OWNER'S MANUAL 2019

READY TO RACE
»www.ktm.com

690 Duke

Art. no. 3213923en

KTM

DEAR KTM CUSTOMER

Congratulations on your decision to purchase a KTM motorcycle. You are now the owner of a state-of-the-art sports motorcycle that will give you enormous pleasure if you service and maintain it properly.

We hope you enjoy riding this motorcycle!

Enter the serial numbers of your vehicle below.

Vehicle identification number (📖 p. 24)	Dealer's stamp
Engine number (📖 p. 25)	
Key number (📖 p. 25)	

The Owner's Manual contained the latest information for this model series at the time of going to print. However, minor differences due to further developments in design cannot be ruled out completely.

All specifications are non-binding. KTM Sportmotorcycle GmbH specifically reserves the right to modify or delete technical specifications, prices, colors, forms, materials, services, designs, equipment, etc., without prior notice and without specifying reasons, to adapt these to local conditions, as well as to stop production of a particular model without prior notice. KTM accepts no liability for delivery options, deviations from figures and descriptions, misprints, and other errors. The models portrayed partly contain special equipment that does not belong to the regular scope of supply.

3213923en

08/2018

DEAR KTM CUSTOMER

ISO 9001(12 100 6061)
KTM applies quality assurance processes that lead to the highest possible product quality as defined in the ISO 9001 international quality management standard.
Issued by: TÜV Management Service

KTM Sportmotorcycle GmbH
Stallhofnerstraße 3
5230 Mattighofen, Austria

This document is valid for the following models:

690 Duke EU (F9703S4)

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1 MEANS OF REPRESENTATION

1.1 Symbols used

The meaning of specific symbols is described below.

Indicates an expected reaction (e.g. of a work step or a function).

Indicates an unexpected reaction (e.g. of a work step or a function).

All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of your own safety, have these jobs performed by an authorized KTM workshop! Your motorcycle will be optimally cared for there by specially trained experts using the auxiliary tools required.

Indicates a page reference (more information is provided on the specified page).

Indicates information with more details or tips.

Indicates the result of a testing step.

V	Indicates a voltage measurement.
A	Indicates a current measurement.
◀	Indicates the end of an activity, including potential rework.

1.2 Formats used

The typographical formats used in this document are explained below.

Proprietary name	Indicates a proprietary name.
Name®	Indicates a protected name.
Brand™	Indicates a brand available on the open market.
Underlined terms	Refer to technical details of the vehicle or indicate technical terms, which are explained in the glossary.

2 SAFETY ADVICE

2.1 Use definition – intended use

This vehicle has been designed and built to withstand the normal stresses and strains of road use.
This vehicle is not suitable for use on race tracks or offroad.

Info
This vehicle is only authorized for operation on public roads in its homologated version.

2.2 Misuse

The vehicle must only be used as intended.
Dangers can arise for people, property and the environment through use not as intended.
Any use of the vehicle beyond the intended and defined use constitutes misuse.
Misuse also includes the use of operating and auxiliary fluids which do not meet the required specification for the respective use.

2.3 Safety advice

A number of safety instructions need to be followed to operate the product described safely. Therefore read this instruction and all further instructions included carefully. The safety instructions are highlighted in the text and are referred to at the relevant passages.

Info
Various information and warning labels are attached in prominent locations on the product described. Do not remove any information or warning labels. If they are missing, you or others may not recognize dangers and may therefore be injured.

2.4 Degrees of risk and symbols

Danger
Identifies a danger that will immediately and invariably lead to fatal or serious permanent injury if the appropriate measures are not taken.

Warning
Identifies a danger that is likely to lead to fatal or serious injury if the appropriate measures are not taken.

Note
Identifies a danger that will lead to considerable machine and material damage if the appropriate measures are not taken.

Note
Indicates a danger that will lead to environmental damage if the appropriate measures are not taken.

2.5 Tampering warning

Tampering with the noise control system is prohibited. Federal law prohibits the following acts or the causing thereof:

1 The removal or rendering inoperative by any person other than for purposes of servicing, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or
2 the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below:

1 Removal or puncturing of the main silencers, baffles, header pipes or any other components which conduct exhaust gases.
2 Removal or puncturing of parts of the intake system.
3 Lack of proper maintenance.
4 Replacing moving parts of the vehicle, or parts of the exhaust system or intake system, with parts other than those specified by the manufacturer.

2.6 Safe operation

Danger

Danger of accidents A rider who is not fit to ride poses a danger to him or herself and others.

– Do not operate the vehicle if you are not fit to ride due to alcohol, drugs or medication.
– Do not operate the vehicle if you are physically or mentally impaired.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

Warning

Danger of burns Some vehicle components become very hot when the vehicle is operated.

– Do not touch any parts such as the exhaust system, radiator, engine, shock absorber, or brake system before the vehicle parts have cooled down.
– Let the vehicle parts cool down before you perform any work on the vehicle.

Only operate the vehicle when it is in perfect technical condition, in accordance with its intended use, and in a safe and environmentally compatible manner.
An appropriate driver's license is needed to ride the vehicle on public roads.
Have malfunctions that impair safety promptly eliminated by an authorized KTM workshop.
Adhere to the information and warning labels on the vehicle.

2.7 Protective clothing

Warning

Risk of injury Missing or poor protective clothing presents an increased safety risk.

– Wear appropriate protective clothing such as helmet, boots, gloves as well as trousers and a jacket with protectors on all rides.
– Always wear protective clothing that is in good condition and meets the legal regulations.

In the interest of your own safety, KTM recommends that you only operate the vehicle while wearing protective clothing.

2.8 Work rules

Special tools are necessary for certain tasks. The tools are not a component of the vehicle, but can be ordered using the number in parentheses. Example: bearing puller (15112017000)
During assembly, use new parts to replace parts which cannot be reused (e.g. self-locking screws and nuts, seals, sealing rings, O-rings, pins, and lock washers).
In the case of certain screws, a screw adhesive (e.g. **Loctite®**) is required. Observe the manufacturer's instructions.
After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.
After completing a repair or service work, check the operating safety of the vehicle.

2.9 Environment

If you use your motorcycle responsibly, you can ensure that problems and conflicts do not occur. To protect the future of the motorcycle sport, make sure that you use your motorcycle legally, display environmental consciousness, and respect the rights of others.
When disposing of used oil, other operating and auxiliary fluids, and used components, comply with the laws and regulations of the respective country.
Because motorcycles are not subject to the EU regulations governing the disposal of used vehicles, there are no legal regulations that pertain to the disposal of an end-of-life motorcycle. Your authorized KTM dealer will be glad to advise you.

2.10 Owner's Manual

It is important that you read this Owner's Manual carefully and completely before making your first trip. The Owner's Manual contains useful information and many tips on how to operate, handle, and service your motorcycle. Only then will you find out how to customize the vehicle ideally for your own use and how you can protect yourself from injury.
Keep the Owner's Manual in an accessible place to enable you to refer to it as needed.
If you would like to know more about the vehicle or have questions on the material you read, please contact an authorized KTM dealer.
The Owner's Manual is an important component of the vehicle and must be handed over to the new owner if the vehicle is sold.

The Owner's Manual is also available for download from your authorized KTM dealer and on the KTM website.
International KTM Website: http://www.ktm.com

3 IMPORTANT NOTES

3.1 Manufacturer and implied warranty

The work specified in the service schedule may only be performed in an authorized KTM workshop and must be recorded in both the Service & Warranty Booklet and in the **KTM Dealer.net**, otherwise any warranty coverage will become void. Damage or secondary damage caused by tampering with and/or conversions on the vehicle is not covered by the manufacturer warranty.
Additional information on the manufacturer or manufacturer warranty and the procedures involved can be found in the Service & Warranty Booklet.

3.2 Fuel, auxiliary substances

Note

Environmental hazard Improper handling of fuel is a danger to the environment.

– Do not allow fuel to enter the groundwater, the soil, or the sewage system.

Use fuels and auxiliary substances in accordance with the Owner's Manual and specification.

3.3 Spare parts, accessories

For your own safety, only use spare parts and accessory products that are approved and/or recommended by KTM and have them installed by an authorized KTM workshop. KTM accepts no liability for other products and any resulting damage or loss.
Certain spare parts and accessory products are specified in parentheses in the descriptions. Your authorized KTM dealer will be glad to advise you.

The current **KTM PowerParts** for your vehicle can be found on the KTM website.
International KTM Website: http://www.ktm.com

3.4 Service

A prerequisite for perfect operation and prevention of premature wear is that the service, care, and tuning work on the engine and chassis is properly carried out as described in the Owner's Manual. Incorrect adjustment and tuning of the engine and chassis can lead to damage and breakage of components.
Use of the vehicle under difficult conditions, such in rain, high heat or with a heavy load, can lead to considerably more rapid wear of components such as the drive train, brake system, or suspension components. For this reason, it may be necessary to inspect or replace parts before the next scheduled service.
It is imperative that you adhere to the stipulated run-in times and service intervals. If you observe these exactly, you will ensure a much longer service life for your motorcycle.

3.5 Figures

The figures contained in the manual may depict special equipment.
In the interest of clarity, some components may be shown disassembled or may not be shown at all. It is not always necessary to disassemble the component to perform the activity in question. Please follow the instructions in the text.

3.6 Customer service

Your authorized KTM dealer will be happy to answer any questions you may have on your vehicle and KTM.

3 IMPORTANT NOTES

A list of authorized KTM dealers can be found on the KTM website.
International KTM Website: http://www.ktm.com

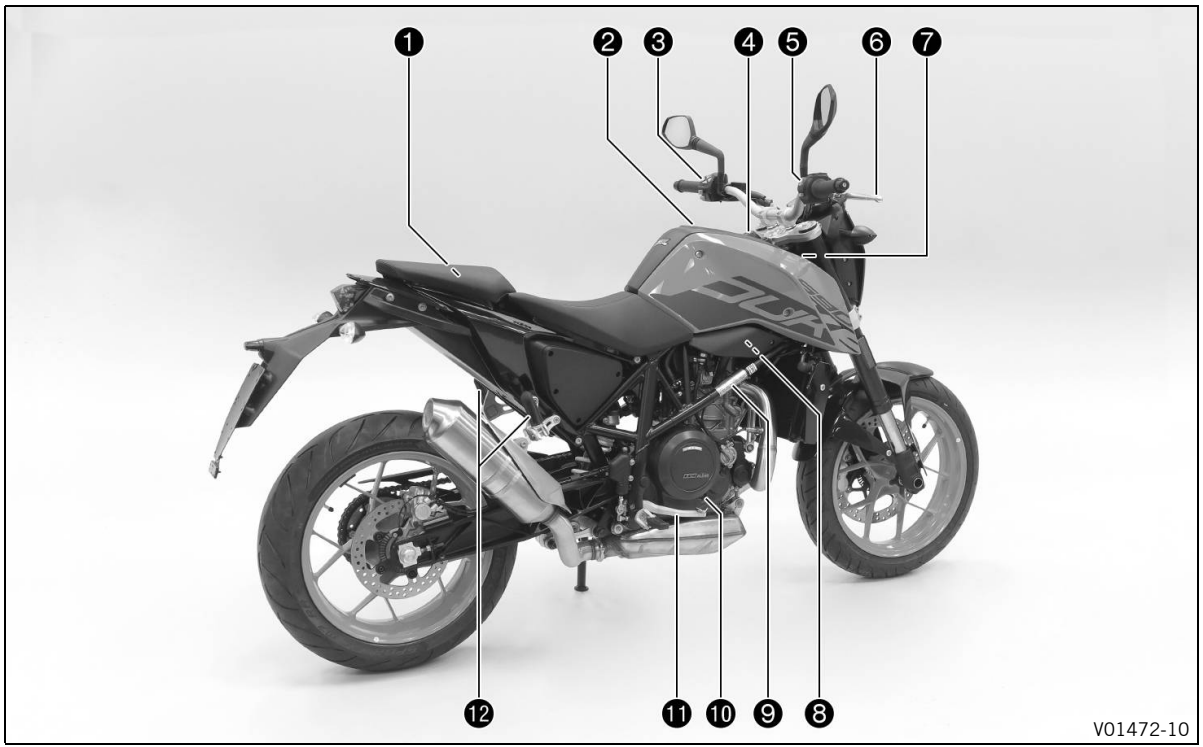
4 VIEW OF VEHICLE

4.1 View of vehicle, front left (example)

❶ Clutch lever (📖 p. 27)
❷ Front rider's seat
❸ Passenger seat
❹ Grab handles (📖 p. 38)
❺ Seat lock (📖 p. 37)
❻ Side stand (📖 p. 40)
❼ Shift lever (📖 p. 39)
❽ Engine number (📖 p. 25)

4 VIEW OF VEHICLE

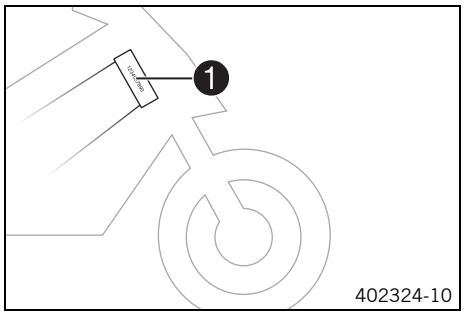
4.2 View of vehicle, rear right (example)



❶ Tool set (📖 p. 37)
❷ Fuel tank filler cap
❸ Light switch (📖 p. 29)
❸ Turn signal switch (📖 p. 30)
❸ Horn button (📖 p. 31)
❹ Ignition and steering lock (📖 p. 33)
❺ Emergency OFF switch (📖 p. 32)
❺ Electric starter button (📖 p. 32)
❻ Hand brake lever (📖 p. 27)
❼ Vehicle identification number (📖 p. 24)
❽ Fuse box
❾ Type label (📖 p. 24)
❿ Level viewer, engine oil
⓫ Foot brake lever (📖 p. 40)
⓬ Passenger foot pegs (📖 p. 38)

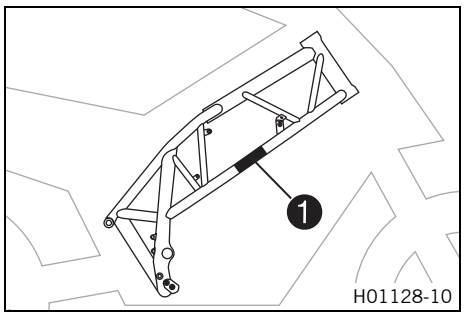
5 SERIAL NUMBERS

5.1 Vehicle identification number



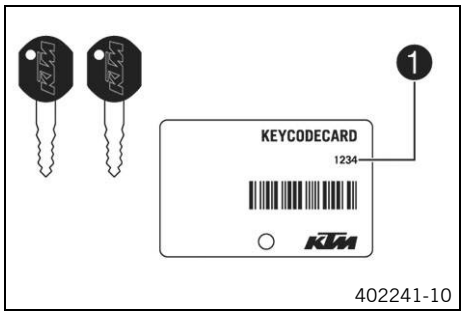
The vehicle identification number ❶ is stamped on the right side of the steering head.

5.2 Type label



The type label ❶ is located on the right side of the frame.

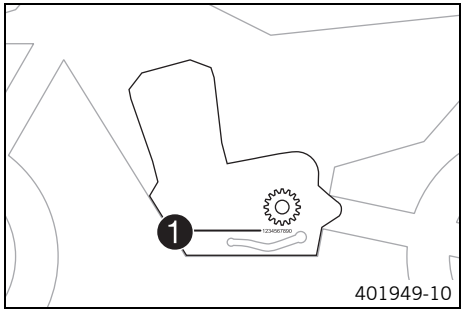
5.3 Key number



The key number ❶ can be found on the **KEYCODECARD**.

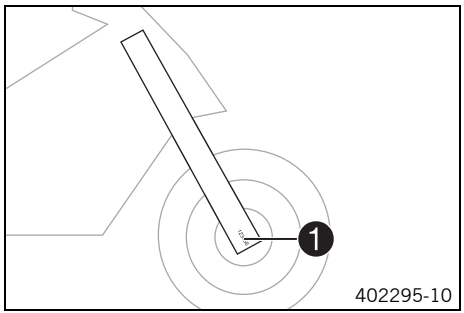
Info
You need the key number to order a spare key. Keep the **KEYCODECARD** in a safe place.

5.4 Engine number



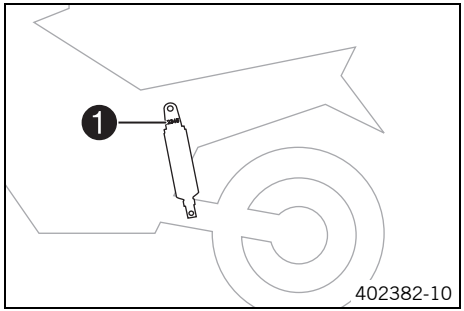
The engine number ❶ is located on the left side of the engine under the engine sprocket.

5.5 Fork part number



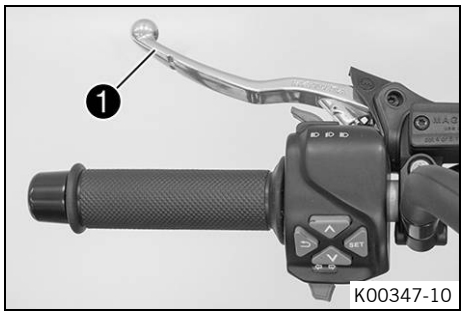
The fork part number ❶ is stamped on the inner side of the fork stub.

5.6 Shock absorber article number



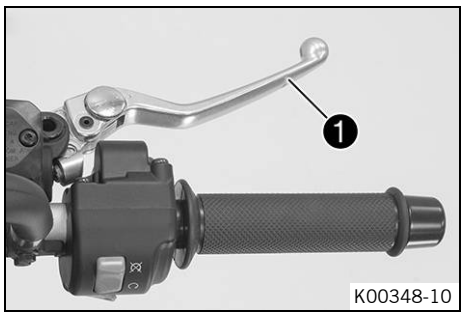
Shock absorber article number ❶ is on the left side of the shock absorber.

6.1 Clutch lever



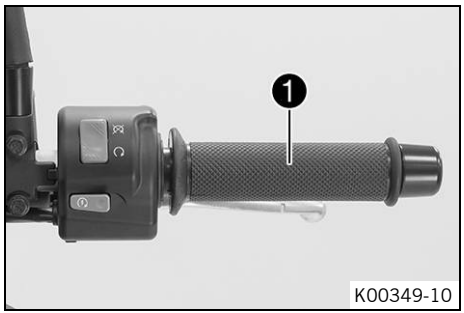
The clutch lever ❶ is fitted on the left side of the handlebar.
The clutch is hydraulically operated and self-adjusting.

6.2 Hand brake lever



The hand brake lever ❶ is fitted on the right side of the handlebar.
The front brake is engaged using the hand brake lever.

6.3 Throttle grip

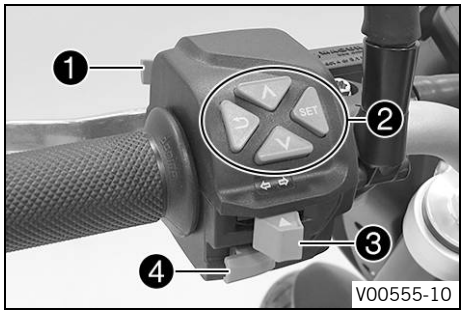


The throttle grip ❶ is fitted on the right side of the handlebar.

6.4 Switches on the left side of the handlebar

6.4.1 Combination switch

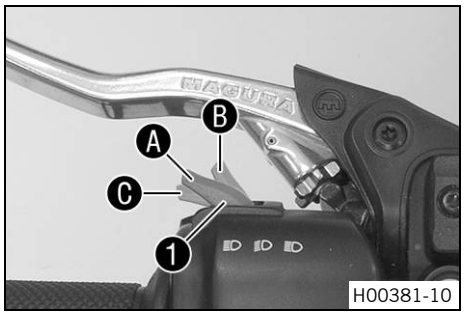
The combination switch is fitted on the left side of the handlebar.



Overview of the left combination switch

1. Light switch (📖 p. 29)
2. Menu switch (📖 p. 30)
3. Turn signal switch (📖 p. 30)
4. Horn button (📖 p. 31)

6.4.2 Light switch

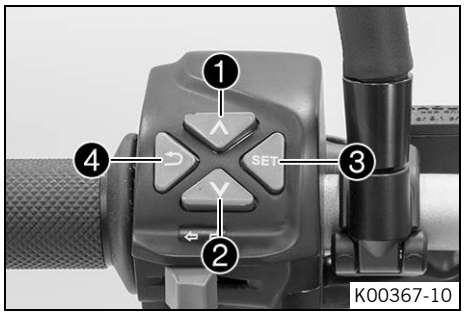


Light switch 1 is fitted on the left side of the handlebar.

Possible states

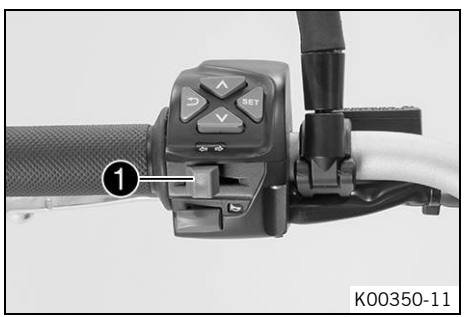
	Low beam on – Light switch in position A. In this position, the low beam and the tail light are switched on.
	High beam on – Push the light switch to position B. In this position, the high beam and the tail light are switched on.
	Headlight flasher – Push the light switch into position C.

6.4.3 Menu switch



The menu switch is fitted in the middle of the left combination switch.
The menu buttons are used to control the display on the combination instrument.
Button ❶ is the **UP** button.
Button ❷ is the **DOWN** button.
Button ❸ is the **SET** button.
Button ❹ is the **BACK** button.

6.4.4 Turn signal switch



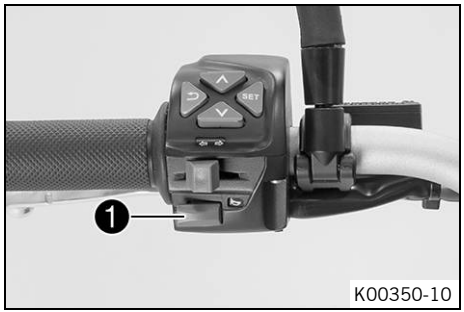
The turn signal switch ❶ is fitted on the left side of the handlebar.

Possible states

	Turn signal off
⇦	Left turn signal on – Turn signal switch pressed to the left. The turn signal switch returns to the center position after activation.
⇨	Right turn signal on – Turn signal switch pressed to the right. The turn signal switch returns to the center position after activation.

To switch off the turn signal, press the turn signal switch towards the switch housing.

6.4.5 Horn button



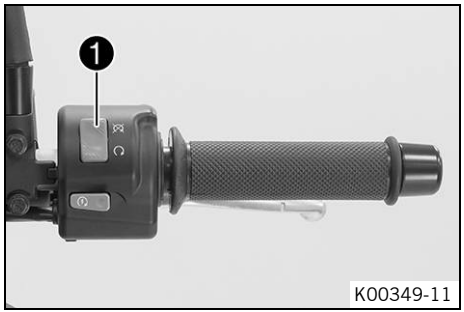
The horn button ❶ is fitted on the left side of the handlebar.

Possible states

- Horn button ⌓ in neutral position
- Horn button ⌓ pressed – The horn is operated in this position.

6.5 Switches on the right side of the handlebar

6.5.1 Emergency OFF switch

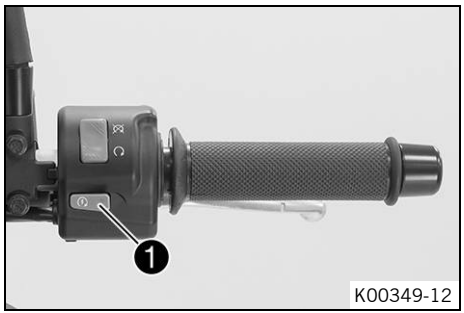


The emergency OFF switch ❶ is fitted on the right side of the handlebar.

Possible states

	Emergency OFF switch off – In this position, the ignition circuit is interrupted, a running engine stops, and the engine cannot be started.
	Emergency OFF switch on – This position is necessary for operation as the ignition circuit is closed.

6.5.2 Electric starter button

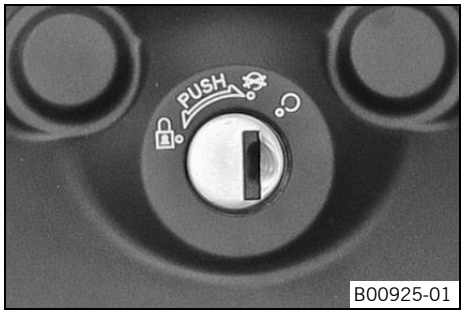


The electric starter button ❶ is fitted on the right side of the handlebar.

Possible states

- Electric starter button ⓢ in basic position
- Electric starter button ⓢ is pressed – In this position, the starter motor is actuated.

6.5.3 Ignition and steering lock



The ignition and steering lock is located in front of the upper triple clamp.

Possible states

	Ignition off – In this position, the ignition circuit is interrupted, a running engine stops, and a non-running engine will not start. The ignition key can be removed.
	Ignition on – In this position, the ignition circuit is closed and the engine can be started.
	Steering locked – In this position, the ignition circuit is interrupted and the steering locked. The ignition key can be removed.

6.6 Opening fuel tank filler cap

Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not refuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.

Warning

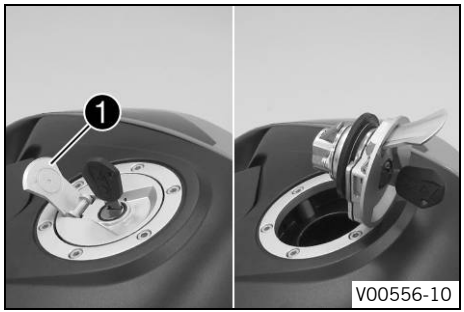
Danger of poisoning Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.
- Keep fuels correctly in a suitable canister, and out of the reach of children.

Note

Environmental hazard Improper handling of fuel is a danger to the environment.

– Do not allow fuel to enter the groundwater, the soil, or the sewage system.



– Lift cover ❶ of the fuel tank filler cap and insert the ignition key into the lock.

Note

Danger of damage The ignition key may break if overloaded.

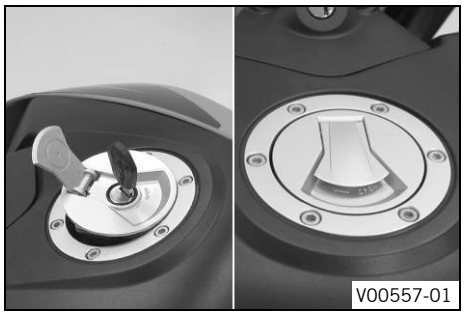
Damaged ignition keys must be replaced.

