

1290 Super Adventure S

Art. no. 3213540en



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 your new vehicle!

Please enter the serial numbers of your vehicle below.

Chassis number (📖 p. 22)	Dealer's stamp
Engine number (📖 p. 24)	
Key number (📖 p. 23)	

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.

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3213540en

01/2017

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KTM Sportmotorcycle GmbH
5230 Mattighofen, Austria

This document is valid for the following models:

1290 Super Adventure S EU (F9903Q4, F9903Q5)

1290 Super Adventure S AU (F9960Q5)

1290 Super Adventure S JP (F9986Q4)

1290 Super Adventure S CN (F9987Q4)

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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. There, your motorcycle will be optimally cared for by specially trained experts using the specialist 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.

1 MEANS OF REPRESENTATION

1.2 Formats used

The typographical formats used in this document are explained below.

Specific name	Identifies a proprietary name.
Name®	Identifies a protected name.
Brand™	Identifies a brand available on the open market.
<u>Underlined terms</u>	Refer to technical details of the vehicle or indicate technical terms that are explained in the glossary.

2.1 Use definition - intended use

KTM sport motorcycles are designed and constructed to meet the normal demands of regular road and light offroad operation (dirt roads), but not for use on race courses.



Info

The motorcycle is only authorized for operation on public roads in the 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 vehicle safely. Therefore, read this manual carefully. The safety instructions are highlighted in the text and are referred to at the relevant passages.



Info

The vehicle has various information and warning labels at prominent locations. Do not remove information/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**

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

**Warning**

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

**Caution**

Indicates a danger that may lead to minor injuries if the appropriate measures are not taken.

Note

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

**Warning**

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 maintenance, 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 silencer, 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 part of the vehicle, or parts of the exhaust 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 an effective exhaust extraction system 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.

The vehicle should only be used by trained persons. 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 some of the work. These are not included with the vehicle and can be ordered under the number in parentheses. Ex: valve spring mounter (59029019000)

During assembly, non-reusable parts (e.g. self-locking screws and nuts, seals and seal rings, O-rings, pins, lock washers) must be replaced by new parts.

Where thread lockers are used on screw connections (e.g., **Loctite**®), follow the instructions for use from the manufacturer.

Parts that you want to reuse following repairs and servicing should be cleaned and checked for damage and wear. Change damaged or worn parts.

Following repairs or servicing, the vehicle must be checked for roadworthiness.

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 maintain 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 should be handed over to the new owner if the vehicle is sold.

3.1 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 **KTM Dealer.net**, otherwise any warranty coverage will become void. No warranty claims can be considered for damage resulting from manipulations and/or alterations to the vehicle. Additional information on the manufacturer or implied warranty and the procedures involved can be found in the service & warranty booklet.

3.2 Operating and auxiliary substances



Warning

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 operating and auxiliary substances (such as fuel and lubricants) as specified in the Owner's Manual.

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 are properly carried out as described in the owner's manual. Poor adjustment and tuning of the engine and suspension can lead to damage and breakage of components.

Using the motorcycle in extreme operating conditions, e.g. on very muddy and wet roads or in a dusty and dry environment, can lead to above-average wear of components, such as the drive train, brakes or air filter. For this reasons, it may be necessary to service or replace worn parts before the interval listed in the service schedule is reached.

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.

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)

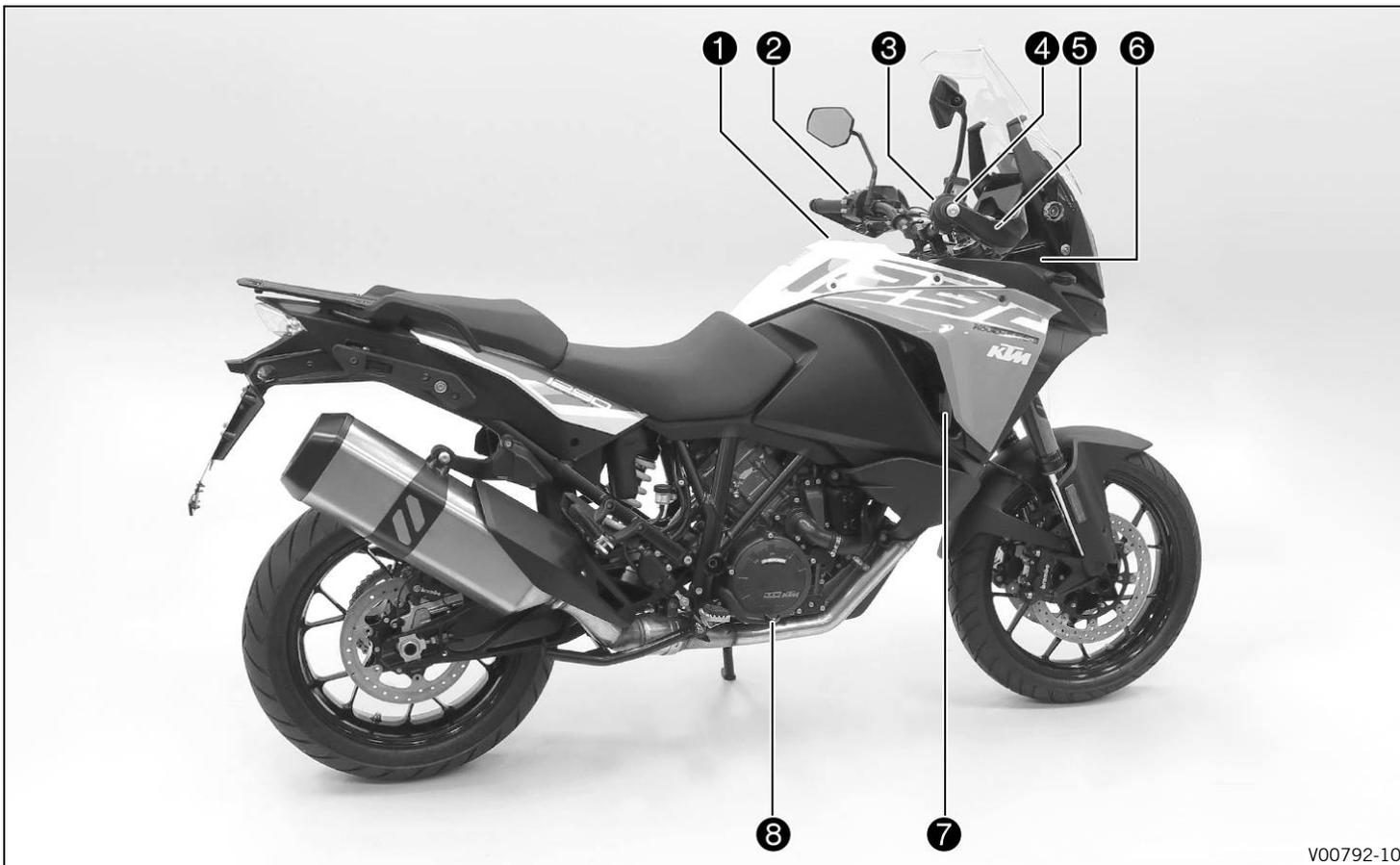


4 VIEW OF VEHICLE

1	Socket for electrical accessories (📖 p. 36)
2	Clutch lever (📖 p. 26)
3	Grab handles (📖 p. 41)
4	Luggage rack plate (📖 p. 42)
5	Seat lock (📖 p. 41)
6	Passenger footrest (📖 p. 42)
7	Center stand (📖 p. 45)
8	Rider footrests (📖 p. 99)
9	Side stand (📖 p. 44)
10	Shift lever (📖 p. 43)

4 VIEW OF VEHICLE

4.2 View of vehicle, rear right (example)

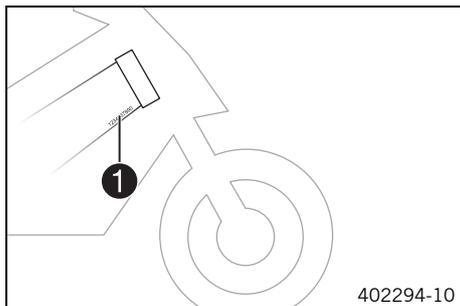


4 VIEW OF VEHICLE

21

1	Filler cap
2	Combination switch, left side (📖 p. 27)
3	Combination switch, right (📖 p. 32)
4	Throttle grip (📖 p. 27)
5	Hand brake lever (📖 p. 26)
6	Storage compartment
7	Cooling system compensating tank
8	Foot brake lever (📖 p. 44)

5.1 Chassis number



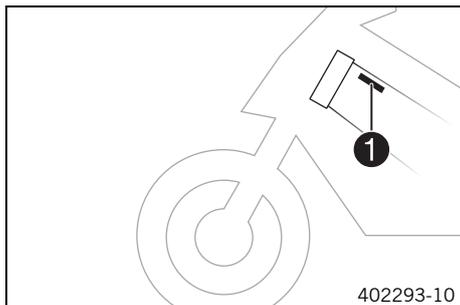
The chassis number ❶ is stamped on the bottom right of the frame behind the steering head.

The chassis number is also shown on the type label.

5.2 Type label

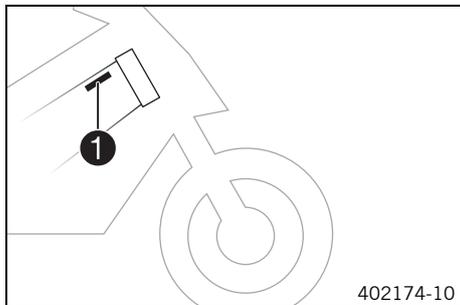
(Super Adventure S EU/JP/CN)

Type label ❶ is affixed to the top left of the frame behind the steering head.



(Super Adventure S AU)

Type label **1** is affixed the top right of the frame behind the steering head.



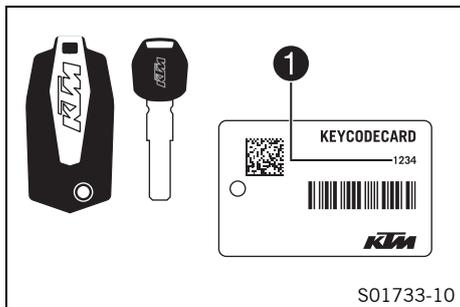
5.3 Key number

The key number **Code number 1** can be found on the **KEYCODECARD**.

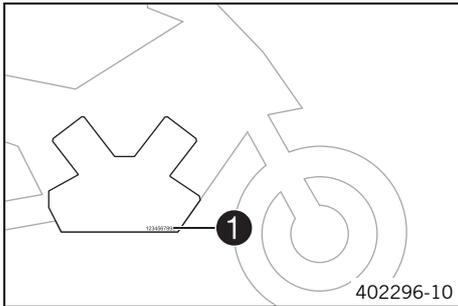


Info

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

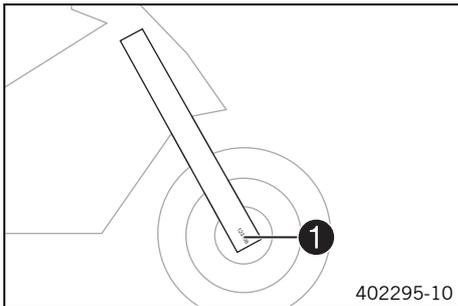


5.4 Engine number



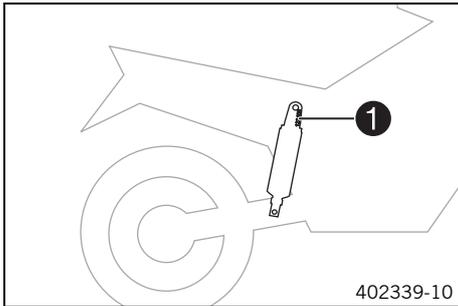
The engine number ❶ is stamped on the right side of the engine.

5.5 Fork part number



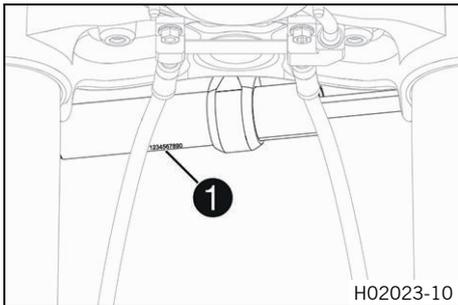
The fork part number ❶ is stamped on the inner side of the fork stub.

5.6 Shock absorber article number



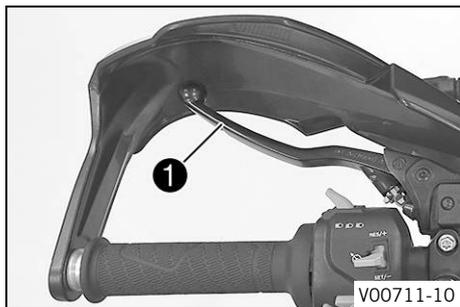
The shock absorber article number **1** is stamped on the top of the shock absorber above the adjusting ring towards the engine side.

5.7 Steering damper article number



Steering damper article number **1** is embossed on the underside of the steering damper.

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 hand brake lever is used to activate both the front brake and rear brake at the same time.



Info

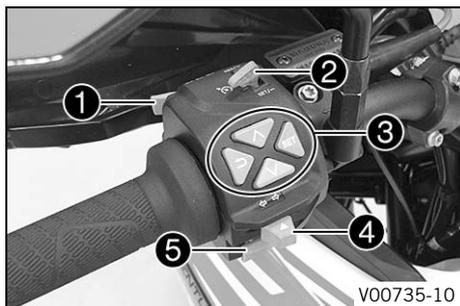
When the ABS mode **Offroad** is switched on, only the front brake is activated. When ABS is switched off, only the front brake is activated.

6.3 Throttle grip



The throttle grip **1** is fitted on the right side of the handlebar.

6.4 Combination switch, left side

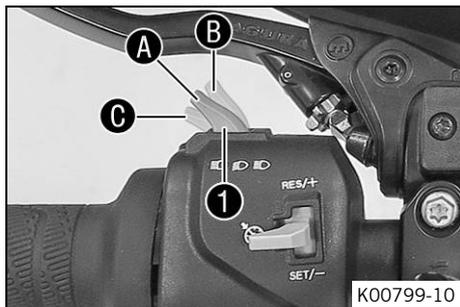


The left combination switch is fitted on the left side of the handlebar.

Overview of the left combination switch

- | | |
|---|--|
| 1 | Light switch (📖 p. 28) |
| 2 | Cruise control system tip switch (📖 p. 28) |
| 3 | Menu switch (📖 p. 30) |
| 4 | Turn signal switch (📖 p. 31) |
| 5 | Horn button (📖 p. 32) |

6.5 Light switch



The light switch ① is fitted on the combination switch on the left.

Possible states

	Low beam on – Light switch in position ①. In this position, the low beam and tail light are switched on.
	High beam on – Push the light switch to position ②. In this position, the high beam and the tail light are switched on.
	Headlight flasher. – Push the light switch into position ③.

6.6 Cruise control system tip switch



The cruise control system tip switch ① is fitted on the left side of the combination switch.

Possible states

- Cruise control system tip switch in the basic position.
- Cruise control system tip switch pressed to the left. – In this position, the cruise control system function is switched on and off. The operating mode is displayed in the combination instrument.
- Briefly press cruise control system tip switch at the top. – The last saved speed is reached and maintained. Every subsequent brief pressing increases the target speed by 1 km/h or 1 mph.
- Press and hold cruise control system tip switch at the top. – The target speed increases in increments of 5 km/h or 5 mph.
- Briefly press cruise control system tip switch at the bottom. – The cruise control system function is activated and the current speed is maintained. Every subsequent brief press reduces the target speed by 1 km/h or 1 mph.
- Press and hold cruise control system tip switch at the bottom. – The target speed decreases in increments of 5 km/h or 5 mph.



Info

After activation of the cruise control system function, the throttle grip can be turned back to the home position. The selected speed will be maintained.
If the target speed is exceeded for less than 30 seconds when turning the throttle grip, the cruise control system remains activated.

To switch off the cruise control system function, press the cruise control system tip switch  to the left.

In addition, the cruise control system function is deactivated when one of the following events occurs:

- Operating the hand brake lever
- Operating the foot brake lever
- Operating the clutch lever
- Shifting gears
- Turning the throttle grip beyond the home position
- Control of the motorcycle traction control (**MTC**)
- Also functions with deactivated motorcycle traction control (**MTC**) – if the front wheel speed does not match the engine speed (slip at the rear wheel or lifting front wheel)
- A fault occurring, which impairs the cruise control system function
- Exceeding the target speed for more than 30 seconds when overtaking



Warning

Danger of accidents The cruise control system function is not suitable for all driving situations.

The selected target speed will not be reached, if the engine power is not sufficient for a gradient.

The selected target speed will be exceeded if the engine braking effect is not sufficient on a decline.

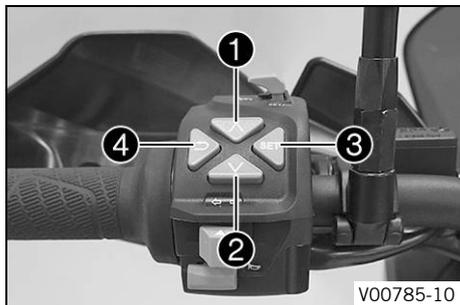
- Do not use the cruise control systems function on winding roads.
- Do not use the cruise control systems on slippery road surfaces (e.g. rain, ice or snow) or unpaved surfaces (e.g. sand, stones or gravel).
- Do not use the cruise control systems function if the traffic does not permit a constant speed.

The cruise control system function cannot be activated during rapid acceleration.

The cruise control system function can only be activated in 3rd, 4th, 5th and 6th gear.

The control range is from 40 to 200 km/h or from 25 to 125 mph.

6.7 Menu switch



The menu switch is fitted in the middle of the left combination switch.

The menu buttons are used to control the matrix display on the combination instrument.

Button **1** is the **UP** button.

Button **2** is the **DOWN** button.

Button **3** is the **SET** button.

Button **4** is the **BACK** button.

6.8 Turn signal switch



Turn signal switch ❶ is fitted on the combination switch on the left.

Possible states

	Turn signal off – Push the turn signal switch toward the switch housing.
	Left turn signal, on – Turn signal switch pressed to the left. The turn signal switch returns automatically to the central position after use.
	Right turn signal, on – Turn signal switch pressed to the right. The turn signal switch returns automatically to the central position after use.



Info

An automatic turn signal switch-off function (**ATIR**) is available as a software feature. The **ATIR** function uses a time and distance counter.

If the turn signal has been on for at least 10 seconds and 150 meters of riding distance, the turn signal is switched off.

If the vehicle is stationary, both counters are stopped.

If the turn signal switch is reactivated, both counters are reset.

6.9 Horn button

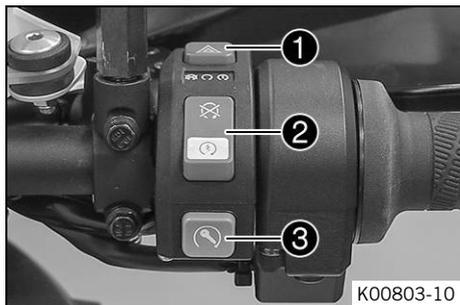


The horn button ① is fitted on the combination switch on the left.

Possible states

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

6.10 Combination switch, right



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

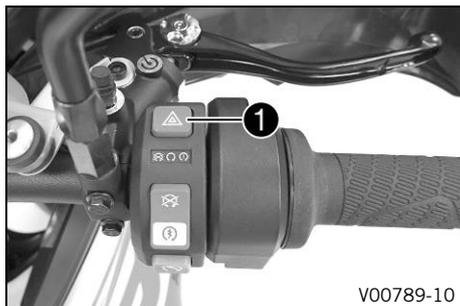
Overview of the right combination switch

1 Hazard warning flasher switch ( p. 33)

2 Emergency OFF switch/electric starter button ( p. 33)

3 Race-on button ( p. 34)

6.11 Hazard warning flasher switch



The hazard warning flasher switch ❶ is fitted on the right side of the combination switch. The hazard warning flasher is used to indicate emergency situations.



Info

The hazard warning flasher can be activated or deactivated while the ignition is switched on or up to 60 seconds after the ignition is switched off. Only keep the hazard warning flasher activated as long as necessary as it depletes the battery.

Possible states



Hazard warning flasher on – All four turn signals and the green turn signal indicator lights in the combination instrument flash.

6.12 Emergency OFF switch/electric starter button



The emergency OFF switch/electric starter button ❶ is fitted on the right side of the combination switch.

Possible states



Emergency OFF switch/electric starter button off (top position) – In this position, the ignition circuit is interrupted, a running engine stops, and a non-running engine cannot be started. A message appears on the display.



Emergency OFF switch/electric starter button on (middle position) – This position is required for operation; the ignition circuit is closed.



Starter motor on (lower position) – In this position, the starter motor is actuated.

6.13 Race-on button



The Race-on button ① is fitted on the right side of the combination switch.



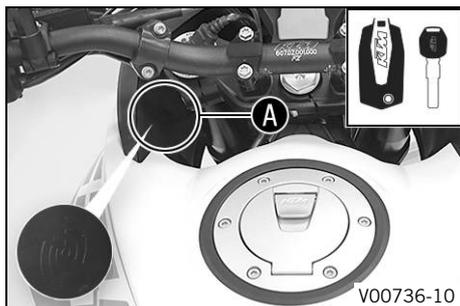
Info

The Race-on button performs the ignition lock function on this vehicle. The steering can only be locked if the handlebar is turned fully to the left.

Possible states

- Race-on button ① in the basic position.
- Race-on button ① pressed briefly – Pressing briefly switches the ignition on and unlocks the handlebar lock or switches the ignition off.
- Race-on button ① pressed and held – Pressing and holding switches the ignition off and locks the handlebar.

6.14 Steering lock (antenna)



On this vehicle, the ignition/steering lock is replaced by a remote key with transponder (Race-on key (📖 p. 35)).

In order to activate the steering lock, the handlebar must be turned fully to the left. The steering is locked and unlocked electromechanically via the Race-on button ① (📖 p. 34).

If the battery voltage of the Race-on key is too low, hold the Race-on key or the black ignition key in area ① on the motorcycle and repeat starting.



Info

Store the key safely again as soon as the engine has been started.

Possible states

- Ignition off, steering locked – In this operating mode, the ignition circuit is interrupted and the steering locked.

- Ignition off, steering unlocked – In this operating mode, the ignition circuit is interrupted and the steering unlocked.
- Ignition on, steering unlocked – In this operating mode, the ignition circuit is closed and the steering unlocked.

6.15 Immobilizer

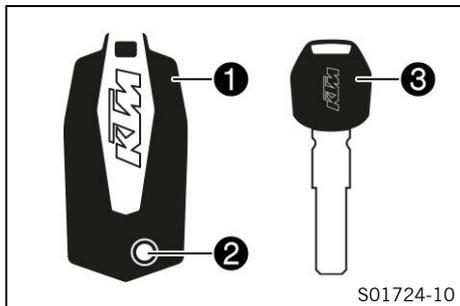


The electronic immobilizer secures the vehicle against unauthorized use. The immobilizer is activated and the engine electronics are locked as soon as the ignition is switched off via the Race-on button (🔑 p. 34).

The Race-on indicator lamp **1** can indicate errors by flashing.

If the optional alarm system is installed, the Race-on indicator lamp **1** flashes when the alarm system is switched on.

6.16 Race-on key



In this vehicle, the Race-on key **1** performs all the functions of the conventional ignition key.

Press the **2** button to fold out the key bit. The key bit is only used for unlocking the seat lock and for opening the cases (optional).

The black ignition key **3** is only intended for situations in which the Race-on key is not available or is not functional.

The black Race-on spare key can be used to start the vehicle if the Race-on key battery voltage is too low and the transponder is not recognized by the vehicle. The black Race-on key can also be used to unlock the seat lock and open the cases (optional).

**Info**

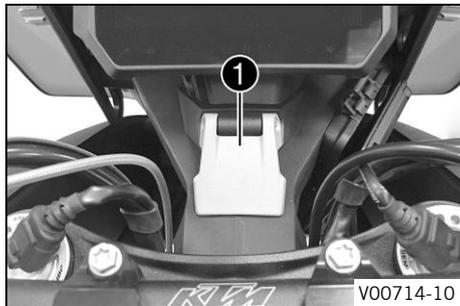
The key contains electronic components. Never attach multiple keys to a single key ring; this may cause mutual interference.

A lost key must be deactivated by an authorized KTM workshop to prevent unauthorized persons from operating the vehicle.

The keys supplied are activated when delivered.

A total of up to four keys can be activated from an authorized KTM workshop. The key number must be provided in each case.

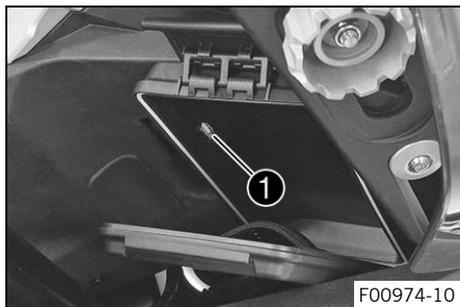
6.17 Socket for electrical accessories



Socket **1** for electrical accessories is fitted in front of the upper triple clamp. It is connected to the permanent positive and is fuse-protected.

Socket for electrical accessories	
Voltage	12 V
Maximum current consumption	10 A

6.18 USB socket



A USB socket ① is located in the storage compartment for supplying power to external devices.

The USB socket is activated when the ignition is switched on.

USB socket	
Voltage	5 V
Maximum current consumption	2.1 A

6.19 Opening the 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.



Warning

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.

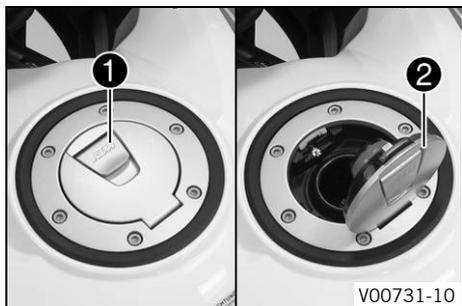
Condition

The motorcycle is stationary.

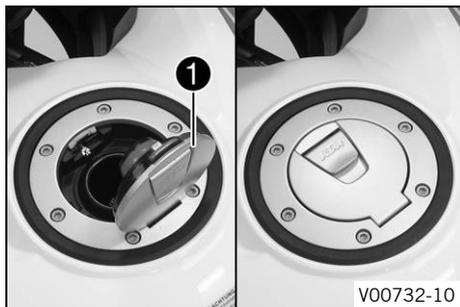
The engine is off.

The ignition has been switched on or off for less than 1 minute.

- Fold up cover **1** slowly.
✓ The filler cap unlocks.
- Fold open filler cap **2**.



6.20 Closing the filler cap



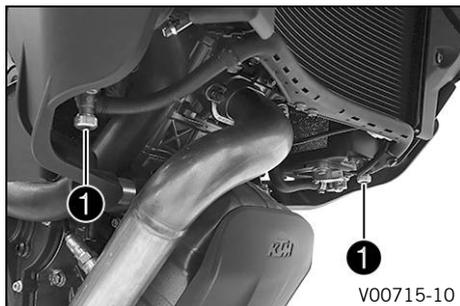
Warning

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

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

- Fold down the filler cap **1** and push it down.
✓ The filler cap locks audibly in place.

6.21 Fuel cocks



A fuel cock **1** is located on each side of the fuel tank.



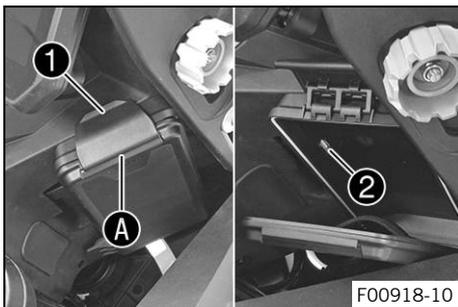
Info

The fuel cocks must always be open during operation.
The fuel cocks are only closed to remove the fuel tank.

Possible states

- Fuel cocks are closed – Level equalization cannot take place and the fuel supply to the throttle valve body is shut off.
- Fuel cocks are open – Level equalization can take place and the fuel supply to the throttle valve body is open.

6.22 Opening storage compartment

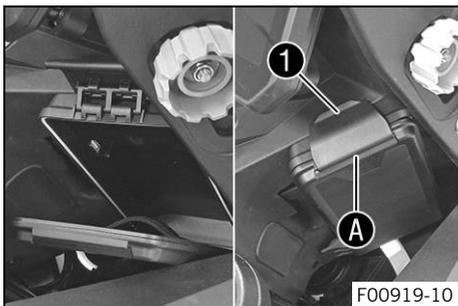


- Lift the lock ① and detach in area A.
- Open storage compartment.

i Info

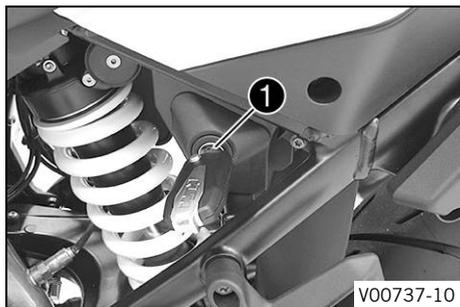
A USB socket ② (🔌 p. 37) is located in the storage compartment for supplying power to external devices.

6.23 Closing storage compartment



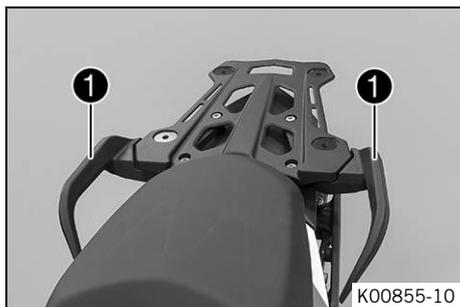
- Close storage compartment.
- Attach lock ① in area A and press down.

6.24 Seat lock



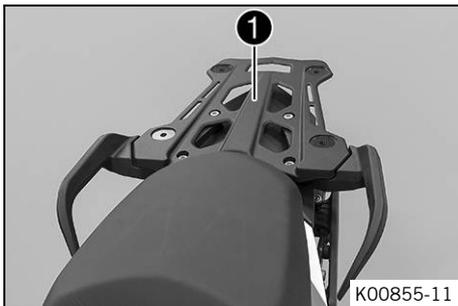
Seat lock **1** is located on the left side of the vehicle under the seat. It can be unlocked using the Race-on key or the black Race-on key.

6.25 Grab handles



The passenger can hold onto grab handles **1** during the trip.

6.26 Luggage rack plate



The luggage rack plate ① is located behind the seat.
The base plate of a luggage system (optional) can be attached to the luggage rack plate.
The luggage rack plate may not be loaded with more than the specified weight.

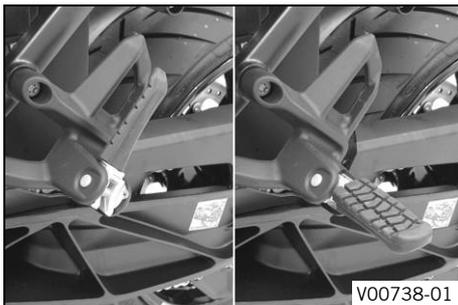
Maximum permissible load on luggage rack plate	8 kg (18 lb.)
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Info

Note the information provided by the luggage manufacturer.

6.27 Passenger footrest

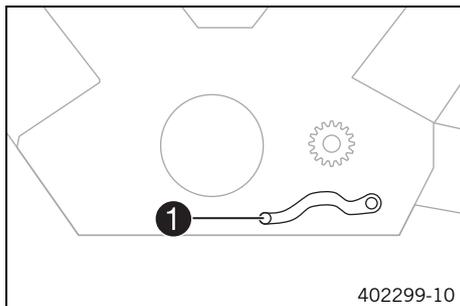


The passenger footrests are foldable.

