OWNER'S MANUAL 2021

READY TO RACE
»www.ktm.com

250 XC TPI
300 XC TPI

Art. no. 3214211en

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 vehicle which, with appropriate care, will bring you pleasure for a long time to come.

We wish you good and safe riding at all times!

Enter the serial numbers of your vehicle below.

Vehicle identification number (📖 p. 12)	Dealer's stamp
Engine number (📖 p. 12)	

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

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

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

KTM Sportmotorcycle GmbH
Stallhofnerstraße 3
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This document is valid for the following models:

250 XC TPI US (F6375U5)

300 XC TPI US (F6475U5)

3214211en

04/2020

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1.1 Symbols used

The meaning of specific symbols is described below.

	Indicates an expected reaction (e.g. of a work step or a function).
	Indicates an unexpected reaction (e.g. of a work step or a function).
	All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of your own safety, have these jobs performed by an authorized KTM workshop! Your motorcycle will be optimally cared for there by specially trained experts using the auxiliary tools required.
	Indicates a page reference (more information is provided on the specified page).
	Indicates information with more details or tips.
»	Indicates the result of a testing step.
V	Indicates a voltage measurement.
A	Indicates a current measurement.
	Indicates the end of an activity, including potential rework.

1.2 Formats used

The typographical formats used in this document are explained below.

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

2 SAFETY ADVICE

2.1 Use definition – intended use

This vehicle has been designed and built to withstand the normal stresses and strains of racing. This vehicle complies with the currently valid regulations and categories of the top international motorsports organizations.

Info
This vehicle is designed for use in offroad endurance competition, and not primarily for use in motocross. Only operate this vehicle in closed-off areas remote from public road traffic.

2.2 Misuse

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

2.3 Safety advice

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

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

2.4 Degrees of risk and symbols

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

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

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

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

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

2.5 Tampering warning

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

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

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

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

2.6 Safe operation

Danger

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

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

Danger

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

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

Warning

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

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

Only operate the vehicle when it is in perfect technical condition, in accordance with its intended use, and in a safe and environmentally compatible manner.
The vehicle should only be used by trained persons.
Have malfunctions that impair safety promptly eliminated by an authorized KTM workshop.
Adhere to the information and warning labels on the vehicle.

2.7 Protective clothing

Warning

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

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

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

2.8 Work rules

Unless specified otherwise, the ignition must be turned off during all work (models with ignition lock, models with remote key) or the engine must be at a standstill (models without ignition lock or remote key).
Special tools are necessary for certain tasks. The tools are not a component of the vehicle, but can be ordered using the number in parentheses. Example: bearing puller (15112017000)
During assembly, use new parts to replace parts which cannot be reused (e.g. self-locking screws and nuts, expansion screws, seals, sealing rings, O-rings, pins, and lock washers).
In the case of certain screws, a screw adhesive (e.g. **Loctite®**) is required. Observe the manufacturer's instructions.
If thread locker (e.g., **Precote®**) has already been applied to a new part, do not apply any additional thread locker.
After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.
After completing a repair or service work, check the operating safety of the vehicle.

2.9 Environment

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

2.10 Owner's Manual

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

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

3.1 Manufacturer warranty, implied warranty

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

3.2 Fuel, auxiliary substances

Note

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

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

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

3.3 Spare parts, 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. An incorrect suspension setting can lead to damage and breakage of chassis components.
Use of the vehicle under difficult conditions, such as on sand or on wet and muddy surfaces, can result in significantly increased 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.
The relevant mileage or time interval is whichever occurs first.

3.5 Figures

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

3.6 Customer service

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

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

4 VIEW OF VEHICLE

4.1 View of vehicle, front left (example)

1. Clutch lever (p. 14)
2. Fuel tank filler cap
3. Air filter box cover
4. Side stand (p. 18)
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4.2 View of vehicle, rear right (example)

1. 2-stroke oil tank cap
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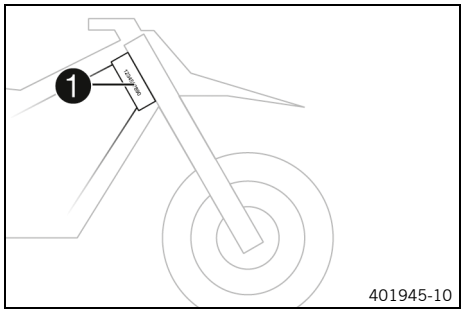
5. Hand brake lever (p. 14)
6. Foot brake lever (p. 18)
7. Level viewer for brake fluid, rear

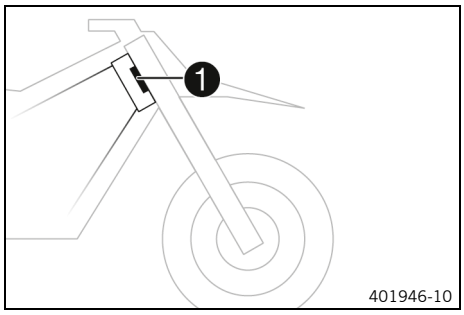
5 SERIAL NUMBERS

5.1 Vehicle identification number



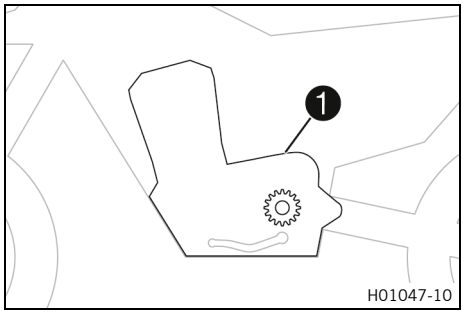
The vehicle identification number ❶ is stamped on the right side of the steering head.

5.2 Type label



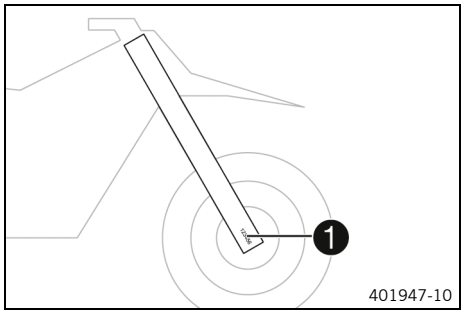
The type label ❶ is fixed to the front of the steering head.

5.3 Engine number



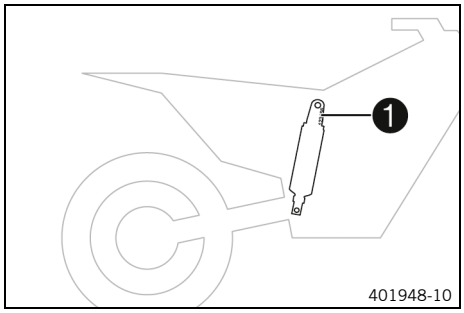
The engine number ❶ is embossed on the left side of the engine above the engine sprocket.

5.4 Fork part number



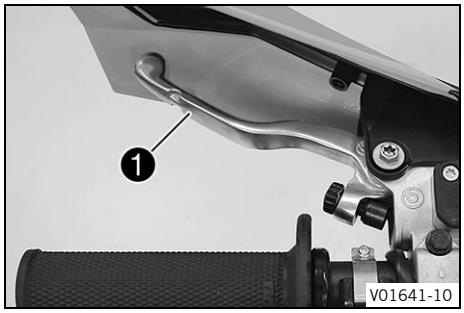
The fork part number ❶ is stamped on the inside of the axle clamp.

5.5 Shock absorber article number



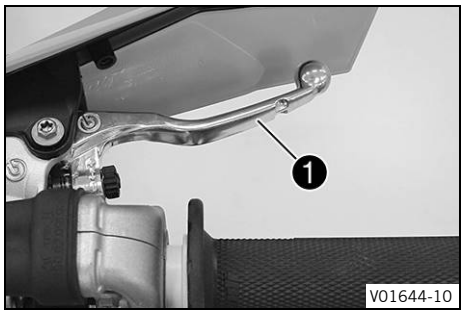
Shock absorber article number ❶ is stamped on the top of the shock absorber above the adjusting ring towards the engine side.

6.1 Clutch lever



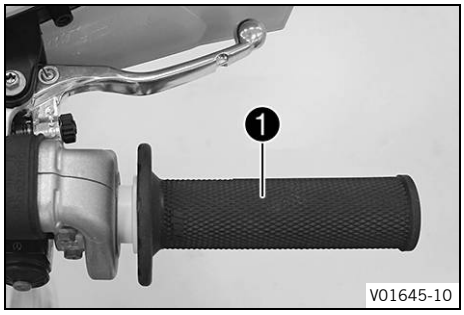
Clutch lever ❶ is fitted on the handlebar on the left.
The clutch is activated hydraulically and adjusts itself automatically.

6.2 Hand brake lever



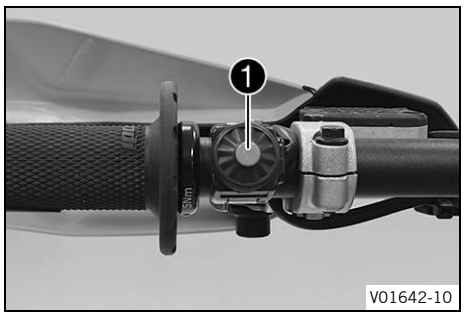
Hand brake lever ❶ is fitted on the right side of the handlebar.
The front brake is engaged using the hand brake lever.

6.3 Throttle grip



Throttle grip ❶ is fitted on the right side of the handlebar.

6.4 Switch-off button

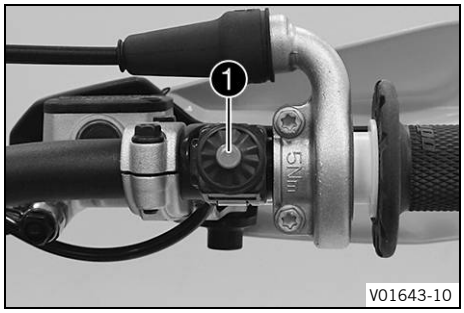


Switch-off button ❶ is fitted on the left side of the handlebar.

Possible states

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

6.5 Start button

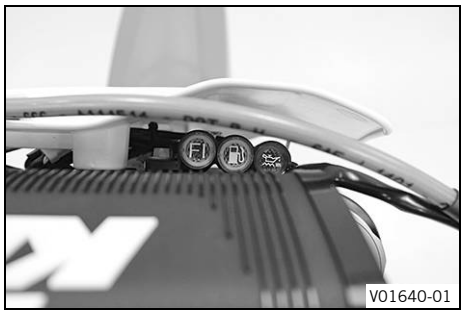


Start button ❶ is fitted on the right side of the handlebar.

Possible states

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

6.6 Overview of indicator lamps



Possible states

FI	Malfunction indicator lamp lights up/flashes yellow – The OBD has detected an error in the vehicle electronics. Stop, and contact an authorized Husqvarna Motorcycles workshop.
	The fuel level warning lamp lights up yellow – The fuel level has reached the reserve mark.
	The oil level warning lamp lights up red – Oil level has reached the **MIN**marking. Ride for no more than until the remaining fuel in the tank is depleted and at the next opportunity refuel with 2-stroke oil.

6.7 Opening the fuel tank filler cap

Danger

Fire hazard Fuel is highly flammable.

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

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

Warning

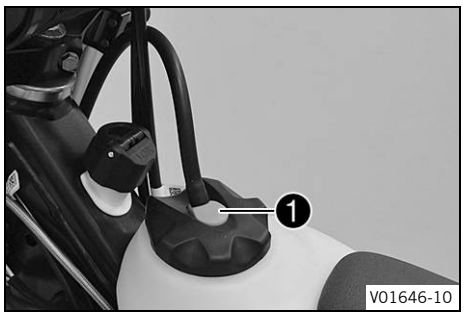
Danger of poisoning Fuel is poisonous and a health hazard.

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

Note

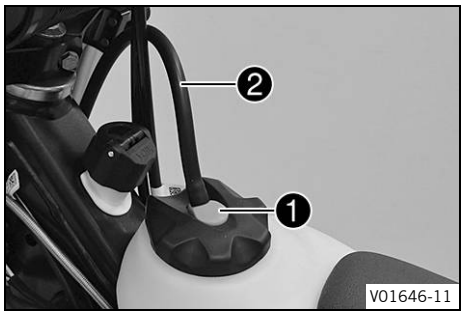
Environmental hazard Improper handling of fuel is a danger to the environment.

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



– Press release button ❶, turn the fuel tank filler cap counterclockwise, and lift it off.

6.8 Closing the fuel tank filler cap

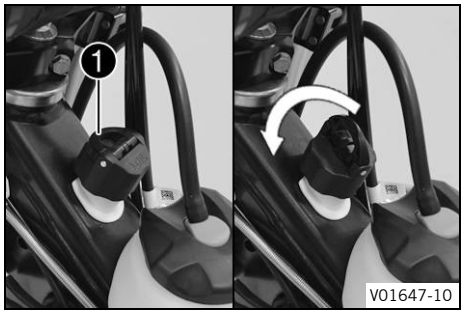


– Mount filler cap ❶ and turn it clockwise until the release button engages.

Info

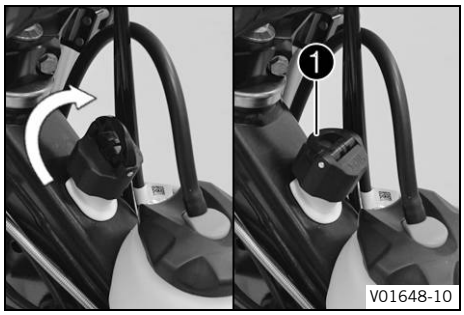
Route fuel tank breather hose ❷ without kinks.

6.9 Opening 2-stroke oil tank cap



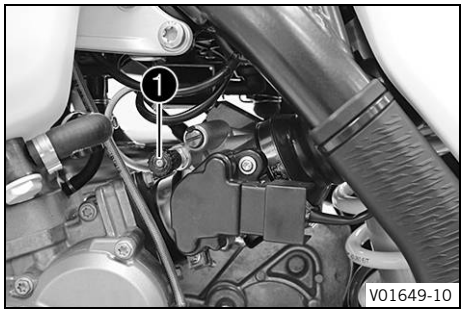
– Fold loop ❶ upward.
– Turn the 2-stroke oil tank cap counterclockwise and pull it up.

6.10 Closing 2-stroke oil tank cap



– Put the 2-stroke oil tank cap on and turn it clockwise.
– Fold loop ❶ down.
✔ The 2-stroke oil tank cap engages.

6.11 Cold start button

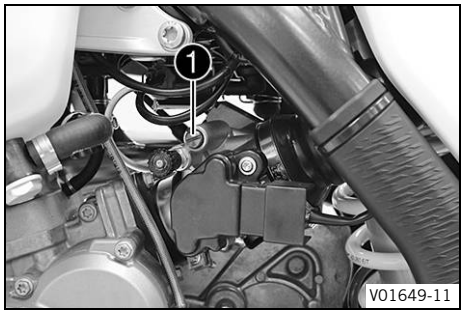


The cold start button ❶ is fitted on the side of the throttle valve body.
If the engine is cold and the ambient temperature is low, the electronic fuel injection system extends the injection time. To help the engine burn the increased fuel quantity, it must be supplied with additional oxygen by pulling the cold start button.

Info
If the engine is warm, the cold start button must be deactivated.

Possible states
- The cold start button is activated – The cold start button is pulled out all the way and turned by a ¼ turn.
- The cold start button is deactivated – A further ¼ turn returns the cold start button back to the basic position.

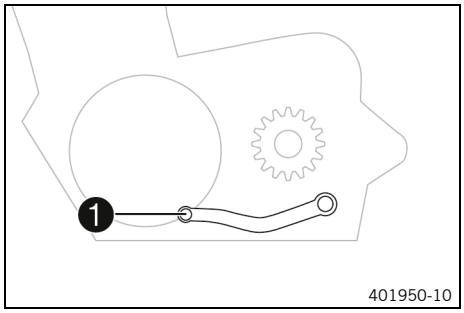
6.12 Idle speed adjusting screw



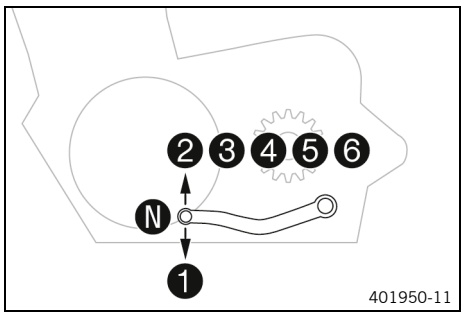
The idle setting of the throttle valve body substantially influences the vehicle's starting behavior, a stable idle speed, and the vehicle's response when the throttle is opened.
An engine with a correctly set idle speed is easier to start than an engine with the idle speed set incorrectly.
The idle speed is adjusted using the idle speed adjusting screw ❶.

Info
If the idle speed is high, the engine is slow to run, the engine brake is low and the throttle response is aggressive, the adjustment screw must be turned clockwise.
If the idle speed is low, the engine is running fast, the engine brake is high and the throttle response is not clean, the adjusting screw must be turned counterclockwise.

6.13 Shift lever

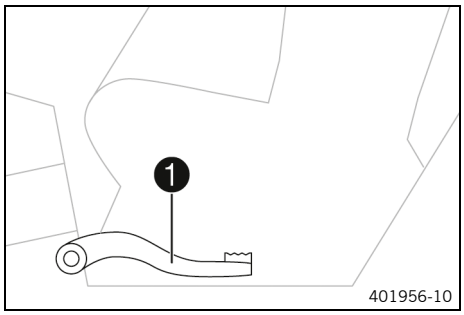


Shift lever ❶ is mounted on the left of the engine.



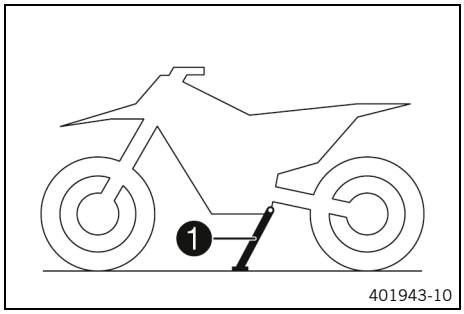
The gear positions can be seen in the photograph.
The neutral or idle position is between the first and second gears.

6.14 Foot brake lever

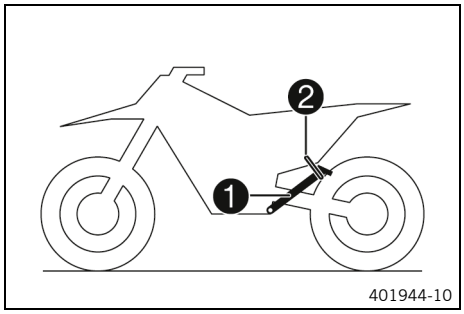


Foot brake lever ❶ is located in front of the right footrest.
The foot brake lever is used to activate the rear brake.

6.15 Side stand



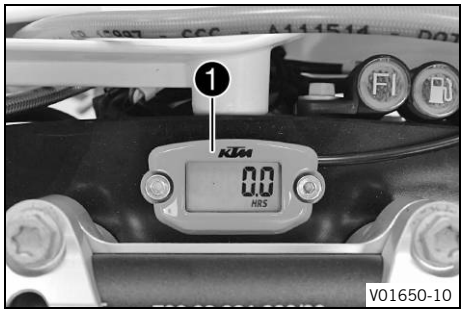
The side stand ❶ is located on the left of the vehicle.



The side stand is used for parking the motorcycle.

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

6.16 Service hour counter



The service hour counter ❶ is fitted in front of the handlebar.
It shows the total number of service hours of the engine.
The service hour counter begins counting when the engine is started and stops when the engine is switched off.

Info
The value indicated by the service hour counter cannot be cleared or adjusted.

7.1 Advice on preparing for first use

Danger

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

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

Warning

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

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

Warning

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

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

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

Warning

Danger of accidents 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-sales inspection work has been carried out by an authorized KTM workshop.
  ✓ You will receive a delivery certificate when the vehicle is handed over.
– Before riding for the first time, read the entire Owner's Manual carefully.
– Get to know the controls.
– Adjust the basic position of the clutch lever. (📖 p. 76)
– Adjust the basic position of the hand brake lever. (📖 p. 79)

– Adjust the basic position of the foot brake lever. (p. 85)
– Adjust the basic position of the shift lever. (p. 113)
– Get used to the handling characteristics of the motorcycle on a suitable surface before undertaking more challenging trips.

Info
Your motorcycle is not approved for use on public roads.
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 feel 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.
– Do not take luggage along.
– Do not exceed the maximum permissible weight and the 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. 96)

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

– Run in the engine. (p. 21)

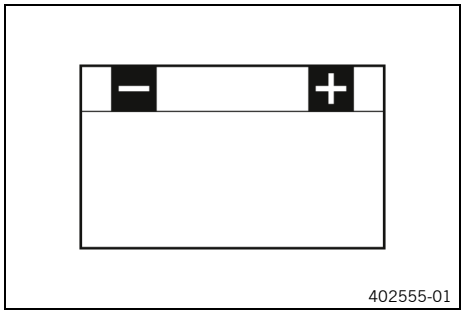
7.2 Running in the engine

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

Maximum engine performance	
During the first 3 operating hours	< 70 %
During the first 5 operating hours	< 100 %

– Avoid fully opening the throttle!

7.3 Starting power of lithium-ion batteries at low temperatures



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 start button for 5 seconds, and wait 30 seconds between attempts. The pauses are necessary so that the heat created can be distributed through the lithium-ion battery without damaging the lithium-ion battery.
If the charged lithium-ion battery is unable to actuate the electric starter when temperatures are below 15 °C (60 °F), 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.

7.4 Preparing the vehicle for difficult operating conditions

Info
Use of the vehicle under difficult conditions, such as on sand or on wet and muddy circuits/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.

– Prepare air filter box cover for securing. (p. 63)
– Clean the air filter and air filter box. (p. 62)

Info
Check the air filter approx. every 30 minutes.

– Check the electrical 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 operating conditions are:
– Rides on dry sand. (p. 22)
– Rides on wet sand. (p. 23)
– Rides on wet and muddy circuits. (p. 24)
– Riding at high temperatures or slow riding. (p. 25)
– Riding at low temperatures and in snow. (p. 26)

7.5 Preparing the vehicle for riding on dry sand

– Check the radiator cap.

Value on the radiator cap	1.8 bar (26 psi)

  » If the indicated value does not correspond to the setpoint value:

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.

– Change the radiator cap.

M01104-01

– Mount the air filter dust cover.

Air filter dust cover (79006920000)

Info
Observe the fitting instructions for **KTM PowerParts**.

M01105-01

– Mount the air filter sand cover.

Air filter sand cover (79006922000)

Info
Observe the fitting instructions for **KTM PowerParts**.


600868-01

– Clean the chain.

Chain cleaner (📖 p. 140)

– Mount the steel sprocket.
– Grease the chain.

Universal oil spray (📖 p. 141)

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

Condition
Regular use in sand
– Change the piston every 10 operating hours.

7.6 Preparing the vehicle for riding on wet sand

M01129-01

– Check the radiator cap.

Value on the radiator cap	1.8 bar (26 psi)

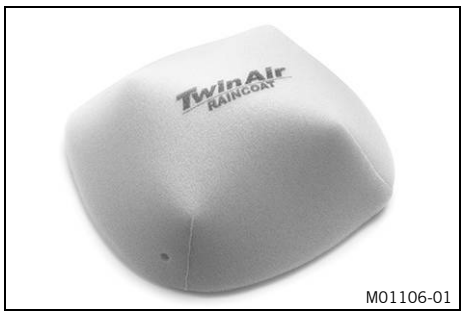
» If the indicated value does not correspond to the setpoint value:

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.

– Change the radiator cap.



M01106-01

– Mount the air filter rain cover.

Air filter rain cover (79006921000)

Info

Observe the fitting instructions for **KTM PowerParts**.


600868-01

– Clean the chain.

Chain cleaner (📖 p. 140)

– Mount the steel sprocket.
– Grease the chain.

Universal oil spray (📖 p. 141)

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

Condition

Regular use in sand

– Change the piston every 10 operating hours.

7.7 Preparing the vehicle for riding on wet and muddy circuits

M01106-01

– Mount the air filter rain cover.

Air filter rain cover (79006921000)

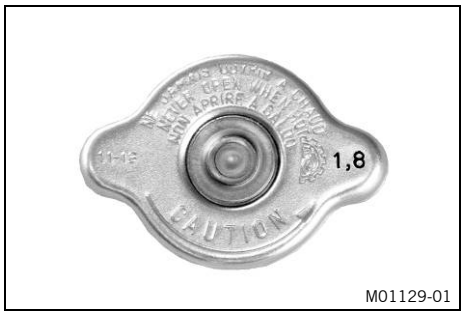
Info

Observe the fitting instructions for **KTM PowerParts**.


600868-01

– Mount the steel sprocket.
– Clean motorcycle. (📖 p. 123)
– Straighten the bent radiator fins carefully.

7.8 Preparing vehicle for high temperatures or slow riding



M01129-01

– Check the radiator cap.

Value on the radiator cap	1.8 bar (26 psi)

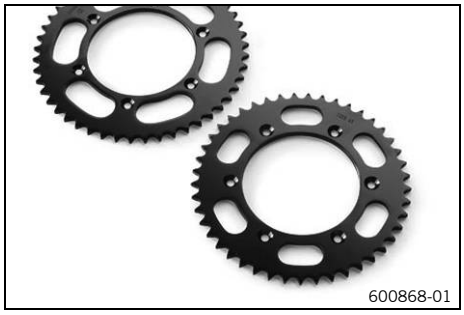
» If the indicated value does not correspond to the setpoint value:

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.

– Change the radiator cap.


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 ratio.

– Clean the chain.

Chain cleaner (📖 p. 140)

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

7.9 Preparing the vehicle for low temperatures or snow

M01106-01

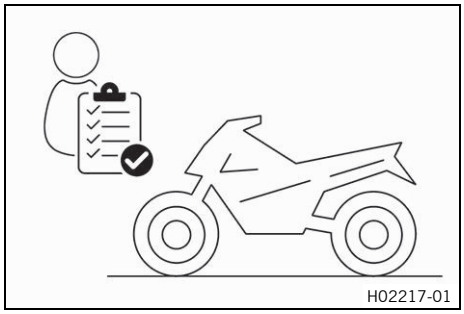
– Mount the air filter rain cover.

Air filter rain cover (79006921000)

Info
Observe the fitting instructions for **KTM PowerParts**.

8.1 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.


H02217-01

- Check the gear oil level. (📖 p. 120)
- Check the front brake fluid level. (📖 p. 80)
- Check the rear brake fluid level. (📖 p. 86)
- Check the front brake linings. (📖 p. 82)
- Check the brake linings of the rear brake. (📖 p. 88)
- Check that the brake system is functioning properly.
- Check the coolant level. (📖 p. 103)
- Check the chain for dirt. (📖 p. 68)
- Check the chain, rear sprocket, engine sprocket, and chain guide. (📖 p. 71)
- Check the chain tension. (📖 p. 69)
- Check the tire condition. (📖 p. 95)
- Check tire pressure. (📖 p. 95)
- Check the spoke tension. (📖 p. 96)

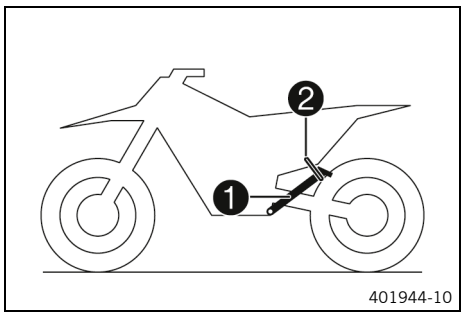
Info
The spoke tension must be checked regularly as incorrect spoke tension will strongly impair riding safety.

- Clean the dust boots of the fork legs. (📖 p. 48)
- Bleed the fork legs. (📖 p. 47)
- 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.

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

Note
Engine damage High revving speed with a cold engine negatively impacts the lifespan of the engine.
- Always run the engine warm at a low speed.



– Take the motorcycle off side stand ❶ and secure the side stand with rubber strap ❷.
– Shift the transmission to neutral position.

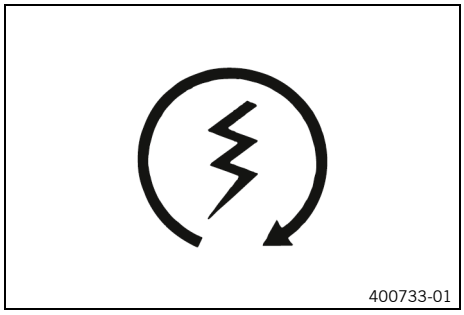
Condition

Ambient temperature: < 10 °C (< 50 °F)

– Pull the cold start button fully out and turn it by a ¼ turn.

