

## 65 SX

Art. no. 3211855en



**KTm**







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

We wish you a lot of enjoyment in riding this vehicle.

Enter the serial numbers of your vehicle below.

Chassis number (☛ p. 10)	Dealer's stamp
Engine number (☛ p. 10)	

The owner's manual corresponded to the latest state of this series at the time of printing. Slight deviations resulting from continuing development and design can, however, not be completely excluded.

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Issued by: TÜV Management Service

KTM-Sportmotorcycle AG  
5230 Mattighofen, Austria



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## 1.1 Symbols used

The symbols used are explained in the following.



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



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



All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of the safety of your child, have these jobs performed in an authorized KTM workshop. There, your motorcycle will be serviced optimally by specially trained experts using the specialist tools required.



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

## 1.2 Formats used

The typographical and other formats used are explained in the following.

**Proper name**

Identifies a proper name.

**Name®**

Identifies a protected name.

**Brand™**

Identifies a brand in merchandise traffic.



### 2.1 Use definition - intended use

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

**Info**

The motorcycle may only be used in closed off areas remote from public road traffic.

### 2.2 Safety advice

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

**Info**

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

### 2.3 Degrees of risk and symbols

**Danger**

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.

**Warning**

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

### 2.4 Tampering warning

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

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

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

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

### 2.5 Safe operation

**Danger**

**Danger of accidents** Danger arising from the rider's judgement being impaired.

- Do not operate the vehicle while under the influence of alcohol, drugs and certain medications or physically or mentally impaired.

**Danger**

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

- When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.





### Warning

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

- Do not touch hot components such as exhaust system, radiator, engine, shock absorber, and the brake system. Allow these components to cool down before starting work on them.

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.

## 2.6 Protective clothing



### Warning

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

- Wear protective clothing (helmet, boots, gloves, pants and jacket with protectors) every time you ride the vehicle. Always wear protective clothing that is in good condition and meets the legal requirements.

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

## 2.7 Work rules

Special tools are necessary for certain tasks. The tools are not contained in the vehicle but can be ordered under the number in parentheses. E.g.: bearing puller (15112017000)

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

In some instances, a thread locker (e.g. **Loctite**®) is required. The manufacturer instructions for use must be followed.

After disassembly, clean the parts that are to be reused and check them for damage and wear. Change damaged or worn parts.

After you complete the repair or service work, check the operating safety of the vehicle.

## 2.8 Environment

If you use your motorcycle responsibly, you can ensure that problems and conflicts do not occur. To protect the future of the motorcycle sport, make sure that you use your motorcycle legally, display environmental consciousness, and respect the rights of others.

When disposing of used oil, other operating and auxiliary fluids, and used components, comply with the laws and regulations of the respective country.

Because motorcycles are not subject to the EU regulations governing the disposal of used vehicles, there are no legal regulations that pertain to the disposal of an end-of-life motorcycle. Your authorized KTM dealer will be glad to advise you.

## 2.9 Owner's Manual

It is important that you read this Owner's Manual carefully and completely before making your first trip. The Owner's Manual contains useful information and many tips on how to operate, handle, and maintain your motorcycle. Only then will you find out how to customize the vehicle ideally for your own use and how you can protect yourself from injury.

Keep the Owner's Manual in an accessible place to enable you to refer to it as needed.

If you would like to know more about the vehicle or have questions on the material you read, please contact an authorized KTM dealer.

The Owner's Manual is an important component of the vehicle and should be handed over to the new owner if the vehicle is sold.



### 3.1 Guarantee, warranty

The work prescribed in the service schedule must be carried out by an authorized KTM workshop only and confirmed in the customer's service record and in the **KTM dealer.net**; otherwise, all warranty claims will be void. No warranty claims can be considered for damage resulting from manipulations and/or alterations to the vehicle.

Additional information on the guarantee or warranty and the procedures involved can be found in the service record.

### 3.2 Operating and auxiliary substances



#### Warning

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

- Do not allow fuel to get into the ground water, the ground, or the sewage system.

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

### 3.3 Spare parts, accessories

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

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

### 3.4 Service

A prerequisite for perfect operation and prevention of premature wear is that the service, care, and tuning work on the engine and chassis is properly carried out as described in the Owner's Manual. Incorrect adjustment and tuning of the engine and chassis can lead to damage and breakage of components.

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

It is imperative that you adhere to the stipulated run-in times and service intervals. If you observe these exactly, you will ensure a much longer service life for your motorcycle.

### 3.5 Figures

The figures contained in the manual may depict special equipment.

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

### 3.6 Customer service

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

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



4.1 View of vehicle, front left (example)



1	Hand brake lever (☛ p. 11)
2	Rebound damping of fork
3	Clutch lever (☛ p. 11)
4	Quick release for seat lock
5	Fuel tap (☛ p. 12)
6	Choke (☛ p. 12)
7	Shift lever (☛ p. 13)
8	Shock absorber, rebound adjustment



4.2 View of vehicle, rear right (example)



1	Filler cap
2	Kill switch (☛ p. 11)
3	Compression damping of fork
4	Throttle grip (☛ p. 11)
5	Chassis number (☛ p. 10)
6	Level viewer, rear brake fluid
7	Shock absorber, compression adjustment
8	Foot brake lever (☛ p. 13)
9	Kickstarter (☛ p. 13)



## 5.1 Chassis number



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

## 5.2 Engine number



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

## 5.3 Shock absorber part number



The shock absorber part number ❶ is stamped on the top of the shock absorber above the adjusting ring on the engine side.



## 6.1 Clutch lever



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

## 6.2 Hand brake lever



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

## 6.3 Throttle grip



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

## 6.4 Kill switch



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

### Possible states

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

## 6.5 Opening the filler cap



### Danger

**Fire hazard** Fuel is highly flammable.

- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- Fuel in the fuel tank expands when warm and can escape if the tank is overfilled. See the notes on refueling.



**Warning**

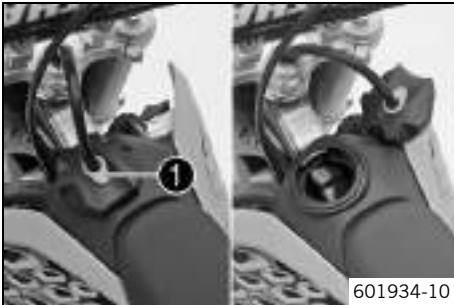
**Danger of poisoning** Fuel is poisonous and a health hazard.

- Avoid contact between fuel and skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come into contact with fuel. Store fuel in a suitable canister according to regulations and keep it out of the reach of children.

**Warning**

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

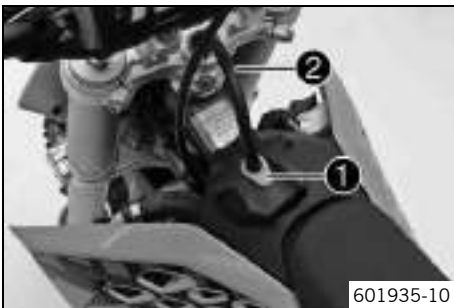
- Do not allow fuel to get into the ground water, the ground, or the sewage system.



601934-10

- Press release button ❶, turn the filler cap counterclockwise, and lift it free.

## 6.6 Closing the filler cap



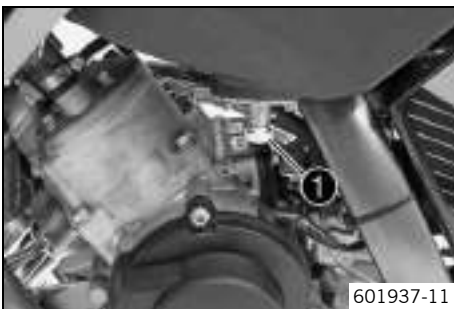
601935-10

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

**Info**

Run the fuel tank breather hose ❷ without kinks.

## 6.7 Fuel tap



601937-11

Fuel tap ❶ is on the left of the fuel tank.

**Possible states**

- Fuel tap is closed – The knurled screw is turned all the way clockwise. Fuel cannot flow out of the fuel tank.
- Fuel tap is open – The knurled screw is turned all the way counterclockwise. Fuel can flow out of the fuel tank.

## 6.8 Choke



601937-10

Choke lever ❶ is fitted on the left side of the carburetor.

Activating the choke function frees an opening through which the engine can draw extra fuel. This results in a richer fuel-air mixture, which is needed for a cold start.

**Info**

If the engine is warm, the choke function must be deactivated.

**Possible states**

- Choke function activated – The choke lever is pushed down all the way.
- Choke function deactivated – The choke lever is pushed up all the way.



## 6.9 Shift lever

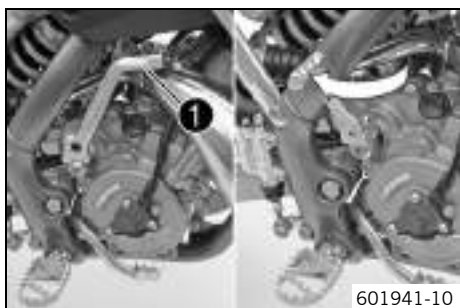


Shift lever ❶ is mounted on the left side of the engine.



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

## 6.10 Kickstarter



The kickstarter ❶ is fitted on the right of the engine.  
The kickstarter can be swiveled.



### Info

Before riding, swing the kickstarter inwards towards the engine.

## 6.11 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.

## 6.12 Plug-in stand



The fixture for the plug-in stand ❶ is located on the frame on the left side of the vehicle.

The plug-in stand is used to park the motorcycle.



### Info

Remove the plug-in stand before riding.



## 7.1 Advice on first use

**Warning****Danger of accidents** Physical and mental readiness of a child.

- Your child must be able to ride a bicycle and must be able to erect the vehicle independently after a fall. In addition, your child must understand the regulations and instructions from you or from other guardians. Do not ask too much of your child; participation in competitive activities should not be considered until your child's stamina, riding techniques and motivation are at the necessary levels. Children often underestimate or fail to recognize dangerous situations; make it clear to your child that it should not, under any circumstances, operate the vehicle without supervision and that your child may only drive at speeds that are commensurate with the child's riding abilities and the road conditions.
- Only let your child ride on the vehicle if it is physically and mentally ready to operate the vehicle.

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

- Wear protective clothing (helmet, boots, gloves, pants and jacket with protectors) every time you ride the vehicle. You and your child should always use protective clothing that is in good condition and meets the legal requirements. When you ride a motorcycle, set an example for your child and wear suitable protective clothing.

**Warning****Danger of crashing** Poor vehicle handling due to different tire tread patterns on front and rear wheels.

- The front and rear wheels must be fitted with tires with similar tread patterns to prevent loss of control over the vehicle.

**Warning****Danger of accidents** Critical riding behavior due to inappropriate riding.

- Ensure that your child adapts the riding speed to the road conditions and to his or her riding abilities.

**Warning****Danger of accidents** Accident risk caused by presence of a passenger.

- Your vehicle is not designed to carry passengers. Do not ride with a passenger.

**Warning****Danger of accidents** Brake system failure.

- If the foot brake lever is not released, the brake linings drag continuously. The rear brake may fail due to overheating. Ensure that your child raises his or her foot from the foot brake lever when the child does not want to brake.

**Warning****Danger of accidents** Destruction of chassis components.

- Do not exceed the maximum allowable rider weight.

**Warning****Risk of misappropriation** Usage by unauthorized persons.

- Never leave the vehicle while the engine is running. Secure the vehicle against use by unauthorized persons.

**Info**

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

- Make sure that the pre-delivery inspection work has been carried out by an authorized KTM workshop.
  - ✓ You receive a delivery certificate and the service record at vehicle handover.
- Carefully read the entire owner's manual together with your child before going for the first ride.

**Info**

Pay special attention to the safety warnings and injury risks.

Explain to your child the techniques of riding and falling, e.g. how shifting weight can influence handling characteristics.

- Familiarize your child with the controls.
- Adjust the basic position of clutch lever. (☞ p. 46)
- Adjust the basic position of the hand brake lever. (☞ p. 48)
- Adjust the basic position of the foot brake lever. ☞ (☞ p. 53)
- Before using the vehicle for the first time, ensure that the basic settings of the chassis are suitable for the weight of your child.



- Accustom your child to the handling of the motorcycle on suitable terrain, preferably on a large open meadow.

**Info**

To give your child a feel for the brake system, you should push your child at first. Do not start the engine until your child is able to apply the necessary front brake pressure.

Initially, let your child drive to another person who can help your child stop and turn.

- Erect obstacles for your child to navigate around to accustom your child to handling the vehicle.
- Your child should also try to ride as slowly as possible and in a standing position to get a better feeling for the vehicle.
- Do not let your child ride on terrain that exceed your child's capabilities and experience.
- Your child should hold the handlebar firmly with both hands and keep his or her feet on the footrests when riding.
- Do not exceed the maximum allowable rider weight.

## Guideline

Maximum rider weight	50 kg (110 lb.)
----------------------	-----------------

- Check the spoke tension. (🔧 p. 60)

**Info**

The spoke tension must be checked after riding the motorcycle for half an hour.

- Run the engine in. (🔧 p. 15)

## 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!



## 8.1 Checks and maintenance measures when preparing for use

**Info**

Before each use, check the condition of the vehicle and its operating safety.  
The vehicle must be in perfect technical condition when it is being operated.

- Check the gear oil level. (🔧 p. 68)
- Check the front brake brake fluid level. (🔧 p. 49)
- Check the rear brake fluid level. (🔧 p. 54)
- Check the front brake linings. (🔧 p. 50)
- Check the rear brake linings. (🔧 p. 55)
- Check the brake system function.
- Check the coolant level. (🔧 p. 63)
- Check the chain dirt accumulation. (🔧 p. 41)
- Check the chain, rear sprocket, engine sprocket, and chain guide. (🔧 p. 43)
- Check the chain tension. (🔧 p. 41)
- Check the tire condition. (🔧 p. 60)
- Check the tire air pressure. (🔧 p. 60)
- Check the spoke tension. (🔧 p. 60)
- Clean the dust boots of the fork legs. (🔧 p. 28)
- Bleed fork legs. (🔧 p. 27)
- 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 supply.

## 8.2 Starting

**Danger**

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

- When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

**Note**

**Engine failure** High engine speeds in cold engines have a negative effect on the service life of the engine.

- Always warm up the engine at low engine speeds.

**Info**

If the motorcycle is unwilling to start, the cause can be old fuel in the float chamber. The flammable elements of the fuel evaporate after a long time of standing.  
If the float chamber is filled with fresh fuel, the engine starts immediately.

**Engine has been out of use for more than 1 week**

- Empty the carburetor float chamber. 🛠️ (🔧 p. 66)
- Turn the knurled screw on the fuel tap all the way counterclockwise.  
✓ Fuel can flow from the fuel tank to the carburetor.
- Remove the motorcycle from the stand.
- Shift gear to neutral.

**The engine is cold**

- Push the choke lever down all the way.
- Forcefully step on the kickstarter, pushing it all the way down.

**Info**

Do not open the throttle.



## 8.3 Starting off

**Info**

The plug-in stand must be removed prior to riding.

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

## 8.4 Shifting, riding

**Warning**

**Danger of accidents** If you change down at high engine speed, the rear wheel can lock up.

- Do not change into a low gear at high engine speed. The engine races and the rear wheel can lock up.

**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 or for steep inclines.

- When conditions allow (incline, road situation, etc.), your child can shift into a higher gear. To do so, release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch and open the throttle.
- If the choke function was activated, deactivate it after the engine has warmed up.
- When you reach maximum speed after fully opening the throttle, turn back the throttle to about  $\frac{3}{4}$  of its range. The speed hardly drops, but the fuel consumption falls considerably.
- Your child should always open the throttle only as much as the engine can handle – abruptly opening the throttle increases fuel consumption.
- To shift down, brake and close the throttle at the same time.
- Pull the clutch lever and shift into a lower gear, release the clutch lever slowly and open the throttle or shift again.
- Your child should switch off the engine if he or she expects to be standing for a long time.

Guideline

$\geq 2 \text{ min}$
----------------------

- Your child should avoid frequent and extended slipping of the clutch. This heats the engine oil, the engine and the cooling system.
- Insist that your child ride with a low rpm instead of with a high rpm and a slipping clutch.

## 8.5 Braking

**Warning**

**Danger of accidents** If you brake too hard, the wheels can lock.

- Adapt your braking to the traffic situation and the road conditions.

**Warning**

**Danger of accidents** Reduced braking efficiency caused by spongy pressure point of front or rear brake.

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

**Warning**

**Danger of accidents** Reduced braking efficiency due to a wet or dirty brake system.

- Clean or dry a dirty or wet brake system by riding and braking gently.

- On sandy, wet or slippery surfaces, use the rear brake.
- Braking should always be completed before you go into a bend. Your child should change down to a lower gear appropriate to the road speed.
- Insist that your child take advantage of the braking action of the engine when riding on long downhill. To do so, shift back one or two gears, but do not overrev the engine. Your child will need to apply the brakes far less often and the brake system is not overheated.



## 8.6 Stopping, parking

**Warning**

**Risk of misappropriation** Usage by unauthorized persons.

- Never leave the vehicle while the engine is running. Secure the vehicle against use by unauthorized persons.

**Warning**

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

- Do not touch hot components such as exhaust system, radiator, engine, shock absorber, and the brake system. Allow these components to cool down before starting work on them.

**Note**

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

- Always place the vehicle on a firm and even surface.

**Note**


**Fire hazard** Some vehicle components become very hot when the vehicle is operated.

- Do not park the vehicle near flammable or explosive substances. Do not place objects on the vehicle while it is still warm from being run. Always let the vehicle cool first.

**Note**

**Material damage** Damage and destruction of components by excessive load.

- The side stand is designed for the weight of the motorcycle only. Do not sit on the motorcycle when it is supported by the side stand only. The side stand and/or the frame could be damaged and the motorcycle could fall over.

- Brake the motorcycle.
- Shift gear to neutral.
- Press and hold the kill switch  while the engine is idling until the engine stops.
- Turn the knurled screw on the fuel tap all the way clockwise.
- Park the motorcycle on firm ground.

## 8.7 Transport

**Note**

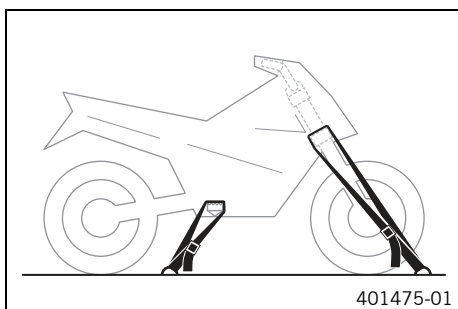
**Danger of damage** The parked vehicle may roll away or fall over.

- Always place the vehicle on a firm and even surface.

**Note**

**Fire hazard** Some vehicle components become very hot when the vehicle is operated.

- Do not park the vehicle near flammable or explosive substances. Do not place objects on the vehicle while it is still warm from being run. Always let the vehicle cool first.




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




8.8

Refueling

**Danger**


**Fire hazard** Fuel is highly flammable.

- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- Fuel in the fuel tank expands when warm and can escape if the tank is overfilled. See the notes on refueling.

