OWNER'S MANUAL 2017

READY TO RACE
»www.ktm.com

250 EXC-F

Art. no. 3213478en

KTM

DEAR KTM CUSTOMER

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

We hope you enjoy your new vehicle!

Please enter the serial number of your vehicle below.

Chassis number (📖 p. 12)	Stamp of dealer
Engine number (📖 p. 12)	
Key number (📖 p. 12)	

The Owner's Manual contained the latest information for this model series at the time of going to print. Slight deviations resulting from continuing development and design of the motorcycles can, however, not be completely excluded.

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

REG.NO. 12 100 6061

ISO 9001(12 100 6061)
According to the international quality management standard ISO 9001, KTM uses quality assurance processes that lead to the maximum possible quality of the products.
Issued by: TÜV Management Service

KTM Sportmotorcycle GmbH
5230 Mattighofen, Austria

This document is valid for the following models:

250 EXC-F EU (F8103Q9)

250 EXC-F Six Days EU (F8103Q2)

250 EXC-F AU (F8160Q9)

250 EXC-F BR (F8140Q9)

3213478en

07/2016

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1 MEANS OF REPRESENTATION

1.1 Symbols used

The meaning of specific symbols is described below.

✓	Indicates an expected reaction (e.g. of a work step or a function).
✗	Indicates an unexpected reaction (e.g. of a work step or a function).
	All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of your own safety, have these jobs performed by an authorized KTM workshop. There, your motorcycle will be optimally cared for by specially trained experts using the specialist tools required.
	Indicates a page reference (more information is provided on the specified page).
	Indicates information with more details or tips.
»	Indicates the result of a testing step.

1.2 Formats used

The typographical formats used in this document are explained below.

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

2 SAFETY ADVICE

2.1 Use definition - intended use

KTM sport motorcycles are designed and built to withstand the normal stresses and strains of competitive use. The motorcycles comply with currently valid regulations and categories of the top international motorsport organizations.

Info

Only trained personnel are allowed to drive the vehicle. The vehicle is only authorized for operation on public roads in the homologated (restricted) version.
The derestricted version of the vehicle must only be operated in closed off areas away from public highway traffic.
This motorcycle is designed for use in offroad endurance competition and not primarily for use in motocross.

2.2 Safety advice

A number of safety instructions need to be followed to operate the vehicle safely. Therefore, read this manual carefully. The safety instructions are highlighted in the text and are referred to at the relevant passages.

Info

The vehicle has various information and warning labels at prominent locations. Do not remove information/warning labels. If they are missing, you or others may not recognize dangers and may therefore be injured.

2.3 Degrees of risk and symbols

Danger

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

Warning

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

Caution

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

Note

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

Warning

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

2.4 Tampering warning

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

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

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

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

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

2 Removal or puncturing of parts of the intake system.

3 Lack of proper maintenance.

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

2.5 Safe operation

Danger

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

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

Danger

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

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

Warning

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

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

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

2.6 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.

2.7 Work rules

Special tools are necessary for certain tasks. The tools are not contained in the vehicle but can be ordered under the number in parentheses. E.g.: bearing puller (15112017000)
During assembly, non-reusable parts (e.g. self-locking screws and nuts, seals and seal rings, O-rings, pins, lock washers) must be replaced by new parts.
In some instances, a thread locker (e.g. **Loctite®**) is required. The manufacturer instructions for use must be followed.
After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.
After you complete the repair or service work, check the operating safety of the vehicle.

2.8 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.

2.9 Owner's Manual

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

3 IMPORTANT NOTES

3.1 Manufacturer and implied warranty

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

3.2 Operating and auxiliary substances

Warning

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

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

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

3.3 Spare parts, accessories

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

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

3.4 Service

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

3.5 Figures

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

3.6 Customer service

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

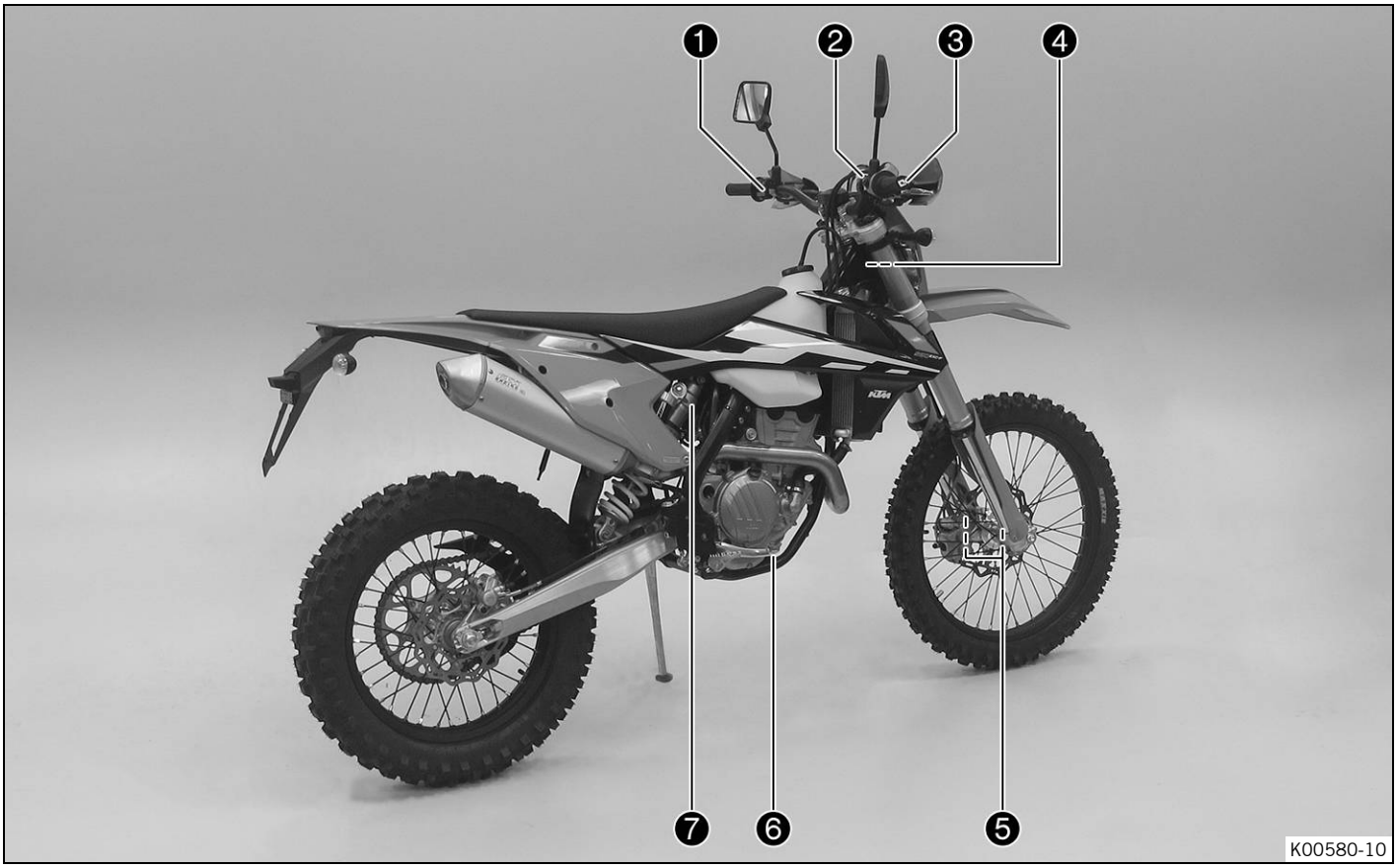
A list of authorized KTM dealers can be found on the KTM website.
International KTM Website: http://www.ktm.com

4 VIEW OF VEHICLE

4.1 View of vehicle, front left (example)

1	Hand brake lever (📖 p. 14)
2	Clutch lever (📖 p. 14)
3	Filler cap
4	Engine number (📖 p. 12)
5	Side stand (📖 p. 19)
6	Shift lever (📖 p. 18)

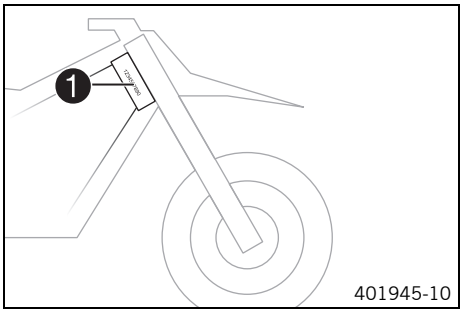
4.2 View of vehicle, rear right (example)



1	Kill switch (📖 p. 14)
1	Horn button (📖 p. 14)
1	Light switch (📖 p. 15)
1	Turn signal switch (📖 p. 15)
2	Emergency OFF switch (📖 p. 15)
2	Electric starter button (📖 p. 15)
3	Throttle grip (📖 p. 14)
4	Chassis number (📖 p. 12)
4	Type label (📖 p. 12)
5	Fork part number (📖 p. 12)
6	Foot brake lever (📖 p. 18)
7	Shock absorber article number (📖 p. 13)

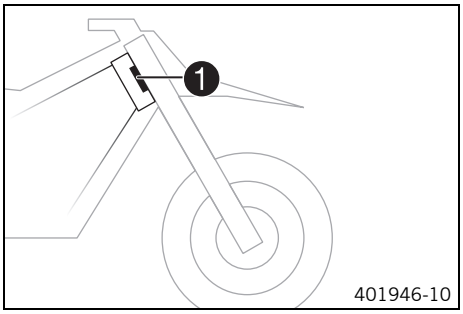
5 SERIAL NUMBERS

5.1 Chassis number



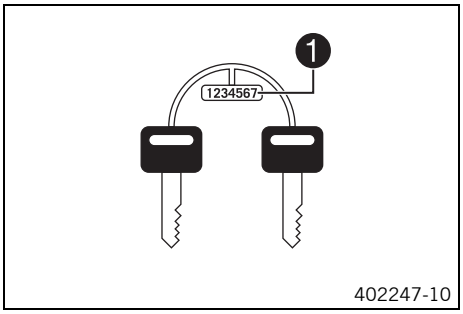
The chassis number ❶ is stamped on the steering head on the right.

5.2 Type label



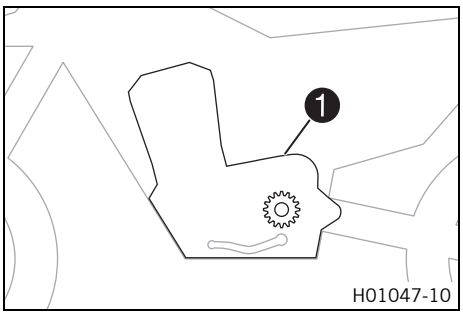
The type label ❶ is fixed to the front of the steering head.

5.3 Key number



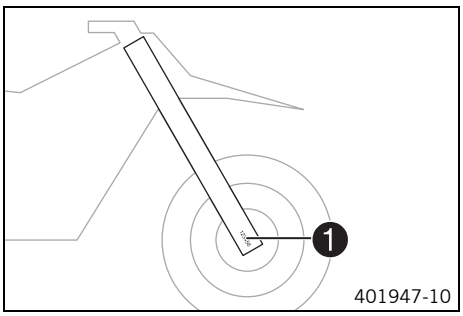
The key number ❶ for the steering lock is stamped onto the key connector.

5.4 Engine number



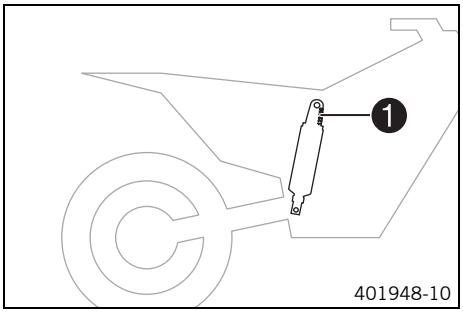
The engine number ❶ is embossed on the left side of the engine over the engine sprocket.

5.5 Fork part number



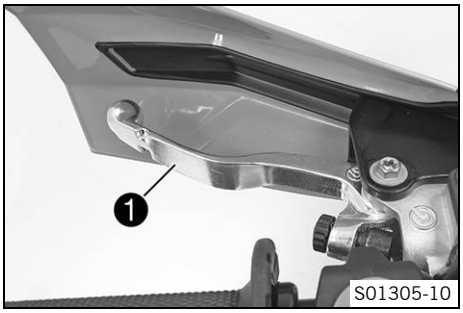
The fork part number ❶ is stamped on the inner side of the fork stub.

5.6 Shock absorber article number



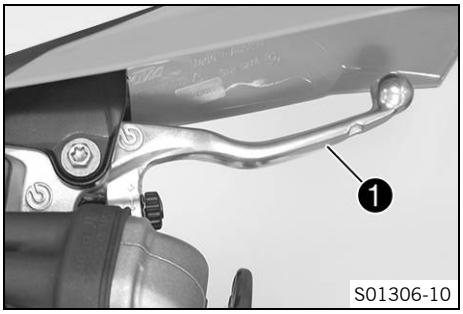
Shock absorber article number ❶ is stamped on the top of the shock absorber above the adjusting ring towards the engine side.

6.1 Clutch lever



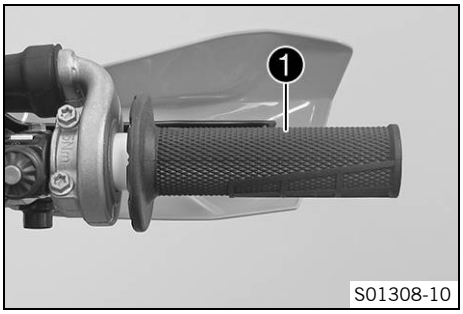
The clutch lever ❶ is fitted on the left side of the handlebar.
The clutch is hydraulically operated and self-adjusting.

6.2 Hand brake lever



The hand brake lever ❶ is fitted on the right side of the handlebar.
The hand brake lever is used to activate the front brake.

6.3 Throttle grip



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

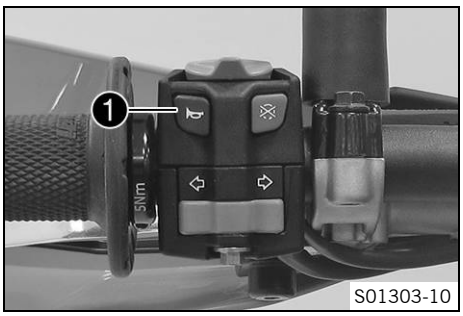
6.4 Kill switch

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

Possible states

- Kill switch ⊠ in basic position – In this position, the ignition circuit is closed and the engine can be started.
- Kill switch ⊠ is pressed – In this position, the ignition circuit is interrupted, a running engine stops, and a non-running engine will not start.

6.5 Horn button

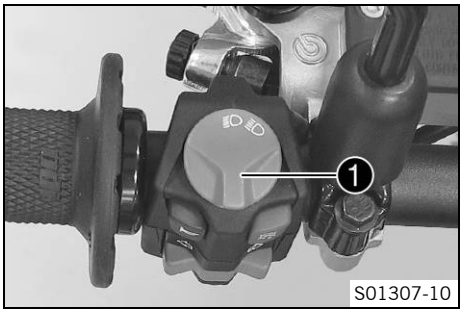


The horn button ❶ is fitted on the left side of the handlebar.

Possible states

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

6.6 Light switch



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

Possible states

	Low beam on – Light switch is in the central position. In this position, the low beam and tail light are switched on.
	High beam on – The light switch is turned counterclockwise. In this position, the high beam and the tail light are switched on.

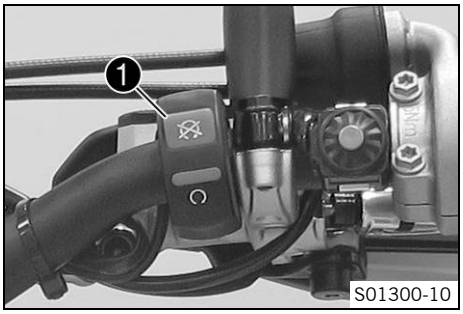
6.7 Turn signal switch

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

Possible states

	Turn signal off – Turn signal switch is in the central position.
	Turn signal, left, on – The turn signal switch is turned to the left.
	Turn signal, right, on – The turn signal switch is turned to the right.

6.8 Emergency OFF switch

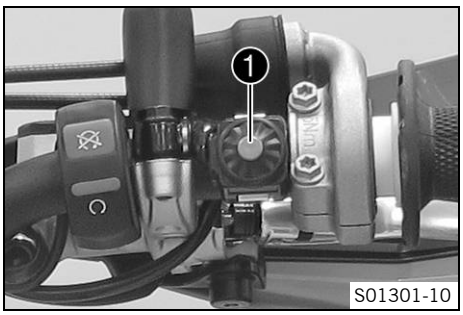


The emergency OFF switch ❶ is fitted on the right side of the handlebar.

Possible states

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

6.9 Electric starter button

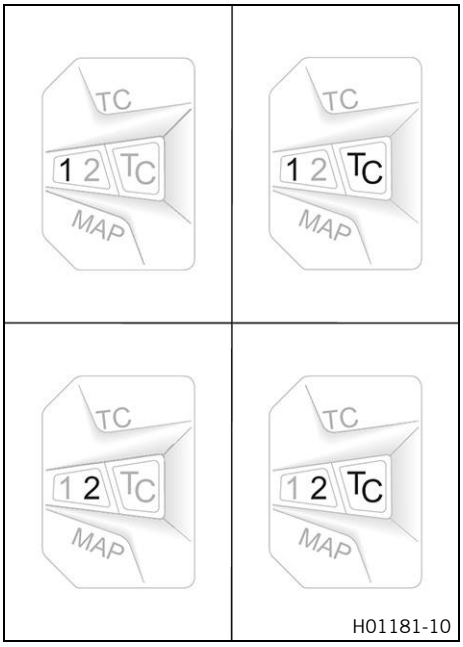


The electric starter button ❶ is fitted on the right side of the handlebar.

Possible states

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

6.10 Combination switch (EXC-F Six Days)



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

Possible states

1	STANDARD – STANDARD mapping is activated when LED **1** lights up.
1TC	STANDARD with TC – STANDARD mapping with traction control is activated when LED **1** and **TC** light up.
2	ADVANCED – ADVANCED mapping is activated, when LED **2** lights up.
2TC	ADVANCED with TC – ADVANCED mapping with traction control is activated when LED **2** and **TC** light up.

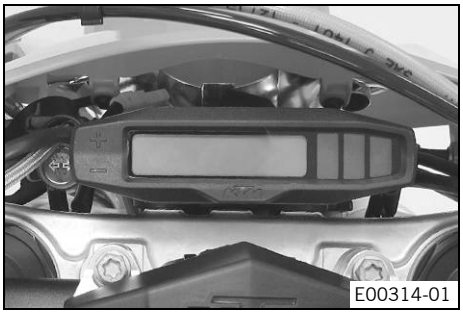
Warning

Voiding of the government approval for road use and the insurance coverage If the combination switch is installed, the vehicle's approval for road use is invalidated.

– Only operate the vehicle in closed-off areas remote from public road traffic if the combination switch is installed.

The engine characteristic can be changed using button **MAP** on the combination switch.
The **Launch Control** and the traction control can also be activated via the combination switch.

6.11 Indicator lamps overview



Possible states

	The high beam indicator lamp lights up blue – The high beam is switched on.
EFI	Malfunction indicator lamp lights up/flashes yellow – The OBD has detected an emission- or safety-critical fault.
	The fuel level warning lamp lights up yellow – The fuel level has reached the reserve mark.
	Turn signal indicator lamp flashes green – The turn signal is switched on.

6.12 Opening filler cap

Danger

Fire hazard Fuel is highly flammable.

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

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

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

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

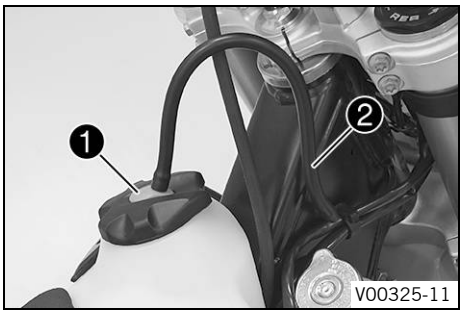
Warning

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

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

– Press release button ❶, turn filler cap counterclockwise and lift it upwards and remove.

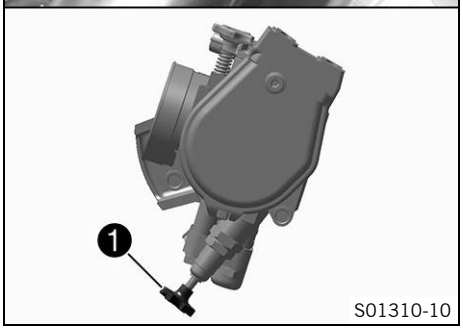
6.13 Closing filler cap



– Replace the filler cap and turn clockwise until the release button ❶ locks in place.

Info
Route the fuel tank breather hose ❷ without kinking.

6.14 Cold start button

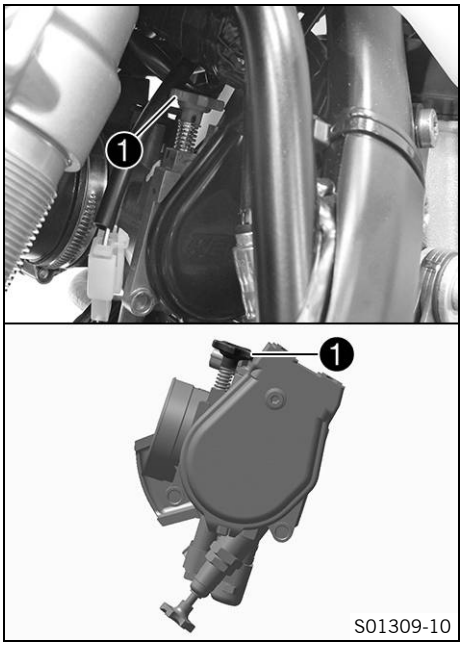


The cold start button ❶ is fitted on the bottom of the throttle valve body.
The injection system extends the injection time if the engine is cold and the outside temperature is low. To help the engine burn the increased amount of fuel, it must be supplied with additional oxygen by pushing the cold start button.
After briefly opening up the throttle and then releasing the throttle grip again, or turning the throttle grip towards the front, the cold start button returns to its original position.

Info
Check whether the cold start button has returned to its basic position.

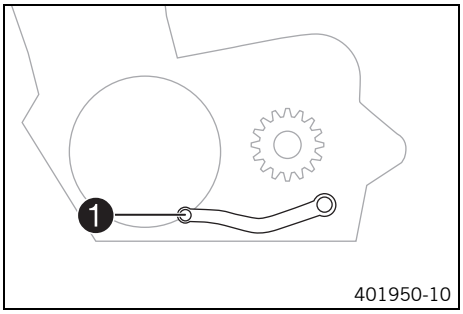
Possible states
- The cold start button is activated – The cold start button is pushed in all the way.
- The cold start button is deactivated – The cold start button is in its basic position.

6.15 Idle speed adjusting screw

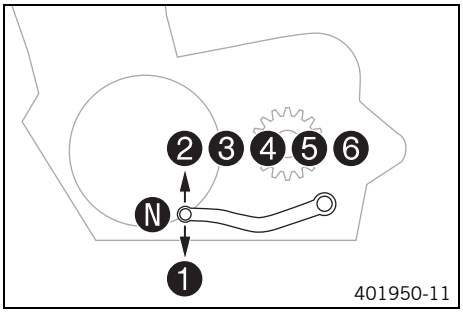


The idle setting of the throttle valve body has a big influence on the vehicle's starting behavior, on stable idling, and on vehicle response when the throttle is opened.
An engine with a correctly set idle speed is easier to start than an engine with the idle speed set incorrectly.
The idle speed is adjusted using the idle speed adjusting screw ❶.
Increase the idle speed by turning the idle speed adjusting screw clockwise.
Decrease the idle speed by turning the idle speed adjusting screw counterclockwise.

6.16 Shift lever

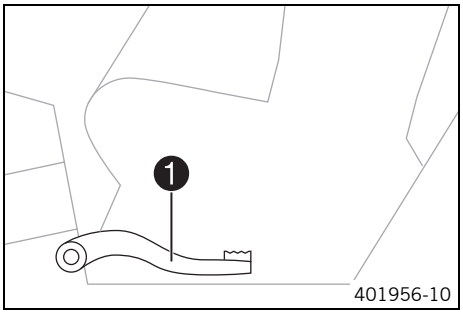


The shift lever ❶ is fitted on the left side of the engine.



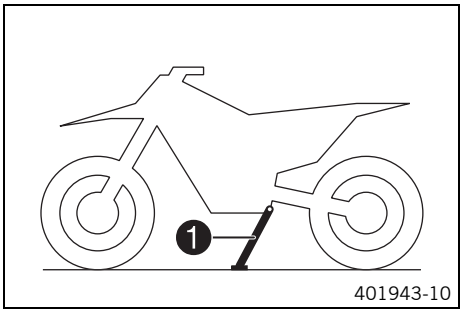
The gear positions can be seen in the photograph.
The neutral or idle position is between the first and second gears.

6.17 Foot brake lever

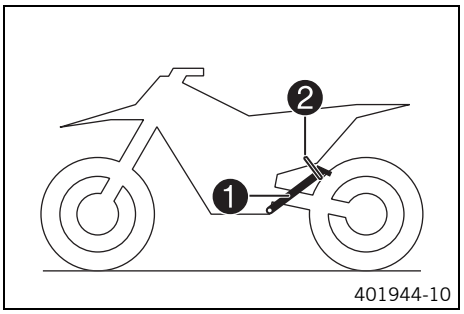


The foot brake lever ❶ is attached in front of the right footrest.
The foot brake lever is used to activate the rear brake.

6.18 Side stand



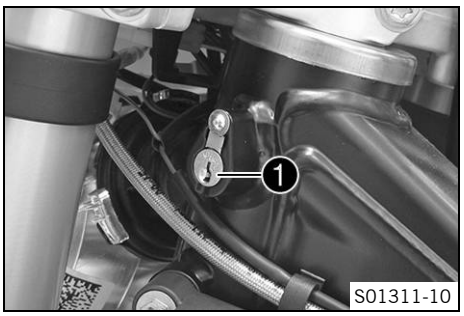
The side stand ❶ is attached to the left side of the vehicle.



The side stand is used to park the motorcycle.

Info
When you are riding, the side stand ❶ must be folded up and secured with the rubber band ❷.

6.19 Steering lock

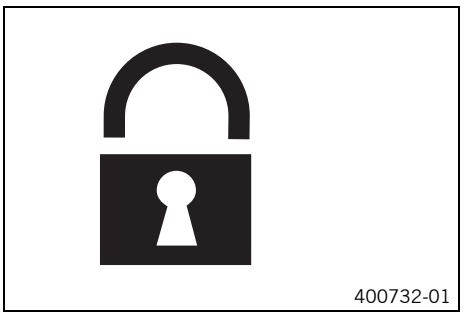


Steering lock ❶ is fitted on the left side of the steering head.
The steering lock is used to lock the steering. Steering, and therefore riding, is no longer possible.

6.20 Locking the steering

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

– Park the vehicle on a firm and level surface.



– Park the vehicle.
– Turn the handlebar as far as possible to the right.
– Grease steering lock regularly.

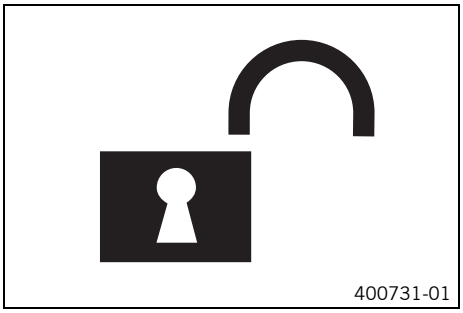
Universal oil spray (📖 p. 127)

– Insert the key in the steering lock (📖 p. 19), turn it to the left, press it in, and turn it to the right. Remove the key.

✓ Steering is no longer possible.

Info
Never leave the key in the steering lock.

6.21 Unlocking the steering



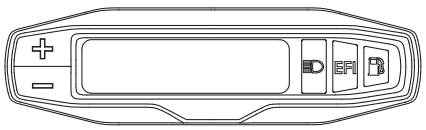
– Insert the key in the steering lock (📖 p. 19), turn it to the left, pull it out, and turn it to the right. Remove the key.

✓ You can now steer the bike again.

Info
Never leave the key in the steering lock.

7 SPEEDOMETER

7.1 Speedometer overview

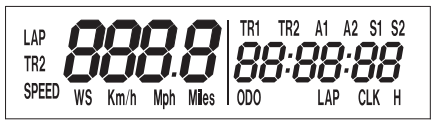


401761-01

– Press the button + to control different functions.
– Press the button − to control different functions.

Info
When the vehicle is delivered, only the **SPEED/H** and **SPEED/ODO** display modes are activated.

7.2 Activation and test



400313-01

Activating the speedometer
The speedometer is activated when one of the buttons is pressed or an impulse comes from the wheel speed sensor.

Display test
To enable you to check that the display is functioning properly, all display segments light up briefly.

400314-01

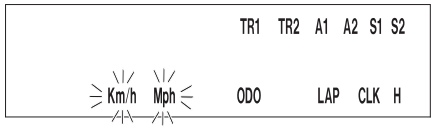
WS (wheel size)
After the display function check, the wheel size **WS** is displayed briefly.

Info
The number 2205 equals the circumference of the 21" front wheel with standard tires.

The display then changes to the last selected mode.

7.3 Setting kilometers or miles

Info
If you change the unit, the value **ODO** is retained and converted accordingly.
The values **TR1** , **TR2** , **A1** , **A2** and **S1** are cleared when the unit of measure is changed.



400329-01

Condition
The motorcycle is stationary.

– Repeatedly press the button + briefly until **H** appears at the bottom right of the display.
– Press the button + for 2–3 seconds.
  ✓ The Setup menu is displayed and the active functions are shown.
– Repeatedly press the button + briefly until **Km/h**/**Mph** flashes.

Setting the Km/h
  – Press the button +.

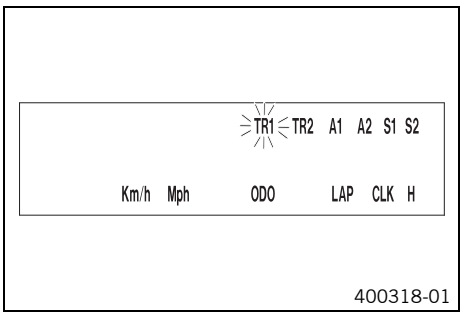
Setting the Mph
  – Press the button −.

– Wait 3–5 seconds
  ✓ The settings are stored.

Info
If no button is pressed for 10 -12 seconds, or if an impulse comes from the wheel speed sensor, the settings are automatically saved and the setup menu is closed.

7.4 Setting the speedometer functions

Info
When the vehicle is delivered, only the **SPEED/H** and **SPEED/ODO** display modes are activated.



Condition
The motorcycle is stationary.

– Repeatedly press the button + briefly until **H** appears at the bottom right of the display.
– Press the button + for 2–3 seconds.
✓ The Setup menu is displayed and the active functions are shown.

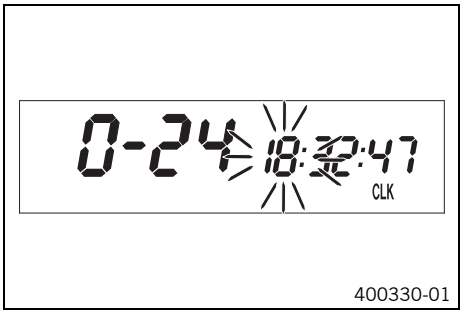
Info
If no button is pressed for 10–12 seconds, the settings are automatically saved.
If no button is pressed for 20 seconds, or if an impulse comes from the wheel speed sensor, the settings are automatically saved and the setup menu is closed.

– Repeatedly press the button + briefly until the desired function flashes.
✓ The selected function flashes.

Activating the function
– Press the button +.
✓ The symbol continues to appear in the display and the next function appears.

Deactivating a function
– Press the button −.
✓ The symbol disappears in the display and the next function appears.

7.5 Setting the clock



Condition
The motorcycle is stationary.

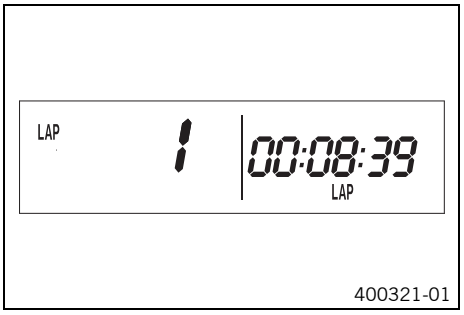
– Repeatedly press the button + briefly until **CLK** appears at the bottom right of the display.
– Press the button + for 2–3 seconds.
✓ The hour display flashes.
– Set the hour display with the button + and/or button −.
– Wait 3–5 seconds
✓ The next segment of the display flashes and can be set.
– You can set the following segments in the same way as the hours by pressing the button + and the button −.

Info
The seconds can only be set to zero.
If no button is pressed for 15 -20 seconds, or if an impulse comes from the wheel speed sensor, the settings are automatically saved and the setup menu is closed.

7.6 Viewing the lap time

Info
This function can only be opened if lap times have actually been timed.

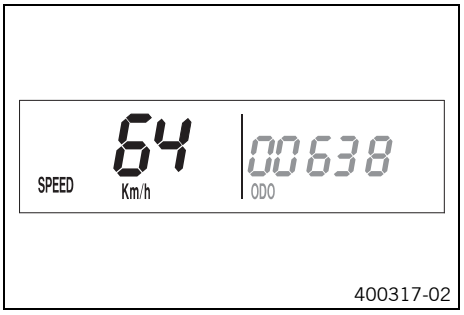
Condition
The motorcycle is stationary.



– Repeatedly press the button + briefly until **LAP** appears at the bottom right of the display.
– Briefly press the button +.
  ✓ **LAP 1** appears on the left side of the display.
– The laps 1–10 can be viewed with the button −.
– Press and hold the button + for 3-5 seconds.
  ✓ The lap times are deleted.
– Briefly press the button +.
  ✓ Next display mode

Info
When an impulse is received from the wheel speed sensor, the left side of the display changes back to the **SPEED** mode.

7.7 Display mode SPEED (speed)



– Repeatedly press the button + briefly until **SPEED** appears on the left side of the display.

The current speed is displayed in the **SPEED** display mode.
The current speed can be displayed in **Km/h** or **Mph**.

Info
Making the setting according to the country.
When an impulse comes from the front wheel, the left side of the speedometer display changes to the **SPEED** mode and the current speed is shown.

7.8 Display mode SPEED/H (service hours)

Condition
- The motorcycle is stationary.

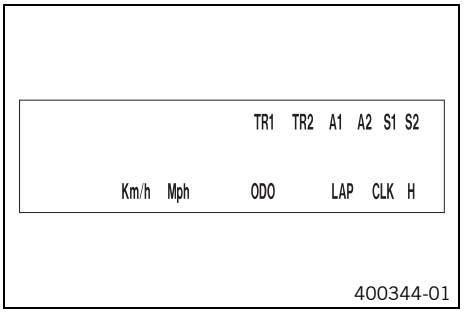
– Repeatedly press the button + briefly until **H** appears at the bottom right of the display.

In display mode **H**, the service hours of the engine are displayed.
The service hour counter stores the total traveling time.

Info
The service hour counter is necessary for ensuring that service work is carried out at the right intervals.
If the speedometer is in **H** display mode at the start of the journey, it automatically changes to the **ODO** display mode.
The **H** display mode is suppressed during the journey.

Press the button + for 2–3 seconds.	The display changes to the Setup menu of the speedometer functions.
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	No function

7.9 Setup menu



Condition

- The motorcycle is stationary.

– Repeatedly press the button + briefly until **H** appears at the bottom right of the display.