– Push down on the fuel tank filler cap to take pressure off the ignition key.

– Turn the ignition key 90° clockwise.
– Lift the fuel tank filler cap.

◀

6.7 Closing the fuel tank filler cap



– Fold down the fuel tank filler cap.
– Turn the ignition key 90° clockwise.
– Push down the fuel tank filler cap and turn the ignition key counterclockwise until the lock closes.

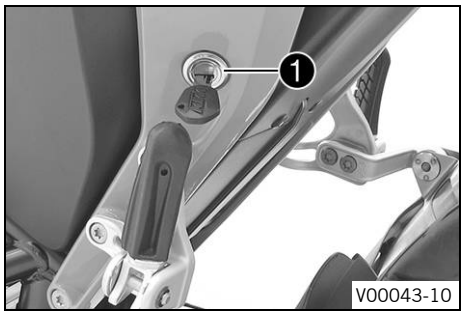
Warning

Fire hazard Fuel is highly flammable, toxic and a health hazard.

– Check that the fuel tank filler cap is locked correctly after closing.
– Change your clothing if fuel spills on them.
– Rinse the affected area immediately with plenty of water in the event of contact with the skin.

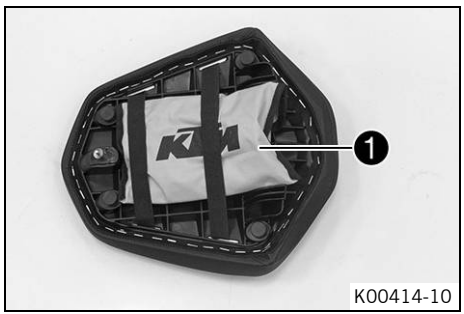
– Remove the ignition key and close the cover.

6.8 Seat lock



The seat lock ❶ is located on the left side of the vehicle.
It can be locked with the ignition key.

6.9 Tool set



The tool set ❶ is located under the passenger seat.

6.10 Grab handles

The grab handles ❶ are used for moving the motorcycle around. If you carry a passenger, the passenger can hold onto the grab handles during the trip.

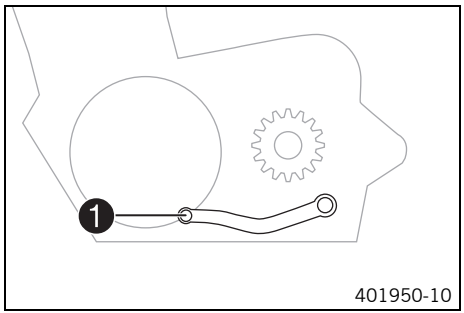
6.11 Passenger foot pegs

The passenger foot pegs can be folded up and down.

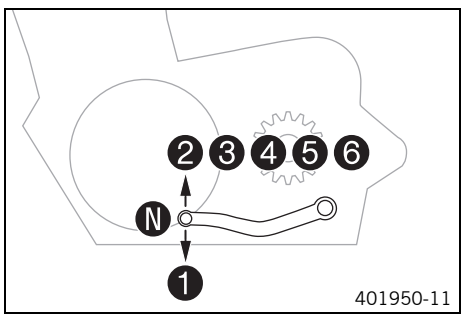
Possible states

- Passenger foot pegs folded up – For operation without a passenger.
- Passenger foot pegs folded down – For operation with a passenger.

6.12 Shift lever

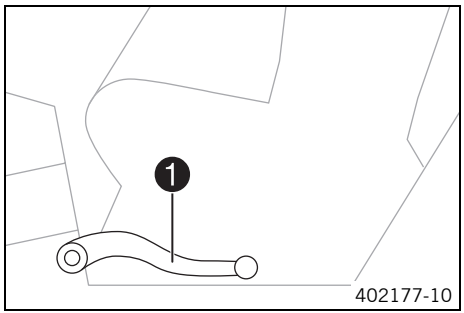


The shift lever ❶ is mounted on the left side of the engine.



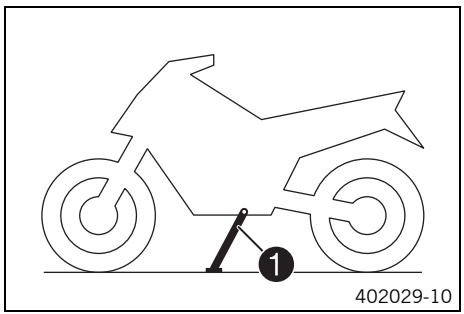
The gear positions can be seen in the photograph.
The neutral or idle position is between the first and second gears.

6.13 Foot brake lever



Foot brake lever ❶ is located in front of the right footrest.
The rear brake is engaged with the foot brake lever.

6.14 Side stand



The side stand ❶ is located on the left of the vehicle.
The side stand is used for parking the motorcycle.

Info

The side stand must be folded up during motorcycle use. The side stand is coupled with the safety starting system; follow the riding instructions.

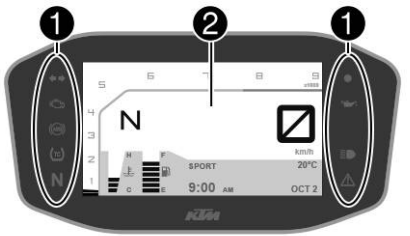
Possible states

- Side stand folded out – The vehicle can be supported on the side stand. The safety starting system is active.

- Side stand folded in – This position is mandatory when riding the motorcycle. The safety starting system is inactive.

7 COMBINATION INSTRUMENT

7.1 Combination instrument



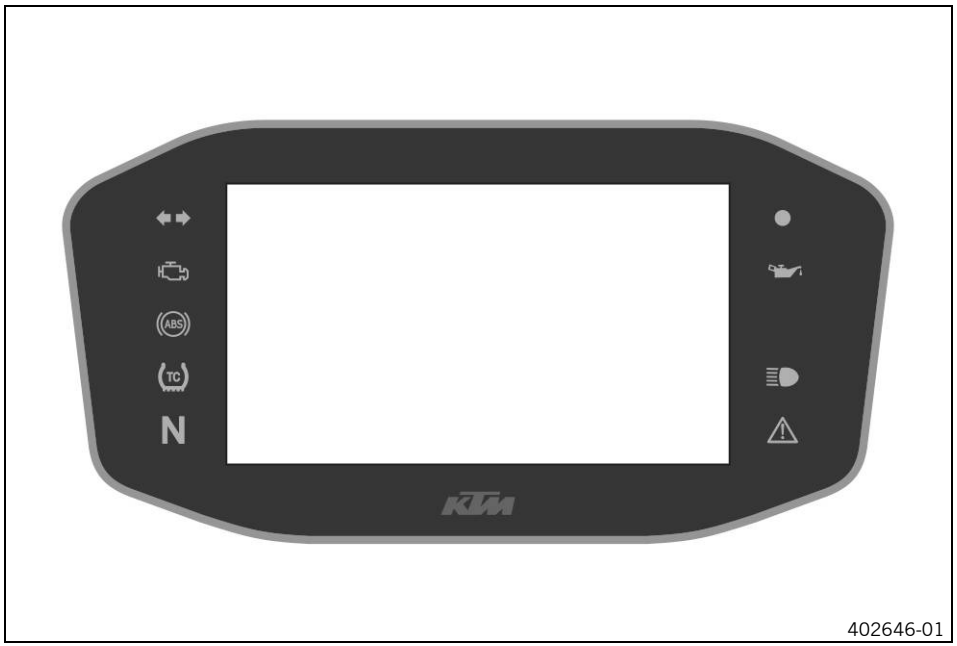
402644-10

The combination instrument is attached in front of the handlebar.
The combination instrument is divided into 2 function areas.

❶ indicator lamps (📖 p. 43)

Display ❷

7.2 Indicator lamps

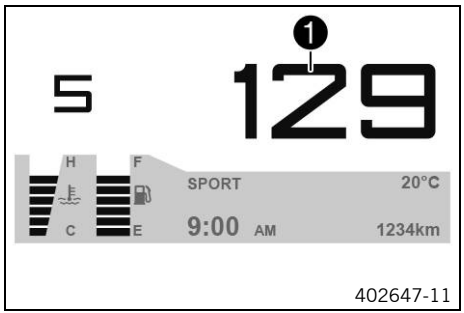


The indicator lamps offer additional information about the operating state of the motorcycle.
When the ignition is switched on, all indicator lamps light up briefly.

Possible states

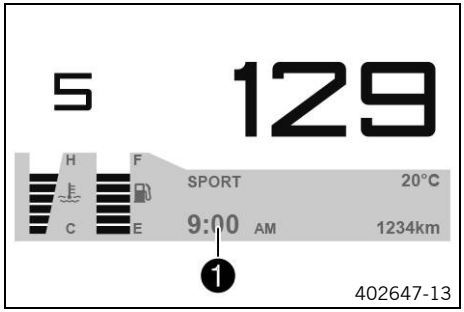
	The turn signal indicator lamp flashes green simultaneously with the turn signal – The turn signal is switched on.
	Malfunction indicator lamp lights up yellow – The OBD has detected an error in the vehicle electronics. Come safely to a halt, and contact an authorized KTM workshop.
	The ABS warning lamp lights up yellow – Status or error messages relating to ABS. The ABS warning lamp flashes if the ABS mode **"SupMot"** is enabled.
	TC indicator lamp lights up yellow – The TC is not available. Contact an authorized KTM workshop. The TC indicator lamp flashes, if TC actively engages.
	The idle indicator lamp lights up green – The transmission is in neutral.
	The immobilizer indicator lamp lights up or flashes red – Status or error message for immobilizer/alarm system.
	The oil pressure warning lamp lights up red – The oil pressure is too low. Stop immediately, taking care not to endanger yourself or other road users in the process, and switch off the engine.
	The high beam indicator lamp lights up blue – The high beam is switched on.
	The general warning lamp lights up yellow – A note/warning note on operating safety has been detected. This is also shown in the display.

7.3 Speed



Speed ❶ is shown in kilometers per hour **km/h** or in miles per hour **mph**.

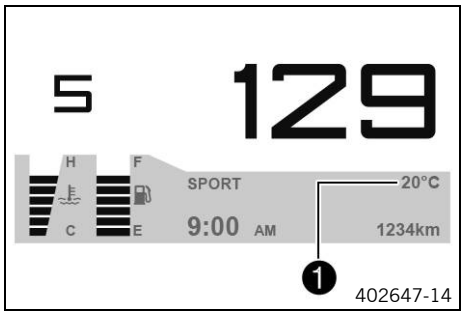
7.4 Time



The time is shown in area ❶ of the display.
The time is displayed in 12 hour format if the language is set to EN-US.

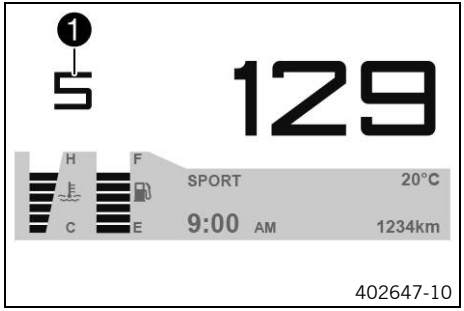
Info
The time must be reset if the 12-V battery was disconnected from the vehicle or the fuse was removed.

7.5 Temperature



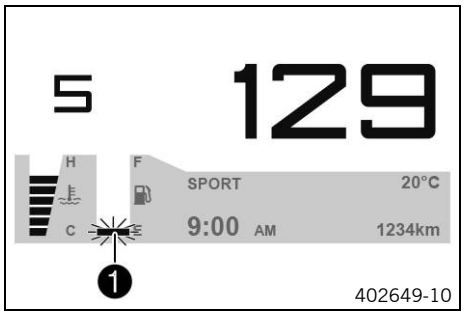
The current ambient temperature is shown in area ❶ of the display.

7.6 Gear display



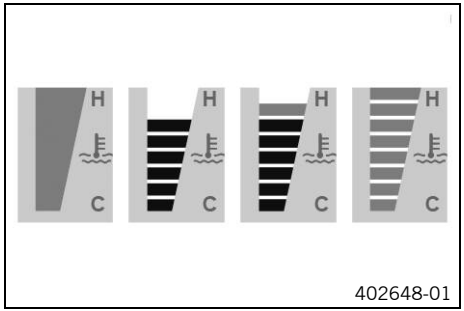
The current gear is shown in area ❶ of the display.

7.7 Fuel tank capacity



The fuel tank contents are shown in area ❶ of the display.
If the fuel level is getting low, the last segment flashes. Refuel at the next opportunity.

7.8 Coolant temperature indicator



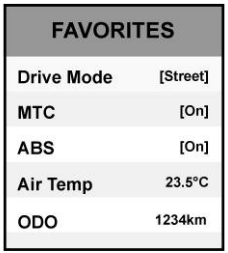
The temperature indicator in the display consists of 8 bars. The more bars that light up, the hotter the coolant.

Info
When all the bars light up, the warning **ENGINE TEMP HIGH** also appears.

Possible states

- The engine is cold – the coolant indicator lights up blue.
- Engine warm – two to six bars light up.
- Engine hot – six bars light up black, 1 to 2 bars light up red.
- Engine very hot – all eight bars flash red.

7.9 "Favorites"

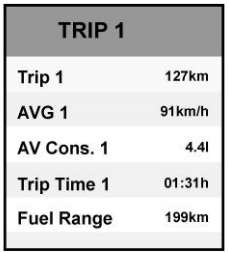


K00389-01

– Press the **UP** or **DOWN** button until the **"Favorites"** menu appears on the display. Pressing the **SET** button opens the menu.
– Press the **UP** or **DOWN** button to select the menu item and activate it with the **SET** button.

You can directly open five menus in the **"Favorites"** menu.
The **"Favorites "**menu can be configured in the **"Set Favorites"** menu.

7.10 "Trip 1"



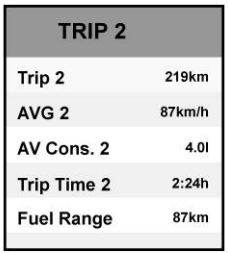
K00386-01

– Press the **UP** or **DOWN** button until the **"Trip 1"** menu appears on the display.

"Trip 1" shows the distance since the last reset, such as between two refueling stops. **"Trip 1"** runs continuously and counts the distance up to **999**.
"AVG 1" indicates the average speed based on **"Trip 1"** and **"Trip Time 1"**.
"AV Cons. 1" indicates the average fuel consumption based on **"Trip 1"** and **"Trip Time 1"**.
"Trip Time 1" indicates the riding time based on **"Trip 1"** and starts running as soon as a speed signal comes in.
"Fuel Range" indicates the possible range with the fuel reserve.

Press and hold the button SET for 3–5 seconds.	All entries in the **"Trip 1"** menu are cleared.

7.11 "Trip 2"



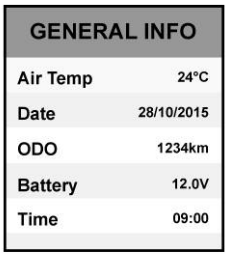
K00387-01

– Press the **UP** or **DOWN** button until the **"Trip 2"** menu appears on the display.

"Trip 2" shows the distance since the last reset, such as between two refueling stops. **"Trip 2"** runs continuously and counts the distance up to **999**.
"AVG Speed 2" indicates the average speed based on **"Trip 2"** and **"Trip Time 2"**.
"AV Cons. 2" indicates the average fuel consumption based on **"Trip 2"** and **"Trip Time 2"**.
"Trip Time 2" indicates the riding time based on **"Trip 2"** and starts running as soon as a speed signal comes in.
"Fuel Range" indicates the possible range with the fuel reserve.

Press and hold the button SET for 3–5 seconds.	All entries in the **"Trip 2"** menu are cleared.

7.12 "General info"



312033-10

– Press the **UP** or **DOWN** button until the **"General Info"** menu appears on the display.

"Air Temp" displays the ambient air temperature.
"Date" displays the date.
"ODO" displays the total distance covered.
"Battery" displays the battery voltage.
"Time" displays the current time.

7.13 "Set Favorites"

K00429-01

Condition

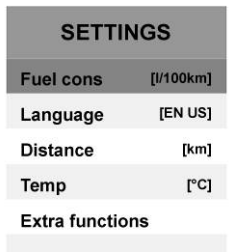
- The vehicle is stationary.

– Press the **UP** or **DOWN** button until the **"Set Favorites"** menu appears on the display. Pressing the **SET** button opens the menu.

– Press the **UP** or **DOWN** button to select the menu. Press the **SET** button to set the menu for quick selection.

The **"Favorites "**menu can be configured in the **"Set Favorites"** menu.

7.14 "Settings"



H02606-01

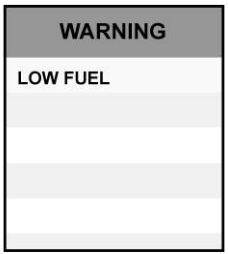
Condition

- The vehicle is stationary.

– Press the **UP** or **DOWN** button until the **"Settings"** menu appears in the display. Press the **SET** button to open the menu.

Settings for units or various values are made in the **"Settings"** menu. Several functions can be enabled or disabled.

7.15 "Warning"



K00388-01

Condition

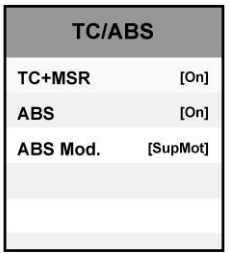
- Message or warning

– Press the **UP** or **DOWN** button until the **"Warning"** menu appears on the display. Pressing the **SET** button opens the menu.

– Use the **UP** or **DOWN** button to navigate through the warnings.

In the **"Warning"** menu, warnings that occurred are displayed and stored until they are no longer enabled.

7.16 "TC/ABS"



K00395-01

Condition

- The vehicle is stationary.

Note

Voiding of the government approval for road use and the insurance coverage If the ABS is switched off completely, the vehicle's approval for road use is invalidated.

– Only operate the vehicle in closed-off areas remote from public road traffic if the ABS is switched off completely.

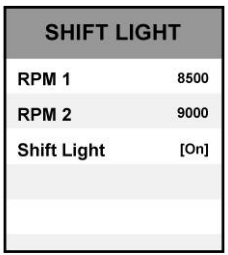
– Press the **UP** or **DOWN** button until the **"TC/ABS"** menu appears on the display. Press the **SET** button to open the menu.

In the **"TC/ABS"** menu, **"TC"** and **"ABS"** can be switched off.
In the **"ABS Mode"** menu, a choice can be made between **"Road"** and **"SupMot"**.

Info

The displayed scope of functions depends on the equipment.
After the ignition is switched on, traction control and ABS are enabled again.
When the **"Road"** ABS mode is enabled, ABS controls both wheels.
When the **"SupMot"** ABS mode is enabled, ABS only controls the front wheel. The rear wheel is not controlled by ABS and may lock during braking maneuvers.
The menu content varies depending on the electronics packages available.

7.17 "Shift Light"



H02602-01

Condition

- The vehicle is stationary.
- **ODO** > 1,000 km (621 mi).

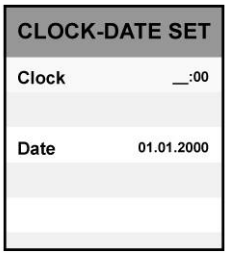
– Press the **UP** or **DOWN** button until the **"Settings"** menu appears in the display. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until the **"Shift Light"** menu is marked in the display. Pressing the **SET** button again opens the menu.

– Press the **UP** or **DOWN** button to select the function. Use the **SET** button to set the engine speed for the gear shift recommendation.

When the engine speed reaches **"RPM 1"**, the speed display lights up red.
When the engine speed reaches **"RPM 2"**, the speed display flashes red.
Switch the **"Shift Light"** function on or off.

7.18 Setting the time and date



K00393-01

Condition
The motorcycle is stationary.

– Press the **UP** or **DOWN** button until the **"Settings"** menu appears in the display. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until the **"Clock-date set"** menu is marked in the display. Pressing the **SET** button again sets the unit of measure.
– Press the **SET** button.
  ✓ The hour next to **"Clock"** flashes.
– Press the **UP** or **DOWN** button until the current hour is set.
– Press the **SET** button.
  ✓ The minute next to **"Clock"** flashes.
– Press the **UP** or **DOWN** button until the current minute is set.
– Press the **SET** button.

✓ The day next to **"Date"** flashes.

– Press the **UP** or **DOWN** button until the current day is set.

– Press the **SET** button.

✓ The month next to **"Date"** flashes.

– Press the **UP** or **DOWN** button until the current month is set.

– Press the **SET** button.

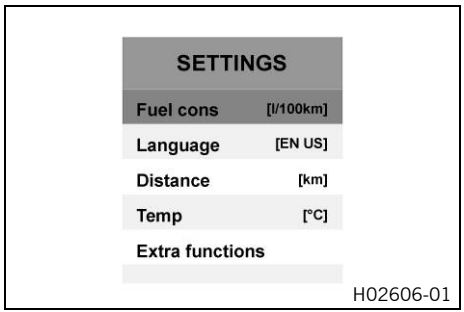
✓ The year next to **"Date"** flashes.

– Press the **UP** or **DOWN** button until the current year is set.

– Press the **BACK** button.

✓ Time and date are saved.

7.19 "Fuel Cons"



Condition

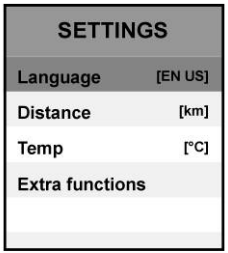
- The vehicle is stationary.

– Press the **UP** or **DOWN** button until the **"Settings"** menu appears in the display. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until the **"Fuel Cons"** menu is marked on the display. Pressing the **SET** button again sets the unit of measure.

Select one of the available consumption displays.

7.20 "Language"



H02603-01

Condition

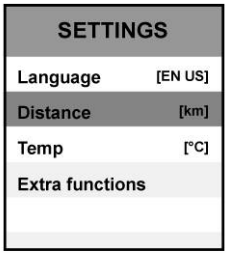
- The vehicle is stationary.

– Press the **UP** or **DOWN** button until the **"Settings"** menu appears in the display. Press the **SET** button to open the menu.

– Press the **SET** button again to select the language.

The menu languages are US English, UK English, German, Italian, French and Spanish.

7.21 "Distance"



H02604-01

Condition

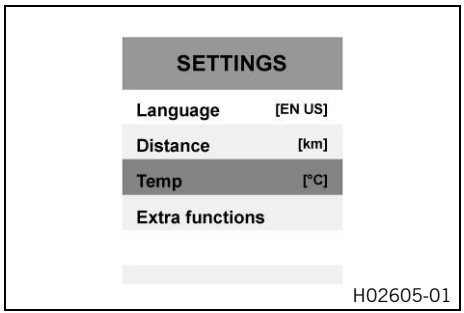
- The vehicle is stationary.

– Press the **UP** or **DOWN** button until the **"Settings"** menu appears in the display. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **"Distance"** is marked in the display. Pressing the **SET** button again sets the unit of measure.

Select kilometers **"km"** or miles **"mi"** for the distance.

7.22 "Temp"



Condition

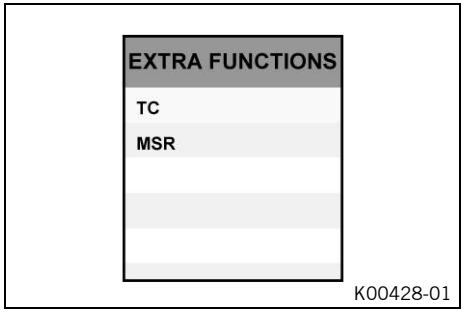
- The vehicle is stationary.

– Press the **UP** or **DOWN** button until the **"Settings"** menu appears in the display. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until the **"Temp"** menu is marked in the display. Pressing the **SET** button again sets the unit of measure.

Select **"°C"** or **"°F"** for the temperature indicator.

7.23 "Extra functions"



Condition

- The vehicle is stationary.

– Press the **UP** or **DOWN** button until the **"Settings"** menu appears in the display. Press the **SET** button to open the menu.

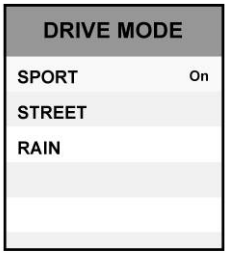
– Press the **UP** or **DOWN** button until the **"Extra functions"** menu is marked in the display.

– Press the **SET** button.

Info
The optional extra functions are displayed in this menu.

7.24 Drive Mode (optional)

Info
The **"Drive Mode"** menu is only available if **TC** is available on the vehicle.



K00449-01

– Press the **UP** or **DOWN** button until the **"Drive Mode"** menu appears on the display. Press the **SET** button to open the menu.
– Use the **UP** or **DOWN** button to navigate through the menu. The **SET** button can be used to select engine and traction control settings that are coordinated with each other.
  - ✔ SPORT – homologated performance with very direct response; the traction control allows greater slip on the rear wheel
  - ✔ STREET – homologated performance with balanced response; the traction control allows normal slip on the rear wheel
  - ✔ RAIN - homologated performance with soft response for improved driveability; the traction control allows normal slip on the rear wheel

8.1 Advice on preparing for first use

Danger

Danger of accidents A rider who is not fit to ride poses a danger to him or herself and others.

– Do not operate the vehicle if you are not fit to ride due to alcohol, drugs or medication.
– Do not operate the vehicle if you are physically or mentally impaired.

Warning

Risk of injury Missing or poor protective clothing presents an increased safety risk.

– Wear appropriate protective clothing such as helmet, boots, gloves as well as trousers and a jacket with protectors on all rides.
– Always wear protective clothing that is in good condition and meets the legal regulations.

Warning

Danger of crashing Different tire tread patterns on the front and rear wheel impair the handling characteristic.

Different tire tread patterns can make the vehicle significantly more difficult to control.

– Make sure that only tires with a similar tire tread pattern are fitted to the front and rear wheel.

Warning

Danger of accidents Non-approved or non-recommended tires and wheels impact the handling characteristic.

– Only use tires/wheels approved by KTM with the corresponding speed index.

Warning

Danger of accidents New tires have reduced road grip.

The contact surface on new tires is not yet roughened.

– Run in new tires with moderate riding at alternating angles.
  Running-in phase 200 km (124 mi)

Warning

Danger of accidents The brake system fails in the event of overheating.

If the foot brake lever is not released, the brake linings drag continuously.

– Take your foot off the foot brake lever when you are not braking.

Info

When using your vehicle, remember that others may feel disturbed by excessive noise.