**Warning**

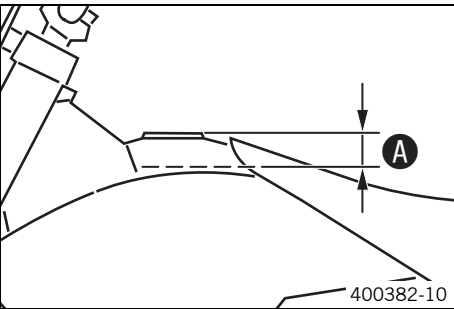
**Danger of poisoning** Fuel is poisonous and a health hazard.

- Avoid contact of the fuel with skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come into contact with fuel.

**Warning**

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

- Do not allow fuel to get into the ground water, the ground, or the sewage system.



- Switch off the engine.
- Open the filler cap. (🔧 p. 11)
- Fill the fuel tank with fuel up to measurement **A**.

Guideline

Measurement of <b>A</b>	35 mm (1.38 in)	
Fuel tank capacity, approx.	3.5 l (3.7 qt.)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (🔧 p. 82)
2-stroke engine oil (🔧 p. 81)		







- Close the filler cap. (🔧 p. 12)



## 9.1 Service schedule

	S10N	S20A	S40A	S80A	J1A
Check the front brake linings. (☞ p. 50)	•	•	•	•	
Check the rear brake linings. (☞ p. 55)	•	•	•	•	
Check the brake discs. (☞ p. 48)	•	•	•	•	
Check brake lines for damage and leakage.	•	•	•	•	
Change the sealing sleeves of the foot brake cylinder. 🛠		•	•	•	
Change the rear brake fluid. 🛠					•
Check the rear brake fluid level. (☞ p. 54)	•	•	•	•	
Check the free travel of the foot brake lever. (☞ p. 52)	•	•	•	•	
Check the frame and swingarm. 🛠		•	•	•	
Check swingarm bearing. 🛠		•	•	•	
Check the heim joints on the upper and lower shock absorbers. 🛠		•	•	•	
Service the fork. 🛠			•	•	
Service the shock absorber. 🛠			•	•	
Check the tire condition. (☞ p. 60)	•	•	•	•	
Check the tire air pressure. (☞ p. 60)	•	•	•	•	
Check wheel bearing for play. 🛠		•	•	•	
Check the wheel hubs. 🛠		•	•	•	
Check rim run-out. 🛠	•	•	•	•	
Check the spoke tension. (☞ p. 60)	•	•	•	•	
Check the chain, rear sprocket, engine sprocket, and chain guide. (☞ p. 43)	•	•	•	•	
Check the chain tension. (☞ p. 41)	•	•	•	•	
Lubricate all moving parts (e. g. hand levers, chain, ...) and check for smooth operation. 🛠	•	•	•	•	
Change the hydraulic clutch fluid. 🛠 (☞ p. 46)					•
Check the fluid level of the hydraulic clutch. (☞ p. 46)	•	•	•	•	
Change the front brake fluid. 🛠					•
Check the front brake brake fluid level. (☞ p. 49)	•	•	•	•	
Check the free travel of the hand brake lever. (☞ p. 48)	•	•	•	•	
Grease the steering head bearing. 🛠 (☞ p. 33)					•
Check play of steering head bearing. (☞ p. 32)	•	•	•	•	
Change the spring of the exhaust control. 🛠			•	•	
Change the piston. 🛠			•	•	
Change the connecting rod, conrod bearing and crank pin. 🛠			•	•	
Change the crankshaft bearing. 🛠			•	•	
Check the transmission and shift mechanism. 🛠			•	•	
Change all engine bearings. 🛠				•	
Change the gear oil. 🛠 (☞ p. 68)	•		•	•	
Check the gear oil level. (☞ p. 68)		•	•	•	
Change the spark plug. 🛠		•	•	•	
Change the spark plug connector. 🛠			•	•	
Check the cylinder and piston. 🛠		•	•	•	
Check the intake membrane. 🛠		•	•	•	
Check the exhaust control for functioning and smooth operation. 🛠		•	•	•	
Check the clutch. 🛠		•	•	•	
Check all hoses (e. g. fuel, cooling, bleeding, drainage) and sleeves for tearing, tightness and correct routing. 🛠	•	•	•	•	
Check the antifreeze and coolant level. (☞ p. 62)	•	•	•	•	
Check the cables for damage and routing without sharp bends. 🛠	•	•	•	•	
Check the cables for damage, routing without sharp bends and correct adjustment.	•	•	•	•	



	S10N	S20A	S40A	S80A	J1A
Clean the air filter and air filter box.  (➡ p. 37)	•	•	•	•	
Change the glass fiber yarn filling of the main silencer.  (➡ p. 38)		•	•	•	
Check the screws and nuts for tightness. 	•	•	•	•	
Check/set the carburetor components. 			•	•	•
Check idle. 	•	•	•	•	
Final inspection: check the vehicle for operating safety and take a test ride.	•	•	•	•	
Create a service entry in the <b>KTM DEALER.NET</b> and in the service record. 	•	•	•	•	

**S10N:** Once after 10 operating hours

**S20A:** Every 20 operating hours

**S40A:** Every 40 operating hours

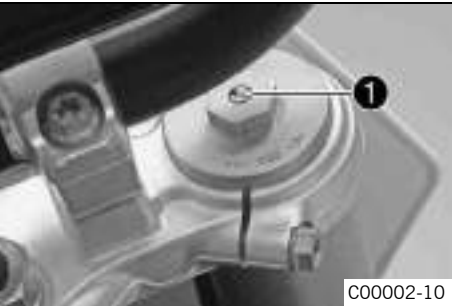
**S80A:** Every 80 operating hours

**J1A:** Annually



10.1 Adjusting the compression damping of the fork

**i** **Info**  
The hydraulic compression damping determines the fork suspension behavior.



- Turn adjusting screw ❶ clockwise all the way.

**i** **Info**  
Adjusting screw ❶ is located at the top end of the right fork leg and is labeled with **COM**.

- Turn back counterclockwise by the number of clicks corresponding to the fork type.  
Guideline

Compression damping	
Standard	2 turns

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

10.2 Adjusting the rebound damping of the fork

**i** **Info**  
The hydraulic rebound damping determines the fork suspension behavior.



- Turn adjusting screw ❶ clockwise all the way.

**i** **Info**  
Adjusting screw ❶ is located at the top end of the left fork leg and is labeled with **REB**.

- Turn back counterclockwise by the number of clicks corresponding to the fork type.  
Guideline

Rebound damping	
Standard	2 turns

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

10.3 Adjusting the compression damping of the shock absorber

**!** **Caution**  
**Danger of accidents** Disassembly of pressurized parts can lead to injury.

- The shock absorber is filled with high density nitrogen. Adhere to the description provided. (Your authorized KTM workshop will be glad to help.)



- Turn adjusting knob ❶ counterclockwise all the way.
- Turn clockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Compression damping	
Standard	6 clicks

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



## 10.4 Adjusting the rebound damping of the shock absorber

- Caution**  
**Danger of accidents** Disassembly of pressurized parts can lead to injury.
- The shock absorber is filled with high density nitrogen. Adhere to the description provided. (Your authorized KTM workshop will be glad to help.)



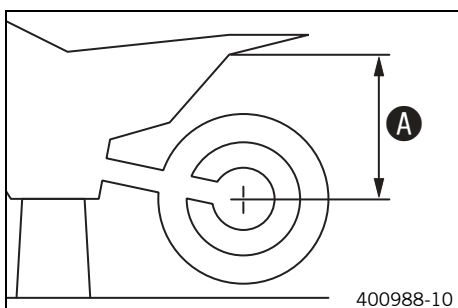
- Turn adjusting screw ❶ clockwise up to the last perceptible click.
- Turn back counterclockwise by the number of clicks corresponding to the shock absorber type.

## Guideline

Rebound damping	
Standard	12 clicks

- i Info**  
 Turn clockwise to increase damping; turn counterclockwise to reduce damping.

## 10.5 Measuring rear wheel sag unloaded



## Preliminary work

- Raise the motorcycle with a lift stand. (🔧 p. 27)

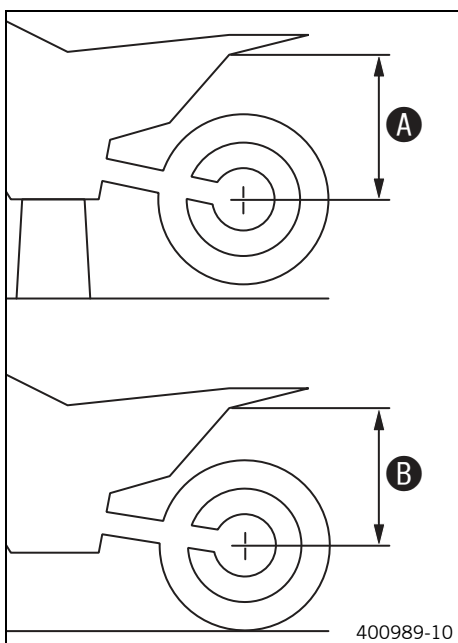
## Main work

- Measure the distance – as vertical as possible – between the rear axle and a fixed point, for example, a mark on the side cover.
- Make a note of the value as measurement A.

## Final work

- Remove the motorcycle from the lift stand. (🔧 p. 27)

## 10.6 Checking the static sag of the shock absorber



- Measure distance A of rear wheel unloaded. (🔧 p. 23)
- Hold the motorcycle in a vertical position with the assistance of another person.
- Measure the distance between the rear axle and the fixed point again.
- Make a note of the value as measurement B.

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

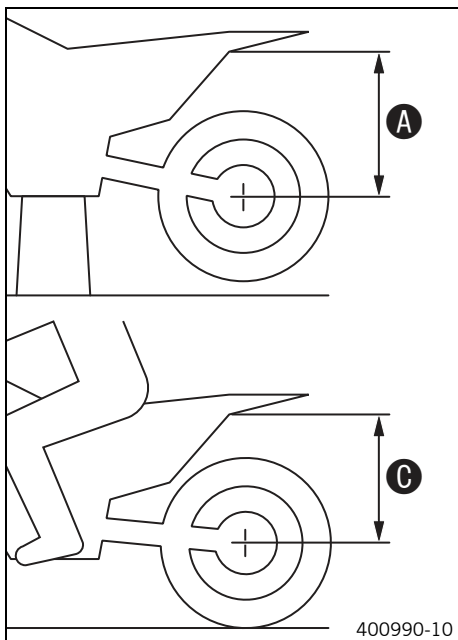
- Check the static sag.

Static sag	33 mm (1.3 in)
------------	----------------

- » If the static sag is less or more than the specified value:
  - Adjust the spring preload of the shock absorber. 🛠️ (🔧 p. 24)



## 10.7 Checking the riding sag of the shock absorber



- Measure distance **A** of rear wheel unloaded. (🔧 p. 23)
- With another person holding the motorcycle, the rider sits down on the saddle in full protective clothing in a normal sitting position (feet on footrests) and bounces up and down a few times.
  - ✓ The rear wheel suspension levels out.
- Another person now measures the distance between the rear axle and a fixed point.
- Make a note of the value as measurement **C**.

**Info**

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

- Check the riding sag.

Riding sag	90 mm (3.54 in)
------------	-----------------

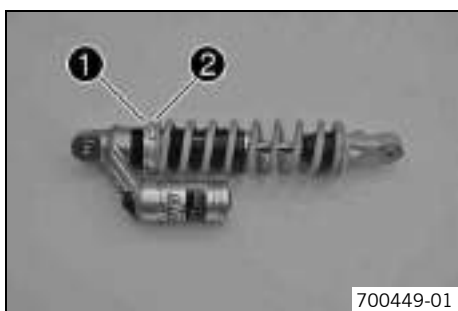
- » If the riding sag differs from the specified measurement:
  - Adjust the riding sag. 🛠️ (🔧 p. 25)

## 10.8 Adjusting the spring preload of the shock absorber 🛠️

**Caution**

**Danger of accidents** Disassembly of pressurized parts can lead to injury.

- The shock absorber is filled with high density nitrogen. Adhere to the description provided. (Your authorized KTM workshop will be glad to help.)

**Preliminary work**

- Raise the motorcycle with a lift stand. (🔧 p. 27)
- Remove shock absorber. 🛠️ (🔧 p. 35)
- After removing the shock absorber, clean it thoroughly.

**Main work**

- Measure the full spring length while it is under tension and note down the value.
- Loosen retaining ring **1**.
- Turn adjusting ring **2** until the spring is no longer under tension.

Combination wrench (50329080000)
----------------------------------

Hook wrench (T106S)
---------------------

- Measure the overall spring length when not under tension.
- Tighten the spring by turning adjusting ring **2** to the specified measurement.

**Guideline**

Spring preload	
Standard	7 mm (0.28 in)

**Info**

The spring preload is the difference between the relaxed spring length and the tensioned spring length.

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

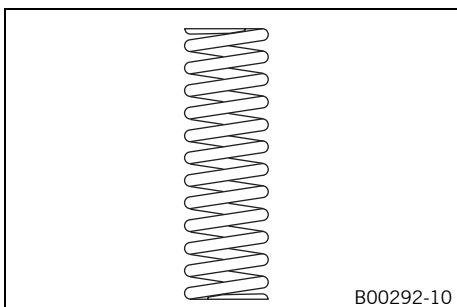
- Tighten retaining ring **1**.

**Final work**

- Install the shock absorber. 🛠️ (🔧 p. 35)
- Remove the motorcycle from the lift stand. (🔧 p. 27)



## 10.9 Adjusting the riding sag 🛠️

**Preliminary work**

- Raise the motorcycle with a lift stand. (🔧 p. 27)
- Remove shock absorber. 🛠️ (🔧 p. 35)
- After removing the shock absorber, clean it thoroughly.

**Main work**

- Choose and mount a suitable spring.

## Guideline

Spring rate	
Weight of rider: < 35 kg (< 77 lb.)	35 N/mm (200 lb/in)
Weight of rider: 35... 45 kg (77... 99 lb.)	40 N/mm (228 lb/in)
Weight of rider: > 45 kg (> 99 lb.)	45 N/mm (257 lb/in)

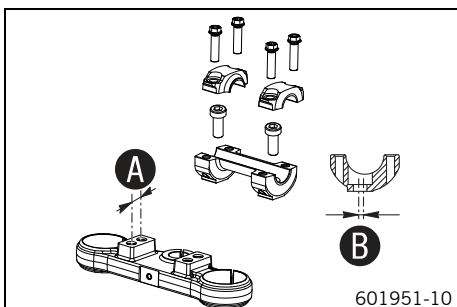
**Info**

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

**Final work**

- Install the shock absorber. 🛠️ (🔧 p. 35)
- Remove the motorcycle from the lift stand. (🔧 p. 27)
- Check the static sag of the shock absorber. (🔧 p. 23)
- Check the riding sag of the shock absorber. (🔧 p. 24)
- Adjust the rebound damping of the shock absorber. (🔧 p. 23)

## 10.10 Handlebar position



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

Distance <b>A</b> between holes	15 mm (0.59 in)
---------------------------------	-----------------

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

Distance <b>B</b> between holes	3.5 mm (0.138 in)
---------------------------------	-------------------

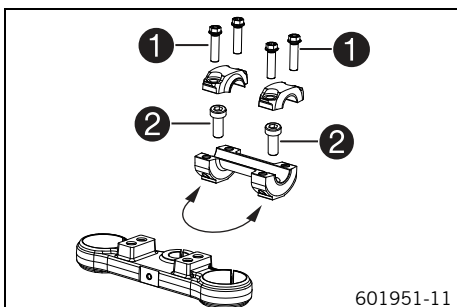
The handlebar supports can be mounted in 4 different positions.

## 10.11 Adjusting handlebar position 🛠️

**Warning**

**Danger of accidents** Handlebar breakage.

- If the handlebar is bent or straightened it will cause material fatigue, and the handlebar can break. Always replace handlebar.



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

**Info**

Protect the motorcycle and its attachments from damage by covering them.  
Do not bend the cables and lines.

- Remove the two screws **2**. Remove the handlebar support.
- Place the handlebar support in the required position. Mount and tighten the two screws **2**.

## Guideline

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



- Position the handlebar.

**Info**

Make sure cables and wiring are positioned correctly.

- Position the handlebar clamps. Mount and evenly tighten the four screws ❶.

## Guideline

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

**Info**

Make sure the gap width is even.

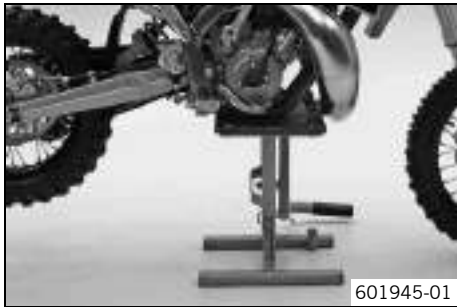


## 11.1 Raising the motorcycle with a lift stand

### Note

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

- Always place the vehicle on a firm and even surface.



- Raise the motorcycle at the frame underneath the engine.

Lift stand (59229055000)

- ✓ The tires should no longer be in contact with the ground.
- Secure the motorcycle against falling over.

## 11.2 Removing the motorcycle from the lift stand

### Note

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

- Always place the vehicle on a firm and even surface.



- Remove the motorcycle from the lift stand.
- Remove the lift stand.
- To park the motorcycle, insert plug-in stand ❶ into the plug-in stand bracket on the left side of the vehicle.



### Info

Remove the plug-in stand before riding.

## 11.3 Bleeding fork legs



### Preliminary work

- Raise the motorcycle with a lift stand. (☛ p. 27)

### Main work

- Remove bleeder screws ❶ briefly.
- ✓ Any excess pressure escapes from the interior of the fork.
- Mount and tighten bleeder screws.

### Follow-up work

- Remove the motorcycle from the lift stand. (☛ p. 27)



## 11.4 Cleaning the dust boots of the fork legs

**Preliminary work**

- Raise the motorcycle with a lift stand. (🔧 p. 27)

**Main work**

- Push dust boots ❶ of both fork legs downwards.

**Info**

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

**Warning**

**Danger of accidents** Reduced braking efficiency due to oil or grease on the brake discs.

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

- Clean and oil the dust boots and inner fork tube of both fork legs.

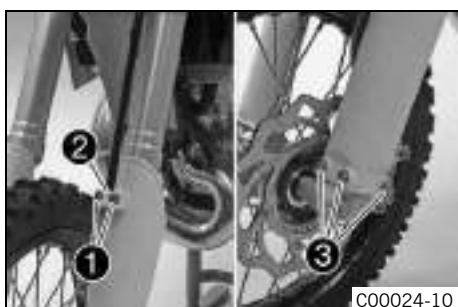
Universal oil spray (🔧 p. 84)

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

**Final work**

- Remove the motorcycle from the lift stand. (🔧 p. 27)

## 11.5 Removing the fork protector 🛠️



- Remove screws ❶. Take off clamp ❷.
- Remove screws ❸ on the left fork leg. Take off the fork protector.



- Remove screws ❹ on the right fork leg. Take off the fork protector.

