OWNER'S MANUAL 2011

125 SX
150 SX
250 SX
150 XC USA
250 XC EU/USA
300 XC EU/USA

Art. no. 3211596en

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 wish you a lot of enjoyment in riding this vehicle.

Enter the serial numbers of your vehicle below.

Chassis number (☛ p. 9)	Dealer's stamp
Engine number (☛ p. 9)	

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

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

KTM-Sportmotorcycle AG
5230 Mattighofen, Austria

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Symbols used

The symbols used are explained below.

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

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

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

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

Formats used

The typographical and other formats used are explained below.

Specific name	Identifies a specific name.
Name®	Identifies a protected name.
Brand™	Identifies a brand available on the open market.

Use definition

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

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

Service

A prerequisite for perfect operation and prevention of wear is that the engine and chassis service, care and adjustment work described in the owner's manual is properly carried out. Poor adjustment and tuning of the engine and chassis can lead to damage and breakage of components.
Using the motorcycle in difficult conditions such as on sand or very muddy or wet terrain can lead to above-average wear of components such as the transmission train or the brakes. For this reason, it may be necessary to service or replace worn parts before the limit specified in the service schedule is reached.
Pay careful attention to the prescribed running-in period and service intervals. If you observe these exactly, you will ensure a much longer service life for your motorcycle.

Warranty

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

Fuel, oils, etc.

You should use the fuels, oils and greases according to specifications as listed in the owner's manual.

Spare parts, accessories

For your own safety, only use spare parts and accessory products that have been 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 accessories are specified in parentheses in the descriptions. Your KTM dealer will be glad to advise you.

You will find the current **KTM PowerParts** for your vehicle on the KTM website.
International KTM Website: http://www.ktm.com

Work rules

Special tools are needed for certain tasks. They are not included with the vehicle but can be ordered under the number in parentheses. E.g.: bearing puller (15112017000)
When the vehicle is assembled, non-reusable parts (e.g., self-locking screws and nuts, gaskets, seal rings, O-rings, splints, lock washers) must be replaced with new parts.
Where thread lockers are used on screw connections (e.g., **Loctite®**), follow the instructions for use from the manufacturer.
After disassembly, clean the parts that are to be reused and check them for damage and wear. Replace damaged or worn parts.
After you complete the repair or maintenance work, check the roadworthiness of the vehicle.

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.

(All SX models)

– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure 601185-10☛ p. 12)

(All XC models)

– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure 601157-11☛ p. 11)

– Use straps or other suitable devices to secure the motorcycle against accidents or falling over.

Environment

Motorcycling is a wonderful sport and we naturally hope that you can enjoy it to the full. However, it is a potential problem for the environment and can lead to conflicts with other persons. But if you use your motorcycle responsibly, you can ensure that such problems and conflicts do not have to occur. To protect the future of motorcycle sport, make sure that you use your motorcycle legally, display environmental consciousness, and respect the rights of others.

Notes/warnings

Pay close attention to the notes/warnings.

Info
Various information and warning labels are affixed to the vehicle. Do not remove information/warning labels. If they are missing, you or others may not recognize potential hazards and may therefore be injured.

