OWNER'S MANUAL 2025

READY TO RACE

790 DUKE

ART. NO. 3240168EN



DEAR KTM CUSTOMER

Congratulations on your decision to purchase a KTM motorcycle. You are now the owner of a state-of-the-art sports vehicle which, with appropriate care, will bring you pleasure for a long time to come.

We wish you good and safe riding at all times!

Enter the serial numbers of your vehicle below.

Vehicle identification number (📖 p. 13)	Dealer's stamp
Engine number (📖 p. 13)	
Key number (📖 p. 13)	

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

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This document is valid for the following models:

790 DUKE L EU (F9603YO, F9603YP)

790 DUKE D. D. EU (F9603YQ, F9603YR)

790 DUKE L UK (F9622YO, F9622YP)

790 DUKE BR (F9640YO, F9640YP)

790 DUKE ASEAN (F9688YN)

790 DUKE CN (F9687YM)

3240168en

21.01.2025

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1 MEANS OF REPRESENTATION

1.1 Symbols used

The meaning of specific symbols is described below.

	Indicates an expected reaction (e.g., of a work step or a function).
	Indicates an unexpected reaction (e.g., of a work step or a function).
	Indicates work that requires expert knowledge and technical understanding. In the interest of your own safety, have these jobs performed by an authorized KTM workshop! Your motorcycle will be cared for there to the highest degree by specially trained experts using the special 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.
	Indicates the end of an activity, including potential reworking.

1.2 Formats used

The typographical formats used in this document are explained below.

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

2.1 Use definition – intended use

The vehicle is designed and constructed to withstand the usual demands of regular traffic and use on race courses.
This vehicle is not suitable for offroad use.

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

2.2 Misuse

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

2.3 Safety advice

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

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

2.4 Degrees of risk and symbols

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

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

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

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

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

2.5 Tampering warning

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

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

2 the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

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

1 Removal or puncturing of the main silencers, baffles, header pipes or any other components which conduct exhaust gases.

2 Removal or puncturing of parts of the intake system.

3 Lack of proper maintenance.

4 Replacing moving parts of the vehicle, or parts of the exhaust system or intake system, with parts other than those specified by the manufacturer.

2.6 Safe operation

Danger

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

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

– Do not operate the vehicle if you are physically or mentally impaired.

Danger

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

– Always make sure there is sufficient ventilation when running the engine.

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

Warning

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

– Do not touch any parts such as the exhaust system, radiator, engine, damper, or brake system before the vehicle parts have cooled down.

– Let the vehicle parts cool down before you perform any work on the vehicle.

Only operate the vehicle when it is in perfect technical condition, in accordance with its intended use, and in a safe and environmentally compatible manner.
An appropriate driver's license is needed to drive 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

Unless specified otherwise, the ignition must be turned off during all work (models with ignition lock, models with transponder key) or the motor must be at a standstill (models without ignition lock or transponder key).
Special tools are necessary for certain tasks. If these special tools are not included in the scope of supply of the vehicle, the special tools can be ordered using the specified article number. Example: bearing puller (15112017000)
Unless otherwise noted, normal conditions apply to all tasks and descriptions.

Ambient temperature	20 °C (68 °F)
Ambient air pressure	1,013 mbar (14.69 psi)
Relative air humidity	60 ± 5 %

During assembly, use new parts to replace parts which cannot be reused (e.g. self-locking screws and nuts, expansion screws, seals, sealing rings, O-rings, pins, and lock washers).
In the case of certain screw connections, a thread locker (e.g., **Loctite®**) is required. Observe the manufacturer's instructions.
If a thread locker (e.g. **Precote®**) has already been applied to a new part, do not apply any additional thread locker.
After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.
Ensure that the work area is clean and clean components before disassembly if necessary. Penetrating dirt can lead to increased wear and consequential damage.
After completing a repair or service work, check the operating safety of the vehicle.

2.9 Environment

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

2.10 Owner's Manual

Read this owner's manual carefully and completely before making your first trip. The Owner's Manual contains useful information and many tips on how to operate, handle, and service your motorcycle. This is the only way to find out how best to customize the vehicle for your own use and how you can protect yourself from injury.

Tip
Store the Owner's Manual on your terminal device, for example, so that you can read it whenever you need to.

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. If the vehicle is sold, the Owner's Manual must be downloaded again by the new owner.
The Owner's Manual can be downloaded several times using the QR code or the link on the delivery certificate.

The Owner's Manual is also available for download from your authorized KTM dealer and on the KTM website. A printed copy can also be ordered from your authorized KTM dealer.
International KTM Website: KTM.COM

3 IMPORTANT NOTES

3.1 Manufacturer warranty, implied warranty

The work prescribed in the service schedule must only be carried out in an authorized KTM workshop and confirmed in the **KTM Dealer.net**, as otherwise all warranty claims will be void. Damage or secondary damage caused by tampering with and/or conversions on the vehicle are not covered by the manufacturer warranty.

3.2 Fuel, auxiliary substances

Note

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

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

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

3.3 Spare parts, technical 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 latest news **KTM PowerParts** on your vehicle can be found on the KTM website.
International KTM Website: KTM.COM

3.4 Service

A prerequisite for perfect operation and prevention of premature wear is that the service, care, and tuning work on the engine and chassis is properly carried out as described in the Owner's Manual. An incorrect suspension setting can lead to damage and breakage of chassis components.
Use of the vehicle in difficult conditions, such as in rain, dusty or sandy environments, high heat or with a heavy payload, can lead to significantly increased wear on components such as the drivetrain, air filter, brake systems or suspension components. It may therefore be necessary to check parts before each journey or to replace parts before the next service interval 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.
The relevant mileage or time interval is whichever occurs first.

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: KTM.COM

4.1 View of vehicle, front right (example)



1. Hand brake lever (📖 p. 15)
2. Combination instrument
3. Clutch lever (📖 p. 15)
4. Oil level viewer
5. Foot brake lever (📖 p. 23)

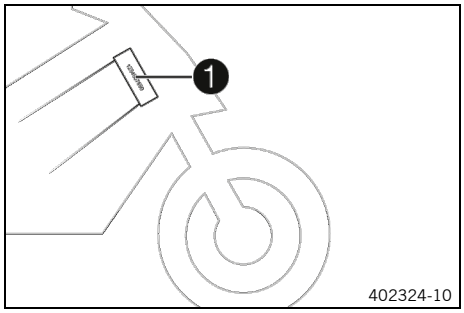
4.2 View of vehicle, rear left (example)



W00842-01

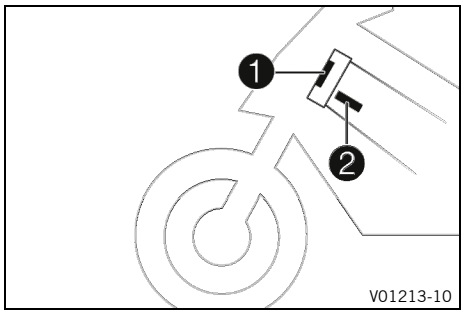
1. Combination switch (p. 15)
2. Ignition and steering lock (p. 19)
3. Start button/emergency OFF switch (p. 19)
4. Fuel tank filler cap
5. Tool set (p. 21)
6. Seat lock (p. 21)
7. Side stand (p. 23)
8. Shift lever (p. 22)
9. Engine number (p. 13)

5.1 Vehicle identification number



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

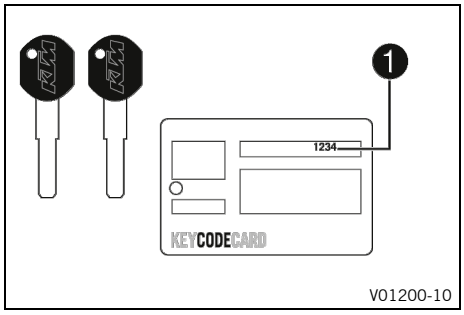
5.2 Type label



The type label ❶ is located on the steering head on the left.

The type label Australia ❷ is located on the frame behind the steering head at the top left.

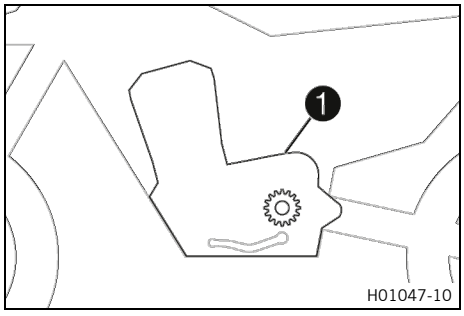
5.3 Key number



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

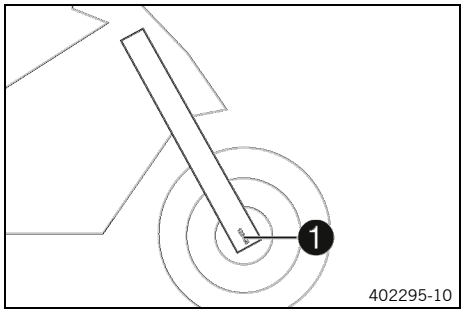
Info
You need the key number to order a spare key. Keep the **KEYCODECARD** in a safe place.

5.4 Engine number



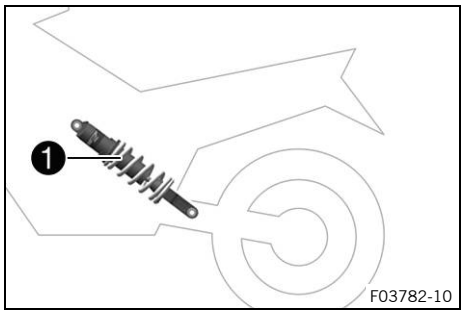
The engine number ❶ is stamped onto the engine case at the top.

5.5 Fork part number



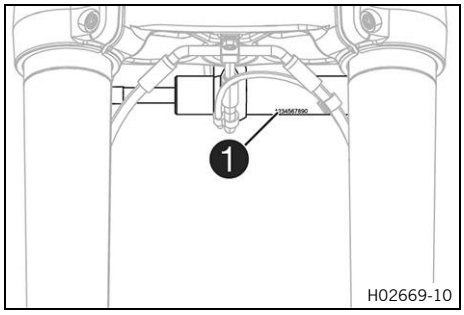
The fork part number ❶ is stamped on the inner side of the fork stub.

5.6 Shock absorber article number



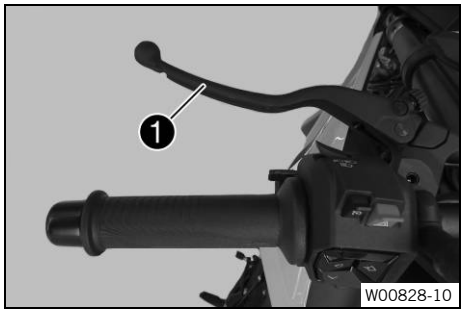
Shock absorber article number ❶ is on the left side of the shock absorber.

5.7 Steering damper article number



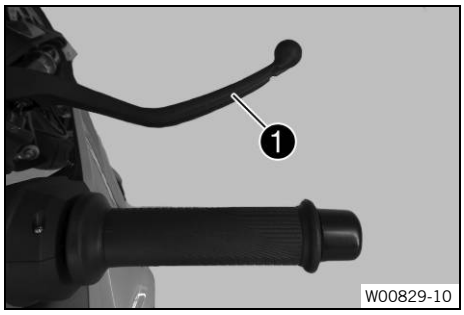
Steering damper article number ❶ is embossed on the underside of the steering damper.

6.1 Clutch lever



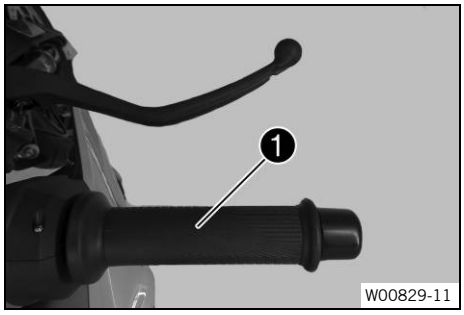
Clutch lever ❶ is fitted on the handlebar on the left.

6.2 Hand brake lever



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

6.3 Throttle grip

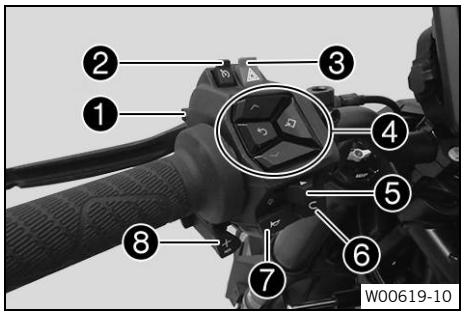


The throttle grip ❶ is fitted on the right side of the handlebar.

6.4 Switch on the left side of the handlebar

6.4.1 Combination switch

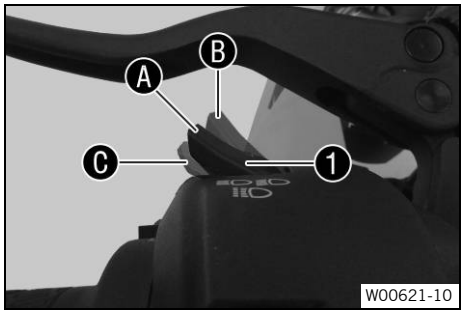
The combination switch is fitted on the left side of the handlebar.



Overview of the left combination switch

❶ Light switch (p. 16)
❷ Cruise control system tip switch (optional) (p. 16)
❸ Hazard warning flasher switch (p. 16)
❹ Menu buttons (p. 18)
❺ Turn signal switch (p. 18)
❻ **Custom Switch** display (p. 34)
❼ Horn button (p. 19)
❽ +RES/-SET button (p. 18)

6.4.2 Light switch

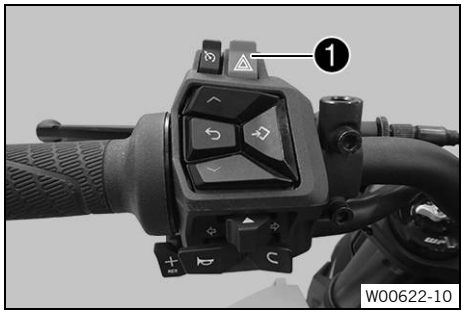


Light switch ❶ is fitted on the left side of the handlebar.

Possible states

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

6.4.3 Hazard warning flasher switch



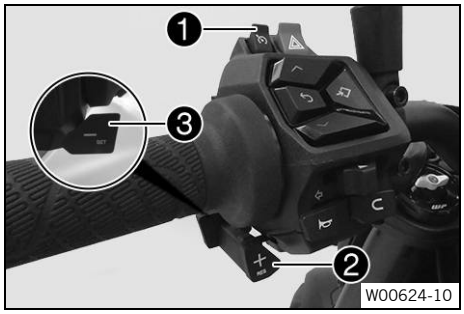
The hazard warning flasher switch ❶ is fitted on the left side of the combination switch.
The hazard warning flasher is used to indicate emergency situations.

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 12-V battery.

Possible states

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

6.4.4 Cruise control system tip switch (optional)



Cruise control switch ❶ is fitted on the left side of the combination switch.
The **+RES** button ❷ is fitted on the front left of the handlebar.
The **-SET** button ❸ is fitted on the rear left of the handlebar.

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 on the combination instrument.
- Briefly press cruise control switch into position **RES/+**. – In this position, the cruise control system function is activated for the first time if no speed was saved beforehand. The operating mode is displayed on the combination instrument.
- Briefly press cruise control switch into position **SET/-**. – In this position, the cruise control system function is activated for the first time if no speed was saved beforehand. The operating mode is displayed on the combination instrument.
- Briefly press cruise control switch into position **RES/+**. – The last saved speed is reapplied. Every subsequent brief pressing increases the target speed by 1 km/h or 1 mph.

- Press and hold the cruise control switch in position **RES/+**. – The target speed increases in increments of 5 km/h or 5 mph.
- Briefly press cruise control switch into position **SET/-**. – 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 the cruise control switch in position **SET/-**. – The target speed decreases in increments of 5 km/h or 5 mph.

Info

After activating the cruise control function, the throttle grip can be turned back to the basic position. The selected speed will be maintained.

If the cruise speed is exceeded for less than 30 seconds by turning the throttle, the cruise control 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 handbrake lever
– Operating the foot brake lever
– Operating the clutch lever
– Turning the throttle grip beyond the basic position
– Control of the motorcycle traction control (**MTC**)
– Slip at the rear wheel or lifting front wheel
– A malfunction occurs which impairs the cruise control 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 riding 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 an incline.

– 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), where there is poor visibility or on 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.

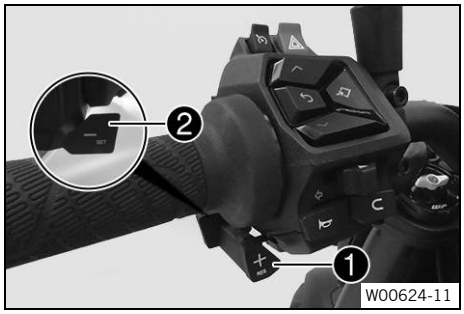
The cruise control function is only available when motorcycle traction control (**MTC**) is activated.

When motorcycle traction control (**MTC**) is switched off, the cruise control function is also switched off.

With the cruise control function active, menu items **Ride Mode**, **Throttle Response** and **Leave Track** are not available.

The cruise control system function cannot be activated during rapid acceleration.
The cruise control function can only be activated in 2nd, 3rd, 4th, 5th and 6th gears.
The control range is from 30 to 160 km/h or from 18 to 100 mph.

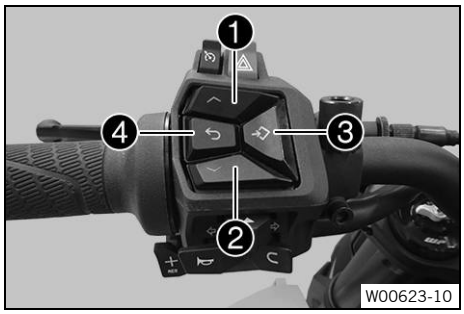
6.4.5 +RES/-SET button



The **+RES** button ❶ is fitted on the front left of the handlebar.
The **-SET** button ❷ is fitted on the rear left of the handlebar.

Info
The **+RES** and **-SET** buttons are used to control the cruise control when the cruise control function is activated.
If the cruise control function is deactivated, the **+RES** and **-SET** buttons in the main display or in the **Slip Adjuster** menu can be used to adjust the **Slip Adjuster**.

6.4.6 Menu buttons



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

6.4.7 Turn signal switch



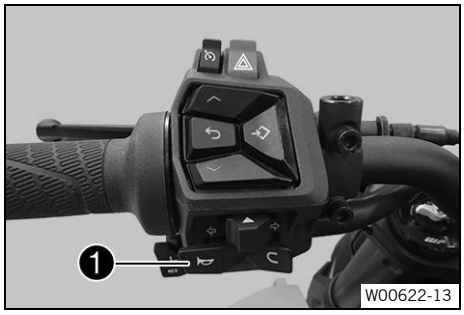
The turn signal switch ❶ is fitted on the left side of the handlebar.

Possible states

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

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

6.4.8 Horn button



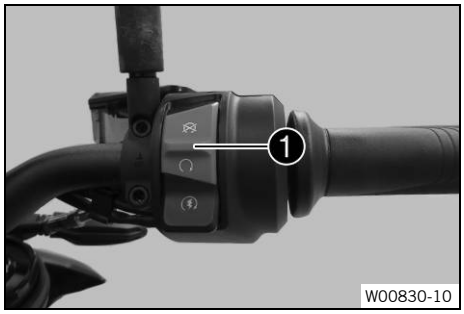
Horn button ❶ is fitted on the left side of the handlebar.

Possible states

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

6.5 Switch on the right side of the handlebar

6.5.1 Start button/emergency OFF switch

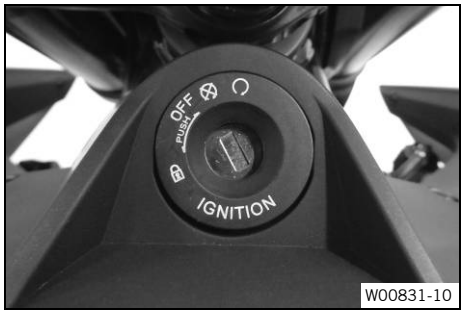


The start button/emergency OFF switch ❶ is fitted on the right side of the combination switch.

Possible states

	Start button/emergency OFF switch off (upper 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.
	Start button/emergency OFF switch 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.

6.6 Ignition and steering lock



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

Possible states

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

6.7 Opening fuel tank filler cap

Danger

Fire hazard Fuel is highly flammable.

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

– Do not fuel 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

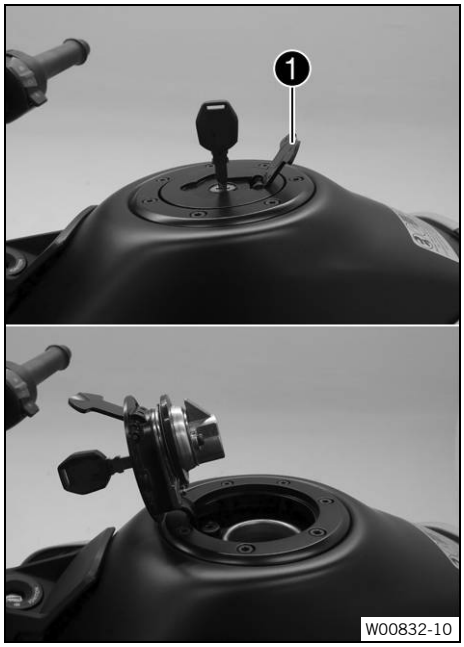
Danger of poisoning Fuel is harmful to health.

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

Note

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

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



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

Note

Danger of damage The ignition key may break if overloaded.

Damaged ignition keys must be replaced.

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

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

6.8 Closing the fuel tank filler cap



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

Warning

Fire hazard Fuel is highly flammable and a health hazard.

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

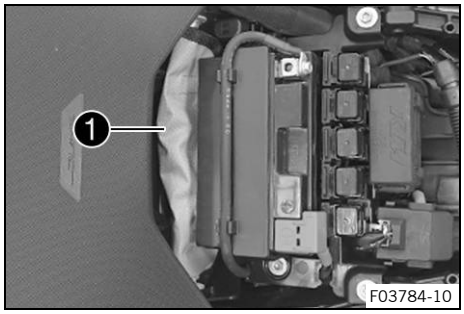
– Remove the ignition key and close the cover.

6.9 Seat lock



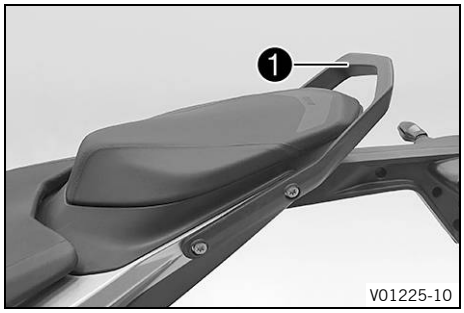
The seat lock ❶ is located on the left side of the vehicle.
It can be locked with the ignition key.

6.10 Tool set



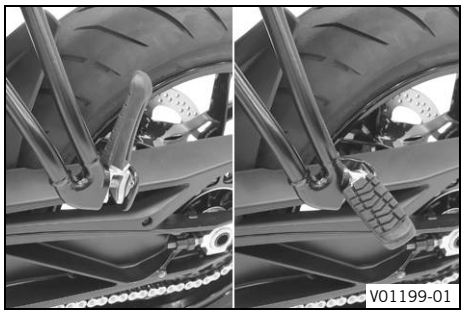
The tool set ❶ is located under the passenger seat.

6.11 Grab handle



The grab handle ❶ is used for maneuvering the motorcycle.
If you carry a passenger, the passenger can hold onto the grab handles during the trip.

6.12 Passenger foot pegs

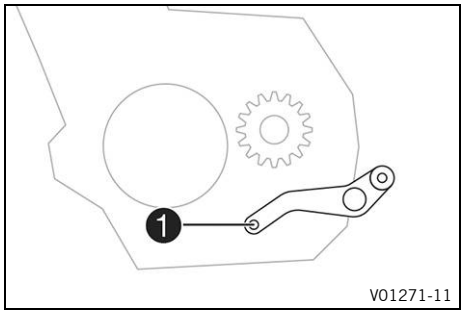


The passenger foot pegs can be folded up and down.

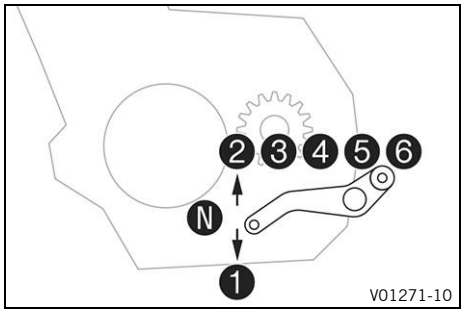
Possible states

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

6.13 Shift lever

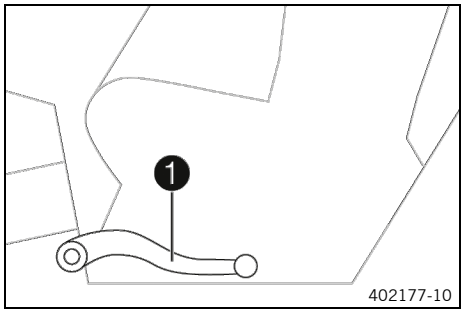


The shift lever ❶ is mounted on the left side of the engine.



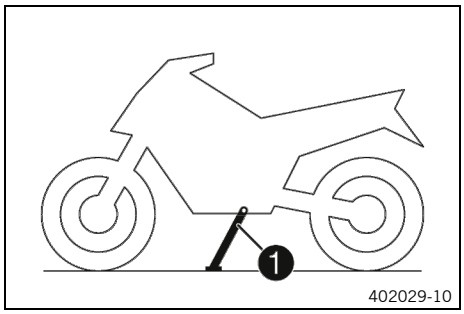
The gear positions can be seen in the photograph.
The neutral or idle position is between the first and second gears.

6.14 Foot brake lever



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

6.15 Side stand



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

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

Possible states

- Side stand folded out – The vehicle can be supported on the side stand. The safety starting system is active.
- Side stand folded in – This position is mandatory when riding the motorcycle. The safety starting system is inactive.

7.1 Combination instrument



The combination instrument is attached in front of the handlebar.
The combination instrument is divided into two function areas.
❶ indicator lamps (📖 p. 26)
Display ❷

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

In particular, the display gets hot in ambient temperatures above 55 °C (131 °F), during extended stationary periods, for example, 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 Demo mode



Activation
Demo mode is activated in the factory and allows you to test optional software functions.
Once a distance has been covered, demo mode is automatically deactivated as soon as the ignition is turned off.

Distance until demo mode is deactivated	1,500 km (930 mi)

The demo modes are shown in area ❶ of the display.

Info

Notifications about the remaining distance until the demo mode is deactivated are displayed at regular intervals.
All optional software functions will be deactivated and no longer displayed when demo mode ends. The optional software functions are available from an authorized KTM dealer.

Functions included in demo mode

- **TECH PACK** including riding mode **TRACK**, MTC+MSR, deactivatable ABS on the rear wheel, adjustable characteristics of the throttle response, adjustable motorcycle traction control
- QUICKSHIFTER+
- MSR
- Cruise control system

7.3 Activation and test



Activation

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

Info

The brightness of the displays is controlled by an ambient light sensor in the combination instrument.

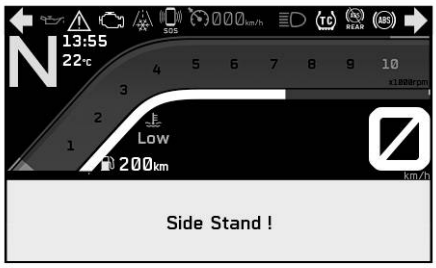
Test

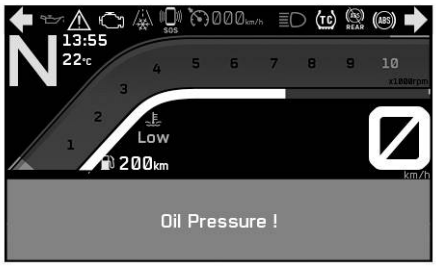
The welcome text appears on the display and all indicator lamps are briefly activated for a function check.

Info

The malfunction indicator lamp always lights up as long as the engine is not running. If the engine is running and the malfunction indicator lamp lights up, stop (taking care not to endanger yourself or other road users in the process) and contact an authorized KTM workshop.
The oil pressure warning lamp always lights up as long as the engine is not running. If the engine is running and the oil pressure warning lamp lights up, stop immediately (taking care not to endanger yourself or other road users in the process) and switch off the engine.
The ABS warning lamp and TC indicator lamp light up until a speed of approx. 6 km/h (approx. 4 mph) or faster has been reached.

7.4 Warnings



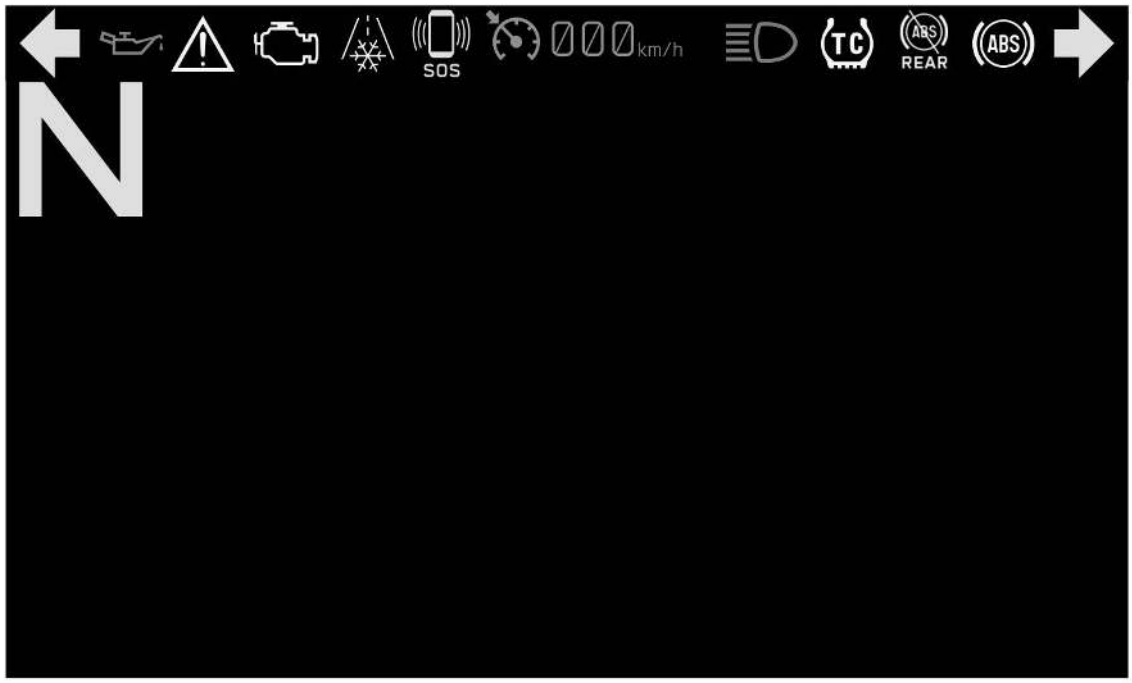


I00700-10

Warnings appear in the middle of the display; these are marked yellow or red depending on their relevance.
Yellow warnings indicate a malfunction or information which requires prompt intervention or an adjustment to the riding style.
Red warnings indicate a malfunction or information which requires immediate intervention.

Info
Warnings can be hidden by pressing any button.
All the existing warnings are displayed in the **Warning** sub-menu until they are no longer active.

7.5 Indicator lamps



I00701-10

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, except for the TC indicator lamp .

Info

The malfunction indicator lamp always lights up as long as the engine is not running. If the engine is running and the malfunction indicator lamp lights up, stop (taking care not to endanger yourself or other road users in the process) and contact an authorized KTM workshop.