## 11.6 Installing the fork protector 🛠️

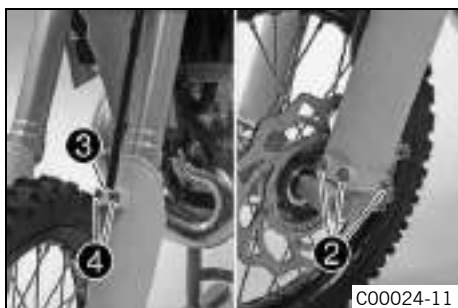


- Position the fork protection on the right fork leg. Mount and tighten screws ❶.

**Guideline**

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





C00024-11

- Position the fork protection on the left fork leg. Mount and tighten screws ②.

Guideline

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

- Position the brake line. Mount clamp ③.
- Mount the screws ④.

## 11.7 Removing the fork legs

### Preliminary work

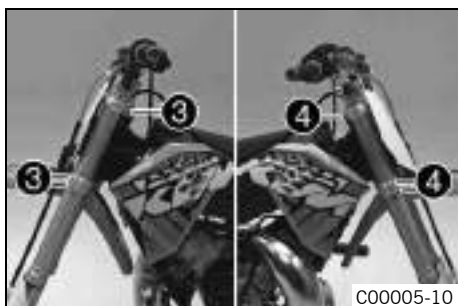
- Raise the motorcycle with a lift stand. (p. 27)
- Remove the front wheel. (p. 58)

### Main work

- Remove screws ① and take off the clamp.
- Remove screws ② and take off the brake caliper.
- Hang the brake caliper and the brake line loosely to the side.



C00006-10



C00005-10

- Loosen screws ③. Remove the left fork leg.
- Loosen screws ④. Remove the right fork leg.

## 11.8 Installing the fork legs



### Warning

**Danger of accidents** Modifications to the suspension settings can seriously alter the vehicle's ride behavior.

- Following modifications, ride slowly at first to get the feel of the new ride behavior.

### Main work

- Position the fork legs.



### Info

The upper milled groove in the fork leg must be flush with the top edge of the upper triple clamp. Position bleeder screws ① to the front.



C00007-10

- Tighten screws ②.

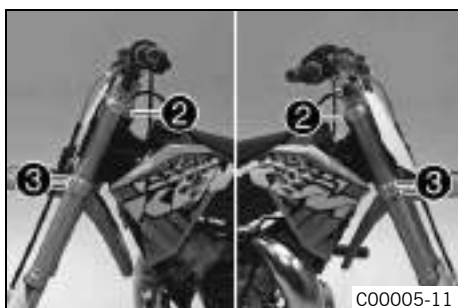
Guideline

Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)
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- Tighten screws ③.

Guideline

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



C00005-11





- Position brake caliper, mount and tighten screws ④.

Guideline

Screw, brake caliper	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
----------------------	----	------------------------	---------------

- Position the brake line. Mount the clamp and screws ⑤.

#### Final work

- Install the front wheel. 🛠️ (📖 p. 58)

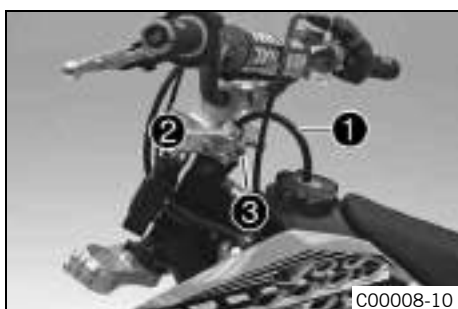
### 11.9 Removing the lower triple clamp 🛠️

#### Preliminary work

- Raise the motorcycle with a lift stand. (📖 p. 27)
- Remove the front wheel. 🛠️ (📖 p. 58)
- Remove the fork legs. 🛠️ (📖 p. 29)
- Dismount the start number plate. (📖 p. 33)
- Dismount the front fender. (📖 p. 34)

#### Main work

- Remove fuel tank breather ①.
- Remove nut ②. Remove screw ③, take off top triple clamp with the handlebar and place it on one side.



#### Info

Protect the motorcycle and its attachments against damage by covering them.

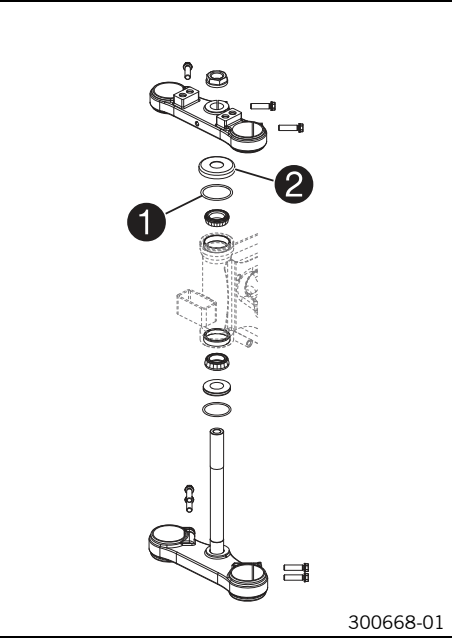
Do not bend the cables and lines.



- Remove protective ring ④.
- 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. 83)
- Insert the lower triple clamp with the steering stem. Mount the upper steering head bearing.
- Check whether the top steering head seal ❶ is correctly positioned.
- Slide on protective ring ❷.



- Position the upper triple clamp with the steering.
- Mount nut ❸, but do not tighten it yet.

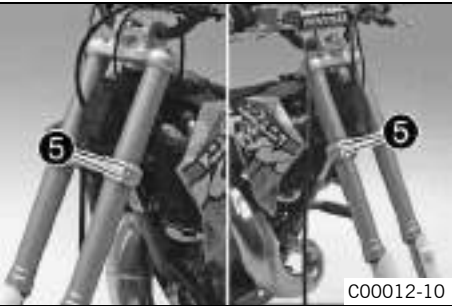


- Position the fork legs.



Info

The upper milled groove in the fork leg must be flush with the top edge of the upper triple clamp.  
Position bleeder screws ❹ toward the front.



- Tighten screws ❺.

Guideline

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



- Tighten nut ❸.

Guideline

Nut, steering stem	M20x1.5	10 Nm (7.4 lbf ft)
--------------------	---------	--------------------

- Position the fuel tank breather.

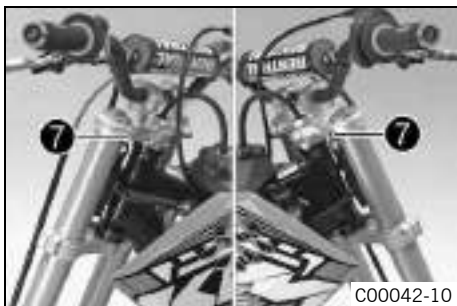




- Mount and tighten screw ⑥.

Guideline

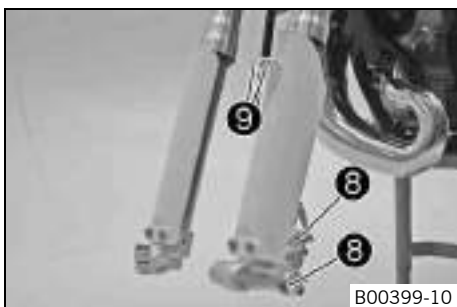
Screw, top triple clamp	M8	20 Nm (14.8 lbf ft)
-------------------------	----	------------------------



- Mount and tighten screws ⑦.

Guideline

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



- Position brake caliper, mount and tighten screws ⑧.

Guideline

Screw, brake caliper	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
----------------------	----	------------------------	---------------

- Position the brake line and clamp. Mount and tighten screws ⑨.
- Install the front fender. (☛ p. 34)
- Install the start number plate. (☛ p. 34)

#### Final work

- Check that the wiring harness, cables, and brake and clutch lines can move freely and are routed correctly.
- Install the front wheel. (☛ p. 58)
- Check play of steering head bearing. (☛ p. 32)
- Remove the motorcycle from the lift stand. (☛ p. 27)

### 11.11 Checking play of steering head bearing



#### Warning

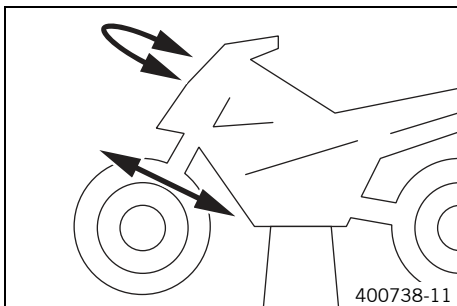
**Danger of accidents** Unstable vehicle handling from incorrect steering head bearing play.

- Adjust the steering head bearing play without delay. (Your authorized KTM workshop will be glad to help.)



#### Info

If the bike is ridden with play in the steering head bearing, the bearing and the bearing seats in the frame can become damaged over time.



#### Preliminary work

- Raise the motorcycle with a lift stand. (☛ p. 27)

#### Main work

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

No play should be noticeable in the steering head bearing.

» If there is noticeable play present:

- Adjust the play of the steering head bearing. (☛ p. 33)
- Move the handlebar to and fro over the entire steering range.

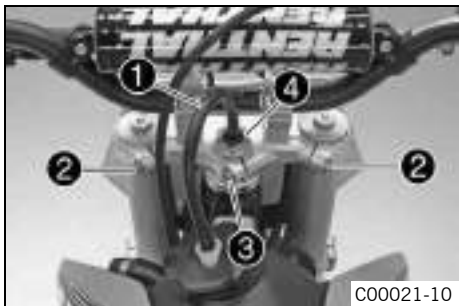
The handlebar must be able to move easily over the entire steering range. No resting locations should be noticeable.



- » If click positions are noticeable:
  - Adjust the play of the steering head bearing. 🛠️ (📖 p. 33)
  - Check the steering head bearing and replace if required.

**Final work**

- Remove the motorcycle from the lift stand. (📖 p. 27)

**11.12 Adjusting the play of the steering head bearing 🛠️****Preliminary work**

- Raise the motorcycle with a lift stand. (📖 p. 27)

**Main work**

- Remove fuel tank breather ❶.
- Loosen screws ❷.
- Loosen screw ❸.
- Loosen and retighten nut ❹.

**Guideline**

Nut, steering stem	M20x1.5	10 Nm (7.4 lbf ft)
--------------------	---------	--------------------

- Using a plastic hammer, tap lightly on the upper triple clamp to avoid strains.
- Tighten screw ❸.

**Guideline**

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

- Tighten screws ❷.

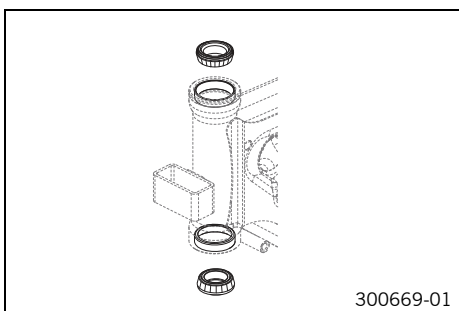
**Guideline**

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

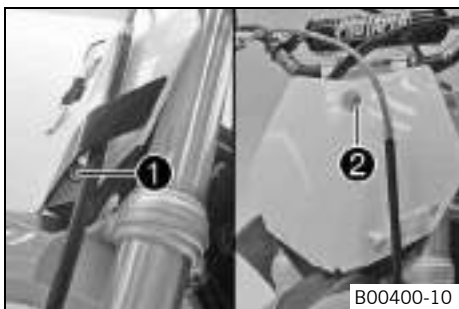
- Position the fuel tank breather ❶.

**Final work**

- Check play of steering head bearing. (📖 p. 32)
- Remove the motorcycle from the lift stand. (📖 p. 27)

**11.13 Greasing the steering head bearing 🛠️**

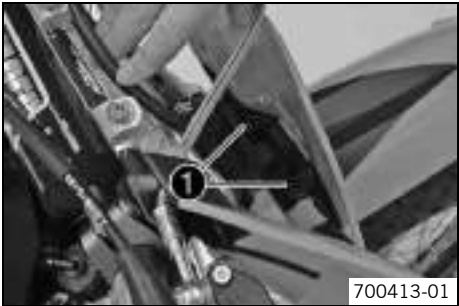
- Remove the lower triple clamp. 🛠️ (📖 p. 30)
- Install the lower triple clamp. 🛠️ (📖 p. 31)

**11.14 Dismounting the start number plate**

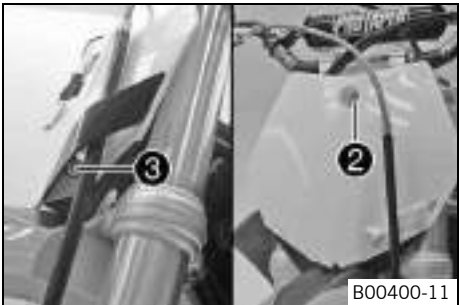
- Remove screw ❶ and take off clamp.
- Remove screw ❷. Remove the start number plate.



11.15 Installing the start number plate



- Position the start number plate with the drill holes onto the holding lugs ❶ of the fender.



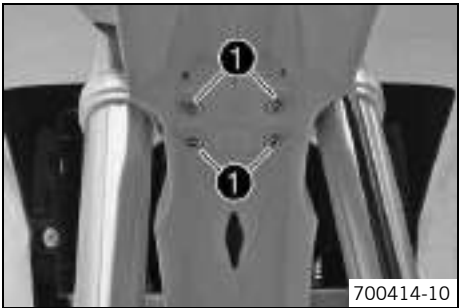
- Mount and tighten screw ❷.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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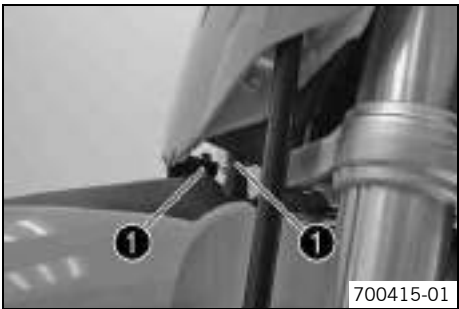
- Position the brake line. Put the clamp on, mount and tighten screw ❸.

11.16 Dismounting the front fender

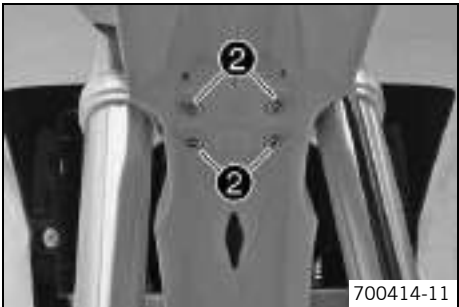


- Remove screws ❶. Remove the front fender.

11.17 Installing the front fender



- Position the fender with holding lugs ❶ into the drill holes on the start number plate.



- Position the front fender. Mount and tighten screws ❷.

Guideline

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



## 11.18 Removing the shock absorber 🛠️

**Preliminary work**

- Raise the motorcycle with a lift stand. (🔧 p. 27)

**Main work**

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

## 11.19 Installing shock absorber 🛠️

**Main work**

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

## Guideline

Screw, top shock absorber	M10	45 Nm (33.2 lbf ft)
---------------------------	-----	------------------------

- Mount and tighten screw ❸.

## Guideline

Screw, bottom shock absorber	M10	45 Nm (33.2 lbf ft)
------------------------------	-----	------------------------

**Final work**

- Remove the motorcycle from the lift stand. (🔧 p. 27)

## 11.20 Removing the seat



- Open quick release ❶ and raise the rear of the seat.
- Pull back the seat and remove it.

## 11.21 Mounting the seat



- Hook the seat onto screw ❶ and lower the seat at the rear while pushing it forward.  
✓ Projection ❷ hooks into the fuel tank.





- Close quick release ③.

## 11.22 Removing the air filter

### Note

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

- Never ride the vehicle without an air filter since dust and dirt can get into the engine and result in increased wear.



### Warning

**Environmental hazard** Hazardous substances cause environmental damage.

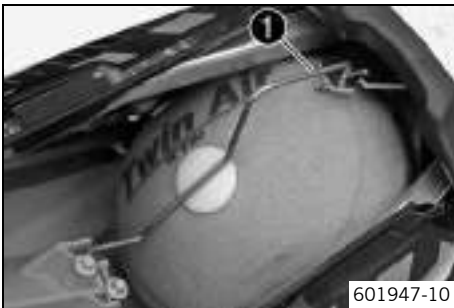
- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

### Preliminary work

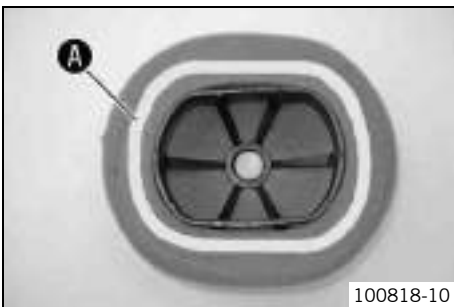
- Remove the seat. (☛ p. 35)

### Main work

- Unhook the air filter holder ❶ and swing it to the side. Remove the air filter with the air filter support.
- Remove the air filter from the air filter support.



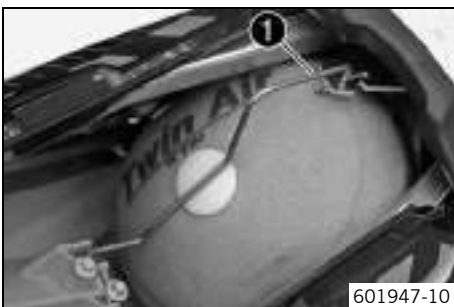
## 11.23 Installing the air filter



### Main work

- Mount the clean air filter onto the air filter support.
- Grease the air filter in area A.

Long-life grease (☛ p. 83)



- Put in both parts together, position them and fix them with the air filter support ❶.



### Info

If the air filter is not correctly mounted, dust and dirt can enter the engine and cause damage.

### Final work

- Mount the seat. (☛ p. 35)



## 11.24 Cleaning the air filter and air filter box 🛠️

**Warning****Environmental hazard** Hazardous substances cause environmental damage.

- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

**Info**

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

**Preliminary work**

- Remove the seat. (🔧 p. 35)
- Remove the air filter. 🛠️ (🔧 p. 36)

**Main work**

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

Air filter cleaner (🔧 p. 83)

**Info**

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

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

Oil for foam air filter (🔧 p. 83)

- Clean the air filter box.
- Check the intake flange for damage and looseness.

**Final work**

- Install the air filter. 🛠️ (🔧 p. 36)
- Mount the seat. (🔧 p. 35)

## 11.25 Removing main silencer

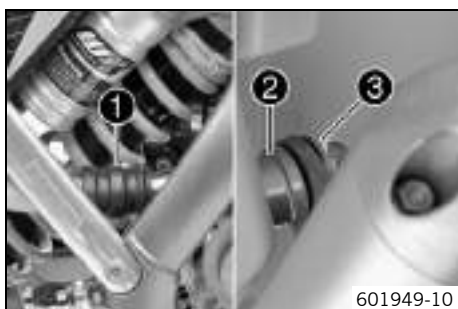
**Warning****Danger of burns** The exhaust system gets very hot when the vehicle is driven.

- Allow the exhaust system to cool down. Do not touch hot components.



- Remove screw ❶.
- Pull the main silencer off of the manifold at the rubber sleeve ❷.

## 11.26 Installing the main silencer



- Mount the main silencer with the rubber sleeve ❶.
- Position the wide collar bushing ❷ and the narrow collar bushing ❸.





- Mount and tighten screw ④.