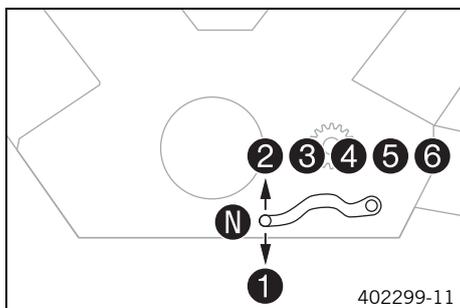
Possible states

- Passenger footrest folded in – For operation without a passenger.
- Passenger footrest folded out – For operation with a passenger.

6.28 Shift lever

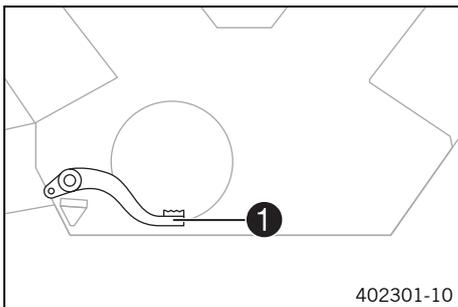


The shift lever **1** is fitted on the left side of the engine.



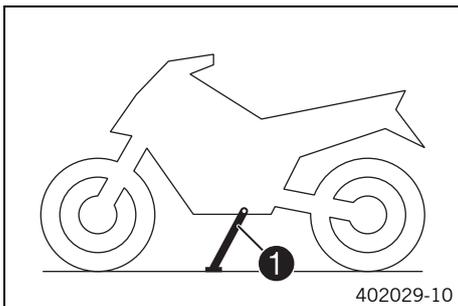
The gear positions can be seen in the figure.
The idle position is between the first and second gears.

6.29 Foot brake lever



Foot brake lever **1** is located in front of the right footrest. The rear brake is activated using the foot brake lever.

6.30 Side stand



The side stand **1** is located on the left side of the vehicle. The side stand is used for parking the motorcycle.



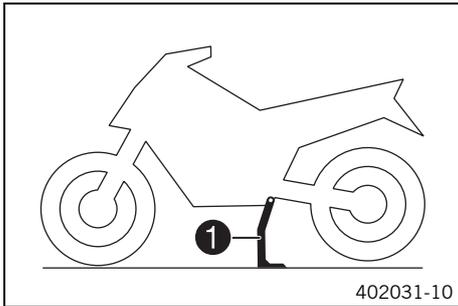
Info

The side stand must be folded up during motorcycle use. The side stand is coupled with the safety starting system. See the instructions in the "Stopping, parking" chapter.

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.

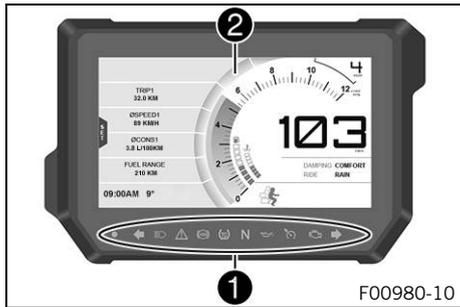
6.31 Center stand



402031-10

In addition to the side stand, the vehicle is equipped with a center stand **1**.

7.1 Combination instrument



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

① indicator lamps (📖 p. 50)

Display ②



Warning

Danger of burns Parts of the combination instrument become very hot in certain situations.

The display becomes particularly hot in the case of external temperatures above 55 °C (131 °F), extended periods in standing position, e.g. at a traffic light, or in direct sunlight.

- Do not touch the combination instrument with bare hands in the situations referred to.
- Where appropriate protective clothing.
- If you have been burned, hold the area affected under lukewarm water immediately.

7.2 Activation and test



Activation

The combination instrument is activated when the ignition is switched on.



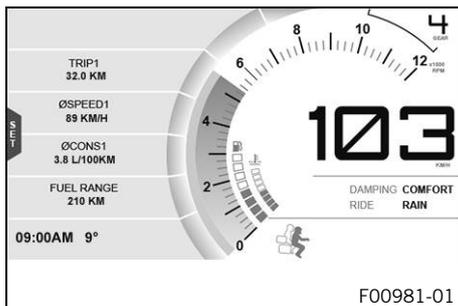
Info

The brightness of the displays is controlled by a brightness sensor in the combination instrument.

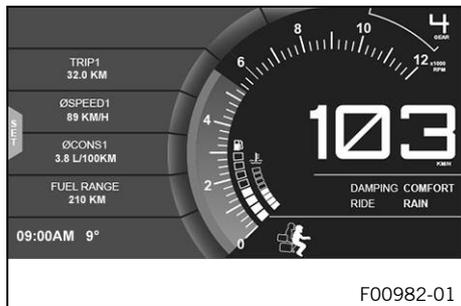
Test

The welcome text appears on the display and the indicator lamps are briefly activated for a function test.

7.3 Day-Night mode



Day mode is shown in a bright color.



Night mode is shown in a dark color.

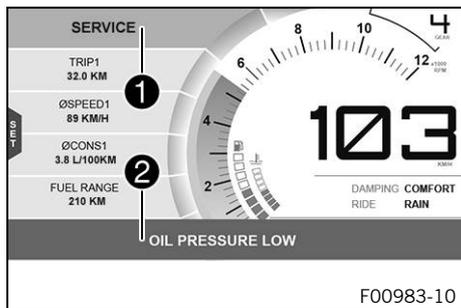


Info

The light sensor in the combination instrument measures the brightness of the environment and automatically switches the display to day or night mode. The display is brightened, darkened or switched to the other mode depending on the brightness measured by the light sensor.

The display mode cannot be changed manually.

7.4 Warning notes



Warning notes appear on the top and/or bottom edge of the display, these are marked yellow or red depending on their relevance.

Yellow warning notes ① indicate errors or information which requires prompt intervention or an adjustment to the riding style.

Red warning notes ② indicate errors or information which requires immediate intervention.

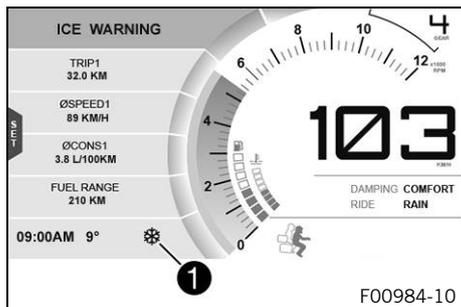


Info

Warning notes are cleared by pressing any button.

All existing warning notes are displayed in the **Warnings** menu until these are no longer active.

7.5 Warning of icy roads



The ice symbol ❄ goes on when there is an increased risk of ice on the roads.

The ice symbol ❄ is shown in area ❶ of the display.

The ice symbol ❄ appears on the display when the ambient temperature drops below the specified value.

Temperature	3 °C (37 °F)
-------------	--------------

The ice symbol ❄ goes out on the display when the ambient temperature rises back up above the specified value.

Temperature	6 °C (43 °F)
-------------	--------------



Info

If the ice symbol ❄ lights up, the warning note **ICE WARNING** also appears.

7.6 Indicator lamps



7 COMBINATION INSTRUMENT

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

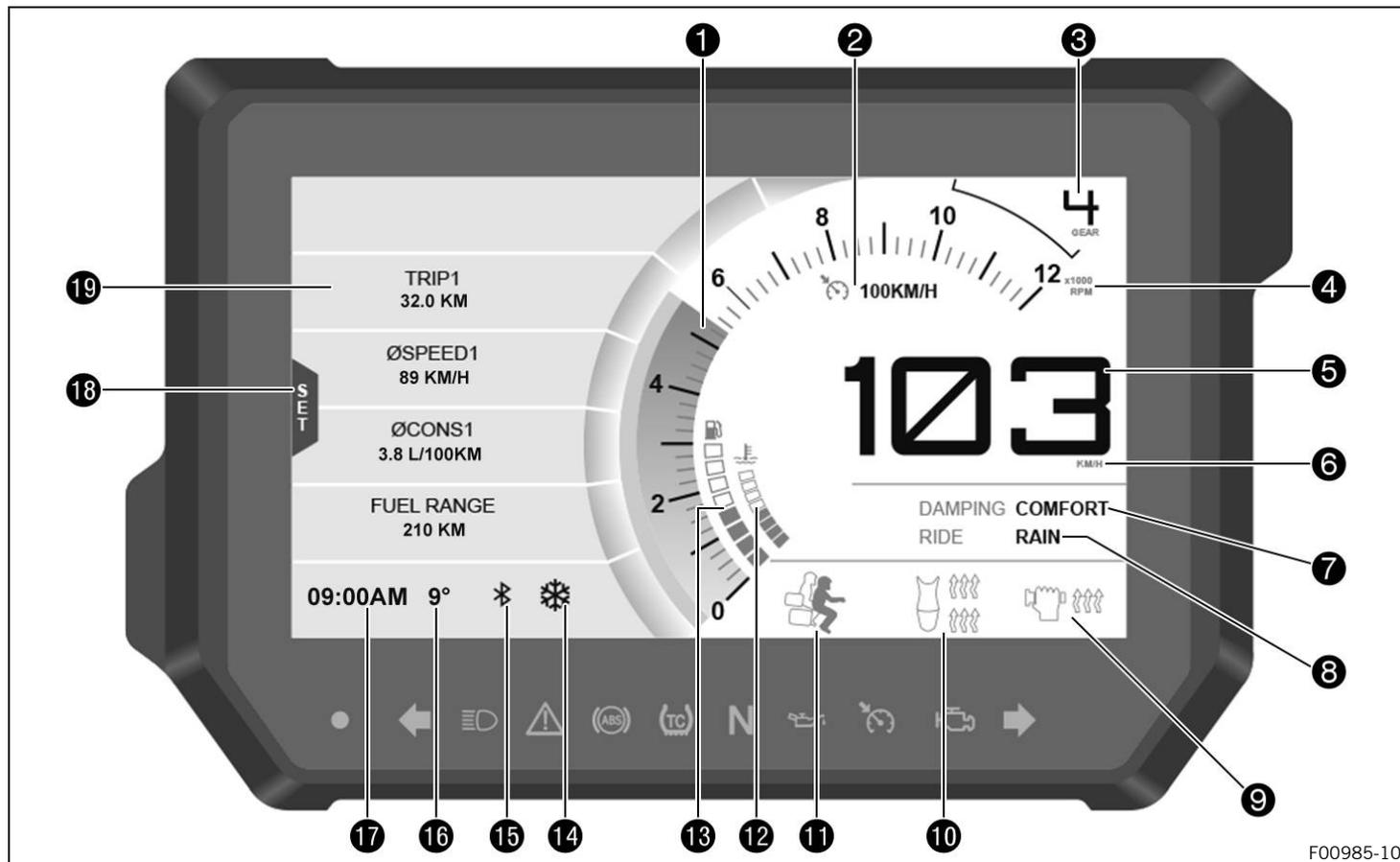
	Race-on indicator lamp lights up/flashes yellow/orange/red – Status or error messages relating to Race-on system/alarm system.
	The left turn signal indicator lamp flashes green with a steady rhythmic flash – The left turn signal is switched on.
	The high beam indicator lamp lights up blue – The high beam is switched on.
	The general warning lamp lights up yellow – An operating safety (warning) message was detected. This is also shown on the display.
	ABS indicator lamp lights up yellow – Status or error messages relating to <u>ABS</u> . The ABS indicator lamp flashes if the ABS mode Offroad is enabled.
	TC indicator lamp lights up/flashes yellow – The motorcycle traction control is not enabled or is currently intervening. The TC Indicator lamp also lights up if an error is detected. In addition, the TC indicator lamp flashes if the HHC (📖 p. 116) (optional) is active.
	The idle indicator lamp lights up green – The transmission is in idle.
	The oil pressure warning lamp lights up red – The oil pressure is too low.
	The cruise control system lamp lights up yellow – The cruise control system function is switched on, but the speed control is not active.
	The cruise control system lamp lights up green – The cruise control system function is switched on and the speed control is active.
	Malfunction indicator lamp lights up yellow – The <u>OBD</u> has detected an emission- or safety-critical fault.

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	The right turn signal indicator lamp flashes green with a steady rhythmic flash – The right turn signal is switched on.
--	---

7 COMBINATION INSTRUMENT

7.7 Display





Info

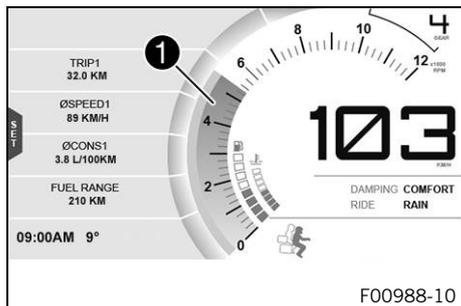
The figure shows the standard display of the combination instrument. If the menu is opened, the speed is still displayed.

1	Speed (📖 p. 56)
1	Shift warning light (📖 p. 57) The shift warning light is integrated in the tachometer display.
2	Cruise control indicator (📖 p. 58)
3	Gear display
4	Unit for the speed display
5	Speed (📖 p. 58)
6	Unit for the speedometer
7	Damping display (📖 p. 59)
8	Ride Mode display (📖 p. 59)
9	Heated grip (optional) (📖 p. 60)
10	Seat heater (optional) (📖 p. 60)
11	Load display (📖 p. 61)
12	Coolant temperature indicator (📖 p. 61)
13	Fuel level display (📖 p. 62)
14	Warning of icy roads (📖 p. 49) Only shown when there is an increased risk of ice on the roads.
15	Bluetooth ® (optional)
16	Ambient temperature indicator (📖 p. 62)
17	Time (📖 p. 63)
18	SET

18 Only shown where the menu overview is closed.

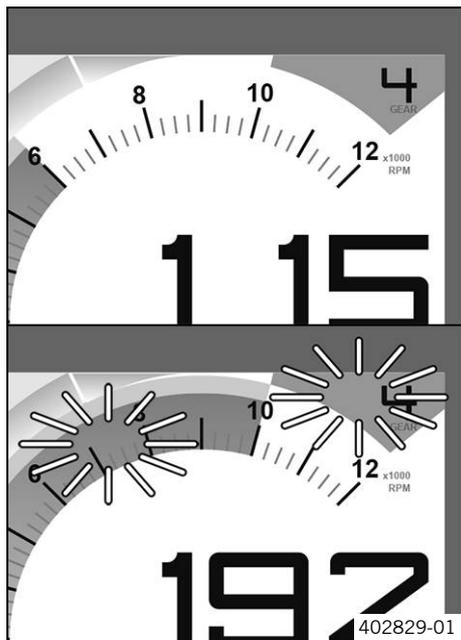
19 **Favourites** display (🗨️ p. 63)

7.8 Speed



The speed ① is measured in revolutions per minute.

7.9 Shift warning light



The shift warning light is integrated in the tachometer display.

In the **Shift Light** menu, the engine speed for the shift warning light can be set. The shift warning light is always active during the running-in phase (up to 1,000 km / 621 mi). The shift warning light can only be deactivated, and the values for **RPM1** and **RPM2** can only be adjusted after this. The shift warning light lights up red at **RPM1** and flashes red at **RPM2**.

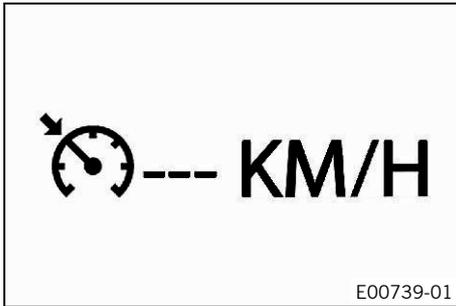


Info

In sixth-gear, the shift warning light is deactivated when the engine is warm after the first service.

Coolant temperature	≤ 35 °C (≤ 95 °F)
ODO	< 1,000 km (< 620 mi)
The shift warning light always lights up at	6,500 rpm
Coolant temperature	> 35 °C (> 95 °F)
ODO	> 1,000 km (> 620 mi)
RPM1 shift warning light	lights up
RPM2 shift warning light	flashes

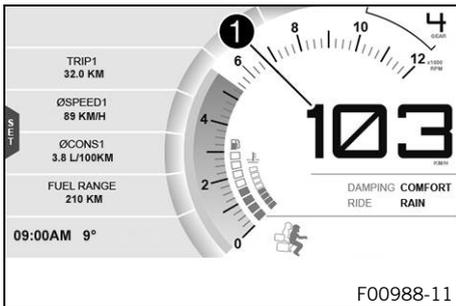
7.10 Cruise control indicator



When cruise control is activated, the operating mode is shown on the combination instrument display.

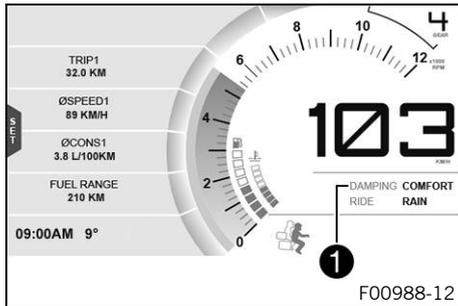
Cruise control is operated using the cruise control tip switch (📖 p. 28).

7.11 Speed



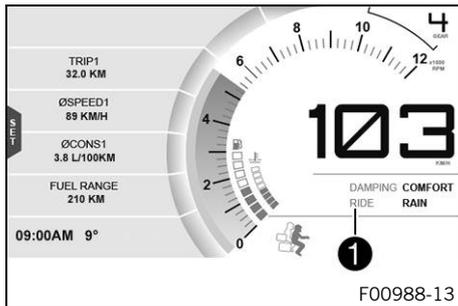
Speed ❶ is shown in kilometers per hour **km/h** or in miles per hour **mph**.

7.12 Damping display



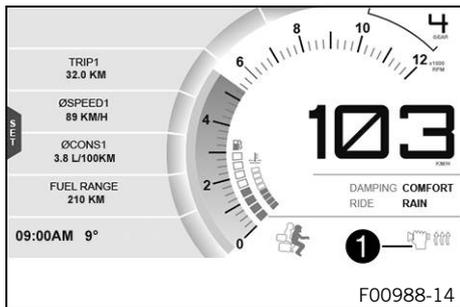
The setting of the spring element damping is shown in the ❶ area of the display. The damping can be configured in the **Damping** menu.

7.13 Ride Mode display



The **Ride Mode** setting is shown in area ❶ of the display. The drive mode can be configured in the **Ride Mode** menu.

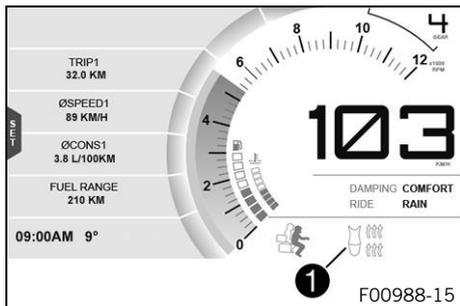
7.14 Heated grip (optional)



When the heated grip is switched on, the **Heated Grips** symbol appears in the ❶ area of the display.

The heated grip can be configured in the **Heated Grips** menu.

7.15 Seat heater (optional)



When the seat heating is switched on, the **Heated Seat** symbol appears in the ❶ area of the display.

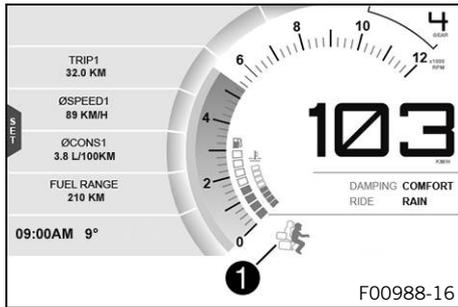
The seat heating can be configured in the **Heated Seat** menu.



Info

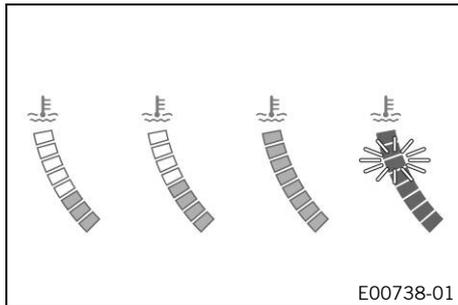
The heating level for the passenger seat heating can be controlled by a switch next to the right grab handle.

7.16 Load display



The load condition setting is shown in the **1** area of the display. The payload can be configured in the **Load** menu.

7.17 Coolant temperature indicator



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



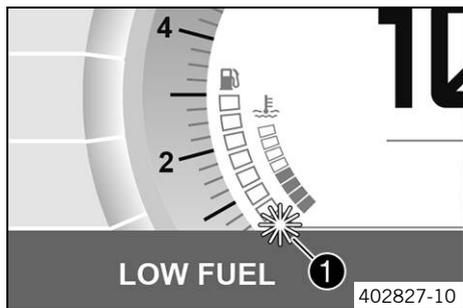
Info

When all bars flash, the following warning note **ENGINE TEMP HIGH** appears.

Possible states

- The engine is cold – Up to three bars light up.
- Engine warm – Four bars light up.
- Engine hot – Five to eight bars light up.
- Engine very hot – all eight bars flash red.

7.18 Fuel level display



The fuel tank contents are shown in area **1** of the display.

The fuel level indicator consists of bars. The more bars are lit, the more fuel is in the fuel tank.

i Info

If the fuel level is getting low, the last segment flashes red and the following warning note also appears **LOW FUEL**.

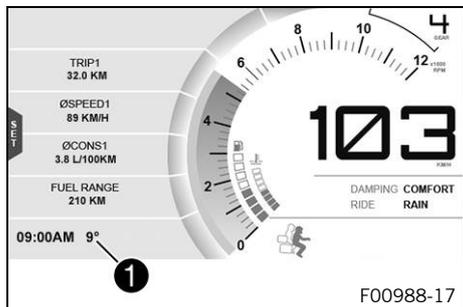
The fuel level is displayed with a slight delay to prevent the indicator from constantly moving while riding.

The fuel level display is not updated while the side stand is folded out or the emergency off switch is switched off.

Once the side stand is folded up and emergency OFF switch is switched on, the fuel level display is next updated after 2 minutes.

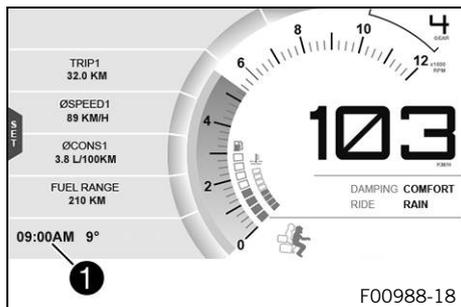
The fuel level display flashes if the combination instrument does not receive a signal from the fuel level sensor.

7.19 Ambient temperature indicator



The ambient temperature **1** is displayed in °C or °F.

7.20 Time



The time is shown in area ❶ of the display.

The time is displayed in 24 hour format in all languages except for EN-US. The time is displayed in 12 hour format if the language is set to EN-US.

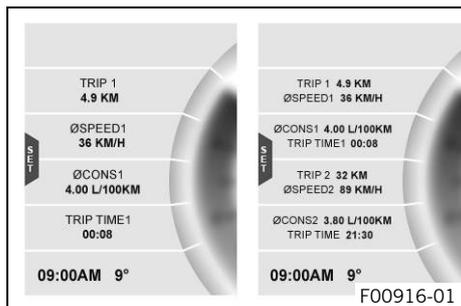
The time can be configured in the **Time/Date** menu.



Info

The time must be reset after the battery was disconnected or the fuse was removed.

7.21 Favourites display



Up to eight items of information are shown in the **Favourites** display.

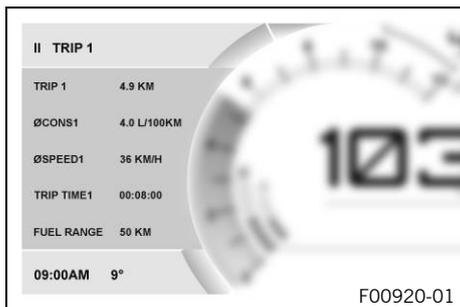
The **Favourites** display can be freely configured in the **Favourites** menu.



Info

One to four items of information selected are displayed on two lines. Five to eight items of information selected are displayed on a single line.

7.22 Quick Selector 1 display



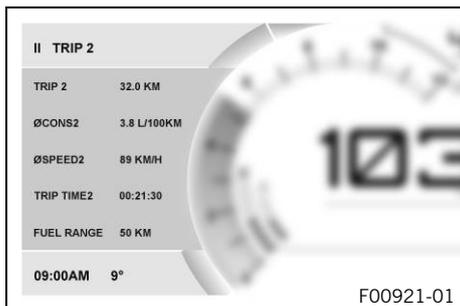
When the menu is closed, the **Quick Selector 1** menu is opened by pressing the **UP** button. Press the **BACK** button to close **Quick Selector 1**.



Info

The **Quick Selector 1** can be configured in the **Quick Selector 1** menu. Any information can be selected.

7.23 Quick Selector 2 display



When the menu is closed, the **Quick Selector 2** menu is opened by pressing the **DOWN** button.

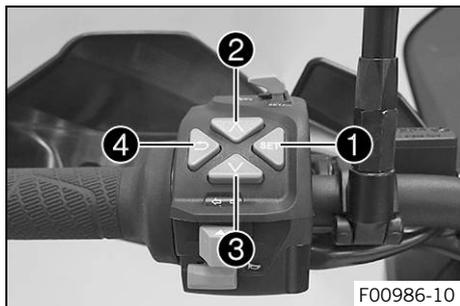
Press the **BACK** button to close **Quick Selector 2**.



Info

The **Quick Selector 2** can be configured in the **Quick Selector 2** menu. Any information can be selected.

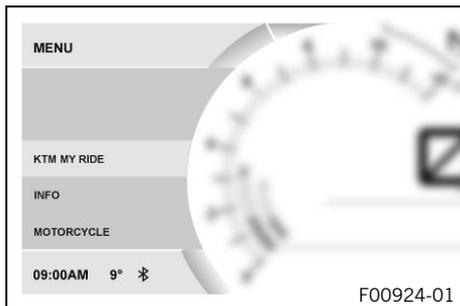
7.24 Menu



Info

Press the **SET** button **1** in the standard display to open the menu. Navigate through the menu using the **UP** button **2** or the **DOWN** button **3**. Press the **BACK** button **4** to close the current menu or the menu overview.

7.24.1 KTM MY RIDE (optional)



Condition

- The motorcycle is stationary.
- Function **KTM MY RIDE** activated (optional).
 - Press the **SET** button when the menu is closed.
 - Press the **UP** or **DOWN** button until **KTM MY RIDE** is marked. Press the **SET** button to open the menu.

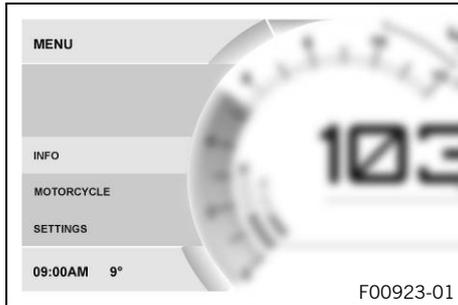
In **KTM MY RIDE** an appropriate cellphone or headset can be paired with the combination instrument via **Bluetooth®**.



Info

Not every cellphone and headset is suitable for pairing with the combination instrument. The standard **Bluetooth®** 2.1 must be supported.

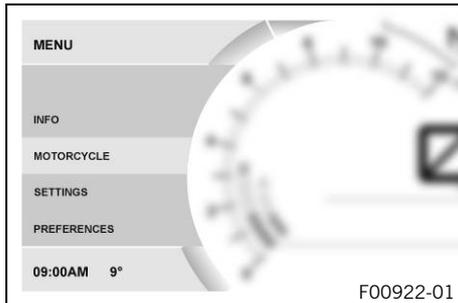
7.24.2 Info



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Info** is marked. Press the **SET** button to open the menu.

General information can be accessed in **Info**.

7.24.3 Motorcycle

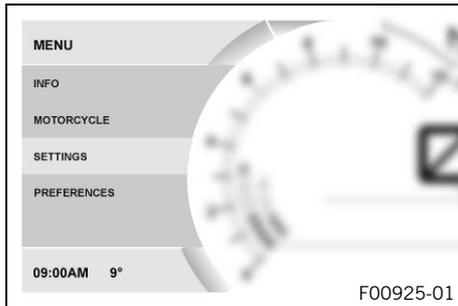


Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.

The vehicle drive mode can be configured in **Motorcycle**.

7.24.4 Settings

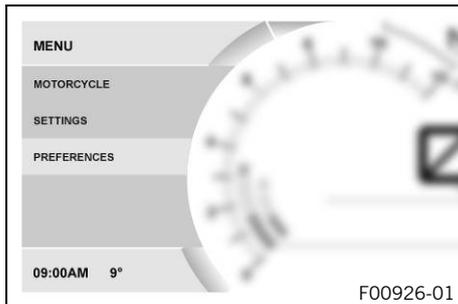


Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Settings** is marked. Press the **SET** button to open the menu.

Favorites and quick selection can be configured in **Settings**.

7.24.5 Preferences

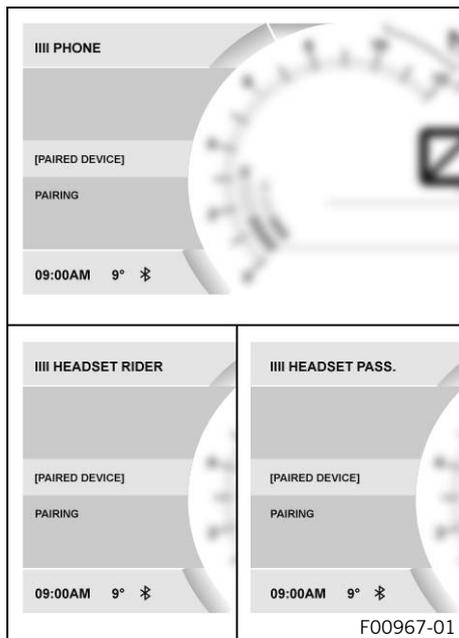


Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.

The combination instrument display can be configured in **Preferences**. Settings can be made for units or various values. Several functions can be enabled or disabled.

7.24.6 Pairing (optional)



Condition

- The motorcycle is stationary.
- Function **KTM MY RIDE** activated (optional).
- The **Bluetooth®** function should also be activated in the device to be paired.
 - Press the **SET** button when the menu is closed.
 - Press the **UP** or **DOWN** button until **KTM MY RIDE** is marked. Press the **SET** button to open the menu.
 - Press the **UP** or **DOWN** button until **Setup** is marked. Press the **SET** button to open the menu.
 - Press the **UP** or **DOWN** button until **Bluetooth** is marked. Press the **SET** button to open the menu.
 - Press the **UP** or the **DOWN** button until menu item **Phone**, **Headset Rider** or **Headset Pass.** is marked.



Info

Two cellphones can never be paired simultaneously with the combination instrument. Only one cellphone and one headset per submenu item can be paired with the combination instrument at the same time.

- A suitable cellphone can be paired with the combination instrument in the **Phone** submenu.
- A suitable rider headset can be paired with the combination instrument in the **Headset Rider** submenu.
- A suitable passenger headset can be paired with the combination instrument in the **Headset Pass.** submenu.



Info

The following steps are identical for cellphones and headsets.

- Press the **SET** button.
- When pairing the device for the first time, press the **UP** or **DOWN** button until **Pairing** is marked. Press the **SET** button to open the menu.
- Navigate to the device required using the **UP** or **DOWN** button. Confirm the selection using the **SET** button.
- Confirmation of the **Passkey** successfully completes the pairing.



Info

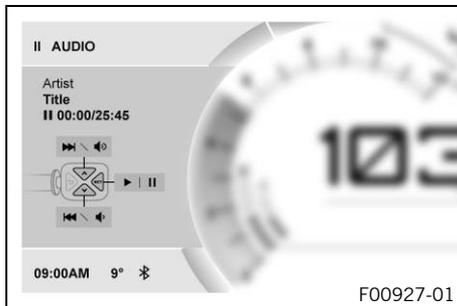
When a suitable device has been successfully paired, the name of the paired cellphone or headset appears in each case in the **Phone**, **Headset Rider** or **Headset Pass.** menu.

Press the **UP** or **DOWN** button until paired device is marked on the display. The paired device can be deleted by pressing the **SET** button.