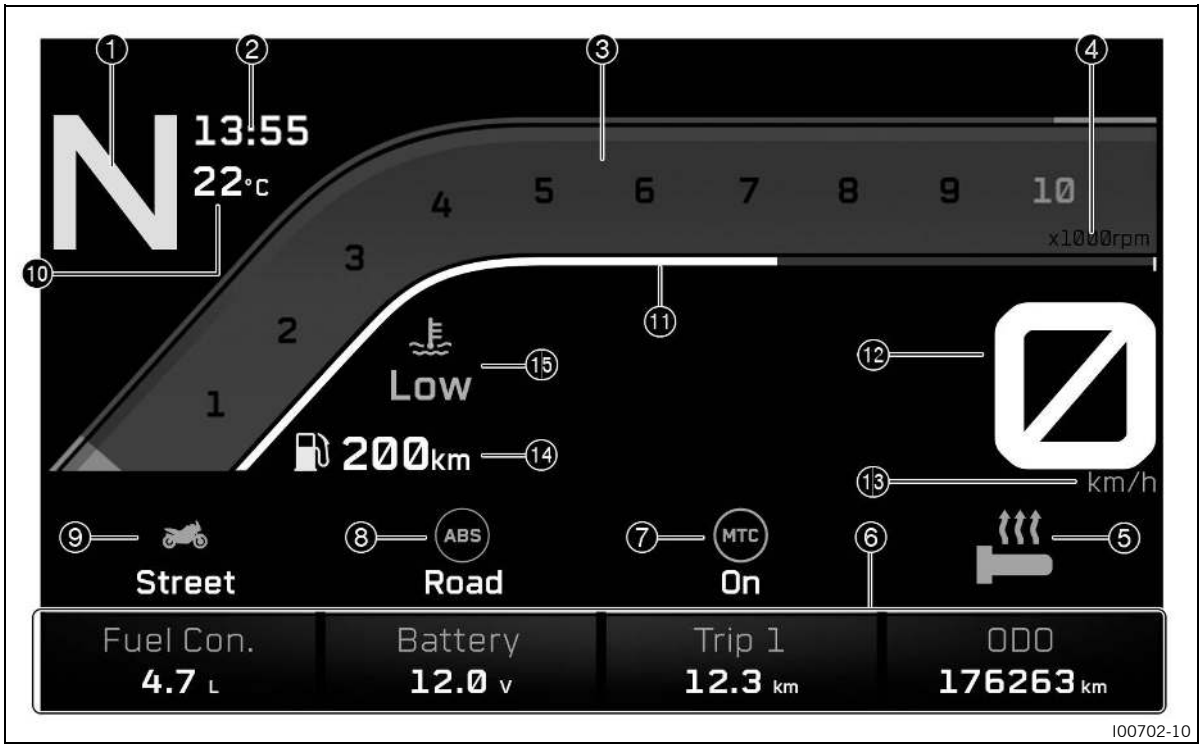
The oil pressure warning lamp always lights up as long as the engine is not running. If the engine is running and the oil pressure warning lamp lights up, stop immediately (taking care not to endanger yourself or other road users in the process) and switch off the engine.

The ABS warning lamp and TC indicator lamp light up until a speed of approx. 6 km/h (approx. 4 mph) or faster has been reached.

Possible states

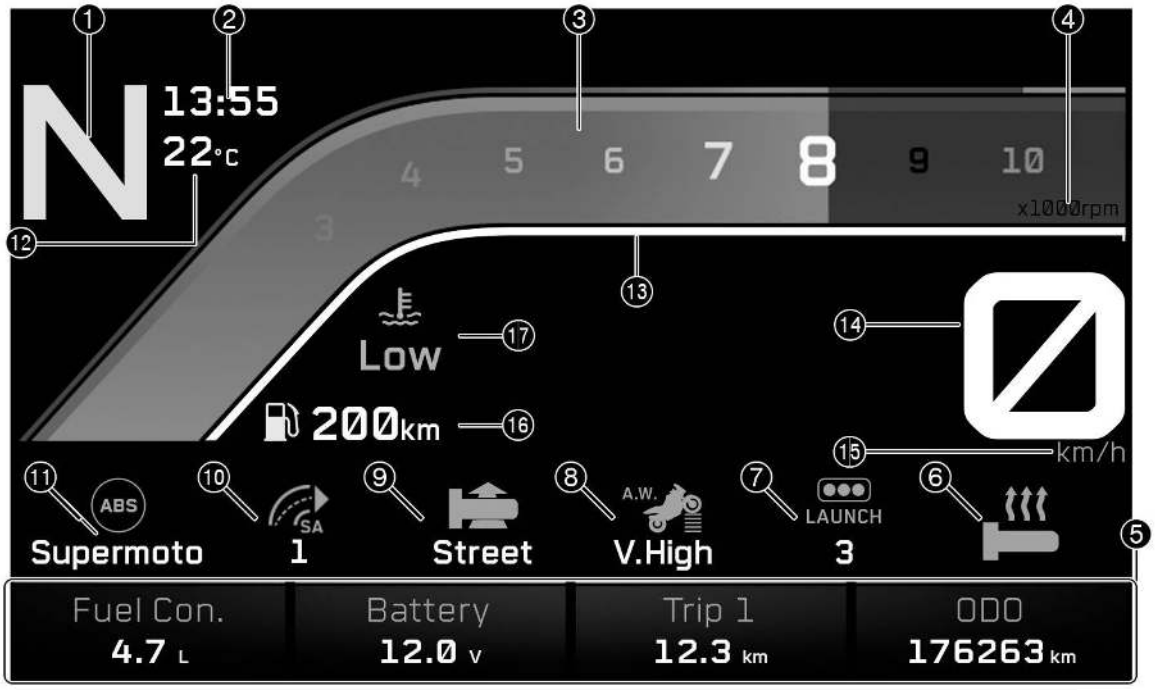
	The turn signal indicator lamp flashes green with a steady rhythmic flash – The turn signal is switched on.
	The malfunction indicator lamp lights up yellow – The OBD has detected a malfunction in the vehicle electronics. Come safely to a halt, and contact an authorized KTM workshop.
	ABS warning lamp lights up yellow – Status or error messages relating to ABS.
	The ABS rear warning lamp lights up yellow – ABS is deactivated on the rear wheel.
	The idle indicator lamp lights up green – The transmission is in neutral.
	TC indicator lamp lights up/flashes yellow – **MTC** (p. 124) is not enabled or is currently intervening. The TC indicator lamp also lights up if a malfunction is detected. Contact an authorized KTM workshop. The TC indicator lamp flashes if **MTC** makes an active intervention.
	The oil pressure warning lamp lights up red – The oil pressure is too low. Stop immediately, taking care not to endanger yourself or other road users in the process, and switch off the engine.
	The alarm system indicator lamp lights up or flashes red – Status or error message of the alarm system.
	The cruise control system indicator lamp (optional) lights up yellow – The cruise control system function is switched on, but cruise control is not activated.
	The cruise control system indicator lamp (optional) lights up green – The cruise control system function is switched on and cruise control is activated.
	The high beam indicator lamp lights up blue – The high beam is switched on.
	The general warning lamp lights up yellow – A note/warning note on operating safety has been detected. This is also shown in the display.

7.6 Display



1. Gear display
2. Time (p. 32)
3. Engine speed (p. 31)
3. Shift warning light (p. 31)
   The shift warning light is integrated in the tachometer display.
4. Unit for the engine speed display
5. Heated grip (optional) (p. 34)
6. **Favorites** display (p. 34)
7. **MTC** display (p. 33)
8. **ABS** display (p. 33)
9. **Ride-Mode** display (p. 32)
10. Ambient air temperature indicator (p. 32)
11. Fuel level display (p. 34)
12. Speedometer (p. 31)
13. Unit for the speedometer
14. Fuel range display
15. Coolant temperature indicator (p. 33)

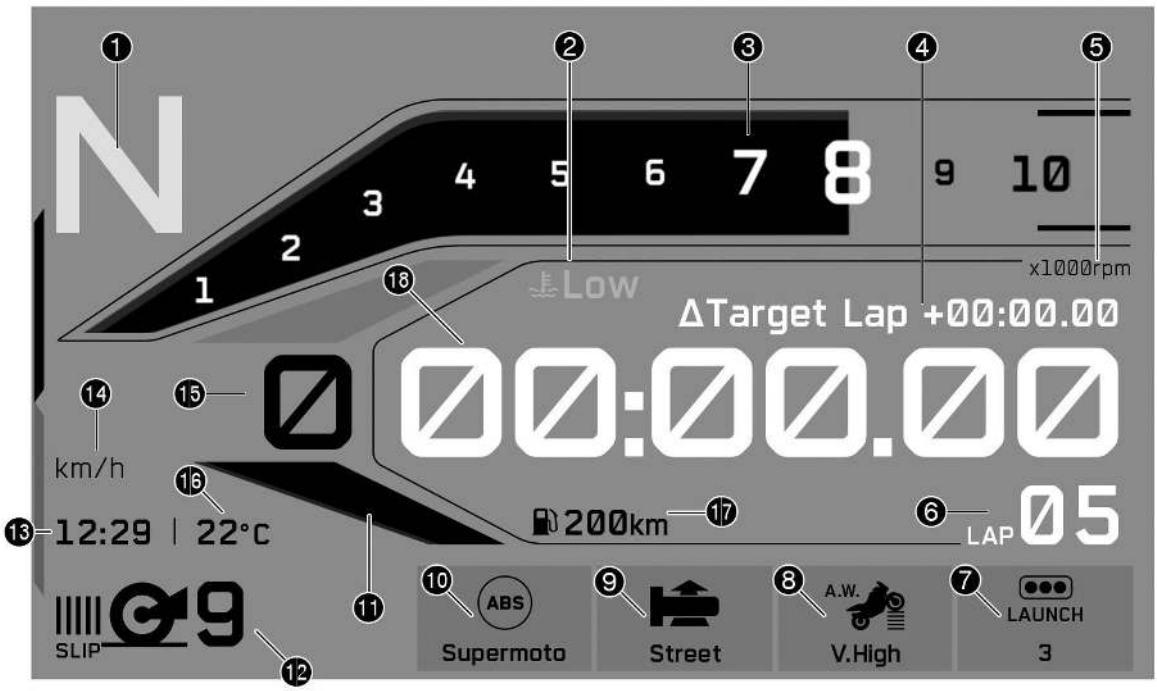
7.7 Performance display (optional)



Info
The figure shows the start screen of the combination instrument when the **Performance** riding mode (optional) is active. If the menu is open, the speed and the selected gear are still displayed.

1. Gear display
2. Time (📖 p. 32)
3. Engine speed (📖 p. 31)
3. Shift warning light (📖 p. 31)
   The shift warning light is integrated in the tachometer display.
4. Unit for the engine speed display
5. **Favorites** display (📖 p. 34)
6. Heated grip (optional) (📖 p. 34)
7. Launch control (optional)
8. Anti wheelie mode (optional)
9. Throttle response (optional)
10. Slip adjuster (optional)
11. **ABS** display (📖 p. 33)
12. Ambient air temperature indicator (📖 p. 32)
13. Fuel level display (📖 p. 34)
14. Speedometer (📖 p. 31)
15. Unit for the speedometer
16. Fuel range display
17. Coolant temperature indicator (📖 p. 33)

7.8 Track display (optional)

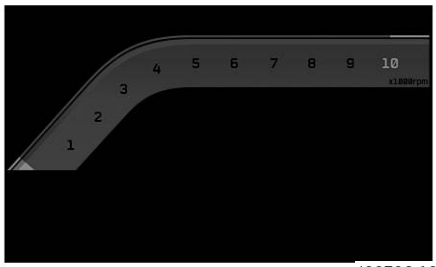


Info
The figure shows the start screen of the combination instrument when the **TRACK** riding mode (optional) is active. If the menu is open, the speed and the selected gear are still displayed.

1. Gear display
2. Coolant temperature indicator (📖 p. 33)
3. Engine speed (📖 p. 31)
3. Shift warning light (📖 p. 31)
   The shift warning light is integrated in the tachometer display.
4. Delta for target lap, best lap or last lap
5. Unit for the engine speed display
6. Lap indicator
7. Launch control (optional)
8. Anti wheelie mode (optional)
9. Throttle response (optional)
10. **ABS** display (📖 p. 33)
11. Fuel level display (📖 p. 34)
12. Slip adjuster (optional)
13. Time (📖 p. 32)
14. Unit for the speedometer
15. Speedometer (📖 p. 31)
16. Ambient air temperature indicator (📖 p. 32)
17. Fuel range display

⑱ Lap time (optional)

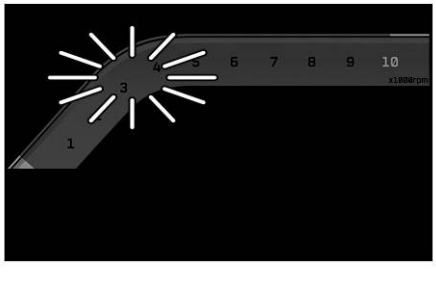
7.9 Engine speed

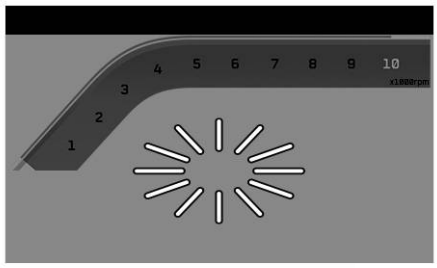


I00706-10

The engine speed is displayed in revolutions per minute.

7.10 Shift warning light





I00707-10

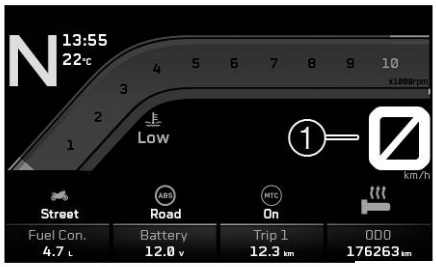
The shift warning light is integrated in the display.
In the **Shift Light** submenu, the engine speed for the shift warning light can be set. The shift warning light is always active during the running-in time (up to 1000 km / 621 mi). The shift warning light can only be deactivated, and the values for **RPM1** and **RPM2** can only be adjusted after this. At **RPM1**, the engine speed display flashes and at **RPM2**, the display flashes.

Info
After the first service, the shift warning light is deactivated when the engine is warm and in sixth-gear.

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

Coolant temperature	> 35 °C (> 95 °F)
ODO	> 1,000 km (> 620 mi)
RPM1 shift warning light	the speed indicator flashes
RPM2 shift warning light	the display flashes

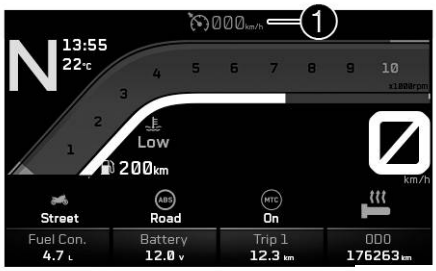
7.11 Speedometer



I00709-10

The speed is shown in area ❶ of the display.
Speed is shown in kilometers per hour **km/h** or in miles per hour **mph**.
The unit of speed can be configured in the **Distance** submenu.

7.12 Cruise control indicator (optional)

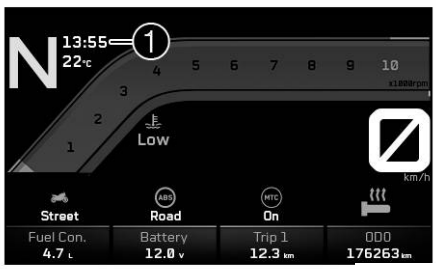


I00710-10

The operating state of the active cruise control is shown in the area ❶ of the display.
Cruise control is operated using the cruise control tip switch.

Info
If the cruise control system function is switched on but cruise control is not activated, the cruise control system indicator lamp lights up yellow.
If the cruise control system function is switched on and cruise control is activated, the cruise control system indicator lamp lights up green.

7.13 Time

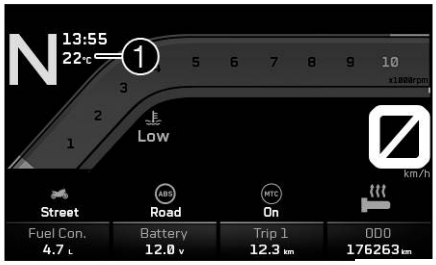


I00709-11

The time is shown in area ❶ of the display.
The time can be displayed in 24-hour format or 12-hour format in all languages.
The format of the time can be configured in the **Clock Format** menu.

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

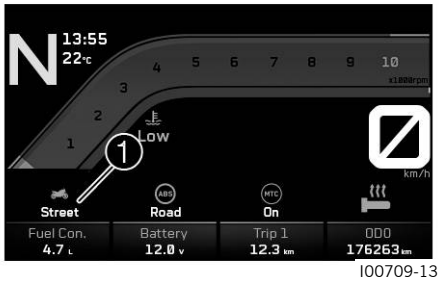
7.14 Ambient air temperature indicator



I00709-12

The ambient temperature is shown in area ❶ of the display.
The ambient air temperature is displayed in **°C** or **°F**.
The unit of the ambient air temperature can be configured in the **Temperature** submenu.

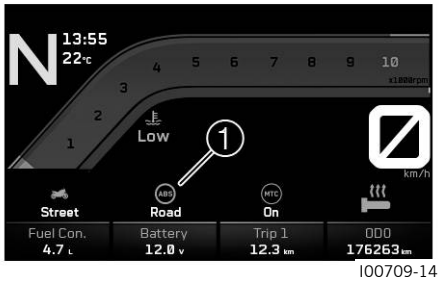
7.15 Ride-Mode display



I00709-13

The **Ride Mode** (📖 p. 124) setting is shown in area ❶ of the display.
The drive mode can be configured in the **Ride Mode** submenu.

7.16 ABS display

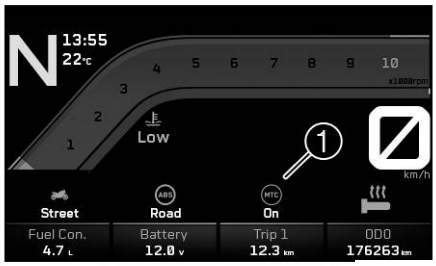


I00709-14

The ABS mode setting is shown in the ❶ area of the display. ABS can be configured separately in the **ABS** submenu.

Info
When the ABS mode **Road** is active, ABS controls both wheels.
When the **Supermoto** ABS mode is active, ABS only controls the front wheel. The rear wheel is not controlled by ABS and may lock during braking maneuvers.

7.17 MTC display



I00709-15

The ❶ area of the display indicates whether **MTC** (p. 124) is switched on or off.
The motorcycle traction control can be switched on or off in the **MTC** submenu.

7.18 Coolant temperature indicator



I00711-10

The coolant temperature is displayed by a symbol. The symbol changes between **LOW**, **OK** and **HOT** depending on the temperature.

Note
Engine failure Overheating damages the engine.

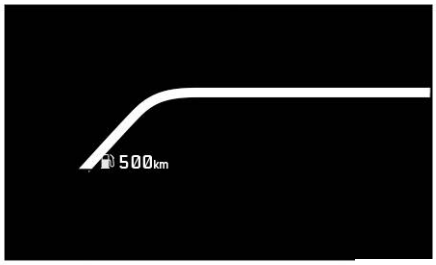
– If the coolant temperature warning is displayed, stop immediately and take care not to endanger yourself or other traffic participants in the process.
– Allow the engine and cooling system to cool down.
– Check and, if necessary, correct the coolant level on the cooling system while it is in a cooled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

Info
If the coolant temperature indicator shows **HOT**, the display also starts to flash and a warning is displayed.
If the cooling system overheats, the maximum engine speed is limited.

Possible states

- The engine is cold – The coolant temperature indicator shows **LOW**.
- Engine warm – The coolant temperature indicator shows **OK**.
- Engine hot – The coolant temperature indicator shows **HOT**.

7.19 Fuel level display



I00712-10

The fuel level display consists of the fuel range display and a bar. The higher the bar is filled, the more fuel is in the fuel tank

Info

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

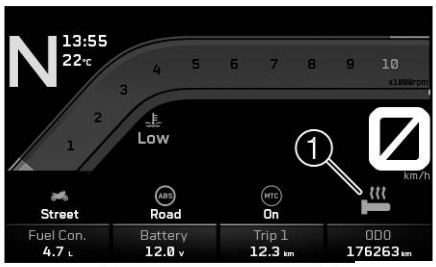
The fuel level is displayed with a slight delay to prevent the indicator from constantly moving while riding.

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 the 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.

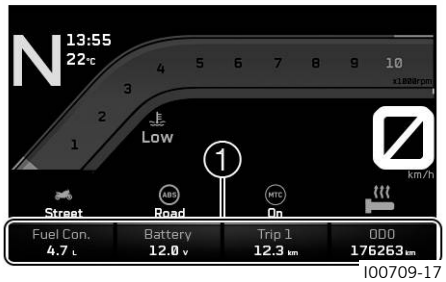
7.20 Heated grip (optional)



I00709-16

The status of the heated grip is shown in area ❶ of the display.
The heated grip can be configured in the **Heated Grip** menu.

7.21 Favorites display



I00709-17

Up to four items of information are displayed in the **Favorites** display ❶.
The **Favorites** indicator can be freely configured in the **Favorites** submenu.

7.22 Custom Switch display



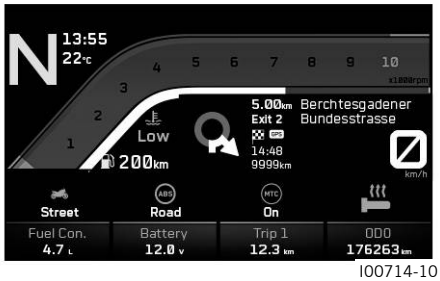
I00731-10

Pressing the **C** button calls up the configured menu.
Press the **BACK** button to close the **Custom Switch** display.

Info

The **Custom Switch** display can be configured in the **Settings** menu under **Custom Switch**. Any information can be selected.

7.23 Navigation display (optional)

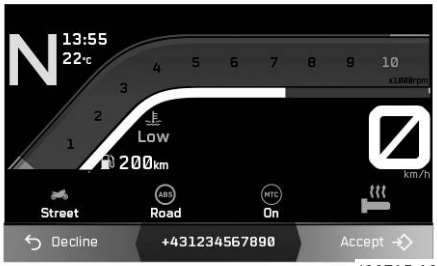


I00714-10

The **Navigation** display (optional) appears when the navigation function is activated.
In the **Navigation** display (optional), the direction arrow, the distance from the destination, the estimated arrival time of the cellphone, the distance to the next waypoint, and the street name are displayed.
The **Navigation** display (optional) can be switched on or off in the **Navigation** submenu (optional).

Conditions for use:
- The combination instrument is connected to a suitable phone.
- The **KTMconnect** app (optional) is installed and connected on a suitable cellphone (Android devices Version 7.0 and higher, iOS devices Version 14 and higher).

7.24 Call display



I00715-10

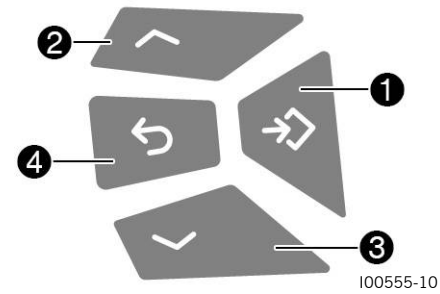
Warning
Danger of accidents Headphone volume which is too high distracts attention from traffic activity.
- Always select headphone volume which is low enough for you to still clearly hear acoustic signals.

The **Call** indicator appears for incoming or active calls.
Press the **SET** button to accept an incoming call.
Press the **BACK** button to reject an incoming call.
Press the **UP** button to increase the audio volume.
Press the **DOWN** button to reduce the audio volume.

Info
It is not possible to change the audio volume using the combination switch with every cellphone.
The call duration and contact are displayed. Depending on the cellphone settings, the contact is shown by name.
You cannot navigate in the menu during an active phone conversation.

Conditions for use:
- The combination instrument is connected to a suitable phone.

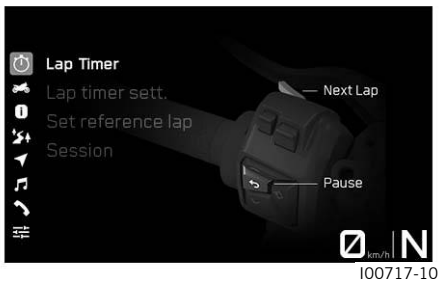
7.25 Menu



I00555-10

Info
Press **SET** button ❶ in the start screen to open the menu.
Navigate through the menu using the **UP** button ❷ or the **DOWN** button ❸.
By pressing the **BACK** button ❹, the menu structure jumps one step back, or the menu is closed.

7.25.1 Lap Timer



Condition

- Ride mode **TRACK** activated.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Lap Timer** is highlighted. Press the **SET** button to open the menu.

The timed laps can be displayed and reference laps can be set in the **Lap Timer** menu.

7.25.2 Lap Timer Settings



Condition

- Ride mode **TRACK** activated.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Lap Timer** is highlighted. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Lap Timer Settings** is highlighted. This can switch **Lap Timer** on and off.

7.25.3 Set Reference Lap



Condition

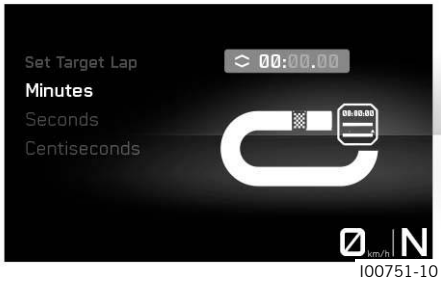
- Ride mode **TRACK** activated.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Lap Timer** is highlighted. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Set Reference Lap** is highlighted. A reference lap can be set.

7.25.4 Set Target Lap Time



Condition

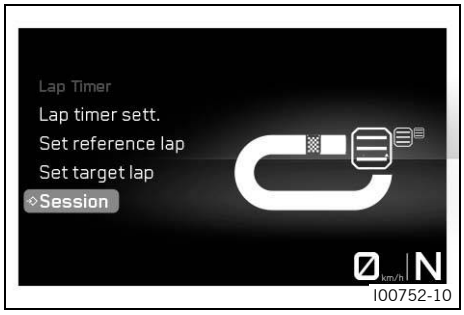
- Ride mode **TRACK** activated.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Lap Timer** is highlighted. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Set Target Lap Time** is highlighted. A target lap can be set.

7.25.5 Session



I00752-10

Condition

- Ride mode **TRACK** activated.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Lap Timer** is highlighted. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Session** is highlighted. All lap times are displayed here.

7.25.6 Motorcycle



I00718-10

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Motorcycle** is highlighted. Press the **SET** button to open the menu.

In **Motorcycle**, motorcycle-relevant settings can be made, such as the riding mode, ABS mode, slip adjustment and MTC.

7.25.7 Ride Mode



I00716-10

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Motorcycle** is highlighted. Press the **SET** button to open the menu.

Warning

Danger of accidents An incorrectly selected riding mode makes control of the vehicle considerably more difficult.

The riding modes are each only suitable for certain conditions.

– Always select a riding mode that suits the surface on which you are riding, the weather and the riding situation.

– Press the **UP** or **DOWN** button until **Ride Mode** is highlighted. 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 riding mode, which changes coordinated settings for the engine and motorcycle traction control.

✓ **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 less slip on the rear wheel.

- ✓ **Sport** - Homologated performance with very direct response; the motorcycle traction control allows greater slip on the rear wheel.
- ✓ **Track** (optional) - Throttle response and motorcycle traction control can be adjusted individually.
- ✓ **Performance** (optional) - Throttle response and motorcycle traction control can be adjusted individually.

The riding mode of the vehicle can be configured in the **Ride Mode** menu.

7.25.8 Slip Adjuster (optional)



I00748-11

Condition

- The **Track** riding mode (optional) or **Performance** (optional) is activated.
- **MTC+MSR** is activated.

– Press the **SET** button when the menu is closed.

Warning
Danger of accidents An incorrectly selected riding mode makes control of the vehicle considerably more difficult.

The riding modes are each only suitable for certain conditions.

– Always select a riding mode that suits the surface on which you are riding, the weather and the riding situation.

– Press the **UP** or **DOWN** button until **Motorcycle** is marked on the display. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Slip Adjuster** is highlighted. Press **SET** button to open the menu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to set the maximum permitted slip for the motorcycle traction control.

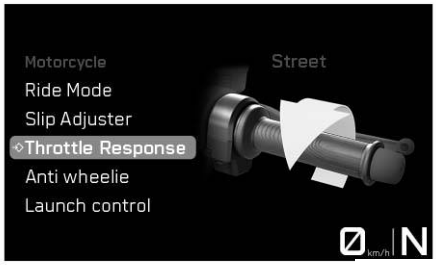
Info
Do not open the throttle during the selection.

The slip adjustment is a motorcycle traction control function.
The slip adjustment allows the motorcycle traction control to be tuned through nine levels to the desired characteristic map.
Level 0 allows the maximum slip on the rear wheel, and level 9 the minimum.
If the cruise control function is deactivated, the **UP** and **DOWN** buttons or the **+RES** and **-SET** buttons in the main display or in the **Slip Adjuster** menu can be used to set the **Slip Adjuster**.

Info
The slip adjustment is only available in riding mode **Track** (optional) or **Performance** (optional).
The slip adjustment is only available when motorcycle traction control is activated.

Press and hold the **DOWN** button or **-SET** button for approx. 2 seconds.	Slip adjustment level 0 is activated.

7.25.9 Throttle Response (optional)



I00753-10

Condition

- The **Track** riding mode (optional) or **Performance** (optional) is activated.

– Press the **SET** button when the menu is closed.

Warning

Danger of accidents An incorrectly selected riding mode makes control of the vehicle considerably more difficult.

The riding modes are each only suitable for certain conditions.

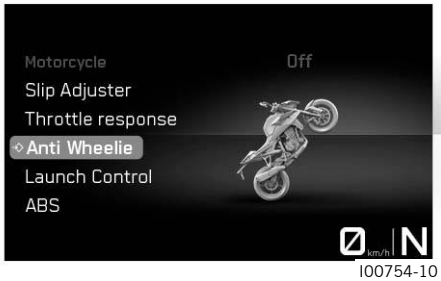
– Always select a riding mode that suits the surface on which you are riding, the weather and the riding situation.

– Press the **UP** or **DOWN** button until **Motorcycle** is marked on the display. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Throttle Response** is marked on the display. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– The characteristic map of the throttle response can be adjusted by pressing the **SET** button.
  ✓ Street – balanced response.
  ✓ Sport – extremely direct response.
  ✓ Track – very direct response.

Info

Do not open the throttle when adjusting the throttle response.

7.25.10 Anti Wheelie Mode (Optional)



I00754-10

Condition

- The **Track** riding mode (optional) or **Performance** (optional) is activated.

– Press the **SET** button when the menu is closed.

Warning
Danger of accidents An incorrectly selected riding mode makes control of the vehicle considerably more difficult.

The riding modes are each only suitable for certain conditions.

– Always select a riding mode that suits the surface on which you are riding, the weather and the riding situation.

– Press the **UP** or **DOWN** button until **Motorcycle** is marked on the display. Press the **SET** button to open the menu.

Warning
Danger of accidents Electronic driving aids can only influence the vehicle within physical limits.

– Always drive in accordance with the road conditions, the traffic situation and your own ability, even when using electronic driving aids.

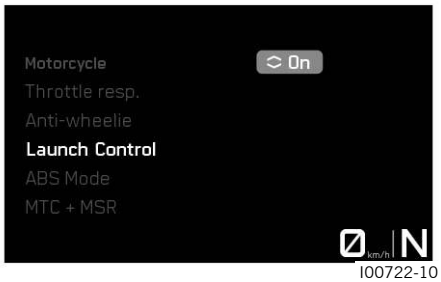
– The **Anti Wheelie Mode** (optional) is a partial function of the traction control, which counteracts the lifting of the front wheel. The time this intervenes can be set in stages in the menu. If it intervenes at a later stage and a higher level, the front wheel is more likely to lift off the ground.

Warning
Danger of accidents When Anti Wheelie Mode is disabled, the motorcycle traction control no longer counteracts the raising of the front wheel.

– Only switch off the Anti Wheelie Mode if you have the appropriate experience.

– Press the **UP** or **DOWN** button until **Anti Wheelie Mode** is highlighted. Press the **SET** button to open the menu.
– The **Anti Wheelie Mode** can be adjusted by pressing the **UP**or **DOWN** button.

7.25.11 Launch Control (optional)



– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Motorcycle** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Launch Control** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Switch **Launch Control** on or off by pressing the **SET** button.

7.25.12 ABS



I00719-10

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Motorcycle** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **ABS** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.

Warning
Danger of accidents An incorrectly selected ABS mode makes control of the vehicle considerably more difficult.

The ABS modes are each only suitable for certain conditions.

– Always select an ABS mode that is compatible with the surface of the ground.

– Press the **SET** button to select the desired ABS mode.

Info
The ABS mode can be switched during the journey.
Do not open the throttle during the selection.
When the ABS mode **Road** is active, ABS controls both wheels.
When the **Supermoto** ABS mode is active, ABS only controls the front wheel. The rear wheel is no longer controlled by ABS and may lock during braking maneuvers. The indicator lamp **ABS REAR** lights up.