– Press the button + for 2–3 seconds.

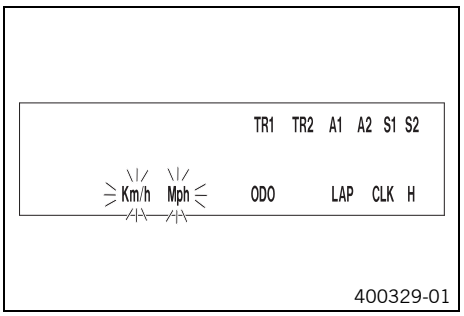
The Setup menu displays the active functions.

Info

Repeatedly press the button + briefly until the desired function is reached. If no button is pressed for 20 seconds, the settings are automatically saved.

Briefly press the button +.	Activates the flashing display and changes to the next display
Press the button + for 2–3 seconds.	No function
Briefly press the button −.	Deactivates the flashing display and changes to the next display
Press the button − for 2–3 seconds.	No function
Wait 3–5 seconds	Changes to the next display without changes
Wait 10–12 seconds	Setup menu starts, stores the settings, and changes to **H** or **ODO**.

7.10 Setting the unit of measurement



Condition

- The motorcycle is stationary.

– Repeatedly press the button + briefly until **H** appears at the bottom right of the display.

– Press the button + for 2–3 seconds.

– Repeatedly press the button + briefly until **Km/h**/**Mph** flashes.

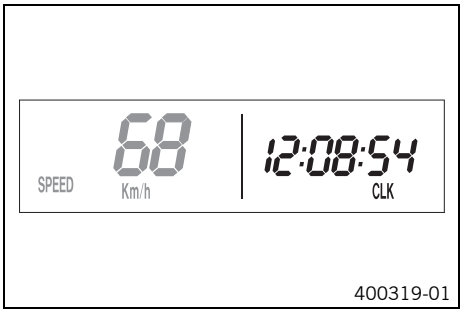
In measurement unit mode, you can change the unit of measurement.

Info

If no button is pressed for 5 seconds, the settings are automatically saved.

Briefly press the button +.	Starts selection, activates **Km/h** display
Press the button + for 2–3 seconds.	No function
Briefly press the button −.	Activates **Mph** display
Press the button − for 2–3 seconds.	No function
Wait 3–5 seconds	Changes to the next display, changes from selection to the Setup menu
Wait 10–12 seconds	Saves and closes the Setup menu

7.11 Display mode SPEED/CLK (time)

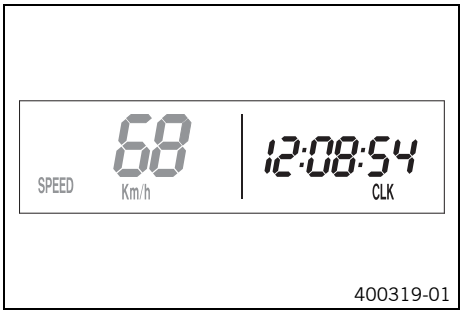


– Repeatedly press the button + briefly until **CLK** appears at the bottom right of the display.

The time is shown in display mode **CLK**.

Press the button + for 2–3 seconds.	The display changes to the Setup menu of the clock.
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	No function

7.12 Setting the clock



Condition

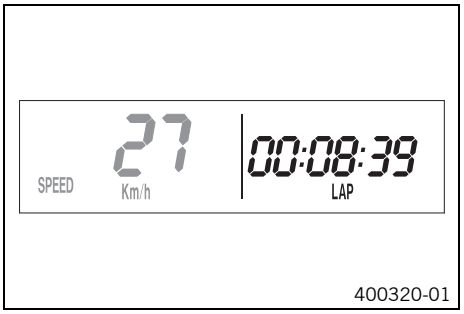
- The motorcycle is stationary.

– Repeatedly press the button + briefly until **CLK** appears at the bottom right of the display.

– Press the button + for 2–3 seconds.

Press the button + for 2–3 seconds.	Increases the value
Briefly press the button +.	Increases the value
Press the button − for 2–3 seconds.	Reduces the value
Briefly press the button −.	Reduces the value
Wait 3–5 seconds	Changes to the next value
Wait 10–12 seconds	Closes the SETUP menu

7.13 Display mode SPEED/LAP (lap time)



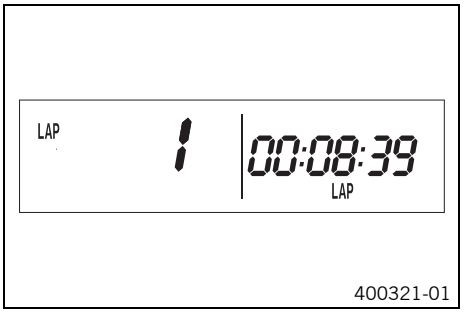
– Repeatedly press the button + briefly until **LAP** appears at the bottom right of the display.

In the **LAP** display mode, up to 10 lap times can be timed with the stop watch.

Info
If the lap time continues running after the button − is pressed, 9 memory locations are occupied.
Lap 10 must be timed using the button +.

Press the button + for 2–3 seconds.	The stop watch and the lap time are reset.
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	Stops the clock.
Briefly press the button −.	Starts the stop watch or stop the current lap time measurement, stores it and the stop watch starts the next lap.

7.14 Viewing the lap time



Condition

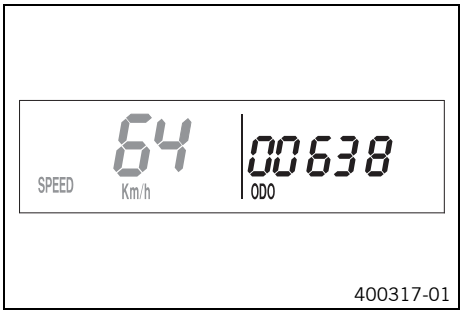
- The motorcycle is stationary.

– Repeatedly press the button + briefly until **LAP** appears at the bottom right of the display.

– Briefly press the button +.

Press the button + for 2–3 seconds.	The stop watch and the lap time are reset.
Briefly press the button +.	Select a lap from 1–10
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	View the next lap time.

7.15 Display mode SPEED/ODO (odometer)

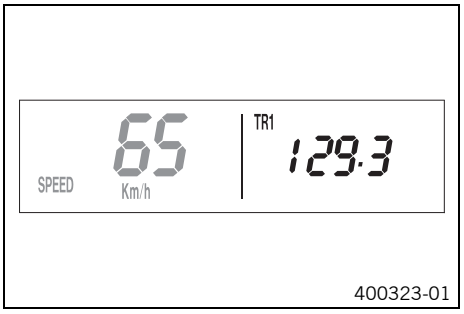


– Repeatedly press the button + briefly until **ODO** appears at the bottom right of the display.

The total traveled distance is shown in display mode **ODO**.

Press the button + for 2–3 seconds.	No function
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	No function

7.16 Display mode SPEED/TR1 (trip master 1)



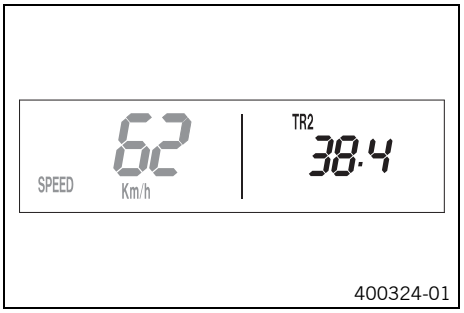
– Repeatedly press the button + briefly until **TR1** appears at the top right of the display.

TR1 (trip master 1) runs constantly and counts up to 999.9.
You can use it to measure trips or the distance between refueling stops.
TR1 is coupled with **A1** (average speed 1) and **S1** (stop watch 1).

Info
If 999.9 is exceeded, the values of **TR1**, **A1** and **S1** are automatically reset to 0.0.

Press the button + for 2–3 seconds.	Displays of **TR1**, **A1** and **S1** are reset to 0,0.
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	No function

7.17 Display mode SPEED/TR2 (trip master 2)

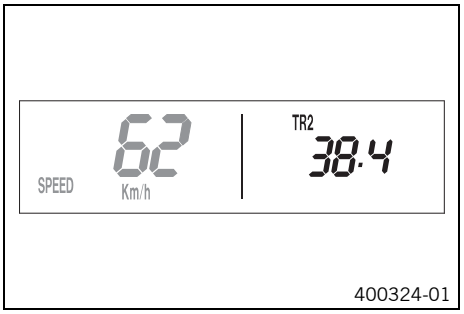


– Repeatedly press the button + briefly until **TR2** appears at the top right of the display.

TR2 (trip master 2) runs constantly and counts up to 999.9.

Press the button + for 2–3 seconds.	Clears the values **TR2** and **A2**.
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	Reduces value of **TR2**.
Briefly press the button −.	Reduces value of **TR2**.

7.18 Setting TR2 (trip master 2)



Condition

- The motorcycle is stationary.

– Repeatedly press the button + briefly until **TR2** appears at the top right of the display.

– Press the button − for 2–3 seconds until **TR2** flashes.

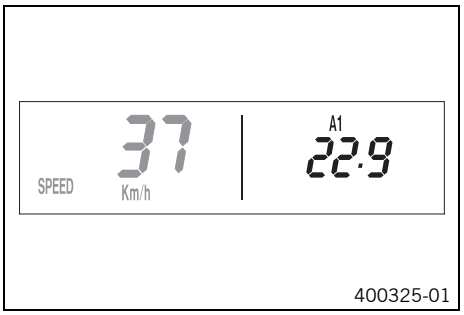
The displayed value can be set manually with the button + and the button −. This is a very practical function when riding using the road book.

Info

The **TR2** value can also be corrected manually during the journey with the button + and the button −.
If 999.9 is exceeded, the value of **TR2** is automatically reset to 0.0.

Press the button + for 2–3 seconds.	Increases value of **TR2**.
Briefly press the button +.	Increases value of **TR2**.
Press the button − for 2–3 seconds.	Reduces value of **TR2**.
Briefly press the button −.	Reduces value of **TR2**.
Wait 10–12 seconds	Saves and closes the Setup menu

7.19 Display mode SPEED/A1 (average speed 1)

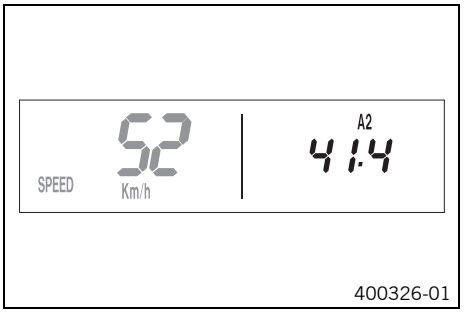


– Repeatedly press the button + briefly until **A1** appears at the top right of the display.

A1 (average speed 1) shows the average speed calculated using **TR1** (trip master 1) and **S1** (stop watch 1).
The calculation of this value is activated by the first impulse of the wheel speed sensor and ends 3 seconds after the last impulse.

Press the button + for 2–3 seconds.	Displays of **TR1**, **A1** and **S1** are reset to 0,0.
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	No function

7.20 Display mode SPEED/A2 (average speed 2)



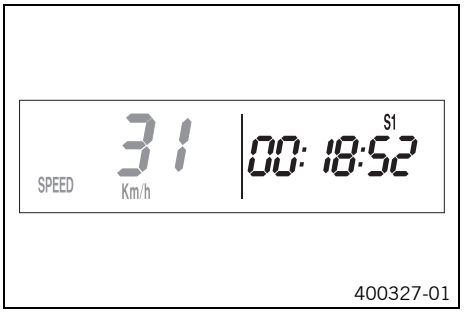
– Repeatedly press the button + briefly until **A2** appears at the top right of the display.

A2 (average speed 2) shows the average speed on the basis of the current speed if the stop watch **S2** (stop watch 2) is running.

Info
The displayed value can differ from the actual average speed if **S2** was not stopped after the ride.

Briefly press the button +.	Next display mode
Press the button + for 2–3 seconds.	No function
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	No function

7.21 Display mode SPEED/S1 (stop watch 1)

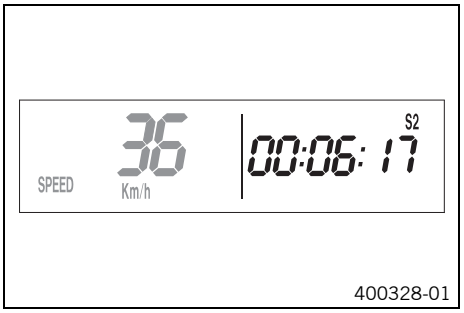


– Repeatedly press the button + briefly until **S1** appears at the top right of the display.

S1 (Stop watch 1) shows the riding time based on **TR1** and continues running as soon as an impulse arrives from the wheel speed sensor.
The calculation of this value starts with the first impulse from the wheel speed sensor and ends 3 seconds after the last impulse.

Press the button + for 2–3 seconds.	Displays of **TR1**, **A1** and **S1** are reset to 0,0.
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	No function

7.22 Display mode SPEED/S2 (stop watch 2)



– Repeatedly press the button + briefly until **S2** appears at the top right of the display.

S2 (Stop watch 2) is a manual stop watch.
If **S2** is running in the background, the display **S2** flashes on the speedometer.

Press the button + for 2–3 seconds.	The displays of **S2** and **A2** are set to 0,0.
Briefly press the button +.	Next display mode
Press the button − for 2–3 seconds.	No function
Briefly press the button −.	Starts or stops **S2**.

7.23 Table of functions

Display	Press the button + for 2–3 seconds.	Briefly press the button +.	Press the button − for 2–3 seconds.	Briefly press the button −.	Wait 3–5 seconds	Wait 10–12 seconds
Display mode **SPEED/H** (service hours)	The display changes to the Setup menu of the speedometer functions.	Next display mode	No function	No function		
Setup menu	No function	Activates the flashing display and changes to the next display	No function	Deactivates the flashing display and changes to the next display	Changes to the next display without changes	Setup menu starts, stores the settings, and changes to **H** or **ODO**.
Setting the unit of measurement	No function	Starts selection, activates **Km/h** display	No function	Activates **Mph** display	Changes to the next display, changes from selection to the Setup menu	Saves and closes the Setup menu
Display mode **SPEED/CLK** (time)	The display changes to the Setup menu of the clock.	Next display mode	No function	No function		
Setting the clock	Increases the value	Increases the value	Reduces the value	Reduces the value	Changes to the next value	Closes the SETUP menu
Display mode **SPEED/LAP** (lap time)	The stop watch and the lap time are reset.	Next display mode	Stops the clock.	Starts the stop watch or stop the current lap time measurement, stores it and the stop watch starts the next lap.		
Viewing the lap time	The stop watch and the lap time are reset.	Select a lap from 1–10	No function	View the next lap time.		
Display mode **SPEED/ODO** (odometer)	No function	Next display mode	No function	No function		
Display mode **SPEED/TR1** (trip master 1)	Displays of **TR1**, **A1** and **S1** are reset to 0,0.	Next display mode	No function	No function		
Display mode **SPEED/TR2** (trip master 2)	Clears the values **TR2** and **A2**.	Next display mode	Reduces value of **TR2**.	Reduces value of **TR2**.		
Setting **TR2** (trip master 2)	Increases value of **TR2**.	Increases value of **TR2**.	Reduces value of **TR2**.	Reduces value of **TR2**.		Saves and closes the Setup menu
Display mode **SPEED/A1** (average speed 1)	Displays of **TR1**, **A1** and **S1** are reset to 0,0.	Next display mode	No function	No function		
Display mode **SPEED/A2** (average speed 2)	No function	Next display mode	No function	No function		
Display mode **SPEED/S1** (stop watch 1)	Displays of **TR1**, **A1** and **S1** are reset to 0,0.	Next display mode	No function	No function		
Display mode **SPEED/S2** (stop watch 2)	The displays of **S2** and **A2** are set to 0,0.	Next display mode	No function	Starts or stops **S2**.		

7.24 Table of conditions and menu activation

Display	The motorcycle is stationary.	Menu can be activated
Display mode **SPEED/H** (service hours)	•	
Setup menu	•	
Setting the unit of measurement	•	
Setting the clock	•	
Display mode **SPEED/LAP** (lap time)		•
Viewing the lap time	•	
Display mode **SPEED/TR1** (trip master 1)		•
Display mode **SPEED/TR2** (trip master 2)		•
Setting **TR2** (trip master 2)	•	
Display mode **SPEED/A1** (average speed 1)		•
Display mode **SPEED/A2** (average speed 2)		•
Display mode **SPEED/S1** (stop watch 1)		•
Display mode **SPEED/S2** (stop watch 2)		•

8.1 Advice on first use

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

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

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

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

Warning
Danger of crashing Different tire tread patterns on the front and rear wheel impair the handling characteristic.
Different tire tread patterns can make the vehicle significantly more difficult to control.

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

Warning
Danger of accidents An unadapted riding style impairs the handling characteristic.

– Adapt your riding speed to the road conditions and your riding ability.

Warning
Danger of accidents The vehicle is not designed to carry passengers.

– Do not ride with a passenger.

Warning
Danger of accidents The brake system fails in the event of overheating.
If the foot brake lever is not released, the brake linings drag continuously.

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

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

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

Warning
Risk of misappropriation 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.

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

– Make sure that the pre-delivery inspection work has been carried out by an authorized KTM workshop.
  ✓ You receive a delivery certificate and the Service and Warranty Booklet at vehicle handover.
– Before your first trip, read the entire Owner's Manual carefully.
– Get to know the controls.
– Adjust the basic position of the clutch lever. (📖 p. 75)
– Adjust the free travel of the hand brake lever. (📖 p. 78)
– Adjust the basic position of the foot brake lever. 🔧 (📖 p. 82)
– Adjust the basic position of the shift lever. 🔧 (📖 p. 108)
– Get used to handling the motorcycle on a suitable piece of land before undertaking a more challenging trip.

Info
When off road, it is recommended that you are accompanied by another person on another vehicle so that you can help each other.

– Try also to ride as slowly as possible and in a standing position to get a better feeling for the motorcycle.
– Do not make any off-road trips that exceed your ability and experience.
– Hold the handlebar firmly with both hands and keep your feet on the footrests when riding.
– If you carry any luggage, make sure you fix it firmly as close as possible to the center of the vehicle and ensure even weight distribution between the front and rear wheels.

Info
Motorcycles react sensitively to any changes of weight distribution.

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

Guideline

Maximum permissible overall weight	335 kg (739 lb.)
Maximum permissible front axle load	145 kg (320 lb.)
Maximum permissible rear axle load	190 kg (419 lb.)

– Check the spoke tension. (📖 p. 91)

Info
The spoke tension must be checked after half an hour of operation.

– Run in the engine. (📖 p. 32)

8.2 Running-in the engine

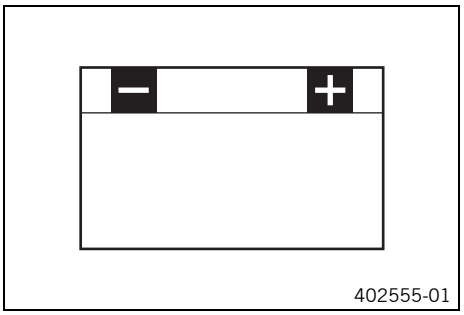
– During the running-in phase, do not exceed the specified engine speed and engine performance.

Guideline

Maximum engine speed	
During the first operating hour	7,000 rpm
Maximum engine performance	
During the first 3 operating hours	≤ 75 %

– Avoid fully opening the throttle!

8.3 Starting power of lithium-ion batteries at low temperatures (EXC-F EU/AU, EXC-F Six Days)



Lithium-ion batteries are far lighter than lead batteries, have a low self-discharge rate, and have more starting power at temperatures over 15 °C (60 °F). At low temperatures, however, the starting power of lithium-ion batteries drops to below that of lead batteries.
Multiple starting attempts may be needed. Press the electric starter button for 5 seconds, and wait 30 seconds between attempts. The pauses are necessary so that the created heat can distribute through the lithium-ion battery and the battery is not damaged.
If the charged lithium-ion battery does not or only weakly turns over the electric starter when temperatures are below 15 °C (60 °F), then the battery is not faulty, but needs to be warmed up internally to increase its starting power (current output).
The starting power increases as the battery warms up.

8.4 Preparing the vehicle for difficult riding conditions

Info
Use of the vehicle under difficult conditions, such as on sand or on wet and muddy surfaces, can lead to considerably more rapid wear of components such as the drive train, brake system, or suspension components. For this reason, it may be necessary to inspect or replace parts before the next scheduled service.

– Use the specified engine oil when riding under difficult conditions and to enhance performance, as recommended by KTM.

Engine oil (SAE 10W/60) (00062010035) (📖 p. 125)

– Clean the air filter and air filter box. 🔧 (📖 p. 65)

Info
Check the air filter approx. every 30 minutes.

– Seal the air filter box. 🔧 (📖 p. 65)

– Check the connector for humidity and corrosion and to ensure it is firmly seated.
  » If humidity, corrosion, or damage is found:
    – Clean and dry the connector, or change it if necessary.

Difficult riding conditions are:
- Rides on dry sand. (p. 33)
- Rides on wet sand. (p. 33)
- Rides on wet and muddy surfaces. (p. 34)
- Rides at high temperature and slow speed. (p. 34)
- Rides at low temperature or in snow. (p. 34)

8.5 Preparing for rides on dry sand

102136-01

– Fit a dust cover on the air filter.

Dust cover for air filter (79006920000)

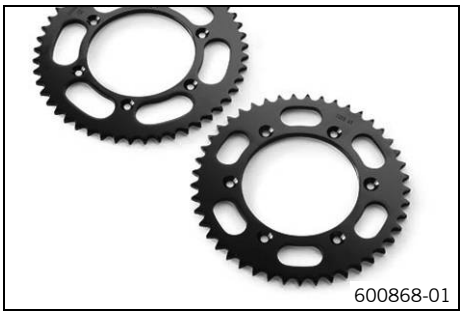
Info
See the **KTM PowerParts** fitting instructions.

102138-01

– Fit a sand cover on the air filter.

Sand cover for air filter (79006922000)

Info
See the **KTM PowerParts** fitting instructions.


600868-01

– Clean the chain.

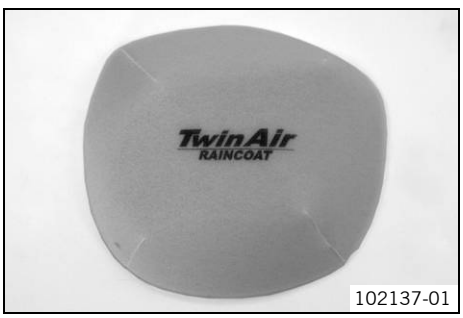
Chain cleaner (p. 127)

– Fit the steel sprocket.

Tip
Do not grease the chain.

– Clean the radiator fins.
– Straighten bent radiator fins carefully.

8.6 Preparing for rides on wet sand



102137-01

– Fit a rain cover on the air filter.

Waterproofing device for air filter (79006921000)

Info
See the **KTM PowerParts** fitting instructions.


600868-01

– Clean the chain.

Chain cleaner (📖 p. 127)

– Fit the steel sprocket.

Tip
Do not grease the chain.

– Clean the radiator fins.
– Straighten bent radiator fins carefully.

8.7 Preparing for rides on wet and muddy surfaces

102137-01

– Fit a waterproofing device on the air filter.

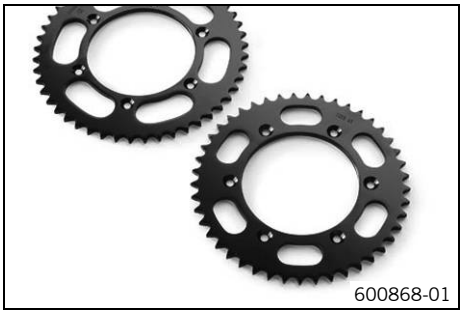
Waterproofing device for air filter (79006921000)

Info
See the **KTM PowerParts** fitting instructions.


600868-01

– Fit the steel sprocket.
– Clean the motorcycle. (📖 p. 113)
– Straighten bent radiator fins carefully.

8.8 Preparing for rides at high temperature and slow speed


600868-01

– Adjust the secondary drive to the road conditions.

Info
The engine oil heats up quickly when the clutch is operated frequently due to an excessively high secondary drive.

– Clean the chain.

Chain cleaner (📖 p. 127)

– Clean the radiator fins.
– Straighten bent radiator fins carefully.
– Check the coolant level. (📖 p. 103)

8.9 Preparing for rides at low temperature or in snow

102137-01

– Fit a waterproofing device on the air filter.

Waterproofing device for air filter (79006921000)

Info
See the **KTM PowerParts** fitting instructions.

9.1 Checks and maintenance measures when preparing for use

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

- Check the engine oil level. (p. 109)
- Check the electrical system.
- Check the brake fluid level of the front brake. (p. 79)
- Check the rear brake fluid level. (p. 83)
- Check the front brake linings. (p. 80)
- Check the rear brake linings. (p. 84)
- Check that the brake system is functioning properly.
- Check the coolant level. (p. 103)
- Check for chain dirt accumulation. (p. 69)
- Check the chain, rear sprocket, engine sprocket and chain guide. (p. 72)
- Check the chain tension. (p. 70)
- Check the tire condition. (p. 90)
- Check the tire air pressure. (p. 90)
- Check the spoke tension. (p. 91)

Info
The spoke tension must be checked regularly as incorrect spoke tension will strongly impair riding safety.

- Clean the dust boots of the fork legs. (p. 51)
- Bleed the fork legs. (p. 51)
- Check the air filter.
- Check the settings of all controls and ensure that they can be operated smoothly.
- Check all screws, nuts, and hose clamps regularly for tightness.
- Check the fuel level.

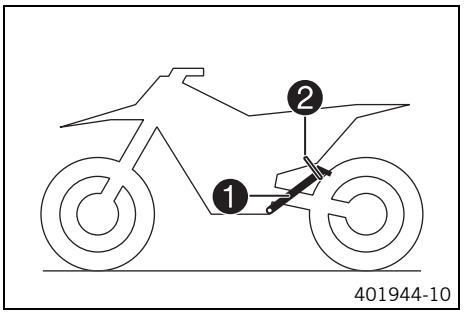
9.2 Starting

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

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

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

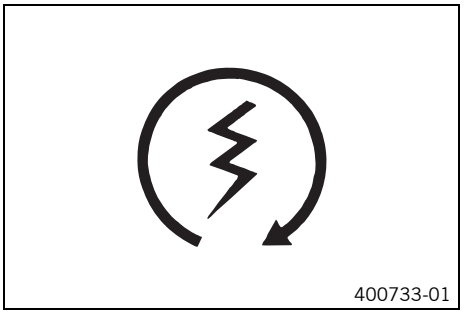
- Always run the engine warm at a low speed.



- Take the motorcycle off side stand ❶ and secure the side stand with rubber band ❷.
- Shift transmission to neutral.
- Turn the emergency OFF switch to the position ❍.

Condition
Ambient temperature: < 20 °C (< 68 °F)

- Push the cold start button in all the way.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(EXC-F EU/AU, EXC-F Six Days)

– Press the electric starter button.

Info

Press the electric starter button for a maximum of 5 seconds. Wait for 30 seconds before a further attempt at starting.
At temperatures below 15 °C (60 °F), several attempts at starting may be necessary to warm-up the lithium-ion battery and thereby increase the starting power.
During the starting process, the malfunction indicator lamp lights up.

(EXC-F BR)

– Press the electric starter button.

Info

Press the electric starter button for a maximum of 5 seconds. Wait for 30 seconds before a further attempt at starting.
During the starting process, the malfunction indicator lamp lights up.

9.3 Activating Launch Control (EXC-F Six Days)

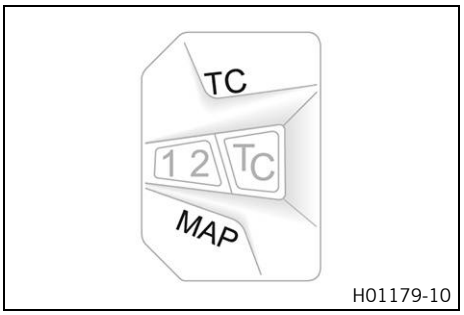
Warning

Voiding of the government approval for road use and the insurance coverage If the combination switch is installed, the vehicle's approval for road use is invalidated.

– Only operate the vehicle in closed-off areas remote from public road traffic if the combination switch is installed.

Info

The **Launch Control** assists the rider to optimally accelerate the motorcycle at the beginning of a race. The maximum speed of the engine with the throttle valve fully opened (full throttle) is reduced. After the start, it is gradually increased up to the maximum engine speed. The rider opens the throttle fully throughout this procedure. The clutch must be activated exactly as it would be without an active **Launch Control**.



H01179-10

Condition

The motorcycle is stationary.
The engine is running at idle speed.
Transmission in neutral

– Press and hold **MAP** and **TC** buttons simultaneously.

✓ **FI** warning lamp flashes orange rapidly.

Info

Several seconds after the vehicle starts, **Launch Control** is deactivated automatically.
The **Launch Control** is deactivated in the following cases (**FI** warning lamp no longer flashes): After full throttle, the throttle valve was closed by more than 1/3 of the way and/or there is no start within 3 minutes.
To reactivate **Launch Control**, the engine must first be switched off for at least 10 seconds for safety reasons. This must occur regardless of whether the engine was started or not.

9.4 Activating traction control (EXC-F Six Days)

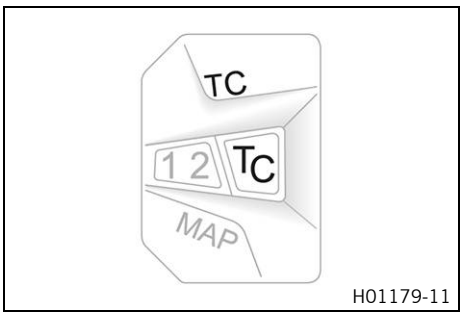
Warning

Voiding of the government approval for road use and the insurance coverage If the combination switch is installed, the vehicle's approval for road use is invalidated.

– Only operate the vehicle in closed-off areas remote from public road traffic if the combination switch is installed.

Info

The traction control reduces excessive slip on the rear wheel in favor of more control and propulsion, particularly in wet conditions.
When traction control is switched off, the rear wheel may spin more during high acceleration and on surfaces with low grip.
Traction control can be switched on or off during the ride.
The setting most recently selected is activated again when restarting.



– Press button **TC** to switch the traction control on or off.

Guideline

Engine speed	≤ 4,000 rpm

✓ The **TC** LED lights up when the traction control is activated.

9.5 Starting off

Info
While riding, the side stand must be folded up and secured with the rubber band.

– Pull the clutch lever, shift into first gear, release the clutch lever slowly and at the same time open the throttle gently.

9.6 Shifting, riding

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.

Info
If unusual noises occur while riding, stop immediately, switch off the engine and contact an authorized KTM workshop.
First gear is used for starting off or for steep inclines.

– When conditions allow (incline, road situation, etc.), you can shift into a higher gear. To do so, release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch, and open the throttle.
– 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.
– Always open the throttle only as much as the engine can handle – abrupt throttle opening increases fuel consumption.
– To shift down, apply the brakes and close the throttle at the same time.
– Pull the clutch lever and shift into a lower gear, release the clutch lever slowly, and open the throttle or shift again.
– Switch off the engine if you expect to be standing for a long time.

Guideline

≥ 2 min

– Avoid frequent and longer slipping of the clutch. As a result the engine oil, engine and cooling system heat up.
– Ride with a lower engine speed instead of with a high engine speed and a slipping clutch.

9.7 Braking

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

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

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 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.

– On sandy, wet or slippery surfaces, use the rear brake.

– Braking should always be completed before you go into a bend. Change down to a lower gear appropriate to your road speed.
– Make use of the braking effect of the engine when driving down long downhill stretches. To do so, shift back one or two gears, but do not overrev the engine. You will need to apply the brakes far less often and the brake system will not overheat.

9.8 Stopping, parking

Warning
Risk of misappropriation 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.

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

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

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

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

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

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

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

– Apply the brakes on the motorcycle.
– Shift transmission to neutral.
– Press and hold the kill switch ⊠ while the engine is idling until the engine stops.
– Park the motorcycle on firm ground.

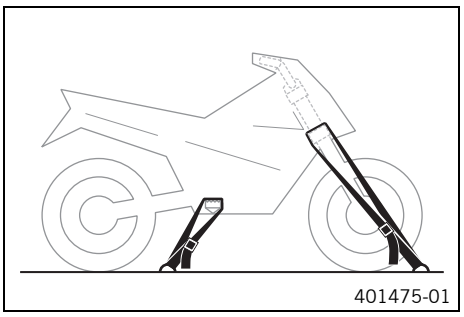
9.9 Transport

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

– Park the vehicle on a firm and level surface.

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

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

9.10 Refueling

Danger

Fire hazard Fuel is highly flammable.

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

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

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

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

Note

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

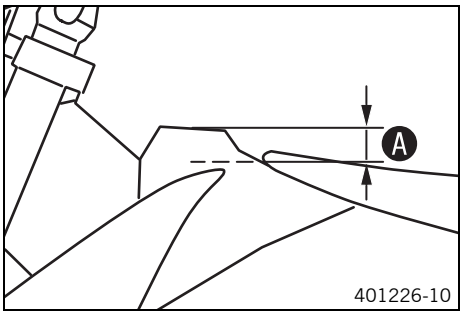
In some countries and regions, the available fuel quality and cleanliness may not be sufficient. This will result in problems with the fuel system.

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

Warning

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

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



- Switch off the engine.
- Open the filler cap. (p. 16)
- Fill the fuel tank with fuel up to level A.

  Guideline

Level A		35 mm (1.38 in)
Total fuel tank capacity, approx.	8.5 l (2.25 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (p. 126) (EXC-F EU/AU, EXC-F Six Days)
		Super unleaded, type C (ROZ 95/RON 95/PON 91) (p. 126) (EXC-F BR)

- Close the filler cap. (p. 17)

10 SERVICE SCHEDULE

10.1 Additional information

Any further work that results from the required work or from the recommended work must be ordered separately and can be invoiced separately.