– Make sure that the pre-sales inspection work has been carried out by an authorized KTM workshop.
  ✔ You receive a delivery certificate and the Service & Manufacturer Warranty Booklet at vehicle handover.
– Before riding for the first time, read the entire Owner's Manual carefully.
– Get to know the controls.
– Adjust the basic position of the clutch lever. (📖 p. 103)
– Adjust the basic position of the hand brake lever. (📖 p. 110)
– Adjust the basic position of the foot brake lever. 🔧 (📖 p. 118)

– Get used to handling the motorcycle in a suitable area before making a longer trip. Try also to ride as slowly as possible to get a better feel for the motorcycle.
– Hold the handlebar firmly with both hands and keep your feet on the footrests when riding.
– Run the engine in. (📖 p. 61)

8.2 Running in the engine

– During the running-in phase, do not exceed the specified engine speed.
Guideline

Maximum engine speed	
During the first: 1,000 km (620 mi)	6,000 rpm
After the first: 1,000 km (620 mi)	7,800 rpm

– Avoid fully opening the throttle!

8.3 Loading the vehicle

Warning

Danger of accidents Total weight and axle loads influence the handling characteristic.

The total weight consists of: motorcycle ready for operation and with a full tank, driver and passenger with protective clothing and helmet, and luggage.

– Do not exceed the maximum permissible overall weight or the axle loads.

Warning

Danger of accidents Improper mounting of cases or the tank rucksack impairs the handling characteristic.

– Mount and secure cases and tank rucksack according to the manufacturer's instructions.

Warning

Danger of accidents Unstable handling characteristics at high speed.

– Adapt your speed according to your payload. Ride more slowly if your motorcycle is loaded with cases or other baggage.

Maximum speed with baggage	130 km/h (80.8 mph)

Warning

Danger of accidents The luggage system will be damaged if it is overloaded.

– Read the manufacturer information on maximum payload when mounting cases.

Warning

Danger of accidents Luggage which has slipped impairs visibility.

If the tail light is covered, you are less visible to traffic behind you, especially when it is dark.

– Check that your luggage is fixed properly at regular intervals.

Warning

Danger of accidents A high payload alters the handling characteristic and increases the stopping distance.

– Adapt your speed to your payload.

Warning

Danger of accidents Pieces of luggage which have slipped impair the handling characteristic.

– Check that your luggage is fixed properly at regular intervals.

Warning

Fire hazard The hot exhaust system may burn luggage.

– Fasten your luggage in such a way that it cannot be burned or singed by the hot exhaust system.

– If you carry luggage, make sure you secure it firmly as close as possible to the center of the vehicle and ensure even weight distribution between the front and rear wheels.
– Do not exceed the maximum permissible weight and the maximum permissible axle loads.

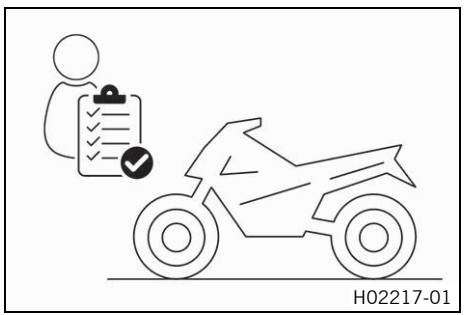
Guideline

Maximum permissible overall weight	350 kg (772 lb.)
Maximum permissible front axle load	150 kg (331 lb.)
Maximum permissible rear axle load	220 kg (485 lb.)

9.1 Checks and maintenance measures when preparing for use

Info

Before every trip, check the condition of the vehicle and ensure that it is roadworthy.
The vehicle must be in perfect technical condition when it is being operated.


H02217-01

- Check the engine oil level. (📖 p. 187)
- Check the front brake fluid level. (📖 p. 112)
- Check the rear brake fluid level. (📖 p. 120)
- Check the front brake linings. (📖 p. 116)
- Check the rear brake linings. (📖 p. 123)
- Check that the brake system is functioning properly.
- Check the coolant level in the compensating tank. (📖 p. 173)
- Check the chain for dirt. (📖 p. 95)
- Check the chain tension. (📖 p. 97)
- Check the tire condition. (📖 p. 139)
- Check tire pressure. (📖 p. 141)
- Check the settings of all controls and ensure that they can be operated smoothly.
- Check that the electrical system is functioning properly.
- Check that luggage is properly secured.
- Sit on the motorcycle and check the rear mirror setting.
- Check the fuel level.

◀

9.2 Starting the vehicle

Danger

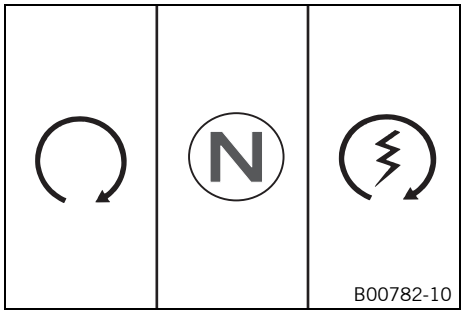
Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

Note

Engine damage High revving speed with a cold engine negatively impacts the lifespan of the engine.

– Always run the engine warm at a low speed.



– Turn the emergency OFF switch to the position ⟳.
– Switch on the ignition by turning the ignition key to the position ⟳.
  ✔ After you switch on the ignition, you can hear the fuel pump working for about two seconds. The function check of the combination instrument is run at the same time.
  ✔ The ABS warning lamp lights up and goes back out after starting off.
– Shift the transmission to neutral position.
  ✔ The green idle indicator lamp **N** lights up.
– Press the electric starter button ⚡.

Info

Do not press the electric starter button until the combination instrument function check is finished.
When starting, **DO NOT** open the throttle. If you open the throttle during the starting procedure, fuel is not injected by the engine management system and the engine cannot start.
Press the starter for a maximum of 5 seconds. Wait for a least 5 seconds before trying again.
This motorcycle is equipped with a safety starting system. You can only start the engine if the transmission is in neutral or if the clutch lever is pulled when a gear is engaged. If the side stand is folded out and you shift into gear and release the clutch, the engine stops.

– Take the weight off the side stand and swing it back up with your foot as far as it will go.

9.3 Starting off

– Pull the clutch lever, engage 1st gear, release the clutch lever slowly and simultaneously open the throttle carefully.

9.4 Shifting, riding

Warning

Danger of accidents Abrupt load alterations can cause the vehicle to get out of control.

– Avoid abrupt load alterations and sudden braking actions.
– Adapt your speed to the road conditions.

Warning

Danger of accidents If you change down at high engine speed, the rear wheel blocks and the engine races.

– Do not change into a low gear at high engine speed.

Warning

Danger of accidents An incorrect ignition key position causes malfunctions.

– Do not change the ignition key position while driving.

Warning

Danger of accidents Adjustments to the vehicle distract attention from traffic activity.

– Make all adjustments when the vehicle is at a standstill.

Warning

Risk of injury The passenger may fall from the motorcycle if they conduct themselves incorrectly.

– Ensure that the passenger sits correctly on the passenger seat, places his or her feet on the passenger foot pegs and holds on to the rider or the grab handles.
– Note the regulations governing the minimum age of passengers in your country.

Warning

Danger of accidents A risky riding style constitutes a major risk.

– Comply with traffic regulations and ride defensively and with foresight to detect sources of danger as early as possible.

Warning

Danger of accidents Cold tires have reduced road grip.

– Ride the first miles carefully on every journey at moderate speed until the tires reach operating temperature.

Warning

Danger of accidents New tires have reduced road grip.

The contact surface on new tires is not yet roughened.

– Run in new tires with moderate riding at alternating angles.
  Running-in phase 200 km (124 mi)

Warning

Danger of accidents Total weight and axle loads influence the handling characteristic.

The total weight consists of: motorcycle ready for operation and with a full tank, driver and passenger with protective clothing and helmet, and luggage.

– Do not exceed the maximum permissible overall weight or the axle loads.

Warning

Danger of accidents Pieces of luggage which have slipped impair the handling characteristic.

– Check that your luggage is fixed properly at regular intervals.

Warning

Danger of accidents A fall can damage the vehicle more seriously than it may first appear.

– Check the vehicle after a fall as you do when preparing for use.

Note

Engine damage Unfiltered intake air has a negative effect on the service life of the engine.

Dust and dirt will enter the engine without an air filter.

– Never start to use the vehicle without an air filter.

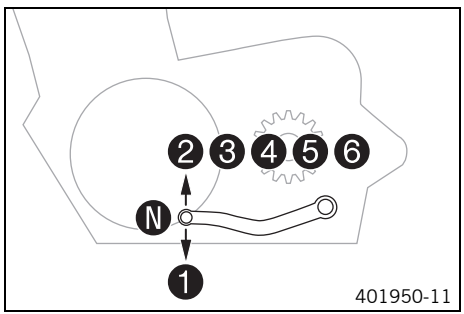
Note

Engine failure Overheating damages the engine.

– If the coolant temperature warning is displayed, stop immediately and take care not to endanger yourself or other traffic participants in the process.
– Allow the engine and cooling system to cool down.
– Check and, if necessary, correct the coolant level on the cooling system while it is in a cooled state.

Info

If unusual noises arise during operation, stop immediately, switch off the engine, park the vehicle properly, and contact an authorized KTM workshop.



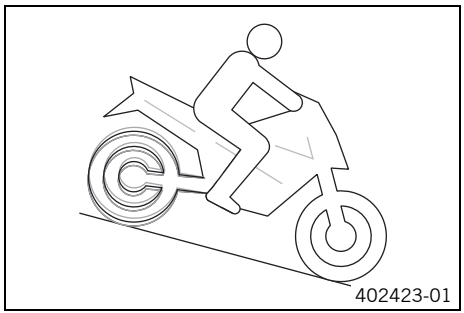
– Shift into a higher gear when conditions allow (incline, road situation, etc.).
– Release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch lever, and open the throttle.

Info

You can see the positions of the 6 forward gears in the figure. The neutral or idle position is between the first and second gears. First-gear is used for starting off or for steep inclines.
The operating temperature is reached when 5 bars of the temperature indicator light up.

– After reaching maximum speed by fully opening the throttle grip, turn the throttle back so it is ¾ open. This will barely reduce the speed but fuel consumption will be considerably lower.
– Accelerate only up to a speed suitable for the road surface and weather conditions. Particularly in bends, do not shift, and accelerate very carefully.
– Brake if necessary and close the throttle at the same time in order to shift down.
– Pull the clutch lever and shift into a lower gear, release the clutch lever slowly, and open the throttle or shift again.
– If the engine stalls (e.g. at a crossroads), just pull the clutch lever and press the electric starter button. The transmission must not be shifted into neutral.
– Switch off the engine if running at idle speed or stationary for a long time.
– If the malfunction indicator lamp lights up while riding, stop immediately taking care not to endanger yourself or other road users in the process.

9.5 Engine traction torque control (MSR)



The **MSR** is an optional auxiliary function of the engine control.
If the engine braking effect is too great, the **MSR** prevents the rear wheel from locking.
To avoid slip of the rear wheel, the **MSR** only opens the throttle valve as far as absolutely necessary.
The **MSR** is applied on surfaces, where the friction is to low to open the slipper clutch.

Info
When the **ABS** is switched off or the ABS mode **SupMot**is enabled, the **MSR** is not enabled.

9.6 Applying the brakes

Warning
Danger of accidents Moisture and dirt impair the brake system.
– Brake carefully several times to dry out and remove dirt from the brake linings and the brake discs.

Warning
Danger of accidents A spongy pressure point on the front or rear brake reduces braking efficiency.
– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)

Warning

Danger of accidents The brake system fails in the event of overheating.

If the foot brake lever is not released, the brake linings drag continuously.

– Take your foot off the foot brake lever when you are not braking.

Warning

Danger of accidents Higher total weight increases the stopping distance.

– Take the longer stopping distance into account when carrying a passenger or luggage with you.

Warning

Danger of accidents Salt on the roads impairs the brake system.

– Brake carefully several times to remove salt from the brake linings and the brake discs.

Warning

Danger of accidents ABS may increase the stopping distance in certain situations.

– Adjust application of the brakes to the respective riding situation and riding surface conditions.

Warning

Danger of accidents Excessively forceful application of the brakes blocks the wheels.

The ABS effectiveness is only ensured if it is switched on.

– Leave the ABS switched on in order to benefit from the protective effect.

Warning

Danger of accidents The rear wheel can lock due to the engine braking effect.

– Pull in the clutch, if you perform emergency or full braking, or if you brake on a slippery ground.

– When braking, release the throttle and apply the front and rear brakes at the same time.

Info

When ABS is active, you can achieve maximum braking power even on low grip surfaces such as sandy, wet, or slippery terrain without locking of the tires.

Warning

Danger of accidents Banked or laterally sloping ground reduces the maximum possible delay.

– If possible finish braking before going into a bend.

– Braking should always be completed before you go into a bend. Change down to a lower gear appropriate to your road speed.
– On long downhill stretches, use the braking effect of the engine. Change down one or two gears, but do not over rev the engine. As a result, you will have to apply the brakes far less frequently and the brake system will not overheat.

9.7 Stopping, parking

Warning

Risk of injury People who act without authorization endanger themselves and others.

– Do not leave the vehicle unattended if the engine is running.
– Protect the vehicle against access by unauthorized persons.
– Lock the steering and remove the ignition key if you leave the vehicle unattended.

Warning

Danger of burns Some vehicle components become very hot when the vehicle is operated.

– Do not touch any parts such as the exhaust system, radiator, engine, shock absorber, or brake system before the vehicle parts have cooled down.
– Let the vehicle parts cool down before you perform any work on the vehicle.

Note

Material damage The vehicle may be damaged by incorrect procedure when parking.

Significant damage may be caused if the vehicle rolls away or falls over.
The components for parking the vehicle are designed only for the weight of the vehicle.

– Park the vehicle on a firm and level surface.
– Ensure that nobody sits on the vehicle when the vehicle is parked on a stand.

Note

Fire hazard Hot vehicle components pose a fire hazard and explosion risk.

– Do not park the vehicle near to materials which are highly flammable or explosive.
– Allow the vehicle to cool down before covering it.

– Apply the brakes on the motorcycle.
– Shift the transmission to neutral position.
– Switch off the ignition by turning the ignition key to the position ⊠.

Info

If the engine is switched off with the emergency OFF switch and the ignition remains switched on at the ignition lock, power continues to flow to most power consumers. This discharges the 12-V battery. You should therefore always switch off the engine with the ignition lock – the emergency OFF switch is intended for emergencies only.

– Park the motorcycle on a firm surface.
– Swing the side stand forward with your foot as far as it will go and lean the vehicle on it.
– Lock the steering by turning the handlebar fully to the left, pressing down the ignition key to the position ⊠ and turning it to the position 🔒. To make the steering lock engage more easily, move the handlebar a little to the left and right. Remove the ignition key.

9.8 Transporting

Note

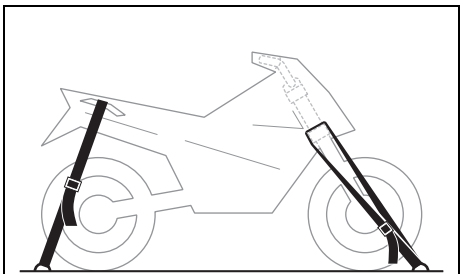
Danger of damage The parked vehicle can roll away or fall over.

– Park the vehicle on a firm and level surface.

Note

Fire hazard Hot vehicle components pose a fire hazard and explosion risk.

– Do not park the vehicle near to materials which are highly flammable or explosive.
– Allow the vehicle to cool down before covering it.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– Switch off the engine.
– Use tension belts or other suitable devices to secure the motorcycle against falling over or rolling away.

9.9 Refueling

Danger

Fire hazard Fuel is highly flammable.

The fuel in the fuel tank expands when warm and can escape if overfilled.

- Do not refuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.
- Change your clothing in case of fuel spills on them.

Note

Material damage Inadequate fuel quality causes the fuel filter to quickly become clogged.

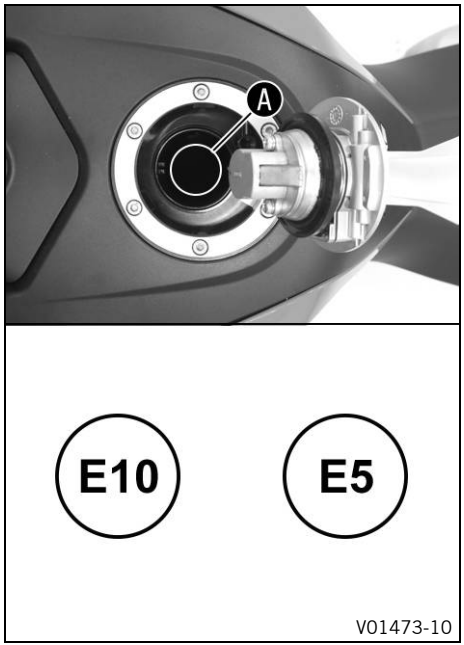
In some countries and regions, the available fuel quality and cleanliness may not be sufficient. This will result in problems with the fuel system.

– Refuel only with clean fuel that meets the specified standards. (Your authorized KTM workshop will be glad to help.)

Note

Environmental hazard Improper handling of fuel is a danger to the environment.

– Do not allow fuel to enter the groundwater, the soil, or the sewage system.



– Switch off the engine.
– Open fuel tank filler cap. (📖 p. 34)
– Fill the fuel tank with fuel up to the lower edge Ⓐ of the filler neck.

Total fuel tank capacity, approx.	14 l (3.7 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 230)

– Close the fuel tank filler cap. (📖 p. 36)

10.1 Additional information

Any further work that results from the compulsory work or from the recommended work must be ordered separately and invoiced separately.
Different service intervals may apply in your country, depending on the local operating conditions.
Individual service intervals and scopes may change in the course of technical developments. The most up-to-date service schedule can always be found on KTM Dealer.net. Your authorized KTM dealer will be happy to advise you.

10.2 Required work

	after 1,000 km (620 mi)	every 10,000 km (6,200 mi)	every 20,000 km (12,400 mi)	Every year	Every two years
Read out the fault memory using the KTM diagnostics tool. 🔧	○	●	●	●	●
Check that the electrical system is functioning properly. 🔧	○	●	●	●	●
Change the engine oil and oil filter and clean the oil screens. 🔧 (📖 p. 188)	○	●	●	●	●
Check the front brake linings. (📖 p. 116)	○	●	●	●	●
Check the rear brake linings. (📖 p. 123)	○	●	●	●	●
Check the brake discs. (📖 p. 110)	○	●	●	●	●
Check the brake lines for damage and leakage. 🔧	○	●	●	●	●
Check the front brake fluid level. (📖 p. 112)	○	●	●	●	

	after 1,000 km (620 mi)	every 10,000 km (6,200 mi)	every 20,000 km (12,400 mi)	Every year	Every two years
Check the rear brake fluid level. (📖 p. 120)	○	●	●	●	
Check/correct the fluid level of the hydraulic clutch. (📖 p. 104)		●	●	●	
Change the front brake fluid. 🔧					●
Change the rear brake fluid. 🔧					●
Change the hydraulic clutch fluid. 🔧					●
Check the free travel of the foot brake lever. (📖 p. 117)	○	●	●	●	●
Check the shock absorber and fork for leaks. 🔧	○	●	●	●	●
Clean the dust boots of the fork legs. 🔧 (📖 p. 92)		●	●		
Check steering head bearing play. 🔧	○	●	●	●	●
Check the tire condition. (📖 p. 139)	○	●	●	●	●
Check tire pressure. (📖 p. 141)	○	●	●	●	●
Check the chain, rear sprocket, and engine sprocket. (📖 p. 101)		●	●	●	●
Check the chain tension. (📖 p. 97)	○	●	●	●	●
Change the spark plugs. 🔧			●		
Check the valve clearance. 🔧		●	●		
Check the antifreeze and coolant level. (📖 p. 171)	○	●	●	●	●
Check the cables for damage and routing without sharp bends. 🔧		●	●	●	●

	after 1,000 km (620 mi)	every 10,000 km (6,200 mi)	every 20,000 km (12,400 mi)	Every year	Every two years
Change the air filter, clean the air filter box. 🔧		●	●		
Check the fuel pressure. 🔧		●	●	●	●
Check the headlight setting. (📖 p. 167)	○	●	●		
Check that the radiator fan is functioning properly. 🔧	○	●	●	●	●
Final check: Check the vehicle for road worthiness and take a test ride. 🔧	○	●	●	●	●
Read out the fault memory using the KTM diagnostics tool after a test ride. 🔧	○	●	●	●	●
Reset the service interval display. 🔧	○	●	●	●	●
Make the service entry in **KTM Dealer.net** and in the Service & Manufacturer Warranty Booklet. 🔧	○	●	●	●	●

○ One-time interval

● Periodic interval

10.3 Recommended work

	after 1,000 km (620 mi)	every 10,000 km (6,200 mi)	every 30,000 km (18,600 mi)	Every year	Every four years
Check the frame. 🔧			●		
Check the link fork. 🔧			●		
Check the fork bearing for play. 🔧		●	●		
Check the wheel bearing for play. 🔧		●	●		
Change the coolant. (📖 p. 179)					●
Empty the drainage hoses. 🔧	○	●	●	●	●
Check all hoses (e.g. fuel, coolant, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing. 🔧		●	●	●	●
Grease all moving parts (e.g., side stand, hand lever, chain, ...) and check for smooth operation. 🔧	○	●	●	●	●
Check the screws and nuts for tightness. 🔧	○	●	●	●	●

○ One-time interval

● Periodic interval

11.1 Adjusting the spring preload of the shock absorber

Warning

Danger of accidents Modifications to the suspension setting may seriously alter the handling characteristic.

– Ride slowly to start with after making adjustments to get the feel of the new handling characteristic.

Info

The spring preload defines the initial status of the spring operation on the shock absorber.
The best spring preload setting is achieved when it is set for the weight of the rider and that of any luggage and a passenger, thus ensuring an ideal compromise between handling and stability.

– Adjust the spring preload by turning adjuster ❶.

Guideline

Spring preload	
Standard	4 clicks

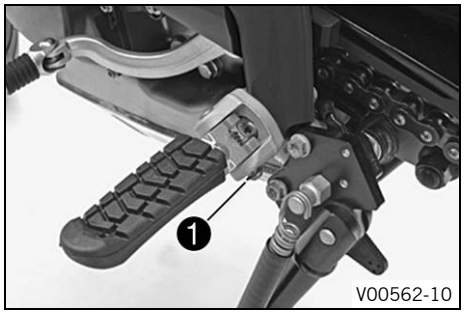
Hook wrench (T106S)

Info

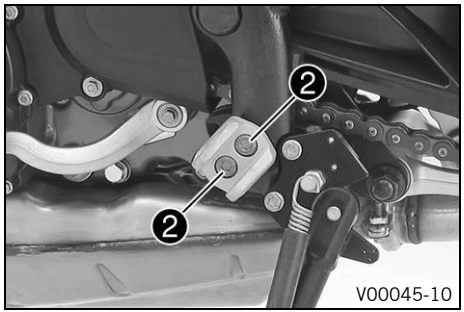
The spring preload can be set to 10 different positions.

11.2 Adjusting the footrests

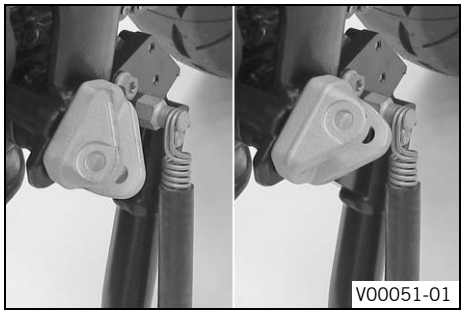
Info
The operations on the footrest brackets are the same for the left and right sides.



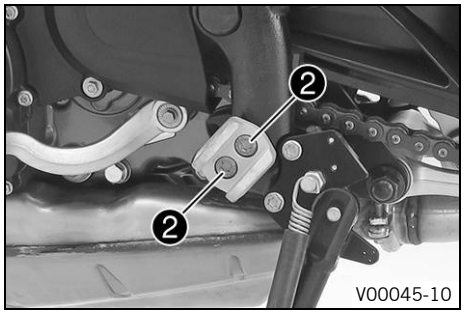
– Remove lock ring ❶.
– Remove the pin of the rider footrest. Take off the rider footrest with the spring.



– Remove screws ❷.



– Adjust the footrest bracket to the desired position.

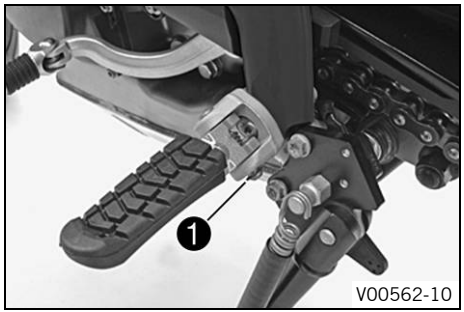


– Mount and tighten screws ❷.

Guideline

Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft) **Loctite®243™**

– Mount the rider footrest with the spring and pin.



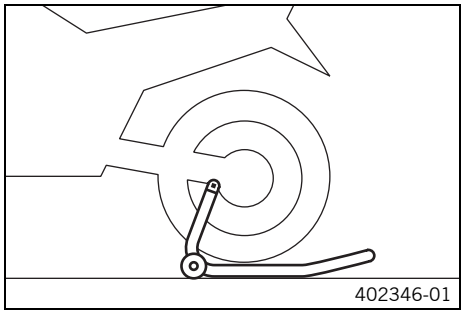
– Mount lock ring 1.

12.1 Raising the motorcycle with the rear lifting gear

Note

Danger of damage The parked vehicle can roll away or fall over.

– Park the vehicle on a firm and level surface.



– Mount the supports of the lifting gear.
– Insert the adapter in the rear lifting gear.

Retaining adapter (61029955144)
Rear wheel work stand (69329955000)

– Stand the motorcycle upright, align the lifting gear to the link fork and the adapters, and raise the motorcycle.

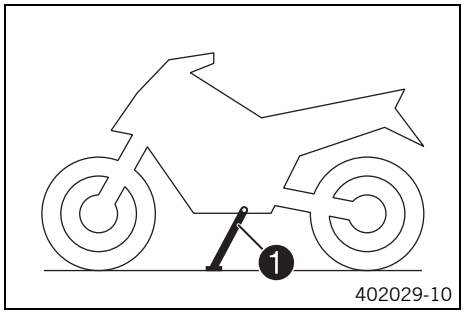
◀

12.2 Removing the rear of the motorcycle from the lifting gear

Note

Danger of damage The parked vehicle can roll away or fall over.

– Park the vehicle on a firm and level surface.



– Secure the motorcycle against falling over.
– Remove the rear lifting gear and lean the vehicle on side stand ❶.

12.3 Lifting the motorcycle with the front lifting gear

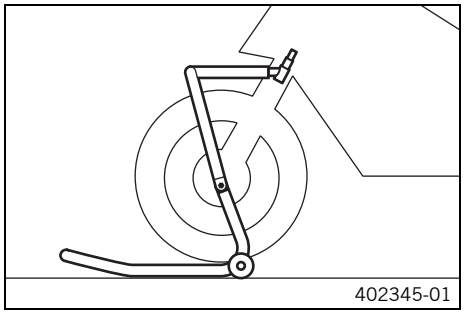
Note

Danger of damage The parked vehicle can roll away or fall over.