Info

If the engine is warm, the cold start button must be deactivated.



– Press the start button.

Info

Press the start 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.

8.3 Starting off

Info

The plug-in stand must be removed before riding.
When you are riding, the side stand must be folded up and secured with the rubber strap.

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

8.4 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 you hear unusual noises while riding, stop immediately, switch off the engine, and contact an authorized KTM workshop.
First gear is used for starting off and for steep inclines.

– Shift into a higher gear when conditions allow (incline, road situation, etc.). To do so, release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch lever and open the throttle.
– If the choke function has been activated, deactivate it after the engine has warmed up.
– After reaching maximum speed by fully opening the throttle grip, turn the throttle back so it is ¾ open. This will barely reduce the speed, but fuel consumption will be considerably lower.

– 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 either open the throttle or shift again.
– Switch off the engine if running at idle speed or stationary for a long time.

  Guideline

≥ 2 min

– Avoid frequent or lengthy slipping of the clutch. This causes the gear oil, engine and cooling system to heat up.
– Ride at a low engine speed instead of at a high engine speed with a slipping clutch.

8.5 Applying the brakes

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 mostly if possible.
– Always finish braking before you go into a bend. Change down to a lower gear appropriate to your road speed.
– Use the braking effect of the engine on long downhill stretches. Change down one or two gears, but do not over-rev the engine. You will have to apply the brakes far less frequently as a result and the brake system will not overheat.

8.6 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 the transmission to neutral position.
– Press and hold the switch-off button ⊠ while the engine is idling until the engine stops.
– Park the motorcycle on firm ground.

8.7 Transporting

Note

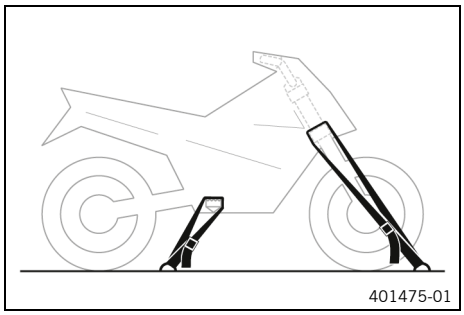
Danger of damage The parked vehicle can roll away or fall over.

– Park the vehicle on a firm and level surface.

Note

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

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


401475-01

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

8.8 Refueling

Danger

Fire hazard Fuel is highly flammable.

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

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

Warning

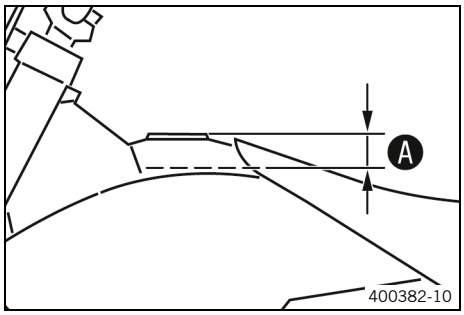
Danger of poisoning Fuel is poisonous and a health hazard.

- 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

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 fuel tank filler cap. (p. 15)
- Fill the fuel tank with fuel up to level Ⓐ.

  Guideline

Dimension Ⓐ	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. 139)

Info

Do not refuel using pre-mixed fuel.

- Close the fuel tank filler cap. (p. 16)

8.9 Adding 2-stroke oil

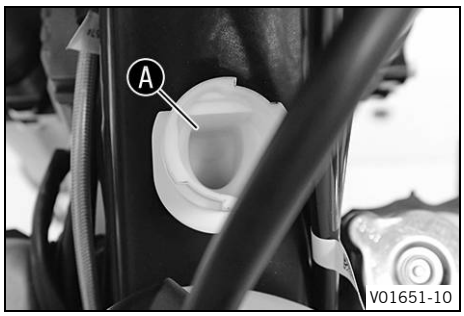
Warning

Engine failure The engine will not be lubricated unless there is 2-stroke oil in the oil tank.

If the oil level warning light lights up, the 2-stroke oil is sufficient for the remaining tank of fuel.

- As soon as the oil level warning light lights up, ride for no longer than until the remaining fuel in the tank is depleted.
- At the next opportunity add 2-stroke oil before you refuel.
- Time the oil pump if the 2-stroke oil hose has been removed or the 2-stroke oil tank has been fully depleted in error.

- Open 2-stroke oil tank cap. (p. 16)



– Fill the 2-stroke oil tank up to the lower edge Ⓐ of the filler neck.

Guideline

Only use 2-stroke oil which is appropriate for separate lubrication.

2-stroke oil tank content approx.	0.6 l (0.6 qt.)	Engine oil, 2-stroke (📖 p. 138)

– Close 2-stroke oil tank cap. (📖 p. 16)

9.1 Additional information

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

9.2 Required work

	After 1 operating hour		After 5 operating hours	Every 10 operating hours	Every 20 operating hours	Every 40 operating hours
Read out the fault memory using the KTM diagnostics tool. 🔧	○	○	●	●	●	
Check that the electrical system is functioning properly.	○		●	●	●	
Check and charge the 12-V battery. 🔧			●	●	●	
Change the gear oil. 🔧 (📖 p. 120)		○			●	
Check the front brake linings. (📖 p. 82)			●	●	●	
Check the brake linings of the rear brake. (📖 p. 88)			●	●	●	
Check the brake discs. (📖 p. 79)			●	●	●	
Check the brake lines for damage and leakage.			●	●	●	
Check the rear brake fluid level. (📖 p. 86)			●	●	●	
Check the free travel of the foot brake lever. (📖 p. 85)			●	●	●	
Check the frame. 🔧 (📖 p. 74)			●	●	●	
Check the link fork. 🔧 (📖 p. 74)			●	●	●	
Checking the fork bearing for play. 🔧				●	●	
Checking the shock absorber heim joint for play. 🔧			●	●	●	
Check the shock absorber linkage. 🔧			●	●	●	
Check the tire condition. (📖 p. 95)	○		●	●	●	
Check tire pressure. (📖 p. 95)	○		●	●	●	
Check the wheel bearing for play. 🔧			●	●	●	
Check the wheel hubs. 🔧			●	●	●	
Check the rim run-out. 🔧	○		●	●	●	
Check the spoke tension. (📖 p. 96)	○		●	●	●	
Check the chain, rear sprocket, engine sprocket, and chain guide. (📖 p. 71)			●	●	●	
Check the chain tension. (📖 p. 69)	○		●	●	●	
Grease all moving parts (e.g. side stand, hand lever, chain, etc.) and check for smooth operation. 🔧			●	●	●	
Check/correct the fluid level of the hydraulic clutch. (📖 p. 76)			●	●	●	
Check the front brake fluid level. (📖 p. 80)			●	●	●	
Check the free travel of the hand brake lever. (📖 p. 79)			●	●	●	
Check steering head bearing play. (📖 p. 53)	○		●	●	●	
Change the spark plug and spark plug connector. 🔧				●	●	
Check all hoses (e.g. fuel, cooling, bleeder, drainage hoses, etc.) and sleeves for cracking, tightness, and correct routing. 🔧	○		●	●	●	

	Every 40 operating hours	Every 20 operating hours	Every 10 operating hours	After 5 operating hours	After 1 operating hour
Check the antifreeze and coolant level. (📖 p. 102)	●	●	●	○	
Check the cables for damage and for routing without kinks. 🔧	●	●	●		
Check that the throttle cables are undamaged, routed without kinks, and set correctly.	●	●	●	○	
Clean the air filter and air filter box. 🔧 (📖 p. 62)	●	●	●		
Change the glass fiber yarn filling of the main silencer. 🔧 (📖 p. 64)	●	●			
Service the fork. 🔧	●				
Perform the shock absorber service. 🔧	●				
Check the tightness of the easily accessible, safety-relevant screws and nuts. 🔧	●	●	●	○	○
Change the fuel screen. 🔧 (📖 p. 114)	●	●	●	○	
Check the fuel pressure. 🔧	●	●	●		
Check the idle speed. 🔧	●	●	●		
Final check: Check the vehicle for operating safety and take a test ride. 🔧	●	●	●	○	○
Read out the error memory after the test ride using the KTM diagnostics tool. 🔧	●	●	●	○	○
Make a service entry in **KTM Dealer.net**. 🔧	●	●	●	○	○

○ One-time interval

● Periodic interval

9.3 Recommended work

	Every 80 operating hours	Every 40 operating hours	After 20 operating hours / Every 20 operating hours	After 10 operating hours / Every 10 operating hours	every 48 months	every 12 months
Change the front brake fluid. 🔧					●	●
Change the rear brake fluid. 🔧					●	●
Change the hydraulic clutch fluid. 🔧 (📖 p. 77)					●	●
Lubricate the steering head bearing. 🔧 (📖 p. 54)					●	●
Clean the pressure sensor hose. 🔧		●	●		●	●
Service the fork. 🔧			●	○		
Perform the shock absorber service. 🔧				○		
Check the electric starter drive. 🔧		●	●			
Change the fuel filter. 🔧		●				
Check the reed valve housing, reed valve and intake flange. 🔧		●	●	●		
Change the oil pump; clean the oil screen. 🔧		●				
Clean the oil screen in the oil tank. 🔧		●				
Clean the protection cap of the pressure sensor. 🔧		●	●	●		
Change the coolant. 🔧 (📖 p. 106)					●	
Perform minor engine service. (Check the exhaust control for functioning and smooth operation. Check the clutch.) 🔧		●	●	●		

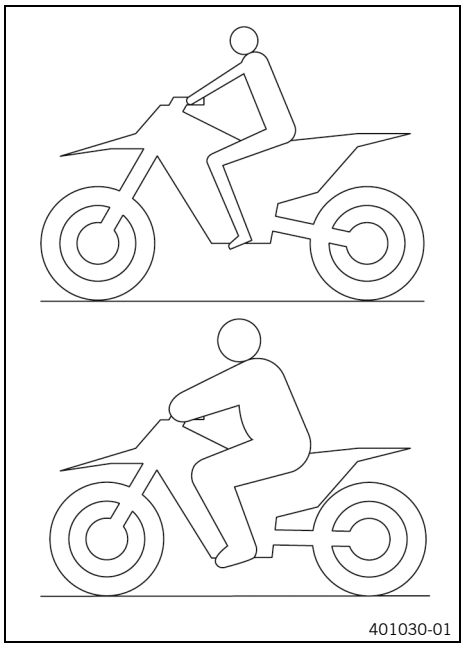
	Every 80 operating hours	Every 40 operating hours	After 20 operating hours / Every 20 operating hours	After 10 operating hours / Every 10 operating hours	every 48 months	every 12 months
Perform major engine service including removing and installing the engine. Change the piston and check the cylinder. Change the connecting rod, conrod bearing and crank pin. Clean the hose connections of the pressure sensor. Check the transmission and shift mechanism. Change all engine bearings.) 🔧	•					

○ One-time interval

• Periodic interval

10.1 Checking the basic chassis setting with rider's weight

Info
When adjusting the basic chassis setting, first adjust the shock absorber and then the fork.



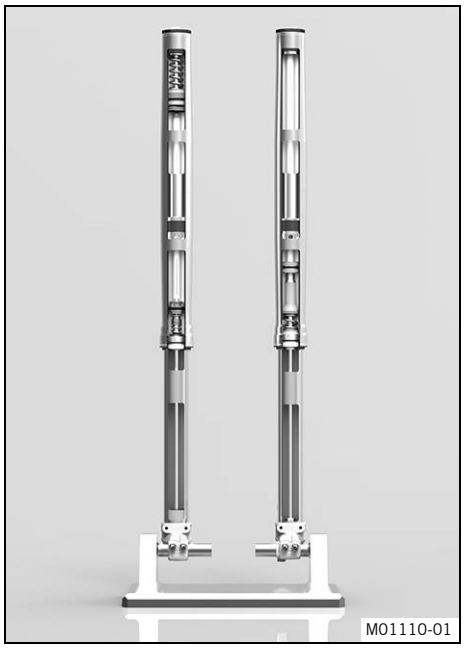
– For optimal motorcycle riding characteristics and to avoid damage to forks, shock absorbers, link fork and frame, the basic settings of the suspension components must match the rider's weight.
– As delivered, KTM offroad motorcycles are adjusted for an average rider's weight (with full protective clothing).

Guideline

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

– If the rider's weight is above or below this 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.

10.2 Air suspension XACT 5448



Air suspension **WP XACT 5448** is used in the fork.
In this system, suspension is located in the left fork leg and damping in the right fork leg.
As fork springs are no longer required, a significant weight advantage is achieved when compared to conventional forks. The response on slightly uneven surfaces is significantly improved.
In normal driving mode, suspension is provided exclusively by an air cushion. A steel spring is located in the left fork leg as an end stop.

Info
If the fork is frequently overloaded, then the air pressure in the fork must be increased to avoid damage to the fork and frame.

The air pressure in the fork can be quickly adjusted to the rider's weight, surface conditions and the rider's preference using a fork airpump. The fork does not have to be dismantled. The time consuming mounting of harder or softer fork springs is not required.
If the air chamber loses air due to a damaged seal, the fork will still not sag. In this case the air is retained in the fork. The suspension travel is maintained as far as possible. The damping becomes harder and the riding comfort reduces.
As with a conventional fork, the damping can be adjusted in rebound and compression stages.
The rebound adjuster is located at the lower end of the right fork leg.

The compression adjuster is located at the upper end of the right fork leg.

10.3 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 compression adjuster has an effect, for example, when landing after a jump: the rear wheel suspension compresses quickly.
The low-speed compression adjuster has an effect, for example, 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, modifications in the high-speed range affect the compression damping in the low-speed range and vice versa.

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

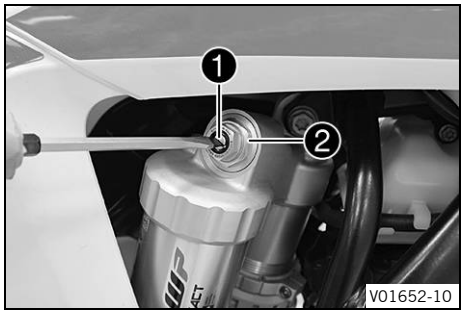
Caution

Risk of injury Parts of the shock absorber will move around if the shock absorber is detached 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 compression adjuster can be seen in slow to normal compression of the shock absorber.



– Turn adjusting screw ❶ clockwise with a screwdriver as far as the last perceptible click.

Info

Do not loosen fitting ❷!

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

Guideline

Lowspeed compression damping	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks

Info

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

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

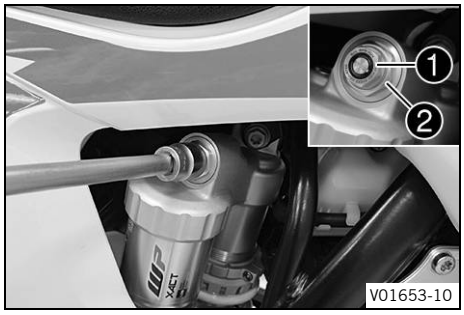
Caution

Risk of injury Parts of the shock absorber will move around if the shock absorber is detached 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 compression adjuster can be seen in fast compression of the shock absorber.



– Turn adjusting screw ❶ all the way clockwise with a socket wrench.

Info

Do not loosen fitting ❷!

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

Guideline

Highspeed compression damping	
Comfort	2.5 turns
Standard	2 turns
Sport	1.5 turns

Info

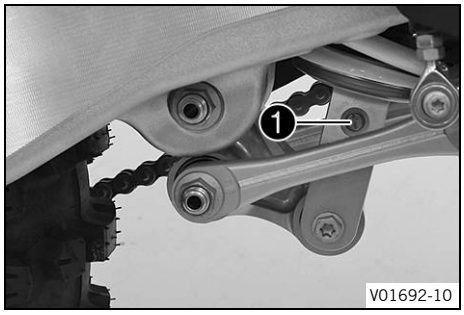
Turn clockwise to increase the damping; turn counterclockwise to reduce the damping.

10.6 Adjusting the rebound damping of the shock absorber

Caution

Risk of injury Parts of the shock absorber will move around if the shock absorber is detached incorrectly. The shock absorber is filled with highly compressed nitrogen.

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



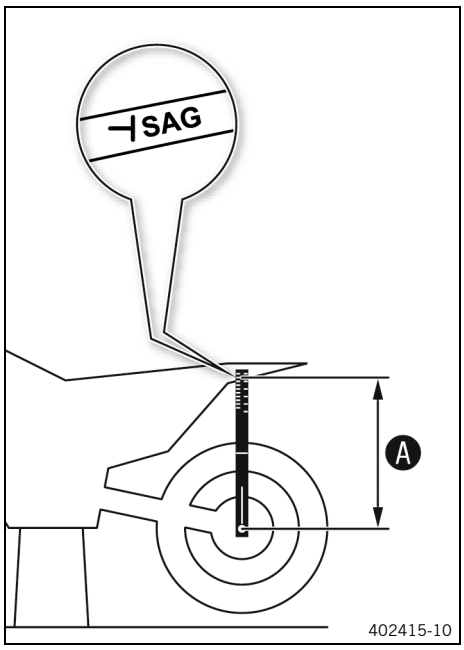
– Turn adjusting screw ❶ clockwise up to the last perceptible click.
– Turn counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Rebound damping	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks

Info
Turn clockwise to increase the damping; turn counter-clockwise to reduce damping when the shock absorber rebounds.

10.7 Measuring the rear wheel dimension unloaded



Preparatory work
– Raise the motorcycle with a lift stand. (📖 p. 47)

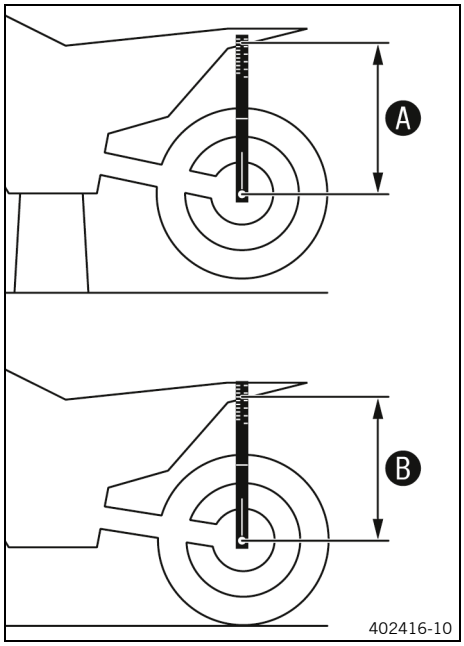
Main work
– Position the sag gage in the rear axle and measure the distance to marking **SAG** on the rear fender.

Sag gauge (00029090000)
Sag gage pin (00029990010)

– Note down the value as dimension Ⓐ.

Finishing work
– Remove the motorcycle from the lift stand. (📖 p. 47)

10.8 Checking the static sag of the shock absorber



– Measure dimension A of rear wheel unloaded. (📖 p. 39)
– Hold the motorcycle upright with aid of an assistant.
– Measure the distance again between the rear axle and marking **SAG** on the rear fender using the sag gage.
– Note the value as dimension B.

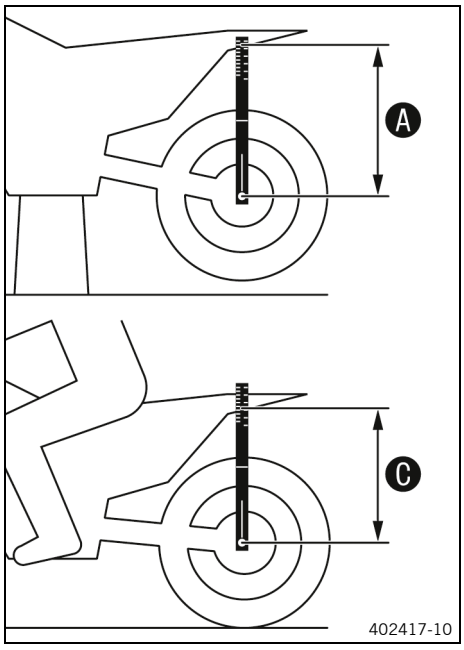
Info
The static sag is the difference between measurements A and B.

– 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. 41)

10.9 Checking the riding sag of the shock absorber



– Measure dimension A of rear wheel unloaded. (📖 p. 39)
– 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 gage.
– Note the value as dimension C.

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

– Check riding sag.
Guideline

Riding sag	105 mm (4.13 in)

» If the riding sag differs from the specified measurement:
– Adjust the riding sag. 🔧 (📖 p. 42)

10.10 Adjusting the spring preload of the shock absorber

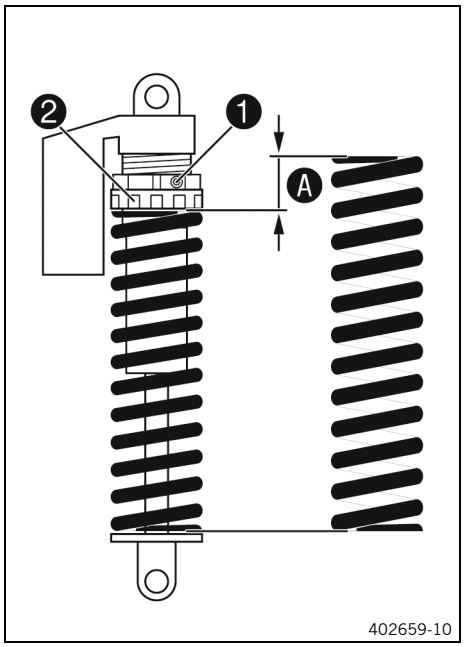
Caution

Risk of injury Parts of the shock absorber will move around if the shock absorber is detached 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 spring length.



Preparatory work

– Raise the motorcycle with a lift stand. (p. 47)
– Remove the shock absorber. (p. 56)
– 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 total spring length while the spring is not under tension.
– Tension the spring by turning adjusting ring 2 to specified dimension A.

Guideline

Spring preload	7 mm (0.28 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.

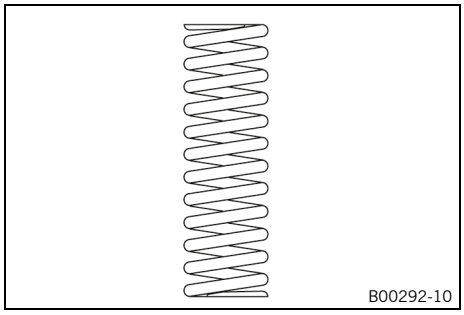
Guideline

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

Finishing work

– Install the shock absorber. (p. 57)
– Remove the motorcycle from the lift stand. (p. 47)

10.11 Adjusting the riding sag



Preparatory work

– Raise the motorcycle with a lift stand. (p. 47)
– Remove the shock absorber. (p. 56)
– 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.)	39 N/mm (223 lb/in)
Weight of rider: 75 ... 85 kg (165 ... 187 lb.)	42 N/mm (240 lb/in)
Weight of rider: 85 ... 95 kg (187 ... 209 lb.)	45 N/mm (257 lb/in)

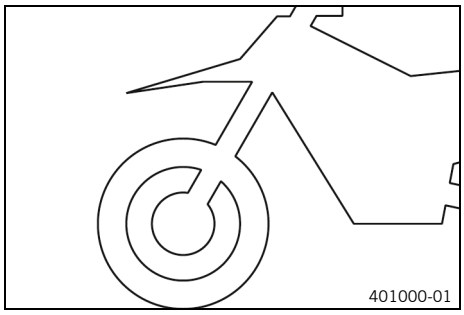
Info
The spring rate is shown on the outside of the spring.

Finishing work

– Install the shock absorber. (p. 57)
– Remove the motorcycle from the lift stand. (p. 47)
– Check the static sag of the shock absorber. (p. 40)
– Check the riding sag of the shock absorber. (p. 40)
– Adjust the rebound damping of the shock absorber. (p. 38)

10.12 Checking the basic setting of the fork

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



– Smaller differences in the rider's weight can be compensated for by the fork air pressure.
– However, if the fork frequently bottoms out (hard end stop on compression), the fork air pressure must be increased, within the specified values, 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.

10.13 Adjusting the fork air pressure

Warning

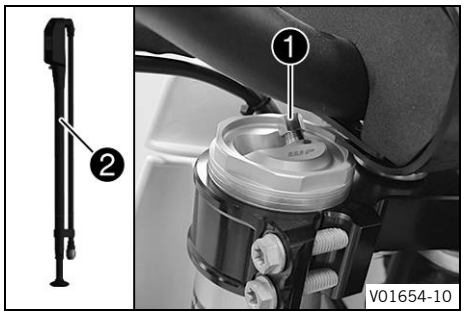
Danger of accident Modifications to the suspension setting may seriously alter the handling characteristic.

Extreme modifications to the suspension setting may cause a serious deterioration in the handling characteristic and overload components.

– Only make adjustments within the recommended range.
– Ride slowly to start with after making adjustments to get the feel of the new handling characteristic.

Info

Check or adjust the air pressure under the same conditions at the earliest 5 minutes after switching off the engine.
The air suspension is located in the left fork leg. The pressure and rebound damping is located in the right fork leg.



Preparatory work

– Raise the motorcycle with a lift stand. (p. 47)

Main work

– Remove protection cap ❶.
– Push together fork airpump ❷ fully.

Fork airpump (79412966100)

Info

The fork airpump is included as part of the motorcycle's accessory pack.

– Connect the fork airpump to the left fork leg.
  ✓ The fork airpump indicator switches on automatically.
  ✓ A little air escapes from the fork leg when connecting.

Info

This is due to the volume of the hose and not due to a defect in the fork airpump or the fork.
Read the accompanying **KTM PowerParts** instructions.

– Adjust the air pressure as specified.

Guideline

Air pressure	9.6 bar (139 psi)
Gradual changing of the air pressure in steps of	0.2 bar (3 psi)
Minimum air pressure	7 bar (102 psi)
Maximum air pressure	12 bar (174 psi)

Info

Never adjust the air pressure to a value outside the stated range.

– Disconnect the fork airpump from the left fork leg.

✔ When disconnecting, excess pressure will escape from the hose – the fork leg itself does not lose any air.

✔ The fork airpump indicator switches off automatically after 80 seconds.

– Mount the protection cap.

Info
Only mount the protection cap by hand.

Finishing work

– Remove the motorcycle from the lift stand. (p. 47)

10.14 Adjusting the compression damping of the fork

Info
The hydraulic compression damping determines the fork suspension behavior.

– Turn adjuster ❶ clockwise all the way.

Info
Adjuster ❶ is located at the upper end of the right fork leg.

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

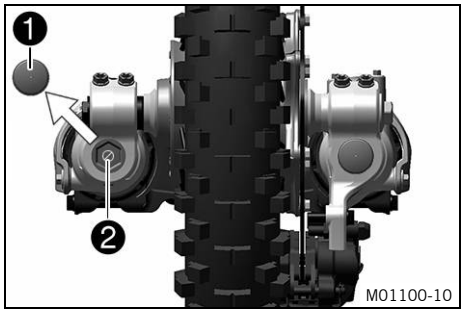
Guideline

Compression damping	
Comfort	17 clicks
Standard	12 clicks
Sport	7 clicks

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

10.15 Adjusting the rebound damping of the fork

Info
The hydraulic rebound damping determines the fork suspension behavior.



– Take off protection cap ❶.

– Turn adjusting screw ❷ clockwise all the way.

Info
Adjusting screw ❷ is located at the lower end of the right fork leg.

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

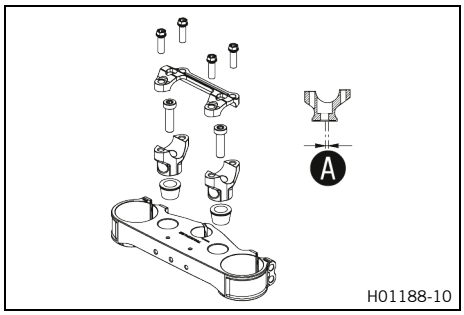
Guideline

Rebound damping	
Comfort	23 clicks
Standard	18 clicks
Sport	13 clicks

Info
Turn clockwise to increase the damping; turn counter-clockwise to reduce damping when the shock absorber rebounds.

– Mount protection cap ❶.

10.16 Handlebar position



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

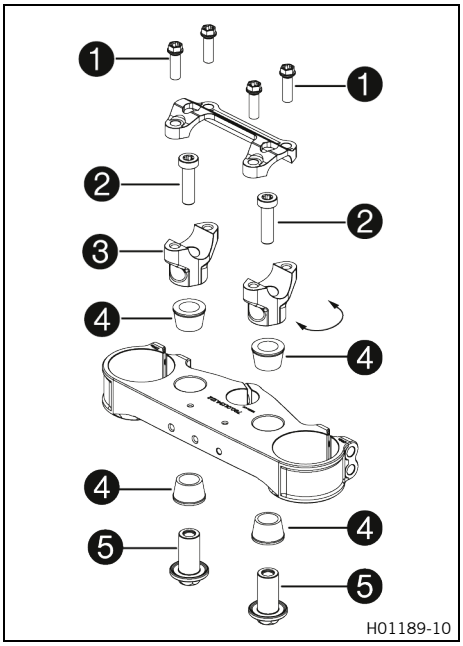
Hole distance A	3.5 mm (0.138 in)

The handlebar can be mounted in 2 different positions. In this way, the handlebar can be mounted in the most comfortable position for the rider.

