

Engine damage

- Always make sure that the oil level is correct.

- Top up the engine oil to the specified level.



Engine oil, quantity for topping up

0.2 quarts (0.18 l) (Difference between **MIN** and **MAX**)

- Checking the engine oil level (► 74).
- Install cap of oil filler opening **1**.

BRAKE SYSTEM

Check brake operation

- Operate the brake lever.
 - » There is a clearly perceptible pressure point.
- Actuate the footbrake lever.
 - » There is a clearly perceptible pressure point.

If no clear pressure points are perceptible:



ATTENTION

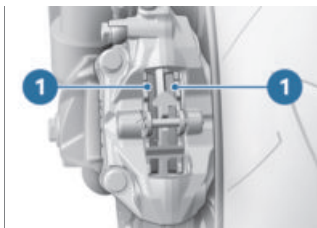
Improper working on the brake system

Endangering of the operating safety of the brake system

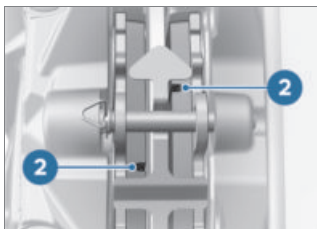
- Have all work on the brake system carried out by experts.
- Have the brakes checked at an authorized workshop, preferably an authorized BMW Motorrad retailer.

Checking the front brake pad thickness

- Park the motorcycle, making sure the ground is level and firm.



- Turn the handlebars to the right.
» The brake pads **1** can be seen from the rear.
- Conduct a visual inspection of the brake pad thickness.



- Check the wear marks **2**.



min 0.04 in (min 1.0 mm)
(Only friction material without carrier plate. The wear marks (grooves) must be clearly visible.)

If the wear marks are no longer visible:



WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.

- Have brake pads renewed at a repair shop, preferably an authorized BMW Motorrad retailer.
- BMW Motorrad recommends only installing genuine brake pads from BMW Motorrad.

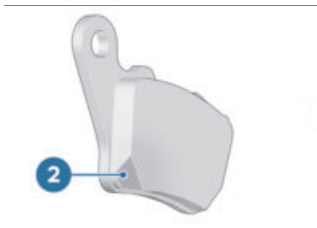
Checking the rear brake pad thickness

- Park the motorcycle, making sure the ground is level and firm.

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- Conduct a visual inspection of the brake pad thickness. Direction of view: from rear, looking at brake pads **1**.



- Inspect the chamfer **2**.



Rear brake-pad wear limit

min 0.04 in (min 1.0 mm)
(Friction lining without carrier plate. The wear marks must be clearly visible.)

If the chamfer is no longer visible:



WARNING

Dropping below the minimum pad thickness

Reduced braking action, damage to the brake

- In order to ensure the operating reliability of the brake system, make sure that the brake pads are not worn beyond their minimum thickness.

- Have brake pads renewed at a repair shop, preferably an authorized BMW Motorrad retailer.

Checking the front brake fluid level



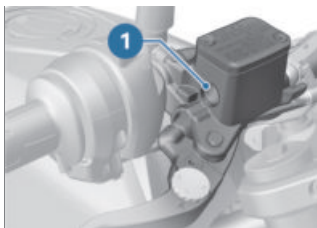
WARNING

Insufficient or contaminated brake fluid in the brake fluid reservoir

Considerably reduced braking power caused by air, dirt or water in the brake system

- Stop riding immediately until fault is rectified.
- Check brake fluid level regularly.
- Make sure that the lid of the brake fluid reservoir is cleaned before opening.
- Make sure that brake fluid is used from a sealed container only.

- Hold the motorcycle upright, making sure that the ground is firm and level.



- Align the handlebars so that the brake fluid reservoir is positioned horizontally.
- Check the brake fluid level in the sight glass **1**.

 The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.



Front brake fluid level

Brake fluid, DOT4

The brake fluid level must not fall below the **MIN** mark. (Brake fluid reservoir horizontal)

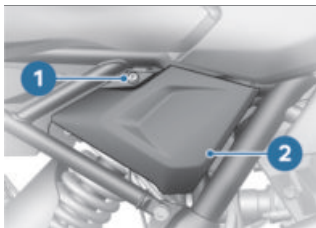
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If the brake fluid level falls below the approved level:

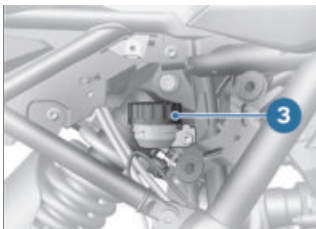
- Have the fault rectified as soon as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.

Checking the rear brake fluid level

- Hold the motorcycle upright, making sure that the ground is firm and level.



- Remove screw **1**.
- Pull frame cover **2** out of the grommets and take off.



- Read out the brake fluid level at the brake fluid reservoir **3**.



The brake fluid level in the brake-fluid reservoir drops due to brake pad wear.



Rear brake fluid level

Brake fluid, DOT4

The brake fluid level must not fall below the **MIN** mark. (Brake fluid reservoir horizontal)

If the brake fluid level falls below the approved level:



WARNING

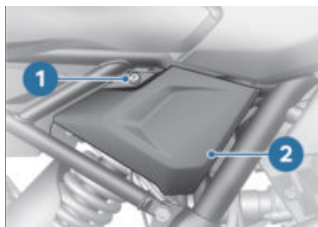
Insufficient or contaminated brake fluid in the brake fluid reservoir

Considerably reduced braking power caused by air, dirt or water in the brake system

- Stop riding immediately until fault is rectified.
 - Check brake fluid level regularly.
 - Make sure that the lid of the brake fluid reservoir is cleaned before opening.
 - Make sure that brake fluid is used from a sealed container only.
- Have the fault rectified as soon as possible by a specialist workshop, preferably an authorized BMW Motorrad retailer.



- Insert frame cover **2** into grommets **4**.
- Align frame cover **2** with push-in nut **5**.



- Install frame cover **2** with screw **1**.

CLUTCH

Check clutch function

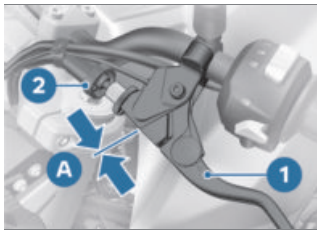
- Pull back the clutch lever.
- » The clutch must fully disengage. Signs that the clutch is fully disengaged:
 - Easy to change gear
 - Easy to switch to idling

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If this is not the case, or there is a lack of power transmission after the clutch has engaged:

- Have the clutch checked by an authorized workshop, preferably an authorized BMW Motorrad retailer.

Checking clutch lever play



- Loosen the cover **2**.
- Operate clutch lever **1** until resistance is felt.
- In this position, measure the clutch lever play **A** between the clutch lever fitting and the clutch lever.



Clutch lever play

0.04...0.08 in (1...2 mm) (on the handlebar fitting, handlebars in straight-ahead position, with cold engine)

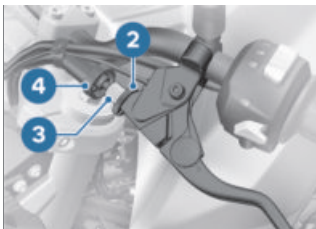
If clutch lever play is outside tolerance:

- Adjusting clutch lever play (▮▮▮ 82).

If clutch lever play is within tolerance:

- Install the cover **2**.

Adjusting clutch lever play



- Loosen the cover **4**.
- Loosen the knurled nut **2**.
- Lift the clutch cable to relieve the adjusting sleeve **3**.
- To increase clutch lever play: Turn the adjusting sleeve **3** into the handlebar fitting.
- To reduce clutch lever play: Turn the adjusting sleeve **3** out of the handlebar fitting.
- Lock the adjusting sleeve **3** using the knurled nut **2**.
- Checking clutch lever play (▮▮▮ 82).
- Repeat these steps until the clutch lever play is correctly adjusted.
- Install the cover **4**.

COOLANT

Checking coolant level

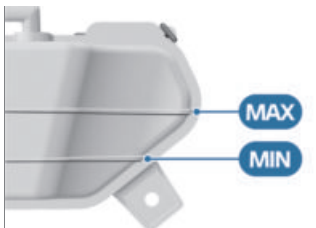
Requirement

The engine is cold.