10.2 Required work

	Once after 1 operating hour	Every 15 operating hours	Every 30 operating hours/after every race
Read out the fault memory using the KTM diagnostics tool. 🔧	○	●	●
Check that the electrical system is functioning properly.	○	●	●
Check and charge the battery. 🔧		●	●
Check the front brake linings. (📖 p. 80)		●	●
Check the rear brake linings. (📖 p. 84)		●	●
Check the brake discs. (📖 p. 78)		●	●
Check the brake lines for damage and leakage.		●	●
Check the rear brake fluid level. (📖 p. 83)		●	●
Check the free travel of the foot brake lever. (📖 p. 82)		●	●
Check the frame and swingarm. 🔧		●	●
Check the swingarm bearing for play. 🔧			●
Check the heim joints at the top and bottom of the shock absorber. 🔧		●	●
Check the tire condition. (📖 p. 90)	○	●	●
Check the tire air pressure. (📖 p. 90)	○	●	●
Check the wheel bearing for play. 🔧		●	●
Check the wheel hubs. 🔧		●	●
Check the rim run-out. 🔧	○	●	●
Check the spoke tension. (📖 p. 91)	○	●	●
Check the chain, rear sprocket, engine sprocket and chain guide. (📖 p. 72)		●	●
Check the chain tension. (📖 p. 70)	○	●	●
Grease all moving parts (e.g. side stand, hand lever, chain, ...) and check for smooth operation. 🔧		●	●
Check/correct the fluid level of the hydraulic clutch. (📖 p. 75)		●	●
Check the brake fluid level of the front brake. (📖 p. 79)		●	●
Check the free travel of the hand brake lever. (📖 p. 78)		●	●
Check the play of the steering head bearing. (📖 p. 59)	○	●	●
Check the valve clearance. 🔧	○		●
Check the clutch. 🔧			●
Change the engine oil and oil filter, clean the oil screen. 🔧 (📖 p. 110)	○	●	●
Check all hoses (e.g. fuel, cooling, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing. 🔧	○	●	●
Check the antifreeze and coolant level. (📖 p. 102)	○	●	●
Check the cables for damage and routing without sharp bends. 🔧		●	●
Check that the throttle cables are undamaged, routed without sharp bends, and set correctly.	○	●	●
Clean the air filter and air filter box. 🔧 (📖 p. 65)		●	●
Change glass fiber yarn filling in the main silencer. 🔧 (📖 p. 66)			●
Check the screws and nuts for tightness. 🔧	○	●	●
Check the headlight setting. (📖 p. 99)	○	●	●
Change the fuel screen. 🔧 (📖 p. 109)	○	●	●
Check the fuel pressure. 🔧		●	●
Check idle. 🔧	○	●	●
Check that the radiator fan is functioning properly. 🔧 (EXC-F Six Days)	○	●	●
Final check: Check the vehicle is roadworthy and take a test ride. 🔧	○	●	●
Read out the error memory after the test ride using the KTM diagnostics tool. 🔧	○	●	●
Make the service entry in the **KTM Dealer.net** and in the Service and Warranty Booklet. 🔧	○	●	●

○ One-time interval
• Periodic interval

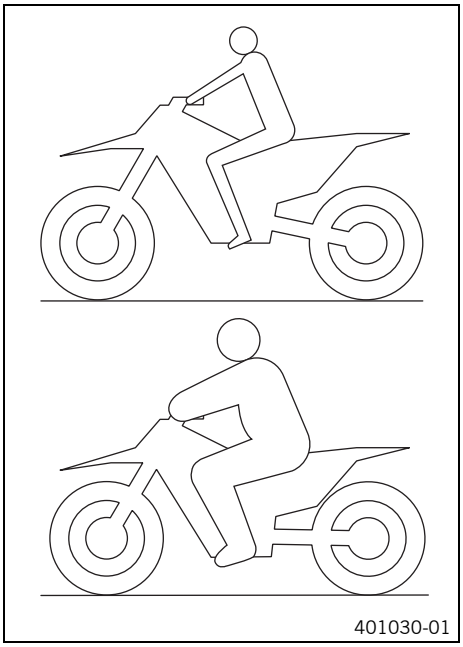
10.3 Recommended work

	Once after 10 operating hours	Every 45 operating hours/every 10 operating hours when used for motorsports	Every 70 operating hours when used for motorsports	Every 135 operating hours	Annually
Change the front brake fluid. 🔧					•
Change the rear brake fluid. 🔧					•
Change the hydraulic clutch fluid. 🔧 (📖 p. 76)					•
Grease the steering head bearing. 🔧 (📖 p. 60)					•
Service the fork. 🔧	○	•	•	•	
Service the shock absorber. 🔧		•	•	•	
Perform engine service including removing and installing the engine. (Change the spark plug and spark plug connector. Change the piston. Check/measure the cylinder. Check the cylinder head. Change the valves, valve springs, and valve spring seats. Check the camshaft and cam lever. Change the connecting rod, conrod bearing, and crank pin. Change the shaft seal rings of the water pump. Check the transmission and shift mechanism. Check the oil pressure regulator valve. Change the suction pump. Check the force pump and lubrication system. Check the timing assembly. Change the timing chain. Change all engine bearings. Change the freewheel.) 🔧			•	•	

○ One-time interval
• Periodic interval

11.1 Checking the basic suspension setting against the rider's weight

Info
When adjusting the basic suspension setting, first adjust the shock absorber and then the fork.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– For optimal motorcycle riding characteristics and to avoid damage to forks, shock absorbers, swingarm and frame, the basic settings of the suspension components must match the rider's weight.
– As delivered, KTM offroad motorcycles are adjusted for a standard rider weight (with full protective clothing).

Guideline

Standard rider weight	75... 85 kg (165... 187 lb.)

– If the rider's weight is above or below the standard range, the basic setting of the suspension components must be adjusted accordingly.
– Small weight differences can be compensated by adjusting the spring preload, but in the case of large weight differences, the springs must be replaced.

11.2 Compression damping of the shock absorber

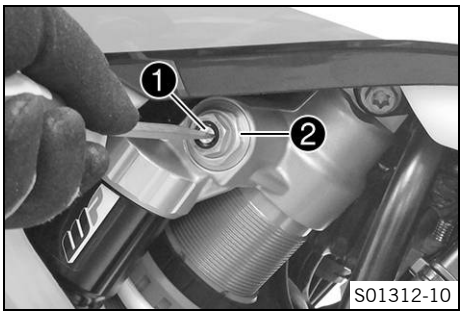
The compression damping of the shock absorber is divided into two ranges: high-speed and low-speed.
High-speed and low-speed refer to the compression speed of the rear wheel suspension and not to the vehicle speed.
The high-speed setting, for example, has an effect on the landing after a jump: the rear wheel suspension compresses quickly.
The low-speed setting, for example, has an effect when riding over long ground swells: the rear wheel suspension compresses slowly.
These two ranges can be adjusted separately, although the transition between high-speed and low-speed is gradual. Thus, changes in the high-speed range affect the compression damping in the low-speed range and vice versa.

11.3 Adjusting the low-speed compression damping of the shock absorber

Caution
Risk of injury Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly.
The shock absorber is filled with highly compressed nitrogen.

– Please follow the description provided. (Your authorized KTM workshop will be glad to help.)

Info
The effect of the low-speed setting can be seen in slow to normal compression of the shock absorber.



S01312-10

– Turn adjusting screw ❶ clockwise with a screwdriver up to the last perceptible click.

Info
Do not loosen fitting ❷!

– Turn counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Compression damping, low-speed	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks

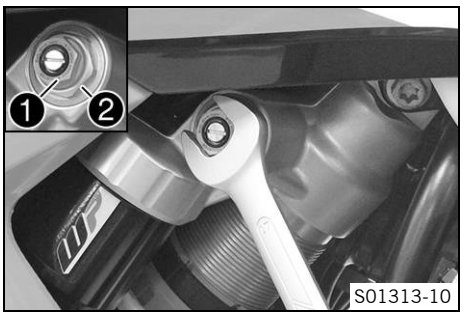
Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

11.4 Adjusting the high-speed compression damping of the shock absorber

Caution
Risk of injury Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly.
The shock absorber is filled with highly compressed nitrogen.

– Please follow the description provided. (Your authorized KTM workshop will be glad to help.)

Info
The effect of the high-speed setting can be seen in fast compression of the shock absorber.



– Using an open end wrench, turn adjusting screw 1 clockwise all the way.

Info
Do not loosen fitting 2!

– Turn counterclockwise by the number of turns corresponding to the shock absorber type.

Guideline

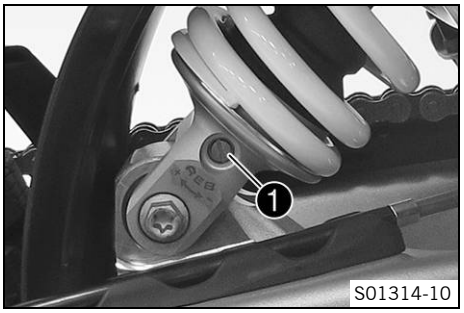
Compression damping, high-speed	
Comfort	2.5 turns
Standard	2 turns
Sport	1 turn

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

11.5 Adjusting the rebound damping of the shock absorber

Caution
Risk of injury Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly.
The shock absorber is filled with highly compressed nitrogen.

– Please follow the description provided. (Your authorized KTM workshop will be glad to help.)



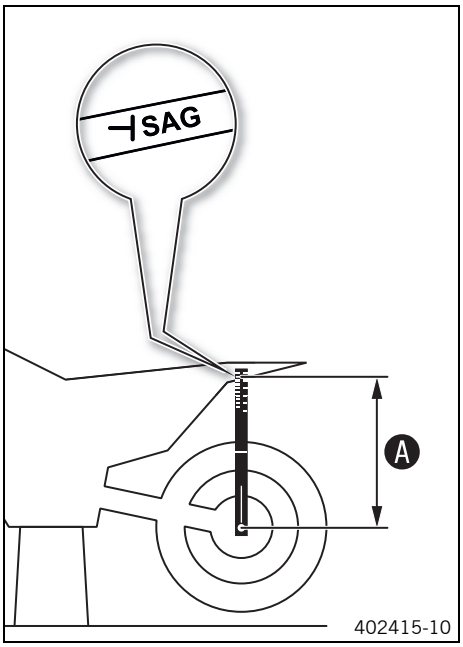
– Turn adjusting screw 1 clockwise up to the last perceptible click.
– Turn counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Rebound damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

11.6 Measuring the rear wheel dimension unloaded



Preparatory work

– Raise the motorcycle with the lift stand. (📖 p. 51)

Main work

– Position the sag gauge in the rear axle and measure the distance to marking **SAG** on the rear fender.

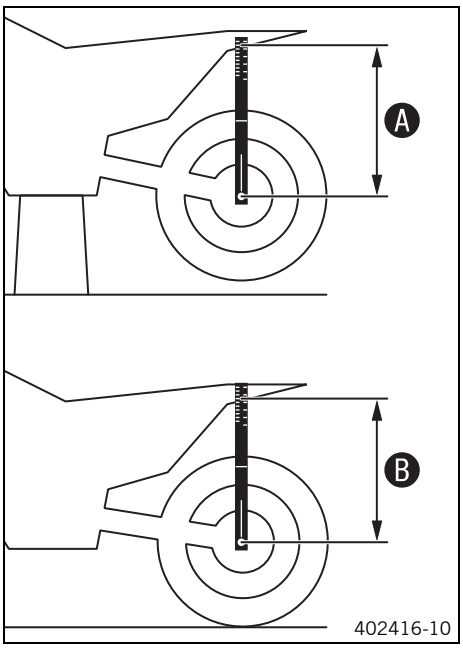
Sag gauge (00029090100)
Pin for sag gauge (00029990010)

– Note down the value as dimension Ⓐ.

Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 51)

11.7 Checking the static sag of the shock absorber



– Measure dimension Ⓐ of rear wheel unloaded. (📖 p. 44)
– Hold the motorcycle upright with the aid of an assistant.
– Again measure the distance between the rear axle and marking **SAG** on the rear fender using the sag gauge.
– Note down the value as dimension Ⓑ.

Info

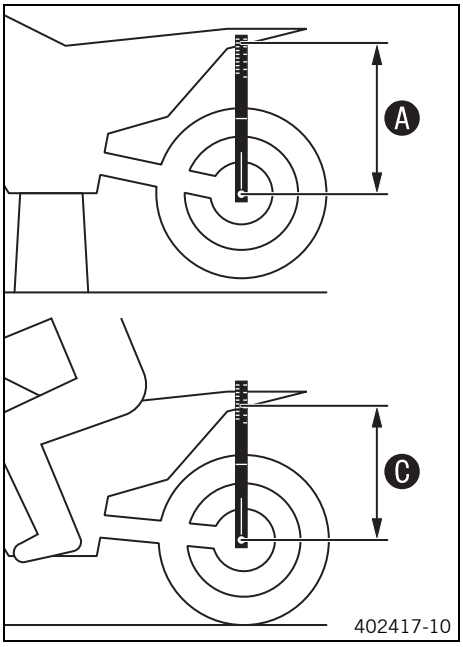
The static sag is the difference between measurements Ⓐ and Ⓑ.

– Check the static sag.

Static sag	35 mm (1.38 in)

» If the static sag is less or more than the specified value:
  – Adjust the spring preload of the shock absorber. 🔧 (📖 p. 45)

11.8 Checking the riding sag of the shock absorber



– Measure dimension A of rear wheel unloaded. (📖 p. 44)
– With another person holding the motorcycle, the rider, wearing full protective clothing, sits on the seat in a normal sitting position (feet on footrests) and bounces up and down a few times.
✔ The rear wheel suspension levels out.
– Another person again measures the distance between the rear axle and marking **SAG** on the rear fender using the sag gauge.
– Note down the value as dimension C.

Info
The riding sag is the difference between measurements A and C.

– Check the riding sag.

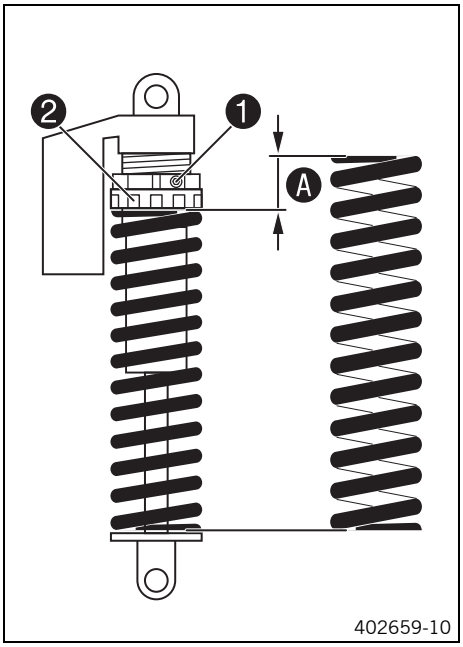
Riding sag	110 mm (4.33 in)

» If the riding sag differs from the specified measurement:
– Adjust the riding sag. 🔧 (📖 p. 46)

11.9 Adjusting the spring preload of the shock absorber 🔧

Caution
Risk of injury Parts of the shock absorber will fly off if the shock absorber is disassembled incorrectly.
The shock absorber is filled with highly compressed nitrogen.
– Please follow the description provided. (Your authorized KTM workshop will be glad to help.)

Info
Before changing the spring preload, make a note of the present setting, e.g., by measuring the length of the spring.



Preparatory work
– Raise the motorcycle with the lift stand. (📖 p. 51)
– Remove shock absorber. 🔧 (📖 p. 62)
– After removing the shock absorber, clean it thoroughly.

Main work
– Loosen screw 1.
– Turn adjusting ring 2 until the spring is no longer under tension.

Hook wrench (90129051000)

– Measure the overall spring length while the spring is not under tension.
– Tighten the spring by turning adjusting ring 2 to measurement A.
Guideline

Spring preload	
Comfort	8 mm (0.31 in)
Standard	8 mm (0.31 in)
Sport	8 mm (0.31 in)

Info
Depending on the static sag and/or the riding sag, it may be necessary to increase or decrease the spring preload.

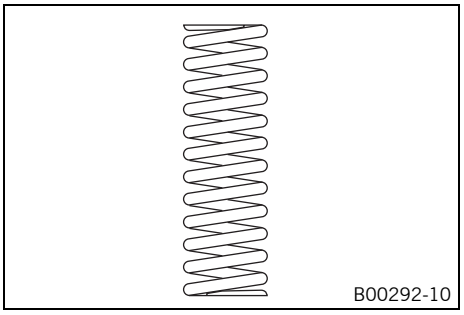
– Tighten screw 1.
Guideline

Screw, shock absorber adjusting ring	M5	5 Nm (3.7 lbf ft)

Finishing work
– Install the shock absorber. 🔧 (📖 p. 62)

– Remove the motorcycle from the lift stand. (📖 p. 51)

11.10 Adjusting the riding sag 🔧


B00292-10

Preparatory work
– Raise the motorcycle with the lift stand. (📖 p. 51)
– Remove shock absorber. 🔧 (📖 p. 62)
– After removing the shock absorber, clean it thoroughly.

Main work
– Choose and mount a suitable spring.

Guideline

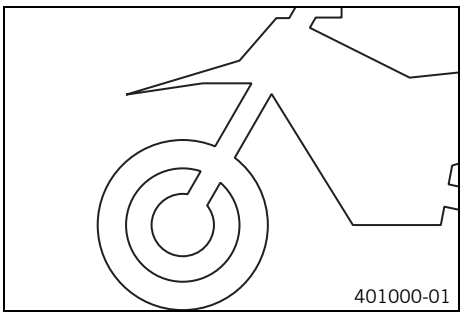
Spring rate	
Weight of rider: 65... 75 kg (143... 165 lb.)	60 N/mm (343 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	63 N/mm (360 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	66 N/mm (377 lb/in)

Info
The spring rate is shown on the outside of the spring.
Smaller weight differences can be compensated by changing the spring preload.

Finishing work
– Install the shock absorber. 🔧 (📖 p. 62)
– Remove the motorcycle from the lift stand. (📖 p. 51)
– Check the static sag of the shock absorber. (📖 p. 44)
– Check the riding sag of the shock absorber. (📖 p. 45)
– Adjust the rebound damping of the shock absorber. (📖 p. 43)

11.11 Checking the basic setting of the fork

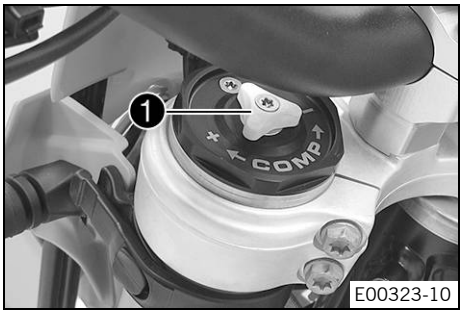
Info
For various reasons, no exact riding sag can be determined for the fork.


401000-01

– As with the shock absorber, smaller differences in the rider's weight can be compensated by the spring preload.
– However, if the fork frequently bottoms out (hard end stop on compression), harder springs must be fitted to avoid damage to the fork and frame.
– If the fork feels unusually hard after extended periods of operation, the fork legs need to be bled.

11.12 Adjusting the compression damping of the fork

Info
The hydraulic compression damping determines the fork suspension behavior.



E00323-10

(EXC-F EU/AU/BR)
– Turn white adjusting screw ❶ clockwise as far as it will go.

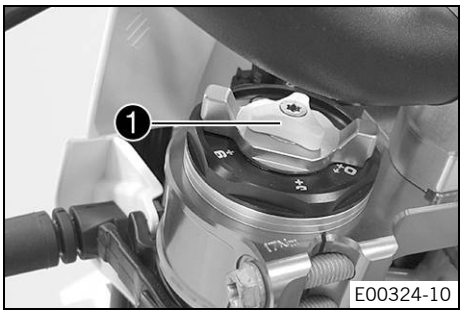
Info
Adjusting screw ❶ is located at the upper end of the left fork leg.
The compression damping is located in left fork leg **COMP** (white adjusting screw). The rebound damping is located in right fork leg **REB** (red adjusting screw).

– Turn counterclockwise by the number of clicks corresponding to the fork type.

Guideline

Compression damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.



(EXC-F Six Days)

– Turn white adjusting screw 1 clockwise as far as it will go.

Info
Adjusting screw 1 is located at the upper end of the left fork leg. The compression damping is located in left fork leg **COM** (white adjusting screw). The rebound damping is located in right fork leg **REB** (red adjusting screw).

– Turn counterclockwise by the number of clicks corresponding to the fork type.

Guideline

Compression damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

11.13 Adjusting the rebound damping of the fork

Info
The hydraulic rebound damping determines the fork suspension behavior.

(EXC-F EU/AU/BR)

– Turn red adjusting screw 1 clockwise as far as it will go.

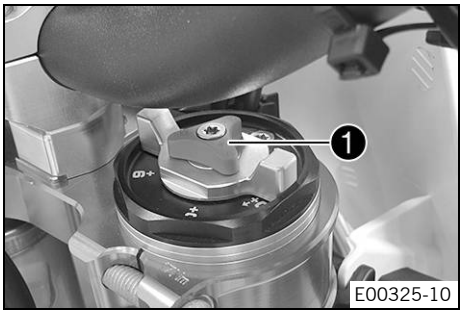
Info
Adjusting screw 1 is located at the upper end of the right fork leg. The rebound damping is located in right fork leg **REB** (red adjusting screw). The compression damping is located in left fork leg **COMP** (white adjusting screw).

– Turn counterclockwise by the number of clicks corresponding to the fork type.

Guideline

Rebound damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks

Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.



(EXC-F Six Days)

– Turn red adjusting screw ❶ clockwise as far as it will go.

Info

Adjusting screw ❶ is located at the upper end of the right fork leg. The rebound damping is located in right fork leg **REB** (red adjusting screw). The compression damping is located in left fork leg **COM** (white adjusting screw).

– Turn counterclockwise by the number of clicks corresponding to the fork type.

Guideline

Rebound damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks

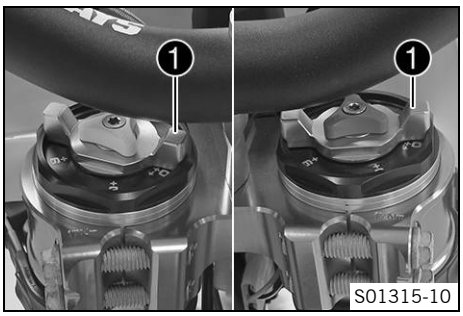
Info

Turn clockwise to increase damping; turn counterclockwise to reduce damping.

11.14 Adjusting the spring preload of the fork (EXC-F Six Days)

Preparatory work

– Raise the motorcycle with the lift stand. (📖 p. 51)



Main work

– Turn the adjusting wings ❶ counterclockwise all the way.

✓ The marking **+0** aligns with the right wing.

Info

Make the adjustment by hand only. Do not use a tool.
Make the same adjustment on both fork legs.

– Turn the adjusting wings clockwise.

Guideline

Spring preload - **Preload Adjuster**	
Comfort	**+0**
Standard	**+0**
Sport	**+3**

✓ The adjusting wings engage noticeably at the numerical values.

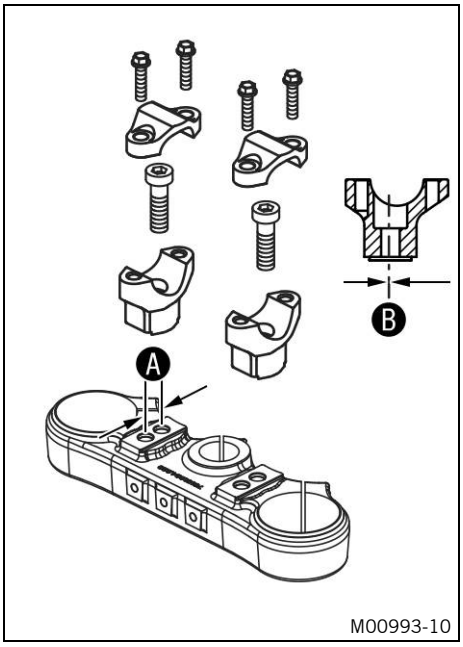
Info

Adjust the spring preload to the numerical values only as the preload will not engage between the numerical values.
Turn clockwise to increase the spring preload; turn counterclockwise to reduce the spring preload.
Adjusting the spring preload has no influence on the absorption setting of the rebound damping.
Basically, however, you should set the rebound damping higher with a higher spring preload.

Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 51)

11.15 Handlebar position



M00993-10

(EXC-F EU/AU/BR)

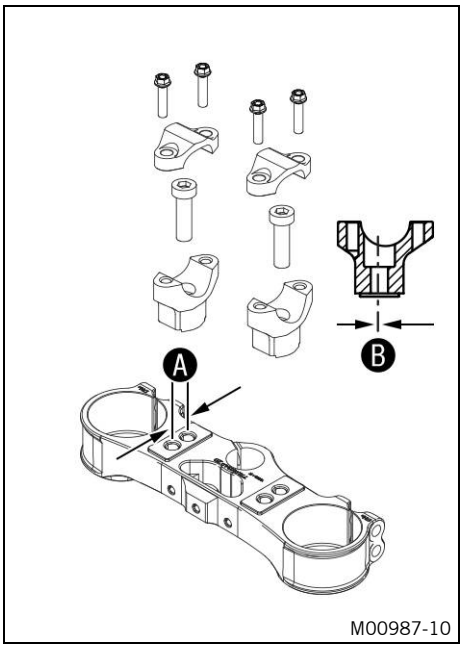
On the upper triple clamp, there are 2 holes at a distance of Ⓐ to each other.

Hole distance Ⓐ	15 mm (0.59 in)

The holes on the handlebar supports are placed at a distance of Ⓑ from the center.

Hole distance Ⓑ	3.5 mm (0.138 in)

The handlebar holders can be mounted in four different positions.



M00987-10

(EXC-F Six Days)

On the upper triple clamp, there are 2 holes at a distance of Ⓐ to each other.

Hole distance Ⓐ	15 mm (0.59 in)

The holes on the handlebar supports are placed at a distance of Ⓑ from the center.

Hole distance Ⓑ	3.5 mm (0.138 in)

The handlebar holders can be mounted in four different positions.

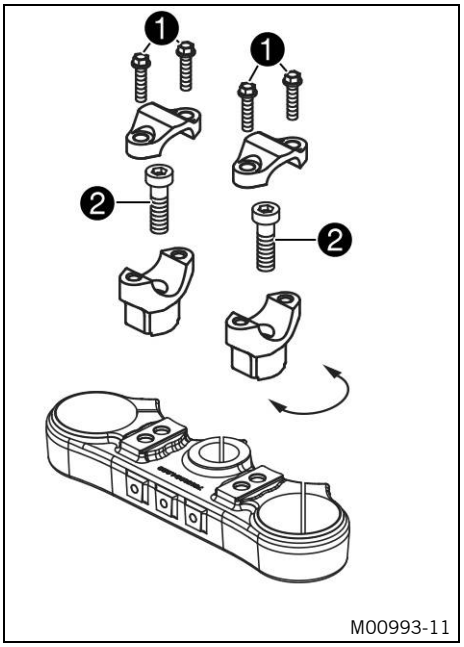
11.16 Adjusting the handlebar position

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.



M00993-11

(EXC-F EU/AU/BR)

– Remove screws ❶. Take off the handlebar clamps. Remove the handlebar and lay it to one side.

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

– Remove screws ❷. Take off the handlebar supports.

– Place the handlebar supports in the required position. Mount and tighten screws ❷.

Guideline

Screw, handlebar holder	M10	40 Nm (29.5 lbf ft)	**Loctite® 243™**

Info
Position the left and right handlebar supports evenly.

– Position the handlebar.

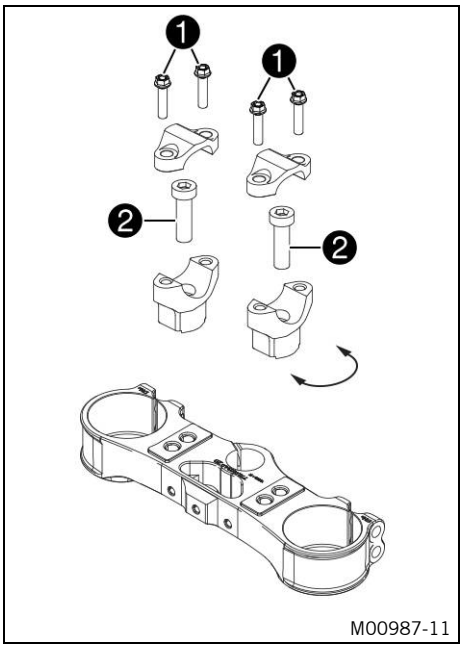
Info
Make sure the cables and wiring are positioned correctly.

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

Guideline

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

Info
Make sure the gap widths are even.



M00987-11

(EXC-F Six Days)

– Remove screws ❶. Take off the handlebar clamps. Remove the handlebar and lay it to one side.

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

– Remove screws ❷. Take off the handlebar supports.

– Place the handlebar supports in the required position. Mount and tighten screws ❷.

Guideline

Screw, handlebar holder	M10	40 Nm (29.5 lbf ft)	**Loctite® 243™**

Info
Position the left and right handlebar supports evenly.

– Position the handlebar.

Info
Make sure the cables and wiring are positioned correctly.

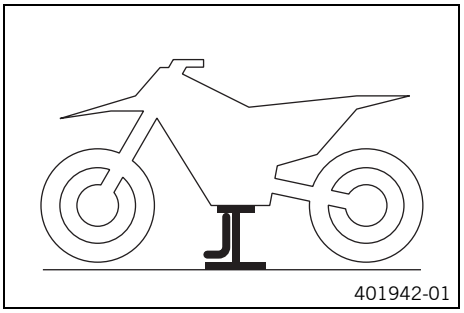
– Position the handlebar clamps. Mount screws ❶ and tighten evenly.

Guideline

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

Info
Make sure the gap widths are even.

12.1 Raising the motorcycle with the lift stand


401942-01

Note

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

– Park the vehicle on a firm and level surface.

– Raise the motorcycle at the frame underneath the engine.

Lift stand (78129955100)

✔ Neither wheel is in contact with the ground.

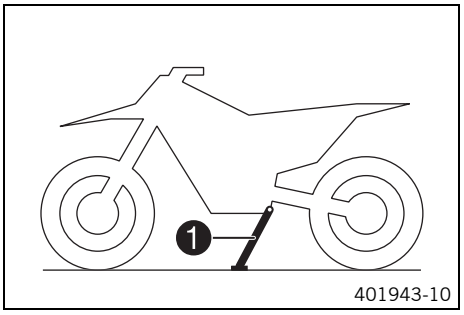
– Secure the motorcycle against falling over.

12.2 Removing the motorcycle from the lift stand

Note

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

– Park the vehicle on a firm and level surface.

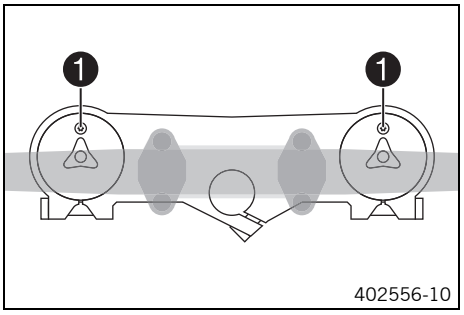


401943-10

– Remove the motorcycle from the lift stand.
– Remove the lift stand.
– To park the motorcycle, press side stand ❶ to the ground with your foot and lean the motorcycle on it.

Info
While riding, the side stand must be folded up and secured with the rubber band.

12.3 Bleeding the fork legs



402556-10

Preparatory work
– Raise the motorcycle with the lift stand. (📖 p. 51)

Main work
– Release bleeder screws ❶.
✔ Any excess pressure escapes from the interior of the fork.
– Tighten the bleeder screws.

Finishing work
– Remove the motorcycle from the lift stand. (📖 p. 51)

12.4 Cleaning the dust boots of the fork legs

Preparatory work
– Raise the motorcycle with the lift stand. (📖 p. 51)
– Remove the fork protector. (📖 p. 52)

K00070-10

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.

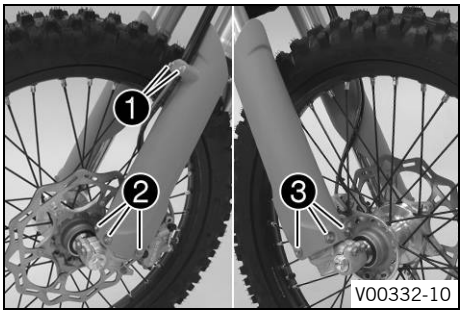
Universal oil spray (p. 127)

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

Finishing work

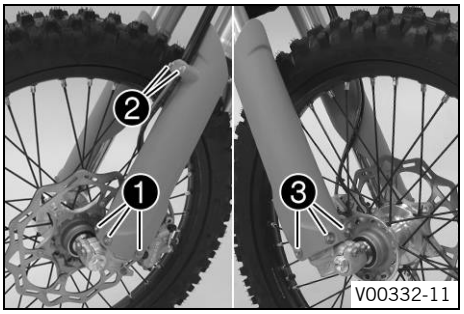
- Install the fork protector. (p. 52)
- Remove the motorcycle from the lift stand. (p. 51)

12.5 Removing the fork protector



- Remove screws ❶ and take off the clamp.
- Remove screws ❷ on the left fork leg and take off the left fork protector.
- Remove screws ❸ on the right fork leg and take off the right fork protector.

12.6 Installing the fork protector



- Position the fork protector on the left fork leg. Mount and tighten screws ❶.

  Guideline

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

- Position the brake line, wiring harness, and clamp. Mount and tighten screws ❷.
- Position the fork protector on the right fork leg. Mount and tighten screws ❸.

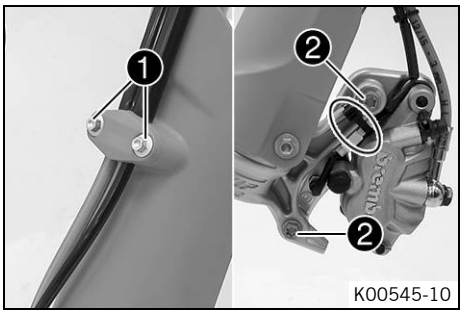
  Guideline

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

12.7 Removing the fork legs

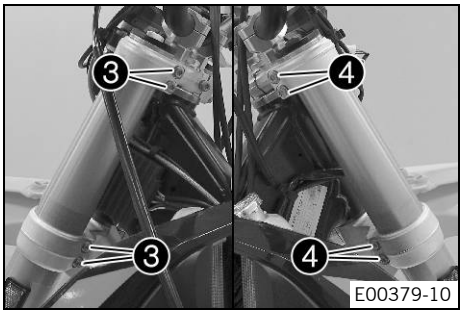
Preparatory work

- Remove the headlight mask with the headlight. (p. 97)
- Raise the motorcycle with the lift stand. (p. 51)
- Remove the front wheel. (p. 87)



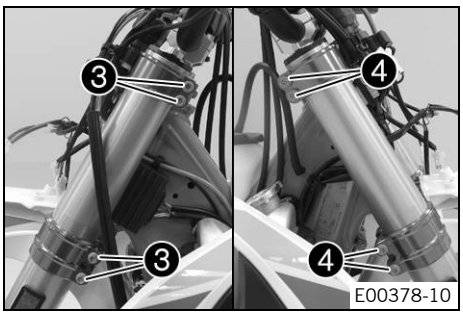
Main work

- Remove screws ❶ and take off the clamp.
- Remove the cable tie(s).
- Remove screws ❷ and take off the brake caliper.
- Allow the brake caliper and brake line to hang loosely to the side.



(EXC-F EU/AU/BR)

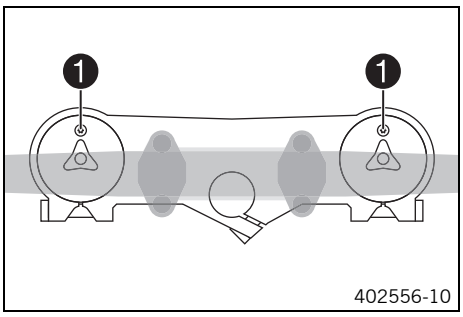
- Loosen screws ❸. Take out the left fork leg.
- Loosen screws ❹. Take out the right fork leg.



(EXC-F Six Days)

- Loosen screws ❸. Take out the left fork leg.
- Loosen screws ❹. Take out the right fork leg.

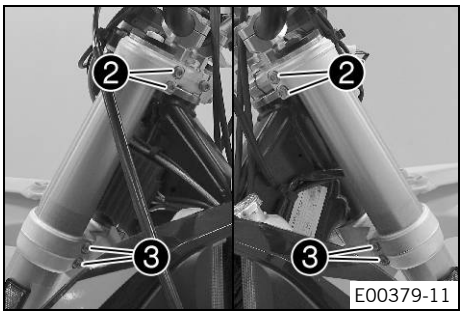
12.8 Installing the fork legs



Main work
(EXC-F EU/AU/BR)

- Position the fork legs.
  ✓ Bleeder screws ❶ are positioned toward the front.

Info
Grooves are milled into the side of the upper end of the fork legs. The second milled groove (from the top) must be flush with the top edge of the upper triple clamp.