The device most recently linked is automatically paired with the combination instrument when **Bluetooth®** is switched on and as soon as this device is in range and has not been previously deleted.

Not every cellphone or headset is suitable for pairing with the combination instrument.

7.24.7 Audio (optional)



Condition

- Function **KTM MY RIDE** activated (optional).
- The **Bluetooth®** function should also be activated in the device to be paired.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **KTM MY RIDE** is marked. Press the **SET** button to open the menu.

**Warning**

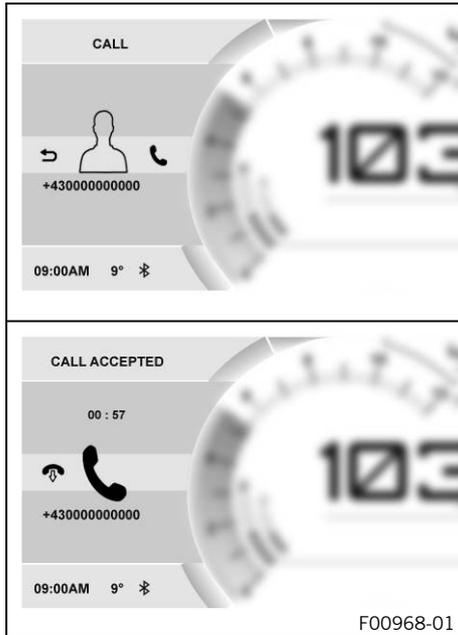
Danger of accidents Headphone volume which is too high distracts attention from traffic activity.

- Always select headphone volume which is low enough for you to still clearly hear acoustic signals.
-
- Press the **UP** or **DOWN** button until **Audio** is marked. Press the **SET** button to open the menu.
 - Press and hold the **UP** button to increase the audio volume.
 - Press and hold the **DOWN** button to reduce the audio volume.
 - Press the **UP** button briefly to change to the next audio track.
 - Press the **DOWN** button briefly to change to the previous audio track.
 - Press the **SET** button to play or pause the audio track.
-

**Tip**

The audio function can be added to **Quick Selector 1** or **Quick Selector 2** for easier operation.

7.24.8 Telephony (optional)



Condition

- Function **KTM MY RIDE** activated (optional).
- The **Bluetooth®** function should also be activated in the device to be paired.
- Headset linked with appropriate cellphone.



Warning

Danger of accidents Headphone volume which is too high distracts attention from traffic activity.

- Always select headphone volume which is low enough for you to still clearly hear acoustic signals.

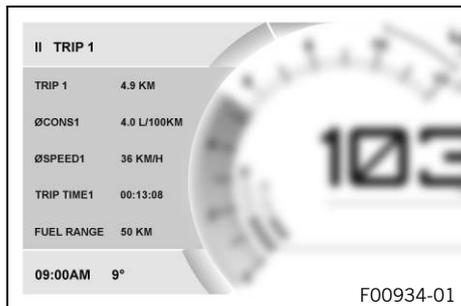
- Press the **SET** button to accept an incoming call.
- Press the **BACK** button to reject an incoming call.
- Press and hold the **UP** button to increase the audio volume.
- Press and hold the **DOWN** button to reduce the audio volume.



Info

The call duration and contact are displayed. Depending on the cellphone settings, the contact is displayed with a picture and a name.

7.24.9 Trip 1



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Info** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Trip 1** is marked. Press the **SET** button to open the menu.

Trip 1 shows the distance since the last reset, such as between two refueling stops. **Trip 1** is running and counts up to **9999**.

ØCons1 indicates the average fuel consumption based on **Trip 1**.

ØSpeed1 indicates the average speed based on **Trip 1** and **Trip Time1**.

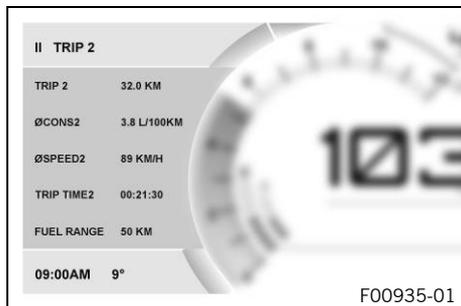
Trip Time1 shows the journey time on the basis of **Trip 1** and runs as soon as a speed signal is received.

Fuel Range indicates the possible distance you can cover with the fuel reserve.

Press and hold the **SET** button for 3–5 seconds.

All entries in the **Trip 1** menu are reset.

7.24.10 Trip 2



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Info** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Trip 2** is marked. Press the **SET** button to open the menu.

Trip 2 shows the distance since the last reset, such as between two refueling stops. **Trip 2** is running and counts up to **9999**.

ØCons2 indicates the average fuel consumption based on **Trip 2**.

ØSpeed2 indicates the average speed based on **Trip 2** and **Trip Time2**.

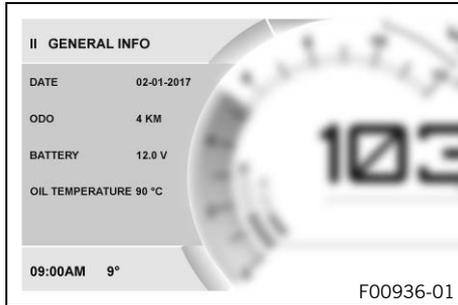
Trip Time2 shows the journey time on the basis of **Trip 2** and runs as soon as a speed signal is received.

Fuel Range indicates the possible distance you can cover with the fuel reserve.

Press and hold the **SET** button for 3–5 seconds.

All entries in the **Trip 2** menu are reset.

7.24.11 General Info



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Info** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **General Info** is marked. Press the **SET** button to open the menu.

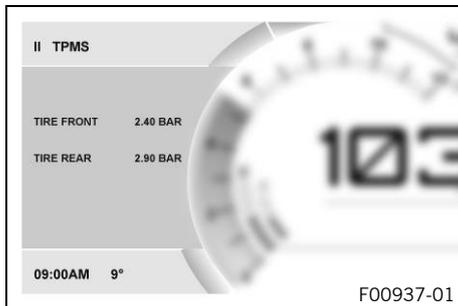
Date shows the date.

ODO shows the total distance covered.

Battery indicates the battery voltage.

Oil Temperature indicates the engine oil temperature.

7.24.12 TPMS



Condition

- Model with **TPMS**.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Info** is marked. Press the **SET** button to open the menu.

**Warning**

Danger of accidents The tire pressure control system does not eliminate the necessity to check the tires before going on a ride.

To avoid false alarms, the tire pressure values are evaluated over a period of several minutes.

- Check the tire pressure before every ride.
- Correct the tire pressure if the tire pressure deviates from the specified value.
- Even if the tire pressure values are correct, stop the vehicle immediately if its behavior indicates a pressure loss in the tires.

-
- Press the **UP** or **DOWN** button until the **TPMS** menu appears in the display.

Guideline

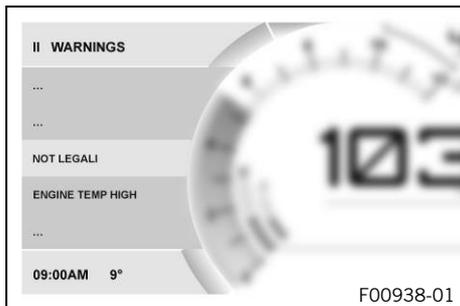
Tire air pressure, solo/with passenger/full payload	
Front: with cold tires	2.4 bar (35 psi)
Rear: with cold tires	2.9 bar (42 psi)

The **TPMS** menu displays the tire air pressure of the front and rear tires.

TIRE FRONT indicates the tire air pressure at the front.

TIRE REAR indicates the tire air pressure at the rear.

7.24.13 Warnings

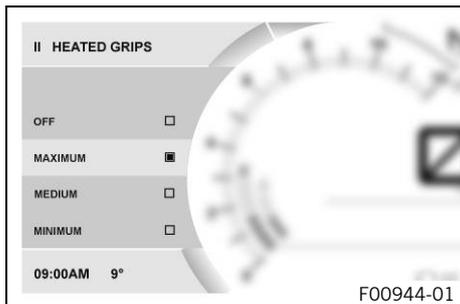


Condition

- Message or warning is present.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Info** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Warnings** is marked. Press the **SET** button to open the menu.
- Use the **UP** or **DOWN** button to navigate through the warnings.

In the **Warnings** menu, all warnings that have occurred are displayed and stored.

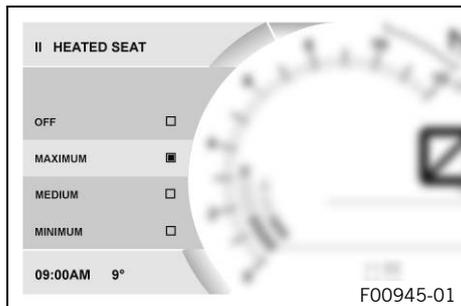
7.24.14 Heated Grips (optional)



Condition

- The motorcycle is stationary.
- Menu **Heated Grips** activated.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Heated Grips** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the **SET** button to select the heating level or to switch the heated grip on or off.

7.24.15 Heated Seat (optional)



Condition

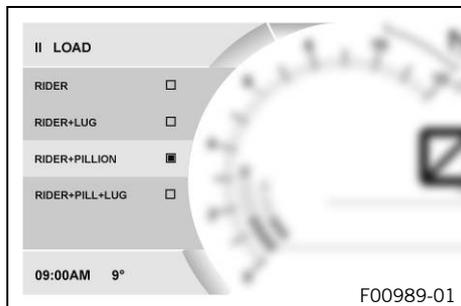
- The motorcycle is stationary.
 - Menu **Heated Seat Ride** activated.
 - Menu **Heated Seat Pas** activated.
- Press the **SET** button when the menu is closed.
 - Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.
 - Press the **UP** or **DOWN** button until **Heated Seat** is marked. Press the **SET** button to open the menu.
 - Activate the menu item using the **UP** or **DOWN** button.
 - Press the **SET** button to select the heating level or to switch the seat heating on or off.



Info

The heating level for the passenger seat heating is selected using the switch next to the right grab handle.

7.24.16 Load



Condition

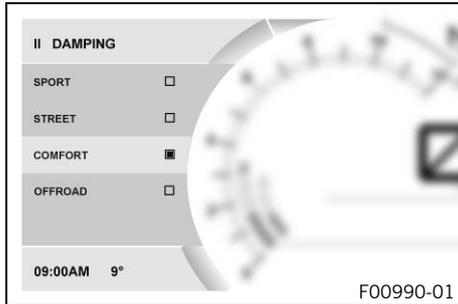
- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
 - Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.
 - Press the **UP** or **DOWN** button until **Load** is marked. Press the **SET** button to open the menu.
 - Activate the menu item using the **UP** or **DOWN** button.

- Press the **SET** button to select the loading condition.

In the **Load** menu you can select from four loading conditions.

The setting of the spring pretension and the rebound is matched to the loading condition.

7.24.17 Damping

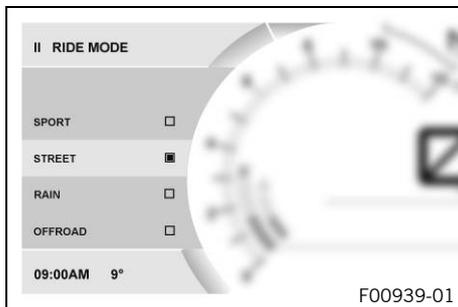


Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Damping** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the **SET** button to select the damping setting.

In the **Damping** menu you can select from the settings **SPORT**, **STREET**, **COMFORT** and **OFFROAD**.

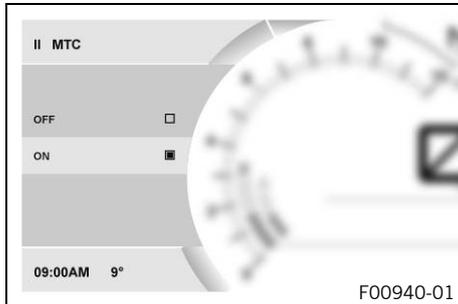
7.24.18 Ride Mode



- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Ride Mode** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button to activate the menu item and select it with the **SET** button. Press the **SET** button to select the engine and motorcycle traction control settings that are coordinated with each other.
- ✓ **SPORT** – homologated performance with very direct response; the motorcycle traction control allows greater slip on the rear wheel.

- ✓ STREET – homologated performance with balanced response; the motorcycle traction control allows normal slip on the rear wheel.
- ✓ RAIN – reduced homologated performance for better ridability; the motorcycle traction control allows normal slip on the rear wheel.
- ✓ OFFROAD – reduced homologated performance for better ridability; the motorcycle traction control allows high slip on the rear wheel.

7.24.19 MTC



Condition

- The motorcycle is stationary.
 - Press the **SET** button when the menu is closed.
 - Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.
 - Press the **UP** or **DOWN** button until **MTC** is marked. Press the **SET** button to open the menu.
 - Activate the menu item using the **UP** or **DOWN** button.
 - Switch the **MTC** on or off by pressing the **SET** button.



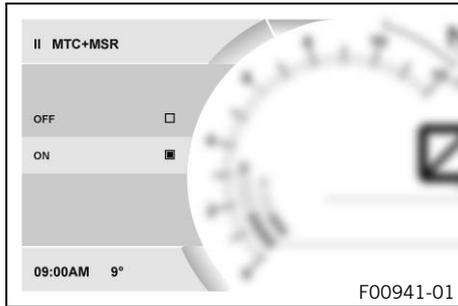
Info

After the ignition is switched back on, motorcycle traction control is enabled again.

Press and hold the **SET** button for 3–5 seconds.

Activation of the motorcycle traction control.

7.24.20 MTC+MSR (optional)



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **MTC+MSR** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Switch the **MTC+MSR** on or off by pressing the **SET** button.



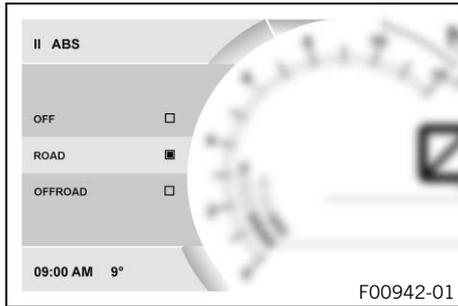
Info

When the ABS is switched off or the Ride Mode **Offroad** is active, the **MSR** is not active.
After the ignition is switched on, the motorcycle traction control and engine traction control are enabled again.

Press and hold the **SET** button for 3–5 seconds.

Activation of the motorcycle traction control and the engine traction control.

7.24.21 ABS



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.



Warning

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 **ABS** is marked. Press the **SET** button to open the menu.
 - Activate the menu item using the **UP** or **DOWN** button.
 - Press the **ABS** button to switch off **SET** or to select between ABS modes.



Info

The ABS can only be reactivated by switching on the ignition again.

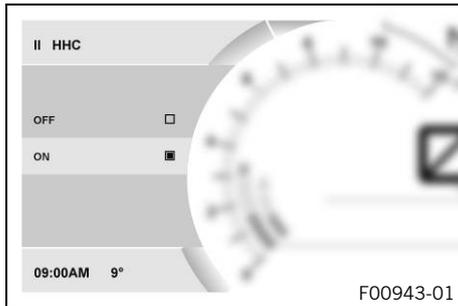
When the **Road** ABS mode is enabled, ABS controls both wheels.

When the **Offroad** ABS mode is enabled, ABS only controls the front wheel. The rear wheel is not controlled by ABS and may lock during braking maneuvers.

Press and hold the **SET** button for 3–5 seconds.

Activation of the different ABS modes.

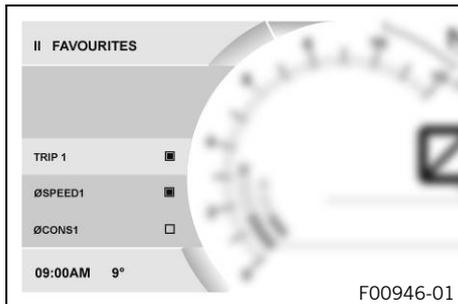
7.24.22 HHC (optional)



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Motorcycle** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **HHC** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Switch the **HHC** on or off by pressing the **SET** button.

7.24.23 Favourites

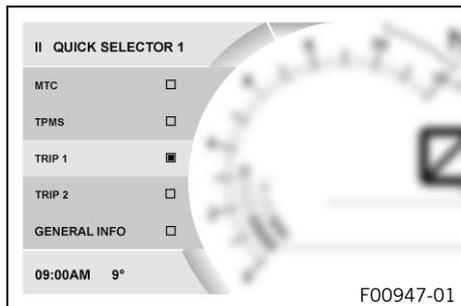


Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Settings** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Favourites** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button to activate the menu item and select it with the **SET** button.

Up to eight items of information can be selected in the **Favourites** menu.

7.24.24 Quick Selector 1



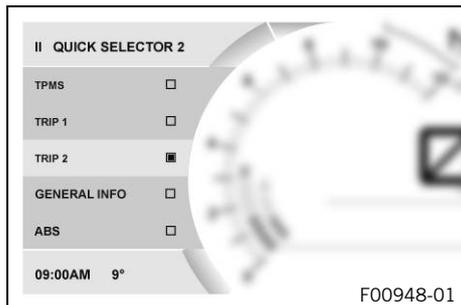
Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Settings** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Quick Selector 1** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button to activate the menu item and select it with the **SET** button.

Information can be selected in the **Quick Selector 1** menu.

When the menu is closed, the **Quick Selector 1** menu is opened by pressing the **UP** button.

7.24.25 Quick Selector 2



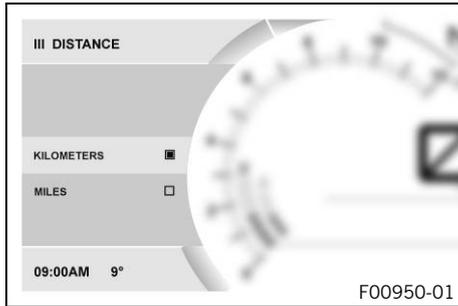
Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Settings** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Quick Selector 2** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button to activate the menu item and select it with the **SET** button.

Information can be selected in the **Quick Selector 2** menu.

When the menu is closed, the **Quick Selector 2** menu is opened by pressing the **DOWN** button.

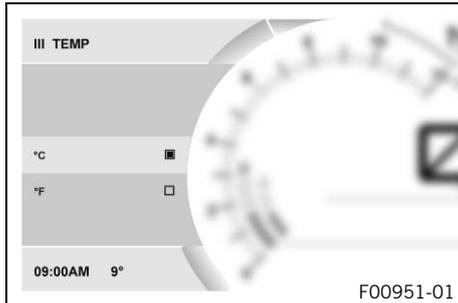
7.24.26 Distance



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Units** is marked.
- Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Distance** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the **SET** button to confirm the desired unit.

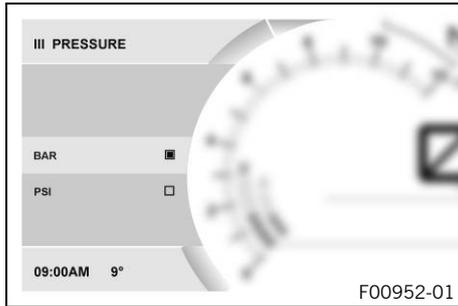
7.24.27 Temp



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Units** is marked.
- Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Temp** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the **SET** button to confirm the desired unit.

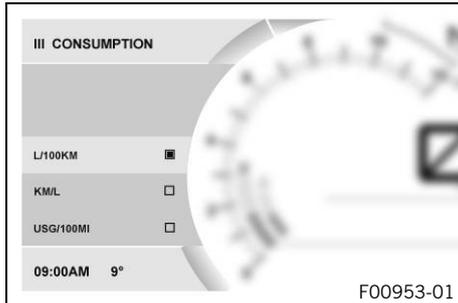
7.24.28 Pressure



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Units** is marked.
- Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Pressure** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the **SET** button to confirm the desired unit.

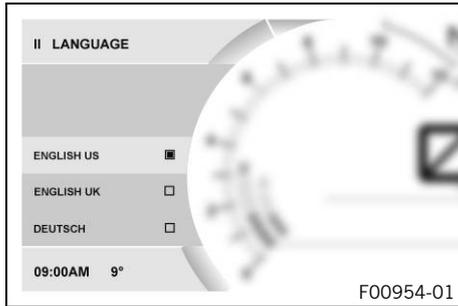
7.24.29 Consumption



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Units** is marked.
- Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Consumption** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the **SET** button to confirm the desired unit.

7.24.30 Language

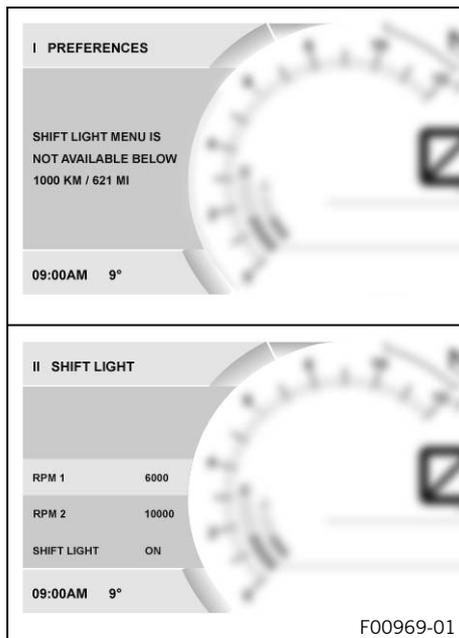


Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Language** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button to activate the menu item and select it with the **SET** button.

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

7.24.31 Shift Light



Condition

- The motorcycle is stationary.
- **ODO** > 1000 km (621 mi).
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Shift Light** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the **SET** button to switch the shift warning light on or off and to adjust the engine speed for the gear shift recommendation.



Info

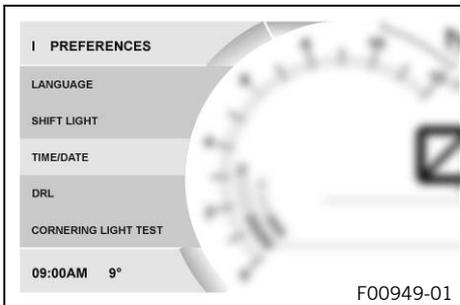
When the engine speed reaches **RPM 1**, the speed display lights up red.
When the engine speed reaches **RPM 2**, the speed display flashes red.

7.24.32 Setting the time and date

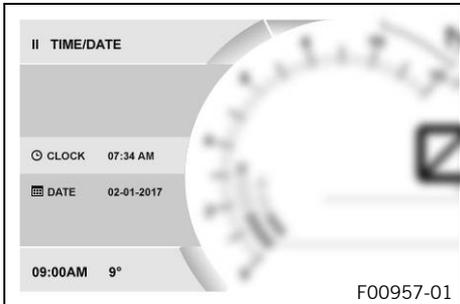
Condition

The motorcycle is stationary.

7 COMBINATION INSTRUMENT



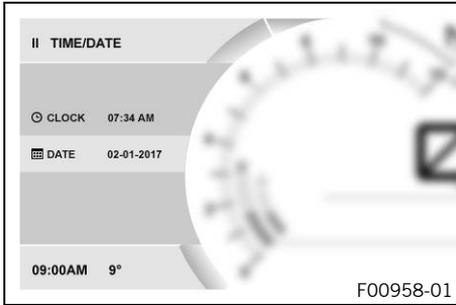
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** appears. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Time/Date** is marked. Press the **SET** button to open the menu.



Setting the clock

- Press the **UP** or **DOWN** button until the time is marked.
- 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 time is stored.

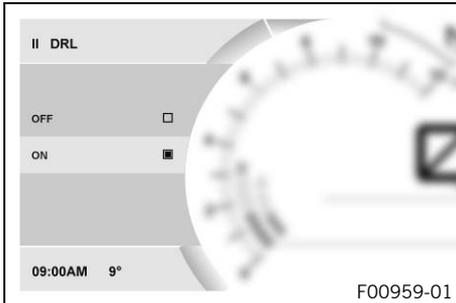
7 COMBINATION INSTRUMENT



Setting the date

- Press the **UP** or **DOWN** button until the date is marked.
- 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 **SET** button.
 - ✓ The date is stored.

7.24.33 DRL



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.



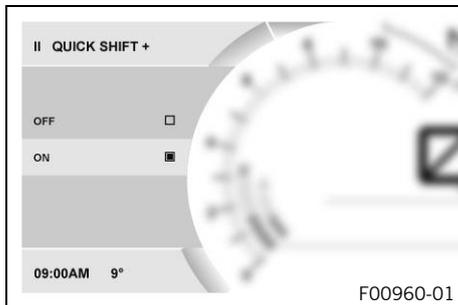
Warning

Danger of accidents When visibility is poor, the daytime running light is not a substitute for the low beam.

Automatic switching between the daytime running light and low beam may only be partially available when visibility is significantly impaired due to fog, snow or rain.

- Ensure that the appropriate type of lighting is always selected.
 - If necessary switch off the daytime running lights using the menu before going on a ride or when stopped so that the low beam is switched on permanently.
 - Note the legal regulations regarding the daytime running light.
-
- Press the **UP** or **DOWN** button until **DRL** is marked. Press the **SET** button to open the menu.
 - Activate the menu item using the **UP** or **DOWN** button.
 - Press the **SET** button to switch the daytime running light on or off.

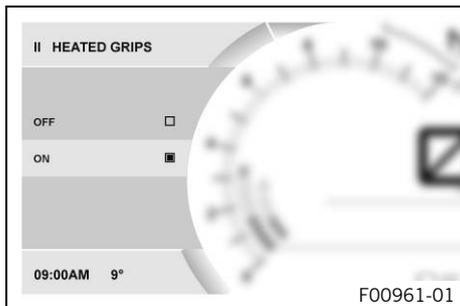
7.24.34 Quick Shift + (optional)



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Quick Shift +** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Press the **SET** button to switch the Quickshifter+ on or off.

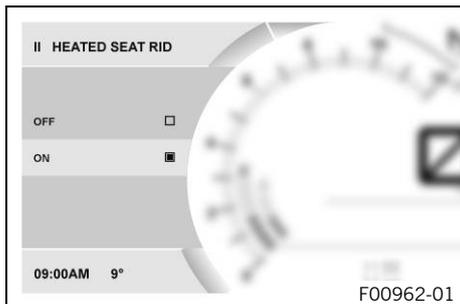
7.24.35 Heated Grips (optional)



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Heated Grips** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Switch the **Heated Grips** on or off by pressing the **SET** button.

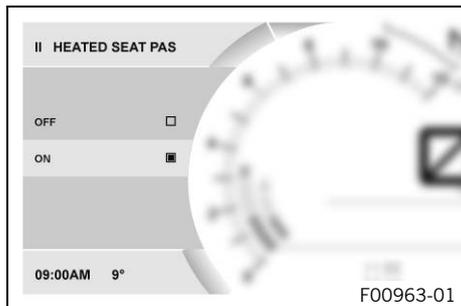
7.24.36 Heated Seat Rid (optional)



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Heated Seat Rid** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Switch the **Heated Seat Rid** on or off by pressing the **SET** button.

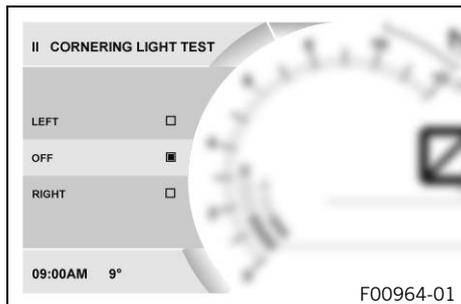
7.24.37 Heated Seat Pas (optional)



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Heated Seat Pas** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.
- Switch the **Heated Seat Pas** on or off by pressing the **SET** button.

7.24.38 Cornering Light Test



Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Cornering Light Test** is marked. Press the **SET** button to open the menu.
- Activate the menu item using the **UP** or **DOWN** button.



Info

The **Cornering Light Test** is performed on the left cornering light in the **Left** submenu.

The **Cornering Light Test** is performed on the right cornering light in the **Right** submenu.

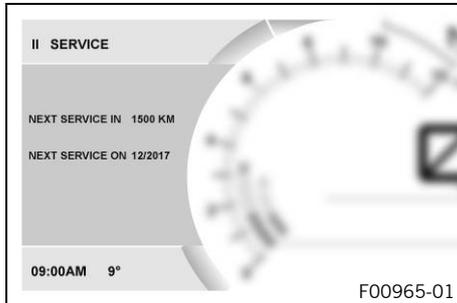
The **Cornering Light Test** is completed in the **Off** submenu.

- Press the **SET** button in order to perform or switch off the desired **Cornering Light Test**.

i Info

The respective cornering light segments light up in succession, starting with the lower segment.
When the test of the respective cornering light is complete, the upper segment lights up continuously.

7.24.39 Service

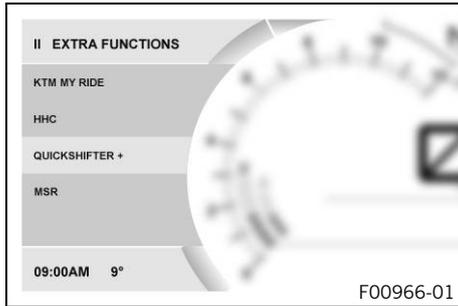


Condition

- The motorcycle is stationary.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Service** is marked. Press the **SET** button to open the menu.

The next service due is shown in the **Service** menu.

7.24.40 Extra Functions



Condition

- The motorcycle is stationary.
- Motorcycle with optional supplementary function.
- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Preferences** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Extra Functions** is marked. Press the **SET** button to open the menu.
- Use the **UP** or **DOWN** button to navigate through the extra functions.

The optional extra functions are listed in **Extra Functions**.



Info

The current **KTM PowerParts** and the available software for your vehicle can be found on the KTM website.

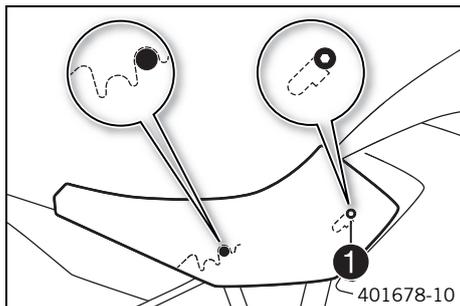
8.1 Adjusting the front rider's seat

Preparatory work

- Remove the passenger seat. (📖 p. 135)

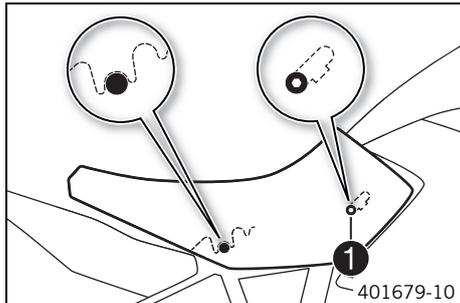
Lower the front rider's seat:

- Attach the front rider's seat to the fuel tank at the recesses ❶, and push the front rider's seat down and forward at the same time.



Raise the front rider's seat:

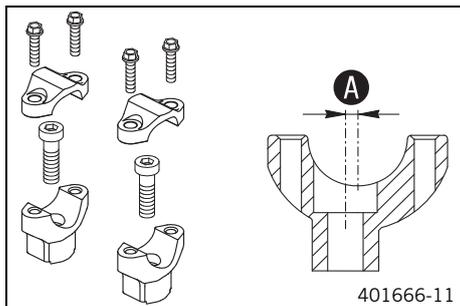
- Attach the front rider's seat to the fuel tank at the recesses ❶, and push the rider's seat up and forward at the same time.
- Finally, check that the front rider's seat is correctly mounted.



Finishing work

- Mount the passenger seat. (📖 p. 136)

8.2 Handlebar position



The holes on the handlebar support are placed at a distance of **A** from the center.

Hole distance A	3.5 mm (0.138 in)
------------------------	-------------------

The handlebar can be mounted in two different positions. In this way, the handlebar can be mounted in the position that is most comfortable for the rider.

