OWNER'S MANUAL 2016

WWW.KTM.COM

125	SX
150	SX
250	SX
250	XC
300	XC

Art. no. 3213330en





DEAR KTM CUSTOMER

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

We hope you enjoy your new vehicle!

Enter the serial numbers of your vehicle below.

Chassis number (🕶 p. 11)	Dealer's stamp
Engine number (* p. 11)	

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

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REG.NO. 12 100 6061 KTM Sportmotorcycle GmbH 5230 Mattighofen, Austria

This document is valid for the following models:

125 SX EU (F6101P0) 125 SX US (F6175P0) 150 SX EU (F6101P1) 150 SX US (F6175P1) 250 SX EU (F6301P0) 250 SX US (F6375P0) 250 XC US/EU (F6375P5) 300 XC US/EU (F6475P5)



3213330en

07/2015

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1 MEANS OF REPRESENTATION

1.1 Sym	bols used	
,	specific symbols is described below.	
	Indicates an expected reaction (e.g. of a work step or a function).	
X	Indicates an unexpected reaction (e.g. of a work step or a function).	
×	All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of your own safety, have these jobs performed by an authorized KTM workshop. There, your motorcycle will be optimally cared for by specially trained experts using the specialist tools required.	
•	Indicates a page reference (more information is provided on the specified page).	
i	Indicates information with more details or tips.	
»	Indicates the result of a testing step.	
1.2 Form	nats used	
The typographic	al formats used in this document are explained below.	
Specific name	Identifies a proprietary name.	
Name®	Identifies a protected name.	
Brand™	Identifies a brand available on the open market.	
Underlined terms	Refer to technical details of the vehicle or indicate technical terms that are explained in	

the glossary.

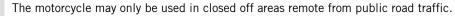
2 SAFETY ADVICE

2.1 Use definition - intended use

(All SX models)

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



(All XC models)

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

This motorcycle is designed for use in offroad endurance competition and not primarily for use in motocross.

2.2 Safety advice

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

• Info

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

2.3 Degrees of risk and symbols

Danger

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



Warning

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



Caution

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

Note

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



g Warning

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

2.4 Tampering warning

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

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

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

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

2 SAFETY ADVICE

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 IMPORTANT NOTES

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 & Warranty Booklet 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 & Warranty Booklet.

3.2 Operating and auxiliary substances

A 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 authorized KTM dealer will be glad to advise you.

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

3.4 Service

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

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

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

3.5 Figures

The figures contained in the manual may depict special equipment.

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

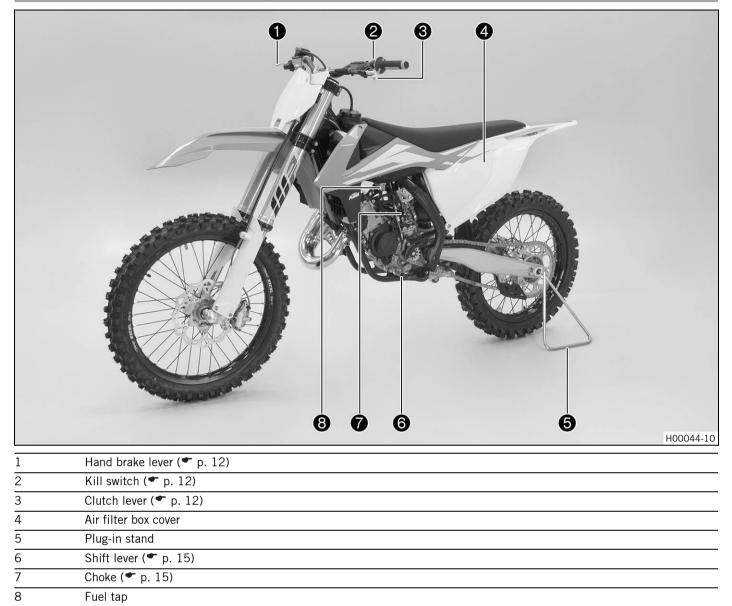
3.6 Customer service

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

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

4 VIEW OF VEHICLE

4.1 View of vehicle, front left (example)



4 VIEW OF VEHICLE

4.2 View of vehicle, rear right (example)

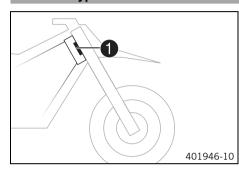
1	Seat
2	Filler cap
3	Throttle grip (🖤 p. 12)
4	Kick starter (* p. 15)
5	Foot brake lever (* p. 16)
6	Shock absorber compression adjustment
7	Level viewer for brake fluid, rear
8	Shock absorber rebound adjustment

5 SERIAL NUMBERS

5.1 Chassis number

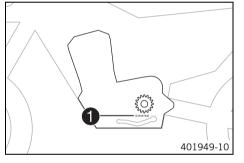
The chassis number **1** is stamped on the right side of the steering head.

5.2 Type label



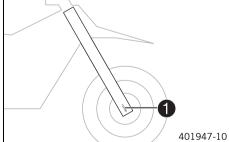
The type label 1 is fixed to the front of the steering head.

5.3 Engine number



The engine number **1** is stamped on the left side of the engine under the engine sprocket.

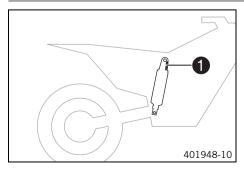
5.4



Fork part number

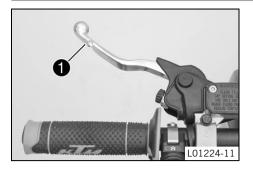
The fork part number **1** is stamped on the inner side of the fork stub.

5.5 Shock absorber article number



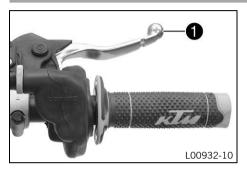
The shock absorber part number **1** is stamped on the top of the shock absorber above the adjusting ring towards the engine side.

6.1 Clutch lever



Clutch lever ① is fitted on the handlebar on the left. The clutch is activated hydraulically and adjusts itself automatically.

6.2 Hand brake lever



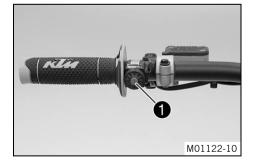
Hand brake lever **1** is fitted on the right side of the handlebar. The front brake is engaged using the hand brake lever.

6.3 Throttle grip



Throttle grip **()** is fitted on the right side of the handlebar.

6.4 Kill switch



The kill switch igoplus is fitted on the left side of the handlebar.

Possible states

•

•

•

- Kill switch \otimes 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 Electric starter button (All XC models)



The electric starter button **1** is fitted on the right side of the handlebar.

Possible states

- Electric starter button (3) in basic position
 - Electric starter button ③ pressed In this position, the electric starter is actuated.

6.6 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.
- The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions on refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

- Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that has been contaminated with fuel. Store fuel properly in a suitable canister and keep away from 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.



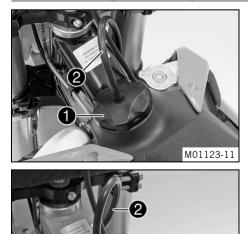


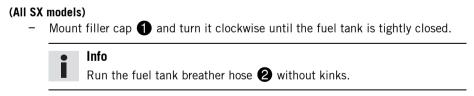
(All SX models) – Turn filler cap 1 counterclockwise and lift it off.

(All XC models)

- Press release button 1, turn the filler cap counterclockwise, and lift it off.

6.7 Closing the filler cap

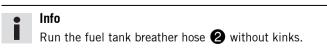




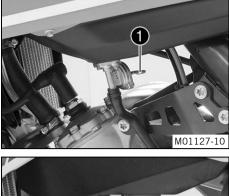
(All XC models)

B02073-11

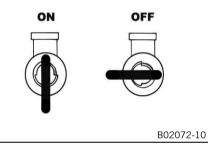
Mount filler cap 1 and turn it clockwise until the release button engages.



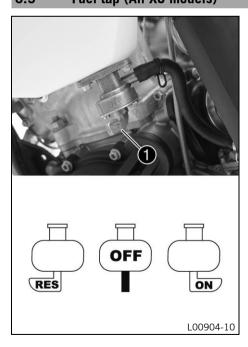
6.8 Fuel tap (All SX models)







6.9 Fuel tap (All XC models)



(All 125/150 models)

Fuel tap 1 is on the left of the fuel tank.

(250 SX)

Fuel tap **1** is on the left of the fuel tank.

Possible states

(All 125/150 models)

- Fuel supply closed **OFF** Fuel cannot flow from the fuel tank to the carburetor.
- Fuel supply open **ON** Fuel can flow from the fuel tank to the carburetor. The fuel tank empties completely.

(250 SX)

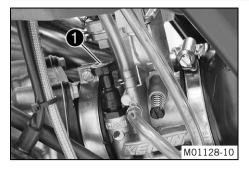
- Fuel supply closed **OFF** Fuel cannot flow from the fuel tank to the carburetor.
- Fuel supply open **ON** Fuel can flow from the fuel tank to the carburetor. The fuel tank empties completely.

Fuel tap 1 is on the left of the fuel tank.

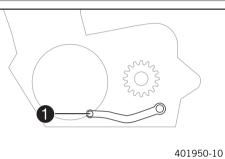
Possible states

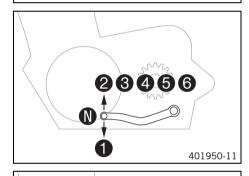
- Fuel supply closed **OFF** Fuel cannot flow from the fuel tank to the carburetor.
- Fuel supply open **ON** Fuel can flow from the fuel tank to the carburetor. The fuel tank empties down to the reserve level.
- Fuel reserve supply open **RES** Fuel can flow from the fuel tank to the carburetor. The fuel tank empties completely.

6.10 Choke



6.11 Shift lever





(3)(4)

401950-13

Choke 1 is fitted on the left side of the carburetor.

Activating the choke function frees a drill hole in the carburetor 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 pulled out to the stop.
- Choke function deactivated The choke lever is pushed in to the stop.

Shift lever **①** is mounted on the left of the engine.

(All 125/150 models, All XC models)

The gear positions can be seen in the photograph.

The neutral or idle position is between the first and second gears.

(250 SX)

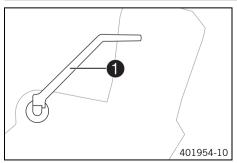
The gear positions can be seen in the photograph.

The neutral or idle position is between the first and second gears.

6.12 Kick starter

N

C |

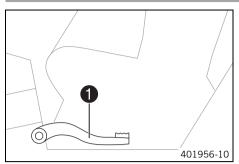


Kick starter **1** is fitted on the right side of the engine. The top part of the kick starter pivots.

Info

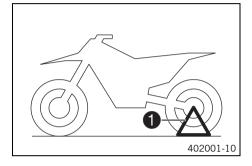
Before riding, swing the top part of the kick starter inward toward the engine.

6.13 Foot brake lever



Foot brake lever **1** is located in front of the right footrest. The foot brake lever is used to activate the rear brake.

6.14 Plug-in stand (All SX models)

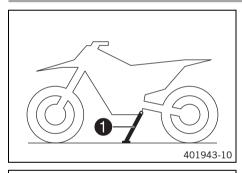


The holder for plug-in stand **1** is on the left side of the wheel spindle. The plug-in stand is used to park the motorcycle.

Info

Remove the plug-in stand before riding.

6.15 Side stand (All XC models)



Side stand **()** is located on the left side of the vehicle.

2 1 401944-10 The side stand is used for parking the motorcycle.



When you are riding, side stand **1** must be folded up and secured with rubber band **2**.

7.1 Advice on first use

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.



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.

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

Warning

Danger of accidents Critical riding behavior due to inappropriate riding.

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



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.



Danger of accidents Failure of brake system.

- If the foot brake lever is not released, the brake linings drag continuously. The rear brake may fail due to overheating. Take your foot off the foot brake lever when you are not braking.



Warning

Danger of accidents Unstable riding behavior.

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



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 and Warranty Booklet at vehicle handover.
- Before your first trip, read the entire Owner's Manual carefully.
- Get to know the controls.
- Adjust the basic position of clutch lever. (* p. 73)
- Adjust the basic position of the foot brake lever. A (* p. 79)
- Adjust the basic position of the shift lever. ▲ (♥ p. 101)
- Become accustomed to the handling of the motorcycle on suitable terrain.

Info

Your motorcycle is not authorized for riding on public roads. When offroad, being accompanied by another person on another vehicle so that you can help each other is recommended.

- Try also to ride as slowly as possible and in a standing position to get a better feeling for the motorcycle.
- Do not make any off-road trips that exceed your ability and experience.
- Hold the handlebar firmly with both hands and keep your feet on the footrests when riding.
- Do not take luggage along.

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

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



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

– Run in the engine. (🕶 p. 18)

7.2 Running in the engine

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

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

Avoid fully opening the throttle!

7.3 Preparing the vehicle for difficult riding conditions

Info

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

- Seal the air filter box. 🔦 (🕶 p. 61)
- Clean the air filter and air filter box. ◀ (♥ p. 59)

Info

Check the air filter approx. every 30 minutes.

- Additionally secure the rubber grip. (* p. 73)
- Check the electrical connector for humidity and corrosion and to ensure it is firmly seated.

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- » If humidity, corrosion, or damage is found:
- Clean and dry the connector, or change it if necessary.

Difficult riding conditions are:

- Riding at high temperatures and low speeds. (* p. 21)
- Rides at low temperature or in snow. (* p. 22)

7.4 Preparing for rides on dry sand



Check the radiator cap.

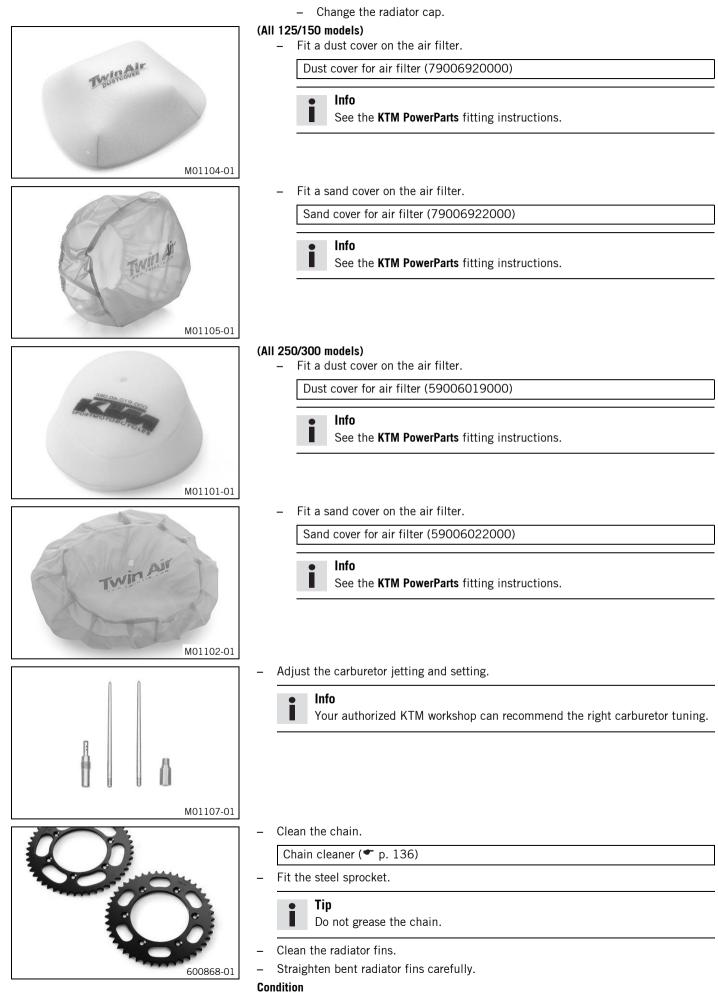
Value on the radiator cap	1.8 bar (26 psi)

If the indicated value does not correspond to the required value:



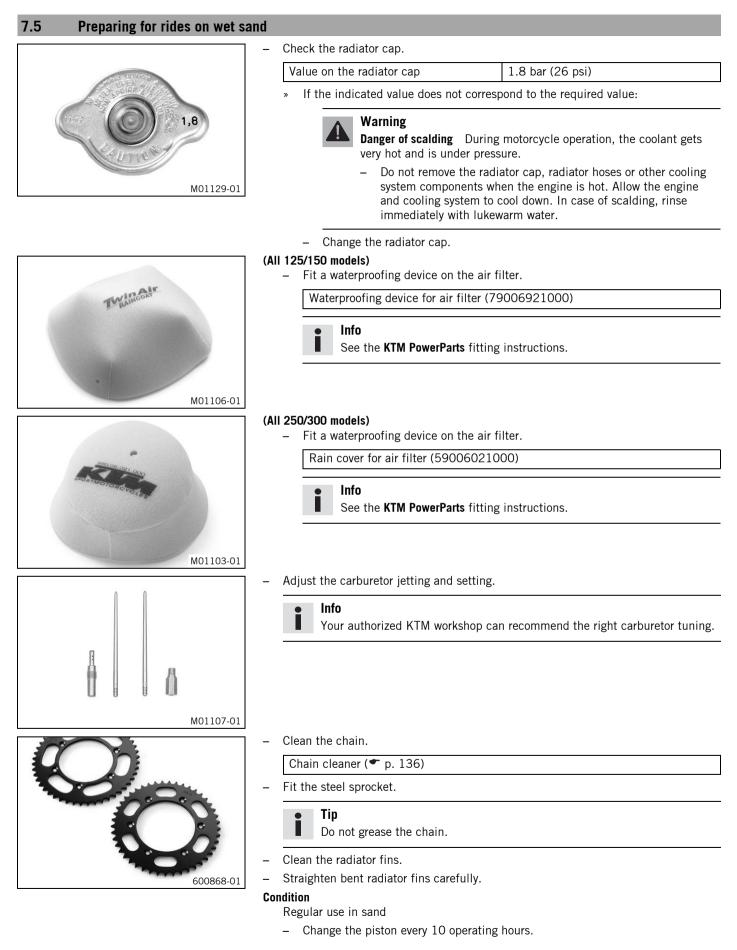
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

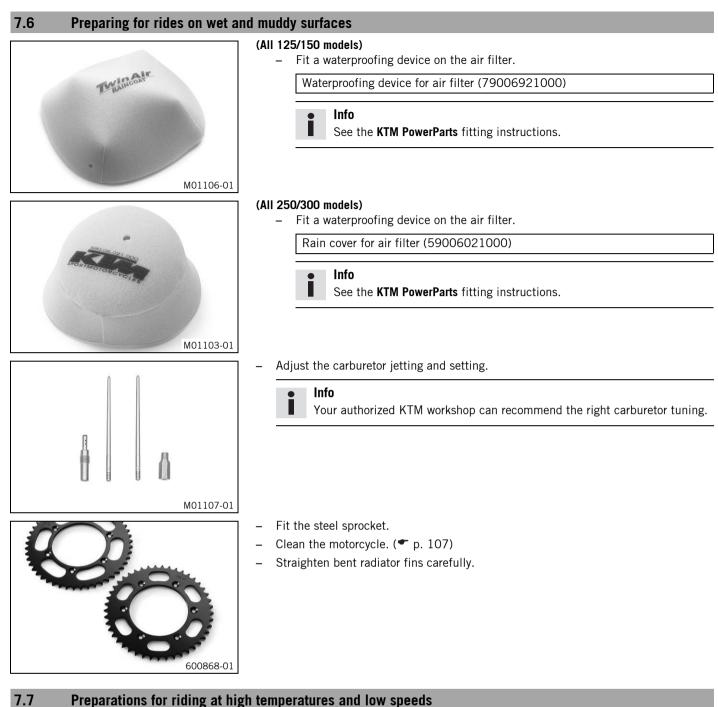
 Do not remove the radiator cap, radiator hoses or other cooling system components when the engine is hot. Allow the engine and cooling system to cool down. In case of scalding, rinse immediately with lukewarm water.



Regular use in sand

- Change the piston every 10 operating hours.







M01129-01

_____ Check the radiator cap.

Value on the radiator cap		1.8 bar (26 psi)
»	If the displayed value does not equal t	he setpoint value:



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.

- Change the radiator cap.



Adjust the secondary ratio to the terrain.

• Info

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

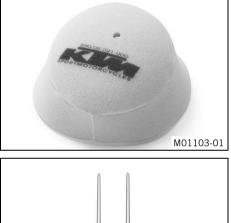
Clean the chain.

Chain cleaner (* p. 136)

- Clean the radiator fins.
- Carefully align bent radiator fins.

7.8 Preparing for rides at low temperature or in snow





(All 125/150 models) – Fit a waterproofing device on the air filter.

Waterproofing device for air filter (79006921000)



(All 250/300 models)

- Fit a waterproofing device on the air filter.

Rain cover for air filter (59006021000)				
•	Info			
	See the KTM PowerParts fitting instructions.			

Adjust the carburetor jetting and setting.

Info

M01107-01

Your authorized KTM workshop can recommend the right carburetor tuning.

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8.1 Checks and maintenance work when preparing for use

Info

Before riding the vehicle, always check its condition and operating safety. The vehicle must be in perfect technical condition when used.

- Check the front brake linings. (* p. 77)
- Check that the brake system is functioning properly.

- 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.

The motorcycle has been out of use for more than 1 week

– Empty the carburetor float chamber. 🔌 (* p. 103)

(All SX models)

(All 125/150 models)

- Turn handle 1 of the fuel tap to the ON position. (Figure M01127-10 P. 14)
 - ✓ Fuel can flow from the fuel tank to the carburetor.

(250 SX)

- Turn handle 1 of the fuel tap to the ON position. (Figure B02072-10 P. 14)
 - ✓ Fuel can flow from the fuel tank to the carburetor.

(All XC models)

- Turn handle 1 of the fuel tap to the ON position. (Figure L00904-10 P. 14)
 - ✓ Fuel can flow from the fuel tank to the carburetor.

(All SX models)

- Remove the plug-in stand.

(All XC models)

- Remove the motorcycle from the side stand.
- Shift gear to neutral.

The engine is cold

- Pull the choke lever out as far as possible.

(All SX models)

- Press the kick starter robustly through its full range.



Do not open the throttle.

(All XC models)

- Press the electric starter button or press the kick starter robustly through its full range.



Do not open the throttle.

8.3 Starting off

• Info

The plug-in stand must be removed before riding.

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

- 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.

- Shift into a higher gear when conditions allow (incline, road situation, etc.). To do so, release the throttle while simultaneously
 pulling the clutch lever, shift into the next gear, release the clutch lever and open the throttle.
- If the choke function was activated, deactivate it after the engine has warmed up.
- After reaching maximum speed by fully opening the throttle grip, turn the throttle back so it is ³/₄ open. This will barely reduce the speed but fuel consumption will be considerably lower.
- Always open the throttle only as much as the engine can handle abrupt throttle opening increases fuel consumption.
- To shift down, 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 either open the throttle or shift again.
- Switch off the engine if you expect to be standing for a long time.

Guideline	
≥ 2 min	

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



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

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

 	_	
î		

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

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 The vehicle may be damaged by incorrect procedure when parking.

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

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

- Park the vehicle on a firm and level surface.
- Ensure that nobody sits on the vehicle when the vehicle is parked on a stand.
- Apply the brakes on the motorcycle.
- Shift gear to neutral.
- Press and hold the kill switch \otimes while the engine is idling until the engine stops.

(All 125/150 models)

- Turn handle **1** of the fuel tap to the **OFF** position. (Figure M01127-10 • p. 14) **(250 SX)**

- Turn handle **(1)** of the fuel tap to the **OFF** position. (Figure B02072-10 ***** p. 14)

(All XC models)

- Turn handle **1** of the fuel tap to the **OFF** position. (Figure L00904-10 ***** p. 14)

(All SX models)

- Rest the vehicle on the plug-in stand.

(All XC models)

- Rest the vehicle on the side stand.

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8.7 Transport

Note

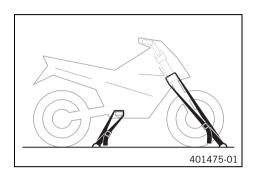
Danger of damage The parked vehicle may roll away or fall over.

- 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.
- The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions on refueling.

Warning

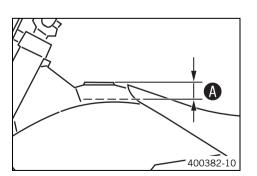
Danger of poisoning Fuel is poisonous and a health hazard.

– Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with fuel.

Warning Environme

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. 13)
- Fill the fuel tank with fuel up to measurement A.