Guideline

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

## 11.27 Changing the glass fiber yarn filling of the main silencer



### Warning

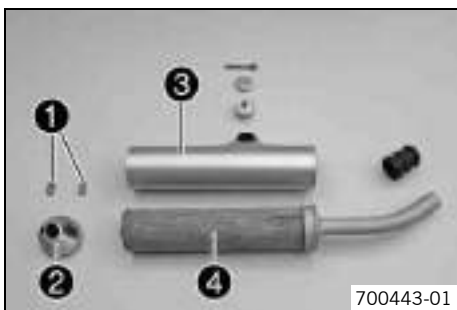
**Danger of burns** The exhaust system gets very hot when the vehicle is driven.

- Allow the exhaust system to cool down. Do not touch hot components.



### Info

Over a period, the fibers of the insulating material vanish into the air, and the silencer "burns out". Not only is the noise level higher, the performance characteristic changes.



### Preliminary work

- Remove the main silencer. (☛ p. 37)

### Main work

- Remove screws ① of locking cap ②. Remove locking cap and outer tube ③.
- Pull the glass fiber yarn filling ④ from the inner tube.
- Clean the parts that are to be reinstalled.
- Mount the new glass fiber yarn filling on the inner tube.
- Slide the outer tube over the glass fiber yarn filling.
- Insert the locking cap into the outer tube.
- Mount and tighten the screws with the toothed washers.

Guideline

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

### Final work

- Install the main silencer. (☛ p. 37)

## 11.28 Dismounting the fuel tank



### Danger

**Fire hazard** Fuel is highly flammable.

- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- Fuel in the fuel tank expands when warm and can escape if the tank is overfilled. See the notes on refueling.



### Warning

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

- Avoid contact between fuel and skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come into contact with fuel. Store fuel in a suitable canister according to regulations and keep it out of the reach of children.

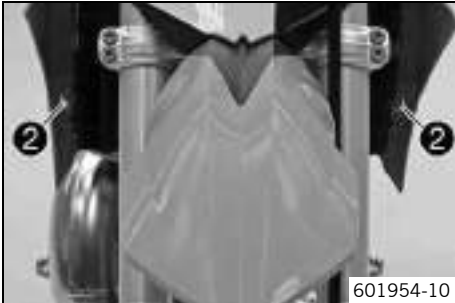
### Preliminary work

- Remove the seat. (☛ p. 35)
- Turn the knurled screw on the fuel tap all the way clockwise.



**Main work**

- Remove screw ❶.



- Remove screws ❷.



- Pull off fuel hose ❸.

**i Info**

Remaining fuel may run out of the fuel hose.

- Pull both spoilers off of the side of the radiator bracket and lift off the fuel tank.

## 11.29 Installing the fuel tank

**Danger**

**Fire hazard** Fuel is highly flammable.

- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- Fuel in the fuel tank expands when warm and can escape if the tank is overfilled. See the notes on refueling.

**Warning**

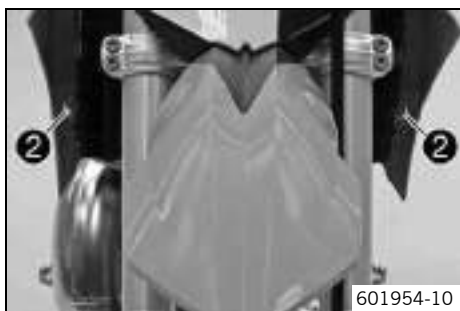
**Danger of poisoning** Fuel is poisonous and a health hazard.

- Avoid contact between fuel and skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come into contact with fuel. Store fuel in a suitable canister according to regulations and keep it out of the reach of children.

**Main work**

- Position the fuel tank and attach both spoilers onto the sides of the radiator bracket.
- Ensure that cables are not pinched or damaged.
- Connect fuel hose ❶.





- Mount and tighten screws ②.

Guideline

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



- Mount and tighten screw ③.

Guideline

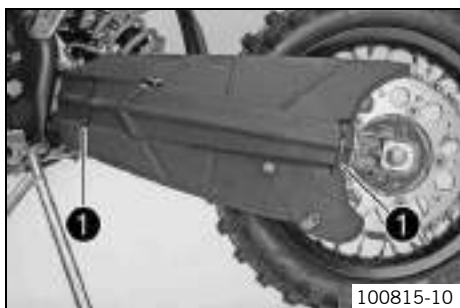
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
---------------------------	----	--------------------

- Position the fuel tank breather.

## Final work

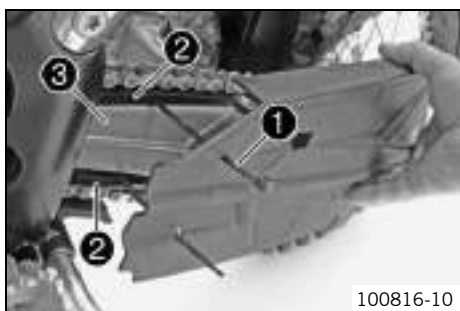
- Mount the seat. (🔧 p. 35)

### 11.30 Removing the chain guard



- Remove cable binder ①.
- Take off the chain guard.

### 11.31 Installing the chain guard

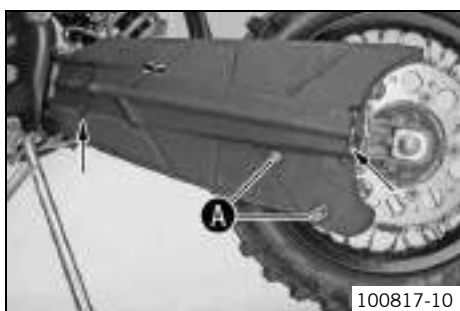


- Position the chain guard. Mount cable binder ①.



#### Info

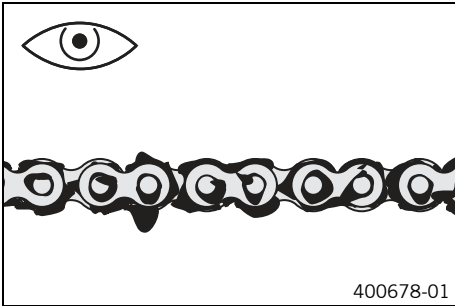
The cable binder must be run between chain sliding guard ② and swingarm ③.



- Mount the cable binder at the rear.
- Align the chain guard so that screws ④ of the chain guide are visible.
- Tighten the cable binder and cut off the ends.



## 11.32 Checking chain dirt



- Check the chain for coarse dirt accumulation.
  - » If the chain is very dirty:
    - Clean the chain. (🔧 p. 41)

## 11.33 Cleaning the chain

**Warning**

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

- Remove oil and grease with a suitable cleaning material.

**Warning**

**Danger of accidents** Reduced braking efficiency due to oil or grease on the brake discs.

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

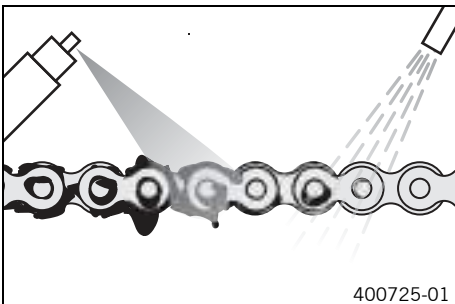
**Warning**

**Environmental hazard** Hazardous substances cause environmental damage.

- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

**Info**

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



- Clean the chain regularly and then treat with chain spray.

Chain cleaner (🔧 p. 83)
Off-road chain spray (🔧 p. 83)

## 11.34 Checking the chain tension

**Warning**

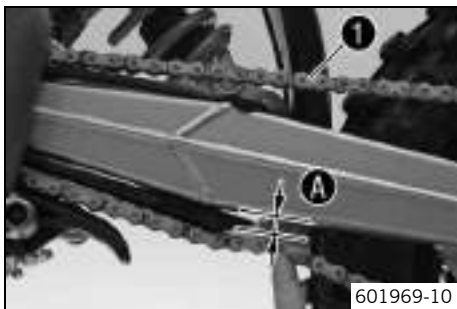
**Danger of accidents** Danger caused by incorrect chain tension.

- If the chain tension is too high, the components of the secondary power train (chain, engine sprocket, rear sprocket, bearings in transmission and rear wheel) are under additional load. Apart from premature wear, in extreme cases the chain can rupture or the countershaft of the transmission can break. On the other hand, if the chain is loose, it can fall off the engine sprocket or the rear sprocket and block the rear wheel or damage the engine. Check the chain tension and correct if necessary.

**Preliminary work**

- Remove the chain guard. (🔧 p. 40)
- Raise the motorcycle with a lift stand. (🔧 p. 27)



**Main work**

- Push the chain at the end of the chain sliding component upward to measure the chain tension **A**.

**Info**

The upper chain section **1** must be taut.

Because chain wear is not always even, repeat this measurement at different chain positions.

Chain tension	5... 8 mm (0.2... 0.31 in)
---------------	----------------------------

- » If the chain tension does not meet specifications:
  - Adjust the chain tension. (☛ p. 42)

**Final work**

- Install the chain guard. (☛ p. 40)
- Remove the motorcycle from the lift stand. (☛ p. 27)

**11.35 Adjusting the chain tension****Warning**

**Danger of accidents** Danger caused by incorrect chain tension.

- If the chain tension is too high, the components of the secondary power train (chain, engine sprocket, rear sprocket, bearings in transmission and rear wheel) are under additional load. Apart from premature wear, in extreme cases the chain can rupture or the countershaft of the transmission can break. On the other hand, if the chain is loose, it can fall off the engine sprocket or the rear sprocket and block the rear wheel or damage the engine. Check the chain tension and correct if necessary.

**Preliminary work**

- Raise the motorcycle with a lift stand. (☛ p. 27)
- Remove the chain guard. (☛ p. 40)
- Check the chain tension. (☛ p. 41)

**Main work**

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

**Guideline**

Chain tension	5... 8 mm (0.2... 0.31 in)
Turn the left and right adjusting screws <b>3</b> so that the distance of the chain adjuster to the swingarm on the left and right is equal and the rear wheel is in line with the front wheel.	

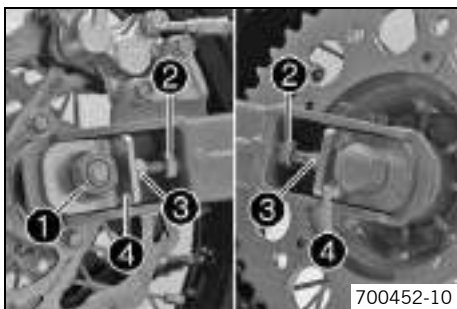
- Tighten nuts **2**.
- Make sure that chain adjusters **4** are fitted correctly on adjusting screws **3**.
- Tighten nut **1**.

**Guideline**

Nut, rear wheel spindle	M12x1	40 Nm (29.5 lbf ft)
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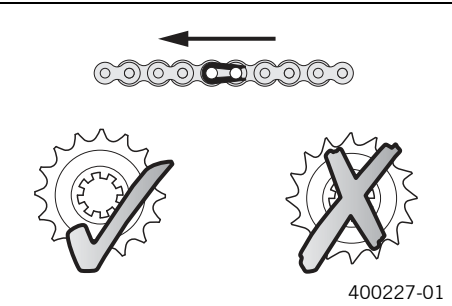
**Final work**

- Install the chain guard. (☛ p. 40)
- Remove the motorcycle from the lift stand. (☛ p. 27)





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




Preliminary work

- Raise the motorcycle with a lift stand. (🔧 p. 27)
- Remove the chain guard. (🔧 p. 40)


Main work

- Check the rear sprocket and engine sprocket for wear.
  - » If the rear sprocket and engine sprocket are worn:
    - Change the rear sprocket or engine sprocket. 🛠️

 **Info**

The engine sprocket, rear sprocket, and chain should always be changed together.  
When fitting the chain joint, always make sure that the closed side of the joint faces forward (riding direction).

- Check the chain for wear.
  - » If the chain is worn:
    - Change the chain. 🛠️

 **Info**

When you replace the chain, you should also change the rear sprocket and engine sprocket.  
New chains wear out faster on old, worn sprockets.



- Check the engine sprocket cover for wear.
  - » If the engine sprocket cover is worn through in the marked area **A**:
    - Change the engine sprocket cover. 🛠️
- Check the engine sprocket cover for tightness.
  - » If the engine sprocket cover is loose:
    - Tighten the engine sprocket cover.

Guideline		
Screw, engine sprocket cover	M6	10 Nm (7.4 lbf ft)



- 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 the chain sliding guard for tightness.
  - » If the chain sliding guard is loose:
    - Tighten the chain sliding guard.

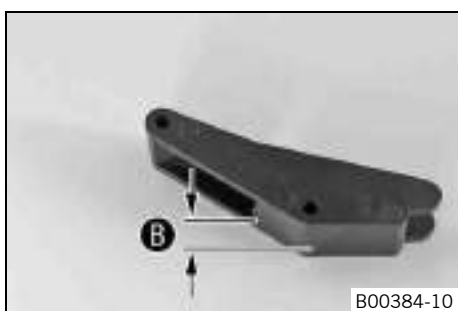




- Check the chain sliding piece for wear.
  - » If the lower edge of the chain pins is in line with or below the chain sliding piece:
    - Change the chain sliding piece. 🛠️
- Check the chain sliding piece for tightness.
  - » If the chain sliding piece is loose:
    - Tighten the chain sliding piece.

Guideline

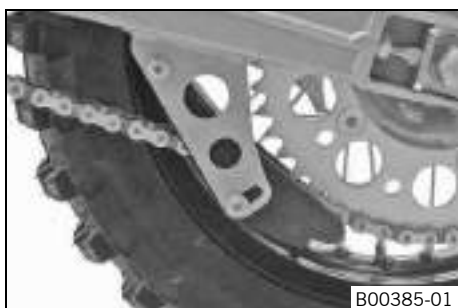
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
---------------------------	----	------------------------



- Measure the material thickness **B** on the bottom of the chain guide.

Minimum distance <b>B</b> at the lowest position	13 mm (0.51 in)
--	-----------------

- » If distance **B** is less than the specified measurement:
  - Change the chain guide. 🛠️



- Check the chain guide for tightness.
  - » If the chain guide is loose:
    - Tighten the chain guide.

Guideline

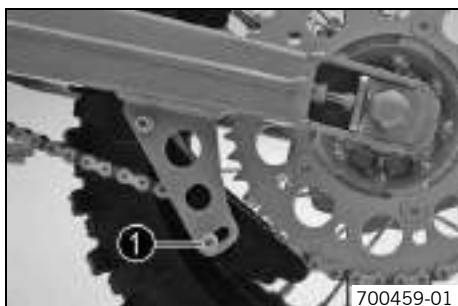
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
---------------------------	----	-----------------------

**Final work**

- Install the chain guard. (🔧 p. 40)
- Remove the motorcycle from the lift stand. (🔧 p. 27)

**11.37 Adjusting the chain guide 🛠️****Info**

The size of the chain wheel varies with the number of teeth. The chain guide can be adjusted on small sprockets.

**Preliminary work**

- Remove the chain guard. (🔧 p. 40)

**Main work**

- Loosen screw ❶.
- Position the chain guide.
- Tighten screw.

Guideline

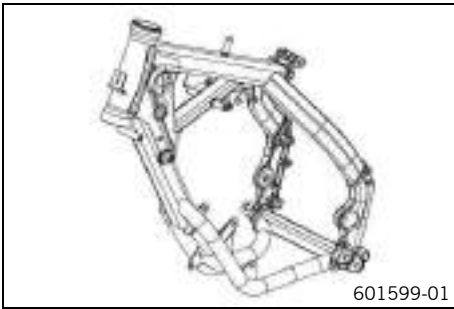
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
---------------------------	----	--------------------



## Final work

- Install the chain guard. (🔧 p. 40)

### 11.38 Checking the frame 🛠️



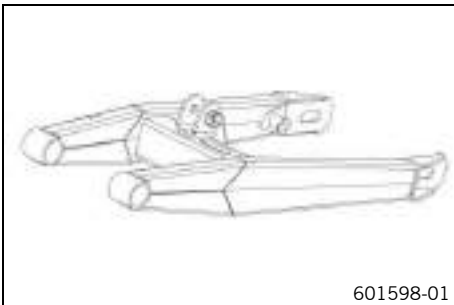
- Check the frame for cracking and deformation.
  - » If the frame exhibits cracking or deformation due to a mechanical impact:
    - Change the frame. 🛠️



#### Info

A frame that has been damaged due to a mechanical impact must always be changed. Repair of the frame is not authorized by KTM.

### 11.39 Checking the swingarm 🛠️



- Check the swingarm for damage, cracking, and deformation.
  - » If the swingarm exhibits damage, cracking, or deformation:
    - Change the swingarm. 🛠️



#### Info

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

### 11.40 Checking the throttle cable routing

#### Preliminary work

- Remove the seat. (🔧 p. 35)
- Turn the knurled screw on the fuel tap all the way clockwise.
- Dismount the fuel tank. 🛠️ (🔧 p. 38)

#### Main work

- Check the throttle cable routing.

The throttle cable must be routed to the carburetor behind the handlebars above the fuel tank bearing.

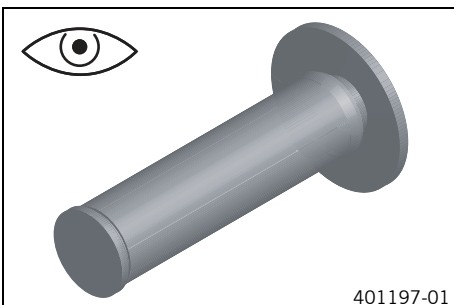
- » If the throttle cable is not routed as specified:
  - Correct the throttle cable routing.



#### Final work

- Install the fuel tank. 🛠️ (🔧 p. 39)
- Mount the seat. (🔧 p. 35)

### 11.41 Checking the rubber grip



- Check the rubber grips on the handlebar for damage, wear, and looseness.
  - » If a rubber grip is damaged, worn, or loose:
    - Change and secure the rubber grip.

Rubber grip adhesive (00062030051) (🔧 p. 84)



## 11.42 Additionally securing the rubber grip



401198-01

**Preliminary work**

- Check the rubber grip. (☛ p. 45)

**Main work**

- Secure the rubber grip at two locations with the retaining wire.

Securing wire (54812016000)
-----------------------------

Wire twister forceps (U6907854)
---------------------------------

- ✓ The twisted wire ends face away from the palms and are bent in toward the rubber grip.

## 11.43 Adjusting basic position of clutch lever



C00043-10

- Adjust the basic position of the clutch lever to the size of the rider's hand using adjusting screw ①.

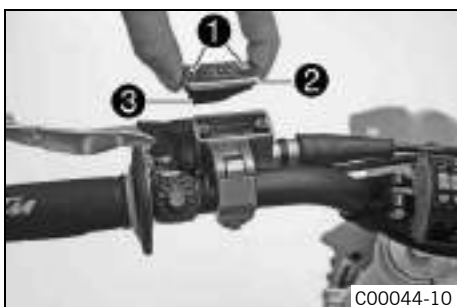
**Info**

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

## 11.44 Checking the fluid level of hydraulic clutch

**Info**

The fluid level rises with increasing wear of the clutch lining disc.  
 Do not use brake fluid.