8.3 Adjusting the handlebar position ↴



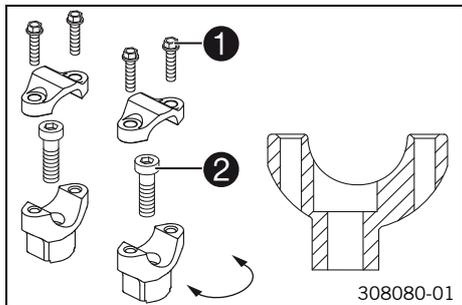
Warning

Danger of accidents A repaired handlebar poses a safety risk.

If the handlebar is bent or straightened, the material becomes fatigued. The handlebar may break as a result.

- Change the handlebar if the handlebar is damaged or bent.

8 ERGONOMICS



- Remove screws ①. Remove the handlebar clamps. Remove the handlebar and lay it to one side.

i Info
Cover the components to protect them against damage.
Do not bend the cables and lines.

- Remove screws ②. Take off the handlebar supports.
- Place the handlebar supports in the required position. Mount and tighten screws ②.

Guideline

Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	Loctite® 243™
--------------------------	-----	------------------------	---------------

i Info
Position the left and right handlebar supports evenly.

- Position the handlebar.

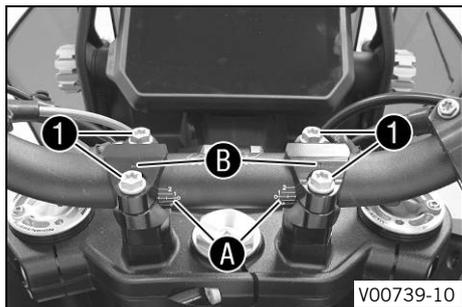
i Info
Make sure the cables and wiring are positioned correctly.

- Position the handlebar clamps. Mount and evenly tighten screws ①.

Guideline

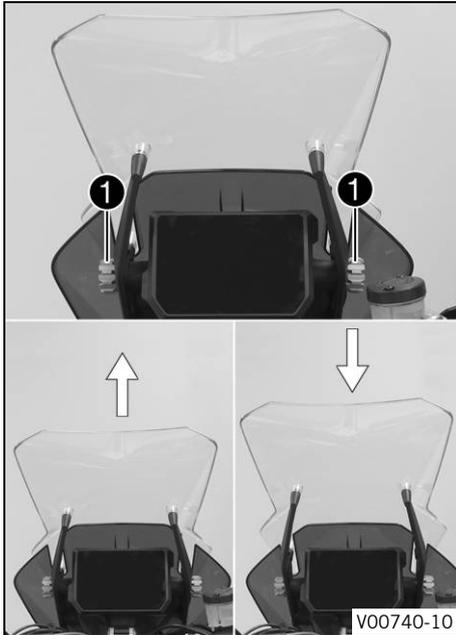
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)
------------------------	----	------------------------

- ✓ The markings ① of the handlebar scale are located centrally between the handlebar clamps.
- ✓ Markings ② face backwards.



i **Info**
Make sure the gap widths are even.

8.4 Adjusting the windshield



- Turn the adjusting wheel **1** to bring the windshield in the required position.

8.5 Adjusting basic position of clutch lever



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

i 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!

8.6 Adjusting the basic position of the hand brake lever

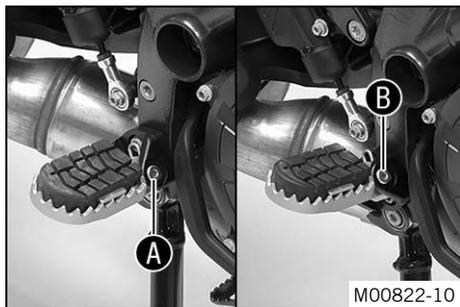


- Adjust the basic position of the hand brake lever to your hand size by turning adjusting wheel ❶.

i Info

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

8.7 Rider footrests



The rider footrests can be mounted in one of two positions.

Possible states

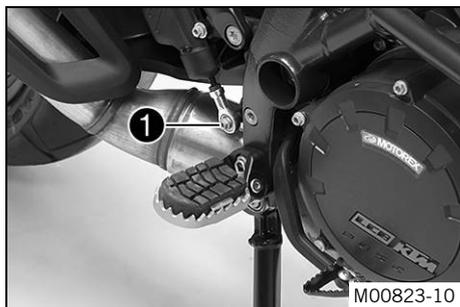
- Rider footrests, low **A**
- Rider footrests, high **B**

8.8 Adjusting the footrests 🛠️



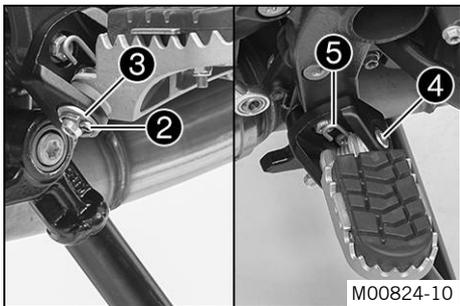
Info

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



- Remove screw **1**.
- ✓ The foot brake lever swings up to the stop.

8 ERGONOMICS



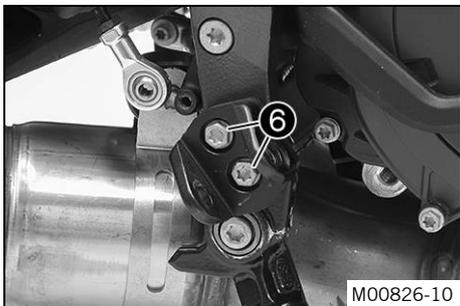
- Remove cotter pin ② with washer ③.
- Carefully remove the pin ④ of the rider footrest.



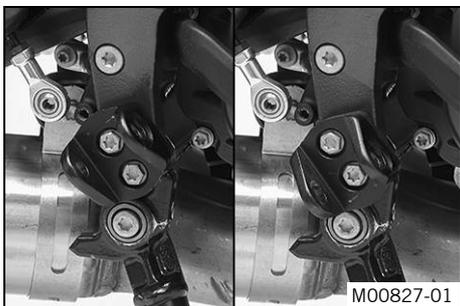
Info

The spring is under high tension and can pop out when the pin is removed.

- Take off the rider footrest ⑤ with the spring.

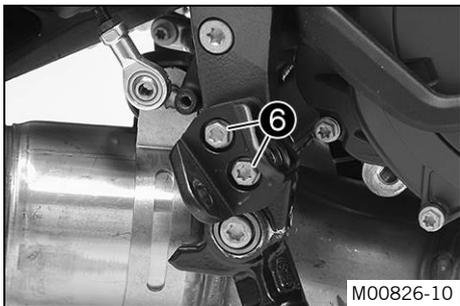


- Remove screws ⑥.



- Adjust the footrest bracket to the desired position.

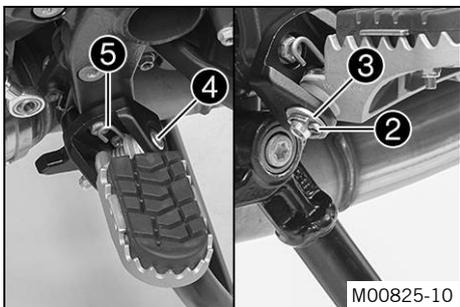
8 ERGONOMICS



- Mount and tighten screws ⑥.

Guideline

Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
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- Mount the rider footrest with spring ⑤ and pin ④.

Pliers for footrest spring (58429083000)
--

- Mount washer ③ and cotter pin ②.



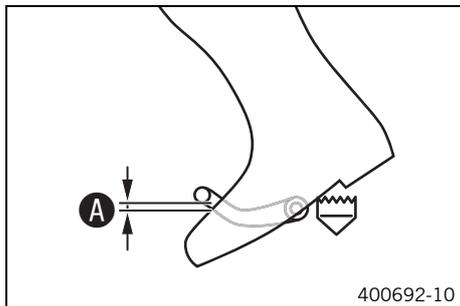
- Position the foot brake lever.
- Mount and tighten screw ①.

Guideline

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

8.9 Checking the basic position of the shift lever

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

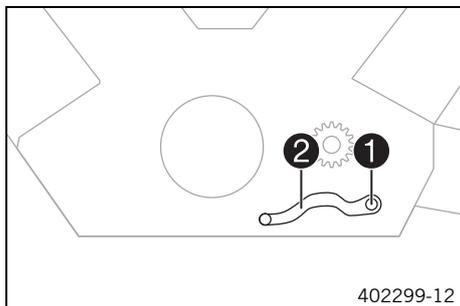


- Sit on the vehicle in the riding position and determine distance **A** between the upper edge of your boot and the shift lever.

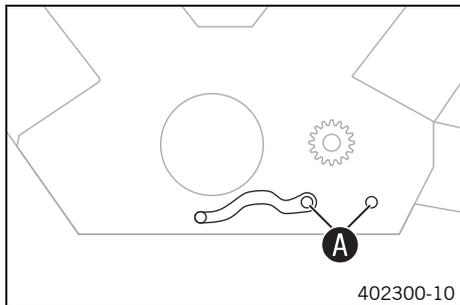
Distance between shift lever and upper edge of boot	10... 20 mm (0.39... 0.79 in)
---	-------------------------------

- » If the distance does not meet specifications:
 - Adjust the basic position of the shift lever. 🛠️ (p. 102)

8.10 Adjusting the basic position of the shift lever 🛠️



- Remove screw **1** with the washers and take off shift lever **2**.



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

i **Info**

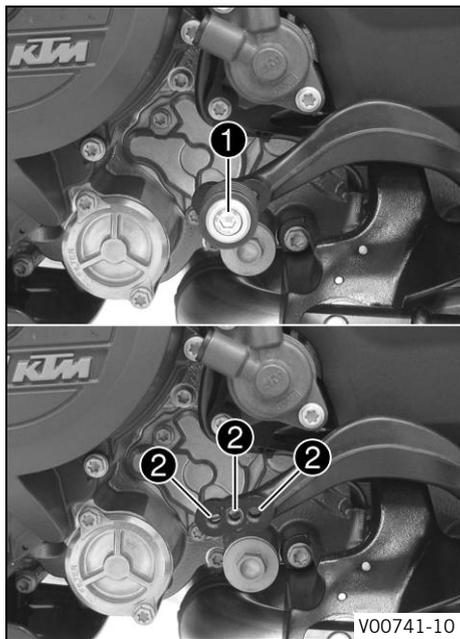
The range of adjustment is limited.
The shift lever must not come into contact with any other vehicle components during the shift procedure.

- Mount and tighten screw **1** with washers.

Guideline

Screw, shift lever	M6	18 Nm (13.3 lbf ft)	Loctite® 243™
--------------------	----	------------------------	---------------

8.11 Setting the shift lever stub



- Remove screw ❶ along with the shift lever stub.
- Position the shift lever stub with the screw in one of drilled holes ❷ depending on the desired lever length.

Guideline

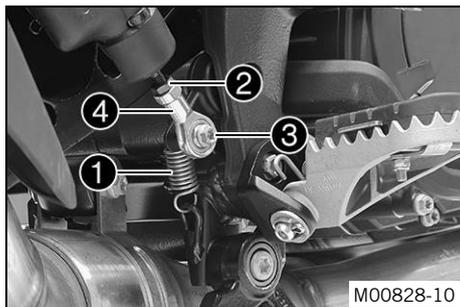
Standard	Middle hole
----------	-------------

- Tighten the screw.

Guideline

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

8.12 Adjusting the basic position of the foot brake lever ↘



- Disconnect spring ①.
- Loosen nut ②.
- Remove screw ③.
- To adjust the basic position of the foot brake lever to individual requirements, turn ball joint ④ accordingly.

i Info

The range of adjustment is limited.
The screw must be screwed into the ball joint by at least 5 turns.

- Hold ball joint ④ and tighten nut ②.

Guideline

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

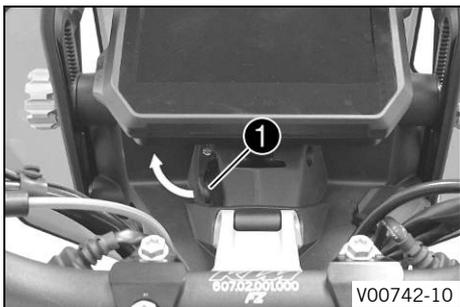
- Mount and tighten screw ③.

Guideline

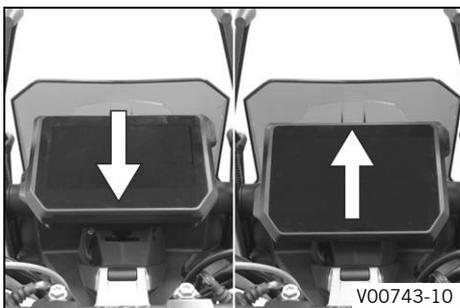
Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
--	----	--------------------	---------------

- Attach spring ①.

8.13 Adjusting the tilt of the combination instrument

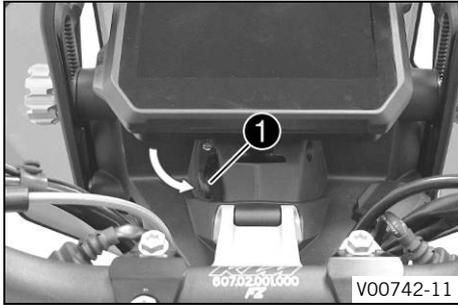


- Pull clamping lever ① in the direction of the arrow.
✓ The combination instrument is unlocked.



- To move the combination instrument to the desired position, press the combination instrument upward or downward.

8 ERGONOMICS



- Pull clamping lever **1** in the direction of the arrow.
✓ The combination instrument is locked.

9.1 Advice on 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-delivery inspection work has been carried out by an authorized KTM workshop.
 - ✓ You receive a delivery certificate and the Service and Warranty Booklet at vehicle handover.
- Before your first trip, read the entire Owner's Manual carefully.
- Get to know the controls.
- Adjust the motorcycle to your requirements, as described in the "Ergonomics" chapter.
- Get used to handling the motorcycle on a suitable piece of land before making a longer trip. Try also to ride as slowly as possible and in a standing position to get a better feeling for the motorcycle.
- Hold the handlebar firmly with both hands and keep your feet on the footrests when riding.
- Run the engine in.

9.2 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)	6,500 rpm
After the first: 1,000 km (620 mi)	10,250 rpm

- Avoid fully opening the throttle!



Info

If the maximum engine speed is exceeded before the first service, the shift warning light flashes.

9.3 Loading the vehicle



Warning

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

The overall 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 luggage 150 km/h (93.2 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 are carrying baggage, make sure it is fixed 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 permitted total weight and the axle loads.

Guideline

Maximum permissible total weight	460 kg (1,014 lb.)
Maximum permissible front axle load	175 kg (386 lb.)
Maximum permissible rear axle load	300 kg (661 lb.)

10.1 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.

- Check the engine oil level. (📖 p. 212)
- Check the brake fluid level of the front brake. (📖 p. 167)
- Check the rear brake fluid level. (📖 p. 170)
- Check the front brake linings. (📖 p. 169)
- Check the rear brake linings. (📖 p. 173)
- Check that the brake system is functioning properly.
- Check the coolant level in the compensating tank. (📖 p. 206)
- Check the chain for dirt. (📖 p. 137)
- Check the chain tension. (📖 p. 139)
- Check the tire condition. (📖 p. 185)
- Check the tire air pressure. (📖 p. 187)
- 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.
- Check the setting of the rear mirror.
- Check the fuel level.

10.2 Starting



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 an effective exhaust extraction system when starting or running the engine in an enclosed space.



Caution

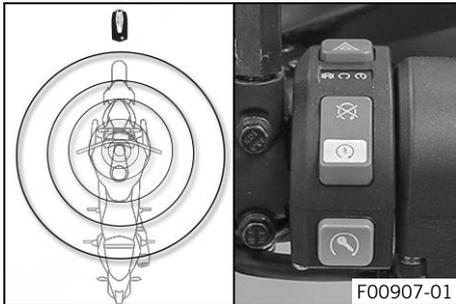
Danger of accidents Electronic components and safety devices will be damaged if the battery is discharged or missing.

- Never operate the vehicle with a discharged battery or without a battery.

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.



- Take the motorcycle off side stand and sit in the motorcycle.
- Bring the Race-on key within range of the antenna.
- Ensure that the Race-on key stays in range while riding.

Guideline

Maximum range of the Race-on key around the antenna	1.5 m (4.9 ft)
---	----------------



Info

The range may be reduced by decreases in battery voltage of the Race-on key and interfering radio waves.

If the battery voltage of the Race-on key is too low, one of the keys must be held in area of the antenna (🗣️ p. 34) and must be safely stored again after starting.

- Make sure that the emergency OFF switch/electric starter button is in the middle position ①.
- Switch on ignition; to do this, briefly press the Race-on button ② (maximum of 1 second).
 - ✓ The steering is unlocked.
 - ✓ The function check of the combination instrument is run.
 - ✓ The ABS indicator lamp goes out when you start off.

i Info

If the handlebar does not unlock, move the handlebar slightly.

- Shift the transmission to idle **N**.
 - ✓ The green idling speed indicator lamp **N** lights up.
- Turn the emergency OFF switch/electric starter button to the lower position ③.

i Info

Do not press the emergency off switch/electric starter button into the lower position ③ until the combination instrument function check has been completed. 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.

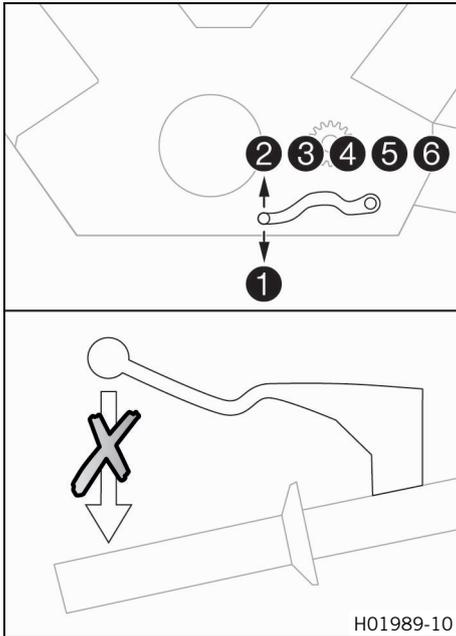
Press the emergency OFF switch/electric starter button into the lower position ③ for a maximum of 5 seconds. Wait for a least 5 seconds before trying again. This motorcycle is equipped with a safety starting system. You can only start the engine if the transmission is in neutral or if the clutch lever is pulled when a gear is engaged. If the side stand is folded out and you shift into gear, the engine stops.



10.3 Starting off

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

10.4 Quickshifter+ (optional)



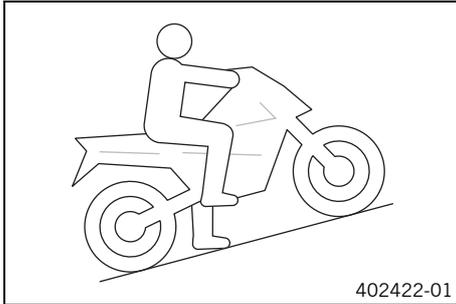
If the Quickshifter+ (optional) is activated, you can shift up and down without actuating the clutch.

Because there is no need to close the throttle grip, uninterrupted gear shifts are possible. The quickshifter+ uses the shifter shaft position to check whether or not a shift should be initiated, and sends a corresponding signal to the engine control.

If the quickshifter+ is disabled in the combination instrument, the clutch needs to be actuated in the normal way for each shift.

H01989-10

10.5 Starting off with HHC (optional)



The **HHC** is an optional auxiliary function of the brake system. The **HHC** prevents accidental rolling back of the motorcycle on hills. The **HHC** recognizes stopping on hills and operates the rear brake. After releasing the brake lever, the brake force is maintained for a maximum of 5 seconds as long as the motorcycle is not moving forward. When driving off the **HHC** releases the rear brake automatically.



Info

When the **HHC** is active, the TC light  flashes. When the ignition is switched on, the **HHC** can still be active, even if the engine is stopped. To roll back with active **HHC**, wait 5 seconds, shift to neutral, or switch off the ignition.

If the **HHC** does not detect a start off after 5 seconds, the braking force is automatically reduced gently. When a brake lever is actuated, the **HHC** is re-activated.

10.6 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 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 rest 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 overall 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.

Note

Transmission damage Incorrect use of the quickshifter+ will damage the transmission.

The quickshifter+ can only be used if the function is enabled in the combination instrument.

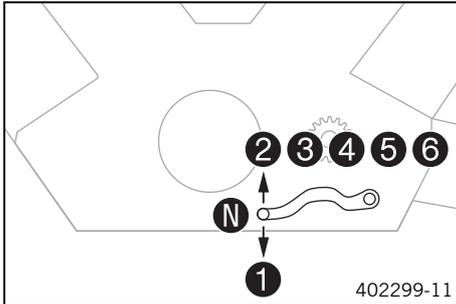
The quickshifter+ is not active if you pull the clutch lever.

- Only use the quickshifter+ in the permitted speed range shown.
-



Info

If you hear unusual noises while riding, stop immediately, switch off the engine, and contact an authorized KTM workshop.



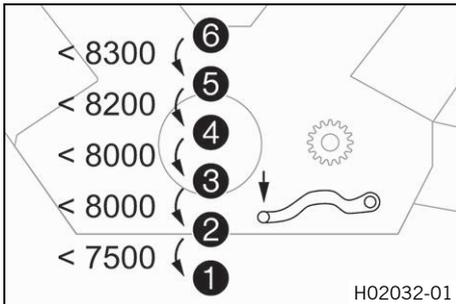
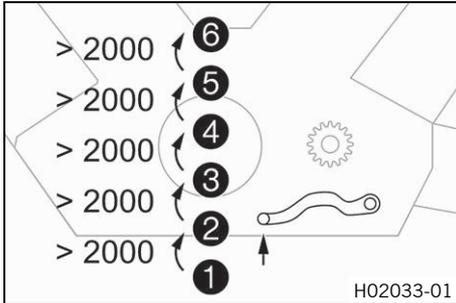
- Shift into a higher gear when conditions allow (incline, road situation, etc.).
- Release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch lever, and open the throttle.



Info

You can see the positions of the 6 forward gears in the figure. The idle position is between the first and second gears. First gear is used for starting off or for steep inclines.

- After reaching maximum speed by fully opening the throttle grip, turn the throttle back so it is $\frac{3}{4}$ 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. You do not have to shift into neutral.
- Switch off the engine if running at idle or standing for a long time.
- If the oil pressure warning lamp  lights up during a trip, stop immediately and switch off the engine. Contact an authorized KTM workshop.
- If the general warning lamp  lights up during a trip, the display shows a message for 10 seconds.



Info

Very important messages are stored in the **Warning** menu.

- If the icy road symbol ❄ appears in the combination instrument, the roads may be icy. Adjust your speed to the road conditions.

Condition

Quickshifter+ (optional) activated.

- If the quickshifter+ is enabled in the combination instrument, you can shift up in the speed range shown without pulling the clutch lever.



Info

The minimum engine speed before shifting up in revolutions per minute is shown in the figure.

Pull the shift lever quickly back to the stop without changing the throttle twist grip position.

- If the quickshifter+ is enabled in the combination instrument, you can shift down in the speed range shown without pulling the clutch lever.

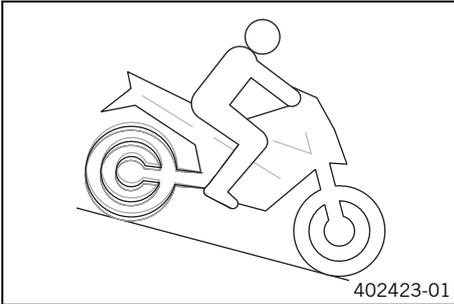


Info

The maximum engine speed before shifting down in revolutions per minute is shown in the figure.

Depress the shift lever quickly back to the stop without changing the throttle twist grip position.

10.7 MSR (optional)



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 or sliding away on a sloping position.

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 too low to open the anti-hopping clutch.

To further increase ride safety, the **MSR** is slope dependent.



Info

If **ABS** is disabled, **MTC** is disabled or ABS Mode **Offroad** is enabled, the **MSR** is not active.

10.8 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 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.

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



Info

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

**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.

**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. In this way, you have to brake far less and the brakes do not overheat.

10.9 Stopping, parking

**Warning**

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

If a valid transponder is in range, the vehicle can be started.

- Do not leave the vehicle unattended if the engine is running.
- Never leave the vehicle unattended if the Race-on key or the black Race-on key are close to the vehicle.
- Protect the vehicle against access by unauthorized persons.
- Lock the steering 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

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.

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

Material damage Damage and destruction of components from excessive load.

- The center stand is only designed for the weight of the motorcycle and the baggage. Do not sit on the motorcycle when it is resting on the center stand. The center stand or the frame may become damaged and the motorcycle may fall over.
- Pull the motorcycle up onto the center stand at the grab handles.

-
- Apply the brakes on the motorcycle.
 - Shift the transmission to idle .
 - Switch off ignition - to do this briefly press the Race-on button  (maximum of 1 second) with the ignition switched on.



Info

If the engine is switched off with the emergency OFF switch and the ignition remains switched on at the Race-on button, the power supply to most power consumers remains unbroken. This discharges the battery. You should therefore always switch off the engine with the Race-on button – the emergency OFF switch is intended for emergencies only.

-
- Park the motorcycle on a firm surface.

Alternative 1

- Swing the side stand forward with your foot as far as it will go and lean the vehicle on it.

Alternative 2

- Raise the vehicle with the center stand. (📖 p. 134)
- Move handlebar fully to the left and press and hold the Race-on button (🔒)(for at least 2 seconds).
 - ✓ The steering is locked.



Info

If the handlebar lock does not engage, move the handlebar slightly.

10.10 Transport

Note

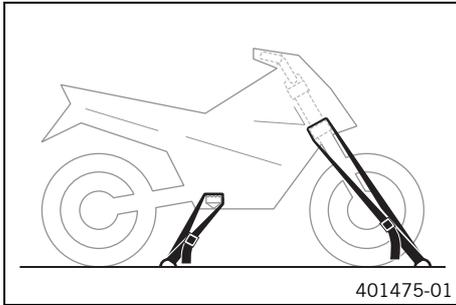
Danger of damage The parked vehicle can roll away or fall over.

- 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.
-



- Switch off the engine.
- Use tension belts or other suitable devices to secure the motorcycle against accidents or falling over.

10.11 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.)

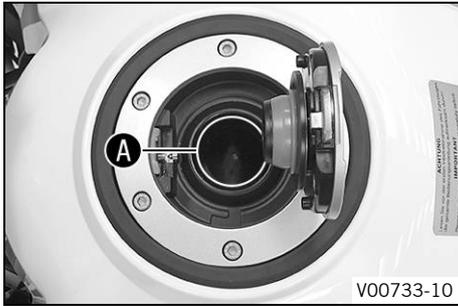


Warning

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.
-

10 RIDING INSTRUCTIONS



- Switch off the engine.
- Open the filler cap. (📖 p. 37)
- Fill the fuel tank with fuel up to the lower edge **A** of the filler neck.

Total fuel tank capacity, approx.	23 l (6.1 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 247)
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- Close the filler cap. (📖 p. 39)

11 SERVICE SCHEDULE

11.1 Additional information

Any further work that results from the required 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.

11.2 Required work

	Every two years				
	Every year				
	every 30,000 km (18,600 mi)				
	every 15,000 km (9,300 mi)				
	after 1,000 km (620 mi)				
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. 213)	○	●	●	●	●
Check the front brake linings. (📖 p. 169)	○	●	●	●	●
Check the rear brake linings. (📖 p. 173)	○	●	●	●	●
Check the brake discs. (📖 p. 166)	○	●	●	●	●
Check the brake lines for damage and leakage. 	○	●	●	●	●
Change the front brake fluid. 					●
Change the rear brake fluid. 					●
Change the hydraulic clutch fluid. 					●
Check the brake fluid level of the front brake. (📖 p. 167)	○	●	●	●	
Check the rear brake fluid level. (📖 p. 170)	○	●	●	●	
Check/correct the fluid level of the hydraulic clutch. (📖 p. 145)		●	●	●	
Check the shock absorber and fork for leaks. Perform service as needed and depending on how the vehicle is used. 	○	●	●	●	●

11 SERVICE SCHEDULE

		Every two years		Every year	
		every 30,000 km (18,600 mi)		every 15,000 km (9,300 mi)	
		after 1,000 km (620 mi)			
Clean the dust boots of the fork legs. 🛠️ (📖 p. 157)		•	•		
Check the steering head bearing play. (📖 p. 146)	○	•	•	•	•
Check the tire condition. (📖 p. 185)	○	•	•	•	•
Check the tire air pressure. (📖 p. 187)	○	•	•	•	•
Check the chain, rear sprocket and engine sprocket. (📖 p. 142)		•	•	•	•
Check the chain tension. (📖 p. 139)	○	•	•	•	•
Change the spark plugs (air filter removed). 🛠️			•		
Check the valve clearance (air filter and spark plugs removed). 🛠️			•		
Change the SAS membrane. 🛠️			•		
Check the cables for damage and routing without sharp bends. (fuel tank removed) 🛠️		•	•	•	•
Check the coolant level in the compensating tank. (📖 p. 206)	○	•	•	•	•
Change the air filter, clean the air filter box. 🛠️		•	•		
Check the fuel pressure. 🛠️		•	•	•	•
Check the CO adjustment using the KTM diagnostics tool. 🛠️	○	•	•		
Check the headlight setting. 🛠️	○	•	•		
Check that the radiator fan is functioning properly. 🛠️	○	•	•	•	•
Final check: Check the vehicle is roadworthy and take a test ride. 🛠️	○	•	•	•	•
Read out the error memory after the test ride using the KTM diagnostics tool. 🛠️	○	•	•	•	•
Reset the service display using the KTM diagnostic tool. 🛠️	○	•	•	•	•
Make the service entry in KTM Dealer.net and in the Service and Manufacturer Warranty Booklet. 🛠️	○	•	•	•	•

11 SERVICE SCHEDULE

- One-time interval
- Periodic interval

11.3 Recommended work

		Every four years			
		Every year			
		every 30,000 km (18,600 mi)			
		every 15,000 km (9,300 mi)			
		after 1,000 km (620 mi)			
Check the frame. 🛠️			●		
Check the swingarm. 🛠️			●		
Check/clean the oil nozzle for clutch lubrication. 🛠️	○	●	●		
Check the swingarm bearing for play. 🛠️		●	●		
Check the wheel bearing for play. 🛠️		●	●		
Grease all moving parts (e.g., side stand, hand lever, chain, ...) and check for smooth operation. 🛠️	○	●	●	●	●
Empty the drainage hoses. 🛠️	○	●	●	●	●
Check all hoses (e.g. fuel, cooling, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing. 🛠️		●	●	●	●
Check the screws and nuts for tightness. 🛠️	○	●	●	●	●
Check the antifreeze. 🛠️	○	●	●	●	
Change the coolant. 🛠️					●

- One-time interval
- Periodic interval

12.1 Fork/shock absorber

Semi-active suspension **WP Semi-active Suspension** can be used to tune the suspension individually without the use of tools. Electronic suspension setting **WP Semi-active Suspension** constantly regulates the damping behavior of the suspension taking into account various sensor data.

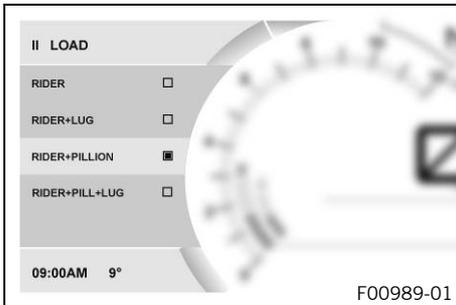
As a result, the electronic damping valves are matched to the current driving situation and terrain characteristics as well as the settings made by the rider in the **Load** and **Damping** menus.

Always adapt the suspension to your riding style and the payload.

In the **Load** menu, the suspension can be set to the loading condition.

In the **Damping** menu, the damping behavior of the suspension can be set.