Guideline

Measurement of		35 mm (1.38 in)		
Total fuel tank capacity, approx. (All SX models)	7.5 (1.98 US gal)	Super unleaded (98 octane) mixed with 2-stroke engine oil (1:40) (p. 135) (All 125/150 models)		
		Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60) (* p. 135) (250 SX)		
Total fuel tank capacity, approx. (All XC models)	10 (2.6 US gal)	Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60) (• p. 135)		
Engine oil, 2-stroke (* p. 134)				

- Close the filler cap. (* p. 13)

9 SERVICE SCHEDULE

9.1 All SX models

9.1.1 Service schedule

Every 10 operating hours/after every Change the gear oil. 🌂 (All 125/150 models) Change the gear oil. 🔌 (250 SX)	race	1
Change the gear oil. ◀ (250 SX)		
	•	
Check the front brake linings. (* p. 77)	•	
Check the rear brake linings. (* p. 82)	•	
Check the brake discs. (🕶 p. 75)	•	
Check the brake lines for damage and leakage.	٠	
Check the rear brake fluid level. (* p. 80)	•	
Check the free travel of the foot brake lever. (🕶 p. 79)	•	Г
Check the frame and swingarm. 🔌	•	
Check the swingarm bearing. 🔌		
Check the shock absorber linkage. 🔌	•	
Check the tire condition. (* p. 86)	•	
Check the tire air pressure. (* p. 87)	•	
Check the wheel bearing for play. 🔧	•	
Check the wheel hubs.	•	1
Check the rim run-out. 🔧	•	
Check the spoke tension. (P. 87)	•	
Check the chain, rear sprocket, engine sprocket, and chain guide. (* p. 68)	•	
Check the chain tension. (* p. 67)	•	
Grease all moving parts (e.g., hand lever, chain,) and check for smooth operation.	•	E
Check/rectify the fluid level of the hydraulic clutch. (P. 73)	•	t
Check the front brake fluid level. (* p. 76)	•	E
Check the free travel of the hand brake lever. (* p. 75)	•	t-
Check the play of the steering head bearing. (* p. 50)	•	t
Change the piston and check the cylinder and Z dimension. ◄ (All 125/150 models)		t
Change the piston and check the cylinder. \checkmark (250 SX)		t
Change the piston and check the cylinder and Z dimension. (under difficult operating conditions) A (All 125/150 mod-	•	t
els)	•	
Change the piston and check the cylinder. (under difficult operating conditions) 🔌 (250 SX)	•	
Change the spark plug and spark plug connector. 🔌 (All 125/150 models)	•	Г
Change the spark plug and spark plug connector. 🔌 (250 SX)		
Check the inlet membrane. 🔧	•	
Check the exhaust control for functioning and smooth operation. 🔧		E
Check the clutch.	•	-
Check all hoses (e.g. fuel, cooling, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing. 🔌	•	-
Check the antifreeze and coolant level. (T p. 93)	•	t
Check the cables for damage and routing without sharp bends.	•	F
Check that the throttle cables are undamaged, routed without sharp bends, and set correctly.	•	F
Clean the air filter and air filter box. \checkmark (\P p. 59)	•	-
Change glass fiber yarn filling in the main silencer. ◀ (♥ p. 62)		H
Check the screws and nuts for tightness.	•	⊢
Check idle.	•	-
Final check: Check the vehicle for safe operation and take a test ride.	•	-
Make the service entry in the KTM Dealer.net and in the Service and Warranty Booklet.	•	-

9 SERVICE SCHEDULE

9.1.2 Service work (as additional order)

					Annı	ually
	Every 40 operating			ting h	ours	
Ev	ery 30	opera	ting h	ours		
Once after 20) opera	ting h	ours			
Every 10 operating hours/after	every	race	3			
Once after 10 operating	hours					
Change the front brake fluid. 🔌						٠
Change the rear brake fluid. 🔌						٠
Change the hydraulic clutch fluid. 🔌 (🕶 p. 73)						٠
Grease the steering head bearing. ◀ (♥ p. 51)						٠
Check/adjust the carburetor components. 🔧					•	٠
Conduct a minor fork service. (250 SX EU) 🔧		•	•	•	•	
Conduct a major fork service. (250 SX EU) 🔌				•		
Perform a fork service. (125/150 SX US, 250 SX US) 🔧	0				•	
Service the fork. (125/150 SX EU) 🔧	0				•	
Service the shock absorber. 🔧			0		•	
Change the connecting rod, conrod bearing, and crank pin. 🔧					•	
Check the transmission and shift mechanism. 🔦					•	
Change all engine bearings. 🔧					•	

• One-time interval

• Periodic interval

9.2 All XC models

9.2.1 Service schedule

Eve	ry 40 operating hours/after every	race
	Every 20 operating hours	
Check and charge the battery. 🔧	•	٠
Change the gear oil. 🔧	•	٠
Check the front brake linings. (* p. 77)	•	٠
Check the rear brake linings. (p. 82)	•	٠
Check the brake discs. (* p. 75)	•	٠
Check the brake lines for damage and leakage.	•	٠
Check the rear brake fluid level. (* p. 80)	•	٠
Check the free travel of the foot brake lever. (* p. 79)	•	٠
Check the frame and swingarm. 🔌	•	٠
Check the swingarm bearing. 🔌		٠
Check the shock absorber linkage. 🔌	•	٠
Check the tire condition. (* p. 86)	•	٠
Check the tire air pressure. (* p. 87)	•	٠
Check the wheel bearing for play. 🔧	•	٠
Check the wheel hubs. 🔌	•	٠
Check the rim run-out. 🔦	•	٠
Check the spoke tension. (* p. 87)	•	٠
Check the chain, rear sprocket, engine sprocket, and chain guide. (p. 68)	•	٠
Check the chain tension. (p. 67)	•	٠
Grease all moving parts (e.g., hand lever, chain,) and check for smooth operation. 🔌	•	٠
Check/rectify the fluid level of the hydraulic clutch. (* p. 73)	•	٠
Check the front brake fluid level. (* p. 76)	•	٠
Check the free travel of the hand brake lever. (* p. 75)	•	٠
Check the play of the steering head bearing. (p. 50)	•	٠

9 SERVICE SCHEDULE

Every 40 operating hours/after every		race
Every 20 operating	hours	
Change the spark plug and spark plug connector. 🔧	•	•
Check the inlet membrane. 🔦	•	•
Check the exhaust control for functioning and smooth operation. 🔧		•
Check the clutch. 🔧		•
Check all hoses (e.g. fuel, cooling, bleeder, drainage, etc.) and sleeves for cracking, leaks, and incorrect routing. 🔧	•	•
Check the antifreeze and coolant level. (* p. 93)	•	•
Check the cables for damage and routing without sharp bends.	•	•
Check that the throttle cables are undamaged, routed without sharp bends, and set correctly.	•	•
Clean the air filter and air filter box. 🔌 (🕶 p. 59)	•	•
Change glass fiber yarn filling in the main silencer. 🔌 (🕶 p. 62)	٠	•
Check the screws and nuts for tightness. 🔦	•	•
Check idle. 🔧	•	•
Final check: Check the vehicle for safe operation and take a test ride.	•	•
Make the service entry in the KTM Dealer.net and in the Service and Warranty Booklet.	•	•

• Periodic interval

9.2.2 Service work (as additional order)

			Ann	ually
	Every 80 operating hours/every 40 operating hours when used for motors			
	Every 40 operating	g hours		
	Once after 10 operating hour	s		
Change the front brake fluid. 🔧				•
Change the rear brake fluid. 🔌				•
Change the hydraulic clutch fluid. 🔌 (🕶 p. 73)				٠
Grease the steering head bearing. ◄ (♥ p. 51)				٠
Check/adjust the carburetor components. 🔧			•	٠
Perform a fork service. 🔧	С	•	•	
Service the shock absorber. 🔧		•	•	
Check the starter drive. 🔧		٠	•	
Change the piston and check the cylinder. \blacktriangleleft			•	
Change the connecting rod, conrod bearing, and crank	<pre>< pin. 🔦</pre>		•	
Check the transmission and shift mechanism. 🔦			•	
Change all engine bearings. 🔦			•	

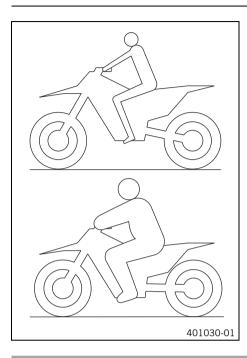
• One-time interval

• Periodic interval

10.1 Checking the basic chassis setting with the rider's weight

• Info

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



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

Guideline

 If the rider's weight is above or below this range, the basic setting of the suspension components must be adjusted accordingly.

(125/150 SX EU)

- Weight differences can be compensated for by changing the fork air pressure.

(125/150 SX US, All 250/300 models)

- Smaller weight differences can be compensated by changing the spring preload. In case of larger differences, matching springs must be fitted.

10.2 Air suspension AER 48 (125/150 SX EU)



Air suspension WP Performance Systems AER 48 is used in the fork.

In this system, suspension is located in the left fork leg and damping in the right fork leg.

As fork springs are no longer required, a significant weight advantage is achieved when compared to conventional forks. The response on slightly uneven surfaces is significantly improved.

In normal driving mode, suspension is provided exclusively by an air cushion. A steel spring is located in the left fork leg as an end stop.

Info

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

The air pressure in the fork can be quickly adjusted for the rider's weight, surface conditions and the rider's preference using a fork pump. The fork does not have to be detached. The time consuming mounting of harder or softer fork springs is not required.

Info

A suitable fork pump is available within our **KTM PowerParts** range.

If the air chamber loses air due to a damaged seal, the fork will still not sag. In this case the air is retained in the fork. The suspension travel is maintained as far as possible. The damping becomes harder and the riding comfort reduces.

As with a conventional fork, the damping can be adjusted in rebound and compression stages.

The rebound adjuster is located at the lower end of the right fork leg.

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

10.3 Compression damping of the shock absorber

The compression damping of the shock absorber is divided into two ranges: high-speed and low-speed.

High-speed and low-speed refer to the compression speed of the rear wheel suspension and not to the vehicle speed.

The high-speed setting, for example, has an effect on the landing after a jump: the rear wheel suspension compresses quickly. The low-speed setting, for example, has an effect when riding over long ground swells: the rear wheel suspension compresses slowly. These two ranges can be adjusted separately, although the transition between high-speed and low-speed is gradual. Thus, changes in the high-speed range affect the compression damping in the low-speed range and vice versa.

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

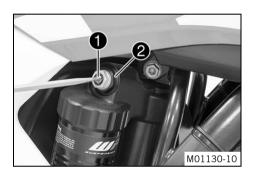
Caution

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.)

• Info

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



(All 125/150 models)

Turn adjusting screw 1 clockwise with a screwdriver up to the last perceptible click.



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

Guideline

Compression damping, low-speed (125/150 SX EU)			
Comfort	17 clicks		
Standard	15 clicks		
Sport	13 clicks		
Compression damping, low-speed (125/150 SX US)			
Comfort	17 clicks		
Standard	15 clicks		
Sport	13 clicks		

Info

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

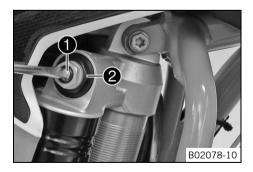
(All 250/300 models)

Turn adjusting screw ① clockwise with a screwdriver up to the last perceptible click.



Do not loosen fitting **2**!

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



Guideline

Compression damping, low-speed (250 SX EU)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Compression damping, low-speed (250 SX US)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Compression damping, low-speed (All XC models)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	

Info

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

10.5 Adjusting the high-speed 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.)

Info

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



(All 125/150 models)

- Turn adjusting screw **1** all the way clockwise with a socket wrench.



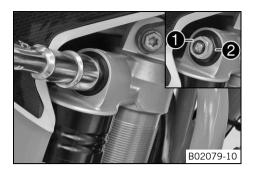
 Turn counterclockwise by the number of turns corresponding to the shock absorber type.

Guideline

Compression damping, high-speed (125/150 SX EU)		
Comfort	2.5 turns	
Standard	2 turns	
Sport	1.5 turns	
Compression damping, high-speed (125/150 SX US)		
Comfort	2.5 turns	
Standard	2 turns	
Sport	1.5 turns	

• Info

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



(All 250/300 models)

- Turn adjusting screw 1 all the way clockwise with a socket wrench.



Do not loosen fitting **2**!

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

Guideline

Compression damping, high-speed (250 SX EU)		
Comfort	2.5 turns	
Standard	2 turns	
Sport	1.5 turns	
Compression damping, high-speed (250 SX US)		
Comfort	2.5 turns	
Standard	2 turns	
Sport	1.5 turns	
Compression damping, high-speed (All XC models)		
Comfort	2.5 turns	
Standard	2 turns	
Sport	1.5 turns	

Info

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

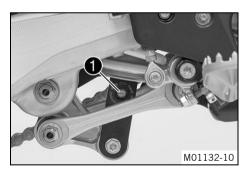
10.6 Adjusting the rebound damping of the shock absorber

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.)



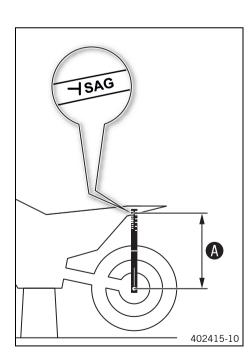
- Turn adjusting screw ① clockwise up to the last perceptible click.
- Turn counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideime		
Rebound damping (125/150 SX EU)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Rebound damping (125/150 SX US)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Rebound damping (250 SX EU)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Rebound damping (250 SX US)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Rebound damping (All XC models)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	

• Info

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

10.7 Measuring the rear wheel sag unloaded



Preparatory work

Raise the motorcycle with a lift stand. (* p. 44)

Main work

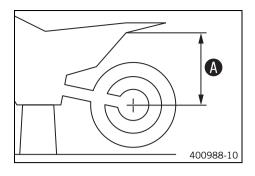
_

(All 125/150 models)

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

Sag gauge (00029090000)
Pin for sag gauge (00029990010)

- Note down the value as dimension (A).



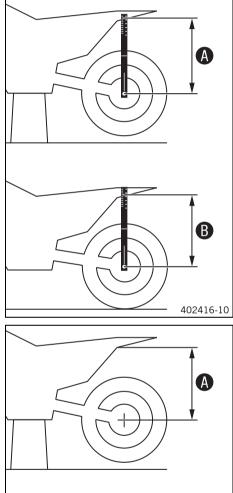
(All 250/300 models)

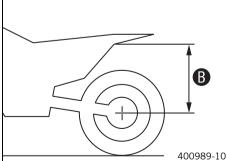
- Measure the distance as vertical as possible between the rear axle and a fixed point, for example, a mark on the rear fairing.
- Note down the value as dimension (A).

Finishing work

- Remove the motorcycle from the lift stand. (* p. 44)

10.8 Checking the static sag of the shock absorber







- Measure distance A of rear wheel unloaded. (* p. 34)
- Hold the motorcycle upright with the aid of an assistant.
- Again measure the distance between the rear axle and marking **SAG** on the rear fender using the sag gauge.
- Note down the value as dimension $oldsymbol{B}$.



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

- Check the static sag.

Static sag (125/150 SX EU)	35 mm (1.38 in)	
Static sag (125/150 SX US)	40 mm (1.57 in)	

- » If the static sag is less or more than the specified value:

(All 250/300 models)

- Measure distance (A) of rear wheel unloaded. (* p. 34)
- Hold the motorcycle upright with the aid of an assistant.
- Measure the distance between the rear axle and the fixed point again.
- Note down the value as dimension **B**.

Info

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

Static sag (250 SX EU)	30 mm (1.18 in)
Static sag (250 SX US)	30 mm (1.18 in)
Static sag (All XC models)	30 mm (1.18 in)

If the static sag is less or more than the specified value:

- Adjust the spring preload of the shock absorber. \checkmark (* p. 36)

10.9 Checking the riding sag of the shock absorber

(All 125/150 models)

- A C 402417-10 A C
- Measure distance **A** of rear wheel unloaded. (***** p. 34)
- With another person holding the motorcycle, the rider, wearing full protective clothing, sits on the seat in a normal sitting position (feet on footrests) and bounces up and down a few times.
 - The rear wheel suspension levels out.
- Another person again measures the distance between the rear axle and marking **SAG** on the rear fender using the sag gauge.
- Note down the value as dimension **O**.

•	Info

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

Check the riding sag.

Riding sag (125/150 SX EU)	105 mm (4.13 in)
Riding sag (125/150 SX US)	110 mm (4.33 in)

- If the riding sag differs from the specified measurement:
- Adjust the riding sag. 🔌 (🖛 p. 37)

(All 250/300 models)

- Measure distance (A) of rear wheel unloaded. (* p. 34)
- With another person holding the motorcycle, the rider, wearing full protective clothing, sits on the seat in a normal sitting position (feet on footrests) and bounces up and down a few times.

The rear wheel suspension levels out.

- Another person now measures the distance between the rear axle and the fixed point.
- Note down the value as dimension **O**.



Info

Guideline

The riding sag is the difference between measurements \mathbf{A} and \mathbf{O} .

Check the riding sag.

Riding sag (250 SX EU)	100 mm (3.94 in)
Riding sag (250 SX US)	100 mm (3.94 in)
Riding sag (All XC models)	100 mm (3.94 in)

If the riding sag differs from the specified measurement:

Adjust the riding sag. 🔌 (🕶 p. 37) _

10.10 Adjusting the spring preload of the shock absorber &

400990-10

Caution

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

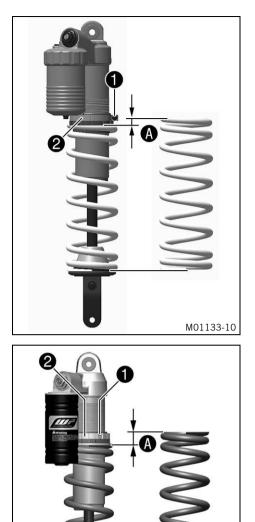
The shock absorber is filled with high density nitrogen. Adhere to the description provided. (Your authorized KTM workshop will be glad to help.)



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

Preparatory work

- Raise the motorcycle with a lift stand. (p. 44) _
- Disassemble the main silencer. (* p. 61)
- Remove the shock absorber. \checkmark (* p. 52)



	After removing	+ h a a	haal	ahaarhar	alaan	it therewohld
•	Aller removing	the s	HOCK	absorber.	ciean	IL LIIOTOUSIIIV.

Main work

(All 125/150 models) - Loosen screw

Hook wrench (T106S)

- Turn adjusting ring 2 until the spring is no longer under tension.
- Measure the overall spring length while the spring is not under tension.
- Tighten the spring by turning adjusting ring (2) to measurement (A).

Guideline

Spring preload (125/150 SX EU)	5 mm (0.2 in)
Spring preload (125/150 SX US)	7 mm (0.28 in)

• Info

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

- Tighten screw 1.

Guideline

(All 250/300 models)

- Loosen screw 1.
- Turn adjusting ring **2** until the spring is no longer under tension.

Hook wrench (T106S)

Measure the overall spring length while the spring is not under tension.

-	Tighten the spring by turning adjusting ring ${f 2}$ to measurement ${f A}$.	
	Guideline	

Spring preload (250 SX EU)	8 mm (0.31 in)
Spring preload (250 SX US)	8 mm (0.31 in)
Spring preload (All XC models)	8 mm (0.31 in)

Info

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

– Tighten screw 🚺.

Guideline

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

Finishing work

401025-10

- Install the shock absorber. 🔌 (🕶 p. 54)
- Install the main silencer. (p. 62)

10.11 Adjusting the riding sag 🔧

Preparatory work

- Disassemble the main silencer. (***** p. 61)
- Remove the shock absorber. 🔌 (🕶 p. 52)
- After removing the shock absorber, clean it thoroughly.

ft)

	B00292-10

Main work

- Choose and mount a suitable spring.

Guideline

39 N/mm (223 lb/in)
42 N/mm (240 lb/in)
45 N/mm (257 lb/in)
39 N/mm (223 lb/in)
42 N/mm (240 lb/in)
45 N/mm (257 lb/in)
51 N/mm (291 lb/in)
54 N/mm (308 lb/in)
57 N/mm (325 lb/in)
•
51 N/mm (291 lb/in)
54 N/mm (308 lb/in)
57 N/mm (325 lb/in)
51 N/mm (291 lb/in)
54 N/mm (308 lb/in)
57 N/mm (325 lb/in)

Info

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

Finishing work

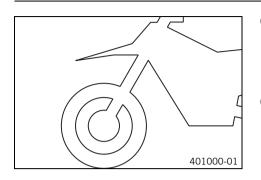
Ĩ

- Install the shock absorber. A (* p. 54)
- Install the main silencer. (* p. 62)
- Remove the motorcycle from the lift stand. (* p. 44)
- Check the static sag of the shock absorber. (* p. 35)
- Check the riding sag of the shock absorber. (, 36)

10.12 Checking the basic setting of the fork

• Info

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



(125/150 SX EU)

- Smaller differences in the rider's weight can be compensated for by the fork air pressure.
- However, if the fork frequently bottoms out (hard end stop on compression), the fork air pressure must be increased to avoid damage to the fork and frame.

(125/150 SX US, All 250/300 models)

- As with the shock absorber, smaller differences in the rider's weight can be compensated by the spring preload.
- However, if the fork frequently bottoms out (hard end stop on compression), harder springs must be fitted to avoid damage to the fork and frame.

10.13 Adjusting the fork air pressure (125/150 SX EU)

Warning

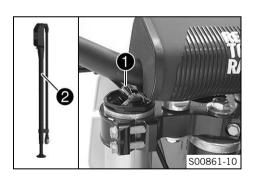
Danger of accident Modifications to the suspension setting may seriously alter the handling characteristic.

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

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

Info

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



Preparatory work

- Raise the motorcycle with a lift stand. (* p. 44)

Main work

- Remove protection cap 1.
- Push fork pump **2** together fully.

Fork pump (79412966000)

- Connect the fork pump to the left fork leg.
 - The fork pump indicator switches on automatically.
 - A little air escapes from the fork leg when connecting.

lnfo

This is due to the volume of the hose and not due to a defect in the fork pump or the fork.

Read the accompanying KTM PowerParts instructions.

- Adjust the air pressure as specified.

Guideline

Air pressure	8.2 bar (119 psi)	
Gradual changing of the air pressure in steps of	0.2 bar (3 psi)	
Minimum air pressure	7 bar (102 psi)	
Maximum air pressure	15 bar (218 psi)	

Info Neve

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

- Disconnect the fork pump from the left fork.

- When disconnecting, excess pressure will escape from the tube the fork leg does not lose any air.
- The fork pump indicator switches off automatically after 80 seconds.

Mount the protection cap.

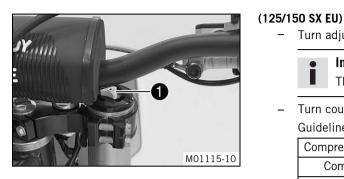
Finishing work

- Remove the motorcycle from the lift stand. (* p. 44)

10.14 Adjusting the compression damping of the fork

Info

The hydraulic compression damping determines the fork suspension behavior.



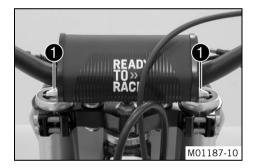
Turn	adjusting screw 🌒 clockwise all the way.
i	Info The adjusting screw ① is located at the upper end of the right fork leg.

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

Compression damping	
Comfort	20 clicks
Standard	17 clicks
Sport	12 clicks

• Info

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



(250 SX EU)

- Turn adjusting screws 1 clockwise all the way.

Info

Adjusting screws **1** are located at the top end of the fork legs. Make the same adjustment on both fork legs.

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

Compression damping

Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks

• Info

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

(125/150 SX US, All XC models, 250 SX US)

Turn the white adjusting screw 1 all the way clockwise.

Info

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

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



Guideline

Compression damping (125/150 SX US)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Compression damping (250 SX US)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Compression damping (All XC models)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	

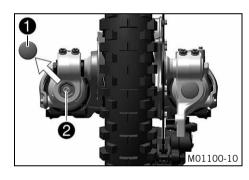
Info

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

10.15 Adjusting the rebound damping of the fork

• Info

The hydraulic rebound damping determines the fork suspension behavior.



(125/150 SX EU)

- Remove protection cap **1**.
- Turn adjusting screw 😢 clockwise all the way.

Info

- The adjusting screw 2 is located at the lower end of the right fork leg.
- Turn counterclockwise by the number of clicks corresponding to the fork type.
 Guideline

Rebound damping

1 0	
Comfort	20 clicks
Standard	17 clicks
Sport	12 clicks

• Info

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

Mount protection cap 1.

(250 SX EU)

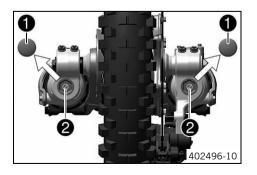
- Remove protection caps 1.
- Turn adjusting screws 2 clockwise all the way.

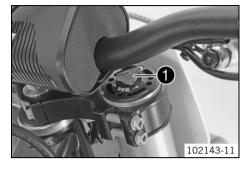
Info

Adjusting screws **2** are located at the bottom end of the fork legs. Make the same adjustment on both fork legs.

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

Rebound damping	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks





Info

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

- Mount protection caps 1.
- (125/150 SX US, All XC models, 250 SX US)
 - Turn the red adjusting screw 1 all the way clockwise.