7.25.13 MTC



I00720-10

Condition
• Speed limiter function deactivated.
– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Motorcycle** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **MTC** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Switch **MTC** on or off by pressing the **SET** button.

Info
Do not open the throttle when switching on or off.
Press the **SET** button briefly when activating the motorcycle traction control.
Hold down the **SET** button when switching off the motorcycle traction control.
After the ignition is switched on, motorcycle traction control is enabled again.

7.25.14 MTC+MSR (optional)



I00756-10

Condition

- Model with **MTC+MSR**.
- Cruise control system function (optional) deactivated.

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

Info

Do not open the throttle when switching on or off.

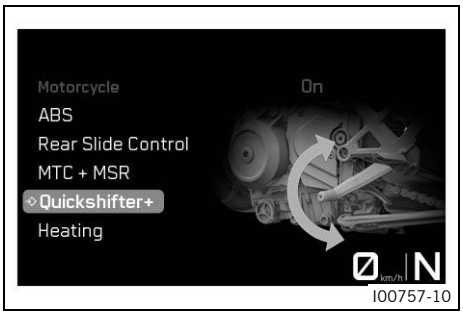
Press the **SET** button briefly when activating the motorcycle traction control and the engine traction torque control.

Hold down the **SET** button when switching off the motorcycle traction control and engine traction torque control.

When ABS mode **Supermoto** is active, the **MSR** is not active.

After the ignition is switched on, the motorcycle traction control and engine traction torque control are enabled again.

7.25.15 QUICKSHIFTER+ (optional)



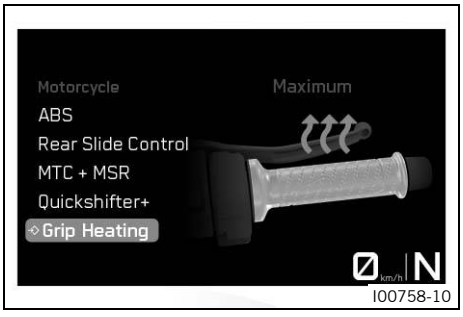
I00757-10

Condition

- Model with QUICKSHIFTER+.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Motorcycle** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **QUICKSHIFTER+** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to switch QUICKSHIFTER+ on or off.

7.25.16 Grip Heating (optional)



I00758-10

Condition

- Model with heated grip.
- **Heated Grip** menu (optional) activated in Settings.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Motorcycle** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Heating** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Grip Heating** is highlighted. Press **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.

7.25.17 Bike Info



I00723-10

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Bike Info** is highlighted. Press the **SET** button to open the menu.

General information and warnings that may be present can be called up in **Bike Info**.

7.25.18 Trip Info



I00725-10

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Bike Info** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Trip** is highlighted. Press the **SET** button to open the menu.

General information on the odometer, riding time, average fuel consumption, and average speed can be accessed in the menu **Trip**.

7.25.19 Trip 1





I00224-01

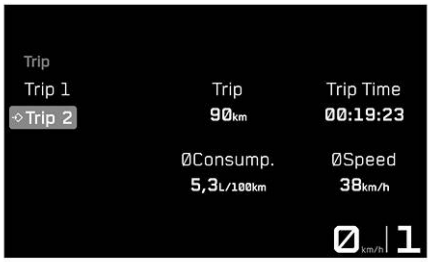
– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Bike Info** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Trip** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Trip 1** is highlighted. Press the **SET** button to open the submenu.

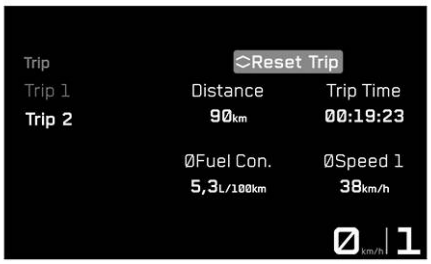
Information on **Trip 1** can be viewed in the **Trip 1** submenu.

Info

Trip displays the distance since the last reset, e. g. between two refueling stops. **Trip** is running and counts up to **9999**.
Trip Time shows the riding time on the basis of **Trip** and runs as soon as a speed signal is received.
ØConsump. indicates the average fuel consumption based on **Trip**.
ØSpeed indicates the average speed based on **Trip** and **Trip Time**.
Press **Reset Trip** to reset all entries in the **Trip 1** menu.

7.25.20 Trip 2





I00225-01

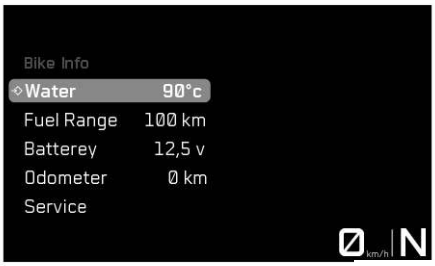
– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Bike Info** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Trip** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Trip 2** is highlighted. Press the **SET** button to open the submenu.

Information on **Trip 2** can be viewed in the **Trip 2** submenu.

Info

Trip displays the distance since the last reset, e. g. between two refueling stops. **Trip** is running and counts up to **9999**.
Trip Time shows the riding time on the basis of **Trip** and runs as soon as a speed signal is received.
ØConsump. indicates the average fuel consumption based on **Trip**.
ØSpeed indicates the average speed based on **Trip** and **Trip Time**.
Press **Reset Trip** to reset all entries in the **Trip 2** menu.

7.25.21 Bike Info



I00724-10

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Bike Info** is highlighted. Press **SET** button to open the menu.

Water displays the coolant temperature.
Fuel Range indicates the possible fuel range you can cover with the fuel reserve.
Battery indicates the battery voltage.
Odometer displays the total distance covered.
Service displays when the next service is due.
Warnings displays warnings that have occurred until they are no longer active.

7.25.22 Warning



I00517-10

Condition

- Message or warning is present.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Bike Info** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Warning** is highlighted. Press the **SET** button to open the submenu.
– Use the **UP** or **DOWN** button to navigate through the warnings.

Info

The warnings that have occurred are saved in the display until they are no longer active.

7.25.23 Navigation (Optional)



Condition

- **Bluetooth®** function is activated.
- The **KTMconnect** app (optional) is installed and connected on a suitable cellphone (Android devices Version 7.0 and higher, iOS devices Version 14 and higher).
- The combination instrument is connected to a suitable phone.
- The GPS function is activated on the connected phone.
- For voice navigation: the combination instrument is connected to a suitable communication system and an appropriate language package has been downloaded in the **KTMconnect Navigation** app (optional).

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Navigation** is marked. Press the **SET** button to open the submenu.

7.25.24 Skip Waypoint (optional)



Condition

- **Bluetooth®** function is activated.
- The **KTMconnect** app (optional) is installed and opened on a suitable cellphone.
- The combination instrument is connected to a suitable phone.
- The GPS function is activated on the connected phone.
- Navigation with at least one interim destination has been started in the **KTMconnect** app (optional).

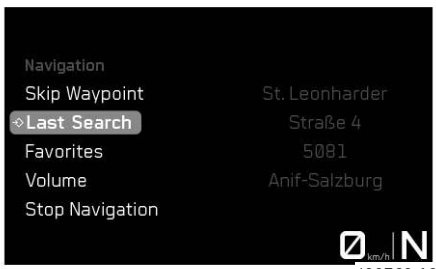
– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Navigation** is marked. Press the **SET** button to open the submenu.

– Press the **UP** or **DOWN** button until **Skip Waypoint** is marked. Press the **SET** button to select the waypoint.

– Press the **SET** button again to confirm the selection and the waypoint is removed.

7.25.25 Last search (optional)



Condition

- **Bluetooth®** function is activated.
- The **KTMconnect** app (optional) is installed and opened on a suitable cellphone (Android devices Version 7.0 and higher, iOS devices Version 13 and higher).
- The combination instrument is connected to a suitable phone.
- The GPS function is activated on the connected phone.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Navigation** is marked. Press the **SET** button to open the submenu.

– Press the **UP** or **DOWN** button until **Last Search** is marked. Press the **SET** button to open the submenu.

– Press **UP** or **DOWN** button to select an address.

– Press the **SET** button to confirm the selection and start navigation.

Info
The last 10 addresses searched for in the **KTMconnect** app (optional) are saved in **Last Search**.

7.25.26 Favorites (optional)



I00761-10

Condition

- **Bluetooth®** function is activated.
- The **KTMconnect** app (optional) is installed and opened on a suitable cellphone (Android devices Version 7.0 and higher, iOS devices Version 13 and higher).
- The combination instrument is connected to a suitable phone.
- The GPS function is activated on the connected phone.
- Favorites are saved in the **KTMconnect** app (optional).

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Navigation** is marked. Press the **SET** button to open the submenu.
– Press the **UP** or **DOWN** button until **Favorites** is marked. Press the **SET** button to open the submenu.
– Press **UP** or **DOWN** button to select an address.
– Press the **SET** button to confirm the selection and start navigation.

Info
10 addresses in the **KTMconnect** app (optional) can be stored in **Favorites**.

7.25.27 Volume (optional)



I00762-10

Condition

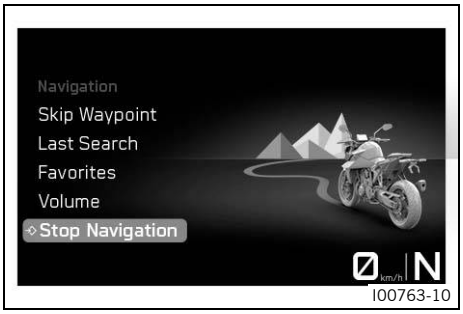
- The **KTMconnect** app (optional) is installed and connected on a suitable cellphone (Android devices Version 7.0 and higher, iOS devices Version 14 and higher).
- The combination instrument is connected to a suitable phone.
- For voice navigation: the combination instrument is connected to a suitable communication system and an appropriate language package has been downloaded in the **KTMconnect** app (optional).

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Navigation** is marked. Press the **SET** button to open the submenu.

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 **Volume** is marked. Press the **SET** button to open the submenu.
– Press the **UP** button to increase the volume of the activated voice navigation.
– Press the **DOWN** button to reduce the volume of the activated voice navigation.

7.25.28 Stop Navigation (optional)



I00763-10

Condition

- **Bluetooth®** function is activated.
- The **KTMconnect** app (optional) is installed and opened on a suitable cellphone (Android devices Version 7.0 and higher, iOS devices Version 13 and higher).
- The combination instrument is connected to a suitable phone.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Navigation** is marked. Press the **SET** button to open the submenu.

– Press the **UP** or **DOWN** button until **Stop Navigation** is marked. Press the **SET** button to confirm the selection.

– Press the **SET** button again to confirm the selection and end navigation.

7.25.29 Audio



I00727-10

Condition

- **Bluetooth®** function is activated.
- The combination instrument is connected to a suitable phone.
- The combination instrument is connected to a suitable communication system or the **Headset Type Corded** is selected.

– Press the **SET** button when the menu is closed.

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 highlighted. Press the **SET** button to open the submenu.

– Press and hold **UP** button to increase the audio volume.

– Press and hold **DOWN** button to reduce the audio volume.

– Press **UP** button briefly to change to the next audio track.

– Briefly pressing **DOWN** button twice changes to the previous audio title or plays the current audio title from the start, depending on the cellphone model.

– Press **SET** button to play or pause the audio track.

Info

With some cellphones, the audio player needs to be started before playback is possible.

The audio function can be added to **Custom Switch** for easier operation.

7.25.30 Call



I00764-10

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 when the menu is closed.
– Press the **UP** or **DOWN** button until **Call** is highlighted. Press the **SET** button to open the menu.

Info
It is not possible to change the audio volume using the combination switch with every cellphone.
The call duration and contact are displayed. Depending on the cellphone settings, the contact is shown by name.
If necessary, accessing contacts must be enabled on the cellphone.
You cannot navigate in the menu during an active phone conversation.

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

The last calls and favorites can be called up in the **Call** menu.

7.25.31 Last Calls



I00765-10

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 when the menu is closed.
– Press the **UP** or **DOWN** button until **Call** is highlighted. Press the **SET** button to open the menu.

Info
It is not possible to change the audio volume using the combination switch with every cellphone.
The call duration and contact are displayed. Depending on the cellphone settings, the contact is shown by name.
If necessary, accessing contacts must be enabled on the cellphone.
You cannot navigate in the menu during an active phone conversation.

– Press the **UP** or **DOWN** button until **Last Calls** is highlighted. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until the desired person is marked. This person can be called by pressing the **SET** button.

7.25.32 favorites



I00766-10

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 when the menu is closed.
– Press the **UP** or **DOWN** button until **Call** is highlighted. Press the **SET** button to open the menu.

Info

It is not possible to change the audio volume using the combination switch with every cellphone.

The call duration and contact are displayed. Depending on the cellphone settings, the contact is shown by name.

If necessary, accessing contacts must be enabled on the cellphone.

You cannot navigate in the menu during an active phone conversation.

– Press the **UP** or **DOWN** button until **Favorites** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until the desired person is marked. This person can be called by pressing the **SET** button.

7.25.33 Settings



I00728-10

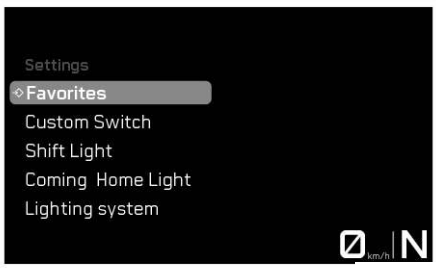
Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press the **SET** button to open the menu.

In the **Settings** menu, favorites, quick selections, **Connectivity** (optional), and the shift warning light can be configured. Settings can be made for units or various values. Several functions can be enabled or disabled.

7.25.34 Favorites



I00729-10

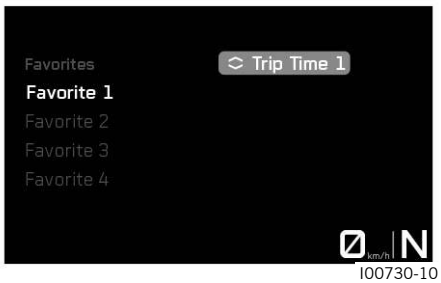
Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted.
– Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until “Favorites” is highlighted. Press the **SET** button to open the submenu.
– Access menu item with the **UP** or **DOWN** button, and add the selected information to the Favorites display using the **SET** button.

Up to four sets of information can be selected in the **Favorites** menu.

7.25.35 Favorites-Anzeige 1-4



I00730-10

Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted.
– Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Favorites** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button to select **Favorite 1**, **Favorite 2**, **Favorite 3**, or **Favorite 4**. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button to select the desired information. Press the **SET** button to confirm the selection.

7.25.36 Custom Switch



I00731-10

Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted.
– Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Custom Switch** is highlighted. Press **SET** button to open the menu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to set a direct selection submenu for **Custom Switch**.

Info
When the menu is closed, the submenu defined in **Custom Switch** is opened by pressing the **C** button.

7.25.37 Konnektivität



I00767-10

Condition

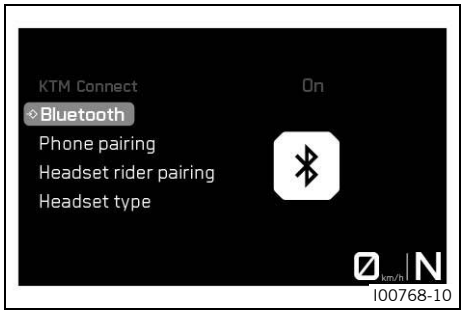
- The motorcycle is stationary.
- **Bluetooth®** function is activated.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Connectivity** is highlighted. Press the **SET** button to open the menu.

In the **Connectivity** menu, a suitable cellphone or communication system can be paired with the combination instrument via **Bluetooth®** and the audio function and navigation function can be configured.

Info
Not every cellphone or communication system is suitable for pairing with the combination instrument.
The standard **Bluetooth®** 4.0 must be supported.

7.25.38 Bluetooth



I00768-10

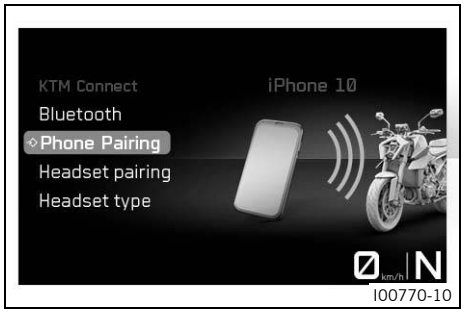
Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted.
– Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Connectivity** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Bluetooth** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to switch the **Bluetooth®** function on or off.

Info
The **Bluetooth®** function must be activated to pair a suitable cellphone or communication system with the vehicle.
Not every cellphone or communication system is suitable for pairing with the vehicle.

7.25.39 Pairing a cellphone



I00770-10

Condition

- The motorcycle is stationary.
- **Bluetooth®** function is activated.
- 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 **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Connectivity** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until “Pair phone” is highlighted. Press the **SET** button to open the submenu.

Info
Only one cellphone can be paired with the vehicle.

– Press the **UP** or **DOWN** button until **New Pairing** is marked. Press the **SET** button to open the menu.
– The vehicle starts searching for a suitable cellphone. If the search was successful, the name of the cell phone is displayed again in the Pairing menu. Press the **SET** button to start the pairing.

Info
The cellphone must be visible via **Bluetooth®** for the vehicle to find the cellphone.
Not every cellphone is suitable for pairing with the vehicle.

– A message appears on the combination instrument indicating that the vehicle is now ready for pairing. The pairing is completed successfully by confirming the **Passkey** on the cellphone and on the combination instrument.

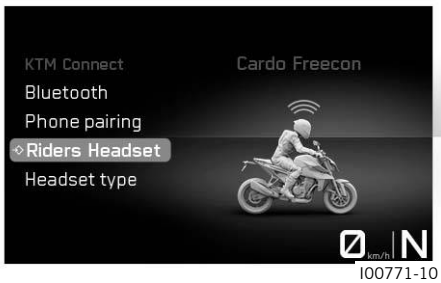
Info
Follow the instructions in the app when connecting with **KTMconnect**. Confirmation may be required on the combination instrument.

– Press the **UP** or **DOWN** button until “Delete pairing” is highlighted. The paired device can be deleted by pressing the **SET** button.
– Move the previously paired device into the range of the vehicle while the **Bluetooth®** function is active.
  ✓ The device is automatically connected with the vehicle.
  ✗ If the device is not automatically connected with the vehicle after approx. 30 seconds:
    – Switch on the vehicle again or repeat the **New Pairing** procedure.

A suitable cellphone can be paired with the combination instrument in the **Phone Pairing** submenu via **Bluetooth®**.

Info
Not every cellphone or communication system is suitable for pairing with the combination instrument.
Make sure the end device is in the correct pairing mode for call management. If the end device is only paired for media playback, the call function may not work.

7.25.40 Pairing a headset



I00771-10

Condition
- The motorcycle is stationary.
- **Bluetooth®** function is activated.
- 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 **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Connectivity** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Riders Headset** is highlighted. Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **New Pairing** is marked. Press the **SET** button to open the menu.
– The vehicle starts searching for a suitable communication system. If the search was successful, the name of the rider's headset is displayed in the **New Pairing** submenu. Press the **SET** button to start the pairing.

Info

The communication system must be in pairing mode for the communication system to be found by the vehicle. Follow the instructions in the communication system owner's manual.

Press the **UP** or **DOWN** button until **Delete Pairing** is highlighted. The paired device can be deleted by pressing the **SET** button.

Not every communication system is suitable for pairing with the vehicle.

– Move the previously paired device into the range of the vehicle while the **Bluetooth®** function is active.

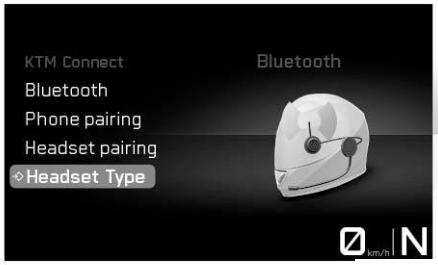
✓ The device is automatically connected with the vehicle.

✗ If the device is not automatically connected with the vehicle after approx. 30 seconds:

– Switch on the vehicle again or repeat the **New Pairing** procedure.

In the **Riders Headset** menu, a suitable rider communication system can be paired with the vehicle.

7.25.41 Headset Type



Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Connectivity** is highlighted. Press the **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Headset Type** is highlighted.

– Activate the menu item using the **UP** or **DOWN** button.

– Press the **SET** button to change the rider headset type.

The connection mode for the rider headset can be selected in the **Headset Type** menu.
The communication system is connected to the vehicle wirelessly via **Bluetooth®** in **Bluetooth Headset** display mode.
The communication system is connected directly to the smartphone in display mode **Corded Headset**.

Info

The **Riders Headset** menu item is only available in **Headset Type Bluetooth**.

7.25.42 Shift Light



Condition

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

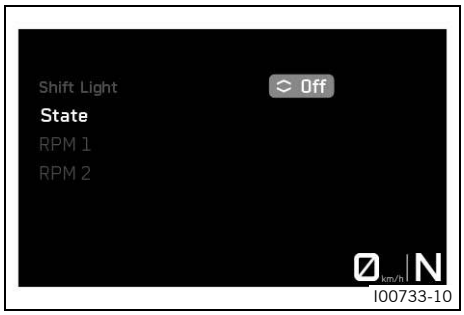
– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Shift Light** is highlighted. Press the **SET** button to open the submenu.

The shift warning light can be configured in the **Shift Light** submenu.

7.25.43 Shift Light State



I00733-10

Condition

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

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Shift Light** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to switch the shift warning light on or off.

7.25.44 RPM1



I00734-10

Condition

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

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Shift Light** is highlighted. Press the **SET** button to open the submenu.
– Press the **UP** or **DOWN** button until **RPM1** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Set the value for **SET** by pressing the **RPM1** button.

Info
RPM1 can be set in intervals of 500 between 5,500 and 10,000 rpm.
RPM1 must not be larger than **RPM2**.
If the engine speed reaches the set value **RPM1**, the engine speed display flashes as a shift warning light.

7.25.45 RPM2



I00735-10

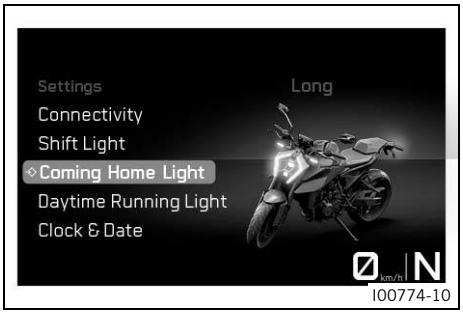
Condition

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

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Shift Light** is highlighted. Press the **SET** button to open the submenu.
– Press the **UP** or **DOWN** button until **RPM2** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Set the value for **SET** by pressing the **RPM2** button.

Info
RPM2 can be set in intervals of 500 between 7,000 and 10,000 rpm.
RPM2 must not be smaller than **RPM1**.
If the engine speed reaches the set value **RPM2**, the screen flashes as a shift warning light.

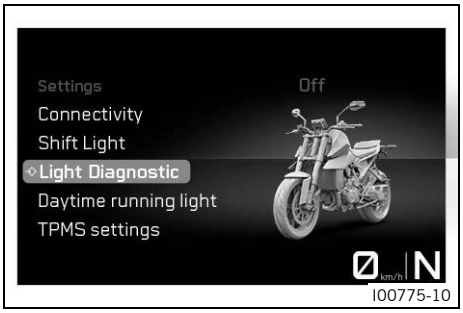
7.25.46 Coming Home Light



I00774-10

- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Settings** is highlighted. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Coming Home Light** is highlighted. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button to adjust **Coming Home Light**. The setting options are off, short and long.

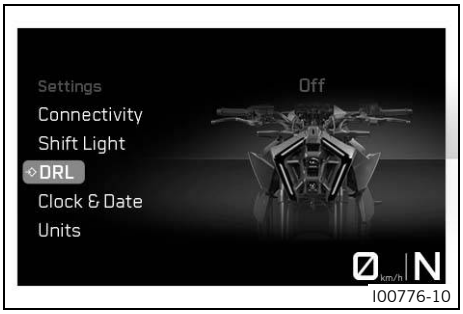
7.25.47 Light Diagnostic



I00775-10

- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Settings** is highlighted. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Light Diagnostic** is highlighted. Press the **SET** button to open the menu.
- Press **UP** or **DOWN** button to activate or deactivate **Light Diagnostic**.

7.25.48 Daytime Running Light



I00776-10

- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Settings** is highlighted. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Daytime Running Light** is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button to activate or deactivate **Daytime Running Light**.

7.25.49 TPMS Settings (optional)



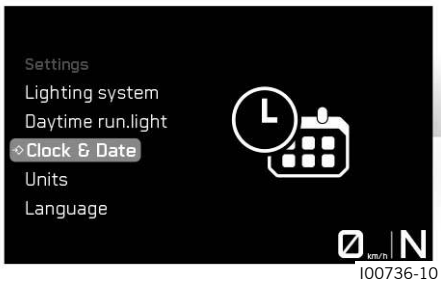
I00777-10

- Press the **SET** button when the menu is closed.
- Press the **UP** or **DOWN** button until **Settings** is highlighted. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **TPMS Settings** (optional) is marked. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button to activate or deactivate the warnings from **TPMS Settings** (optional).

7.25.50 Setting the time and date

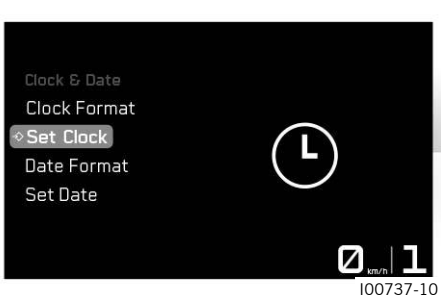
Condition

The motorcycle is stationary.



I00736-10

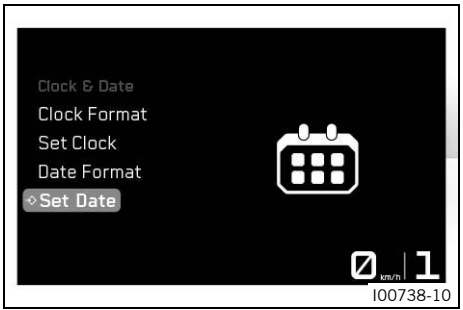
- Press the **SET** button when the menu is closed.
- Press **UP** or **DOWN** button until **Settings** appears. Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until **Clock & Date** is highlighted. Press the **SET** button to open the submenu.



I00737-10

Setting the clock

- Press the **UP** or **DOWN** button until **Set Clock** is marked.
- Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until the current hour is set. Press the **SET** button to select the hour.
- Press the **UP** or **DOWN** button until the current minute is set. Press the **SET** button to select the minute.
- Press the **BACK** button to exit the menu.

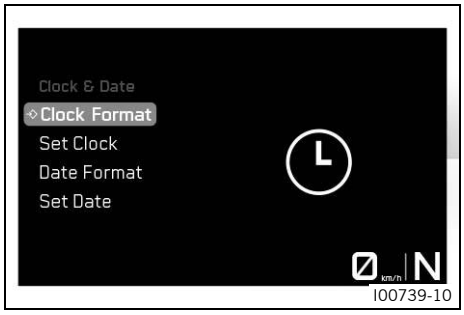


I00738-10

Setting the date

- Press the **UP** or **DOWN** button until **Set Date** is marked.
- Press the **SET** button to open the menu.
- Press the **UP** or **DOWN** button until the current day is set. Press the **SET** button to select the day.
- Press the **UP** or **DOWN** button until the current month is set. Press the **SET** button to select the month.
- Press the **UP** or **DOWN** button until the current year is set. Press the **SET** button to select the year.
- Press the **BACK** button to exit the menu.

7.25.51 Clock Format



I00739-10

Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Clock & Date** is highlighted. Press the **SET** button to open the submenu.

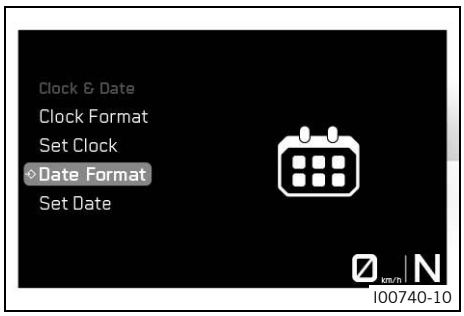
– Press the **UP** or **DOWN** button until **Clock Format** is highlighted. Press the **SET** button to open the menu.

– Activate the menu item using the **UP** or **DOWN** button.

– Press the **SET** button to select the time format.

Info
The possible settings are 24h and 12h.

7.25.52 Date Format



I00740-10

Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Clock & Date** is highlighted. Press the **SET** button to open the submenu.

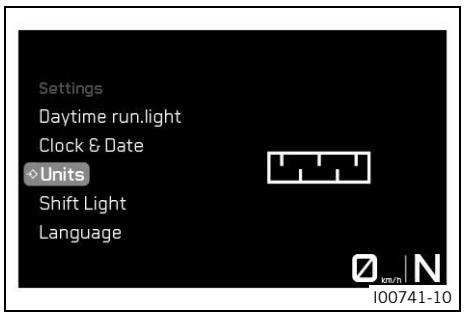
– Press the **UP** or **DOWN** button until **Date Format** is highlighted. Press the **SET** button to open the menu.

– Activate the menu item using the **UP** or **DOWN** button.

– Press the **SET** button to select the date format.

Info
The setting options are DD.MM.YYYY, MM.DD.YYYY and YYYY.MM.DD.

7.25.53 Units



I00741-10

Condition

- The motorcycle is stationary.

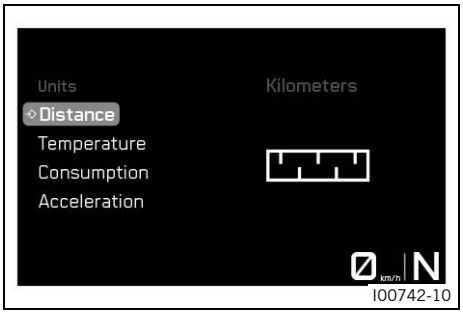
– Press the **SET** button when the menu is closed.

– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.

– Press the **UP** or **DOWN** button until **Units** is highlighted. Press the **SET** button to open the submenu.

The **Units** submenu allows settings to be made for units or various values.

7.25.54 Distance



I00742-10

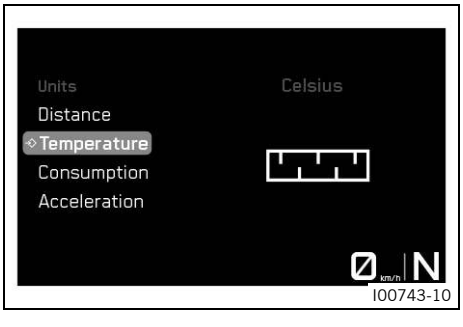
Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Units** is highlighted. Press the **SET** button to open the submenu.
– Press the **UP** or **DOWN** button until **Distance** is marked. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to confirm the desired unit.

Info
The setting options are kilometers or miles.

7.25.55 Temperature



I00743-10

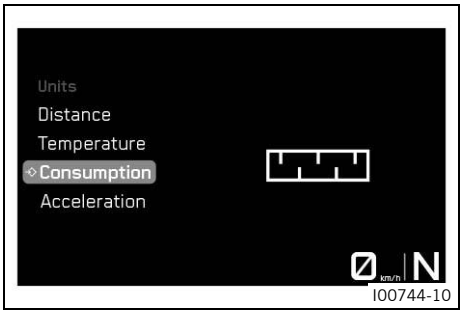
Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Units** is highlighted. Press the **SET** button to open the submenu.
– Press the **UP** or **DOWN** button until **Temperature** is marked. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to confirm the desired unit.

Info
The setting options are Celsius or Fahrenheit.

7.25.56 Consumption



I00744-10

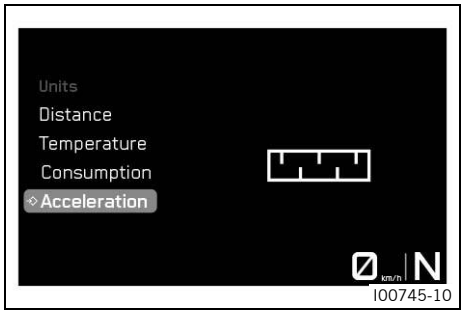
Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Units** is highlighted. Press the **SET** button to open the submenu.
– Press the **UP** or **DOWN** button until **Consumption** is marked. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to confirm the desired unit.

Info
The setting options are l/100km, km/l, USG/100mi, mi/USG, mi/l, l/100mi, UKG/100mi and mi/UKG.