10.17 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.

Preparatory work
– Remove the handlebar cushion.



Main work

– Remove screws ❶. Remove the handlebar clamp. 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 handlebar supports ❸.
– Position rubber bushings ❹ and push through nuts ❺ from below.
– Place the handlebar supports in the required position.

Info
The handlebar supports are longer and higher on one side.
Position the left and right handlebar supports evenly.

– Mount and tighten screws ❷.

Guideline

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

– Position the handlebar.

Info
Make sure the cables and wiring are positioned correctly.

– Position the handlebar clamp.
– Mount screws ❶ but do not tighten yet.
– First bolt the handlebar clamp with screws ❶ onto the longer, higher side of the handlebar supports so that both parts touch.

Guideline

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

– Tighten screws ❶ evenly.

Guideline

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

Finishing work

– Mount the handlebar cushion.

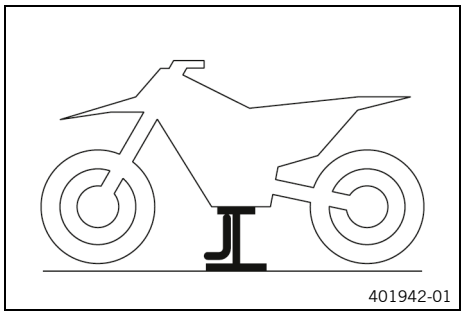
11.1 Raising the motorcycle with a lift stand

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.


401942-01

– 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.

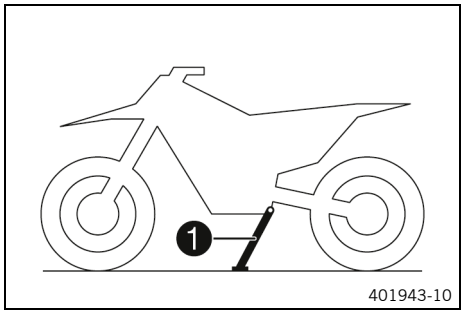
11.2 Removing the motorcycle from the lift stand

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.



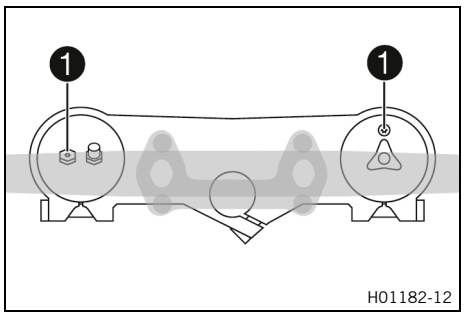
401943-10

– 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
When you are riding, the side stand must be folded up and secured with rubber strap.

11.3 Bleeding the fork legs

Preparatory work
– Raise the motorcycle with a lift stand. (📖 p. 47)



Main work

– Release bleeder screws ❶.

✔ Any excess pressure escapes from the interior of the fork.

– Tighten the bleeder screws.

Finishing work

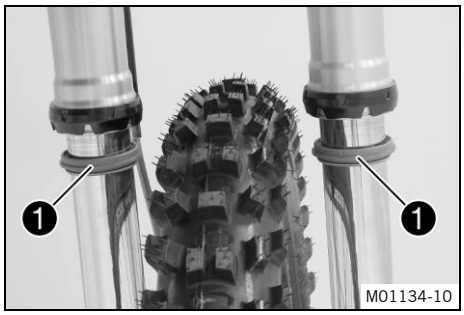
– Remove the motorcycle from the lift stand. (📖 p. 47)

11.4 Cleaning the dust boots of the fork legs

Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 47)

– Remove the fork protector. (📖 p. 50)



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. 141)

– Press the dust boots back into their normal position.

– Remove excess oil.

Finishing work

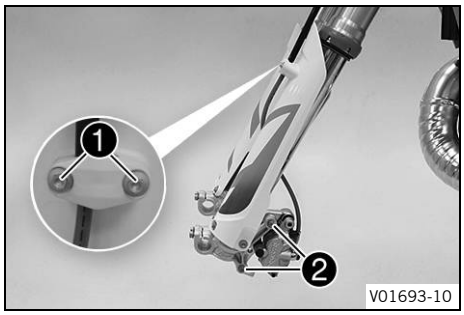
– Install the fork protector. (📖 p. 50)

– Remove the motorcycle from the lift stand. (📖 p. 47)

11.5 Removing the fork legs

Preparatory work

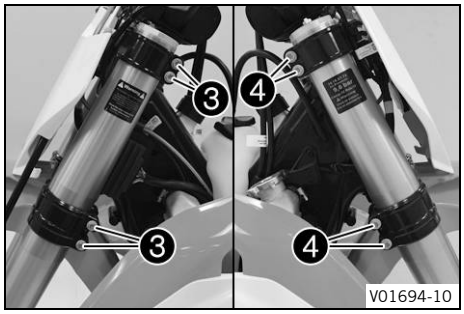
– Raise the motorcycle with a lift stand. (p. 47)
– Remove the front wheel. (p. 91)



Main work

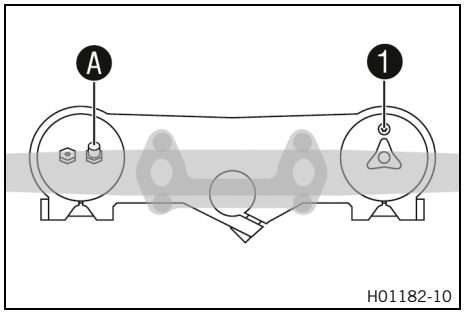
– Remove screws ❶ and take off the clamp.
– Remove screws ❷ and take off the brake caliper.
– Allow the brake caliper and brake line to hang loosely to the side.

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



– Loosen screws ❸. Remove the left fork leg.
– Loosen screws ❹. Remove the right fork leg.

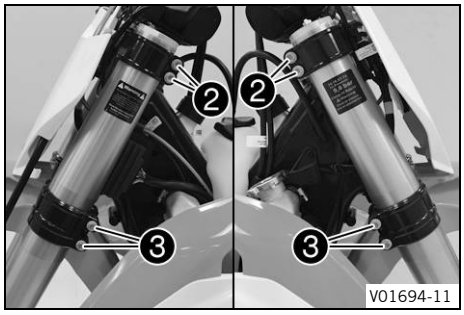
11.6 Installing the fork legs



Main work

– Position the fork legs.
  ✓ Air bleeder screw ❶ of the right fork leg is positioned to the front.
  ✓ Valve Ⓐ of the left fork leg faces 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 upper edge of the upper triple clamp. The air suspension is located in the left fork leg. The pressure and rebound damping is located in the right fork leg.



– Tighten screws ❷.

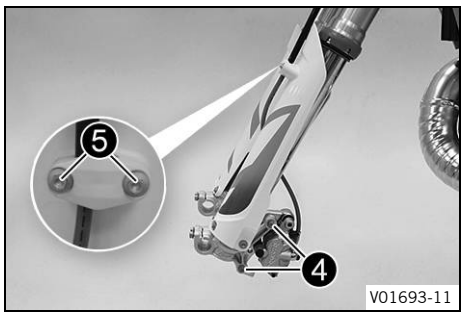
Guideline

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

– Tighten screws ❸.

Guideline

Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)



– Position the brake caliper. Mount and tighten screws ❹.

Guideline

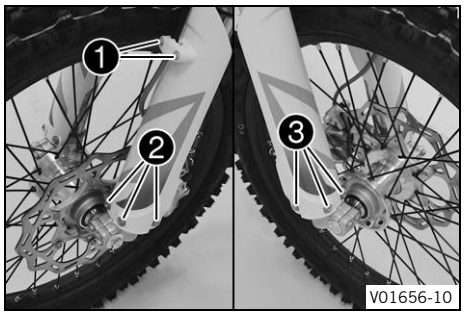
Screw, front brake caliper	M8	25 Nm (18.4 lbf ft) **Loctite®243™**

– Position the brake line and the clamp. Mount and tighten screws ❺.

Finishing work

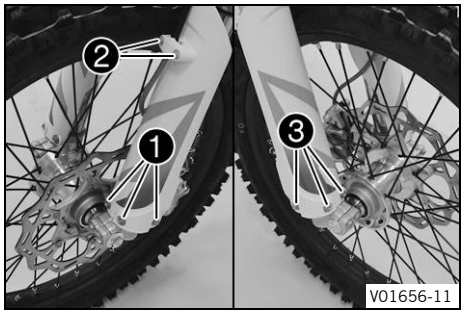
– Install the front wheel. 🔧 (📖 p. 92)

11.7 Removing the fork protector



– Remove screws ❶. Remove the clamp.
– Remove screws ❷. Take off the left fork protector.
– Remove screws ❸. Take off the right fork protector.

11.8 Installing the fork protector



– Position the fork protection 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 and clamp. Mount and tighten screws ❷.
– Position the fork protector on the right fork leg. Mount and tighten screws ❸.

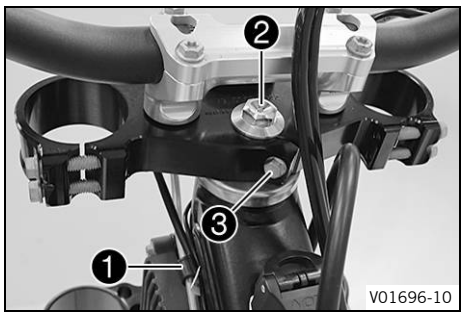
Guideline

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

11.9 Removing the lower triple clamp 🔧

Preparatory work

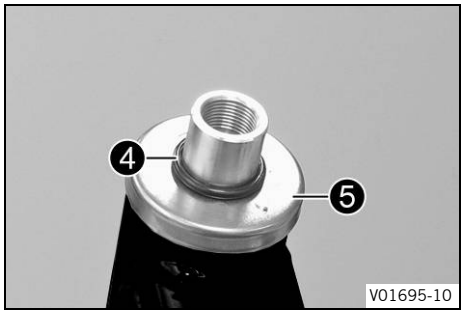
– Raise the motorcycle with a lift stand. (📖 p. 47)
– Remove the front wheel. 🔧 (📖 p. 91)
– Remove the fork legs. 🔧 (📖 p. 49)
– Remove the start number plate. (📖 p. 55)
– Remove front fender. (📖 p. 55)
– Remove the handlebar cushion.



Main work

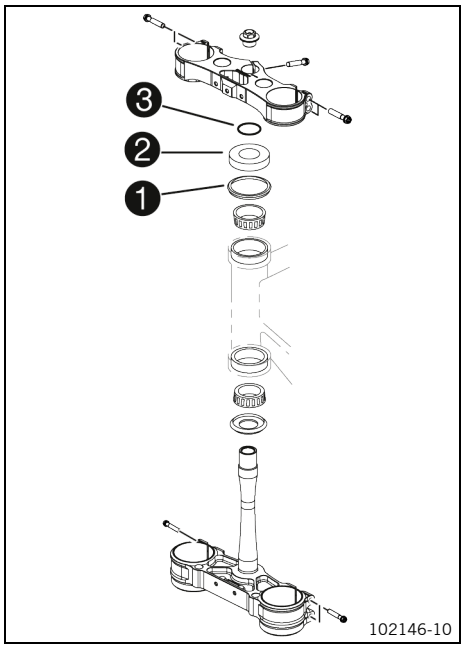
- Take off cable holder ❶ in front of the left radiator.
- Remove screw ❷.
- Remove screw ❸.
- Remove the upper triple clamp with the handlebar and hang them to the side.

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



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

11.10 Installing the lower triple clamp

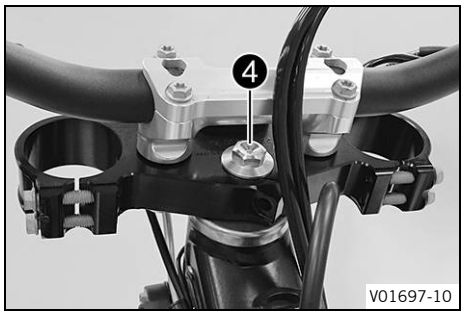


Main work

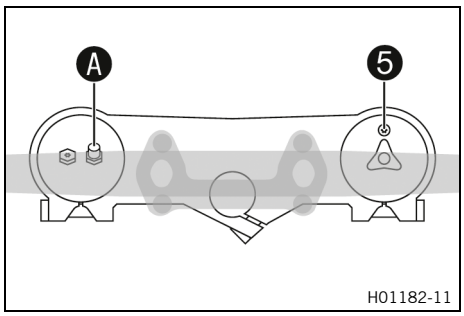
- Clean the bearing and sealing elements, check for damage, and grease.

  High viscosity grease (📖 p. 140)

- Insert the lower triple clamp with the steering stem. Mount 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.



– Position the fork legs.

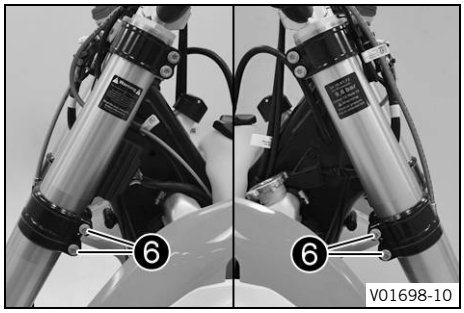
✔ Air bleeder screw ❺ of the right fork leg is positioned to the front.

✔ Valve Ⓐ of the left fork leg faces the front.

Info

The air suspension **AER** valve is located in the left fork leg.

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 upper edge of the upper triple clamp.

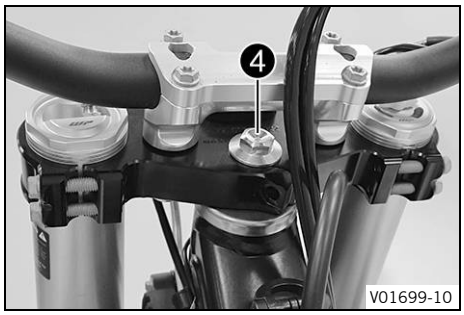


– Tighten screws ❻.

Guideline

Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)

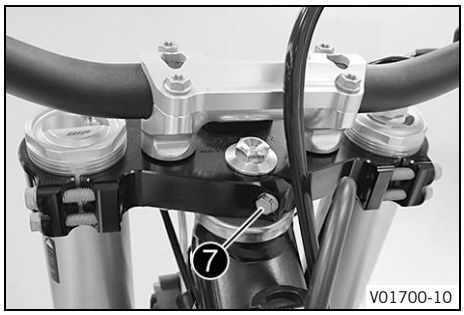
– Secure the wiring harness and the clutch line with the cable holder.



– Tighten screw ❹.

Guideline

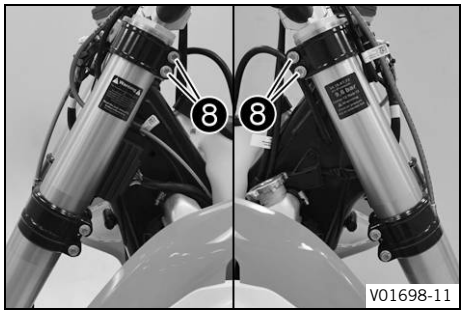
Screw, top steering head	M20x1.5	12 Nm (8.9 lbf ft)



– Mount and tighten screw ❼.

Guideline

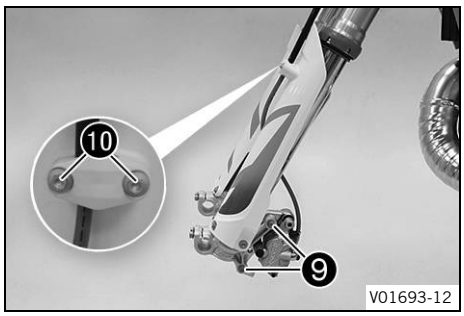
Screw, top steering stem	M8	20 Nm (14.8 lbf ft) **Loctite®243™**



– Tighten screws ❽.

Guideline

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



– Position the brake caliper. Mount and tighten screws ⑨.
Guideline

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

– Position the brake line and the clamp. Mount and tighten screws ⑩.

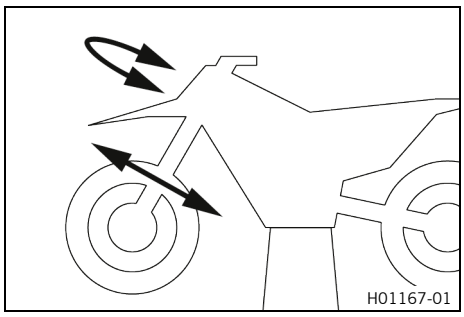
Finishing work
– Check that the wiring harness, throttle cables, and brake and clutch lines can move freely and are routed correctly.
– Install front fender. (📖 p. 55)
– Install the front wheel. 🔧 (📖 p. 92)
– Check steering head bearing play. (📖 p. 53)
– Remove the motorcycle from the lift stand. (📖 p. 47)
– Install the start number plate. (📖 p. 55)
– Mount the handlebar cushion.

11.11 Checking steering head bearing play

Warning
Danger of accidents Incorrect steering head bearing play impairs the handling characteristic and damages components.
– Correct incorrect steering head bearing play immediately. (Your authorized KTM workshop will be glad to help.)

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

Preparatory work
– Raise the motorcycle with a lift stand. (📖 p. 47)



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:
– Adjust steering head bearing play. 🔧 (📖 p. 54)
– Move the handlebar to and fro over the entire steering range.

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

» If detent positions are detected:
– Adjust steering head bearing play. 🔧 (📖 p. 54)
– Check the steering head bearing and change if necessary.

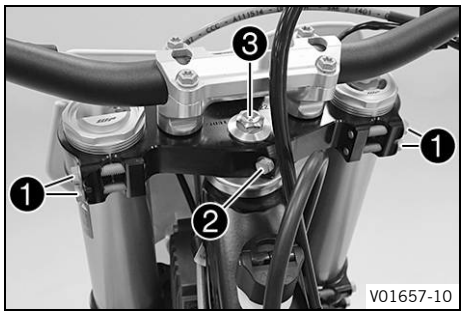
Finishing work

– Remove the motorcycle from the lift stand. (p. 47)

11.12 Adjusting steering head bearing play

Preparatory work

– Raise the motorcycle with a lift stand. (p. 47)
– Remove the handlebar cushion.



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.

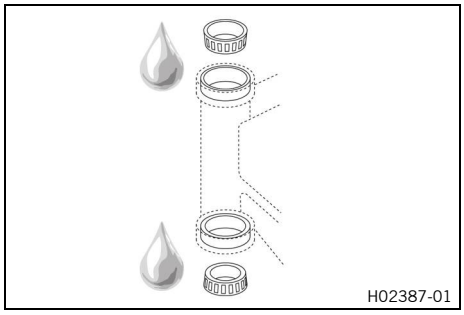
Guideline

Screw, top steering stem	M8	20 Nm (14.8 lbf ft) **Loctite®243™**

Finishing work

– Check steering head bearing play. (p. 53)
– Remove the motorcycle from the lift stand. (p. 47)
– Mount the handlebar cushion.

11.13 Lubricating the steering head bearing



– Remove the lower triple clamp. (p. 50)
– Install the lower triple clamp. (p. 51)

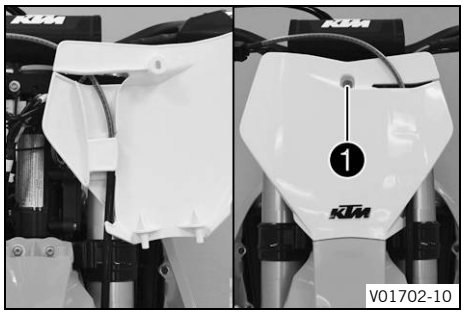
Info

The steering head bearing is cleaned and lubricated in the course of removal and installation.

11.14 Removing the start number plate

– Remove screw 1.
– Disconnect the brake line at the start number plate. Take off the start number plate.

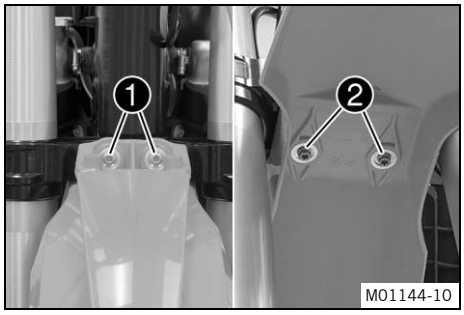
11.15 Installing the start number plate



– Connect the brake line at the start number plate.
– Position the start number plate.
  ✓ The holding lugs engage in the fender.
– Mount and tighten screw 1.

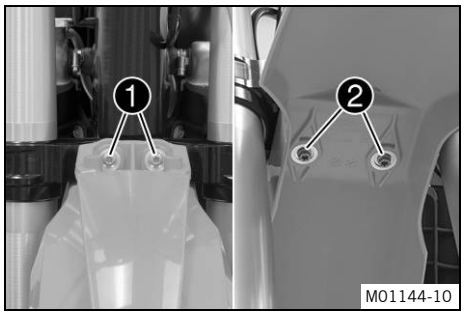
11.16 Removing front fender

Preparatory work
– Remove the start number plate. (📖 p. 55)



Main work
– Remove screws 1 and 2. Remove front fender.

11.17 Installing front fender



Main work
– Position front fender. Mount and tighten screws 1 and 2.
  Guideline

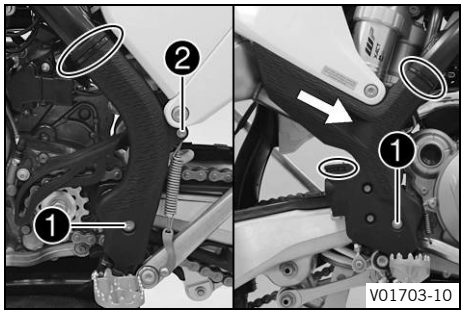
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

Finishing work
– Install the start number plate. (📖 p. 55)

11.18 Removing the shock absorber

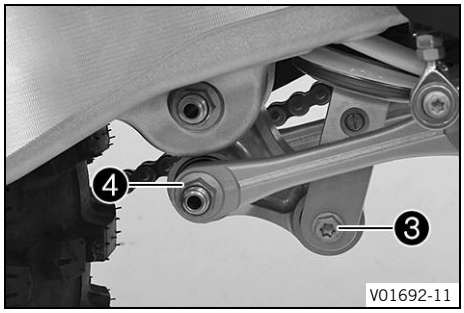
Preparatory work

– Raise the motorcycle with a lift stand. (p. 47)



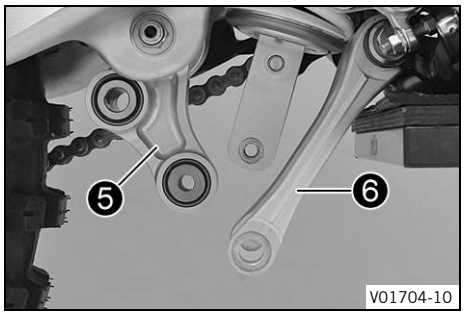
Main work

– Remove the cable ties.
– Remove screws ❶ with the washers.
– Remove screw ❷.
– Take off the left frame protector.
– Push the right frame protector to the front and take off at the bottom.

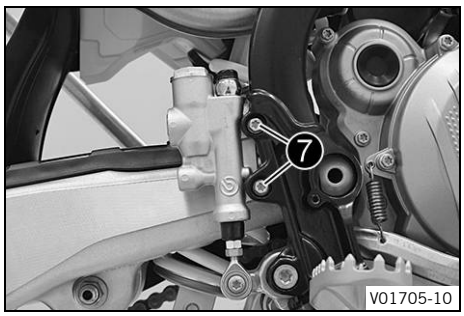


– Remove screw ❸.
– Remove fitting ❹.

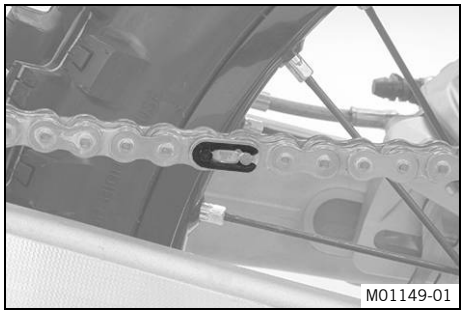
Info
Raise the swingarm slightly to be able to remove the screws more easily.



– Press angle lever ❺ toward the rear.
– Press linkage lever ❻ downward.



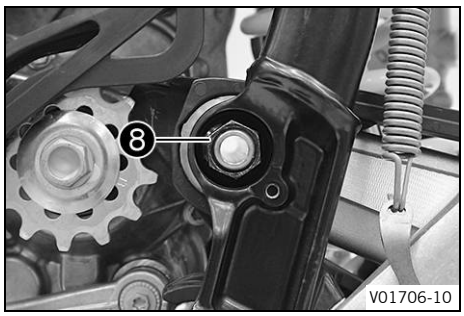
– Remove screws ❼ and pull foot brake cylinder off the push rod.



– Remove the connecting link of the chain.

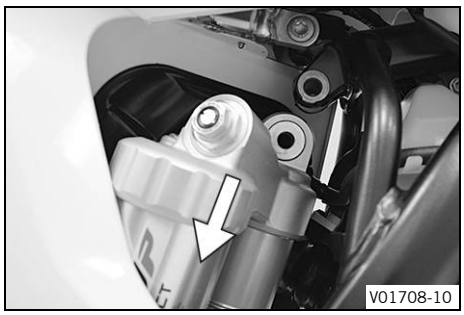
Info
Cover the components to protect them against damage.

– Take off the chain.



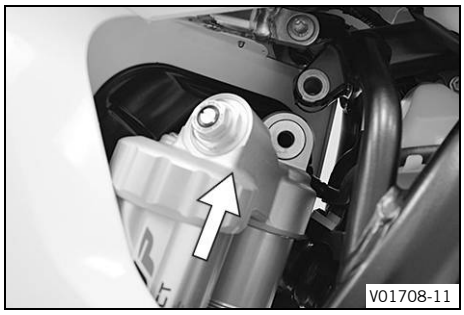
– Remove nut ❽ and pull out the swingarm pivot.
– Push the link fork back and secure it against falling over.

– Hold the shock absorber and remove screw ❾.



– Remove the shock absorber carefully at the bottom.

11.19 Installing the shock absorber



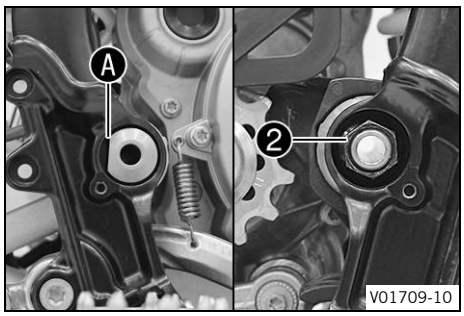
Main work

– Carefully position the shock absorber into the vehicle from the bottom.

– Mount and tighten screw ❶.

Guideline

Screw, top shock absorber	M10	60 Nm (44.3 lbf ft) **Loctite®2701™**



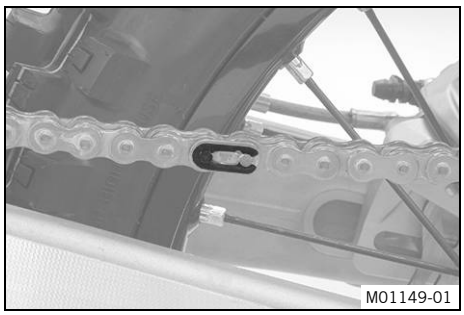
– Position the link fork and mount the swingarm pivot.

Info
Pay attention to flat area Ⓐ.

– Mount and tighten nut ❷.

Guideline

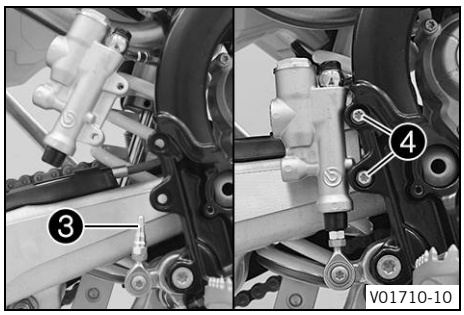
Nut, fork pivot	M16x1.5	100 Nm (73.8 lbf ft)



– Mount the chain.
– Connect the chain with the connecting link.