– Park the vehicle on a firm and level surface.

Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 89)



Main work

– Move the handlebar to the straight-ahead position. Attach the lifting gear to the steering stem.

Mounting pin (69329965030)
Front wheel work stand, large (69329965000)

Info
Always raise the motorcycle at the rear first.

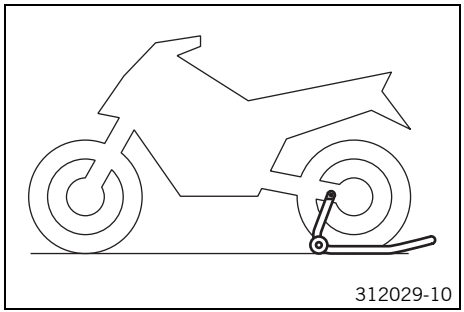
– Lift the motorcycle at the front.

12.4 Taking the motorcycle off the front lifting gear

Note

Danger of damage The parked vehicle can roll away or fall over.

– Park the vehicle on a firm and level surface.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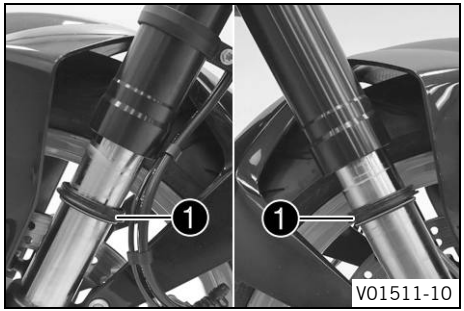
– Secure the motorcycle against falling over.
– Remove the front lifting gear.

12.5 Cleaning the dust boots of the fork legs

Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 89)
– Lift the motorcycle with the front lifting gear. (📖 p. 90)



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Main work

– Push dust boots ❶ of both fork legs downward.

Info

The dust boots remove dust and coarse dirt particles from the inside fork tubes. Over time, dirt can accumulate behind the dust boots. If this dirt is not removed, the oil seals behind can start to leak.

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.

– Clean and oil the dust boots and inner fork tubes of both fork legs.

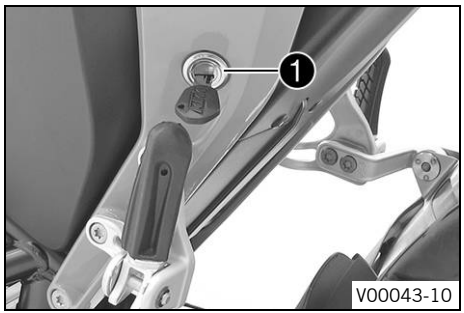
Universal oil spray (p. 232)

– Press the dust boots back into their installation position.
– Remove excess oil.

Finishing work

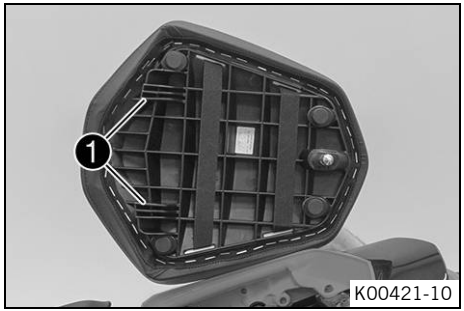
– Take the motorcycle off the front lifting gear. (p. 91)
– Remove the rear of the motorcycle from the lifting gear. (p. 89)

12.6 Removing the passenger seat



– Insert the ignition key in seat lock ❶ and turn it clockwise.
– Raise the rear of the passenger seat cover, push it toward the rear, and remove it upward.
– Remove the ignition key from the seat lock.

12.7 Mounting the passenger seat



– Hook holding lugs ❶ of the passenger seat onto the storage compartment, lower the rear and push forward.
– Press passenger seat downward until it clicks into place.

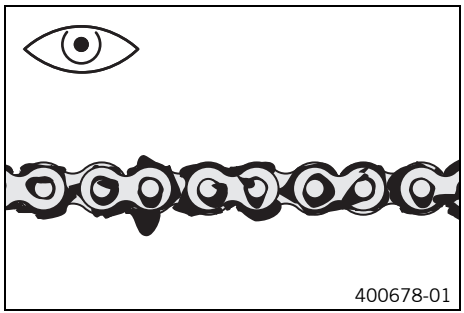
Warning

Danger of accidents The seat can come loose from the anchoring if it is not mounted correctly.

– After assembly, check whether the seat is correctly locked and cannot be pulled up.

– Finally, check that the passenger seat is correctly mounted.

12.8 Checking the chain for dirt



– Check the chain for heavy soiling.
  » If the chain is very dirty:
    – Clean the chain. (📖 p. 95)

12.9 Cleaning the chain

Warning

Danger of accidents Lubricants on the tires reduces the road grip.

– Remove lubricants from the tires using a suitable cleaning agent.

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.

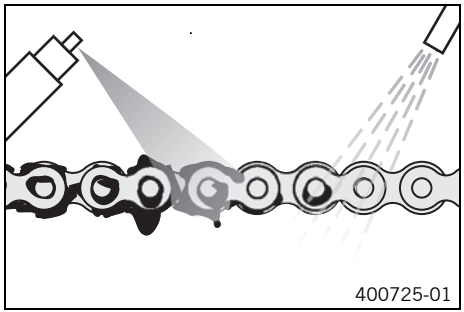
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

The service life of the chain depends largely on its maintenance.



Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 89)

Main work

– Rinse off loose dirt with a soft jet of water.

– Remove old grease residue with chain cleaner.

Chain cleaner (📖 p. 231)

– After drying, apply chain spray.

Street chain spray (📖 p. 232)

Finishing work

– Remove the rear of the motorcycle from the lifting gear. (📖 p. 89)

12.10 Checking the chain tension

Warning

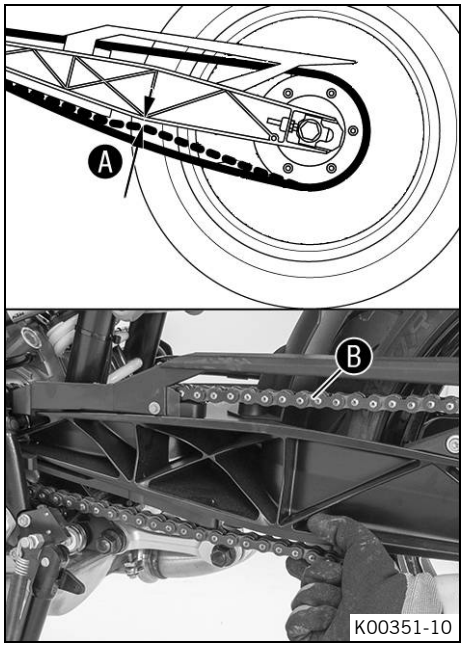
Danger of accidents Incorrect chain tension damages components and results in accidents.

If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.
If the chain is too loose, the chain may fall off the engine sprocket or the rear sprocket. As a result, the rear wheel locks or the engine will be damaged.

– Check the chain tension regularly.
– Set the chain tension in accordance with the specification.

Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 89)



Main work

– Shift the transmission to neutral position.

– Push the chain upwards near the vertical rib of the link fork and measure the chain tension Ⓐ.

Info

Top chain section Ⓑ must be taut.
Chain wear is not always even. Repeat this measurement at different chain positions.

Chain tension	5 mm (0.2 in)

» If the chain tension does not meet the specification:

– Adjust the chain tension. (📖 p. 99)

– Remove the rear of the motorcycle from the lifting gear. (📖 p. 89)

12.11 Adjusting the chain tension

Warning

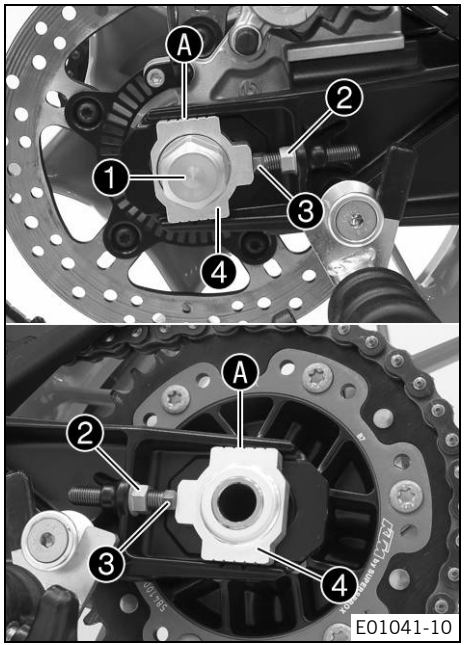
Danger of accidents Incorrect chain tension damages components and results in accidents.

If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.
If the chain is too loose, the chain may fall off the engine sprocket or the rear sprocket. As a result, the rear wheel locks or the engine will be damaged.

– Check the chain tension regularly.
– Set the chain tension in accordance with the specification.

Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 89)
– Check the chain tension. (📖 p. 97)



Main work

- Loosen nut ❶.
- Loosen nuts ❷.
- Adjust the chain tension by turning adjusting screws ❸ left and right.

  Guideline

Chain tension	5 mm (0.2 in)
Turn the adjusting screws ❸ on the left and right so that the markings on the left and right chain adjusters ❹ are in the same position relative to the reference marks Ⓐ. The rear wheel is then correctly aligned.	

Info

The top chain section must be taut.
Chain wear is not always even. Repeat this measurement at different chain positions.

- Tighten nuts ❷.
- Make sure that chain adjusters ❹ are fitted correctly on adjusting screws ❸.
- Tighten nut ❶.

  Guideline

Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)

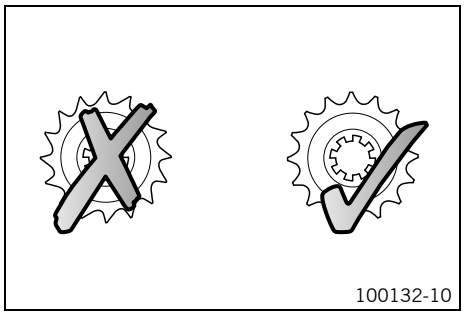
Finishing work

– Check the chain tension. (p. 97)

12.12 Checking the chain, rear sprocket, and engine sprocket

Preparatory work

– Raise the motorcycle with the rear lifting gear. (p. 89)

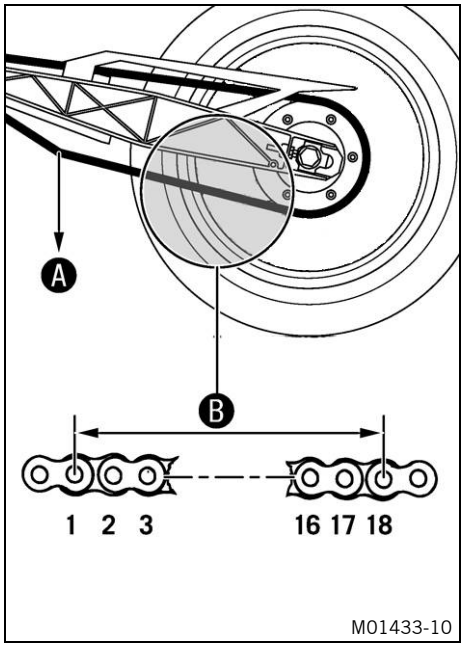

100132-10

Main work

– Check the rear sprocket and engine sprocket for wear.
  » If the rear sprocket and engine sprocket are worn:
    – Change the drivetrain kit.

Info

The engine sprocket, rear sprocket, and chain should always be replaced together.



– Shift the transmission to neutral position.
– Pull on the lower chain section with the specified weight Ⓐ.

Guideline

Weight of chain wear measurement	15 kg (33 lb.)

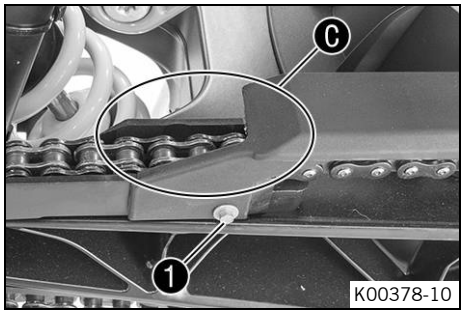
– Measure distance Ⓑ of 18 chain rollers in the lower chain section.

Info
Chain wear is not always even. Repeat this measurement at different chain positions.

Maximum distance Ⓑ from 18 chain rollers at the longest chain section	272 mm (10.71 in)

» If distance Ⓑ is greater than the specified measurement:
– Change the drivetrain kit.

Info
When a new chain is mounted, the rear sprocket and engine sprocket should also be changed.
New chains wear out faster on old, worn sprockets.
For safety reasons, the chain has no chain joint.



– Check the chain sliding guard for wear.
  » If in area C by the chain sliding guard screw 1 is visible from above:
    – Replace the chain sliding guard.
– Check that the chain sliding guard is firmly seated.
  » If the chain sliding guard is loose:
    – Tighten the screw of the chain sliding guard.

    Guideline

Screw, chain sliding guard	M6	10 Nm (7.4 lbf ft) **Loctite®243™**

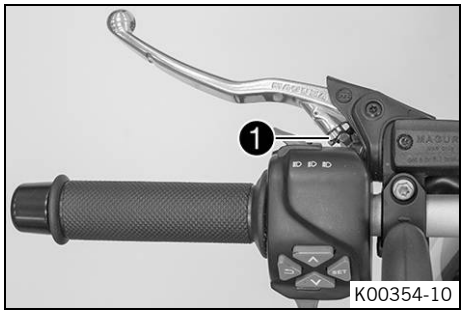
Finishing work

– Remove the rear of the motorcycle from the lifting gear. (📖 p. 89)

12.13 Adjusting the basic position of the clutch lever

Info

Turn the adjusting screw clockwise to increase the distance between the clutch lever and the handlebar.
Turn the adjusting screw counterclockwise to decrease the distance between the clutch lever and the handlebar.
The range of adjustment is limited.
Turn the adjusting screw by hand only, and do not apply any force.
Do not make any adjustments while riding.



– Adjust the basic position of the clutch lever to your hand size by turning adjusting screw ❶.

12.14 Checking/correcting the fluid level of the hydraulic clutch

Warning

Skin irritation Brake fluid causes skin irritation.

– Keep brake fluid out of the reach of children.
– Wear suitable protective clothing and safety glasses.
– Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
– Consult a doctor immediately if brake fluid has been swallowed.
– Rinse the affected area with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
– If brake fluid spills on to your clothing, change the clothing.

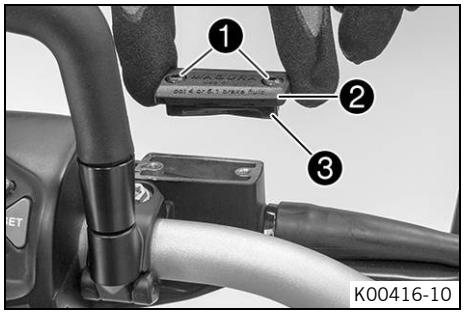
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

The fluid level rises with increasing wear of the clutch facing discs.
Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and clutch lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.
Only use clean brake fluid from a sealed container.



– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Remove cover ❷ with membrane ❸.
– Check the fluid level.

Fluid level below container rim	4 mm (0.16 in)

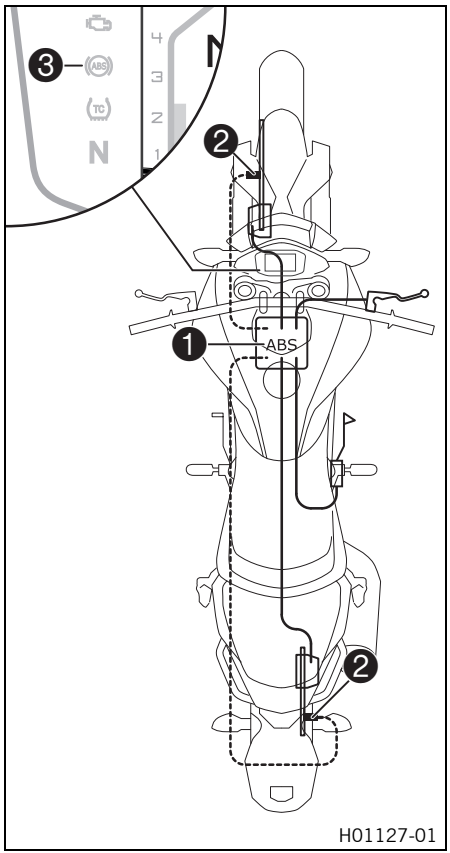
» If the fluid level does not meet specifications:
– Correct the fluid level of the hydraulic clutch.

Brake fluid DOT 4 / DOT 5.1 (📖 p. 228)

– Position the cover with the membrane. Mount and tighten the screws.

Info
Clean up overflowed or spilled brake fluid immediately with water.

13.1 Anti-lock braking system (ABS)



The ABS module ❶, which consists of a hydraulic unit, ABS control unit, and return pump, is installed under the fuel tank. One wheel speed sensor ❷ is located in each case on the front and the rear wheel.

Warning

Danger of accidents Changes to the vehicle impair the function of the ABS.

- Only allow the rear wheel to spin with the front brake applied away from public road traffic if the ABS is switched off.
- Do not make any changes to the suspension travel.
- Only use spare parts on the brake system which have been approved and recommended by KTM.
- Only use tires/wheels approved by KTM with the corresponding speed index.
- Maintain the specified tire pressure.
- Service work and repairs must be performed professionally. (Your authorized KTM workshop will be glad to help.)

Note

Voiding of the government approval for road use and the insurance coverage If the ABS is switched off completely, the vehicle's approval for road use is invalidated.

– Only operate the vehicle in closed-off areas remote from public road traffic if the ABS is switched off completely.

The ABS is a safety system that prevents locking of the wheels when driving straight ahead without the influence of lateral forces.

Warning

Danger of accidents Driving aids can only prevent a rollover within the physical limitations.

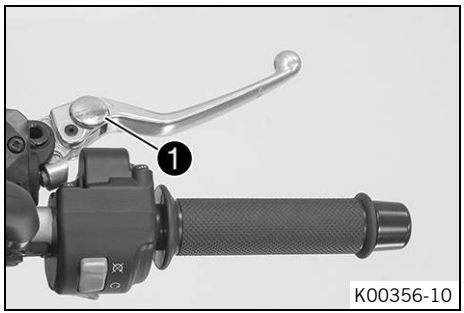
It is not always possible to compensate for extreme riding situations, for example with luggage loaded with a high center of gravity, varying road surfaces, steep descents or full braking without disengaging the gear.

– Adapt your riding style to the road conditions and your driving ability.

The ABS operates with two independent brake circuits (front and rear brakes). During normal operation, the brake system operates like a conventional brake system without ABS. When the ABS control unit detects a locking tendency in a wheel, ABS begins reg-

ulating the brake pressure. The control function causes a slight pulsing of the hand and foot brake levers.
The ABS warning lamp ❸ must light up after the ignition is switched on and go out after starting off. If it does not go out after starting off or if it lights up while riding, this indicates a fault in the ABS system. In this case, the ABS is no longer enabled and the wheels may lock during braking. The brake system itself stays functional; only ABS control is not available.
The ABS warning lamp may also light up if the rotating speeds of the front and rear wheels differ greatly under extreme riding conditions, for example when making "wheelies" or if the rear wheel spins. This causes the ABS to switch off.
To reactivate the ABS, stop the vehicle and switch off the ignition. The ABS is reactivated when the vehicle is switched on again. The ABS warning lamp goes out after starting off.

13.2 Adjusting the basic position of the hand brake lever



– Adjust the basic position of the hand brake lever to your hand size by turning adjusting wheel ❶.

Info

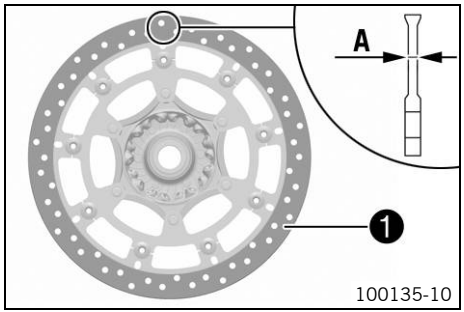
Push the hand brake lever forward and turn the adjusting wheel.
Do not make any adjustments while riding.

13.3 Checking the brake discs

Warning

Danger of accidents Worn-out brake discs reduce the braking effect.

– Make sure that worn-out brake discs are replaced immediately. (Your authorized KTM workshop will be glad to help.)



– Check the front and rear brake disc thickness at multiple points for the dimension A.

Info
Wear will reduce the thickness of the brake disc at contact surface 1 of the brake linings.

Brake discs - wear limit	
front	4.2 mm (0.165 in)
rear	4.5 mm (0.177 in)

» If the brake disc thickness is less than the specified value.
  – Change the front brake disc.
  – Change the rear brake disc.

– Check the front and rear brake discs for damage, cracking, and deformation.

» If the brake disc exhibits damage, cracking, or deformation:
  – Change the front brake disc.
  – Change the rear brake disc.

13.4 Checking the front brake fluid level

Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

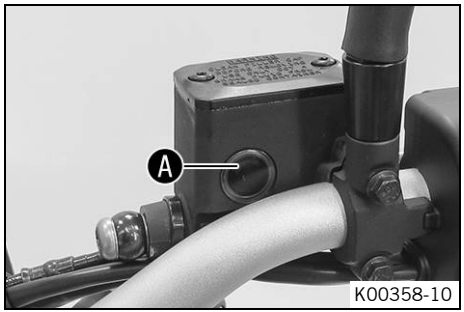
If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)



– Move the brake reservoir mounted on the handlebar to a horizontal position.
– Check the brake fluid level in the viewer.
  » If the brake fluid level has dropped below the marking A:
    – Add front brake fluid. (p. 113)

13.5 Adding front brake fluid

Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)

Warning

Skin irritation Brake fluid causes skin irritation.

– Keep brake fluid out of the reach of children.
– Wear suitable protective clothing and safety glasses.
– Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
– Consult a doctor immediately if brake fluid has been swallowed.
– Rinse the affected area with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
– If brake fluid spills on to your clothing, change the clothing.

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)

Note

Environmental hazard Hazardous substances cause environmental damage.

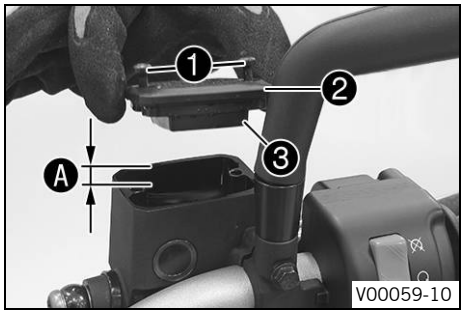
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.
Only use clean brake fluid from a sealed container.

Preparatory work

– Check the front brake linings. (📖 p. 116)



Main work

– Move the brake reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Take off cover ❷ with membrane ❸.
– Add brake fluid to level Ⓐ.

Guideline

Level Ⓐ (brake fluid level below reservoir rim)	5 mm (0.2 in)

Brake fluid DOT 4 / DOT 5.1 (📖 p. 228)

– Position the cover with the membrane. Mount and tighten the screws.

Info

Clean up overflowed or spilled brake fluid immediately with water.

13.6 Checking the front brake linings

Warning

Danger of accidents Worn-out brake linings reduce the braking effect.

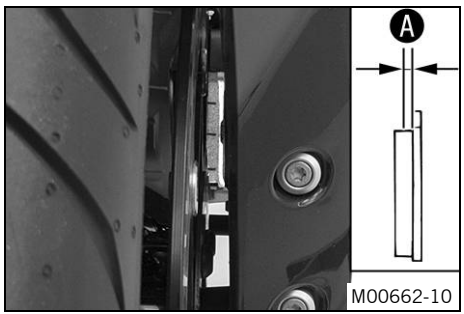
– Ensure that worn-out brake linings are replaced immediately. (Your authorized KTM workshop will be glad to help.)

Warning

Danger of accidents Damaged brake discs reduce the braking effect.

If the brake linings are not changed in time, the brake lining carriers grind against the brake disc. As a consequence, the braking effect is greatly reduced and the brake discs are destroyed.

– Check the brake linings regularly.



– Check the brake linings for minimum thickness A.

Minimum thickness A	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
  – Change the front brake linings.

– Check the brake linings for damage and cracking.

» If there is damage or cracking:
  – Change the front brake linings.

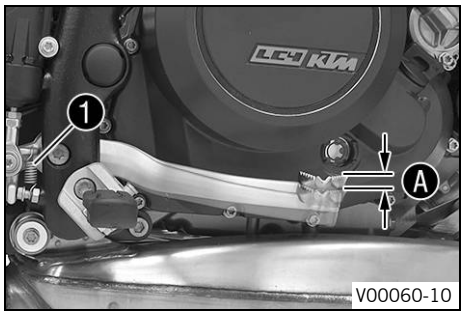
13.7 Checking the free travel of foot brake lever

Warning

Danger of accidents The brake system fails in the event of overheating.

If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

– Set the free travel on the foot brake lever in accordance with the specification.



– Disconnect spring ❶.
– Move the foot brake lever back and forth between the end stop and the contact to the foot brake cylinder piston and check free travel Ⓐ.

Guideline

Free travel at foot brake lever	3 … 5 mm (0.12 … 0.2 in)

» If the free travel does not equal the specification:
– Adjust the basic position of the foot brake lever. (📖 p. 118)

– Attach spring ❶.

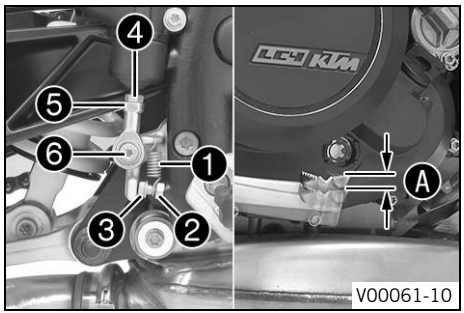
13.8 Adjusting the basic position of the foot brake lever

Warning

Danger of accidents The brake system fails in the event of overheating.

If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

– Set the free travel on the foot brake lever in accordance with the specification.



– Detach spring ❶.
– Remove screw ❻.
– Loosen nut ❹ and turn it back with ball joint ❺ until the maximum amount of free travel is reached.
– To adjust the basic position of the foot brake lever to individual requirements, loosen nut ❷ and turn screw ❸ accordingly.

Info

The range of adjustment is limited.

– Turn ball joint ❺ as required until free travel Ⓐ is reached. If necessary, adjust the basic position of the foot brake lever.

Guideline

Free travel at foot brake lever	3 ... 5 mm (0.12 ... 0.2 in)

– Hold screw ❸ and tighten nut ❷.

Guideline

Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)

– Hold ball joint ❺ and tighten nut ❹.