Info

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

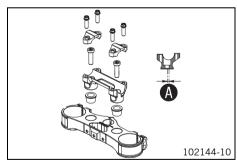
 Turn counterclockwise by the number of clicks corresponding to the fork type. Guideline

Rebound damping (125/150 SX US)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Rebound damping (250 SX US)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	
Rebound damping (All XC models)		
Comfort	17 clicks	
Standard	15 clicks	
Sport	13 clicks	

Info

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

10.16 Handlebar position



The holes on the handlebar support are placed at a distance of A from the center.Hole distance A3.5 mm (0.138 in)The handlebar can be mounted in 2 different positions. In this way, the handlebar can

be mounted in the position that is most comfortable for the rider.

10.17 Adjusting the handlebar position 🔦

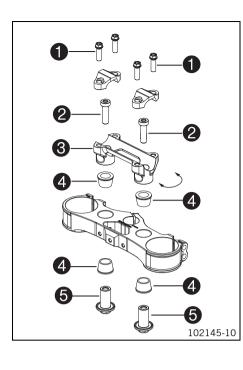
Warning

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.

Preparatory work

Remove the handlebar cushion.



Main work

Ĕ

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

Info

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

- Remove screws **2**. Remove handlebar support **3**.
- Position rubber bushings 4 and push through nuts 5 from below.
- Place the handlebar support in the required position. Mount and tighten screws 2.

Guideline

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

Position the handlebar.

• Info Mak

Make sure the cables and wiring are positioned correctly.

- Position the handlebar clamps.
- Mount screws **1**, but do not tighten yet.
- Screw the handlebar clamps so that both parts touch at the front and tighten all of the screws.

Guideline

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

Finishing work

- Mount the handlebar cushion.

11.1 Raising the motorcycle with a lift stand

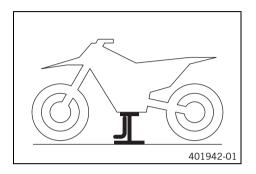
Note

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

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

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

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



Raise the motorcycle at the frame underneath the engine.

Lift stand (78129955100)

Neither wheel is in contact with the ground.

- Secure the motorcycle against falling over.

11.2 Removing the motorcycle from the lift stand

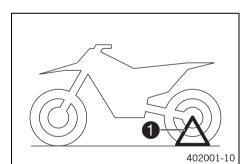
Note

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

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

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

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



(All SX models)

- Remove the motorcycle from the lift stand.
- Remove the lift stand.
- To park the motorcycle, insert plug-in stand 1 into the left side of the wheel spindle.

Info Rom

Remove the plug-in stand before riding.

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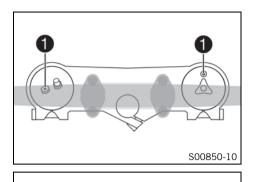
(All XC models)

- Remove the motorcycle from the lift stand.
- Remove the lift stand.
- To park the motorcycle, press side stand 1 to the ground with your foot and lean the motorcycle on it.

Info

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

11.3 Bleeding the fork legs



Preparatory work

Main work (125/150 SX EU)

- Release bleeder screws 1.
 - ✓ Any excess pressure escapes from the interior of the fork.
- Tighten the bleeder screws.

(125/150 SX US, All 250/300 models)

- Release bleeder screws 1.
- ✓ Any excess pressure escapes from the interior of the fork.
- Tighten the bleeder screws.

Finishing work

- Remove the motorcycle from the lift stand. (* p. 44)

11.4 Cleaning the dust boots of the fork legs

402556-10

Preparatory work

- Raise the motorcycle with a lift stand. (* p. 44)
- Remove the fork protector. (* p. 47)

Main work

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- Push dust boots 1 of both fork legs downward.

Info

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

Warning

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

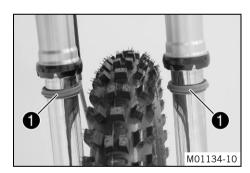
- Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.
- Clean and oil the dust boots and inner fork tubes of both fork legs.

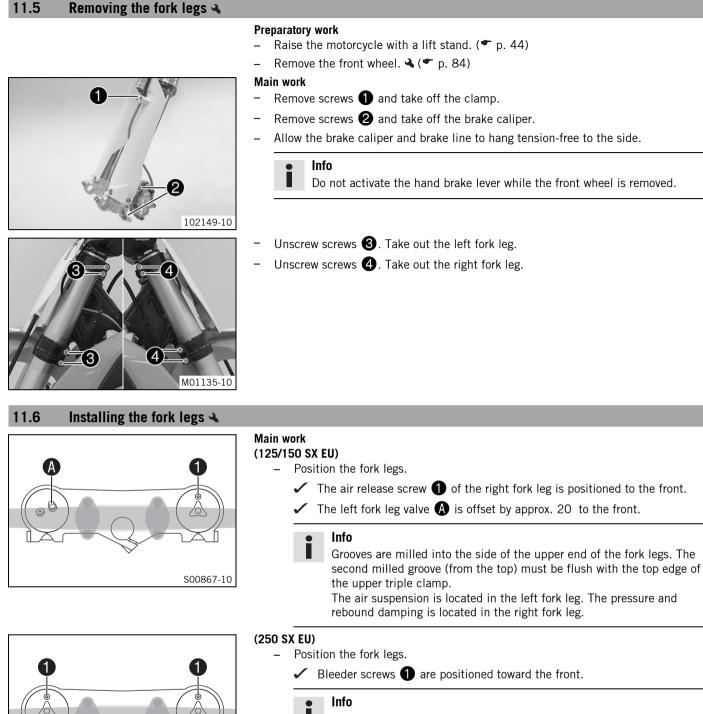
Universal oil spray (* p. 137)

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

Finishing work

- Remove the motorcycle from the lift stand. (* p. 44)





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

(125/150 SX US, All XC models, 250 SX US)

- Position the fork legs.

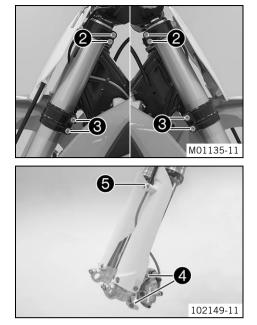
402556-10

Bleeder screws 1 are positioned toward the front.

Info

The compression damping is located in the left fork leg **COMP** (white adjusting screw). The rebound damping is located in the right fork leg **REB** (red adjusting screw).

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



- Tighten screws 2.

Guideline		
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)
Tighten screws 3 .		
Guideline		
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)

- Position the brake caliper. Mount and tighten screws 4.

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

 \cdot Position the brake line and clamp. Mount and tighten screws $oldsymbol{5}$.

Finishing work

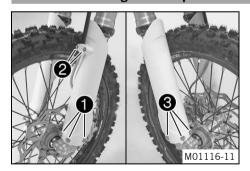
− Install the front wheel. ◀ (♥ p. 84)

11.7 Removing the fork protector	
	 Remove screws 1. Remove the clamp. Remove screws 2. Take off the left fork protector. Remove screws 3. Take off the right fork protector.

11.8 Installing the fork protector

4-2-21

M01116-10



-	Position the fork protection on the left fork leg. Mount and tighten screws 🕕.				
	Guideline				
	Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)		
-	Position the brake line and clamp. Mount	and tighten screws	2.		
-	Position the fork protector on the right for	k leg. Mount and tigh	ten screws 🕄.		

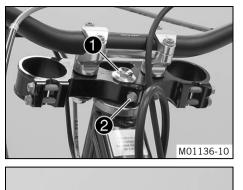
Position the fork protector on the right fork leg. Mount and tighten screws (3).
 Guideline
 Remaining screws, chassis
 M6
 10 Nm (7.4 lbf ft)

11.9 Removing the lower triple clamp 🔌

Preparatory work

- Raise the motorcycle with a lift stand. (* p. 44)
- Remove the front wheel.

 (* p. 84)
- Remove the fork legs. A (* p. 46)
- Remove the start number plate. (* p. 51)
- Remove the handlebar cushion.



Main work

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- Remove screw 🚺.
- Remove screw 2.
- Pull off the upper triple clamp with the handlebar and hang to the side.

Info Prote

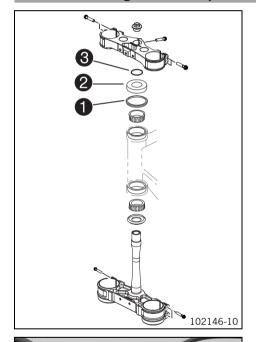
Protect the components against damage by covering them. Do not kink the cables and lines.

- Remove O-ring 3. Remove protective ring 4.
- Take off the lower triple clamp with the steering stem.
- Remove the upper steering head bearing.

11.10 Installing the lower triple clamp 🔌

4

M01117-10



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

High viscosity grease (🕶 p. 136)

- Insert the lower triple clamp with the steering stem. Mount the upper steering head bearing.
- Check whether the upper steering head seal 1 is correctly positioned.
- Slide on protective ring **2** and O-ring **3**.

- Position the upper triple clamp with the handlebar.
- Mount screw 4 but do not tighten yet.

(125/150 SX EU)

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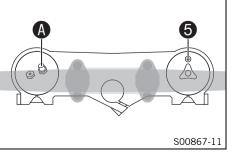
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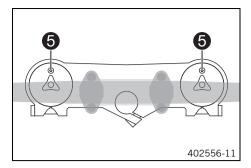
M01137-10

- Position the fork legs.
 - \checkmark The air release screw \bigcirc of the right fork leg is positioned to the front.
 - The left fork leg value A is offset by approx. 20 to the front.

Info

The air suspension **AER** valve is located in the left fork leg. Grooves are milled into the side of the upper end of the fork legs. The second milled groove (from the top) must be flush with the top edge of the upper triple clamp.





(250 SX EU)

Position the fork legs.

✓ Bleeder screws **⑤** are positioned toward the front.

Info

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

(125/150 SX US, All XC models, 250 SX US)

- Position the fork legs.

Bleeder screws (5) are positioned toward the front.

Info

The compression damping is located in the left fork leg **COMP** (white adjusting screw). The rebound damping is located in the right fork leg **REB** (red adjusting screw).

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

– Tighten screws 6



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

Tighten screw **4**.

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

• Mount and tighten screw 🚺.

Guideline

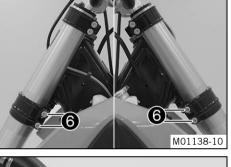
_

Screw, top steering stem (All SX models)	M8	20 Nm (14.8 lbf ft)	Loctite [®] 243™
Screw, top steering stem (All XC models)	M8	17 Nm (12.5 lbf ft)	Loctite [®] 243™

- Tighten screws 🔕.

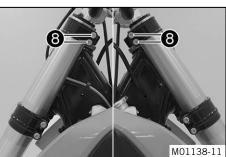
Guideline

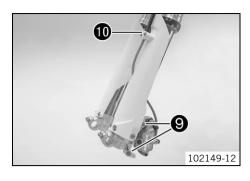
Screw, top triple clamp	M8	17 Nm
		(12.5 lbf ft)











Position the brake caliper. Mount and tighten screws (9).

Guideline

Screw, front brake caliper	M8	25 Nm (18.4 lbf ft)	Loctite [®] 243™
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Position the brake line and clamp. Mount and tighten screws 🔟.

Finishing work

- Check that the wiring harness, throttle cables, and brake and clutch lines can move freely and are routed correctly.
- Install the front wheel. ◀ (♥ p. 84)
- Check the play of the steering head bearing. (* p. 50)
 - Remove the motorcycle from the lift stand. (* p. 44)
- Install the start number plate. (* p. 52)
- Mount the handlebar cushion.

11.11 Checking the play of the steering head bearing

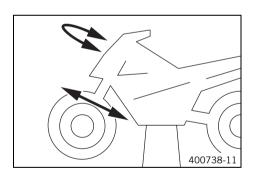
Warning

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.



Preparatory work

- Raise the motorcycle with a lift stand. (* p. 44)

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 steering head bearing play. A (* p. 50)
- Move the handlebar to and fro over the entire steering range.

The handlebar must be able to move easily over the entire steering range. There should be no perceptible detent positions.

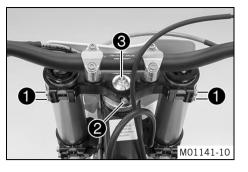
- If detent positions are noticeable:
 - Adjust the steering head bearing play. 🔌 (🕶 p. 50)
 - Check the steering head bearing and replace if required.

Finishing work

11.12 Adjusting the steering head bearing play 🔧

Preparatory work

- Remove the handlebar cushion.



Main work

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- Loosen screws 1. Remove screw 2.

Loosen and retighten screw **3**. Guideline

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

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

Tighten screws 🚺.

Guideline

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

Locate and tighten screw 2.

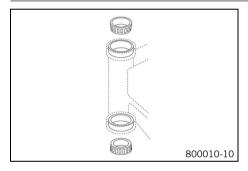
Guideline

Screw, top steering stem (All SX models)	M8	20 Nm (14.8 lbf ft)	Loctite [®] 243™
Screw, top steering stem (All XC models)	M8	17 Nm (12.5 lbf ft)	Loctite [®] 243™

Finishing work

- Check the play of the steering head bearing. (* p. 50)
- Remove the motorcycle from the lift stand. (* p. 44)
- Mount the handlebar cushion.

11.13 Greasing the steering head bearing 🔦



Remove the lower triple clamp. ◀ (♥ p. 47)

Install the lower triple clamp. - (* p. 48)

11.14 Removing the start number plate



(All 125/150 models)

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

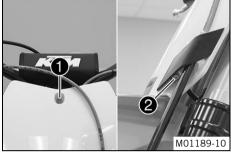


(All 250/300 models)

- Remove screw **1** and take off the clamp.
- Remove screw **2**. Take off the start number plate.

11.15 Installing the start number plate





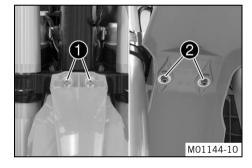
11.16 Removing the front fender

Preparatory work

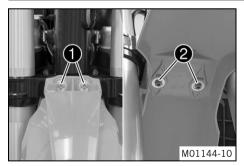
- Remove the start number plate. (* p. 51)

Main work

- Remove screws **1** and **2**. Remove the front fender.



11.17 Installing the front fender



Main work

Position the front fender. Mount and tighten screws 1 and 2. Guideline

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

Finishing work

- Install the start number plate. (* p. 52)

11.18 Removing the shock absorber 🔌

Preparatory work

- Raise the motorcycle with a lift stand. (* p. 44)
- Disassemble the main silencer. (* p. 61)

	(All 125/150 models)
and the second se	Connect the

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

Guid	eline	
-		

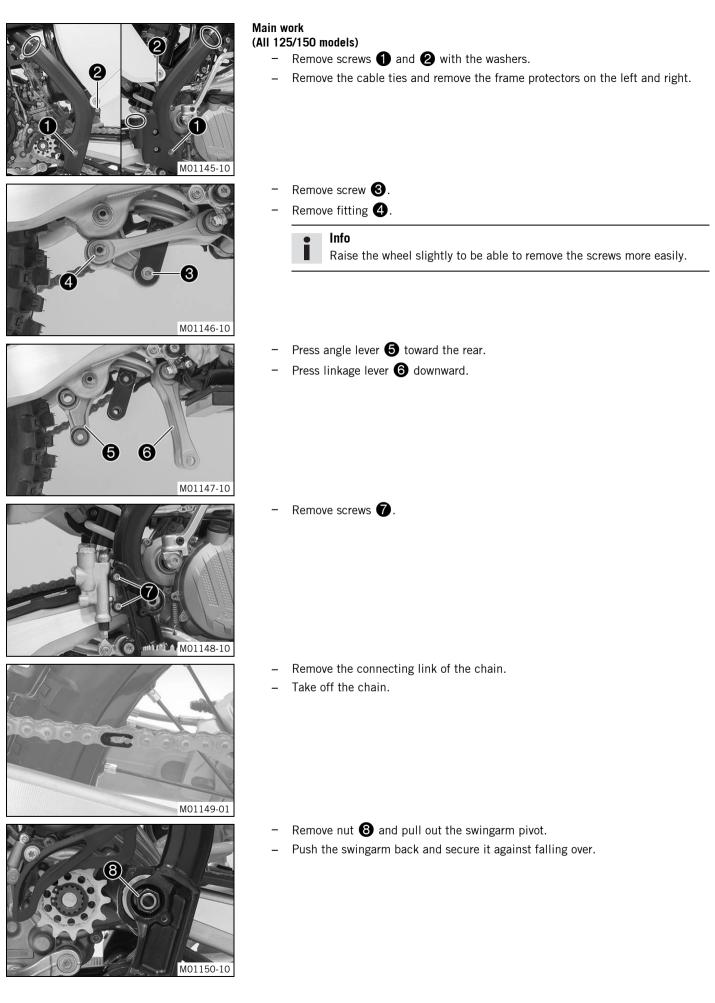
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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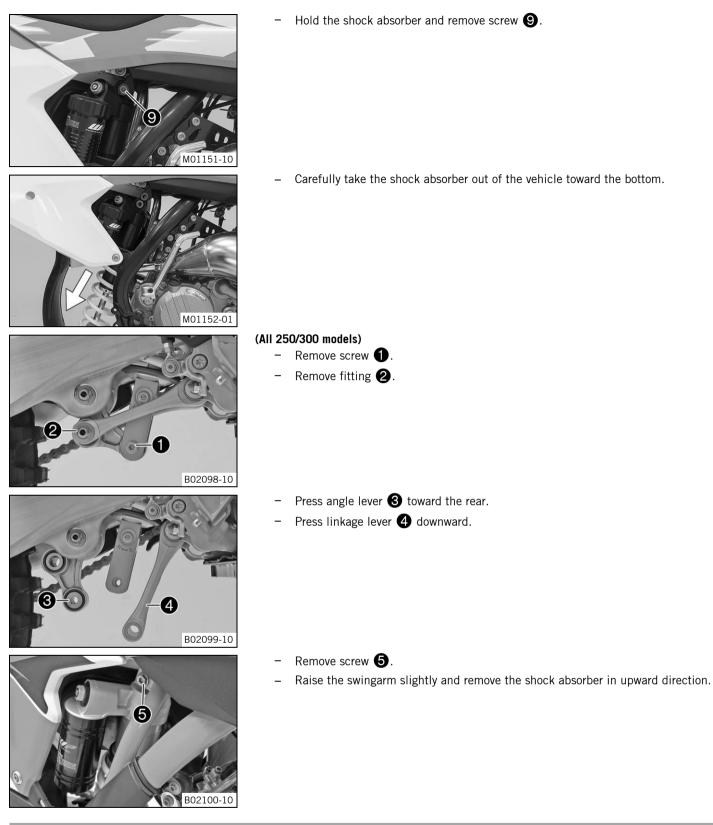
(All 250/300 models)

- Position the start number plate.
 - The holding lugs engage in the fender.
 - Mount and tighten screw ①. Guideline Remaining screws, chassis

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

- Position the brake line and clamp. Mount and tighten screw 2.



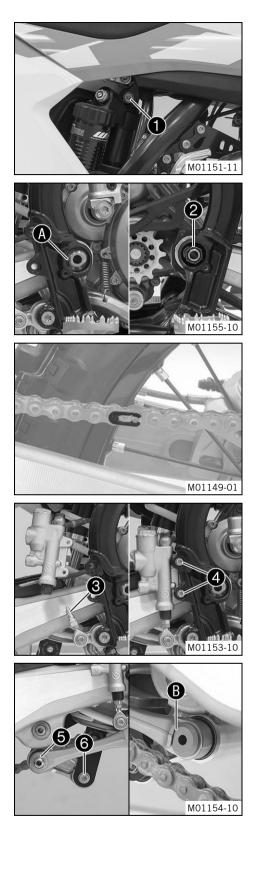


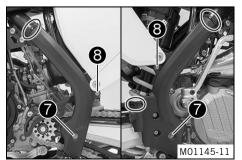
11.19 Installing the shock absorber 🔦



Main work (All 125/150 models)

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





Mount and tighten screw 1.

Screw, top shock absorber	M10	60 Nm (44.3 lbf ft)	Loctite [®] 2701™
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Position the swingarm and mount the swingarm pivot.



Mount and tighten nut **2**.

Guideline		
Nut, swingarm pivot	M16x1.5	1

Nut, swingarm pivotM16x1.5100 Nm(73.8 lbf ft)

- Mount the chain.
- Connect the chain with the connecting link. Guideline The closed side of the chain joint lock must face in the direction of travel.
- Position the foot brake cylinder.
 - ✓ Push rod ③ engages in the foot brake cylinder.
 - The dust boot is correctly positioned.
- Mount and tighten screws **4**.

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

- Position the angle lever and linkage lever. _
 - Mount and tighten screw cap **5**. Guideline

Nut, linkage lever to angle lever	M14x1.5	80 Nm (59 lbf ft)
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- Pay attention to the flat area \mathbf{B} .
- Mount and tighten screw **6**. _

Guideline

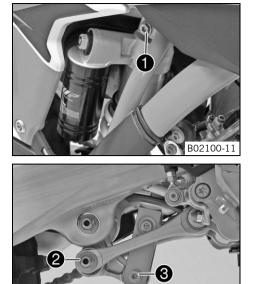
Screw, bottom shock M absorber	M10	60 Nm (44.3 lbf ft)	Loctite [®] 2701™
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- Position the frame protector on the left and right.
- Mount and tighten screws 7 and 8. Guideline

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

Mount the cable tie(s).

B02098-11



(All 250/300 models)

- Raise the swingarm slightly, and carefully position the shock absorber in the vehicle from the top.
 - Mount and tighten screw 🚺.

Guideline

Screw, top shock absorber	M10	60 Nm (44.3 lbf ft)	Loctite [®] 2701™
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- Position the angle lever and linkage lever.

Mount and tighten screw cap 😢.		
Guideline		
Nut, linkage lever to angle lever	M14x1.5	80 Nm (59 lbf ft)
Mount and tighten screw 3 .		

Guideline

Screw, bottom sho absorber	ck M10	60 Nm (44.3 lbf ft)	Loctite [®] 2701™
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Finishing work

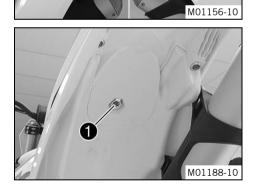
- Install the main silencer. (* p. 62)
- Remove the motorcycle from the lift stand. (* p. 44)

11.20 Removing the seat

61

(All 125/150 models)

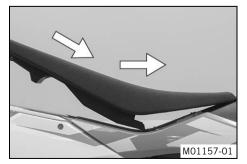
- Remove screws 1.
- Raise the rear of the seat, pull the seat back, and lift it off.



(All 250/300 models)

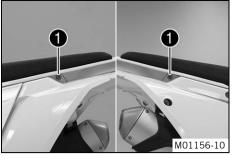
- Remove screw 1.
- Raise the rear of the seat, pull the seat back, and lift it off.

11.21 Mounting the seat



(All 125/150 models)

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



- Mount and tighten screws **①**.

Guideline

Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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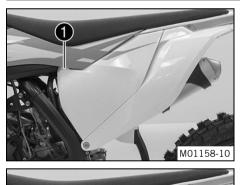
(All 250/300 models)

- Mount the front seat on to the collar bushing of the fuel tank, lower it at the rear, and simultaneously push it forward.
- Make sure that the seat is correctly locked in.
- Mount and tighten screw **①**.

Guideline	
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Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)
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11.22 Removing the air filter box cover



A

M01158-11

B02101-10

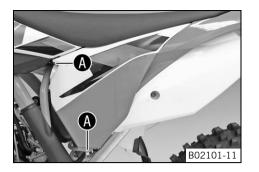
(All 125/150 models) Condition

- The air filter box cover is secured.
- Remove screw 1.
- Pull off the air filter box cover in area (A) sideways and remove it toward the front.

(All 250/300 models) Condition

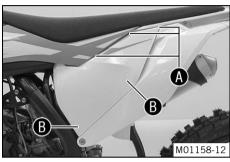
The air filter box cover is secured.

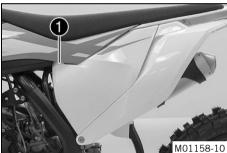
- Remove screws 1.

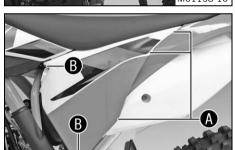


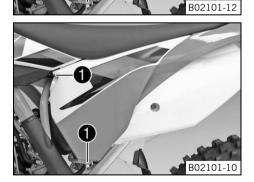
- Pull off the air filter box cover in area (A) sideways and remove it toward the front.

11.23 Installing the air filter box cover









(All 125/150 models)

- Insert the air filter box cover in area (A) and clip it into area (B).

Condition

The air filter box cover is secured.

- Mount and tighten screw 1.