- Hold the motorcycle upright, ideally with help from another person.



- Read off the coolant level on the coolant expansion tank **1**. Direction of view: from front looking at inside of right-hand side panel.



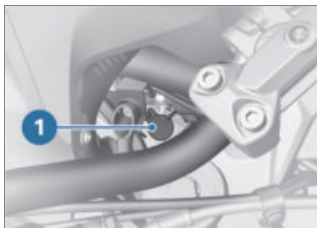
 Coolant, specified level

Between **MIN** and **MAX** marks on the expansion tank (Engine is cold, motorcycle is upright.)

If the coolant level drops below the permitted level:

- Topping up coolant (→ 83).

Topping up coolant



- Turn handlebars to left.
- Open the cap **1** of the coolant expansion tank.
- Add coolant up to specified level. To do this, use a funnel with a filler neck or hose.

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Coolant top-up quantity

Antifreeze and anti-corrosion agent

150 ml (Difference between the **MIN** and **MAX** markings)

- Checking coolant level (III 83).

When the coolant meets the specified level:

- Close the cap of the coolant expansion tank.

TIRES

Checking tyre pressure



WARNING

Incorrect tire inflation pressure

Poorer handling characteristic of motorcycle, reduction of tire service life

- Ensure proper tire inflation pressure.



WARNING

Valve inserts open of their own accord at high speeds

Sudden loss of tire inflation pressure

- Use valve caps with rubber sealing ring and screw on firmly.

- Park motorcycle, ensuring that support surface is firm and level.
- Check tyre pressures against data below.



Front tire pressure

24.7 psi (1.7 bar) (with cold tires, one-up and two-up riding)



Rear tire pressure

27.6 psi (1.9 bar) (with cold tires, one-up and two-up riding)

If tyre pressure is too low:

- Correct tyre pressure.

Check tire tread depth



WARNING

Riding with heavily worn tyres

Risk of accident due to poorer rideability

- If necessary, replace the tyres before the legally specified minimum tread depth is reached.

- Park motorcycle on a level, firm surface.

- Measure tire tread depth in main tread grooves with wear indicators.



Tread wear marks are integrated into the main grooves on every tire. If the tire tread has worn down to the level of the marks, the tire is completely worn. The locations of the marks are indicated on the edge of the tire, e.g. by the letters TI, TWI or by an arrow.

When the minimum tread depth is reached:

- Replace the worn tires.

RIMS

Checking wheel rims

- Park motorcycle, ensuring that support surface is firm and level.
- Subject wheel rims to visual inspection for defects.
- Have damaged rims checked and, if necessary, replaced by a specialist service facility, preferably an authorized BMW Motorrad retailer.

WHEELS

Affect of wheel size on ABS

The wheel sizes are very important for the ABS. The diameter and width of the wheels stored in the control unit have particular significance as the basis for all necessary calculations. Any change to these sizes, caused for example by a switch to wheels other than the standard installed ones, can seriously affect handling.

The sensor rings are essential for correct wheel speed detection; they too must match the built-in control systems and consequently cannot be replaced.

If you want to convert your motorcycle to different wheels, please contact a specialist workshop, preferably a BMW Motorrad retailer. In some cases, the data stored in the control units can be adapted for the new wheel sizes.

Removing the front wheel

- Place the motorcycle on an auxiliary stand.
BMW Motorrad recommends you use the BMW Motorrad rear-wheel stand.

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- Mounting the rear-wheel stand (▮ 74).
- Raise the front of motor-cycle, preferably using a BMW Motorrad front wheel stand, until the front wheel rotates freely.
- Attaching front wheel stand (▮ 73).



ATTENTION

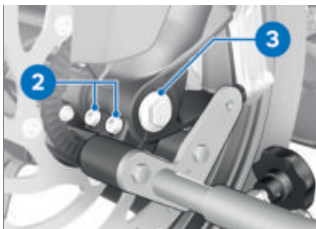
Unintentional pressing together of brake pads

Component damage when mounting the brake caliper or when pressing the brake pads apart

- Do not actuate the brake when the brake disc is removed.
- Push apart the brake pads a little.



- Loosen clamping bolts 1.



- Remove screw 3.
- Loosen clamping bolts 2.
- Slightly press the quick-release axle inward for a better grip on the right side.



- Pull out the quick-release axle 4 while supporting the front wheel.



ATTENTION

Improper removal of the front wheel

Damage to the wheel speed sensor

- When rolling out the front wheel, pay attention to the wheel speed sensor.

- Place front wheel down and roll it forward out of the front suspension. When doing so, make sure that the wheel speed sensor is not damaged.



- Remove the spacer bushing **5** from the wheel hub.

Installing the front wheel

WARNING

Use of a wheel which does not comply with series specifications

Malfunctions in ABS operation

- Please see the information on the effect of wheel sizes on the ABS system at the beginning of this chapter.

ATTENTION

Tightening of screwed connections with incorrect tightening torque

Damage or loosening of screwed connections

- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.



- Lubricate the contact surface on the spacer bushing **5**.

 Lubricant

Optimoly TA

- Insert the spacer bushing **5** into the wheel hub on the left side with the seat facing outwards.

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ATTENTION

Front wheel installation opposite the running direction
Accident hazard

- Observe running direction arrows on tire or rim.



ATTENTION

Improper installation of the front wheel

Damage to the wheel speed sensor

- When rolling in the front wheel, pay attention to the wheel speed sensor.
- Roll the front wheel into the front suspension. When doing so, make sure that the wheel speed sensor is not damaged.



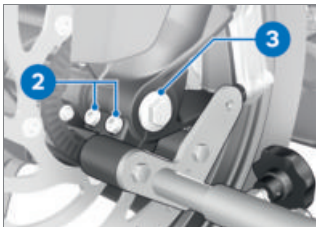
- Lubricate the quick-release axle **4**.



Lubricant

Optimoly TA

- Lift the front wheel and install the quick-release axle **4**.
- Remove front wheel stand and firmly compress front forks. Do not operate the brake lever at the same time.
- Attaching front wheel stand (▮▮▮▮ 73).



- Install the screw **3** to the specified torque. Brace quick-release axle on the right side at the same time.

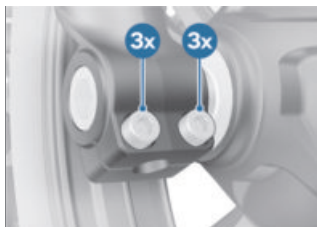


Screw in front wheel
quick-release axle

M12 x 20

37 lb/ft (50 Nm)

- Tighten the clamping bolts **2** to the specified torque.

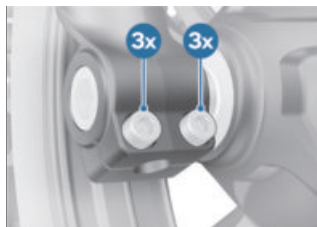


 Clamping bolts in axle mount

Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time

M8 x 30

14 lb/ft (19 Nm)



 Clamping bolts in axle mount

Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time

M8 x 30

14 lb/ft (19 Nm)



- Tighten the clamping bolts **1** to the specified torque.

- Remove the front wheel stand.



WARNING

Brake pads do not contact the brake disc

Risk of accident due to delayed braking effect.

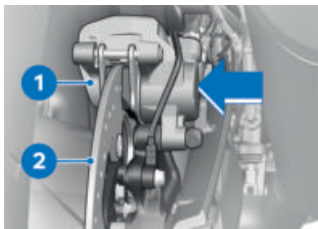
- Before driving off, check that the braking effect kicks in without any delay.

- Engage the brakes repeatedly until the brake pads make contact with the discs.

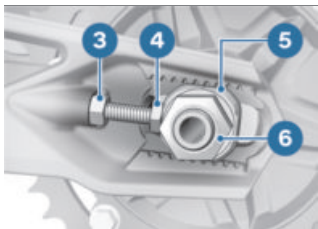
90 MAINTENANCE

Removing the rear wheel

- Raise motorcycle, preferably using a BMW Motorrad rear-wheel stand.
- Mounting the rear-wheel stand (▶ 74).
- Support the rear wheel, e.g. with a wooden block, so that it cannot fall down after the quick-release axle is removed.