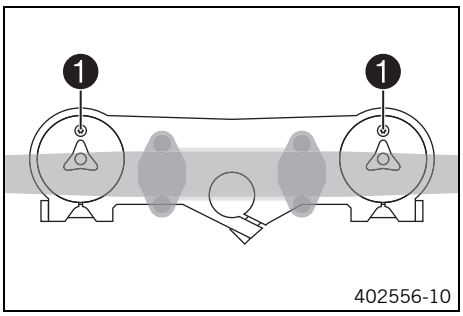


- Tighten screws ❷.
  Guideline

Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)

- Tighten screws ❸.
  Guideline

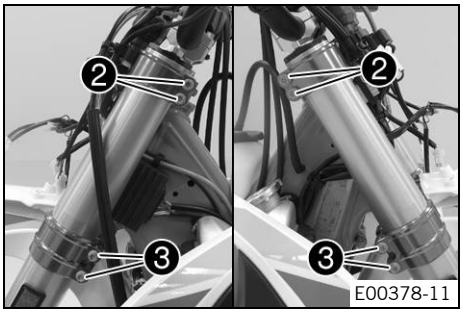
Screw, bottom triple clamp	M8	15 Nm (11.1 lbf ft)



(EXC-F Six Days)

- Position the fork legs.
  ✓ Bleeder screws ❶ are positioned toward the front.

Info
The rebound damping is located in right fork leg **REB** (red adjusting screw). The compression damping is located in left fork leg **COM** (white adjusting screw).
Grooves are milled into the side of the upper end of the fork legs. The second milled groove (from the top) must be flush with the top edge of the upper triple clamp.

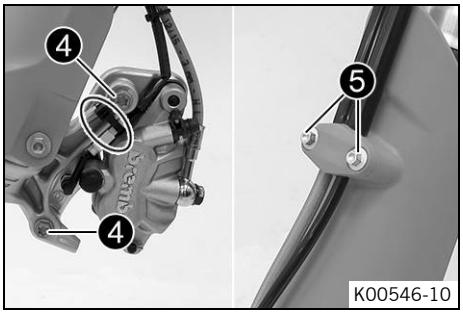


- Tighten screws ❷.
  Guideline

Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)

- Tighten screws ❸.
  Guideline

Screw, bottom triple clamp	M8	15 Nm (11.1 lbf ft)



– Position the brake caliper, and mount and tighten screws ❹.

Guideline

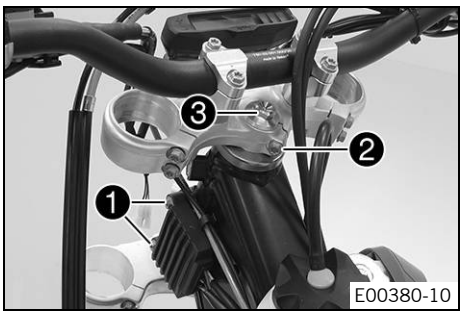
Screw, front brake caliper	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**

– Mount the cable tie(s).
– Position the brake line, wiring harness, and clamp. Mount and tighten screws ❺.

Finishing work
– Install the front wheel. 🔧 (📖 p. 87)
– Install the headlight mask with the headlight. (📖 p. 98)
– Check the headlight setting. (📖 p. 99)

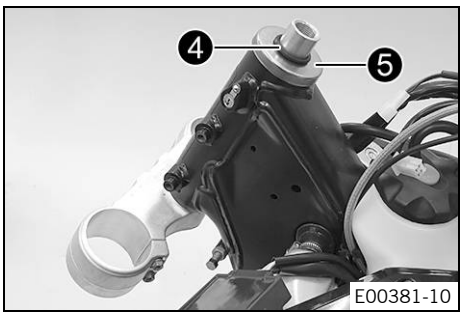
12.9 Removing the lower triple clamp 🔧 (EXC-F EU/AU/BR)

Preparatory work
– Remove the headlight mask with the headlight. (📖 p. 97)
– Raise the motorcycle with the lift stand. (📖 p. 51)
– Remove the front wheel. 🔧 (📖 p. 87)
– Remove the fork legs. 🔧 (📖 p. 52)
– Remove the front fender. (📖 p. 60)
– Remove the handlebar cushion.



Main work
– Open the cable holder in front of the right radiator and detach the wiring harness.
– Remove screws ❶ and hang the voltage regulator to the side.
– Open the cable holder in front of the left radiator and detach the wiring harness.
– Loosen screw ❷.
– Remove screw ❸.
– Take off the upper triple clamp with the handlebar and set it aside.

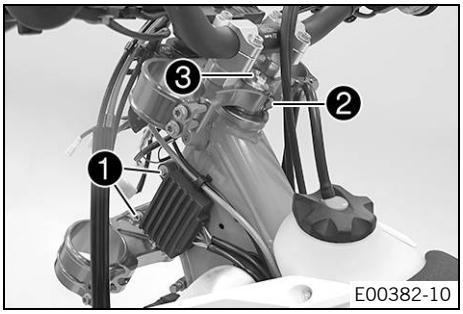
Info
Cover the components to protect them against damage.
Do not kink the cables and lines.



– Remove O-ring ❹ and protective ring ❺.
– Take off the lower triple clamp with the steering stem.
– Remove the upper steering head bearing.

12.10 Removing the lower triple clamp 🔧 (EXC-F Six Days)

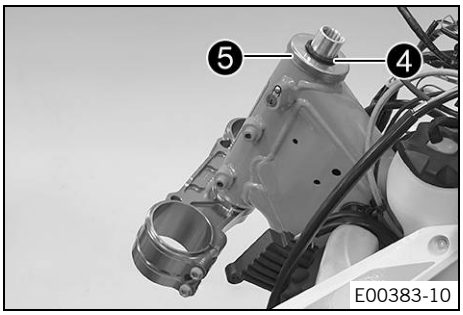
Preparatory work
– Remove the headlight mask with the headlight. (📖 p. 97)
– Raise the motorcycle with the lift stand. (📖 p. 51)
– Remove the front wheel. 🔧 (📖 p. 87)
– Remove the fork legs. 🔧 (📖 p. 52)
– Remove the front fender. (📖 p. 60)
– Remove the handlebar cushion.



Main work

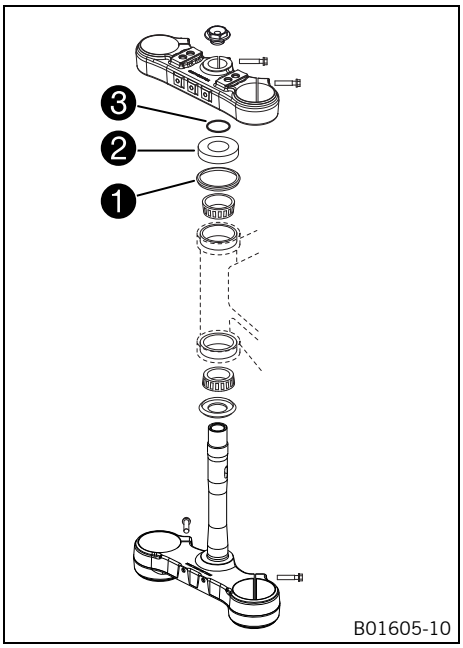
- Open the cable holder in front of the right radiator and detach the wiring harness.
- Remove screws ❶ and hang the voltage regulator to the side.
- Open the cable holder in front of the left radiator and detach the wiring harness.
- Remove screw ❷.
- Remove screw ❸.
- Take off the upper triple clamp with the handlebar and set it aside.

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



- Remove O-ring ❹ and protective ring ❺.
- Take off the lower triple clamp with the steering stem.
- Remove the upper steering head bearing.

12.11 Installing the lower triple clamp (EXC-F EU/AU/BR)

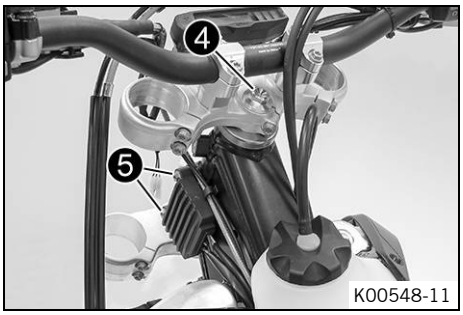


Main work

- Clean the bearing and sealing elements, check for damage, and grease.

High viscosity grease (📖 p. 127)

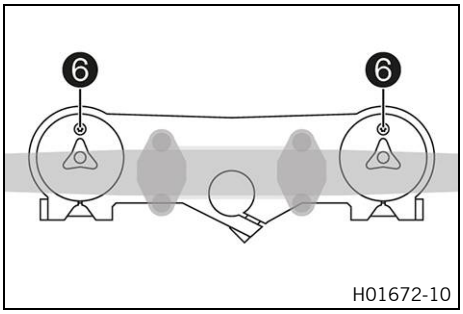
- Insert the lower triple clamp with the steering stem. Mount the upper steering head bearing.
- Check whether upper steering head seal ❶ is correctly positioned.
- Slide on protective ring ❷ and O-ring ❸.



- Position the upper triple clamp with the handlebar.
- Mount screw ❹ but do not tighten yet.
- Secure wiring harness and clutch line with cable holder.
- Position the voltage regulator, and mount and tighten screws ❺.

Guideline

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

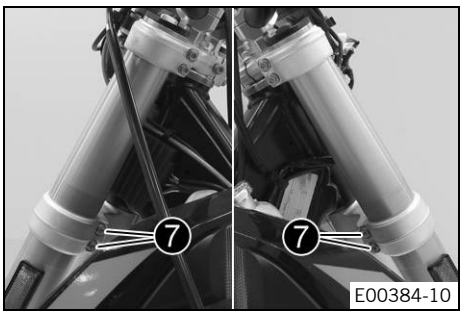


– Position the fork legs.

✓ Bleeder screws ❻ are positioned toward the front.

Info

Grooves are milled into the side of the upper end of the fork legs. The second milled groove (from the top) must be flush with the top edge of the upper triple clamp.



– Tighten screws ❼.

Guideline

Screw, bottom triple clamp	M8	15 Nm (11.1 lbf ft)

– Tighten screw ❹.

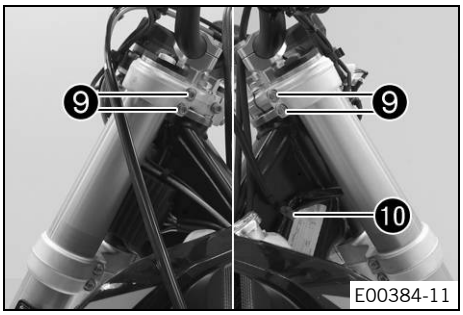
Guideline

Screw, top steering head	M20x1.5	12 Nm (8.9 lbf ft)

– Tighten screw ❽.

Guideline

Screw, top steering stem	M8	20 Nm (14.8 lbf ft)

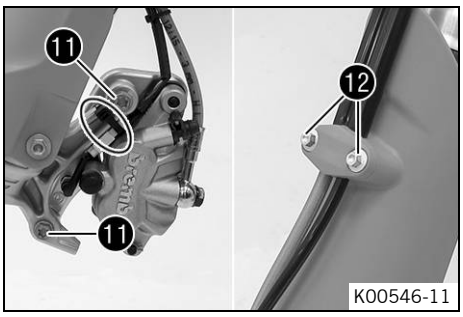


– Tighten screws ❾.

Guideline

Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)

– Secure the wiring harness with cable holder ❿.



– Position the brake caliper, and mount and tighten screws ⓫.

Guideline

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

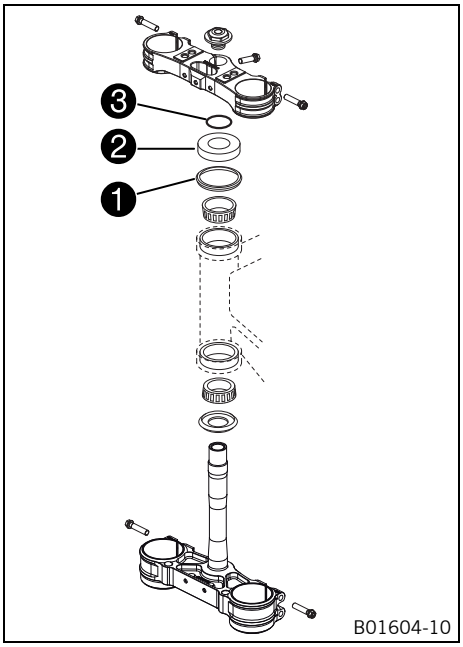
– Mount the cable tie(s).

– Position the brake line, wiring harness, and clamp. Mount and tighten screws ⓬.

Finishing work

- Mount the handlebar cushion.
- Install the front fender. (📖 p. 61)
- Install the front wheel. 🔧 (📖 p. 87)
- Install the headlight mask with the headlight. (📖 p. 98)
- Check that the wiring harness, throttle cables, and brake and clutch lines can move freely and are routed correctly.
- Check the play of the steering head bearing. (📖 p. 59)
- Remove the motorcycle from the lift stand. (📖 p. 51)
- Check the headlight setting. (📖 p. 99)

12.12 Installing the lower triple clamp 🔧 (EXC-F Six Days)

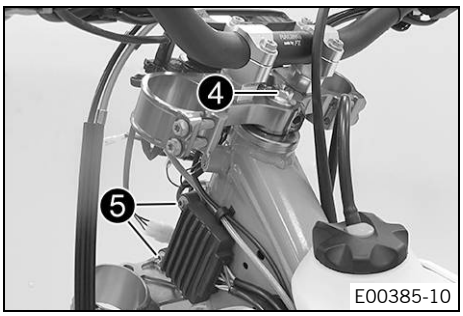


Main work

- Clean the bearing and sealing elements, check for damage, and grease.

High viscosity grease (📖 p. 127)

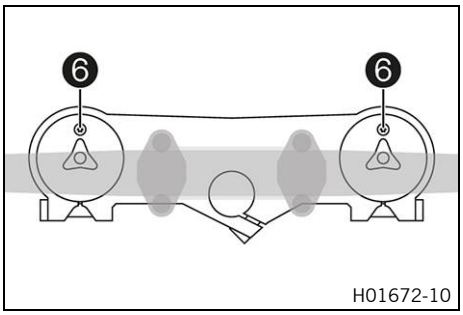
- Position the lower triple clamp with the steering stem. Mount the upper steering head bearing.
- Check whether upper steering head seal ❶ is correctly positioned.
- Mount protective ring ❷ and O-ring ❸.



- Position the upper triple clamp with the handlebar.
- Mount screw ❹ but do not tighten yet.
- Secure wiring harness and clutch line with cable holder.
- Position the voltage regulator, and mount and tighten screws ❺.

Guideline

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

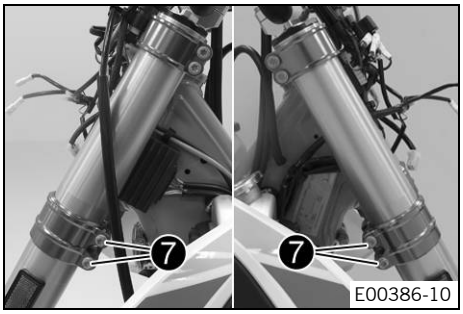


- Position the fork legs.

✓ Bleeder screws ❻ are positioned toward the front.

Info

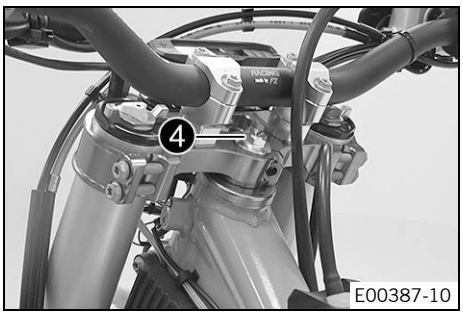
The rebound damping is located in right fork leg **REB** (red adjusting screw). The compression damping is located in left fork leg **COM** (white adjusting screw).
Grooves are milled into the side of the upper end of the fork legs. The second milled groove (from the top) must be flush with the top edge of the upper triple clamp.



– Tighten screws ❼.

Guideline

Screw, bottom triple clamp	M8	15 Nm (11.1 lbf ft)



– Tighten screw ❹.

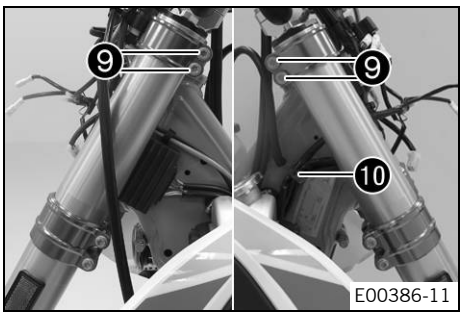
Guideline

Screw, top steering head	M20x1.5	12 Nm (8.9 lbf ft)

– Mount and tighten screw ❽.

Guideline

Screw, top steering stem	M8	17 Nm (12.5 lbf ft)	**Loctite® 243™**

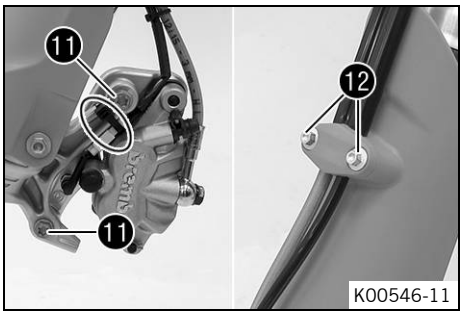


– Tighten screws ❾.

Guideline

Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)

– Secure the wiring harness with cable holder ❿.



– Position the brake caliper, and mount and tighten screws ⓫.

Guideline

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

– Mount the cable tie(s).
– Position the brake line, wiring harness, and clamp. Mount and tighten screws ⓬.

Finishing work

– Mount the handlebar cushion.
– Install the front fender. (📖 p. 61)
– Install the front wheel. 🔧 (📖 p. 87)
– Install the headlight mask with the headlight. (📖 p. 98)
– Check that the wiring harness, throttle cables, and brake and clutch lines can move freely and are routed correctly.
– Check the play of the steering head bearing. (📖 p. 59)
– Remove the motorcycle from the lift stand. (📖 p. 51)
– Check the headlight setting. (📖 p. 99)

12.13 Checking the play of the steering head bearing

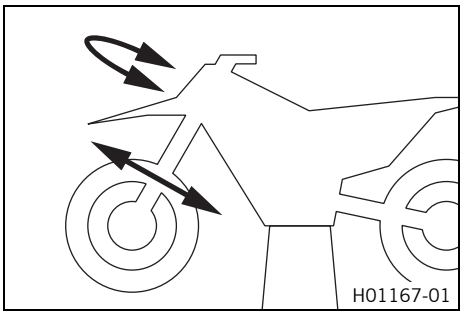
Warning

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

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

Info

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



Preparatory work

– Raise the motorcycle with the lift stand. (📖 p. 51)

Main work

– Move the handlebar to the straight-ahead position. Move the fork legs to and fro in the direction of travel.

Play should not be detectable on the steering head bearing.

» If there is detectable play:

(EXC-F EU/AU/BR)

– Adjust the play of the steering head bearing. 🔧 (📖 p. 59)

(EXC-F Six Days)

– Adjust the steering head bearing play. 🔧 (📖 p. 60)

– Move the handlebar to and fro over the entire steering range.

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

» If detent positions are detected:

(EXC-F EU/AU/BR)

– Adjust the play of the steering head bearing. 🔧 (📖 p. 59)

(EXC-F Six Days)

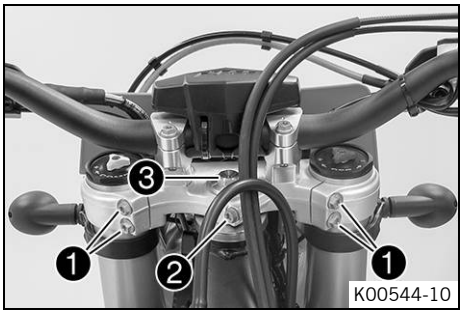
– Adjust the steering head bearing play. 🔧 (📖 p. 60)

– Check the steering head bearing and replace if necessary.

Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 51)

12.14 Adjusting the play of the steering head bearing 🔧 (EXC-F EU/AU/BR)



Preparatory work

– Raise the motorcycle with the lift stand. (📖 p. 51)

Main work

– Loosen screws ❶ and ❷.

– Loosen and retighten screw ❸.

Guideline

Screw, top steering head	M20x1.5	12 Nm (8.9 lbf ft)

– Using a plastic hammer, tap lightly on the upper triple clamp to avoid strains.

– Tighten screws ❶.

Guideline

Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)

– Tighten screw ❷.

Guideline

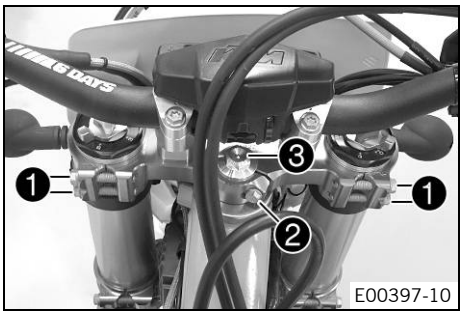
Screw, top steering stem	M8	20 Nm (14.8 lbf ft)

Finishing work

– Check the play of the steering head bearing. (📖 p. 59)

– Remove the motorcycle from the lift stand. (📖 p. 51)

12.15 Adjusting the steering head bearing play (EXC-F Six Days)



Preparatory work

– Raise the motorcycle with the lift stand. (📖 p. 51)

Main work

– Loosen screws ❶.

– Remove screw ❷.

– Loosen and retighten screw ❸.

Guideline

Screw, top steering head	M20x1.5	12 Nm (8.9 lbf ft)

– Using a plastic hammer, tap lightly on the upper triple clamp to avoid stresses.

– Tighten screws ❶.

Guideline

Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)

– Mount and tighten screw ❷.

Guideline

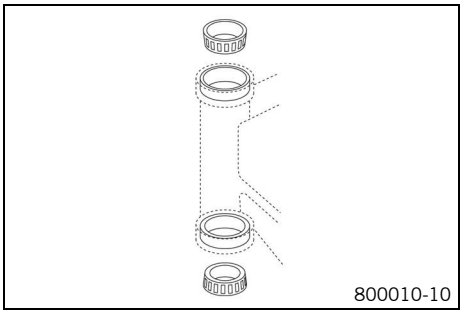
Screw, top steering stem	M8	17 Nm (12.5 lbf ft)	**Loctite® 243™**

Finishing work

– Check the play of the steering head bearing. (📖 p. 59)

– Remove the motorcycle from the lift stand. (📖 p. 51)

12.16 Greasing the steering head bearing



(EXC-F EU/AU/BR)

– Remove the lower triple clamp. (📖 p. 54)

– Install the lower triple clamp. (📖 p. 55)

(EXC-F Six Days)

– Remove the lower triple clamp. (📖 p. 54)

– Install the lower triple clamp. (📖 p. 57)

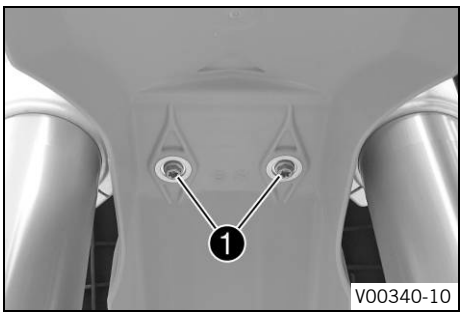
12.17 Removing the front fender

Preparatory work

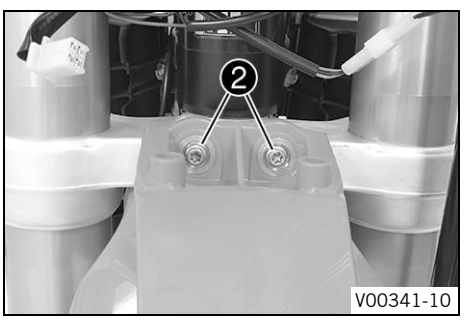
– Remove the headlight mask with the headlight. (📖 p. 97)

Main work

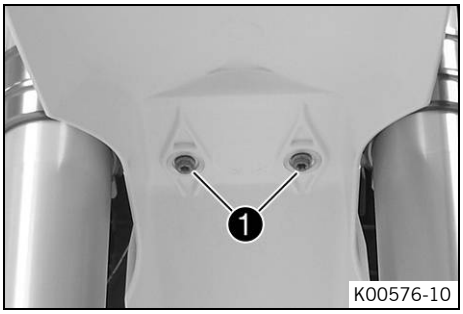
(EXC-F EU/AU/BR)



– Remove screws ❶.

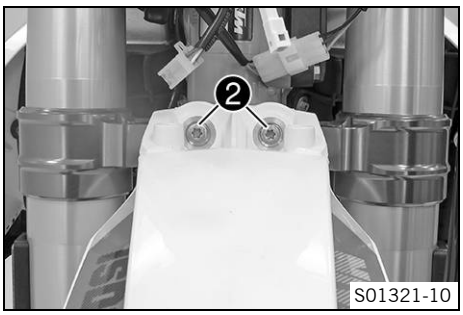


– Remove screws ❷. Remove the front fender.



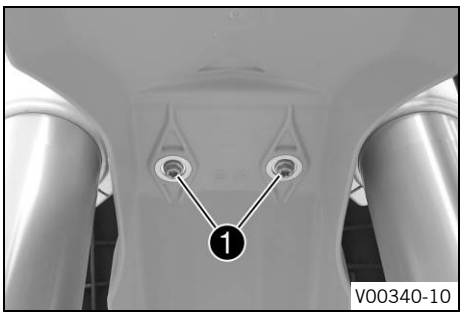
(EXC-F Six Days)

– Remove screws ❶.



– Remove screws ❷. Remove the front fender.

12.18 Installing the front fender

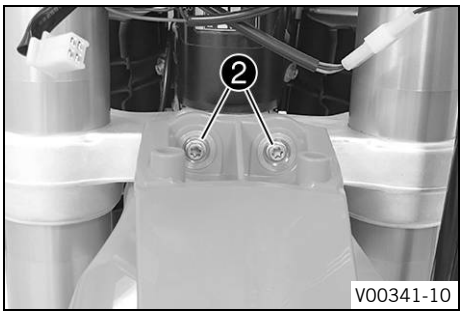


Main work
(EXC-F EU/AU/BR)

– Position the front fender. Mount and tighten screws ❶.

Guideline

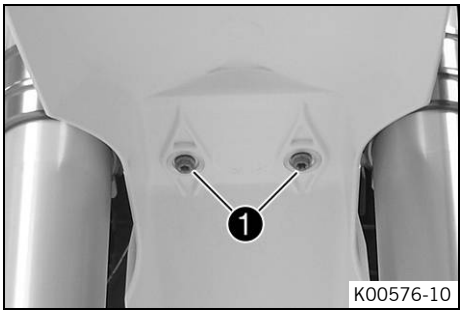
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)



– Mount and tighten screws ❷.

Guideline

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

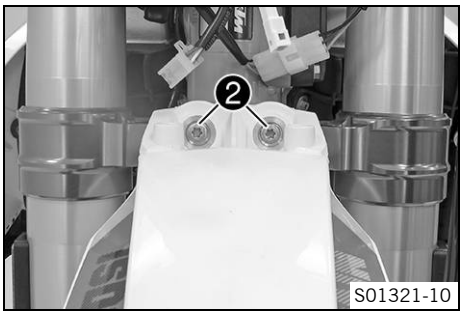


(EXC-F Six Days)

– Position the front fender. Mount and tighten screws ❶.

Guideline

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



– Mount and tighten screws ❷.

Guideline

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

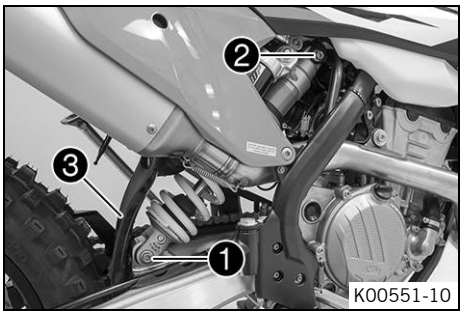
Finishing work

– Install the headlight mask with the headlight. (📖 p. 98)
– Check the headlight setting. (📖 p. 99)

12.19 Removing the shock absorber

Preparatory work

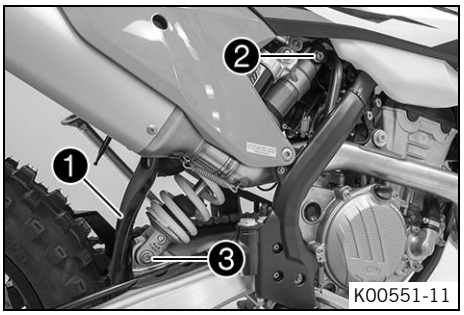
– Raise the motorcycle with the lift stand. (📖 p. 51)



Main work

– Remove screw ❶ and lower the rear wheel with the swing arm as far as possible without blocking the rear wheel. Fix the rear wheel in this position.
– Remove screw ❷, push splash protector ❸ to the side, and remove the shock absorber.

12.20 Installing the shock absorber



Main work

– Push splash protector ❶ to the side and position the shock absorber. Mount and tighten screw ❷.

Guideline

Screw, top shock absorber	M12	80 Nm (59 lbf ft)	**Loctite® 2701™**

– Mount and tighten screw ❸.

Guideline

Screw, bottom shock absorber	M12	80 Nm (59 lbf ft)	**Loctite® 2701™**

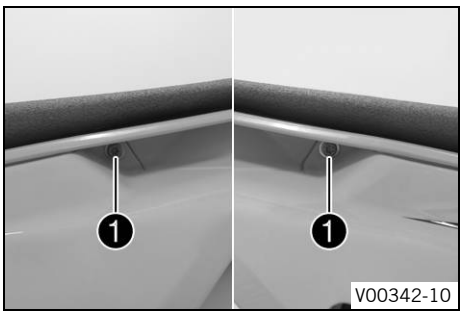
Info

The heim joint for the shock absorber at the swing arm is Teflon coated. It must not be greased with grease or with other lubricants. Lubricants dissolve the Teflon coating, thereby drastically reducing the service life.

Finishing work

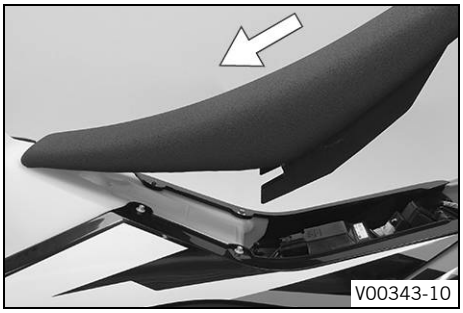
– Remove the motorcycle from the lift stand. (📖 p. 51)

12.21 Removing the seat

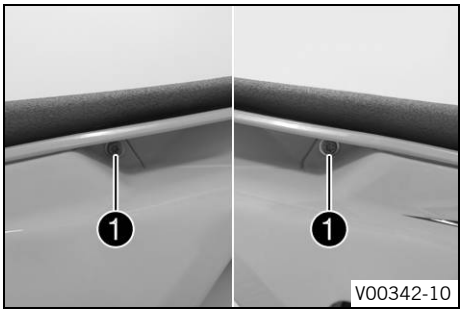


– Remove screws ❶.
– Raise the rear of the seat, pull the seat back, and lift it off.

12.22 Mounting the seat



– Mount the front of the seat on the collar bushing of the fuel tank, lower the seat at the rear, and push the seat forward.
– Make sure that the seat is correctly locked in.



– Mount and tighten screws ❶.

Guideline

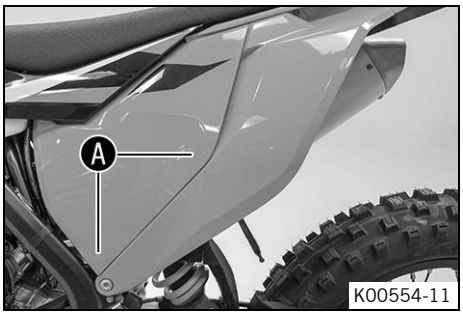
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

12.23 Removing the air filter box cover

Condition

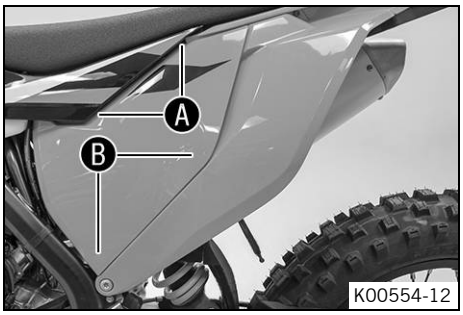
The air filter box cover is secured.

– Remove screw ❶.



– Pull off the air filter box cover in area Ⓐ sideways and remove it toward the front.

12.24 Installing the air filter box cover



– Insert the air filter box cover in area Ⓐ and clip it into area Ⓑ.

Condition

The air filter box cover is secured.

– Mount and tighten screw ❶.

Guideline

Screw, air filter box cover	**EJOT PT®** K60x20-Z	3 Nm (2.2 lbf ft)

12.25 Removing the air filter

Note

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

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

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

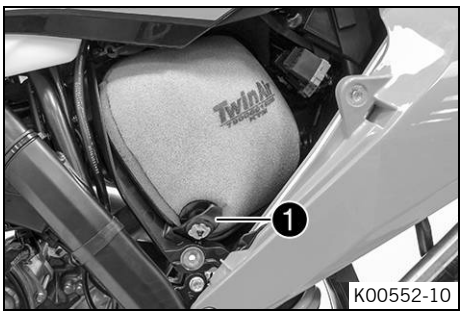
Warning

Environmental hazard Hazardous substances cause environmental damage.

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

Preparatory work

– Remove the air filter box cover. (📖 p. 63)

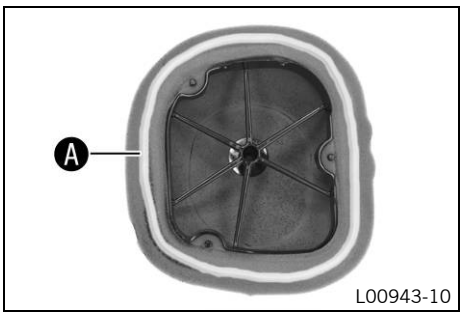


Main work

– Detach retaining tab ❶. Remove air filter with air filter support.

– Remove air filter from air filter support.

12.26 Installing the air filter



Main work

– Mount the clean air filter on the air filter support.

– Grease the air filter in area Ⓐ.

Long-life grease (📖 p. 127)

– Insert air filter and position retaining pin ❶ in bushing Ⓑ.

✓ The air filter is correctly positioned.

– Insert retaining tab ❷.

✓ Retaining pin ❸ is secured by retaining tab ❷.

Info

If the air filter is not mounted correctly, dust and dirt may enter the engine and result in damage.

Finishing work

– Install the air filter box cover. (📖 p. 63)

12.27 Cleaning the air filter and air filter box

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

Info
Do not clean the air filter with fuel or petroleum since these substances attack the foam.

Preparatory work
– Remove the air filter box cover. (📖 p. 63)
– Remove the air filter. (📖 p. 64)

Main work
– Wash the air filter thoroughly in special cleaning liquid and allow it to dry properly.

Air filter cleaner (📖 p. 127)

Info
Only press the air filter to dry it, never wring it out.

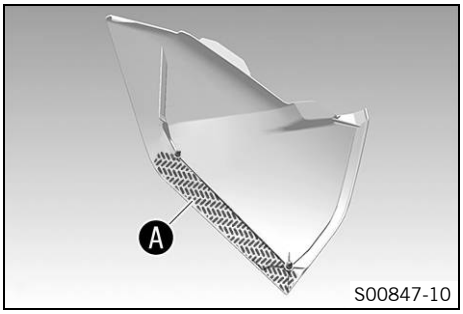
– Oil the dry air filter with a high quality filter oil.

Oil for foam air filter (📖 p. 127)

– Clean the air filter box.
– Check the intake flange for damage and firm seating.