12.2 Load



Settings for different loading conditions can be selected in the **Load** menu. A selection can be made between one-person operation, one-person operation with luggage, two-person operation, and two-person operation with luggage.

The loading condition selected last is shown in the display.

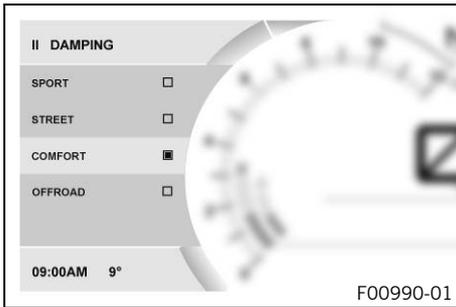


Info

For the setting to be accepted by the motorcycle, the motorcycle must be stationary and the engine must be running.

The symbol of the last load status flashes until the new setting is adopted.

12.3 Damping



Possible states

- SPORT – Firm tuning of the spring elements with very direct feedback from the chassis
- STREET – Normal tuning of the spring elements with direct feedback from the chassis
- COMFORT – Soft tuning of the spring elements with good feedback from the chassis
- OFFROAD – Tuning of the suspension elements for use on light offroad terrain (unmade roads)

Different settings can be selected for the spring element damping in the **Damping** menu. **SPORT**, **STREET**, **COMFORT** and **OFFROAD** are available.

13.1 Raising the vehicle with the center stand

Note

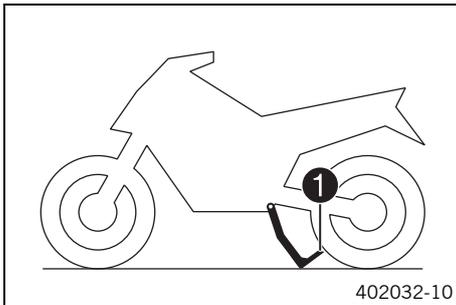
Danger of damage The parked vehicle can roll away or fall over.

- Park the vehicle on a firm and level surface.

Note

Material damage Damage and destruction of components from excessive load.

- The center stand is only designed for the weight of the motorcycle and the baggage. Do not sit on the motorcycle when it is resting on the center stand. The center stand or the frame may become damaged and the motorcycle may fall over.
- Pull the motorcycle up onto the center stand at the grab handles.



- Stand to the left of the vehicle.
- Hold the handlebar with your left hand and push the center stand onto the ground with your right foot.
- Put your entire weight on arm ① of the center stand while pulling the vehicle up at the left grab handle.
- ✓ The center stand is folded out to the stop.

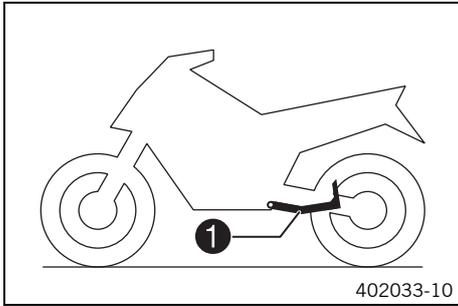
13.2 Removing the vehicle from the center stand

Note

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

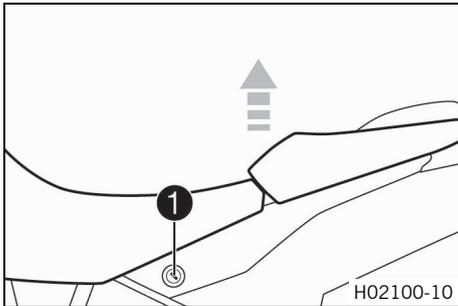
- Park the vehicle on a firm and level surface.

13 SERVICE WORK ON THE CHASSIS



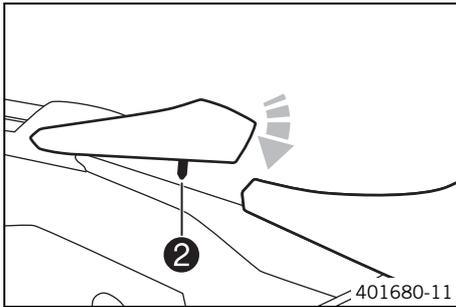
- Make sure that the steering is unlocked.
- Move the vehicle forward with both hands on the handlebar.
- While the vehicle tips off of the center stand, activate the front brake to stop the vehicle from rolling away.
- Check that the center stand **1** is folded all the way up.

13.3 Removing the passenger seat



- Insert the Race-on key or the black ignition key into the seat lock **1** and turn clockwise.
- Raise front of the passenger seat, pull toward the fuel tank, and remove upward.
- Remove the key.

13.4 Mounting the passenger seat



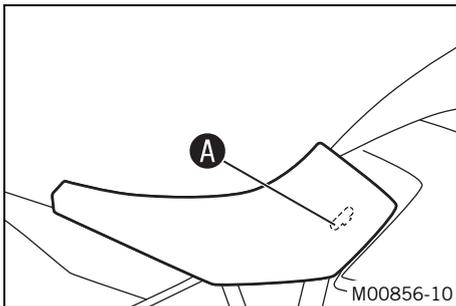
- Attach the hooks on the passenger seat ❶ to the hanger on the subframe.

i Info

Ensure that the seat heating cable is correctly routed.

- Lower passenger seat and push back at the same time.
- Position locking pin ❷ in lock housing and press passenger seat forward until the locking pin engages with an audible click.
- Check that the passenger seat is correctly mounted.

13.5 Removing the front rider's seat



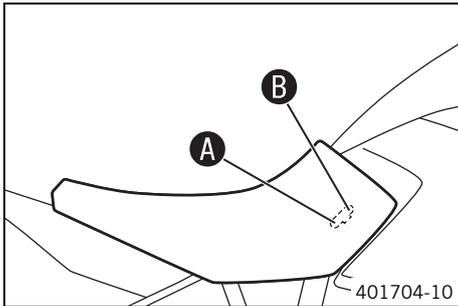
Preparatory work

- Remove the passenger seat. (🗨️ p. 135)

Main work

- Lift the rider's seat back and unhook in the ❶ area.

13.6 Mounting the front rider's seat



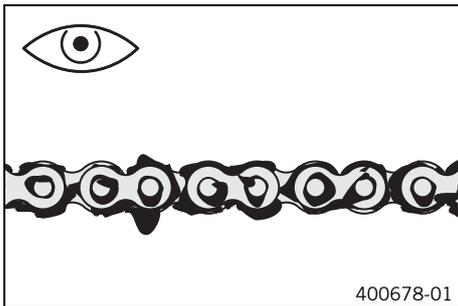
Main work

- Attach the recesses on the front rider's seat to the fuel tank at the desired seat position **A** or **B**, and push the driver's seat forward while lowering it at the rear.
- Finally, check that the front rider's seat is correctly mounted.

Finishing work

- Mount the passenger seat. (📖 p. 136)

13.7 Checking for chain dirt



- Check the chain for coarse dirt accumulation.
 - » If the chain is very dirty:
 - Clean the chain. (📖 p. 138)

13.8 Cleaning the chain



Warning

Danger of accidents Oil or grease on the tires reduces the road grip.

- Remove the lubricant 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.



Warning

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.

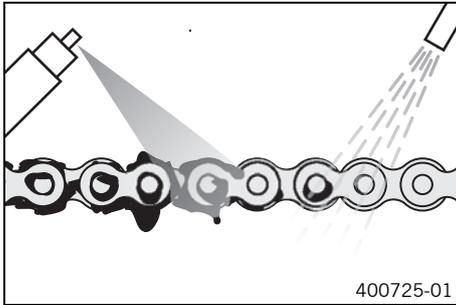


Info

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

Preparatory work

- Raise the vehicle with the center stand. (📖 p. 134)



Main work

- Clean the chain regularly.
- Rinse off loose dirt with a soft jet of water.
- Remove old grease remains with chain cleaner.

Chain cleaner (📖 p. 248)

- After drying, apply chain spray.

Chain lube for road use (📖 p. 248)

Finishing work

- Remove the vehicle from the center stand. (📖 p. 134)

13.9 Checking the chain tension



Warning

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

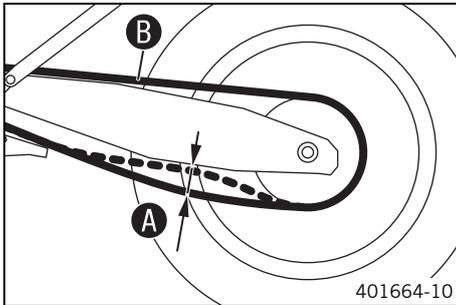
If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.

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 vehicle with the center stand. (📖 p. 134)



Main work

- Shift the transmission to idle **N**.
- In the area in front of the chain guide, push the chain up and determine chain tension **A**.

i Info

The upper part of the chain **B** must be taut.
Chain wear is not always even, so you should repeat this measurement at different chain positions.

Chain tension	40... 45 mm (1.57... 1.77 in)
---------------	-------------------------------

- » If the chain tension does not meet the specification:
 - Adjust the chain tension. (📖 p. 140)

Finishing work

- Remove the vehicle from the center stand. (📖 p. 134)

13.10 Adjusting the chain tension



Warning

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

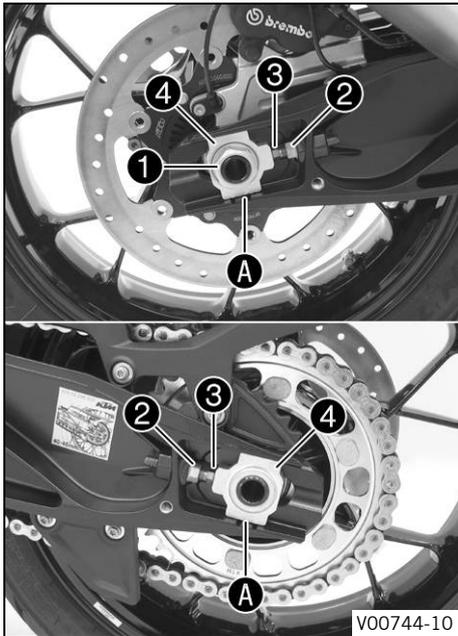
If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.

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 vehicle with the center stand. (📖 p. 134)



- Check the chain tension. (📖 p. 139)

Main work

- Loosen nut ①.
- Loosen nuts ②.
- Adjust the chain tension by turning adjusting screws ③ left and right.

Guideline

Chain tension	40... 45 mm (1.57... 1.77 in)
Turn the adjusting screws ③ on the left and right so that the markings on the left and right chain adjusters ④ are in the same position relative to the reference marks A. The rear wheel is then correctly aligned.	

i Info

The upper part of the chain must be taut.
Chain wear is not always even, so you should check the setting at different chain positions.

- Tighten nuts ②.
- Make sure that chain adjusters ④ are fitted correctly on adjusting screws ③.
- Tighten nut ①.

Guideline

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

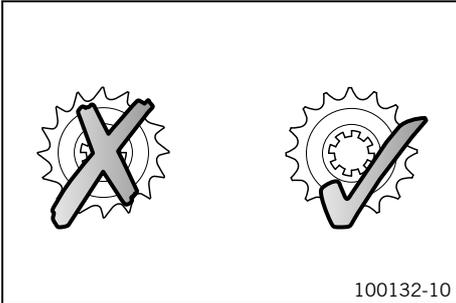
i Info

Chain adjusters ④ can be turned by 180°.

Finishing work

- Remove the vehicle from the center stand. (📖 p. 134)

13.11 Checking the chain, rear sprocket and engine sprocket



Preparatory work

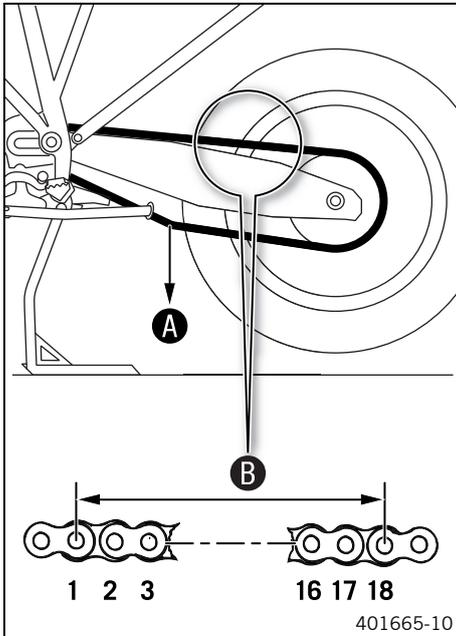
- Raise the vehicle with the center stand. (📖 p. 134)

Main work

- Check the rear sprocket and engine sprocket for wear.
 - » If the rear sprocket or engine sprocket is worn:
 - Change the drivetrain kit. 🔧

Info

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



- Shift the transmission to idle **N**.
- Pull the lower chain section with specified weight **A**.

Guideline

Weight, chain wear measurement	15 kg (33 lb.)
--------------------------------	----------------

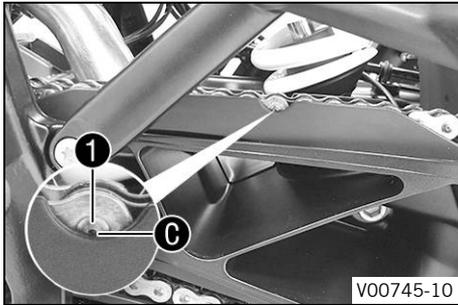
- Measure distance **B** of 18 chain rollers on the upper part of the chain.

i Info
Chain wear is not always even, so you should repeat this measurement at different chain positions.

Maximum distance B at the longest chain section	272 mm (10.71 in)
--	-------------------

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

i Info
When the chain is replaced, 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.



V00745-10

- Check the chain sliding guard for wear at the cutout.

i Info

When the chain sliding guard is new, the rivets **1** are half visible at the bottom edge **C** of the recess.

- » When the rivets of the chain are no longer visible at the bottom edge of the recess of the chain sliding guard:
 - Change the chain sliding guard. 🛠️
- Check the chain sliding guard for tightness.
 - » If the chain sliding guard is loose:
 - Tighten the screws on the chain sliding guard.

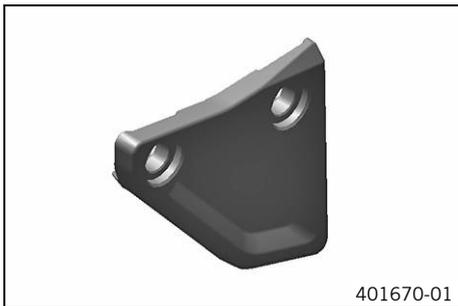
Guideline

Screw, chain sliding guard	M5	5 Nm (3.7 lbf ft)
----------------------------	----	-------------------

- Check the chain guide for wear.
 - » If the chain guide is worn:
 - Change the chain guide. 🛠️
- Check the chain guide for tightness.
 - » If the chain guide is loose:
 - Tighten the screws on the chain guide.

Guideline

Screw, chain guide	M6	5 Nm (3.7 lbf ft)
--------------------	----	-------------------



401670-01

Finishing work

- Remove the vehicle from the center stand. (📖 p. 134)

13.12 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.



Warning

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.



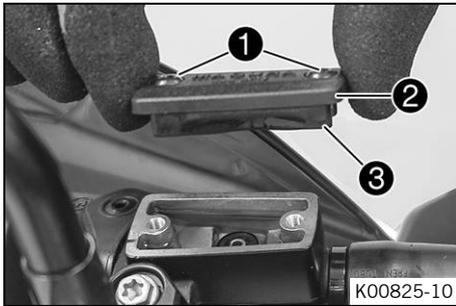
Info

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 ①.
- Remove cover ② with membrane ③.
- 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. 245)
--

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



Info

Clean up overflowed or spilled brake fluid immediately with water.

13.13 Checking the steering head bearing play



Warning

Danger of accidents Incorrect steering head bearing play impairs the handling characteristic and damages components.

- Correct incorrect steering head bearing play immediately. (Your authorized KTM workshop will be glad to help.)

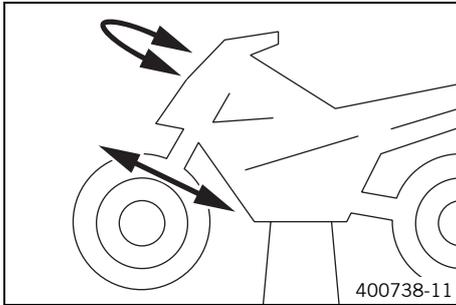


Info

If the vehicle is operated for a lengthy period with play in the steering head bearing, the bearings and the bearing seats in the frame can become damaged over time.

Preparatory work

- Raise the vehicle with the center stand. (📖 p. 134)



Main work

- Place a load on the rear of the vehicle.
 - ✓ The front wheel is not in contact with the ground.
- Move the handlebar to the straight-ahead position. Move the fork legs back and forth in the direction of travel.

Play should not be detectable on the steering head bearing.

- » If there is no detectable play:
 - Adjust the steering head bearing play. 🛠️
- Move the handlebar to and fro over the entire steering range.

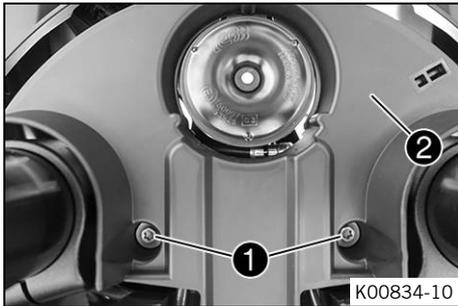
It must be possible to move the handlebar easily over the entire steering range. There should be no detectable detent positions.

- » If detent positions are detected:
 - Adjust the steering head bearing play. 🛠️
 - Check the steering head bearing and adjust if necessary.

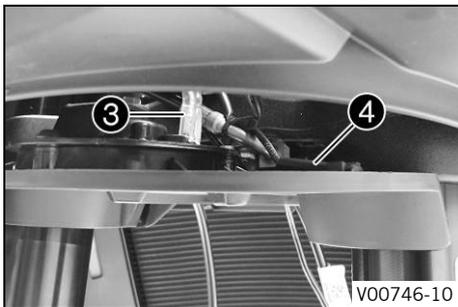
Finishing work

- Remove the vehicle from the center stand. (📖 p. 134)

13.14 Removing the bottom triple clamp cover

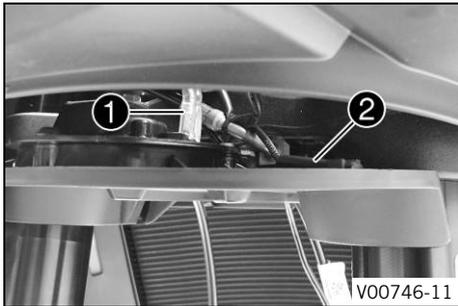


- Remove screws ①.
- Lower triple clamp cover ② slightly.

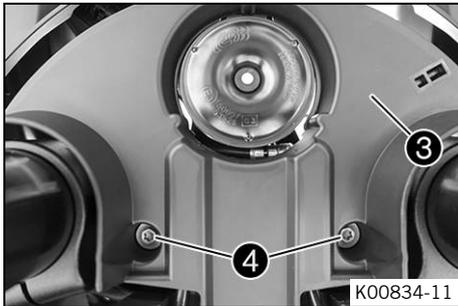


- Disconnect plugs ③ of the horn.
- Detach temperature sensor ④.
- Remove the triple clamp cover.

13.15 Installing the bottom triple clamp cover



- Plug in connectors ① of the horn.
- Attach temperature sensor ②.

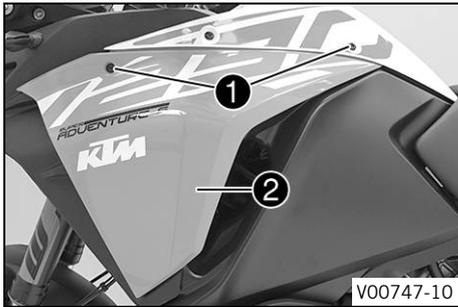


- Position the triple clamp cover ③.
- Mount and tighten screws ④.

Guideline

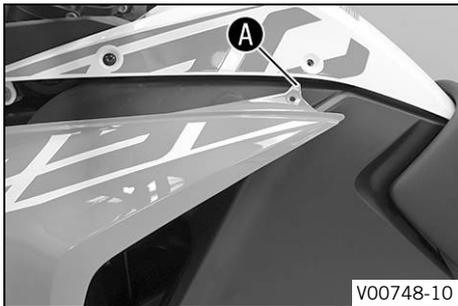
Remaining chassis screws	M6	10 Nm (7.4 lbf ft)
--------------------------	----	--------------------

13.16 Removing the front side cover

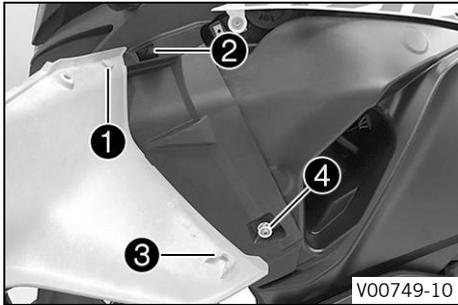


- Remove screws ①.
- Remove side cover ②.
- Repeat these steps on the opposite side.

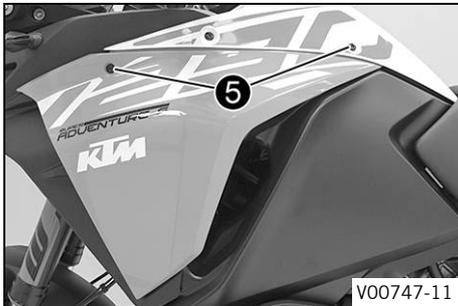
13.17 Installing the front side cover



- Position the side cover in the area A under the tank cover.



- Attach side cover to bracket **2** using the catch **1**.
- Attach catch **3** of the side cover to bracket **4** and position on the fuel tank.



- Mount and tighten screws **5**.

Guideline

Screw, cover part	M5	3.5 Nm (2.58 lbf ft)
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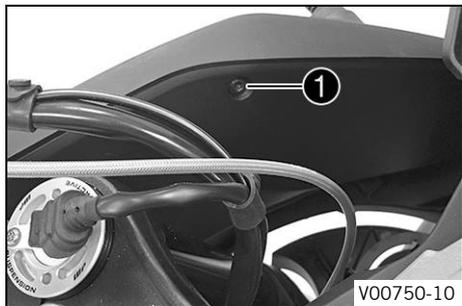
- Repeat these steps on the opposite side.

13.18 Removing the mask spoiler 🛠️

Preparatory work

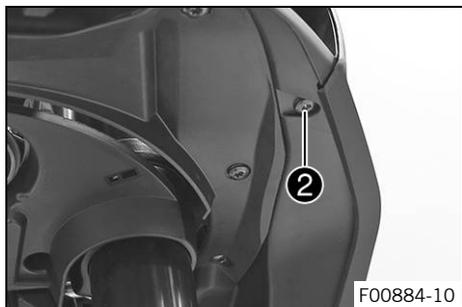
- Remove the passenger seat. (📖 p. 135)
- Remove the front rider's seat. (📖 p. 136)
- Remove the front side cover. (📖 p. 150)
- Remove the tank cover. (📖 p. 158)

13 SERVICE WORK ON THE CHASSIS

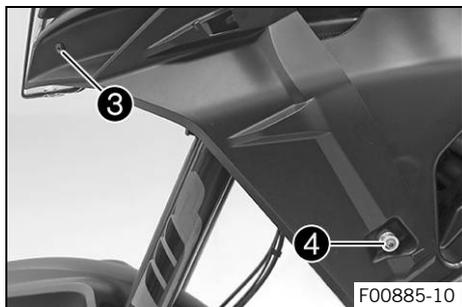


Main work

- Remove screw ①.

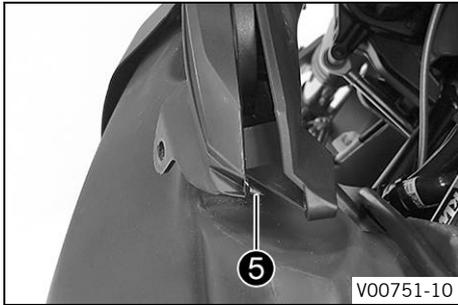


- Remove screw ②.

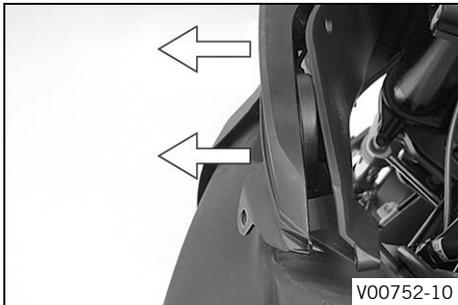


- Remove screw ③.
- Remove screw ④ with the bushing.

13 SERVICE WORK ON THE CHASSIS



- Loosen holding lug 5 from the inside cover.

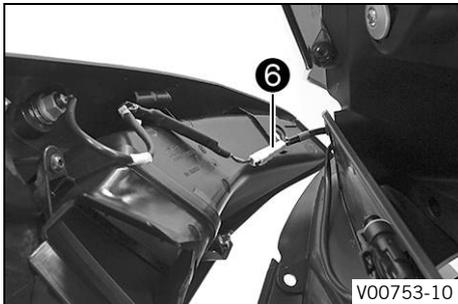


- Remove the mask spoiler laterally from the supports.



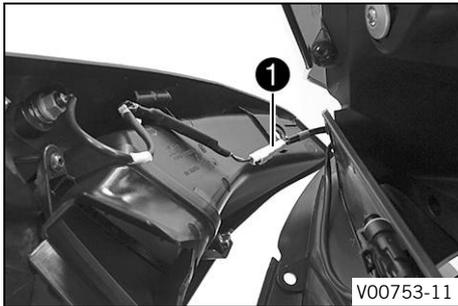
Info

Pay attention to the turn signal cable.



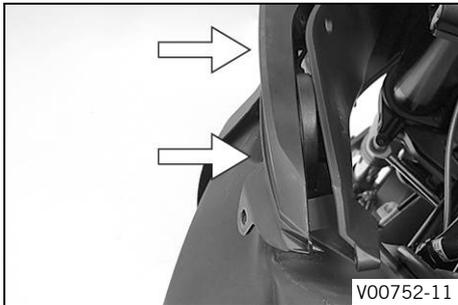
- Disconnect plug-in connector 6.
- Remove the mask spoiler with the turn signal.
- Repeat these steps on the opposite side.

13.19 Installing the mask spoiler ↩



Main work

- Connect plug-in connector ①.

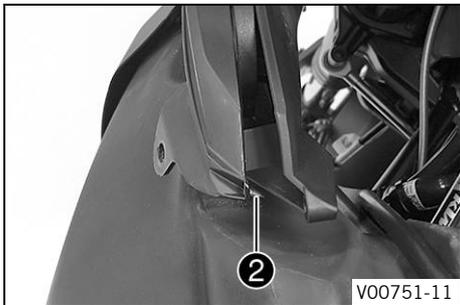


- Position the mask spoiler and press laterally into the supports.

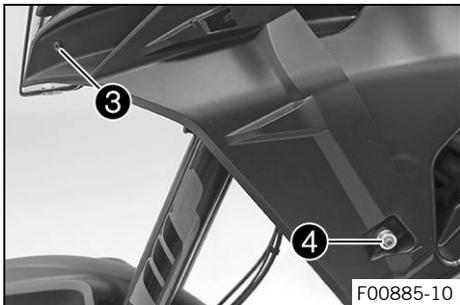
i Info

Ensure that the turn signal cable is placed correctly.

13 SERVICE WORK ON THE CHASSIS



- Position holding lug ② in the drill hole.



- Mount and tighten screw ③.

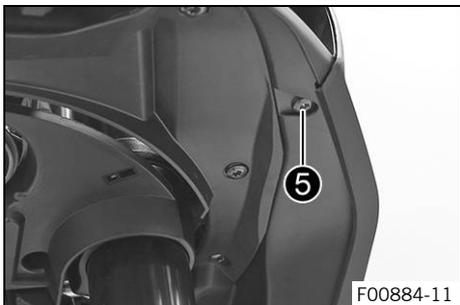
Guideline

Screw, cover part	M5	3.5 Nm (2.58 lbf ft)
-------------------	----	-------------------------

- Mount and tighten screw ④ with the bushing.

Guideline

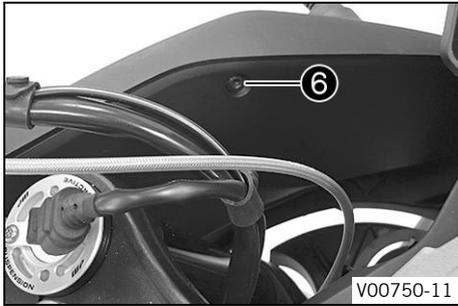
Screw, bushing	M6	4 Nm (3 lbf ft)
----------------	----	-----------------



- Mount and tighten screw ⑤.

Guideline

Screw, cover part	M5	3.5 Nm (2.58 lbf ft)
-------------------	----	-------------------------



- Mount and tighten screw ⑥.

Guideline

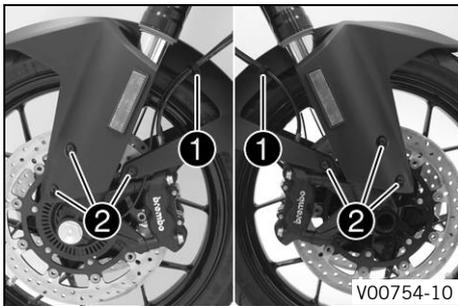
Screw, cover part	M5	3.5 Nm (2.58 lbf ft)
-------------------	----	-------------------------

- Repeat these steps on the opposite side.

Finishing work

- Install the tank cover. (📖 p. 160)
- Install the front side cover. (📖 p. 150)
- Mount the front rider's seat. (📖 p. 137)
- Mount the passenger seat. (📖 p. 136)

13.20 Removing the front fender



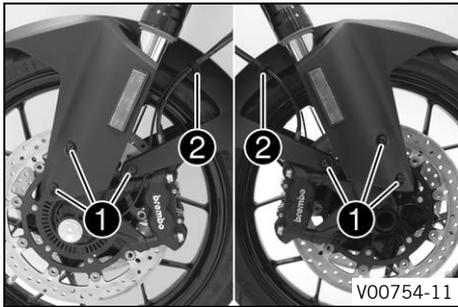
- Open holder ① and detach the brake lines and cable.
- Remove screws ②.
- Take the fender off to the front.



Info

Pay attention to the brake lines and the cable.

13.21 Installing the front fender



- Position the fender.



Info

Pay attention to the routing of the brake lines and the cable.

- Mount and tighten screws **1**.

Guideline

Screw, fender	M5x12	3.5 Nm (2.58 lbf ft)
---------------	-------	-------------------------

- Insert the brake lines and cable in brackets **2** and close the holder.

13.22 Cleaning the dust boots of the fork legs

Preparatory work

- Raise the vehicle with the center stand. (📖 p. 134)
- Remove the front fender. (📖 p. 156)

Main work

- Push dust boots **1** of both fork legs downward.



Info

The dust boots should remove dust and coarse dirt particles from the 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. 249)

- Press dust boots ❶ back into their installation position.
- Remove excess oil.

Finishing work

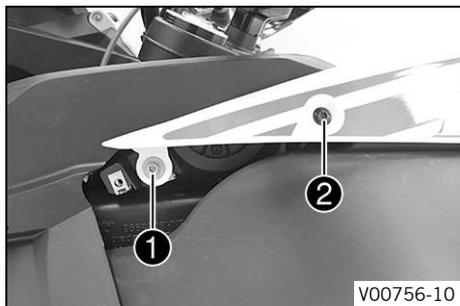
- Install the front fender. (📖 p. 157)
- Remove the vehicle from the center stand. (📖 p. 134)

13.23 Removing the tank cover

Preparatory work

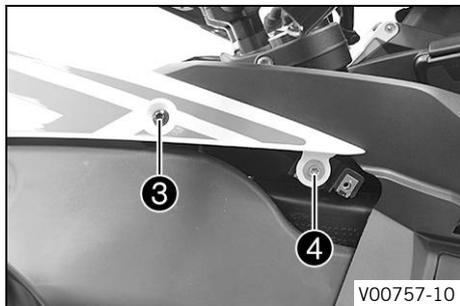
- Remove the passenger seat. (📖 p. 135)
- Remove the front rider's seat. (📖 p. 136)
- Remove the front side cover. (📖 p. 150)

13 SERVICE WORK ON THE CHASSIS

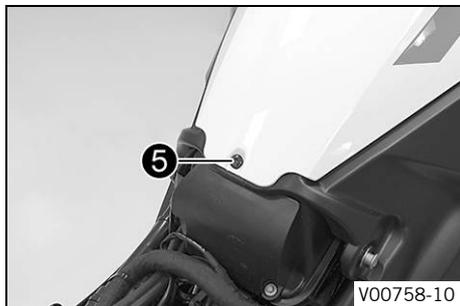


Main work

- Remove screw ①.
- Remove screw ②.