Grades of risks

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

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

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

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

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

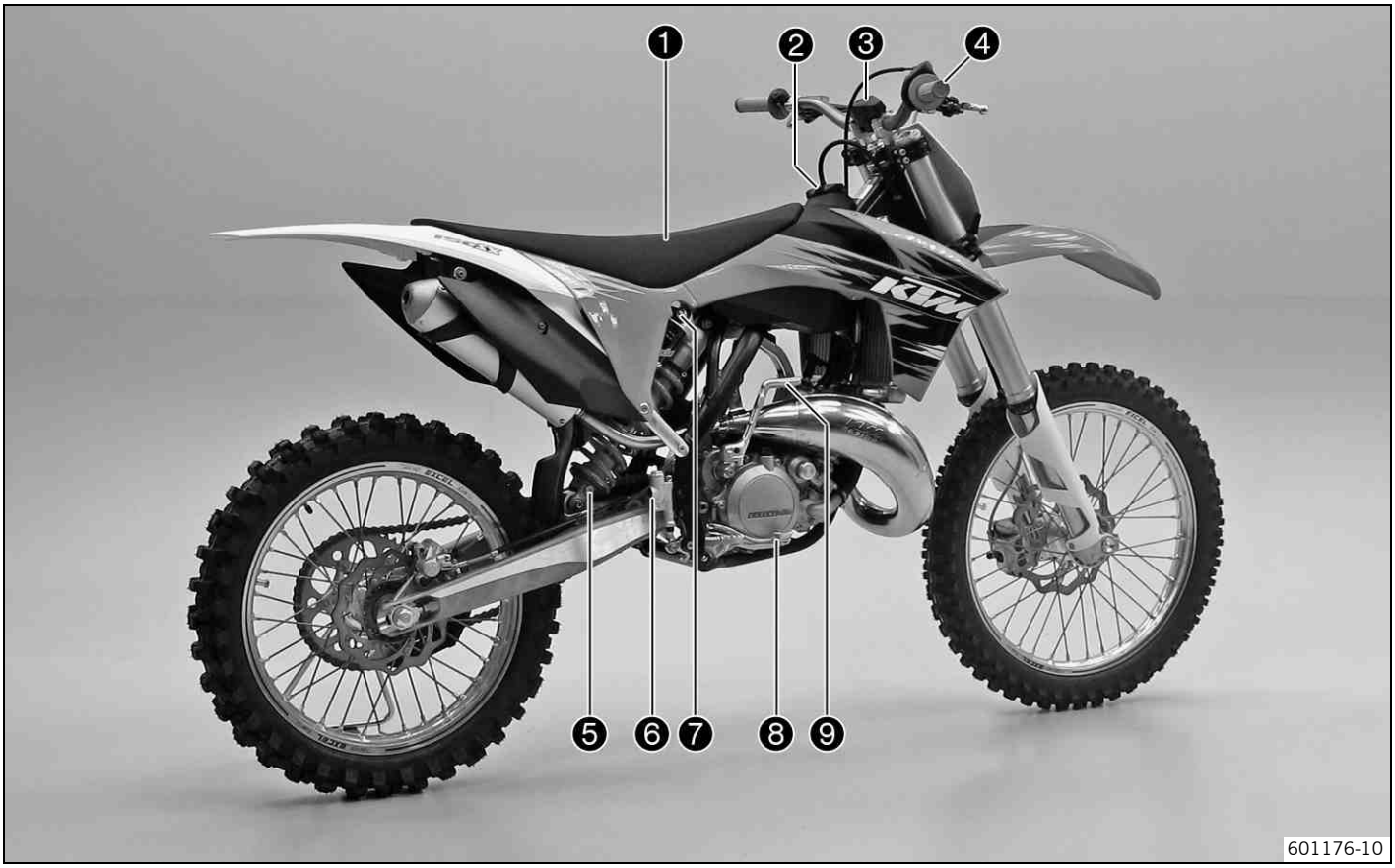
Owner's manual

- It is important that you read this owner's manual carefully and completely before making your first trip. It contains information and tips that will assist you in operating and handling your motorcycle properly. Only then will you learn how to adjust the motorcycle to your own requirements and how to protect yourself from injury. The owner's manual also contains important information on servicing the motorcycle.
- The owner's manual is an important component of the motorcycle and should be handed over to the new owner if the vehicle is sold.

View of the vehicle from the left front (example)

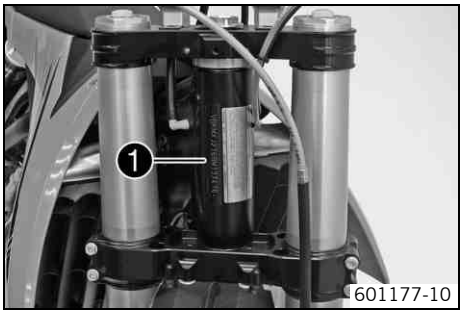
1	Hand brake lever (☛ p. 10)
2	Kill switch (☛ p. 10)
3	Clutch lever (☛ p. 10)
4	Air filter box lid
5	Fuel tap
6	Choke (☛ p. 12)
7	Shift lever (☛ p. 12)
8	Chain guide

View of the vehicle from the right rear (example)



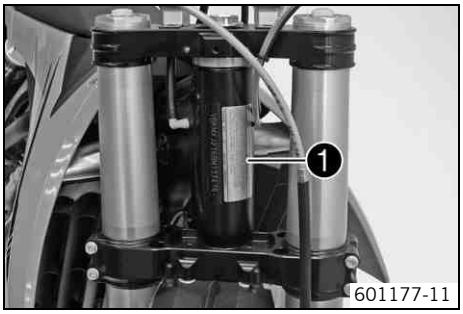
1	Seat
2	Filler cap
3	Handlebar cushion
4	Throttle grip (☛ p. 10)
5	Shock absorber, rebound adjustment
6	Level viewer, rear brake fluid
7	Shock absorber, compression adjustment
8	Foot brake lever (☛ p. 13)
9	Kickstarter (☛ p. 13)

Chassis number



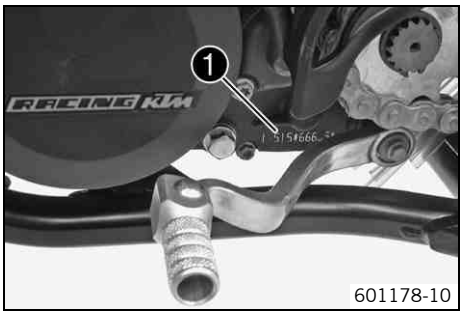
The chassis number ❶ is stamped on the right side of the steering head.

Type label



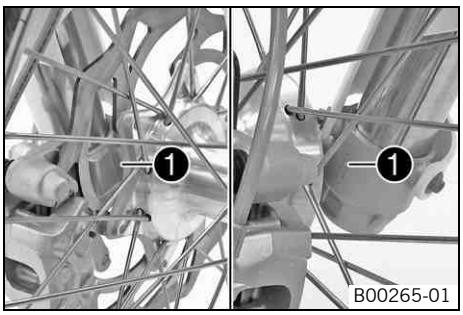
The type label ❶ is fixed to the front of the steering head.