Guideline

Screw, air filter box	EJOT PT®	3 Nm	EJOT PT screw
cover	K60x20-Z	(2.2 lbf ft)	(0017060204)

(All 250/300 models)

- Insert the air filter box cover in area \mathbf{A} and clip it into area \mathbf{B} .

Condition

The air filter box cover is secured.

- Mount and tighten screws **1**.

Guideline

Screw, air filter box	EJOT PT®	3 Nm	EJOT PT screw
cover	K60x20-Z	(2.2 lbf ft)	(0017060204)

11.24 Removing the air filter 🔌

Note

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

Never operate the vehicle without an air filter as dust and dirt will enter the engine and lead to 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.





Preparatory work

Main work

- (All 125/150 models)
 - Detach 1 retaining tab. Remove air filter with air filter support.
 - Take off air filter from air filter support.

(All 250/300 models)

- Detach air filter holder 1 at the bottom and swing it to one side. Remove the air filter with the air filter support.
- Remove the air filter from the air filter support.

11.25 Cleaning the air filter and air filter box 🔌

ر Warning

Info

Environmental hazard Hazardous substances cause environmental damage.

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

i

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



Preparatory work

- Remove the air filter box cover. (* p. 57)
- Remove the air filter. 🔧 (🕶 p. 59)

Main work

_

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

Air filter cleaner (* p. 136)

Info

Only squeeze the air filter to dry it; never wring it out.

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

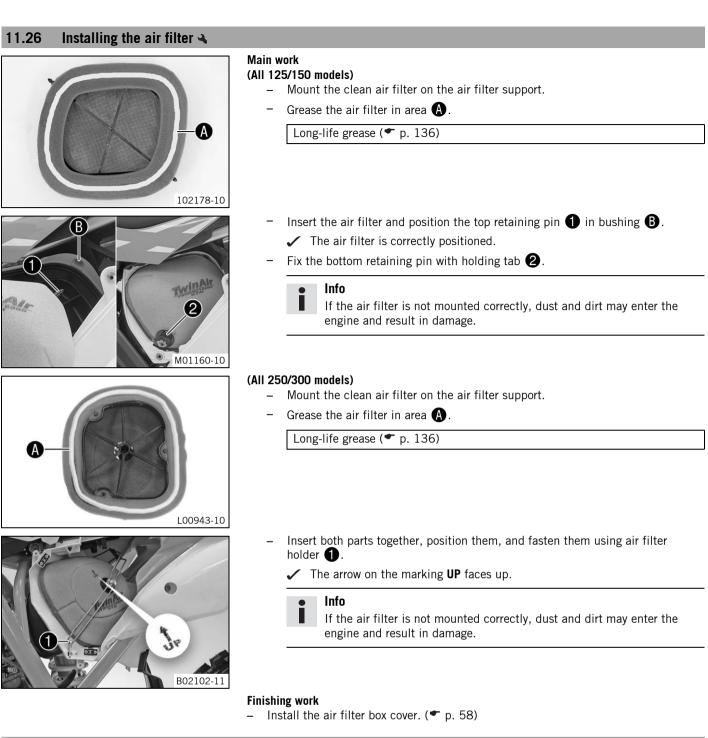
Oil for foam air filter (* p. 136)

- Clean the air filter box.

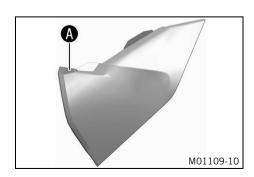
- Clean the intake flange and check it for damage and tightness.

Finishing work

- 🛛 Install the air filter. 🔌 (👕 p. 60)



11.27 Securing the air filter box cover 🔧



Preparatory work

Main work

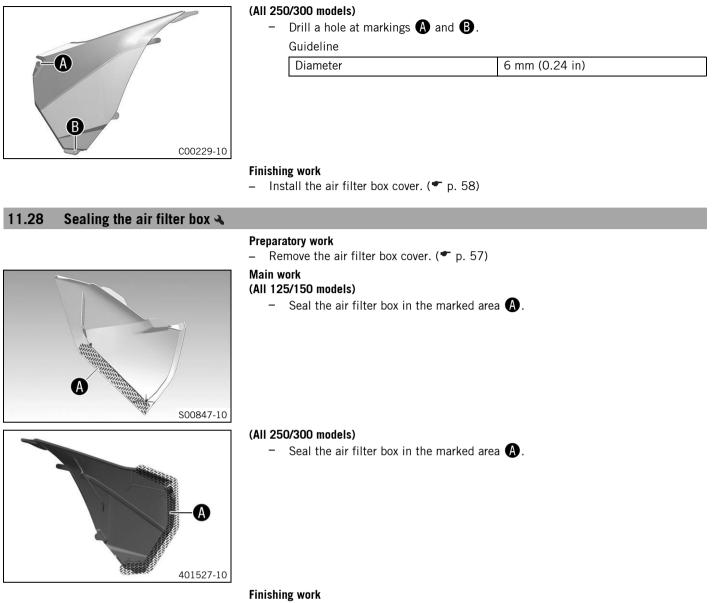
(All 125/150 models)

- Drill a hole at marking A.

Guideline

Diameter 6 mm (0.24 in)

60



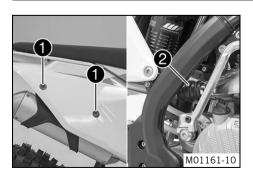
Install the air filter box cover. (* p. 58)

11.29 Disassembling the main silencer

Warning

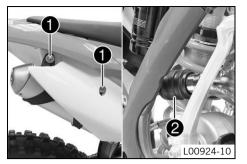
 $\ensuremath{\textbf{Danger of burns}}$ The exhaust system gets very hot when the vehicle is driven.

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

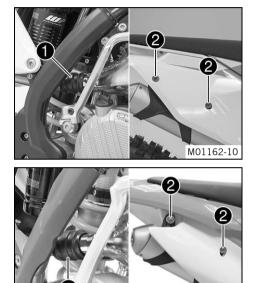


(All 125/150 models)

- Remove screws 1 with the washers.
- Pull off the main silencer from the manifold at rubber sleeve 2.



11.30 Installing the main silencer



(All 250/300 models)

- Remove screws **1** with the washers.
- Pull off the main silencer from the manifold at rubber sleeve 2.

(All 125/150 models)

- Position the main silencer with rubber sleeve 1.
- Mount and tighten screws 2 with the washers.
 Guideline

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

(All 250/300 models)

- Position the main silencer with rubber sleeve 1.
- Mount and tighten screws ② with the washers.
 Guideline

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

11.31 Changing the glass fiber yarn filling in the main silencer 🔌

L00924-11

Warning

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

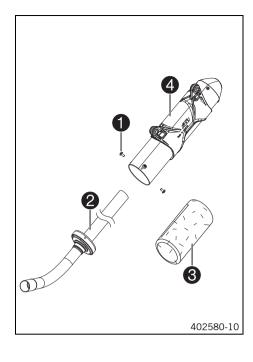
- Allow the exhaust system to cool down. Do not touch hot components.

Info

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

Preparatory work

- Disassemble the main silencer. (* p. 61)



Main work

- Remove screws 1. Pull out inner tube 2.
- Remove the glass fiber yarn filling **3** from the inner tube.
- Clean the parts that need to be reinstalled and check for damage. _
- Fit the new glass fiber yarn filling **3** into the inner tube.
 - Slide outer tube 4 over the inner tube with the new glass fiber yarn filling.
- Mount and tighten all screws 1.

Guideline

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

Finishing work

Install the main silencer. (* p. 62)

11.32 Removing 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.
- The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions on refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that has been contaminated with fuel. Store fuel properly in a suitable canister and keep away from children.

Preparatory work Remove the seat. (* p. 56)

(All 125/150 models)

- Turn handle **1** of the fuel tap to the **OFF** position. (Figure M01127-10 p. 14)

(250 SX)

Turn handle **1** of the fuel tap to the **OFF** position. (Figure B02072-10 P. 14)

(All XC models)

Turn handle **1** of the fuel tap to the **OFF** position. (Figure L00904-10 • p. 14)



(All 125/150 models)

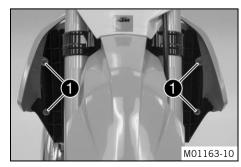
Pull off the fuel hose.

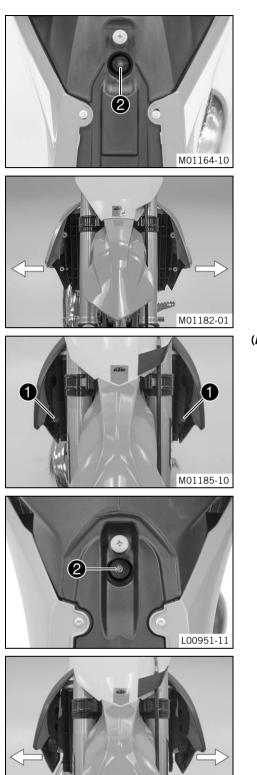
Info



Remaining fuel may flow out of the fuel hose.

Remove screws 1.



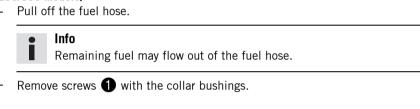


- Remove screw **2** with the rubber bushing.
- Pull the hose off the fuel tank breather on the tank lid.

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

(All 250/300 models)

_



- Remove screw **2** with the rubber bushing.
- Pull the hose off the fuel tank breather on the tank lid.

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

11.33 Installing the fuel tank 🔦

Danger

Fire hazard Fuel is highly flammable.

M01186-01

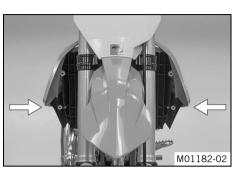
- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no
 fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions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

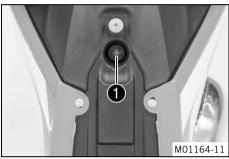


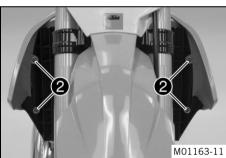
Warning

Danger of poisoning Fuel is poisonous and a health hazard.

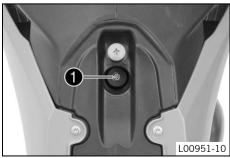
- Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with fuel.











Main work

(All 125/150 models)

- Position the fuel tank and fit the two spoilers to the sides of the radiator bracket.
- Make sure that no cables are trapped or damaged.
- Mount the fuel tank breather.

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

Mount and tighten screws 2.

Guideline

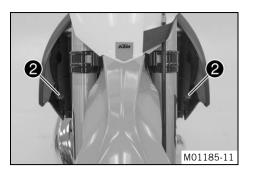
_			
	Remaining screws, chassis	M6	10 Nm
			(7.4 lbf ft)

Connect the fuel hose.

(All 250/300 models)

- Position the fuel tank and fit the two spoilers to the sides of the radiator bracket.
- Make sure that no cables are trapped or damaged.
- Mount the fuel tank breather.
- Mount and tighten screw
 with the rubber bushing. Guideline

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



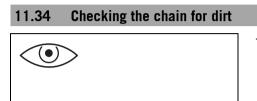
- Mount and tighten screws **2** with the collar bushings.

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

Connect the fuel hose.

Finishing work

- Mount the seat. (🕶 p. 56)



- Check the chain for heavy soiling.
 - » If the chain is very dirty:
 - Clean the chain. (🕶 p. 66)

11.35 Cleaning the chain

Warning

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

400678-01

- Remove oil and grease with a suitable cleaning material.

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

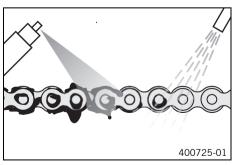
Warning

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.



Preparatory work

Main work

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

Chain cleaner (* p. 136) Off-road chain spray (* p. 136)

Finishing work

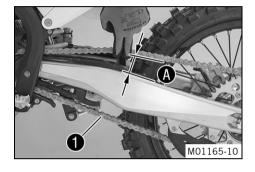
- Remove the motorcycle from the lift stand. (* p. 44)

11.36 Checking the chain tension

Warning

Danger of accidents Danger caused by incorrect chain tension.

- If the chain is too taut, the components of the secondary power transmission (chain, engine sprocket, rear sprocket, bearings in the transmission and in the rear wheel) will be under additional load. In addition to premature wear, this can cause the chain or the countershaft of the transmission to break in extreme cases. If the chain is too loose, however, it may fall off the engine sprocket or rear sprocket and block the rear wheel or damage the engine. Ensure that the chain tension is correct and adjust it if necessary.



Preparatory work

Raise the motorcycle with a lift stand. (* p. 44)

Main work

(All 125/150 models)

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

Guideline

The lower chain section 1 must be taut.

Info

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

Chain tension	55 58 mm (2.17 2.28 in)

- If the chain tension does not meet the specification:

(All 250/300 models)

»

- Pull the chain at the end of the chain sliding piece upward to measure chain tension (\mathbf{A}) .

Guideline

The lower chain section 1 must be taut.

• Info

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

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

> If the chain tension does not meet the specification:

– Adjust the chain tension. (* p. 67)

Finishing work

11.37 Adjusting the chain tension

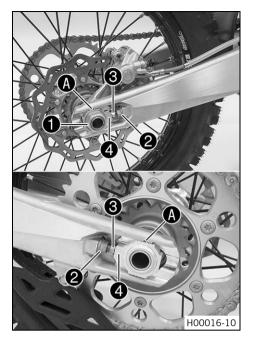
Warning

Danger of accidents Danger caused by incorrect chain tension.

If the chain is too taut, the components of the secondary power transmission (chain, engine sprocket, rear sprocket, bearings in the transmission and in the rear wheel) will be under additional load. In addition to premature wear, this can cause the chain or the countershaft of the transmission to break in extreme cases. If the chain is too loose, however, it may fall off the engine sprocket or rear sprocket and block the rear wheel or damage the engine. Ensure that the chain tension is correct and adjust it if necessary.

Preparatory work

- Raise the motorcycle with a lift stand. (* p. 44)
- Check the chain tension. (* p. 67)



Main work

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

Chain tension 55... 58 mm (2.17... 2.28 in) Turn adjusting screws 3 on the left and right so that the markings on the left and right chain adjusters are in the same position relative to reference marks (A). The rear wheel is now correctly aligned.

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

Guideline

Nut, rear wheel spindleM25x1.580 Nm (59 lbf ft)

Info

The wide adjustment range of the chain adjusters (32 mm) enables different secondary ratios with the same chain length. Chain adjusters 4 can be turned by 180°.

Finishing work

Remove the motorcycle from the lift stand. (, 44)

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

Preparatory work

Raise the motorcycle with a lift stand. (p. 44)

Main work

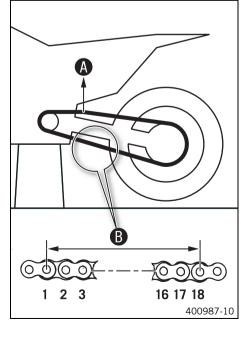
400227-01

- Shift the transmission to idle.
- Check the rear sprocket and engine sprocket for wear.
 - If the rear sprocket and engine sprocket are worn:
 - Change the drivetrain kit.



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

Pull at the top part of the chain with the specified weight \mathbf{A} .



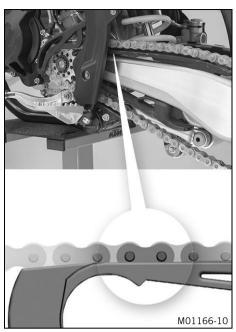
Guideline Weight, chain wear measurement 10... 15 kg (22... 33 lb.) Measure the distance **B** of 18 chain links in the lower chain section. Info Chain wear is not always even, so you should repeat this measurement at different chain positions. 272 mm (10.71 in) Maximum distance **B** at the longest chain section If the distance **B** is greater than the specified measurement:

_ Change the drivetrain kit. 🔧

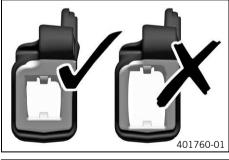
Info

When the chain is replaced, the rear sprocket and engine sprocket should also be changed.

New chains wear out faster on old, worn sprockets.



102190-01





(All 125/150 models)

- Check the chain sliding guard for wear.
 - » If the lower edge of the chain pin is at the level of or below the chain sliding guard:
 - Change the chain sliding guard. 🔧
 - Check that the chain sliding guard is firmly seated.
 - » If the chain sliding guard is loose:
 - Tighten the screws on the chain sliding guard.

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

- 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. \blacktriangleleft
- Check that the chain sliding piece is firmly seated.
 - » If the chain sliding piece is loose:
 - Tighten the screw on the chain sliding piece.
 Guideline

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

- Check the chain guide for wear.



»

Wear can be seen on the front of the chain guide.

- If the light part of the chain guide is worn:
- Change the chain guide. 🔌
- Check that the chain guide is firmly seated.
 - » If the chain guide is loose:
 - Tighten the screws on the chain guide.
 Guideline

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





(All 250/300 models)

- Check the chain sliding guard for wear.
 - » If the lower edge of the chain pin is at the level of or below the chain sliding guard:
 - Change the chain sliding guard. 🔌
- Check that the chain sliding guard is firmly seated.
 - » If the chain sliding guard is loose:
 - Tighten the screws on the chain sliding guard.

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

- Check the chain sliding piece for wear.
 - » If the lower edge of the chain pins is in line with or below the chain sliding piece:
 - Change the chain sliding piece. 🔧
- Check that the chain sliding piece is firmly seated.
 - » If the chain sliding piece is loose:
 - Tighten the screw on the chain sliding piece.
 Guideline

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

- Check the chain guide for wear.



»

401760-01

102192-01

Info

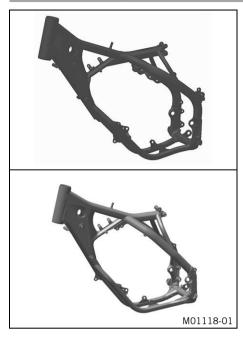
Wear can be seen on the front of the chain guide.

- If the light part of the chain guide is worn:
- Change the chain guide. 🔌
- Check that the chain guide is firmly seated.
 - » If the chain guide is loose:
 - Tighten the screws on the chain guide.
 Guideline

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

Finishing work

11.39 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 be replaced. Repair of the frame is not authorized by KTM.

11.40 Checking the swingarm 🔌



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



A damaged swingarm must always be changed. Repair of the swingarm is not authorized by KTM.

11.41 Checking the routing of the throttle cable

Preparatory work

- Remove the seat. (* p. 56)

(All 125/150 models)

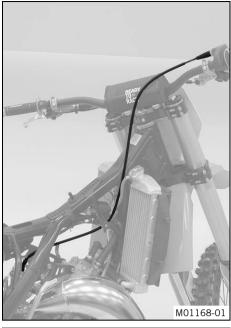
Turn handle for the fuel tap to the OFF position.
 (Figure M01127-10 • p. 14)

(250 SX)

Turn handle **①** of the fuel tap to the **OFF** position. (Figure B02072-10 p. 14)

(All XC models)

- Turn handle ① of the fuel tap to the OFF position. (Figure L00904-10 p. 14)
- Remove the fuel tank. 🔌 (🕶 p. 63)



Main work

(All 125/150 models)

- Check the routing of the throttle cable.

The throttle cable must be routed along the back of the handlebar, to the right of the frame, below the fuel tank bracket, and to the carburetor. The throttle cable must be fixed on the fuel tank bracket with a rubber band.

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

W01184-01

(All 250/300 models)

- Check the throttle cable routing.

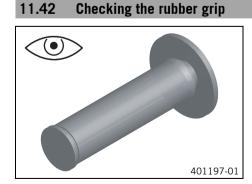
The throttle cable must be routed along the back of the handlebar, to the right of the frame, below the fuel tank bracket, and to the carburetor. The throttle cable must be fixed on the fuel tank bracket with a rubber band.

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

Finishing work

_

- 🛛 Install the fuel tank. 🔧 (🕶 p. 64)
- Mount the seat. (🕶 p. 56)



- Check the rubber grips on the handlebar for damage and wear and to ensure they are firmly seated.
 - » If a rubber grip is damaged, worn, or loose:
 - Change and secure the rubber grip.

Grip adhesive (00062030051) (* p. 136)

11.43 Additionally securing the rubber grip

401198-01

Check the rubber grip. (P. 72)

Main work

_

Preparatory work

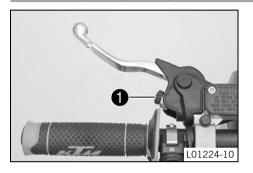
Secure the rubber grip at two points using the securing wire.

Securing wire (54812016000)

Wire twister forceps (U6907854)

The twisted wire ends face away from the hands and are bent toward the rubber grip.

11.44 Adjusting basic position of clutch lever



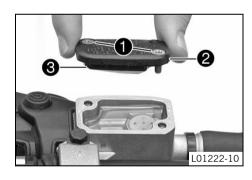
Adjust the basic setting of the clutch lever to your hand size by turning adjusting screw \bullet .

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

11.45 Checking/correcting the fluid level of the hydraulic clutch

• Info

The fluid level rises with increasing wear of the clutch facing discs.



- Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws 🕕
- Remove cover 🛿 with membrane 🕄 .

Check the fluid level.

- Fluid level below container rim 4 mm (0.16 in)
- If the level of the fluid does not meet specifications:
- Correct the fluid level of the hydraulic clutch.
 - Brake fluid DOT 4 / DOT 5.1 (* p. 134)
- Position the cover with the membrane. Mount and tighten the screws.

• Info

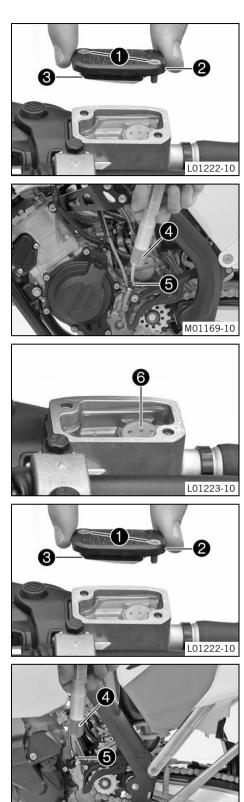
Clean up overflowed or spilled brake fluid immediately with water.

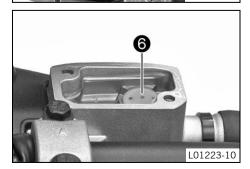
11.46 Changing the hydraulic clutch fluid 🔌

🖉 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.





B02111

(All 125/150 models)

- Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws ①.
- Remove cover **2** with membrane **3**.
- Fill bleeding syringe 4 with the appropriate hydraulic fluid.

Bleed syringe (50329050000)
Brake fluid DOT 4 / DOT 5.1 (🕶 p. 134)

- On the clutch slave cylinder, remove bleeder screw (5) and mount bleeding syringe (4).
- Inject the liquid into the system until it escapes from drill hole **6** of the master cylinder without bubbles.
- Drain fluid occasionally from the master cylinder reservoir, to prevent overflow.
- Remove the bleeding syringe. Mount and tighten screws bleeder screw.
- Correct the fluid level of the hydraulic clutch. Guideline

Fluid level below container rim	4 mm (0.16 in)

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

(All 250/300 models)

- Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws 1.
- Remove cover **2** with membrane **3**.
- Fill bleeding syringe **4** with the appropriate hydraulic fluid.

Bleed syringe (50329050000)
Brake fluid DOT 4 / DOT 5.1 (p. 134)

- On the clutch slave cylinder, remove bleeder screw **(5)** and mount bleeding syringe **(4)**.
- Inject the liquid into the system until it escapes from drill hole 6 of the master cylinder without bubbles.
- Drain fluid occasionally from the master cylinder reservoir, to prevent overflow.
- Remove the bleeding syringe. Mount and tighten screws bleeder screw.
- Correct the fluid level of the hydraulic clutch.

Guideline	
Fluid level below container rim	4 mm (0.16 in)

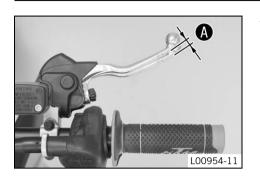
- Position the cover with the membrane. Mount and tighten the screws.

12.1

Warning
Danger of accidents Brake system failure.

Checking the free travel of the hand brake lever

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



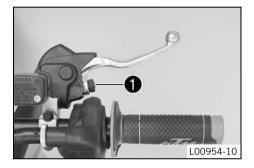
- Push the hand brake lever forward and check free travel (A).

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

» If the free travel does not meet specifications:

– Adjust the basic position of the hand brake lever. (
 p. 75)

12.2 Adjusting the basic position of the hand brake lever



- Check the free travel of the hand brake lever. (🕶 p. 75)
- Adjust the basic setting of the hand brake lever to your hand size by turning adjusting screw lacksquare.

Info

When the adjusting screw is turned clockwise, the hand brake lever moves away from the handlebar. When the adjusting screw is turned counterclockwise, the hand brake lever moves closer to 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!

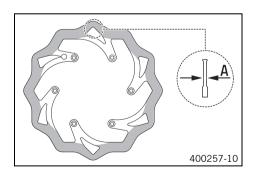
12.3 Checking the brake discs

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.)