C00044-10

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

Fluid level under top level of container	4 mm (0.16 in)
--	----------------

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

Hydraulic fluid (15) (☛ p. 82)
--------------------------------

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

## 11.45 Changing the hydraulic clutch fluid ☛

**Warning**

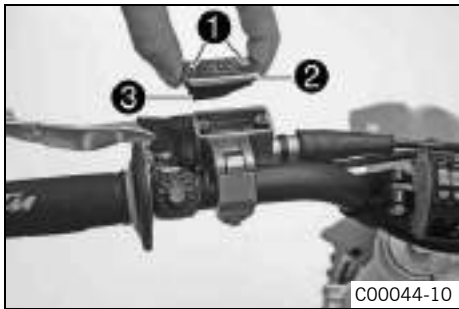
**Environmental hazard** Hazardous substances cause environmental damage.

- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

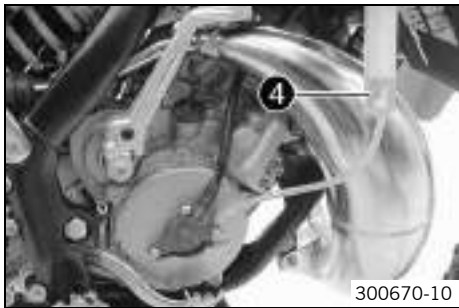
**Info**

The fluid level rises with increasing wear of the clutch lining disc.





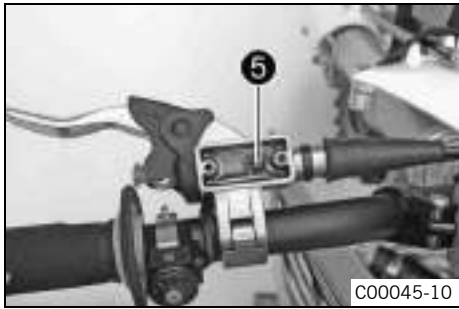
- Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws ❶.
- Remove cover ❷ with diaphragm ❸.



- Fill bleeding syringe ❹ with the appropriate hydraulic fluid.

Bleed syringe (50329050000)
Hydraulic fluid (15) (🔧 p. 82)

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



- Inject the liquid into the system until it escapes from drill hole ❺ of the master cylinder without bubbles.
- To prevent overflow, drain fluid occasionally from the master cylinder reservoir.
- Remove the bleeding syringe. Mount and tighten screws bleeder screw.
- Correct the fluid level of the hydraulic clutch.

Guideline	
Fluid level under top level of container	4 mm (0.16 in)

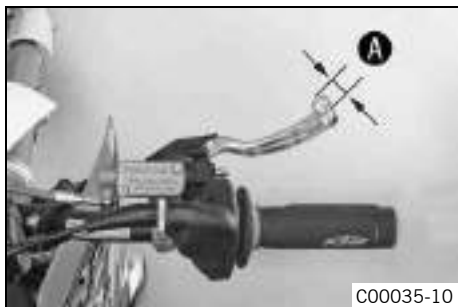
- Position the cover with the diaphragm. Mount and tighten the screws.



## 12.1 Checking free travel of hand brake lever

**Warning****Danger of accidents** Brake system failure.

- If there is no free travel on the hand brake lever, pressure builds up on the front brake circuit. The front brake may fail due to overheating. Adjust the free travel on hand brake lever according to specifications.



C00035-10

- Push the hand brake lever forwards and check free travel **A**.

Free travel of hand brake lever	$\geq 3 \text{ mm } (\geq 0.12 \text{ in})$
---------------------------------	---

- » If the free travel does not meet specifications:
  - Adjust the basic position of the hand brake lever. (☛ p. 48)

## 12.2 Adjusting the basic position of the hand brake lever



C00029-10

- Check the free travel of the hand brake lever. (☛ p. 48)
- Adjust the basic position of the hand brake lever with the adjusting screw **1** to the rider's hand size.

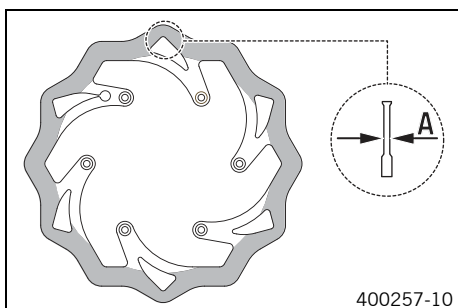
**Info**

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

## 12.3 Checking brake discs

**Warning****Danger of accidents** Reduced braking efficiency due to worn brake disc(s).

- Change the worn brake disc(s) without delay. (Your authorized KTM workshop will be glad to help.)



400257-10

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

**Info**

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

## Brake discs - wear limits

Front	2.5 mm (0.098 in)
Rear	2.5 mm (0.098 in)

- » If the brake disc thickness is less than the specified value:
  - Change the brake disc.
- Check the front and rear brake discs for damage, cracking and deformation.
  - » If the brake disk exhibits damage, cracking or deformation:
    - Change the brake disc.



12.4 Checking front brake fluid level

**Warning**  
**Danger of accidents** Brake system failure.

- If the brake fluid level drops below the specified marking or the specified value, this is an indication that the brake system is leaking or that the brake linings are completely worn down. Check the brake system and do not continue riding. (Your authorized KTM workshop will be glad to help.)

**Warning**  
**Skin irritation** Brake fluid can cause skin irritation on contact.

- Avoid contact with skin and eyes, and keep out of the reach of children.
- Wear suitable protective clothing and goggles.
- If brake fluid comes into contact with the eyes, flush the eyes thoroughly with water and consult a physician immediately.

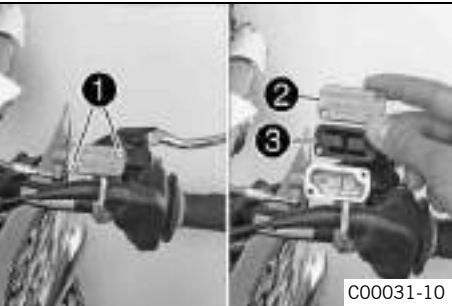
**Warning**  
**Danger of accidents** Reduced braking efficiency due to old brake fluid.

- Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be glad to help.)

**Warning**  
**Environmental hazard** Hazardous substances cause environmental damage.

- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in 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!  
Use only clean brake fluid from a sealed container.



- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
  - Remove screws ❶.
  - Remove cover ❷ with membrane ❸.
  - Check the brake fluid level.
- |  |               |
|--|---------------|
| Brake fluid level under top level of container | 5 mm (0.2 in) |
|--|---------------|
- » If the brake fluid level does not meet specifications:
- Add front brake fluid. 🛠️ (📖 p. 49)
- Position the cover with the membrane. Mount and tighten the screws.

**Info**  
Clean up overflowed or spilt brake fluid immediately with water.

12.5 Adding front brake fluid 🛠️

**Warning**  
**Danger of accidents** Brake system failure.

- If the brake fluid level drops below the specified marking or the specified value, this is an indication that the brake system is leaking or that the brake linings are completely worn down. Check the brake system and do not continue riding. (Your authorized KTM workshop will be glad to help.)

**Warning**  
**Skin irritation** Brake fluid can cause skin irritation on contact.

- Avoid contact with skin and eyes, and keep out of the reach of children.
- Wear suitable protective clothing and goggles.
- If brake fluid comes into contact with the eyes, flush the eyes thoroughly with water and consult a physician immediately.



**Warning****Danger of accidents** Reduced braking efficiency due to old brake fluid.

- Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be glad to help.)

**Warning****Environmental hazard** Hazardous substances cause environmental damage.

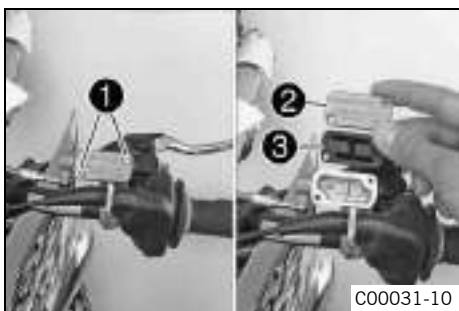
- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

**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!

Use only clean brake fluid from a sealed container.



C00031-10

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

**Guideline**

Brake fluid level under top level of container	5 mm (0.2 in)
--	---------------

Brake fluid DOT 4 / DOT 5.1 (🔧 p. 81)
---------------------------------------

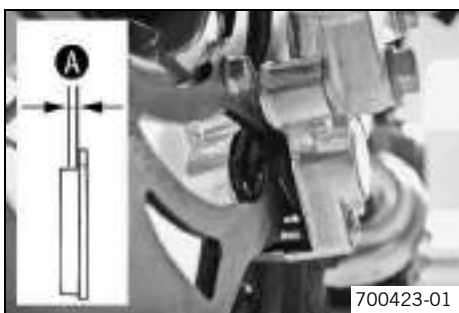
- Position the cover with the membrane. Mount and tighten the screws.

**Info**

Clean up overflowed or spilt brake fluid immediately with water.

**12.6 Checking the front brake linings****Warning****Danger of accidents** Reduced braking efficiency caused by worn brake linings.

- Change worn brake linings immediately. (Your authorized KTM workshop will be glad to help.)



700423-01

- Check the brake linings for minimum thickness ❶.

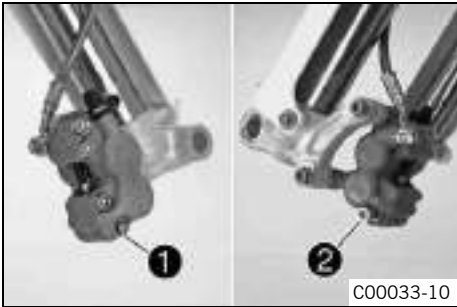
Minimum thickness ❶	≥ 1 mm (≥ 0.04 in)
---------------------	--------------------

- » If the minimum thickness is less than specified:
  - Change the front brake linings. 🛠️ (🔧 p. 52)
- Check the brake linings for damage and cracking.
  - » If damage or wear is encountered:
    - Change the front brake linings. 🛠️ (🔧 p. 52)

**12.7 Removing front brake linings 🛠️****Preliminary work**

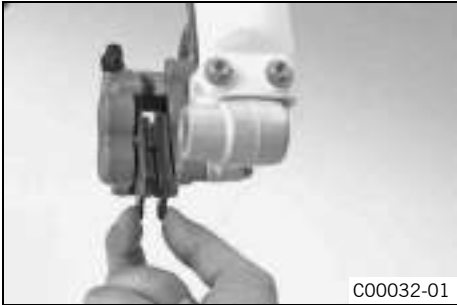
- Raise the motorcycle with a lift stand. (🔧 p. 27)
- Remove the front wheel. 🛠️ (🔧 p. 58)






Main work

- Remove the lock washer ❶.
- Remove screw ❷.



- Remove the brake linings.
- Clean brake caliper and brake caliper support.

12.8 Installing the front brake linings 🛠

**Warning**

**Danger of accidents** Reduced braking efficiency due to oil or grease on the brake discs.

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

**Warning**

**Danger of accidents** Reduced braking efficiency due to use of non-approved brake linings.


- Brake linings available from accessory suppliers are often not tested and approved for use on KTM vehicles. The construction and friction factor of the brake linings and therefore the brake power can differ considerably from the original KTM brake linings. If brake linings are used that differ from the originals, there is no guarantee that they comply with the original license. The vehicle no longer corresponds to the condition at delivery, and the warranty is no longer valid.

Preliminary work

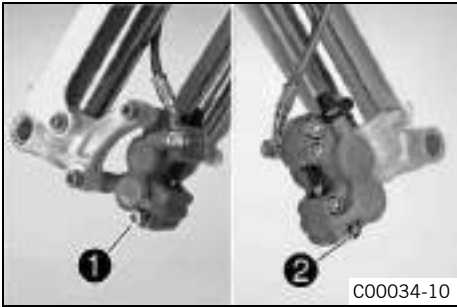
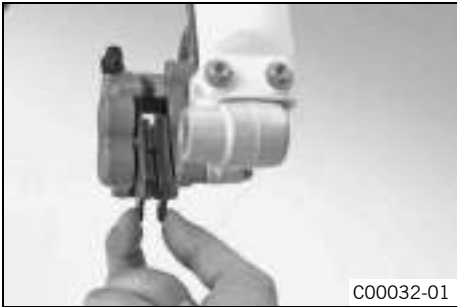
- Check the brake discs. (🔧 p. 48)

Main work

- Insert the brake linings.

**Info**

Ensure that the brake linings are correctly positioned in the retaining spring.



- Mount and tighten screw ❶.




Guideline


Screw, brake linings	M6	10 Nm (7.4 lbf ft)
----------------------	----	--------------------

- Mount lock washer ❷.
- Install the front wheel. 🛠 (🔧 p. 58)

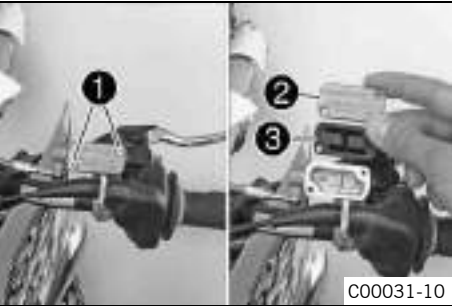



12.9 Changing the front brake linings

- **Warning**  
**Skin irritation** Brake fluid can cause skin irritation on contact.
  - Avoid contact with skin and eyes, and keep out of the reach of children.
  - Wear suitable protective clothing and goggles.
  - If brake fluid comes into contact with the eyes, flush the eyes thoroughly with water and consult a physician immediately.
- **Warning**  
**Danger of accidents** Reduced braking efficiency due to old brake fluid.
  - Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be glad to help.)
- **Warning**  
**Environmental hazard** Hazardous substances cause environmental damage.
  - Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in 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!  
Use only clean brake fluid from a sealed container.



- Preliminary work**
- Raise the motorcycle with a lift stand. (🔧 p. 27)
  - Remove the front wheel. 🛞 (🔧 p. 58)
  - Remove the front brake linings. 🛞 (🔧 p. 50)
- Main work**
- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
  - Remove screws ❶.
  - Remove cover ❷ with membrane ❸.
  - Press the brake piston back to its basic position and make sure that no brake fluid overflows from the brake fluid reservoir.
  - Install the front brake linings. 🛞 (🔧 p. 51)
  - Correct the brake fluid level.
- Guideline
- |  |               |
|--|---------------|
| Brake fluid level under top level of container | 5 mm (0.2 in) |
| Brake fluid DOT 4 / DOT 5.1 (🔧 p. 81)          |               |
- Position the cover with the membrane. Mount and tighten the screws.
- **Info**
- Clean up overflowed or spilt brake fluid immediately with water.

12.10 Checking the free travel of the foot brake lever

- **Warning**  
**Danger of accidents** Brake system failure.
  - If there is no free travel on the foot brake lever, pressure builds up on the rear brake circuit. The rear brake may fail due to overheating. Adjust the free travel on foot brake lever according to specifications.





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

Guideline

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

- » If the free travel does not meet specifications:
  - Adjust the free travel of the foot brake lever. 🛠️ (🔧 p. 53)
- Attach spring ❶.

### 12.11 Adjusting the free travel of the foot brake lever 🛠️



#### Warning

**Danger of accidents** Brake system failure.

- If there is no free travel on the foot brake lever, pressure builds up on the rear brake circuit. The rear brake may fail due to overheating. Adjust the free travel on foot brake lever according to specifications.



- Detach the spring.
- Loosen nut ❶.
- Turn push rod ❷ until clearance A is created.

Guideline

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

- Hold push rod ❷ and tighten nut ❶.
- Attach the spring.
- Check whether the basic position of the foot brake lever is suitable for the rider.
  - » When the basic position of the foot brake lever needs to be adjusted:
    - Adjust the basic position of the foot brake lever. 🛠️ (🔧 p. 53)

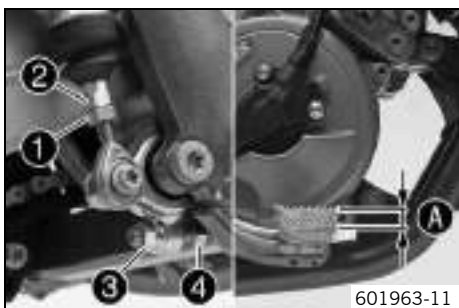
### 12.12 Adjusting the basic position of the foot brake lever 🛠️



#### Warning

**Danger of accidents** Brake system failure.

- If there is no free travel on the foot brake lever, pressure builds up on the rear brake circuit. The rear brake may fail due to overheating. Adjust the free travel on foot brake lever according to specifications.



- Detach the spring.
- Loosen nut ❶.
- Turn back push rod ❷.
- Loosen nut ❸.
- To adjust the basic position of the foot brake lever, turn screw ❹ accordingly.



#### Info

The range of adjustment is limited.

- Hold screw ❹ and tighten nut ❸.

Guideline

Remaining nuts, chassis	M8	25 Nm (18.4 lbf ft)
-------------------------	----	------------------------

- Check the free travel of the foot brake lever. (🔧 p. 52)

Guideline

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

- » If the free travel at the foot brake lever does not meet specifications:
  - Adjust the free travel of the foot brake lever. 🛠️ (🔧 p. 53)
- Attach spring ❶.



## 12.13 Checking rear brake fluid level

**Warning****Danger of accidents** Failure of the brake system.

- If the brake fluid level falls below the **MIN** mark, this indicates a leakage in the brake system or worn-out brake linings. Check the brake system and do not continue riding. (Your authorized KTM workshop will be glad to help.)

**Warning****Danger of accidents** Reduced braking efficiency due to old brake fluid.

- Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be glad to help.)



- Stand the vehicle upright.
- Check the brake fluid level in the viewer **1**.
  - » When an air bubble is visible in the viewer **1**:
    - Add rear brake fluid. 🛠️ (📖 p. 54)

## 12.14 Adding rear brake fluid 🛠️

**Warning****Danger of accidents** Failure of the brake system.

- If the brake fluid level falls below the **MIN** mark, this indicates a leakage in the brake system or worn-out brake linings. Check the brake system and do not continue riding. (Your authorized KTM workshop will be glad to help.)

**Warning****Skin irritation** Brake fluid can cause skin irritation on contact.

- Avoid contact with skin and eyes, and keep out of the reach of children.
- Wear suitable protective clothing and goggles.
- If brake fluid comes into contact with the eyes, flush the eyes thoroughly with water and consult a physician immediately.

**Warning****Danger of accidents** Reduced braking efficiency due to old brake fluid.

- Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be glad to help.)

**Warning****Environmental hazard** Hazardous substances cause environmental damage.

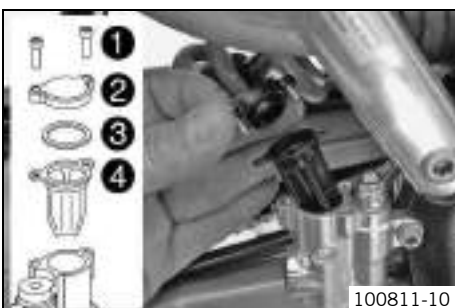
- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

**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.

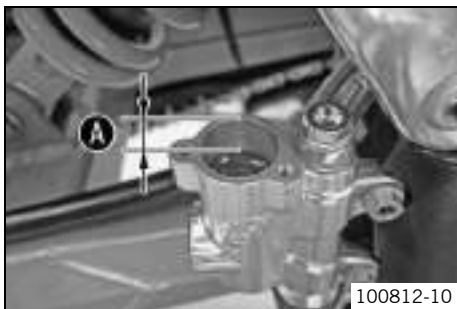
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint!