Engine number



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

Fork part number

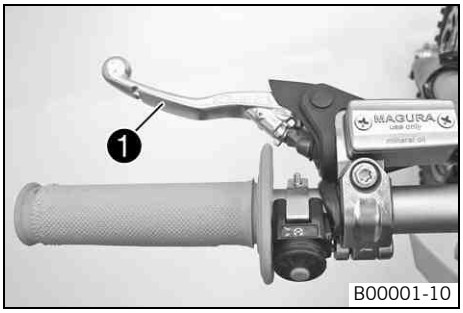


The fork part number ❶ is stamped on the inner side of the fork stub.

Shock absorber part number

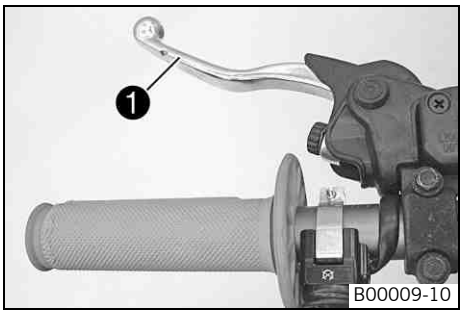
The shock absorber part number ❶ is stamped on the top of the shock absorber above the adjusting ring on the engine side.

Clutch lever



(All 125/150 models)

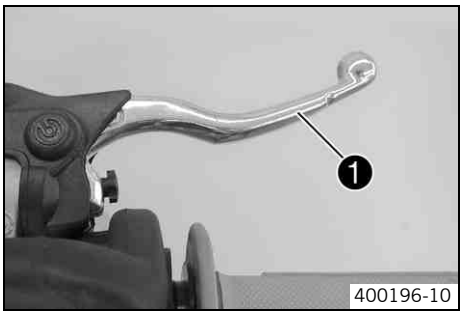
The clutch lever ❶ is fitted on the left side of the handlebar.
The clutch is hydraulically operated and self-adjusting.



(All 250/300 models)

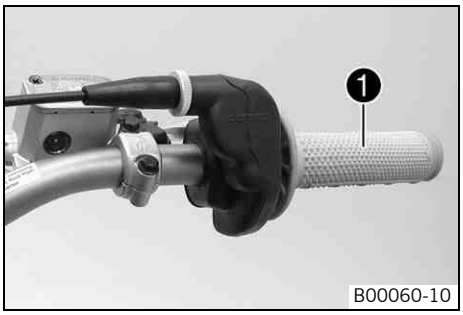
The clutch lever ❶ is fitted on the left side of the handlebar.
The clutch is hydraulically operated and self-adjusting.

Hand brake lever



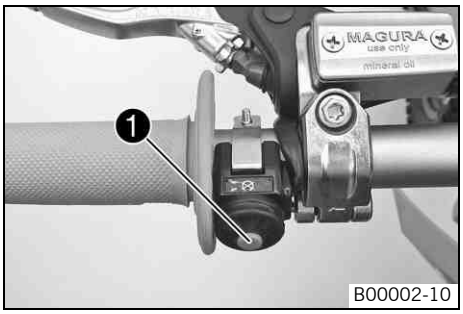
Hand brake lever ❶ is located on the right side of the handlebar.
The hand brake lever is used to activate the front brake.

Throttle grip



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

Kill switch

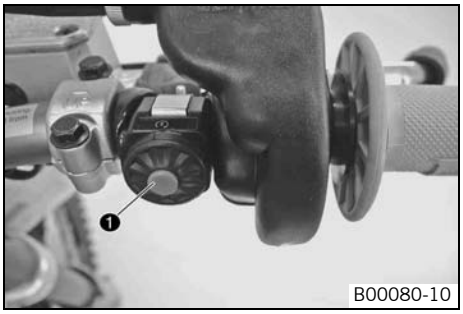


The kill switch ❶ is fitted on the left side of the handlebar.

Possible states

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

Electric starter button (250/300 XC)

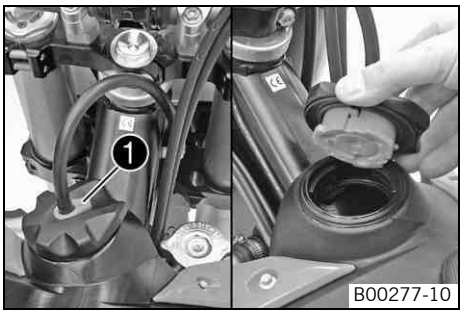


The electric starter button ❶ is fitted on the right side of the handlebar.

Possible states

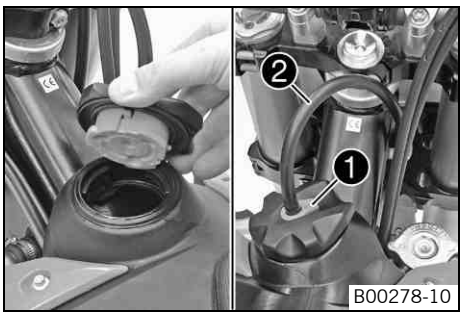
- Electric starter button ⓚ in basic position
- Electric starter button ⓚ pressed – In this position, the electric starter is actuated.