- Remove screw ③.
- Remove screw ④.



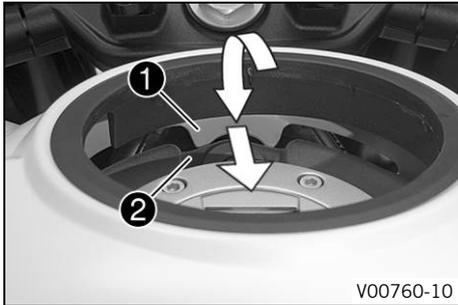
- Remove screw ⑤.

13 SERVICE WORK ON THE CHASSIS



- Raise the tank cover at the rear and remove it in a forward direction.

13.24 Installing the tank cover



Main work

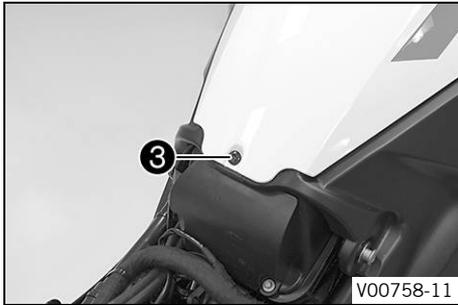
- Position the tank cover.
- ✓ Catch ① engages under the tank ②.



Info

Pay attention to the sealing lip and the bleeder hose.

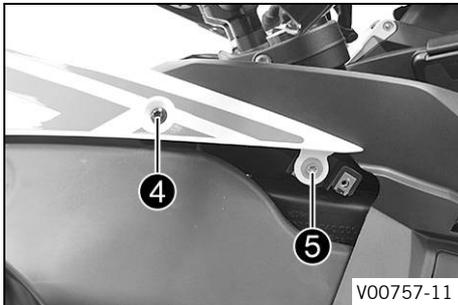
13 SERVICE WORK ON THE CHASSIS



- Mount and tighten screw ③.

Guideline

Screw, cover part	M5	3.5 Nm (2.58 lbf ft)
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- Mount and tighten screw ④.

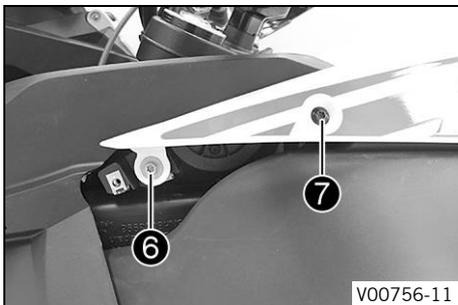
Guideline

Screw, cover part	M5	3.5 Nm (2.58 lbf ft)
-------------------	----	-------------------------

- Mount and tighten screw ⑤.

Guideline

Screw, cover part	M6	6 Nm (4.4 lbf ft)
-------------------	----	-------------------



- Mount and tighten screw ⑥.

Guideline

Screw, cover part	M6	6 Nm (4.4 lbf ft)
-------------------	----	-------------------

- Mount and tighten screw ⑦.

Guideline

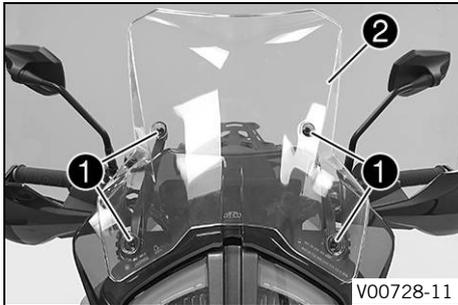
Screw, cover part	M5	3.5 Nm (2.58 lbf ft)
-------------------	----	-------------------------

13 SERVICE WORK ON THE CHASSIS

Finishing work

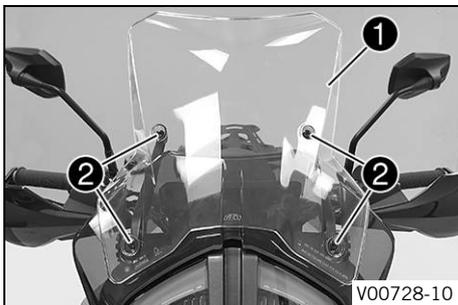
- Install the front side cover. (📖 p. 150)
- Mount the front rider's seat. (📖 p. 137)
- Mount the passenger seat. (📖 p. 136)

13.25 Removing the wind shield



- Remove screws ❶ and wind shield ❷.

13.26 Installing the wind shield

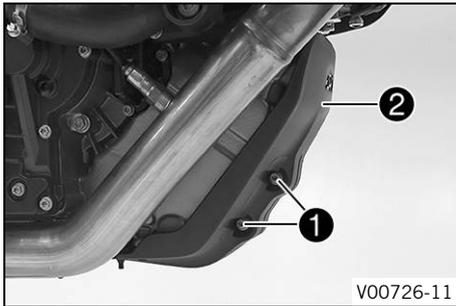


- Position wind shield ❶.
- Mount and tighten screws ❷.

Guideline

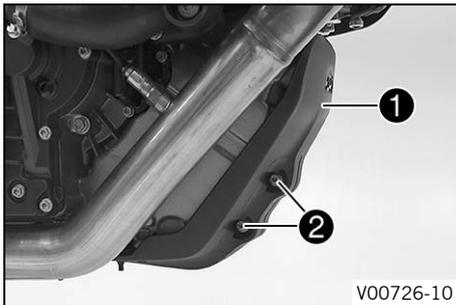
Screw, wind shield	M5	3.5 Nm (2.58 lbf ft)
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13.27 Removing the engine guard



- Remove screws **1** with bushings and engine guard **2**.

13.28 Installing the engine guard

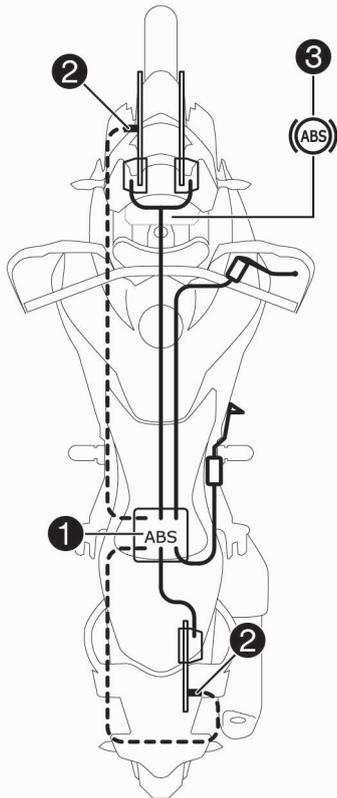


- Position engine guard **1**, mount screws **2** with bushings and tighten.

Guideline

Screw, engine guard	M6	10 Nm (7.4 lbf ft)
---------------------	----	--------------------

14.1 Antilock brake system (ABS)



H02020-01

The ABS unit **1**, which consists of a hydraulic unit, brake electronics control unit, and return pump, is installed under the seat. One wheel speed sensor **2** 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 air pressure.
- Service work and repairs must be performed professionally. (Your authorized KTM workshop will be glad to help.)

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.

ABS has two operating modes: the **Road** and **Offroad**ABS modes.

In the **Road** ABS mode, the brakes are also applied to the rear wheel when the front brake is applied. ABS can intervene on both wheels.

In the **Offroad** ABS mode, the front brake slows the front wheel. The rear brake slows the rear wheel. There is no ABS intervention on the rear wheel. The ABS indicator lamp **3** flashes slowly to remind you that the **Offroad** ABS mode is enabled.



Info

In the **Offroad** ABS mode, the rear wheel may lock and there is a risk of falling.

The ABS operates with two independent brake circuits (front and rear brakes). When the brake electronics control unit detects a locking tendency in a wheel, ABS begins regulating the brake pressure. The regulating process causes a slight pulsing of the hand and foot brake levers.

The ABS indicator lamp **3** 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 is lit while riding, this indicates a fault in the ABS. 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 indicator 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 indicator lamp goes out when you start off.

MSC

The **MSC** is a supplementary function for the ABS that can prevent blocking and slipping of the wheels during braking when the vehicle is inclined (riding in curves) within the physical limitations.

By means of the 5D sensor, ABS control is now dependent on the inclination and pitch angle.

ABS control that is dependent on the inclination and pitch angle improves the riding stability and braking effect in all riding situations. The **MSC** also reduces the righting moment during hard braking in curves. This prevents the motorcycle from righting itself from an inclined angle and moving along a larger curve radius. Due to the additional electronic con-

ontrol of the brake force distribution between the two wheels, the braking force is optimally distributed and the motorcycle is additionally stabilized.



Info

The **MSC** is only active in **Road** ABS mode.

14.2 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 thickness of the front and rear brake discs at multiple points on each brake disc to ensure it is at least thickness **A**.

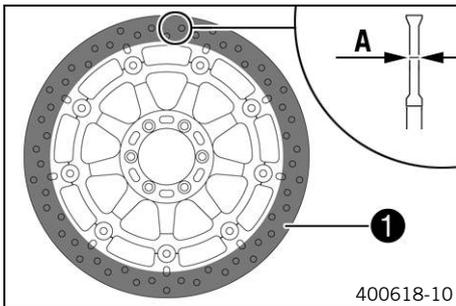


Info

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

Brake discs - wear limit	
Front	4 mm (0.16 in)
Rear	4.5 mm (0.177 in)

- » If the brake disc thickness is less than the specified value.
 - Change the front brake discs. 🛠️
 - Change the rear brake discs. 🛠️
- 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 discs. 🛠️



- Change the rear brake discs. 🛠️

14.3 Checking the brake fluid level of the front brake



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.

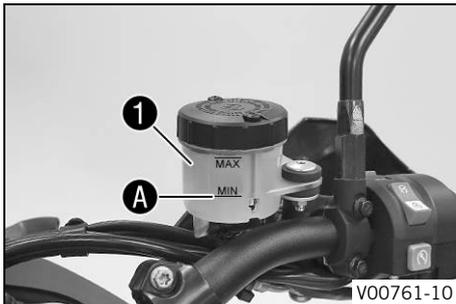
- Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)



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.)



- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
- Check the brake fluid level in the brake fluid reservoir **1**.
 - » If the brake fluid has dropped below marking **MIN A**:
 - Add front brake fluid. 🛠️ (📖 p. 168)

14.4 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 **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.)



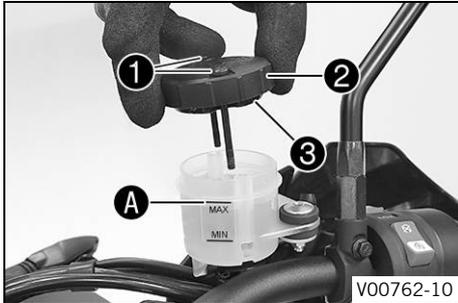
Warning

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.

i 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. 169)

Main work

- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws ①.
- Remove cover ② with membrane ③.
- Add brake fluid up to **MAX** marking A.

Brake fluid DOT 4 / DOT 5.1 (📖 p. 245)

- Position cover ② with membrane ③.
- Mount and tighten screws ①.

i Info

Clean up overflowed or spilled brake fluid immediately with water.

14.5 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.)

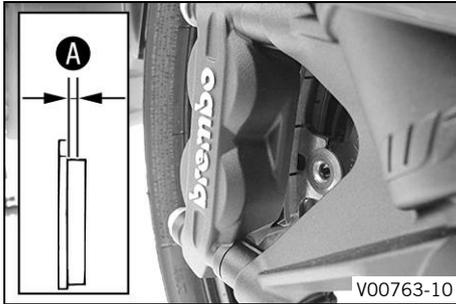


Warning

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 all brake linings on both brake calipers to ensure they have minimum thickness **A**.

Minimum thickness	$\geq 1 \text{ mm } (\geq 0.04 \text{ in})$
-------------------	---

- » If the minimum thickness is less than specified:
 - Change the front brake linings. 🛠️
- Check all brake linings on both brake calipers for damage and cracking.
 - » If there is damage or cracking:
 - Change the front brake linings. 🛠️

14.6 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.

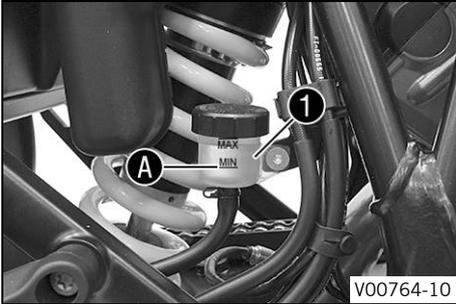
- Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)



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.)



Preparatory work

- Raise the vehicle with the center stand. (📖 p. 134)

Main work

- Check the brake fluid level in the brake fluid reservoir **1**.
 - » If the fluid level reaches the **MIN** marking **A**:
 - Add rear brake fluid. 🛠️ (📖 p. 171)

14.7 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.)



Warning

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

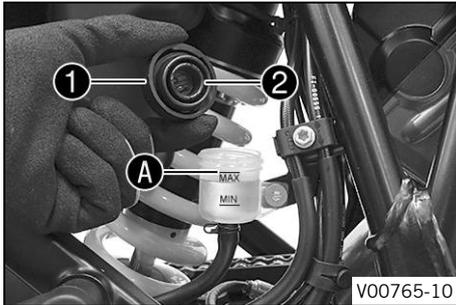
Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.

Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.

Only use clean brake fluid from a sealed container.

Preparatory work

- Raise the vehicle with the center stand. (📖 p. 134)



- Check the rear brake linings. (📖 p. 173)

Main work

- Remove screw cap ❶ with membrane ❷.
- Add brake fluid up to **MAX** marking A.

Brake fluid DOT 4 / DOT 5.1 (📖 p. 245)

- Mount and tighten screw cap ❶ with membrane ❷.



Info

Clean up overflowed or spilled brake fluid immediately with water.

14.8 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.)



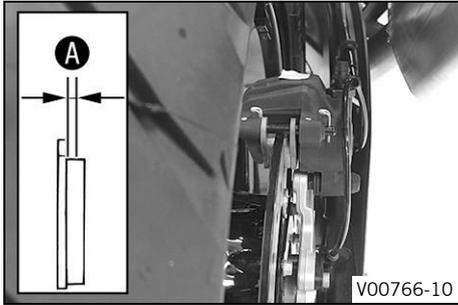
Warning

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.

14 BRAKE SYSTEM

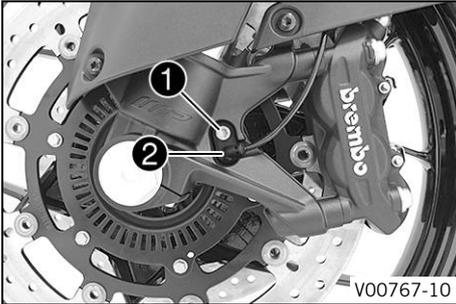


- Check the brake linings for minimum thickness **A**.

Minimum thickness A	$\geq 1 \text{ mm } (\geq 0.04 \text{ in})$
----------------------------	---

- » 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. 🛠️

15.1 Removing the front wheel ↘

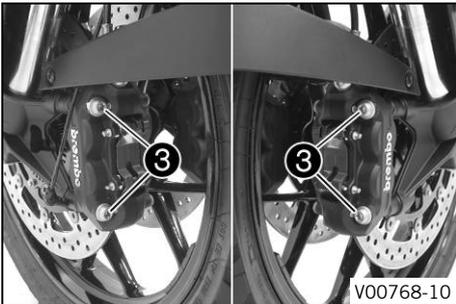


Preparatory work

- Raise the vehicle with the center stand. (📖 p. 134)

Main work

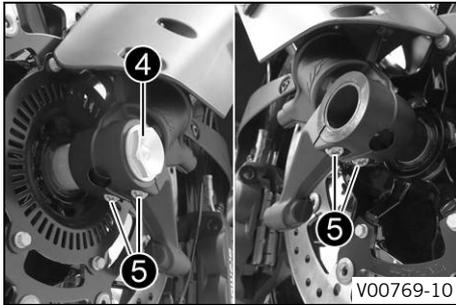
- Place a load on the rear of the vehicle.
 - ✓ The front wheel is not in contact with the ground.
- Remove screw ① and pull wheel speed sensor ② out of the hole.



- Remove screws ③ from both brake calipers.
- Press back the brake linings with a slight lateral tilting of the brake calipers on the brake disc.
- Pull the brake calipers carefully back from the brake discs and hang them to one side loosely.

Info

Do not pull the hand brake lever when the brake caliper has been removed.



- Loosen screw ④ by several rotations.
- Loosen screws ⑤.
- Press on screw ④ to push the wheel spindle out of the axle clamp.
- Remove screw ④.



Warning

Danger of accidents Damaged brake discs reduce the braking effect.

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

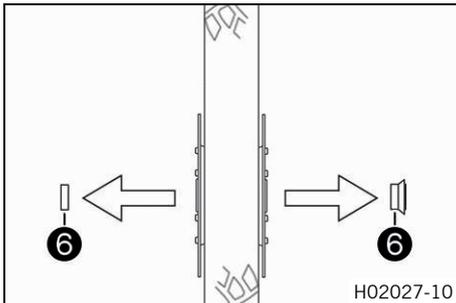
- Hold the front wheel and remove the wheel spindle. Take the front wheel out of the fork.



Info

Do not pull the hand brake lever when the front wheel is removed.

- Remove spacers ⑥.



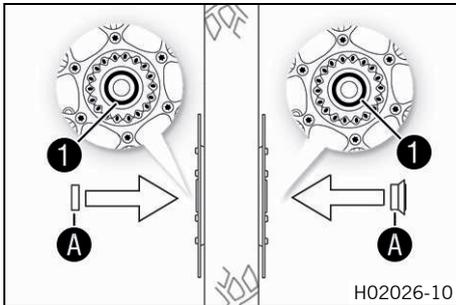
15.2 Installing the front wheel ↱



Warning

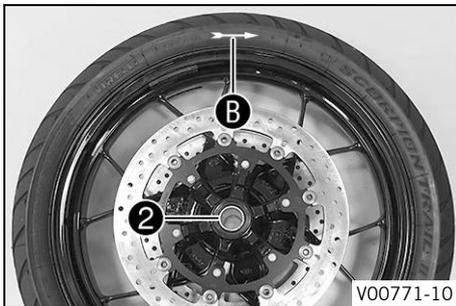
Danger of accidents Oil or grease on the brake discs reduces the braking effect.

- 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 the front wheel bearing. ↱
- Clean and grease shaft seal rings **1** and contact surface **A** of the spacers.

Long-life grease (📖 p. 248)



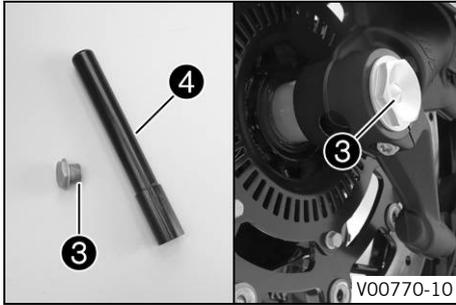
- Insert the narrow spacer **2** on the right in the direction of travel.



Info

Arrow **B** indicates the direction of travel of the front wheel.
The ABS sensor wheel is on the left viewed in the direction of travel.

- Insert the wide spacer on the left in the direction of travel.



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 grease screw **3** and wheel spindle **4**.

Long-life grease (📖 p. 248)

- Lift the front wheel into the fork, position it, and insert the wheel spindle.
- Mount and tighten screw **3**.

Guideline

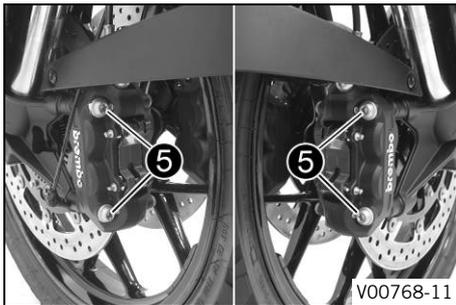
Screw, front wheel spindle	M25x1.5	45 Nm (33.2 lbf ft)	Thread greased
----------------------------	---------	------------------------	----------------

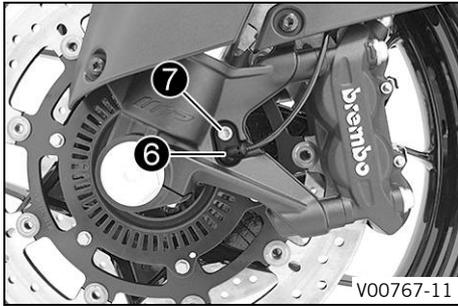
- Position the brake calipers.
 - ✓ The brake linings are correctly positioned.
- Mount screws **5** on both brake calipers but do not tighten yet.
- Operate the hand brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point. Fix the hand brake lever in the activated position.
 - ✓ The brake calipers straighten.
- Tighten screws **5** on both brake calipers.

Guideline

Screw, front brake caliper	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
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- Remove the locking piece of the hand brake lever.



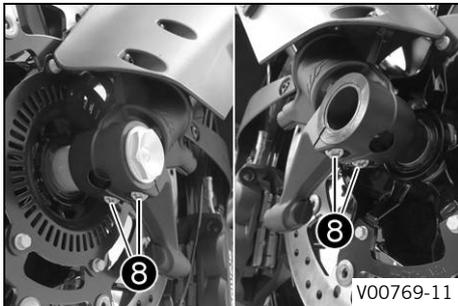


- Position wheel speed sensor **6** in the drill hole.
- Mount and tighten screw **7**.

Guideline

Remaining chassis screws	M6	10 Nm (7.4 lbf ft)
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- Remove the vehicle from the center stand. (📖 p. 134)



- Operate the front brake and compress the fork a few times firmly.
 ✓ The fork legs straighten.
- Tighten screws **8**.

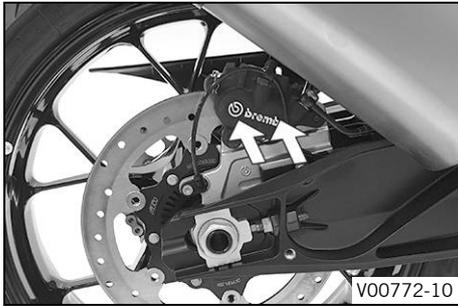
Guideline

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

15.3 Removing the rear wheel 🛠️

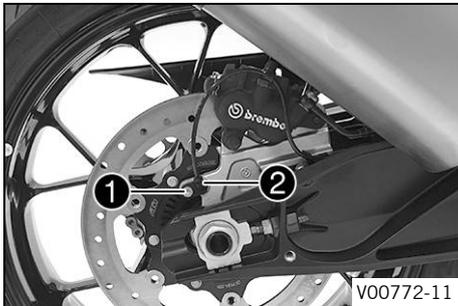
Preparatory work

- Raise the vehicle with the center stand. (📖 p. 134)

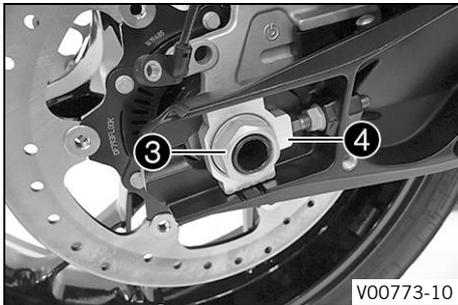


Main work

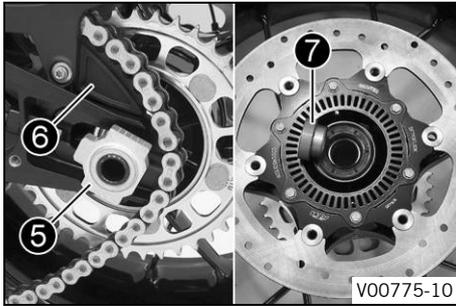
- Press the brake caliper onto the brake disc by hand in order to push back the brake pistons.



- Remove screw ① and pull wheel speed sensor ② out of the hole.



- Remove nut ③. Remove chain adjuster ④.



- Withdraw wheel spindle **5** only enough to allow the rear wheel to be pushed forward.
- Push the rear wheel forward as far as possible. Take the chain off of the rear sprocket and place it on chain sprocket guard **6**.



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.

- Holding the rear wheel, withdraw the wheel spindle. Take the rear wheel out of the swingarm.



Info

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

- Remove spacer **7**.

15.4 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.



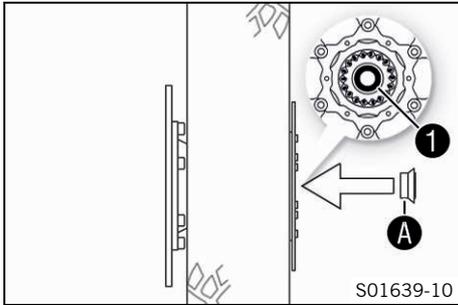
Warning

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.

- Check the rear hub rubber dampers.   p. 184)

15 WHEELS, TIRES



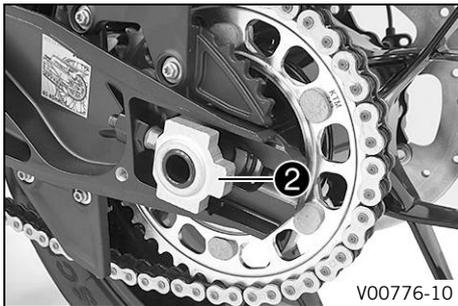
- Check the wheel bearing for damage and wear.
 - » If the wheel bearing is damaged or worn:
 - Change the rear wheel bearing. 🛠️
- Clean and grease shaft seal ring **1** and contact surface **A** of the spacer.

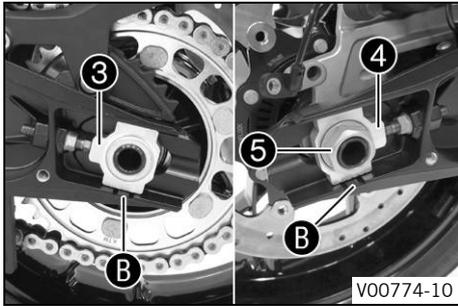
Long-life grease (🛠️ p. 248)

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

Long-life grease (🛠️ p. 248)

- Install the rubber dampers and rear sprocket carrier on the rear wheel.
- Place the rear wheel in the swingarm and bring the brake disc into contact with the brake caliper.
- Mount wheel spindle **2** but do not push it in all the way.
- Push the rear wheel forward as far as possible and lay the chain on the rear sprocket.





- Push the wheel spindle in all the way and mount chain adjuster 4 and nut 5.



Info

Mount chain adjusters 3 and 4 in the same position.

- Make sure that the chain adjusters are fitted correctly on the adjusting screws.

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 B.

- Tighten nut 5.

Guideline

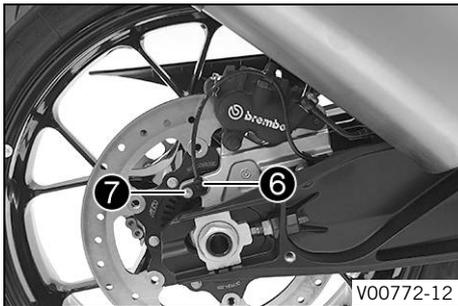
Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	Thread greased
-------------------------	---------	------------------------	----------------

- Position wheel speed sensor 6 in the drill hole.
- Mount and tighten screw 7.

Guideline

Remaining chassis screws	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.



15.5 Checking the rear hub rubber dampers

i Info

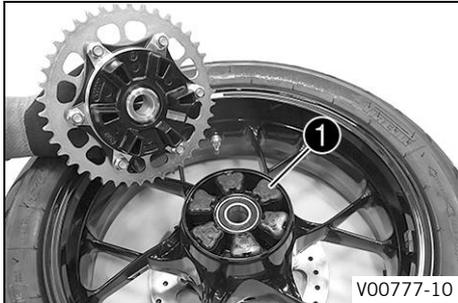
The engine power is transmitted from the rear sprocket to the rear wheel via 6 rubber dampers. The rubber dampers wear out during operation. If the rubber dampers are not changed in time, the rear sprocket carrier and the rear hub will be damaged.

Preparatory work

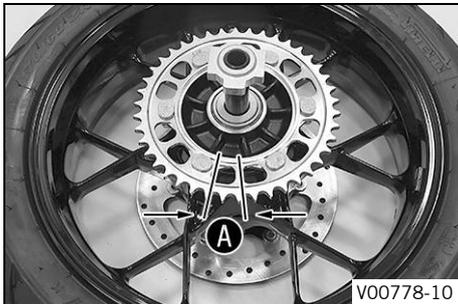
- Raise the vehicle with the center stand. (📖 p. 134)
- Remove the rear wheel. 🛠️ (📖 p. 179)

Main work

- Check rubber dampers ❶ of the rear hub for damage and wear.
 - » If the rubber dampers of the rear hub are damaged or worn:
 - Change all rubber dampers in the rear hub. 🛠️



V00777-10



V00778-10

- Lay the rear wheel on a workbench with the rear sprocket facing upwards and insert the wheel spindle in the hub.
- Check the rear sprocket play ❷.

i Info

Measure the play on the outside of the rear sprocket.

Play in rubber dampers, rear wheel	≤ 5 mm (≤ 0.2 in)
------------------------------------	-------------------

- » If clearance ❷ is larger than the specified value:

- Change all rubber dampers in the rear hub. 🛠️

Finishing work

- Install the rear wheel. 🛠️ (📖 p. 181)

15.6 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

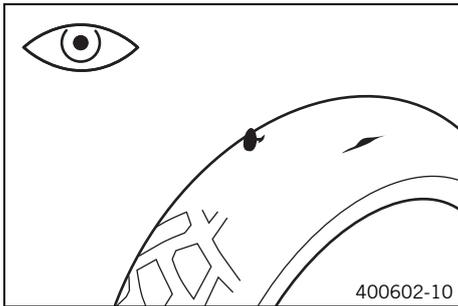
Danger of accidents New tires have reduced road grip. The contact surface on new tires is not yet roughened.

- Run in new tires with moderate riding at alternating angles.
Running-in phase

200 km (124 mi)

i **Info**

Tire type, tire condition, and tire air pressure influence the braking and handling characteristics of the vehicle. Worn tires are particularly unfavorable 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.

i **Info**

Adhere to the legally required minimum tread depth.

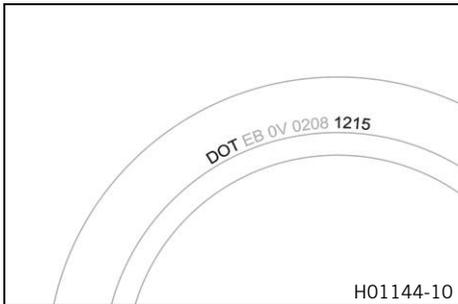
Minimum tread depth	≥ 2 mm (≥ 0.08 in)
---------------------	--------------------

- » If the tread depth is less than the minimum tread depth:
 - Change the tires. 🛠️
- Check the tire age.

i **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. 🛠️

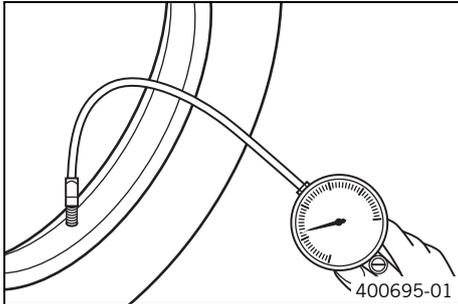


15.7 Checking the tire air pressure



Info

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

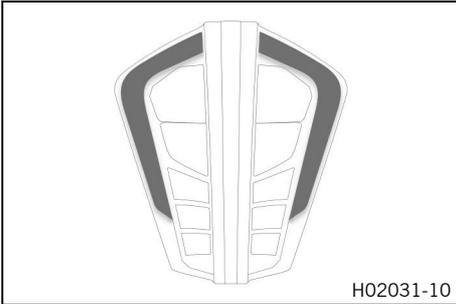


- Remove the dust cap.
- Check the tire air pressure when the tires are cold.