7.25.57 Beschleunigung



I00745-10

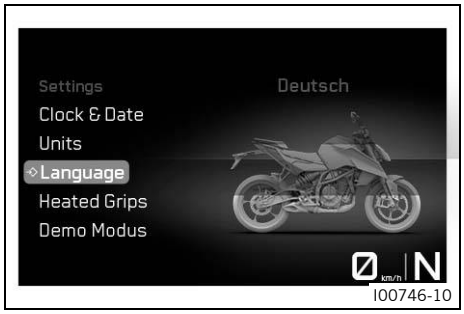
Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Units** is highlighted. Press the **SET** button to open the submenu.
– Press the **UP** or **DOWN** button until acceleration is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to confirm the desired unit.

Info
The setting options are m/s^2 and ft/s^2.

7.25.58 Language



I00746-10

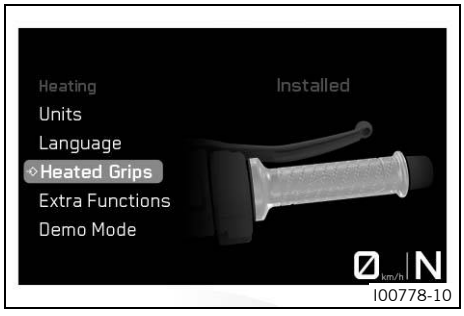
Condition

- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted.
– Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Language** is highlighted. Press the **SET** button to open the submenu.
– Activate the menu item using the **UP** or **DOWN** button.
– Press the **SET** button to confirm the desired language.

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

7.25.59 Heating (optional)



I00778-10

Condition

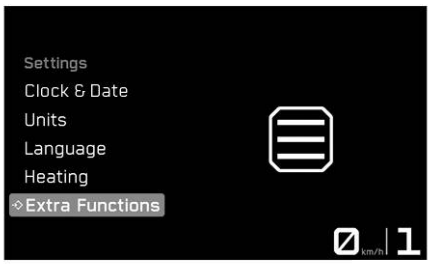
- The motorcycle is stationary.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted. Press **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Heating** is highlighted. Press the **SET** button to open the submenu.

The heated grip can be configured in the **Heating** submenu.

Info
In the **Settings** menu, the **Heating** submenu only controls the visibility of **Heated Grips** in the menu.

7.25.60 Extra Functions



I00260-01

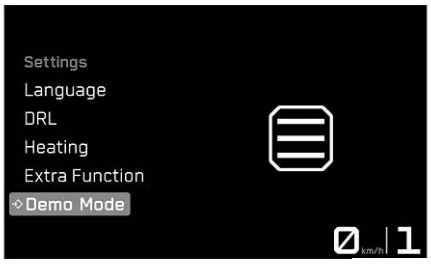
Condition

- 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 **Settings** is highlighted.
– Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Extra Functions** is highlighted. Press the **SET** button to open the submenu.
– Use the **UP** or **DOWN** button to navigate through the extra functions.

Info
The optional extra functions are listed.
The current **KTM PowerParts** and available software are listed on the KTM website.

7.25.61 Demo Mode



I00292-01

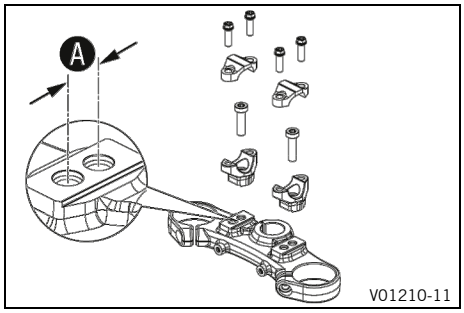
Condition

- The motorcycle is stationary.
- Motorcycle with demo mode.

– Press the **SET** button when the menu is closed.
– Press the **UP** or **DOWN** button until **Settings** is highlighted.
– Press the **SET** button to open the menu.
– Press the **UP** or **DOWN** button until **Demo Mode** is highlighted. Press the **SET** button to open the submenu.
– Use the **UP** or **DOWN** button to navigate through the demo mode functions.

Info
The activated demo mode functions (p. 24) are listed.
Once the demo mode expires, the optional software functions are available from an authorized KTM dealer.

8.1 Handlebar position



On the upper triple clamp there are two holes at a distance of Ⓐ apart.

Hole distance Ⓐ	15 mm (0.59 in)

The handlebar can be mounted in two different positions. This allows the handlebar to be mounted in the most comfortable position for the rider.

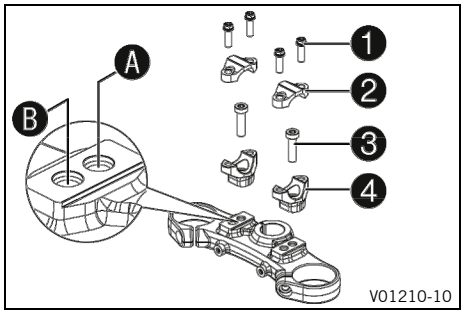
Info
KTM recommends the front handlebar position when using the vehicle on a race track.

8.2 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.



– Remove screws ❶. Take off the handlebar clamps ❷. Position the handlebar so that screws ❸ are accessible.

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

– Remove screws ❸. Take off handlebar supports ❹.
– Move the handlebar supports into the desired position Ⓐ or Ⓑ. Mount and tighten screws ❸.

Guideline

Mount the left and right handlebar supports in the same position.

Screw, handlebar support	M10	45 Nm (33.2 lbf ft) **Loctite®243™**

– Position the handlebar.

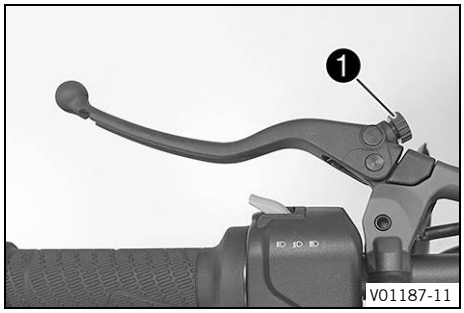
Info
Make sure the cables and wiring are positioned correctly.

– Position the handlebar clamp. Mount screws ❶ and tighten evenly.

Guideline

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

8.3 Adjusting the basic position of the clutch lever



– Push the clutch lever forward.
– Adjust the basic position of the clutch lever to your hand size by turning adjusting screw 1.

Info

Turn the adjusting screw clockwise to increase the distance between the clutch lever and the handlebar.

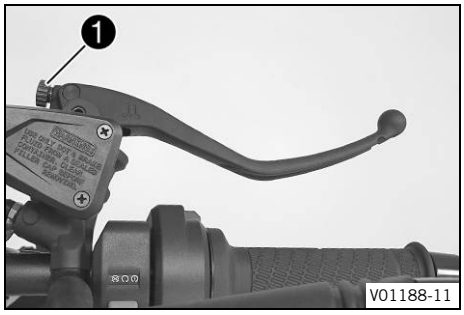
Turn the adjusting screw counterclockwise to decrease the distance between the clutch lever and the handlebar.

The range of adjustment is limited.

Only turn the adjusting screw by hand, and do not use force.

Do not make any adjustments while riding.

8.4 Adjusting the basic position of the hand brake lever



– Push the hand brake lever forward.
– Adjust the basic position of the hand brake lever to your hand size by turning adjusting screw 1.

Info

Turn the adjusting screw clockwise to increase the distance between the hand brake lever and the handlebar.

Turn the adjusting screw counterclockwise to decrease the distance between the hand brake lever and the handlebar.

The range of adjustment is limited.

Only turn the adjusting screw by hand, and do not use force.

Do not make any adjustments while riding.

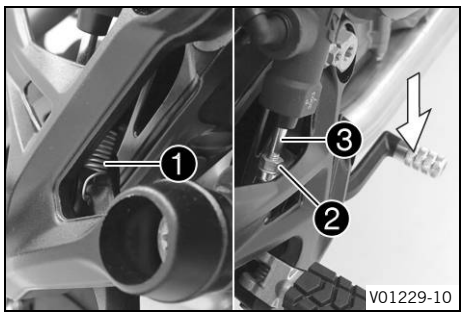
8.5 Adjusting the basic position of the foot brake lever

Warning

Danger of accidents The brake system will fail if it overheats or is adjusted incorrectly.

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

– Set the free travel on the foot brake lever in accordance with the specification.
– Ensure that the adjustment steps are performed properly. (Your authorized KTM workshop will be glad to help.)

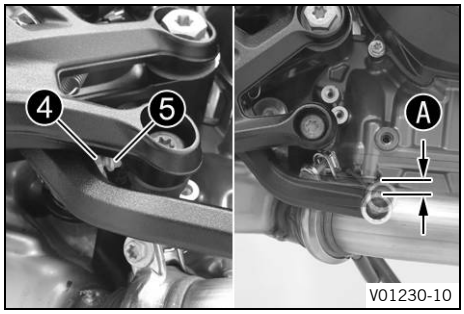


– Detach spring ❶.
– Loosen nut ❷.

Tip
Press the foot brake lever downwards to make this easier.

– Turn the push rod ❸ to set the basic position of the foot brake lever.

Info
The range of adjustment is limited.
The screw must be screwed in by at least five full turns.
Screwing the push rod into the ball joint adjusts the foot brake lever downwards.
Screwing the push rod out of the ball joint adjusts the brake lever upwards.

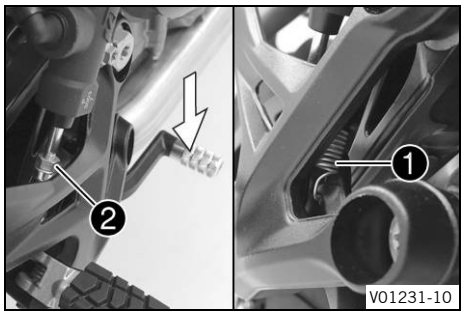


– Loosen nut ❹ and turn screw ❺ correspondingly until the free travel Ⓐ is present. If necessary, adjust the basic position of the foot brake lever.
Guideline

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

– Hold screw ❺ and tighten nut ❹.
Guideline

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



– Tighten nut ❷.
Guideline

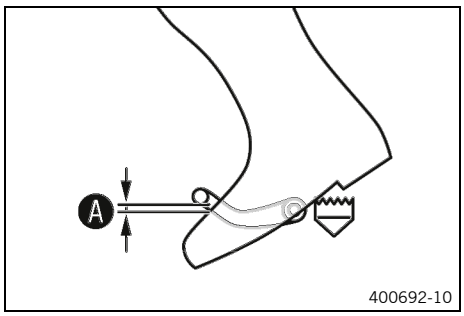
Nut, push rod, foot brake lever	M6	6 Nm (4.4 lbf ft)

Tip
Press the foot brake lever downwards to make this easier.

– Attach spring ❶.

8.6 Checking the basic position of the shift lever

Info
When driving, the shift lever must not touch the rider's boot when in the basic position.
If the shift lever is permanently touching the boot, the transmission will be subject to excessive load; this can cause a malfunction of the quickshifter (optional).

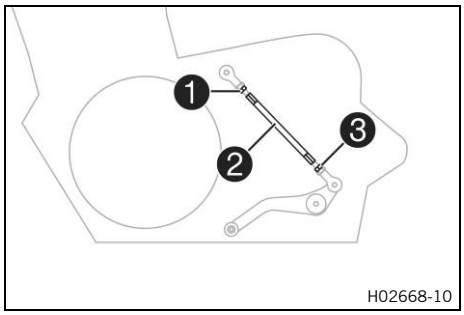


– Sit on the vehicle in the riding position and measure distance Ⓐ between the upper edge of your boot and the shift lever.

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

» If the distance does not meet specifications:
– Set the basic position of the shift lever. (p. 64)

8.7 Adjusting the basic position of the shift lever



– Loosen nut ❶, holding threaded rod ❷.
– Loosen nut ❸, holding threaded rod ❷.

Info
Nut ❸ has a left-handed thread.

– Turn threaded rod ❷ to adjust the shift lever.

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

– Tighten nut ❸ while holding threaded rod ❷.
Guideline

Nut, shift rod	M6LH	6 Nm (4.4 lbf ft)

– Tighten nut ❶ while holding threaded rod ❷.
Guideline

Nut, shift rod	M6	6 Nm (4.4 lbf ft)

9.1 Advice on preparing for first use

Danger

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

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

Warning

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

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

Warning

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

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

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

Warning

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

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

Warning

Danger of accidents New tires have reduced road grip.

The contact surface on new tires is not yet roughened.

– Run in new tires with moderate riding and only gradually increase the lean angle.
  Run-in distance 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 if you do not want to brake.

Info

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

– Make sure that the pre-sales inspection work has been carried out by an authorized KTM workshop.
  ✓ You will receive a delivery certificate when the vehicle is handed over.
– Before riding for the first time, read the entire Owner's Manual carefully.
– Get to know the controls.
– Adjust the basic position of the clutch lever. (📖 p. 62)
– Adjust the basic position of the hand brake lever. (📖 p. 62)
– Adjust the basic position of the foot brake lever. 🔧 (📖 p. 62)
– Get used to the handling characteristic of the motorcycle in a suitable area before making a longer trip. Try also to ride as slowly as possible to get a better feel for the motorcycle.
– Hold the handlebar firmly with both hands and keep your feet on the footrests when riding.

– Run the engine in. (📖 p. 66)

9.2 Running in the engine

– During the running-in time, 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)	9,800 rpm

– Avoid fully opening the throttle.

9.3 Loading the vehicle

Warning

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

The total weight consists of: operational motorcycle with a full tank, rider and, if necessary, a passenger with protective clothing and helmet, and, if necessary, mounted luggage.

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

Warning

Danger of accidents Improper mounting of cases, tank rucksacks or other luggage impairs the handling characteristics.

Luggage mounted incorrectly can slip while the vehicle is in motion.

– Mount and secure all luggage according to the manufacturer's instructions.
– Check that your luggage is fixed properly at regular intervals.

Warning

Danger of accidents Carrying luggage alters handling characteristics at high speed.

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

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

Warning

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

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

Warning

Danger of accidents Luggage which has slipped impairs visibility.

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

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

Warning

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

– Adapt your speed to your payload.

Warning

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 luggage is carried, ensure 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.

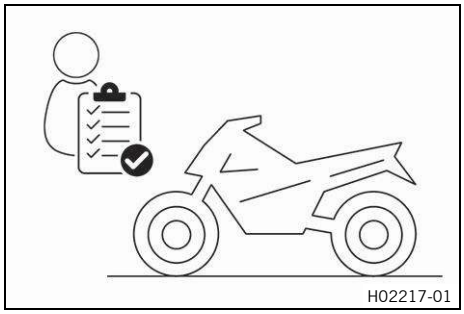
– Do not exceed the maximum permissible weight and maximum permissible axle loads.

Guideline

Maximum permissible overall weight	430 kg (948 lb.)
Maximum permissible front axle load	160 kg (353 lb.)
Maximum permissible rear axle load	270 kg (595 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.


H02217-01

- Check the engine oil level. (p. 126)
- Check the front brake fluid level. (p. 92)
- Check the rear brake fluid level. (p. 94)
- Check that the brake linings of the front brake are secured. (p. 93)
- Check that the brake linings of the rear brake are secured. (p. 96)
- Check that the brake system is functioning properly.
- Check the coolant level in the compensating tank. (p. 119)
- Check the chain for dirt. (p. 85)
- Check the chain tension. (p. 86)
- Check the tire condition. (p. 103)
- Check tire pressure. (p. 104)
- Check the settings of all controls and ensure that they can be operated smoothly.
- Check that the electrical system is functioning properly.
- Check that luggage is properly secured.
- Sit on the motorcycle and check the rear mirror setting.
- Check the fuel level.

10.2 Starting the vehicle

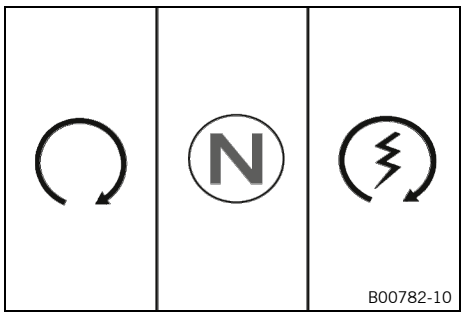
Danger
Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.
- Always make sure there is sufficient ventilation when running the engine.
- Use effective exhaust extraction when starting or running the engine in an enclosed space.

Caution
Danger of accidents Electronic components and safety devices will be damaged if the 12-V battery is discharged or missing.

If the 12-V battery is discharged or defective, malfunctions in the vehicle electronics can occur, especially when starting.

- Never operate the vehicle with a discharged 12-V battery or without a 12-V 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 the side stand and sit on the motorcycle.
– Make sure that the start button/emergency OFF switch is in the middle position ○.
– Switch on the ignition by turning the ignition key to the position ○.

  Guideline

  To avoid malfunctions in the control unit communication, do not switch the ignition off and on in rapid succession.

  ✓ After you switch on the ignition, you can hear the fuel pump working for about two seconds. The function check of the combination instrument is run at the same time.

  ✓ The ABS warning lamp lights up and goes back out after starting off.
– Shift the transmission to neutral position.

  ✓ The green idle indicator lamp **N** lights up.
– Press the start button/emergency OFF switch into the lower position ⚡.

Info

Only press the start button/emergency OFF switch into the lower position ⚡ when the combination instrument function check has been completed.

Do not open the throttle to start.

If the starting attempt is unsuccessful, wait for 15 seconds before making another attempt at starting.

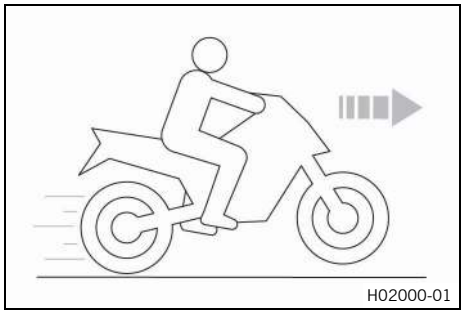
After 6 unsuccessful starting attempts, do not try again, and check the vehicle for other malfunctions instead.

This motorcycle is equipped with a safety starting system. You can only start the engine if the transmission is in neutral or if the clutch lever is pulled when a gear is engaged. If the side stand is folded out and you shift into gear and release the clutch lever, 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 Launch-Control (optional)



Launch Control is a vehicle electronics function.

Launch control adjusts the engine speed in order to achieve the best possible acceleration.

Launch control can be used for starting off for a maximum of three times in succession. Launch control is temporarily deactivated after the third starting off in order to protect the engine, transmission and cooling system from overloading.

Launch control is also deactivated if all conditions for activation are no longer met.

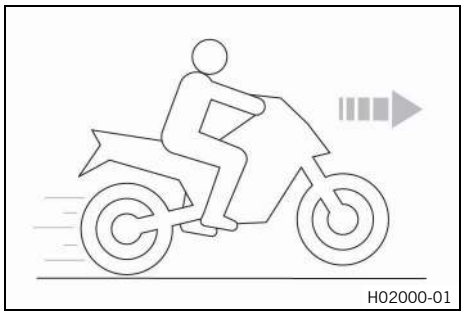
Launch control is enabled again in the following cases: the engine runs for at least three minutes, the engine is switched off for 20 minutes or a distance of 1.5 km (0.93 mi) has been covered.

10.5 Starting off with launch control (optional)

Warning

Danger of accidents Launch control enables powerful acceleration which may overwhelm a novice rider.

– Only use the launch control if you have the necessary experience.
– Do not use launch control on public roads.


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Condition

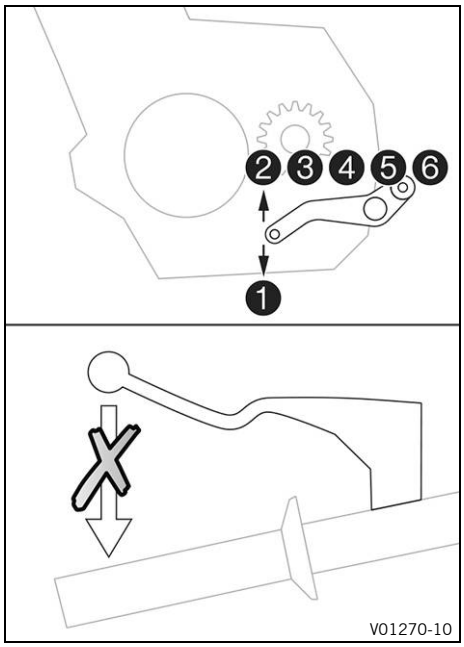
Ride mode **TRACK** (optional) is activated
First gear is engaged
The traction control indicator does not light up
Coolant temperature: > 60 °C (> 140 °F)
Total riding distance covered: > 1,000 km (> 620 mi)

– Activate launch control in the combination instrument.
  ✓ The number of available starts is indicated on the start screen.
– Apply full throttle with the clutch lever pulled.
  ✓ The engine speed is adjusted.

9,000 rpm

  ✓ The TC indicator lamp flashes quickly.
– Release clutch lever quickly but in a controlled manner.

10.6 QUICKSHIFTER+ (optional)



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If the QUICKSHIFTER+ is activated, you can shift up and down without actuating the clutch.
As there is no need to close the throttle grip, uninterrupted gear shifts are possible.
The QUICKSHIFTER+ uses the shift shaft position to check whether or not a shift should be initiated, and sends a corresponding signal to the engine control unit.
If the QUICKSHIFTER+ is disabled in the combination instrument, the clutch needs to be actuated in the normal way for each shift.

10.7 Shifting, riding

Warning
Danger of accidents Abrupt load alterations can cause the vehicle to get out of control.
– Avoid abrupt load alterations and sudden braking actions.
– Adapt your speed to the road conditions.

Warning
Danger of accidents If you change down at high engine speed, the rear wheel blocks and the engine races.
– Do not change into a low gear at high engine speed.

Warning
Danger of accidents An incorrect ignition key position causes malfunctions.
– Do not change the ignition key position while driving.

Warning
Danger of accidents Adjustments to the vehicle distract attention from traffic activity.
– Make all adjustments when the vehicle is at a standstill.

Warning
Risk of injury The passenger may fall from the motorcycle if they conduct themselves incorrectly.
– Ensure that the passenger sits correctly on the passenger seat, places his or her feet on the passenger foot pegs and holds on to the rider or the grab handles.
– Note the regulations governing the minimum age of passengers in your country.

Warning
Danger of accidents A risky riding style constitutes a major risk.
– Comply with traffic regulations and ride defensively and with foresight to detect sources of danger as early as possible.

Warning
Danger of accidents Cold tires have reduced road grip.
– Ride the first miles carefully on every journey at moderate speed until the tires reach operating temperature.

Warning
Danger of accidents New tires have reduced road grip.

The contact surface on new tires is not yet roughened.

– Run in new tires with moderate riding and only gradually increase the lean angle.

Run-in distance	200 km (124 mi)

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

The total weight consists of: operational motorcycle with a full tank, rider and, if necessary, a passenger with protective clothing and helmet, and, if necessary, mounted luggage.

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

Warning

Danger of accidents Improper mounting of cases, tank rucksacks or other luggage impairs the handling characteristics.

Luggage mounted incorrectly can slip while the vehicle is in motion.

– Mount and secure all luggage according to the manufacturer's instructions.
– 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.

– Only operate the vehicle if it is equipped with 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.

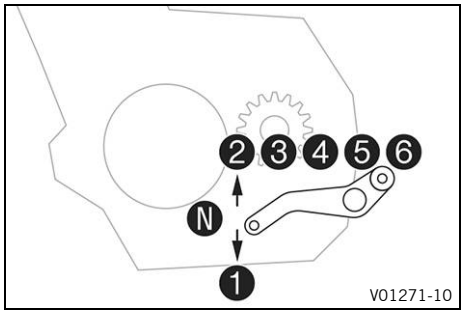
The QUICKSHIFTER+ can only be used if the function is enabled in the combination instrument.

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

– Only use the QUICKSHIFTER+ in the permitted speed range shown.

Info

If unusual noises occur while riding, stop immediately (taking care not to endanger yourself or other road users in the process), 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 neutral or idle position is between the first and second gears. First gear is used for starting off or for steep inclines.

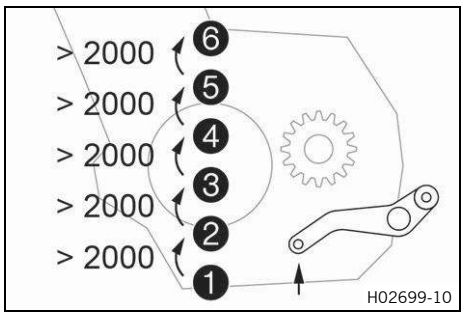
The operating temperature is reached when 5 bars of the temperature indicator light up.

– After reaching maximum speed by fully opening the throttle grip, turn the throttle back so it is ¾ open. This will barely reduce the speed, but fuel consumption will be considerably lower.

– Only accelerate 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 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 clutch lever and press the start button/emergency OFF switch into the lower position ⓕ. The transmission must not be shifted into neutral.
– Switch off the engine if running at idle speed or stationary for a long time.
– If the oil pressure warning lamp lights up during a trip, stop immediately and switch off the engine. Contact an authorized KTM workshop.
– If the malfunction indicator lamp lights up during a trip, please contact an authorized KTM workshop as soon as possible.
– If the general warning lamp lights up during a trip, the display shows a message.

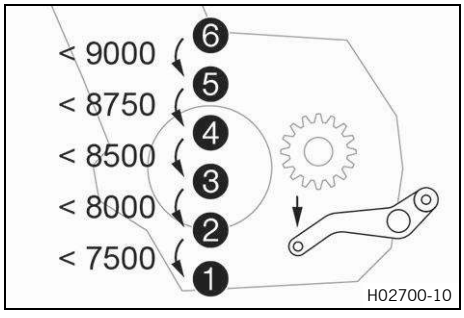
Info
Very important messages are stored in the **Warnings** menu.

– If the ice warning appears in the combination instrument, the roads may be icy. Adjust your speed to the road conditions.



– If the QUICKSHIFTER+ (optional) is activated in the combination instrument, you can shift up in the speed range shown without pulling the clutch lever.

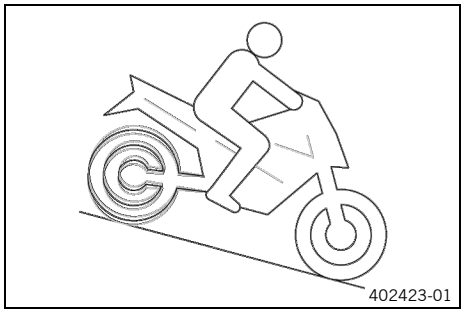
Info
The minimum engine speed before shifting up in revolutions per minute is shown in the figure.
Pull the shift lever quickly back to the stop without changing the throttle twist grip position.



– If the QUICKSHIFTER+ (optional) is activated 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.

10.8 Engine traction torque control (MSR)



The **MSR** is a 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 coefficient is to low to open the slipper clutch.
To further increase ride safety, the **MSR** is slope dependent.

Info
When the ABS or active ABS mode **Supermoto** is switched off, the **MSR** is not active.

10.9 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 if you do not want to brake.

Warning
Danger of accidents Higher total weight increases the stopping distance.
– Take the longer stopping distance into account when carrying a passenger or luggage with you.

Warning
Danger of accidents Salt on the roads impairs the brake system.
– Brake carefully several times to remove salt from the brake linings and the brake discs.

Warning
Danger of accidents ABS may increase the stopping distance in certain situations.
– Adjust application of the brakes to the respective riding situation and riding surface conditions.

Warning
Danger of accidents Excessively forceful application of the brakes blocks the wheels.
The ABS effectiveness is only ensured if it is switched on.
– Leave the ABS switched on in order to benefit from the protective effect.

Warning
Danger of accidents The rear wheel can lock due to the engine braking effect.
– Pull in the clutch, if you perform emergency or full braking, or if you brake on a slippery ground.

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

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

Warning
Danger of accidents Banked or laterally sloping ground reduces the maximum possible delay.
– If possible finish braking before going into a bend.

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

10.10 Stopping, parking

Warning
Risk of injury People who act without authorization endanger themselves and others.
– Do not leave the vehicle unattended if the engine is running.
– Protect the vehicle against access by unauthorized persons.
– Lock the steering and remove the ignition key if you leave the vehicle unattended.

Warning
Danger of burns Some vehicle components become hot when the vehicle is operated.
– Do not touch any parts such as the exhaust system, radiator, engine, damper, or brake system before the vehicle parts have cooled down.
– Let the vehicle parts cool down before you perform any work on the vehicle.

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

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

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

Note
Fire hazard Hot vehicle components pose a fire hazard and explosion risk.
– Do not park the vehicle near to materials which are highly flammable or explosive.
– Allow the vehicle to cool down before covering it.

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

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

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

10.11 Transporting

Note

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

Significant damage may be caused if the vehicle rolls away or falls over.

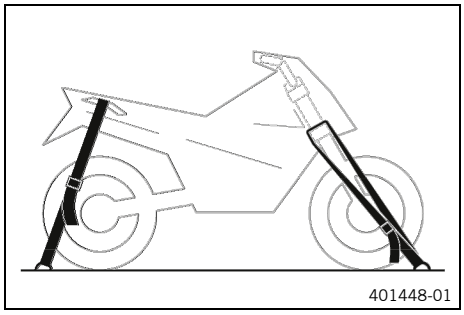
The components for parking the vehicle are designed only for the weight of the vehicle.

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

Note

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

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


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– Switch off the engine.
– Use tension belts or other suitable devices to secure the motorcycle against falling over or rolling away.

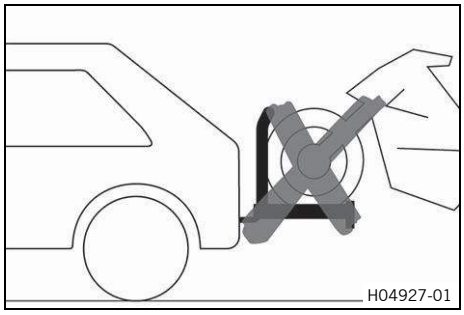
10.12 Towing in the event of a breakdown

Note

Danger of damage Towing away using a towing vehicle is not an appropriate vehicle recovery method.

Damage to the drive train or transmission may occur during towing.

– Do not use towing equipment where the wheels of the broken down vehicle remain on the road and rotate as it is towed.
– Always transport a broken down vehicle on a trailer or on the loading area of a transport vehicle.


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– Ensure that the broken down vehicle is properly secured on the trailer or transport vehicle.
– Observe local regulations for the recovery of broken down vehicles.

10.13 Refueling

Danger

Fire hazard Fuel is highly flammable.

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

- Do not fuel 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 harmful to health.

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

Note

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

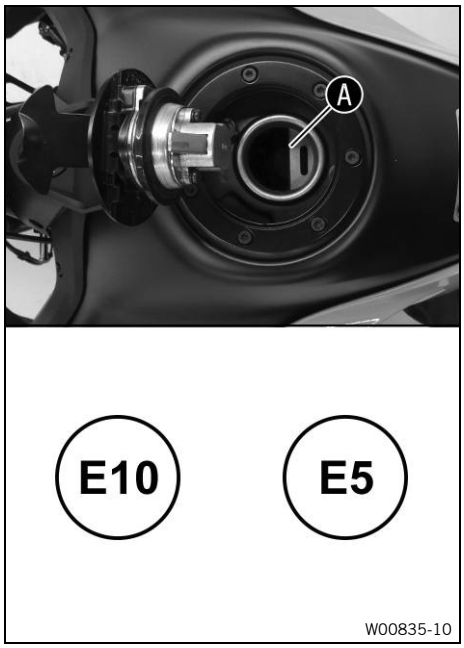
In some countries and regions, the available fuel quality and cleanliness may not be sufficient. This will result in problems with the fuel system.

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

Note

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

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



- Switch off the engine.
- Open fuel tank filler cap. (p. 20)
- Fill the fuel tank with fuel up to the lower edge Ⓐ of the filler neck.

Fuel tank capacity, approx.	14 l (3.7 US gal)	Super unleaded (ROZ 95) (p. 148)

- Close the fuel tank filler cap. (p. 21)

11.1 Additional information

Any further work that results from the service work must be ordered separately and invoiced separately.
Different service intervals may apply in your country, depending on the local operating conditions.
Individual service intervals and scopes may change in the course of technical developments. The most up-to-date service schedule is available for authorized dealers for the electronic proof of service. Your authorized dealer will be happy to advise you.