Opening the filler cap



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

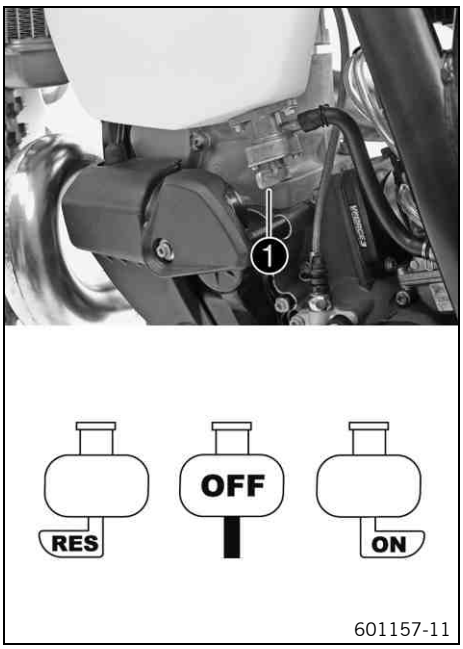
Closing the filler cap



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

Info
Run the fuel tank breather hose ❷ without kinks.

Fuel tap (All XC models)

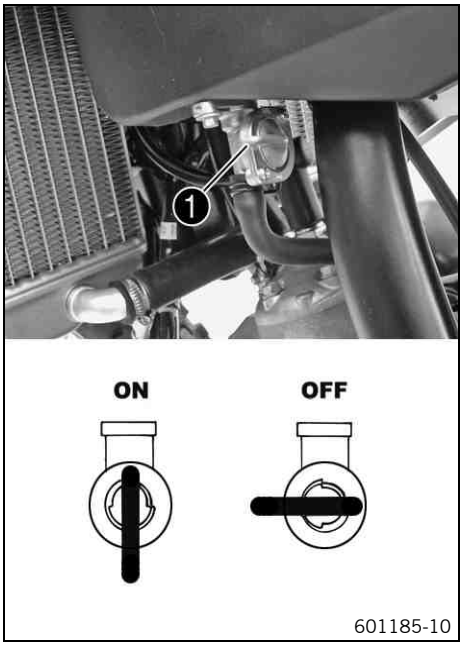


The fuel tap is on the left side of the fuel tank.
Tap handle ❶ on the fuel tap is used to open or close the supply of fuel to the carburetor.

Possible states

- Fuel supply closed **OFF** – No fuel can flow from the tank to the carburetor.
- Fuel supply open **ON** – Fuel can flow from the tank to the carburetor. The fuel tank empties down to the reserve.
- Reserve fuel supply open **RES** – Fuel can flow from the tank to the carburetor. The fuel tank empties completely.

Fuel tap (All SX models)

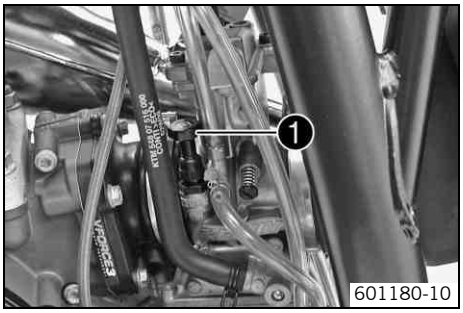


The fuel tap is on the left side of the fuel tank.
With tap handle ❶ on the fuel tap, you can open or close the supply of fuel to the carburetor.

Possible states

- Fuel supply closed **OFF** – No fuel can flow from the tank to the carburetor.
- Fuel supply open **ON** – Fuel can flow from the tank to the carburetor. The fuel tank empties completely.

Choke



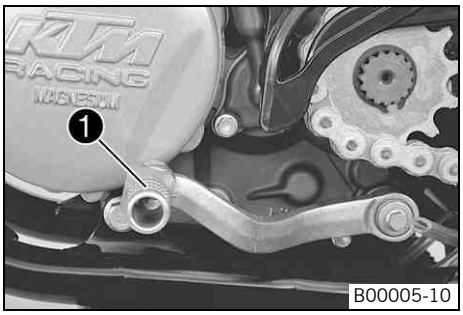
The choke ❶ is fitted on the left side of the carburetor.
Activating the choke function frees an opening through which the engine can draw extra fuel. This gives a richer fuel-air mixture, which is needed for a cold start.

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

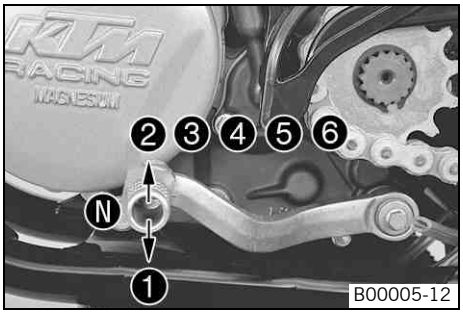
Possible states

- Choke function activated – The choke lever is pulled out to the stop.
- Choke function deactivated – The choke lever is pushed in to the stop.