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 limit	
Front	2.5 mm (0.098 in)
Rear	3.5 mm (0.138 in)

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

12.4 Checking the front brake fluid level

Warning

Danger of accidents Brake system failure.

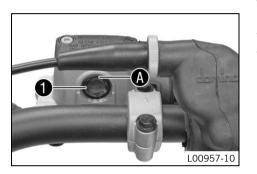
 If the brake fluid level drops below the specified marking or the specified value, this is an indication that the brake system is leaking or that the brake linings are completely worn down. Check the brake system and do not continue riding. (Your authorized KTM workshop will be glad to help.)



Warning

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.)



Preparatory work

Main work

- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
 - Check the brake fluid level in the viewer 1.
 - » If the brake fluid level is below the old A marking:
 - Add front brake fluid. ◀ (♥ p. 76)

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.

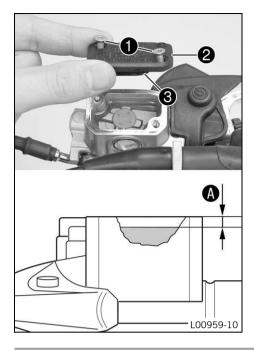
Info

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!

Preparatory work

- Check the front brake linings. (* p. 77)



Main work

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

Guideime		
Dimension (brake fluid level below top edge of container)	5 mm (0.2 in)	
Proke fluid DOT 4 (DOT 5 1 (# p. 124)		
Brake fluid DOT 4 / DOT 5.1 (* p. 134)		

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

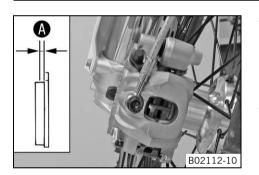


12.6 Checking the front brake linings

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.)



Check the brake linings for minimum thickness (A).

	Minimum thickness 🚯	≥ 1 mm (≥ 0.04 in)		
	» If the minimum thickness is less than specified:			
	– Change the front brake linings. 🔌 (🕶 p. 77)			
•	Check the brake linings for damage and co	racking.		
	» If damage or cracking is visible:			

– Change the front brake linings. 🔌 (🕶 p. 77)

12.7 Changing the front 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.)

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

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.



Warning

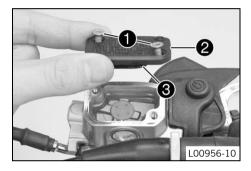
Environmental hazard Hazardous substances cause environmental damage.

- 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!



4

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

- Remove screws 1.
- Remove cover **2** with membrane **3**.
- Manually press the brake caliper toward the brake disc to push back the brake pistons. Ensure that brake fluid does not flow out of the brake fluid reservoir, extracting it by suction if it does.



Info

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

- Remove cotter pins (4), pull out pin (5), and remove the brake linings.
- Clean the brake caliper and brake caliper support.

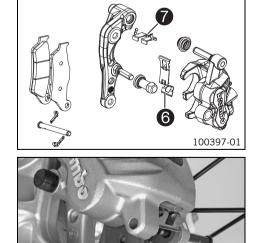
Check that leaf spring **6** in the brake caliper and sliding plate **7** in the brake caliper support are seated correctly.

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

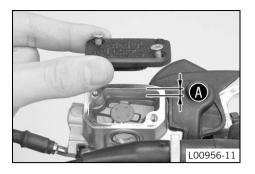


Always change the full set of brake linings.

Operate the hand brake lever several times until the brake linings are lying correctly against the brake disc and there is a pressure point.



78



Correct the brake fluid quantity to level A.

Guideline

duldeline		
Dimension (brake fluid level below top edge of container)	5 mm (0.2 in)	
Brake fluid DOT 4 / DOT 5.1 (, p. 134)		
Position the cover with the membrane. Mount and tighten the screws.		

• Info

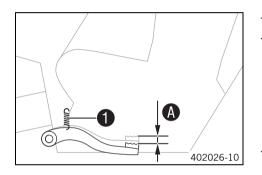
Wash off overflowed or spilled brake fluid immediately with water.

12.8 Checking the free travel of foot brake lever

Warning Denger of

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 can fail due to overheating. Adjust the free travel on foot brake lever according to specifications.



- Disconnect spring 1.
- Move the foot brake lever back and forth between the end stop and the contact to the foot brake cylinder piston and check free travel (\mathbf{A}) .

Guideline

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

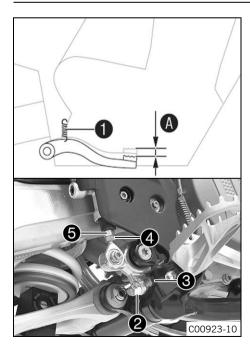
 » If the free travel does not meet specifications:
- Adjust the basic position of the foot brake lever. 🔌 (* p. 79)
- Reconnect spring 🚺.

12.9 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 can fail due to
overheating. Adjust the free travel on foot brake lever according to specifications.



(All 125/150 models)

- Disconnect spring **1**.
- Loosen nut 2 and, with push rod 3, turn it back until you have maximum free travel.
- To adjust the basic position of the foot brake lever to individual requirements, loosen nut 4 and turn screw 5 accordingly.

• Info The

The range of adjustment is limited.

 Turn push rod 3 accordingly until you have free travel A. If necessary, adjust the basic position of the foot brake lever.

Guideline

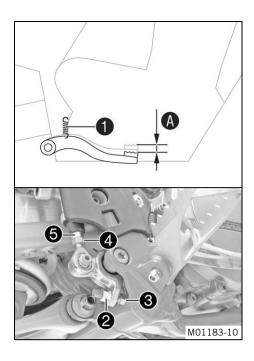
Free travel at foot brake lever	3 5 mm (0.12 0.2 in)
---------------------------------	----------------------

- Hold screw **(5)** and tighten nut **(4)**.

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

Hold push rod ③ and tighten nut ②.
 Guideline

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



- Attach spring 1.

(All 250/300 models)

- Disconnect spring **1**.
- Loosen nut **2** and, with push rod **3**, turn it back until you have maximum free travel.
- To adjust the basic position of the foot brake lever to individual requirements, loosen nut 4 and turn screw 5 accordingly.

• Info

- The range of adjustment is limited.
- Turn push rod ③ accordingly until you have free travel ④. If necessary, adjust the basic position of the foot brake lever.

Guideline

Free travel at foot brake lever3 5 mm (0.12 0.2 in)

- Hold screw **(5)** and tighten nut **(4)**.

 Guideline

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

Hold push rod **3** and tighten nut **2**. Guideline

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

Attach spring 1.

12.10 Checking the rear brake fluid level

Warning

Danger of accidents Brake system failure.

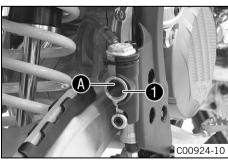
- If the brake fluid level drops below the specified marking or the specified value, this is an indication that the brake system is leaking or that the brake linings are completely worn down. Check the brake system and do not continue riding. (Your authorized KTM workshop will be glad to help.)

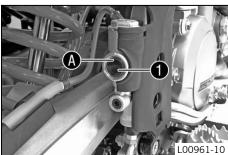


Warning

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.)





Preparatory work

- Check the rear brake linings. (* p. 82)

Main work

(All 125/150 models)

- Stand the vehicle upright.
- Check the brake fluid level in level viewer ①.
 - » If the brake fluid has dropped below marking (A):
 - Add rear brake fluid. 🔧 (🕶 p. 81)

(All 250/300 models)

- Stand the vehicle upright.
- Check the brake fluid level in level viewer 1.
 - » If the brake fluid has dropped below marking A:
 - Add rear brake fluid. 🔦 (🕶 p. 81)

12.11 Adding rear 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

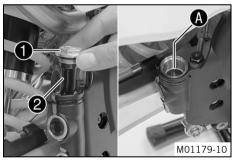
Environmental hazard Hazardous substances cause environmental damage.

- 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.



Preparatory work

Check the rear brake linings. (* p. 82)

Main work (All 125/150 models)

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

Brake fluid DOT 4 / DOT 5.1 (* p. 134)

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



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(All 250/300 models)

Info

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

Brake fluid DOT 4 / DOT 5.1 (* p. 134)

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



Clean up overflowed or spilled brake fluid immediately with water.

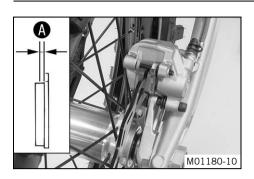
Clean up overflowed or spilled brake fluid immediately with water.



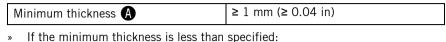
12.12 Checking the rear brake linings

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.)



- Check the brake linings for minimum thickness $oldsymbol{\mathbb{A}}$.



- − Change the rear brake linings. ◀ (♥ p. 82)
- Check the brake linings for damage and cracking.
 - » If damage or cracking is visible:
 - Change the rear brake linings. 🔌 (* p. 82)

12.13 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

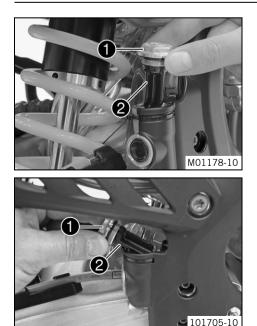
Environmental hazard Hazardous substances cause environmental damage.

- 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.

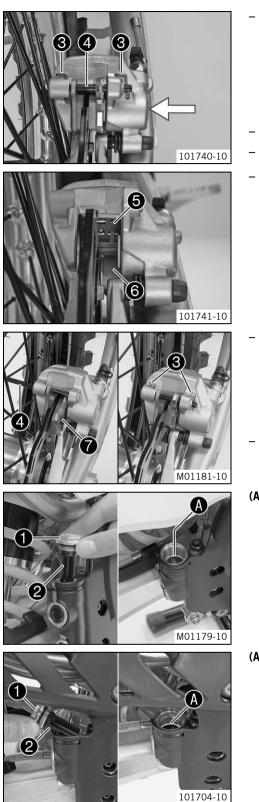


(All 125/150 models)

- Stand the vehicle upright.
- Remove screw cap 1 with membrane 2 and the O-ring.

(All 250/300 models)

- Stand the vehicle upright.
- Remove screw cap 1 with membrane 2 and the O-ring.



- Manually press the brake caliper to the brake disc to push back the brake piston. Ensure that brake fluid does not flow out of the brake fluid reservoir, extracting it by suction if it does.

Info

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

- Remove cotter pins (3), pull out pin (4), and remove the brake linings.
- Clean the brake caliper and brake caliper support.
- Check that leaf spring **(5)** in the brake caliper and sliding plate **(6)** in the brake caliper support are seated correctly.
 - **Info** The arrow on the leaf spring points in the rotation direction of the brake disc.
- Insert the new brake linings, insert pin 4, and mount cotter pins 3.

lnfo

Always change the brake linings in pairs.

- Make sure that decoupling plate $\boldsymbol{7}$ is mounted on the piston side brake lining.
- Operate the foot brake lever repeatedly until the brake linings are in contact with the brake disc and there is a pressure point.

(All 125/150 models)

Add brake fluid to level 🚯.

Brake fluid DOT 4 / DOT 5.1 (* p. 134)

Mount and tighten screw cap 1 with membrane 2 and the O-ring.

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

(All 250/300 models)

Add brake fluid to level A.

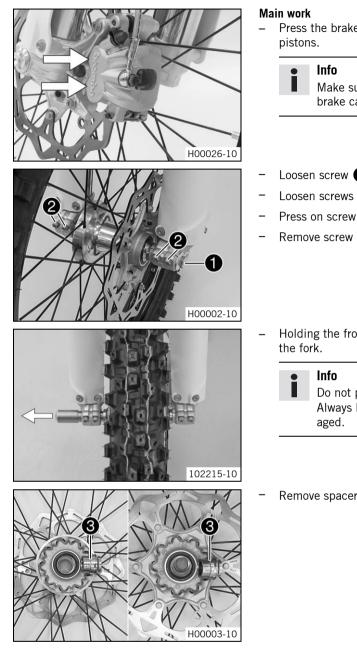
Brake fluid DOT 4 / DOT 5.1 (🕶 p. 134)

Mount and tighten screw cap 1 with membrane 2 and the O-ring.



Clean up overflowed or spilled brake fluid immediately with water.

13.1 Removing the front wheel 🔌

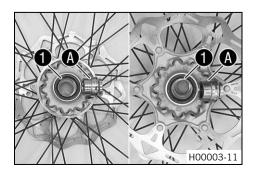


13.2 Installing the front wheel 🔌

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.



- Preparatory work
- Raise the motorcycle with a lift stand. (p. 44) _
 - Press the brake caliper onto the brake disc by hand in order to push back the brake

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

- Loosen screw 1 by several rotations.
- Loosen screws **2**.
- Press on screw 1 to push the wheel spindle ouf of the axle clamp.
- Remove screw 1.
- Holding the front wheel, withdraw the wheel spindle. Take the front wheel out of

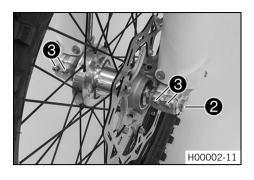
Do not pull the hand brake lever when the front wheel is removed.

Always lay the wheel down in such a way that the brake disc is not dam-

Remove spacers 3.

- Check the wheel bearing for damage and wear. _
 - If the wheel bearing is damaged or worn: »
 - Change the front wheel bearing.
- Clean and grease shaft seal rings 1 and bearing surface A of the spacers. Long-life grease (* p. 136)

Insert the spacers.



- Lift the front wheel into the fork, position it, and insert the wheel spindle.
 - \checkmark The brake linings are correctly positioned.
- Mount and tighten screw **2**.

Guideline

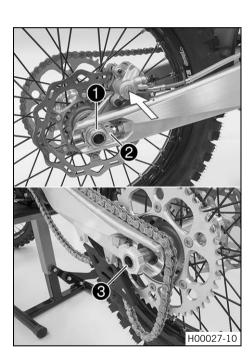
Screw, front wheel spindle	M20x1.5	35 Nm (25.8 lbf ft)	
----------------------------	---------	------------------------	--

- Operate the hand brake lever several times until the brake linings are lying correctly against the brake disc.
- Remove the motorcycle from the lift stand. (* p. 44)
- Activate the front brake and compress the fork a number of times forcefully to align the fork legs.
- Tighten screws 🚯.

Guideline

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

13.3 Removing the rear wheel 🔌



Preparatory work

Main work

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



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

- Remove nut 🚺.
- Remove chain adjuster 2. Withdraw wheel spindle 3 only enough to allow the rear wheel to be pushed forward.
- Push the rear wheel forward as far as possible. Remove the chain from the rear sprocket.

Info

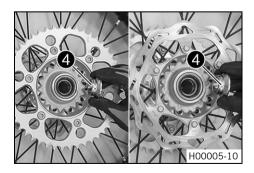
Protect the components against damage by covering them.

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.

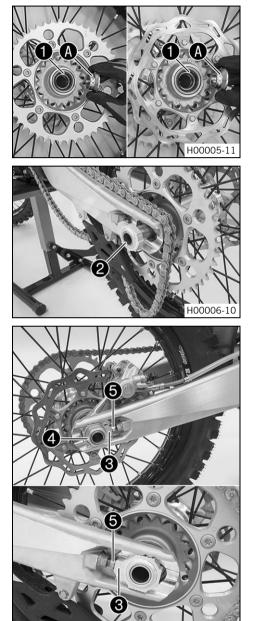
Remove spacers 4.



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 damaged or worn:
 - Change the rear wheel bearing.
- Clean and grease shaft seal rings 1 and bearing surface (A) of the spacers.

Long-life grease (🕶 p. 136)

- Insert the spacers.
- Position the rear wheel and insert wheel spindle $oldsymbol{2}$.
 - ✓ The brake linings are correctly positioned.
- Mount the chain.
- Position chain adjuster (3). Mount nut (4), but do not tighten it yet.
- Make sure that chain adjusters ③ are fitted correctly on adjusting screws ⑤.
- Check the chain tension. (* p. 67)
- Tighten nut 4.

Guideline		
Nut, rear wheel spindle	M25x1.5	80 Nm (59 lbf ft)

Info

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

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

Finishing work

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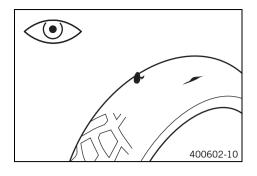
- Remove the motorcycle from the lift stand. (* p. 44)

13.5 Checking the tire condition

• Info

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

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

Info

Note local national regulations concerning the minimum tread depth.

Minimum tread depth	≥ 2 mm (≥ 0.08 in)
initialit troud doptil	

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

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 indicate the week of manufacture and the last two digits the year of manufacture.

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

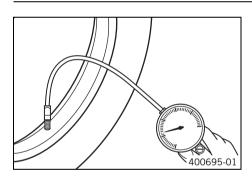
- If the tire is older than five years:
 - Change the tire.

13.6 Checking the tire air pressure

Info

Low tire air pressure leads to abnormal wear and overheating of the tire.

Correct tire air pressure ensures optimal riding comfort and maximum tire service life.



- Remove the dust 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 dust cap.

13.7 Checking the spoke tension

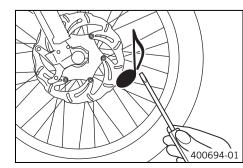
Warning

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.)

Info

A loose spoke causes wheel imbalance and rapidly leads to more loose spokes. 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 tip of a screwdriver.



The tone frequency depends on the length of the spoke and the spoke diameter.

If you hear different tone frequencies from different spokes of equal length and diameter, this is an indication of different spoke tensions.

You should hear a high note.

- » If the spoke tension varies:
 - Correct the spoke tension. 🔦
- Check the spoke torque.

Guideline

Spoke nipple, front wheel	M4.5	6 Nm (4.4 lbf ft)
Spoke nipple, rear wheel	M4.5	6 Nm (4.4 lbf ft)
Torque wrench with various accessories i	in set (58429094000))

14 ELECTRICAL SYSTEM

14.1 Removing the battery 🔌 (All XC models)

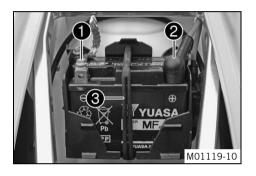
Warning

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

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

Preparatory work

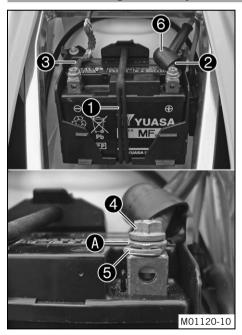
- Switch off all power consumers and the engine.
- Remove the seat. (* p. 56)



Main work

- Disconnect negative cable 1 from the battery.
- Pull back the positive terminal cover ② and disconnect the positive cable from the battery.
- Detach rubber band 3 at the bottom.
- Lift the battery up.

14.2 Installing the battery 🔌 (All XC models)



Main work
 Insert the battery into the battery compartment with the terminals facing to the front.

Battery (YTX4L-BS) (🕶 p. 127)

- Attach rubber band ①.
- Position positive cable 2, and mount and tighten the screw.
 Guideline

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

• Info

Contact disks (A) must be mounted between screws (4) and cable sockets (5) with the claws facing down.

- Slide positive terminal cover 6 over the positive terminal.
- Position negative cable **3**, and mount and tighten the screw.

Guideline

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

Finishing work

– Mount the seat. (🕶 p. 56)

14 ELECTRICAL SYSTEM



14.3 Recharging the battery 🔌 (All XC models)

Warning

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

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

Warning

Environmental hazard The battery contains elements that are harmful to the environment.

Do not dispose of batteries with the household waste. Dispose of a defective battery in an environmentally friendly manner. Give the battery to your authorized KTM dealer or dispose of it at a collection point for used batteries.

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

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

The charging level and the method of charging are very important for the service life of the battery.

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

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

If the battery is depleted by repeated starting, the battery must be charged immediately.

If the battery is left in a discharged state for an extended period, it will become over-discharged and sulfated, destroying the battery.

The battery is maintenance-free. The acid level does not have to be checked.

Preparatory work

- Switch off all power consumers and switch off the engine.
- Remove the seat. (p. 56)
- To prevent damage to the onboard electronics, disconnect the negative cable from the battery.

Main work

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

Battery charger (58429074000)

In addition, this battery charger can be used to test the quiescent current, the start ability of the battery, and the alternator. With this device, you cannot overcharge the battery.

Info

Never remove lid 1.

Charge the battery to a maximum of 10% of the capacity specified on battery housing **2**.

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

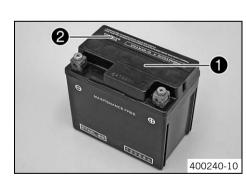
Guideline

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

Connect the negative cable with the battery.

Finishing work

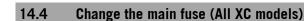
Mount the seat. (* p. 56)







14 **ELECTRICAL SYSTEM**



Warning

Fire hazard The electrical system can be overloaded if the wrong fuses are used.

- Use only fuses with the prescribed amperage. Never bypass or repair fuses.

Info

The main fuse protects all power consumers of the vehicle. It is located in the starter relay housing under the air filter box cover.

Main work Remove screw 1. _ L01202-10 _ 3 2 L01203-10 Remove protection caps 4. Remove the faulty main fuse **5**. 5 Info Install a new main fuse. Fuse (58011109110) (* p. 127) 101397-10

Preparatory work

- Switch off all power consumers and switch off the engine. _
- Remove the air filter box cover. (p. 57)

Lift rear fairing **2** slightly and pull starter relay **3** out of the holder.

A defective fuse is indicated by a burned-out fuse wire (A). A spare fuse **6** is located in the starter relay.

Check that the electrical equipment is functioning properly.

Tip

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

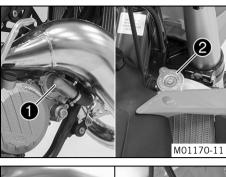
- Mount the protection caps. _
- Mount the starter relay onto the holder and lay the cable.
- Position the rear fairing. Mount and tighten the screw. Guideline

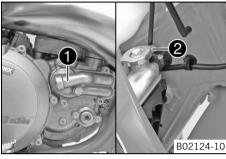
|--|

Finishing work

Install the air filter box cover. (* p. 58)

15.1 **Cooling system**





(All 125/150 models)

Water pump 1 in the engine ensures forced circulation of the coolant. The pressure resulting from the warming of the cooling system is regulated by a valve in radiator cap 2. 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.

(All 250/300 models)

The water pump **1** in the engine ensures forced circulation of the coolant. The pressure resulting from the warming of the cooling system is regulated by a valve in radiator cap 2. 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.

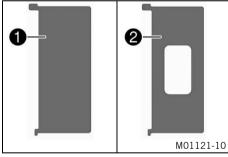
15.2 Radiator cover (All 125/150 models)



The radiator cover is mounted in front of the left radiator between the radiator shield and radiator.

The radiator cover keeps the coolant temperature in the correct range.

Coolant temperature	65 70 °C (149 158 °F)
---------------------	-----------------------



The radiator cover is installed in front of the left radiator, depending on the ambient temperature.

Full radiator cover 1	< 7 °C (< 45 °F)	
Half radiator cover 2	7 16 °C (45 61 °F)	
No radiator cover > 16 °C (> 61 °F)		
Do not use both radiator covers at the same time.		

Do not use both radiator covers at the same time.

15.3 Installing the radiator cover (All 125/150 models)

- 3 M01124-10
- Remove screws 1.
- Remove screws **2**.
- Take off radiator shield 3.

M01125-01	•	
1 Guideline 2 Mount and tig Guideline	hten screws 2. crews, chassis M6 hten screws 1. crews, chassis M6	10 Nm (7.4 lbf ft) 10 Nm (7.4 lbf ft)
15.4 Removing the radiator cover (All 125/150 mod	lels)	
 Remove screw Remove screw Remove screw Take off radia Remove the radia Remove the radia Mount and tig Guideline Remaining stremaining stremainining stremaining stremainining stre	rs ①. rs ②. tor shield ③. adiator cover.	10 Nm (7.4 lbf ft)

15.5 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.

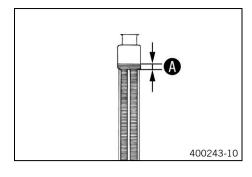


Warning

Danger of poisoning Coolant is poisonous and a health hazard.

 Coolant must not come into contact with the skin, eyes, or clothing. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with coolant. Keep coolant out of reach of children.

> **Condition** The engine is cold.



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

-	-2545 °C (-1349 °F)
»	If the antifreeze in the coolant does not match the specified value:

- Correct the coolant antifreeze.
- Check the coolant level in the radiator.

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

- » If the coolant level does not match the specified value:
 - Correct the coolant level.

Coolant (🗲 р.	134)	

- Mount the radiator cap.