11.2 Service schedule

	after 1,000 km (620 mi)	every 15,000 km (9,300 mi)	every 30,000 km (18,600 mi)	every 12 months	every 24 months	every 48 months
Read out the fault memory using the KTM diagnostics tool. 🔧	○	●	●	●	●	●
Program the shift shaft sensor. 🔧	○	●	●	●	●	●
Check that the electrical system is functioning properly. 🔧	○	●	●	●	●	●
Check that the brake linings of the front brake are secured. (📖 p. 93)	○	●	●	●	●	●
Check that the brake linings of the rear brake are secured. (📖 p. 96)	○	●	●	●	●	●
Check the brake discs. (📖 p. 91)	○	●	●	●	●	●
Check the brake lines for damage and leakage. 🔧	○	●	●	●	●	●
Check the front brake fluid level. (📖 p. 92)	○	●	●	●		
Change the front brake fluid. 🔧					●	●
Check the rear brake fluid level. (📖 p. 94)	○	●	●	●		
Change the rear brake fluid. 🔧					●	●
Check the free travel of the clutch lever. (📖 p. 129)	○	●	●	●	●	●
Check the free travel of the foot brake lever. (📖 p. 94)	○	●	●	●	●	●
Change the engine oil and the oil filter, clean the oil screens. 🔧 (📖 p. 126)	○	●	●	●	●	●
Check all hoses (e.g. fuel, cooling, bleeder, drainage hoses, etc.) and sleeves for cracking, tightness, and correct routing. 🔧		●	●	●	●	●
Empty the drainage hoses. 🔧	○	●	●	●	●	●
Check the cables for damage and for routing without kinks. 🔧		●	●	●	●	●
Check the frame. 🔧			●			
Check the swingarm. 🔧			●			
Check the fork bearing for play. 🔧		●	●			
Check steering head bearing play. 🔧	○	●	●			
Check the wheel bearing for play. 🔧		●	●			
Check the shock absorber and fork for leaks. Perform a fork service and shock absorber service as needed, when possible and depending on how the vehicle is used. 🔧	○	●	●	●	●	●
Check the tire condition. (📖 p. 103)	○	●	●	●	●	●
Check tire pressure. (📖 p. 104)	○	●	●	●	●	●
Check the chain, rear sprocket, engine sprocket, and chain guide. (📖 p. 87)		●	●	●	●	●
Check the chain tension. (📖 p. 86)	○	●	●	●	●	●
Grease all moving parts (e.g. side stand, hand lever, chain, etc.) and check for smooth operation. 🔧	○	●	●	●	●	●
Change the spark plugs. 🔧			●			

	after 1,000 km (620 mi)	every 15,000 km (9,300 mi)	every 30,000 km (18,600 mi)	every 12 months	every 24 months	every 48 months
Check the valve clearance and oil screen. 🔧		●				
Change the air filter, clean the air filter box. 🔧		●	●			
Check the fuel pressure. 🔧		●	●	●	●	●
Check the headlight setting. (📖 p. 115)	○	●	●			
Check the tightness of the safety-relevant screws and nuts which are easily accessible. 🔧	○	●	●	●	●	●
Clean the dust boots of the fork legs. 🔧 (📖 p. 82)		●	●			
Check the antifreeze and coolant level. (📖 p. 118)	○	●	●	●	●	
Change the coolant. (📖 p. 122)						●
Check that the radiator fan is functioning properly. 🔧	○	●	●	●	●	●
Final check: Check the vehicle is roadworthy and take a test ride. 🔧	○	●	●	●	●	●
Read out the fault memory using the KTM diagnostics tool after a test ride. 🔧	○	●	●	●	●	●
Set the service interval display with the combination instrument. 🔧	○	●	●	●	●	●
Enter electronic proof of service. 🔧	○	●	●	●	●	●

○ One-time interval

● Periodic interval

12.1 Adjusting the spring preload of the shock absorber

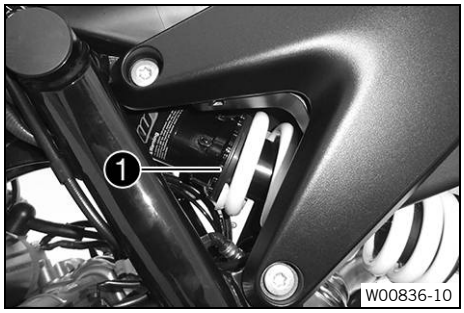
Warning

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

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

Info

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



– Adjust the spring preload by turning at adjusting device ❶ using the hook wrench from the tool set.

Guideline

Spring preload	
Standard	5 clicks

Info

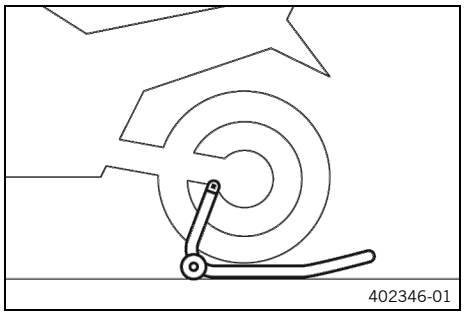
The spring preload can be set to 10 different positions.

13.1 Raising the motorcycle with the rear lifting gear

Note

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

– Park the vehicle on a firm and level surface.



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

Retaining adapter (63529955000)
Rear wheel work stand (69329955000)

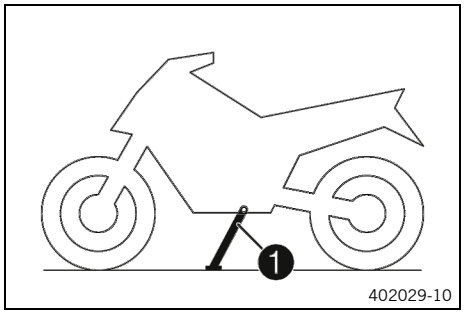
– Stand the motorcycle upright, align the lifting gear to the swingarm and the adapters, and raise the motorcycle.

13.2 Removing the rear of the motorcycle from the lifting gear

Note

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

– Park the vehicle on a firm and level surface.



– Secure the motorcycle against falling over.
– Remove the rear lifting gear and lean the vehicle on side stand ❶.
– Remove the retaining adapter from the link fork.

13.3 Lifting the motorcycle with the front lifting gear

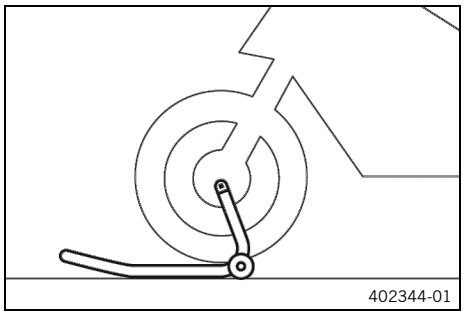
Note

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

– Park the vehicle on a firm and level surface.

Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 81)



Main work

– Move the handlebar to the straight-ahead position. Align the lifting gear at the front with the adapters to the fork legs.

Front wheel work stand, small (61129965100)

Info
Always raise the motorcycle at the rear first.

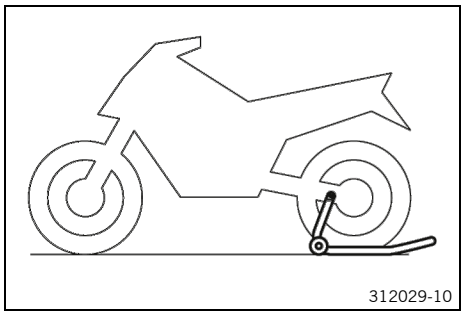
– Lift the motorcycle at the front.

13.4 Taking the motorcycle off the front lifting gear

Note

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

– Park the vehicle on a firm and level surface.

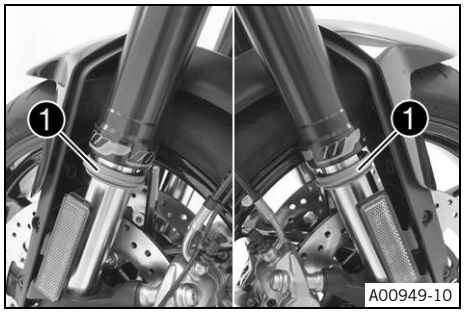


– Secure the motorcycle against falling over.
– Remove the front lifting gear.

13.5 Cleaning the dust boots of the fork legs

Preparatory work

– Raise the motorcycle with the rear lifting gear. (p. 81)
– Lift the motorcycle with the front lifting gear. (p. 81)



Main work

– Push dust boots ❶ of both fork legs downward.

Info

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

Warning

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

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

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

Universal oil spray (p. 149)

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

Finishing work

– Take the motorcycle off the front lifting gear. (p. 82)
– Remove the rear of the motorcycle from the lifting gear. (p. 81)

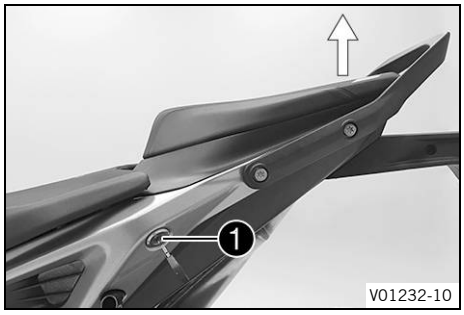
13.6 Removing the passenger seat

Info

The passenger seat cover is also included for the special model.

If it is not required to carry a passenger, the passenger seat cover can be used instead of the passenger seat.

The passenger seat cover can be removed in the same way as the passenger seat.



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

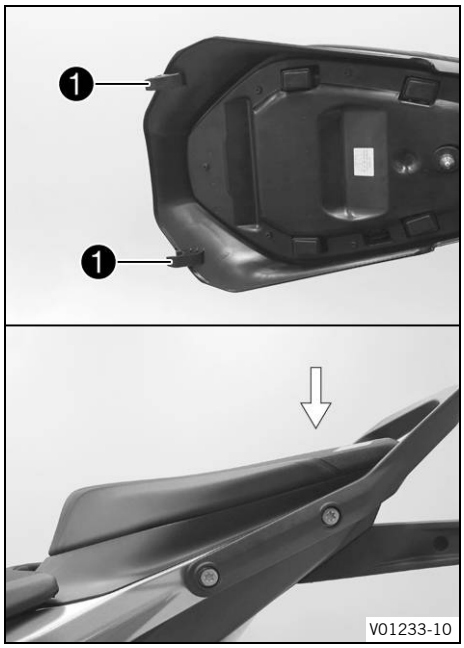
13.7 Mounting the passenger seat

Info

The passenger seat cover is also included for the special model.

If it is not required to carry a passenger, the passenger seat cover can be used instead of the passenger seat.

The passenger seat cover can be fitted in the same way as the passenger seat.



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

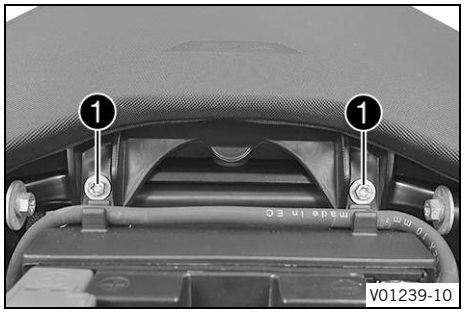
Warning

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

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

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

13.8 Removing the front rider's seat



Preparatory work

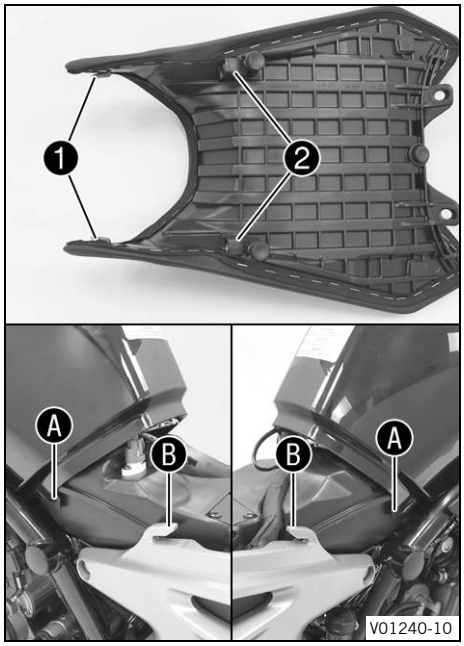
– Remove the passenger seat. (📖 p. 83)

Main work

– Remove screws ❶.

– Raise the rear of the front rider's seat, pull the seat back, and lift it off.

13.9 Mounting the front rider's seat

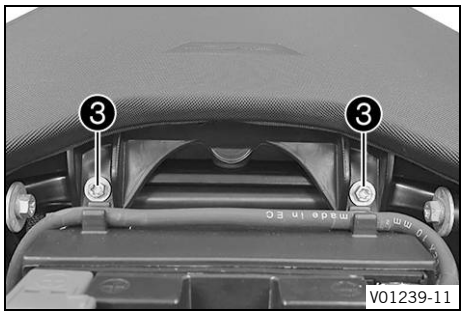


Main work

– Push the front rider's seat forward and lower at the rear.

✓ The holding lugs ❶ engage in the loops Ⓐ on the tank.

✓ The holding lugs ❷ engage in the loops Ⓑ on the frame.



– Mount and tighten screws ❸.

Guideline

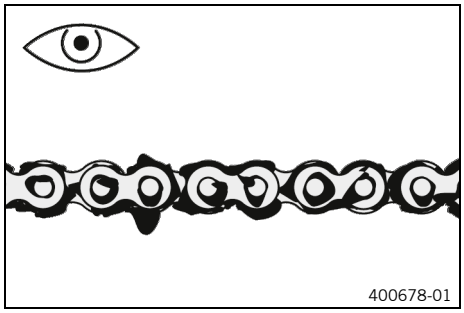
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

– Finally, check that the front rider's seat is correctly mounted.

Finishing work

– Mount the passenger seat. (📖 p. 83)

13.10 Checking the chain for dirt



– Check the chain for heavy soiling.
  » If the chain is very dirty:
    – Clean the chain. (📖 p. 85)

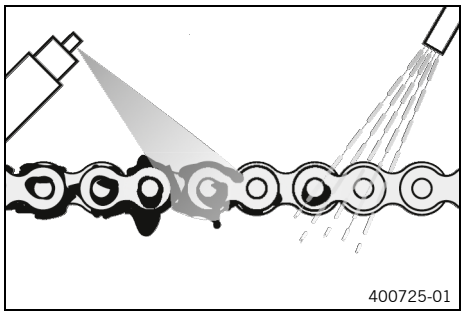
13.11 Cleaning the chain

Warning
Danger of accidents Lubricants on the tires reduces the road grip.
– Remove lubricants from the tires using a suitable cleaning agent.

Warning
Danger of accidents Oil or grease on the brake discs reduces the braking effect.
– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.

Note
Environmental hazard Hazardous substances cause environmental damage.
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

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



Preparatory work
– Raise the motorcycle with the rear lifting gear. (📖 p. 81)

Main work
– Rinse off loose dirt with a soft jet of water.
– Remove old grease residue with chain cleaner.

Chain cleaner (📖 p. 149)

– After drying, apply chain spray.

Street chain spray (📖 p. 149)

Finishing work
– Remove the rear of the motorcycle from the lifting gear. (📖 p. 81)

13.12 Checking the chain tension

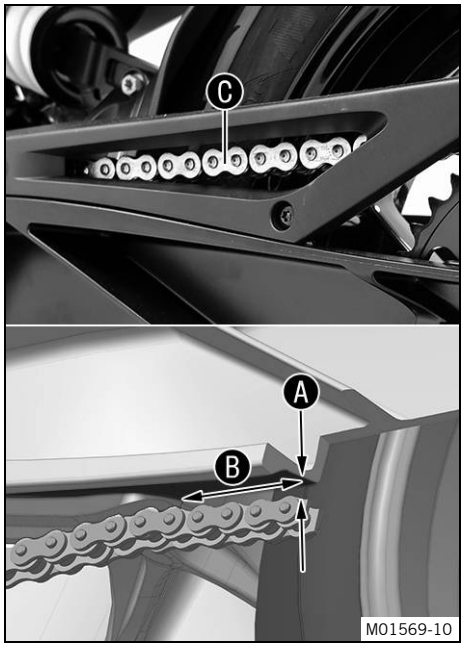
Warning

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

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

If the chain is too loose, the chain may fall off the engine sprocket or the rear sprocket. As a result, the rear wheel locks or the engine will be damaged.

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



Preparatory work

– Raise the motorcycle with the rear lifting gear. (p. 81)

Main work

– Shift the transmission to neutral position.
– Push the chain behind the chain sliding piece up and determine the chain tension Ⓐ between the swingarm and the upper edge of the chain.

Guideline

Distance Ⓑ from the chain sliding piece	2.5 cm (0.98 in)
Measure the distance from the flat part of the swingarm directly above the chain, not from the edge of the swingarm.	

Info

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

Chain tension	2 … 5 mm (0.08 … 0.2 in)

» If the chain tension does not meet the specification:
– Adjust the chain tension. (p. 86)

Finishing work

– Remove the rear of the motorcycle from the lifting gear. (p. 81)

13.13 Adjusting the chain tension

Warning

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

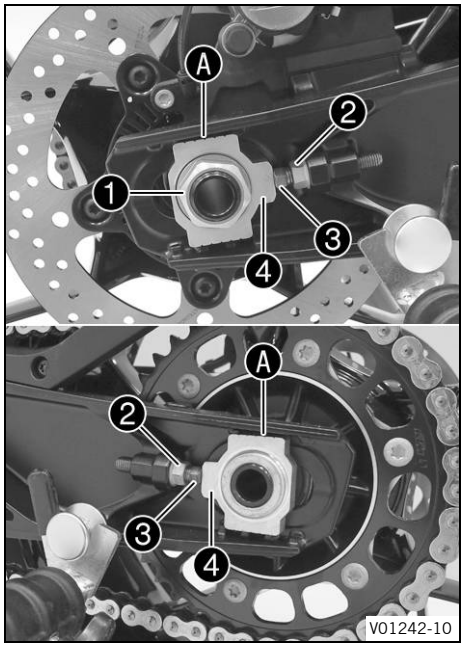
If the chain is tensioned too much, the chain, engine sprocket, rear sprocket, transmission and rear wheel bearings wear more quickly. Some components may break if overloaded.

If the chain is too loose, the chain may fall off the engine sprocket or the rear sprocket. As a result, the rear wheel locks or the engine will be damaged.

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

Preparatory work

– Raise the motorcycle with the rear lifting gear. (p. 81)
– Check the chain tension. (p. 86)



Main work

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

  Guideline

Chain tension	2 … 5 mm (0.08 … 0.2 in)
Turn the adjusting screws ❸ on the left and right so that the markings on the left and right chain adjusters ❹ are in the same position relative to the reference marks Ⓐ. The rear wheel is then correctly aligned.	

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

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

  Guideline

Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft) Thread and contact area of wheel spindle greased

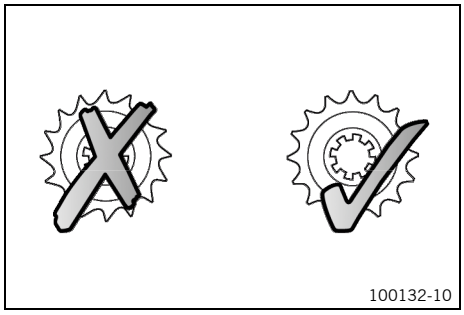
Finishing work

– Check the chain tension. (p. 86)
– Remove the rear of the motorcycle from the lifting gear. (p. 81)

13.14 Checking the chain, rear sprocket, engine sprocket, and chain guide

Preparatory work

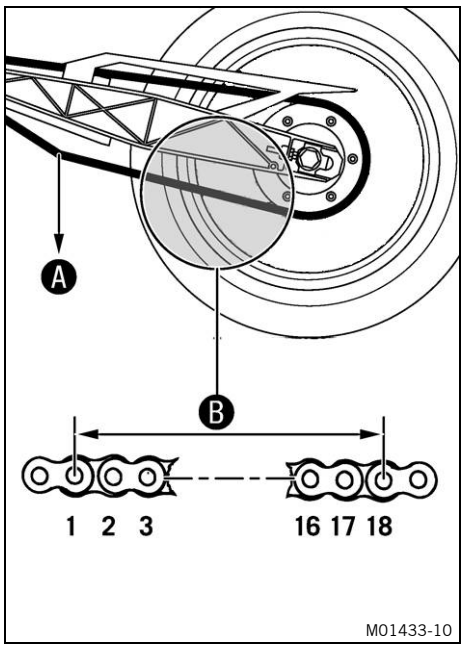
– Raise the motorcycle with the rear lifting gear. (p. 81)



Main work

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

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



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

Guideline

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

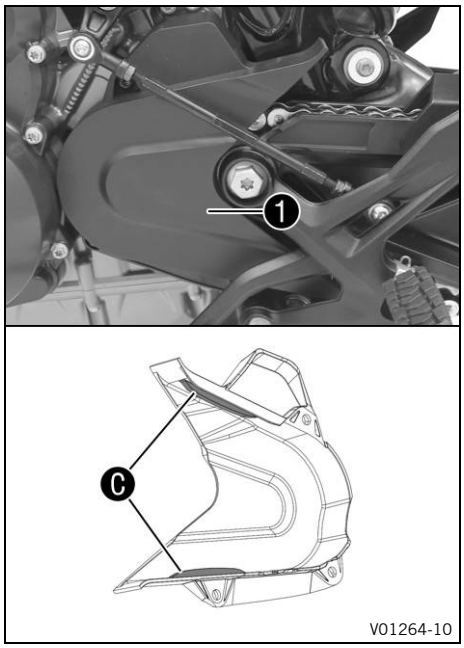
– Measure distance Ⓑ of 18 chain rollers in the lower chain section.

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

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

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

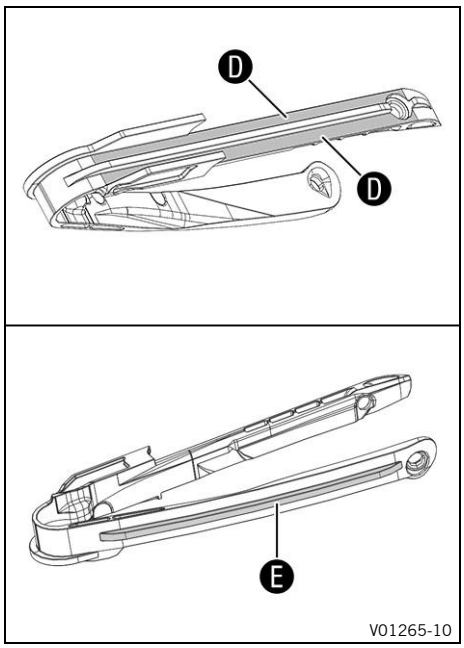
Info
When a new chain is mounted, the rear sprocket and engine sprocket should also be changed. New chains wear out faster on old, worn sprockets.
For safety reasons, the chain has no chain joint.



– Check the engine sprocket cover ❶ for wear.
» If the engine sprocket cover is highly worn in the marked area Ⓒ:
– Change the engine sprocket cover.
– Check the engine sprocket cover ❶ for tightness.
» If the engine sprocket cover is loose:
– Tighten the screws on the engine sprocket cover.

Guideline

Screw, engine sprocket cover	M5	5 Nm (3.7 lbf ft) **Loctite®243™**



– Check the chain sliding guard for wear.
  » If continuous signs of wear to the chain are visible on the chain sliding guard in the area D marked:
    – Replace the chain sliding guard.
  » If the chain sliding guard is highly worn on the underside in the marked area E:
    – Replace the chain sliding guard.
– Check that the chain sliding guard is firmly seated.
  » If the chain sliding guard is loose:
    – Tighten the screws on the chain sliding guard.

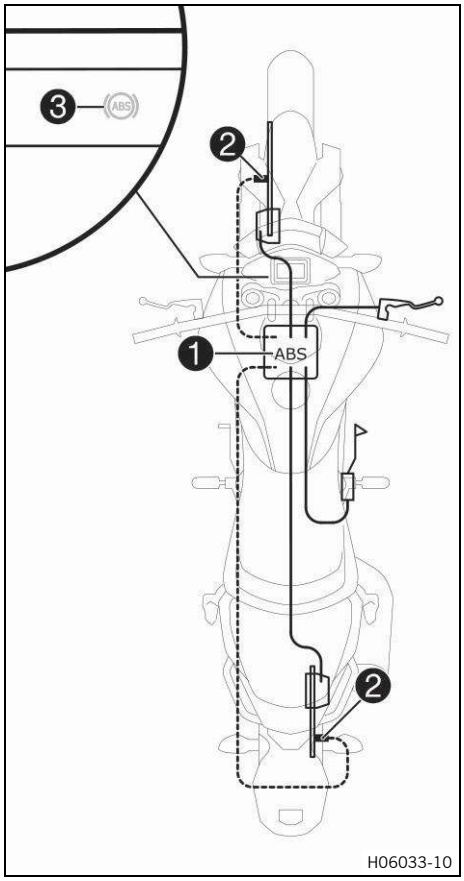
    Guideline

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

Finishing work

– Remove the rear of the motorcycle from the lifting gear. (p. 81)

14.1 Anti-lock braking system (ABS)



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

Warning

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

- Do not make any changes to the suspension travel.
- Only use spare parts on the brake system which have been approved and recommended by KTM.
- Only use tires/wheels approved by KTM with the corresponding speed index.
- Maintain the specified tire pressure.
- Ensure that service work and repairs are performed professionally. (Your authorized KTM workshop will be glad to help.)

The ABS is a safety system that prevents the wheels locking when driving straight ahead or when cornering (within the limits of physics).

Warning

Danger of accidents Driving aids can reduce the probability of a fall only within physical limits.

It is not always possible to compensate for certain 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.

Warning

Danger of accidents An incorrectly selected ABS mode makes control of the vehicle considerably more difficult.

The ABS modes are each only suitable for certain conditions.

- Always select an ABS mode that is compatible with the surface of the ground.

The ABS control is dependent on the riding mode. ABS has two operating modes: the **Road** and **Supermoto** ABS modes.
In ABS mode **Road**, ABS controls both wheels.
In ABS mode **Supermoto**, there is no ABS control on the rear wheel.

Info

The curve dependent control is only active in ABS mode **Road**.

The ABS operates with two independent brake circuits (front and rear brakes). When the ABS control unit detects a locking ten-

dency in a wheel, ABS begins regulating the brake pressure. The control function causes a slight pulsing of the hand and foot brake levers.

The ABS warning lamp ❸ must light up after the ignition is switched on and go out after starting off. If it does not go out after starting off or if it 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 warning lamp may also light up if the rotating speeds of the front and rear wheels differ greatly under extreme riding conditions, for example when making "wheelies" or if the rear wheel spins. This causes the ABS to switch off.

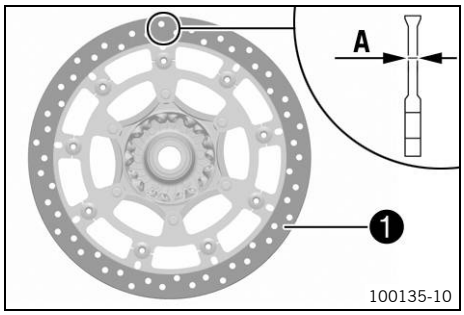
To reactivate the ABS, stop the vehicle and switch off the ignition. The ABS is reactivated when the vehicle is switched on again. The ABS warning lamp goes out after starting off.

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

Info

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

Brake discs - wear limit	
front	4.5 mm (0.177 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 disc.

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

» If the brake disc exhibits damage, cracking, or deformation:

– Change the front brake discs.
– Change the rear brake disc.

14.3 Checking the front brake fluid level

Warning

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

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

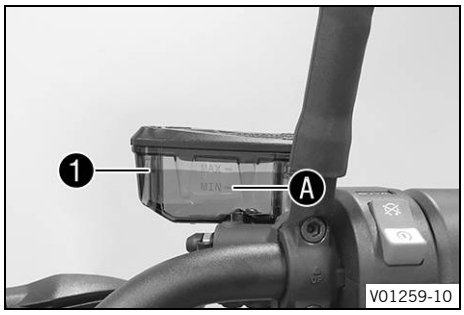
– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)

Warning

Danger of accidents Brake fluid which is too old or of the wrong type impairs the function of the brake system.

– 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.)

– Make sure that only clean, approved brake fluid from a tightly sealed container is used. (Your authorized KTM workshop will be glad to help.)



– Move the brake reservoir mounted on the handlebar to a horizontal position.

– Check the brake fluid level in brake fluid reservoir 1.

» If the brake fluid level has dropped below **MIN** marking A:

– Add front brake fluid. (p. 92)

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 specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

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

Warning

Skin irritation Brake fluid is a harmful substance.

– 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 Brake fluid which is too old or of the wrong type impairs the function of the brake system.

– 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.)
– Make sure that only clean, approved brake fluid from a tightly sealed container is used. (Your authorized KTM workshop will be glad to help.)

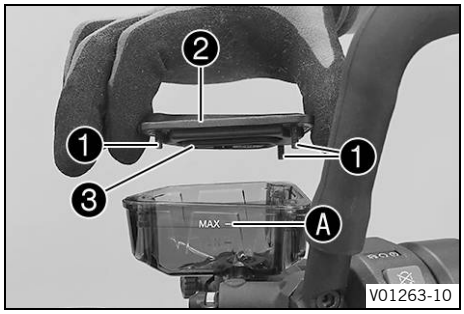
Note

Environmental hazard Hazardous substances cause environmental damage.

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

Info

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



Preparatory work

– Check that the brake linings of the front brake are secured. (p. 93)

Main work

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

Brake fluid DOT 4 / DOT 5.1 (p. 147)

– Position cover ❷ with membrane ❸.
– Mount and tighten screws ❶.

Info

Use water to immediately clean up any brake fluid that has overflowed or spilled.

14.5 Checking that the brake linings of the front brake are secured

Warning

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

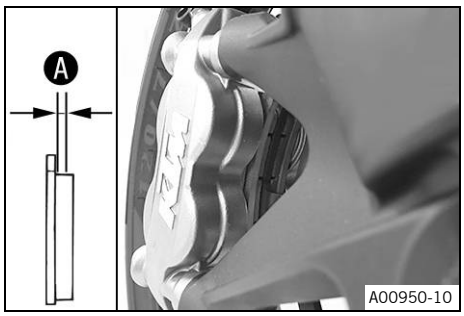
– Ensure that worn-out brake linings are replaced immediately. (Your authorized KTM workshop will be glad to help.)

Warning

Danger of accidents Damaged brake discs reduce the braking effect.

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

– Check the brake linings regularly.



– Check the brake linings for minimum thickness A.

Minimum thickness A	≥ 1 mm (≥ 0.04 in)

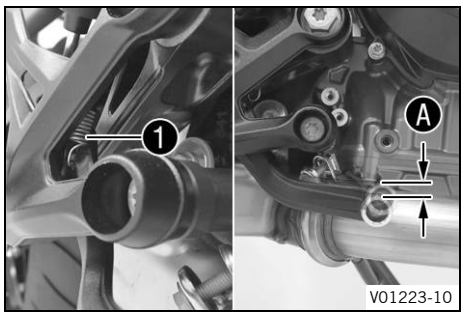
» If the minimum thickness is less than specified:
– Change the brake linings of the front brake.
– Check the brake linings for damage and cracking.
» If there is damage or cracking:
– Change the brake linings of the front brake.
– Check that the brake linings are secured.
» If the brake linings are not secured correctly:
– Secure brake linings, replace with new parts if necessary.

14.6 Checking the free travel of the foot brake lever

Warning
Danger of accidents The brake system will fail if it overheats or is adjusted incorrectly.

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

– Set the free travel on the foot brake lever in accordance with the specification.
– Ensure that the adjustment steps are performed properly. (Your authorized KTM workshop will be glad to help.)



– Detach spring 1.
– Move the foot brake lever back and forth between the end stop and the contact to the foot brake cylinder piston and check free travel A.

Guideline

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

» If the free travel does not match the specification:
– Adjust the basic position of the foot brake lever. (p. 62)
– Attach spring 1.

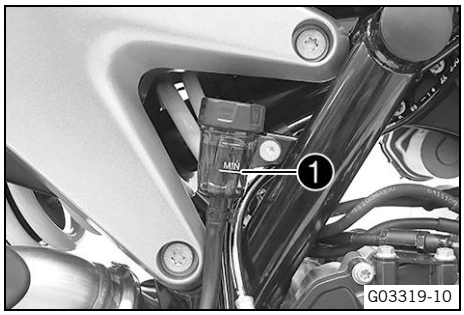
14.7 Checking the rear brake fluid level

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 Brake fluid which is too old or of the wrong type impairs the function of the brake system.
– 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.)
– Make sure that only clean, approved brake fluid from a tightly sealed container is used. (Your authorized KTM workshop will be glad to help.)