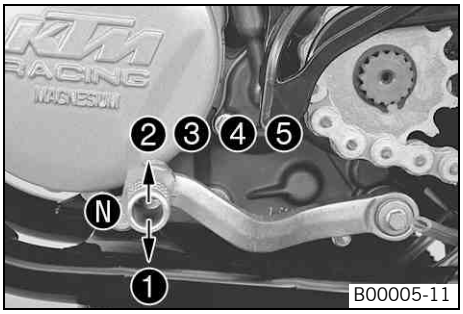
Shift lever



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



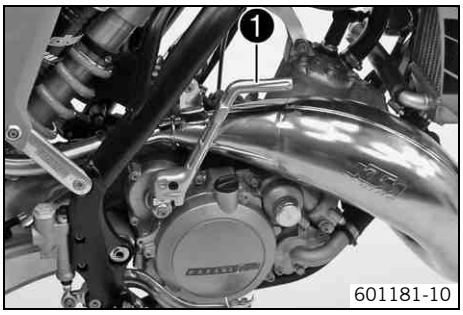
(All 125/150 models, All XC models)
The gear positions can be seen in the photograph.
The neutral or idle position is between the first and second gears.



(250 SX)

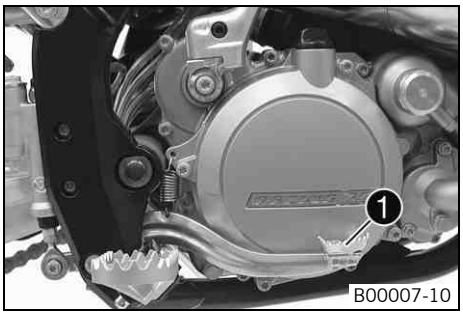
The gear positions can be seen in the photograph.
The neutral or idle position is between the first and second gears.

Kickstarter



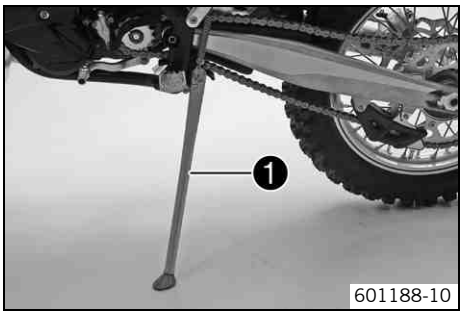
The kickstarter ❶ is fitted on the right side of the engine. The top part can be swiveled.

Foot brake lever

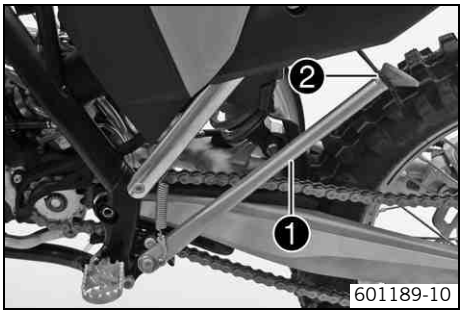


Foot brake lever ❶ is located in front of the right footrest.
The foot brake lever is used to activate the rear brake.

Side stand (All XC models)



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

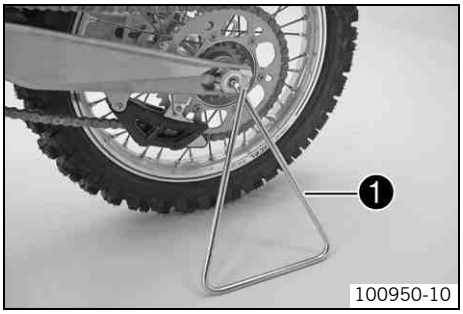


The side stand is used to park the motorcycle.

Info

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

Plug-in stand (All SX models)



The holder for plug-in stand ❶ 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.

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 present 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, which must be undamaged and meet 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
Danger of accidents Critical riding behavior due to inappropriate riding.

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

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

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

Warning
Danger of accidents 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 record at vehicle handover.
– Before your first trip, read the entire operating instructions carefully.
– Get to know the controls.
– Adjust the basic position of the clutch lever. (☛ p. 53)
– Adjust the basic position of the hand brake lever. (☛ p. 56)
– Adjust the basic position of the foot brake lever. 🔧 (☛ p. 60)
– Become accustomed to the handling of the motorcycle on suitable terrain.

Info
Your motorcycle is not authorized for riding on public roads.
Offroad, you should be accompanied by another person on another machine so that you can help each other.

– Try also to ride as slowly as possible and in a standing position to get a better feeling for the vehicle.
– Do not make any offroad trips that over-stress your ability and experience.
– Hold the handlebar firmly with both hands and keep your feet on the footrests when riding.
– Do not transport luggage.
– Do not exceed the overall maximum permitted weight and the axle loads.

Guideline

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

– Check the spoke tension. (☛ p. 67)

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

– Run the engine in.

Running in the engine

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

Guideline

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

– Avoid fully opening the throttle!