15.6 Checking the coolant level

Warning

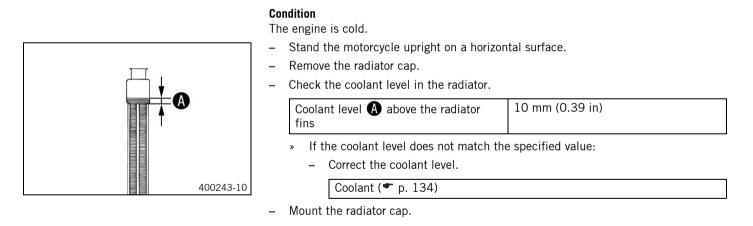
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

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.

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 Coolant must not come into contact with the skin, eyes, or clothing. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with coolant. Keep coolant out of reach of children.



15.7 Draining the coolant 🔦

Warning Danger of

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

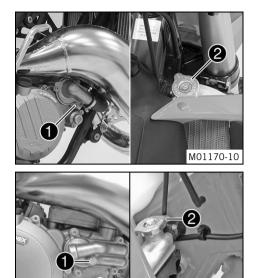
Do not remove the radiator cap, radiator hoses or other cooling system components when the engine is hot. Allow the
engine and cooling system to cool down. In case of scalding, rinse immediately with lukewarm water.



Warning

Danger of poisoning Coolant is poisonous and a health hazard.

 Coolant must not come into contact with the skin, eyes, or clothing. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with coolant. Keep coolant out of reach of children.



- Position the motorcycle upright.
- Place a suitable container under the water pump cover.

(All 125/150 models)

- Remove screw **1**. Take off radiator cap **2**.
- Completely drain the coolant.
- Mount and tighten screw
 with a new seal ring.
 Guideline

 Guideline
 Guideline
 Guideline
 Guideline

Drain plug, water pump cover	M6	8 Nm (5.9 lbf ft)
------------------------------	----	-------------------

(All 250/300 models)

- Remove screw 1. Take off radiator cap 2.
- Completely drain the coolant.
- Mount and tighten screw
 with a new seal ring.
 Guideline

(11.1 lbf ft)	Drain plug, water pump cover	M10x1	15 Nm (11.1 lbf ft)
---------------	------------------------------	-------	------------------------

15.8 Refilling with coolant 🔦

Warning

Danger of poisoning Coolant is poisonous and a health hazard.

M01172-10

B02124-11

 Coolant must not come into contact with the skin, eyes, or clothing. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that is contaminated with coolant. Keep coolant out of reach of children.



(All 125/150 models)

- Make sure that screw 1 is tightened.

- Position the motorcycle upright.
- Completely fill the radiator with coolant.

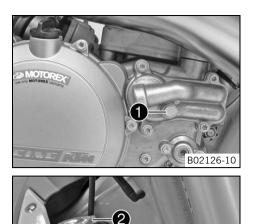
	Coolant	1.2 I (1.3 qt.)	Coolant (* p. 134)
--	---------	-----------------	--------------------

- Mount radiator cap **2**.



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.
- Allow the engine to warm up and cool down again.
- Check the coolant level. (* p. 94)



(All 250/300 models)

- Make sure that screw 1 is tightened.

- Position the motorcycle upright.
- Completely fill the radiator with coolant.

Coolant	1.2 l (1.3 qt.)	Coolant (* p. 134)
	0	

- Mount radiator cap **2**.

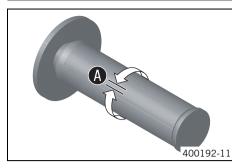


B02127-10

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.
- Allow the engine to warm up and cool down again.
- Check the coolant level. (* p. 94)

16.1 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 back and forth slightly to determine the play in throttle cable \mathbf{A} .

2... 3 mm (0.08... 0.12 in) Play in throttle cable

- If the throttle cable play does not meet specifications:
 - Adjust the play in the throttle cable. \checkmark (\checkmark p. 97)



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 let it run idle. Move the handlebar to and fro over the entire steering range.

The idle speed must not change.

- If the idle speed changes:
 - Adjust the play in the throttle cable. \checkmark (\checkmark p. 97)

16.2 Adjusting the play in the throttle cable 🔧

Preparatory work

Remove the seat. (* p. 56)

(All 125/150 models)

Turn handle 1 of the fuel tap to the OFF position. (Figure M01127-10 p. 14)

(250 SX)

Turn handle **1** of the fuel tap to the **OFF** position. (Figure B02072-10 • p. 14)

(All XC models)

- Turn handle **1** of the fuel tap to the **OFF** position. (Figure L00904-10 • p. 14)
- Remove the fuel tank. \checkmark (\checkmark p. 63) _
- Check the routing of the throttle cable. (71) _

Main work

- 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 $\mathbf{2}$. _
- Loosen nut 3.
- Turn adjusting screw (2) in such a way there is throttle cable play (A) in the throt-_ tle grip.

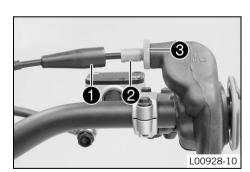
Guideline

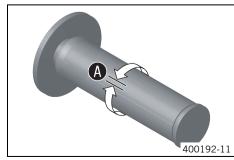
Play in throttle cable	2 3 mm (0.08 0.12 in)
------------------------	-----------------------

- Tighten nut 3.
- Slide on sleeve 1.

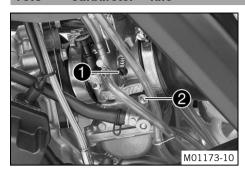
Finishing work

- Check the throttle grip for smooth operation.
- Install the fuel tank. 🔌 (🕶 p. 64)
- Mount the seat. (* p. 56)





16.3 Carburetor – idle



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

Info

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

The factory setting for the carburetor is set for the following values.

(All 125/150 models)

Height above sea level	500 m (1,640 ft)
Ambient temperature	20 °C (68 °F)
Super unleaded (98 octane) mixed with 2-stroke engine oil (1:40) (* p. 135)	

(All 250/300 models)

Height above sea level	500 m (1,640 ft)		
Ambient temperature	20 °C (68 °F)		
Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60) (p. 135)			

The idle speed is adjusted with adjusting screw 1.

The idle mixture is adjusted with the idle air adjusting screw $\mathbf{2}$.

Idle air range A

Operation with the throttle slide closed. This range is influenced by adjusting screw (1) and the idle air adjusting screw (2).

Transition range B

Behavior of the engine when the throttle slide is being opened. This range is influenced by the idling jet and by the form of the throttle slide.

If the engine sputters and smokes heavily when it starts despite a good idle and partload setting, and if it abruptly reaches full power at a high rpm, the carburetor setting is too rich, the float level is too high, or the float needle valve is leaky.

Part-load range C

Operation with the throttle slide partially open. This range is influenced by the jet needle (form and position). The idle setting influences the engine tuning in the lower range, and the main jet influences the engine tuning in the upper range.

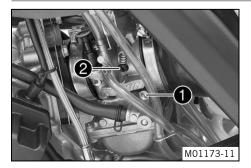
If the engine stutters when accelerating with a partially open throttle slide, the jet needle must be lowered by one notch. If the engine knocks when accelerating at the full power rpm range, the jet needle must be raised. If the phenomena described above occur during idling or just above, the idling system must be regulated more leanly during stuttering and less so during knocking.

Full-load range D

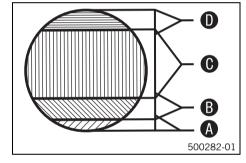
Operation with the throttle slide open (full throttle). This range is influenced by the main jet and jet needle.

If the insulator of a new spark plug is very light or white after a brief ride at full throttle, or if the engine knocks, a larger main jet needs to be used. If the insulator is dark brown or sooty, a smaller main jet needs to be used.

16.4 Carburetor – adjusting the idle speed 🔧



- Screw in idle air adjusting screw 1 all the way and turn it to the specified basic position.



Check the play in the throttle cable. (p. 97)

Guideline

Idle air adjusting screw (All 125 models)		
Open	2 turns	
Idle air adjusting screw (All 150 models)		
Open	1 turn	
Idle air adjusting screw (250 SX)		
Open	2 turns	
Idle air adjusting screw (250 XC)		
Open	2 turns	
Idle air adjusting screw (300 XC)		
Open	2 turns	

- Run the engine until warm.

Guideline

Warm-up time ≥ 5 min



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.
- Adjust the idle speed with adjusting screw **2**.

Guideline

Choke function deactivated – The choke lever is pushed in to the stop. (* p. 15)Idle speed1,400... 1,500 rpm

- Turn idle air adjusting screw 1 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 again begins to fall.
- Adjust to the point between these two positions with the highest idle speed.

Info

If there is a big engine speed rise, reduce the idle speed to a normal level and repeat the above steps.

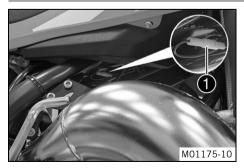
If the procedure described here does not lead to satisfactory results, the cause may be a wrongly dimensioned idling jet.

If you can turn the idle air adjusting screw to the end without any change of engine speed, mount a smaller idling jet.

After changing the jet, start from the beginning with the adjusting steps.

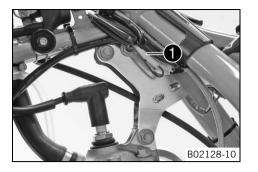
Following extreme air temperature or altitude changes, adjust the idle speed again.

16.5 Ignition curve plug-in connector



(All 125/150 models)

The plug-in connector **1** is located on the frame under the fuel tank.



(All 250/300 models)

The plug-in connector **1** is located on the frame under the fuel tank.

Possible states

(All 125/150 models)

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

(All 250/300 models)

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

16.6 Changing the ignition timing map

Preparatory work

(All XC models)

- Remove the seat. (* p. 56)
- Turn handle 1 of the fuel tap to the OFF position. (Figure L00904-10 r. 14)
- Remove the fuel tank. A (

 p. 63)

Switch the ignition timing map from Performance to Soft

(All 125/150 models)

- Disconnect the plug-in connector **①** of the ignition timing map. (Figure M01175-10 ***** p. 100)
 - 🖌 Soft better rideability

(All 250/300 models)

- Disconnect the plug-in connector ① of the ignition timing map. (Figure B02128-10 p. 100)
 - ✓ Soft better rideability

Switch the ignition timing map from Soft to Performance

(All 125/150 models)

- Connect the plug-in connector 1 of the ignition timing map. (Figure M01175-10 p. 100)
 - Performance better performance

(All 250/300 models)

- Connect the plug-in connector **()** of the ignition timing map. (Figure B02128-10 ***** p. 100)
 - Performance better performance

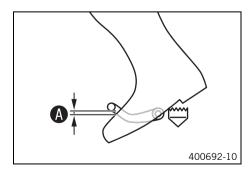
Finishing work (All XC models)

- Install the fuel tank. \checkmark (* p. 64)
- Mount the seat. (* p. 56)

16.7 Checking the basic position of the shift lever

• Info

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



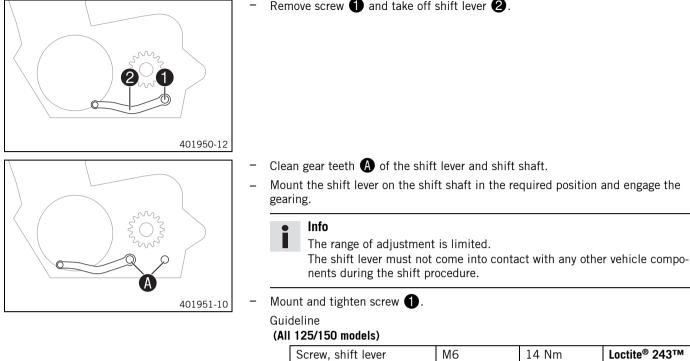
- Sit on the vehicle in the riding position and determine distance (A) between the upper edge of your boot and the shift lever.

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

- » If the distance does not meet specifications:
 - Adjust the basic position of the shift lever. \checkmark (\checkmark p. 101)

16.8 Adjusting the basic position of the shift lever 🔌



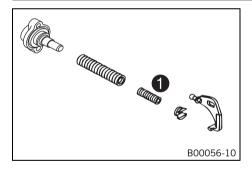


(All 250/300 models)

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

(10.3 lbf ft)

16.9 Engine characteristic – auxiliary spring (All 250/300 models)



The auxiliary spring is located on the right side of the engine below the water pump cover.

Possible states

- Auxiliary spring with yellow marking Auxiliary spring mounted at the factory with . medium tuning (standard) for good rideability.
- Auxiliary spring with green marking Auxiliary spring for even softer performance.
- Auxiliary spring with red marking Auxiliary spring for aggressive performance.

The engine characteristic can be influenced by different spring strengths of auxiliary spring 1.

16.10 Engine characteristic – setting the auxiliary spring 🔌 (All 250/300 models)

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.

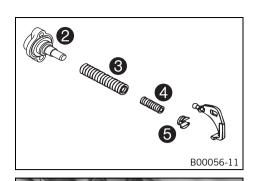


Preparatory work

Tilt the motorcycle approx. 45° to the left and secure it to prevent it from falling.

Main work

Remove screws 1.



- Remove cap **2**, adjusting spring **3**, auxiliary spring **4**, and spring insert **5** from the clutch cover.
- Pull both springs off of the spring insert.
 - Mount the required auxiliary spring **4** and adjusting spring **3** and position them together in the clutch cover.

Auxiliary spring with yellow marking (54637072300)
Auxiliary spring with green marking (54837072100)
Auxiliary spring with red marking (54837072000)

 \checkmark The recess in spring insert **5** engages in the angle lever.

Info

_

B02130-10

Screw **6** must not be turned as this would worsen the engine characteristic.

- Check the O-ring in the cap.
- Position the cap.
- Mount and tighten the screws.

Guideline

Screw, exhaust control cover	M5	6 Nm (4.4 lbf ft)
------------------------------	----	-------------------



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.
- The fuel in the fuel tank expands when warm and may emerge if overfilled. Follow the instructions on refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with
the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with
soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that has been contaminated with
fuel. Store fuel properly in a suitable canister and keep away from 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.

Preparatory work (All 125/150 models)

- Turn handle 1 of the fuel tap to the OFF position.
 - (Figure M01127-10 p. 14)
 - ✓ Fuel no longer flows from the fuel tank to the carburetor.

(250 SX)

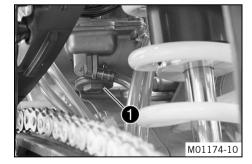
- Turn handle 1 of the fuel tap to the OFF position.
 (Figure B02072-10 p. 14)
- Fuel no longer flows from the fuel tank to the carburetor.

(All XC models)

- Turn handle **1** of the fuel tap to the **OFF** position.
 - (Figure L00904-10 ***** p. 14)
- \checkmark Fuel no longer flows from the fuel tank to the carburetor.

Main work

- Place a cloth under the carburetor to capture the draining fuel.
- Remove screw plug 1.
- Fully drain the fuel.
- Mount and tighten the screw plug.



17.2 Checking the gear oil level

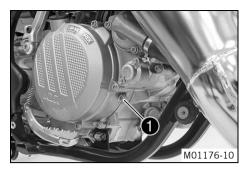
Info

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

Preparatory work

- Stand the motorcycle upright on a horizontal surface.

B02132-10



Main work

(All 125/150 models)

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

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

- If no gear oil runs out:
 - Add gear oil. A (* p. 106)
- Mount and tighten the gear oil monitoring screw.

Guideline

Screw, gear oil level check	M6	8 Nm (5.9 lbf ft)
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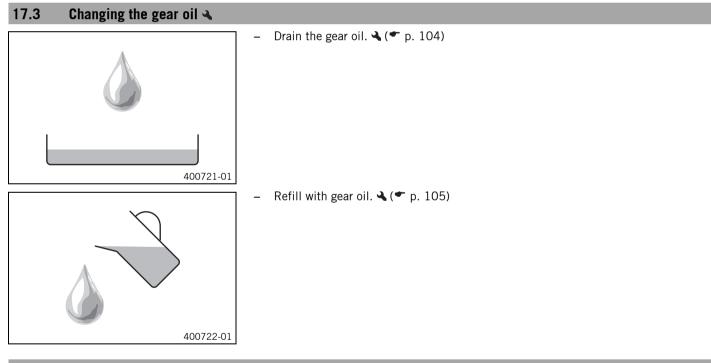
(All 250/300 models)

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

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

- » If no gear oil runs out:
 - Add gear oil. 🔌 (🕶 p. 106)
- Mount and tighten the gear oil monitoring screw.

Guideline		
Screw, gear oil level check	M6	10 Nm (7.4 lbf ft)



17.4 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

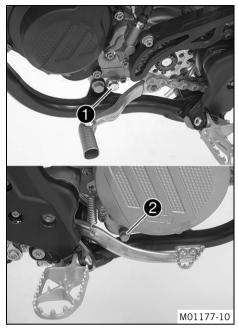
Environmental hazard Hazardous substances cause environmental damage.

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



Info

Drain the gear oil while the engine is warm.



Preparatory work

- Park the motorcycle on a level surface.
- Place a suitable container under the engine.

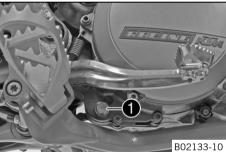
Main work

(All 125/150 models)

- Remove the gear oil drain plug with magnet 1.
- Remove gear oil drain plug **2**.
- Let the gear oil drain fully.
- Clean the gear oil drain plug thoroughly.
- Clean the sealing surface on the engine.
- Mount and tighten gear oil drain plug with magnet ① and seal ring.
 Guideline

Mount gear oil drain plug ② with the seal ring and tighten.
 Guideline

Gear oil drain plug	M10x1	15 Nm (11.1 lbf ft)	
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(All 250/300 models)

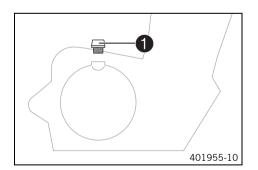
- Remove the gear oil drain plug with magnet 1.
- Let the gear oil drain fully.
- Thoroughly clean the gear oil drain plug with magnet.
- Clean the sealing surface on the engine.
- Mount and tighten gear oil drain plug with magnet 1 and seal ring.
 Guideline

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

• Info

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



Main work

Remove filler plug **1** and fill up with gear oil.

Gear oil 0.80 I (0.85 qt.) Engine oil (15W/50) (* p. 134)

Mount and tighten the oil filler plug.

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.

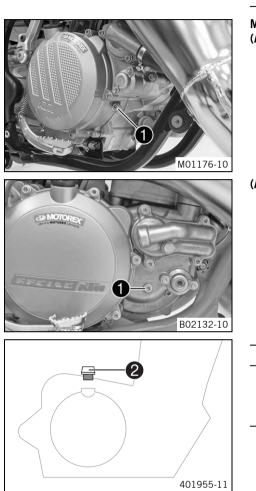
Finishing work

- Check the gear oil level. (🕶 p. 103)

17.6 Adding gear oil 🔦

• Info

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



Preparatory work

Park the motorcycle on a level surface.

Main work

(All 125/150 models)

- Remove the gear oil monitoring screw 1.

(All 250/300 models)

- Remove the gear oil monitoring screw 1.

- · Remove filler plug 2.
- Fill in gear oil until it emerges from the drilled hole of the gear oil monitoring screw.

Engine oil (15W/50) (🕶 p. 134)
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- Mount and tighten the gear oil monitoring screw.

Guideline

(All 125/150 models)

	Screw, gear oil level check	M6	8 Nm (5.9 lbf ft)	
(All 250/300 models)				
	Screw, gear oil level check	M6	10 Nm	

(7.4 lbf ft)

Mount and tighten filler plug 2.

Finishing work

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.

18 CLEANING, CARE

18.1 Cleaning the 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.

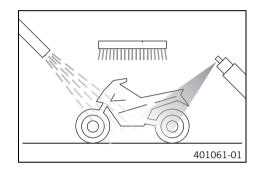
Warning

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 sunlight on the motorcycle during cleaning.



- Close off the exhaust system to prevent water from entering.
- Remove coarse dirt particles by spraying gently with water.
- Spray very dirty areas with a normal motorcycle cleaner and then clean with a soft brush.

Motorcycle cleaner (* p. 136)

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.
- Empty the carburetor float chamber. 🔌 (🕶 p. 103)
- Remove the plug from the exhaust system.



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, take a short ride until the engine reaches operating temperature.

Info

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

- After the motorcycle has cooled off, lubricate all moving parts and bearings.
- Clean the chain. (🕶 p. 66)
- Treat bare metal parts (except for brake discs and exhaust system) with anti-corrosion materials.

Preserving materials for paints, metal and rubber (* p. 136)

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

Special cleaner for glossy and matte paint finishes, metal and plastic surfaces (* p. 136)

19 STORAGE

19.1 Storage

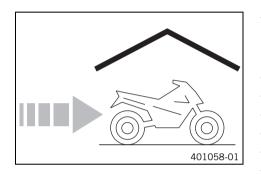
Warning

Danger of poisoning Fuel is poisonous and a health hazard.

Fuel must not come into contact with the skin, eyes, or clothing. Do not breathe in the fuel vapors. If contact occurs with the eyes, rinse with water immediately and contact a physician. Immediately clean contaminated areas on the skin with soap and water. If fuel is swallowed, contact a physician immediately. Change clothing that has been contaminated with fuel. Store fuel properly in a suitable canister and keep away from children.

Info

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



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

Fuel additive (* p. 136)

- Refuel. (🕶 p. 26)
- Clean the motorcycle. (* p. 107)
- Change the gear oil. 🔌 (🕶 p. 104)
- Check the antifreeze and coolant level. (
 p. 93)
- Empty the carburetor float chamber. 🔌 (* p. 103)
- Check the tire air pressure. (* p. 87)

(All XC models)

– Remove the battery. 🔧 (* p. 89)

(All XC models)

- Recharge the battery. 🔧 (🕶 p. 90)

Guideline				
Storage temperature of battery with- out direct sunshine	0 35 °C (32 95 °F)			

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

Info

KTM recommends jacking up the motorcycle.

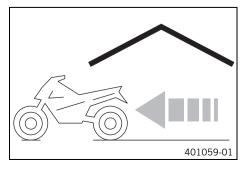
- Raise the motorcycle with a lift stand. (P. 44)
- Cover the vehicle with a tarp or similar cover that is permeable to air.

lnfo

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

Avoid running the engine for a short time only. Because the engine will not warm up sufficiently, the water vapor produced during combustion will condense, causing engine parts and the exhaust system to rust.

19.2 Preparing for use after storage



(All XC models)

- Install the battery. 🔌 (🕶 p. 89)
- Remove the motorcycle from the lift stand. (* p. 44)
- Perform checks and maintenance work when preparing the vehicle for use.
 (* p. 23)
- Make a test ride.

20 TROUBLESHOOTING

Faults	Possible cause	Action
The engine cannot be cranked (elec-	Operating error	- Carry out the start procedure. (* p. 23)
tric starter)	Battery discharged	– Recharge the battery. 🔌 (* p. 90)
(All XC models)		 Check the charging voltage.
		 Check the closed current.
		 Check the alternator.
	Main fuse is blown	– Remove the main fuse.
		– Install the main fuse.
	Starter relay faulty	– Check the starter relay. 🔧
	Starter motor faulty	 Check the starter motor.
Engine turns but does not start	Operating error	 Carry out the start procedure. (
	Motorcycle was out of use for a long time and there is old fuel in the float chamber	 Empty the carburetor float chamber. (* p. 103)
	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	 Adjust the plug gap.
	plug too wide	Guideline (All 125/150 models) Spark plug electrode gap 0.60 mm (0.0236 in)
		(All 250/300 models) Spark plug electrode gap 0.60 mm (0.0236 in)
	Fault in ignition system	– Check the ignition system. 🔧
	Kill switch cable in wiring harness frayed, kill switch defective	 Check the kill switch.
	The connector or ignition coil is loose or oxidized	 Clean the connector 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 dis- torted	 Carburetor – adjust the idle speed. (* p. 98)
	Spark plug defective	 Change the 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. 🔦
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. 59)
-	Exhaust system leaky, deformed or too little glass fiber yarn filling in main silencer	 Check exhaust system for damage. Change glass fiber yarn filling in the main silencer. ◄ (♥ p. 62)
	Fault in ignition system	 Check the ignition system.
	Diaphragm or reed valve housing damaged	 Check the diaphragm and reed valve housing.

20 TROUBLESHOOTING

Faults	Possible cause	Action
Engine stalls or is popping into the carburetor	Lack of fuel	 (All 125/150 models) Turn handle ① of the fuel tap to the ON position. (Figure M01127-10 ♥ p. 14) (250 SX) Turn handle ① of the fuel tap to the ON position. (Figure B02072-10 ♥ p. 14) (All XC models) Turn handle ① of the fuel tap to the ON position. (Figure L00904-10 ♥ p. 14) (All XC models) Turn handle ① of the fuel tap to the RES
		position. (Figure L00904-10 • p. 14) - Refuel. (• p. 26)
	Engine takes in bad air	 Check the intake flange and carburetor for tightness.
	The connector or ignition coil is loose or oxidized	 Clean the connector and treat it with contact spray.
Engine overheats	Too little coolant in cooling system	 Check the cooling system for leakage.
		 Check the coolant level. (
	Too little air stream	 Switch off engine when stationary.
	Radiator fins very dirty	 Clean the radiator fins.
	Foam formation in cooling system	– Drain the coolant. ◀ (♥ p. 94)
		– Refill with coolant. 🔌 (🕶 p. 95)
	Damaged cylinder head or cylinder head gasket	 Check the cylinder head and 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 and cylinder head gasket.
Gear oil exits at the vent hose	Too much gear oil added	- Check the gear oil level. (* p. 103)
Water in the gear oil	Damaged shaft seal ring or water pump	 Check the shaft seal ring and water pump.