Guideline

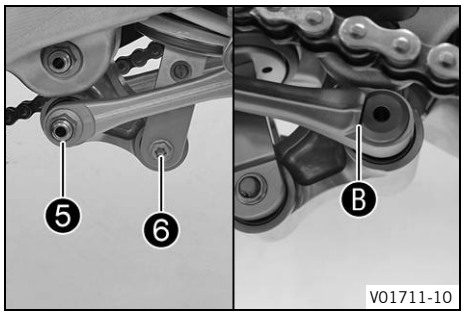
The closed side of the chain joint lock must face in the direction of travel.



– Position the foot brake cylinder.
  ✔ Push rod ❸ engages in the foot brake cylinder.
  ✔ The dust boot is correctly positioned.
– Mount and tighten screws ❹.

Guideline

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



– Position the angle lever and linkage lever.
– Mount and tighten fitting ❺.

Guideline

Nut, linkage lever on angle lever	M14x1.5	60 Nm (44.3 lbf ft)

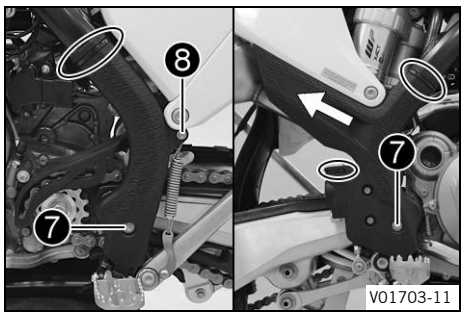
Info
Pay attention to flat area Ⓑ.

– Mount and tighten screw ❻.

Guideline

Screw, bottom shock absorber	M10	60 Nm (44.3 lbf ft) **Loctite®2701™**

Info
Raise the swingarm slightly to be able to mount the screw more easily.



– Position the left frame protector.
– Insert the right frame protector from below and push it to the rear.
– Mount and tighten screws ❼ with the washers.
  Guideline

Screw, frame protector	M5	3 Nm (2.2 lbf ft)

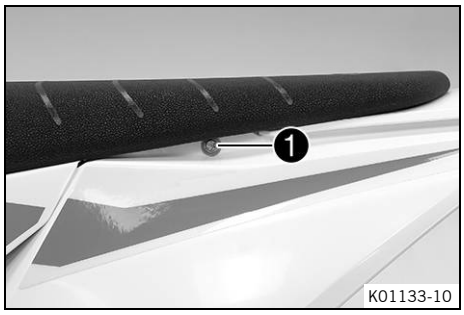
– Mount and tighten screw ❽.
  Guideline

Screw, frame protector	M5	3 Nm (2.2 lbf ft)

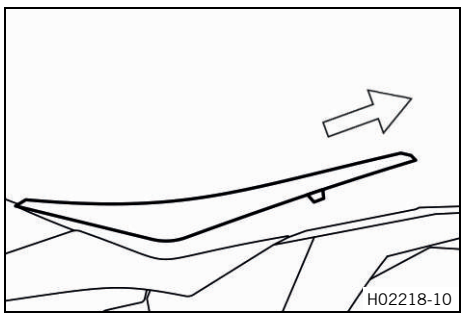
– Mount the new cable ties.

Finishing work
– Remove the motorcycle from the lift stand. (📖 p. 47)

11.20 Removing the seat

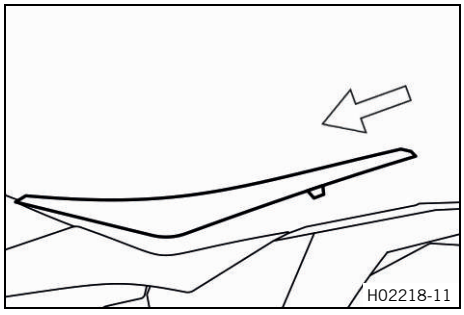


– Remove screw ❶.

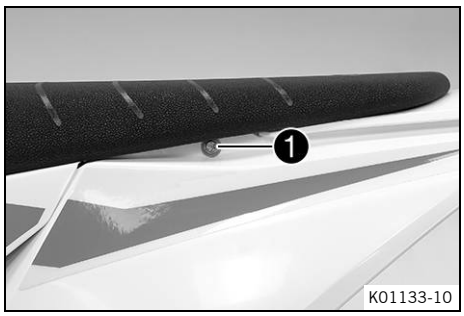


– Raise the rear of the seat, pull the seat back, and lift it off.

11.21 Mounting the seat



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



– Mount and tighten screw 1.

Guideline

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

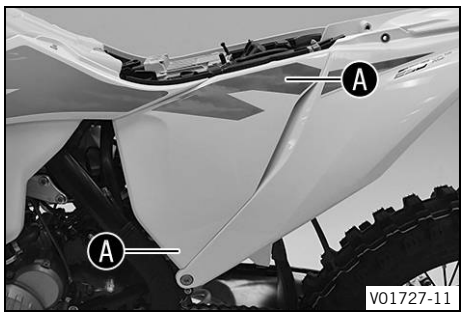
11.22 Removing the air filter box cover

Condition

The air filter box cover is secured.

– Remove the seat. (📖 p. 59)

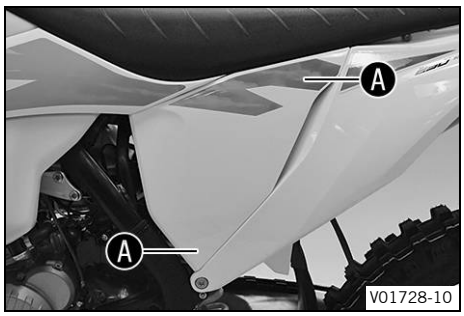
– Remove screw 1.



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

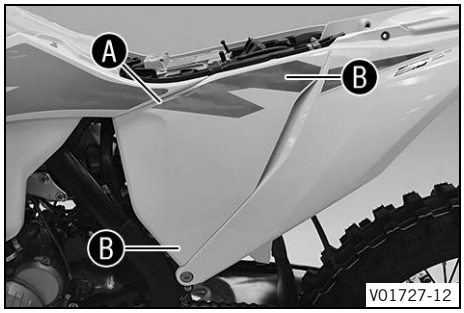
Condition

The air filter box cover is not secured.



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

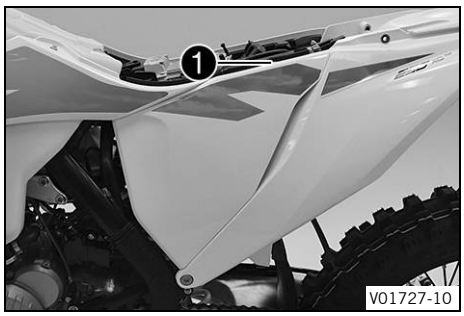
11.23 Installing the air filter box cover



Condition

The air filter box cover is secured.

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

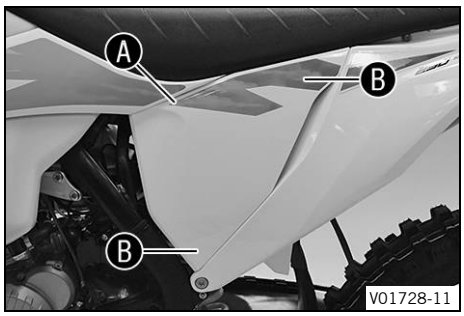


– Mount and tighten screw ❶.

Guideline

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

– Mount the seat. (📖 p. 59)



Condition

The air filter box cover is not secured.

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

11.24 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.

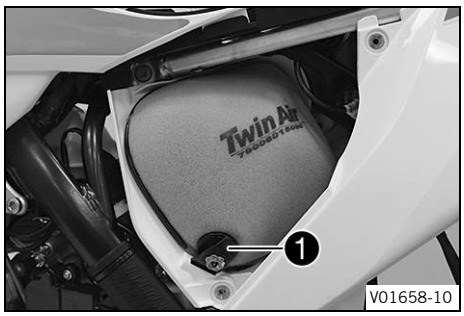
Note

Environmental hazard Hazardous substances cause environmental damage.

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

Preparatory work

– Remove the air filter box cover. (📖 p. 60)



Main work

– Detach retaining tab ❶. Remove air filter with air filter support.
– Take off air filter from air filter support.

11.25 Cleaning the air filter and air filter box

Note

Environmental hazard Hazardous substances cause environmental damage.

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

Info

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. 60)
– Remove the air filter. (p. 61)

Main work

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

Air filter cleaner (p. 140)

Info

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

– Oil the dry air filter with a high-grade air filter oil.

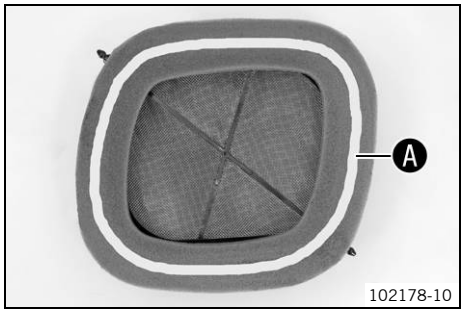
Oil for foam air filter (p. 140)

– Clean the air filter box.
– Clean the intake flange and check it for damage and tightness.

Finishing work

– Install the air filter. (p. 63)
– Install the air filter box cover. (p. 61)

11.26 Installing the air filter

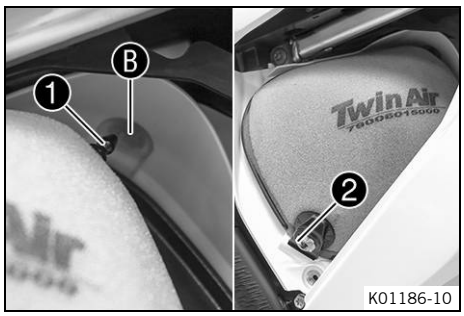


Main work

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

– Grease the air filter in area A.

Long-life grease (📖 p. 140)



– Insert the air filter and position the top retaining pin 1 in bushing B.

  ✔ The air filter is correctly positioned.

– Secure the bottom retaining pin with holding tab 2.

Info

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

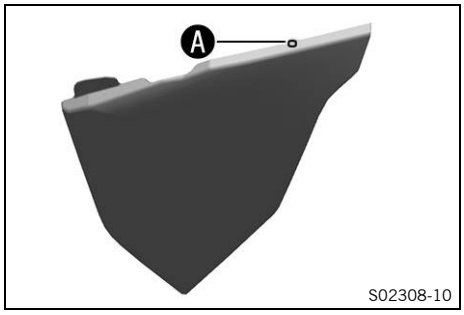
Finishing work

– Install the air filter box cover. (📖 p. 61)

11.27 Preparing air filter box cover for securing

Preparatory work

– Remove the air filter box cover. (📖 p. 60)



Main work

– Drill a hole at marking A.

  Guideline

Diameter	6 mm (0.24 in)

Finishing work

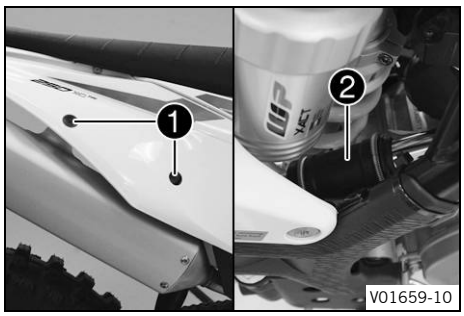
– Install the air filter box cover. (📖 p. 61)

11.28 Removing the main silencer

Warning

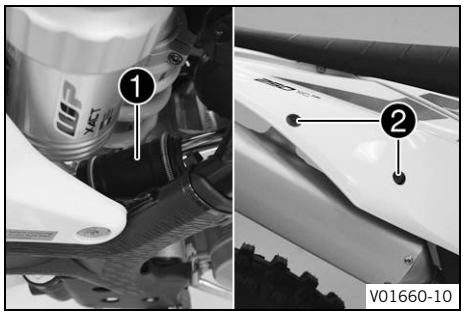
Danger of burns The exhaust system gets very hot when the vehicle is driven.

– Allow the exhaust system to cool down before performing any work on the vehicle.



– Remove screws ❶ with the washers.
– Pull off the main silencer from the manifold at exhaust sleeve ❷.

11.29 Installing the main silencer



– Position the main silencer in exhaust sleeve ❶.
– Mount and tighten screws ❷ with the washers.
Guideline

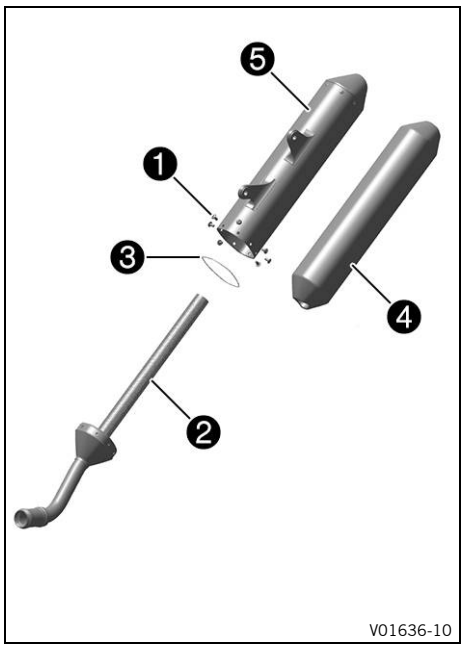
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

11.30 Changing the glass fiber yarn filling of 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 rock wool escape into the air, and the main silencer “burns out”.
Not only is the noise level higher, but the performance characteristics change.

Preparatory work
– Remove the main silencer. (📖 p. 63)



Main work

- Remove screws ❶. Pull out inner tube ❷ with O-ring ❸.
- Pull glass fiber yarn filling ❹ from the inner tube.
- Clean the parts that need to be reinstalled and check for damage.
- Mount new glass fiber yarn filling ❹ on the inner tube.
- Push outer tube ❺ over the inner tube with the new glass fiber yarn filling and the O-ring.
- Mount and tighten all screws ❶.

  Guideline

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

Finishing work

- Install the main silencer. (📖 p. 64)

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

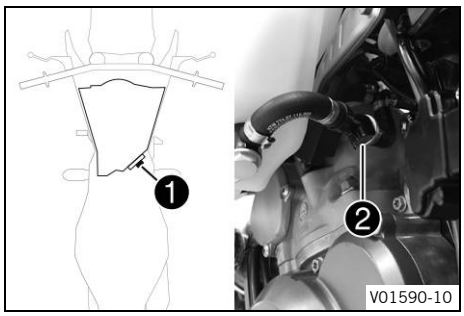
Warning

Danger of poisoning Fuel is 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. 59)

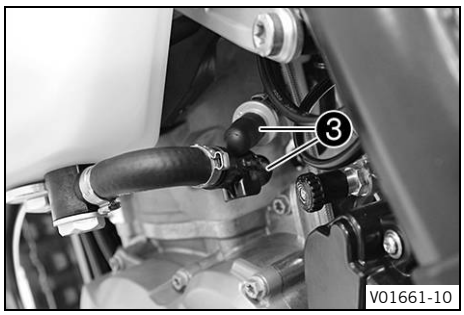


Main work

– Unplug connector ❶ of the fuel pump.

– Clean quick release coupling ❷ thoroughly with compressed air.

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

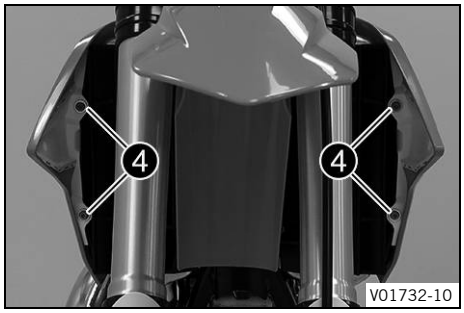


– Disconnect the quick release coupling.

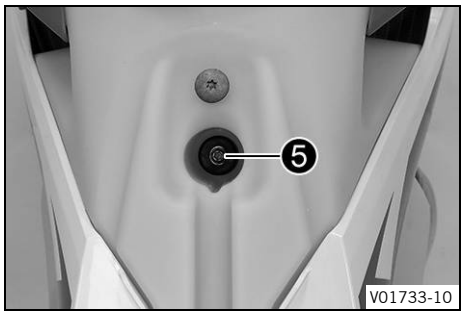
Info
Remaining fuel may flow out of the fuel hose.

– Mount wash cap set ❸.

Wash cap set (81212016100)

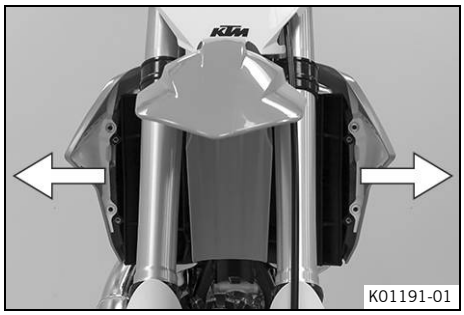


– Remove screws ❹.



– Remove screw ❺ with the rubber bushing.

– Remove the hose from the fuel tank breather.



– Pull both spoilers laterally off the radiator and lift off the fuel tank.

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

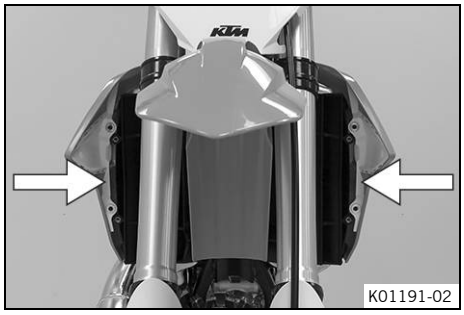
Warning

Danger of poisoning Fuel is poisonous and a health hazard.

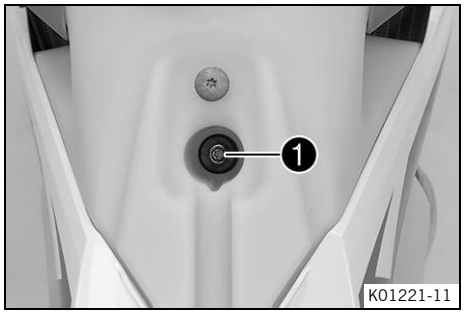
- Avoid skin, eye and clothing contact with fuel.
- Immediately consult a doctor if you swallow fuel.
- Do not inhale fuel vapors.
- In case of skin contact, rinse the affected area with plenty of water.
- Rinse the eyes thoroughly with water, and consult a doctor in case of fuel contact with the eyes.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

Main work

- Check the throttle cable routing. (p. 74)



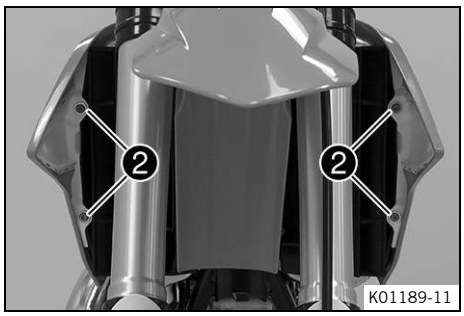
- Position the fuel tank and fit the two spoilers laterally to the radiator.
- Make sure that no cables or throttle cables are trapped or damaged.



- Attach the fuel tank breather hose.
- Mount and tighten screw 1 with the rubber bushing.

  Guideline

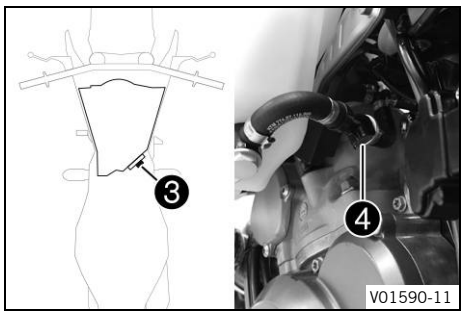
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)



– Mount and tighten screws ❷.

Guideline

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



– Plug in connector ❸ for the fuel pump.
– Remove the wash cap set and thoroughly clean the quick release coupling using compressed air.

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

– Spray silicone spray onto a lint-free cleaning cloth and lightly lubricate the O-ring of the quick-release coupling.

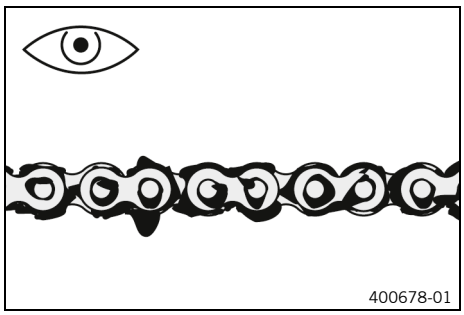
Silicone spray (📖 p. 141)

– Join quick release coupling ❹.

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

Finishing work
– Mount the seat. (📖 p. 59)

11.33 Checking the chain for dirt



– Check the chain for heavy soiling.
  » If the chain is very dirty:
    – Clean the chain. (📖 p. 68)

11.34 Cleaning the chain

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

Warning

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

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

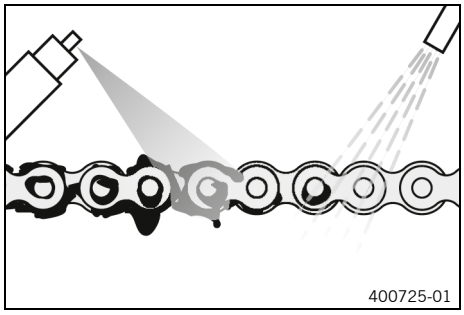
Note

Environmental hazard Hazardous substances cause environmental damage.

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

Info

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



Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 47)

Main work

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

Chain cleaner (📖 p. 140)

– After drying, apply chain spray.

Off-road chain spray (📖 p. 140)

Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 47)

11.35 Checking the chain tension

Warning

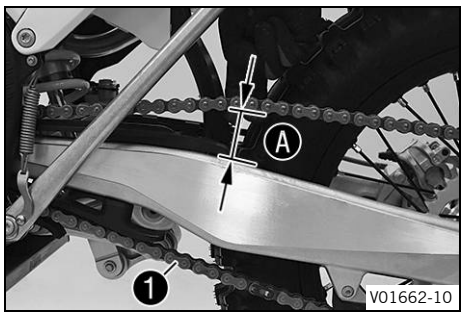
Danger of accidents Incorrect chain tension damages components and results in accidents.

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 a lift stand. (📖 p. 47)



Main work

– Pull the chain at the end of the chain sliding piece upward to measure chain tension Ⓐ.

Guideline

Lower chain section ❶ must be taut.

Info

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 the specification:

– Adjust the chain tension. (📖 p. 70)

Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 47)

11.36 Adjusting the chain tension

Warning

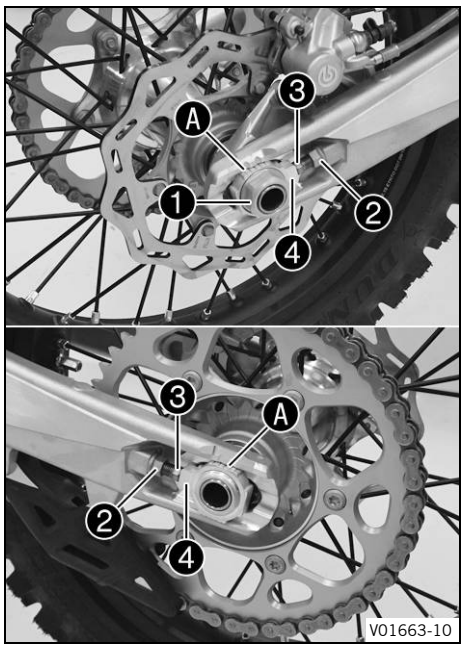
Danger of accidents Incorrect chain tension damages components and results in accidents.

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 a lift stand. (📖 p. 47)
– Check the chain tension. (📖 p. 69)



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 chain adjusters ❹ are fitted correctly on adjusting screws ❸.
– Tighten nut ❶.

Guideline

Nut, rear wheel spindle	M25x1.5	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°.

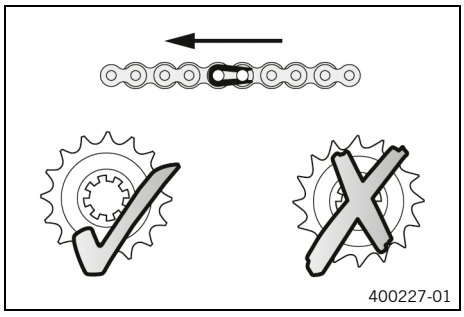
Finishing work

– Remove the motorcycle from the lift stand. (📖 p. 47)

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

Preparatory work

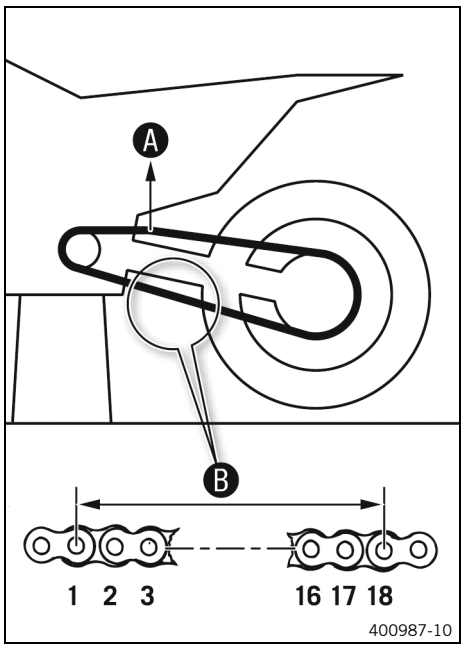
– Raise the motorcycle with a lift stand. (📖 p. 47)



Main work

– Shift the transmission into neutral.
– Check the chain, rear sprocket, and engine sprocket for wear.
  » If the chain, rear sprocket or engine sprocket is worn:
    – Change the drivetrain kit.

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



– Pull on the top section of the chain with the specified weight Ⓐ.

Guideline

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

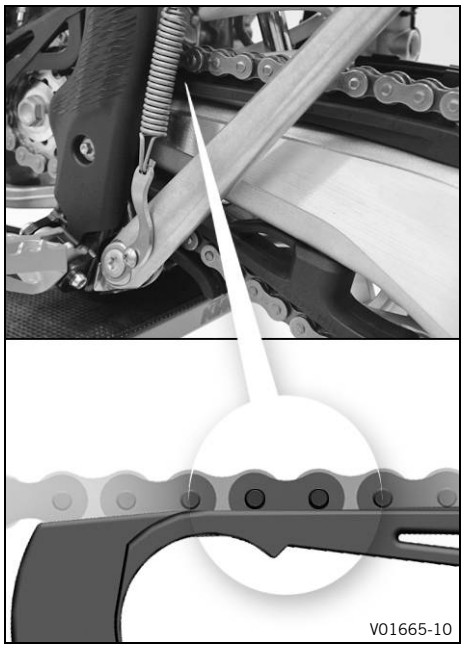
– Measure distance Ⓑ of 18 chain rollers in the lower chain section.

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

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

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

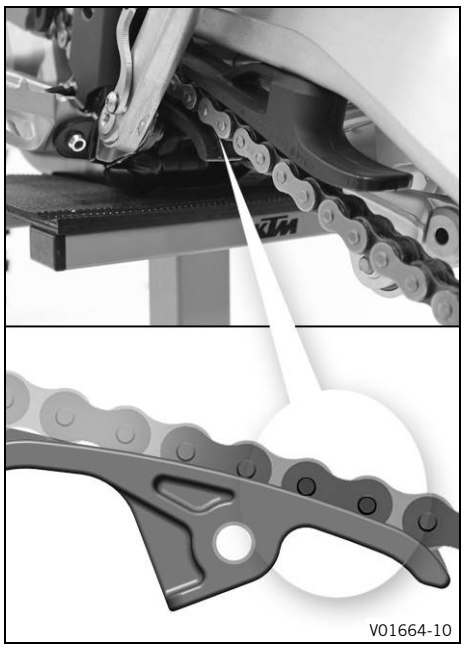
Info
When a new chain is mounted, the rear sprocket and engine sprocket should also be changed. New chains wear out faster on an old, worn rear sprocket or engine sprocket.



– Check the chain sliding guard for wear.
» If the lower edge of the chain pins 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 screws on the chain sliding guard.

Guideline

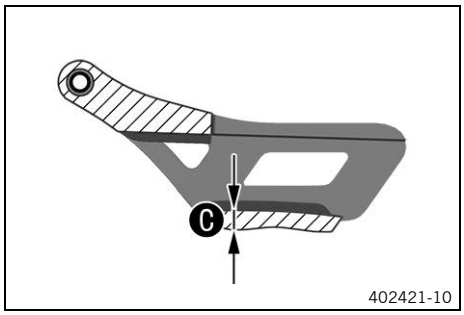
Screw, chain sliding guard	M6	6 Nm (4.4 lbf ft) **Loctite®243™**


V01664-10

– Check the chain sliding piece for wear.
  » If the lower edge of the chain pins 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 screw on the chain sliding piece.