– Stand the vehicle upright.
– Check the brake fluid level in the brake fluid reservoir.
  » If the fluid level reaches the **MIN** marking ❶:
    – Add rear brake fluid. (p. 95)

14.8 Adding rear brake fluid

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

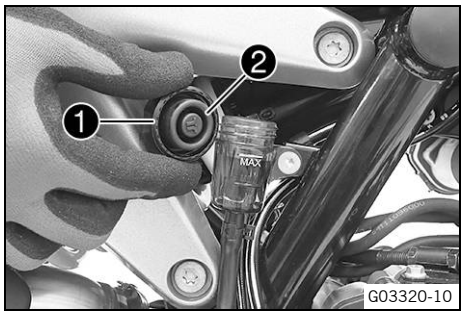
If the brake fluid level drops below the **MIN** marking, the brake system is leaking or the brake linings are worn down.
– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)

Warning
Skin irritation Brake fluid is a harmful substance.
– 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 Brake fluid which is too old or of the wrong type impairs the function of the brake system.
– 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.)
– Make sure that only clean, approved brake fluid from a tightly sealed container is used. (Your authorized KTM workshop will be glad to help.)

Note
Environmental hazard Hazardous substances cause environmental damage.
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info
Avoid contact between brake fluid and painted parts. Brake fluid corrodes paint.



Preparatory work
– Check that the brake linings of the rear brake are secured. (p. 96)

Main work
– Stand the vehicle upright.
– Remove screw cover ❶ with insert and membrane ❷.
– Add brake fluid up to the **MAX** marking.

Brake fluid DOT 4 / DOT 5.1 (p. 147)

– Mount and tighten screw cover with insert and membrane.

Info
Use water to immediately clean up any brake fluid that has overflowed or spilled.

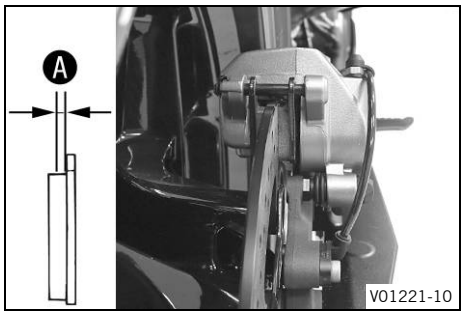
14.9 Checking that the brake linings of the rear brake are secured

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

Warning
Danger of accidents Damaged brake discs reduce the braking effect.

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

– Check the brake linings regularly.



– Check the brake linings for lining thickness Ⓐ.

Minimum thickness Ⓐ	≥ 1 mm (≥ 0.04 in)

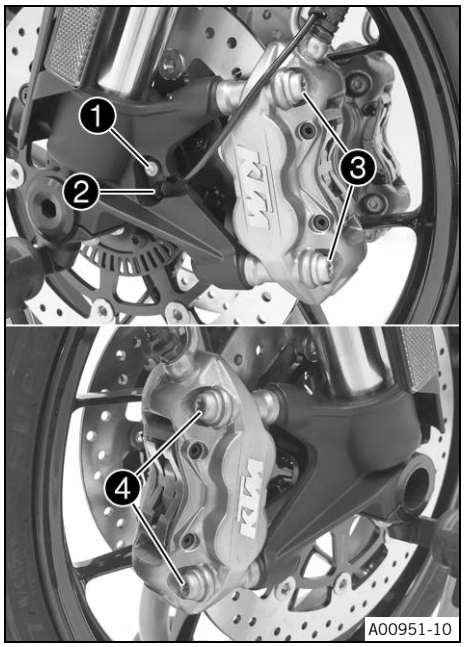
» If it is less than the minimum thickness:
– Change the rear brake linings.
– Check the brake linings for damage and cracking.
» If there is damage or cracking:
– Change the rear brake linings.
– Check that the brake linings are secured.
» If the brake linings are not secured correctly:
– Secure brake linings, replace with new parts if necessary.

15.1 Removing the front wheel

Preparatory work

– Raise the motorcycle with the rear lifting gear. (p. 81)

– Lift the motorcycle with the front lifting gear. (p. 81)



Main work

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

– Remove screws ❸.

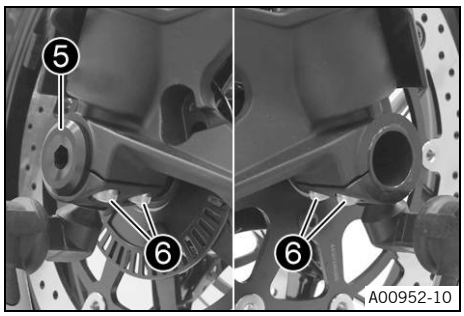
– Press back the brake linings by slightly tilting the left brake caliper laterally on the brake disc. Pull the left brake caliper carefully back from the brake disc and hang to the side.

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

– Remove screws ❹.

– Press back the brake linings by slightly tilting the right brake caliper laterally on the brake disc. Pull the right brake caliper carefully back from the brake disc and hang to the side.

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



– Loosen screw ❺ by several rotations.

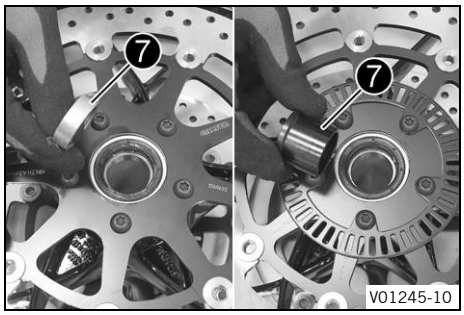
– Loosen screws ❻.

– Press on screw ❺ to push the wheel spindle out of the axle clamp.

– Remove screw ❺.

Warning
Danger of accidents 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.



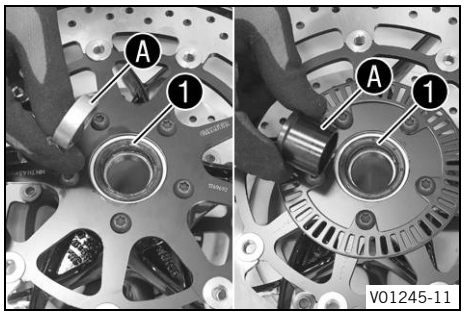
– Remove spacers ❼.

15.2 Installing the front wheel

Warning

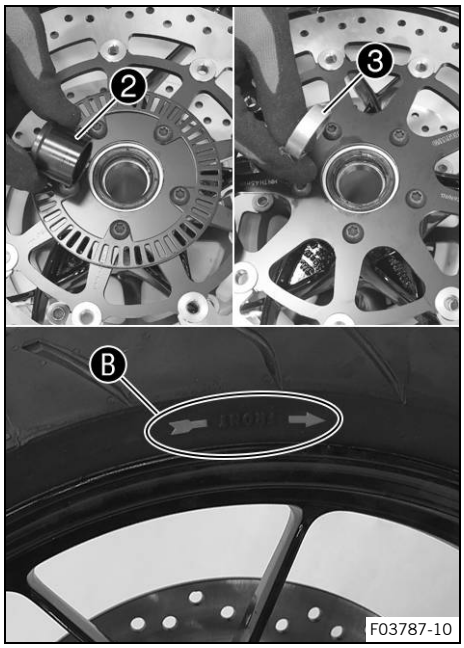
Danger of accidents Oil or grease on the brake discs reduces the braking effect.

– 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 front wheel bearing.
– Clean and grease shaft seal rings ❶ and contact surfaces Ⓐ of the spacers.

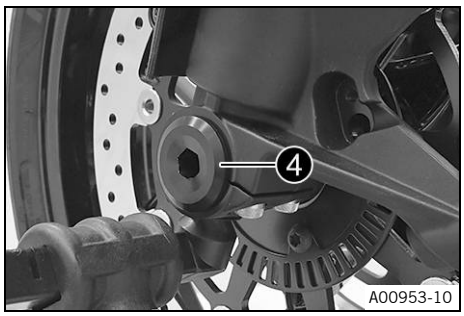
Long-life grease (📖 p. 149)



– Insert wide spacer ❷ on the left in the direction of travel.
– Insert narrow spacer ❸ on the right in the direction of travel.

Info

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



– Clean screw ❹ and the wheel spindle.
– Grease wheel spindle lightly.

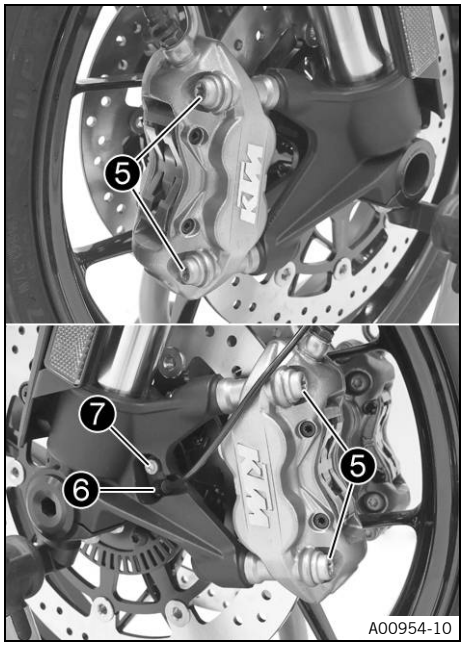
Long-life grease (📖 p. 149)

– Jack up the front wheel into the fork, position it, and insert the wheel spindle.
– Mount and tighten screw ❹.

Guideline

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

Tip
Temporarily tighten one of the axle clamp screws so that the axle does not rotate with it.
Loosen the axle clamp screw again before compression to allow the fork legs to align.



– Position both brake calipers.
  ✓ The brake linings are correctly positioned.
– Mount screws ❺ on both sides but do not tighten yet.

Guideline

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

– Operate the hand brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point. Secure the hand brake lever in the activated position.
  ✓ The brake calipers straighten.
– Tighten screws ❺ on both sides.

Guideline

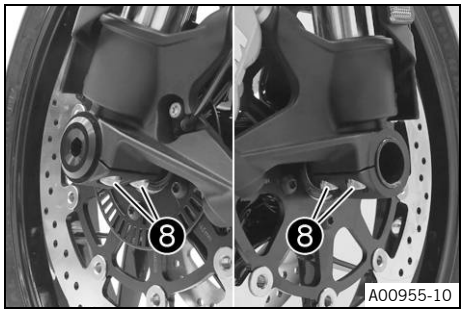
Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft) **Loctite®243™**

– Position wheel speed sensor ❻ in the hole.
– Mount and tighten screw ❼.

Guideline

Screw, wheel speed sensor	M6	6 Nm (4.4 lbf ft)

– Remove the locking piece of the hand brake lever.
– Take the motorcycle off the front lifting gear. (📖 p. 82)
– Remove the rear of the motorcycle from the lifting gear. (📖 p. 81)



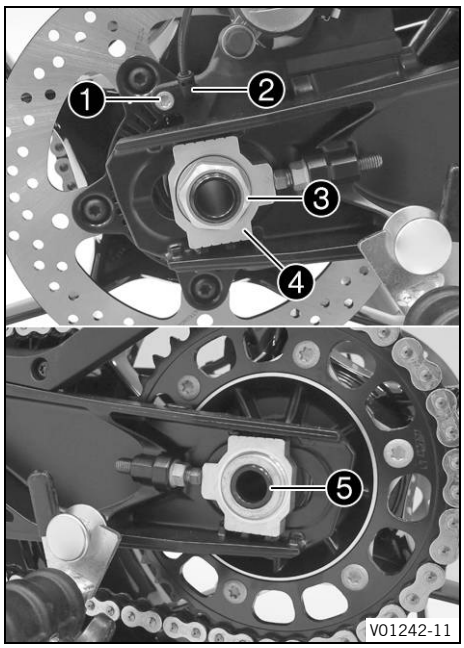
– Operate the front brake and compress the fork a few times firmly.
  ✓ The fork legs straighten.
– Tighten screws ❽.

Guideline

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

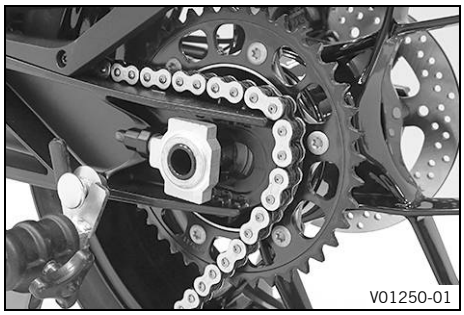
15.3 Removing the rear wheel

Preparatory work
– Raise the motorcycle with the rear lifting gear. (📖 p. 81)



Main work

– Manually press the brake caliper toward the brake disc to push back the brake piston.
– Remove screw ❶ and pull wheel speed sensor ❷ out of the hole.
– Remove nut ❸. Take off chain adjuster ❹.
– Pull out wheel spindle ❺ far enough to allow the rear wheel to be pushed forward.



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

Info
Cover the components to protect them against damage.

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

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

– Take the rear wheel out of the link fork.

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

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.

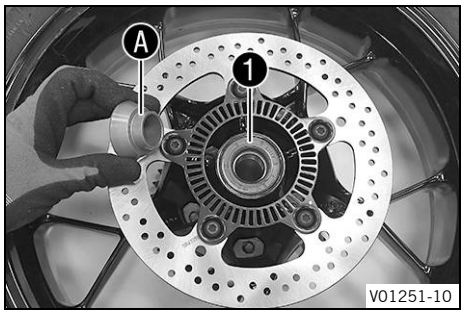
Warning

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.

Main work

– Check the rear hub damping rubber pieces. (p. 102)



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

Long-life grease (p. 149)

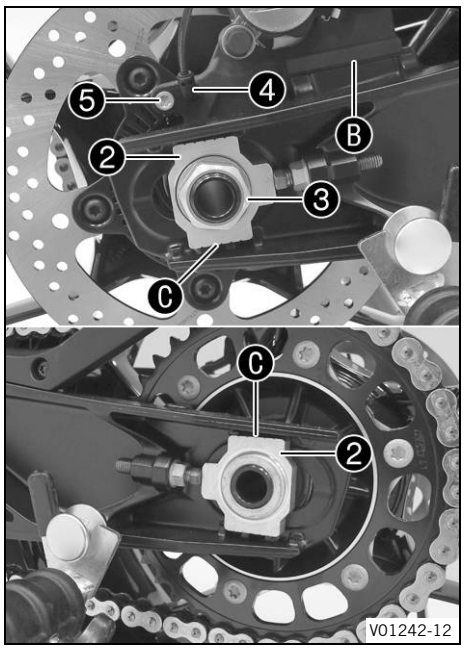
– Insert a spacer.
– Clean and grease the thread of the wheel spindle and nut.

Long-life grease (p. 149)

– Clean and grease the wheel spindle.

Long-life grease (p. 149)

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



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

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

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

Guideline

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

Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft) Thread and contact area of wheel spindle greased

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

Guideline

Screw, wheel speed sensor	M6	6 Nm (4.4 lbf ft)

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

Finishing work

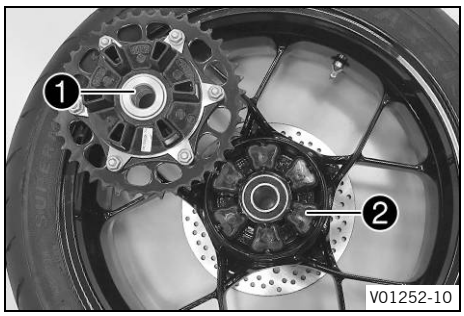
– Check the chain tension. (📖 p. 86)
– Remove the rear of the motorcycle from the lifting gear. (📖 p. 81)

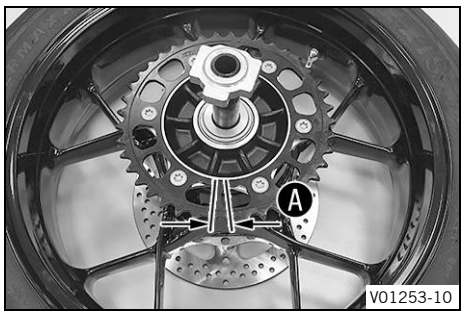
15.5 Checking the rear hub damping rubber pieces 🔧

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

Preparatory work

– Raise the motorcycle with the rear lifting gear. (📖 p. 81)
– Remove the rear wheel. 🔧 (📖 p. 99)





Main work

– Check bearing ❶.
  » If the bearing is damaged or worn:
    – Change the bearing of the rear sprocket carrier. 🔧
– Check damping rubber pieces ❷ of the rear hub for damage and wear.
  » If the damping rubber pieces of the rear hub are damaged or worn:
    – Change all the damping rubber pieces of the rear hub.
– Lay the rear wheel on a workbench with the rear sprocket facing upwards and insert the wheel spindle in the hub.
– To check play Ⓐ, hold the rear wheel tight and try to turn the rear sprocket with your hand.

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

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

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

Finishing work

– Install the rear wheel. 🔧 (📖 p. 100)
– Check the chain tension. (📖 p. 86)
– Remove the rear of the motorcycle from the lifting gear. (📖 p. 81)

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.

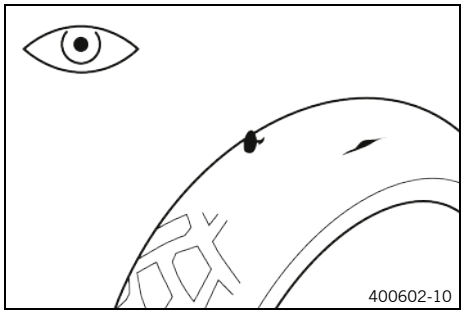
The contact surface on new tires is not yet roughened.

– Run in new tires with moderate riding and only gradually increase the lean angle.

Run-in distance	200 km (124 mi)

Info

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



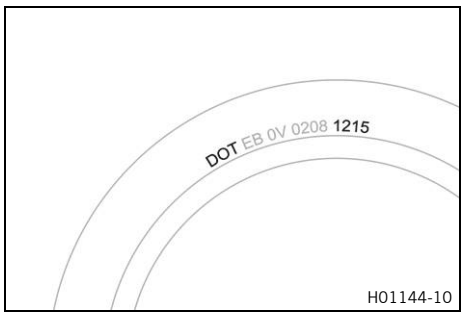
– Check the front and rear tires for cuts, run-in objects, and other damage.
  » If the tires have cuts, run-in objects, or other damage:
    – Change the tires. 🔧
– Check the tread depth.

Info

Adhere to the legally required minimum tread depth.

Minimum tread depth	≥ 2 mm (≥ 0.08 in)

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



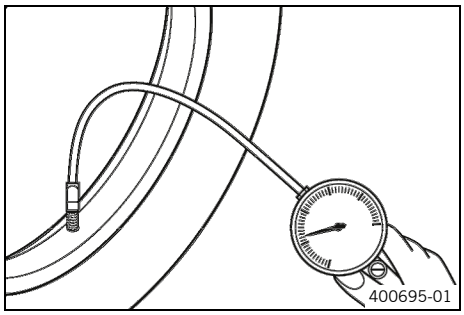
– Check the tire age.

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

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

15.7 Checking tire pressure

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



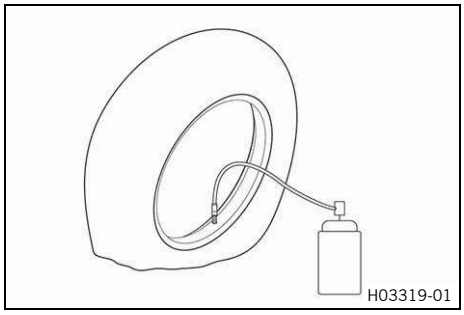
– Remove the protection cap.
– Check the tire pressure when the tires are cold.

Tire pressure when solo	
Front	2.3 bar (33 psi)
Rear	2.6 bar (38 psi)

Tire pressure with passenger / full payload	
front	2.3 bar (33 psi)
rear	2.6 bar (38 psi)

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

15.8 Using tire repair spray



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

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

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

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

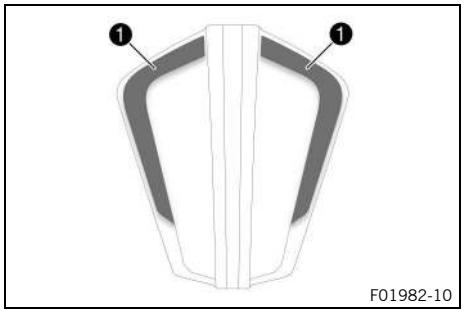
(Option: With TPMS)

Note

Material damage Tire repair spray damages the tire pressure sensor.

– Note that after using tire repair spray, the tire pressure sensor may need to be replaced.

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.
- Make sure that the daytime running light is deactivated with the diagnostics tool when the menu item is not available, but the low beam is required. (Your authorized KTM workshop will be glad to help.)
- Note the legal regulations regarding the daytime running light.

The daytime running light (DRL) is integrated in the main headlight.
The daytime running light (DRL) must only be switched on when visibility conditions are good.
Activate the daytime running light (DRL) in the combination instrument.
This is controlled by the ambient light sensor in the combination instrument. When visibility conditions are good, the low beam is switched off and the daytime running light is switched on.

Info

The position light ❶ lights up with all types of lighting.

16.2 Removing the 12-V battery

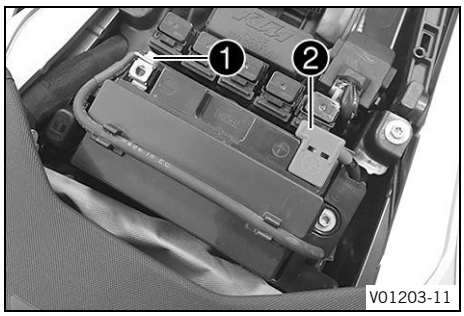
Warning

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

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

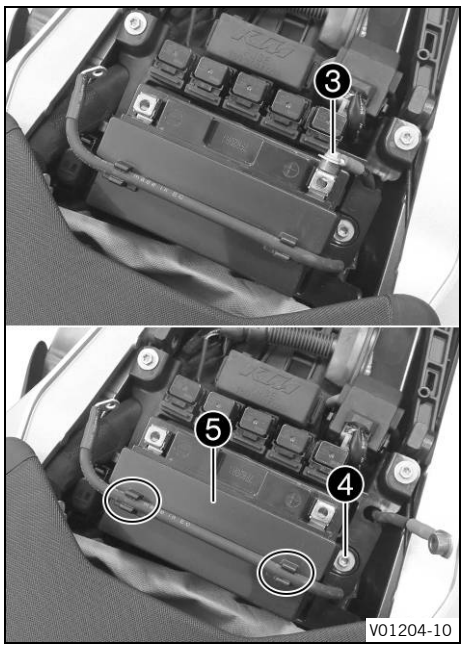
Preparatory work

- Remove the passenger seat. (📖 p. 83)



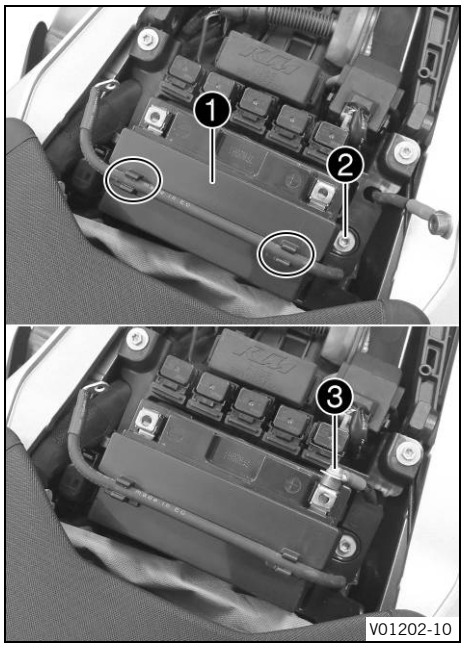
Main work

– Disconnect negative cable ❶ from the 12-V battery.
– Remove positive terminal cover ❷.



– Disconnect positive cable ❸ from the 12-V battery.
– Take negative cable out of holders on the battery support bracket.
– Remove screw ❹.
– Pull battery support bracket ❺ to the side.
– Pull the 12-V battery upwards and out of the battery compartment.

16.3 Installing the 12-V battery



Main work

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

12-V battery (YTX9-BS) (📖 p. 141)

✓ The battery terminals face opposite the direction of travel.

– Position battery support bracket ❶.
– Mount and tighten screw ❷.

Guideline

Screw, battery support bracket	M6	4.5 Nm (3.32 lbf ft)

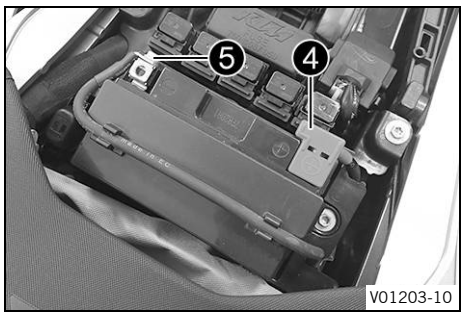
– Connect positive cable ❸ to the 12-V battery.

Guideline

Screw, battery terminal	M6x20	4.5 Nm (3.32 lbf ft)

Info
Make sure the cable lies in the recess provided for this next to the battery compartment.

– Hook negative cable into the holders on the battery support bracket.



– Mount positive terminal cover ❹.
– Connect negative cable ❺ to the 12 V battery.

Guideline

Screw, battery terminal	M6x12	4.5 Nm (3.32 lbf ft)

Finishing work

– Mount the passenger seat. (📖 p. 83)
– Set time and date.

16.4 Charging the 12-V battery

Warning

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

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

Note

Environmental hazard 12 V batteries contain environmentally hazardous materials.

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

Note

Environmental hazard Hazardous substances cause environmental damage.

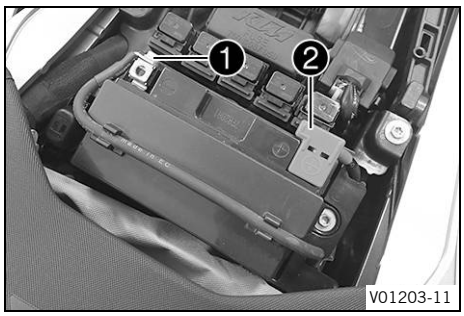
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

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

Preparatory work

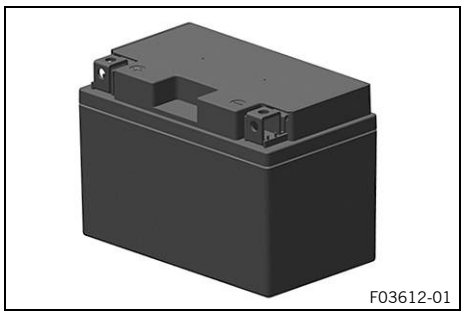
– Remove the passenger seat. (📖 p. 83)



Main work

– Disconnect negative cable ❶ from the 12 V battery to avoid damaging the onboard electronics.

– Remove positive terminal cover ❷.



– Connect a battery charger to the 12-V battery. Connect the battery charger to the mains connection.

EU battery charger **TecMATE Optimate PRO** (A61029974044)

It is impossible to overcharge the 12-V battery using this battery charger.

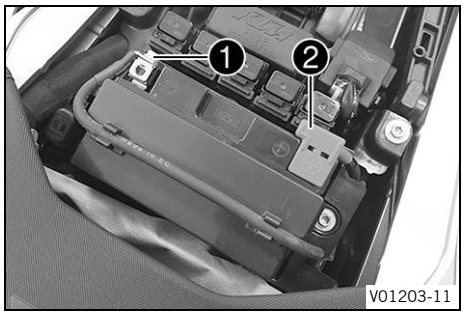
This battery charger is not suitable for lithium-ion batteries.

Info
Charge the 12-V battery to a maximum of 10 % of the capacity specified on the battery housing.

– Disconnect the battery charger from the mains connection and the 12-V battery after charging.

Guideline

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



– Mount positive terminal cover ❷.

– Connect negative cable ❶ to the 12 V battery.

Finishing work

– Mount the passenger seat. (📖 p. 83)

– Set time and date.

16.5 Changing the main fuse

Warning

Fire hazard Incorrect fuses overload the electrical system.

– Only use fuses with the required ampere value.

– Do not bypass or repair fuses.

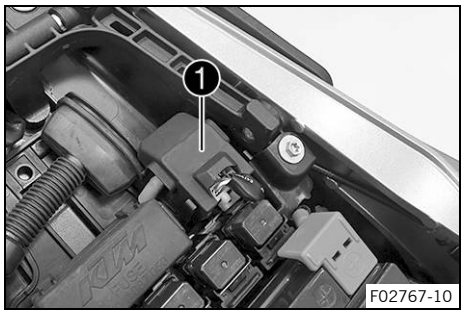
Info

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

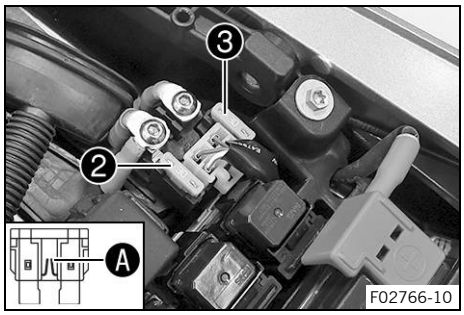
Preparatory work

– Remove the passenger seat. (p. 83)

Main work



– Remove protection cap ❶.



– Remove faulty main fuse ❷.

Info

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

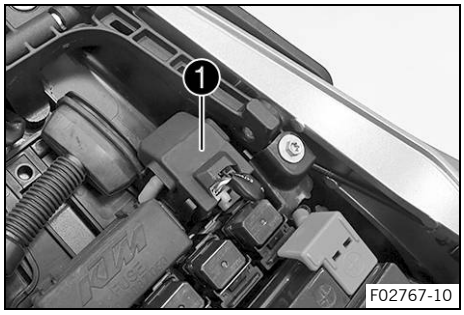
A spare fuse ❸ is located in the starter relay.

– Insert a new main fuse.

Fuse (58011109130) (p. 141)

Tip

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



– Mount protection cap ❶.

Finishing work

– Mount the passenger seat. (p. 83)

– Set time and date.

16.6 Changing the ABS fuses

Warning

Fire hazard Incorrect fuses overload the electrical system.

– Only use fuses with the required ampere value.

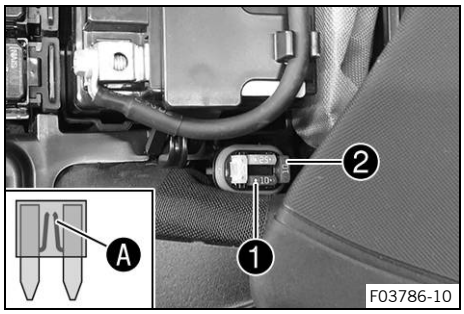
– Do not bypass or repair fuses.

Info

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

Preparatory work

– Remove the passenger seat. (p. 83)



To change the fuse of the ABS hydraulic unit:

– Remove the protection cap and fuse ❶.

Info

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

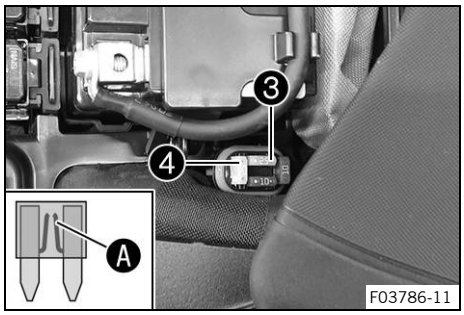
– Insert the spare fuse with the correct rating.

Fuse (75011088010) (p. 141)

Tip

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

– Mount the protection cap.



To change the fuse of the ABS return pump:

– Remove the protection cap and fuse ❸.

Info

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

– Insert the spare fuse with the correct rating.

Fuse (75011088025) (p. 141)

Tip

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

– Mount the protection cap.

Finishing work

– Mount the passenger seat. (p. 83)

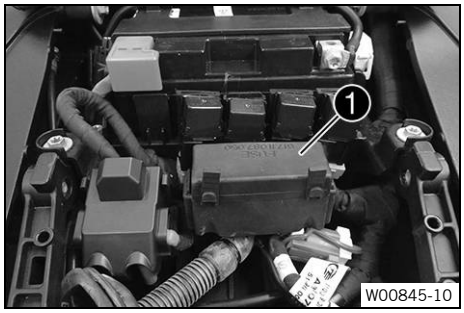
16.7 Changing the fuses of individual electrical power consumers

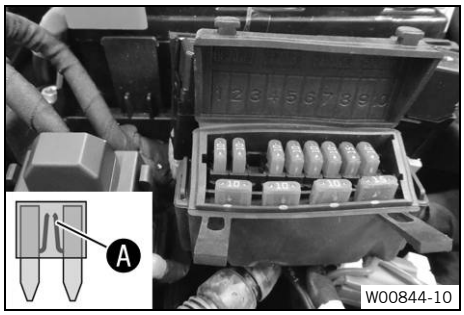
Warning
Fire hazard Incorrect fuses overload the electrical system.
– Only use fuses with the required ampere value.
– Do not bypass or repair fuses.