Finishing work
– Install the air filter. (📖 p. 64)
– Install the air filter box cover. (📖 p. 63)

12.28 Sealing the air filter box

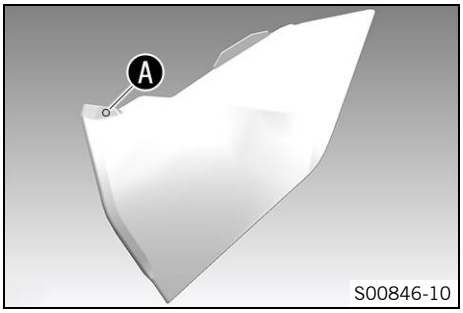


Preparatory work
– Remove the air filter box cover. (📖 p. 63)

Main work
– Seal the air filter box in the marked area A.

Finishing work
– Install the air filter box cover. (📖 p. 63)

12.29 Securing the air filter box cover



Preparatory work
– Remove the air filter box cover. (📖 p. 63)

Main work
– Drill a hole at marking A.

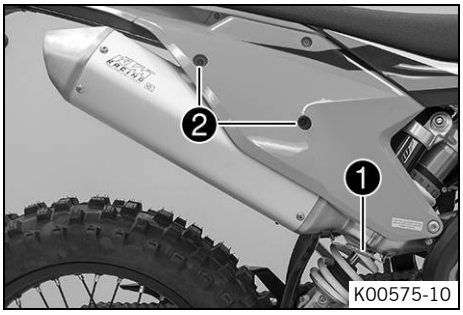
Guideline

Diameter	6 mm (0.24 in)

Finishing work
– Install the air filter box cover. (📖 p. 63)

12.30 Removing main silencer

Warning
Danger of burns The exhaust system gets very hot when the vehicle is driven.
– Allow the exhaust system to cool down before performing any work on the vehicle.

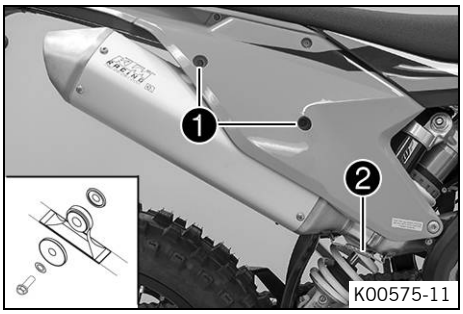


– Disconnect spring ❶.

Spring hook (50305017000)

– Remove screws ❷ and take off main silencer.

12.31 Installing the main silencer



– Position the main silencer. Mount screws ❶, but do not tighten yet.
– Reconnect spring ❷.

Spring hook (50305017000)

– Tighten screws ❶.
Guideline

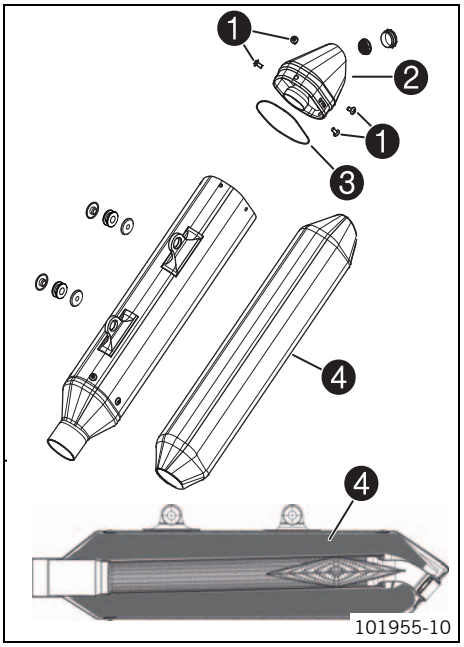
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

12.32 Changing glass fiber yarn filling in the main silencer

Warning
Danger of burns The exhaust system gets very hot when the vehicle is driven.
– Allow the exhaust system to cool down before performing any work on the vehicle.

Info
Over time, the fibers of the glass fiber yarn escape and the damper "burns" out.
Not only is the noise level higher, the performance characteristic changes.

Preparatory work
– Remove the main silencer. (📖 p. 66)



Main work
- Remove screws ❶.
- Take off silencer cap ❷ with O-ring ❸.
- Remove old glass fiber yarn filling.
- Clean the parts that need to be reinstalled and check for damage.
- Fit newglass fiber yarn filling ❹ into the main silencer.
- Mount the O-ring on the silencer cap.
- Position the silencer cap.
- Mount and tighten all of the screws.

  Guideline

Screws on the main silencer	M5	7 Nm (5.2 lbf ft)

Finishing work
- Install the main silencer. (📖 p. 66)

12.33 Removing the fuel tank

Danger

Fire hazard Fuel is highly flammable.

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

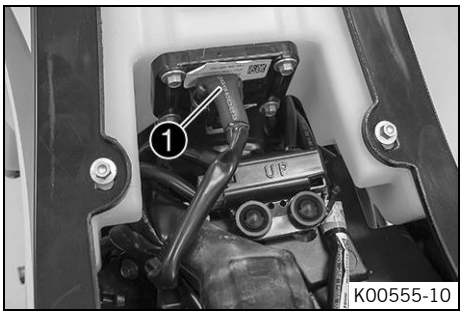
- Do not refuel the vehicle in the vicinity of open flames or lit cigarettes.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it off immediately.
- Observe the specifications for refueling.

Warning

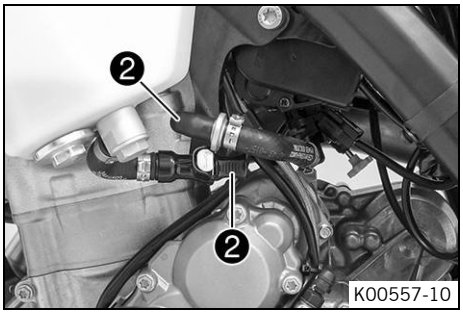
Danger of poisoning Fuel is poisonous and a health hazard.

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

Preparatory work
- Remove the seat. (📖 p. 62)



Main work
- Unplug connector ❶ of the fuel pump.
- Remove the tube from the fuel tank breather.

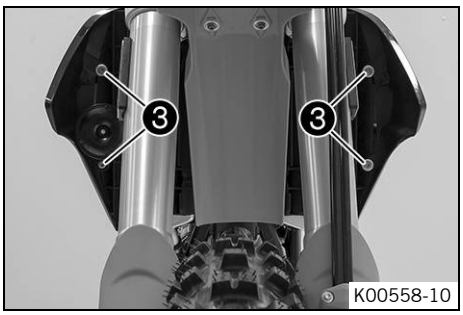


– Thoroughly clean the plug-in connection of the fuel line using compressed air.

Info
Under no circumstances should dirt enter into the fuel line. Dirt in the fuel line clogs the injection valve!

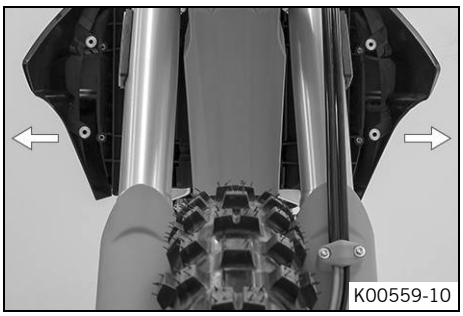
– Disconnect the plug-in connection of the fuel line.
– Mount wash cap set ❷.

Wash cap set (81212016100)



– Remove screws ❸ with the collar bushings.
– Hang the horn and horn bracket to one side.

– Remove screw ❹ with the rubber bushing.



– Pull both spoilers off the sides of the radiator bracket and lift off the fuel tank.

12.34 Installing the fuel tank

Danger
Fire hazard Fuel is highly flammable.
The fuel in the fuel tank expands when warm and can escape if overfilled.

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

Warning
Danger of poisoning Fuel is poisonous and a health hazard.

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

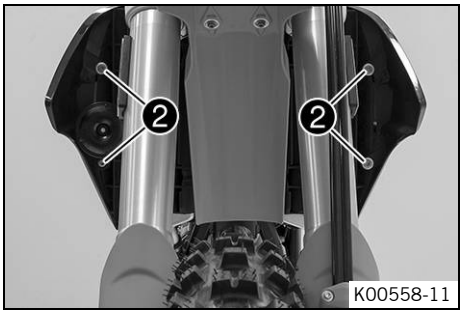
Main work

– Check throttle cable routing. (📖 p. 74)
– Position the fuel tank and fit the two spoilers to the sides in front of the radiator bracket.
– Make sure that no cables or throttle cables are trapped or damaged.
– Attach the fuel tank breather hose.
– Mount and tighten screw ❶ with the rubber bushing.

Guideline

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

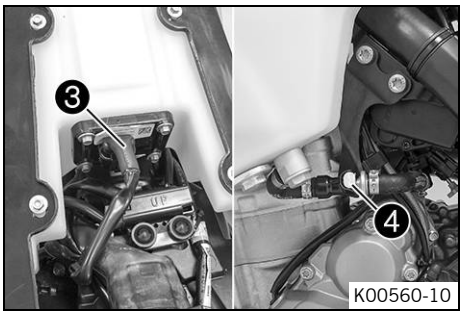
– Position the horn with the horn bracket.
– Mount and tighten screws ❷ with the collar bushings.



Guideline

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

– Plug in connector ❸ for the fuel pump.
– Remove the wash cap set.
– Thoroughly clean the plug-in connection of the fuel line using compressed air.



Info
Under no circumstances should dirt enter into the fuel line. Dirt in the fuel line clogs the injection valve!

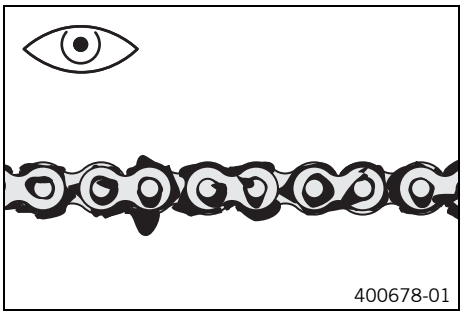
– Lubricate the O-ring and connect plug-in connection ❹ for the fuel line.

Info
Route the cable and fuel line at a safe distance from the exhaust system.

Finishing work

– Mount the seat. (📖 p. 63)

12.35 Checking for chain dirt accumulation



– Check the chain for coarse dirt accumulation.
  » If the chain is very dirty:
    – Clean the chain. (📖 p. 70)

12.36 Cleaning the chain

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

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

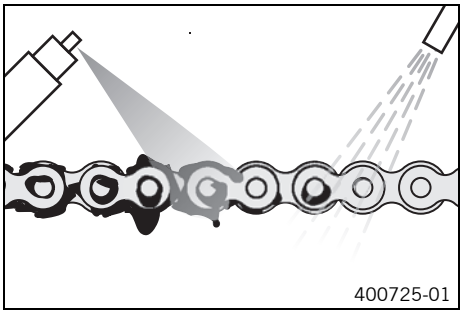
Warning
Danger of accidents Oil or grease on the brake discs reduces the braking effect.

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

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

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



Preparatory work
– Raise the motorcycle with the lift stand. (📖 p. 51)

Main work
– Clean the chain regularly and then treat with chain spray.

Chain cleaner (📖 p. 127)
Off-road chain spray (📖 p. 127)

Finishing work
– Remove the motorcycle from the lift stand. (📖 p. 51)

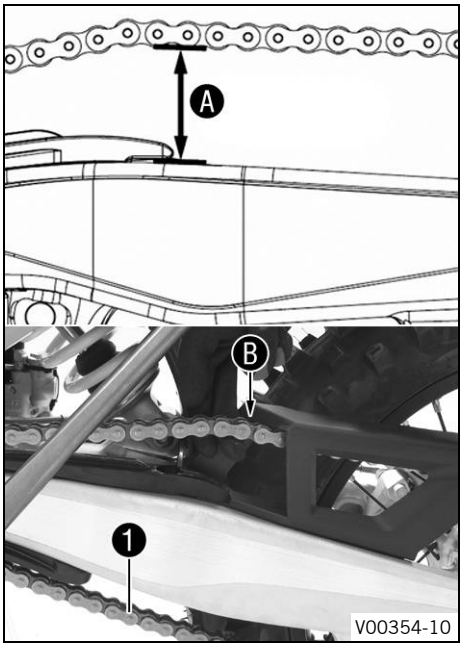
12.37 Checking the chain tension

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 lift stand. (📖 p. 51)



Main work

– Pull the chain at the end of the chain sliding component upwards to measure chain tension Ⓐ.

Info

The lower chain section ❶ must be taut.
When the chain guard is mounted, it must be possible to pull up the chain at least to the point where it makes contact with chain guard Ⓑ.
Chain wear is not always even, so you should repeat this measurement at different chain positions.

Chain tension	55... 58 mm (2.17... 2.28 in)

» If the chain tension does not meet specifications:
– Adjust the chain tension. (🕮 p. 71)

Finishing work

– Remove the motorcycle from the lift stand. (🕮 p. 51)

12.38 Adjusting the chain tension

Warning

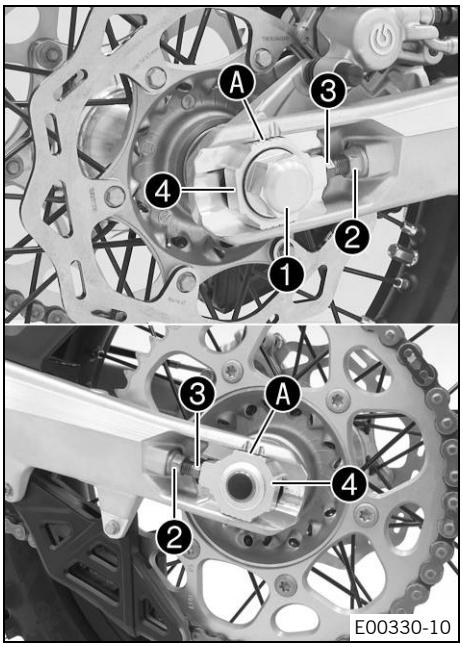
Danger of accidents Incorrect chain tension damages components and results in accidents.

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 lift stand. (🕮 p. 51)
– Check the chain tension. (🕮 p. 70)



Main work

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

Chain tension	55... 58 mm (2.17... 2.28 in)
Turn adjusting screws ❸ on the left and right so that the markings on the left and right chain adjusters are in the same position relative to reference marks Ⓐ. The rear wheel is then correctly aligned.	

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

Nut, rear wheel spindle	M20x1.5	80 Nm (59 lbf ft)

Info

The wide adjustment range of the chain adjusters (32 mm (1.26 in)) enables different secondary ratios with the same chain length.
Chain adjusters ❹ can be turned by 180°.

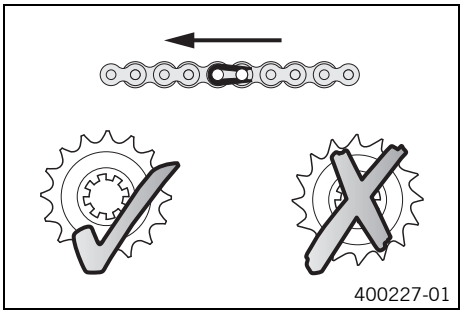
Finishing work

– Remove the motorcycle from the lift stand. (p. 51)

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

Preparatory work

– Raise the motorcycle with the lift stand. (p. 51)


400227-01

Main work

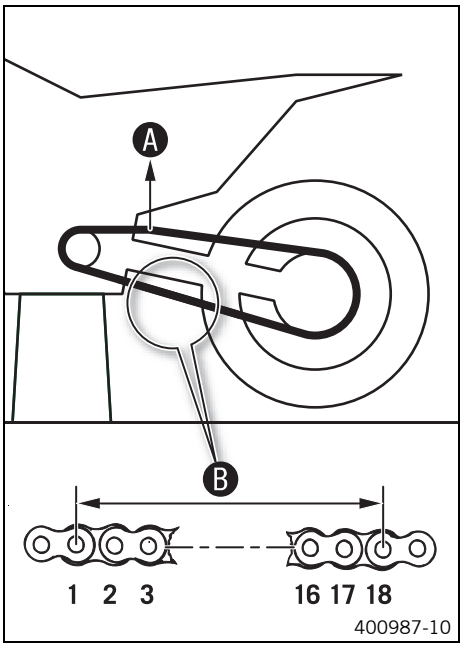
– Shift gear to neutral.

– Check the rear sprocket and engine sprocket for wear.

» If the rear sprocket or engine sprocket is worn:

– Change the drivetrain kit.

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



400987-10

– Pull on the upper part of the chain with the specified weight A.

Guideline

Weight of chain wear measurement	10... 15 kg (22... 33 lb.)

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

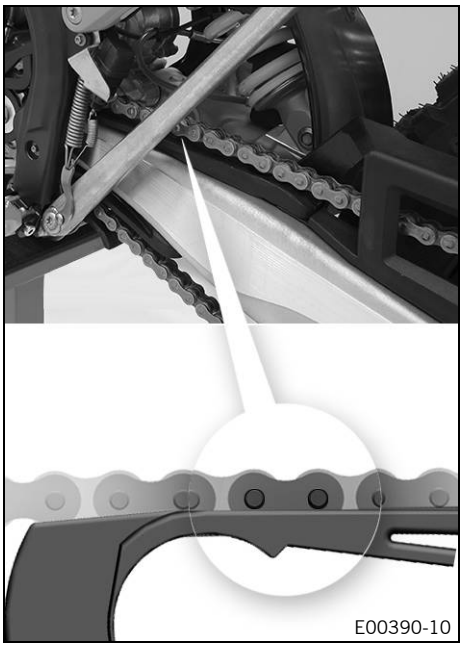
Info
Chain wear is not always even, so you should repeat this measurement at different chain positions.

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

» If the distance B is greater than the specified measurement:

– Change the drivetrain kit.

Info
When the chain is replaced, the rear sprocket and engine sprocket should also be changed.
New chains wear out faster on old, worn sprockets.


E00390-10

– Check the chain sliding guard for wear.

» If the bottom edge of the chain bolt is in line with or below the chain sliding guard:

– Change the chain sliding guard.

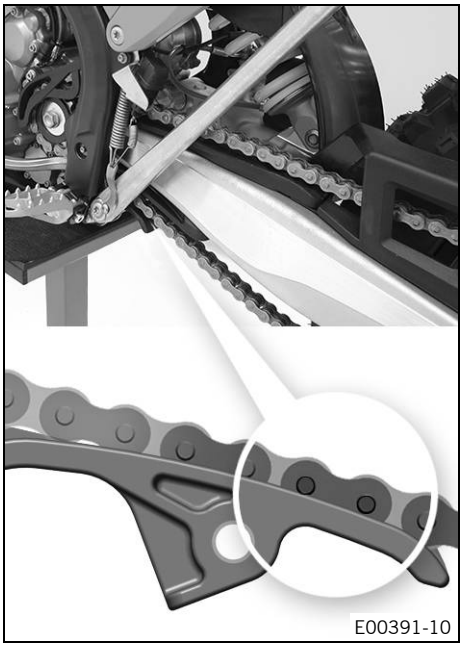
– Check that the chain sliding guard is firmly seated.

» If the chain sliding guard is loose:

– Tighten the screws on the chain sliding guard.

Guideline

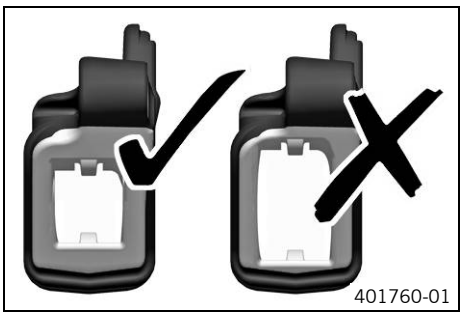
Screw, chain sliding guard	M6	6 Nm (4.4 lbf ft)	**Loctite® 243™**


E00391-10

– Check the chain sliding piece for wear.
  » If the bottom edge of the chain bolt is in line with or below the chain sliding piece:
    – Change the chain sliding piece.
– Check that the chain sliding piece is firmly seated.
  » If the chain sliding piece is loose:
    – Tighten the screw of the chain sliding piece.

    Guideline

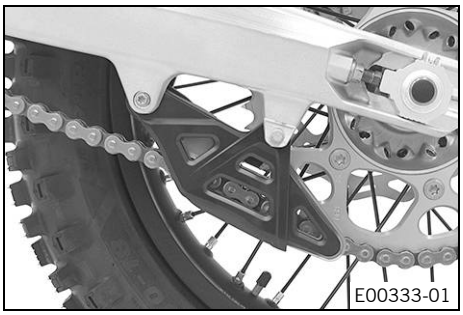
Screw, chain sliding piece	M8	15 Nm (11.1 lbf ft)


401760-01

– Check the chain guide for wear.

Info
Wear is visible on the front of the chain guide.

  » If the light part of the chain guide is worn:
    – Change the chain guide.


E00333-01

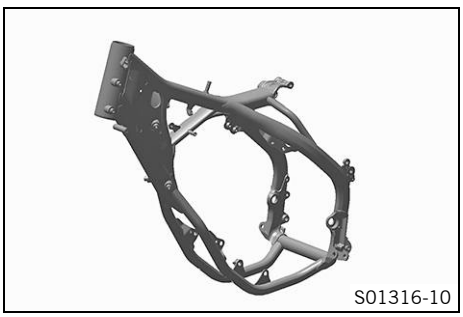
– Check that the chain guide is firmly seated.
  » If the chain guide is loose:
    – Tighten the screws on the chain guide.

    Guideline

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

Finishing work
– Remove the motorcycle from the lift stand. (p. 51)

12.40 Checking the frame


S01316-10

– Check the frame for cracking and deformation.
  » If the frame exhibits cracking or deformation due to a mechanical impact:
    – Change the frame.

Info
Always replace a frame that has been damaged due to a mechanical impact. Repair of the frame is not authorized by KTM.

12.41 Checking the swingarm


S01317-10

– Check the swingarm for damage, cracking, and deformation.
  » If the swingarm shows signs of damage, cracking, or deformation:
    – Change the swingarm.

Info
Always change a damaged swingarm. Repair of the swingarm is not authorized by KTM.

12.42 Checking throttle cable routing

Preparatory work
– Remove the seat. (p. 62)
– Remove the fuel tank. (p. 67)


E00392-01

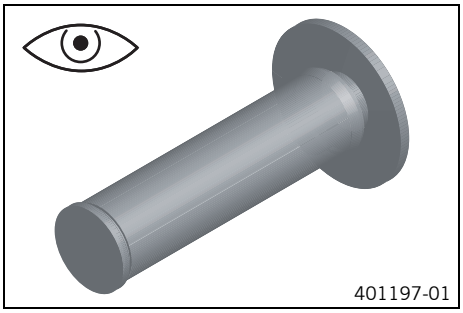
Main work
– Check throttle cable routing.

Both throttle cables must be routed, side by side, on the back of the handlebars and above the fuel tank bracket, to the throttle valve body. Both throttle cables must be secured behind the fuel tank contact area rubber band.

  » If the throttle cable routing is not as specified:
    – Correct throttle cable routing.

Finishing work
– Install the fuel tank. (p. 68)
– Mount the seat. (p. 63)

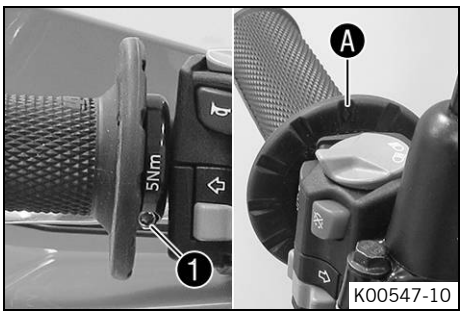
12.43 Checking the rubber grip


401197-01

– Check the rubber grips on the handlebar for damage, wear, and looseness.

Info
The rubber grips are vulcanized onto a sleeve on the left and onto the handle tube of the throttle grip on the right. The left sleeve is clamped onto the handlebar.
The rubber grip can only be replaced with the sleeve or the throttle tube.

  » If a rubber grip is damaged, worn, or loose:
    – Change the rubber grip.



K00547-10

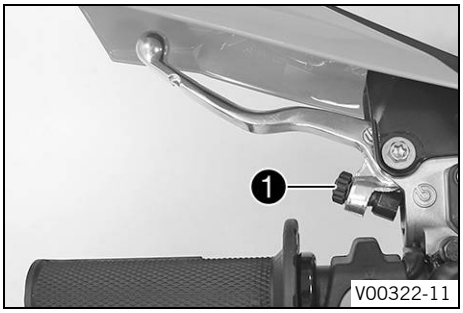
– Check that screw 1 is firmly seated.

Guideline

Screw, fixed grip	M4	5 Nm (3.7 lbf ft)	**Loctite® 243™**

Diamond A must be located at the top.

12.44 Adjusting the basic position of the clutch lever



– Adjust the basic setting 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.
Turn the adjusting screw by hand only, and do not apply any force.
Do not make any adjustments while riding!

12.45 Checking/correcting the fluid level of the hydraulic clutch

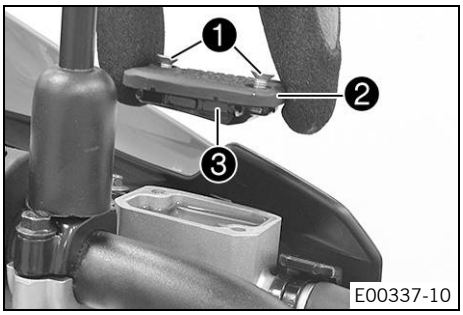
Warning
Skin irritation Brake fluid causes skin irritation.

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

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

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



– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws 1.
– Remove cover 2 with membrane 3.
– Check the fluid level.

Fluid level below container rim	4 mm (0.16 in)

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

Brake fluid DOT 4 / DOT 5.1 (📖 p. 125)

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

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

12.46 Changing the hydraulic clutch fluid

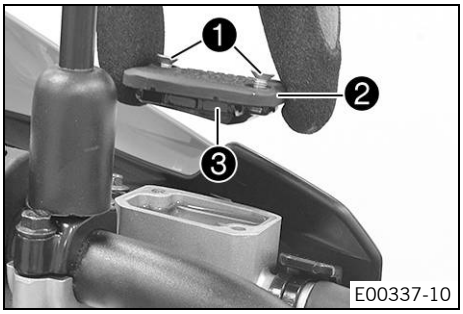
Warning
Skin irritation Brake fluid causes skin irritation.

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

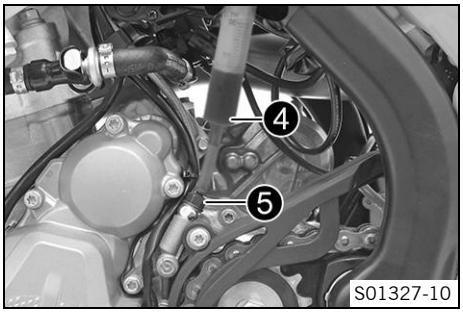
Warning
Environmental hazard Hazardous substances cause environmental damage.

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

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



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



- Fill bleeding syringe ❹ with the appropriate hydraulic fluid.

Bleed syringe (50329050000)
Brake fluid DOT 4 / DOT 5.1 (📖 p. 125)

- On the clutch slave cylinder, remove bleeder screw ❺ and mount bleeding syringe ❹.

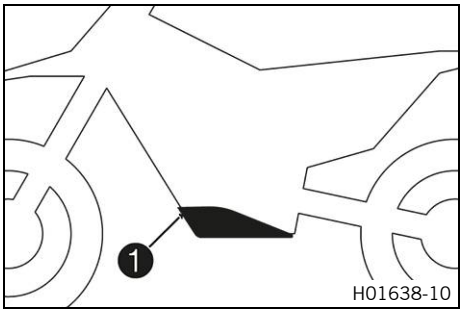
- Inject the liquid into the system until it escapes from openings ❻ of the master cylinder without bubbles.
- Now and then, extract fluid from the master cylinder reservoir to prevent overflow.
- Remove the bleeding syringe. Mount and tighten screws bleeder screw.
- Correct the fluid level of the hydraulic clutch.
  Guideline

Fluid level below container rim	4 mm (0.16 in)

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

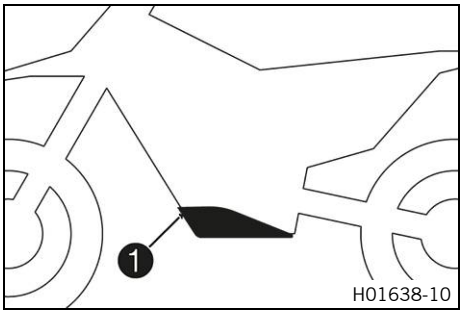
Info
Clean up overflowed or spilled brake fluid immediately with water.

12.47 Removing the engine guard (EXC-F Six Days)



– Remove screws ❶ and engine guard.

12.48 Installing the engine guard (EXC-F Six Days)



– Attach the engine guard on the frame at the rear and swing up at the front.
– Mount and tighten screws ❶.

Guideline

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

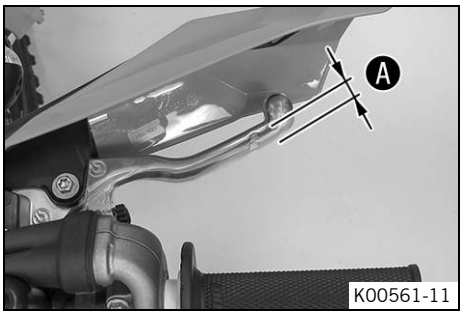
13.1 Checking the free travel of the hand brake lever

Warning

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

If there is no free travel on the hand brake lever, pressure builds up on the front brake circuit.

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



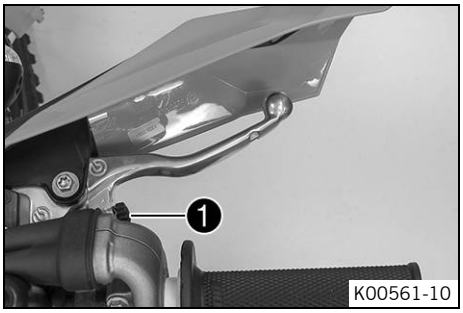
– Push the hand brake lever to the handlebar and check free travel A.

Free travel of hand brake lever	≥ 3 mm (≥ 0.12 in)

» If the free travel does not match the specification:

– Adjust the free travel of the hand brake lever. (📖 p. 78)

13.2 Adjusting free travel of hand brake lever



– Check the free travel of the hand brake lever. (📖 p. 78)

– Adjust the free travel of the hand brake lever with adjusting screw 1.

Info

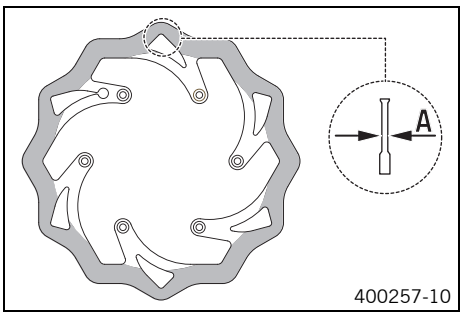
Turn the adjusting screw clockwise to reduce free travel. The pressure point moves away from the handlebar.
Turn the adjusting screw counterclockwise to increase free travel. The pressure point moves towards the handlebar.
The range of adjustment is limited.
Turn the adjusting screw by hand only, and do not apply any force.
Do not make any adjustments while riding!

13.3 Checking the brake discs

Warning

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

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



– Check the thickness of the front and rear brake discs at several places on the disk to see if it conforms to measurement A.

Info

Wear reduces the thickness of the brake disc around the area used by the brake linings.

Brake discs - wear limit (EXC-F EU/AU/BR)	
Front	2.5 mm (0.098 in)
Rear	3.5 mm (0.138 in)
Brake discs - wear limit (EXC-F Six Days)	
Front	2.5 mm (0.098 in)
Rear	3.7 mm (0.146 in)

» If the brake disc thickness is less than the specified value:

– Change the brake disc.

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

» If the brake disc shows signs of damage, cracking, or deformation:

– Change the brake disc.

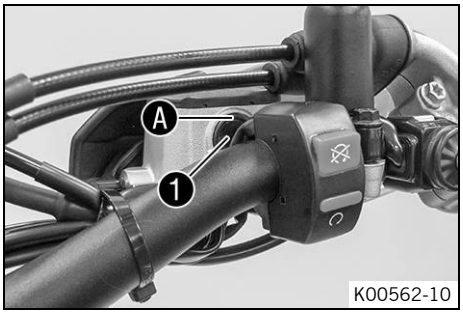
13.4 Checking the brake fluid level of the front brake

Warning
Danger of accidents An insufficient brake fluid level will cause the brake system to fail.
If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

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

Warning
Danger of accidents Old brake fluid reduces the braking effect.

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



– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Check the brake fluid level in level viewer 1.
  » If the brake fluid level has dropped below marking A:
    – Add front brake fluid. (p. 79)

13.5 Adding front brake fluid

Warning
Danger of accidents An insufficient brake fluid level will cause the brake system to fail.
If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

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

Warning
Skin irritation Brake fluid causes skin irritation.

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

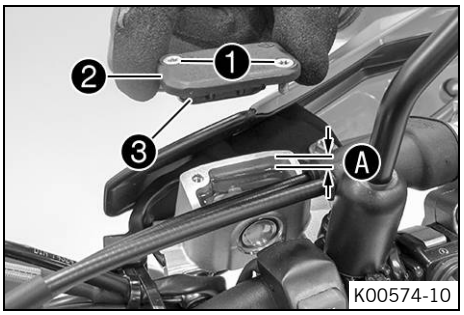
Warning
Danger of accidents Old brake fluid reduces the braking effect.

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

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

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



Preparatory work

– Check the front brake linings. (📖 p. 80)

Main work

– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws 1.
– Remove cover 2 with membrane 3.
– Add brake fluid to level A.

Guideline

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

Brake fluid DOT 4 / DOT 5.1 (📖 p. 125)

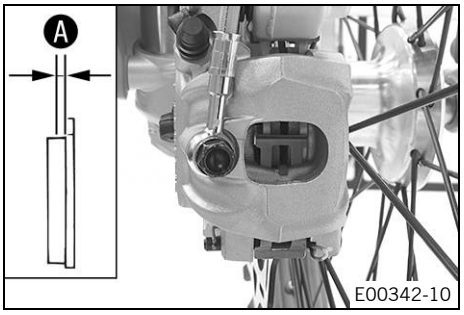
– Position the cover with the membrane. Mount and tighten the screws.

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

13.6 Checking the front brake linings

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

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



– Check the brake linings for minimum thickness A.

Minimum thickness A	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
  – Change the front brake linings. 🔧 (📖 p. 80)
– Check the brake linings for damage and cracking.
» If damage or cracking is visible:
  – Change the front brake linings. 🔧 (📖 p. 80)

13.7 Changing the front brake linings 🔧

Warning
Danger of accidents Incorrect maintenance will cause the brake system to fail.

– Ensure that service work and repairs are performed professionally. (Your authorized KTM workshop will be glad to help.)

Warning
Skin irritation Brake fluid causes skin irritation.

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

Warning
Danger of accidents Old brake fluid reduces the braking effect.

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

Warning
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 Brake linings which have not been approved alter the braking efficiency.

Not all brake linings are tested and approved for KTM motorcycles. The structure and friction coefficient of the brake linings, and thus their brake power, may vary greatly from that of original brake linings.
If brake linings are used that differ from the original equipment, compliance with the original homologation is not guaranteed. In this case, the vehicle no longer corresponds to its condition at delivery and the warranty shall be void.

– Only use brake linings approved and recommended by KTM.

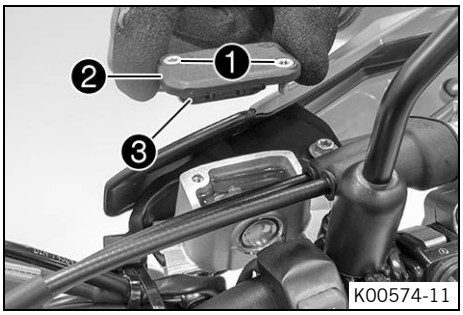
Warning

Environmental hazard Hazardous substances cause environmental damage.