Use only clean brake fluid from a sealed container.



- Raise the motorcycle with a lift stand. (📖 p. 27)
- Remove screws **1**.
- Take off cover **2** with washer **3** and membrane **4**.





100812-10

- Add brake fluid to level **A**.

## Guideline

Dimension <b>A</b> (brake fluid level below top edge of container)	10 mm (0.39 in)
--	-----------------

Brake fluid DOT 4 / DOT 5.1 (☞ p. 81)
---------------------------------------

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

**Info**

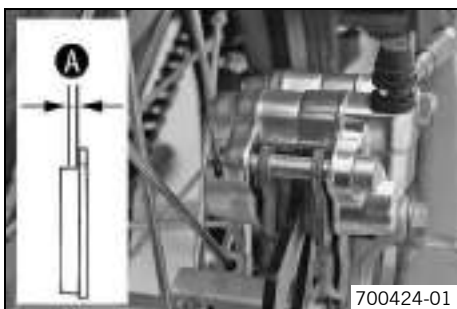
Clean up overflowed or spilt brake fluid immediately with water.

### 12.15 Checking the rear brake linings

**Warning**

**Danger of accidents** Reduced braking efficiency caused by worn brake linings.

- Change worn brake linings immediately. (Your authorized KTM workshop will be glad to help.)



700424-01

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

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

- » If the minimum thickness is less than specified:
  - Change the rear brake linings. (☞ p. 56)
- Check the brake linings for damage and cracking.
  - » If damage or wear is encountered:
    - Change the rear brake linings. (☞ p. 56)

### 12.16 Removing rear brake linings ☞

**Warning**

**Danger of accident** Brake system failure.

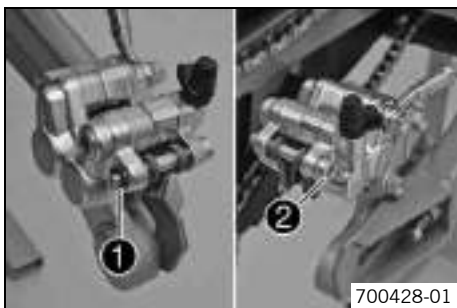
- Maintenance work and repairs must be carried out professionally. (Your authorized KTM workshop will be glad to help.)

**Preliminary work**

- Raise the motorcycle with a lift stand. (☞ p. 27)
- Remove the chain guard. (☞ p. 40)
- Remove the rear wheel. ☞ (☞ p. 59)

**Main work**

- Remove lock washer **1**.
- Remove screw **2**.



700428-01





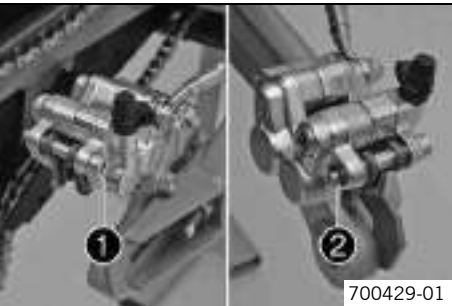
700430-01


- Remove the brake linings.
- Clean brake caliper and brake caliper support.



12.17 Installing the rear brake linings




- **Warning**  
**Danger of accidents** Reduced braking efficiency due to oil or grease on the brake discs.
- Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.
- **Warning**  
**Danger of accidents** Reduced braking efficiency due to use of non-approved brake linings.
- Brake linings available from accessory suppliers are often not tested and approved for use on KTM vehicles. The construction and friction factor of the brake linings and therefore the brake power can differ considerably from the original KTM brake linings. If brake linings are used that differ from the originals, there is no guarantee that they comply with the original license. The vehicle no longer corresponds to the condition at delivery, and the warranty is no longer valid.




- Preliminary work**
- Check the brake discs. (🔧 p. 48)
- Main work**
- Insert the brake linings.
- **Info**  
Ensure that the brake linings are correctly positioned in the retaining spring.

- Mount screw ❶.
- Guideline
- |                      |    |                    |
|----------------------|----|--------------------|
| Screw, brake linings | M6 | 10 Nm (7.4 lbf ft) |
|----------------------|----|--------------------|
- Mount lock washer ❷.
  - Install the rear wheel. 🛠️ (🔧 p. 59)
  - Operate the foot brake lever repeatedly until the brake linings lie on the brake disc and there is a pressure point.

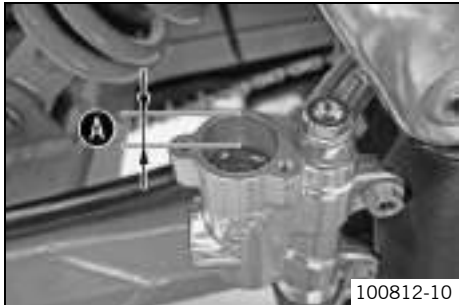
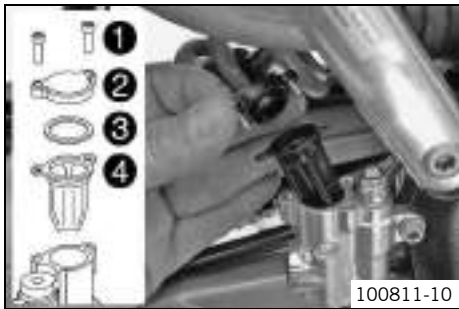
12.18 Changing the rear brake linings

- **Warning**  
**Skin irritation** Brake fluid can cause skin irritation on contact.
- Avoid contact with skin and eyes, and keep out of the reach of children.
  - Wear suitable protective clothing and goggles.
  - If brake fluid comes into contact with the eyes, flush the eyes thoroughly with water and consult a physician immediately.
- **Warning**  
**Danger of accidents** Reduced braking efficiency due to old brake fluid.
- Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be glad to help.)
- **Warning**  
**Environmental hazard** Hazardous substances cause environmental damage.
- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in 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!  
Use only clean brake fluid from a sealed container.





- Remove the chain guard. (🔧 p. 40)
- Remove the rear wheel. 🛞 (🔧 p. 59)
- Remove the rear brake linings. 🛞 (🔧 p. 55)

**Main work**

- Remove screws ❶.
- Take off cover ❷ with washer ❸ and membrane ❹.
- Press the brake piston back to its basic position and make sure that no brake fluid overflows from the brake fluid reservoir.
- Install the rear brake linings. 🛞 (🔧 p. 56)

- Add brake fluid to level A.

**Guideline**

Dimension A (brake fluid level below top edge of container)	10 mm (0.39 in)
---	-----------------

Brake fluid DOT 4 / DOT 5.1 (🔧 p. 81)
---------------------------------------

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

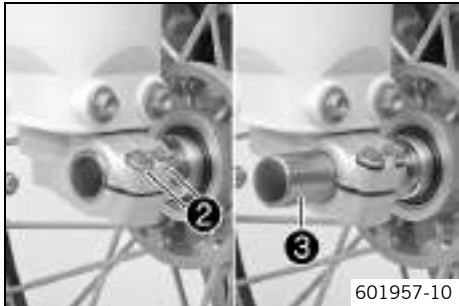


**Info**

Clean up overflowed or spilt brake fluid immediately with water.



13.1 Removing the front wheel



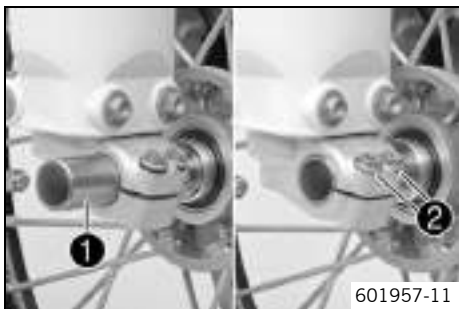
- Preliminary work**
- Raise the motorcycle with a lift stand. (p. 27)
- Main work**
- Remove screw 1.

- Loosen screw 2.
- Hold the front wheel and pull out wheel spindle 3. Take the front wheel out of the fork.

**Info**  
Do not pull the hand brake lever when the front wheel is removed.  
Always lay the wheel down in such a way that the brake disc is not damaged.

13.2 Installing the front wheel

**Warning**  
**Danger of accidents** Reduced braking efficiency due to oil or grease on the brake discs.  
– Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.



- Check the wheel bearing for damage and wear.
  - » If the wheel bearing is broken or worn:
    - Change the wheel bearing.
- Clean and grease wheel spindle 1.

Long-life grease (p. 83)

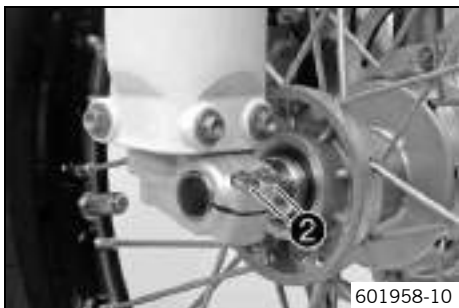
- Lift the front wheel into the fork, position it, and insert wheel spindle 1.
- Tighten screws 2.

Guideline		
Screw, fork stub	M6	10 Nm (7.4 lbf ft)

- Mount and tighten screw 3.

Guideline		
Screw, front wheel spindle	M10	40 Nm (29.5 lbf ft)

- Remove the motorcycle from the lift stand. (p. 27)

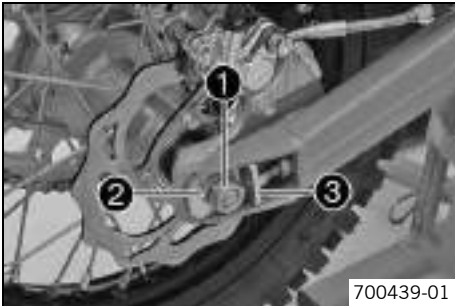


- Operate the hand brake lever several times until the brake linings are in contact with the brake disc.
- Loosen screws 2.
- Pull the front wheel brake and push down hard on the fork several times.
  - ✓ This aligns the fork legs.
- Tighten screws 2.

Guideline		
Screw, fork stub	M6	10 Nm (7.4 lbf ft)



## 13.3 Removing the rear wheel

**Preliminary work**

- Raise the motorcycle with a lift stand. (☛ p. 27)
- Remove the chain guard. (☛ p. 40)

**Main work**

- Remove nut ①.
- Remove washer ② and chain adjuster ③.

- Withdraw the wheel spindle ④ only enough to allow the rear wheel to be pushed forward.
- Push the rear wheel forward as far as possible. Remove the chain from the rear sprocket.
- Holding the rear wheel, withdraw the wheel spindle. Take the rear wheel out of the swingarm.

**Info**

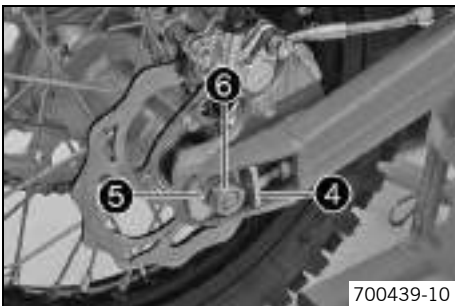
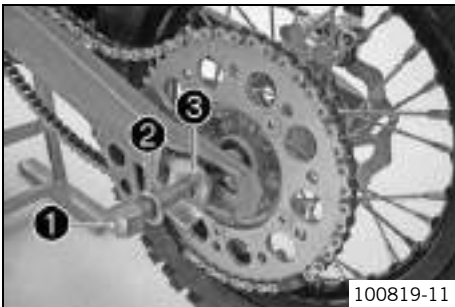
Do not operate the foot brake when the rear wheel is removed.  
Always lay the wheel down in such a way that the brake disc is not damaged.

## 13.4 Installing the rear wheel

**Warning**

**Danger of accidents** Reduced braking efficiency due to oil or grease on the brake discs.

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

**Main work**

- Check the wheel bearing for damage and wear.
    - » If the wheel bearing is broken or worn:
      - Change the wheel bearing. ☛
  - Clean and grease wheel spindle ①.
- Long-life grease (☛ p. 83)
- Lift the rear wheel into the swingarm and position it.
  - Insert the wheel spindle ① with washer ② and chain adjuster ③.
  - Apply the chain.
  - Position chain adjuster ③ and push the wheel spindle all the way in.
  - Position chain adjuster ④ and washer ⑤. Mount nut ⑥, but do not tighten it yet.
  - Make sure that the chain adjusters are fitted correctly on the adjusting screws.
  - Check the chain tension. (☛ p. 41)
  - Tighten nut ⑥.

**Guideline**

Nut, rear wheel spindle	M12x1	40 Nm (29.5 lbf ft)
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- Operate the foot brake lever repeatedly until the brake linings lie on the brake disc and there is a pressure point.

**Final work**

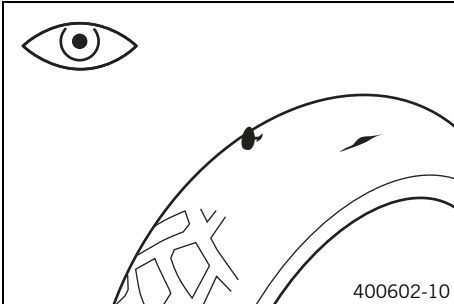
- Install the chain guard. (☛ p. 40)
- Remove the motorcycle from the lift stand. (☛ p. 27)



## 13.5 Checking the tire condition

**i Info**

Only mount tires that have been approved and/or recommended by KTM.  
 Other tires could have a negative effect on riding behavior.  
 The type, condition and air pressure of the tires all have an important impact on the riding behavior of the motorcycle.  
 The front and rear wheels must be mounted with tires with similar profiles.  
 Worn tires have a negative effect on riding behavior, especially on wet surfaces.



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

**i Info**

Note local national regulations concerning the minimum tread depth.

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

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

**i Info**

The tire's date of manufacture is usually part of the tire markings and is indicated by the last four digits of the **DOT** marking. The first two digits refer to the week of manufacture and last two digits refer to the year of manufacture.

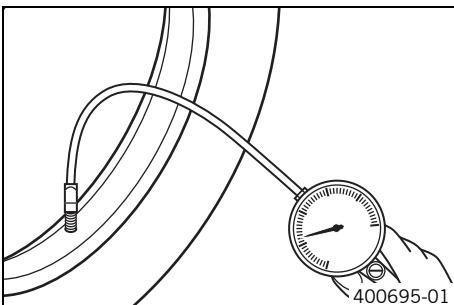
KTM recommends that the tires be changed after 5 years at the latest, regardless of the actual state of wear.

- » If a tire is more than 5 years old:
  - Change the tires.

## 13.6 Checking tire air pressure

**i Info**

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



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

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

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

## 13.7 Checking spoke tension

**Warning**

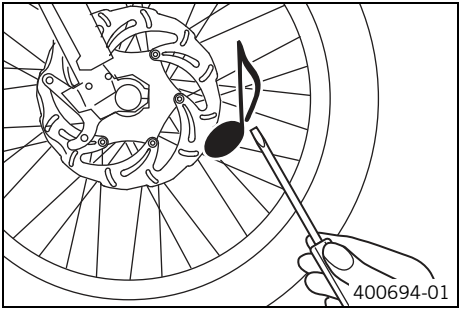
**Danger of accidents** Instable handling due to incorrect spoke tension.

- Ensure that the spoke tension is correct. (Your authorized KTM workshop will be glad to help.)

**i Info**

A loose spoke can cause wheel imbalance, which leads to more loose spokes in a short time.  
 If the spokes are too tight, they can break due to local overload.  
 Check the spoke tension regularly, especially on a new motorcycle.





- Briefly strike each spoke with the blade of a screwdriver.

*i*

**Info**  
The frequency of the tone depends on the spoke length and diameter.  
If you hear different tone frequencies from spokes of the same length and thickness, this is an indication that the spoke tension differs.

You should hear a high note.

- » If the spoke tension differs:
  - Correct the spoke tension. 🔧
- Check the spoke torque.

Guideline

Spoke nipple	M3.5	3 Nm (2.2 lbf ft)
--------------	------	-------------------

Torque wrench with various accessories in set (58429094000)



## 14.1 Cooling system



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

120 °C (248 °F)

Cooling is effected by the air stream.

The lower the speed, the less the cooling effect. Dirty cooling fins also reduce the cooling effect.

## 14.2 Checking the antifreeze and coolant level

**Warning**

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

- Do not remove the radiator cap, radiator hoses or other cooling system components when the engine is hot. Allow the engine and cooling system to cool down. In case of scalding, rinse immediately with lukewarm water.

**Warning**

**Danger of poisoning** Coolant is poisonous and a health hazard.

- Avoid contact between coolant and skin, eyes and clothing. If it gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If coolant is swallowed, contact a doctor immediately. Change clothes that have come into contact with coolants. Keep coolant out of the reach of children.

**Info**

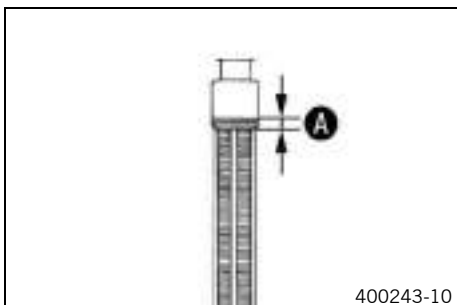
Carry out this work with a cold engine.



- Stand the motorcycle upright on a horizontal surface.
- Remove radiator cap ❶.
- Check the antifreeze of the coolant.

–25... –45 °C (–13... –49 °F)

- » If the antifreeze of the coolant does not meet specifications:
  - Correct the antifreeze of the coolant.



- Check the coolant level in the radiator.

Coolant level A above the radiator fins 10 mm (0.39 in)

- » If the level of the coolant does not meet specifications:
  - Correct the coolant level.

**Alternative 1**

Coolant (☞ p. 81)

**Alternative 2**

Coolant (mixed ready to use) (☞ p. 81)

- Mount the radiator cap.



14.3 Checking the coolant level

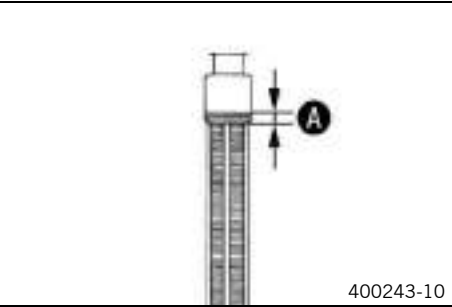
**Warning**  
**Danger of scalding** During motorcycle operation, the coolant gets very hot and is under pressure.

- Do not remove the radiator cap, radiator hoses or other cooling system components when the engine is hot. Allow the engine and cooling system to cool down. In case of scalding, rinse immediately with lukewarm water.

**Warning**  
**Danger of poisoning** Coolant is poisonous and a health hazard.

- Avoid contact between coolant and skin, eyes and clothing. If it gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If coolant is swallowed, contact a doctor immediately. Change clothes that have come into contact with coolants. Keep coolant out of the reach of children.

**i Info**  
Carry out this work with a cold engine.



- Stand the motorcycle upright on a horizontal surface.
- Remove the radiator cap.
- Check the coolant level in the radiator.