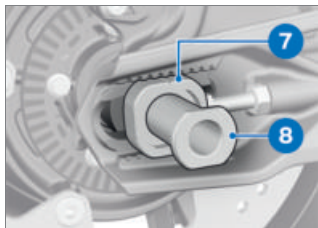


- Press the brake caliper **1** against the brake disk **2**.
» Brake piston has been pushed back.

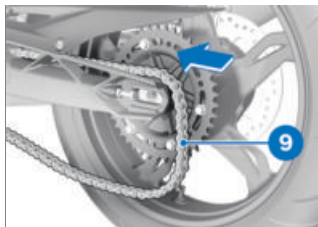


- Remove the nut **6** using the onboard vehicle tool kit.
- Remove washer.

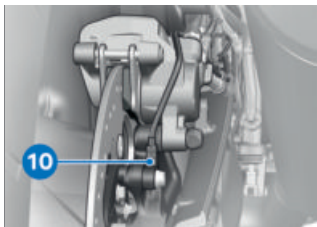
- Loosen the lock nuts **3** on the left and right.
- Screw in the adjusting screws **4** on the left and right.
- Remove the chain tensioner **5** and push the quick-release axle to the right as far as it will go.



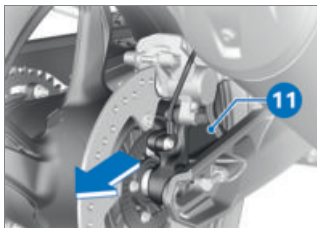
- Remove the quick-release axle **8** and the chain tensioner **7**.



- Roll the rear wheel as far forward as possible and remove the drive chain **9** from the camshaft sprocket.



- Make sure that the wheel speed sensor **10** is not damaged when rolling out the rear wheel.



- Roll rear wheel toward rear out of swing arm while pulling brake caliper carrier **11** toward rear until rear-wheel rim can be guided past it.

 The camshaft sprocket and the spacing bushings on the left and right are loosely inserted in the wheel. During removal, make sure that the parts are not damaged or lost.

Installing the rear wheel

WARNING

Use of a wheel which does not comply with series specifications

- Malfunctions in ABS operation
- Please see the information on the effect of wheel sizes on the ABS system at the beginning of this chapter.

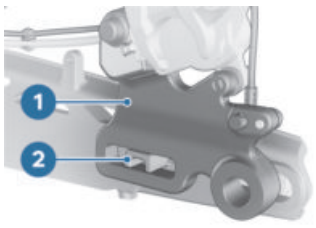
ATTENTION

Tightening of screwed connections with incorrect tightening torque

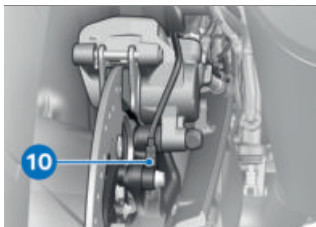
- Damage or loosening of screwed connections
- Always have the tightening torques checked by a specialized workshop, preferably an authorized BMW Motorrad retailer.

- Roll the rear wheel on the support into the rocker until the brake caliper carrier can be installed.

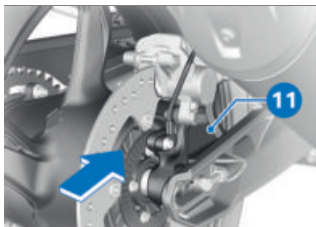
92 MAINTENANCE



- Place the brake caliper carrier **1** on the guide **2**.

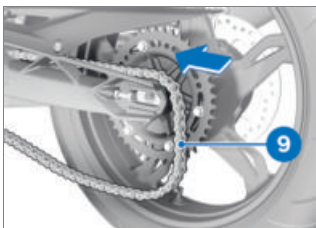


- Make sure that wheel speed sensor **10** is not damaged when rolling in rear wheel.

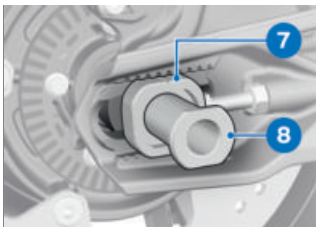


- Roll the rear wheel further into swing arm while simul-

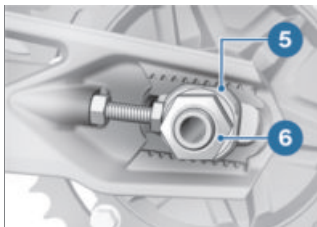
taneously pushing the brake caliper carrier **11** forwards.



- Roll the rear wheel as far forward as possible and lay the chain **9** on the camshaft sprocket.



- Insert the quick-release axle **8** and chain tensioner **7** in the swinging arm; insert the brake caliper carrier and rear wheel, making sure that the quick-release axle interlocks into chain tensioner.



- Insert chain tensioner, left **5**.
- Install the nut **6** with washer, but do not tighten yet.



WARNING

Brake pads do not contact the brake disc

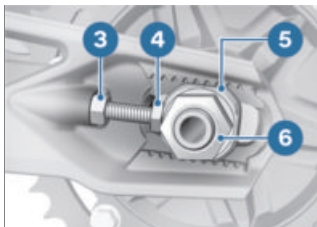
Risk of accident due to delayed braking effect.

- Before driving off, check that the braking effect kicks in without any delay.
- Engage the brakes repeatedly until the brake pads make contact with the discs.
- Adjusting chain tension (→ 93).

DRIVE CHAIN

Adjusting chain tension

- Park the motorcycle, making sure the ground is level and firm.



- Loosen nut **6**.
- Loosen the lock nuts **3** on the left and right.
- Adjust chain tension with adjustment screws **4** on the left and right.
- Checking chain tension (→ 94).
- Ensure that the notch on top of the chain tensioner **5** is adjusted to the same scale value on the right and left.
- Tighten the lock nuts **3** on the left and right to the specified torque.



Locknut of drive-chain tensioning screw

M8

14 lb/ft (19 Nm)

- Tighten nut **6** to the specified torque.



Rear-wheel quick-release axle in swinging arm

M18 x 1.5

94 MAINTENANCE



Rear-wheel quick-release axle in swinging

arm

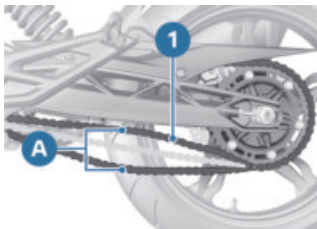
74 lb/ft (100 Nm)

—Once you have tightened the rear wheel quick-release axle, complete the following task again:

- Checking chain tension (▶ 94).

Checking chain tension

- Park the motorcycle, making sure the ground is level and firm.
- Turn the rear wheel until the position with the lowest chain sag is reached.



- Using a screwdriver, push the chain **1** up and down between the chain take-up roller and chain sprocket and measure the chain sag **A**.



Chain sag

1.6...2 in (40...50 mm) (Motorcycle unloaded on side stand)

If the chain sag is outside the approved tolerance:

- Adjusting chain tension (▶ 93).

Lubricate chain



ATTENTION

Insufficient cleaning and lubrication of the drive chain

Increased wear

- Clean and lubricate the drive chain regularly.

- Lubricate the drive chain every third fuel stop.
- After driving through water or dust and dirt perform the lubrication at shorter intervals.
- Switch off ignition and engage Neutral.
- Clean drive chain with suitable cleaning agent, dry and apply chain lubricant.
- To extend and maximize the chain's service life BMW Motorrad recommends using BMW Motorrad chain lubricant or:



Lubricant

Chain spray, O-ring compatible

- Wipe off excess lubricant.

Caring for and lubricating the low-maintenance drive chain

—with M Endurance chain^{OA}

ATTENTION

Insufficient cleaning and lubrication of the drive chain

Increased wear

- Clean and lubricate the drive chain regularly.



The low-maintenance drive chain is cleaned and lubricated in the course of the annual service interval. In the interest of an optimum service life, the low-maintenance chain can be additionally relubricated using a chain lubricant suitable for low-maintenance chains. Perform lubrication at shorter intervals if there is an above-average load from riding in salty, dusty or dirty conditions.