    Guideline

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

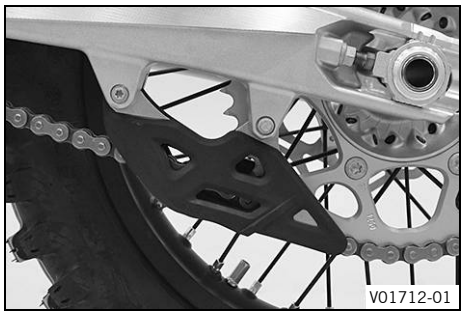


402421-10

– Check the chain guide with a slide gage for dimension C.

Minimum thickness C of the chain guide	6 mm (0.24 in)

  » If the measured value is less than the specification:
    – Change the chain guide.


V01712-01

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

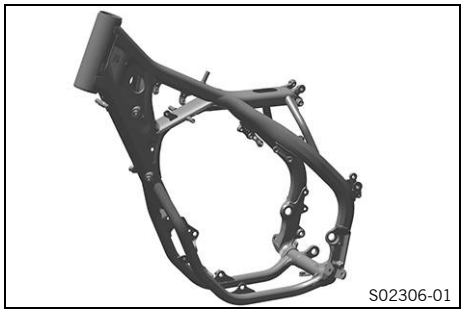
    Guideline

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. 47)

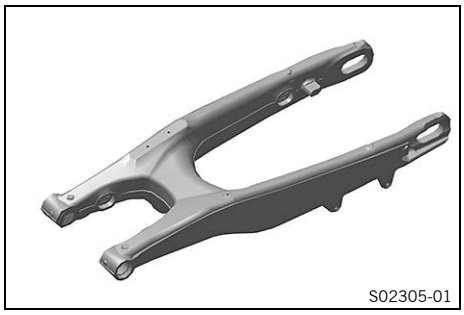
11.38 Checking the frame


S02306-01

– Check the frame for cracks and deformation.
  » If the frame exhibits cracks 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.

11.39 Checking the link fork


S02305-01

– Check the link fork for damage, cracking, and deformation.
  » If the link fork exhibits damage, cracking, or deformation:
    – Change the link fork.

Info
Always replace a damaged link fork. Repairing the link fork is not authorized by KTM.

11.40 Checking the throttle cable routing

Warning
Danger of accidents The throttle cable may slip out of the guide if routed incorrectly.
The throttle slide will then no longer be closed and the speed can no longer be controlled.
– Make sure that the throttle cable routing and the play in the throttle cable comply with the specification.

Preparatory work
– Remove the seat. (p. 59)
– Remove the fuel tank. (p. 65)

Main work

– Check the throttle cable routing.

Both throttle cables must be routed, side by side, on the back of the handlebars, above the fuel tank bracket on the right of the frame to the throttle valve body. Both throttle cables must be secured behind the rubber strap of the fuel tank support.

» If the throttle cable routing is not as specified:

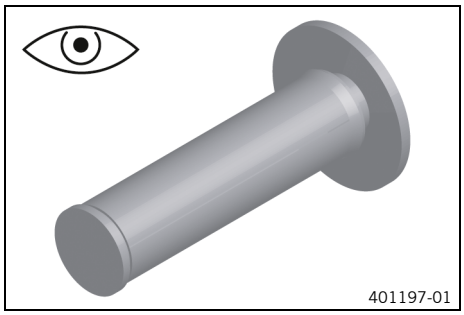
– Correct the throttle cable routing.

Finishing work

– Install the fuel tank. (p. 67)

– Mount the seat. (p. 59)

11.41 Checking the rubber grip



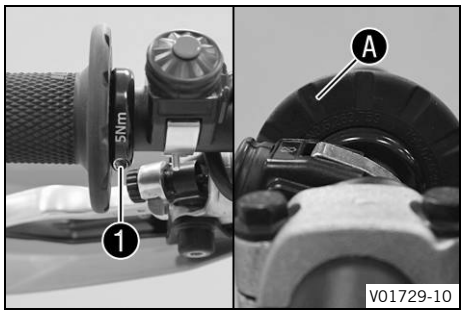
– Check the rubber grips on the handlebar for damage, wear, and looseness.

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 or worn:

– Change the rubber grip.



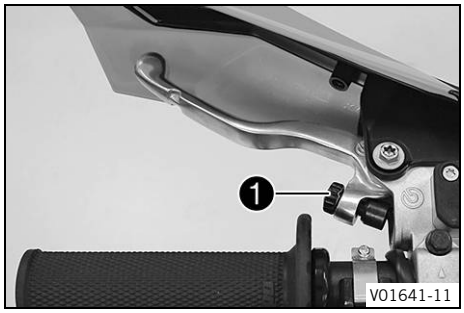
– Check that screw 1 is firmly seated.

Guideline

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

Diamond A must be positioned visibly as shown in the figure.

11.42 Adjusting the basic position of the clutch lever



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

Info

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

11.43 Checking/correcting the fluid level of the hydraulic clutch

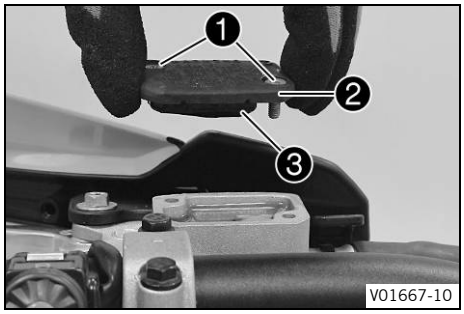
Warning

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.

Info

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



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

Fluid level below container rim	4 mm (0.16 in)

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

Brake fluid DOT 4 / DOT 5.1 (📖 p. 138)

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

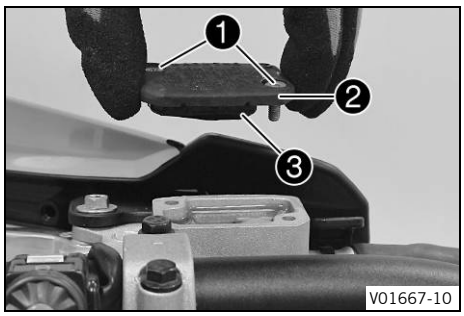
Info
Clean up overflowed or spilled brake fluid immediately with water.

11.44 Changing the hydraulic clutch fluid

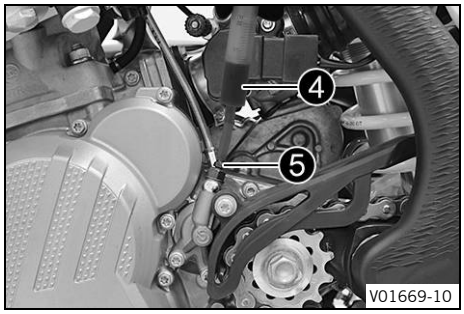
Warning
Skin irritation Brake fluid causes skin irritation.
- Keep brake fluid out of the reach of children.
- Wear suitable protective clothing and safety glasses.
- Do not allow brake fluid to come into contact with the skin, the eyes or clothing.
- Consult a doctor immediately if brake fluid has been 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.

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

Info
Never use DOT 5 brake fluid. It is silicone-based and purple in color. Oil seals and 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.



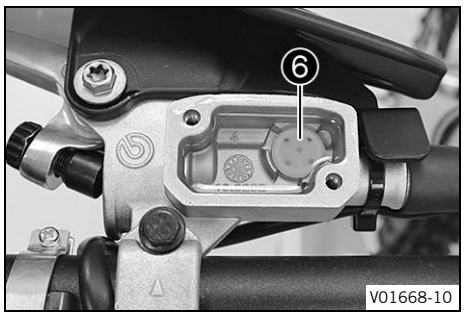
- Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws ❶.
- Remove cover ❷ with membrane ❸.



- Fill bleeding syringe ❹ with the appropriate hydraulic fluid.

Syringe (50329050000)
Brake fluid DOT 4 / DOT 5.1 (📖 p. 138)

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



– Now inject the liquid into the system until it emerges from the drill hole 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.

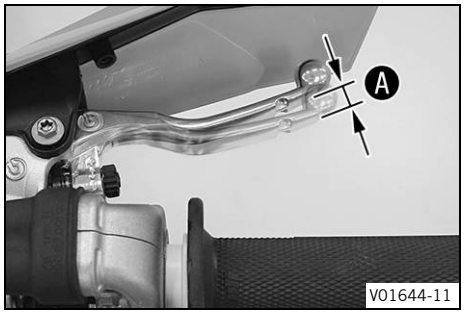
12.1 Checking the free travel of the hand brake lever

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.



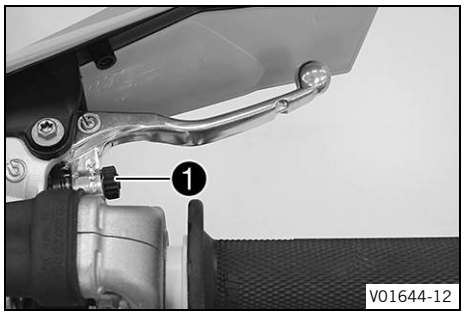
– Push the hand brake lever forward and check free travel Ⓐ.

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

» If the free travel does not match the specification:

– Adjust the basic position of the hand brake lever. (📖 p. 79)

12.2 Adjusting the basic position of the hand brake lever



– Check the free travel of the hand brake lever. (📖 p. 79)

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

Info

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

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

The range of adjustment is limited.

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

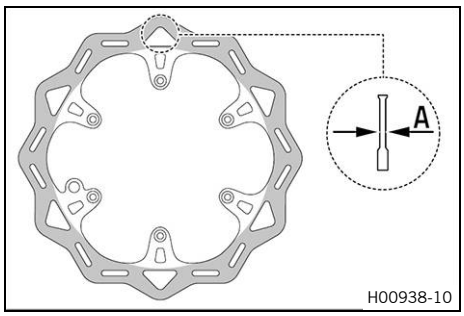
Do not make any adjustments while riding.

12.3 Checking the brake discs

Warning

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

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



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

Info
Wear reduces the thickness of the brake disc around the contact surface of the brake linings.

Brake discs - wear limit	
front	2.5 mm (0.098 in)
rear	3.5 mm (0.138 in)

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

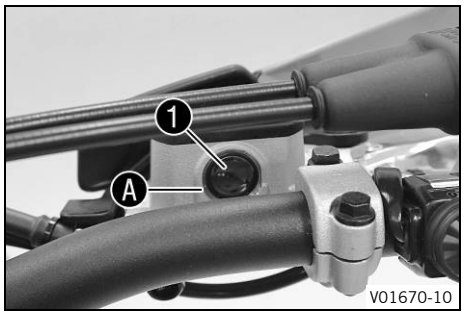
– Check the front and rear brake discs for damage, cracking, and deformation.
» If the brake disc exhibits damage, cracking, or deformation:
  – Change the front brake disc.
  – Change the rear brake disc.

12.4 Checking the front brake fluid level

Warning
Danger of accidents An insufficient brake fluid level will cause the brake system to fail.
If the brake fluid level drops below the specified marking or the specified value, the brake system is leaking or the brake linings are worn down.
– Check the brake system and do not continue riding until the problem is eliminated. (Your authorized KTM workshop will be glad to help.)

Warning
Danger of accidents Old brake fluid reduces the braking effect.
– Make sure that brake fluid for the front and rear brake is changed in accordance with the service schedule. (Your authorized KTM workshop will be glad to help.)

Preparatory work
– Check the front brake linings. (p. 82)



Main work
– Move the brake reservoir mounted on the handlebar to a horizontal position.
– Check the brake fluid level in level viewer Ⓘ.
» If the brake fluid level has dropped below the marking Ⓐ:
  – Add front brake fluid. (p. 81)

12.5 Adding front brake fluid

Warning

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

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

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

Warning

Skin irritation Brake fluid causes skin irritation.

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

Warning

Danger of accidents Old brake fluid reduces the braking effect.

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

Note

Environmental hazard Hazardous substances cause environmental damage.

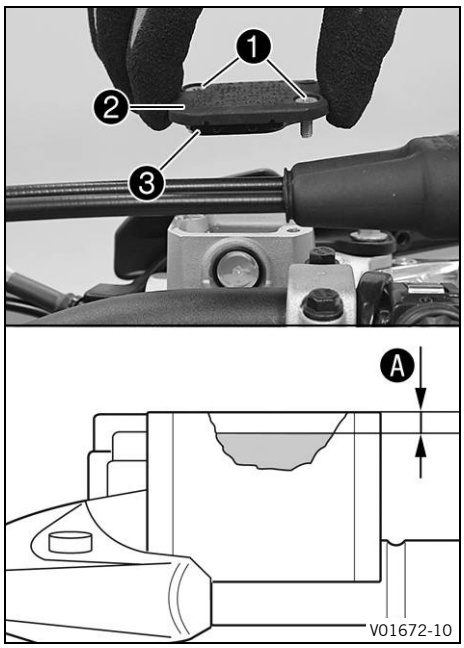
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

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

Preparatory work

– Check the front brake linings. (📖 p. 82)



Main work

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

Guideline

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

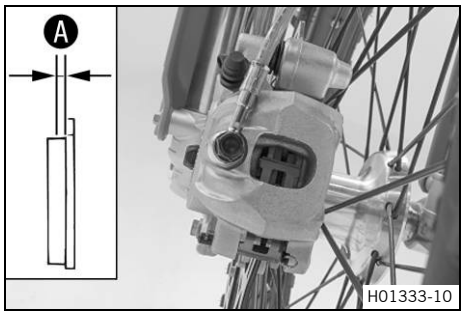
Brake fluid DOT 4 / DOT 5.1 (📖 p. 138)

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

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

12.6 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 Ⓐ.

Minimum thickness Ⓐ	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
– Change the brake linings of the front brake. 🔧 (📖 p. 82)

– Check the brake linings for damage and cracking.
» If damage or wear is encountered:
– Change the brake linings of the front brake. 🔧 (📖 p. 82)

12.7 Changing the brake linings of the front brake 🔧

Warning
Danger of accidents Incorrect servicing 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 manufacturer warranty shall be void.

- Only use brake linings approved and recommended by KTM.

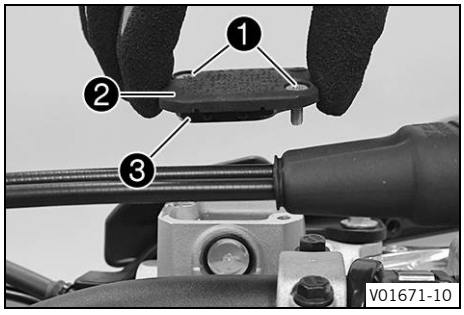
Note

Environmental hazard Hazardous substances cause environmental damage.

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

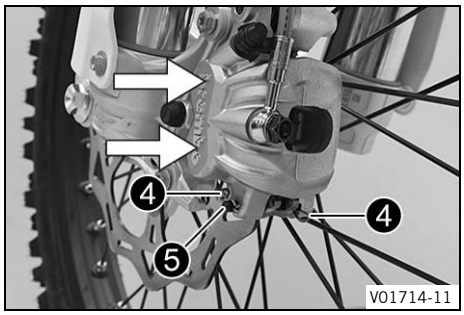
Info

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

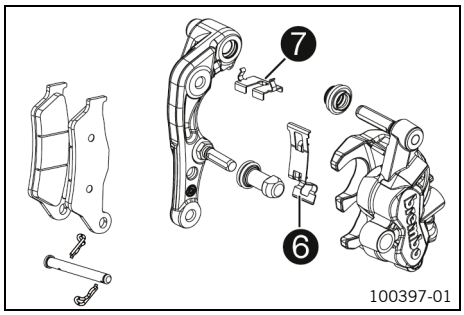


- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws ❶.
- Take off cover ❷ with membrane ❸.
- Manually press the brake caliper toward the brake disc to push back the brake pistons. Ensure that brake fluid does not flow out of the brake fluid reservoir, if necessary extract excess.

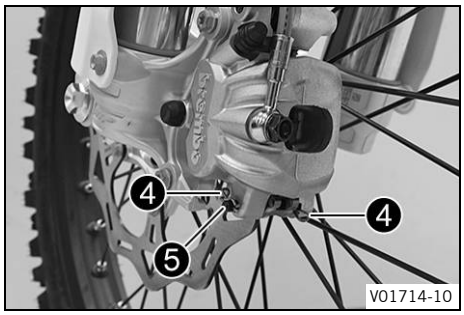
Info
Make sure that you do not press the brake caliper against the spokes when pushing back the brake pistons.



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



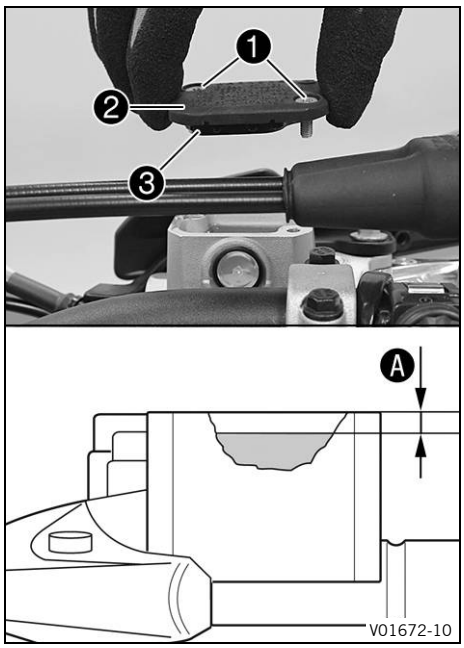
– Check that spring plate ❻ in the brake caliper and sliding plate ❼ in the brake caliper bracket are seated correctly.



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

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 A.

Guideline

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

Brake fluid DOT 4 / DOT 5.1 (p. 138)

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

Info

Immediately clean up any brake fluid that has overflowed or spilled with water.

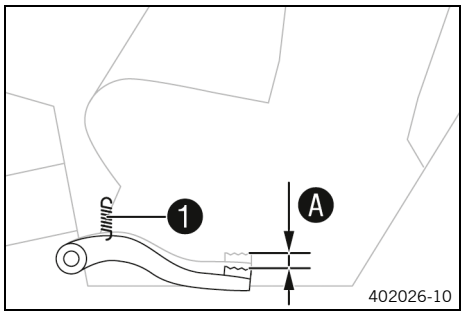
12.8 Checking the free travel of foot brake lever

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

Guideline

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

» If the free travel does not meet specifications:
  – Adjust the basic position of the foot brake lever. (p. 85)

– Reconnect spring 1.

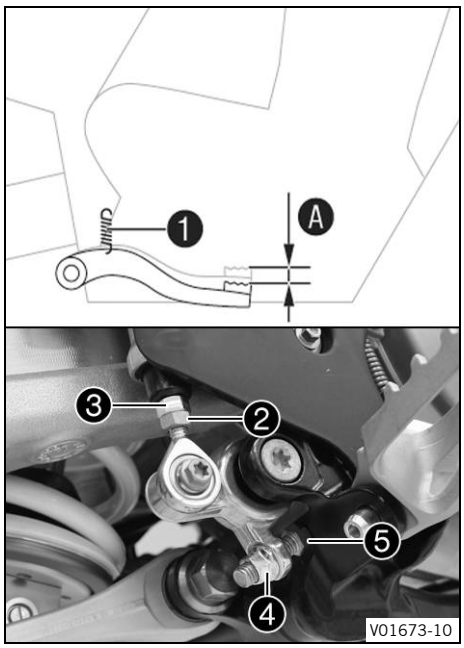
12.9 Adjusting the basic position of the foot brake lever

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.



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

Info
The range of adjustment is limited.

– Turn push rod ❸ 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 ❺ and tighten nut ❹.

Guideline

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

– Hold push rod ❸ and tighten nut ❷.

Guideline

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

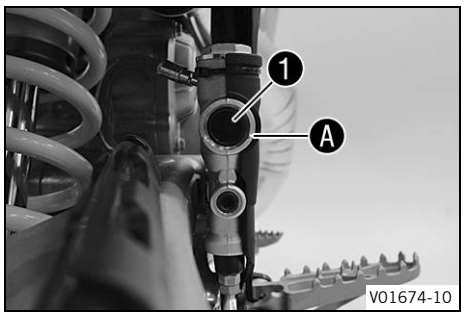
– Attach spring ❶.

12.10 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.)

Preparatory work
– Check the brake linings of the rear brake. (📖 p. 88)



Main work

– Stand the vehicle upright.
– Check the brake fluid level in level viewer 1.
  » If the brake fluid has dropped below marking A:
    – Add rear brake fluid. (p. 87)

12.11 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.)

Note

Environmental hazard Hazardous substances cause environmental damage.

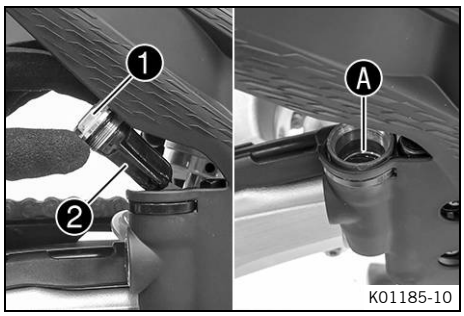
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

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

Preparatory work

– Check the brake linings of the rear brake. (p. 88)



Main work

– Stand the vehicle upright.
– Remove screw cap 1 with membrane 2 and the O-ring.
– Add brake fluid to level A.

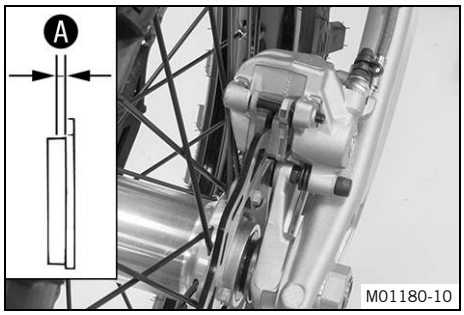
Brake fluid DOT 4 / DOT 5.1 (p. 138)

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

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

12.12 Checking the brake linings of the rear brake

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 rear brake linings. (p. 88)
– Check the brake linings for damage and cracking.
» If damage or wear is encountered:
– Change the rear brake linings. (p. 88)

12.13 Changing the rear brake linings

Warning
Danger of accidents Incorrect servicing 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.)

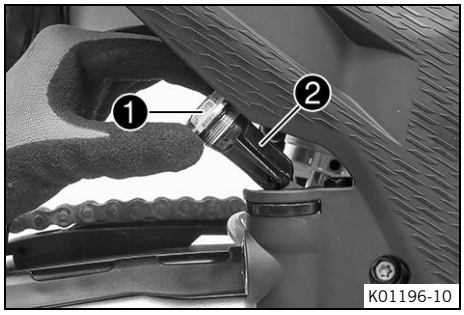
Note

Environmental hazard Hazardous substances cause environmental damage.

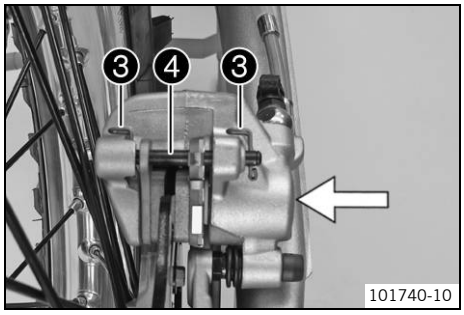
– Dispose of oils, grease, filters, fuel, cleaning agents, brake fluid, etc., correctly and in compliance with the applicable regulations.

Info

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



– Stand the vehicle upright.
– Remove screw cap ❶ with membrane ❷ and the O-ring.

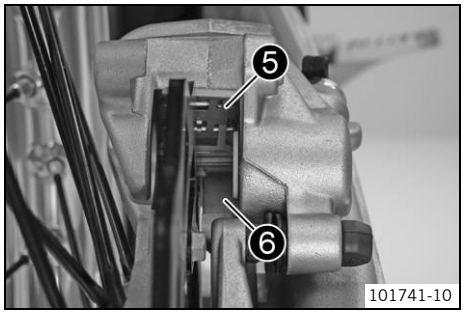


– Manually press the brake caliper toward the brake disc to push back the brake piston. Ensure that brake fluid does not flow out of the brake fluid reservoir, if necessary extract excess.

Info

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

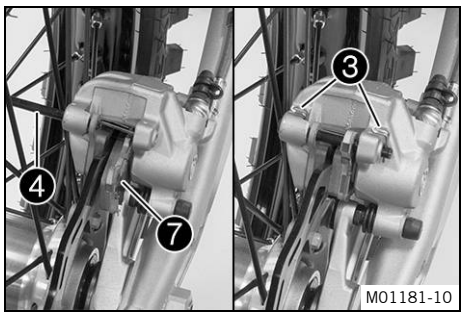
– Remove cotter pins ❸, pull out pin ❹, and remove the brake linings.
– Clean the brake caliper and brake caliper bracket.



– Check that spring plate ❺ in the brake caliper and sliding plate ❻ in the brake caliper bracket are seated properly.

Info

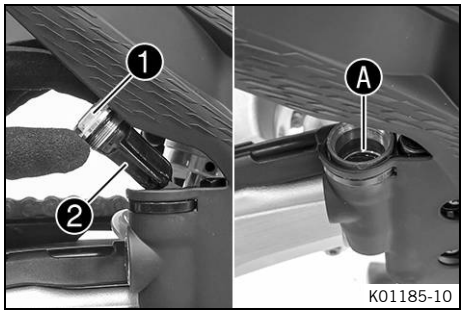
The arrow on the spring plate points in the direction of rotation of the brake disc.



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

Info
Always change the brake linings in pairs.
Make sure that decoupling plate ❼ is mounted on the piston side brake lining.

– 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. 138)

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

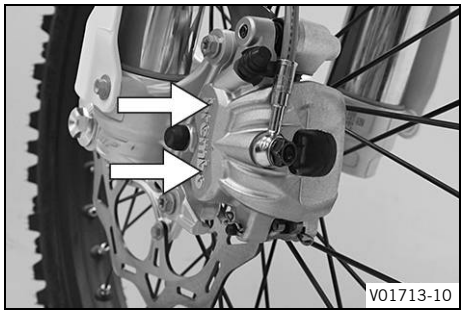
Info
Clean up overflowed or spilled brake fluid immediately with water.

13.1 Removing the front wheel

Preparatory work

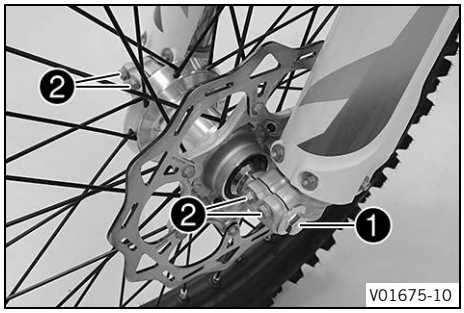
– Raise the motorcycle with a lift stand. (p. 47)

Main work

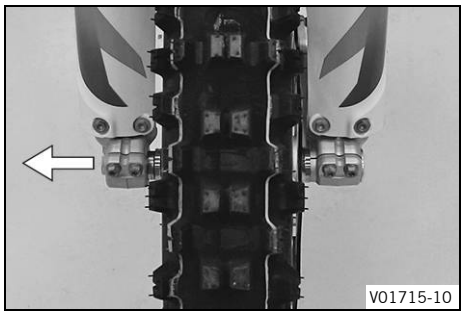


– Manually press the brake caliper toward the brake disc to push back the brake pistons.

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



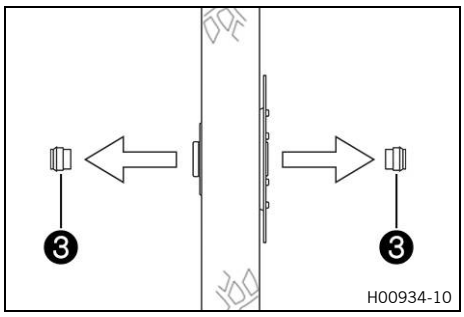
– Loosen screw ❶ by several rotations.
– Loosen screws ❷.
– Press on screw ❶ to push the wheel spindle out of the axle clamp.
– Remove screw ❶.



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.

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

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



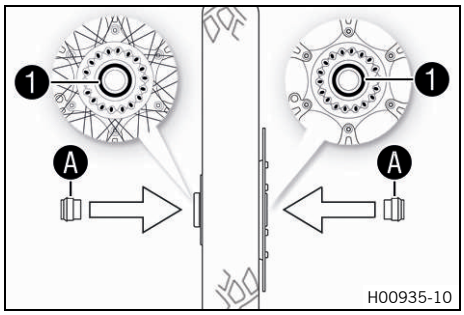
– Remove spacers ❸.