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

Preparatory work
– Remove the passenger seat. (p. 83)

Main work
– Open fuse box cover ❶.





– Remove the faulty fuse.
Guideline

Fuse **1** - 10 A - ignition
Fuse **2** - 10 A - ignition, engine control unit, electronic fuel injection, fuel evaporation system, lambda probe, immobilizer/alarm system
Fuse **4** - 10 A - radiator fan
Fuse **5** - 10 A - horn, combination instrument, brake light
Fuse **6** - 10 A - high beam, light control unit, tail light
Fuse **7** - 10 A - ACC1
Fuse **8** - 15 A - ACC2, USB power socket, HCU (optional)
Fuse **9** - 10 A - ABS control unit, diagnostics connector, 5D sensor, TPMS (function optional)
Fuse **SPARE** - 10 A/15 A - spare fuses

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

– Insert the spare fuse with the correct rating.

Fuse (75011088010) (p. 141)
Fuse (75011088015) (p. 141)

Tip
Put a spare fuse in the fuse box so that it is available if needed.

– Check the function of the electrical power consumer.
– Close the fuse box cover.

Finishing work

– Mount the passenger seat. (📖 p. 83)

16.8 Loosening the headlight mask with the headlight

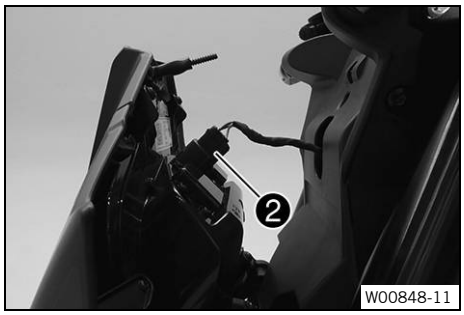


– Completely unscrew adjusting screw ❶.

Info

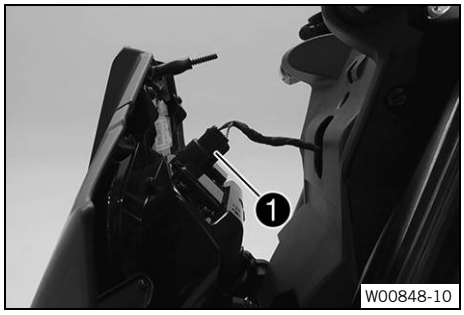
The adjusting screw is fastened to the headlight mask by a ball head holder.

Do not pull the adjusting screw out of the ball head adjuster.



– Swivel the headlight mask forwards slightly and disconnect connector ❷.
– Swivel the headlight mask all the way forwards.

16.9 Mounting the headlight mask with the headlight



Main work

– Swivel the headlight mask up.
– Plug in connector ❶.
– Position the headlight mask.



– Mount adjusting screw ❷.

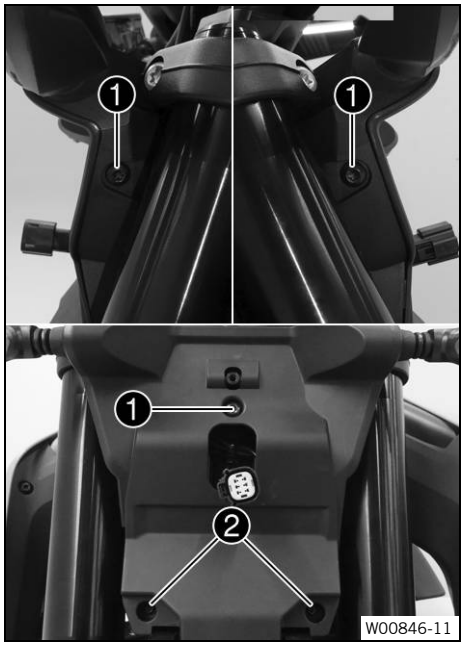
Finishing work

– Check the headlight setting. (📖 p. 115)

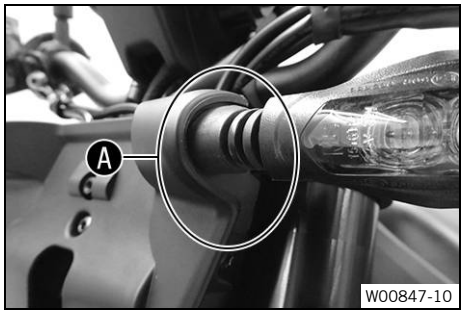
16.10 Removing the cover of the headlight mask rack

Info
The cover of the headlight mask rack must be removed in order to gain access to the ACC1 and ACC2 power supply.

Preparatory work
– Loosen the headlight mask with the headlight. (📖 p. 113)

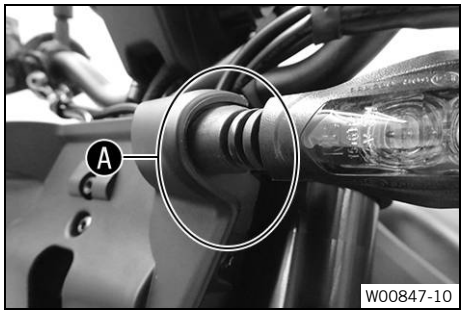


Main work
– Remove screws ❶.
– Remove screws ❷.

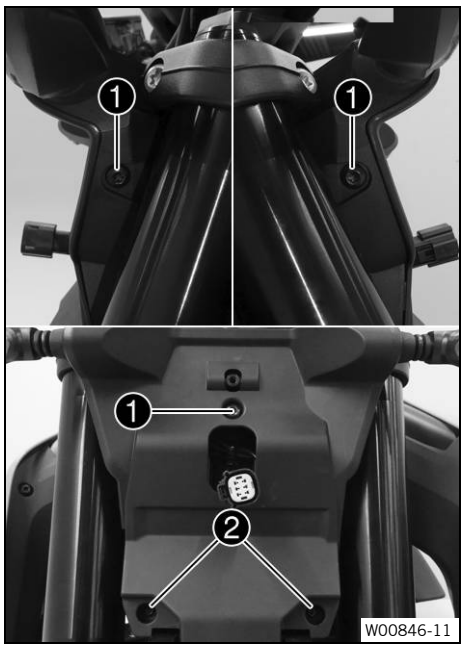


– Hold turn signal in the area Ⓐ and carefully press against the direction of travel.
  ✓ The cover is detached as illustrated.
– Repeat the operation on the opposite side.
– Take off the cover.

16.11 Installing the cover of the headlight mask rack



Main work
– Position cover by guiding the plug-in connector of the headlight through the opening.
– Hold the turn signal in area Ⓐ and carefully press against the direction of travel, while pressing the cover tight.
  ✓ The cover engages with an audible click.
– Repeat the operation on the opposite side.



– Mount and tighten screws ❶.

Guideline

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

– Mount and tighten screws ❷.

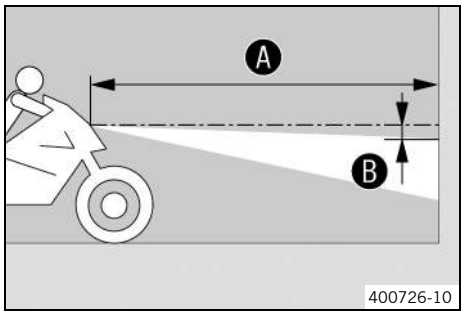
Guideline

Screw, headlight	**EJ0TPT®** K50x14	3 Nm (2.2 lbf ft)

Finishing work

– Mount the headlight mask with the headlight. (📖 p. 113)
– Check the headlight setting. (📖 p. 115)

16.12 Checking the headlight setting



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

Guideline

Distance Ⓑ	5 cm (2 in)

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

Guideline

Distance Ⓐ	5 m (16 ft)

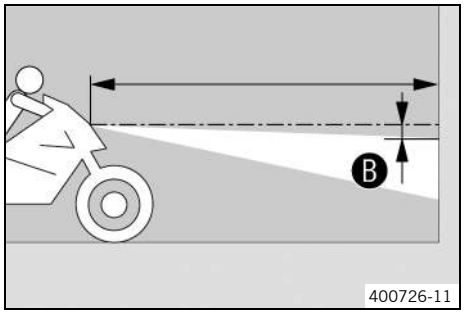
– The rider now mounts the motorcycle with luggage and passenger if applicable.
– Check the headlight setting.

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

» If the boundary between light and dark does not meet specifications:
– Adjust the headlight range. (📖 p. 116)

16.13 Adjusting the headlight range





Preparatory work

– Check the headlight setting. (📖 p. 115)

Main work

– Turn adjusting screw ❶ to adjust the headlight range.

Info

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

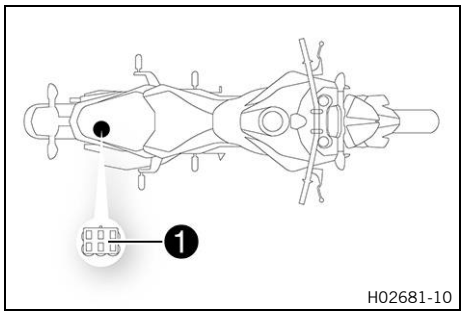
Screw ❶ also secures the headlight. Ensure the screw is always screwed in far enough.

– Set the headlight to marking Ⓑ.

Guideline

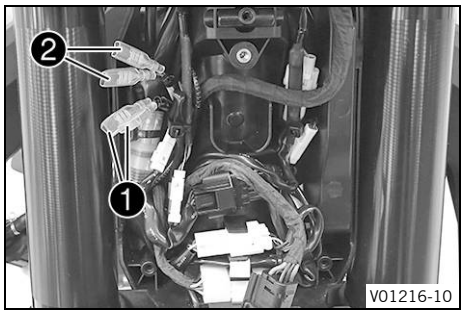
The light-dark boundary must lie exactly on lower marking Ⓑ when the motorcycle is ready to operate with the rider mounted along with any luggage and a passenger, if applicable.

16.14 Diagnostics connector



Diagnostics connector ❶ is located under the passenger seat.

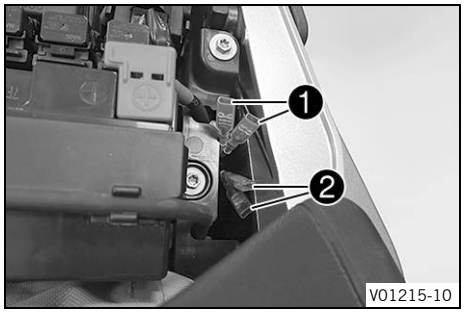
16.15 Front ACC1 and ACC2



Installation location

– Power supplies ACC1 ❶ and ACC2 ❷ front are located under the cover of the headlight mask rack.

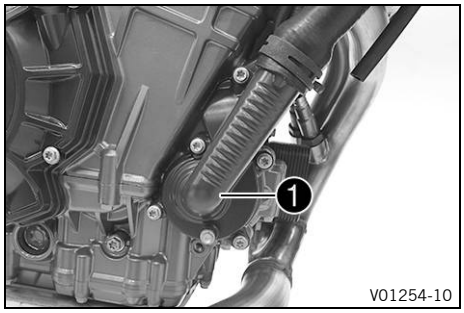
16.16 ACC1 and ACC2 rear



Installation location

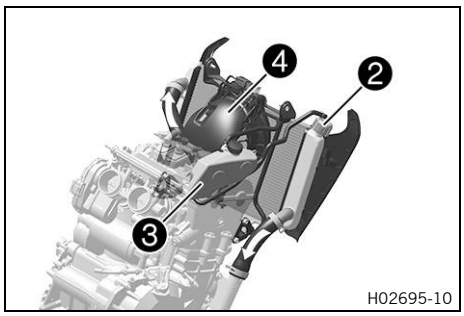
– The rear power supplies ACC1 ❶ and ACC2 ❷ are located under the passenger seat next to the battery compartment.

17.1 Cooling system



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

115 °C (239 °F)



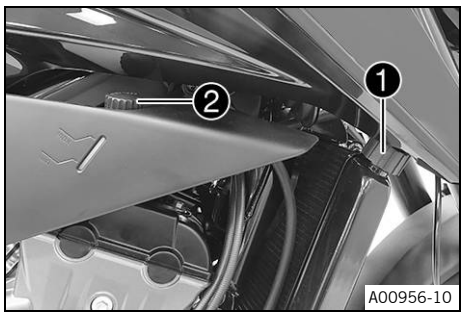
The coolant is cooled by the air stream and a radiator fan ❹, which is activated at high temperature.
The lower the speed, the less the cooling effect. Dirty cooling fins also reduce the cooling effect.

17.2 Checking the antifreeze and coolant level

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

Condition
The engine is cold
Preparatory work
- Stand the motorcycle upright on a horizontal surface.



Main work

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

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

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

– Check the coolant level in the compensating tank.

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

» If the coolant level in the compensating tank is not at the required level, but the tank is not empty:
– Replenish coolant up to a level between **MIN** and **MAX**.

Coolant (📖 p. 147)

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

Info
Do not start up the motorcycle!

– Fill/bleed the cooling system. 🔧 (📖 p. 121)

– Fit cap ❷ on the compensating tank.
– Check the coolant level in the radiator.

The radiator must be filled completely.

» If the coolant level does not match the specified value:
– Check the coolant level and the reason for the loss.

» If you had to add more coolant than the specified amount: > 0.50 l (> 0.53 qt.)
– Fill/bleed the cooling system. 🔧 (📖 p. 121)

– Fit radiator cap ❶.

17.3 Checking the coolant level in the compensating tank

Warning
Danger of scalding During motorcycle operation, the coolant gets 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 harmful to health.

- 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

- Stand the motorcycle upright on a horizontal surface.



Main work

- Check the coolant level in the compensating tank.

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

  » If the coolant level in the compensating tank is not at the required level, but the tank is not empty:
  - Remove cap on the compensating tank.
  - Replenish coolant up to a level between **MIN** and **MAX**.

    Coolant (📖 p. 147)
  - Fit the cap of the compensating tank.

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

    Info
    Do not start up the motorcycle!
  - Fill/bleed the cooling system. 🔧 (📖 p. 121)

17.4 Draining the coolant 🔧

Warning

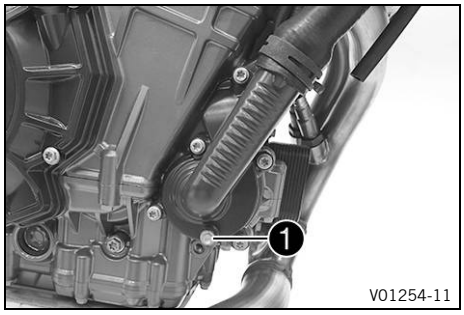
Danger of scalding During motorcycle operation, the coolant gets hot and is under pressure.

- 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 harmful to health.

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



Condition

The engine is cold

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

  Guideline

Screw plug, water pump drain hole	**EJOTALtracs® Plus** 60x14	8 Nm (5.9 lbf ft) **Loctite®243™**

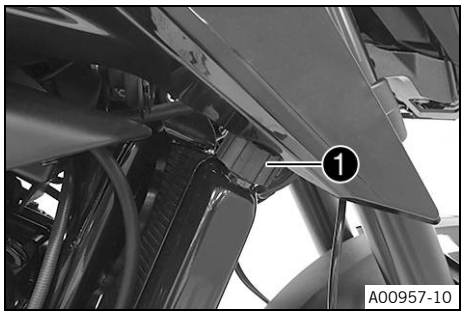
- Mount the radiator cap.

17.5 Filling/bleeding the cooling system

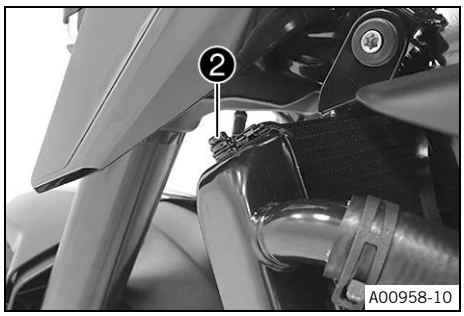
Warning

Danger of poisoning Coolant is harmful to health.

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



- Remove radiator cap 1.



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

Coolant	1.6 l (1.7 qt.)	Coolant (📖 p. 147)

– Completely fill the radiator with coolant. Mount radiator cap ❶.
– Rest the vehicle on the side stand.
– Check the coolant level in the compensating tank. (📖 p. 119)

Danger

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

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

– Start the engine and run it until the 5th bar of the temperature indicator lights up.
– Stop the engine and allow it to cool down.
– When the engine is cool, check the coolant level in the radiator and, if necessary, add coolant.
– Check the coolant level in the compensating tank. (📖 p. 119)

17.6 Changing the coolant

Warning

Danger of scalding During motorcycle operation, the coolant gets 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.

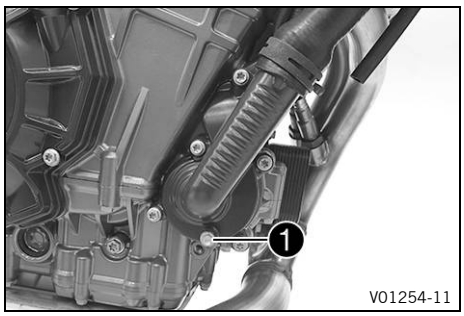
Warning

Danger of poisoning Coolant is harmful to health.

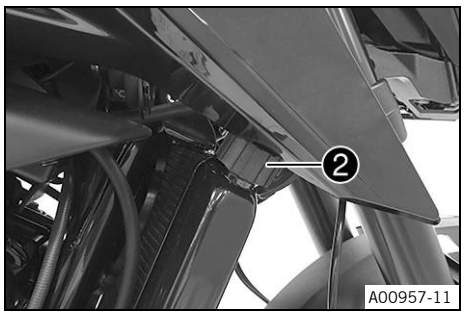
– Keep coolant out of the reach of children.
– Do not allow coolant to come into contact with the skin, the eyes and clothing.
– Consult a doctor immediately if coolant is swallowed.
– Rinse the affected area immediately with plenty of water in the event of contact with the skin.
– Rinse eyes thoroughly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

Condition

The engine is cold



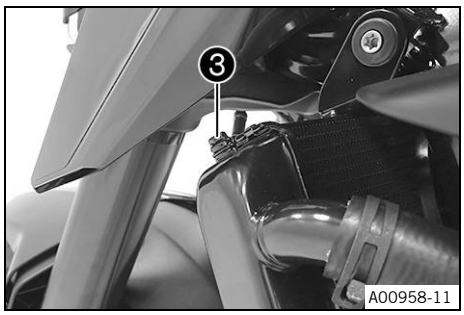
– Position the motorcycle upright.
– Position an appropriate container under the engine.
– Remove screw ❶ with the seal ring.



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

Guideline

Screw plug, water pump drain hole	**EJOTALtracs®** **Plus** 60x14	8 Nm (5.9 lbf ft) **Loctite®243™**



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

Coolant	1.6 l (1.7 qt.)	Coolant (📖 p. 147)

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

Danger

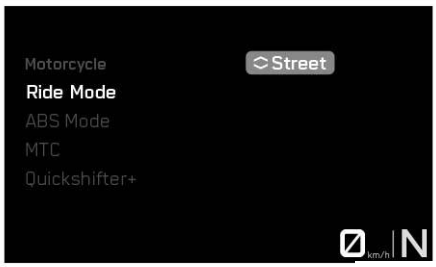
Danger of poisoning Exhaust gases are toxic and inhaling them may result in unconsciousness and death.

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

– Start the engine and run it until the 5th bar of the temperature indicator lights up.
– Stop the engine and allow it to cool down.
– After the engine has cooled down, check the coolant level in the radiator and in the compensating tank again and add more coolant if necessary.

◀

18.1 Ride Mode



I00716-10

Possible states

- **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 less slip on the rear wheel.
- **Sport** – Homologated performance with very direct response; the motorcycle traction control allows greater slip on the rear wheel.
- **Track** (optional) – Throttle response and motorcycle traction control can be adjusted individually.
- **Performance** (optional) – Throttle response and motorcycle traction control can be adjusted individually.

Warning

Danger of accidents An incorrectly selected riding mode makes control of the vehicle considerably more difficult.

The riding modes are each only suitable for certain conditions.

– Always select a riding mode that suits the surface on which you are riding, the weather and the riding situation.

Various vehicle tunings can be selected in the combination instrument in the **Ride Mode** submenu. There are **Street**, **Rain**, **Sport**, **Track** (optional) and **Performance** (optional).
The most recently selected riding mode appears in the display.
The riding mode can also be changed while riding with the throttle grip closed.

18.2 Motorcycle traction control (optional) (Cornering MTC)



I00720-10

The motorcycle traction control (MTC) (optional) lowers the engine torque in case of loss of traction in the rear wheel. Depending on the riding mode (p. 124), different amounts of slip are allowed when traction control is activated.

Info

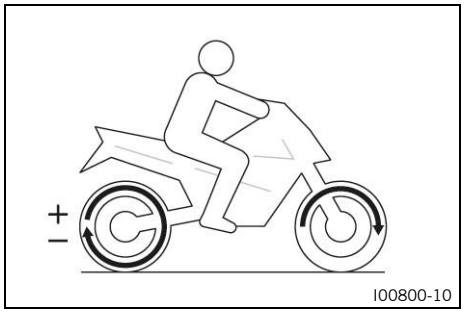
When motorcycle traction control is switched off, the rear wheel may spin during strong acceleration and on surfaces with low grip, resulting in a risk of falling.
After the ignition is switched on, motorcycle traction control is enabled again.

In the combination instrument, the motorcycle traction control can be switched on or off via the **MTC** submenu (optional).

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.

18.3 Slip adjustment (optional)

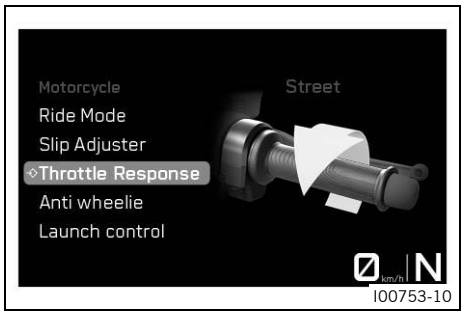


I00800-10

The slip adjustment is a motorcycle traction control function.
The slip adjustment allows the motorcycle traction control to be tuned through nine levels to the desired characteristic map.
Level 1 allows the maximum slip on the rear wheel, and level 9 the minimum.
The slip adjustment can be set while riding with a closed menu using the **UP** or **DOWN** button.

Info
The slip adjustment is only available in **TRACK** riding mode (optional).

18.4 Throttle Response (optional)



I00753-10

Possible states

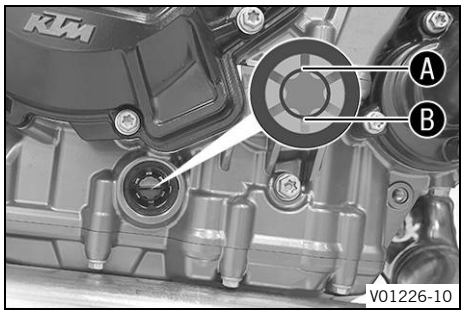
- TRACK – Extremely direct response
- SPORT – Very direct response.
- STREET – Balanced response.

In the combination instrument the characteristics of the throttle response can be adjusted via the **Throttle Response** submenu.
The **Throttle Response** can also be set while riding with a closed throttle grip.

Info
Throttle Response is only available in riding mode **TRACK** (optional).

19.1 Checking the engine oil level

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



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

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

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

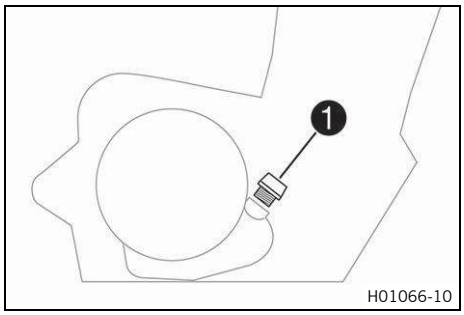
» If the engine oil level is below the marking Ⓑ:
  – Add engine oil. (p. 128)
» If the engine oil level is above the marking Ⓐ:
  – Correct engine oil level.

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

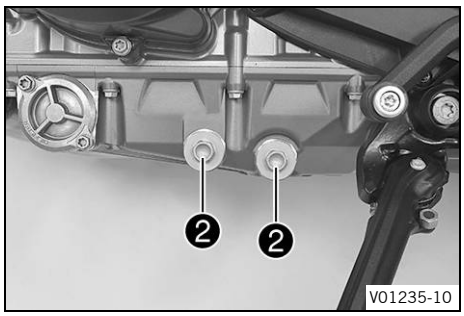
Warning
Danger of scalding Engine and gear oil get hot when the motorcycle is operated.
– Wear suitable protective clothing and safety gloves.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

Note
Environmental hazard Hazardous substances cause environmental damage.
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

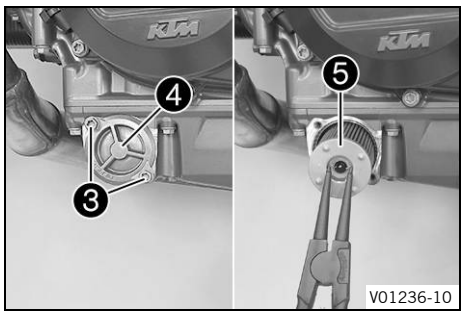
Info
Drain the engine oil while the engine is at operating temperature.



Main work
– Rest the motorcycle on its side stand on a horizontal surface.
– Position an appropriate container under the engine.
– Remove oil plug ❶ with the O-ring from the clutch cover.



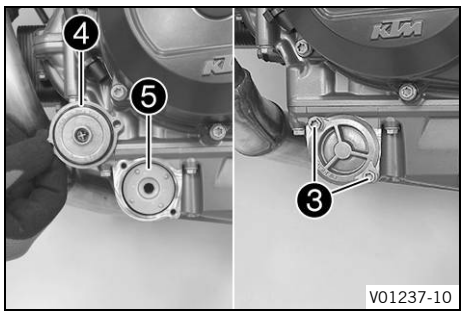
– Remove oil drain plugs ❷ with the magnets, the O-rings, and the oil screens.



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

Lock ring plier (51012011000)

– Allow the engine oil to drain completely.
– Thoroughly clean the parts and the sealing surfaces.



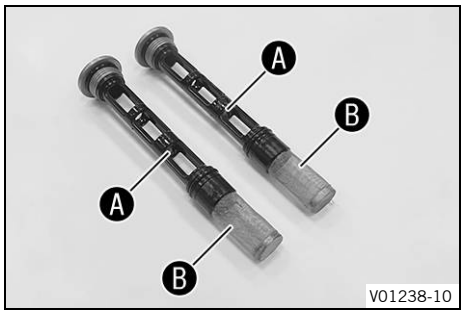
– Insert new oil filter ❺.

Info
Only insert the oil filter by hand.

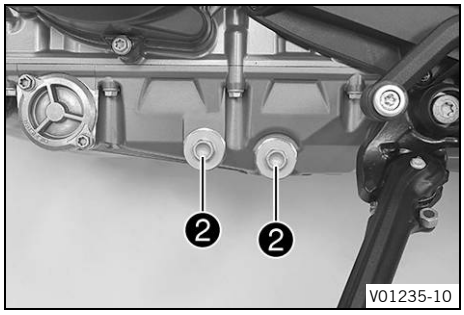
– Oil the O-ring of the oil filter cover. Position oil filter cover ❹.
– Mount and tighten screws ❸.

Guideline

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



– Thoroughly clean magnets Ⓐ and oil screens Ⓑ of the oil drain plugs.



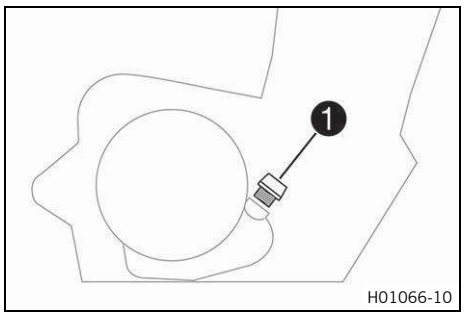
– Mount the oil drain plugs ❷ with magnets and new seal rings, and tighten.

Guideline

Plug, oil screen	M20x1.5	20 Nm (14.8 lbf ft)

– Fill up with engine oil at the clutch cover.

Engine oil	2.9 l (3.1 qt.)	Engine oil (SAE 10W/50) (📖 p. 147)



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

Danger

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

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

– Start the engine and check it for leaks.

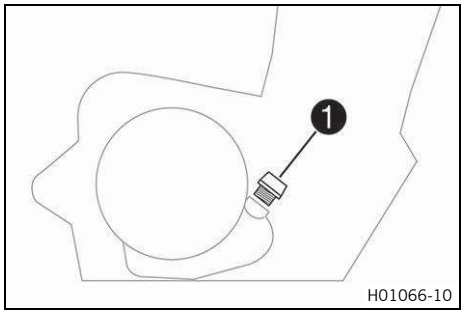
Finishing work

– Check the engine oil level. (📖 p. 126)

19.3 Adding engine oil

Info

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



Main work

– Remove filler plug ❶ with the O-ring, and fill up with engine oil.
– Fill engine oil to the middle of the level viewer.

Engine oil (SAE 10W/50) (📖 p. 147)

Info

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

KTM recommends changing the engine oil where necessary.

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

Danger

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

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

– Start the engine and check for leaks.

Finishing work

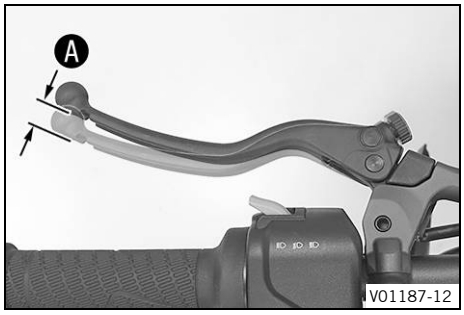
– Check the engine oil level. (📖 p. 126)

19.4 Checking the free travel of the clutch lever

Note

Clutch damage If there is no free travel by the clutch lever, the clutch will begin to slip.

– Check the free travel of the clutch lever each time before using the motorcycle.
– Adjust the free travel of the clutch lever when necessary in accordance with the specification.



– Check the clutch lever for smooth operation.
– Move the handlebar to the straight-ahead position.
– Pull the clutch lever until resistance is perceptible, and determine the free travel Ⓐ.

Free travel of clutch lever Ⓐ	5 mm (0.2 in)

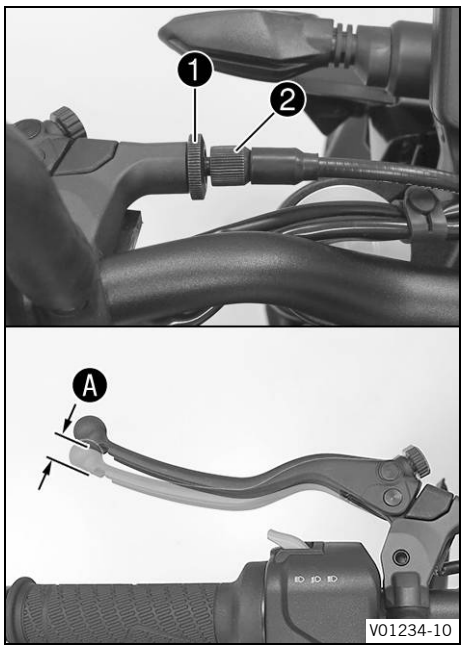
» If the free travel of the clutch lever does not meet specifications:
  – Set the free travel of the clutch lever. (p. 129)

– Move the handlebar to and fro over the entire steering range.

The free travel of the clutch lever must not change.

» If the free travel of the clutch lever changes:
  – Check the routing of the clutch cable.

19.5 Setting the free travel of the clutch lever



– Move the handlebar to the straight-ahead position.
– Loosen lock nut ❶.
– Adjust the free travel Ⓐ by turning adjusting screw ❷.

Guideline

Free travel of clutch lever Ⓐ	5 mm (0.2 in)

– Tighten lock nut ❶.

20.1 Cleaning the motorcycle

Note

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

The high pressure forces water into the electrical components, connectors, throttle cables, and bearings, etc.

Pressure which is too high causes malfunctions and destroys components.

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

Minimum clearance	60 cm (23.6 in)

Note

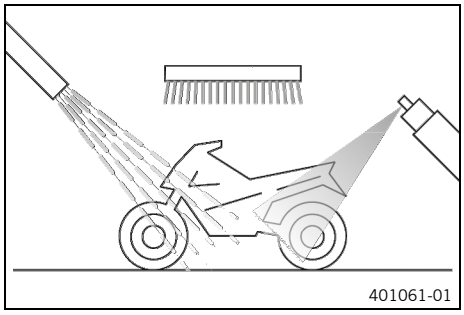
Environmental hazard Hazardous substances cause environmental damage.