- Switch off ignition and engage Neutral.
- Clean drive chain with suitable cleaning agent, dry and apply chain lubricant.

To extend and maximize the chain's service life BMW Motorrad recommends using BMW Motorrad chain lubricant or:



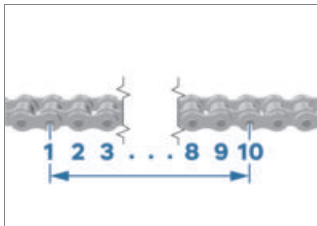
Lubricant

Chain spray, O-ring compatible

- Wipe off excess lubricant.

Checking chain wear

- Engage 1st gear.
- Rotate rear wheel in driving direction until the chain is tensioned.
- Determine chain length below the rear wheel swinging arm above the center of 10 rivets at 3 different locations.



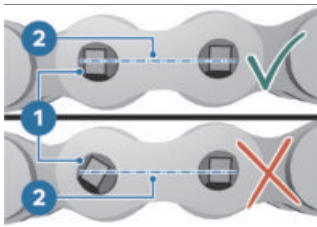
Permissible chain length

max 5.7 in (max 144.30 mm)
(measured over the **center** of 10 rivets, chain under tension)

96 MAINTENANCE

If the chain has reached the maximum approved length:

- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.



- Check to see whether a rivet head **1** has rotated. Rivet heads should be parallel to the centerline of the chain **2**.
- Riveting is OK.

If one or more rivet heads has rotated:

- Contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

LIGHT SOURCES

Replacing the LED light source



WARNING

Overlooking the vehicle in traffic due to a defective light source on the vehicle

Safety risk

- Replace defective light sources as quickly as possible. For details please contact a specialist service facility, preferably an authorized BMW Motorrad Retailer.

All light sources on the vehicle are LED light sources. The service life of the LED light sources is longer than the assumed service life of the vehicle. If an LED light source is faulty, please contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

JUMP-STARTING



CAUTION

Touching live parts of the ignition system when the engine is running

Electrocution

- Do not touch parts of the ignition system when the engine is running.



ATTENTION

Current too high when jump-starting the motorcycle

Cable fire or damage to the motorcycle electronics

- Do not jump-start the motorcycle using the power socket, only via the battery terminal.



ATTENTION

Contact between crocodile clips of jump leads and motorcycle

Danger of short circuit

- Use jump leads fitted with fully insulated crocodile clips at both ends.



ATTENTION

Jump-starting with a voltage higher than 12 V

Damage to the motorcycle's electronics

- The battery of the donor vehicle must not exceed a voltage of 12 V.
- Do not disconnect battery from onboard electrical system for jump-starting procedure.
- Removing the seat (► 40).
- Allow engine on support motorcycle to run while jump-starting.
- Begin by clamping one end of the red jumper cable to the positive terminal of the discharged battery and clamping the other end to the positive terminal of the donor battery.
- Then connect one end of the black jump cables to the negative terminal of the donor battery, and the other end to the negative terminal of the discharged battery.
- Start engine of motorcycle with discharged battery in usual way; if engine does not start, wait a few minutes before repeating attempt in or-

98 MAINTENANCE

der to protect starter motor and donor battery.

- Allow both engines to idle for a few minutes before disconnecting the jump cables.
- Disconnect the jump cable from the negative terminal first, then disconnect the second cable from the positive terminal.
- Installing seat (▮▮▮ 41).

BATTERY

Maintenance instructions

Correct battery maintenance combined with proper charging and storage procedures extends the battery's service life, and is also required for warranty claims.

Compliance with the points below is important in order to maximize battery life:

- Keep the surface of the battery clean and dry.
- Do not open the battery.
- Do not top up with water.
- Be sure to read and comply with the instructions for charging the battery on the following pages.
- Do not turn the battery upside down.



ATTENTION

Discharging of the connected battery by the vehicle electronics (e.g. clock)

Total discharge of battery leading to a rejection of warranty claims

- During riding breaks of more than 4 weeks, connect a trickle-charger to the battery.

Charging a connected battery



ATTENTION

Charging the battery connected to the vehicle using the battery terminals

Damage to the motorcycle's electronics

- Disconnect the battery before charging on the battery terminals.
 - Disconnecting battery from vehicle (▮▮▮ 99).
- #### **Charging a disconnected battery**
- Disconnecting battery from vehicle (▮▮▮ 99).
 - Charge battery using a suitable charger.

- Comply with operating instructions of charger.
- Once battery is fully charged, disconnect charger's terminal clips from battery terminals.

 In the case of longer periods when the motorcycle is not being used, the battery must be recharged regularly. See the instructions for caring for your battery. Always fully recharge the battery before returning it to use.

- Connecting battery to vehicle (➡ 99).

Disconnecting battery from vehicle

- Park the motorcycle, making sure the ground is level and firm.
- Removing the seat (➡ 40).



ATTENTION

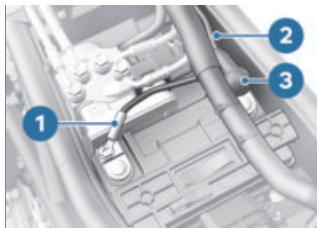
Incorrect battery disconnection

Danger of short circuit

- Follow the disconnection sequence.

- First, disconnect the negative battery cable **1**.
- Then push the protective cap **3** to the side and disconnect the positive battery cable **2**.

Connecting battery to vehicle



- First, install the positive battery cable **2** and cover with the protective cap **3**.

100 MAINTENANCE

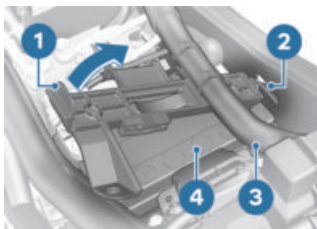
- Then install the negative battery cable **1**.
- Installing seat (➡ 41).

Removing the battery

- Removing the seat (➡ 40).
- Disconnecting battery from vehicle (➡ 99).



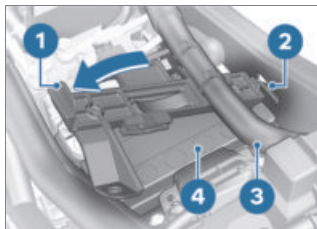
- Remove the screw **1**.



- Unhook and lift up the holder **1** on the left.
- Pull out the holder from the battery tray **2** on the right.
- » The holder is now only attached to the wiring harness **3**.

- Push the holder **1** and the wiring harness **3** to the right out of the way.
- » The battery can now be removed.
- Lift the battery **4** up and out. Work it back and forth slightly if it is difficult to remove.

Installing the battery



- Place battery **4** in battery compartment, positive terminal on right in direction of travel.
- Attach the right side of the holder to the battery tray **2**.
- Fold the holder **1** down and attach on the left.
- » The wiring harness **3** is now back in its initial position.



- Install screw **1**.
- Connecting battery to vehicle (▮▮▮ 99).
- Installing seat (▮▮▮ 41).

 If the vehicle has been disconnected from the battery for a long time, the current date must be entered in the instrument cluster to make sure the service display is working properly.

- Setting the clock (▮▮▮ 39).
- Setting the date (▮▮▮ 39).

FUSES

Replacing fuses



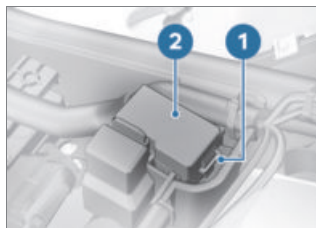
ATTENTION

Bypassing defective fuses

Risk of short circuit and fire

- Do not bypass defective fuses.
- Replace defective fuses with new fuses.

- Turning off the ignition (▮▮▮ 35).
- Park motorcycle. Ensure that the ground is firm and level.
- Removing the seat (▮▮▮ 40).



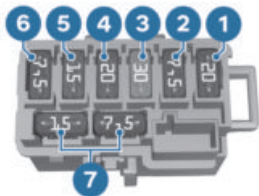
- Press the locking mechanism **1**.
- Fold open the fuse box **2**.
- Replace defective fuse in accordance with following fuse assignment diagram using the gripping clamp.
- » Fuse layout (▮▮▮ 102)
- Close the fuse box **2** again. Make sure that the lock **1** engages.