13.2 Installing the front wheel

Warning

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

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

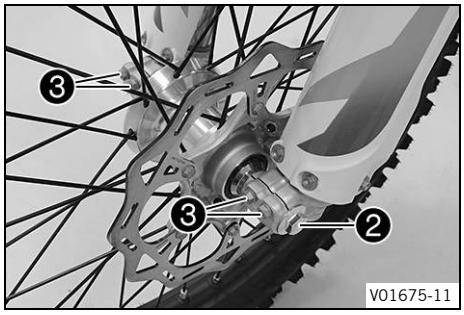


– Check the wheel bearing for damage and wear.
  » If the wheel bearing is damaged or worn:
    – Change front wheel bearing.
– Clean and grease shaft seal rings ❶ and contact surfaces Ⓐ of the spacers.

Long-life grease (📖 p. 140)

– Insert the spacers.
– Clean and grease the wheel spindle.

Long-life grease (📖 p. 140)



– 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. 47)
– Operate the front brake and compress the fork a few times firmly.
  ✔ The fork legs straighten.
– Tighten screws ❸.

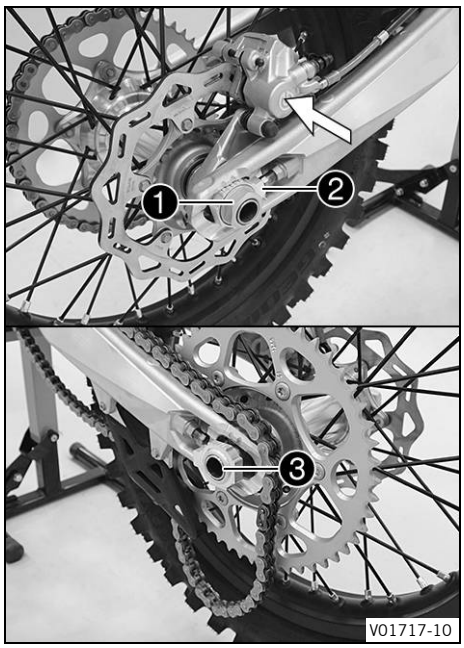
  Guideline

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

13.3 Removing the rear wheel

Preparatory work

– Raise the motorcycle with a lift stand. (📖 p. 47)



Main work

– Manually press the brake caliper toward the brake disc to push back the brake piston.

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

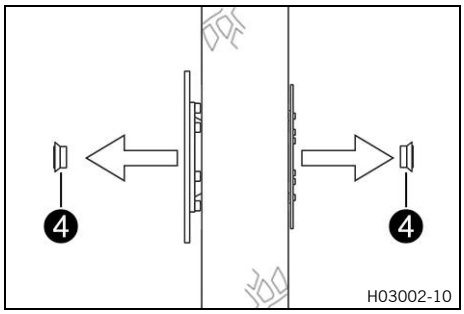
– Remove nut ❶.
– Take off chain adjuster ❷. Pull out wheel spindle ❸ far enough to allow the rear wheel to be pushed forward.
– Push the rear wheel forward as far as possible. Remove the chain from the rear sprocket.

Info
Cover the components to protect them against damage.

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.

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

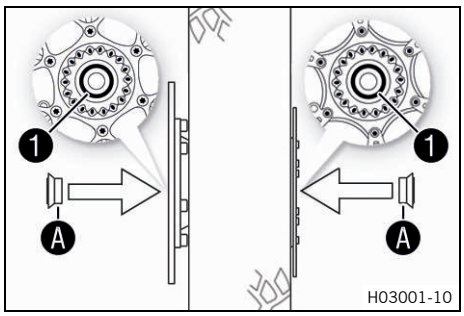
Info
Do not operate the foot brake lever when the rear wheel is removed.



– Remove spacers ❹.

13.4 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.



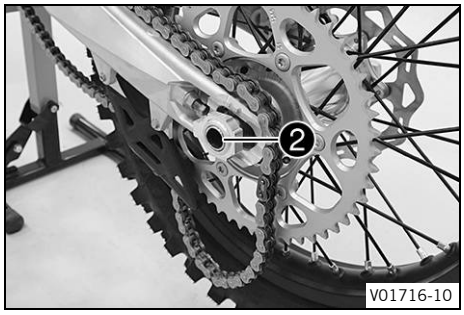
Main work

– 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 surfaces A of the spacers.

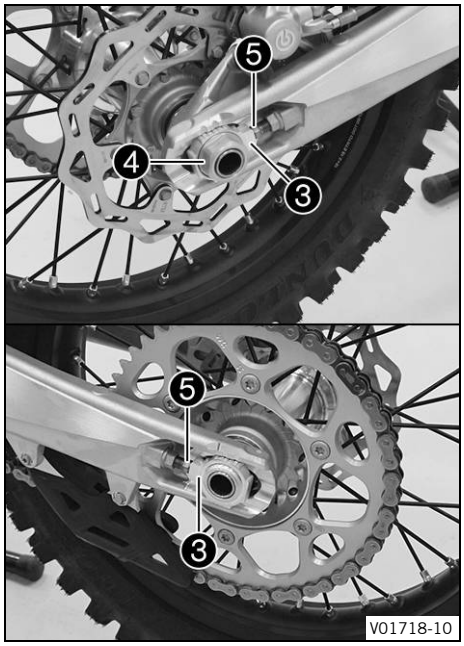
Long-life grease (📖 p. 140)

– Insert the spacers.
– Clean and grease the wheel spindle.

Long-life grease (📖 p. 140)



– Position 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. 69)
– Tighten nut 4.

  Guideline

Nut, rear wheel spindle	M25x1.5	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°.

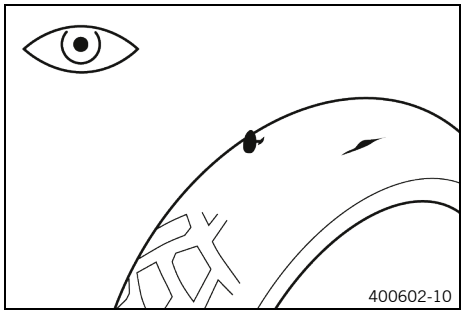
– Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.

Finishing work

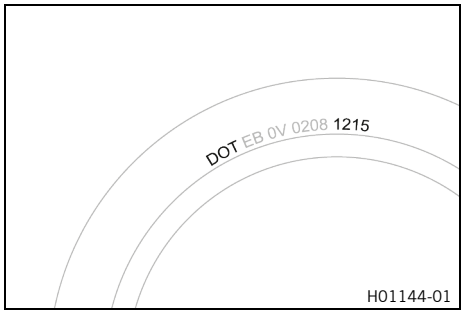
– Remove the motorcycle from the lift stand. (📖 p. 47)

13.5 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 pressure of the tires all have a major impact on the handling characteristic 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.



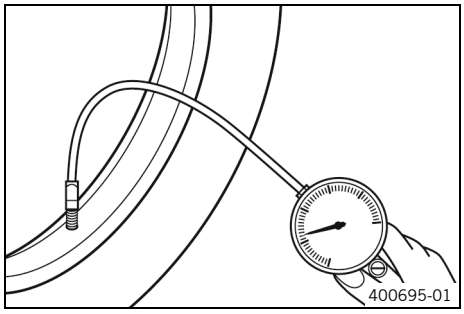
– Check the tire age.

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.

13.6 Checking tire pressure

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



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

Offroad tire pressure	
front	1.0 bar (15 psi)
rear	1.0 bar (15 psi)

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

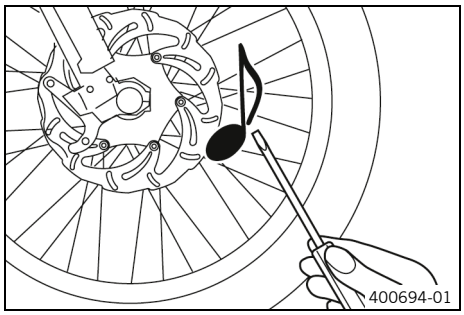
13.7 Checking spoke tension

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 spoke 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.

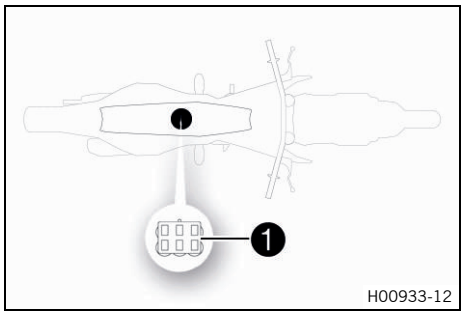
– Check the spoke torque.

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 kit (58429094000)

13.8 Diagnostics connector



Diagnostics connector 1 is located under the seat below the EFI control unit.

14.1 Removing the 12 V battery

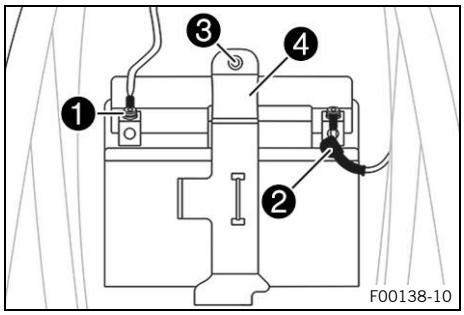
Warning

Risk of injury 12 V batteries contain harmful substances.

- Keep 12 V batteries out of the reach of children.
- Keep sparks and open flames away from 12 V batteries.
- Only charge 12 V batteries in well-ventilated rooms.
- Maintain a minimum clearance from inflammable materials when charging 12 V batteries.
  Minimum clearance 1 m (3 ft)
- Do not charge deeply discharged 12 V batteries if the charge is already below the minimum voltage.
  Minimum voltage before the start of the charge 9 V
- Dispose of 12 V batteries with less than the minimum voltage correctly.

Preparatory work

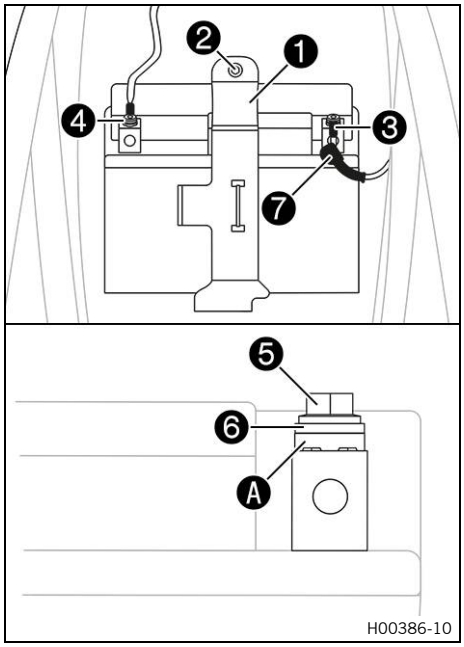
- Press and hold the switch-off button ⊠ while the engine is idling until the engine stops.
- Remove the seat. (📖 p. 59)



Main work

- Disconnect negative cable ❶ from the 12 V battery.
- Pull back positive terminal cover ❷ and disconnect the positive cable from the 12 V battery.
- Remove screw ❸.
- Pull holding bracket ❹ forward and remove the 12 V battery upwards.

14.2 Installing the 12 V battery



Main work

- Position the 12 V battery in the battery compartment with the terminals facing forward, and secure with holding bracket ❶.

12-V battery (HJTZ5S-FP-C) (📖 p. 134)

- Mount and tighten screw ❷.
  Guideline

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

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

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

- Connect negative cable ❹ to the 12 V 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.

– Slide positive terminal cover ❼ over the positive terminal.

Finishing work

– Mount the seat. (📖 p. 59)

14.3 Charging the 12-V battery 🔧

Warning

Risk of injury 12 V batteries contain harmful substances.

– Keep 12 V batteries out of the reach of children.
– Keep sparks and open flames away from 12 V batteries.
– Only charge 12 V batteries in well-ventilated rooms.
– Maintain a minimum clearance from inflammable materials when charging 12 V batteries.
  Minimum clearance 1 m (3 ft)
– Do not charge deeply discharged 12 V batteries if the charge is already below the minimum voltage.
  Minimum voltage before the start of the charge 9 V
– Dispose of 12 V batteries with less than the minimum voltage correctly.

Note

Environmental hazard 12 V batteries contain environmentally hazardous materials.

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

Note

Environmental hazard Hazardous substances cause environmental damage.

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

Info

Even when there is no load on the 12-V battery, it discharges steadily each day.
The charging level and the method of charging are very important for the service life of the 12-V battery.
Rapid recharging with a high charging current shortens the service life of the battery.
If the charging current, charging voltage, or charging time is exceeded, the 12-V battery will be destroyed.
If the 12-V battery is depleted by repeated starting, the 12-V battery must be charged immediately.
If the 12-V battery is left in a discharged state for an extended period, it will become deeply discharged and suffer a loss of capacity, destroying the battery.
The 12-V battery is maintenance-free.

Preparatory work

– Press and hold the switch-off button ⊠ while the engine is idling until the engine stops.
– Remove the seat. (📖 p. 59)
– Remove the 12 V battery. 🔧 (📖 p. 97)

Main work

– Check the battery voltage.
  » Battery voltage: < 9 V
    – Do not charge the 12 V battery.
    – Replace the 12 V battery and dispose of the old 12 V battery properly.
  » If the specifications have been met:
  Battery voltage: ≥ 9 V
    – Charge the 12-V battery.

      Guideline

The charging current, charging voltage, and charging time must not be exceeded.	
Maximum charging voltage	14.4 V
Maximum charging current	3.0 A
Maximum charging time	24 h
Recharge the 12-V battery regularly when the motorcycle is not being used	6 months

Battery charger (79629974000)

This battery charger tests whether the 12-V battery retains its voltage. It is also impossible to overcharge the 12-V battery with this battery charger. The charging time may be longer at low temperatures.

This battery charger is only suitable for lithium iron phosphate batteries. Read the accompanying **KTM PowerParts** instructions.

Info
Never remove cover 1.

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

Finishing work

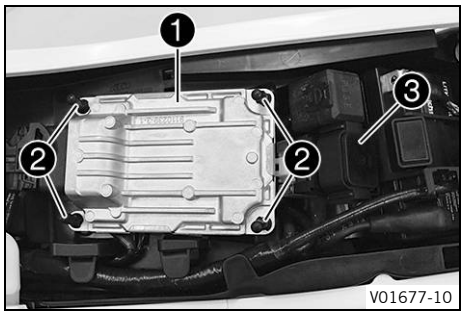
– Install the 12 V battery. (p. 97)
– Mount the seat. (p. 59)

14.4 Changing main fuse

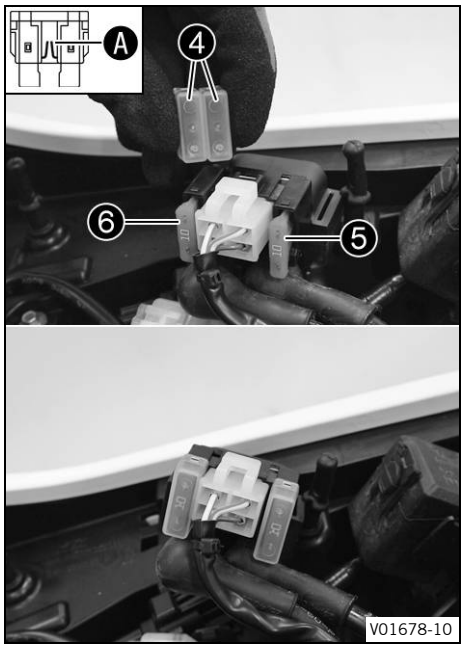
Warning
Fire hazard Incorrect fuses overload the electrical system.
– Only use fuses with the required ampere value.
– Do not bypass or repair fuses.

Info
The main fuse protects all power consumers of the vehicle. It is located in the starter relay housing under the seat.

Preparatory work
- Press and hold the switch-off button ⊠ while the engine is idling until the engine stops.
- Remove the seat. (📖 p. 59)



Main work
- Pull EFI control unit ❶ upward off rubber lugs ❷ and hang to the side.
- Pull starter relay ❸ from the holder.



- Take off protection caps ❹.
- Remove faulty main fuse ❺.

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

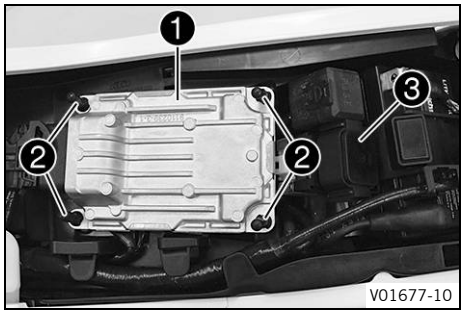
- Insert a new main fuse.

Fuse (58011109110) (📖 p. 134)

- Check that the electrical system is functioning properly.

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

- Mount the protection caps.

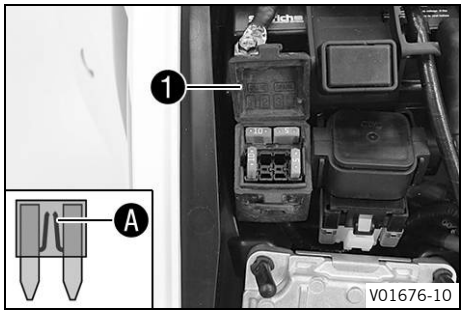


- Mount starter relay ❸ onto the holder and route the cable.
- Mount the EFI control unit ❶ on the rubber lugs ❷.

Finishing work
- Mount the seat. (📖 p. 59)

14.5 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
– Press and hold the switch-off button ⊠ while the engine is idling until the engine stops.
– Remove the seat. (📖 p. 59)

Main work
– Open fuse box cover ❶.
– Remove the faulty fuse.

Guideline

Fuse **1** - 10 A - EFI control unit, oil pump, electronic fuel injection, diagnostics connector
Fuse **2** - not assigned
Fuse **3** - not assigned
Fuse **4** - 5 A - fuel pump
Fuses **SPARE** - 10 A/5 A - spare fuse

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

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

– Insert spare fuse with the correct rating.

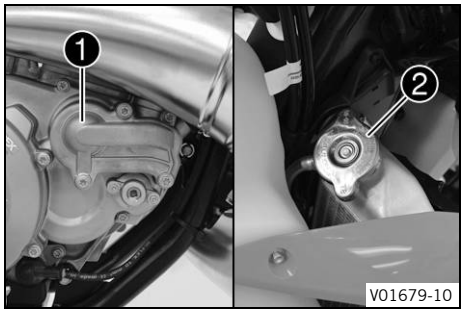
Fuse (75011088010) (📖 p. 134)
Fuse (75011088005) (📖 p. 134)

Tip
Insert a 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 ❶.

Finishing work
– Mount the seat. (📖 p. 59)

15.1 Cooling system



Water pump ❶ in the engine ensures forced circulation of the coolant.
The pressure resulting from the warming of the cooling system is regulated by a valve in radiator cap ❷. This ensures that operating the vehicle at the specified coolant temperature will not result in a risk of malfunctions.

15.2 Checking the antifreeze and coolant level

Warning

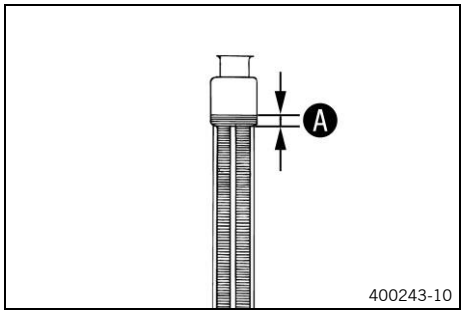
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

- 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 coolant antifreeze.

−25 … −45 °C (−13 … −49 °F)

  » If the antifreeze in the coolant does not match the specified value:
    - Correct the coolant antifreeze.
- 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. 138)

- Mount the radiator cap.

15.3 Checking the coolant level

Warning

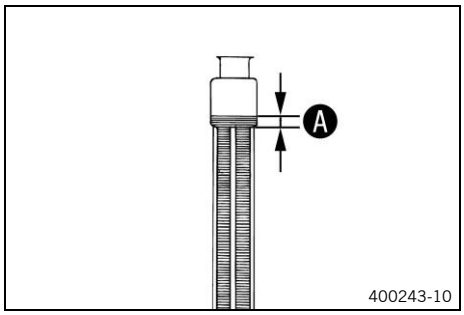
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

- Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
- 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 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. 138)

- Mount the radiator cap.

15.4 Draining the coolant

Warning

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

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

Warning

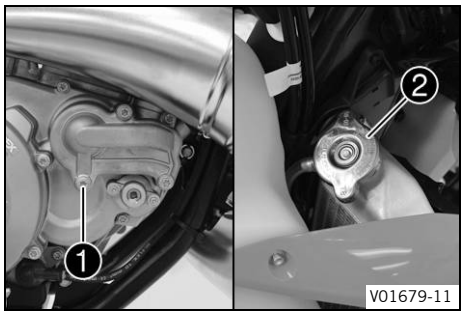
Danger of poisoning Coolant is toxic and a health hazard.

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

Condition

The engine is cold.

- Position the motorcycle upright.
- Place an appropriate container under the 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

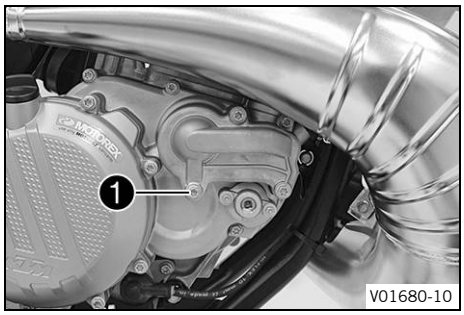
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)

15.5 Refilling with coolant

Warning

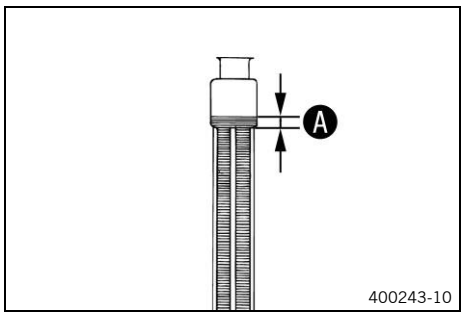
Danger of poisoning Coolant is toxic and a health hazard.

- 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

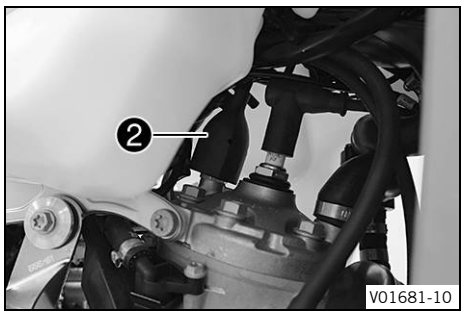
- Make sure that screw ❶ is tightened.
- Position the motorcycle upright.



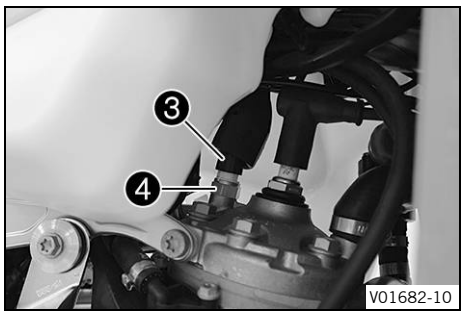
– Pour coolant in up to measurement Ⓐ above the radiator fins.

Guideline

10 mm (0.39 in)		
Coolant	1.2 l (1.3 qt.)	Coolant (📖 p. 138)



– Push protection cap ❷ upward over the thermostat.

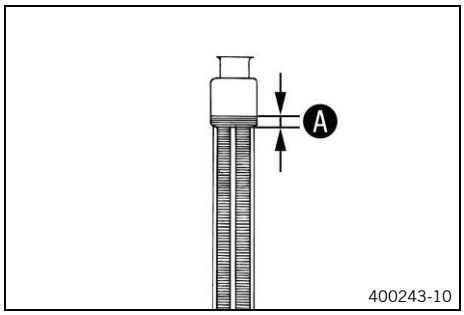


– Unplug connector ❸.
– Remove thermostat ❹ with O-ring and wait until the coolant escapes without bubbles.
– Mount thermostat ❹ with the O-ring and tighten.

Guideline

Screw, cylinder head temperature sensor	M10x1.25	12 Nm (8.9 lbf ft)

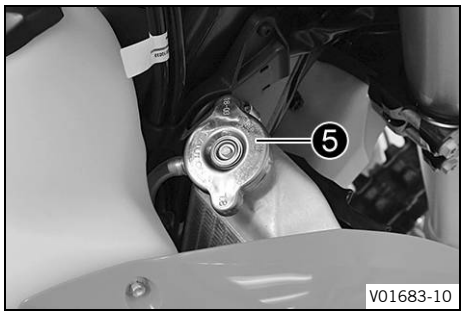
– Plug in connector ❸.
– Position protection cap ❷.



– Pour coolant in up to measurement Ⓐ above the radiator fins.

Guideline

10 mm (0.39 in)
Coolant (📖 p. 138)



– Mount radiator cap ❺.

Danger

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

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

– Allow the engine to warm up and cool down again.

Finishing work

– Check the coolant level. (📖 p. 103)

15.6 Changing the coolant

Warning

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

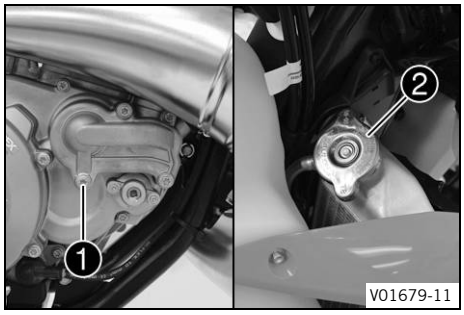
– Do not open the radiator, the radiator hoses or other cooling system components if the engine or the cooling system are at operating temperature.
– Allow the cooling system and the engine to cool down before you open the radiator, the radiator hoses or other components of the cooling system.
– In the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

Warning

Danger of poisoning Coolant is toxic and a health hazard.

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

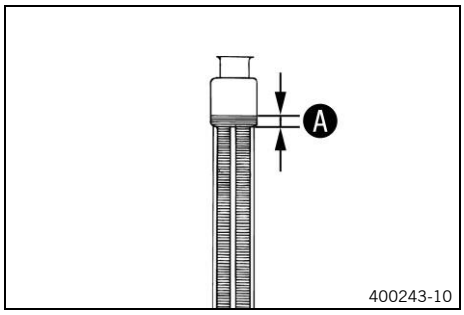
– Position the motorcycle upright.
– Place an appropriate container under the water pump cover.



– 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)

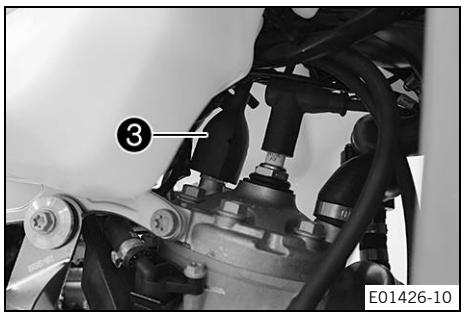


– Pour coolant in up to measurement Ⓐ above the radiator fins.

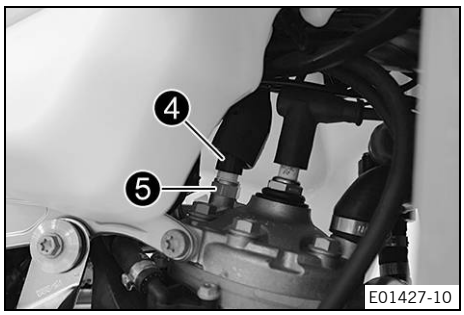
Guideline

10 mm (0.39 in)

Coolant (📖 p. 138)



– Push protection cap ❸ upward over the thermostat.

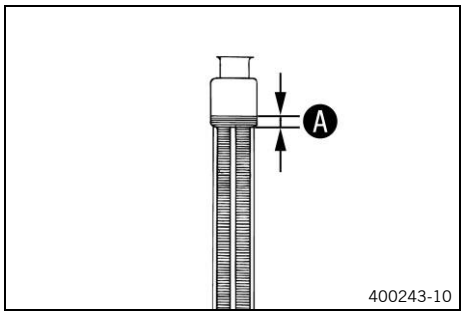


– Unplug connector ❹.
– Remove thermostat ❺ with O-ring and wait until the coolant escapes without bubbles.
– Mount thermostat ❺ with the O-ring and tighten.

Guideline

Screw, cylinder head temperature sensor	M10x1.25	12 Nm (8.9 lbf ft)

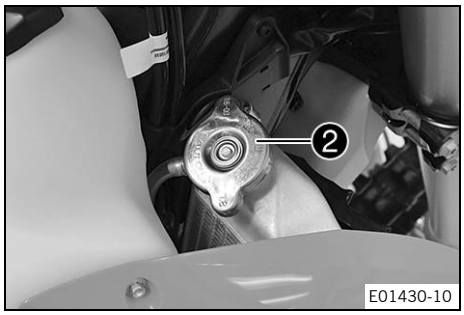
– Plug in connector ❹.
– Position protection cap ❸.