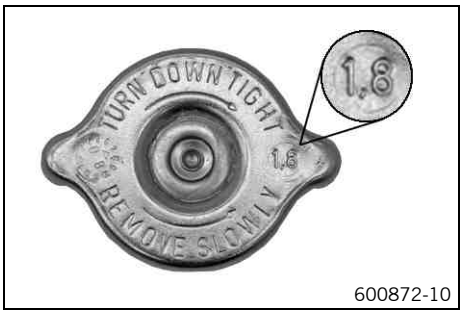
Preparing the vehicle for difficult operating conditions

– The use of motorcycles under difficult operating conditions can lead to above-average wear of components such as the drive train or brakes. For this reason, it may be necessary to service or replace worn parts before the limit specified in the service schedule is reached.

Difficult operating conditions are:

– Riding on dry sand. (☛ p. 16)
– Riding on wet sand. (☛ p. 17)
– Riding on wet and muddy surfaces. (☛ p. 18)
– Riding at high temperatures and low speeds. (☛ p. 19)
– Riding at low temperatures and in snow. (☛ p. 19)

Preparations for riding on dry sand



600872-10

– Check the radiator cap.

Value on the radiator cap	1.8 bar (26 psi)

» If the displayed value does not equal the 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.

– Seal the air filter box.

Tip
Seal the air filter box at the edges to prevent dirt from entering.

– Clean the air filter and air filter box. (☛ p. 46)

Info
Check the air filter approx. every 30 minutes.

B00435-01

– Mount the dust cover for the air filter.

Dust cover for air filter (59006019000)

Info
Read the **KTM PowerParts** installation instructions.

B00436-01

– Mount the dust cover for the air filter for sand.

Sand cover for air filter (59006022000)

Info
Read the **KTM PowerParts** installation instructions.

– Adjust the carburetor jetting and setting.

Info
Recommendations on the carburetor setting are available from your authorized KTM workshop.


600868-01

– Clean the chain.

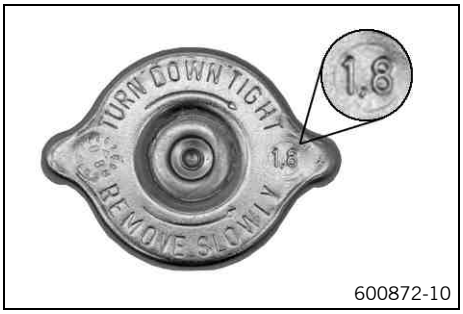
Chain cleaner (☛ p. 115)

– Mount the steel sprocket.

Tip
Do not grease the chain.

– Clean the radiator fins.
– Carefully align bent radiator fins.
– If used in sand regularly, replace the piston every 10 operating hours.

Preparations for riding on wet sand



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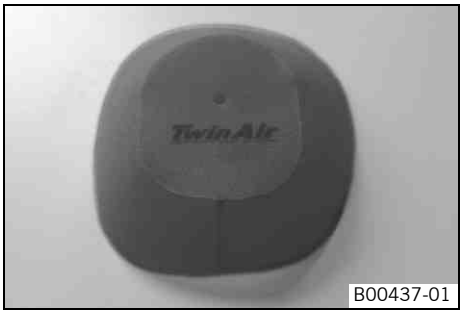
– Seal the air filter box.

Tip
Seal the air filter box at the edges to prevent dirt from entering.

– Clean the air filter and air filter box. (☛ p. 46)

Info
Check the air filter approx. every 30 minutes.



– Mount the rain cover for the air filter.

Rain cover for air filter (59006021000)

Info
Read the **KTM PowerParts** installation instructions.

– Adjust the carburetor jetting and setting.

Info
Recommendations on the carburetor setting are available from your authorized KTM workshop.

– Clean the chain.

Chain cleaner (☛ p. 115)

– Mount the steel sprocket.

Tip
Do not grease the chain.

– Clean the radiator fins.
– Carefully align bent radiator fins.
– If used in sand regularly, replace the piston every 10 operating hours.

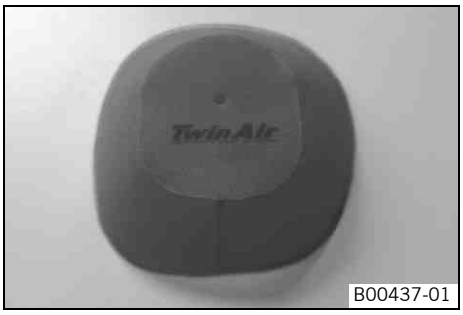
Preparations for riding on wet and muddy surfaces

– Seal the air filter box.

Tip
Seal the air filter box at the edges to prevent dirt from entering.

– Clean the air filter and air filter box. (☛ p. 46)

Info
Check the air filter approx. every 30 minutes.



– Mount the rain cover for the air filter.

Rain cover for air filter (59006021000)

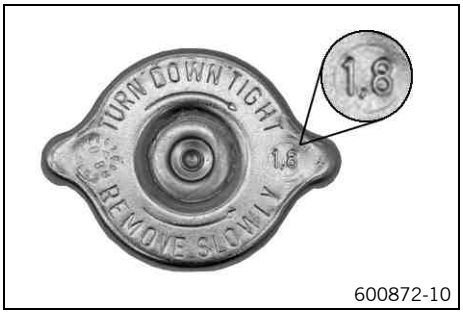
Info
Follow the **KTM PowerParts** mounting instructions.

– Adjust the carburetor jetting and setting.