Tire air pressure, solo/with passenger/full payload	
Front: with cold tires	2.4 bar (35 psi)
Rear: with cold tires	2.9 bar (42 psi)

- » If the tire pressure does not meet specifications:
 - Correct the tire pressure.
- Mount the dust cap.

16.1 Daytime running light (DRL)



Warning

Danger of accidents When visibility is poor, the daytime running light is not a substitute for the low beam.

Automatic switching between the daytime running light and low beam may only be partially available when visibility is significantly impaired due to fog, snow or rain.

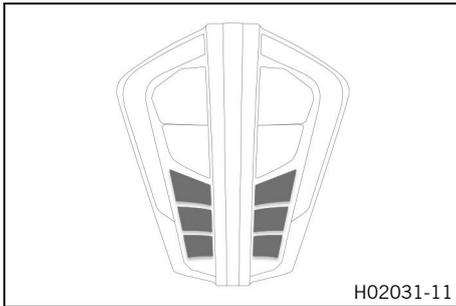
- Ensure that the appropriate type of lighting is always selected.
- If necessary switch off the daytime running lights using the menu before going on a ride or when stopped so that the low beam is switched on permanently.
- Note the legal regulations regarding the daytime running light.

The daytime running (DRL)/position light is integrated in the main headlight. The daytime running light is brighter than the position light.

The daytime running light must only be switched on when visibility conditions are good. Control is provided by the brightness sensor in the combination instrument. When visibility conditions are good, the low beam with position light is switched off and the daytime running light is switched on.

When the daytime running light is switched off, the low beam with position light lights up. On high beam or headlight flasher, the daytime running light changes automatically to the position light.

16.2 Cornering headlight



The cornering headlights are integrated in the main headlight.



Info

To activate the cornering light, the low beam must be switched on and the daytime running light switched off.

The cornering headlights are activated with:

Lean angle for the lower LED	$\geq 12^\circ$
Lean angle for the middle LED	$\geq 20^\circ$
Lean angle for the upper LED	$\geq 28^\circ$
Speed	$\geq 6 \text{ km/h}$ ($\geq 3.7 \text{ mph}$)

16.3 Removing the battery ↩



Warning

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

- Keep 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 battery.
- Only charge 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.



Caution

Danger of accidents Electronic components and safety devices will be damaged if the battery is discharged or missing.

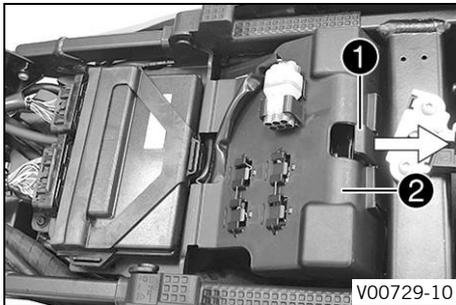
- Never operate the vehicle with a discharged battery or without a battery.

Preparatory work

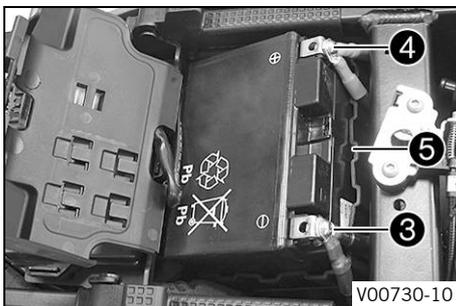
- Switch off all power consumers and switch off the engine.
- Remove the passenger seat. (📖 p. 135)
- Remove the front rider's seat. (📖 p. 136)

Main work

- Pull locking mechanism **1** in the direction of the arrow.
- Fold open cover **2**.



- Disconnect negative cable **3** from the battery.
- Disconnect positive cable **4** from the battery.
- Take the battery and battery case **5** out of the battery compartment.



16.4 Installing the battery ↴



Warning

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

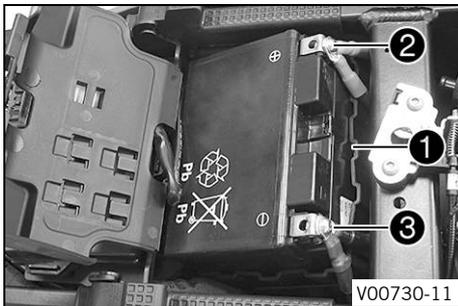
- Keep batteries out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Avoid contact with battery acid and battery gases.
- Keep sparks or open flames away from the battery.
- Only charge batteries in well-ventilated rooms.
- Rinse the affected area immediately with 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.



Caution

Danger of accidents Electronic components and safety devices will be damaged if the battery is discharged or missing.

- Never operate the vehicle with a discharged battery or without a battery.



Main work

- Position the battery in battery case ①.

Guideline

The even side of the battery case must be opposite the poles.

- Position the battery and battery case in the battery compartment.
- Position the positive cable ② and mount and tighten the screw.

Guideline

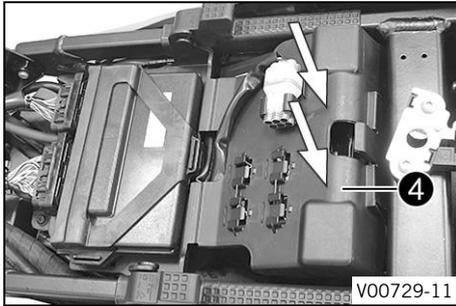
Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)
-------------------------	----	-------------------------

- Position the negative cable ③ and mount and tighten the screw.

Guideline

Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)
-------------------------	----	-------------------------

- Close the cover ④ and push down slightly.
✓ The cover engages with an audible click.



Finishing work

- Mount the front rider's seat. (📖 p. 137)
- Mount the passenger seat. (📖 p. 136)
- Set the time and date.

16.5 Recharging the battery ↴



Warning

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

- Keep 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 battery.
- Only charge 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.



Warning

Environmental hazard Batteries contain environmentally-hazardous materials.

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



Warning

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.

i Info

Even when there is no load on the battery, it discharges steadily.

The charge state and the type of charge are very important for the service life of the battery.

Rapid recharging with a high charging current shortens the service life of the battery.

If the charging current, charging voltage, and charging time are exceeded, electrolyte escapes through the safety valves. This reduces the battery capacity.

If the battery is depleted from starting the vehicle repeatedly, the battery must be charged immediately.

If the battery is left in a discharged state for an extended period, over-discharge and sulfating occurs, destroying the battery.

The battery is maintenance-free, i.e., the acid level does not have to be checked.

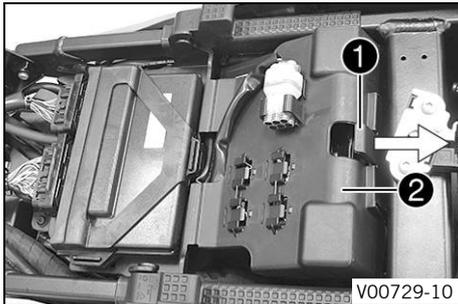
If the battery is not charged using the KTM battery charger, the battery must be removed for charging. Otherwise, overvoltage may damage electronic components. Charge the battery according to the instructions on the battery housing.

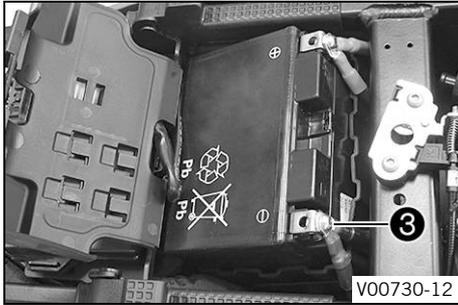
Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the passenger seat. (📖 p. 135)
- Remove the front rider's seat. (📖 p. 136)

Main work

- Pull locking mechanism **1** in the direction of the arrow.
- Fold open cover **2**.





- Disconnect both negative cables **3** of the battery to avoid damage to the motorcycle's electronics.



- Connect the battery charger to the battery. Switch on the battery charger.

Battery charger (58429074000)



Info

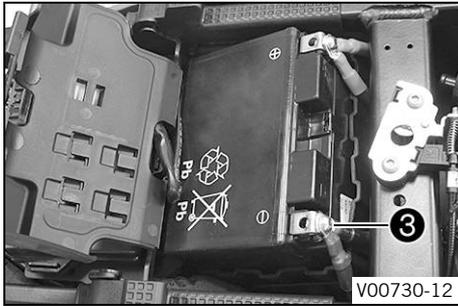
You can also use the battery charger to test the open-circuit voltage and start potential of the battery, and to test the alternator. With this device, you cannot overcharge the battery.

Charge the battery at no more than 10 % of the capacity specified on the battery housing.

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

Guideline

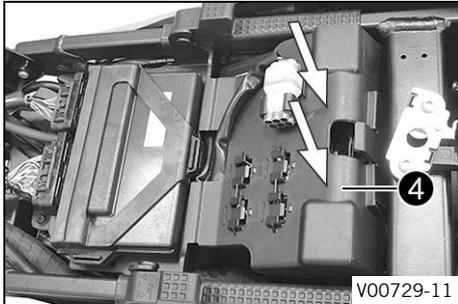
The charging current, charging voltage, and charging time must not be exceeded.	
Charge the battery regularly when the motorcycle is not in use	3 months



- Connect both negative cables ③ with the battery.

Guideline

Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)
-------------------------	----	-------------------------

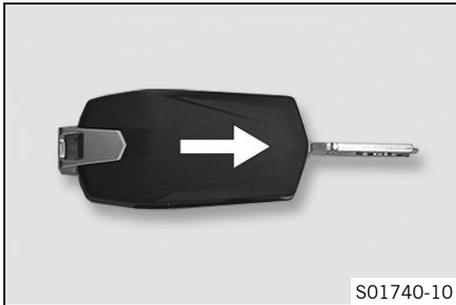


- Close cover ④ and push down slightly.
✓ The cover engages with an audible click.

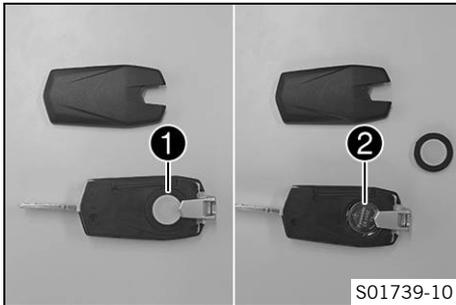
Finishing work

- Mount the front rider's seat. (📖 p. 137)
- Mount the passenger seat. (📖 p. 136)
- Set the time and date.

16.6 Changing the Race-on key battery



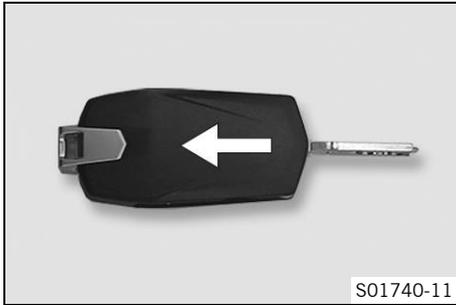
- Fold out the key bit of the Race-on key.
- Push the lower half of the Race-on key in the direction of the arrow and take off.



- Remove battery cover ①.
- Remove battery ②.
- Insert the new battery with the marking facing upward.

Battery for Race-on key (CR 2032) (📖 p. 235)

- Mount battery cover ①.



- Fit lower half of the Race-on key and snap into place in the direction of the arrow.

16.7 Changing the main fuse



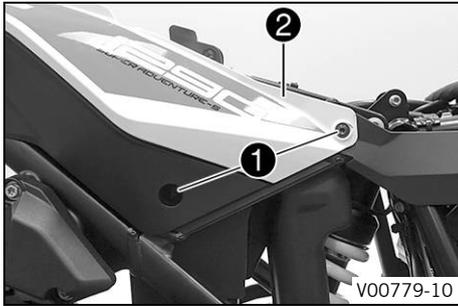
Warning

Fire hazard Incorrect fuses overload the electrical system.

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

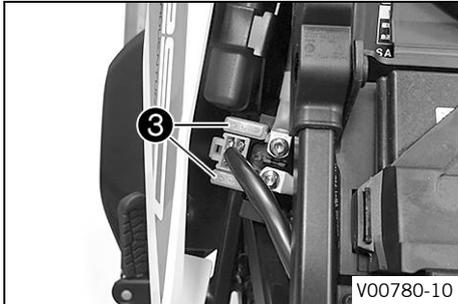
Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the passenger seat. (📖 p. 135)
- Remove the front rider's seat. (📖 p. 136)

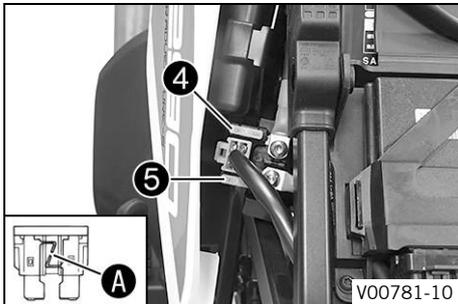


Main work

- Remove screws ①.
- Carefully raise rear fairing ② slightly.



- Take off protection caps ③.



- Remove faulty main fuse ④.

i Info

You can recognize a faulty fuse by a burned-out fuse wire **A**.
A spare fuse ⑤ is located in the starter relay.
The main fuse protects all power consumers of the vehicle.

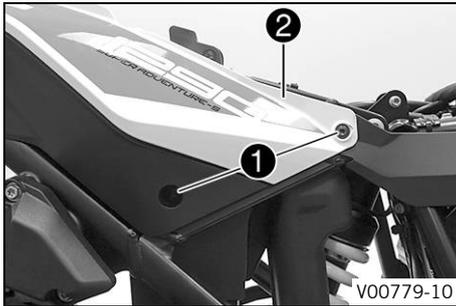
- Install a new main fuse.

Fuse (58011109130) (📖 p. 235)

- Check that the electrical system is functioning properly.
- Mount the protection caps.

**Tip**

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



- Position rear fairing ②.
- Mount and tighten screws ①.

Guideline

Screw, cover part	M5	3.5 Nm (2.58 lbf ft)
-------------------	----	-------------------------

Finishing work

- Mount the front rider's seat. (📖 p. 137)
- Mount the passenger seat. (📖 p. 136)
- Set the time and date.

16.8 Changing the fuses in the fuse box

**Warning**

Fire hazard Incorrect fuses overload the electrical system.

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



Info

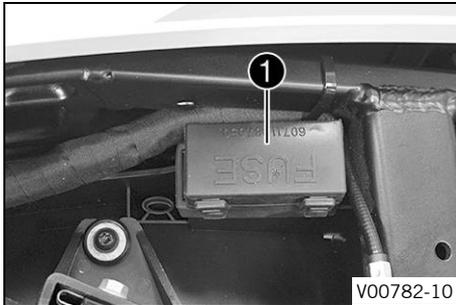
The fuse box containing the fuses of individual power consumers is located under the seat.

Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the passenger seat. (📖 p. 135)
- Remove the front rider's seat. (📖 p. 136)

Main work

- Open fuse box cover ❶.



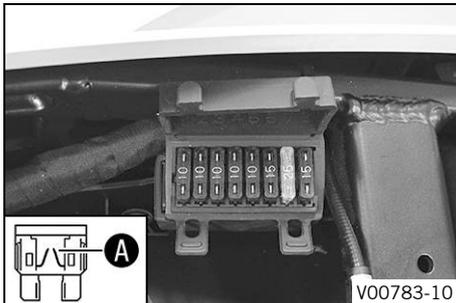
- Check the fuses.



Info

You can recognize a faulty fuse by a burned-out fuse wire **A**.

- Remove the defective fuse.



Guideline

Fuse 1 - 10 A - power supply for control units and components
Fuse 2 - 10 A - permanent positive for auxiliary equipment (ACC1), accessories connected with ignition for auxiliary equipment (ACC2)
Fuse 3 - 10 A - headlight control unit
Fuse 4 - 10 A - headlight control unit
Fuse 5 - 10 A - control unit
Fuse 6 - not assigned
Fuse 7 - 25 A - ABS return pump
Fuse 8 - 15 A - ABS hydraulic unit

- Use spare fuses with the correct rating only.

Fuse (58011109110) (📖 p. 235)
Fuse (58011109115) (📖 p. 235)
Fuse (58011109125) (📖 p. 235)



Tip

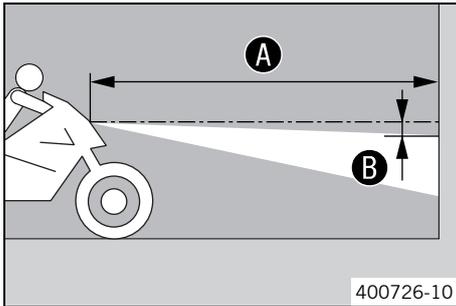
Insert a spare fuse so that it is available if needed.

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

Finishing work

- Mount the front rider's seat. (📖 p. 137)
- Mount the passenger seat. (📖 p. 136)

16.9 Checking the headlight setting



- Park the vehicle on a horizontal surface in front of a light-colored wall and make a mark at the height of the center of the low beam headlight.
- Make another mark at a distance **B** under the first mark.

Guideline

Distance B	5 cm (2 in)
-------------------	-------------

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

Guideline

Distance A	5 m (16 ft)
-------------------	-------------

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

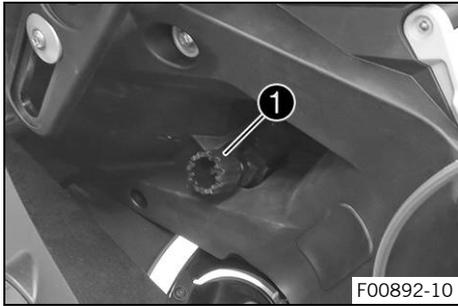
The light-dark boundary must lie exactly on the lower mark when the motorcycle is ready to operate with the rider mounted along with any luggage and a passenger if applicable.

- » If the boundary between light and dark does not meet specifications:
 - Adjust the headlight range. (📖 p. 203)

16.10 Adjusting the headlight range

Preparatory work

- Check the headlight setting. (📖 p. 203)



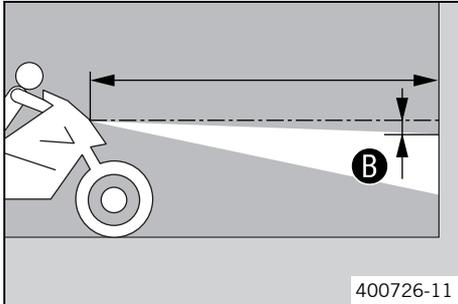
Main work

- Turn adjusting wheel **1** to adjust the headlight range.

i 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.

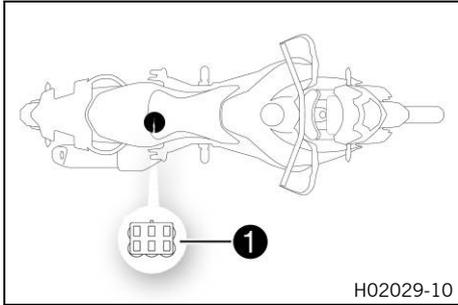


- Set the headlight to marking **B**.

Guideline

The light-dark boundary must lie exactly on lower mark **B** when the motorcycle is ready to operate with the rider mounted along with any luggage and a passenger if applicable.

16.11 Diagnostics connector



Diagnostics connector **1** is located under the front rider's seat.

17.1 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

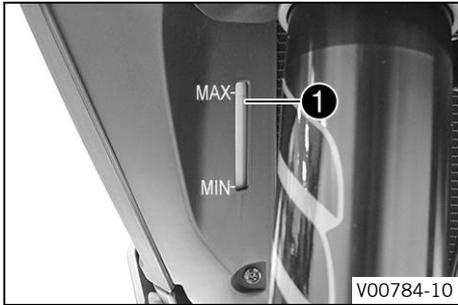
Danger of poisoning Coolant is toxic and a health hazard.

- 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.



- Park the motorcycle on a horizontal surface.
- Check the coolant level in the compensating tank ①.

The coolant level must be between **MIN** and **MAX**.

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

Info

Do not start up the motorcycle!

- Add coolant/bleed the cooling system. 🛠️
- » If the coolant in the compensating tank is not at the required level, but the tank is not empty:
 - Correct the coolant level in the compensating tank. (📖 p. 207)

17.2 Correcting 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

- Check the coolant level in the compensating tank. (📖 p. 206)
- Remove the front side cover. (📖 p. 150)



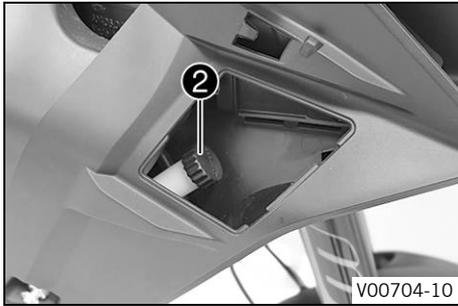
Info

Only disassemble the right-hand side.

Main work

- Remove cover ①.





- Remove cover ② of the compensating tank.



- Add coolant until the coolant reaches the specified level.

Guideline

The coolant level must be between **MIN** and **MAX**.

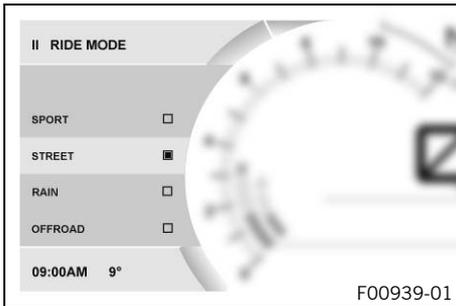
Coolant (📖 p. 245)

- Mount cover ② of the compensating tank.
- Mount cover ①.

Finishing work

- Install the front side cover. (📖 p. 150)

18.1 Ride Mode



Possible states

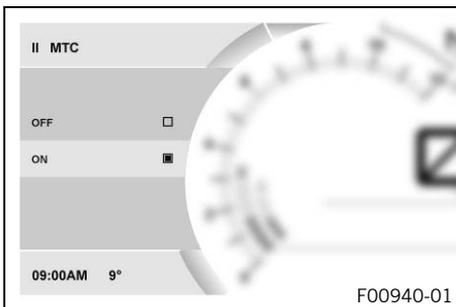
- **SPORT** – Homologated performance with very direct response; the traction control allows greater slip on the rear wheel.
- **STREET** – Homologated performance with balanced response; the traction control allows normal slip on the rear wheel.
- **RAIN** – Reduced homologated performance for better rideability; the traction control allows normal slip on the rear wheel.
- **OFFROAD** – Reduced homologated performance for better rideability; the traction control allows high slip on the rear wheel

Various vehicle tunings can be selected in the **Ride Mode** menu. **SPORT**, **STREET**, **RAIN** and **OFFROAD** are available.

The drive mode selected last is displayed in the combination instrument.

The drive mode can also be changed while riding with a closed throttle grip and deactivated speed sensor.

18.2 Motorcycle traction control (MTC)



The motorcycle traction control (**MTC**) lowers the engine torque in case of loss of traction in the rear wheel. Depending on the motorcycle traction control setting, a slight slip on the rear wheel may be desirable. Example: offroad.

Info

When motorcycle traction control is switched off, the rear wheel may spin during strong acceleration and on surfaces with low grip, resulting in a risk of crashing. After the ignition is switched back on, motorcycle traction control is enabled again.

The motorcycle traction control is controlled via the **Motorcycle** menu on the combination instrument. The traction control can be switched off in the **MTC** menu.



Info

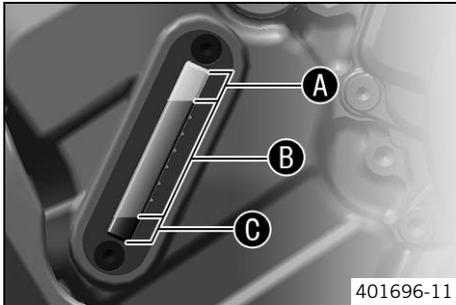
When the motorcycle traction control is active, the TC indicator lamp  flashes.
When motorcycle traction control is switched off, the TC indicator lamp  lights up.

19.1 Checking the engine oil level



Info

Oil consumption depends on the riding style and the operating conditions.



Condition

The engine is at operating temperature.

Preparatory work

- Stand the motorcycle upright on a horizontal surface.

Main work

- Check the engine oil level in the engine oil level viewer.



Info

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

The engine oil level should be in the upper part of the range **B** of the engine oil level viewer.

- » When the engine oil level is in area **A** of the engine oil level viewer:
 - Do not add engine oil.
- » When the engine oil level is in area **B** of the engine oil level viewer:
 - Engine oil can be added.
- » When the engine oil level is in area **C** of the engine oil level viewer:
 - Add engine oil. (🗨️ p. 217)

19.2 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.



Warning

Environmental hazard Hazardous substances cause environmental damage.

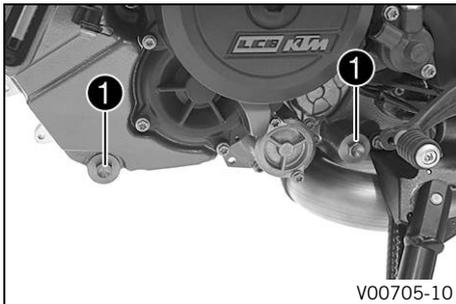
- Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Preparatory work

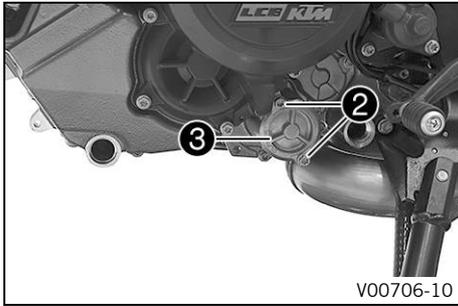
- Remove the engine guard. (📖 p. 163)

Main work

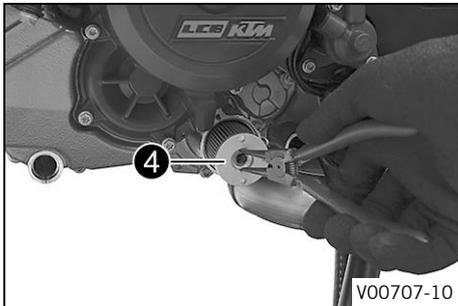
- Stand the motorcycle on its side stand on a horizontal surface.
- Place a suitable container under the engine.
- Remove oil drain plugs ❶ with the magnets, O-rings, and oil screens.



19 SERVICE WORK ON THE ENGINE



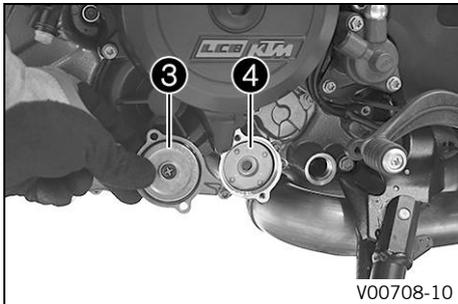
- Remove screws ②. Remove oil filter cover ③ with the O-ring.



- Pull oil filter ④ out of the oil filter housing.

Circlip pliers reverse (51012011000)

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



- Insert oil filter ④.

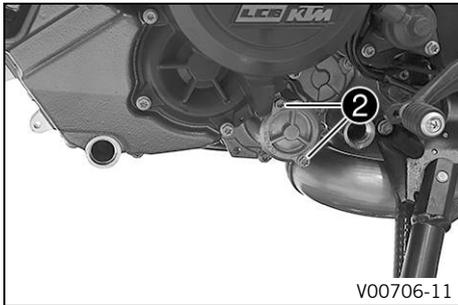


Info

Only insert the oil filter by hand.

- Lubricate the O-ring of the oil filter cover. Mount oil filter cover ③.

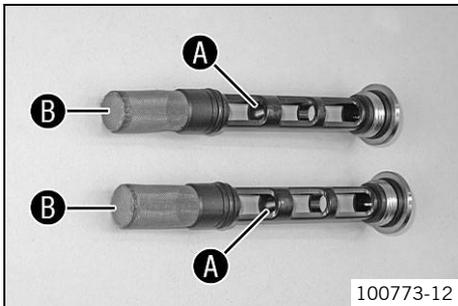
19 SERVICE WORK ON THE ENGINE



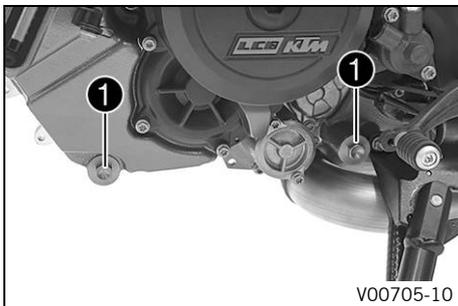
- Mount and tighten screws **2**.

Guideline

Remaining engine screws	M5	6 Nm (4.4 lbf ft)
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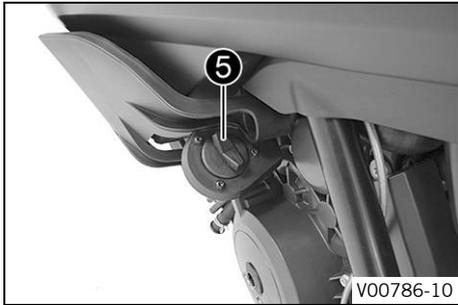
- Thoroughly clean magnets **A** and oil screens **B** of the oil drain plugs.



- Mount and tighten oil drain plugs **1** with the magnets, O-rings, and oil screens.

Guideline

Oil drain plug	M20x1.5	20 Nm (14.8 lbf ft)
----------------	---------	------------------------



- Add the oil quantity in two separate operations.

Engine oil	3.60 l (3.8 qt.)	Outside temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (📖 p. 246)
		Outside temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (📖 p. 246)

- Remove screw plug 5 and fill in engine oil.

Engine oil (1st quantity) approx.	3.0 l (3.2 qt.)	Outside temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (📖 p. 246)
		Outside temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (📖 p. 246)

- Mount screw plug 5.

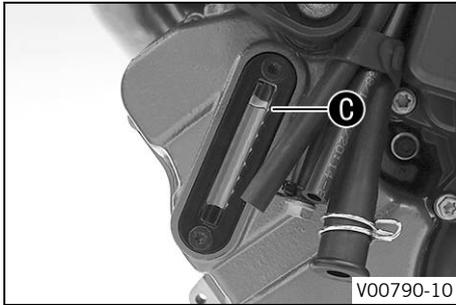


Danger

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 an effective exhaust extraction system when starting or running the engine in an enclosed space.

- Start the engine and check that it is oil-tight.



- Remove the screw plug and add the remaining engine oil to upper marking **C** on the engine oil level viewer.
- Mount the screw plug.



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 an effective exhaust extraction system when starting or running the engine in an enclosed space.
-
- Start the engine and check that it is oil-tight.

Finishing work

- Check the engine oil level. (📖 p. 212)
- Install the engine guard. (📖 p. 163)

19.3 Adding engine oil



Info

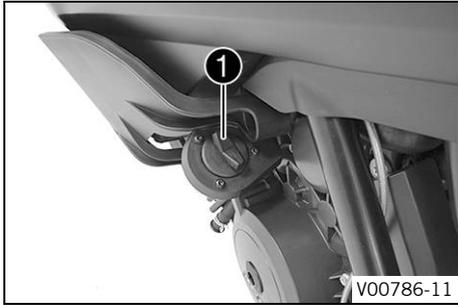
Too little engine oil or poor-quality engine oil results in premature wear to the engine. The engine may be damaged if the engine oil level is too high.

Condition

The engine is at operating temperature.