– Pour coolant in up to measurement Ⓐ above the radiator fins.

Guideline

10 mm (0.39 in)
Coolant (📖 p. 138)



– Mount radiator cap ❷.

Danger

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

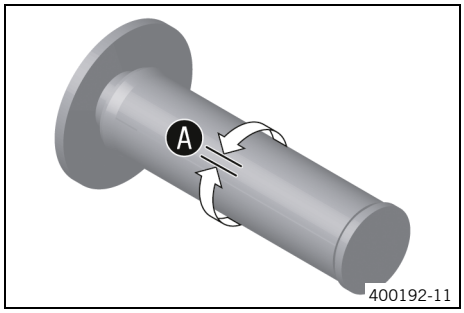
– Always make sure there is sufficient ventilation when running the engine.
– Use effective exhaust extraction when starting or running the engine in an enclosed space.

– Allow the engine to warm up and cool down again.
– Check the cooling system for leaks.

Finishing work

– Check the coolant level. (📖 p. 103)

16.1 Checking throttle cable play



– 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 Ⓐ.

Throttle cable play	2 … 3 mm (0.08 … 0.12 in)

» If the throttle cable play does not meet specifications:
– Adjust the throttle cable play. 🔧 (📖 p. 108)

Danger

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

– Start the engine and let it run at idle speed. Move the handlebar to and fro over the entire steering range.

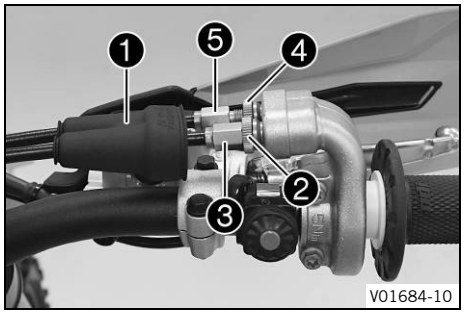
The idle speed must not change.

» If the idle speed changes:
– Adjust the throttle cable play. 🔧 (📖 p. 108)

16.2 Adjusting the throttle cable play 🔧

Info
If the correct routing of the throttle cable has already been secured, the fuel tank does not need to be removed.

Preparatory work
– Remove the seat. (📖 p. 59)
– Remove the fuel tank. 🔧 (📖 p. 65)
– Check the 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.
– Turn adjusting screw ❺ in as far as possible.
– Turn adjusting screw ❸ so that there is play in the throttle cable at the throttle grip.

Guideline

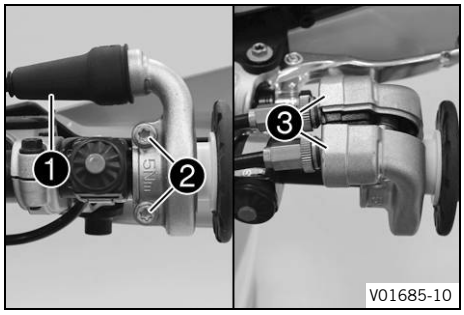
Throttle cable play	2 … 3 mm (0.08 … 0.12 in)

– Unscrew barrel adjuster ❺ until the smooth operation or play in the throttle cable deteriorates.
– Turn adjusting screw ❺ approx. two turns further.
– Tighten nut ❹.
– Tighten nut ❷.
– Slide on sleeve ❶.
– Check the throttle grip for smooth operation.

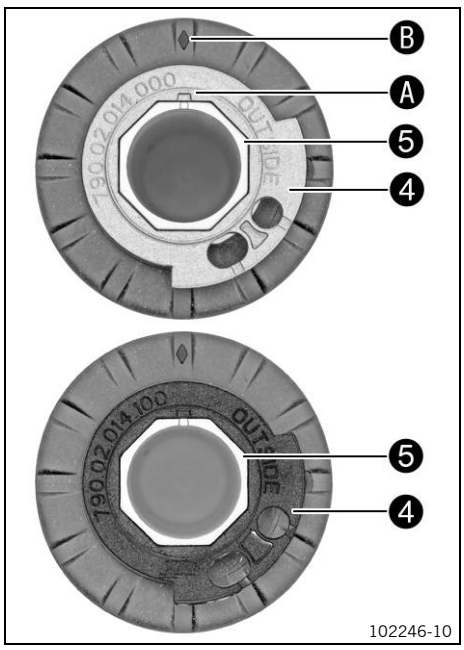
Finishing work
– Check throttle cable play. (📖 p. 108)

16.3 Adjusting 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 ❶.
– Remove screws ❷ and half-shells ❸.
– Detach the throttle cables and take off the grip tube.



– Remove guide plate ❹ from handle tube ❺.
– Position the required guide plate on the grip tube.
Guideline

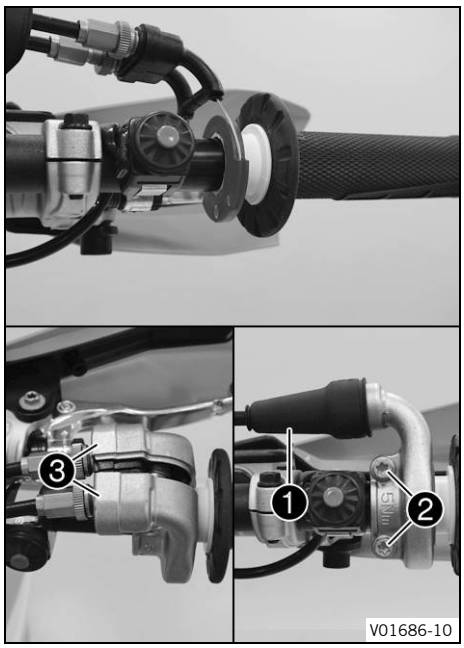
The label **OUTSIDE** must be visible. Marking Ⓐ must be positioned at marking Ⓑ.

Grey guide plate (79002014000)

Alternative 1

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 ❸, mount and tighten screws ❷.

Guideline

Screw, throttle grip	M6	5 Nm (3.7 lbf ft)

– Slide on sleeve ❶ and check the throttle grip for ease of movement.

Finishing work

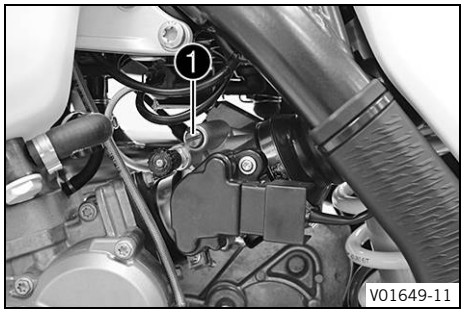
– Check throttle cable play. (p. 108)

16.4 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 – A further ¼ turn returns the cold start button back to the 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 effective exhaust extraction when starting or running the engine in an enclosed space.

– Adjust the idle speed by turning idle speed adjusting screw ❶.

Guideline

Idle speed	1,400 ... 1,500 rpm

Tachometer (45129075000)

Info

Turn clockwise to decrease the idle speed.
Turn counterclockwise to increase the idle speed.
Make the setting in small steps.
An incorrect idle speed can have a negative impact on overall engine running.

16.5 Programming ambient pressure

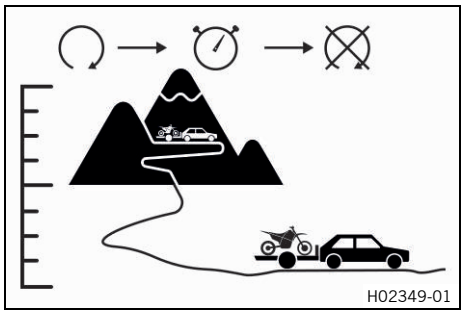
Danger

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

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

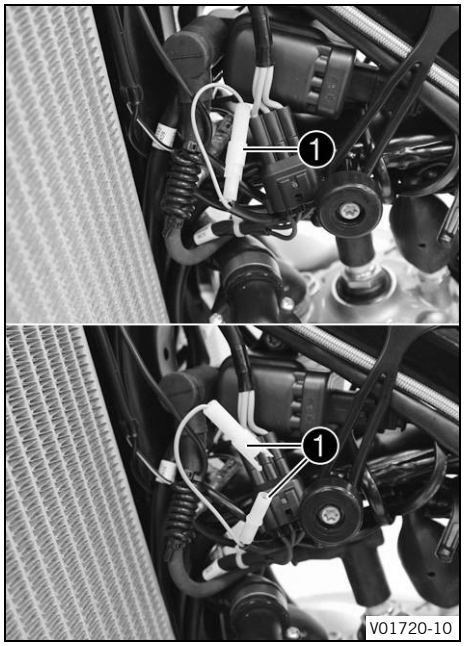
Info

If the vehicle is ridden with the engine running at various heights above sea level, the ambient pressure is programmed on an ongoing basis.
If the vehicle is transported over great differences in height, the ambient pressure must be reprogrammed.



– Start the vehicle at the new height above sea level and switch off the engine again.
– Wait for at least five seconds.
– Start the vehicle again and check the response of the vehicle.
  » If the response has not improved:
    – Repeat the procedure.

16.6 Plug-in connector of ignition timing map adjustment



Plug-in connector ❶ of the ignition timing map adjustment is located on the frame under the fuel tank.

Possible states

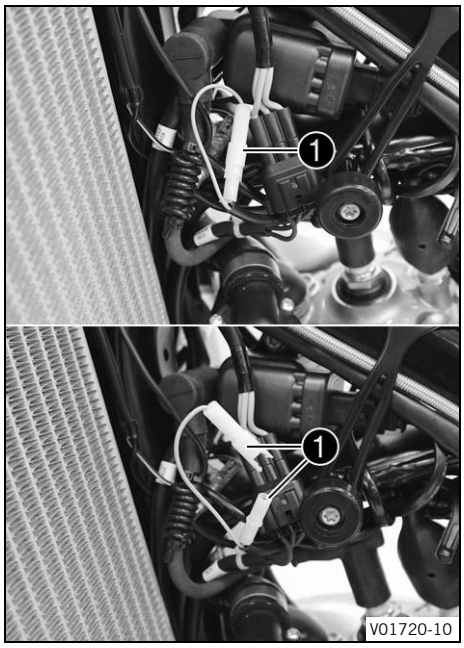
- Soft – The plug-in connector of the ignition timing map adjustment is disconnected to achieve better rideability.
- Performance – The plug-in connector of the ignition timing map adjustment is joined to achieve higher performance.

16.7 Changing the ignition timing map

Preparatory work

– Remove the seat. (📖 p. 59)

– Remove the fuel tank. 🔧 (📖 p. 65)



Switching the ignition timing map from Performance to Soft

– Disconnect plug-in connector ❶ of the ignition timing map adjustment.

✔ Soft – better rideability

Switching the ignition timing map from Soft to Performance

– Join plug-in connector ❶ of the ignition timing map adjustment.

✔ Performance – better performance

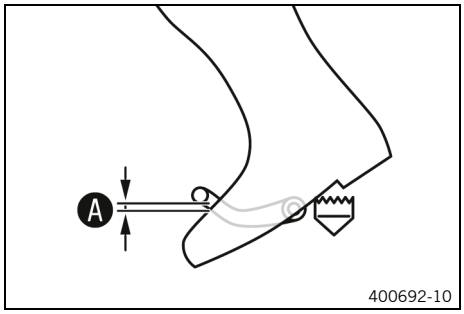
Finishing work

– Install the fuel tank. 🔧 (📖 p. 67)

– Mount the seat. (📖 p. 59)

16.8 Checking the basic position of the shift lever

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

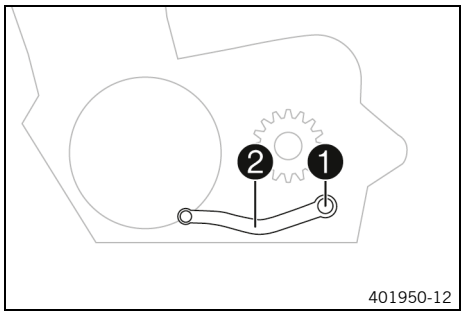


– Sit on the vehicle in the riding position and determine distance A between the upper edge of your boot and the shift lever.

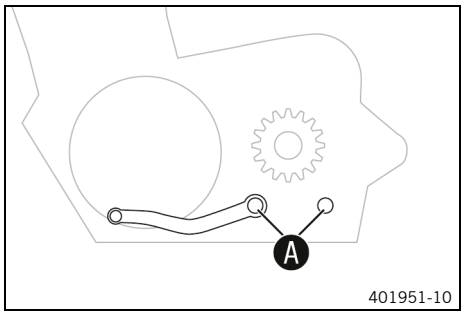
Distance between shift lever and upper edge of boot	10 … 20 mm (0.39 … 0.79 in)

» If the distance does not meet specifications:
– Adjust the basic position of the shift lever. (📖 p. 113)

16.9 Adjusting the basic position of the shift lever



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



– Clean gear teeth A of the shift lever and shift shaft.
– Mount the shift lever on the shift shaft in the required position and engage 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 1 with the washers.

Guideline

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

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

Warning

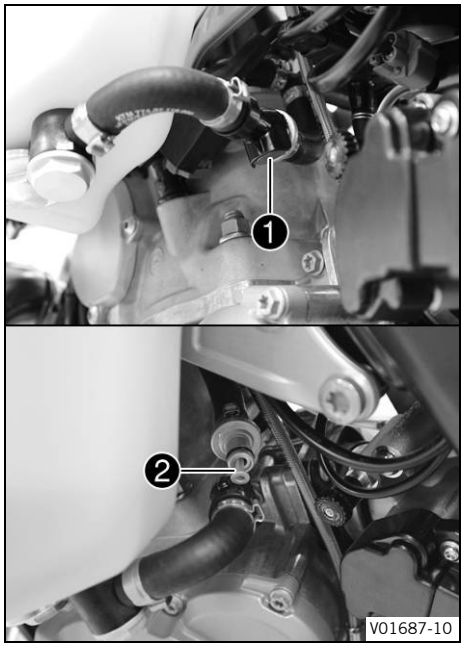
Danger of poisoning Fuel is poisonous and a health hazard.

- 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

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 quick release coupling ❶ 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 quick release coupling.

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 join the quick release coupling.

Danger

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

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

- Start the engine and check the response.

17.2 Checking 2-stroke oil level

Warning

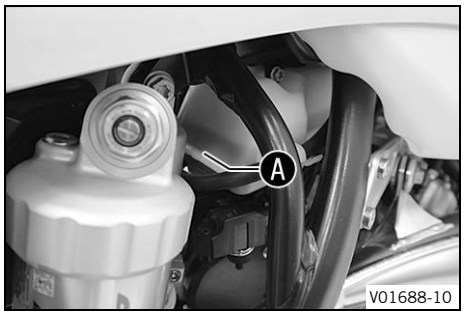
Engine failure The engine will not be lubricated unless there is 2-stroke oil in the oil tank.

If the oil level warning light lights up, the 2-stroke oil is sufficient for the remaining tank of fuel.

- As soon as the oil level warning light lights up, ride for no longer than until the remaining fuel in the tank is depleted.
- At the next opportunity add 2-stroke oil before you refuel.
- Time the oil pump if the 2-stroke oil hose has been removed or the 2-stroke oil tank has been fully depleted in error.

Preparatory work

- Stand the motorcycle upright on a horizontal surface.



Main work

- Check the 2-stroke oil level in the oil tank.

Info

For one tank of fuel, the 2-stroke oil tank must be filled up to at least the upper edge A.

The 2-stroke oil tank must be completely filled if possible.

» If the 2-stroke oil level is too low:
  - Add 2-stroke oil. (p. 31)

17.3 Priming oil pump

Warning

Engine failure The engine will not be lubricated unless there is 2-stroke oil in the oil tank.

If the oil level warning light lights up, the 2-stroke oil is sufficient for the remaining tank of fuel.

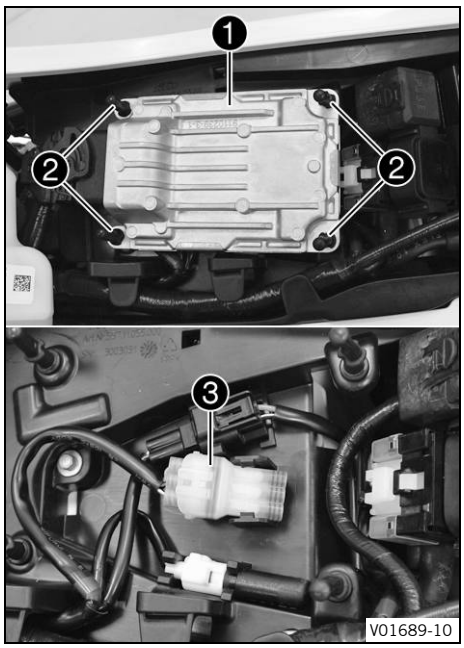
- As soon as the oil level warning light lights up, ride for no longer than until the remaining fuel in the tank is depleted.
- At the next opportunity add 2-stroke oil before you refuel.
- Time the oil pump if the 2-stroke oil hose has been removed or the 2-stroke oil tank has been fully depleted in error.

Condition

The engine is off.

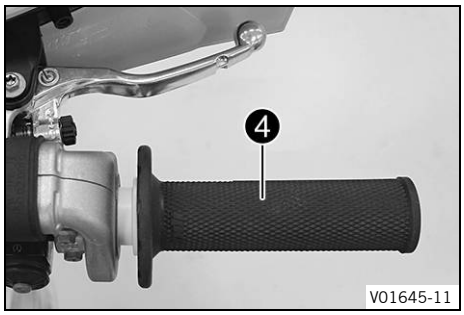
Preparatory work

- Stand the motorcycle upright on a horizontal surface.
- Check 2-stroke oil level. (p. 115)
- Remove the seat. (p. 59)

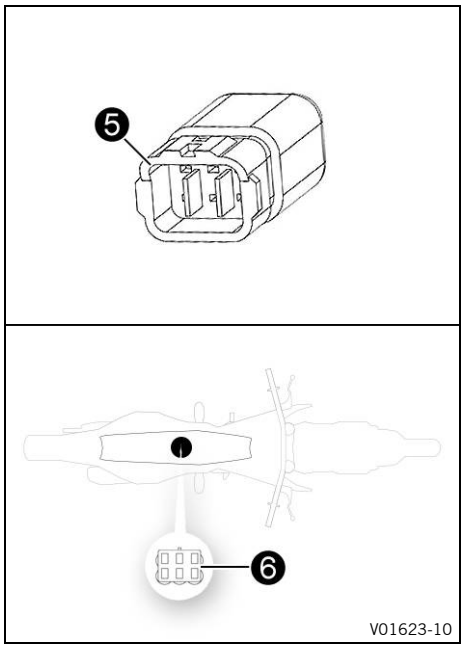


Main work

– Pull EFI control unit ❶ upward off rubber lugs ❷ and hang to the side.
– Remove protection cap ❸ of the diagnostics connector.



– Put throttle grip ❹ into full throttle position and secure.



– Plug in wake-up connector ❺ for priming the oil pump to the diagnostics connector ❻.

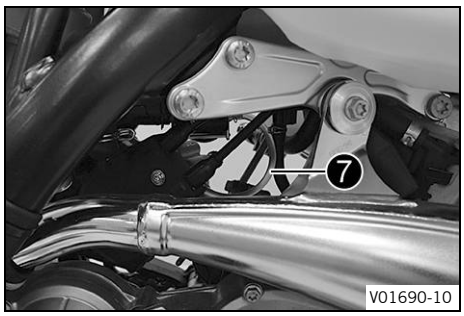
Info
The connector is included as part of the motorcycle's separate enclosure.

– Wait for at least five seconds.
– Release the fixing means from the throttle grip.

✔ The oil pump is timed.

Info
The oil pump is actuated at various speeds.
The procedure is clearly audible.

– Wait until you can no longer hear the oil pump working.
– Disconnect the wake-up connector from the diagnostics connector.



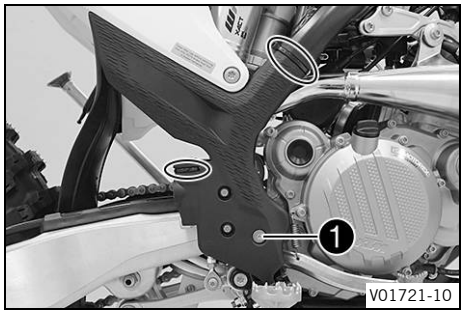
– Check whether air bubbles are visible in the hose ❼.
  » If air bubbles are visible:
    – Repeat the entire procedure until air bubbles are no longer visible.
– Mount protection cap on the diagnostics connector.
– Mount the EFI control unit on the rubber lugs.

Finishing work
– Mount the seat. (📖 p. 59)

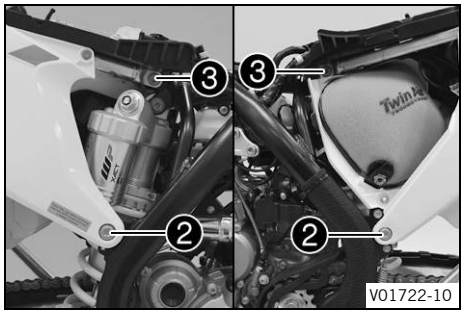
17.4 Cleaning the oil screen in the oil tank

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

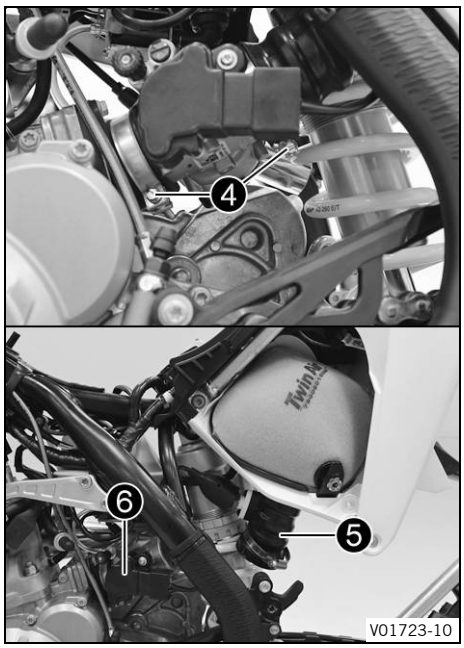
Preparatory work
– Remove the main silencer. (📖 p. 63)
– Remove the seat. (📖 p. 59)
– Remove the fuel tank. (📖 p. 65)
– Remove the air filter box cover. (📖 p. 60)
– Raise the motorcycle with a lift stand. (📖 p. 47)



Main work
– Remove screw ❶ with the washer.
– Remove the cable ties and take off the frame protector.



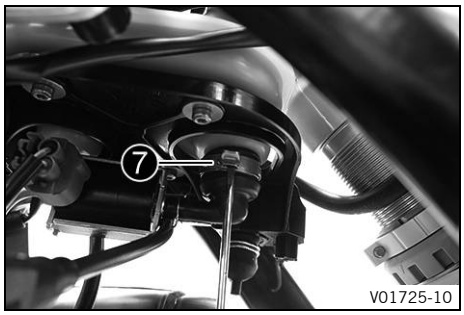
– Remove screws ❷.
– Loosen screws ❸.



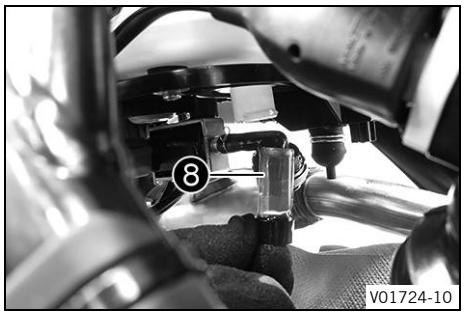
– Loosen clamps ❹ of the throttle valve body.
– Lift the subframe slightly and secure it.

Info
Pay attention to intake flange ❺.

– Pull throttle valve body ❻ towards the rear, out of the intake flange, and hang it to the side.



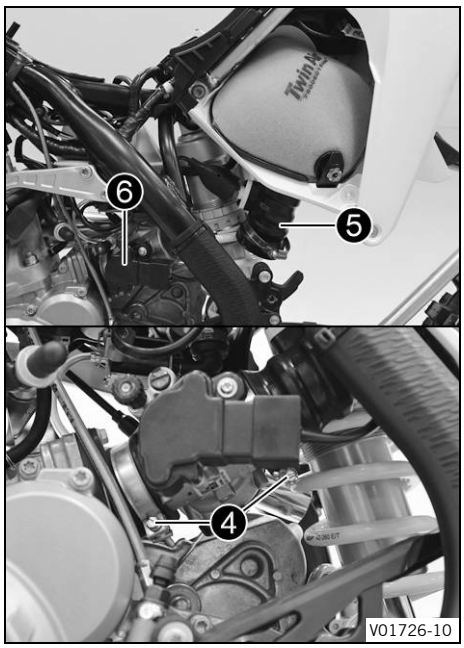
– Open hose clamp ❼ using a screwdriver.
– Pull off the angle piece and collect the 2-stroke oil in a suitable container.



– Remove oil screen ❽ and clean it.
– Check the oil screen for damage.
  » If the oil screen is damaged:
    – Replace the oil screen.

– Insert the oil screen and mount the angle piece with a new hose clamp.

Hose clamp plier (60029057000)

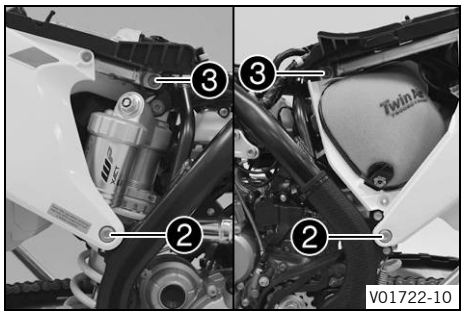


– Mount throttle valve body ❻.
– Remove the locking piece and position the subframe.

Info
Pay attention to intake flange ❺.

– Position and tighten clamps ❹ of the throttle valve body.
Guideline

Screw, intake flange/reed valve housing	M6	6 Nm (4.4 lbf ft)

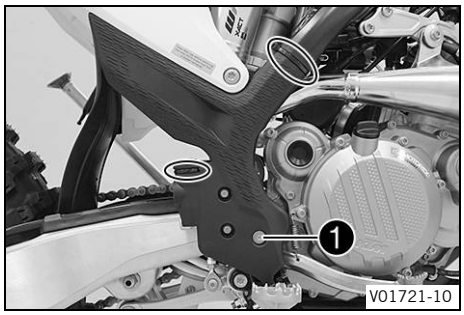


– Mount and tighten screws ❷.
Guideline

Screw, sub-frame bottom	M8x18	30 Nm (22.1 lbf ft) **Loctite®2701™**

– Remove screws ❸.
– Mount and tighten screws ❸.
Guideline

Screw, sub-frame top	M8x20	35 Nm (25.8 lbf ft) **Loctite®2701™**



– Position the frame protector.
– Mount and tighten screw ❶ with the washer.
Guideline

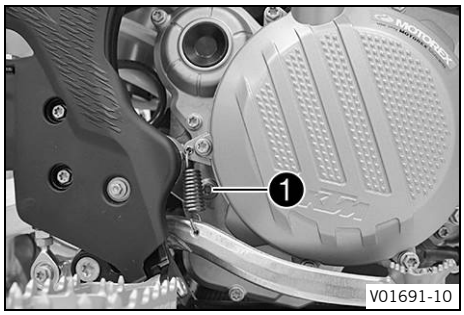
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)

– Mount the cable ties.

Finishing work
– Remove the motorcycle from the lift stand. (📖 p. 47)
– Install the air filter box cover. (📖 p. 61)
– Install the fuel tank. 🔧 (📖 p. 67)
– Add 2-stroke oil. (📖 p. 31)
– Prime the oil pump. 🔧 (📖 p. 115)
– Mount the seat. (📖 p. 59)
– Install the main silencer. (📖 p. 64)

17.5 Checking the gear oil level

Info
The gear oil level must be checked when the engine is cold.



Preparatory work
– Stand the motorcycle upright on a horizontal surface.

Main work
– Remove gear oil level monitoring screw 1.
– Check the gear oil level.

A small quantity of gear oil must run out of the drilled hole.