Guideline

Nut, push rod, foot brake lever	M6	6 Nm (4.4 lbf ft)

– Mount and tighten screw ❻.

Guideline

Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft) **Loctite®243™**

– Attach spring ❶.

◀

13.9 Checking the rear brake fluid level

Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

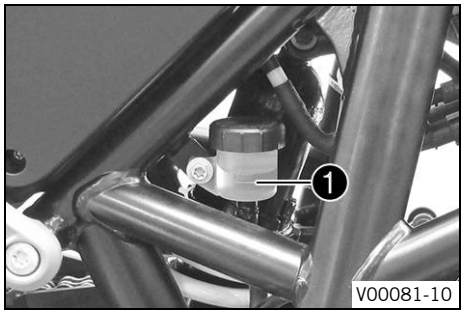
If the brake fluid level drops below the **MIN** marking, the brake system is leaking or the brake linings are worn down.

– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)



– Stand the vehicle upright.
– Check the brake fluid level in the brake fluid reservoir.
  » If the fluid level reaches the **MIN** marking ❶:
    – Add rear brake fluid. (📖 p. 121)

13.10 Adding rear brake fluid

Warning

Danger of accidents An insufficient brake fluid level will cause the brake system to fail.

If the brake fluid level drops below the **MIN** marking, the brake system is leaking or the brake linings are worn down.

– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)

Warning

Skin irritation Brake fluid causes skin irritation.

– Keep brake fluid out of the reach of children.
– Wear suitable protective clothing and safety glasses.
– Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
– Consult a doctor immediately if brake fluid has been swallowed.
– Rinse the affected area with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water immediately and consult a doctor if brake fluid comes into contact with the eyes.
– If brake fluid spills on to your clothing, change the clothing.

Warning

Danger of accidents Old brake fluid reduces the braking effect.

– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)

Note

Environmental hazard Hazardous substances cause environmental damage.

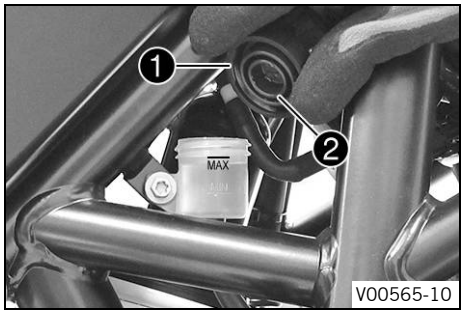
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.
Only use clean brake fluid from a sealed container.

Preparatory work

– Check the rear brake linings. (📖 p. 123)



Main work

– Stand the vehicle upright.
– Remove screw cap ❶ with membrane ❷.
– Add brake fluid to the **MAX** marking.

Brake fluid DOT 4 / DOT 5.1 (📖 p. 228)

– Mount and tighten the screw cap with the membrane.

Info
Clean up overflowed or spilled brake fluid immediately with water.

13.11 Checking the rear brake linings

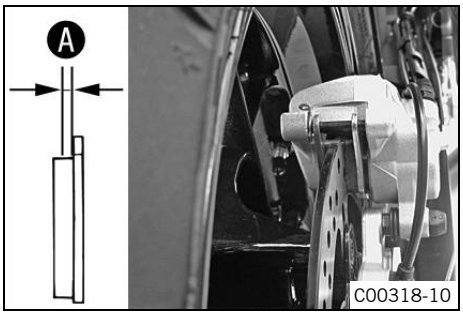
Warning
Danger of accidents Worn-out brake linings reduce the braking effect.
– Ensure that worn-out brake linings are replaced immediately. (Your authorized KTM workshop will be glad to help.)

Warning

Danger of accidents Damaged brake discs reduce the braking effect.

If the brake linings are not changed in time, the brake lining carriers grind against the brake disc. As a consequence, the braking effect is greatly reduced and the brake discs are destroyed.

– Check the brake linings regularly.

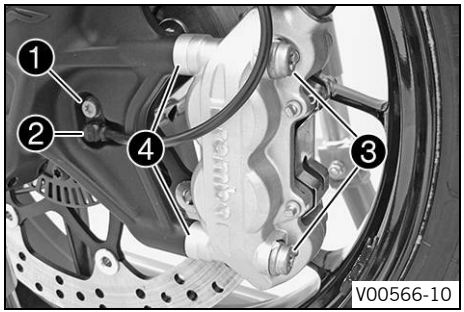


– Check the brake linings for minimum thickness A.

Minimum thickness A	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
  – Change the rear brake linings.
– Check the brake linings for damage and cracking.
» If there is wear or tearing:
  – Change the rear brake linings.

14.1 Removing the front wheel



Preparatory work

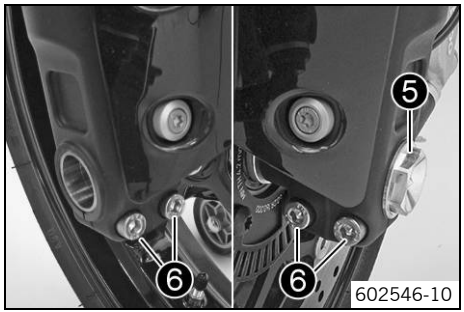
– Raise the motorcycle with the rear lifting gear. (📖 p. 89)
– Lift the motorcycle with the front lifting gear. (📖 p. 90)

Main work

– Remove screw ❶ and pull wheel speed sensor ❷ out of the hole.
– Remove screws ❸ and spacers ❹.
– Press back the brake linings by slightly tilting the brake caliper laterally on the brake disc. Pull the brake caliper carefully back from the brake disc and hang to the side.

Info

Do not operate the hand brake lever if the brake caliper has been removed.



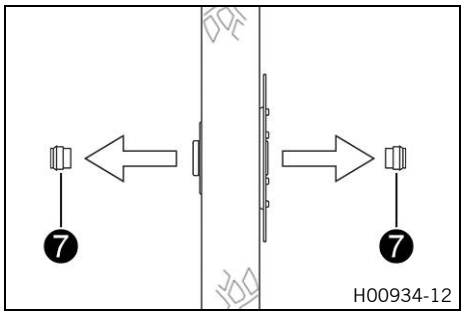
– Loosen screw ❺ by several rotations.
– Loosen screws ❻.
– Press on screw ❺ to push the wheel spindle out of the axle clamp.
– Remove screw ❺.

Warning

Danger of accidents Reduced braking effect caused by damaged brake discs.

– Always lay the wheel down in such a way that the brake discs are not damaged.

– Hold the front wheel and remove the wheel spindle. Take the front wheel out of the fork.



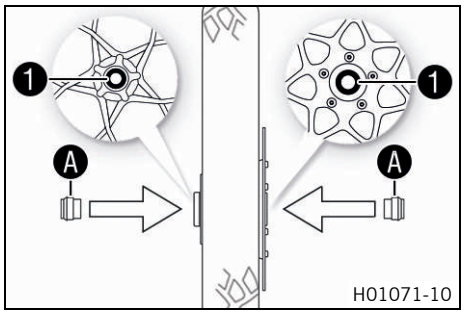
– Remove spacers ❼.

14.2 Installing the front wheel

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

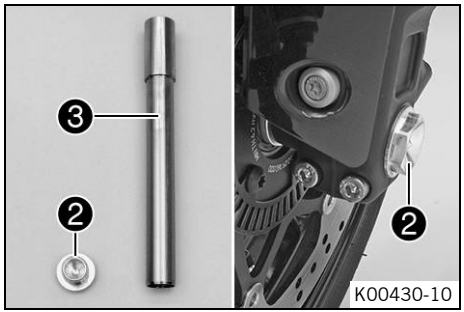
– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.



– Check the wheel bearing for damage and wear.
  » If the wheel bearing is damaged or worn:
    – Change front wheel bearing.
– Clean and grease shaft seal rings 1 and contact surfaces A of the spacers.

Long-life grease (p. 231)

– Insert the spacers.



– Clean screw ❷ and wheel spindle ❸.
– Grease wheel spindle ❸ lightly.

Long-life grease (📖 p. 231)

– Jack up the front wheel into the fork, position it, and insert the wheel spindle.

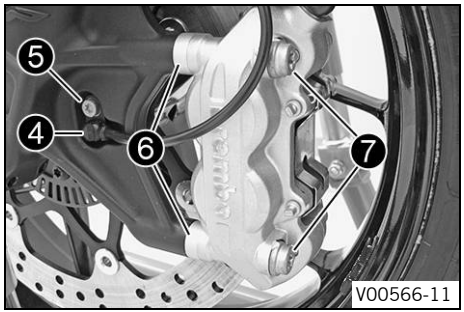
Info

The arrow on the rim, near the hub, shows the direction of travel.
The brake disc is located on the left in the direction of travel.

– Mount and tighten screw ❷.

Guideline

Screw, front wheel spindle	M24x1.5	45 Nm (33.2 lbf ft)



– Position wheel speed sensor ❹ in the hole. Mount and tighten screw ❺.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

– Position the brake caliper.

✔ The brake linings are correctly positioned.

– Position spacers ❻. Mount screws ❼ but do not tighten yet.

Guideline

Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft) **Loctite®243™**

– Operate the hand brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point. Fix the hand brake lever in the activated position.

✔ The brake caliper straightens.

– Tighten screws ❼.

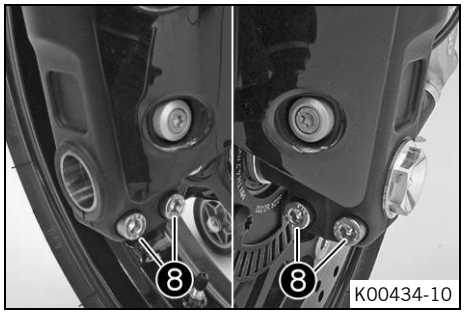
Guideline

Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft) **Loctite®243™**

– Remove the locking piece of the hand brake lever.

– Take the motorcycle off the front lifting gear. (📖 p. 91)

– Remove the rear of the motorcycle from the lifting gear. (📖 p. 89)



– Operate the front brake and compress the fork a few times firmly.

  ✔ The fork legs straighten.

– Tighten screws 8.

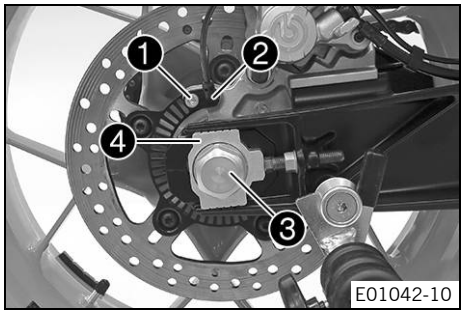
  Guideline

Screw, fork stub	M8	15 Nm (11.1 lbf ft)

14.3 Removing the rear wheel

Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 89)

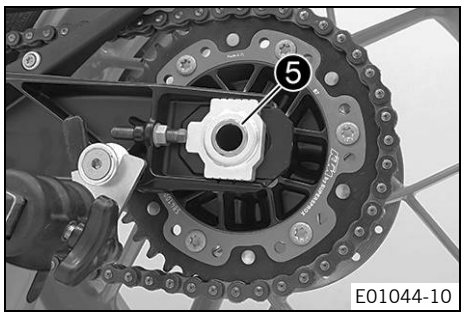


Main work

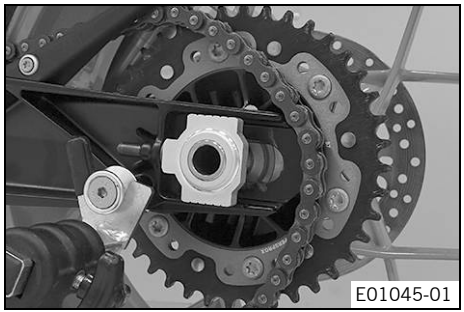
– Press the brake caliper onto the brake disc by hand in order to push back the brake piston.

– Remove screw ❶ and pull wheel speed sensor ❷ out of the hole.

– Remove nut ❸. Remove chain adjuster ❹.



– Pull out wheel spindle ❺ far enough to allow the rear wheel to be pushed forward.


E01045-01

– Push the rear wheel forward as far as possible. Remove the chain from the rear sprocket.

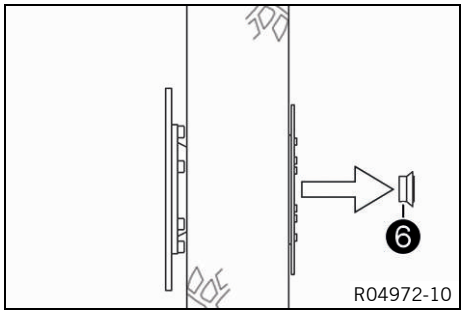
Info
Cover the components to protect them against damage.

– Hold the rear wheel and remove the wheel spindle.
– Pull the rear wheel back until the brake caliper bracket is suspended freely between the brake disc and rim.

Warning
Danger of accidents Damaged brake discs reduce the braking effect.
– Always lay the wheel down in such a way that the brake disc is not damaged.

– Take the rear wheel out of the link fork.

Info
Do not operate the foot brake lever when the rear wheel is removed.



– Remove spacer ❻.

14.4 Installing the rear wheel

Warning

Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.

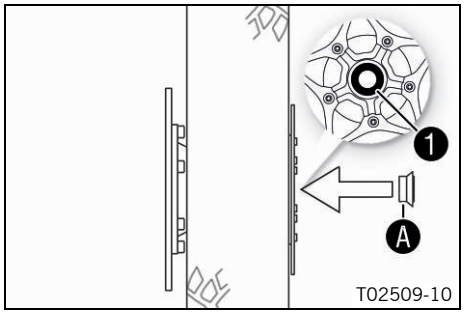
Warning

Danger of accidents There is no braking effect to start with at the rear brake after installing the rear wheel.

– Actuate the foot brake several times before going on a ride until you can feel a firm pressure point.

Main work

– Check the rear hub damping rubber pieces. (📖 p. 136)



– Check the wheel bearing for damage and wear.
  » If the wheel bearing is damaged or worn:
    – Change the rear wheel bearing.
– Clean and grease shaft seal ring 1 and contact surface A of the spacer.

  Long-life grease (p. 231)

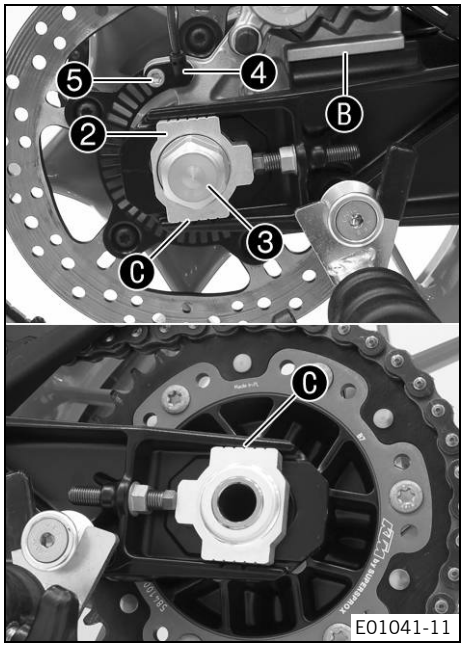
– Insert the spacer.
– Clean and grease the thread of the wheel spindle and nut.

  Long-life grease (p. 231)

– Clean and grease the wheel spindle.

  Long-life grease (p. 231)

– Clean the contact areas on the brake caliper bracket and link fork.



– Engage the thrust bearing of brake caliper bracket Ⓑ and the link fork.
– Jack up the rear wheel into the link fork, position it, and insert the wheel spindle.
  ✔ The brake linings are correctly positioned.
– Place the chain on the sprocket.
– Position chain adjuster ❷. Mount nut ❸, but do not tighten it yet.

Info
Mount the left and right chain adjusters in the same position.

– Make sure that chain adjusters ❷ are fitted correctly on the adjusting screws. Tighten nut ❸.

Guideline

In order for the rear wheel to be correctly aligned, the markings on the left and right chain adjusters must be in the same position relative to reference markings Ⓒ.

Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)

– Position wheel speed sensor ❹ in the hole. Mount and tighten screw ❺.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

– Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.

Finishing work

– Check the chain tension. (📖 p. 97)
– Remove the rear of the motorcycle from the lifting gear. (📖 p. 89)

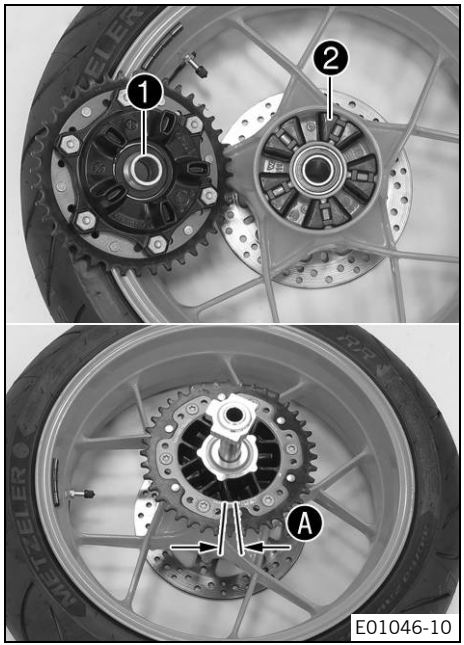
14.5 Checking the rear hub damping rubber pieces

Info

The engine power is transmitted from the rear sprocket to the rear wheel via the 6 damping rubber pieces. They eventually wear out during operation. If the damping rubber pieces are not changed in time, the rear sprocket carrier and the rear hub will be damaged.

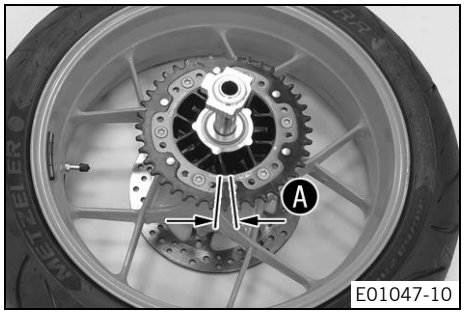
Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 89)
– Remove the rear wheel. (📖 p. 130)



Main work

– Check bearing ❶.
  » If the bearing is damaged or worn:
    – Change the bearing of the rear sprocket carrier.
– Check the damping rubber pieces ❷ of the rear hub for damage and wear.
  » If the damping rubber pieces of the rear hub are damaged or worn:
    – Change all the damping rubber pieces of the rear hub.



– Lay the rear wheel on a workbench with the rear sprocket facing upwards and insert the wheel spindle in the hub.
– To check play Ⓐ, hold the rear wheel tight and try to turn the rear sprocket with your hand.

Info
Measure the play on the outside of the rear sprocket.

Play of damping rubber pieces on rear wheel	≤ 5 mm (≤ 0.2 in)

» If clearance Ⓐ is larger than the specified value:
– Change all the damping rubber pieces of the rear hub.

Finishing work
– Install the rear wheel. (p. 133)
– Check the chain tension. (p. 97)
– Remove the rear of the motorcycle from the lifting gear. (p. 89)

14.6 Checking the tire condition

Warning

Danger of accidents If a tire bursts while riding, the vehicle becomes uncontrollable.

– Ensure that damaged or worn tires are replaced immediately. (Your authorized KTM workshop will be glad to help.)

Warning

Danger of crashing Different tire tread patterns on the front and rear wheel impair the handling characteristic.

Different tire tread patterns can make the vehicle significantly more difficult to control.

– Make sure that only tires with a similar tire tread pattern are fitted to the front and rear wheel.

Warning

Danger of accidents Non-approved or non-recommended tires and wheels impact the handling characteristic.

– Only use tires/wheels approved by KTM with the corresponding speed index.

Warning

Danger of accidents New tires have reduced road grip.

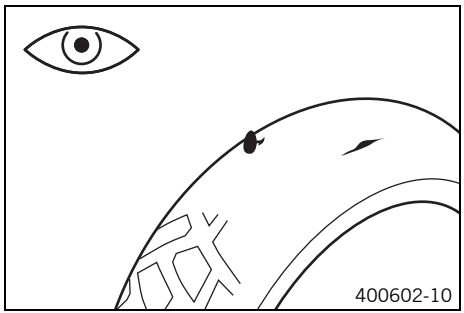
The contact surface on new tires is not yet roughened.

– Run in new tires with moderate riding at alternating angles.

Running-in phase	200 km (124 mi)

Info

The type, condition, and pressure of the tires all have a major impact on the handling characteristic of the motorcycle.
Worn tires have a negative effect on handling characteristics, especially on wet surfaces.



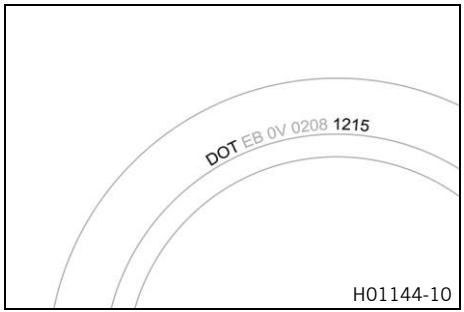
– Check the front and rear tires for cuts, run-in objects, and other damage.
  » If the tires have cuts, run-in objects, or other damage:
    – Change the tires.
– Check the tread depth.

Info

Adhere to the legally required minimum tread depth.

Minimum tread depth	≥ 2 mm (≥ 0.08 in)

» If the tread depth is less than the minimum tread depth:
  – Change the tires.



– Check the tire age.

Info

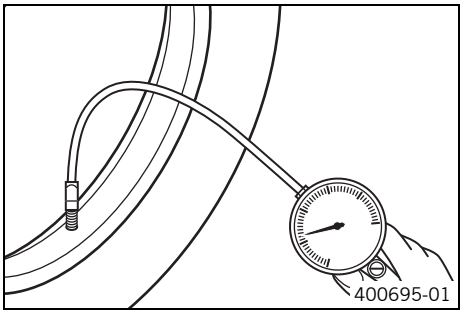
The tire date of manufacture is usually contained in the tire label and is indicated by the last four digits of the **DOT** number. The first two digits indicate the week of manufacture and the last two digits the year of manufacture.
KTM recommends that the tires be changed after 5 years at the latest, regardless of the actual state of wear.

» If the tires are more than 5 years old:
– Change the tires.

14.7 Checking tire pressure

Info

Low tire pressure leads to abnormal wear and overheating of the tire.
Correct tire pressure ensures optimal riding comfort and maximum tire service life.



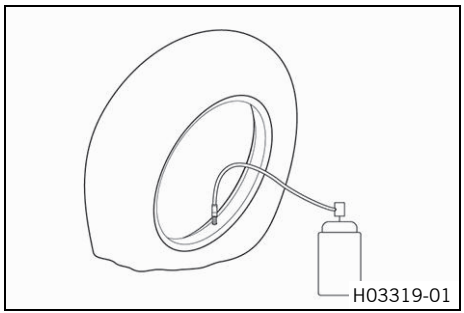
– Remove the protection cap.
– Check the tire pressure when the tires are cold.

Tire pressure when solo	
front	2.0 bar (29 psi)
rear	2.0 bar (29 psi)

Tire pressure with passenger / full payload	
front	2.0 bar (29 psi)
rear	2.2 bar (32 psi)

» If the tire pressure does not meet specifications:
  – Correct the tire pressure.
– Mount the protection cap.

14.8 Using tire repair spray



Warning

Danger of accidents Incorrect use of tire repair spray will result in the repaired tire losing pressure.

Tire repair spray cannot be used for all types of damage.

- Observe the instructions and specifications of the manufacturer of the tire repair spray.
- After repairing a tire with tire repair spray, ride slowly and carefully.
- Ride no further than to the nearest workshop and have the tire changed.

Tire repair spray should only be used in an emergency.
We recommend transporting the broken down vehicle to the nearest workshop instead of using tire repair spray.

15.1 Removing the 12-V battery

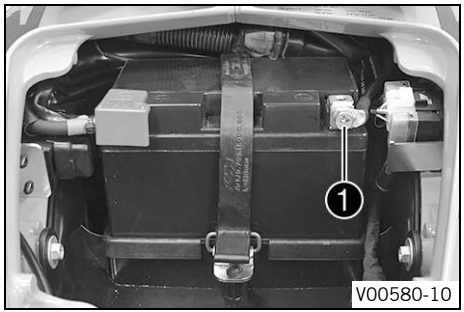
Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep 12 V batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the 12 V battery.
- Only charge 12 V batteries in well-ventilated rooms.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes with water for at least 15 minutes and consult a doctor immediately if battery acid and battery gases get into the eyes.

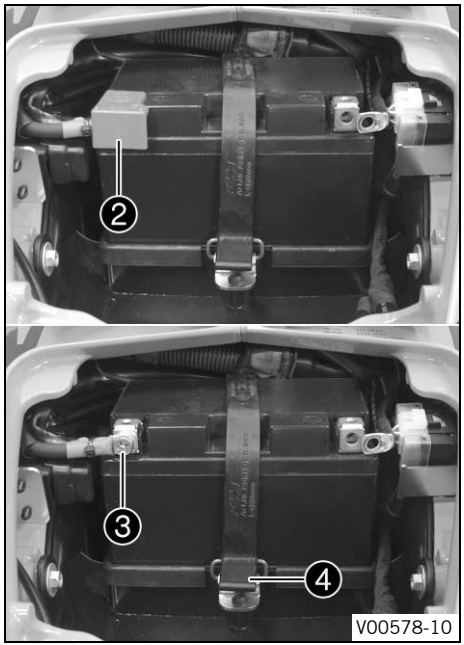
Preparatory work

- Switch off the ignition by turning the ignition key to the position ⊠.
- Remove the passenger seat. (📖 p. 94)



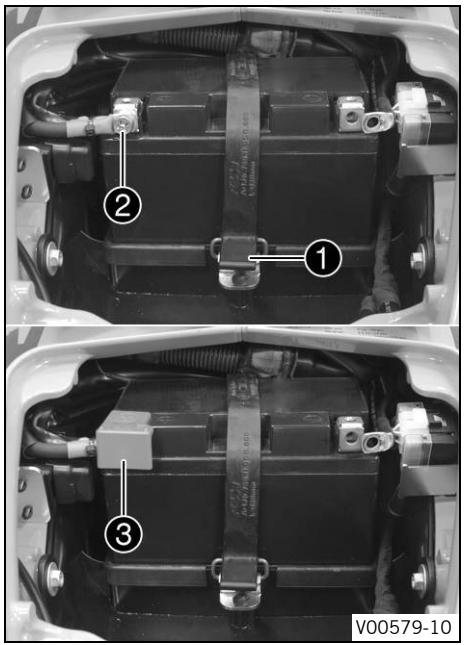
Main work

– Disconnect negative cable ❶ from the 12-V battery.



- Remove positive terminal cover ❷.
- Disconnect both positive cables ❸ from the 12 V battery.
- Detach rubber strap ❹.
- Pull the 12 V battery upwards and out of the battery compartment.

15.2 Installing the 12-V battery



Main work

– Position the 12-V battery in the battery compartment.