Info
The recommended carburetor tuning is available from your authorized KTM workshop.

– Mount the steel sprocket.
– Clean the motorcycle. (☛ p. 83)
– Carefully align bent radiator fins.

Preparations for riding at high temperatures and low speeds



600872-10

– Check the radiator cap.

Value on the radiator cap	1.8 bar (26 psi)

» If the displayed value does not equal the 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.

– Seal the air filter box.

Tip
Seal the air filter box at the edges to prevent dirt from entering.

– Clean the air filter and air filter box. (☛ p. 46)

Info
Check the air filter approx. every 30 minutes.


600868-01

– Adjust the secondary ratio to the terrain.

Info
The engine oil heats up rapidly if the clutch needs to be operated too frequently because the secondary ratio is too long.

– Clean the chain.

Chain cleaner (☛ p. 115)

– Clean the radiator fins.
– Carefully align bent radiator fins.
– Check the coolant level. (☛ p. 73)

Preparations for riding at low temperatures and in snow

– Seal the air filter box.

Tip
Seal the air filter box at the edges to prevent dirt from entering.

– Clean the air filter and air filter box. (☛ p. 46)

Info
Check the air filter approx. every 30 minutes.

B00437-01

– Mount the rain cover for the air filter.

Rain cover for air filter (59006021000)

Info
Follow the **KTM PowerParts** mounting instructions.

– Adjust the carburetor jetting and setting.

Info
The recommended carburetor tuning is available from your authorized KTM workshop.

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 gear oil level. (☛ p. 80)
- Check the front brake fluid level. (☛ p. 57)
- Check the rear brake fluid level. (☛ p. 61)
- Check the front brake linings. (☛ p. 58)
- Check the rear brake linings. (☛ p. 62)
- Check that the brake system is functioning properly.
- Check the coolant level. (☛ p. 73)
- Check the chain for dirt. (☛ p. 49)
- Check the chain, rear sprocket, engine sprocket and chain guide. (☛ p. 51)
- Check the chain tension. (☛ p. 50)
- Check the tire condition. (☛ p. 66)
- Check the tire air pressure. (☛ p. 67)
- Clean the dust boots of the fork legs. (☛ p. 38)
- Bleed the fork legs. (☛ p. 37)
- 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.

Starting

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

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

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

- Always warm up the engine at low engine speeds.

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

Engine has been out of use for more than 1 week

- Empty the carburetor float chamber. 🔧 (☛ p. 77)

(All SX models)

- Turn handle ❶ of the fuel tap to the **ON** position. (Figure 601185-10☛ p. 12)

  ✓ Fuel can flow from the fuel tank to the carburetor.

(All XC models)

- Turn handle ❶ of the fuel tap to the **ON** position. (Figure 601157-11☛ p. 11)

  ✓ Fuel can flow from the fuel tank to the carburetor.

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

The engine is cold

- Pull choke lever out as far as possible.

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

Info
Do not open the throttle.

Starting up

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.

Shifting, riding

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

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

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

– When conditions allow (incline, road situation, etc.), you can shift into a higher gear. To do so, release the throttle while simultaneously pulling the clutch lever, shift into the next gear, release the clutch and open the throttle.
– If the choke function was activated, deactivate it after the engine has warmed up.
– When you reach maximum speed after fully opening the throttle, turn back the throttle to about ¾ of its range. This barely reduces vehicle speed but lowers fuel consumption considerably.
– 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 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. This heats the engine oil, the engine and the cooling system.
– Ride with a lower engine speed instead of with a high engine speed and a slipping clutch.

Braking

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

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

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

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

Warning
Danger of accidents Reduced braking efficiency due to wet or dirty brakes.

– Clean or dry dirty or wet brakes 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.
– On long downhill stretches, use the braking effect of the engine. Change down one or two gears, but do not overstress the engine. In this way, you have to brake far less and the brakes do not overheat.

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 brakes. Allow these components to cool down before starting work on them.

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

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

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

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

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

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

– Brake the motorcycle.
– Shift gear to neutral.
– Press and hold the kill switch ⊠ while the engine is idling until the engine stops.

(All XC models)
– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure 601157-11☛ p. 11)

(All SX models)
– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure 601185-10☛ p. 12)

– Park the vehicle on the side stand.

Refueling

Danger
Fire hazard Fuel is highly flammable.

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

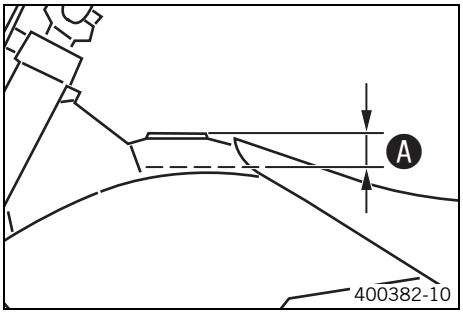
Warning
Danger of poisoning Fuel is poisonous and a health hazard.

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

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

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

– Switch off the engine.
– Open the filler cap. (☛ p. 11)



– Fill the fuel tank with fuel up to measurement Ⓐ.