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

Info

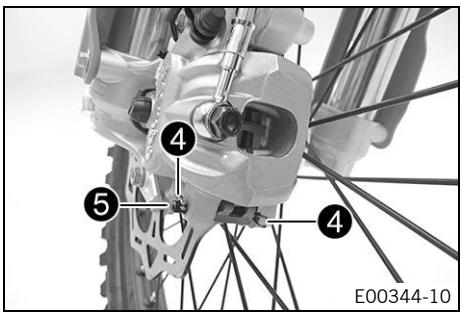
Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint.
Only use clean brake fluid from a sealed container.



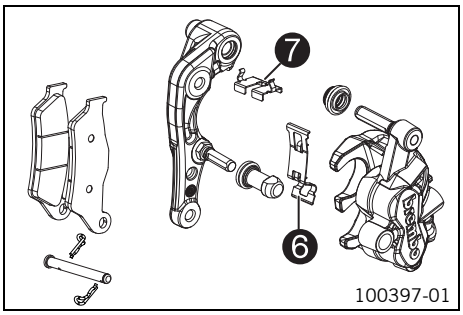
– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Remove cover ❷ with membrane ❸.
– Press the brake caliper onto the brake disc by hand in order to push back the brake pistons. Ensure that brake fluid does not flow out of the brake fluid reservoir, extracting it by suction if it does.

Info

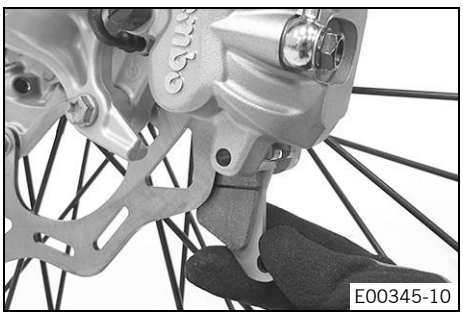
Make sure that you do not press the brake caliper against the spokes when pushing back the brake pistons.



– Remove cotter pins ❹, pull out pin ❺, and remove the brake linings.
– Clean the brake caliper and brake caliper support.



– Check that leaf spring ❻ in the brake caliper and sliding plate ❼ in the brake caliper support are seated correctly.

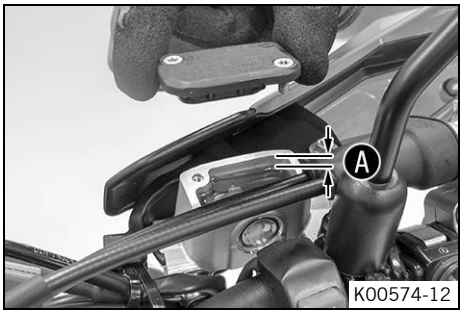


– Insert the new brake linings, insert the pin, and mount the cotter pins.

Info

Always change the brake linings in pairs.

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



– Correct the brake fluid quantity to level Ⓐ.

Guideline

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

Brake fluid DOT 4 / DOT 5.1 (📖 p. 125)

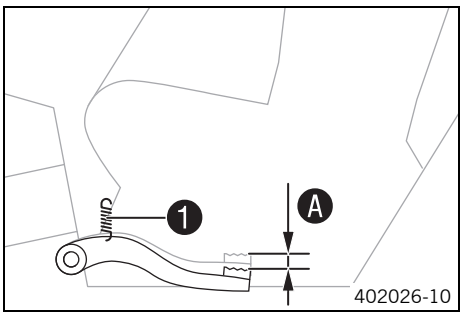
– Position the cover with the membrane. Mount and tighten the screws.

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

13.8 Checking the free travel of foot brake lever

Warning
Danger of accidents The brake system fails in the event of overheating.
If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

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



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

Guideline

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

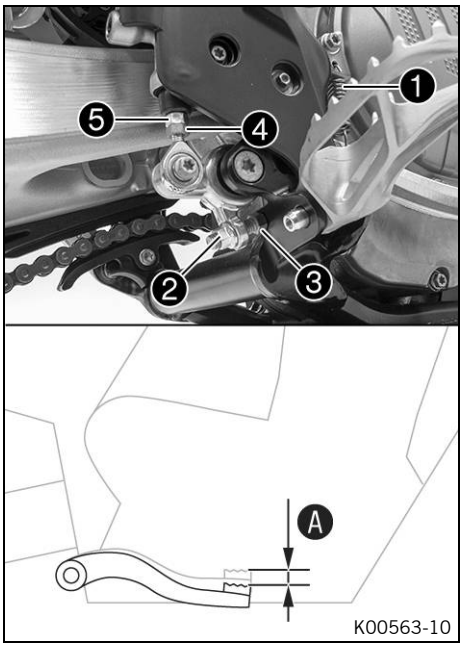
» If the free travel does not meet specifications:
– Adjust the basic position of the foot brake lever. 🔧 (📖 p. 82)

– Reconnect spring ❶.

13.9 Adjusting the basic position of the foot brake lever 🔧

Warning
Danger of accidents The brake system fails in the event of overheating.
If there is no free travel on the foot brake lever, pressure builds up in the brake system on the rear brake.

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



– Disconnect spring ❶.
– Loosen nut ❹ and, with push rod ❺, turn it back until you have maximum free travel.
– To adjust the basic position of the foot brake lever individually, loosen nut ❷ and turn screw ❸ accordingly.

Info
The range of adjustment is limited.

– Turn push rod ❺ accordingly until you have free travel Ⓐ. If necessary, adjust the basic position of the foot brake lever.

Guideline

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

– Hold screw ❸ and tighten nut ❷.

Guideline

Nut, foot brake lever stop	M8	20 Nm (14.8 lbf ft)

– Hold push rod ❺ and tighten nut ❹.

Guideline

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

– Reconnect spring ❶.

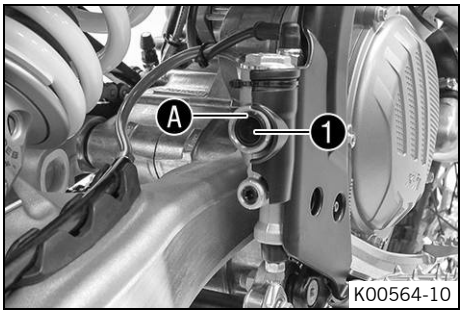
13.10 Checking the rear brake fluid level

Warning
Danger of accidents An insufficient brake fluid level will cause the brake system to fail.
If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.

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

Warning
Danger of accidents Old brake fluid reduces the braking effect.

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



– Stand the vehicle upright.
– Check the brake fluid level in level viewer ❶.
  » If the brake fluid level has dropped below marking Ⓐ:
    – Add rear brake fluid. 🔧 (📖 p. 83)

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

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

Warning
Skin irritation Brake fluid causes skin irritation.

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

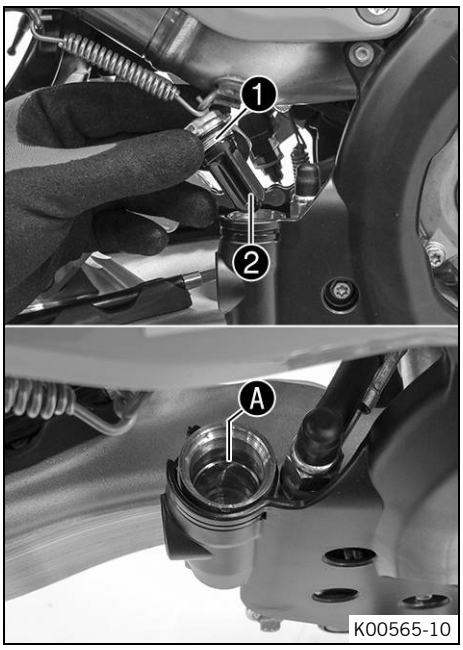
Warning
Danger of accidents Old brake fluid reduces the braking effect.

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

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

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



Preparatory work
– Check the rear brake linings. (📖 p. 84)

Main work
– Stand the vehicle upright.
– Remove screw cap ❶ with membrane ❷ and the O-ring.
– Add brake fluid to level Ⓐ.

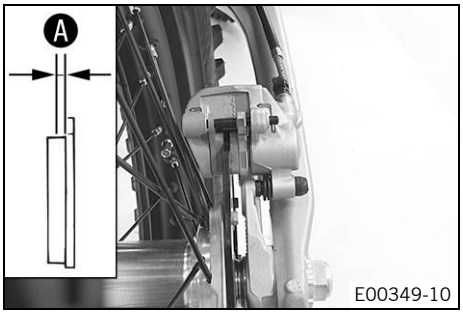
Brake fluid DOT 4 / DOT 5.1 (📖 p. 125)

– Mount the screw cap with the membrane and the O-ring.

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

13.12 Checking the rear brake linings

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



– Check the brake linings for minimum thickness Ⓐ.

Minimum thickness Ⓐ	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
– Change the rear brake linings. 🔧 (📖 p. 84)
– Check the brake linings for damage and cracking.
» If damage or cracking is visible:
– Change the rear brake linings. 🔧 (📖 p. 84)

13.13 Changing the rear brake linings 🔧

Warning
Danger of accidents Incorrect maintenance will cause the brake system to fail.
– Ensure that service work and repairs are performed professionally. (Your authorized KTM workshop will be glad to help.)

Warning
Skin irritation Brake fluid causes skin irritation.

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

Warning
Danger of accidents Old brake fluid reduces the braking effect.

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

Warning
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 Brake linings which have not been approved alter the braking efficiency.

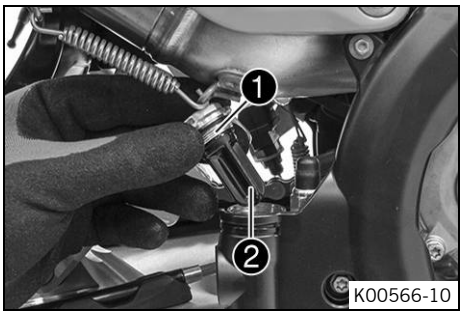
Not all brake linings are tested and approved for KTM motorcycles. The structure and friction coefficient of the brake linings, and thus their brake power, may vary greatly from that of original brake linings.
If brake linings are used that differ from the original equipment, compliance with the original homologation is not guaranteed. In this case, the vehicle no longer corresponds to its condition at delivery and the warranty shall be void.

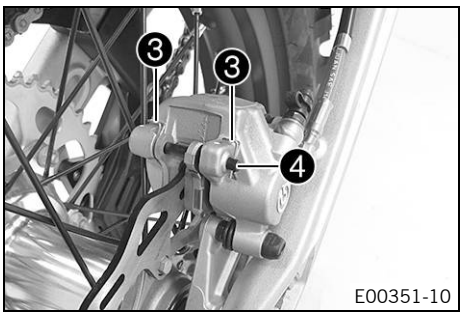
- Only use brake linings approved and recommended by KTM.

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

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

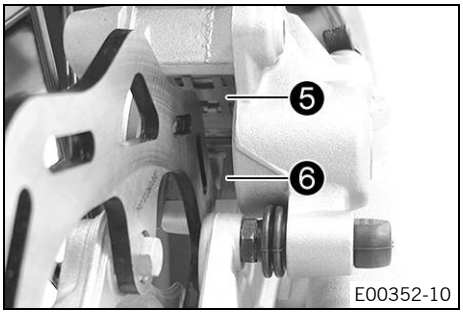




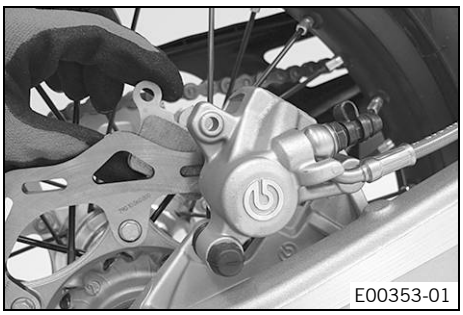
- Stand the vehicle upright.
- Remove screw cap ❶ with membrane ❷ and the O-ring.
- Press the brake piston back to its basic position and make sure that no brake fluid overflows from the brake fluid reservoir, extracting it if necessary.

Info
Make sure when pushing back the brake piston that you do not press the brake caliper against the spokes.

- Remove cotter pins ❸, pull out pin ❹, and remove the brake linings.
- Clean the brake caliper and brake caliper support.



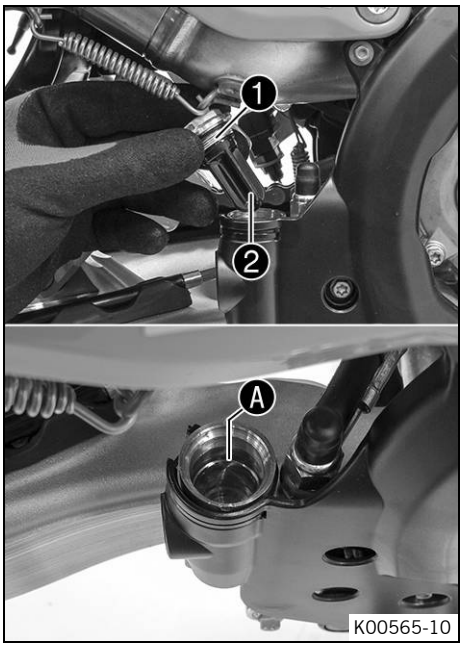
– Check that leaf spring ❺ in the brake caliper and sliding plate ❻ in the brake caliper support are seated correctly.



– Insert the new brake linings, insert the pin, and mount the cotter pins.

Info
Always change the brake linings in pairs.

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



– Add brake fluid to level Ⓐ.

Brake fluid DOT 4 / DOT 5.1 (📖 p. 125)

– Mount screw cap ❶ with membrane ❷ and O-ring.

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

14.1 Removing the front wheel

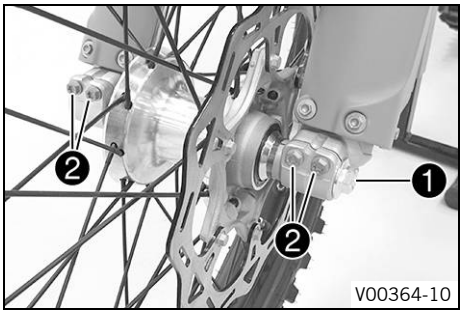
Preparatory work

– Raise the motorcycle with the lift stand. (p. 51)

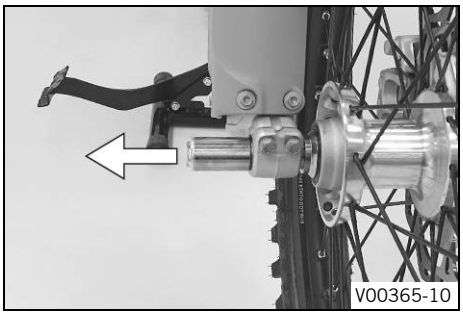
Main work

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

Info
Make sure that you do not press the brake caliper against the spokes when pushing back the brake pistons.



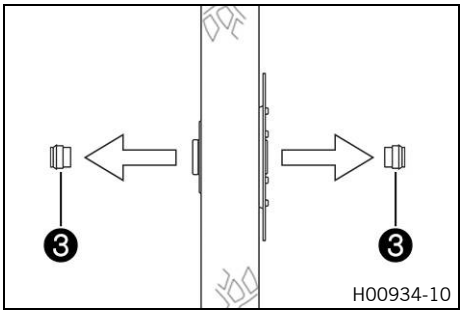
– Loosen screw ❶ by several rotations.
– Loosen screws ❷.
– Press on screw ❶ to push the wheel spindle out of the axle clamp.
– Remove screw ❶.



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.

– Holding the front wheel, withdraw the wheel spindle. Take the front wheel out of the fork.

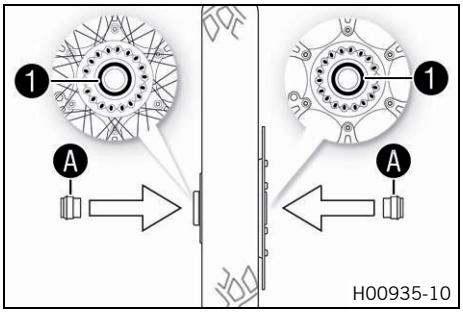
Info
Do not pull the hand brake lever when the front wheel is removed.



– Remove spacers ❸.

14.2 Installing the front wheel

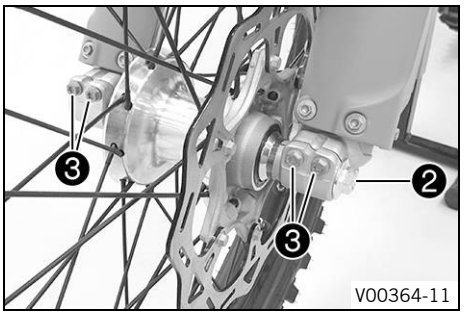
Warning
Danger of accidents Oil or grease on the brake discs reduces the braking effect.
– Always keep the brake discs free of oil and grease.
– Clean the brake discs with brake cleaner when necessary.



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

Long-life grease (p. 127)

– Insert the spacers.



– Position the front wheel and insert the wheel spindle.
  ✓ The brake linings are correctly positioned.
– Mount and tighten screw ❷.
  Guideline

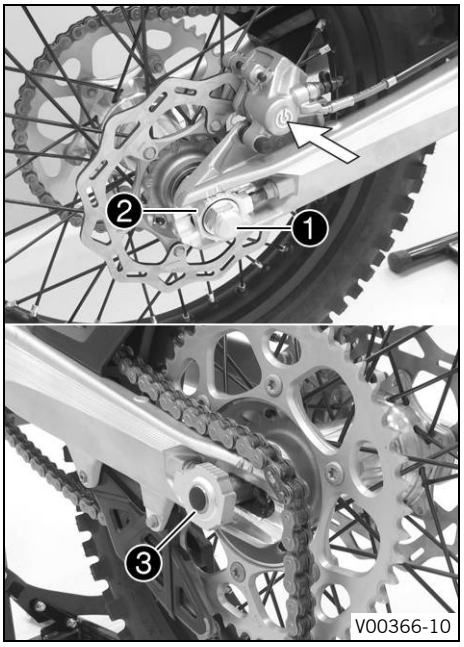
Screw, front wheel spindle	M20x1.5	35 Nm (25.8 lbf ft)

– Operate the hand brake lever several times until the brake linings are seated correctly against the brake disc.
– Remove the motorcycle from the lift stand. (📖 p. 51)
– Operate the front brake and compress the fork a few times firmly.
  ✓ The fork legs straighten.
– Tighten screws ❸.
  Guideline

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

14.3 Removing the rear wheel

Preparatory work
– Raise the motorcycle with the lift stand. (📖 p. 51)



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

Info
Make sure when pushing back the brake piston that you do not press the brake caliper against the spokes.

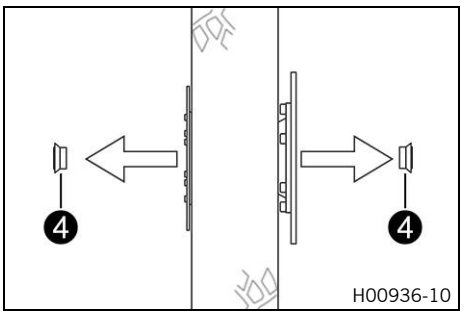
– Remove nut ❶.
– Remove chain adjuster ❷. Withdraw wheel spindle ❸ only enough to allow the rear wheel to be pushed forward.
– Push the rear wheel forward as far as possible. Remove the chain from the rear sprocket.

Info
Cover the components to protect them against damage.

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.

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

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



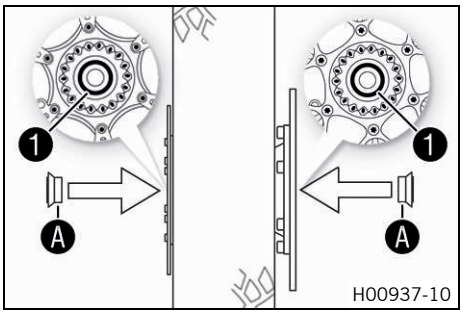
– Remove spacers ❹.

14.4 Installing the rear wheel

Warning

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

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

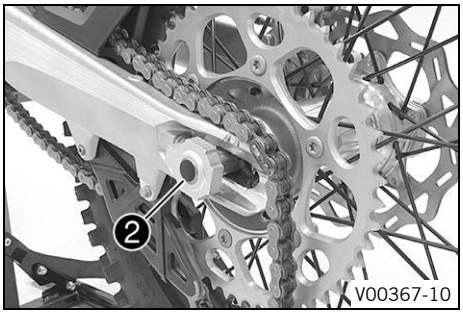


Main work

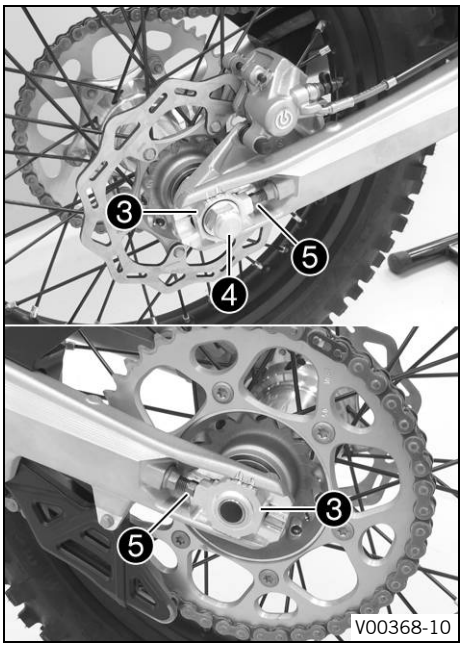
- Check the wheel bearing for damage and wear.
  - » If the wheel bearing is damaged or worn:
    - Change the rear wheel bearing.
- Clean and grease shaft seal rings 1 and contact surface A of the spacers.

Long-life grease (📖 p. 127)

- Insert the spacers.



- Position the rear wheel and insert wheel spindle 2.
  - ✓ The brake linings are correctly positioned.
- Mount the chain.



- Position chain adjuster 3. Mount nut 4, but do not tighten it yet.
- Make sure that chain adjusters 3 are fitted correctly on adjusting screws 5.
- Check the chain tension. (📖 p. 70)
- Tighten nut 4.

Guideline

Nut, rear wheel spindle	M20x1.5	80 Nm (59 lbf ft)

Info

The wide adjustment range of the chain adjusters (32 mm (1.26 in)) enables different secondary ratios with the same chain length.
Chain adjusters 3 can be turned by 180°.

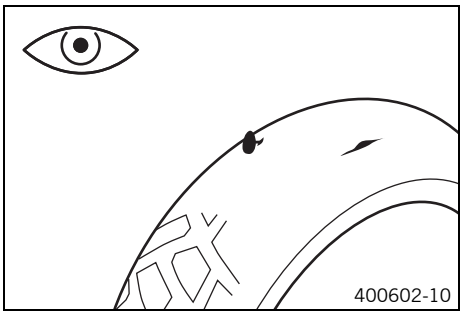
- Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.

Finishing work

- Remove the motorcycle from the lift stand. (📖 p. 51)

14.5 Checking the tire condition

Info
Only mount tires approved and/or recommended by KTM.
Other tires could have a negative effect on handling characteristics.
The type, condition, and air pressure of the tires all have a major impact on the handling of the motorcycle.
The tires mounted on the front and rear wheels must have a similar profile.
Worn tires have a negative effect on handling characteristics, especially on wet surfaces.

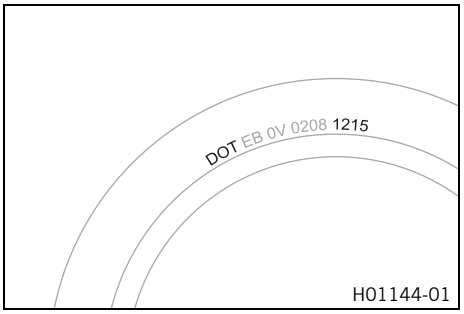


– Check the front and rear tires for cuts, run-in objects, and other damage.
  » If the tires have cuts, run-in objects, or other damage:
    – Change the tires.
– Check the tread depth.

Info
Adhere to the legally required minimum tread depth.

Minimum tread depth	≥ 2 mm (≥ 0.08 in)

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



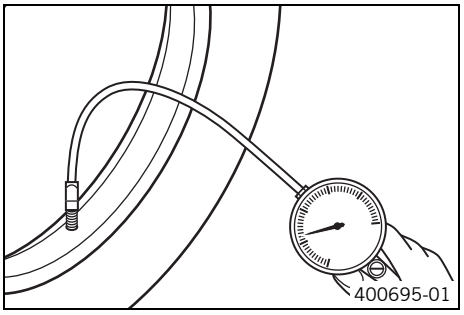
– Check the tire age.

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

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

14.6 Checking the tire air pressure

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



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

Tire air pressure off road	
Front	1.0 bar (15 psi)
Rear	1.0 bar (15 psi)

Road tire pressure	
Front	1.5 bar (22 psi)
Rear	1.5 bar (22 psi)

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

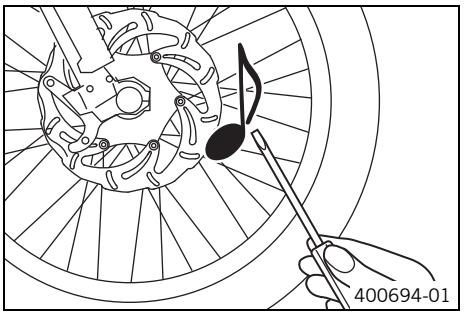
14.7 Checking spoke tension

Warning

Danger of accidents Incorrectly tensioned spokes impair the handling characteristic and result in secondary damage.

The spokes break due to being overloaded if they are too tightly tensioned. If the tension in the spokes is too low, then lateral and radial run-out will form in the wheel. Other spokes will become looser as a result.

– Check spoke tension regularly, and in particular on a new vehicle. (Your authorized KTM workshop will be glad to help.)



– Strike each spoke briefly using a screwdriver blade.

Info

The frequency of the sound depends on the spoke length and spoke diameter.
If you hear different tone frequencies from different spokes of equal length and diameter, this is an indication of different spoke tensions.

You should hear a high note.

» If the spoke tension differs:

– Correct the spoke tension. 🔧

– Check the spoke torque.

Guideline

Spoke nipple, front wheel	M4.5	6 Nm (4.4 lbf ft)
Spoke nipple, rear wheel	M4.5	6 Nm (4.4 lbf ft)

Torque wrench with various accessories in set (58429094000)

15.1 Removing the battery

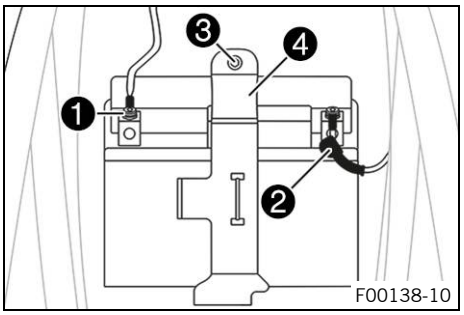
Warning
Environmental hazard Batteries contain environmentally-hazardous materials.

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

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

Preparatory work
– Switch off all power consumers and switch off the engine.
– Remove the seat. (📖 p. 62)



Main work
(EXC-F EU/AU, EXC-F Six Days)

Warning
Risk of injury Batteries contain harmful substances.
– Keep batteries out of the reach of children.
– Keep sparks and open flames away from the batteries.
– Only charge batteries in well-ventilated rooms.
– Maintain a minimum clearance from inflammable materials when charging batteries.
  Minimum clearance 1 m (3 ft)
– Do not charge deeply discharged batteries if charge is already below the minimum voltage.
  Minimum voltage before the start of the charge 9 V
– Dispose of batteries with less than the minimum voltage correctly.

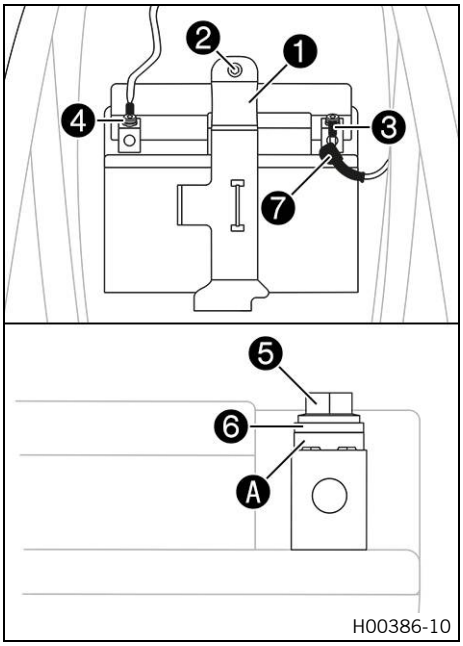
– Disconnect negative cable ❶ from the battery.
– Pull back positive terminal cover ❷ and disconnect the positive cable from the battery.
– Remove screw ❸.
– Pull holding bracket ❹ forward and remove battery toward the top.

(EXC-F BR)

Warning
Risk of injury Battery acid and battery gases cause serious chemical burns.
– Keep batteries out of the reach of children.
– Wear suitable protective clothing and goggles.
– Avoid contact with battery acid and battery gases.
– Keep sparks and open flames away from the battery. Only charge in well-ventilated rooms.
– In the event of skin contact, rinse with large amounts of water. If battery acid gets in the eyes, rinse with water for at least 15 minutes and contact a physician.

– Disconnect negative cable ❶ from the battery.
– Pull back positive terminal cover ❷ and disconnect the positive cable from the battery.
– Remove screw ❸.
– Pull holding bracket ❹ forward and remove battery toward the top.

15.2 Installing the battery



Main work

– Insert the battery into the battery compartment with the terminals facing forward and secure with holding bracket ❶.

(EXC-F EU/AU, EXC-F Six Days)

Battery (HJTZ5S-FP) (📖 p. 121)

(EXC-F BR)

Battery (YTX5L-BS) (📖 p. 121)

– Mount and tighten screw ❷.

Guideline

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

– Connect positive cable ❸ to the battery.

Guideline

Screw, battery terminal	M5	2.5 Nm (1.84 lbf ft)

– Slide positive terminal cover ❼ over the positive terminal.

– Connect negative cable ❹ to the battery.

Guideline

Screw, battery terminal	M5	2.5 Nm (1.84 lbf ft)

Contact disks Ⓐ must be mounted under screws ❺ and cable sockets ❻ with the claws toward the battery terminal.

Finishing work

– Mount the seat. (📖 p. 63)

15.3 Recharging the battery

Warning

Environmental hazard Batteries contain environmentally-hazardous materials.

– Do not dispose of batteries as household waste.

– Dispose of batteries at a collection point for used batteries.

Warning

Environmental hazard Hazardous substances cause environmental damage.

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

Info

Even when there is no load on the battery, it discharges steadily.
The charging level and the method of charging are very important for the service life of the battery.
Rapid recharging with a high charging current shortens the service life of the battery.
If the battery is depleted by repeated starting, the battery must be charged immediately.

Preparatory work

– Switch off all power consumers and switch off the engine.

– Remove the seat. (📖 p. 62)

– Remove the battery. 🔧 (📖 p. 92)

Main work
(EXC-F EU/AU, EXC-F Six Days)

Warning
Risk of injury Batteries contain harmful substances.
- Keep batteries out of the reach of children.
- Keep sparks and open flames away from the batteries.
- Only charge batteries in well-ventilated rooms.
- Maintain a minimum clearance from inflammable materials when charging batteries.
  Minimum clearance 1 m (3 ft)
- Do not charge deeply discharged batteries if charge is already below the minimum voltage.
  Minimum voltage before the start of the charge 9 V
- Dispose of batteries with less than the minimum voltage correctly.

– Check the battery voltage.
  » Battery voltage: < 9 V
    – Do not charge the battery.
    – Replace the battery and dispose of the old battery properly.
  » If the specifications have been met:
  Battery voltage: ≥ 9 V
    – Recharge the battery.
      Guideline

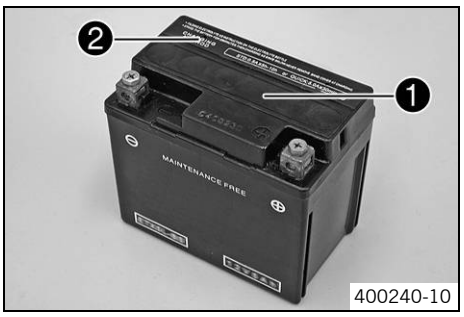
Maximum charging voltage	14.4 V
Maximum charging current	3.0 A
Maximum charging time	12 h
Charge the battery regularly when the motorcycle is not in use	6 months
Ideal charging and storage temperature of the lithium-ion battery	10… 20 °C (50… 68 °F)

Info
If the charging current, charging voltage, or charging time are exceeded, the battery will be destroyed.
If the battery is left in a discharged state for an extended period, it will become over-discharged and sulfated, destroying the battery.
The battery is maintenance-free.
Never remove cover 1.

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

Battery charger (58429074000)

The charging time may be longer at low temperatures.
This battery charger is not suitable for the trickle charging of lithium-ion batteries.
– Switch off the battery charger after charging and disconnect from the battery.



(EXC-F BR)

Warning
Risk of injury Battery acid and battery gases cause serious chemical burns.
- Keep batteries out of the reach of children.
- Wear suitable protective clothing and goggles.
- Avoid contact with battery acid and battery gases.
- Keep sparks and open flames away from the battery. Only charge in well-ventilated rooms.
- In the event of skin contact, rinse with large amounts of water. If battery acid gets in the eyes, rinse with water for at least 15 minutes and contact a physician.

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

Battery charger (58429074000)

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

Info
If the charging current, charging voltage and charging time are exceeded, electrolyte escapes through the safety valves. This reduces the battery capacity.
If the battery is left in a discharged state for an extended period, over-discharge and sulfating occurs, destroying the battery.
The battery is maintenance-free. The acid level does not have to be checked.
Never remove cover ❶.
Charge the battery to a maximum of 10% of the capacity specified on battery housing ❷.

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

Guideline

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

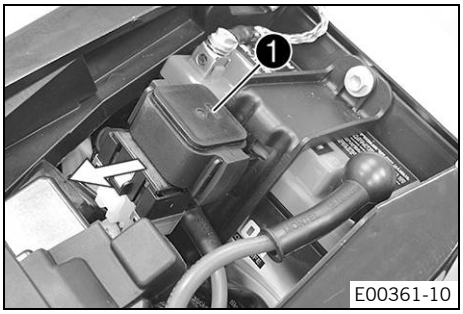
Finishing work
– Install the battery. (📖 p. 93)
– Mount the seat. (📖 p. 63)

15.4 Changing the main fuse

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

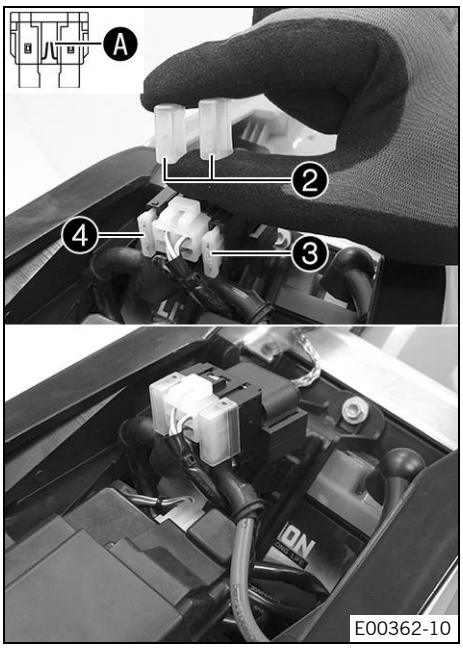
Info
The main fuse protects all power consumers of the vehicle.

Preparatory work
– Switch off all power consumers and switch off the engine.
– Remove the seat. (📖 p. 62)



Main work

– Pull starter relay ❶ from the holder.