21.1 Engine

21.1.1 All 125 models

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control		
Displacement	124.8 cm ³ (7.616 cu in)		
Stroke	54.5 mm (2.146 in)		
Bore	54 mm (2.13 in)		
Crankshaft bearing	1 grooved ball bearing/1 roller bearing		
Conrod bearing	Needle bearing		
Piston pin bearing	Needle bearing		
Pistons	Cast aluminum		
Piston rings	2 half keystone rings		
X (upper edge of piston to upper edge of cylinder)	0 0.10 mm (0 0.0039 in)		
Z (height of control flap)	36.5 mm (1.437 in)		
Primary transmission	23:73		
Clutch	Multidisc clutch in oil bath/hydraulically activated		
Gearbox	6-gear, claw shifted		
Transmission ratio			
First gear	14:32		
Second gear	15:30		
Third gear	17:28		
Fourth gear	20:28		
Fifth gear	19:23		
Sixth gear 22:24			
Ignition Contactless controlled fully electronic ignition with tion adjustment, type Kokusan			
Spark plug	NGK BR9 ECMVX		
Spark plug electrode gap	0.60 mm (0.0236 in)		
Starting aid	Kick starter		

21.1.2 All 150 models

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control		
Displacement	144 cm ³ (8.79 cu in)		
Stroke	54.5 mm (2.146 in)		
Bore	58 mm (2.28 in)		
Crankshaft bearing	1 grooved ball bearing/1 roller bearing		
Conrod bearing	Needle bearing		
Piston pin bearing	Needle bearing		
Pistons	Forged aluminum		
Piston rings	1 rectangular ring, 1 half keystone ring		
X (upper edge of piston to upper edge of cylinder)	0 0.10 mm (0 0.0039 in)		
Z (height of control flap)	36.5 mm (1.437 in)		
Primary transmission	23:73		
Clutch	Multidisc clutch in oil bath/hydraulically activated		
Gearbox	6-gear, claw shifted		
Transmission ratio			
First gear	14:32		
Second gear	15:30		
Third gear 17:28			
Fourth gear	20:28		
Fifth gear	19:23		

Sixth gear	22:24	
Ignition	Contactless controlled fully electronic ignition with digital igni- tion adjustment, type Kokusan	
Spark plug	NGK BR9 ECMVX	
Spark plug electrode gap	0.60 mm (0.0236 in)	
Starting aid	Kick starter	

21.1.3 250 SX

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and	
	exhaust control	
Displacement	249 cm ³ (15.19 cu in)	
Stroke 72 mm (2.83 in)		
Bore	66.4 mm (2.614 in)	
Exhaust valve - Beginning of adjustment	5,550 rpm	
Exhaust valve - end of adjustment with red auxiliary spring	7,200 rpm	
Exhaust valve - end of adjustment with yellow auxiliary spring	7,900 rpm	
Exhaust valve - end of adjustment with green auxiliary spring	8,400 rpm	
Crankshaft bearing	1 grooved ball bearing/1 roller bearing	
Conrod bearing	Needle bearing	
Piston pin bearing	Needle bearing	
Pistons	Aluminum cast	
Piston rings	2 half keystone rings	
X (upper edge of piston to upper edge of cylinder)	0 0.10 mm (0 0.0039 in)	
Z (height of control flap) 48 mm (1.89 in)		
Primary transmission	26:72	
Clutch	Multidisc clutch in oil bath/hydraulically activated	
Gearbox	5-gear, claw shifted	
Transmission ratio		
First gear	14:28	
Second gear	15:24	
Third gear	18:24	
Fourth gear	21:24	
Fifth gear	22:21	
Ignition	Contactless controlled fully electronic ignition with digital igni- tion adjustment, type Kokusan	
Spark plug	NGK BR 8 ECM	
Spark plug electrode gap	0.60 mm (0.0236 in)	
Starting aid	Kick starter	

21.1.4 250 XC

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control
Displacement	249 cm ³ (15.19 cu in)
Stroke	72 mm (2.83 in)
Bore	66.4 mm (2.614 in)
Exhaust valve - Beginning of adjustment	5,550 rpm
Exhaust valve - end of adjustment with red auxiliary spring	7,200 rpm
Exhaust valve - end of adjustment with yellow auxiliary spring	7,900 rpm
Exhaust valve - end of adjustment with green auxiliary spring	8,400 rpm
Crankshaft bearing	1 grooved ball bearing/1 roller bearing
Conrod bearing	Needle bearing
Piston pin bearing	Needle bearing
Pistons	Aluminum cast

Piston rings	2 half keystone rings	
X (upper edge of piston to upper edge of cylinder)	0 0.10 mm (0 0.0039 in)	
Z (height of control flap)	48 mm (1.89 in)	
Primary transmission	26:72	
Clutch	Multidisc clutch in oil bath/hydraulically activated	
Gearbox	6-gear, claw shifted	
Transmission ratio		
First gear	14:32	
Second gear	16:26	
Third gear	20:25	
Fourth gear	22:23	
Fifth gear	25:22	
Sixth gear	26:20	
Ignition	Contactless controlled fully electronic ignition with digital igni- tion adjustment, type Kokusan	
Spark plug	NGK BR 7 ES	
Spark plug electrode gap	0.60 mm (0.0236 in)	
Starting aid	Kick starter and electric starter	

21.1.5 300 XC

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control		
Displacement	293.2 cm ³ (17.892 cu in)		
Stroke 72 mm (2.83 in)			
Bore	72 mm (2.83 in)		
Exhaust valve - Beginning of adjustment	5,550 rpm		
Exhaust valve - end of adjustment with red auxiliary spring	7,200 rpm		
Exhaust valve - end of adjustment with yellow auxiliary spring	7,900 rpm		
Exhaust valve - end of adjustment with green auxiliary spring	8,400 rpm		
Crankshaft bearing	1 grooved ball bearing/1 roller bearing		
Conrod bearing	Needle bearing		
Piston pin bearing	Needle bearing		
Pistons	Aluminum cast		
Piston rings	2 rectangular rings		
X (upper edge of piston to upper edge of cylinder)	0 0.10 mm (0 0.0039 in)		
Z (height of control flap)	48.5 mm (1.909 in)		
Primary transmission 26:72			
Clutch Multidisc clutch in oil bath/hydraulically activated			
Gearbox	6-gear, claw shifted		
Transmission ratio	·		
First gear	14:32		
Second gear	16:26		
Third gear	20:25		
Fourth gear	22:23		
Fifth gear	25:22		
Sixth gear	26:20		
Ignition	Contactless controlled fully electronic ignition with digital igni- tion adjustment, type Kokusan		
Spark plug	NGK BR 7 ES		
Spark plug electrode gap	0.60 mm (0.0236 in)		
Starting aid	Kick starter and electric starter		

21.2 Engine tightening torques

21.2.1 All 125/150 models

Screw, inner membrane sheets	EJOT DELTA PT® 35x25	1 Nm (0.7 lbf ft)	_
Screw, membrane core plate	EJOT DELTA PT® 30x12	1 Nm (0.7 lbf ft)	
Screw, outer membrane sheets	EJOT DELTA PT® 30x6	1 Nm (0.7 lbf ft)	_
Screw, control lever, exhaust control	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, crankshaft position sensor	M5	6 Nm (4.4 lbf ft)	Loctite [®] 222™
Screw, exhaust control cover	M5	6 Nm (4.4 lbf ft)	-
Screw, locking lever	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, retaining bracket, rotary valve	M5	6 Nm (4.4 lbf ft)	-
Screw, stator	M5	6 Nm (4.4 lbf ft)	Loctite [®] 222™
Screw, water pump wheel	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Bleeder screw, cylinder head	M6	8 Nm (5.9 lbf ft)	_
Clutch slave cylinder screw	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Drain plug, water pump cover	M6	8 Nm (5.9 lbf ft)	-
Nut, adjusting screw, power valve	M6	8 Nm (5.9 lbf ft)	-
Screw, alternator cover	M6	8 Nm (5.9 lbf ft)	_
Screw, bearing retainer	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	_
Screw, clutch spring retainer	M6	10 Nm (7.4 lbf ft)	-
Screw, control lever, exhaust control	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, engine case	M6	10 Nm (7.4 lbf ft)	-
Screw, exhaust flange	M6	10 Nm (7.4 lbf ft)	-
Screw, gear oil level check	M6	8 Nm (5.9 lbf ft)	_
Screw, intake flange/reed valve housing	M6	10 Nm (7.4 lbf ft)	-
Screw, kick starter stop plate	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, shift drum locating	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, shift lever	M6	14 Nm (10.3 lbf ft)	Loctite [®] 243™
Screw, stop plate of exhaust control	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)	-
Screw, cylinder head	M7	18 Nm (13.3 lbf ft)	-
Nut, cylinder base	M8	23 Nm (17 lbf ft)	-
Screw, cylinder base	M8	20 Nm (14.8 lbf ft)	-
Screw, kick starter	M8	25 Nm (18.4 lbf ft)	Loctite [®] 243™
Gear oil drain plug	M10x1	15 Nm (11.1 lbf ft)	-
Nut, rotor	M12x1	60 Nm (44.3 lbf ft)	-
Gear oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)	-
Spark plug	M14x1.25	25 Nm (18.4 lbf ft)	-
Nut, primary gear	M16LHx1.5	130 Nm (95.9 lbf ft)	Loctite [®] 243™
Nut, inner clutch hub	M18x1.5	100 Nm (73.8 lbf ft)	Loctite [®] 243™

21.2.2 250 SX

Screw, inner membrane sheets	EJOT DELTA PT® 35x25	1 Nm (0.7 lbf ft)	-
Screw, membrane core plate	EJOT DELTA PT® 30x12	1 Nm (0.7 lbf ft)	-
Screw, outer membrane sheets	EJOT DELTA PT® 30x6	1 Nm (0.7 lbf ft)	-
Screw, alternator cover	M5	5 Nm (3.7 lbf ft)	-
Screw, angle lever, exhaust control	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, clutch spring retainer	M5	6 Nm (4.4 lbf ft)	-
Screw, crankshaft position sensor	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, exhaust control cap	M5	5 Nm (3.7 lbf ft)	-
Screw, exhaust control cover	M5	6 Nm (4.4 lbf ft)	-

Screw, locking lever	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™	
Screw, retaining bracket of exhaust control	M5	7 Nm (5.2 lbf ft)	Loctite [®] 2701™	
Screw, stator	M5	6 Nm (4.4 lbf ft)	Loctite [®] 222™	
Screw, water pump wheel	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™	
Screw, bearing retainer	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™	
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	-	
Screw, control flap, exhaust control	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™	
Screw, engine case	M6x40	10 Nm (7.4 lbf ft)	-	
Screw, engine case	M6x55	10 Nm (7.4 lbf ft)	-	
Screw, engine case	M6x60	10 Nm (7.4 lbf ft)	-	
Screw, exhaust flange	M6	8 Nm (5.9 lbf ft)	-	
Screw, gear oil level check	M6	10 Nm (7.4 lbf ft)	-	
Screw, intake flange/reed valve housing	M6	10 Nm (7.4 lbf ft)	-	
Screw, intermediate wheel bolt	M6	8 Nm (5.9 lbf ft)	Loctite [®] 648™	
Screw, kick starter spring	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™	
Screw, kick starter stop plate	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™	
Screw, shift drum locating	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™	
Screw, shift lever	M6	14 Nm (10.3 lbf ft)	Loctite [®] 243™	
Screw, slave cylinder of the clutch	M6	10 Nm (7.4 lbf ft)	-	
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)	-	
Screw, cylinder head	M8	27 Nm (19.9 lbf ft)	-	
Screw, kick starter	M8	25 Nm (18.4 lbf ft)	Loctite [®] 2701™	
Nut, cylinder base	M10	35 Nm (25.8 lbf ft)	-	
Drain plug, water pump cover	M10x1	15 Nm (11.1 lbf ft)	-	
Nut, rotor	M12x1	60 Nm (44.3 lbf ft)	-	
Gear oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)	-	
Spark plug	M14x1.25	25 Nm (18.4 lbf ft)	-	
Nut, inner clutch hub	M18x1.5	120 Nm (88.5 lbf ft)	Loctite [®] 648™	
Nut, primary gear	M18LHx1.5	150 Nm (110.6 lbf ft)	Loctite [®] 648™	

21.2.3 All XC models

Screw, inner membrane sheets	EJOT DELTA PT® 35x25	1 Nm (0.7 lbf ft)	-
Screw, membrane core plate	EJOT DELTA PT® 30x12	1 Nm (0.7 lbf ft)	-
Screw, outer membrane sheets	EJOT DELTA PT® 30x6	1 Nm (0.7 lbf ft)	-
Screw, angle lever, exhaust control	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, clutch spring retainer	M5	6 Nm (4.4 lbf ft)	-
Screw, crankshaft position sensor	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, exhaust control cap	M5	5 Nm (3.7 lbf ft)	-
Screw, exhaust control cover	M5	6 Nm (4.4 lbf ft)	
Screw, locking lever	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, retaining bracket of exhaust control	M5	7 Nm (5.2 lbf ft)	Loctite [®] 2701™
Screw, water pump wheel	M5	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, alternator cover	M6	8 Nm (5.9 lbf ft)	
Screw, bearing retainer	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	-
Screw, control flap, exhaust control	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, engine case	M6x40	10 Nm (7.4 lbf ft)	-
Screw, engine case	M6x55	10 Nm (7.4 lbf ft)	
Screw, engine case	M6x60	10 Nm (7.4 lbf ft)	-
Screw, exhaust flange	M6	8 Nm (5.9 lbf ft)	-

Screw, gear oil level check	M6	10 Nm (7.4 lbf ft)	-
Screw, intake flange/reed valve housing	M6	10 Nm (7.4 lbf ft)	-
Screw, intermediate wheel bolt	M6	8 Nm (5.9 lbf ft)	Loctite [®] 648™
Screw, kick starter spring	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, kick starter stop plate	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, shift drum locating	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, shift lever	M6	14 Nm (10.3 lbf ft)	Loctite [®] 243™
Screw, slave cylinder of the clutch	M6	10 Nm (7.4 lbf ft)	-
Screw, starter motor	M6	8 Nm (5.9 lbf ft)	-
Screw, stator	M6	8 Nm (5.9 lbf ft)	Loctite [®] 243™
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)	-
Screw, cylinder head	M8	27 Nm (19.9 lbf ft)	-
Screw, kick starter	M8	25 Nm (18.4 lbf ft)	Loctite [®] 2701™
Nut, cylinder base	M10	35 Nm (25.8 lbf ft)	-
Drain plug, water pump cover	M10x1	15 Nm (11.1 lbf ft)	-
Nut, rotor	M12x1	60 Nm (44.3 lbf ft)	-
Gear oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)	-
Spark plug	M14x1.25	25 Nm (18.4 lbf ft)	-
Nut, inner clutch hub	M18x1.5	120 Nm (88.5 lbf ft)	Loctite [®] 648™
Nut, primary gear	M18LHx1.5	150 Nm (110.6 lbf ft)	Loctite [®] 648™

21.3 Carburetor

21.3.1 All 125 models

Carburetor type	KEIHIN PWK 38S AG
Carburetor identification number	B\$5_0
Needle position	2nd position from top
Jet needle	N1EF (N1EE, N1EG)
Main jet	182 (180, 185)
Idling jet	50 (48, 52)
Starting jet	85
Idle air adjusting screw	
Open	2 turns
Throttle slide	7 with cut-out

21.3.2 Carburetor - basic setting for sandy surfaces (All 125 models)

Idle air adjusting screw	
Open	1 turn
Idling jet	52
Jet needle	N1EE
Needle position	4th position from top
Main jet	192

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Info

If the engine is not running smoothly, use a smaller main jet.

21.3.3 Carburetor tuning (All 125 models)

M/FT ASL	TEMP	-20°C7°C	-6°C 5°C	6°C 15°C	16°C 24°C	25°C 36°C	37°C 49°C
ŧ	\rightarrow	-2°F 20°F	19°F 41°F	42°F 60°F	61°F 78°F	79°F 98°F	99°F 120°F
3.000 m 10,000 ft ♠ 2.301 m 7,501 ft	ASO IJ NDL POS MJ	2 50 N1E F 3 182	2 48 N1E F 3 182	2 48 N1E G 3 180	2 45 N1E G 3 178	2 45 N1E G 2 178	
2.300 m 7,500 ft 1.501 m 5,001 ft	ASO IJ NDL POS MJ	2 52 N1E F 3 185	2 50 N1E F 3 182	2 48 N1E F 3 182	2 48 N1E G 3 180	2 45 N1E G 3 178	2 45 N1E G 2 178
1.500 m 5,000 ft 151 m 2,501 ft	ASO IJ NDL POS MJ	2 52 N1E F 4 185	2 52 N1E F 3 185	2 50 N1E F 3 182	2 48 N1E F 3 182	2 48 N1E G 3 180	2 45 N1E G 3 178
750 m 2,500 ft 1,001 m 1,001 ft	ASO IJ NDL POS MJ	2 52 N1E E 4 188	2 52 N1E F 4 185	2 52 N1E F 3 185	2 50 N1E F 3 182	2 48 N1E F 3 182	2 48 N1E G 3 180
300 m 1,000 ft 0 m 0 ft	ASO IJ NDL POS MJ	1 52 N1E E 4 190	2 52 N1E E 4 188	2 52 N1E F 4 185	2 52 N1E F 3 185	2 50 N1E F 3 182	2 48 NIE F 3 182

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M/FT ASL	Sea level
TEMP	Temperature
ASO	Idle air adjusting screw open
IJ	Idling jet
NDL	Needle
POS	Needle position from above
MJ	Main jet

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Info Not for sandy surfaces

21.3.4 All 150 models

Carburetor type	type KEIHIN PWK 38S AG	
Carburetor identification number	B\$6_0	
Needle position	1st position from top	
Jet needle NOZG (NOZE, NOZF)		
Main jet 180 (182, 185)		
Idling jet 45 (48, 50)		
Starting jet	ng jet 85	
Idle air adjusting screw		
Open 1 turn		
Throttle slide	7 with cut-out	

21.3.5 Carburetor - basic setting for sandy surfaces (All 150 models)

Idle air adjusting screw	
Open	1 turn
Idling jet	52
Jet needle	NOZE
Needle position	4th position from top
Main jet	190

Info

If the engine is not running smoothly, use a smaller main jet.

21.3.6 Carburetor tuning (All 150 models)

	TEMP	-20°C7°C	-6°C 5°C	6°C 15°C	16°C 24°C	25°C 36°C	37°C 49°C
M/FT ASL		-2°F 20°F	19°F 41°F	42°F 60°F	61°F 78°F	79°F 98°F	99°F 120°F
3.000 m 10,000 ft 2.301 m 7,501 ft	ASO IJ NDL POS MJ	1 48 NOZ F 3 182	1 45 NOZ G 3 180	2 45 NOZ G 3 180	2 45 NOZ H 3 178	2 45 NOZ H 2 178	
2.300 m 7,500 ft 1.501 m 5,001 ft	ASO IJ NDL POS MJ	1,5 50 NOZ F 4 182	1 48 NOZ F 3 182	1 45 NOZ G 3 180	2 45 NOZ G 3 180	2 45 NOZ H 3 178	2 45 NOZ H 2 178
1.500 m 5,000 ft ↑ 751 m 2,501 ft	ASO IJ NDL POS MJ	1 50 NOZ E 4 185	1,5 50 NOZ F 4 182	1 48 NOZ F 3 182	1 45 NOZ G 3 180	2 45 NOZ G 3 180	2 45 NOZ H 3 178
750 m 2,500 ft 1,001 m 1,001 ft	ASO IJ NDL POS MJ	1 52 NOZ E 4 188	1 50 NOZ E 4 185	1,5 50 NOZ F 4 182	1 48 NOZ F 3 182	1 45 NOZ G 3 180	2 45 NOZ G 3 180
300 m 1,000 ft 0 m 0 ft	ASO IJ NDL POS MJ	1 52 NOZ E 5 188	1 52 NOZ E 4 188	1 50 NOZ E 4 185	1,5 50 NOZ F 4 182	1 48 NOZ F 3 182	1 45 NOZ G 3 180

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M/FT ASL	Sea level
TEMP	Temperature
ASO	Idle air adjusting screw open
IJ	Idling jet
NDL	Needle
POS	Needle position from top
MJ	Main jet

Info Not for sandy surfaces

21.3.7 250 SX

Carburetor type	KEIHIN PWK 36S AG		
Carburetor identification number	BS8_0		
Needle position	2nd position from top		
Jet needle	N1EH (N1EF, N1EG)		
Main jet	158 (160, 162)		
Idling jet	42 (45)		
Starting jet	85		
Idle air adjusting screw			
Open	2 turns		
Throttle slide	6.5 with cut-out		

21.3.8 Carburetor - basic setting for sandy surfaces (250 SX)

Idle air adjusting screw				
Open	1.5 turns			
Idling jet	45			
Jet needle	N1EF			
Needle position	5th position from top			
Main jet	170			

• Info

If the engine is not running smoothly, use a smaller main jet.