12 V battery (HTZ12A-BS) (📖 p. 219)

✔ The battery terminals face opposite the direction of travel.

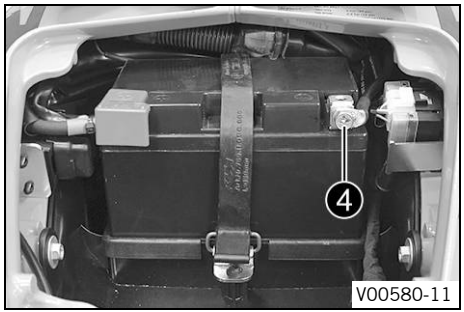
– Attach rubber strap ❶.

– Connect both positive cables ❷ to the 12 V battery.

Guideline

Screw, battery terminal	M6	2 Nm (1.5 lbf ft)

– Mount positive terminal cover ❸.



– Connect negative cable ❹ to the 12 V battery.

Guideline

Screw, battery terminal	M6	2 Nm (1.5 lbf ft)

Finishing work

– Mount the passenger seat. (📖 p. 94)
– Set the time and date. (📖 p. 54)

15.3 Charging the 12-V battery

Warning

Risk of injury Battery acid and battery gases cause serious chemical burns.

- Keep 12 V batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the 12 V battery.
- Only charge 12 V batteries in well-ventilated rooms.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes with water for at least 15 minutes and consult a doctor immediately if battery acid and battery gases get into the eyes.

Note

Environmental hazard 12 V batteries contain environmentally hazardous materials.

- Do not dispose of 12 V batteries as household waste.
- Dispose of 12 V batteries at a collection point for used batteries.

Note

Environmental hazard Hazardous substances cause environmental damage.

- Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

Even when there is no load on the 12-V battery, it discharges steadily.
The charging level and the method of charging are very important for the service life of the 12-V battery.
Rapid recharging with a high charging current shortens the service life of the battery.
If the charging current, charging voltage, or charging time is exceeded, electrolyte escapes through the safety valves. This reduces the capacity of the 12-V battery.
If the 12-V battery is depleted by repeated starting, the 12-V battery must be charged immediately.
If the 12-V battery is left in a discharged state for an extended period, it will become deeply discharged and sulfating occurs, destroying the battery.
The 12-V battery is maintenance-free. The acid level does not have to be checked.

Preparatory work

– Switch off the ignition by turning the ignition key to the position ⊠.
– Remove the passenger seat. (📖 p. 94)
– Disconnect the negative cable of the 12 V battery to avoid damage to the onboard electronics.

Main work

– Connect the battery charger to the 12-V battery. Switch on the battery charger.

Battery charger (58429074000)

In addition, this battery charger can be used to test the open-circuit voltage, the starting ability of the 12 V battery, and the alternator. In addition, you cannot overcharge the 12-V battery with this device.

Info

Never remove cover 1.

– Switch off the battery charger after charging and disconnect from the 12-V battery.

Guideline

The charging current, charging voltage, and charging time must not be exceeded.	
Recharge the 12-V battery regularly when the motorcycle is not being used	3 months

– Connect the negative cable to the 12-V battery.

Finishing work

– Mount the passenger seat. (📖 p. 94)
– Set the time and date. (📖 p. 54)

◀

15.4 Changing the main fuse

Warning

Fire hazard Incorrect fuses overload the electrical system.

– Only use fuses with the required ampere value.

– Do not bypass or repair fuses.

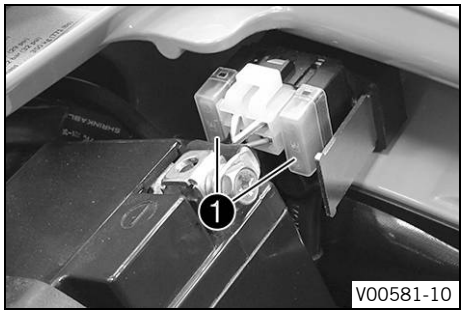
Info

The main fuse protects all power consumers of the vehicle. The main fuse is under the passenger seat.

Preparatory work

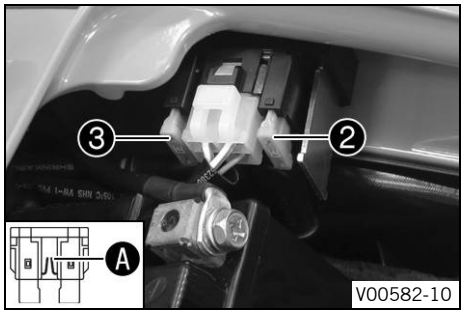
– Switch off the ignition by turning the ignition key to the position ⊠.

– Remove the passenger seat. (📖 p. 94)



Main work

– Remove protection caps ❶.



– Remove faulty main fuse ❷.

Info

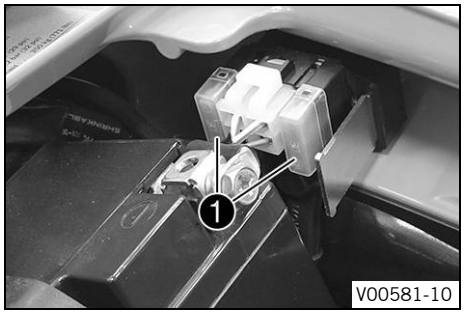
A faulty fuse has a burned-out fuse wire Ⓐ.
A spare fuse ❸ is located in the starter relay.

– Insert a new main fuse.

Fuse (58011109130) (📖 p. 219)

Tip

Insert a new spare fuse into the starter relay to have it available when needed.



– Mount protection caps ❶.

Finishing work

– Mount the passenger seat. (📖 p. 94)
– Set the time and date. (📖 p. 54)

15.5 Changing the ABS fuses

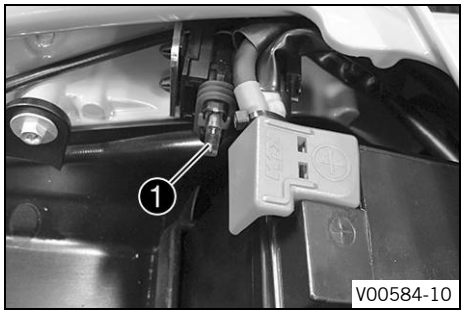
Warning

Fire hazard Incorrect fuses overload the electrical system.

– Only use fuses with the required ampere value.
– Do not bypass or repair fuses.

Info

Two fuses for the ABS are located under the passenger seat. These fuses protect the return pump and the hydraulic unit of the ABS. The third fuse, which protects the ABS control unit, is located in the fuse box.



Preparatory work

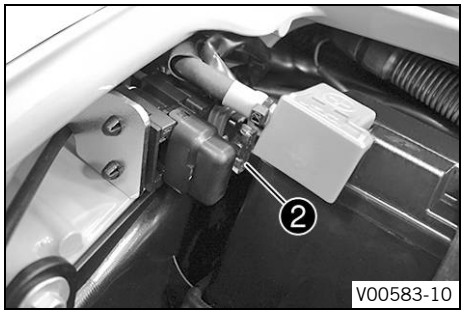
– Switch off the ignition by turning the ignition key to the position ⊗.
– Remove the passenger seat. (📖 p. 94)

To change the fuse of the ABS hydraulic unit:

– Remove the protection cap and fuse ❶.
– Insert a new fuse.

Fuse (58011109115) (📖 p. 219)

– Mount the protection cap.



To change the fuse of the ABS return pump:

– Remove the protection cap and fuse ❷.
– Insert a new fuse.

Fuse (58011109125) (📖 p. 219)

– Mount the protection cap.

Finishing work

– Mount the passenger seat. (📖 p. 94)

◀

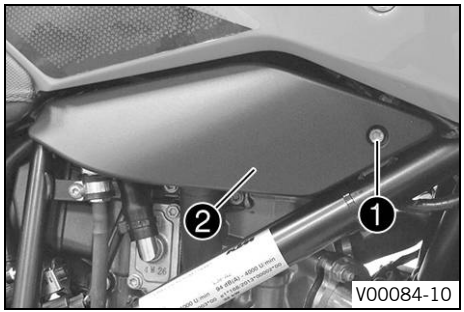
15.6 Changing the fuses of individual power consumers

Info

The fuse box containing the fuses of individual power consumers is located on the right under the fuel tank.

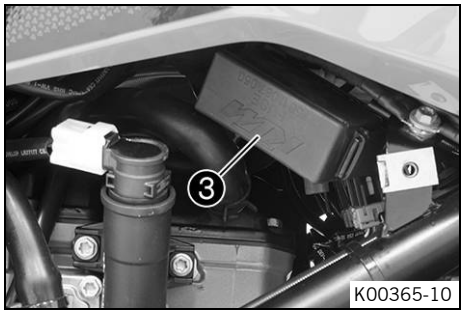
Preparatory work

– Switch off the ignition by turning the ignition key to the position ⊠.

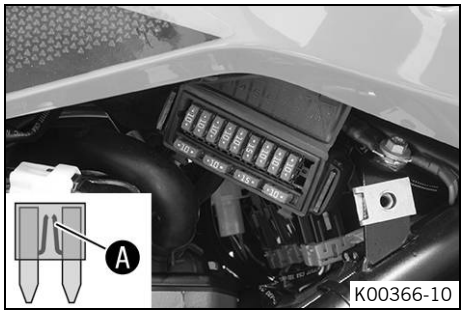


Main work

– Remove screw ❶.
– Remove ❷ the trim.



– Open fuse box cover ❸.



– Remove the faulty fuse.

Guideline

Fuse **1** - 10 A - ignition, combination instrument, engine electronics control unit, alarm system (optional), turn signal
Fuse **2** - 10 A - ignition, engine electronics control unit
Fuse **3** - 10 A - fuel pump
Fuse **4** - 10 A - radiator fan
Fuse **5** - 10 A - horn, brake light
Fuse **6** - 15 A - high beam, low beam, position light, tail light, license plate lamp
Fuse **7** - 10 A - for auxiliary equipment (permanent positive)
Fuse **8** - 10 A - for auxiliary equipment (accessories connected with ignition switch)
Fuse **9** - 10 A - ABS
Fuse **10** - not assigned
Fuse **SPARE** - 10 A/15 A - spare fuses

Info

A faulty fuse has a burned-out fuse wire Ⓐ.

Warning

Fire hazard Incorrect fuses overload the electrical system.

– Only use fuses with the required ampere value.
– Do not bypass or repair fuses.

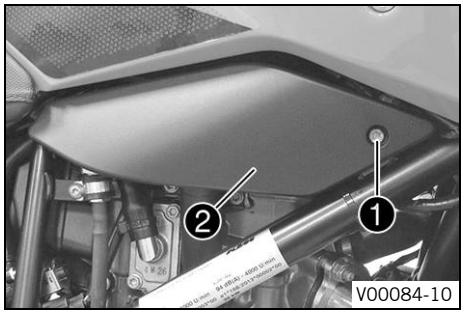
– Insert a spare fuse with the correct rating.

Fuse (75011088010) (p. 220)
Fuse (75011088015) (p. 220)

Tip

Replace the spare fuse in the fuse box so that it is available if needed.

– Check that the power consumer is functioning properly.
– Close the fuse box cover.



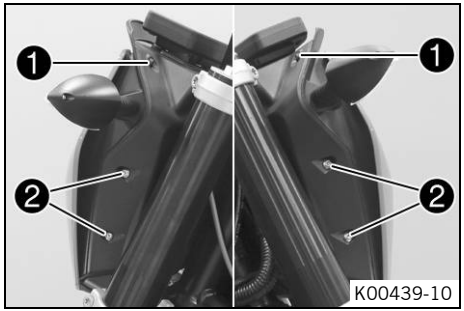
– Position ❷ the trim.
– Mount and tighten screw ❶.

Guideline

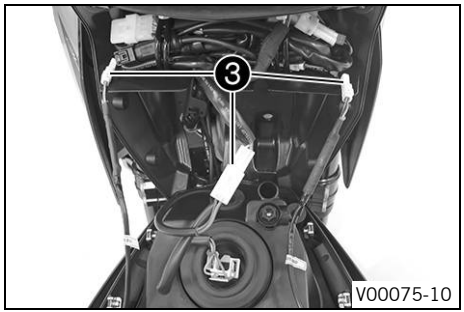
Screw, fuel tank spoiler	M6	3 Nm (2.2 lbf ft)

15.7 Removing the headlight mask with the headlight

– Switch off the ignition by turning the ignition key to the position ⊠.

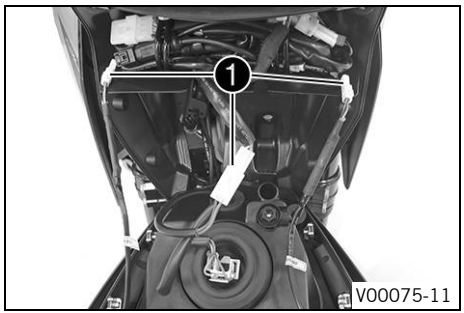


– Remove screws ❶.
– Remove screws ❷.



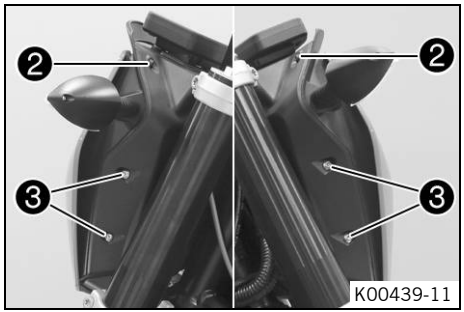
– Fold the headlight mask forward.
– Disconnect plug-in connectors ❸.
– Take off the headlight mask.

15.8 Installing the headlight mask with the headlight



Main work

– Connect plug-in connectors ❶.



– Position the headlight mask.
– Mount and tighten screws ❷.

Guideline

Screw, headlight	EJOT	2 Nm (1.5 lbf ft)

– Mount and tighten screws ❸.

Guideline

Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)

– Check that the lighting is functioning properly.

Finishing work

– Check the headlight setting. (📖 p. 167)

15.9 Changing the headlight bulb

Note

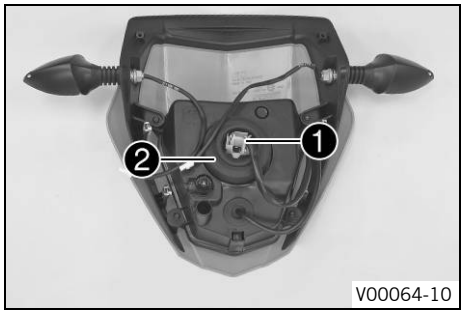
Damage to reflector Grease on the reflector reduces the light intensity.

Grease on the bulb will evaporate due to the heat and be deposited on the reflector.

– Clean and degrease the bulbs before mounting.
– Do not touch the bulbs with your bare hands.

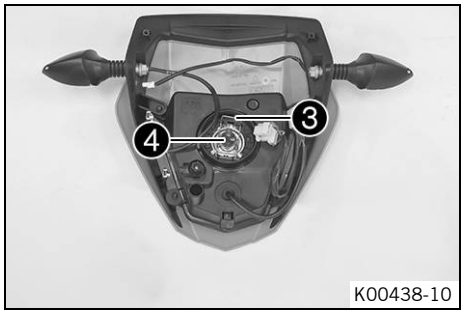
Preparatory work

– Remove the headlight mask with the headlight. (📖 p. 160)



Main work

– Unplug connector ❶.
– Remove protection cap ❷.

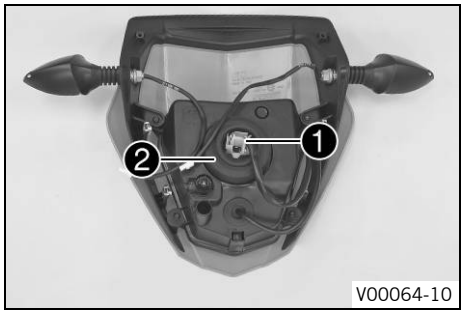


– Detach retaining clamp ❸.
– Remove bulb ❹.
– Position the new bulb in the headlight housing.

Headlight (H4 / socket P43t) (📖 p. 220)

✔ The holding lugs engage in the recesses.

– Attach retaining clamp ❸.



– Mount protection cap ❷.
– Plug in connector ❶.

Finishing work
– Install the headlight mask with the headlight. (📖 p. 161)
– Check the headlight setting. (📖 p. 167)

15.10 Changing the position light lamp

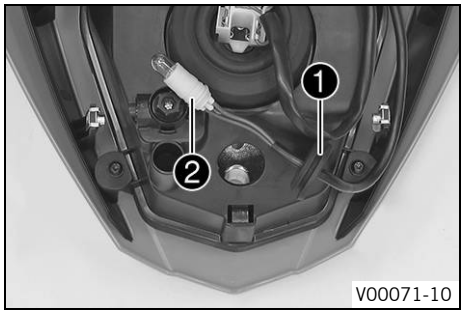
Note

Damage to reflector Grease on the reflector reduces the light intensity.

Grease on the bulb will evaporate due to the heat and be deposited on the reflector.

– Clean and degrease the bulbs before mounting.
– Do not touch the bulbs with your bare hands.

Preparatory work
– Remove the headlight mask with the headlight. (📖 p. 160)



Main work

– Pull rubber grommet ❶ and the socket of position light ❷ carefully out of the housing.
– Remove the bulb.
– Position a new bulb in the socket.

Position light (W5W / socket W2.1x9.5d) (📖 p. 220)

– Carefully position socket ❷ with the bulb in the housing.
– Mount rubber grommet ❶.

Finishing work

– Install the headlight mask with the headlight. (📖 p. 161)
– Check the headlight setting. (📖 p. 167)

◀

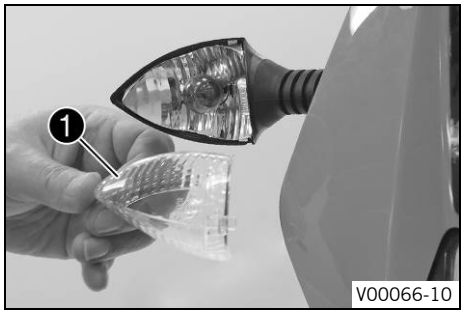
15.11 Changing the turn signal bulb

Note

Damage to reflector Grease on the reflector reduces the light intensity.

Grease on the bulb will evaporate due to the heat and be deposited on the reflector.

– Clean and degrease the bulbs before mounting.
– Do not touch the bulbs with your bare hands.



– Remove the screw on the rear of the turn signal housing.
– Remove turn signal glass ❶.
– Press the bulb carefully into the socket, turn it counterclockwise by about 30 °, and pull it out of the socket.

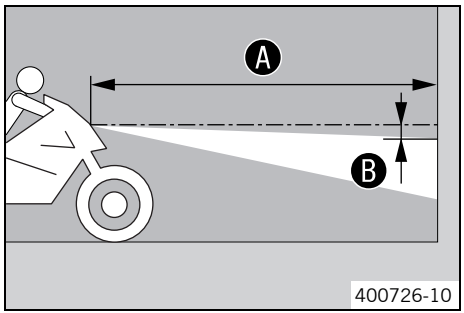
Info
Do not touch the reflector with your fingers and keep it free from grease.

– Push the new bulb gently into the socket and turn it clockwise all the way in.

Turn signal (RY10W / socket BAU15s) (📖 p. 220)

– Position the turn signal glass.
– Insert the screw and first turn counterclockwise until it engages in the thread with a small jerk. Tighten the screw lightly.
– Check that the turn signal system is functioning properly.

15.12 Checking the headlight setting



– Position the vehicle upright on a horizontal surface in front of a light wall and make a marking at the height of the center of the low beam headlight.
– Make another mark at a distance Ⓑ under the first marking.

Guideline

Distance Ⓑ	5 cm (2 in)

– Position the vehicle perpendicular to the wall at a distance Ⓐ from the wall and switch on the low beam.

Guideline

Distance Ⓐ	5 m (16 ft)

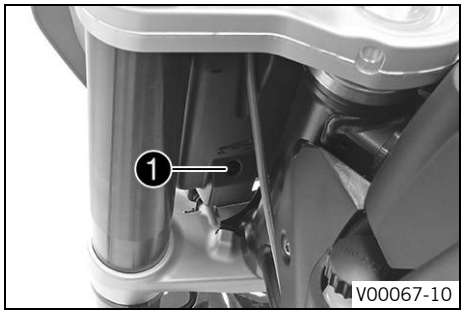
– The rider now mounts the motorcycle with luggage and passenger if applicable.
– Check the headlight setting.

The light-dark boundary must be exactly on the lower marking when the motorcycle is ready to be operated with the rider mounted along with any luggage and a passenger if applicable.

» If the boundary between light and dark does not meet specifications:
  – Adjust the headlight range. (📖 p. 168)

◀

15.13 Adjusting the headlight range



Preparatory work

– Check the headlight setting. (📖 p. 167)

Main work

– Adjust the beam headlight range by turning screw ❶.

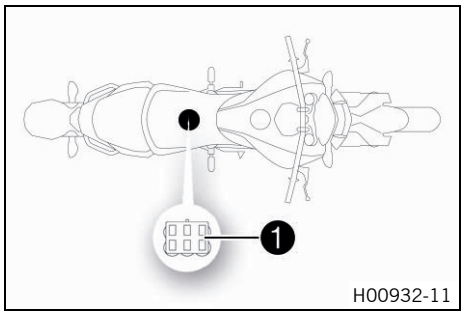
Guideline

For a motorcycle with a rider, and any luggage and/or passenger, the light/dark boundary must be exactly on the lower marking (applied in: Checking the headlight setting).

Info

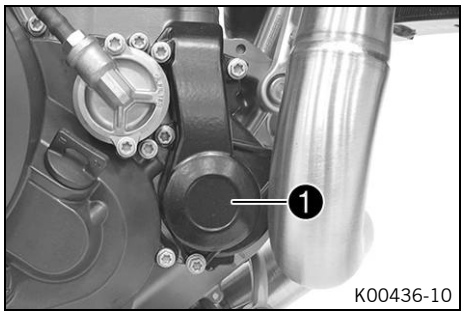
Turn counterclockwise to increase the headlight range; turn clockwise to reduce the headlight range.
If you have a payload, you may have to correct the headlight range.

15.14 Diagnostics connector



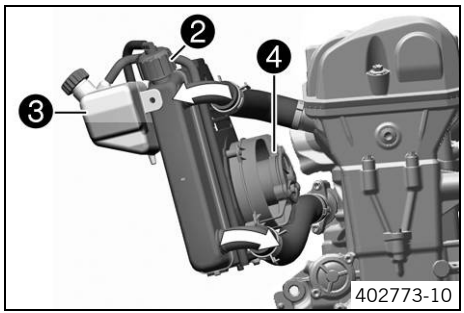
Diagnostics connector ❶ is located under the front rider's seat.

16.1 Cooling system



Water pump ❶ in the engine ensures forced circulation of the coolant.
The pressure resulting from the warming of the cooling system is regulated by a valve in radiator cap ❷. Heat expansion causes excess coolant to flow into compensating tank ❸. When the temperature falls, this surplus coolant is sucked back into the cooling system. This ensures that operating the vehicle at the specified coolant temperature will not result in a risk of malfunctions.

115 °C (239 °F)



The coolant is cooled by the air stream and a radiator fan ❹, which is activated at high temperature.
The lower the speed, the less the cooling effect. Dirty cooling fins also reduce the cooling effect.

16.2 Checking the antifreeze and coolant level

Warning

Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

– Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
– Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

Warning

Danger of poisoning Coolant is toxic and a health hazard.

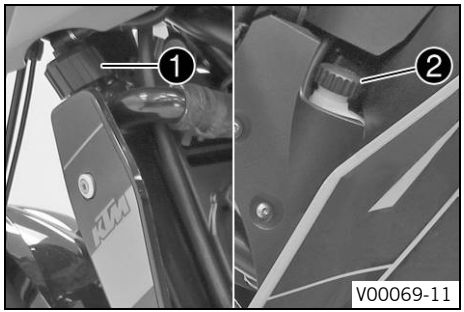
– Keep coolant out of the reach of children.
– Do not allow coolant to come into contact with the skin, the eyes and clothing.
– Consult a doctor immediately if coolant is swallowed.
– Rinse the affected area immediately with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
– Change clothing if coolant spills onto your clothing.

Condition

The engine is cold.

Preparatory work

– Stand the motorcycle upright on a horizontal surface.



Main work

– Remove radiator cap ❶ and cap ❷ of the compensating tank.
– Check the antifreeze in the coolant.

Antifreeze	−25 … −45 °C (−13 … −49 °F)

» If the antifreeze in the coolant does not match the specified value:
– Correct the antifreeze in the coolant.

– Check the coolant level in the compensating tank.

The coolant level must be at the **MIN** marking.

» If the coolant in the compensating tank is not at the required level, but the tank is not empty:
– Add coolant to the **MIN** marking.

Coolant (📖 p. 228)

» If there is no coolant in the compensating tank:
– Check the cooling system for leaks. 🔧

Info
Do not start up the motorcycle!

– Fill/bleed the cooling system. 🔧 (📖 p. 177)

– Mount cap ❷ of the compensating tank.
– Check the coolant level in the radiator.

The radiator must be filled completely.

» If the coolant level does not match the specified value:
  – Check the coolant level and the reason for the loss.
» If you had to add more coolant than the specified amount: > 0.50 l (> 0.53 qt.)
  – Fill/bleed the cooling system. (📖 p. 177)

– Mount radiator cap ❶.

16.3 Checking the coolant level in the compensating tank

Warning

Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

– Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
– Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

Warning

Danger of poisoning Coolant is toxic and a health hazard.

- Keep coolant out of the reach of children.
- Do not allow coolant to come into contact with the skin, the eyes and clothing.
- Consult a doctor immediately if coolant is swallowed.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
- Change clothing if coolant spills onto your clothing.

Condition

The engine is cold.
The radiator is completely full.

Preparatory work

– Park the motorcycle on a horizontal surface.

Main work

– Check the coolant level in compensating tank ❶.

The coolant level must be at the **MIN** marking.

» If the coolant in the compensating tank is not at the required level, but the tank is not empty:
  – Remove the cap of the compensating tank.
  – Add coolant to the **MIN** marking.

Coolant (📖 p. 228)

  – Mount the cap of the compensating tank.

» If there is no coolant in the compensating tank:
– Check the cooling system for leaks.

Info
Do not start up the motorcycle!

– Fill/bleed the cooling system. (p. 177)

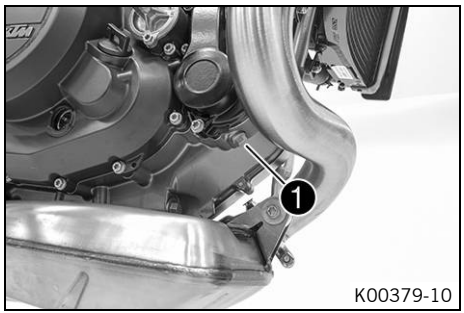
16.4 Draining the coolant

Warning
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.
– Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
– Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

Warning

Danger of poisoning Coolant is toxic and a health hazard.