» If no gear oil runs out:
– Add the gear oil. (p. 121)
– Mount and tighten the gear oil level monitoring screw.
Guideline

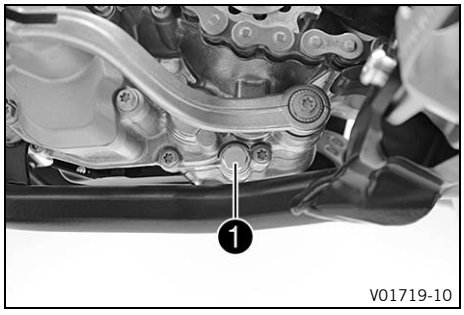
Screw, gear oil level monitoring	M6	8 Nm (5.9 lbf ft)

17.6 Changing the gear oil

Warning
Danger of scalding Engine and gear oil get very hot when the motorcycle is ridden.
– Wear suitable protective clothing and safety gloves.
– In the event of scalding, rinse the area affected immediately with lukewarm water.

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

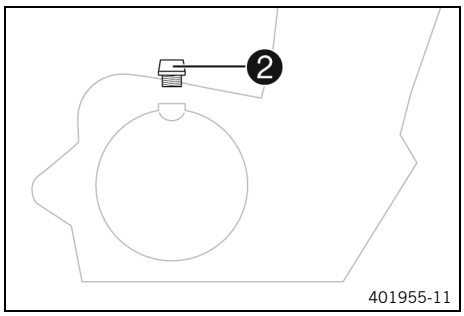
Info
Drain the gear oil while the engine is at operating temperature.



Preparatory work
– Park the motorcycle on a level surface.
– Position an appropriate container under the engine.

Main work
– Remove gear oil drain plug 1 with magnet.
– Let the gear oil drain fully.
– Thoroughly clean the gear oil drain plug with magnet.
– Clean the sealing surface on the engine.
– Mount and tighten gear oil drain plug 1 with the magnet and a new seal ring.
Guideline

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



– Remove filler plug ❷ with the O-ring, and fill up with gear oil.

Gear oil	0.80 l (0.85 qt.)	Engine oil (15W/50) (📖 p. 138)

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

Danger

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

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

– Start the engine and check for leaks.

Finishing work

– Check the gear oil level. (📖 p. 120)

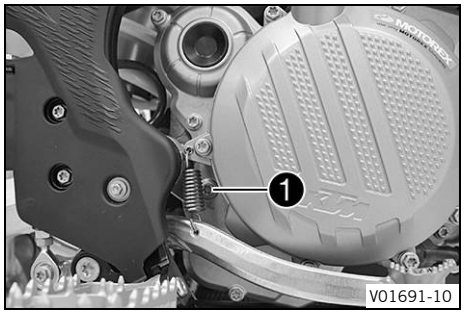
17.7 Adding the gear oil

Info

Too little gear oil or poor-quality gear oil results in premature wear to the transmission.
Gear oil must only be topped up when the engine is cold.

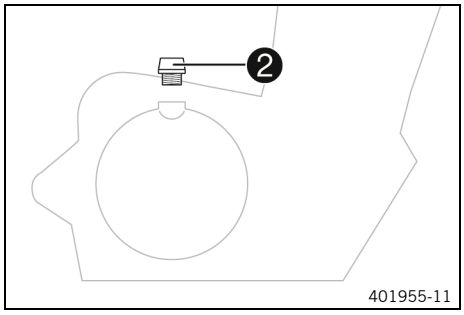
Preparatory work

– Park the motorcycle on a level surface.



Main work

– Remove gear oil level monitoring screw ❶.



– Remove filler plug ❷ with the O-ring.
– Add gear oil until it emerges from the drill hole of the gear oil level monitoring screw.

Engine oil (15W/50) (📖 p. 138)

– Mount and tighten the gear oil level monitoring screw.

Guideline

Screw, gear oil level monitoring	M6	8 Nm (5.9 lbf ft)

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

Finishing work

Danger

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

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

– Start the engine and check for leaks.

18.1 Cleaning the motorcycle

Note

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

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

– Do not direct the water jet directly on to electrical components, connectors, throttle cables or bearings.
– Maintain a minimum distance between the nozzle of the pressure cleaner and the component.
  Minimum clearance 60 cm (23.6 in)

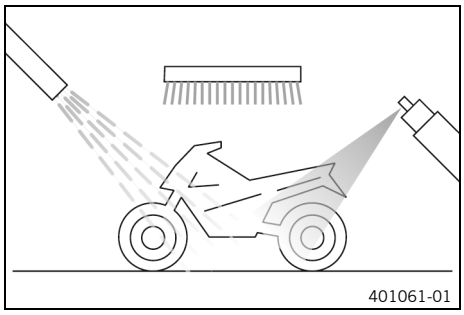
Note

Environmental hazard Hazardous substances cause environmental damage.

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

Info

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



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

Motorcycle cleaner (p. 140)

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 down, lubricate all moving parts and pivot points.
– Clean the chain. (p. 68)

– Treat bare metal (except for brake discs and the exhaust system) with a corrosion inhibitor.

  Preserving materials for paints, metal and rubber (📖 p. 140)

– 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. 141)

19.1 Storage

Warning

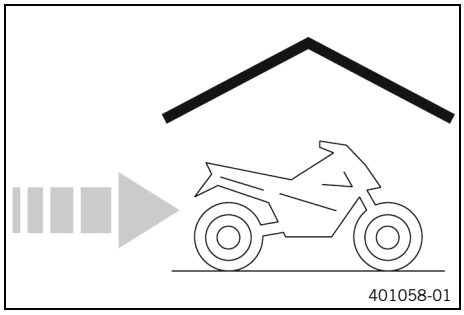
Danger of poisoning Fuel is poisonous and a health hazard.

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

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



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

Fuel additive (📖 p. 140)

- Refuel. (📖 p. 30)
- Clean motorcycle. (📖 p. 123)
- Change the gear oil. 🔧 (📖 p. 120)
- Check the antifreeze and coolant level. (📖 p. 102)
- Check tire pressure. (📖 p. 95)
- Remove the 12 V battery. 🔧 (📖 p. 97)
- Charge the 12-V battery. 🔧 (📖 p. 98)

  Guideline

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

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

  Info

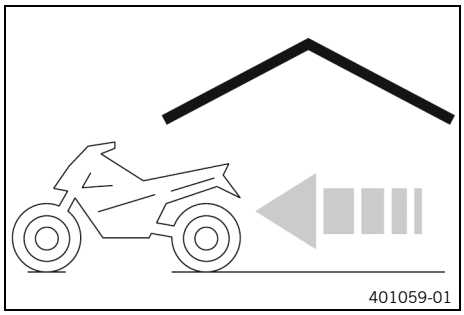
  KTM recommends jacking up the motorcycle.

- Raise the motorcycle with a lift stand. (📖 p. 47)
- Cover the vehicle with a tarp or a similar cover that is permeable to air.

Info

Do not use non-porous materials since they prevent humidity from escaping, thus causing corrosion.
Avoid running the engine for a short time only. Because the engine will not warm up sufficiently, the water vapor produced during combustion will condense, causing engine parts and the exhaust system to rust.

19.2 Preparing for use after storage



- Install the 12 V battery. (p. 97)
- Remove the motorcycle from the lift stand. (p. 47)
- Perform checks and maintenance measures when preparing for use. (p. 27)
- Make a test ride.

Faults	Possible cause	Action
The engine cannot be cranked (starter motor)	Operating error	– Carry out the start procedure. (📖 p. 27)
	12-V battery discharged	– Charge the 12-V battery. 🔧 (📖 p. 98) – Check the charging voltage. 🔧 – Check the closed current. 🔧 – Check the stator winding of the alternator. 🔧
	Main fuse blown	– Change the main fuse. (📖 p. 99)
	Starter relay faulty	– Check the starter relay. 🔧
	Starter motor faulty	– Check the starter motor. 🔧
The engine turns but does not start	Operating error	– Carry out the start procedure. (📖 p. 27)
	Quick release coupling not joined	– Join quick release coupling.
	Idle speed is not set correctly	– Adjust the idle speed. 🔧 (📖 p. 110)
	Fuel supply interrupted	– Check the fuel tank breather.
	Spark plug oily or wet	– Clean and dry the spark plug, or change it if necessary.
	Plug gap of spark plug too wide	– Adjust plug gap. Guideline Spark plug electrode gap 0.6 mm (0.024 in)
	Ignition system defective	– Check the ignition coil. 🔧 – Check the spark plug connector. 🔧
	Short-circuit cable in wiring harness frayed, switch-off button faulty	– Check the switch-off button. 🔧
	The connector or ignition coil is loose or oxidized	– Clean the connector and treat it with contact spray.
	Error in the electronic fuel injection	– Read out the fault memory using the Husqvarna Motorcycles diagnostics tool. 🔧
The engine has no idle speed	Spark plug defective	– Change the spark plug.
	Ignition system defective	– Check the ignition coil. 🔧 – Check the spark plug connector. 🔧
	Idle speed is not set correctly	– Adjust the idle speed. 🔧 (📖 p. 110)
Engine does not speed up	Error in the electronic fuel injection	– Read out the fault memory using the Husqvarna Motorcycles diagnostics tool. 🔧
	Ignition system defective	– Check the ignition coil. 🔧 – Check the spark plug connector. 🔧
	Ambient pressure is incorrectly stored	– Program ambient pressure. (📖 p. 111)
Engine has too little power	Air filter very dirty	– Clean the air filter and air filter box. 🔧 (📖 p. 62)
	Fuel filter is very dirty	– Change the fuel filter. 🔧
	Fuel screen is very dirty	– Change the fuel screen. 🔧 (📖 p. 114)

Faults	Possible cause	Action
Engine has too little power	Error in the electronic fuel injection	– Read out the fault memory using the Husqvarna Motorcycles diagnostics tool. 🔧
	Fuel supply interrupted	– Check the fuel tank breather.
	Exhaust system leaky, deformed or too little glass fiber yarn filling in main silencer	– Check exhaust system for damage. – Change the glass fiber yarn filling of the main silencer. 🔧 (📖 p. 64)
	Ignition system defective	– Check the ignition coil. 🔧 – Check the spark plug connector. 🔧
	Diaphragm or reed valve housing damaged	– Check the diaphragm and reed valve housing.
	Ambient pressure is incorrectly stored	– Program ambient pressure. (📖 p. 111)
The engine dies during the trip	Lack of fuel	– Refuel. (📖 p. 30)
	The engine takes in false air	– Check that the intake flange is firmly seated.
	The connector or ignition coil is loose or oxidized	– Clean the connector and treat it with contact spray.
	Ambient pressure is incorrectly stored	– Program ambient pressure. (📖 p. 111)
Engine overheats	Too little coolant in cooling system	– Check the cooling system for leakage. – Check the coolant level. (📖 p. 103)
	Too little air stream	– Switch off engine when stationary.
	Radiator fins very dirty	– Clean the radiator fins.
	Foam formation in cooling system	– Drain the coolant. 🔧 (📖 p. 103) – Refill with coolant. 🔧 (📖 p. 104)
	Damaged cylinder head or cylinder head gasket	– Check the cylinder head and cylinder head gasket.
	Bent radiator hose	– Change the radiator hose. 🔧
	Thermostat defective	– Check the thermostat. 🔧 Guideline Opening temperature: 70 °C (158 °F)
White smoke emission (steam in exhaust gas)	Damaged cylinder head or cylinder head gasket	– Check the cylinder head and cylinder head gasket.
Gear oil exits at the vent hose	Too much gear oil added	– Check the gear oil level. (📖 p. 120)
Water in the gear oil	Damaged radial shaft seal ring or water pump	– Check the radial shaft seal ring and the water pump.

Blink code for malfunction indicator lamp	 14 Malfunction indicator lamp flashes 1x long, 4x short
Error level condition	Crankcase pressure sensor – difference too high between sensor and engine electronics control unit

Blink code for malfunction indicator lamp	 09 Malfunction indicator lamp flashes 9x short
Error level condition	Crankcase pressure sensor - short circuit to ground
	Crankcase pressure sensor - open/short circuit to plus
	Ambient air pressure sensor – short circuit to ground
	Ambient air pressure sensor – open/short circuit to plus

Blink code for malfunction indicator lamp	 13 Malfunction indicator lamp flashes 1x long, 3x short
Error level condition	Intake air temperature sensor – input signal too low
	Intake air temperature sensor – input signal too high

Blink code for malfunction indicator lamp	 12 Malfunction indicator lamp flashes 1x long, 2x short
Error level condition	Coolant temperature sensor – input signal too low
	Coolant temperature sensor – input signal too high

Blink code for malfunction indicator lamp	 06 Malfunction indicator lamp flashes 6x short
Error level condition	Throttle valve position sensor circuit A - adaption failed
	Throttle valve position sensor circuit A – input signal too low
	Throttle valve position sensor circuit A – input signal too high

Blink code for malfunction indicator lamp	 41 Malfunction indicator lamp flashes 4x long, 1x short
Error level condition	Fuel pump - short circuit to ground/open circuit
	Fuel pump – open circuit/short circuit to plus

Blink code for malfunction indicator lamp	 33 Malfunction indicator lamp flashes 3x long, 3x short
Error level condition	Injection valve 0, cylinder 1 – input signal too low
	Injection valve 0, cylinder 1 - input signal too high

Blink code for malfunction indicator lamp	 34 Malfunction indicator lamp flashes 3x long, 4x short
Error level condition	Injection valve 1, cylinder 1 – input signal too low
	Injection valve 1, cylinder 1 - input signal too high

Blink code for malfunction indicator lamp	 37 Malfunction indicator lamp flashes 3x long, 7x short
Error level condition	Ignition coil – circuit fault

Blink code for malfunction indicator lamp	 02 Malfunction indicator lamp flashes 2x short
Error level condition	Crankshaft speed sensor – synchronization faulty
	Crankshaft speed sensor – signal implausible
	Crankshaft speed sensor – signal irregular
	Crankshaft speed sensor – no signal

Blink code for malfunction indicator lamp	 42 Malfunction indicator lamp flashes 4x long, 2x short
Error level condition	Input signal too low
	Oil pump - input signal too high

Blink code for malfunction indicator lamp	 21 Malfunction indicator lamp flashes 2x long, 1x short
Error level condition	Input voltage too low
	Input voltage too high

Blink code for malfunction indicator lamp	 Malfunction indicator lamp lights up
Error level condition	Tilt sensor – input signal too low
	Tilt sensor – input signal too high

22.1 Engine

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake, exhaust control and transfer duct injection
Displacement (250 XC TPI US)	249 cm³ (15.19 cu in)
Displacement (300 XC TPI US)	293.15 cm³ (17.8892 cu in)
Stroke	72 mm (2.83 in)
Hole (250 XC TPI US)	66.4 mm (2.614 in)
Hole (300 XC TPI US)	72 mm (2.83 in)
Exhaust control - setting measurement (250 XC TPI US)	2.7 $^{\pm 0.2}_{-0}$ mm (0.106 $^{\pm 0.008}_{-0}$ in)
Exhaust control - setting measurement (300 XC TPI US)	2.3 $^{\pm 0.2}_{-0}$ mm (0.091 $^{\pm 0.008}_{-0}$ in)
Crankshaft bearing	1 grooved ball bearing/1 roller bearing
Conrod bearing	Needle bearing
Piston pin bearing	Needle bearing
Piston	Cast aluminum
Piston rings (250 XC TPI US)	2 half keystone rings
Piston rings (300 XC TPI US)	2 rectangular rings
X distance (upper edge of piston to upper edge of cylinder)	0 ... 0.10 mm (0 ... 0.0039 in)
Z distance (height of control flap) (250 XC TPI US)	49.0 mm (1.929 in)
Z distance (height of control flap) (300 XC TPI US)	49.5 mm (1.949 in)
Primary transmission	26:73
Clutch	Multidisc clutch in oil bath/hydraulically activated
Transmission	6 gear transmission, claw shifted
Transmission ratio	
first-gear	15:31
second-gear	16:25
third-gear	20:25
fourth-gear	22:23
fifth-gear	25:22
sixth-gear	26:20
Alternator	12 V, 196 W
Ignition system	Contactless controlled fully electronic ignition with digital ignition adjustment
Spark plug	NGK BR 7 ES
Spark plug electrode gap	0.6 mm (0.024 in)
Starting aid	Electric starter system

22.2 Engine tightening torques

Screw, inner membrane sheets	**EJOTDELTA PT®** 35x25	1 Nm (0.7 lbf ft)
Screw, membrane support plate	**EJOTDELTA PT®** 30x12	1 Nm (0.7 lbf ft)
Screw, outer membrane sheets	**EJOTDELTA PT®** 30x6	1 Nm (0.7 lbf ft)
Screw, angle lever, exhaust control	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, bearing retainer	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, clutch spring retainer	M5	6 Nm (4.4 lbf ft)
Screw, crankshaft speed sensor	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, exhaust control bearing support	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, exhaust control cap	M5	5 Nm (3.7 lbf ft)
Screw, exhaust control cover	M5	4 Nm (3 lbf ft)
Screw, injection valve holder	M5	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, locking lever	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Screw, retaining bracket of exhaust control	M5	6 Nm (4.4 lbf ft) **Loctite®2701™**
Screw, stator	M5	6 Nm (4.4 lbf ft) **Loctite®243™**
Cap nut, water pump impeller	M6	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, alternator cover	M6	8 Nm (5.9 lbf ft)
Screw, clutch slave cylinder	M6	10 Nm (7.4 lbf ft)
Screw, control flap, exhaust control	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, engine case	M6	10 Nm (7.4 lbf ft)
Screw, exhaust control thrust bearing	M6	8 Nm (5.9 lbf ft) **Loctite®243™**
Screw, exhaust flange	M6	8 Nm (5.9 lbf ft)
Screw, gear oil level monitoring	M6	8 Nm (5.9 lbf ft)
Screw, intake flange/reed valve housing	M6	6 Nm (4.4 lbf ft)
Screw, intermediate clutch cover	M6	10 Nm (7.4 lbf ft)
Screw, kick starter intermediate gear steel pin	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, outer clutch cover	M6	8 Nm (5.9 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, starter motor bearing bush	M6	10 Nm (7.4 lbf ft) **Loctite®243™**
Screw, starter motor protection cap	M6	8 Nm (5.9 lbf ft)

Screw, water pump cover	M6	10 Nm (7.4 lbf ft)
Vacuum connection, cylinder	M6	4 Nm (3 lbf ft) **Loctite®2701™**
Vacuum connection, housing breather	M6	2 Nm (1.5 lbf ft) **Loctite®243™**
Screw, balancer shaft	M8	30 Nm (22.1 lbf ft) **Loctite®243™**
Screw, cylinder head	M8	27 Nm (19.9 lbf ft)
Nut, cylinder base	M10	35 Nm (25.8 lbf ft)
Screw, drive chain engine sprocket	M10	60 Nm (44.3 lbf ft) **Loctite®2701™**
Stud, cylinder base	M10	20 Nm (14.8 lbf ft)
Screw, cylinder head temperature sensor	M10x1.25	12 Nm (8.9 lbf ft)
Nut, rotor	M12x1	60 Nm (44.3 lbf ft)
Gear oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)
Spark plug	M14x1.25	25 Nm (18.4 lbf ft)
Nut, inner clutch hub	M18x1.5	100 Nm (73.8 lbf ft) **Loctite® 648™**
Nut, primary gear wheel	M18LHx1.5	150 Nm (110.6 lbf ft) **Loctite® 648™**

22.3 Capacities

22.3.1 Gear oil

Gear oil	0.80 l (0.85 qt.)	Engine oil (15W/50) (📖 p. 138)

22.3.2 Coolant

Coolant	1.2 l (1.3 qt.)	Coolant (📖 p. 138)

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. 139)

Fuel reserve approx.	1.5 l (1.6 qt.)

2-stroke oil tank content approx.	0.6 l (0.6 qt.)	Engine oil, 2-stroke (📖 p. 138)

22.4 Chassis

Frame	Central tube frame made of chrome molybdenum steel tubing
Fork	**WP XACT 5448**
Suspension travel	
front	310 mm (12.2 in)
rear	300 mm (11.81 in)
Fork offset	22 mm (0.87 in)
Shock absorber	**WP XACT 5750**

Brake system	Disc brakes, floating brake calipers
Brake discs - diameter	
front	260 mm (10.24 in)
rear	220 mm (8.66 in)
Brake discs - wear limit	
front	2.5 mm (0.098 in)
rear	3.5 mm (0.138 in)
Offroad tire pressure	
front	1.0 bar (15 psi)
rear	1.0 bar (15 psi)
Secondary ratio	13:51
Chain	5/8 x 1/4"
Rear sprockets available	48, 50, 51, 52
Steering head angle	63.9°
Wheelbase	1,485 ± 10 mm (58.46 ± 0.39 in)
Seat height unloaded	950 mm (37.4 in)
Ground clearance unloaded	370 mm (14.57 in)
Weight without fuel, approx.	101.3 kg (223.3 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

12-V battery	HJTZ5S-FP-C	Lithium-ion battery Battery voltage: 12 V Nominal capacity: 2.0 Ah Maintenance-free
Fuse	75011088005	5 A
Fuse	58011109110	10 A
Fuse	75011088010	10 A

22.6 Tires

Front tire	**Rear tire**
80/100 - 21 51M TT Dunlop GEOMAX AT81F	**110/100 - 18 64M TT** Dunlop GEOMAX AT81
The tires specified represent one of the possible series production tires. Additional information is available in the Service section under: http://www.ktm.com	

22.7 Fork

Fork article number	34.18.8U.73
Fork	**WP XACT 5448**
Compression damping	
Comfort	17 clicks
Standard	12 clicks
Sport	7 clicks
Rebound damping	
Comfort	23 clicks
Standard	18 clicks
Sport	13 clicks
Air pressure	9.6 bar (139 psi)
Fork length	950 mm (37.4 in)

Oil capacity external mechanism left	230 $^{+10}_{-50}$ ml (7.78 $^{+0.34}_{-1.69}$ fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 139)
Oil capacity external mechanism right	230 $^{+10}_{-50}$ ml (7.78 $^{+0.34}_{-1.69}$ fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 139)
Grease capacity, left cartridge	5 g (0.18 oz)	Special grease (00062010053) (📖 p. 141)
Oil capacity, right cartridge	380 ml (12.85 fl. oz.)	Fork oil (SAE 4) (48601166S1) (📖 p. 139)

22.8 Shock absorber

Shock absorber article number	18.18.7U.73
Shock absorber	**WP XACT 5750**
Lowspeed compression damping	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Highspeed compression damping	
Comfort	2.5 turns
Standard	2 turns
Sport	1.5 turns
Rebound damping	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Spring preload	7 mm (0.28 in)
Spring rate	
Weight of rider: 65 ... 75 kg (143 ... 165 lb.)	39 N/mm (223 lb/in)
Weight of rider: 75 ... 85 kg (165 ... 187 lb.)	42 N/mm (240 lb/in)
Weight of rider: 85 ... 95 kg (187 ... 209 lb.)	45 N/mm (257 lb/in)
Spring length	260 mm (10.24 in)
Gas pressure	10 bar (145 psi)
Static sag	35 mm (1.38 in)

Riding sag	105 mm (4.13 in)
Fitted length	477 mm (18.78 in)
Shock absorber fluid (📖 p. 139)	SAE 2.5

22.9 Chassis tightening torques

Screw, intake air temperature sensor	**EJOTDELTA PT®** 45x12-Z	0.7 Nm (0.52 lbf ft)
Screw, oil fill level sensor	**G 3/4 "**	7 Nm (5.2 lbf ft)
Screw, oil pump holder on oil tank	**EJOTDELTA PT®** 45x12-Z	0.7 Nm (0.52 lbf ft)
Screw, pressure regulator	**EJOT PT®** K60x25-Z	2.3 Nm (1.7 lbf ft)
Screw, seat fixing	**EJOT EJOFORM PT®** K60x23/18	2.5 Nm (1.84 lbf ft)
Screw, start button	M3	0.4 Nm (0.3 lbf ft)
Screw, switch-off button	M3	0.4 Nm (0.3 lbf ft)
Screw, fixed grip	M4	5 Nm (3.7 lbf ft) **Loctite®243™**
Screw, service hour counter	M4	0.8 Nm (0.59 lbf ft)
Screw, throttle valve body hose clamp	M4	5 Nm (3.7 lbf ft)
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, shock absorber adjusting ring	M5	5 Nm (3.7 lbf ft)
Screws on main silencer	M5	7 Nm (5.2 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, indicator lamp bracket	M6	5 Nm (3.7 lbf ft)
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft) **Loctite®243™**
Screw, throttle grip	M6	5 Nm (3.7 lbf ft)
Fitting, fuel pump	M8	15 Nm (11.1 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	M8	12 Nm (8.9 lbf ft)

Screw, chain sliding piece	M8	15 Nm (11.1 lbf ft)
Screw, engine brace on engine	M8x20	25 Nm (18.4 lbf ft) **Loctite®243™**
Screw, engine brace on frame	M8x15	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, manifold	M8	15 Nm (11.1 lbf ft)
Screw, side stand attachment	M8	33 Nm (24.3 lbf ft) **Loctite®2701™**
Screw, subframe bottom	M8x18	30 Nm (22.1 lbf ft) **Loctite®2701™**
Screw, subframe top	M8x20	35 Nm (25.8 lbf ft) **Loctite®2701™**
Screw, top steering stem	M8	20 Nm (14.8 lbf ft) **Loctite®243™**
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)
Engine bracket screw	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, bottom shock absorber	M10	60 Nm (44.3 lbf ft) **Loctite®2701™**
Screw, handlebar support	M10	40 Nm (29.5 lbf ft) **Loctite®243™**
Screw, top shock absorber	M10	60 Nm (44.3 lbf ft) **Loctite®2701™**
Nut, fuel pump	M12	15 Nm (11.1 lbf ft)
Nut, angle lever to link fork	M14x1.5	60 Nm (44.3 lbf ft)
Nut, frame on linkage lever	M14x1.5	60 Nm (44.3 lbf ft)
Nut, linkage lever on angle lever	M14x1.5	60 Nm (44.3 lbf ft)
Nut, fork pivot	M16x1.5	100 Nm (73.8 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 fitting, cooling system	M24x1.5	15 Nm (11.1 lbf ft) **Loctite®243™**
Nut, rear wheel spindle	M25x1.5	80 Nm (59 lbf ft)

Brake fluid DOT 4 / DOT 5.1

Standard/classification
– DOT

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

Recommended supplier
Castrol
– **REACT PERFORMANCE DOT 4**

MOTOREX®
– **Brake Fluid DOT 5.1**

Coolant

Guideline
– Only use high-grade, silicate-free coolant with corrosion inhibitor additive for aluminum motors. Low grade and unsuitable antifreeze causes corrosion, deposits and frothing.
– Do not use pure water as only coolant is able to meet the requirements needed in terms of corrosion protection and lubrication properties.
– Only use coolant that complies with the requirements stated (see specifications on the container) and that has the relevant properties.

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

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

The use of premixed coolant is recommended.

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

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

Engine oil (15W/50)

Standard/classification
– JASO T903 MA2 (📖 p. 142)
– SAE (📖 p. 142) (15W/50)

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

Recommended supplier
MOTOREX®
– **Top Speed 4T**

Engine oil, 2-stroke

Standard/classification
– JASO FD (📖 p. 142)

Guideline
– Only use high grade 2-stroke engine oil of a reputable brand.

Fully synthetic

Recommended supplier
MOTOREX®
– **Cross Power 2T**

Fork oil (SAE 4) (48601166S1)

Standard/classification
– SAE (📖 p. 142) (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. 142) (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).

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**

Silicone spray

Recommended supplier
MOTOREX®
– **Silicone Spray**

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

Recommended supplier
MOTOREX®
– **Quick Cleaner**

Special grease (00062010053)

Recommended supplier
Klüber Lubrication®
– **KLÜBERFOOD NH1 34-401**

Universal oil spray

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

JASO T903 MA2

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

SAE

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

JASO FD

JASO FD is a classification for a 2-stroke engine oil that was specifically developed for the extreme demands of racing. Thanks to first-rate synthetic esters and specially designed additives, superb combustion is achieved even under extreme operating conditions.

TPI	Injection into transfer ducts (Transfer Port Injection)	Electronic fuel injection in which two injection valves in the transfer ducts of the cylinders are used
OBD	On-board diagnosis	Vehicle system, which monitors the specified parameters of the vehicle electronics

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

28.1 Red symbols

Red symbols indicate an error condition that requires immediate intervention.

	The oil level warning lamp lights up red – Oil level has reached the **MIN**marking. Ride for no more than until the remaining fuel in the tank is depleted and at the next opportunity refuel with 2-stroke oil.

28.2 Yellow and orange symbols

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

	Malfunction indicator lamp lights up/flashes yellow – The OBD has detected an error in the vehicle electronics. Stop, and contact an authorized Husqvarna Motorcycles workshop.
	The fuel level warning lamp lights up yellow – The fuel level has reached the reserve mark.

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