 If the fuses blow frequently, have the electrical system checked by an authorized specialized workshop, preferably an authorized BMW Motorrad retailer.

- Installing seat (▮▮▮ 41).

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Fuse layout



Fuse 1

20 A (Engine control unit)



Fuse 2

7.5 A (heated grips, instrument cluster, ABS pressure modulator, engine control unit, starter relay)



Fuse 3

30 A (Main fuse)



Fuse 4

20 A (ABS pressure modulator)



Fuse 5

15 A (Lighting, horn)



Fuse 6

7.5 A (Instrument cluster, diagnosis)

– Spare fuses **7**

– 3 additional reserve fuses (7.5 A, 20 A, 30 A) are located on the fuse box.

DIAGNOSTIC CONNECTOR

Loosening the diagnostic socket



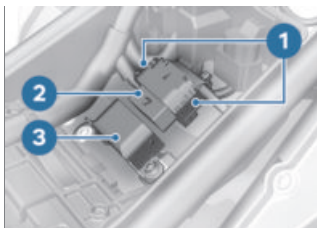
CAUTION

Incorrect procedure when disconnecting the diagnostic socket for onboard diagnosis

Vehicle experiences malfunctions

- Do not have the diagnostic socket disconnected except during BMW Motorrad service by a specialist workshop or other authorized persons.
- Have work carried out by appropriately trained personnel.
- Observe the specifications of the vehicle manufacturer.

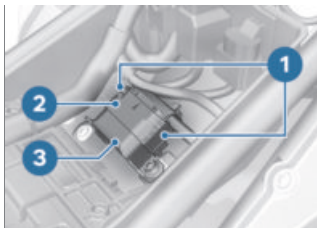
- Removing the seat (► 40).



- Press in the locking mechanisms **1**.
- Loosen the diagnostic socket **2** from the bracket **3**.
- » The interface for the diagnosis and information system can be connected to the diagnostic socket **2**.

Fastening the diagnostic socket

- Disconnect the interface for the diagnosis and information system.



- Insert the diagnostic socket **2** into the bracket **3**.
- » The locks **1** engage.
- Installing seat (▮▮▮▮ 41).

ACCESSORIES

09

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TOPCASE	107
TOPCASE LIGHT	110

GENERAL NOTES



CAUTION

Use of products from other manufacturers

Safety risk

- BMW Motorrad cannot examine or test each product of outside origin to ensure that it can be used on or in connection with BMW motorcycles without constituting a safety hazard. Nor is this guarantee provided when the official approval of a specific country has been granted. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW motorcycles and, consequently, they are not sufficient in some circumstances.
- Use only parts and accessories approved by BMW for your motorcycle.

The safety, function and suitability of the parts and accessory products have been thoroughly tested by BMW. Therefore, BMW assumes responsibility for these products. BMW shall not be held liable for un-

approved parts and accessory products of any kind. Comply with the legal requirements for any modifications. Consult the road traffic licensing regulations of your country. Your authorized BMW Motorrad retailer offers you qualified advice for choosing original BMW parts, accessories and other products. More information on the topic of accessories is available at: **bmw-motorrad.com/equipment**

HEATED GRIPS

—with heated grips^{OA}

Operating heated grips

- Start engine.



The heated grips option can only be activated when the engine is running.



The increase in power consumption caused by the heated grips can drain the battery if you are riding at low engine speeds.



The handlebar grips can be heated at two different levels. The second stage is intended for rapid heating of the grips. Once they are warm, you should switch back to the first stage.



- Operate the rocker switch **1** on the side with two dots in order to switch on the high heater output.
- Operate the rocker switch **1** on the side with one dot in order to switch on the low heater output.
- Move the rocker switch **1** to its center position to switch off the heating.

POWER SOCKET

—with additional onboard socket^{OA}

Connection of electrical devices

—The ignition must be switched on before electrical devices connected to the power sockets can be operated.

Cable routing

- The cables from the onboard sockets to the auxiliary devices must be routed in such a way that they do not impede the rider.
- Cable routing must not restrict the steering angle and the handling characteristics.
- Cables must not be trapped.

TOPCASE

Installing the topcase

—with topcase^{OA}



WARNING

Topcase not properly secured

Driving safety is impaired

- Topcase must not shake and must be fastened clearance-free.

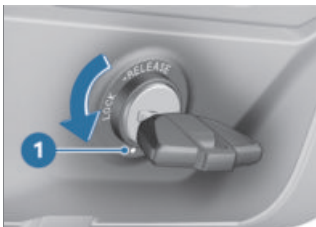


- Fold up carrying handle **1** to the stop.

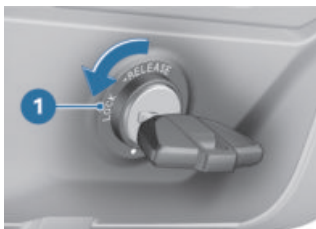
108 ACCESSORIES



- Hook topcase into luggage rack **4**. Make sure that the hooks **2** are securely seated in corresponding mounts **3**.
- Press the carrying handle **1** down until it engages.



- Turn the key in the topcase lock to position **1**.



- Turn key in topcase lock to the **1** position and remove.

Opening the topcase

—with topcase^{OA}



- Press the lock cylinder **1** forward.
 - » The release lever **2** pops up.
- Pull release lever all the way up.
 - » Topcase lid opens.

Closing topcase

—with topcase^{OA}



- Pull the release lever **1** all the way up.
- Close Topcase lid and hold it down. Ensure that nothing gets trapped between the lid and case.

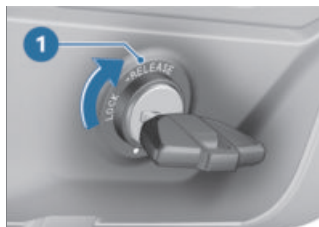
 The topcase can also be locked if the lock is in the **LOCK** position. Under such circumstances, ensure that the vehicle key is not in the topcase.



- Press the release lever **1** down until it snaps in.
- Turn the key in the topcase lock to the **LOCK** position and remove it.

Removing the topcase

—with topcase^{OA}



- Turn the key in the topcase lock to position **1**.
» Carrying handle pops out.



- Fold carrying handle **1** all the way up.
- Raise the rear of the topcase and pull it off the luggage rack.

110 ACCESSORIES

Maximum payload and maximum speed

Observe maximum payload and maximum speed as indicated on label in the topcase. Contact your authorized BMW Motorrad retailer if you cannot find your combination of vehicle and topcase on the label.

The following values apply to the combination described here:

 Maximum speed when riding with a loaded topcase
—with topcase ^{OA} or —with topcase Light ^{OA}
max 81 mph (max 130 km/h) <

 Payload of Topcase
max 11 lbs (max 5 kg)

TOPCASE LIGHT

Installing topcase Light

—with topcase Light^{OA}



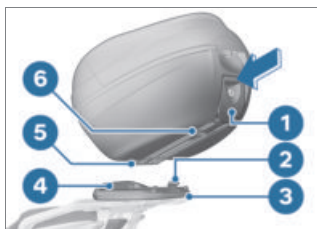
WARNING

Topcase not properly secured

Driving safety is impaired

- Topcase must not shake and must be fastened clearance-free.

- Turn the key until it is vertical in the lock.



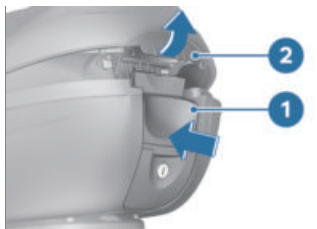
- Insert the base **5** into the slot **4**.
- Fit the mount **6** onto the hook **2**.
- Ensure that the release lever **1** engages and the topcase is connected securely to the adapter **3**.
- To lock the release lever, turn the key until it is horizontal in the lock and pull it out.

Opening topcase Light

—with topcase Light^{OA}

- Turn the key until it is vertical in the lock.

 The release levers are locked in the key's horizontal position.