- Keep coolant out of the reach of children.
- Do not allow coolant to come into contact with the skin, the eyes and clothing.
- Consult a doctor immediately if coolant is swallowed.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
- Change clothing if coolant spills onto your clothing.



Condition

The engine is cold.

- Position the motorcycle upright.
- Place an appropriate container under the engine.
- Remove screw 1 with the seal ring.
- Remove the radiator cap.
- Completely drain the coolant.
- Mount and tighten screw 1 with a new seal ring.

  Guideline

Screw plug, water pump drain hole	M10x1	15 Nm (11.1 lbf ft)

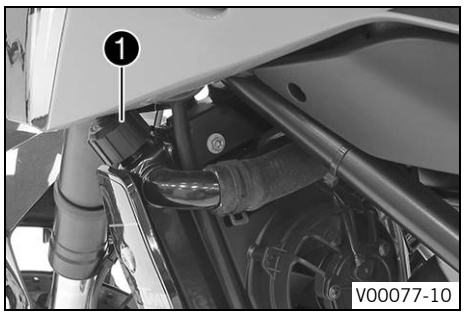
- Mount the radiator cap.

16.5 Filling/bleeding the cooling system

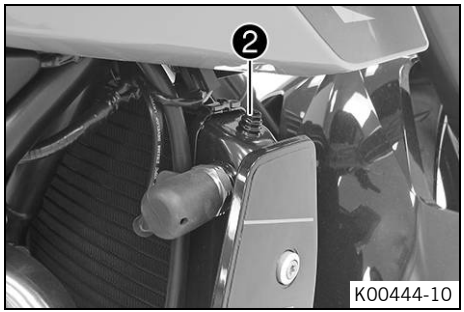
Warning

Danger of poisoning Coolant is toxic and a health hazard.

- Keep coolant out of the reach of children.
- Do not allow coolant to come into contact with the skin, the eyes and clothing.
- Consult a doctor immediately if coolant is swallowed.
- Rinse the affected area immediately with plenty of water in the event of contact with the skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
- Change clothing if coolant spills onto your clothing.



– Remove radiator cap 1.



– Remove bleeder screw ❷.
– Tilt the vehicle slightly to the right.
– Pour in coolant until it emerges without bubbles at the vent hole, and then mount and tighten bleeder screw ❷ immediately.

Coolant	1.20 l (1.27 qt.)	Coolant (📖 p. 228)

– Completely fill the radiator with coolant. Mount radiator cap ❶.
– Rest the vehicle on the side stand.
– Check the coolant level in the compensating tank. (📖 p. 173)

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Start the engine and run it until the 5th bar of the temperature indicator lights up.
– Stop the engine and allow it to cool down.

– When the engine is cool, check the coolant level in the radiator and, if necessary, add coolant.
– Check the coolant level in the compensating tank. (📖 p. 173)

16.6 Changing the coolant

Warning

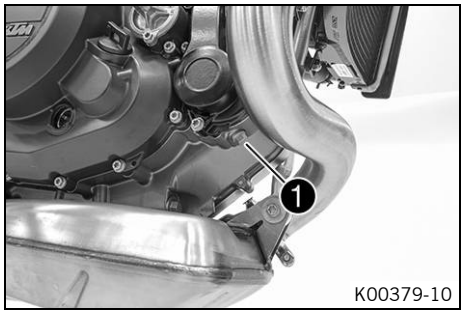
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

– Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
– Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

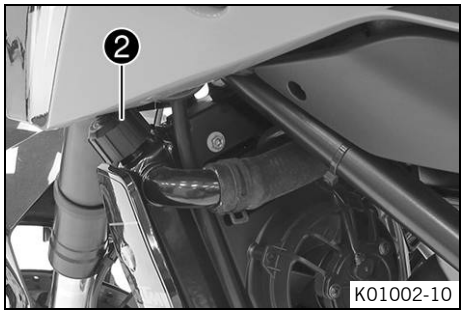
Warning

Danger of poisoning Coolant is toxic and a health hazard.

– Keep coolant out of the reach of children.
– Do not allow coolant to come into contact with the skin, the eyes and clothing.
– Consult a doctor immediately if coolant is swallowed.
– Rinse the affected area immediately with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
– Change clothing if coolant spills onto your clothing.



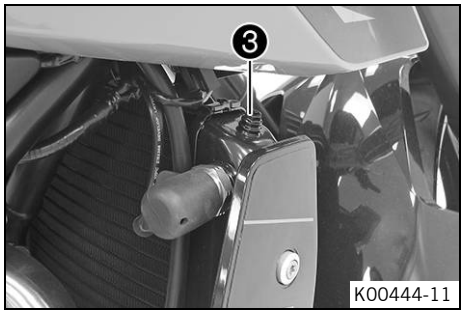
- Position the motorcycle upright.
- Place an appropriate container under the engine.
- Remove screw ❶ with the seal ring.



- Remove radiator cap ❷.
- Completely drain the coolant.
- Mount and tighten screw ❶ with a new seal ring.

Guideline

Screw plug, water pump drain hole	M10x1	15 Nm (11.1 lbf ft)



– Remove bleeder screw ❸.
– Tilt the vehicle slightly to the right.
– Pour in coolant until it emerges without bubbles at the vent hole, and then mount and tighten bleeder screw ❸ immediately.

Coolant	1.20 l (1.27 qt.)	Coolant (📖 p. 228)

– Completely fill the radiator with coolant. Mount radiator cap ❷.
– Rest the vehicle on the side stand.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Start the engine and run it until the 5th bar of the temperature indicator lights up.
– Stop the engine and allow it to cool down.

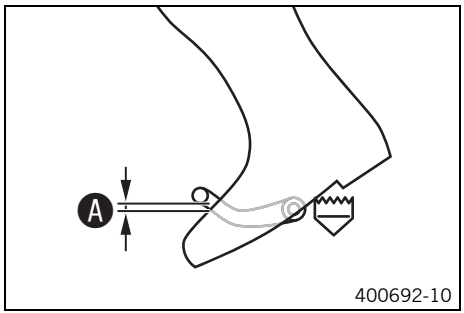
– After the engine has cooled down, check the coolant level in the radiator and in the compensating tank again and add more coolant if necessary.

◀

17.1 Checking the basic position of the shift lever

Info

When driving, the shift lever must not touch the rider's boot when in the basic position.
When the shift lever keeps touching the boot, the transmission will be subject to an excessive load.

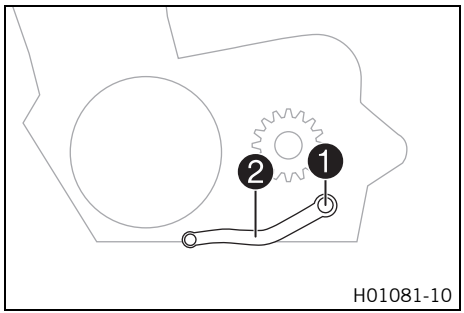


– Sit on the vehicle in the riding position and determine distance Ⓐ between the upper edge of your boot and the shift lever.

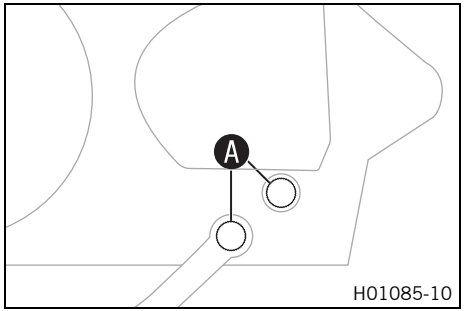
Distance between shift lever and upper edge of boot	10 ... 20 mm (0.39 ... 0.79 in)

» If the distance does not meet specifications:
– Set the basic position of the shift lever. (📖 p. 184)

17.2 Adjusting the basic position of the shift lever



– Remove screw ❶ with the washers and take off shift lever ❷.



– Clean gear teeth Ⓐ of the shift lever and shift shaft.
– Mount the shift lever on the shift shaft in the required position and engage the gearing.

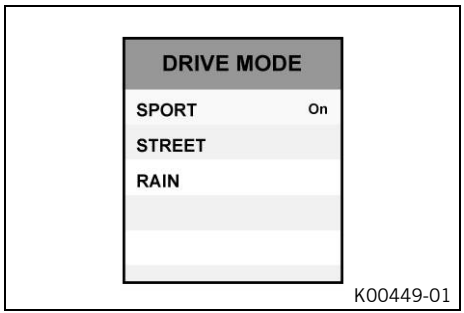
Info
The range of adjustment is limited.
The shift lever must not come into contact with any other vehicle components during the shift procedure.

– Mount and tighten screw with the washers.

Guideline

Screw, shift lever	M6	14 Nm (10.3 lbf ft) **Loctite®243™**

17.3 Drive Mode (optional)



K00449-01

Possible states

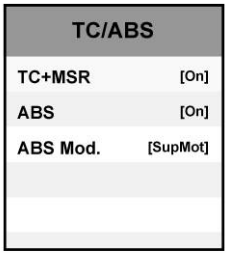
- SPORT – Homologated performance with very direct response; the traction control allows greater slip on the rear wheel
- STREET – Homologated performance with balanced response; the traction control allows normal slip on the rear wheel
- RAIN – Homologated performance with soft response for improved driveability; the traction control allows normal slip on the rear wheel

Various vehicle tunings can be selected in the **"Drive Mode"** menu. You can choose from **"SPORT"**, **"STREET"**, and **"RAIN"**.
The drive mode selected last is displayed in the display.

Info

The drive mode selection has no influence on the ABS.
The **"Drive Mode"** menu is only available if **TC** is available on the vehicle.

17.4 Traction control (optional) (TC)



K00395-01

The traction control (TC (📖 p. 186)) lowers the engine torque in case of loss of traction in the rear wheel. Depending on the traction control setting, a slight slip on the rear wheel may be desirable.

Info

When traction control is switched off, the rear wheel may spin during high acceleration and on surfaces with low grip. After the ignition is switched back on, traction control is enabled again.

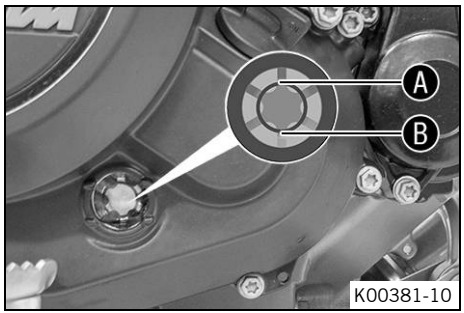
Traction control is controlled via the **"Drive Mode"** (📖 p. 185) menu on the combination instrument. Traction control can be switched off in the **"TC/ABS"** menu.

Info

When traction control is active, the TC indicator lamp flashes.
When traction control is switched off, the TC indicator lamp lights up.

18.1 Checking the engine oil level

Info
The engine oil level must be checked at normal engine operating temperature.



– Stand the motorcycle upright on a horizontal surface.
– Check the engine oil level.

Info
After switching off the engine, wait one minute before checking the level.

The engine oil must be between marking Ⓐ and marking Ⓑ of the oil level viewer.

» If the engine oil level is below the marking Ⓑ:
  – Add engine oil. (📖 p. 194)

» If the engine oil level is above the marking Ⓐ:
  – Correct engine oil level.

◀

18.2 Changing the engine oil and oil filter, cleaning the oil screens

Warning

Danger of scalding Engine and gear oil get very hot when the motorcycle is ridden.

– Wear suitable protective clothing and safety gloves.

– In the event of scalding, rinse the area affected immediately with lukewarm water.

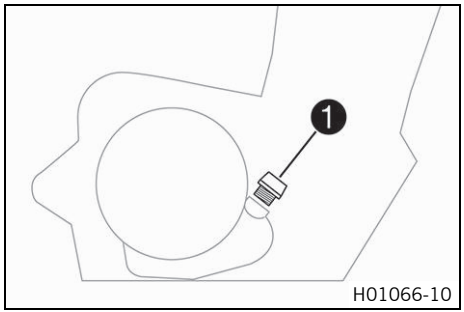
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

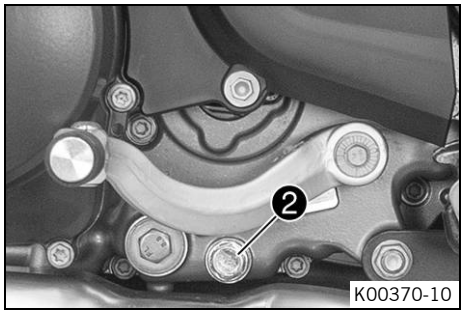
Info

Drain the engine oil while the engine is at operating temperature.



Main work

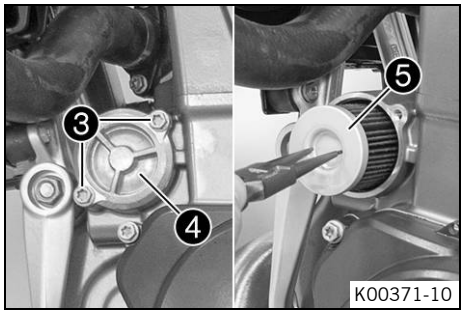
– Rest the motorcycle on its side stand on a horizontal surface.
– Place an appropriate container under the engine.
– Remove filler plug ❶ with the O-ring.



– Remove oil drain plug ❷ with the magnet and seal ring.
– Completely drain the engine oil.
– Thoroughly clean the oil drain plug with magnet.
– Mount and tighten the oil drain plug with the magnet and a new seal ring.

Guideline

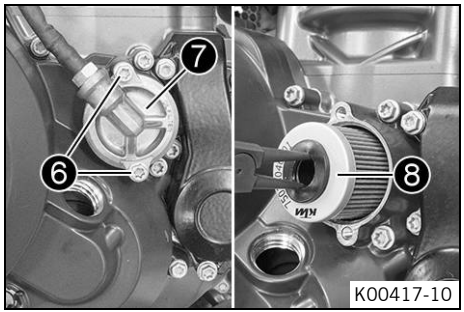
Oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)



– Remove screws ❸. Take off oil filter cover ❹ with the O-ring.
– Pull oil filter ❺ out of the oil filter housing.

Lock ring plier (51012011000)

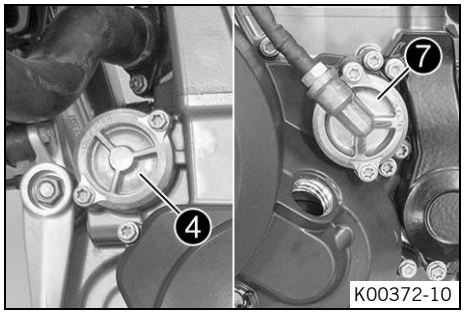
– Thoroughly clean the parts and sealing surface.



– Remove screws ❻. Take off oil filter cover ❼ with the O-ring.
– Pull oil filter ❽ out of the oil filter housing.

Lock ring plier (51012011000)

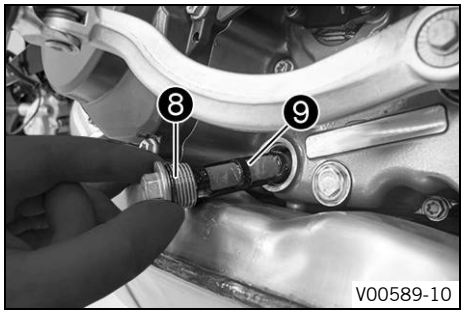
– Completely drain the engine oil.
– Thoroughly clean the parts and sealing surface.



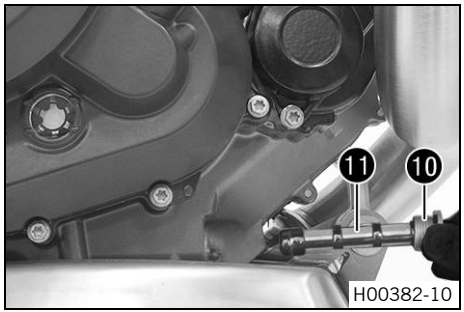
– Insert the new oil filter.
– Oil the O-rings of the oil filter covers. Position oil filter cover ❹ and ❼.
– Mount and tighten the screws.

Guideline

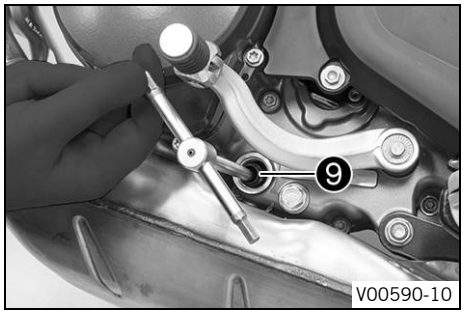
Screw, oil filter cover	M5	6 Nm (4.4 lbf ft)



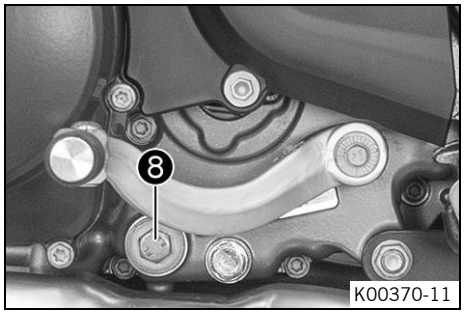
– Remove screw plug ❽ with oil screen ❾ and the O-rings.
– Completely drain the remaining engine oil.
– Thoroughly clean the parts and sealing surface.



– Remove screw plug ⑩ with oil screen ⑪ and the O-rings.
– Completely drain the remaining engine oil.
– Thoroughly clean the parts and sealing surface.

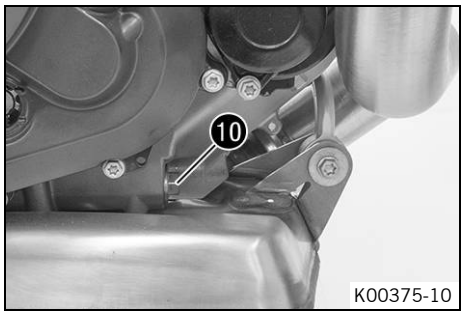


– Position oil screen ⑨ with the O-rings on a pin wrench.
– Position the pin wrench through the drill hole of the screw plug in the opposite section of the engine case.
– Push the oil screen all the way into the engine case.



– Mount and tighten screw plug ❽ with the O-ring.
Guideline

Plug, oil screen	M20x1.5	15 Nm (11.1 lbf ft)

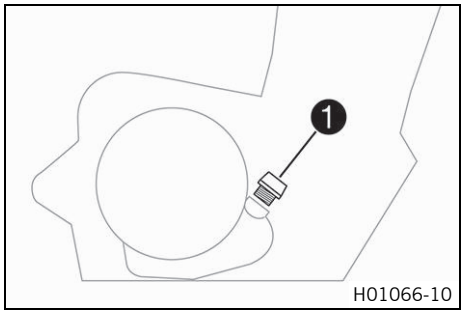


– Position the oil screen with the O-rings.
– Mount and tighten screw plug ❿ with the O-ring.
Guideline

Plug, oil screen	M20x1.5	15 Nm (11.1 lbf ft)

– Fill up with engine oil at the clutch cover.

Engine oil	1.70 l (1.8 qt.)	Engine oil (SAE 10W/50) (📖 p. 229)



– Mount and tighten filler plug ❶ with the O-ring.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Start the engine and check for tightness.

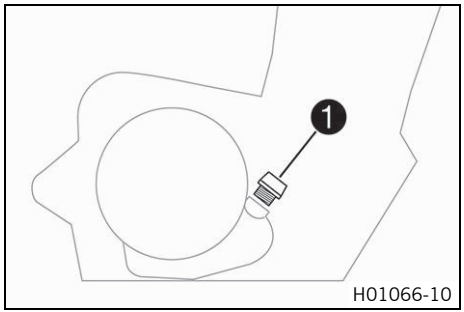
Finishing work

– Check the engine oil level. (📖 p. 187)

18.3 Adding engine oil

Info

Too little engine oil or poor-quality engine oil will result in premature wear of the engine.



Main work

– Remove filler plug ❶ with the O-ring, and fill up with engine oil.

– Fill engine oil to the middle of the level viewer.

Engine oil (SAE 10W/50) (📖 p. 229)

Info

In order to achieve optimal engine oil performance, it is not advisable to mix different engine oils.
We recommend changing the engine oil when necessary.

– Mount and tighten filler plug ❶ with the O-ring.

Danger

Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Start the engine and check for tightness.

Finishing work

– Check the engine oil level. (📖 p. 187)

19.1 Cleaning the motorcycle

Note

Material damage Components become damaged or destroyed if a pressure cleaner is used incorrectly.

The high pressure forces water into the electrical components, connectors, throttle cables, and bearings, etc. Pressure which is too high causes malfunctions and destroys components.

– Do not direct the water jet directly on to electrical components, connectors, throttle cables or bearings.
– Maintain a minimum distance between the nozzle of the pressure cleaner and the component.

Minimum clearance	60 cm (23.6 in)

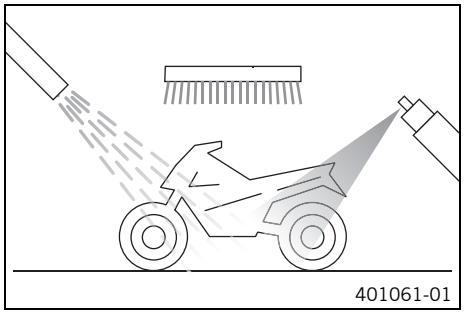
Note

Environmental hazard Hazardous substances cause environmental damage.

– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

To maintain the value and appearance of the motorcycle over a long period, clean it regularly.
Avoid direct sunshine when cleaning the motorcycle.



– Close off the exhaust system to keep water from entering.
– Remove loose dirt first with a soft jet of water.
– Spray heavily soiled parts with a normal commercial motorcycle cleaner and then brush off with a soft brush.

Motorcycle cleaner (📖 p. 231)

Info

Use warm water containing normal motorcycle cleaner and a soft sponge. Never apply motorcycle cleaner to a dry vehicle; always rinse the vehicle with water first.
If the vehicle was operated in road salt, clean it with cold water. Warm water would enhance the corrosive effects of salt.

– After rinsing the motorcycle with a gentle spray of water, allow it to dry thoroughly.
– Remove the closure of the exhaust system.

Warning

Danger of accidents Moisture and dirt impair the brake system.

– Brake carefully several times to dry out and remove dirt from the brake linings and the brake discs.

– After cleaning, ride the vehicle a short distance until the engine warms up.

Info
The heat produced causes water at inaccessible locations in the engine and on the brake system to evaporate.

– After the motorcycle has cooled down, lubricate all moving parts and pivot points.
– Clean the chain. (📖 p. 95)
– Treat bare metal (except for brake discs and the exhaust system) with a corrosion inhibitor.

Preserving materials for paints, metal and rubber (📖 p. 232)

– Treat all painted parts with a mild paint care product.

Perfect finish and high gloss polish for paints (📖 p. 231)

Info
Do not polish parts that were matte when delivered as this would strongly impair the material quality.

– Treat all plastic parts and powder-coated parts with a mild cleaning and care product.

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (📖 p. 232)

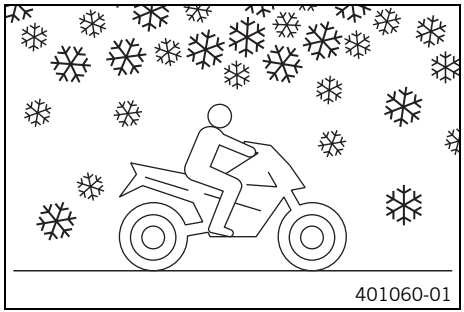
– Lubricate the ignition/steering lock.

Universal oil spray (📖 p. 232)

19.2 Checks and maintenance steps for winter operation

Info

If you use the motorcycle in winter, salt can be expected on the roads. You should therefore take precautions against aggressive road salt.
After riding on salted roads, thoroughly clean the vehicle with cold water and dry it well. Warm water enhances the corrosive effects of salt.



– Clean the motorcycle. (📖 p. 197)
– Clean the brake system.

Info

After **EVERY** trip on salted roads, thoroughly clean the brake calipers and brake linings, after they have cooled down and without removing them, with cold water and dry them carefully.
After riding on salted roads, thoroughly clean the motorcycle with cold water and dry it well.

– Treat the engine, the link fork, and all other bare or zinc-plated parts (except the brake discs) with a wax-based corrosion inhibitor.

Info
Corrosion inhibitor must not come in contact with the brake discs as this would greatly reduce the braking force.

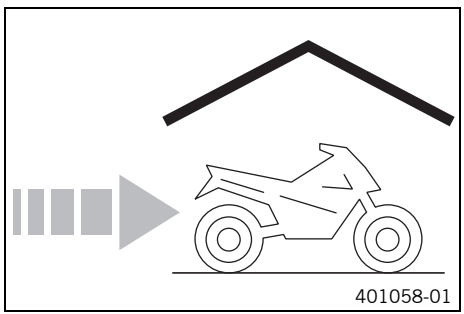
– Clean the chain. (📖 p. 95)

20.1 Storage

Info

If you plan to garage the motorcycle for a longer period, perform the following steps or have them performed.

Before storing the motorcycle, check all parts for function and wear. If service, repairs, or replacements are necessary, you should do this during the storage period (less workshop overload). In this way, you can avoid long workshop waiting times at the start of the new season.



- When refueling for the last time before taking the motorcycle out of service, add fuel additive.

  Fuel additive (📖 p. 231)
- Refuel. (📖 p. 78)
- Clean the motorcycle. (📖 p. 197)
- Change the engine oil and oil filter and clean the oil screens. 🔧 (📖 p. 188)
- Check the antifreeze and coolant level. (📖 p. 171)
- Check tire pressure. (📖 p. 141)
- Remove the 12-V battery. 🔧 (📖 p. 144)
- Charge the 12-V battery. 🔧 (📖 p. 149)

Guideline

Storage temperature of the 12-V battery without direct sunlight	0 … 35 °C (32 … 95 °F)

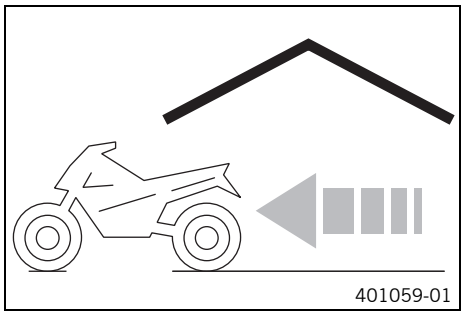
– Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

Info
KTM recommends jacking up the motorcycle.

– Raise the motorcycle with the rear lifting gear. (📖 p. 89)
– Lift the motorcycle with the front lifting gear. (📖 p. 90)
– Cover the vehicle with a tarp or similar cover that is permeable to air.