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

Info

To maintain the value and appearance of the motorcycle over a long period, clean it regularly.

Avoid direct sunshine when cleaning the motorcycle.



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

Motorcycle cleaner (📖 p. 149)

Info

Use warm water containing normal motorcycle cleaner and a soft sponge. Never apply motorcycle cleaner to a dry vehicle; always rinse the vehicle with water first.

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

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

Warning

Danger of accidents Moisture and dirt impair the brake system.

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

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

Info

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

– After the motorcycle has cooled down, lubricate all moving parts and pivot points.
– Clean the chain. (📖 p. 85)
– Treat bare metal (except for brake discs and the exhaust system) with a corrosion inhibitor.

Preserving materials for paints, metal and rubber (📖 p. 149)

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

Shine spray for paint, plastic and chromium (📖 p. 149)

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

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

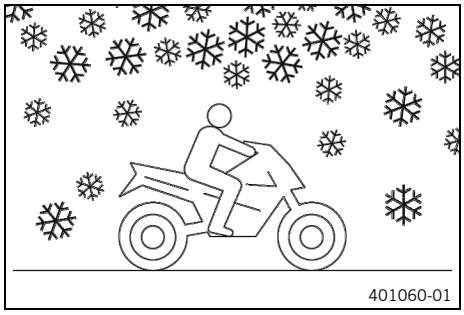
Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (📖 p. 149)

– Lubricate the ignition/steering lock.

Universal oil spray (📖 p. 149)

20.2 Checks and maintenance steps for winter operation

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


401060-01

– Clean the motorcycle. (📖 p. 130)
– Clean the brake system.

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

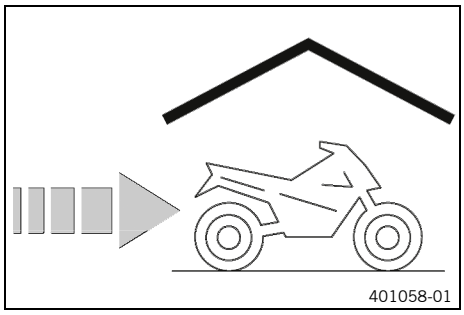
– Treat the engine, the swingarm, and all other bare or zinc-plated parts (except the brake discs) with a wax-based corrosion inhibitor.

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

– Clean the chain. (📖 p. 85)

21.1 Storage

Info
If you plan to garage the motorcycle for a longer period, perform the following steps or have them performed.
Before storing the motorcycle, check all parts for function and wear. If service, repairs, or replacements are necessary, you should do this during the storage period (less workshop overload). In this way, you can avoid long workshop waiting times at the start of the new season.



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

Fuel additive (📖 p. 149)

– Refuel. (📖 p. 77)

Tip
Fill the fuel tank completely as specified, using fuel with the lowest possible ethanol content.

– Clean the motorcycle. (📖 p. 130)
– Change the engine oil and the oil filter, clean the oil screens. 🔧 (📖 p. 126)
– Check the antifreeze and coolant level. (📖 p. 118)
– Check tire pressure. (📖 p. 104)
– Remove the 12-V battery. 🔧 (📖 p. 106)
– Charge the 12-V battery. 🔧 (📖 p. 108)

Guideline

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

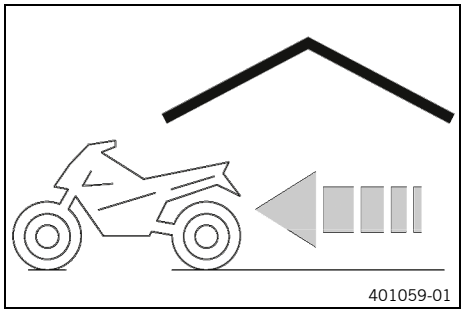
– Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

Info
KTM recommends jacking up the motorcycle.

– Raise the motorcycle with the rear lifting gear. (📖 p. 81)
– Lift the motorcycle with the front lifting gear. (📖 p. 81)
– Cover the motorcycle with a tarp or cover that is permeable to air.

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

21.2 Preparing for use after storage



- Take the motorcycle off the front lifting gear. (📖 p. 82)
- Remove the rear of the motorcycle from the lifting gear. (📖 p. 81)
- Charge the 12-V battery. 🔧 (📖 p. 108)
- Install the 12-V battery. 🔧 (📖 p. 107)
- Set the time and date.
- Perform checks and maintenance measures when preparing for use. (📖 p. 68)
- Take a test ride.

Faults	Possible cause	Action
The engine does not turn when the start button is pressed	Operating error	– Carry out start procedure. (📖 p. 68)
	12 V battery discharged	– Charge the 12-V battery. 🔧 (📖 p. 108) – Check the open-circuit current. 🔧
	Fuse **1**, **2** or **3** blown	– Change the fuses of individual electrical power consumers. (📖 p. 112)
	Main fuse burned out	– Change the main fuse. (📖 p. 110)
	No ground connection present	– Check the ground connection.
Engine turns only if the clutch lever is drawn	The vehicle is in gear	– Shift the transmission to neutral position.
	The vehicle is in gear and the side stand is folded out	– Shift the transmission to neutral position.
Engine turns but does not start	Operating error	– Carry out start procedure. (📖 p. 68)
	Fuse **3** blown	– Change the fuses of individual electrical power consumers. (📖 p. 112)
	Quick release coupling not joined	– Join quick release coupling.
	Malfunction in the electronic fuel injection	– Read out the fault memory using the KTM diagnostics tool. 🔧
	Throttle opened while starting	– When starting, **DO NOT** open the throttle. – Carry out start procedure. (📖 p. 68)
Engine has too little power	Air filter is very dirty	– Remove the air filter. 🔧 – Install the air filter. 🔧
	Fuel filter is very dirty	– Check the fuel pressure. 🔧
	Malfunction in the electronic fuel injection	– Read out the fault memory using the KTM diagnostics tool. 🔧
Engine overheats	Too little coolant in cooling system	– Check the cooling system for leakage. – Check the coolant level in the compensating tank. (📖 p. 119)
	Radiator fins very dirty	– Clean radiator fins.
	Foam formation in cooling system	– Drain the coolant. 🔧 (📖 p. 120) – Fill/bleed the cooling system. 🔧 (📖 p. 121)
	Buckled or damaged radiator hose	– Change the radiator hose. 🔧
	Thermostat is faulty	– Check the thermostat. 🔧
	Fuse **4** blown	– Change the fuses of individual electrical power consumers. (📖 p. 112)
	Defect in radiator fan system	– Check the radiator fan system. 🔧
Malfunction indicator lamp lights up or flashes	Malfunction in the electronic fuel injection	– Read out the fault memory using the KTM diagnostics tool. 🔧
N The idling speed indicator lamp does not light up when the transmission is in neutral	Gear position sensor not programmed	– Read out the fault memory using the KTM diagnostics tool. 🔧
Engine dies during the trip	Lack of fuel	– Refuel. (📖 p. 77)
	Fuse **1**, **2** or **3** blown	– Change the fuses of individual electrical power consumers. (📖 p. 112)
The ABS warning lamp lights up	ABS fuse blown	– Change the ABS fuses. (📖 p. 111)

Faults	Possible cause	Action
The ABS warning lamp lights up	Large difference in wheel speeds of the front and rear wheels	– Stop the vehicle, switch off the ignition, and start it again.
	Malfunction in ABS	– Read out the fault memory using the KTM diagnostics tool.
High oil consumption	Engine vent hose bent	– Route the vent hose without bends or change it if necessary.
	Engine oil level too high	– Check the engine oil level. (p. 126)
	Engine oil too thin (low viscosity)	– Change the engine oil and the oil filter, clean the oil screens. (p. 126)
Headlight and position light are not functioning	Fuse **6** blown	– Change the fuses of individual electrical power consumers. (p. 112)
Turn signal, brake light, and horn are not functional	Fuse **5** blown	– Change the fuses of individual electrical power consumers. (p. 112)
Time is not (correctly) displayed	Fuse **1** is blown	– Change the fuses of individual electrical power consumers. (p. 112) – Set the time and date.
12 V battery discharged	Ignition not switched off when vehicle was parked	– Charge the 12-V battery. (p. 108)
	The 12-V battery is not being charged by the alternator	– Check the charging voltage. – Check the open-circuit current.
Combination instrument shows nothing on the display	Fuse **1** or **2** blown	– Change the fuses of individual electrical power consumers. (p. 112) – Set the time and date.

23.1 Engine

Design	2-cylinder 4-stroke in-line engine, water-cooled
Displacement	799 cm³ (48.76 cu in)
Stroke	65.7 mm (2.587 in)
Bore	88.0 mm (3.465 in)
Compression ratio	12.5:1
Control	DOHC, 4 valves per cylinder controlled via cam lever, chain drive
Valve diameter, intake	36 mm (1.42 in)
Valve diameter, exhaust	29 mm (1.14 in)
Valve play, cold	
Intake at: 20 °C (68 °F)	0.10 ... 0.15 mm (0.0039 ... 0.0059 in)
Exhaust at: 20 °C (68 °F)	0.15 ... 0.20 mm (0.0059 ... 0.0079 in)
Crankshaft bearing	Slide bearing
Conrod bearing	Slide bearing
Piston pin bearing	Small end bearing
Pistons	Forged aluminum
Piston rings	1 compression ring, 1 scraper ring, 1 oil control ring
Engine lubrication	Pressure circulation lubrication with 2 trochoidal pumps
Primary transmission	39:75
Clutch	Multi-disc oil bath clutch/mechanically operated
Transmission	6-gear transmission, claw shifted
Transmission ratio	
First gear	13:37
Second gear	17:34
Third gear	20:31
Fourth gear	22:28
Fifth gear	24:26
Sixth gear	23:22
Mixture preparation	Electronic fuel injection Dellorto 46 mm
Ignition	Contactless controlled fully electronic ignition system with knock control and digital ignition adjustment
Alternator	12 V, 400 W
Spark plug	NGK LMAR9AI-10
Spark plug electrode gap	1.0 mm (0.039 in)
Cooling	Water cooling, permanent circulation of coolant by water pump
Idle speed	1,600 ± 50 rpm
Starting aid	Starter motor

23.2 Engine tightening torques

Screw plug, water pump drain hole	**EJOTALtracs®Plus** 60x14	8 Nm (5.9 lbf ft) **Loctite®243™**
Screw, bleeder flange	**EJOTALtracs®** M6x12	8 Nm (5.9 lbf ft) **Loctite®243™**
Hose clamp, intake flange	M4	2.5 Nm (1.84 lbf ft)
Nozzle, engine vent	M5	2 Nm (1.5 lbf ft)
Oil nozzle for piston cooling	M5	2 Nm (1.5 lbf ft)
Oil nozzle in cylinder head	M5	2 Nm (1.5 lbf ft)
Remaining screws, engine	M5	6 Nm (4.4 lbf ft)
Screw, cam lever axial lock	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, crankshaft speed sensor	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, gear position sensor	M5	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, oil filter cover	M5	6 Nm (4.4 lbf ft)
Screw, pressure plate	M5	3 Nm (2.2 lbf ft) **Loctite®243™**
Screw, shift drum retaining bracket	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, shift shaft sensor	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, thermostat case	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Securing screw, balancer shaft	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Swing angle sensor screw	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Nut, starter motor cable	M6	5 Nm (3.7 lbf ft)
Remaining screws, engine	M6	10 Nm (7.4 lbf ft)
Screw, alternator cover	M6x30	10 Nm (7.4 lbf ft)
Screw, alternator cover	M6x35	10 Nm (7.4 lbf ft)
Screw, camshaft bearing bridge	M6	10 Nm (7.4 lbf ft)
Screw, clutch cable retaining bracket	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)
Screw, clutch release lever	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, clutch spring	M6	8 Nm (5.9 lbf ft)
Screw, cylinder head	M6	10 Nm (7.4 lbf ft)
Screw, engine case	M6x30	12 Nm (8.9 lbf ft)
Screw, engine case	M6x60	12 Nm (8.9 lbf ft)
Screw, freewheel ring	M6	14 Nm (10.3 lbf ft) **Loctite®243™**
Screw, ignition coil	M6	8 Nm (5.9 lbf ft)

Screw, locking lever	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, main shaft bearing support	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, oil pan	M6x30	10 Nm (7.4 lbf ft)
Screw, oil pan	M6x35	10 Nm (7.4 lbf ft)
Screw, oil pump cover	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, oil pump unit	M6	10 Nm (7.4 lbf ft)
Screw, oil/water heat exchanger	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, shift drum locating	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, shift lever	M6	14 Nm (10.3 lbf ft) **Loctite®243™**
Screw, shift shaft retaining bracket	M6	10 Nm (7.4 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, timing chain shaft	M6	10 Nm (7.4 lbf ft)
Screw, upper guide rail	M6	8 Nm (5.9 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) **Loctite®243™**
Screw, water pump wheel	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Nut, exhaust flange	M8	15 Nm (11.1 lbf ft) Copper paste
Oil nozzle for clutch lubrication	M8	5 Nm (3.7 lbf ft) **Loctite®243™**
Remaining screws for engine	M8	20 Nm (14.8 lbf ft)
Screw plug, locking screw	M8	15 Nm (11.1 lbf ft)
Screw, engine case	M8x45	25 Nm (18.4 lbf ft) Screw support greased
Screw, engine case	M8x55	25 Nm (18.4 lbf ft) Screw support greased
Screw, engine case	M8x65	25 Nm (18.4 lbf ft) Screw support greased
Screw, engine case	M8x90	25 Nm (18.4 lbf ft) Screw support greased
Screw, oil pump idler gear	M8	15 Nm (11.1 lbf ft) **Loctite®243™**
Screw, tensioning rail	M8	15 Nm (11.1 lbf ft) **Loctite®243™**
Stud, exhaust flange	M8	15 Nm (11.1 lbf ft) **Loctite®243™**

Screw, conrod bearing	M8x0.75	1st stage 5 Nm (3.7 lbf ft) 2nd stage 15 Nm (11.1 lbf ft) 3rd stage 90° Screw support and thread oiled
Spark plug	M10	11 Nm (8.1 lbf ft)
Oil pressure sensor	M10x1	10 Nm (7.4 lbf ft)
Screw plug, bearing support	M10x1	12 Nm (8.9 lbf ft) **Loctite®243™**
Screw plug, cam lever axis	M10x1	8 Nm (5.9 lbf ft)
Screw, unlocking of timing chain tensioner	M10x1	8 Nm (5.9 lbf ft)
Coolant temperature sensor	M10x1.25	10 Nm (7.4 lbf ft)
Screw, cylinder head	M10x1.25	Tightening sequence: Observe tightening sequence. 1st stage 5 Nm (3.7 lbf ft) 2nd stage 15 Nm (11.1 lbf ft) 3rd stage 90° 4th stage 90° Screw support greased/thread oiled
Screw plug, cylinder head oil drain	M12x1.5	15 Nm (11.1 lbf ft)
Screw, rotor	M12x1.5	90 Nm (66.4 lbf ft) Thread greased
Screw plug, water jacket	M16x1.5	20 Nm (14.8 lbf ft) **Loctite®243™**
Nut, engine sprocket	M20x1.5	120 Nm (88.5 lbf ft) **Loctite®243™**
Nut, inner clutch hub	M20x1.5	135 Nm (99.6 lbf ft)
Plug, oil screen	M20x1.5	20 Nm (14.8 lbf ft)
Plug, timing chain tensioner	M24x1.5	25 Nm (18.4 lbf ft)
Screw plug, alternator cover	M24x1.5	8 Nm (5.9 lbf ft)

23.3 Capacities

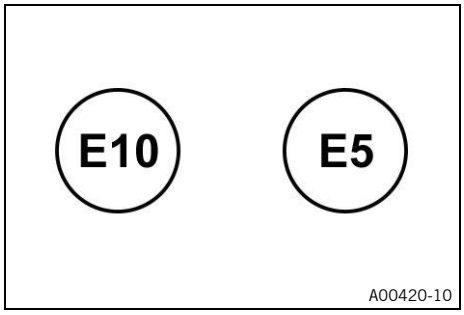
23.3.1 Engine oil

Engine oil	2.9 l (3.1 qt.)	Engine oil (SAE 10W/50) (📖 p. 147)

23.3.2 Coolant

Coolant	1.6 l (1.7 qt.)	Coolant (📖 p. 147)

23.3.3 Fuel



Please observe the labels on EU fuel pumps.

Fuel tank capacity, approx.	14 l (3.7 US gal)	Super unleaded (ROZ 95) (📖 p. 148)

23.4 Chassis

Frame	Lattice frame made of chrome molybdenum steel tubing, powder-coated
Suspension travel (Option: Standard chassis)	
front	140 mm (5.51 in)
rear	140 mm (5.51 in)
Brake system	
front	Double disc brake with radially mounted four-piston brake calipers, floating brake discs
rear	Disc brake with single-piston brake caliper, floating
Brake discs - diameter	
front	300 mm (11.81 in)
rear	240 mm (9.45 in)
Brake discs - wear limit	
front	4.5 mm (0.177 in)
rear	4.5 mm (0.177 in)
Tire pressure when solo	
Front	2.3 bar (33 psi)
Rear	2.6 bar (38 psi)
Tire pressure with passenger / full payload	
front	2.3 bar (33 psi)
rear	2.6 bar (38 psi)
Secondary drive ratio	16:45 **Info** Modifications to the transmission ratio are not permitted and can lead to malfunctions.
Chain	5/8 x 1/4” (520) X-ring
Steering head angle	65.7°
Wheelbase	1,482 ± 15 mm (58.35 ± 0.59 in)
Seat height unloaded (Option: Standard chassis)	825 mm (32.48 in)
Ground clearance unloaded (Option: Standard chassis)	200 mm (7.87 in)
Weight without fuel, approx.	165 kg (364 lb.)

Maximum permissible front axle load	160 kg (353 lb.)
Maximum permissible rear axle load	270 kg (595 lb.)
Maximum permissible overall weight	430 kg (948 lb.)

23.5 Electrical system

12-V battery	YTX9-BS	Battery voltage: 12 V Nominal capacity: 8 Ah Maintenance-free
Fuse	75011088010	10 A
Fuse	75011088015	15 A
Fuse	75011088025	25 A
Fuse	58011109130	30 A

Low beam/high beam	LED
Daytime running light/position light	LED
Combination instrument lighting and indicator lamps	LED
Turn signal	LED
Brake/tail light	LED
License plate lamp	LED

23.6 Tires

Front tire	**Rear tire**
120/70 ZR 17 M/C (58W) TL (J) MAXXIS Supermaxx ST	**180/55 ZR 17 M/C (73W) TL (G)** MAXXIS Supermaxx ST
The tires specified represent one of the possible series production tires. For alternative manufacturers, if any, contact an authorized dealer or qualified tire dealership. If local road approval regulations apply, these and the respective technical specifications must be observed. Additional information is available in the Service section under: KTM.COM	

23.7 Fork

Fork article number	A660C150Y201102
Fork	**WP APEX**
Spring rate	
Softer: 65 ... 75 kg (143 ... 165 lb.)	5 ... 7.8 N/mm (29 ... 44.5 lb/in)
Standard: 75 ... 85 kg (165 ... 187 lb.)	6 ... 9 N/mm (34 ... 51 lb/in)
Harder: 85 ... 95 kg (187 ... 209 lb.)	7 ... 10 N/mm (40 ... 57 lb/in)
Fork length	765 mm (30.12 in)
Spring length with preload spacer(s)	367 mm (14.45 in)

Fork oil per fork leg	470 ± 5 ml (15.89 ± 0.17 fl. oz.)	Fork oil (SAE 5) (📖 p. 148)

23.8 Shock absorber

Shock absorber article number	01.58.4R.26
Shock absorber	**WP Suspension APEX 3146**
Spring preload	
Standard	5 clicks
Inbuilt length	387 mm (15.24 in)
Spring length	185 mm (7.28 in)
Spring rate	
Softer (comfort)	115 ... 140 N/mm (657 ... 799 lb/in)
Medium (standard)	130 ... 160 N/mm (742 ... 914 lb/in)
Harder (sport)	145 ... 180 N/mm (828 ... 1,028 lb/in)

Shock absorber oil	Shock absorber fluid (SAE 2.5) (50180751S1) (📖 p. 148)

23.9 Chassis tightening torques

Radiator hose hose clamp	-	2.2 Nm (1.62 lbf ft)
Remaining screws, chassis	**EJOTPT®** K45x12	1 Nm (0.7 lbf ft)
Remaining screws, chassis	**EJOTPT®** K50x12	1 Nm (0.7 lbf ft)
Remaining screws, chassis	**EJOTPT®** K50x14	1 Nm (0.7 lbf ft)
Remaining screws, chassis	**EJOTPT®** K50x16	2 Nm (1.5 lbf ft)
Remaining screws, chassis	**EJOTPT®** K50x18	2 Nm (1.5 lbf ft)
Screw, headlight	**EJOTPT®** K50x14	3 Nm (2.2 lbf ft)
Throttle valve body hose clamp	-	2.8 Nm (2.07 lbf ft)
Remaining nuts, chassis	M4	3 Nm (2.2 lbf ft)
Remaining screws, chassis	M4	3 Nm (2.2 lbf ft)
Screw, fixed grip, left	M4	3 Nm (2.2 lbf ft)
Screw, throttle grip	M4	3 Nm (2.2 lbf ft)
Remaining nuts, chassis	M5	5 Nm (3.7 lbf ft)
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)
Screw, air filter box	M5	3 Nm (2.2 lbf ft)
Screw, brake fluid reservoir for rear brake	M5	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, combination instrument	M5	4 Nm (3 lbf ft)
Screw, combination switch, left	M5	5 Nm (3.7 lbf ft)
Screw, combination switch, right	M5	5 Nm (3.7 lbf ft)
Screw, engine sprocket cover	M5	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, fuel level sensor	M5	3 Nm (2.2 lbf ft)
Screw, fuel tank cover	M5	3 Nm (2.2 lbf ft)
Screw, headlight mask	M5	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, heat guard	M5	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, license plate holder	M5	3 Nm (2.2 lbf ft)
Screw, lower rear panel	M5	3 Nm (2.2 lbf ft)

Screw, mask support	M5	3 Nm (2.2 lbf ft)
Screw, side stand sensor	M5	2 Nm (1.5 lbf ft) **Loctite®243™**
Screw, support roller	M5	4 Nm (3 lbf ft) **Loctite®243™**
Screw, trim	M5	3 Nm (2.2 lbf ft)
Brake cylinder screw on the rear brake system	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Nut, cable on starter motor	M6	5 Nm (3.7 lbf ft)
Nut, hand brake lever	M6	Attach torque to nut. 10 Nm (7.4 lbf ft)
Nut, push rod, foot brake lever	M6	6 Nm (4.4 lbf ft)
Nut, shift rod	M6	6 Nm (4.4 lbf ft)
Nut, shift rod	M6LH	6 Nm (4.4 lbf ft)
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
Screw, activated carbon filter holder	M6	6 Nm (4.4 lbf ft)
Screw, battery support bracket	M6	4.5 Nm (3.32 lbf ft)
Screw, battery terminal	M6x12	4.5 Nm (3.32 lbf ft)
Screw, battery terminal	M6x20	4.5 Nm (3.32 lbf ft)
Screw, brake assembly	M6	5 Nm (3.7 lbf ft)
Screw, clutch assembly	M6	5 Nm (3.7 lbf ft)
Screw, foot brake lever stub	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, front rider's seat	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, fuel tank rollers	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, fuel tank spoiler	M6	3 Nm (2.2 lbf ft)
Screw, ground wire on frame	M6	10 Nm (7.4 lbf ft)
Screw, ground wire to starter motor	M6	10 Nm (7.4 lbf ft)
Screw, ignition lock (tamper-proof screw)	M6	Tighten until the head tears off. **Loctite®243™**
Screw, inertial measurement unit	M6	5 Nm (3.7 lbf ft)
Screw, license plate holder	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, magnetic holder on side stand	M6	2 Nm (1.5 lbf ft) **Loctite®243™**
Screw, push rod ball joint on the rear brake cylinder	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, radiator bracket, bottom	M6	5 Nm (3.7 lbf ft)
Screw, seat lock	M6	8 Nm (5.9 lbf ft) **Loctite® 222™**
Screw, shift lever stub	M6	10 Nm (7.4 lbf ft) **Loctite®243™**

Screw, shift rod	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, shift shaft deflector on shift shaft	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, wheel speed sensor	M6	6 Nm (4.4 lbf ft)
Nut, manifold on cylinder head	M8	Tighten the nuts evenly. Do not bend the metal. 20 Nm (14.8 lbf ft) Copper paste
Nut, rear sprocket screw	M8	35 Nm (25.8 lbf ft) **Loctite®2701™**
Pin, rear brake caliper	M8	22 Nm (16.2 lbf ft)
Remaining nuts, chassis	M8	25 Nm (18.4 lbf ft)
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)
Screw, cross member	M8x18	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, cross member in rear	M8x35	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, engine fixing arm linkage bracket	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, foot brake lever	M8	25 Nm (18.4 lbf ft) **Loctite®2701™**
Screw, footrest bracket, rear	M8x25	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, footrest bracket, rear	M8x45	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, fork stub	M8	15 Nm (11.1 lbf ft)
Screw, front brake disc	M8	28 Nm (20.7 lbf ft) **Loctite®2701™**
Screw, grab handle	M8x50	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)
Screw, main silencer clamp	M8	8 Nm (5.9 lbf ft)
Screw, main silencer fastening	M8	15 Nm (11.1 lbf ft)
Screw, manifold clamp	M8	8 Nm (5.9 lbf ft)
Screw, passenger seat bracket	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, presilencer on frame	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, rear brake disc	M8	28 Nm (20.7 lbf ft) **Loctite®2701™**
Screw, shift lever	M8	25 Nm (18.4 lbf ft) **Loctite®2701™**
Screw, spring holder plate on side stand bracket	M8	15 Nm (11.1 lbf ft) **Loctite®2701™**
Screw, steering damper on holder	M8	10 Nm (7.4 lbf ft) **Loctite®243™**

Screw, steering damper on triple clamp	M8	8 Nm (5.9 lbf ft) **Loctite®243™**
Screw, steering stem	M8	20 Nm (14.8 lbf ft) **Loctite®243™**
Screw, subframe brace	M8	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, top triple clamp	M8	15 Nm (11.1 lbf ft)
Engine carrying screw	M10	45 Nm (33.2 lbf ft) **Loctite®243™**
Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)
Screw, front footrest bracket	M10x65	45 Nm (33.2 lbf ft) **Loctite®243™**
Screw, front footrest bracket	M10x80	45 Nm (33.2 lbf ft) **Loctite®243™**
Screw, handlebar support	M10	45 Nm (33.2 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™**
Screw, subframe	M10	50 Nm (36.9 lbf ft) **Loctite®243™**
Banjo bolt, brake line	M10x1	25 Nm (18.4 lbf ft)
Screw, front brake caliper	M10x1.25	45 Nm (33.2 lbf ft) **Loctite®243™**
Screw, bottom shock absorber	M12	80 Nm (59 lbf ft) **Loctite®2701™**
Screw, swingarm pivot	M12	100 Nm (73.8 lbf ft)
Screw, top shock absorber	M12	80 Nm (59 lbf ft) **Loctite®2701™**
Lambda sensor	M18x1.5	50 Nm (36.9 lbf ft)
Bushing, shock absorber support	M20LHx1.5	10 Nm (7.4 lbf ft) Thread and fitting greased
Screw, steering head	M20x1.5	18 Nm (13.3 lbf ft)
Nut, rear wheel spindle	M25x1.5	90 Nm (66.4 lbf ft) Thread and contact area of wheel spindle greased
Screw, front wheel spindle	M25x1.5	45 Nm (33.2 lbf ft) Thread greased

24.1 Declarations of conformity

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

JNS Instruments Ltd. hereby declares that the wireless system **320T1100** conforms to the relevant guidelines. The full text of the Declaration of Conformity is available at the following Internet address.
Certification website: https://www.ktm.com/320T1100

KTM AG hereby declares that the wireless system **Immo641** conforms to the relevant guidelines. The full text of the Declaration of Conformity is available at the following Internet address.
Certification website: http://www.ktm.com/immo641

Schrader Electronics Ltd hereby declares that the wireless system **Tyre Pressure Monitoring System** conforms to the relevant guidelines. The full text of the Declaration of Conformity is available at the following Internet address.
Certification website: http://www.ktm.com/tpms

24.2 Country-specific declarations of conformity



Brake fluid DOT 4 / DOT 5.1

Standard/classification

– DOT

Guideline

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

Recommended supplier

Castrol

– **REACT PERFORMANCE DOT 4**

MOTOREX®

– **Brake Fluid DOT 5.1**

Coolant

Guideline

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

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

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

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

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

The use of premixed coolant is recommended.

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

Recommended supplier

MOTOREX®

– **COOLANT M3.0**

Engine oil (SAE 10W/50)

Standard/classification

– JASO T903 MA2 (📖 p. 150)

– SAE (📖 p. 150) (SAE 10W/50)

Guideline

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

Fully synthetic engine oil

Recommended supplier

MOTOREX®

– **Power Synt 4T**

Fork oil (SAE 5)

Standard/classification

– SAE (📖 p. 150) (SAE 5)

Guideline

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

Recommended supplier

MOTOREX®

– **Racing Fork Oil**

Shock absorber fluid (SAE 2.5) (50180751S1)

Standard/classification

– SAE (📖 p. 150) (SAE 2.5)

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)

Standard/classification

– DIN EN 228 (ROZ 95)

Guideline

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

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

Info

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

Chain cleaner

Recommended supplier
MOTOREX®
– **Chain Clean**

Fuel additive

Recommended supplier
MOTOREX®
– **Fuel Stabilizer**

Long-life grease

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

Motorcycle cleaner

Recommended supplier
MOTOREX®
– **Moto Clean**

Preserving materials for paints, metal and rubber

Recommended supplier
MOTOREX®
– **Moto Protect**

Shine spray for paint, plastic and chromium

Recommended supplier
MOTOREX®
– **Moto Shine**

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

Recommended supplier
MOTOREX®
– **Quick Cleaner**

Street chain spray

Guideline

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

Universal oil spray

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

JASO T903 MA2

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

SAE

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

ABS	Anti-lock braking system	Safety system that prevents locking of the wheels when driving straight ahead without the influence of lateral forces
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
ETTC	Engine traction torque control	Auxiliary function of the engine control, which prevents rear wheel locking with excessive engine braking effect, by lightly opening the throttle valve
-	KTMconnect	System for wireless communication with suitable cellphones and communication systems for telephony and audio
-	Launch control	Vehicles electronics functions for achieving the best possible acceleration from a standing position
MTC	Motorcycle Traction Control	Auxiliary function of the motor control that reduces engine torque with spinning rear wheel
OBD	On-board diagnosis	Vehicle system, which monitors the specified parameters of the vehicle electronics
-	QUICKSHIFTER+	Engine tuning function for shifting up and down without clutch actuation

29 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

30.1 Red symbols

Red symbols indicate an error condition that requires immediate intervention.

	The oil pressure warning lamp lights up red – The oil pressure is too low. Stop immediately, taking care not to endanger yourself or other road users in the process, and switch off the engine.

30.2 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.

	The malfunction indicator lamp lights up yellow – The OBD has detected a malfunction in the vehicle electronics. Come safely to a halt, and contact an authorized KTM workshop.
	ABS warning lamp lights up yellow – Status or error messages relating to ABS.
	The ABS rear warning lamp lights up yellow – ABS is deactivated on the rear wheel.
	TC indicator lamp lights up/flashes yellow – **MTC** (📖 p. 124) is not enabled or is currently intervening. The TC indicator lamp also lights up if a malfunction is detected. Contact an authorized KTM workshop. The TC indicator lamp flashes if **MTC** makes an active intervention.
	The cruise control system indicator lamp (optional) lights up yellow – The cruise control system function is switched on, but cruise control is not activated.
	The general warning lamp lights up yellow – A note/warning note on operating safety has been detected. This is also shown in the display.

30.3 Green and blue symbols

Green and blue symbols reflect information.

	The turn signal indicator lamp flashes green with a steady rhythmic flash – The turn signal is switched on.
	The idle indicator lamp lights up green – The transmission is in neutral.
	The cruise control system indicator lamp (optional) lights up green – The cruise control system function is switched on and cruise control is activated.
	The high beam indicator lamp lights up blue – The high beam is switched on.

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KTM Sportmotorcycle GmbH
5230 Mattighofen/Austria
KTM.COM

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