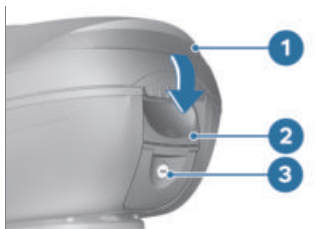


- Push the release lever **1** in the arrow direction.
- Open topcase lid **2**.

Closing topcase Light

—with topcase Light^{OA}

- Turn the key until it is vertical in the lock.



- Close topcase lid **1**. Check that nothing is trapped be-

tween the lid and case and that the release lever **2** clicks into place.

- Turn the key in the topcase lock **3** until it is horizontal, then remove.
- » The release levers are locked. You can neither open the topcase nor remove it from the adapter.

Removing the topcase Light

—with topcase Light^{OA}

- Turn the key until it is vertical in the lock.



- Push the release lever **1** in the arrow direction.
- Lift the topcase at the rear and remove it from the hooks **2** of the adapter **3**.

112 ACCESSORIES

Maximum payload and maximum speed

—with topcase Light^{OA}

Observe maximum payload and maximum speed.



Maximum speed when riding with a loaded topcase

—with topcase^{OA}

or

—with topcase Light^{OA}

max 81 mph (max 130 km/h)◁



Payload of Topcase

max 7 lbs (max 3 kg)

CARE

10

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CARE PRODUCTS

BMW Motorrad recommends that you use cleaning and care products available at your authorized BMW Motorrad retailer. BMW Care Products have been materials tested, lab-tested, and field tested and provide optimum care and protection for the materials used in your vehicle.



ATTENTION

Use of unsuitable cleaning and care agents

Damage to motorcycle parts

- Do not use any solvents such as nitro thinners, cold cleaners, fuel or similar, and do not use cleaning agents that contain alcohol.



ATTENTION

Use of highly acidic or alkaline cleaning agents

Damage to motorcycle parts

- Observe the dilution ratio on the packaging of the cleaning agents.
- Do not use highly acidic or alkaline cleaning agents.

WASHING THE VEHICLE

BMW Motorrad recommends that you use BMW Insect Remover to soften and wash off insects and stubborn dirt from painted parts before washing the motorcycle.

To prevent stains, do not wash the vehicle immediately after it has been exposed to bright sunlight and do not wash it in the sun.

Regularly clean the fork tubes of contamination.

Make sure that the vehicle is washed frequently, especially during the winter months.

To remove road salt, clean the vehicle and any add-on parts with cold water immediately after completion of every trip.



After rides in the rain, in high humidity and after the vehicle is washed, condensation can form inside the headlight. During this process, the headlight can become foggy for a while. If moisture accumulates in the headlight on an ongoing basis, contact a specialist workshop, preferably an authorized BMW Motorrad retailer.

**WARNING**

Damp brake disks and brake pads after washing the motorcycle, after riding through water or in the rain

Poorer braking action, accident hazard

- Brake early until the brake rotors and brake pads are dry.

**ATTENTION**

Increased effect of salt caused by warm water

Corrosion

- Only use cold water to remove road salt.

**ATTENTION**

Damage caused by high water pressure from high-pressure cleaners or steam-jet devices

Corrosion or short circuit, damage to labels, to seals, to hydraulic brake system, to the electrical system and the seat

- Exercise caution when using high-pressure or steam-jet devices.

CLEANING SENSITIVE MOTORCYCLE PARTS

Plastics

**ATTENTION**

Use of unsuitable cleaning agents

Damage to plastic surfaces

- Do not use abrasive cleaners or cleaners containing alcohol or solvents.
- Do not use insect sponges or sponges with a hard surface.

Clean plastic components with water and BMW plastic care emulsion. This includes in particular:

- Windshields and wind deflectors
- Headlight diffusers made of plastic
- Glass cover of the instrument cluster
- Black, unpainted parts



Soften stubborn dirt and dead insects by covering the affected areas with a wet cloth.

118 CARE

Topcase Light

—with topcase Light^{OA}



ATTENTION

Use of unsuitable cleaning and care agents

Surface damage

- Clean the surface with water and a microfiber cloth only.

Chrome

Carefully clean chrome parts with plenty of water and BMW Motorrad Care Products motorcycle cleaner. This is particularly important in the case of road salt.

Use BMW Motorrad metal polish for additional treatment.

Radiator



ATTENTION

Bending of radiator fins

Damage to radiator fins

- When cleaning, ensure that the cooler fins are not bent.
- Clean radiator regularly. Use a hose with low water pressure to do this.
- » This prevents the engine from overheating due to insufficient cooling.

Rubber

Treat rubber parts with water or BMW rubber protection coating agent.



ATTENTION

Use of silicone sprays for care of rubber seals

Damage to rubber seals

- Do not use silicone sprays or care products that contain silicone.

CARE OF PAINTWORK

Washing the motorcycle regularly will help counteract the long-term effects of substances that damage the paint, especially if your motorcycle is ridden in areas with high air pollution or natural sources of dirt, such as tree resin or pollen. However, remove particularly aggressive substances immediately; otherwise changes in the paint or discoloration may occur. These include spilled fuel, oil, grease and brake fluid as well as bird droppings. It is recommended to use BMW Motorrad solvent cleaner and then apply BMW Motorrad high-gloss polish to preserve the paint.

Contaminants on the paint surface are particularly easy to see after washing the vehicle. Remove this type of dirt immediately with cleaning benzene or ethyl alcohol on a clean cloth or cotton ball. BMW Motorrad recommends removing tar stains with BMW tar remover. Then add a protective wax coating to the paint at these locations.

PAINT PRESERVATION

Apply a preservative when water fails to bead up on the painted surface.

BMW Motorrad recommends BMW Motorrad high gloss polish or agents that contain carnauba or synthetic wax for paint preservation.

 Chrome lacquer must not be preserved with chrome polish.

Only use the agents recommended by BMW Motorrad.

STORING THE MOTORCYCLE

- Clean the motorcycle.
- Refuel motorcycle.

 Fuel additives clean the fuel injection system and the combustion area. Fuel additives should be used when

refueling with low-quality fuels or during longer periods of downtime. Your authorized BMW Motorrad retailer can provide you with more detailed information.

- Removing the battery ( 100).
- Spray clutch lever and brake lever as well as center and side stand pivots with a suitable lubricant.
- Preserve bare metal and chrome-plated parts with an acid-free grease (petroleum jelly).
- Park motorcycle in a dry room, raising it to remove weight from both wheels (preferably using the front-wheel and rear-wheel stands offered by BMW Motorrad).

PUTTING THE MOTORCYCLE INTO OPERATION

- Remove the protective wax coating.
- Clean the motorcycle.
- Installing the battery ( 100).
- Observe checklist ( 53).

TECHNICAL DATA

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TROUBLESHOOTING CHART

Engine does not start.

Possible cause	Remedy
Side stand extended and gear engaged	Fold in side stand.
Emergency on/off switch (kill switch)	Set emergency off switch to operation mode (➡ 35).
Gear engaged and clutch not disengaged	Operate the clutch or put the transmission into idle so that the idle indicator lamp lights up.
No fuel in tank	Refueling (➡ 60).
Battery drained	Charging a disconnected battery (➡ 98).