Coolant level <b>A</b> above the radiator fins	10 mm (0.39 in)
--	-----------------

- » If the coolant level does not meet specifications:
  - Correct the coolant level.

**Alternative 1**

Coolant (☛ p. 81)
-------------------

**Alternative 2**

Coolant (mixed ready to use) (☛ p. 81)
--

- Mount the radiator cap.

14.4 Draining the coolant ☛

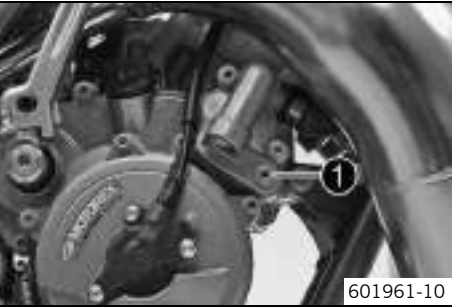
**Warning**  
**Danger of scalding** During motorcycle operation, the coolant gets very hot and is under pressure.

- Do not remove the radiator cap, radiator hoses or other cooling system components when the engine is hot. Allow the engine and cooling system to cool down. In case of scalding, rinse immediately with lukewarm water.

**Warning**  
**Danger of poisoning** Coolant is poisonous and a health hazard.

- Avoid contact between coolant and skin, eyes and clothing. If it gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If coolant is swallowed, contact a doctor immediately. Change clothes that have come into contact with coolants. Keep coolant out of the reach of children.

**i Info**  
Carry out this work with a cold engine.



- Stand the motorcycle upright.
- Place a suitable container beneath the water pump cover.
- Remove screw **1**. Remove the radiator cap.
- Completely drain the coolant.
- Mount screw **1** with a new seal ring and tighten it.

**Guideline**

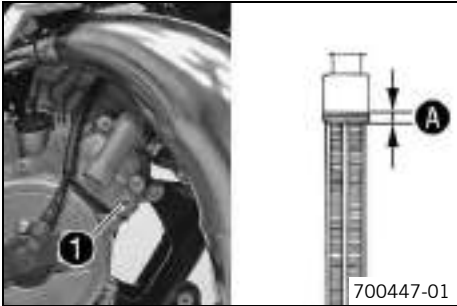
Drain plug, water pump cover	M6	6 Nm (4.4 lbf ft)
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14.5 Refilling the coolant

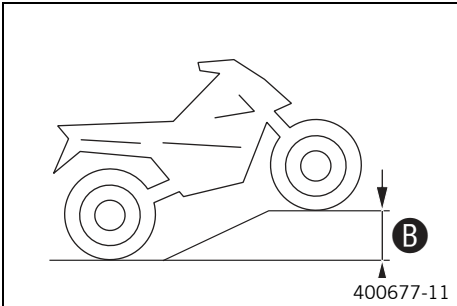
**Warning**  
**Danger of poisoning** Coolant is poisonous and a health hazard.

- Avoid contact between coolant and skin, eyes and clothing. If it gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If coolant is swallowed, contact a doctor immediately. Change clothes that have come into contact with coolants. Keep coolant out of the reach of children.



- Main work**
- Make sure that screw 1 is tightened.
  - Stand the vehicle upright.
  - Add coolant to level A.

Guideline	
Level A above the radiator fins	10 mm (0.39 in)
Coolant	0.55 l (0.58 qt.)
	Coolant (☛ p. 81) Coolant (mixed ready to use) (☛ p. 81)



- Position the vehicle as shown and secure it against rolling away. A height difference of B must be reached.

Guideline	
Height difference B	100 cm (39.4 in)

**i Info**  
To ensure that all of the air can escape from the cooling system, the front of the vehicle must be jacked up. A poorly bled cooling system is less effective at cooling and may result in overheating of the engine.

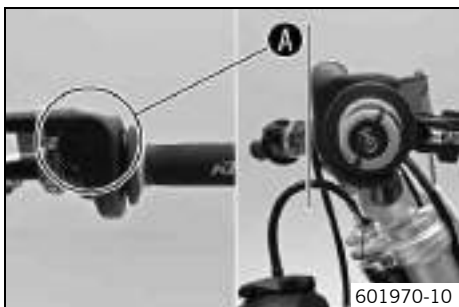
- Place the vehicle back on a level surface.
- Add coolant to level A.
- Mount the radiator cap.
- Make a short test ride.

**Final work**

- Check the coolant level. (☛ p. 63)



## 15.1 Checking the installation position of the throttle grip

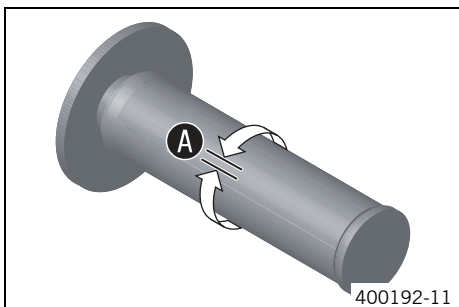


- Position the throttle grip so that the surface **A** is vertical.

### **i** Info

If the throttle grip is tipped forward, the throttle cable will slip out of the guide on the carburetor. The throttle slide can no longer be closed.

## 15.2 Checking the play in the throttle cable



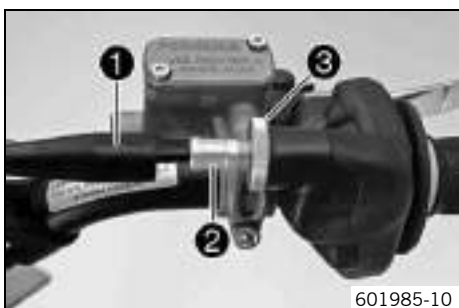
- Check the throttle grip for smooth operation.
- Move the handlebar to the straight-ahead position. Move the throttle grip backwards and forwards to ascertain play **A** in the throttle cable.

Play in gas throttle cable	3... 5 mm (0.12... 0.2 in)
----------------------------	----------------------------

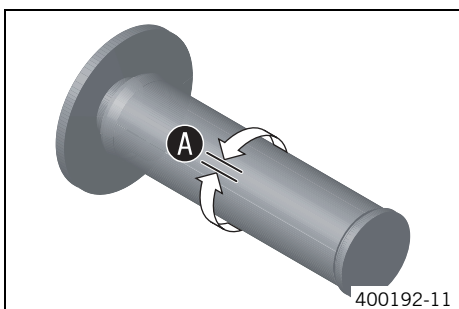
» If the throttle cable play does not meet specifications:

- Adjust the play in the throttle cable. p. 65)

## 15.3 Adjusting the play in the throttle cable



- Move the handlebar to the straight-ahead position.
- Push back sleeve **1**.
- Ensure that the throttle cable sleeve is pushed all the way into barrel adjuster **2**.
- Loosen nut **3**.



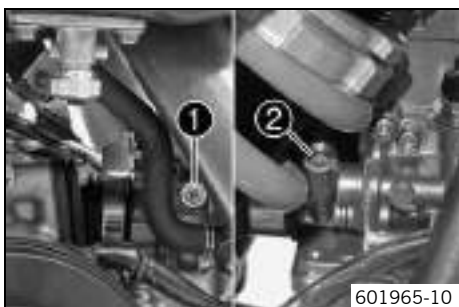
- Turn barrel adjuster **2** until throttle cable play **A** exists at the bottom throttle cable sleeve.

Guideline

Play in gas throttle cable	3... 5 mm (0.12... 0.2 in)
----------------------------	----------------------------

- Tighten nut **3**.
- Slide on sleeve **1**.

## 15.4 Carburetor - idle



The idle setting of the carburetor has a big influence on the starting behavior, stable idling and the response to throttle opening. That means that an engine with a correctly set idle speed is easier to start than if the idle is set wrongly.

### **i** Info

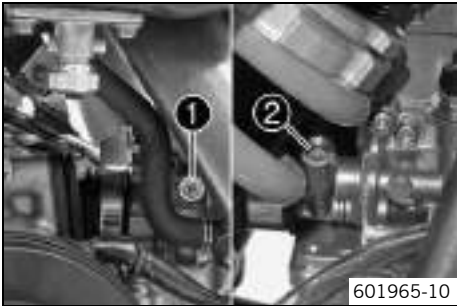
The carburetor and its components are subject to increased wear caused by engine vibration. Wear can result in malfunctioning.

The idle speed is adjusted with adjusting screw **1**.

The idle mixture is adjusted with idle adjusting screw **2**.



15.5 Carburetor - adjusting the idle speed



- Screw in idle air adjusting screw 2 all the way and turn it to the specified basic position.  
Guideline

Idle air adjusting screw	
Open	3.5 turns
- Run the engine until warm.  
Guideline

Warm-up time	≥ 5 min
--------------	---------
- Adjust the idle speed with the adjusting screw 1.  
Guideline

Choke function deactivated – The choke lever is pushed up all the way. (☞ p. 12)	
Idle speed	1,400... 1,500 rpm
- Turn idle air adjusting screw 2 slowly in a clockwise direction until the idle speed begins to fall.
- Note the position and turn the idle air adjusting screw slowly counterclockwise until the idle speed falls again.
- Adjust to the point between these two positions with the highest idle speed.



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

- When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.



**Info**  
If the engine speed rises considerably, reduce the idle speed to a normal level and repeat the above steps.  
If the procedure described here does not lead to satisfactory results, the cause may be a wrongly dimensioned idling jet.  
If you can turn the idle air adjusting screw to the end without any change of engine speed, you need to install a smaller idling jet.  
After changing the idling jet, start from the beginning with the adjusting steps.  
Following extreme air temperature or altitude changes, adjust the idle speed again.

15.6 Emptying the carburetor float chamber



**Danger**  
**Fire hazard** Fuel is highly flammable.

- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- Fuel in the fuel tank expands when warm and can escape if the tank is overfilled. See the notes on refueling.



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

- Avoid contact between fuel and skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come into contact with fuel. Store fuel in a suitable canister according to regulations and keep it out of the reach of children.



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

- Do not allow fuel to get into the ground water, the ground, or the sewage system.





## Info

Carry out this work with a cold engine.  
Water in the float chamber results in malfunctioning.



## Preliminary work

- Turn the knurled screw on the fuel tap all the way clockwise.  
✓ No more fuel flows from the tank to the carburetor.

## Main work

- Place a cloth beneath the carburetor to soak up emerging fuel.
- Remove plug ❶.
- Completely drain the fuel.
- Mount and tighten the plug.



## 16.1 Checking the gear oil level

**Info**

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

**Preliminary work**

- Stand the motorcycle upright on a horizontal surface.

**Main work**

- Remove gear oil level check screw ①.
- Check the gear oil level.

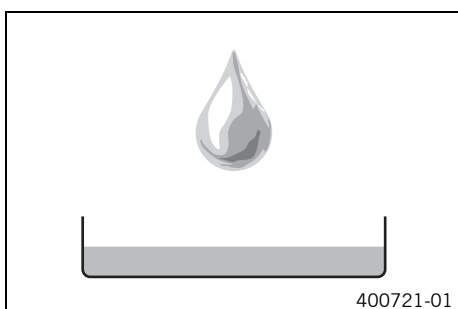
A small amount of gear oil should flow out of the hole.

- » If no gear oil flows out:
  - Add gear oil. (p. 69)
- Mount and tighten the gear oil level check screw.

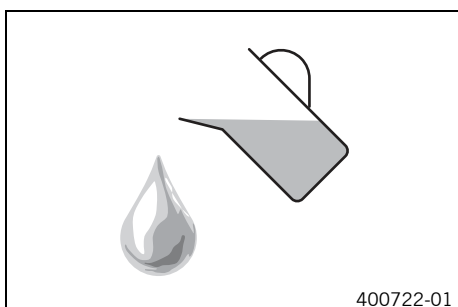
**Guideline**

Screw, gear oil level check	M6	6 Nm (4.4 lbf ft)
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## 16.2 Changing the gear oil



- Drain the gear oil. (p. 68)



- Fill up with gear oil. (p. 69)

## 16.3 Draining the gear oil

**Warning**

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

- Wear appropriate protective clothing and safety gloves. In case of burns, rinse immediately with lukewarm water.

**Warning**

**Environmental hazard** Hazardous substances cause environmental damage.

- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

**Info**

Drain the gear oil only when the engine is warm.

**Preliminary work**

- Stand the motorcycle on its side stand on a horizontal surface.



**Main work**

- Place a suitable container under the engine.
- Remove gear oil drain plug ❶ with magnet.
- Completely drain the gear oil.
- Thoroughly clean the gear oil drain plug with magnet.
- Clean the sealing area on the engine.
- Mount the gear oil drain plug with magnet and the seal ring and tighten it.

**Guideline**

Oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)
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**16.4 Filling up with gear oil****Info**

Too little gear oil or poor-quality oil results in premature wear of the transmission.

**Main work**

- Remove screw cap ❶ and fill up with gear oil.

Gear oil	0.50 l (0.53 qt.)	Engine oil (15W/50) (☛ p. 81)
----------	-------------------	-------------------------------

- Mount and tighten screw cap.

**Danger**

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

- When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

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

**Final work**

- Check the gear oil level. (☛ p. 68)

**16.5 Adding gear oil****Info**

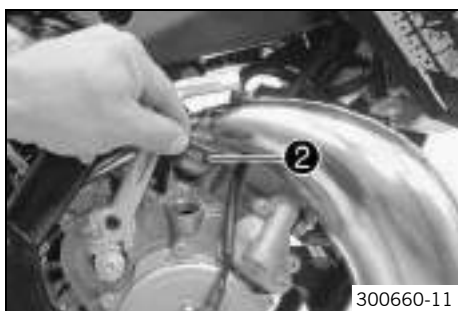
Too little gear oil or poor-quality oil results in premature wear of the transmission.

**Preliminary work**

- Stand the motorcycle upright on a horizontal surface.

**Main work**

- Remove gear oil level check screw ❶.



- Remove screw cap ❷.
- Add gear oil until it flows out of the bore of the gear oil level screw.

Engine oil (15W/50) (☛ p. 81)
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- Mount and tighten the gear oil level check screw.

**Guideline**

Screw, gear oil level check	M6	6 Nm (4.4 lbf ft)
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- Mount and tighten screw cap ❷.



**Danger**

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

- When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.
- 
- Start the engine and check that it is oil-tight.



**17.1 Cleaning motorcycle****Note**

**Material damage** Damage and destruction of components by high-pressure cleaning equipment.

- When cleaning the vehicle with a pressure cleaner, do not point the water jet directly onto electrical components, connectors, cables, bearings, etc. Maintain a minimum distance of 60 cm between the nozzle of the pressure cleaner and the component. Excessive pressure can cause malfunctions or destroy these parts.

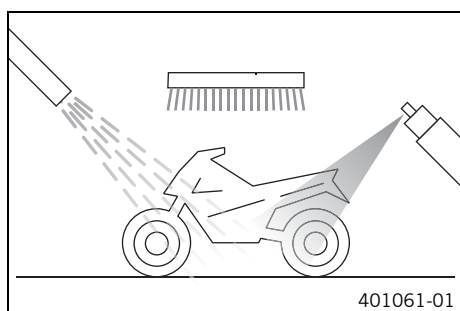
**Warning**

**Environmental hazard** Hazardous substances cause environmental damage.

- Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

**Info**

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



- Seal the exhaust system to prevent penetration by water.
- First remove coarse dirt particles with a gentle water spray.
- Spray very dirty areas with a normal motorcycle cleaner and then clean with a brush.

Motorcycle cleaner (☛ p. 83)

**Info**

Use warm water containing normal motorcycle cleaner and a soft sponge. Never apply motorcycle cleaner to the dry vehicle; always rinse with water first.

- After rinsing the motorcycle with a gentle water spray, allow it to dry thoroughly.
- Remove the plug from the exhaust system.
- Empty the carburetor float chamber. ☛ (☛ p. 66)

**Warning**

**Danger of accidents** Reduced braking efficiency due to a wet or dirty brake system.

- Clean or dry a dirty or wet brake system by riding and braking gently.

- After cleaning, let your child ride the vehicle a short distance until the engine warms up and the brakes are dried by applying the brakes carefully.

**Info**

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

- Push back the protection covers on the handlebar controls to allow water to evaporate.
- After the motorcycle has cooled off, lubricate all moving parts and bearings.
- Clean the chain. (☛ p. 41)
- Treat bare metal parts (except for brake discs and exhaust system) with anti-corrosion materials.

Cleaning and preserving materials for metal, rubber and plastic (☛ p. 83)

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

Paint cleaner and polish for high-gloss and matte finishes, bare metal and plastic surfaces (☛ p. 84)



## 18.1 Storage

**Warning**

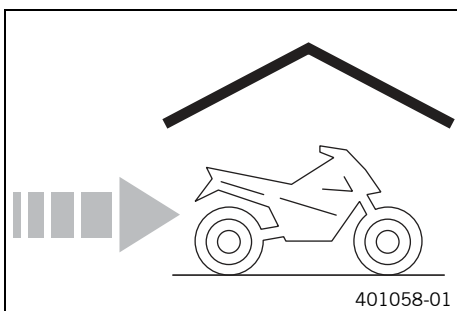
**Danger of poisoning** Fuel is poisonous and a health hazard.

- Avoid contact between fuel and skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come into contact with fuel. Store fuel in a suitable canister according to regulations and keep it out of the reach of children.

**Info**

If you want to garage the motorcycle for a longer period, take the following actions.

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.



- Clean the motorcycle. (🔧 p. 71)
- Change the gear oil. 🛢️ (🔧 p. 68)
- Check the antifreeze and coolant level. (🔧 p. 62)
- Drain the fuel from the fuel tank into a suitable container.
- Empty the carburetor float chamber. 🛢️ (🔧 p. 66)
- Check the tire air pressure. (🔧 p. 60)
- Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

**Info**

KTM recommends raising the motorcycle.

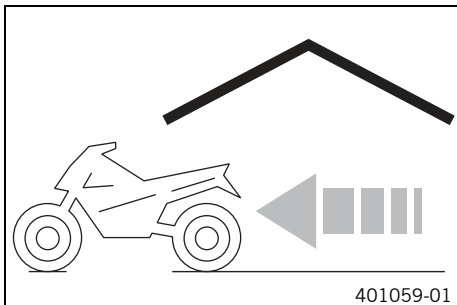
- Raise the motorcycle with a lift stand. (🔧 p. 27)
- Cover the vehicle with a tarp or similar cover that is permeable to air.

**Info**

Do not use non-porous materials since they prevent humidity from escaping, thus causing corrosion.

Avoid running the engine for a short time only. Since the engine cannot warm up properly, the water vapor produced during combustion condenses and causes valves and exhaust system to rust.

## 18.2 Preparing for use after storage



- Remove the motorcycle from the lift stand. (🔧 p. 27)
- Fill up with fuel. (🔧 p. 19)
- Perform checks and maintenance measures when preparing the motorcycle for use. (🔧 p. 16)
- Take a test ride.