– Take off protection caps ❷.
– Remove faulty main fuse ❸.

Info
You can recognize a defective fuse by a burned-out fuse wire Ⓐ.
A spare fuse ❹ is located in the starter relay.

– Install a new main fuse.

Fuse (58011109120) (📖 p. 121)

– Check that the electrical equipment is functioning properly.

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

– Mount the protection caps.
– Mount the starter relay onto the holder and route the cable.

Finishing work

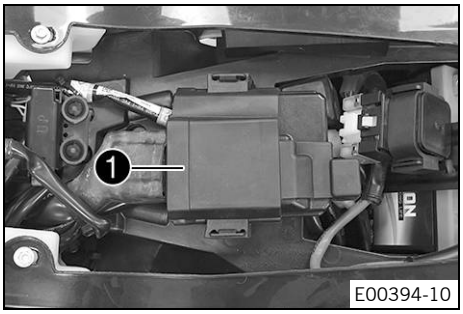
– Mount the seat. (📖 p. 63)

15.5 Changing the fuses of individual power consumers

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

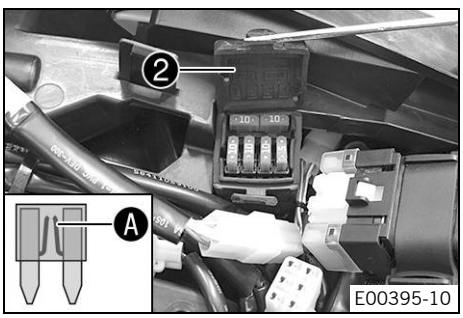
Preparatory work

– Switch off all power consumers and switch off the engine.
– Remove the seat. (📖 p. 62)



Main work

– Pull EFI control unit ❶ from the holder and hang it to one side.



– Open fuse box cover ❷.
– Remove the defective fuse.

Guideline

(EXC-F EU, EXC-F Six Days)

Fuse **1** - 10 A - EFI control unit, lambda sensor, speedometer, combination switch (optional), fuel injection, diagnostics connector, fuse **4**

(EXC-F AU/BR)

Fuse **1** - 10 A - EFI control unit, speedometer, combination switch (optional), fuel injection, diagnostics connector, fuse **4**

Fuse **2** - 10 A - high beam, low beam, parking light, tail light, license plate lamp
Fuse **3** - 10 A - radiator fan (optional), horn, brake light, turn signal
Fuse **4** - 5 A - fuel pump
Fuses **res** - 10 A - spare fuse

Info
You can recognize a defective fuse by a burned-out fuse wire Ⓐ.

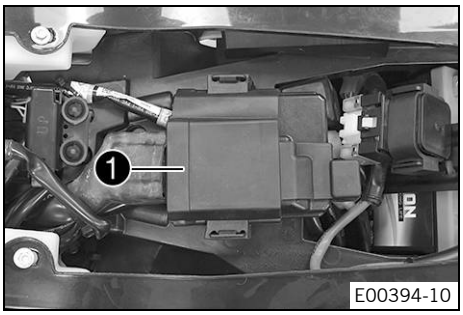
Warning
Fire hazard Incorrect fuses overload the electrical system.
- Only use fuses with the required ampere value.
- Do not bypass or repair fuses.

– Use spare fuses with the correct rating only.

Fuse (75011088010) (p. 121)
Fuse (58011109105) (p. 121)

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

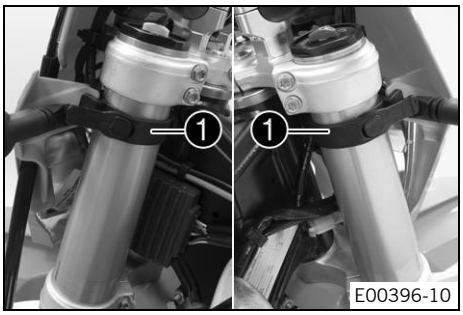
– Check that the power consumer is functioning properly.
– Close the fuse box cover.
– Mount EFI control unit ❶ on the holder.



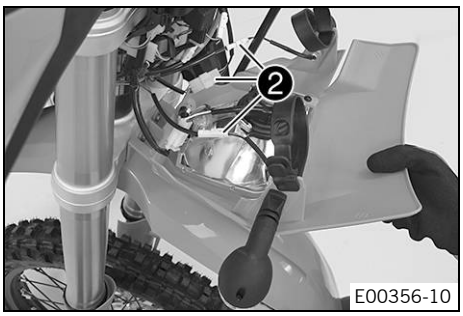
Finishing work
– Mount the seat. (p. 63)

15.6 Removing the headlight mask with the headlight

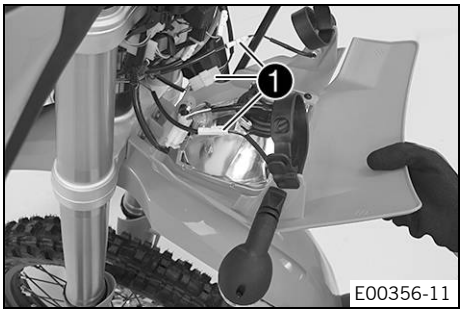
– Switch off all power consumers and switch off the engine.
– Detach the brake line and wiring harness from the headlight mask.
– Release rubber bands ❶. Slide the headlight mask up and swing it forward.



– Detach plug-in connectors ❷ and take off the headlight mask with the headlight.

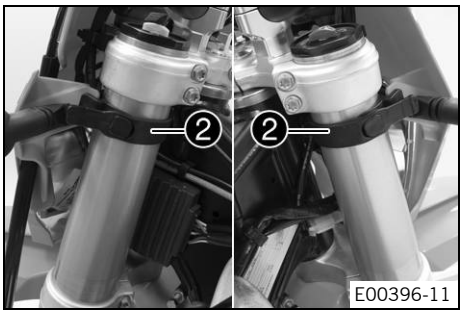


15.7 Installing the headlight mask with the headlight



Main work

– Connect plug-in connectors ❶.



– Position the headlight mask and fix it with rubber bands ❷.
  ✔ The holding lugs engage in the fender.
– Position the brake line and wiring harness in the brake line guide.

Finishing work

– Check the headlight setting. (📖 p. 99)

15.8 Changing the headlight bulb

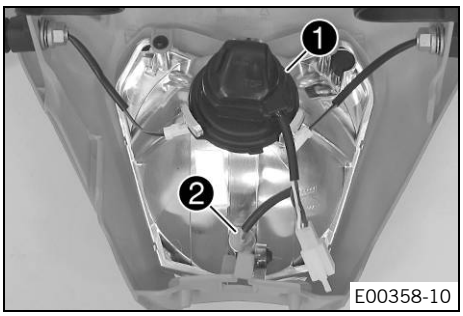
Note

Damage to reflector Reduced brightness.

– Grease on the lamp will evaporate due to the heat and be deposited on the reflector. Clean the lamp and keep it free of grease before mounting.

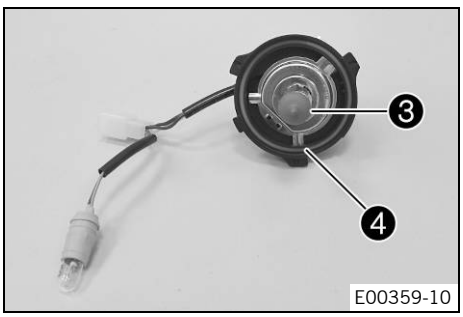
Preparatory work

– Remove the headlight mask with the headlight. (📖 p. 97)



Main work

– Turn protection cap ❶ together with the underlying bulb socket counterclockwise all the way and remove it.
– Pull bulb socket ❷ of the parking light out of the reflector.



– Pull out headlight bulb ❸.
– Insert the new headlight bulb.

Headlight (HS1 / socket PX43t) (📖 p. 121)

– Insert the protection cap with the bulb socket into the reflector and turn it clockwise all the way.

Info

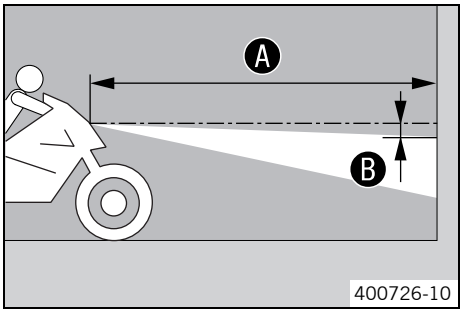
Ensure that O-ring ❹ is seated properly.

– Insert the bulb socket of the parking light into the reflector.

Finishing work

– Install the headlight mask with the headlight. (📖 p. 98)
– Check the headlight setting. (📖 p. 99)

15.9 Checking the headlight setting



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

Guideline

Distance Ⓑ	5 cm (2 in)

– Position the vehicle vertically at a distance Ⓐ away from the wall.

Guideline

Distance Ⓐ	5 m (16 ft)

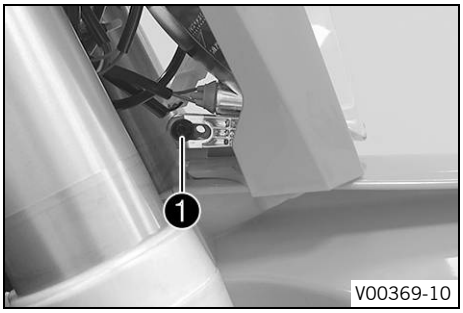
– The rider now sits down on the motorcycle.
– Switch on the low beam.
– Check the headlight setting.

The boundary between light and dark must be exactly on the lower mark for a motorcycle with rider.

» If the light-dark border does not meet specifications:
  – Adjust the headlight range. (📖 p. 99)

15.10 Adjusting the headlight range

Preparatory work
– Check the headlight setting. (📖 p. 99)



Main work
– Loosen screw ❶.
– Adjust the headlight range by pivoting the headlight.

Guideline

The boundary between light and dark must be exactly on the lower mark for a motorcycle with driver (instructions on how to apply the mark: Checking the headlight setting).

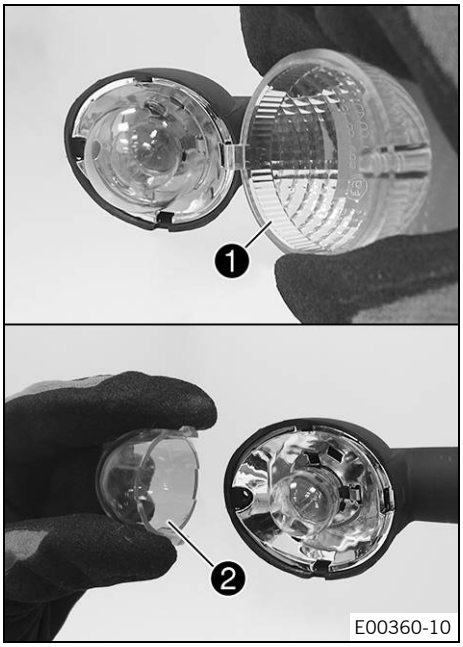
Info
A change in weight on the vehicle may require a correction of the headlight range.

– Tighten screw ❶.

15.11 Changing the turn signal bulb

Note
Damage to reflector Reduced brightness.

– Grease on the lamp will evaporate due to the heat and be deposited on the reflector. Clean the lamp and keep it free of grease before mounting.



Main work
- Remove the screw on the rear of the turn signal housing.
- Carefully remove diffuser ❶.
- Lightly squeeze orange cap ❷ in the area of the holding lugs and take it off.
- Press the turn signal bulb carefully into the socket, turn it counterclockwise by about 30°, and take it out of the socket.

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

- Press the new turn signal bulb carefully into the socket and turn it clockwise until it stops.

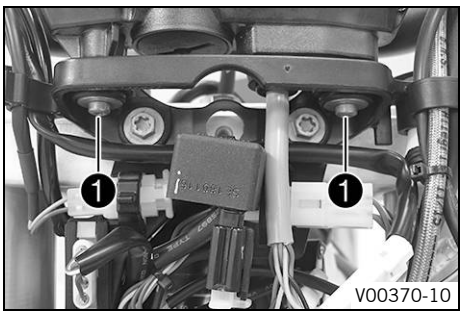
Turn signal (R10W / socket BA15s) (📖 p. 121)

- Mount the orange cap.
- Position the diffuser.
- Insert the screw and first turn it counterclockwise until it engages in the thread. Tighten the screw slightly.

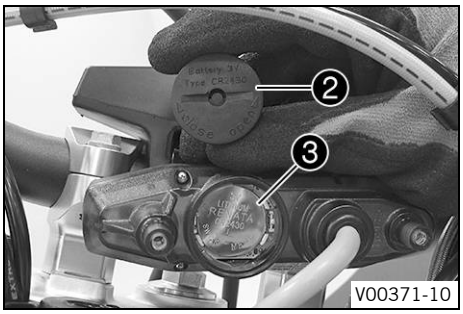
Finishing work
- Check that the turn signal system is functioning properly.

15.12 Changing the speedometer battery

Preparatory work
- Remove the headlight mask with the headlight. (📖 p. 97)



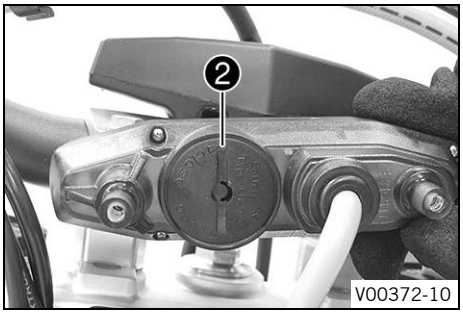
Main work
- Remove screws ❶ with the washers.
- Pull the speedometer upward out of the holder.



- Using a coin, turn protection cap ❷ all the way counterclockwise and remove it.
- Remove speedometer battery ❸.
- Insert the new battery with the label facing upward.

Speedometer battery (CR 2430) (📖 p. 121)

- Check the O-ring of the protection cap for correct seating.

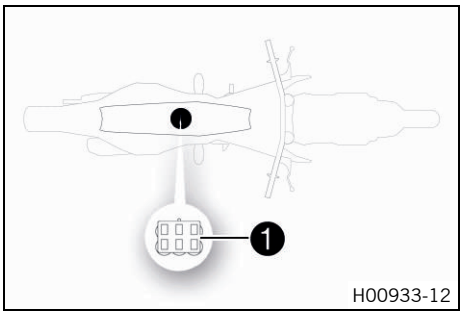


- Position protection cap ❷ and turn all the way clockwise using a coin.
- Press any button on the speedometer.
  ✓ The speedometer is activated.
- Position the speedometer in the holder.
- Mount and tighten the screws with washers.

Finishing work
- Install the headlight mask with the headlight. (📖 p. 98)
- Check the headlight setting. (📖 p. 99)
- Set kilometers or miles. (📖 p. 21)
- Set the speedometer functions. (📖 p. 22)

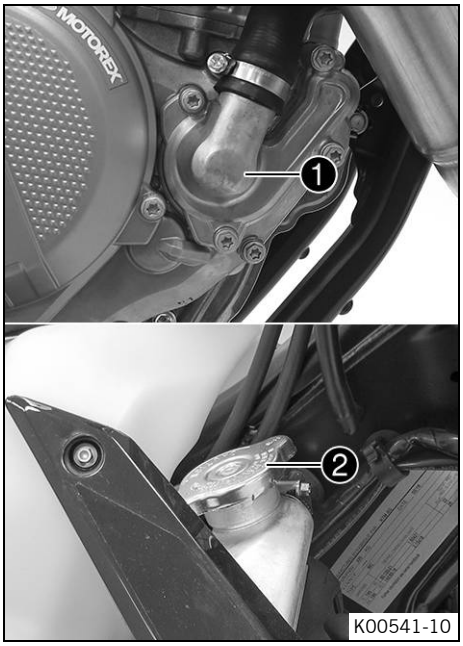
– Set the clock. (📖 p. 22)

15.13 Diagnostics connector



Diagnostics connector ❶ is located under the seat.

16.1 Cooling system



The water pump ❶ in the engine circulates the coolant.
The pressure resulting from the warming of the cooling system is regulated by a valve in radiator cap ❷. This ensures that operating the vehicle at the specified coolant temperature will not result in a risk of malfunctions.

120 °C (248 °F)

Cooling is effected by the air stream.
The lower the speed, the less the cooling effect. Dirty cooling fins also reduce the cooling effect.

(EXC-F Six Days)
The radiator fan provides extra cooling. It is controlled by a thermoswitch.

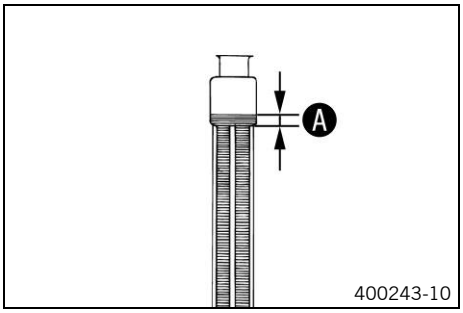
16.2 Checking the antifreeze and coolant level

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

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

Warning
Danger of poisoning Coolant is toxic and a health hazard.

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



Condition
The engine is cold.

- Stand the motorcycle upright on a horizontal surface.
- Remove the radiator cap.
- Check the antifreeze in the coolant.

−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 radiator.

Coolant level Ⓐ above the radiator fins	10 mm (0.39 in)

  » If the coolant level does not match the specified value:
    - Correct the coolant level.

Coolant (📖 p. 125)

– Mount the radiator cap.

16.3 Checking the coolant level

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

– Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
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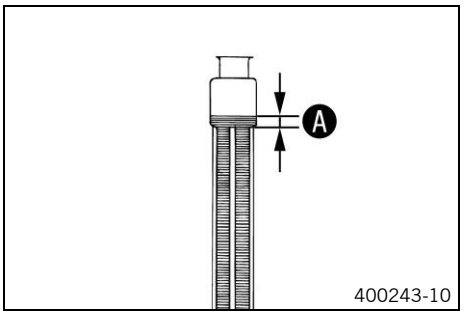
– Rinse eyes thoroughly with water and consult a doctor immediately if coolant gets into the eyes.
– Change clothing if coolant spills onto your clothing.



Condition
The engine is cold.

– Stand the motorcycle upright on a horizontal surface.
– Remove the radiator cap.
– Check the coolant level in the radiator.

Coolant level A above the radiator fins	10 mm (0.39 in)

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

Coolant (📖 p. 125)

– Mount the radiator cap.

16.4 Draining the coolant

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

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

Warning
Danger of poisoning Coolant is toxic and a health hazard.

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

Condition
The engine is cold.

- Position the motorcycle upright.
- Place a suitable container under the water pump cover.
- Remove screw ❶. Take off radiator cap ❷.
- Completely drain the coolant.
- Mount and tighten screw ❶ with a new seal ring.

  Guideline

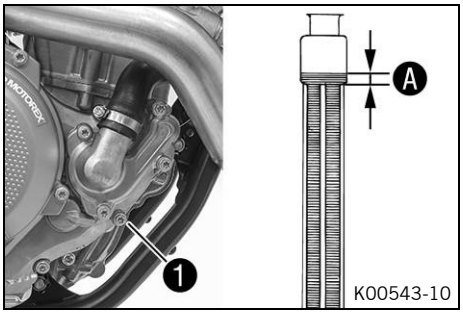
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)

16.5 Refilling coolant

Warning

Danger of poisoning Coolant is toxic and a health hazard.

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



Main work

- Make sure that the screw ❶ is tightened.
- Stand the vehicle upright.
- Pour coolant in up to measurement Ⓐ above the radiator fins.

  Guideline

10 mm (0.39 in)

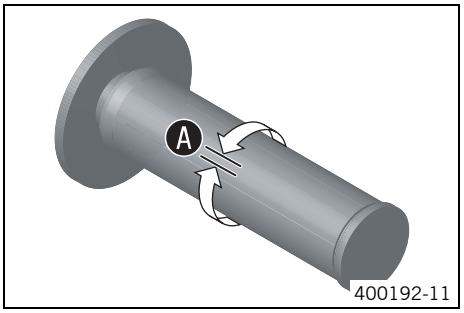
Coolant	1.2 l (1.3 qt.)	Coolant (📖 p. 125)

- Refit the radiator cap.

Finishing work

- Take a short test ride.
- Check the coolant level. (📖 p. 103)

17.1 Checking the play in the throttle cable



– Check the throttle grip for smooth operation.
– Move the handlebar to the straight-ahead position. Turn the throttle grip back and forth slightly and determine the play in throttle cable Ⓐ.

Play in throttle cable	3... 5 mm (0.12... 0.2 in)

» If the throttle cable play does not meet the specified value:
– Adjust the play in the throttle cable. 🔧 (📖 p. 105)

– Push the cold start button in all the way.

When the throttle grip is turned forward, the cold start button returns to its original position.

» If the cold start button does not return to its original position:
– Adjust the play in the throttle cable. 🔧 (📖 p. 105)

Danger

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

– Start the engine and let it run idle. Move the handlebar to and fro over the entire steering range.

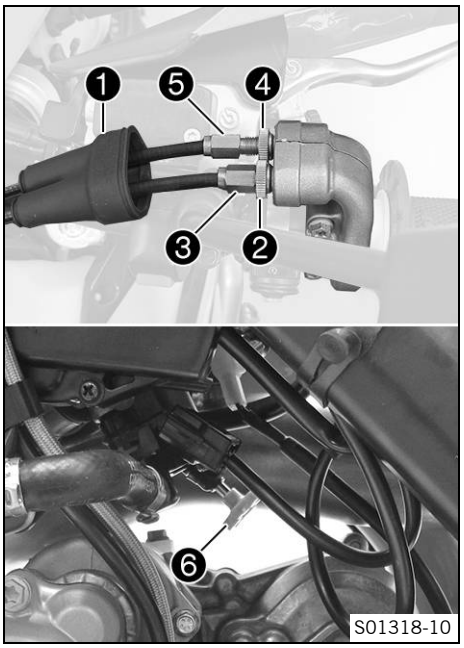
The idle speed must not change.

» If the idle speed changes:
– Adjust the play in the throttle cable. 🔧 (📖 p. 105)

17.2 Adjusting the play in the throttle cable 🔧

Info

If the correct routing of the throttle cables has already been secured, the fuel tank does not need to be removed.



Preparatory work
– Remove the seat. (📖 p. 62)
– Remove the fuel tank. 🔧 (📖 p. 67)
– Check throttle cable routing. (📖 p. 74)

Main work
– Move the handlebar to the straight-ahead position.
– Push back sleeve ❶.
– Loosen nut ❷.
– Turn adjusting screw ❸ in as far as possible.
– Loosen nut ❹.
– Push cold start button ❻ all the way to the stop.
– Turn adjusting screw ❺ so that the cold start button moves to the basic position when the throttle grip is turned to the front.
– Tighten nut ❹.
– Turn adjusting screw ❸ so that there is play in the throttle cable at the throttle grip.

Guideline

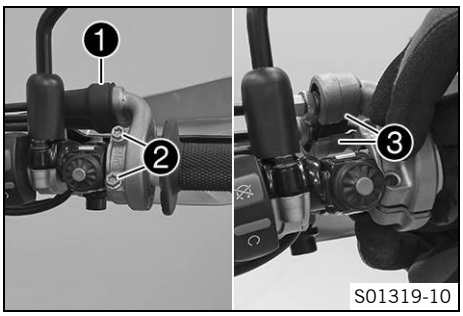
Play in throttle cable	3... 5 mm (0.12... 0.2 in)

– Tighten nut ❷.
– Slide on sleeve ❶.
– Check the throttle grip for smooth operation.

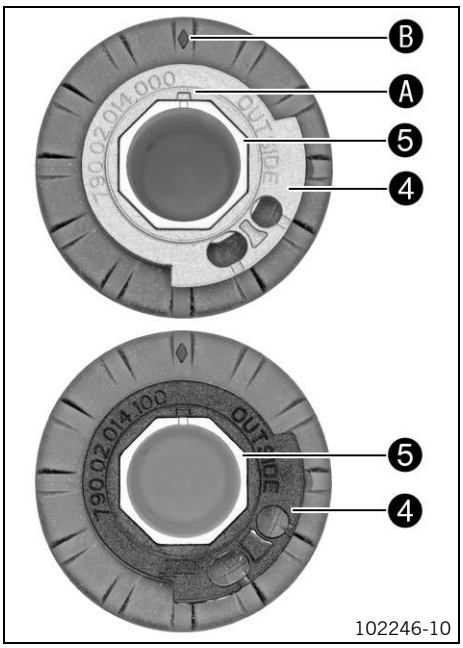
Finishing work
– Check the play in the throttle cable. (📖 p. 105)

17.3 Setting the characteristic map of the throttle response

Info
On the throttle grip, the characteristic map of the throttle response is changed by changing the guide plate.
A guide plate with a different characteristic map is supplied.



Main work
- Push back sleeve 1.
- Remove screws 2 and half-shells 3.
- Detach the throttle cables and take off the grip tube.



- Remove guide plate 4 from handle tube 5.
- Position the required guide plate on the grip tube.

  Guideline

  The label **OUTSIDE** must be visible. Marking A must be positioned at marking B.

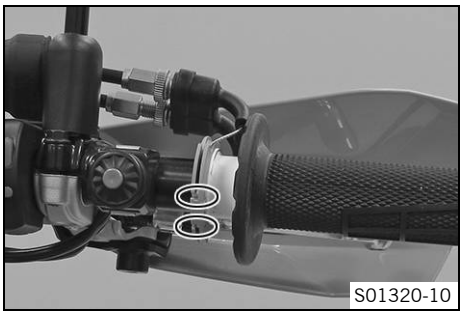
  Alternative 1

  Grey guide plate (79002014000)

  Alternative 2

  Black guide plate (79002014100)

Info
The gray guide plate opens the throttle valve more slowly.
The black guide plate opens the throttle valve more quickly.
The gray guide plate is mounted upon delivery.



- Clean the outside of the handlebar and the inside of the grip tube. Mount the grip tube on the handlebar.
- Attach the throttle cables to the guide plate and route correctly.
- Position half-shells 3, mount and tighten screws 2.

  Guideline

Screw, throttle grip	M6	5 Nm (3.7 lbf ft)

- Slide on sleeve 1 and check the throttle grip for ease of movement.

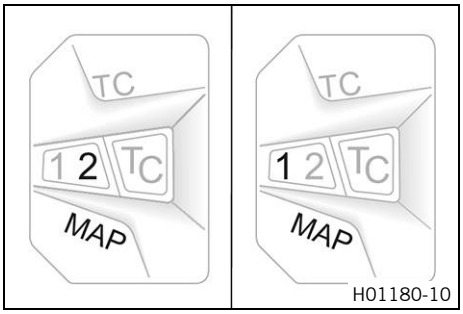
Finishing work
- Check the play in the throttle cable. (📖 p. 105)

17.4 Changing the mapping (EXC-F Six Days)

Warning
Voiding of the government approval for road use and the insurance coverage If the combination switch is installed, the vehicle's approval for road use is invalidated.

- Only operate the vehicle in closed-off areas remote from public road traffic if the combination switch is installed.

Info
The desired engine characteristic can be activated via the **MAP** button on the combination switch.
The setting most recently selected is activated again when restarting.
The traction control can also be activated in each mapping using the **TC** button.
The mapping can also be changed during the ride.



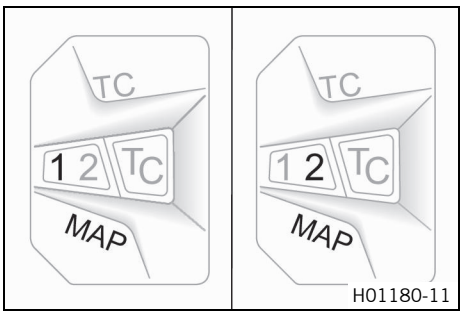
Activating STANDARD mapping:

– Press button **MAP** until LED **1** lights up.

Guideline

Engine speed	< 4,000 rpm

✔ STANDARD – balanced response



Activating ADVANCED mapping:

– Press button **MAP** until LED **2** lights up.

Guideline

Engine speed	< 4,000 rpm

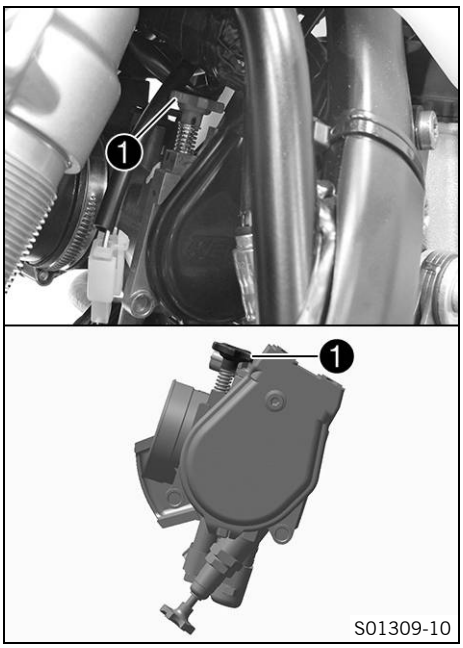
✔ ADVANCED – direct response

17.5 Adjusting the idle speed

Warning

Danger of accidents The engine may go out spontaneously if the idle speed is set too low.

– Set the idle speed to the specified value. (Your authorized KTM workshop will be glad to help.)



– Run the engine until warm.

✔ The cold start button is deactivated – The cold start button is in its basic position. (p. 17)

Danger

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

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

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

– Set the idle speed by turning idle speed adjusting screw ❶.

Guideline

Idle speed	2,050... 2,150 rpm

Tachometer (45129075000)

Info

Turning counterclockwise lowers the idle speed.
Turning clockwise raises the idle speed.

17.6 Teaching the throttle valve position

Info

If the control unit detects that the throttle valve idle position needs to be retaught, then the malfunction indicator lamp flashes 2x per second.

Danger

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

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

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

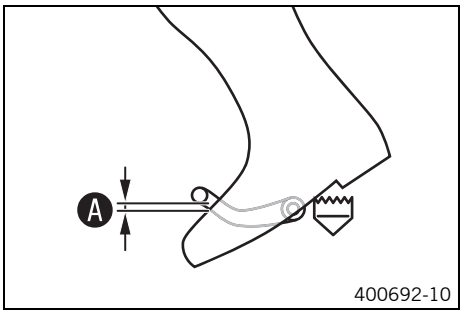
– Allow the vehicle to idle.

✓ The malfunction indicator lamp stops flashing once teaching is completed.

Info
If the engine becomes too hot, perform a cool-down ride at medium revs.
Then do not switch off the engine after this, but leave it running at idle speed until teaching is completed.

17.7 Checking the basic position of the shift lever

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

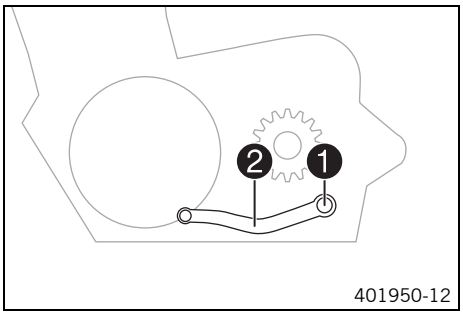


– Sit on the vehicle in the riding position and determine the distance Ⓐ between the upper edge of your boot and the shift lever.

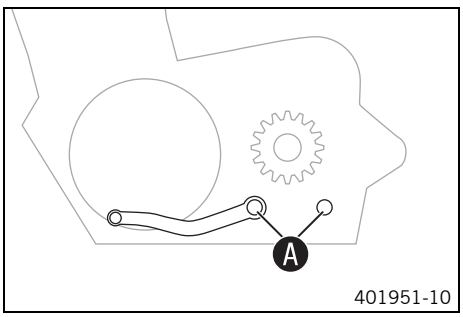
Gap between the shift lever and the top of the boot	10... 20 mm (0.39... 0.79 in)

» If the distance does not meet the specifications:
– Adjust the basic position of the shift lever. 🔧 (📖 p. 108)

17.8 Adjusting the basic position of the shift lever 🔧



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



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

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

– Mount and tighten screw with the washers.

Guideline

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

18.1 Changing the fuel screen

Danger

Fire hazard Fuel is highly flammable.

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

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

Warning

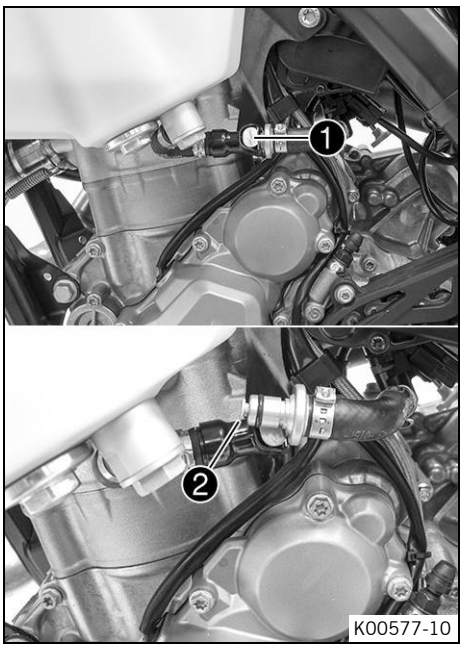
Danger of poisoning Fuel is poisonous and a health hazard.

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

Warning

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

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



- Clean plug-in connection ❶ of the fuel line thoroughly with compressed air.

Info

Under no circumstances should dirt enter into the fuel line. Dirt in the fuel line clogs the injection valve!

- Disconnect the plug-in connection of the fuel line.

Info

Remaining fuel may flow out of the fuel hose.

- Pull fuel screen ❷ out of the connecting piece.
- Insert the new fuel screen all the way into the connecting piece.
- Lubricate the O-ring and connect plug-in connection of the fuel line.

Danger

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

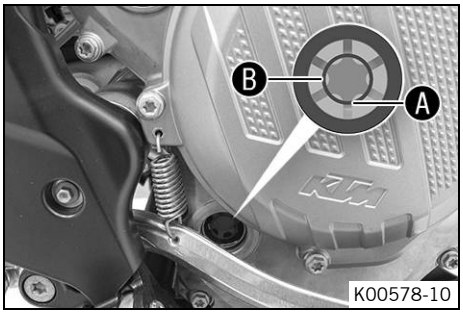
- Always make sure there is sufficient ventilation when running the engine.
- Use an effective exhaust extraction system when starting or running the engine in an enclosed space.

- Start the engine and check the response.

18.2 Checking the engine oil level

Preparatory work

- Stand the motorcycle upright on a horizontal surface.



Condition

The engine is at operating temperature.

– Check the engine oil level.

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

The engine oil is at a level between the lower edge Ⓐ and the middle of the level viewer Ⓑ.

» If the engine oil is not up to the lower edge Ⓐ of the level viewer:

– Add engine oil. (📖 p. 112)

18.3 Changing the engine oil and oil filter, cleaning the oil screen

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

– Wear suitable protective clothing and safety gloves.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

Warning
Environmental hazard Hazardous substances cause environmental damage.

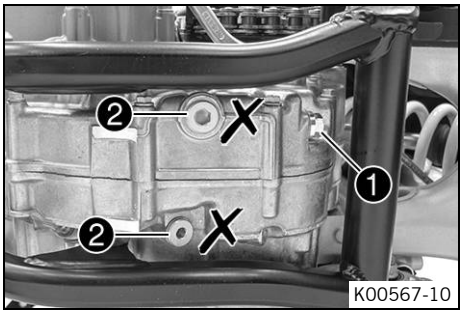
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info
Drain engine oil with engine at operating temperature.

Preparatory work
(EXC-F Six Days)

– Remove the engine guard. (📖 p. 77)

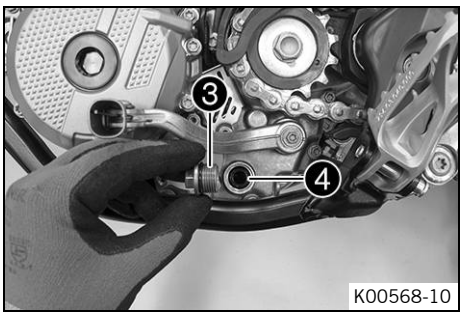
– Park the motorcycle on a level surface.