THREADED CONNECTIONS

Front wheel	Value	Valid
Screw in front wheel quick-release axle		
M12 x 20	37 lb/ft (50 Nm)	
Clamping bolts in axle mount		
M8 x 30	Tightening sequence: Tighten the screws 6 times, alternating between one and the other each time	
	14 lb/ft (19 Nm)	

Rear wheel	Value	Valid
Locknut of drive-chain tensioning screw		
M8	14 lb/ft (19 Nm)	
Rear-wheel quick-release axle in swinging arm		
M18 x 1.5	74 lb/ft (100 Nm)	

Mirrors	Value	Valid
Right mirror (lock nut) to adapter		
M10 x 1.25	Left-hand thread, 16 lb/ft (22 Nm)	
Left mirror (lock nut) to adapter		
M10 x 1.25	16 lb/ft (22 Nm)	

124 TECHNICAL DATA

FUEL

Recommended fuel quality	Regular unleaded (max. 15 % ethanol, E15) 87 AKI (91 ROZ/RON) 87 AKI
Usable fuel quantity	Approx. 3 gal (Approx. 11.5 l)
Fuel reserve	Approx. 1.1 quarts (Approx. 1 l)
Fuel consumption	67 mpg (3.5 l/100 km), In accordance with WMTC
CO2 emissions	80 g/km, In accordance with WMTC
Emission standard	TIER 2, measured in accordance with FTP75

ENGINE OIL

Engine oil, filling capacity	Approx. 1.7 quarts (Approx. 1.65 l), with filter exchange
Specification	SAE 5W-40, API SJ/ JASO MA2, Additives (for instance, molybdenum-based substances) are prohibited, because they would attack the coatings on engine components, BMW Motorrad recommends BMW Motorrad ADVANTEC Ultimate oil.
Engine oil, quantity for topping up	0.2 quarts (0.18 l), Difference between MIN and MAX

BMW recommends **ADVANTEC**
ORIGINAL BMW ENGINE OIL

ENGINE

Engine number location	Lower part of crankcase, right
Engine type	A82A03B
Engine design	Water-cooled 1-cylinder four-stroke engine with four valves (operated via rocker arms), two overhead camshafts and a counterbalance shaft
Displacement	313 cc (313 cm ³)
Cylinder bore	3.1 in (80 mm)
Piston stroke	2.4 in (62.1 mm)
Compression ratio	10.9:1
Nominal capacity	34 hp (25 kW), At rotational speed: 9250 min ⁻¹
Torque	21 lb/ft (28 Nm), At rotational speed: 7250 min ⁻¹
Maximum engine speed	max 10800 min ⁻¹
Idle speed	1600 $\pm$ 100 min ⁻¹ , Engine at operating temperature

CLUTCH

Clutch design	Multi-disk wet clutch
Clutch lever play	0.04...0.08 in (1...2 mm), on the handlebar fitting, handlebars in straight-ahead position, with cold engine

126 TECHNICAL DATA

TRANSMISSION

Transmission design	Claw-shifted 6-speed transmission integrated in engine housing
Transmission gear ratios	3.083, Primary gear ratio 1:3.000, 1st gear 1:2.063, 2nd gear 1:1.588, 3rd gear 1:1.286, 4th gear 1:1.095, 5th gear 1:0.955, 6th gear

REAR-WHEEL DRIVE

Type of final drive	Chain drive
Chain sag	1.6...2 in (40...50 mm), Motorcycle unloaded on side stand
Permissible chain length	max 5.7 in (max 144.30 mm), measured over the center of 10 rivets, chain under tension
Number of teeth of rear-wheel drive (Pinion/sprocket)	16/40
Secondary gear ratio	2.500

FRAME

Frame design	Lattice-tube frame
Location of type plate	Frame at front left on steering head
Location of the vehicle identification number	Frame at front right on steering head

RUNNING GEAR

Front wheel

Type of front suspension	Upside-down telescopic forks
Spring travel, front	7.1 in (180 mm), on wheel

Rear wheel

Type of rear-wheel guide	Two-arm aluminum swinging arm
Spring travel, rear	7.1 in (180 mm), on wheel

BRAKES

Front wheel

Type of front wheel brake	Single disc brake, 4-piston radial brake caliper
Front brake pad material	Sintered metal
Front brake disc thickness	0.2 in (5.0 mm), New min 0.18 in (min 4.5 mm), Wear limit

Rear wheel

Type of rear wheel brake	1-piston floating caliper
Rear brake pad material	Organic
Rear brake disc thickness	0.18 in (4.5 mm), New min 0.16 in (min 4 mm), Wear limit

WHEELS AND TIRES

Recommended tire combinations	An overview of the current tire approvals is available from your authorized BMW Motorrad retailer.
Speed category of front/rear tires	H, minimum requirement: 130 mph (210 km/h)

128 TECHNICAL DATA

Front wheel

Front wheel design	Aluminum cast wheel
Front-wheel rim size	2.50" x 19"
Front tire designation	110/80 R 19
Load index for front tire	At least 59
Permissible front-wheel imbalance	max 0.2 oz (max 5 g)

Rear wheel

Rear wheel design	Aluminum cast wheel
Rear-wheel rim size	4.0" x 17"
Rear tire designation	150/70 R 17
Load index for rear tire	At least 69
Permissible rear-wheel imbalance	max 0.2 oz (max 5 g)

Tire inflation pressure

Front tire pressure	24.7 psi (1.7 bar), with cold tires, one-up and two-up riding
Rear tire pressure	27.6 psi (1.9 bar), with cold tires, one-up and two-up riding

ELECTRICAL SYSTEM

Fuses

Fuse 1	20 A, Engine control unit
Fuse 2	7.5 A, heated grips, instrument cluster, ABS pressure modulator, engine control unit, starter relay
Fuse 3	30 A, Main fuse
Fuse 4	20 A, ABS pressure modulator
Fuse 5	15 A, Lighting, horn
Fuse 6	7.5 A, Instrument cluster, diagnosis

Battery

Battery design	Absorbent Glass Mat
Battery voltage	12 V
Battery capacity	8 Ah

Spark plugs

Spark plugs, manufacturer and designation	NGK LMAR8J-9E
---	---------------

Light sources

All light sources	LED
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DIMENSIONS

Motorcycle length	81.7 in (2075 mm), over license-plate carrier
Motorcycle height	51.8 in (1315 mm), over mirrors, at DIN unloaded vehicle weight 48.4 in (1230 mm), without mirror, with DIN unladen weight

130 TECHNICAL DATA

Motorcycle width	34.6 in (880 mm), with mirrors 33.9 in (860 mm), without mounted parts
Front-seat height	32.9 in (835 mm), without rider, at DIN unladen weight
Rider's inside-leg arc, heel to heel	73.6 in (1870 mm), without rider, at DIN unladen weight

WEIGHTS

Unloaded vehicle weight	386 lbs (175 kg), DIN unloaded vehicle weight, ready for road, 90% full tank of gas, without OE
Front wheel load at unloaded vehicle weight	183 lbs (83 kg)
Permissible front wheel load	max 265 lbs (max 120 kg)
Rear wheel load at unloaded vehicle weight	203 lbs (92 kg)
Permissible rear wheel load	max 496 lbs (max 225 kg)
Gross vehicle weight	761 lbs (345 kg)
Maximum payload	375 lbs (170 kg)

PERFORMANCE DATA

Maximum speed	89 mph (143 km/h)
---------------	-------------------

ACCESSORIES

Maximum speed when riding with a loaded topcase	
-with topcase ^{OA} or -with topcase Light ^{OA}	max 81 mph (max 130 km/h)
Payload of Topcase	max 11 lbs (max 5 kg)

SERVICE

12

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REPORTING SAFETY DEFECTS

If you think that your motorcycle has a fault which may cause an accident, injury or death, you must inform the NHTSA (National Highway Traffic Safety Administration) immediately and BMW of North America, LLC.

If the NHTSA receives other similar complaints, it may open an investigation. If it finds that a safety defect exists in a group of vehicles, the NHTSA may order the manufacturer to perform a recall and remedy campaign. However, the NHTSA cannot become involved in individual problems between you, your authorized BMW Motorrad retailer, or BMW of North America, LLC. You can contact the NHTSA by calling the Vehicle Safety Hotline on 1-888-327-4236 (Teletypewriter TTY for the hearing impaired: 1-800-424-9153) for free, by visiting the website at <http://www.safercar.gov> or by writing to Administrator, NHTSA, 400 Seventh Street, SW., Washington, DC 20590. Further information on vehicle safety is available at <http://www.safercar.gov>. Canadian customers who wish to report a safetyrelated defect to Transport Canada, Defect Investigations and Recalls, may call the toll-free hotline 1-800-333-0510. You can also obtain other information about motor vehicle safety from <http://www.tc.gc.ca/roadsafety>.

BMW MOTORRAD SERVICE

With its worldwide retailer network, BMW Motorrad can attend to you and your motorcycle in over 100 countries around the globe. Authorized BMW Motorrad retailers have the technical information and expertise needed to reliably conduct all preventive maintenance and repair tasks on your BMW.