Faults	Possible cause	Action
Engine turns but does not start	Operating error	– Go through the steps of starting the engine. (🔧 p. 16)
	Motorcycle was out of use for a long time and there is old fuel in the float chamber	– Empty the carburetor float chamber. 🛠️ (🔧 p. 66)
	Fuel feed interrupted	– Check the fuel tank breather. – Clean the fuel tap. – Check/set the carburetor components. 🛠️
	Spark plug oily or wet	– Clean and dry the spark plug, or change it if necessary.
	Electrode distance (plug gap) of spark plug too wide	– Adjust the plug gap. Guideline Spark plug electrode gap 0.60 mm (0.0236 in)
	Fault in ignition system	– Check the ignition system. 🛠️ – Adjust the ignition. 🛠️
	Short circuit cable in wiring harness frayed, kill switch defective	– Check the kill switch. 🛠️
	The connector or ignition coil is loose or oxidized	– Clean the plug-in connection and treat it with contact spray.
	Water in carburetor or jets blocked	– Check/set the carburetor components. 🛠️
Engine has no idle	Idling jet blocked	– Check/set the carburetor components. 🛠️
	Adjusting screws on carburetor distorted	– Carburetor - adjust the idle speed. 🛠️ (🔧 p. 66)
	Spark plug defective	– Change spark plug.
	Ignition system defective	– Check the ignition coil. 🛠️ – Check the spark plug connector. 🛠️
Engine does not speed up	Carburetor running over because float needle dirty or worn	– Check/set the carburetor components. 🛠️
	Loose carburetor jets	– Check/set the carburetor components. 🛠️
	Fault in ignition system	– Check the ignition system. 🛠️ – Adjust the ignition. 🛠️
Engine has too little power	Fuel feed interrupted	– Check the fuel tank breather. – Clean the fuel tap. – Check/set the carburetor components. 🛠️
	Air filter very dirty	– Clean the air filter and air filter box. 🛠️ (🔧 p. 37)
	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. 38)
	Fault in ignition system	– Check the ignition system. 🛠️ – Adjust the ignition. 🛠️
	Diaphragm or reed valve housing damaged	– Check the diaphragm and reed valve housing.
	Noticeable wear	– Overhaul the engine.
Engine stalls or is popping into the carburetor	Lack of fuel	– Turn the knurled screw on the fuel tap all the way counterclockwise. – Fill up with fuel. (🔧 p. 19)
	Engine takes in bad air	– Check the intake flange and carburetor for tightness.
	The connector or ignition coil is loose or oxidized	– Clean the plug-in connection and treat it with contact spray.
Engine overheats	Too little coolant in cooling system	– Check the cooling system for leakage. – Check the coolant level. (🔧 p. 63)
	Too little air stream	– Switch off engine when standing.



Faults	Possible cause	Action
Engine overheats	Radiator fins very dirty	– Clean radiator fins.
	Foam formation in cooling system	– Drain the coolant. 🛠 (🔧 p. 63) – Refill the coolant. 🛠 (🔧 p. 64)
	Damaged cylinder head or cylinder head gasket	– Check the cylinder head or cylinder head gasket.
	Bent radiator hose	– Change the radiator hose. 🛠
	Incorrect ignition point due to loose stator	– Adjust the ignition. 🛠
White smoke emission (steam in exhaust gas)	Damaged cylinder head or cylinder head gasket	– Check the cylinder head or cylinder head gasket.
Gear oil exits at the vent hose	Too much gear oil added	– Check the gear oil level. (🔧 p. 68)
Water in the gear oil	Damaged shaft seal ring or water pump	– Check the shaft seal ring and water pump.



## 20.1 Engine

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control	
Displacement	64.85 cm <sup>3</sup> (3.9574 cu in)	
Stroke	40.8 mm (1.606 in)	
Bore	45 mm (1.77 in)	
Idle speed	1,400... 1,500 rpm	
Control	Exhaust control PCEV (Pneumatic Controlled Exhaust Valve)	
Crankshaft bearing	2 grooved ball bearings	
Conrod bearing	Needle bearing	
Piston pin bearing	Needle bearing	
Pistons	Aluminum cast	
Piston rings	1 rectangular ring	
Engine lubrication	Mixture oil lubrication	
Primary transmission	23:75 straight cut spur gear	
Clutch	Multidisc clutch in oil bath/hydraulically activated	
Gearbox	6-gear, claw shifted	
Transmission ratio		
1st gear	13:37	
2nd gear	16:34	
3rd gear	18:31	
4th gear	21:30	
5th gear	23:28	
6th gear	24:26	
Ignition	Non-contact controlled fully electronic ignition system with digital ignition adjustment	
Spark plug	NGK LR 8 B	
Spark plug electrode gap	0.60 mm (0.0236 in)	
Cooling	Water-cooled	
Starting aid	Kickstarter	
Gear oil	0.50 l (0.53 qt.)	Engine oil (15W/50) (☛ p. 81)
Coolant	0.55 l (0.58 qt.)	Coolant (☛ p. 81)
		Coolant (mixed ready to use) (☛ p. 81)

## 20.2 Engine tightening torques

Nut, exhaust control diaphragm	M5	4 Nm (3 lbf ft)	–
Screw, clutch line holder	M5	5 Nm (3.7 lbf ft)	–
Screw, diaphragm cover of exhaust control	M5	4 Nm (3 lbf ft)	–
Screw, ignition system/stator	M5	5 Nm (3.7 lbf ft)	Loctite® 222
Screw, main shaft bearing retainer	M5	5 Nm (3.7 lbf ft)	Loctite® 648™
Screw, reed valve housing of exhaust control	M5	5 Nm (3.7 lbf ft)	–
Screw, retaining bracket for return spring of shift shaft	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, shift drum locating	M5	6 Nm (4.4 lbf ft)	Loctite® 243™
Screw, water pump wheel	M5	5 Nm (3.7 lbf ft)	Loctite® 243™
Drain plug, water pump cover	M6	6 Nm (4.4 lbf ft)	–
Screw, alternator cover	M6	8 Nm (5.9 lbf ft)	–
Screw, clutch intermediate cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch slave cylinder	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, clutch springs	M6	10 Nm (7.4 lbf ft)	–



Screw, engine case	M6	10 Nm (7.4 lbf ft)	–
Screw, engine sprocket cover	M6	10 Nm (7.4 lbf ft)	–
Screw, exhaust flange	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, gear oil level check	M6	6 Nm (4.4 lbf ft)	–
Screw, intake flange/reed valve housing	M6	10 Nm (7.4 lbf ft)	–
Screw, kickstarter stop piece	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, outer clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, reed valve housing of exhaust control	M6	10 Nm (7.4 lbf ft)	–
Screw, shift drum bearing retainer	M6	8 Nm (5.9 lbf ft)	Loctite® 243™
Screw, shift drum locating	M6	10 Nm (7.4 lbf ft)	Loctite® 243™
Screw, shift lever	M6	14 Nm (10.3 lbf ft)	Loctite® 243™
Screw, water pump cover	M6	8 Nm (5.9 lbf ft)	–
Vacuum connection/vent connection	M6	5 Nm (3.7 lbf ft)	Loctite® 243™
Screw, cylinder head	M7	18 Nm (13.3 lbf ft)	–
Nuts, cylinder base	M8	20 Nm (14.8 lbf ft)	–
Screw, kickstarter	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Stud, cylinder base (left section of the engine case)	M8	Tightening sequence: screw in until it projects by 27 mm (1.063 in)	Loctite® 243™
Stud, cylinder base (right section of the engine case)	M8	Tightening sequence: screw in until it projects by 27 mm (1.063 in)	Loctite® 243™
Screw, inner clutch hub	M10	60 Nm (44.3 lbf ft)	Loctite® 243™
Spark plug	M10x1	10... 12 Nm (7.4... 8.9 lbf ft)	–
Nut, rotor	M12x1	50 Nm (36.9 lbf ft)	–
Oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)	–
Nut, primary gear	M14x1.25	40 Nm (29.5 lbf ft)	Loctite® 243™

### 20.3 Carburetor

Carburetor type	MIKUNI TM 24
Needle position	2nd position from top
Idle air adjusting screw	
Open	3.5 turns
Main jet	210
Jet needle	5IPL43
Idling jet	20
Needle jet	Q-0 (454)
Throttle slide	2.5



## 20.3.1 Carburetor tuning

MIKUNI TM 24							
M/FT ASL ↓	TEMP →	-20°C ... -7°C -2°F ... 20°F	-6°C ... 5°C 19°F ... 41°F	6°C ... 15°C 42°F ... 60°F	16°C ... 24°C 61°F ... 78°F	25°C ... 36°C 79°F ... 98°F	37°C ... 49°C 99°F ... 120°F
3.000 m 10,000 ft ↑ 2.301 m 7,501 ft	ASO IJ NDL POS MJ	3,5 20 5IPL43 2 210	3,5 20 5IPL43 1 210	3,5 15 5IPL43 1 205	3,5 15 5IPL43 1 200	3,5 10 5IPL43 1 195	
2.300 m 7,500 ft ↑ 1.501 m 5,001 ft	ASO IJ NDL POS MJ	3,5 20 5IPL43 2 210	3,5 20 5IPL43 2 210	3,5 20 5IPL43 1 210	3,5 15 5IPL43 1 205	3,5 15 5IPL43 1 200	3,5 10 5IPL43 1 195
1.500 m 5,000 ft ↑ 751 m 2,501 ft	ASO IJ NDL POS MJ	3,5 20 5IPL43 3 215	3,5 20 5IPL43 2 210	3,5 20 5IPL43 2 210	3,5 20 5IPL43 1 210	3,5 15 5IPL43 1 205	3,5 15 5IPL43 1 200
750 m 2,500 ft ↑ 301 m 1,001 ft	ASO IJ NDL POS MJ	2,5 25 5IPL43 3 220	3,5 20 5IPL43 3 215	3,5 20 5IPL43 2 210	<b>3,5</b> <b>20</b> <b>5IPL43</b> <b>2</b> <b>210</b>	3,5 20 5IPL43 1 210	3,5 15 5IPL43 1 205
300 m 1,000 ft ↑ 0 m 0 ft	ASO IJ NDL POS MJ	2 25 5IPL43 4 225	2,5 25 5IPL43 3 220	3,5 20 5IPL43 3 215	3,5 20 5IPL43 2 210	3,5 20 5IPL43 2 210	3,5 20 5IPL43 1 210

100810-01

M/FT ASL	Above sea level
TEMP	Temperature
ASO	Idle air adjusting screw open (rotations)
IJ	Idling jet
NDL	Jet needle
POS	Needle position from above
MJ	Main jet

The carburetor tuning depends on the defined ambient and operating conditions.



**20.4 Fork**

Fork part number		07.18.7L.04
Fork		<b>WP Suspension</b> USD 35
Compression damping		
Standard		2 turns
Rebound damping		
Standard		2 turns
Spring rate		
Soft		2.6 N/mm (14.8 lb/in)
Medium (standard)		2.8 N/mm (16 lb/in)
Hard		3.0 N/mm (17.1 lb/in)
Spring length with preload spacer(s)		377.5 mm (14.862 in)
Fork length		735 mm (28.94 in)
Fork oil per fork leg	240±10 ml (8.11±0.34 fl. oz.)	Fork oil (SAE 5) (🔧 p. 81)
Shock absorber oil (🔧 p. 82)		SAE 2.5

**20.5 Shock absorber**

Shock absorber part number	03.18.7L.03
Shock absorber	<b>WP Suspension</b> 3614 BAVP
Compression damping	
Standard	6 clicks
Rebound damping	
Standard	12 clicks
Spring preload	
Standard	7 mm (0.28 in)
Spring rate	
Weight of rider: < 35 kg (< 77 lb.)	35 N/mm (200 lb/in)
Weight of rider: 35... 45 kg (77... 99 lb.)	40 N/mm (228 lb/in)
Weight of rider: > 45 kg (> 99 lb.)	45 N/mm (257 lb/in)
Spring length	220 mm (8.66 in)
Gas pressure	10 bar (145 psi)
Static sag	33 mm (1.3 in)
Riding sag	90 mm (3.54 in)
Fitted length	347 mm (13.66 in)

**20.6 Chassis**

Frame	Central tube frame of chrome molybdenum steel tubing, powder-coated
Fork	<b>WP Suspension</b> USD 35
Shock absorber	<b>WP Suspension</b> 3614 BAVP
Suspension travel	
Front	215 mm (8.46 in)
Rear	270 mm (10.63 in)
Fork offset	22 mm (0.87 in)
Brake system	
Front	Disc brake with four-pot brake caliper
Rear	Disc brake with two-pot brake caliper
Brake disc diameters	
Front	198 mm (7.8 in)
Rear	160 mm (6.3 in)



Brake discs - wear limits		
Front		2.5 mm (0.098 in)
Rear		2.5 mm (0.098 in)
Tire air pressure off road		
Front		1.0 bar (15 psi)
Rear		1.0 bar (15 psi)
Secondary drive ratio		14:48
Chain		1/2 x 1/4" O-ring
Rear sprockets available		46, 48, 50
Steering head angle		64.5°
Wheelbase		1,137 mm (44.76 in)
Seat height unloaded		750 mm (29.53 in)
Ground clearance unloaded		280 mm (11.02 in)
Weight without fuel, approx.		55.5 kg (122.4 lb.)
Maximum rider weight		50 kg (110 lb.)
<b>Front tires</b>		<b>Rear tires</b>
<b>60/100 - 14 29M TT</b> Pirelli SCORPION MX Mid Soft 32 NHS		<b>80/100 - 12 50M TT</b> Pirelli SCORPION MX Mid Soft 32 NHS
Additional information is available in the Service section under: <a href="http://www.ktm.com">http://www.ktm.com</a>		
Fuel tank capacity, approx.	3.5 l (3.7 qt.)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 82)

## 20.7 Chassis tightening torques

Spoke nipple	M3.5	3 Nm (2.2 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)	–
Screw, foot brake cylinder	M6	10 Nm (7.4 lbf ft)	–
Screw, fork stub	M6	10 Nm (7.4 lbf ft)	–
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	Loctite® 243™
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	Loctite® 243™
Screw, throttle grip	M6	4.5 Nm (3.32 lbf ft)	–
Nut, rim lock	M8	10 Nm (7.4 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	15 Nm (11.1 lbf ft)	–
Screw, brake caliper	M8	20 Nm (14.8 lbf ft)	Loctite® 243™
Screw, engine bracket	M8	30 Nm (22.1 lbf ft)	–
Screw, foot brake lever	M8	35 Nm (25.8 lbf ft)	Loctite® 243™
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	–
Screw, rear sprocket	M8	25 Nm (18.4 lbf ft)	Loctite® 243™
Screw, tail piece	M8	35 Nm (25.8 lbf ft)	Loctite® 243™
Screw, top triple clamp	M8	20 Nm (14.8 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	45 Nm (33.2 lbf ft)	–
Screw, front wheel spindle	M10	40 Nm (29.5 lbf ft)	–
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	Loctite® 243™
Screw, top shock absorber	M10	45 Nm (33.2 lbf ft)	–
Nut, rear wheel spindle	M12x1	40 Nm (29.5 lbf ft)	–



Nut, swingarm pivot	M12x1	40 Nm (29.5 lbf ft)	–
Nut, steering stem	M20x1.5	10 Nm (7.4 lbf ft)	–



## 2-stroke engine oil

### According to

- JASO FC (☛ p. 85)

### Guideline

- Only use high quality 2-stroke engine oil of a well-known brand. KTM recommends **Motorex®** products.

Fully synthetic
-----------------

### Supplier

#### Motorex®

- **Cross Power 2T**

## Brake fluid DOT 4 / DOT 5.1

### According to

- DOT

### Guideline

- Use only brake fluid that complies with the specified standard (see specifications on the container) and that possesses the corresponding properties. KTM recommends **Castrol** and **Motorex®** products.

### Supplier

#### Castrol

- **RESPONSE BRAKE FLUID SUPER DOT 4**

#### Motorex®

- **Brake Fluid DOT 5.1**

## Coolant

### Guideline

- Use only suitable coolant (also in countries with high temperatures). Use of low-quality antifreeze can lead to corrosion and foaming. KTM recommends **Motorex®** products.

### Mixture ratio

Antifreeze protection: -25... -45 °C (-13... -49 °F)	50 % corrosion inhibitor/antifreeze 50 % distilled water
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## Coolant (mixed ready to use)

Antifreeze	-40 °C (-40 °F)
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### Supplier

#### Motorex®

- **COOLANT G48**

## Engine oil (15W/50)

### According to

- JASO T903 MA (☛ p. 85)
- SAE (☛ p. 85) (15W/50)

### Guideline

- Use only engine oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties. KTM recommends **Motorex®** products.

### Supplier

#### Motorex®

- **Top Speed 4T**

## Fork oil (SAE 5)

### According to

- SAE (☛ p. 85) (SAE 5)

### Guideline

- Use only oils that comply with the specified standards (see specifications on the container) and that possess the corresponding properties. KTM recommends **Motorex®** products.

### Supplier

#### Motorex®

- **Racing Fork Oil**



## Hydraulic fluid (15)

### According to

- ISO VG (15)

### Guideline

- Use only hydraulic oil that complies with the specified standard (see specifications on the container) and that possesses the corresponding properties. KTM recommends **Motorex®** products.

### Supplier

#### Motorex®

- Hydraulic Fluid 75

## Shock absorber oil (SAE 2.5) (50180342S1)

### According to

- SAE (☛ p. 85) (SAE 2.5)

### Guideline

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

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

### According to

- DIN EN 228 (ROZ 95/RON 95/PON 91)

### Guideline

- Only use unleaded super fuel that matches or is equivalent to the specified fuel grade.
- Fuel with an ethanol content of up to 10 % (E10 fuel) is safe to use.



### Info

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

## Super unleaded gasoline, mixed with 2-stroke engine oil (1:60)

### According to

- DIN EN 228
- JASO FC (☛ p. 85) (1:60)

### Mixture ratio

1:60	2-stroke engine oil (☛ p. 81) Super unleaded (ROZ 95/RON 95/PON 91) (☛ p. 82)
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### Supplier

#### Motorex®

- Cross Power 2T



### Air filter cleaner

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Twin Air Dirt Bio Remover**

### Chain cleaner

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Chain Clean**

### Cleaning and preserving materials for metal, rubber and plastic

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Protect & Shine**

### High viscosity grease

**Guideline**

- KTM recommends **SKF®** products.

**Supplier****SKF®**

- **LGHB 2**

### Long-life grease

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Bike Grease 2000**

### Motorcycle cleaner

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Moto Clean 900**

### Off-road chain spray

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Chainlube Offroad**

### Oil for foam air filter

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Twin Air Liquid Bio Power**



### Paint cleaner and polish for high-gloss and matte finishes, bare metal and plastic surfaces

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Clean & Polish**

### Rubber grip adhesive (00062030051)

**Supplier**

KTM-Sportmotorcycle AG

- **GRIP GLUE**

### Universal oil spray

**Guideline**

- KTM recommends **Motorex®** products.

**Supplier****Motorex®**

- **Joker 440 Synthetic**



### JASO FC

JASO FC 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.

### JASO T903 MA

Different technical development directions required a new specification for 4-stroke motorcycles – the JASO T903 MA Standard. Earlier, engine oils from the automobile industry were used for 4-stroke motorcycles because there was no separate motorcycle specification. Whereas long service intervals are demanded for automobile engines, high performance at high engine speeds are in the foreground for motorcycle engines. In most motorcycles, the gearbox and the clutch are lubricated with the same oil as the engine. The JASO MA Standard meets these special requirements.

### SAE

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



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