21.3.9 Carburetor tuning (250 SX)

M/FT ASL	TEMP	-20°C7°C	-6°C 5°C	6°C 15°C	16°C 24°C	25°C 36°C	37°C 49°C
♦	\rightarrow	-2°F 20°F	19°F 41°F	42°F 60°F	61°F 78°F	79°F 98°F	99°F 120°h
3.000 m	ASO	2	2	2	2	2	
10,000 ft	IJ	42	42	42	40	40	
▲	NDL	N1E G	N1E H	N1E H	N1E I	N1E I	
2.301 m	POS MJ	4 158	4 158	3 158	3 155	2 155	
7,501 ft	LINI	156	158	158	155	155	
2.300 m	ASO	2	2	2	2	2	2
7,500 ft	LI	45	42	42	42	40	40
▲	NDL POS	N1E G 4	N1E G 4	N1E H 4	N1E H 3	N1E I 3	N1E I 2
1.501 m	MJ	160	158	158	158	155	155
5,001 ft	1415	100	150	150	150	155	155
1.500 m	ASO	2	2	2	2	2	2
5,000 ft	IJ	45	45	42	42	42	40
	NDL	N1E F	N1E G	N1E G	N1E H	N1E H	N1E I
T	POS	4	4	4	4	3	3
751 m	MJ	162	160	158	158	158	155
2,501 ft							
750 m	ASO	1,5	2	2	2	2	2
2,500 ft	IJ	48	45	45	42	42	42
▲	NDL	N1E F	N1E F	N1E G	N1E G	N1E H	N1E H
	POS	4	4	4	4	4	3
301 m 1,001 ft	MJ	165	162	160	158	158	158
300 m	ASO	1,5	1,5	2	2	2	2
1,000 ft	LI	48	48	45	45	42	42
▲	NDL	N1E E	N1E F	N1E F	N1E G	N1E G	N1E H
0	POS MJ	5 168	4 165	4 162	4 160	4 158	4 158
0 m <i>0 ft</i>	LIAI	108	165	162	160	158	100

M/FT ASL	Sea level
TEMP	Temperature
ASO	Open idle air adjusting screw
IJ	Idling jet
NDL	Needle
POS	Needle position from above
MJ	Main jet

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21.3.10 250 XC

Carburetor type	KEIHIN PWK 36S AG
Carburetor identification number	BZ6_A
Needle position	3rd position from top
Jet needle	N2ZW (N2ZH, N2ZJ)
Main jet	175 (172)
Idling jet	38 (40)
Starting jet	85
Idle air adjusting screw	
Open	2 turns
Throttle slide	7 with cut-out

21.3.11 Carburetor tuning (250 XC)

KEIHIN PWK	36S AG						
M/FT ASL ↓	TEMP	-20°C7°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 <i>79°F 98°F</i>	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	2 38 N2Z W 3 175	2 38 N2Z W 3 175	2 38 N2Z J 3 172	2 38 N2Z J 2 172	2 35 N2Z J 2 170	
2.300 m 7,500 ft ♠ 1.501 m 5,001 ft	ASO IJ NDL POS MJ	2 38 N2Z H 3 175	2 38 N2Z W 3 175	2 38 N2Z W 3 175	2 38 N2Z J 3 172	2 38 N2Z J 2 172	2 35 N2Z J 2 170
1.500 m 5,000 ft ↑ 751 m 2,501 ft	ASO IJ NDL POS MJ	2 38 N2Z G 3 175	2 38 N2Z H 3 175	2 38 N2Z W 3 175	2 38 N2Z W 3 175	2 38 N2Z J 3 172	2 38 N2Z J 2 172
750 m 2,500 ft 1,001 m 1,001 ft	ASO IJ NDL POS MJ	2 40 N2Z G 3 178	2 38 N2Z G 3 175	2 38 N2Z H 3 175	2 38 N2Z W 3 175	2 38 N2Z W 3 175	2 38 N2Z J 3 172
300 m 1,000 ft 0 m 0 ft	ASO IJ NDL POS MJ	2 40 N2Z G 4 178	2 40 N2Z G 3 178	2 38 N2Z G 3 175	2 38 N2Z H 3 175	2 38 N2Z W 3 175	2 38 N2Z W 3 175 402140-01
M/FT ASL TEMP ASO		Т	ea level emperature dle air adjusting so	crew open			
IJ		lo	Idling jet				

NDL	Needle
POS	Needle position from above
MJ	Main jet

• Info Not for sandy surfaces

21.3.12 300 XC

IJ

Carburetor type	KEIHIN PWK 36S AG	
Carburetor identification number	BZ7_A	
Needle position	3rd position from top	
Jet needle	N8RG (N8RH)	
Main jet	172 (170, 175)	
Idling jet	35	
Starting jet	85	
Idle air adjusting screw		
Open	2 turns	
Throttle slide	7 with cut-out	

21.3.13 Carburetor tuning (300 XC) 🔦

KEIHIN PWK 36S AG								
M/FT ASL ↓	TEMP	-20°C7°C -2°F 20°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	2 35 N8R G 3 172	2 35 N8R H 3 172	2 35 N8R H 2 172	2 35 N8R W 2 170	3 35 N8R W 2 168		
2.300 m 7,500 ft 1.501 m 5,001 ft	ASO IJ NDL POS MJ	2 35 N8R G 3 175	2 35 N8R G 3 172	2 35 N8R H 3 172	2 35 N8R H 2 172	2 35 N8R W 2 170	3 35 N8R W 2 168	
1.500 m 5,000 ft 1 751 m 2,501 ft	ASO IJ NDL POS MJ	2 38 N8R G 3 178	2 35 N8R G 3 175	2 35 N8R G 3 172	2 35 N8R H 3 172	2 35 N8R H 2 172	2 35 N8R W 2 170	
750 m 2,500 ft 1 301 m 1,001 ft	ASO IJ NDL POS MJ	2 38 N8R G 4 178	2 38 N8R G 3 178	2 35 N8R G 3 175	2 35 N8R G 3 172	2 35 N8R H 3 172	2 35 N8R H 2 172	
300 m 1,000 ft 0 m 0 ft	ASO IJ NDL POS MJ	2 38 N8R F 4 180	2 38 N8R G 4 178	2 38 N8R G 3 178	2 35 N8R G 3 175	2 35 N8R G 3 172	2 35 N8R H 3 172 402141-01	
M/FT ASL		S	Sea level					
TEMP			Temperature					
ASO		1	Idle air adjusting screw open					

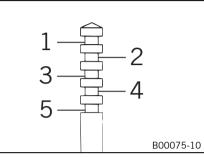
Idling jet

NDL	Needle
POS	Needle position from above
MJ	Main jet

• Info Not

Not for sandy surfaces

21.3.14 General carburetor tuning 🔦



1... 5 Needle position from top

The five possible needle positions are shown here.

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

21.4 Capacities

21.4.1 Gear oil		
Gear oil	0.80 l (0.85 qt.)	Engine oil (15W/50) (🕶 p. 134)

21.4.2 Coolant

Content $1.2 \downarrow (1.2 \text{ st})$ Content (\mathbf{r} n 124)	
Coolant 1.2 I (1.3 qt.) Coolant (* p. 134)	

21.4.3 Fuel

Total fuel tank capacity, approx. (All SX models)7.5 I (1.98 US gal)	Super unleaded (98 octane) mixed with 2-stroke engine oil (1:40) (p. 135) (All 125/150 models)	
		Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60) (p. 135) (250 SX)
Total fuel tank capacity, approx. (All XC models)	10 (2.6 US gal)	Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60) (p. 135)
Fuel reserve approx. (All XC models)		2 (2 qt.)

21.5 Chassis

Frame	Central tube frame made of chrome molybdenum steel tubing
Fork (125/150 SX EU)	WP Performance Systems Upside down AER 48
Fork (125/150 SX US)	WP Performance Systems Up Side Down 4860 MXMA 4CS
Fork (250 SX EU)	WP Performance Systems Upside down 4860 MXMA CC
Fork (All XC models, 250 SX US)	WP Performance Systems Upside down 4860 MXMA 4CS
Suspension travel	· · ·
Front	300 mm (11.81 in)
Suspension travel (All 125/150 models)	· · ·
Rear	300 mm (11.81 in)
Suspension travel (All 250/300 models)	· · ·
Rear	317 mm (12.48 in)
Fork offset	22 mm (0.87 in)
Shock absorber (125/150 SX EU)	WP Performance Systems 5018 DCC Link
Shock absorber (125/150 SX US)	WP Performance Systems 5018 DCC Link
Shock absorber (250 SX EU)	WP Performance Systems 5018 DCC Link
Shock absorber (250 SX US)	WP Performance Systems 5018 DCC Link

Shock absorber (All XC models)	WP Performance Systems 5018 DCC Link	
Brake system	Disc brakes, brake calipers on floating bearings	
Brake discs - diameter		
Front	260 mm (10.24 in)	
Rear	220 mm (8.66 in)	
Brake discs - wear limit		
Front	2.5 mm (0.098 in)	
Rear	3.5 mm (0.138 in)	
Tire air pressure off road	· · · ·	
Front	1.0 bar (15 psi)	
Rear	1.0 bar (15 psi)	
Secondary ratio (All 125 models, All XC models)	13:50	
Secondary ratio (All 150 models, 250 SX)	13:48	
Chain	5/8 x 1/4"	
Rear sprockets available	48, 50, 52	
Steering head angle (All 125/150 models)	63.9°	
Steering head angle (All 250/300 models)	63.5°	
Wheelbase (All 125/150 models)	1,480±10 mm (58.27±0.39 in)	
Wheelbase (All 250/300 models)	1,495±10 mm (58.86±0.39 in)	
Seat height unloaded (All 125/150 models)	960 mm (37.8 in)	
Seat height unloaded (All 250/300 models)	992 mm (39.06 in)	
Ground clearance unloaded (All 125/150 models)	375 mm (14.76 in)	
Ground clearance unloaded (All 250/300 models)	385 mm (15.16 in)	
Weight without fuel, approx. (125/150 SX EU)	87.8 kg (193.6 lb.)	
Weight without fuel, approx. (125/150 SX US)	89.2 kg (196.7 lb.)	
Weight without fuel, approx. (250 SX)	95.9 kg (211.4 lb.)	
Weight without fuel, approx. (All XC models)	100.7 kg (222 lb.)	
Maximum permissible front axle load	145 kg (320 lb.)	
Maximum permissible rear axle load	190 kg (419 lb.)	
Maximum permissible overall weight	335 kg (739 lb.)	

21.6 Electrical system

Battery (All XC models)	YTX4L-BS	Battery voltage: 12 V Nominal capacity: 3 Ah maintenance-free
Fuse (All XC models)	58011109110	10 A

21.7 Tires

Validity	Front tires	Rear tires
(All SX models)	80/100 - 21 51M TT Dunlop Geomax MX 32 F	1 00/90 - 19 57M TT Dunlop Geomax MX 32
(All XC models)	90/90 - 21 54M TT Dunlop Geomax AT 81 F	110/100 - 18 64M TT Dunlop Geomax AT 81
Additional information is available in the Se http://www.ktm.com	ervice section under:	

21.8 Fork

21.8.1 125/150 SX EU

Fork part number		34.18.8P.01	
Fork		WP Performance Systems Upside down AER 48	
Compression damping			
Comfort		20 clicks	
Standard		17 clicks	
Sport		12 clicks	
Rebound damping			
Comfort		20 clicks	
Standard		17 clicks	
Sport		12 clicks	
Air pressure		8.2 bar (119 psi)	
Fork length		950 mm (37.4 in)	
Oil capacity external mecha- nism left	200 ^{±40} ₂₀ ml (6.76 ^{±1.35} _{-0.68} fl. oz.)	Fork oil (SAE 4) (48601166S1) (p. 134)	
Oil capacity external mecha- nism right	200 ^{±40} ₂₀ ml (6.76 ^{±1.35} _{0.68} fl. oz.)	Fork oil (SAE 4) (48601166S1) (p. 134)	
Grease capacity, left cartridge	11 ml (0.37 fl. oz.)	Multi-purpose grease (00062010051) (* p. 135)	
Oil capacity, right cartridge	380 ml (12.85 fl. oz.)	Fork oil (SAE 4) (48601166S1) (P. 134)	

21.8.2 125/150 SX US

Fork part number		24.18.7P.51
Fork		WP Performance Systems Up Side Down 4860 MXMA 4CS
Compression damping		
Comfort		17 clicks
Standard		15 clicks
Sport		13 clicks
Rebound damping		
Comfort		17 clicks
Standard		15 clicks
Sport		13 clicks
Spring length with preload spacer(s)		475 mm (18.7 in)
Spring rate		
Weight of rider: 65 75 kg (143 165 lb.)		4.0 N/mm (22.8 lb/in)
Weight of rider: 75 85 kg (165 187 lb.)		4.2 N/mm (24 lb/in)
Weight of rider: 85 95 kg (187 209 lb.)		4.4 N/mm (25.1 lb/in)
Fork length		940 mm (37.01 in)
Oil capacity per fork leg	685 ml (23.16 fl. oz.)	Fork oil (SAE 4) (48601166S1) (🕈 p. 134)

21.8.3 250 SX EU

Fork part number	14.18.70.03
Fork	WP Performance Systems Upside down 4860 MXMA CC
Compression damping	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks
Rebound damping	
Comfort	14 clicks
Standard	12 clicks

Sport		10 clicks
Spring length with preload spacer(s)		488 mm (19.21 in)
Spring rate		
Weight of rider: 65 75 kg (143 165 lb.)		4.4 N/mm (25.1 lb/in)
Weight of rider: 75 85 kg (165 187 lb.)		4.6 N/mm (26.3 lb/in)
Weight of rider: 85 95 kg (187 209 lb.)		4.8 N/mm (27.4 Ib/in)
Gas pressure		1.2 bar (17 psi)
Fork length		940 mm (37.01 in)
Oil capacity per cartridge 195 ml (6.59 fl. oz.)		Fork oil (SAE 4) (48601166S1) (* p. 134)
Oil capacity fork leg without cartridge	400 ml (13.52 fl. oz.)	Fork oil (SAE 4) (48601166S1) (P. 134)

21.8.4 250 SX US

Fork part number		24.18.70.53	
Fork		WP Performance Systems Upside down 4860 MXMA 4CS	
Compression damping			
Comfort		17 clicks	
Standard		15 clicks	
Sport		13 clicks	
Rebound damping			
Comfort		17 clicks	
Standard		15 clicks	
Sport		13 clicks	
Spring length with preload spacer(s)		480 mm (18.9 in)	
Spring rate			
Weight of rider: 65 75	kg (143 165 lb.)	4.4 N/mm (25.1 lb/in)	
Weight of rider: 75 85 kg (165 187 lb.)		4.6 N/mm (26.3 lb/in)	
Weight of rider: 85 95 kg (187 209 lb.)		4.8 N/mm (27.4 lb/in)	
Fork length		940 mm (37.01 in)	
Oil capacity per fork leg	665 ml (22.48 fl. oz.)	Fork oil (SAE 4) (48601166S1) (🕶 p. 134)	

21.8.5 All XC models

Fork part number		24.18.70.73	
Fork		WP Performance Systems Upside down 4860 MXMA 4CS	
Compression damping			
Comfort		17 clicks	
Standard		15 clicks	
Sport		13 clicks	
Rebound damping			
Comfort		17 clicks	
Standard		15 clicks	
Sport		13 clicks	
Spring length with preload spacer(s)		480 mm (18.9 in)	
Spring rate			
Weight of rider: 65 75 kg (143 165 lb.)		4.2 N/mm (24 lb/in)	
Weight of rider: 75 85 kg (165 187 lb.)		4.4 N/mm (25.1 lb/in)	
Weight of rider: 85 95 kg (187 209 lb.)		4.6 N/mm (26.3 lb/in)	
Fork length		940 mm (37.01 in)	
Oil capacity per fork leg	640 ml (21.64 fl. oz.)	Fork oil (SAE 4) (48601166S1) (p. 134)	

21.9 Shock absorber

21.9.1 125/150 SX EU

Shock absorber article number	18.18.7P.01
Shock absorber	WP Performance Systems 5018 DCC Link
Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	
Comfort	2.5 turns
Standard	2 turns
Sport	1.5 turns
Rebound damping	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Spring preload	5 mm (0.2 in)
Spring rate	
Weight of rider: 65 75 kg (143 165 lb.)	39 N/mm (223 lb/in)
Weight of rider: 75 85 kg (165 187 lb.)	42 N/mm (240 lb/in)
Weight of rider: 85 95 kg (187 209 lb.)	45 N/mm (257 lb/in)
Spring length	247 mm (9.72 in)
Gas pressure	10 bar (145 psi)
Static sag	35 mm (1.38 in)
Riding sag	105 mm (4.13 in)
Fitted length	477 mm (18.78 in)
Shock absorber fluid (* p. 135)	SAE 2.5

21.9.2 125/150 SX US

Shock absorber article number	18.18.7P.51
Shock absorber	WP Performance Systems 5018 DCC Link
Compression damping, low-speed	-
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	· · · ·
Comfort	2.5 turns
Standard	2 turns
Sport	1.5 turns
Rebound damping	· · · ·
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Spring preload	7 mm (0.28 in)
Spring rate	
Weight of rider: 65 75 kg (143 165 lb.)	39 N/mm (223 lb/in)
Weight of rider: 75 85 kg (165 187 lb.)	42 N/mm (240 lb/in)
Weight of rider: 85 95 kg (187 209 lb.)	45 N/mm (257 lb/in)
Spring length	247 mm (9.72 in)
Gas pressure	10 bar (145 psi)
Static sag	40 mm (1.57 in)

Riding sag	110 mm (4.33 in)
Fitted length	477 mm (18.78 in)
Shock absorber fluid (* p. 135)	SAE 2.5

21.9.3 250 SX EU

Shock absorber part number	18.18.70.03
Shock absorber	WP Performance Systems 5018 DCC Link
Compression damping, low-speed	,
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	
Comfort	2.5 turns
Standard	2 turns
Sport	1.5 turns
Rebound damping	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Spring preload	8 mm (0.31 in)
Spring rate	· · · ·
Weight of rider: 65 75 kg (143 165 lb.)	51 N/mm (291 lb/in)
Weight of rider: 75 85 kg (165 187 lb.)	54 N/mm (308 lb/in)
Weight of rider: 85 95 kg (187 209 lb.)	57 N/mm (325 lb/in)
Spring length	260 mm (10.24 in)
Gas pressure	10 bar (145 psi)
Static sag	30 mm (1.18 in)
Riding sag	100 mm (3.94 in)
Fitted length	490 mm (19.29 in)
Shock absorber fluid (* p. 135)	SAE 2.5

21.9.4 250 SX US

Shock absorber part number	18.18.70.53
Shock absorber	WP Performance Systems 5018 DCC Link
Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	
Comfort	2.5 turns
Standard	2 turns
Sport	1.5 turns
Rebound damping	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Spring preload	8 mm (0.31 in)
Spring rate	
Weight of rider: 65 75 kg (143 165 lb.)	51 N/mm (291 Ib/in)
Weight of rider: 75 85 kg (165 187 lb.)	54 N/mm (308 lb/in)
Weight of rider: 85 95 kg (187 209 lb.)	57 N/mm (325 lb/in)
Spring length	260 mm (10.24 in)

Gas pressure	10 bar (145 psi)
Static sag	30 mm (1.18 in)
Riding sag	100 mm (3.94 in)
Fitted length	490 mm (19.29 in)
Shock absorber fluid (* p. 135)	SAE 2.5

21.9.5 All XC models

Shock absorber part number	18.18.70.73
Shock absorber	WP Performance Systems 5018 DCC Link
Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	
Comfort	2.5 turns
Standard	2 turns
Sport	1.5 turns
Rebound damping	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Spring preload	8 mm (0.31 in)
Spring rate	
Weight of rider: 65 75 kg (143 165 lb.)	51 N/mm (291 Ib/in)
Weight of rider: 75 85 kg (165 187 lb.)	54 N/mm (308 lb/in)
Weight of rider: 85 95 kg (187 209 lb.)	57 N/mm (325 lb/in)
Spring length	260 mm (10.24 in)
Gas pressure	10 bar (145 psi)
Static sag	30 mm (1.18 in)
Riding sag	100 mm (3.94 in)
Fitted length	490 mm (19.29 in)
Shock absorber fluid (* p. 135)	SAE 2.5

21.10 Chassis tightening torques

Spoke nipple, front wheel	M4.5	6 Nm (4.4 lbf ft)	-
Spoke nipple, rear wheel	M4.5	6 Nm (4.4 lbf ft)	-
Remaining nuts, chassis	M5	5 Nm (3.7 lbf ft)	-
Remaining screws, chassis	M5	5 Nm (3.7 lbf ft)	-
Screw, battery terminal (All XC models)	M5	2.5 Nm (1.84 lbf ft)	-
Screw, shock absorber adjusting ring	M5	5 Nm (3.7 lbf ft)	-
Screws on the main silencer	M5	7 Nm (5.2 lbf ft)	-
Nut, cable on starter motor (All XC models)	M6	4 Nm (3 lbf ft)	-
Remaining nuts, chassis	M6	10 Nm (7.4 lbf ft)	-
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	-
Screw, absorbing element on frame	M6	6 Nm (4.4 lbf ft)	-
Screw, absorbing element on manifold	M6	6 Nm (4.4 lbf ft)	-
Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft)	Loctite [®] 243™
Screw, chain sliding guard	M6	6 Nm (4.4 lbf ft)	Loctite [®] 243™
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	Loctite [®] 243™
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	Loctite [®] 243™

Screw, throttle grip	M6	5 Nm (3.7 lbf ft)	_
Nut, foot brake lever stop	M8	20 Nm (14.8 lbf ft)	-
Nut, rear sprocket screw	M8 M8	35 Nm (25.8 lbf ft)	 Loctite [®] 2701™
Nut, real spice screw	M8 M8	12 Nm (8.9 lbf ft)	
Remaining nuts, chassis	M8	25 Nm (18.4 lbf ft)	
Remaining screws, chassis	M8 M8	25 Nm (18.4 lbf ft)	-
Screw, bottom triple clamp	M8 M8	12 Nm (8.9 lbf ft)	_ _
Screw, bottom triple clamp Screw, chain sliding piece	M8	12 Nm (8.9 lbf ft)	-
Screw, engine brace (All 125/150 models)	M8	25 Nm (18.4 lbf ft)	Loctite [®] 2701™
Screw, engine brace (All 250/300 models)	M8	33 Nm (24.3 lbf ft)	Loctite [®] 2701™
Screw, fork stub	M8	15 Nm (11.1 lbf ft)	-
Screw, front brake caliper	M8	25 Nm (18.4 lbf ft)	Loctite [®] 243™
Screw, handlebar clamp	M8	20 Nm (14.8 lbf ft)	-
Screw, side stand attachment (All XC models)	M8	35 Nm (25.8 lbf ft)	Loctite [®] 2701™
Screw, subframe	M8	35 Nm (25.8 lbf ft)	Loctite [®] 2701™
Screw, top steering stem (All SX mod- els)	M8	20 Nm (14.8 lbf ft)	Loctite [®] 243™
Screw, top steering stem (All XC mod- els)	M8	17 Nm (12.5 lbf ft)	Loctite [®] 243™
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)	_
Engine bracket screw	M10	60 Nm (44.3 lbf ft)	_
Remaining nuts, chassis	M10	45 Nm (33.2 lbf ft)	_
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	_
Screw, bottom shock absorber	M10	60 Nm (44.3 lbf ft)	Loctite [®] 2701™
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	Loctite [®] 243™
Screw, top shock absorber	M10	60 Nm (44.3 lbf ft)	Loctite [®] 2701™
Nut, seat fixing (All 250/300 models)	M12x1	20 Nm (14.8 lbf ft)	_
Nut, frame on linkage lever	M14x1.5	80 Nm (59 lbf ft)	_
Nut, linkage lever on swingarm	M14x1.5	80 Nm (59 lbf ft)	-
Nut, linkage lever to angle lever	M14x1.5	80 Nm (59 lbf ft)	_
Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)	_
Screw, front wheel spindle	M20x1.5	35 Nm (25.8 lbf ft)	_
Screw, top steering head	M20x1.5	12 Nm (8.9 lbf ft)	_
Screw-in nozzles, cooling system	M20x1.5	12 Nm (8.9 lbf ft)	Loctite [®] 243™
Nut, rear wheel spindle	M25x1.5	80 Nm (59 lbf ft)	_

22 SUBSTANCES

Brake fluid DOT 4 / DOT 5.1

Standard/classification

– DOT

Guideline

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

Recommended supplier

Castrol

- RESPONSE BRAKE FLUID SUPER DOT 4

Motorex®

- Brake Fluid DOT 5.1

Coolant

Guideline

 Only use high quality coolant with corrosion inhibitor for aluminum motors (even in countries with high temperatures). Using inferior antifreeze can result in corrosion and foaming.

Mixture ratio

Antifreeze protection:	-2545 °C (-13	anti-corrosion/antifreeze
−49 °F)		distilled water

Recommended supplier

Motorex®

- COOLANT M3.0

Engine oil (15W/50)

Standard/classification

- JASO T903 MA (🕶 p. 138)
- SAE (* p. 138) (15W/50)

Guideline

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

Recommended supplier

Motorex®

Top Speed 4T

Engine oil, 2-stroke

Standard/classification

– JASO FD (🕶 p. 138)

Guideline

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

Fully synthetic

Recommended supplier

Motorex®

Cross Power 2T

Fork oil (SAE 4) (48601166S1)

Standard/classification

– SAE (* p. 138) (SAE 4)

Guideline

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

22 SUBSTANCES

Multi-purpose grease (00062010051)

Recommended supplier

Klüber Lubrication®

– CENTOPLEX 2 EP

Shock absorber fluid (SAE 2.5) (50180751S1)

Standard/classification

– SAE (🕶 p. 138) (SAE 2.5)

Guideline

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

Super unleaded (ROZ 98 / RON 98 / PON 94)

Standard/classification

- DIN EN 228 (ROZ 98 / RON 98 / PON 94)

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

Standard/classification

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

Guideline

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

• Info Do n

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

Super unleaded (95 octane) mixed with 2-stroke engine oil (1:60)

Standard/classification

– DIN EN 228

– JASO FD (* p. 138) (1:60)

Mixture ratio

1:60	Engine oil, 2-stroke (* p. 134) Super unleaded (ROZ 95/RON 95/PON 91) (* p. 135)	
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Recommended supplier

Motorex®

- Cross Power 2T

Super unleaded (98 octane) mixed with 2-stroke engine oil (1:40)

Standard/classification

- DIN EN 228
- JASO FD (🕶 p. 138) (1:40)

Mixture ratio

1:40	Engine oil, 2-stroke (* p. 134) Super unleaded (ROZ 98 / RON 98 / PON 94) (* p. 135)
------	---

Recommended supplier

Motorex®

Cross Power 2T

23 AUXILIARY SUBSTANCES

Air filter cleaner

Recommended supplier Motorex®

Racing Bio Dirt Remover

Chain cleaner

Recommended supplier Motorex®

Chain Clean

Fuel additive

Recommended supplier Motorex[®] – Fuel Stabilizer

Grip adhesive (00062030051)

Recommended supplier KTM AG - GRIP GLUE

High viscosity grease

Recommended supplier SKF®

– LGHB 2

Long-life grease

Recommended supplier Motorex[®] – Bike Grease 2000

Motorcycle cleaner

Recommended supplier Motorex[®] – Moto Clean

Off-road chain spray

Recommended supplier Motorex® – Chainlube Offroad

Oil for foam air filter

Recommended supplier Motorex® – Racing Bio Liquid Power

Preserving materials for paints, metal and rubber

Recommended supplier Motorex[®] – Moto Protect

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

Recommended supplier Motorex®

Quick Cleaner

23 AUXILIARY SUBSTANCES

Universal oil spray

Recommended supplier Motorex® – Joker 440 Synthetic

24 STANDARDS

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.

JASO FD

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

25 LIST OF ABBREVIATIONS

Art. no.	Article number
ca.	circa
cf.	compare
e.g.	for example
etc.	et cetera
i.a.	inter alia
no.	number
poss.	possibly

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