You will find the nearest authorized BMW Motorrad retailer at our website:

bmw-motorrad.com



WARNING

Improperly performed maintenance and repair work

Accident hazard caused by subsequent damage

- BMW Motorrad recommends having corresponding work on the motorcycle carried out by a specialized workshop, preferably by an authorized BMW Motorrad retailer.

To ensure that your BMW is always in optimum condition, BMW Motorrad recommends that you comply with the maintenance intervals specified for your motorcycle.

Have all preventive maintenance and repair procedures confirmed in the Service chapter in this manual. Documented proof of scheduled preventive maintenance is essential for generous treatment of claims submitted after the warranty period has expired (goodwill).

You can obtain information on the contents of the BMW Motorrad Services from your BMW Motorrad retailer.

BMW MOTORRAD SERVICE HISTORY

Entries

Maintenance work that has been performed is recorded in the diagnostics and information system. Like a Service Booklet, these entries provide proof of regular maintenance.

If an entry is made in the vehicle's electronic Service History (eSH), service-related data is stored on the central IT systems of BMW AG in Munich, Germany.

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When there is a change in vehicle owner, the data entered in the electronic Service History can also be viewed by the new vehicle owner. A BMW Motorrad retailer or specialist workshop can view the data entered in the electronic Service History.

Objection

At the BMW Motorrad retailer or specialist workshop, the vehicle owner can object to the entry of data in the electronic Service History with the related storage of data in the vehicle and the transfer of data to the vehicle manufacturer during his time as the vehicle owner. In this case, no entry is made in the vehicle's electronic Service History.

BMW MOTORRAD MOBILITY SERVICES

As the owner of a new BMW motorcycle, in the event of a breakdown you can benefit from the protection afforded by the various BMW Motorrad mobility services (e.g. BMW Roadside Assistance, breakdown service, vehicle recovery service).

Contact your authorized BMW Motorrad retailer for additional information on available mobility-maintenance services.

MAINTENANCE WORK

BMW pre-delivery check

The BMW pre-delivery check is carried out by your authorized BMW Motorrad retailer before it turns the motorcycle over to you.

BMW running-in check



Mileage until running-in check

311...746 miles
(500...1200 km)

BMW Motorrad Service

BMW Motorrad service is carried out once a year. The scope of the services performed may be dependent on the age of the vehicle and the distance covered. Your BMW Motorrad retailer confirms that the service has been performed and enters the date for the next service. For riders with a high annual distance traveled, it may be necessary to come in for service before the entered date. In these cases, a corresponding

maximum distance covered will also be entered in the confirmation of service. If this distance covered is reached before the next service appointment, service must be performed sooner.

The service display in the multi-function display reminds you of the next service date approximately one month or 621 miles (1000 km) before the entered values.

More information on the topic of service is available at **bmw-motorrad.com/service**.

The required scope of maintenance work for your vehicle can be found in the following maintenance schedule:

MAINTENANCE SCHEDULE

	500 - 1200 km 300 - 750 mls	10 000 km 6 000 mls	20 000 km 12 000 mls	30 000 km 18 000 mls	40 000 km 24 000 mls	50 000 km 30 000 mls	60 000 km 36 000 mls	70 000 km 42 000 mls	80 000 km 48 000 mls	90 000 km 54 000 mls	100 000 km 60 000 mls	12 months	24 months	48 months
1	X													
2												X		
3		X	X	X	X	X	X	X	X	X	X	X ^a		
4			X		X		X		X		X			
5			X		X		X		X		X			
6			X		X		X		X		X			
7			X		X		X		X		X			
8					X				X					X ^c
9					X				X					X ^c
10												X ^b	X ^b	

- 1 BMW break-in inspection (including oil and oil filter change)
- 2 Standard BMW Motorrad Service
- 3 Engine oil change with filter
- 4 Replace the air filter insert
- 5 Replace spark plug
- 6 Check valve clearance
- 7 Oil change in the telescopic forks
- 8 Replace fuel filter and fuel hoses
- 9 Replace hoses from intake silencer to cylinder head and evaporative emission valve
- 10 Change brake fluid in the entire system
 - a annually or every 6000 mi (10000km) (whichever comes first)
 - b for the first time after one year, then every 2 years
 - c every 24000 miles (40000km) or every 4 years (whichever comes first)

BMW RUNNING-IN CHECK

BMW Motorrad break-in service

The BMW Motorrad break-in service repair procedures are listed below. The actual scope of maintenance required for your vehicle may differ.

- Perform a vehicle test with the BMW Motorrad diagnosis system
- Checking coolant level
- Checking/adjusting clutch play
- Checking the brake fluid level of the front wheel brake
- Checking the brake fluid level of the rear wheel brake
- Checking tire pressure
- Adjusting the play of the steering-head bearing
- Check chain sag
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and check for road safety
- Perform a vehicle test with the BMW Motorrad diagnosis system
- Setting the service date and remaining distance
- Confirming the BMW service in the vehicle literature

MAINTENANCE CONFIRMATIONS

BMW Motorrad Service standard scope

The repair procedures belonging to the BMW Motorrad Service standard package are listed below. The actual maintenance work applicable for your vehicle may differ.

- Performing the vehicle test using the BMW Motorrad diagnostic system
- Checking coolant level
- Checking/adjusting clutch play
- Checking for play in the throttle cable
- Checking the front brake pads and brake discs for wear
- Checking the rear brake pads and brake disc for wear
- Visual inspection of the brake lines, brake hoses, and connections
- Checking the tire pressure and tread depth
- Checking and lubricating the chain drive
- Checking the front wheel brake fluid level
- Checking the rear wheel brake fluid level
- Checking steering-head bearing
- Lubricate the side stand
- Checking the lighting and signal system
- Functional check for engine starting suppression
- Final inspection and road safety check
- Set the service date and remaining distance using the BMW Motorrad diagnostic system
- Checking charging state of battery
- Confirming the BMW Motorrad service in the vehicle literature

BMW pre-delivery check

performed

on _____

Stamp, signature

BMW running-in check

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Stamp, signature

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BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
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Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

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BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

Notes

Stamp, signature

BMW Motorrad Service

performed

on _____

at km _____

Next service

latest

on _____

or, if reached earlier

at km _____

Work performed

	Yes	No
BMW Motorrad Service	☐	☐
Oil change in engine with filter	☐	☐
Checking valve clearance	☐	☐
Replacing air filter insert	☐	☐
Oil change in telescopic fork	☐	☐
Replacing all spark plugs	☐	☐
Replacing fuel filter and fuel hoses (during preventive maintenance)	☐	☐
Replacing hoses from intake silencer to cylinder head and tank vent valve (with preventive maintenance)	☐	☐
Changing brake fluid in entire system	☐	☐

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The descriptions and illustrations in this manual may vary from your own motorcycle's actual equipment, depending upon its equipment level and accessories as well as your specific national version. No claims will be entertained as a result of such discrepancies. Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.

The right to modify designs, equipment and accessories is reserved.

Errors and omissions excepted.

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WARNING

Harmful substances

Operating and preventive maintenance of a passenger vehicle or off-road vehicle can expose you to substances such as exhaust gases, carbon monoxide, phthalates and lead, which are known to the State of California to be carcinogenic as well as detrimental to childbirth and reproduction.

- To minimize exposure, avoid breathing exhaust gases, do not put the engine in Neutral except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle.
- Further information is available at:

www.P65Warnings.ca.gov/passenger_vehicle

Important data for refueling stop:

Fuel

Recommended fuel quality	Regular unleaded (max. 15 % ethanol, E15) 87 AKI (91 ROZ/RON) 87 AKI
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Usable fuel quantity	Approx. 3 gal (Approx. 11.5 l)
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Fuel reserve	Approx. 1.1 quarts (Approx. 1 l)
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Tire inflation pressure

Front tire pressure	24.7 psi (1.7 bar), with cold tires, one-up and two-up riding
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Rear tire pressure	27.6 psi (1.9 bar), with cold tires, one-up and two-up riding
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You can find further information on all aspects of your vehicle at:
bmw-motorrad.com