Info
Do not use non-porous materials since they prevent humidity from escaping, thus causing corrosion.
Avoid running the engine for a short time only. Since the engine cannot warm up properly, the water vapor produced during combustion condenses and causes valves and the exhaust system to rust.

20.2 Preparing for use after storage



- Take the motorcycle off the front lifting gear. (📖 p. 91)
- Remove the rear of the motorcycle from the lifting gear. (📖 p. 89)
- Charge the 12-V battery. 🔧 (📖 p. 149)
- Install the 12-V battery. 🔧 (📖 p. 147)
- Set the time and date. (📖 p. 54)
- Perform checks and maintenance measures when preparing for use. (📖 p. 64)
- Take a test ride.

Faults	Possible cause	Action
Engine does not crank when the electric starter button is pressed	Operating error	– Carry out the start procedure. (📖 p. 65)
	12 V battery discharged	– Charge the 12-V battery. 🔧 (📖 p. 149) – Check the open-circuit current. 🔧
	Fuse **1**, **2** or **3** blown	– Change the fuses of individual power consumers. (📖 p. 156)
	Main fuse burned out	– Change the main fuse. (📖 p. 152)
	No ground connection present	– Check the ground connection.
Engine turns only if the clutch lever is drawn	The vehicle is in gear	– Shift the transmission to neutral position.
	The vehicle is in gear and the side stand is folded out	– Shift the transmission to neutral position.
Engine turns but does not start	Operating error	– Carry out the start procedure. (📖 p. 65)
	Fuse **3** blown	– Change the fuses of individual power consumers. (📖 p. 156)
	The plug-in connection of the fuel hose connection is not connected	– Connect the plug-in connection of the fuel line.
	Error in the electronic fuel injection	– Read out the fault memory using the KTM diagnostics tool. 🔧

Faults	Possible cause	Action
Engine turns but does not start	Throttle opened while starting	– When starting, **DO NOT** open the throttle. – Carry out the start procedure. (📖 p. 65)
Engine has too little power	Air filter is very dirty	– Remove the air filter. 🔧 – Install the air filter. 🔧
	Fuel filter is very dirty	– Check the fuel pressure. 🔧
	Error in the electronic fuel injection	– Read out the fault memory using the KTM diagnostics tool. 🔧
Engine overheats	Too little coolant in cooling system	– Check the cooling system for leakage. – Check the coolant level in the compensating tank. (📖 p. 173)
	Radiator fins very dirty	– Clean radiator fins.
	Foam formation in cooling system	– Drain the coolant. 🔧 (📖 p. 175) – Fill/bleed the cooling system. 🔧 (📖 p. 177)
	Buckled or damaged radiator hose	– Change the radiator hose. 🔧
	Thermostat is faulty	– Check the thermostat. 🔧
	Fuse **4** blown	– Change the fuses of individual power consumers. (📖 p. 156)
	Defect in radiator fan system	– Check the radiator fan system. 🔧

Faults	Possible cause	Action
Malfunction indicator lamp lights up or flashes	Error in the electronic fuel injection	– Read out the fault memory using the KTM diagnostics tool.
N The idling speed indicator lamp does not light up when the transmission is in neutral	Gear position sensor not programmed	– Read out the fault memory using the KTM diagnostics tool.
Engine dies during the trip	Lack of fuel	– Refuel. (p. 78)
	Fuse **1**, **2** or **3** blown	– Change the fuses of individual power consumers. (p. 156)
The ABS warning lamp lights up	ABS fuse is blown	– Change the ABS fuses. (p. 154)
	Large difference in wheel speeds of the front and rear wheels	– Stop the vehicle, switch off the ignition, and start it again.
	Malfunction in ABS	– Read out the ABS fault memory using the KTM diagnostics tool.
High oil consumption	Engine vent hose bent	– Route the vent hose without bends or change it if necessary.
	Engine oil level too high	– Check the engine oil level. (p. 187)
	Engine oil too thin (low viscosity)	– Change the engine oil and oil filter and clean the oil screens. (p. 188)
Headlight and position light are not functioning	Fuse **6** blown	– Change the fuses of individual power consumers. (p. 156)

Faults	Possible cause	Action
Turn signal, brake light, and horn are not functional	Fuse **5** blown	– Change the fuses of individual power consumers. (📖 p. 156)
Time is not (correctly) displayed	Fuse **1** blown	– Change the fuses of individual power consumers. (📖 p. 156) – Set the time and date. (📖 p. 54)
12 V battery discharged	Ignition not switched off when vehicle was parked	– Charge the 12-V battery. 🔧 (📖 p. 149)
	The 12-V battery is not being charged by the alternator	– Check the charging voltage. 🔧 – Check the open-circuit current. 🔧
Combination instrument shows nothing on the display	Fuse **1** or **2** blown	– Change the fuses of individual power consumers. (📖 p. 156) – Set the time and date. (📖 p. 54)

22.1 Engine

Design	1-cylinder 4-stroke engine, water-cooled
Displacement	692.7 cm^3 (42.271 cu in)
Stroke	80 mm (3.15 in)
Bore	105 mm (4.13 in)
Compression ratio	12.7:1
Control	OHC, intake with cam levers, exhaust controlled by rocker arm, chain drive
Valve diameter, intake	42 mm (1.65 in)
Valve diameter, exhaust	34 mm (1.34 in)
Valve play, cold	
Intake at: 20 °C (68 °F)	0.10 ... 0.15 mm (0.0039 ... 0.0059 in)
Exhaust at: 20 °C (68 °F)	0.22 ... 0.27 mm (0.0087 ... 0.0106 in)
Crankshaft bearing	2 roller bearings
Conrod bearing	Slide bearing
Piston pin bearing	Piston pin with **DLC** coating
Pistons	Forged light alloy
Piston rings	1 compression ring, 1 lower compression ring, 1 oil ring with spring expander
Engine lubrication	Semi-dry sump lubrication system with two rotor pumps

Primary transmission	36:79
Clutch	**APTC™** antihopping clutch in oil bath/hydraulically operated
Transmission	6-gear transmission, claw shifted
Transmission ratio	
1st gear	14:35
2nd gear	16:28
3rd gear	21:28
4th gear	21:23
5th gear	23:22
6th gear	23:20
Mixture preparation	Electronic fuel injection
Ignition	Contactless controlled fully electronic ignition with digital ignition adjustment
Alternator	12 V, 300 W
Spark plug	
Inside spark plug	NGK LKAR9BI-10
Outside spark plug	NGK LMAR7DI-10
Spark plug electrode gap	1.0 mm (0.039 in)
Cooling	Water cooling, permanent circulation of coolant by water pump
Idle speed	1,550 ... 1,650 rpm

Starting aid	Starter motor, automatic decompression

22.2 Engine tightening torques

Screw, membrane fixation	M3	2 Nm (1.5 lbf ft) **Loctite®243™**
Hose clamp, intake flange	M4	2.5 Nm (1.84 lbf ft)
Oil nozzle for clutch lubrication	M4	2 Nm (1.5 lbf ft)
Oil nozzle for conrod bearing lubrication	M4	2 Nm (1.5 lbf ft) **Loctite®243™**
Locking screw for bearing	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Oil nozzle in cylinder head	M5	2 Nm (1.5 lbf ft) **Loctite®243™**
Remaining screws, engine	M5	6 Nm (4.4 lbf ft)
Screw, axial lock of camshaft	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, clutch spring	M5	8 Nm (5.9 lbf ft)
Screw, cover plate for oil return line	M5	6 Nm (4.4 lbf ft)
Screw, gear sensor	M5	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, oil filter cover	M5	6 Nm (4.4 lbf ft)

Screw, oil pump cover	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Chain securing guide	M6	5 Nm (3.7 lbf ft)
Remaining screws, engine	M6	10 Nm (7.4 lbf ft)
Screw in alternator cover	M6	10 Nm (7.4 lbf ft)
Screw, alternator cover	M6x30	10 Nm (7.4 lbf ft)
Screw, alternator cover (timing chain shaft through-hole)	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, auto decompression	M6	3.5 Nm (2.58 lbf ft) **Loctite®243™**
Screw, camshaft bearing support	M6x80	10 Nm (7.4 lbf ft)
Screw, camshaft bearing support	M6x90	10 Nm (7.4 lbf ft)
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)
Screw, clutch slave cylinder	M6x20	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, clutch slave cylinder	M6x35	10 Nm (7.4 lbf ft)
Screw, crankshaft speed sensor	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, cylinder	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, cylinder head	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, engine case	M6	10 Nm (7.4 lbf ft)

Screw, ignition coil	M6	10 Nm (7.4 lbf ft)
Screw, locking lever	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, resonator	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, shift drum locating	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, shift lever	M6	14 Nm (10.3 lbf ft) **Loctite®243™**
Screw, starter motor	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, stator	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, thermostat housing	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, timing chain guide rail	M6x30	10 Nm (7.4 lbf ft) **Loctite®2701™**
Screw, timing chain shaft	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, timing chain tensioning rail	M6x30	10 Nm (7.4 lbf ft) **Loctite®2701™**
Screw, valve cover	M6	10 Nm (7.4 lbf ft)
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)

Screw, water pump wheel	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screws, secondary air system cover	M6x12	10 Nm (7.4 lbf ft) **Loctite®243™**
Intake channel vacuum connection	M6x0.75	2.5 Nm (1.84 lbf ft) **Loctite®243™**
Oil jet, piston cooling	M6x0.75	4 Nm (3 lbf ft) **Loctite®243™**
Nut, exhaust flange	M8	20 Nm (14.8 lbf ft) Copper paste
Screw plug, locking screw	M8	15 Nm (11.1 lbf ft)
Screw, rocker arm shaft	M8x40	15 Nm (11.1 lbf ft)
Screw, rocker arm shaft	M8x55	15 Nm (11.1 lbf ft)
Stud, exhaust flange	M8	10 Nm (7.4 lbf ft) **Loctite®243™**

Cylinder head screw	M10	Tightening sequence: Tighten diagonally, beginning with the rear screw on the timing chain shaft. Step 1 15 Nm (11.1 lbf ft) Step 2 30 Nm (22.1 lbf ft) Step 3 45 Nm (33.2 lbf ft) Step 4 60 Nm (44.3 lbf ft) Lubricated with engine oil
Oil line for oil pressure sensor	M10x1	10 Nm (7.4 lbf ft)
Oil pressure sensor	M10x1	10 Nm (7.4 lbf ft)
Screw plug, oil channel	M10x1	15 Nm (11.1 lbf ft) **Loctite®243™**
Screw plug, oil channel, for oil radiator	M10x1	15 Nm (11.1 lbf ft)
Screw plug, water pump drain hole	M10x1	15 Nm (11.1 lbf ft)
Screw, unlocking of timing chain tensioner	M10x1	10 Nm (7.4 lbf ft)
Spark plug outside	M10x1	11 Nm (8.1 lbf ft)
Spark plug inside	M12x1.25	18 Nm (13.3 lbf ft)

Coolant temperature sensor on the cylinder head	M12x1.5	12 Nm (8.9 lbf ft)
Oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)
Screw plug, oil pressure control valve	M12x1.5	20 Nm (14.8 lbf ft)
Screw plug, oil channel	M14x1.5	15 Nm (11.1 lbf ft) **Loctite®243™**
Engine case stud	M16x1.5	25 Nm (18.4 lbf ft) **Loctite®243™**
Rotor nut	M18x1.5	100 Nm (73.8 lbf ft)
Nut, engine sprocket	M20x1.5	80 Nm (59 lbf ft) **Loctite®243™**
Nut, inner clutch hub	M20x1.5	100 Nm (73.8 lbf ft) **Loctite®243™**
Nut, primary gear wheel	M20LHx1.5	90 Nm (66.4 lbf ft) **Loctite®243™**
Plug, oil screen	M20x1.5	15 Nm (11.1 lbf ft)
Plug, oil thermostat	M24x1.5	15 Nm (11.1 lbf ft)
Plug, timing chain tensioner	M24x1.5	25 Nm (18.4 lbf ft)
Screw in alternator cover	M24x1.5	8 Nm (5.9 lbf ft)

22.3 Capacities

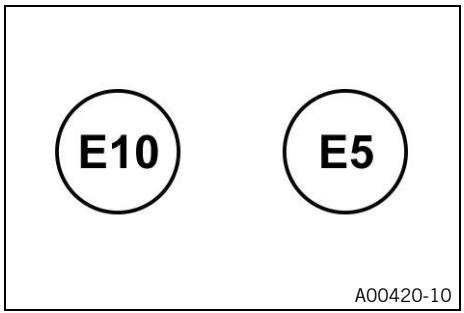
22.3.1 Engine oil

Engine oil	1.70 l (1.8 qt.)	Engine oil (SAE 10W/50) (📖 p. 229)

22.3.2 Coolant

Coolant	1.20 l (1.27 qt.)	Coolant (📖 p. 228)

22.3.3 Fuel



Please observe the labels on EU fuel pumps.

Total fuel tank capacity, approx.	14 l (3.7 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 230)

22.4 Chassis

Frame	Lattice frame made of chrome molybdenum steel tubing, powder-coated
Fork	**WP Suspension** Up Side Down 4357
Shock absorber	**WP Suspension** emulsion with **Pro-Lever** bell crank
Suspension travel	
front	135 mm (5.31 in)
rear	135 mm (5.31 in)
Brake system	
front	Disc brake with radially mounted four-piston brake caliper, floating brake disc
rear	Disc brake with 1-piston brake caliper
Brake discs - diameter	
front	320 mm (12.6 in)
rear	240 mm (9.45 in)
Brake discs - wear limit	
front	4.2 mm (0.165 in)
rear	4.5 mm (0.177 in)
Tire pressure when solo	
front	2.0 bar (29 psi)
rear	2.0 bar (29 psi)

Tire pressure with passenger / full payload	
front	2.0 bar (29 psi)
rear	2.2 bar (32 psi)
Secondary drive ratio	16:40
Chain	5/8 x 1/4" (520) X-ring
Steering head angle	63.5°
Wheelbase	1,466 ± 15 mm (57.72 ± 0.59 in)
Seat height unloaded	835 mm (32.87 in)
Ground clearance unloaded	192 mm (7.56 in)
Weight without fuel, approx.	152.5 kg (336.2 lb.)
Maximum permissible front axle load	150 kg (331 lb.)
Maximum permissible rear axle load	220 kg (485 lb.)
Maximum permissible overall weight	350 kg (772 lb.)

22.5 Electrical system

12 V battery	HTZ12A-BS	Battery voltage: 12 V Nominal capacity: 10 Ah Maintenance-free
Fuse	58011109115	15 A
Fuse	58011109125	25 A
Fuse	58011109130	30 A

Fuse	75011088015	15 A
Fuse	75011088010	10 A
Headlight	H4 / socket P43t	12 V 60/55 W
Position light	W5W / socket W2.1x9.5d	12 V 5 W
Combination instrument lighting and indicator lamps	LED	
Turn signal	RY10W / socket BAU15s	12 V 10 W
Brake/tail light	LED	
License plate lamp	LED	

22.6 Tires

Front tire	Rear tire
120/70 ZR 17 M/C 58W TL Metzeler SPORTEC M7 RR	**160/60 ZR 17 M/C 69W TL** Metzeler SPORTEC M7 RR
The tires specified represent one of the possible series production tires. Additional information is available in the Service section under: http://www.ktm.com	

22.7 Fork

Fork part number	05.18.7L.19
Fork	**WP Suspension** Up Side Down 4357
Spring rate	
Medium (standard)	6.0 N/mm (34.3 lb/in)
Fork length	816 mm (32.13 in)

Fork oil per fork leg	480 ml (16.23 fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 230)

22.8 Shock absorber

Shock absorber article number	01.18.7N.19
Shock absorber	**WP Suspension** emulsion with **Pro-Lever** bell crank
Spring preload	
Standard	4 clicks
Static sag	20 mm (0.79 in)
Riding sag	45 mm (1.77 in)
Fitted length	364 mm (14.33 in)

22.9 Chassis tightening torques

Screw, headlight	EJOT	2 Nm (1.5 lbf ft)
Screw, side stand switch	M4	2 Nm (1.5 lbf ft) **Loctite®243™**
Remaining nuts, chassis	M5	4 Nm (3 lbf ft)
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)
Retaining clamp, brake line	M5	3 Nm (2.2 lbf ft)
SAS valve screw on frame	M5	4 Nm (3 lbf ft)
Screw, air filter box	M5	3 Nm (2.2 lbf ft)
Screw, cable on starter motor	M5	3 Nm (2.2 lbf ft)
Screw, combination instrument	M5	4 Nm (3 lbf ft)
Screw, combination switch, left	M5	1.5 Nm (1.11 lbf ft)
Screw, combination switch, right	M5	3.5 Nm (2.58 lbf ft)
Screw, foot brake lever stub	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, fuel level sensor	M5	3 Nm (2.2 lbf ft)
Screw, fuel tank cover	M5	3 Nm (2.2 lbf ft)
Screw, headlight mask	M5	4 Nm (3 lbf ft)
Screw, heat guard	M5	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, plastic clamp of brake line on fork leg	M5	2 Nm (1.5 lbf ft)

Double-sided grub screw	M6	6 Nm (4.4 lbf ft) **Loctite®243™**
Nut, push rod, foot brake lever	M6	6 Nm (4.4 lbf ft)
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
Screw, angle sensor	M6	5 Nm (3.7 lbf ft)
Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, battery terminal	M6	2 Nm (1.5 lbf ft)
Screw, brake assembly	M6	5 Nm (3.7 lbf ft)
Screw, brake fluid reservoir for rear brake	M6	5 Nm (3.7 lbf ft)
Screw, chain guard	M6	4 Nm (3 lbf ft) **Loctite®243™**
Screw, chain sliding guard	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, clutch assembly	M6	5 Nm (3.7 lbf ft)
Screw, control unit holder	M6	3 Nm (2.2 lbf ft)
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, fuel pump	M6	6 Nm (4.4 lbf ft)
Screw, fuel tank spoiler	M6	3 Nm (2.2 lbf ft)
Screw, lower radiator bracket	M6	5 Nm (3.7 lbf ft)

Screw, magnetic holder on side stand	M6	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, manifold clamp	M6	8 Nm (5.9 lbf ft) Copper paste
Screw, seat lock	M6	10 Nm (7.4 lbf ft) **Loctite® 222™**
Screw, tail light cover	M6	8 Nm (5.9 lbf ft)
Screw, voltage regulator	M6	8 Nm (5.9 lbf ft)
Screw, wheel speed sensor	M6	6 Nm (4.4 lbf ft)
Nut, manifold on cylinder head	M8	20 Nm (14.8 lbf ft) Copper paste
Nut, rear sprocket screw	M8	35 Nm (25.8 lbf ft) **Loctite®2701™**
Remaining nuts, chassis	M8	25 Nm (18.4 lbf ft)
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)
Screw, footrest bracket, rear	M8x30	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, footrest bracket, rear	M8x50	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, fork stub	M8	15 Nm (11.1 lbf ft)
Screw, front brake disc	M8	30 Nm (22.1 lbf ft) **Loctite®2701™**

Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)
Screw, handrail	M8x30	Countersunk screw 18 Nm (13.3 lbf ft) **Loctite®243™**
Screw, handrail, cover	M8x20	18 Nm (13.3 lbf ft) **Loctite®243™**
Screw, ignition lock (tamper-proof screw)	M8	**Loctite®243™**
Screw, license plate holder	M8	18 Nm (13.3 lbf ft) **Loctite®243™**
Screw, linkage bracket, front engine fixing arm	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, main silencer holder	M8	25 Nm (18.4 lbf ft)
Screw, rear brake disc	M8	30 Nm (22.1 lbf ft) **Loctite®2701™**
Screw, side stand bracket	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, spring holder plate on side stand bracket	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)
Engine carrying screw	M10	45 Nm (33.2 lbf ft) **Loctite®243™**

Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)
Screw, foot brake lever	M10	25 Nm (18.4 lbf ft)
Screw, handlebar support	M10	20 Nm (14.8 lbf ft)
Screw, side stand	M10	35 Nm (25.8 lbf ft) **Loctite®243™**
Screw, subframe	M10	45 Nm (33.2 lbf ft) **Loctite®243™**
Banjo bolt, brake line	M10x1	25 Nm (18.4 lbf ft)
Screw, bottom shock absorber	M10x1.25	50 Nm (36.9 lbf ft) **Loctite®243™**
Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft) **Loctite®243™**
Screw, top shock absorber	M10x1.25	50 Nm (36.9 lbf ft) **Loctite®243™**
Lambda sensor	M12x1.25	25 Nm (18.4 lbf ft)
Nut, angle lever to link fork	M14x1.5	100 Nm (73.8 lbf ft)
Nut, frame to linkage lever	M14x1.5	100 Nm (73.8 lbf ft)
Nut, linkage lever to rocker arm	M14x1.5	100 Nm (73.8 lbf ft)
Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)
Screw, steering head	M20x1.5	40 Nm (29.5 lbf ft)
Adjusting ring, link fork bearing	M24x1.5	25 Nm (18.4 lbf ft)
Screw, front wheel spindle	M24x1.5	45 Nm (33.2 lbf ft)

Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)
Nut, steering head	M28x1	12 Nm (8.9 lbf ft)

Brake fluid DOT 4 / DOT 5.1

Standard/classification

– DOT

Guideline

– Use only brake fluid that complies with the specified standard (see specifications on the container) and that exhibits the corresponding properties.

Recommended supplier

Castrol

– **REACT PERFORMANCE DOT 4**

MOTOREX®

– **Brake Fluid DOT 5.1**

Coolant

Guideline

– Only use high-grade, silicate-free coolant with corrosion inhibitor additive for aluminum motors. Low grade and unsuitable antifreeze causes corrosion, deposits and frothing.

– Do not use pure water as only coolant is able to meet the requirements needed in terms of corrosion protection and lubrication properties.

– Only use coolant that complies with the requirements stated (see specifications on the container) and that has the relevant properties.

Antifreeze protection to at least	−25 °C (−13 °F)

The mixture ratio must be adjusted to the necessary antifreeze protection. Use distilled water if the coolant needs to be diluted.

The use of premixed coolant is recommended.

Observe the coolant manufacturer specifications for antifreeze protection, dilution and miscibility (compatibility) with other coolants.

Recommended supplier
MOTOREX®
– **COOLANT M3.0**

Engine oil (SAE 10W/50)

Standard/classification
– JASO T903 MA2 (📖 p. 233)
– SAE (📖 p. 233) (SAE 10W/50)

Guideline
– Use only engine oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties.

Fully synthetic engine oil

Recommended supplier
MOTOREX®
– **Power Synt 4T**

Fork oil (SAE 4) (48601166S1)

Standard/classification

– SAE (📖 p. 233) (SAE 4)

Guideline

– Use only oils that comply with the specified standards (see specifications on the container) and that exhibit the corresponding properties.

Super unleaded (ROZ 95/RON 95/PON 91)

Standard/classification

– DIN EN 228 (ROZ 95/RON 95/PON 91)

Guideline

– Only use unleaded super fuel that matches or is equivalent to the specified fuel grade.

– Fuel with an ethanol content of up to 10 % (E10 fuel) is safe to use.

Info

Do **not** use fuel containing methanol (e. g. M15, M85, M100) or more than 10 % ethanol (e. g. E15, E25, E85, E100).

Chain cleaner

Recommended supplier
MOTOREX®
– **Chain Clean**

Fuel additive

Recommended supplier
MOTOREX®
– **Fuel Stabilizer**

Long-life grease

Recommended supplier
MOTOREX®
– **Bike Grease 2000**

Motorcycle cleaner

Recommended supplier
MOTOREX®
– **Moto Clean**

Perfect finish and high gloss polish for paints

Recommended supplier
MOTOREX®
– **Moto Shine**

Preserving materials for paints, metal and rubber

Recommended supplier
MOTOREX®
– **Moto Protect**

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces

Recommended supplier
MOTOREX®
– **Quick Cleaner**

Street chain spray

Guideline

Recommended supplier
MOTOREX®
– **Chainlube Road Strong**

Universal oil spray

Recommended supplier
MOTOREX®
– **Joker 440 Synthetic**

JASO T903 MA2

Different technical development directions required a separate specification for motorcycles – the **JASO T903 MA2** standard.
Earlier, engine oils from the automobile industry were used for motorcycles because there was no separate motorcycle specification.
Whereas long service intervals are demanded for automobile engines, the focus for motorcycle engines is on high performance at high engine speeds.
In most motorcycle engines, the transmission and clutch are lubricated with the same oil.
The **JASO T903 MA2** standard meets these special requirements.

SAE

The SAE viscosity classes were defined by the Society of Automotive Engineers and are used for classifying oils according to their viscosity. The viscosity describes only one property of oil and says nothing about quality.

ABS	Anti-lock braking system	Safety system that prevents locking of the wheels when driving straight ahead without the influence of lateral forces
ETTC	Engine traction torque control	Auxiliary function of the engine control, which prevents rear wheel locking with excessive engine braking effect, by lightly opening the throttle valve
OBD	On-board diagnosis	Vehicle system, which monitors the specified parameters of the vehicle electronics
TC	Traction Control	Auxiliary function of the motor control that reduces engine torque with spinning rear wheel

Art. no.	Article number
ca.	circa
cf.	compare
e.g.	for example
etc.	et cetera
i.a.	inter alia
no.	number
poss.	possibly

28 LIST OF SYMBOLS

28.1 Red symbols

Red symbols indicate an error condition that requires immediate intervention.

	The immobilizer indicator lamp lights up or flashes red – Status or error message for immobilizer/alarm system.
	The oil pressure warning lamp lights up red – The oil pressure is too low. Stop immediately, taking care not to endanger yourself or other road users in the process, and switch off the engine.

28.2 Yellow and orange symbols

Yellow and orange symbols indicate an error condition that requires prompt intervention. Active driving aids are also represented by yellow or orange symbols.

	Malfunction indicator lamp lights up yellow – The OBD has detected an error in the vehicle electronics. Come safely to a halt, and contact an authorized KTM workshop.
	The ABS warning lamp lights up yellow – Status or error messages relating to ABS. The ABS warning lamp flashes if the ABS mode **"SupMot"** is enabled.
	TC indicator lamp lights up yellow – The TC is not available. Contact an authorized KTM workshop. The TC indicator lamp flashes, if TC actively engages.
	The general warning lamp lights up yellow – A note/warning note on operating safety has been detected. This is also shown in the display.

28.3 Green and blue symbols

Green and blue symbols reflect information.

	The turn signal indicator lamp flashes green simultaneously with the turn signal – The turn signal is switched on.
	The idle indicator lamp lights up green – The transmission is in neutral.
	The high beam indicator lamp lights up blue – The high beam is switched on.

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KTM Sportmotorcycle GmbH
5230 Mattighofen/Austria
http://www.ktm.com

Photo: Mitterbauer/KTM