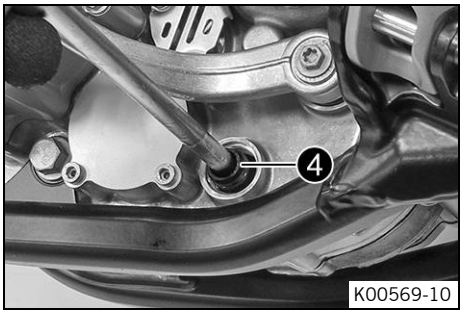
Main work

– Place a suitable container under the engine.
– Remove oil drain plug ❶ with the magnet and seal ring.

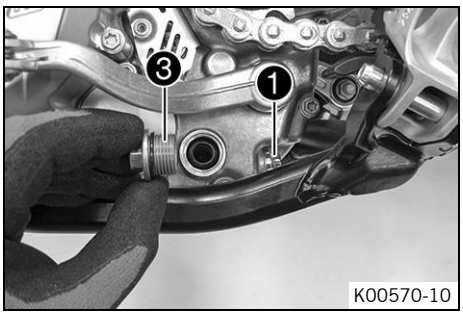
Info
Do not remove screws ❷ on both sides.



– Remove screw plug ❸ with oil screen ❹ and the O-rings.
– Completely drain the engine oil.
– Thoroughly clean the parts and sealing surfaces.



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



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

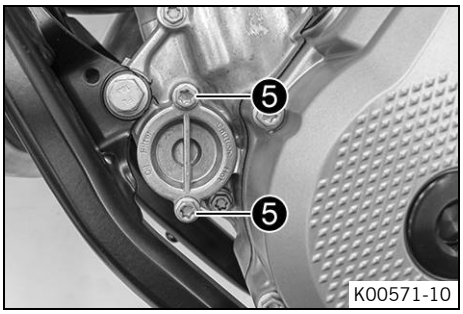
Guideline

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

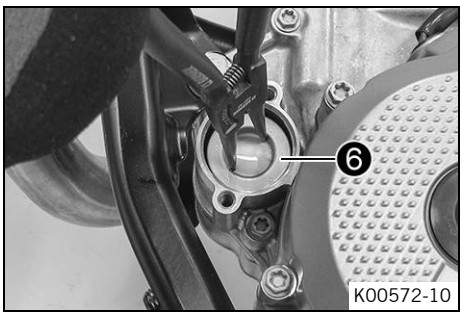
– Mount and tighten oil drain plug ❶ with the magnet and a new seal ring.

Guideline

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



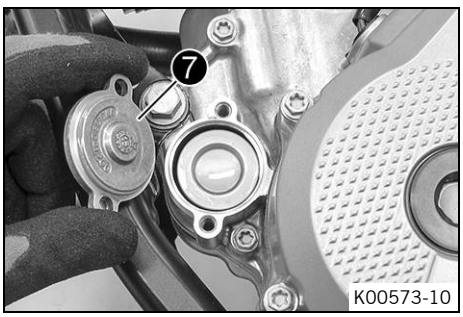
– Remove screws ❺. Remove the oil filter cover with the O-ring.



– Pull oil filter ❻ out of the oil filter housing.

Circlip pliers reverse (51012011000)

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

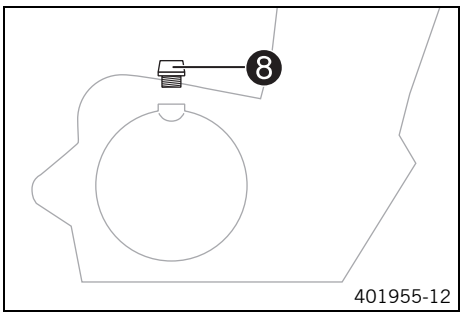


– Lay the motorcycle on its right side and fill the oil filter housing approx. ⅓ full with engine oil.
– Place the oil filter into the oil filter housing.
– Oil the O-ring of the oil filter cover and mount it with the oil filter cover ❼.
– Mount and tighten the screws.

Guideline

Screw, oil filter cover	M6	10 Nm (7.4 lbf ft)

– Stand the motorcycle upright.



– Remove filler plug ❽ with the O-ring from the clutch cover and fill up with engine oil.

Engine oil	1.0 l (1.1 qt.)	Engine oil (SAE 10W/50) (📖 p. 125)	
		Alternative engine oil for harsh operating conditions and increased performance	Engine oil (SAE 10W/60) (00062010035) (📖 p. 125)

Info

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

– Install and tighten the oil filler plug with 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 an effective exhaust extraction system when starting or running the engine in an enclosed space.

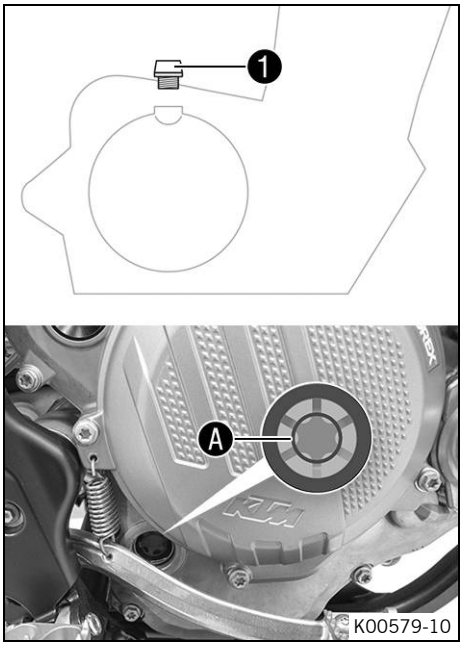
– Start the engine and check that it is oil-tight.

Finishing work
(EXC-F Six Days)
– Install the engine guard. (📖 p. 77)
– Check the engine oil level. (📖 p. 109)

18.4 Adding engine oil

Info

Too little engine oil or poor-quality engine oil results in premature wear to the engine.



Main work
– Remove the oil filler plug 1 with the O-ring from the clutch cover.
– Fill engine oil to the middle A of the level viewer.

Engine oil (SAE 10W/50) (📖 p. 125)

Alternative 1

Engine oil (SAE 10W/60) (00062010035) (📖 p. 125)

Info

For optimal performance of the engine oil, do not mix different types of engine oil.
If appropriate, change the engine oil.

– Install and tighten the oil filler plug with 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 an effective exhaust extraction system when starting or running the engine in an enclosed space.

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

Finishing work
– Check the engine oil level. (📖 p. 109)

19.1 Cleaning the motorcycle

Note

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

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

– Do not direct the water jet directly on to electrical components, connectors, throttle cables or bearings.
– Maintain a minimum distance between the nozzle of the pressure cleaner and the component.
  Minimum clearance 60 cm (23.6 in)

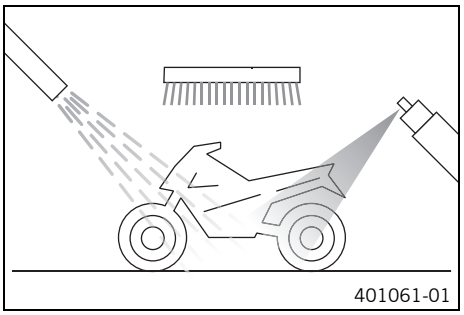
Warning

Environmental hazard Hazardous substances cause environmental damage.

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

Info

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


401061-01

– Close off the exhaust system to keep water from entering.
– Remove coarse dirt particles with a gentle water jet.
– Spray dirty parts with a normal commercial engine cleaner and then brush off with a soft brush.

Motorcycle cleaner (📖 p. 127)

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.

– 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 off, lubricate all moving parts and bearings.
– Clean the chain. (📖 p. 70)
– Treat bare metal (except for brake discs and the exhaust system) with a corrosion inhibitor.

Preserving materials for paints, metal and rubber (📖 p. 127)

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

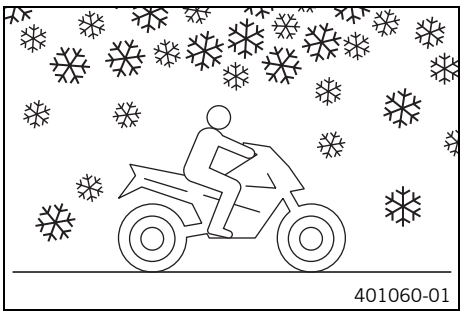
Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (📖 p. 127)

– Grease steering lock.

Universal oil spray (📖 p. 127)

19.2 Checks and maintenance steps for winter operation

Info
If you use the vehicle in winter, you must expect salt on the roads. You should therefore take precautions against aggressive road salt.
If the vehicle was operated in road salt, clean it with cold water after riding. Warm water would enhance the corrosive effects of salt.


401060-01

– Clean the motorcycle. (📖 p. 113)
– Clean the brake system.

Info
After **EVERY** trip on salted roads, thoroughly wash the brake calipers and brake linings, in the cooled down and installed state, with cold water and dry carefully.
After riding on salted roads, thoroughly wash the vehicle with cold water and dry it well.

– Treat the engine, swingarm, and all other bright and zinc-plated parts (except for the brake discs) with a wax-based corrosion inhibitor.

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

– Clean the chain. (📖 p. 70)

20.1 Storage

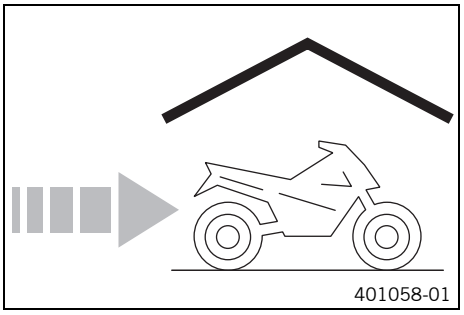
Warning

Danger of poisoning Fuel is poisonous and a health hazard.

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

Info

If you want to garage the motorcycle for a longer period, take the following steps.
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.


401058-01

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

Fuel additive (📖 p. 127)

- Refuel. (📖 p. 39)
- Clean the motorcycle. (📖 p. 113)
- Change the engine oil and oil filter, clean the oil screen. 🔧 (📖 p. 110)
- Check the antifreeze and coolant level. (📖 p. 102)
- Check the tire air pressure. (📖 p. 90)
- Remove the battery. 🔧 (📖 p. 92)
- Recharge the battery. 🔧 (📖 p. 93)

  Guideline

Storage temperature of 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

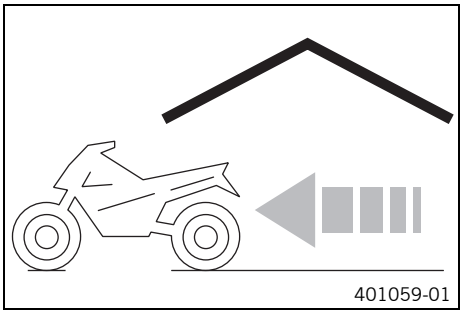
KTM recommends raising the motorcycle.

- Raise the motorcycle with the lift stand. (📖 p. 51)
- Preferably cover the vehicle with a tarp or similar cover that is permeable to air. Do not use non-porous materials since they prevent humidity from escaping, thus causing corrosion.

Info

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 exhaust system to rust.

20.2 Preparing for use after storage


401059-01

- Remove the motorcycle from the lift stand. (📖 p. 51)
- Install the battery. 🔧 (📖 p. 93)
- Perform checks and maintenance measures when preparing for use. (📖 p. 35)
- Take a test ride.

Faults	Possible cause	Action
The engine cannot be cranked (electric starter)	Operating error	– Carry out the start procedure. (📖 p. 35)
	Battery is discharged	– Recharge the battery. 🔧 (📖 p. 93) – Check the charging voltage. 🔧 – Check the closed current. 🔧 – Check the stator winding of the alternator. 🔧
	Main fuse blown	– Change the main fuse. (📖 p. 95)
	Starter relay defective	– Check the starter relay. 🔧
	Starter motor defective	– Check the starter motor. 🔧
The engine turns but does not start	Operating error	– Carry out the start procedure. (📖 p. 35)
	The plug-in connection of the fuel hose connection is not connected	– Connect the plug-in connection of the fuel line.
	Fuse **1** blown	– Change the fuses of individual power consumers. (📖 p. 96)
	Fuse **4** blown	– Change the fuses of individual power consumers. (📖 p. 96)
	Idle speed is not set correctly	– Adjust the idle speed. 🔧 (📖 p. 107)
	Spark plug oily or wet	– Clean and dry the spark plug or replace if necessary.
	Electrode distance (plug gap) of spark plug too wide	– Adjust the plug gap. Guideline Spark plug electrode gap 1.0 mm (0.039 in)
	Ignition system defective	– Check the ignition system. 🔧
	Short-circuit cable in wiring harness frayed, kill switch or emergency OFF switch defective	– Check the wiring harness. (visual check) – Check the electrical system.
	Defect in fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🔧
Engine does not speed up	Defect in fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🔧
	Ignition system defective	– Ignition coil - check the secondary winding. 🔧 – Check the spark plug connector. 🔧 – Check the stator winding of the alternator. 🔧
Engine has too little power	Air filter heavily contaminated	– Clean the air filter and air filter box. 🔧 (📖 p. 65)
	Fuel filter is very dirty	– Change the fuel filter. 🔧
	Fuel screen is very dirty	– Change the fuel screen. 🔧 (📖 p. 109)
	Defect in fuel injection system	– Read out the fault memory using the KTM diagnostics tool. 🔧
	Exhaust system leaky, deformed or too little glass fiber yarn filling in main silencer	– Check exhaust system for damage. – Change glass fiber yarn filling in the main silencer. 🔧 (📖 p. 66)
	Valve clearance too little	– Adjust the valve clearance. 🔧
	Ignition system defective	– Ignition coil - check the secondary winding. 🔧 – Check the spark plug connector. 🔧 – Check the stator winding of the alternator. 🔧
The engine dies during the trip	Lack of fuel	– Refuel. (📖 p. 39)
	Fuse **1** blown	– Change the fuses of individual power consumers. (📖 p. 96)
	Fuse **4** blown	– Change the fuses of individual power consumers. (📖 p. 96)
Engine overheats	Coolant level low in cooling system	– Check the cooling system for leaks. – Check the coolant level. (📖 p. 103)
	Insufficient airflow	– Switch off engine when stationary.
	Radiator fins very dirty	– Clean radiator fins.

Faults	Possible cause	Action
Engine overheats	Foam formation in cooling system	– Drain the coolant. 🔧 (📖 p. 103) – Refill the coolant. 🔧 (📖 p. 104)
	Bent radiator hose	– Change the radiator hose. 🔧
	Thermostat defective	– Check the thermostat. 🔧 Guideline Opening temperature: 70 °C (158 °F)
	Defect in radiator fan system (EXC-F Six Days)	– Check the radiator fan fuse. – Check fuse **4**. – Check the radiator fan. 🔧
Malfunction indicator lamp lights up or flashes	Defect in fuel injection system	– Stop the motorcycle and identify the faulty part using the blink code. – Check the cabling for damage and the electrical plug-in connectors for corrosion and damage. – Read out the fault memory using the KTM diagnostics tool. 🔧
High oil consumption	Engine vent hose bent	– Route the vent hose without bends or replace it if necessary.
	Engine oil level too high	– Check the engine oil level. (📖 p. 109)
	Engine oil too thin (low viscosity)	– Change the engine oil and oil filter, clean the oil screen. 🔧 (📖 p. 110)
	Piston and cylinder worn	– Measure the piston/cylinder mounting clearance. 🔧
Battery discharged	Battery is not being charged by alternator	– Check the charging voltage. 🔧 – Check the stator winding of the alternator. 🔧
	Undesired power consumer	– Check the closed current. 🔧
Speedometer values deleted (time, stop watch, lap times)	The battery in the speedometer is discharged	– Change the speedometer battery. (📖 p. 100)
The high beam, low beam, tail light, parking light, and license plate lamp are not working	Fuse **2** blown	– Change the fuses of individual power consumers. (📖 p. 96)
The horn, brake light, turn signal, and radiator fan (optional) are not working	Fuse **3** blown	– Change the fuses of individual power consumers. (📖 p. 96)

22.1 Engine

Design	1-cylinder 4-stroke engine, water-cooled
Displacement	249.91 cm³ (15.2505 cu in)
Stroke	52.3 mm (2.059 in)
Bore	78 mm (3.07 in)
Compression ratio	12.8:1
Idle speed	2,050... 2,150 rpm
Control	DOHC, four valves controlled via cam lever, drive via timing chain
Valve diameter, intake	32.5 mm (1.28 in)
Valve diameter, exhaust	26.5 mm (1.043 in)
Valve clearance	
Intake at: 20 °C (68 °F)	0.10... 0.15 mm (0.0039... 0.0059 in)
Exhaust at: 20 °C (68 °F)	0.13... 0.18 mm (0.0051... 0.0071 in)
Crankshaft bearing	2 cylinder bearings
Conrod bearing	Slide bearing
Piston pin bearing	Bearing bush
Pistons	Forged light alloy
Piston rings	1 compression ring, 1 oil scraper ring
Engine lubrication	Pressure circulation lubrication with two Eaton pumps
Primary transmission	24:73
Clutch	Multidisc clutch in oil bath/hydraulically activated
Transmission ratio	
First gear	13:32
Second gear	16:30
Third gear	16:24
Fourth gear	23:28
Fifth gear	23:23
Sixth gear	26:20
Alternator	12 V, 168 W
Ignition	Contactless controlled fully electronic ignition with digital ignition adjustment
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
Starting aid	Electric starter

22.2 Engine tightening torques

Nozzle, crank chamber ventilation	M4	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Oil nozzle for alternator cooling	M4	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Oil nozzle for balancer shaft lubrication	M4	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Oil nozzle for clutch lubrication	M4	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Oil nozzle for conrod bearing lubrication	M4	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Screw, oil nozzle for piston cooling	M4	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Locking screw for bearing	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Oil channel screw plug in alternator cover	M5	1.2 Nm (0.89 lbf ft)	**Loctite® 648™**
Oil nozzle for cam lever lubrication	M5	3 Nm (2.2 lbf ft)	**Loctite® 243™**
Oil nozzle, piston cooling	M5	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Screw, bearing bolt, oil pump idler gear	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, clutch spring	M5	6 Nm (4.4 lbf ft)	–

Screw, crankshaft position sensor	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, gear position sensor	M5	5 Nm (3.7 lbf ft)	**Loctite® 243™**
Screw, locking lever	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, oil pump cover	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, stator	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Nut, cylinder head	M6	10 Nm (7.4 lbf ft)	Lubricated with engine oil
Nut, water-pump wheel	M6	5 Nm (3.7 lbf ft)	**Loctite® 243™**
Screw, alternator cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch slave cylinder	M6	10 Nm (7.4 lbf ft)	–
Screw, engine case	M6	10 Nm (7.4 lbf ft)	–
Screw, exhaust flange	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, oil filter cover	M6	10 Nm (7.4 lbf ft)	–
Screw, shift drum locating	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, shift lever	M6	14 Nm (10.3 lbf ft)	**Loctite® 243™**
Screw, starter motor	M6	10 Nm (7.4 lbf ft)	–
Screw, timing chain guide rail	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, timing chain securing guide	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, valve cover	M6	8 Nm (5.9 lbf ft)	–
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)	–
Stud, cylinder head	M6	10 Nm (7.4 lbf ft)	–
Screw, camshaft bearing bridge	M7x1	14 Nm (10.3 lbf ft)	Lubricated with engine oil
Screw plug, crankshaft location	M8	10 Nm (7.4 lbf ft)	–
Screw, timing chain tensioning rail	M8	15 Nm (11.1 lbf ft)	**Loctite® 243™**
Screw, engine sprocket	M10	60 Nm (44.3 lbf ft)	**Loctite® 2701™**
Plug, oil channel	M10x1	15 Nm (11.1 lbf ft)	**Loctite® 243™**
Rotor screw	M10x1	70 Nm (51.6 lbf ft)	Thread, oiled with engine oil/cone degreased
Screw plug, cam lever axis	M10x1	10 Nm (7.4 lbf ft)	–
Screw, unlocking of timing chain tensioner	M10x1	8 Nm (5.9 lbf ft)	–
Spark plug	M10x1	10… 12 Nm (7.4… 8.9 lbf ft)	–
Engine coolant temperature sensor	M10x1.25	12 Nm (8.9 lbf ft)	–
Nut, cylinder head	M10x1.25	Tightening sequence: Tighten diagonally. 1st tightening stage 10 Nm (7.4 lbf ft) 2nd tightening stage 30 Nm (22.1 lbf ft) 3rd tightening stage 50 Nm (36.9 lbf ft)	Thread, oiled with engine oil/cone greased
Stud, cylinder head	M10x1.25	20 Nm (14.8 lbf ft)	**Loctite® 243™**
Oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)	–
Plug, oil pressure regulator valve	M12x1.5	20 Nm (14.8 lbf ft)	–
Oil drain plug	M14x1.5	15 Nm (11.1 lbf ft)	–
Nut, inner clutch hub	M18x1.5	100 Nm (73.8 lbf ft)	**Loctite® 243™**
Nut, primary gear	M18LHx1.5	100 Nm (73.8 lbf ft)	**Loctite® 243™**
Screw plug, oil screen	M20x1.5	15 Nm (11.1 lbf ft)	–
Plug, timing chain tensioner	M24x1.5	40 Nm (29.5 lbf ft)	–
Screw, alternator cover	M24x1.5	18 Nm (13.3 lbf ft)	–

22.3 Capacities

22.3.1 Engine oil

Engine oil	1.0 l (1.1 qt.)	Engine oil (SAE 10W/50) (📖 p. 125)	
		Alternative engine oil for harsh operating conditions and increased performance	Engine oil (SAE 10W/60) (00062010035) (📖 p. 125)

22.3.2 Coolant

Coolant	1.2 l (1.3 qt.)	Coolant (📖 p. 125)

22.3.3 Fuel

Total fuel tank capacity, approx.	8.5 l (2.25 US gal)	Super unleaded (ROZ 95/RON 95/PON 91) (📖 p. 126) (EXC-F EU/AU, EXC-F Six Days)
		Super unleaded, type C (ROZ 95/RON 95/PON 91) (📖 p. 126) (EXC-F BR)

Fuel reserve, approx.	1.5 l (1.6 qt.)

22.4 Chassis

Frame	Central tube frame made of chrome molybdenum steel tubing
Fork (EXC-F EU/AU/BR)	**WP Performance Systems** MXMA 4860 upside down
Fork (EXC-F Six Days)	**WP Performance SystemsXplor 48**
Suspension travel	
Front	300 mm (11.81 in)
Rear	310 mm (12.2 in)
Fork offset	22 mm (0.87 in)
Shock absorber	**WP Performance Systems** 4618 PDS DCC
Brake system	Disc brakes, brake calipers on floating bearings
Brake discs - diameter	
Front	260 mm (10.24 in)
Rear	220 mm (8.66 in)
Brake discs - wear limit (EXC-F EU/AU/BR)	
Front	2.5 mm (0.098 in)
Rear	3.5 mm (0.138 in)
Brake discs - wear limit (EXC-F Six Days)	
Front	2.5 mm (0.098 in)
Rear	3.7 mm (0.146 in)
Tire air pressure off road	
Front	1.0 bar (15 psi)
Rear	1.0 bar (15 psi)
Road tire pressure	
Front	1.5 bar (22 psi)
Rear	1.5 bar (22 psi)
Final drive (EXC-F EU/AU, EXC-F Six Days)	14:52 (13:52)
Final drive (EXC-F BR)	13:52
Chain	5/8 x 1/4"
Rear sprockets available	48, 50, 52
Steering head angle	63.5°
Wheelbase	1,482±10 mm (58.35±0.39 in)
Seat height unloaded	960 mm (37.8 in)
Ground clearance unloaded	355 mm (13.98 in)
Weight without fuel, approx. (EXC-F EU/AU/BR)	103 kg (227 lb.)

Weight without fuel, approx. (EXC-F Six Days)	103.5 kg (228.2 lb.)
Maximum permissible front axle load	145 kg (320 lb.)
Maximum permissible rear axle load	190 kg (419 lb.)
Maximum permissible overall weight	335 kg (739 lb.)

22.5 Electrical system

Battery (EXC-F EU/AU, EXC-F Six Days)	HJTZ5S-FP	Lithium-ion battery Battery voltage: 12 V Nominal capacity: 2.0 Ah Maintenance-free
Battery (EXC-F BR)	YTX5L-BS	Battery voltage: 12 V Nominal capacity: 4 Ah Maintenance-free
Speedometer battery	CR 2430	Battery voltage: 3 V
Fuse	58011109105	5 A
Fuse	75011088010	10 A
Fuse	58011109120	20 A
Headlight	HS1 / socket PX43t	12 V 35/35 W
Parking light	W5W / socket W2.1x9.5d	12 V 5 W
Indicator lamps	W2.3W / socket W2x4.6d	12 V 2.3 W
Turn signal	R10W / socket BA15s	12 V 10 W
Brake/tail light	LED	
License plate lamp	LED	

22.6 Tires

Validity	Front tires	Rear tires
(EXC-F EU/AU)	**80/100 - 21 M/C 51M TT** MAXXIS Maxx EnduPro	**140/80 - 18 M/C 70R M+S TT** MAXXIS Maxx EnduPro
(EXC-F BR, EXC-F Six Days)	**90/90 - 21 M/C 54M M+S TT** Metzeler MCE 6 Days Extreme	**140/80 - 18 M/C 70M M+S TT** Metzeler MCE 6 Days Extreme
The tires specified represent one of the possible series production tires. Additional information is available in the Service section under: http://www.ktm.com		

22.7 Fork

22.7.1 EXC-F EU/AU/BR

Fork part number	14.18.8Q.67
Fork	**WP Performance Systems** MXMA 4860 upside down
Compression damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks
Rebound damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks
Spring length with preload spacer(s)	474 mm (18.66 in)
Spring rate	
Weight of rider: 65... 75 kg (143... 165 lb.)	4.2 N/mm (24 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	4.4 N/mm (25.1 lb/in)

Weight of rider: 85... 95 kg (187... 209 lb.)	4.6 N/mm (26.3 lb/in)
Fork length	928 mm (36.54 in)
Air chamber length	110^{+10}_{-20} mm ($4.33^{+0.39}_{-0.79}$ in)

Fork oil per fork leg	600 ml (20.29 fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 125)

22.7.2 EXC-F Six Days

Fork part number	14.15.8Q.67
Fork	**WP Performance SystemsXplor 48**
Compression damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks
Rebound damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks
Spring preload - **Preload Adjuster**	
Comfort	**+0**
Standard	**+0**
Sport	**+3**
Spring length with preload spacer(s)	
Weight of rider: 65... 75 kg (143... 165 lb.)	477 mm (18.78 in)
Weight of rider: 75... 85 kg (165... 187 lb.)	475 mm (18.7 in)
Weight of rider: 85... 95 kg (187... 209 lb.)	477 mm (18.78 in)
Spring rate	
Weight of rider: 65... 75 kg (143... 165 lb.)	4.2 N/mm (24 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	4.4 N/mm (25.1 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	4.6 N/mm (26.3 lb/in)
Fork length	932 mm (36.69 in)
Air chamber length	110^{+10}_{-20} mm ($4.33^{+0.39}_{-0.79}$ in)

Fork oil per fork leg	610 ml (20.62 fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 125)

22.8 Shock absorber

Shock absorber article number	12.18.7Q.63
Shock absorber	**WP Performance Systems** 4618 PDS DCC
Compression damping, low-speed	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks
Compression damping, high-speed	
Comfort	2.5 turns
Standard	2 turns
Sport	1 turn
Rebound damping	
Comfort	18 clicks
Standard	15 clicks
Sport	12 clicks
Spring preload	
Comfort	8 mm (0.31 in)
Standard	8 mm (0.31 in)
Sport	8 mm (0.31 in)

Spring rate	
Weight of rider: 65... 75 kg (143... 165 lb.)	60 N/mm (343 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	63 N/mm (360 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	66 N/mm (377 lb/in)
Spring length	225 mm (8.86 in)
Gas pressure	10 bar (145 psi)
Static sag	35 mm (1.38 in)
Riding sag	110 mm (4.33 in)
Fitted length	415 mm (16.34 in)

Damper oil	Shock absorber fluid (SAE 2.5) (50180751S1) (📖 p. 126)

22.9 Chassis tightening torques

Screw, pressure regulator	**EJOT PT®** K60x25-Z	2 Nm (1.5 lbf ft)	–
Screw, fixed grip	M4	5 Nm (3.7 lbf ft)	**Loctite® 243™**
Spoke nipple, front wheel	M4.5	6 Nm (4.4 lbf ft)	–
Spoke nipple, rear wheel	M4.5	6 Nm (4.4 lbf ft)	–
Remaining nuts, chassis	M5	5 Nm (3.7 lbf ft)	–
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)	–
Screw, battery terminal	M5	2.5 Nm (1.84 lbf ft)	–
Screw, intake air temperature sensor	M5	2 Nm (1.5 lbf ft)	–
Screw, light switch	M5	1 Nm (0.7 lbf ft)	–
Screw, shock absorber adjusting ring	M5	5 Nm (3.7 lbf ft)	–
Nut, cable on starter motor	M6	4 Nm (3 lbf ft)	–
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)	–
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	–
Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, chain sliding guard	M6	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	**Loctite® 243™**
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	**Loctite® 243™**
Screw, throttle grip	M6	5 Nm (3.7 lbf ft)	–
Fuel connection on fuel pump	M8	10 Nm (7.4 lbf ft)	–
Nut, foot brake lever stop	M8	20 Nm (14.8 lbf ft)	–
Nut, rear sprocket screw	M8	35 Nm (25.8 lbf ft)	**Loctite® 2701™**
Nut, rim lock	M8	12 Nm (8.9 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 (EXC-F Six Days)	M8	15 Nm (11.1 lbf ft)	–
Screw, bottom triple clamp (EXC-F EU/AU/BR)	M8	15 Nm (11.1 lbf ft)	–
Screw, chain sliding piece	M8	15 Nm (11.1 lbf ft)	–
Screw, engine brace	M8	25 Nm (18.4 lbf ft)	**Loctite® 2701™**
Screw, fork stub	M8	15 Nm (11.1 lbf ft)	–
Screw, front brake caliper	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, side stand attachment	M8	35 Nm (25.8 lbf ft)	**Loctite® 2701™**
Screw, subframe	M8	35 Nm (25.8 lbf ft)	**Loctite® 2701™**
Screw, top steering stem (EXC-F Six Days)	M8	17 Nm (12.5 lbf ft)	**Loctite® 243™**
Screw, top steering stem (EXC-F EU/AU/BR)	M8	20 Nm (14.8 lbf ft)	–

Screw, top triple clamp (EXC-F Six Days)	M8	17 Nm (12.5 lbf ft)	–
Screw, top triple clamp (EXC-F EU/AU/BR)	M8	20 Nm (14.8 lbf ft)	–
Engine attachment bolt	M10	60 Nm (44.3 lbf ft)	–
Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, handlebar holder	M10	40 Nm (29.5 lbf ft)	**Loctite® 243™**
Nut, fuel pump fixation	M12	15 Nm (11.1 lbf ft)	–
Screw, bottom shock absorber	M12	80 Nm (59 lbf ft)	**Loctite® 2701™**
Screw, top shock absorber	M12	80 Nm (59 lbf ft)	**Loctite® 2701™**
Nut, seat fixing	M12x1	20 Nm (14.8 lbf ft)	–
Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)	–
Nut, rear wheel spindle	M20x1.5	80 Nm (59 lbf ft)	–
Screw, front wheel spindle	M20x1.5	35 Nm (25.8 lbf ft)	–
Screw, top steering head	M20x1.5	12 Nm (8.9 lbf ft)	–
Screw-in nozzles, cooling system	M20x1.5	12 Nm (8.9 lbf ft)	**Loctite® 243™**

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
– **RESPONSE BRAKE FLUID SUPER DOT 4**

Motorex®
– **Brake Fluid DOT 5.1**

Coolant

Guideline
– Only use high quality coolant with corrosion inhibitor for aluminum motors (even in countries with high temperatures). Using inferior antifreeze can result in corrosion and foaming.

Mixture ratio

Antifreeze protection: −25… −45 °C (−13… −49 °F)	anti-corrosion/antifreeze distilled water

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

Engine oil (SAE 10W/60) (00062010035)

Standard/classification
– JASO T903 MA (📖 p. 128)
– SAE (📖 p. 128) (SAE 10W/60)
– KTM LC4 2007+

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

Synthetic engine oil

Recommended supplier
Motorex®
– **Cross Power 4T**

Engine oil (SAE 10W/50)

Standard/classification
– JASO T903 MA (📖 p. 128)
– SAE (📖 p. 128) (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.

Synthetic engine oil

Recommended supplier
Motorex®
– **Cross Power 4T**

Fork oil (SAE 4) (48601166S1)

Standard/classification
– SAE (📖 p. 128) (SAE 4)

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

Shock absorber fluid (SAE 2.5) (50180751S1)

Standard/classification

– SAE (📖 p. 128) (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/RON 95/PON 91)

Standard/classification

– DIN EN 228 (ROZ 95/RON 95/PON 91)

Guideline

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

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

Info

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

Super unleaded, type C (ROZ 95/RON 95/PON 91)

Standard/classification

– Beschluss Nr. 57 der ANP (Agência Nacional do Petróleo) (ROZ 95/RON 95/PON 91)

Guideline

– Only use super unleaded fuel that matches or is equivalent to the following specifications.

– Super unleaded fuel with an ethanol content of 19 to 27 % is permissible.

Info

Do **not** use fuel made of methanol (e. g. M15, M85, M100).
Do **not** use fuel with less than 19 % ethanol (e. g. E10).
Do **not** use fuel with more than 27 % ethanol (e. g. E30, E85, E100).

Air filter cleaner

Recommended supplier
Motorex®
– **Racing Bio Dirt Remover**

Chain cleaner

Recommended supplier
Motorex®
– **Chain Clean**

Fuel additive

Recommended supplier
Motorex®
– **Fuel Stabilizer**

High viscosity grease

Recommended supplier
SKF®
– **LGHB 2**

Long-life grease

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

Motorcycle cleaner

Recommended supplier
Motorex®
– **Moto Clean**

Off-road chain spray

Recommended supplier
Motorex®
– **Chainlube Offroad**

Oil for foam air filter

Recommended supplier
Motorex®
– **Racing Bio Liquid Power**

Preserving materials for paints, metal and rubber

Recommended supplier
Motorex®
– **Moto Protect**

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

Recommended supplier
Motorex®
– **Quick Cleaner**

Universal oil spray

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

JASO T903 MA

Different technical development directions required a new specification for 4-stroke motorcycles – the JASO T903 MA Standard. Earlier, engine oils from the automobile industry were used for 4-stroke motorcycles because there was no separate motorcycle specification. Whereas long service intervals are demanded for automobile engines, high performance at high engine speeds are in the foreground for motorcycle engines. In most motorcycles, the gearbox and the clutch are lubricated with the same oil as the engine. The JASO MA Standard meets these special requirements.

SAE

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

OBD	On-board diagnosis	Vehicle system that monitors emission- and safety-related values

27 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

28 LIST OF SYMBOLS

28.1 Yellow and orange symbols

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

	Malfunction indicator lamp lights up/flashes yellow – The OBD has detected an emission- or safety-critical fault.
	The fuel level warning lamp lights up yellow – The fuel level has reached the reserve mark.

28.2 Green and blue symbols

Green and blue symbols reflect information.

	The high beam indicator lamp lights up blue – The high beam is switched on.
	Turn signal indicator lamp flashes green – The turn signal is switched on.

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