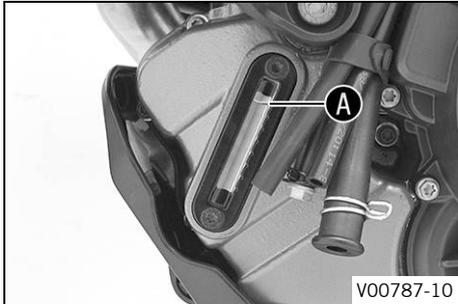
Preparatory work

- Stand the motorcycle upright on a horizontal surface.
- Check the engine oil level. (📖 p. 212)



Main work

- Remove screw plug ①.



- Add engine oil to the upper marking ① on the engine oil level viewer.

Condition

Outside temperature: $\geq 0\text{ }^{\circ}\text{C}$ ($\geq 32\text{ }^{\circ}\text{F}$)

Engine oil (SAE 10W/50) (📖 p. 246)

Condition

Outside temperature: $< 0\text{ }^{\circ}\text{C}$ ($< 32\text{ }^{\circ}\text{F}$)

Engine oil (SAE 5W/40) (📖 p. 246)



Info

In order to achieve optimal engine performance, it is not advisable to mix different engine oils.

KTM recommends changing the engine oil.

- Mount the screw plug.



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 an effective exhaust extraction system when starting or running the engine in an enclosed space.

-
- Start the engine and check that it is oil-tight.

Finishing work

- Check the engine oil level. (📖 p. 212)

20.1 Cleaning 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)



Warning

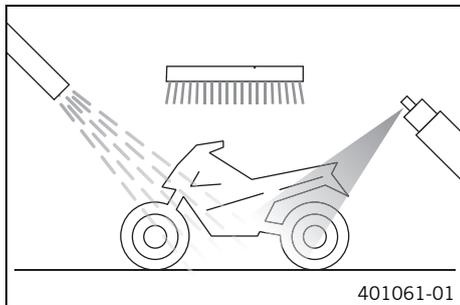
Environmental hazard Hazardous substances cause environmental damage.

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



Info

If you clean the motorcycle regularly, its value and appearance will be maintained over a long period. Avoid direct sunshine on the motorcycle during cleaning.



- Close off the exhaust system to keep water from entering.
- First remove coarse dirt particles with a gentle spray of water.
- Spray very dirty areas with a normal motorcycle cleaner and then clean with a brush.

Motorcycle cleaner (📖 p. 248)

i 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.

i Info

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

- Push back the protection caps of the handlebar controls to allow any water that has penetrated to evaporate.
- After the motorcycle has cooled off, lubricate all moving parts and bearings.
- Clean the chain. (📖 p. 138)

- Treat bare metal parts (except for brake discs and exhaust system) with corrosion inhibitor.

Preserving materials for paints, metal and rubber (📖 p. 249)

- Treat the painted parts with a mild paint polish.

Perfect Finish and high gloss polish for paints (📖 p. 249)



Info

Do not polish plastic parts that are matte when the vehicle is delivered as this would seriously impair the material quality.

- Treat the 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. 249)

- Oil the ignition/steering lock, tank lock, and seat lock.

Universal oil spray (📖 p. 249)

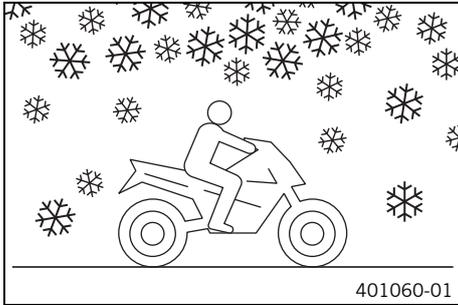
20.2 Checks and maintenance steps for winter operation



Info

If you use the motorcycle in winter, you must expect salt on the roads. You should therefore take precautions against aggressive road salt.

If the vehicle was operated in road salt, clean it with cold water after riding. Warm water would enhance the corrosive effects of salt.



- Clean the motorcycle. (📖 p. 220)
 - Clean the brakes.
-



Info

After **EVERY** trip on salted roads, thoroughly wash the brake calipers and brake linings with cold water and dry carefully. This should be done after the parts are cooled down and while they are installed.

After riding on salted roads, thoroughly wash the motorcycle with cold water and dry it well.

- Treat the engine, the swingarm, and all other bare or galvanized parts (except brake discs) with a wax-based corrosion inhibitor.
-



Info

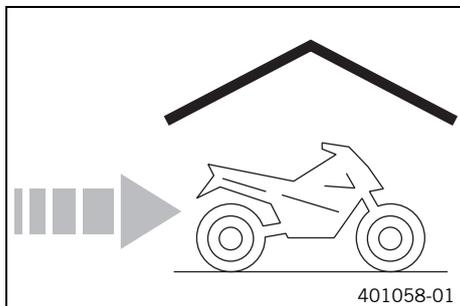
Corrosion inhibitor must not come into contact with the brake discs. This would severely lower the braking effect.

- Clean the chain. (📖 p. 138)

21.1 Storage

i 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. 248)

- Refuel. (📖 p. 126)
- Clean the motorcycle. (📖 p. 220)
- Change the engine oil and oil filter and clean the oil screens. 🛠️ (📖 p. 213)
- Check the coolant fill level and antifreeze. 🛠️
- Check the tire air pressure. (📖 p. 187)
- Remove the battery. 🛠️ (📖 p. 189)

Guideline

Storage temperature of battery without direct sunshine	0... 35 °C (32... 95 °F)
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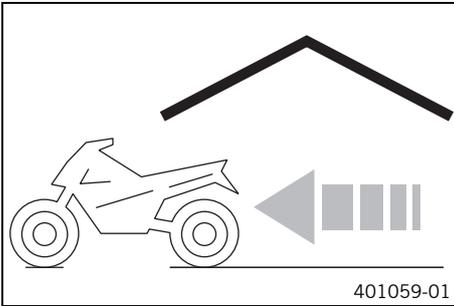
- Recharge the battery. 🛠️ (📖 p. 193)
- Store the vehicle in a dry location that is not subject to large fluctuations in temperature.
- Raise the vehicle with the center stand. (📖 p. 134)
- Cover the vehicle with a tarp or similar cover that is permeable to air.

i **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.

21.2 Preparing for use after storage



- Remove the vehicle from the center stand. (📖 p. 134)
- Install the battery. 🛠️ (📖 p. 191)

i **Info**

If the battery was removed, the time and date must be set.

- Perform checks and maintenance measures when preparing for use. (📖 p. 112)
- Take a test ride.

Faults	Possible cause	Action
The combination instrument shows nothing on the display	Fuse 1 blown	– Change the fuses in the fuse box. (📖 p. 200)
	Main fuse burned out	– Change the main fuse. (📖 p. 198)
	The battery is discharged	– Recharge the battery. 🛡️ (📖 p. 193) – Check the open-circuit current. 🛡️
The engine does not turn if the emergency OFF switch/electric starter button is pressed into the lower position	Operating error	– Carry out the start procedure. (📖 p. 113)
	The battery is discharged	– Recharge the battery. 🛡️ (📖 p. 193) – Check the open-circuit current. 🛡️
	Safety start system is faulty	– Read out the fault memory using the KTM diagnostics tool. 🛡️
	Electronic fault	– Read out the fault memory using the KTM diagnostics tool. 🛡️
Engine turns only if the clutch lever is drawn	The vehicle is in gear	– Shift the transmission to idle N .
	Safety start system is faulty	– Read out the fault memory using the KTM diagnostics tool. 🛡️
Engine turns although a gear is engaged	Safety start system is faulty	– Read out the fault memory using the KTM diagnostics tool. 🛡️
Engine turns but does not start	The plug-in connection of the fuel hose connection is not connected	– Connect the plug-in connection of the fuel line.
	Fault in fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🛡️
	Fuel quality is insufficient	– Add suitable fuel.
Engine dies during the trip	Lack of fuel	– Refuel. (📖 p. 126)
	Fault in fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🛡️
Malfunction indicator lamp lights up or flashes	Fault in fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🛡️

Faults	Possible cause	Action
The ABS indicator lamp lights up	ABS fuse is blown	– Change the fuses in the fuse box. (📖 p. 200)
	Wheel speeds of front and rear wheels differ greatly	– Stop, switch off the ignition, start again.
	Malfunction in ABS	– Read out the fault memory using the KTM diagnostics tool. 🛠️
High oil consumption	Engine oil level too high	– Check the engine oil level. (📖 p. 212)
	Engine oil too thin (low viscosity)	– Change the engine oil and oil filter and clean the oil screens. 🛠️ (📖 p. 213)
The battery is discharged	A power consumer is connected to the socket/ACC1.	– Disconnect the power consumer from the socket/ACC1. – Recharge the battery. 🛠️ (📖 p. 193)
	The hazard warning flasher is switched on	– Switch off the hazard warning flasher. – Recharge the battery. 🛠️ (📖 p. 193)
	Battery is not charged by alternator	– Check the charging voltage. 🛠️
	Ignition was not switched off when vehicle was parked	– Recharge the battery. 🛠️ (📖 p. 193)

23.1 engine

Design	2-cylinder 4-stroke Otto engine, 75° V arrangement, water-cooled
Displacement	1,301 cm ³ (79.39 cu in)
Stroke	71 mm (2.8 in)
Bore	108 mm (4.25 in)
Compression ratio	13.1:1
Idle speed	1,300... 1,500 rpm
Control	DOHC, 4 valves per cylinder, chain-driven
Valve - valve plate diameter	
Intake	42 mm (1.65 in)
Exhaust	34 mm (1.34 in)
Valve clearance	
Exhaust at: 20 °C (68 °F)	0.25... 0.30 mm (0.0098... 0.0118 in)
Intake at: 20 °C (68 °F)	0.10... 0.15 mm (0.0039... 0.0059 in)
Crankshaft bearing	Sleeve bearing
Conrod bearing	Sleeve bearing
Piston	Forged light alloy
Piston ring	1 upper compression (rectangular) ring, 1 lower compression ring, 1 oil scraper ring
Engine lubrication	Pressure circulation lubrication with three rotary pumps
Primary transmission	40:76
Clutch	Antihopping clutch in oil bath/hydraulically operated
Transmission	6-speed claw gears
Transmission ratio	

1st gear	12:35
2nd gear	15:32
3rd gear	18:30
4th gear	20:27
5th gear	24:27
6th gear	35:32
Mixture preparation	Electronically controlled fuel injection
Ignition system	Contactless controlled fully electronic ignition with digital ignition adjustment
Alternator	12 V, 450 W
Spark plug	
Inside spark plug	NGK LKAR9BI-10
Outside spark plug	NGK LMAR7DI-10
Electrode gap, spark plug	1.0 mm (0.039 in)
Cooling	Water cooling, permanent circulation of coolant by water pump
Cold start device	Electric starter

23.2 Engine tightening torques

Screw, damping plate	EJOT ALtracs® M6x14	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, retaining bracket, valve cover, rear	EJOT ALtracs® M6x10	10 Nm (7.4 lbf ft)	–
Hose clip, intake flange	M4	1.5 Nm (1.11 lbf ft)	–
Oil nozzle	M5	2 Nm (1.5 lbf ft)	Loctite® 243™
Remaining engine screws	M5	6 Nm (4.4 lbf ft)	–
Screw, bearing retainer	M5	6 Nm (4.4 lbf ft)	Loctite® 243™

Screw, bearing shells retaining bracket	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, engine oil level viewer	M5	4 Nm (3 lbf ft)	–
Screw, gear sensor	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, pulse generator	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Swing angle sensor screw	M5	5 Nm (3.7 lbf ft)	Loctite® 243™
Bleeder screw, water pump cover	M6	10 Nm (7.4 lbf ft)	–
Freewheel ring bolt	M6 – 10.9	15 Nm (11.1 lbf ft)	Loctite® 648™
Nut, cylinder head	M6	9 Nm (6.6 lbf ft)	–
Plug, vacuum connection	M6	5 Nm (3.7 lbf ft)	Loctite® 243™
Remaining engine screws	M6	10 Nm (7.4 lbf ft)	–
Screw, camshaft bearing support	M6 – 10.9	10 Nm (7.4 lbf ft)	–
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch spring	M6	12 Nm (8.9 lbf ft)	–
Screw, coolant connection on cylinder head	M6	8 Nm (5.9 lbf ft)	Loctite® 243™
Screw, engine case	M6x60	10 Nm (7.4 lbf ft)	–
Screw, engine case	M6x80	10 Nm (7.4 lbf ft)	–
Screw, engine case	M6x90	10 Nm (7.4 lbf ft)	–
Screw, freewheel holder	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, locking lever	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, oil pump cover	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, shift drum locating	M6	18 Nm (13.3 lbf ft)	Loctite® 243™
Screw, shift lever	M6	18 Nm (13.3 lbf ft)	Loctite® 243™
Screw, starter motor	M6	10 Nm (7.4 lbf ft)	–
Screw, stator	M6	10 Nm (7.4 lbf ft)	Loctite® 243™

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™
Stud, chain shaft	M6	8 Nm (5.9 lbf ft)	–
Nozzle 100	M6x0.75	4 Nm (3 lbf ft)	Loctite® 243™
Plug, crankshaft retainer	M8	15 Nm (11.1 lbf ft)	–
Screw, camshaft bearing support	M8 – 10.9	Step 1 10 Nm (7.4 lbf ft) Step 2 18 Nm (13.3 lbf ft)	–
Screw, camshaft bearing support	M8 – 10.9	Step 1 8.5 Nm (6.27 lbf ft) Step 2 14.5 Nm (10.7 lbf ft)	Only applies when using: Hex key bit (61229025000)
Screw, engine case	M8	18 Nm (13.3 lbf ft)	–
Screw, timing chain guide rail	M8	15 Nm (11.1 lbf ft)	Loctite® 243™
Stud, exhaust flange	M8	10 Nm (7.4 lbf ft)	–
Timing chain tensioning rail screw	M8	15 Nm (11.1 lbf ft)	Loctite® 243™
Screw, engine bearer	M10	45 Nm (33.2 lbf ft)	–
Oil pressure sensor	M10x1	10 Nm (7.4 lbf ft)	–
Plug, cam lever axis	M10x1	15 Nm (11.1 lbf ft)	–
Plug, clutch lubrication	M10x1	10 Nm (7.4 lbf ft)	–
Screw plug, spreading transmission lock	M10x1	12 Nm (8.9 lbf ft)	–

Screw, conrod bearing	M10x1	Step 1 25 Nm (18.4 lbf ft) Step 2 30 Nm (22.1 lbf ft) Step 3 90°	–
Screw, timing chain tensioner release	M10x1	10 Nm (7.4 lbf ft)	–
Spark plug	M10x1	11 Nm (8.1 lbf ft)	–
Cylinder head screw	M11x1.5	Tightening sequence: Using a crisscross pattern Step 1 15 Nm (11.1 lbf ft) Step 2 30 Nm (22.1 lbf ft) Step 3 90° Step 4 90°	Lubricated with engine oil
Coolant temperature sensor	M12x1.5	12 Nm (8.9 lbf ft)	–
Rotor screw	M12x1.5	115 Nm (84.8 lbf ft)	–
Spark plug	M12x1.5	18 Nm (13.3 lbf ft)	–
Nut of engine sprocket	M20x1.5	100 Nm (73.8 lbf ft)	Loctite® 243™
Oil drain plug	M20x1.5	20 Nm (14.8 lbf ft)	–
Nut, inner clutch hub	M22x1.5	120 Nm (88.5 lbf ft)	Loctite® 243™
Plug, timing-chain tensioner	M24x1.5	25 Nm (18.4 lbf ft)	–
Screw in alternator cover	M24x1.5	8 Nm (5.9 lbf ft)	–
Nut, primary gear	M33LHx1.5	130 Nm (95.9 lbf ft)	Loctite® 243™

23.3 Capacities

23.3.1 Engine oil

Engine oil	3.60 l (3.8 qt.)	Outside temperature: ≥ 0 °C (≥ 32 °F)	Engine oil (SAE 10W/50) (📖 p. 246)
		Outside temperature: < 0 °C (< 32 °F)	Engine oil (SAE 5W/40) (📖 p. 246)

23.3.2 Coolant

Coolant	2.40 l (2.54 qt.)	Coolant (📖 p. 245)
---------	-------------------	--------------------

23.3.3 Fuel

Fuel reserve, approx.	3.5 l (3.7 qt.)	
Total fuel tank capacity, approx.	23 l (6.1 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 247)

23.4 Chassis

Frame	Lattice frame made of chrome molybdenum steel tubing, powder-coated	
Fork	WP Performance Systems Semi-active Suspension	
Shock absorber	WP Performance Systems Semi-active Suspension	
Suspension travel		
Front	200 mm (7.87 in)	
Rear	200 mm (7.87 in)	
Brake system		

Front	Double disc brake with radially mounted four-pot brake calipers, floating brake discs
Rear	Single disc brake with dual-piston brake caliper, floating brake disc
Brake discs - diameter	
Front	320 mm (12.6 in)
Rear	267 mm (10.51 in)
Brake discs - wear limit	
Front	4 mm (0.16 in)
Rear	4.5 mm (0.177 in)
Tire air pressure, solo/with passenger/full payload	
Front: with cold tires	2.4 bar (35 psi)
Rear: with cold tires	2.9 bar (42 psi)
Secondary drive ratio	17:42
Chain	5/8 x 5/16" (525) X-ring
Steering head angle	64°
Wheelbase	1,560±15 mm (61.42±0.59 in)
Seat height, unloaded	860/875 mm (860/875 in)
Ground clearance, unloaded	220 mm (8.66 in)
Weight without fuel, approx.	226.4 kg (499.1 lb.)
Maximum permissible front axle load	175 kg (386 lb.)
Maximum permissible rear axle load	300 kg (661 lb.)
Maximum permissible total weight	460 kg (1,014 lb.)

23.5 Electrical system

Battery	YTZ14S	Battery voltage: 12 V Nominal capacity: 11.2 Ah maintenance-free
Battery for Race-on key	CR 2032	3 V
Fuse	58011109110	10 A
Fuse	58011109115	15 A
Fuse	58011109125	25 A
Fuse	58011109130	30 A

Low beam	LED
High beam	LED
Parking light	LED
Cornering light	LED
Instrument lights and indicator lamps	LED
Turn signal	LED
Tail light	LED
Brake light	LED
License plate lamp	LED

23.6 Tires

Front tires	Rear tires
120/70 ZR 19 M/C 60W TL Pirelli Scorpion Trail 2 K	170/60 ZR 17 M/C 72W TL Pirelli Scorpion Trail 2 K
The tires specified represent one of the possible series production tires. Additional information is available in the Service section under: http://www.ktm.com	

23.7 Fork

Fork article number	14.18.1Q.26	
Fork	WP Performance SystemsSemi-active Suspension	
Spring length with preload spacer(s)	443 mm (17.44 in)	
Spring rate		
Medium (standard)	12 N/mm (69 lb/in)	
Fork length	885 mm (34.84 in)	
Fork oil, fork leg, left	680 ml (22.99 fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 247)
Fork oil, fork leg, right	430 ml (14.54 fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 247)

23.8 Shock absorber

Shock absorber article number	01.18.1Q.26	
Shock absorber	WP Performance SystemsSemi-active Suspension	
Spring rate		
Medium (standard)	160 N/mm (914 lb/in)	
Spring length	198.5 mm (7.815 in)	

Static sag	25 mm (0.98 in)
------------	-----------------

23.9 Chassis tightening torques

Screw, combination switch, left		5 Nm (3.7 lbf ft)	–
Screw, headlight	EJOT ALtracs® 60x20	10 Nm (7.4 lbf ft)	–
Screw, headlight holder	EJOT ALtracs® 50x12	7 Nm (5.2 lbf ft)	–
Screw, fixed grip, left	M4	2 Nm (1.5 lbf ft)	–
Screw, side stand switch	M4	2 Nm (1.5 lbf ft)	–
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)	–
Screw for throttle grip	M5	3.5 Nm (2.58 lbf ft)	–
Screw, brake line holder on frame	M5	2 Nm (1.5 lbf ft)	–
Screw, brake line holder on swingarm	M5	5 Nm (3.7 lbf ft)	–
Screw, cable channel	M5	5 Nm (3.7 lbf ft)	–
Screw, cable guide, wheel speed sensor, rear	M5	3 Nm (2.2 lbf ft)	–
Screw, chain sliding guard	M5	5 Nm (3.7 lbf ft)	–
Screw, combination instrument	M5	4.5 Nm (3.32 lbf ft)	–
Screw, combination switch, right	M5	5 Nm (3.7 lbf ft)	–
Screw, cover part	M5	3.5 Nm (2.58 lbf ft)	–
Screw, cross member for luggage support (Super Adventure S EU/AU/CN)	M5	4 Nm (3 lbf ft)	–
Screw, filler cap	M5	3 Nm (2.2 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, heat guard on main silencer	M5	4 Nm (3 lbf ft)	–

Screw, wind shield	M5	3.5 Nm (2.58 lbf ft)	–
Ground fitting on frame	M6	6 Nm (4.4 lbf ft)	–
Nut, ABS unit fixation	M6	8 Nm (5.9 lbf ft)	–
Remaining chassis nuts	M6	10 Nm (7.4 lbf ft)	–
Remaining chassis screws	M6	10 Nm (7.4 lbf ft)	–
Screw, angle sensor	M6	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, battery terminal	M6	4.5 Nm (3.32 lbf ft)	–
Screw, bushing	M6	4 Nm (3 lbf ft)	–
Screw, cable channel	M6	5 Nm (3.7 lbf ft)	–
Screw, chain guide	M6	5 Nm (3.7 lbf ft)	–
Screw, clutch assembly	M6	5 Nm (3.7 lbf ft)	–
Screw, cooler retaining bracket	M6	7 Nm (5.2 lbf ft)	–
Screw, cover part	M6	6 Nm (4.4 lbf ft)	–
Screw, engine guard	M6	10 Nm (7.4 lbf ft)	–
Screw, exhaust clamp	M6	8 Nm (5.9 lbf ft)	–
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	Loctite® 243™
Screw, fuel pump	M6	6 Nm (4.4 lbf ft)	–
Screw, fuel tank	M6	10 Nm (7.4 lbf ft)	–
Screw, fuel tap	M6	6 Nm (4.4 lbf ft)	–
Screw, lower rear part	M6	6 Nm (4.4 lbf ft)	–
Screw, magnetic holder on side stand	M6	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	Loctite® 243™

Screw, retaining bracket, angle sensor	M6	10 Nm (7.4 lbf ft)	–
Screw, voltage regulator	M6	6 Nm (4.4 lbf ft)	–
Screw, wheel speed sensor, front	M6	10 Nm (7.4 lbf ft)	–
Screw, wheel speed sensor, rear	M6	10 Nm (7.4 lbf ft)	–
Angled valve (Super Adventure S EU/AU/CN)	M8	6 Nm (4.4 lbf ft)	–
Angled valve (Super Adventure S JP)	M8	4 Nm (3 lbf ft)	–
Remaining chassis nuts	M8	25 Nm (18.4 lbf ft)	–
Remaining chassis screws	M8	25 Nm (18.4 lbf ft)	–
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)	–
Screw, exhaust clamp	M8	25 Nm (18.4 lbf ft)	–
Screw, foot brake lever	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, fork stub	M8	15 Nm (11.1 lbf ft)	–
Screw, front footrest bracket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, ignition lock (tamper-proof screw)	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, rail fitting (Super Adventure S EU/AU/CN)	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
Screw, rear footrest bracket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, steering damper	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, steering damper clamp	M8	12 Nm (8.9 lbf ft)	–
Screw, steering stem	M8	20 Nm (14.8 lbf ft)	–
Screw, suitcase hook	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)	–

23 TECHNICAL DATA

Engine carrying screw	M10	45 Nm (33.2 lbf ft)	–
Remaining chassis nuts	M10	45 Nm (33.2 lbf ft)	–
Remaining chassis screws	M10	45 Nm (33.2 lbf ft)	–
Screw, front brake caliper	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	Loctite® 243™
Screw, side stand	M10	35 Nm (25.8 lbf ft)	Loctite® 243™
Screw, side stand bracket	M10	45 Nm (33.2 lbf ft)	Loctite® 243™
Banjo bolt, brake line	M10x1	25 Nm (18.4 lbf ft)	–
Nut, rear sprocket screw	M10x1.25	50 Nm (36.9 lbf ft)	Loctite® 243™
Lambda sensor	M12x1.25	25 Nm (18.4 lbf ft)	–
Screw, bottom shock absorber	M14x1.5	80 Nm (59 lbf ft)	Thread greased
Screw, top shock absorber	M14x1.5	80 Nm (59 lbf ft)	Thread greased
Nut, socket	M18x1	4 Nm (3 lbf ft)	–
Nut, swingarm pivot	M19x1.5	130 Nm (95.9 lbf ft)	Thread greased
Screw, steering head, top	M22x1.5	18 Nm (13.3 lbf ft)	–
Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft)	Thread greased
Screw, front wheel spindle	M25x1.5	45 Nm (33.2 lbf ft)	Thread greased

24.1 EU declaration of conformity



Info

The functional and equipment scope is model-dependent and may not include all wireless systems referred to.

COBO SpA hereby declares that the **BT-ROUTER** wireless system conforms with the relevant guidelines. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: <http://www.ktm.com/btrouter>

KTM AG hereby declares that the **KTM RACE ON system** wireless system conforms with the relevant guideline. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: <http://www.ktm.com/ktm-race-on-system>

KTM AG hereby declares that the **LC8 DASHBOARD** wireless system conforms with the relevant guideline. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: <http://www.ktm.com/lc8-dashboard>

Schrader Electronics Ltd hereby declares that **Tyre Pressure Monitoring Sensor "BC5A4"** wireless system conforms with the relevant guideline. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: <http://www.ktm.com/tpms>

Schrader Electronics Ltd hereby declares that **Tyre Pressure Monitoring Sensor "RDC3"** wireless system conforms with the relevant guideline. The full text of the EU Declaration of Conformity is available at the following Internet address.

Certification website: <http://www.ktm.com/tpms>

24.2 FCC declaration of conformity



Info

The functional and equipment scope is model-dependent and may not include all wireless systems referred to.

24 DECLARATIONS OF CONFORMITY

BT-ROUTER

FCC ID: Z64-2564N

IC: 4511-2564N

KTM RACE ON system - Active Key

FCC ID: VFZKLGKZADIO1

IC: 22239-KLGKZADIO1

KTM RACE ON system - Main Unit

FCC ID: VFZKLGKZADIO1

IC: 22239-KLGMZADIO1

LC8 DASHBOARD

FCC ID: 2AKP9-LC8CLUSTER1

IC: 22273-LC8CLUSTER1

Tyre Pressure Monitoring Sensor "BC5A4"

FCC ID: MRXBC5A4

IC: 2546A-BC5A4

Tyre Pressure Monitoring Sensor "RDC3"

FCC ID: MRXRDC3

IC: 2546A-RDC3

Warning

This device complies with article 15 of the FCC regulations.

Operation is subject to the following two conditions:

- 1 This device must not cause harmful interference.
- 2 This device must be able to absorb any received interference, including interference that potentially causes undesirable operation.

This equipment has been tested and complies with the limits for Class B digital devices, in accordance with article 15 of the FCC regulations. These limits are designed to provide satisfactory protection against harmful interference in residential areas. Devices of this type generate and use as well as also transmit radio frequencies. Therefore, if they are not installed and operated in accordance with the instructions, they may cause harmful interference to radio reception. However, there is no guarantee that interference will not occur in certain cases of application. Should this device cause harmful interference to radio or television reception, (check this by switching the device on and off), you can potentially eliminate this interference as follows:

24 DECLARATIONS OF CONFORMITY

- Re-align the receiving antenna.
- Increase the separation between device and radio receiver.
- Connect the device and the radio receiver to separate electric circuits.
- Consult your dealer or a radio/TV technician.

Alterations and modifications not expressly approved by the relevant authority may result in the user being prohibited from operating the equipment.

25.1 Information on open source software

Some vehicle components use open source software.

The source code of the software used and other information are available online.

Overview: <http://www.ktm.com/ktm-oss>



Info

Due to the file size, the download may take a long time.

Depending on the Internet provider, costs may arise due to the data volume.

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 MA (📖 p. 250)
- SAE (📖 p. 250) (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

Engine oil (SAE 5W/40)

Standard/classification

- JASO T903 MA (📖 p. 250)
- SAE (📖 p. 250) (SAE 5W/40)

Guideline

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

Synthetic engine oil

Recommended supplier

Motorex®

- Power Synt 4T

Fork oil (SAE 4) (48601166S1)

Standard/classification

- SAE (📖 p. 250) (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

Chain lube for road use

Guideline

Recommended supplier

Motorex®

- Chainlube Road

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 Polish & 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

Universal oil spray

Recommended supplier

Motorex®

- Joker 440 Synthetic

JASO T903 MA

Different technical development directions required a separate specification for 4-stroke motorcycles – the **JASO T903 MA** standard. Earlier, engine oils from the automobile industry were used for 4-stroke 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 the clutch are lubricated with the same oil.

The **JASO MA** 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	ABS	Safety system that prevents locking of the wheels when driving straight ahead without the influence of lateral forces
ATIR	Automatic Turn Indicator Reset	Software, which automatically switches the indicator off according to a time or travel distance counter
DRL	Daytime Running Light	Light, which enhances the visibility of the vehicle during the day but is not focused, and in contrast to low beam does not illuminate the road surface
HHC	Hill Hold Control	Assist, which prevents the vehicle from rolling backwards on an incline
	KTM RACE ON	System which releases ignition, steering lock and filler cap via a remote key with transponder
MSR	Motor Slip Regulation	Auxiliary function of the motor control, which prevents rear wheel locking with excessive engine braking effect, by lightly opening the throttle valve
MSC	Motorcycle Stability Control	The is an auxiliary function for the ABS, which can prevent blocking and slipping of the wheels during braking on an inclined position, within the physical limitations
MTC	Motorcycle Traction Control	Auxiliary function of the motor control that reduces engine torque with spinning rear wheel
OBD	On-board diagnosis	Vehicle system that monitors emission- and safety-related values
	Quickshifter+	Engine electronics function for shifting up and down without clutch actuation
TPMS	Tire Pressure Monitoring System	Safety system, which monitors tire air pressure, with the help of sensors in the tire, and displays it to the rider

30 LIST OF ABBREVIATIONS

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

31.1 Red symbols

Red symbols indicate an error condition that requires immediate intervention.

	<p>The oil pressure warning lamp lights up red – The oil pressure is too low.</p>
--	---

31.2 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.

	<p>Race-on indicator lamp lights up/flashes yellow/orange/red – Status or error messages relating to Race-on system/alarm system.</p>
	<p>The general warning lamp lights up yellow – An operating safety (warning) message was detected. This is also shown on the display.</p>
	<p>ABS indicator lamp lights up yellow – Status or error messages relating to ABS. The ABS indicator lamp flashes if the ABS mode Offroad is enabled.</p>
	<p>TC indicator lamp lights up/flashes yellow – The motorcycle traction control is not enabled or is currently intervening. The TC Indicator lamp also lights up if an error is detected. In addition, the TC indicator lamp flashes if the HHC (🗨 p. 116) (optional) is active.</p>
	<p>The cruise control system lamp lights up yellow – The cruise control system function is switched on, but the speed control is not active.</p>
	<p>Malfunction indicator lamp lights up yellow – The OBD has detected an emission- or safety-critical fault.</p>

31.3 Green and blue symbols

Green and blue symbols reflect information.

	The left turn signal indicator lamp flashes green with a steady rhythmic flash – The left turn signal is switched on.
	The high beam indicator lamp lights up blue – The high beam is switched on.
	The idle indicator lamp lights up green – The transmission is in idle.
	The cruise control system lamp lights up green – The cruise control system function is switched on and the speed control is active.
	The right turn signal indicator lamp flashes green with a steady rhythmic flash – The right turn signal is switched on.

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