Guideline

Measurement of Ⓐ		35 mm (1.38 in)
Total fuel tank capacity, approx.	7.5 l (1.98 US gal)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:40) (☛ p. 114) (125/150 SX)
		Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 114) (250 SX)
Total fuel tank capacity, approx.	11.5 l (3.04 US gal)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:40) (☛ p. 114) (150 XC USA)
		Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 114) (250/300 XC)
2-stroke engine oil (☛ p. 113)		

– Close the filler cap. (☛ p. 11)

Service schedule

	S10A	S20A	S30A
Change the gear oil. 🔧 (125/150 SX)	•	•	•
Change the gear oil. 🔧 (250 SX)		•	
Check the front brake linings. (☛ p. 58)	•	•	•
Check the rear brake linings. (☛ p. 62)	•	•	•
Check the brake discs. (☛ p. 56)	•	•	•
Check the brake lines for damage and leakage.	•	•	•
Check the rear brake fluid level. (☛ p. 61)	•	•	•
Change the foot brake cylinder seals. 🔧		•	
Check the free travel of the foot brake lever. (☛ p. 60)	•	•	•
Check the frame and swingarm. 🔧	•	•	•
Check the swingarm bearing. 🔧		•	
Check the heim joints at the top and bottom of the shock absorber. 🔧	•	•	•
Conduct a minor fork service. (All SX models) 🔧	•	•	•
Conduct a major fork service. (All SX models) 🔧			•
Check the tire condition. (☛ p. 66)	•	•	•
Check the tire air pressure. (☛ p. 67)	•	•	•
Check the wheel bearing for play. 🔧	•	•	•
Check the wheel hub. 🔧	•	•	•
Check the rim run-out. 🔧	•	•	•
Check the spoke tension. (☛ p. 67)	•	•	•
Check the chain, rear sprocket, engine sprocket and chain guide. (☛ p. 51)	•	•	•
Check the chain tension. (☛ p. 50)	•	•	•
Grease all moving parts (e.g., hand lever, chain, ...) and check for smooth operation. 🔧	•	•	•
Check the fluid level of the hydraulic clutch. (☛ p. 54)	•	•	•
Check the front brake fluid level. (☛ p. 57)	•	•	•
Check the free travel of the hand brake lever. (☛ p. 56)	•	•	•
Check the play of the steering head bearing. (☛ p. 42)	•	•	•
Change the piston and check the cylinder. 🔧		•	
Change the piston and check the cylinder. (under difficult riding conditions) 🔧	•	•	•
Change the spark plug and spark plug connector. 🔧 (125/150 SX)	•	•	•
Change the spark plug and spark plug connector. 🔧 (250 SX)		•	
Check the intake diaphragm. 🔧	•	•	•
Check the exhaust control for functioning and smooth operation. 🔧		•	
Check the clutch. 🔧	•	•	•
Check all hoses (e. g. fuel, cooling, bleeding, drainage) and sleeves for tearing, tightness and correct routing. 🔧	•	•	•
Check the antifreeze and coolant level. (☛ p. 72)	•	•	•
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. 🔧	•	•	•
Change the glass fiber yarn filling of the main silencer. 🔧 (☛ p. 47)		•	
Check the screws and nuts for tightness. 🔧	•	•	•
Check the idle. 🔧	•	•	•
Final check: Check the vehicle for safe operation and take a test ride.	•	•	•
Make the service entry in **KTM DEALER.NET** and in the service record. 🔧	•	•	•

S10A: Every 10 service hours - corresponds to about 70 liters of fuel (18.5 US gal) / after every race
S20A: Every 20 service hours - corresponds to about 140 liters of fuel (37 US gal)
S30A: Every 30 service hours - corresponds to about 210 liters of fuel (55.5 US gal)

Maintenance work (as an additional order)

	S20N	S40A	J1A
Change the front brake fluid.			•
Change the rear brake fluid.			•
Change the hydraulic clutch fluid. (p. 54)			•
Grease the steering head bearing. (p. 43)			•
Check/set the carburetor components.		•	•
Perform a shock absorber service. (All SX models)	•	•	
Change the connecting rod, conrod bearing and crank pin.		•	
Check the transmission and shift mechanism.		•	
Change all engine bearings.		•	

S20N: Once after 20 service hours - corresponds to about 140 liters of fuel (37 US gal)
S40A: Every 40 service hours - corresponds to about 280 liters of fuel (74 US gal)
J1A: Annually

Service schedule

	S20A	S40A
Check and charge the battery. 🔧 (250/300 XC)	•	•
Change the gear oil. 🔧	•	•
Check the front brake linings. (☛ p. 58)	•	•
Check the rear brake linings. (☛ p. 62)	•	•
Check the brake discs. (☛ p. 56)	•	•
Check the brake lines for damage and leakage.	•	•
Check the rear brake fluid level. (☛ p. 61)	•	•
Check the free travel of the foot brake lever. (☛ p. 60)	•	•
Check the frame and swingarm. 🔧	•	•
Check the swingarm bearing. 🔧		•
Check the heim joints at the top and bottom of the shock absorber. 🔧	•	•
Conduct a minor fork service. (All XC models) 🔧	•	•
Check the tire condition. (☛ p. 66)	•	•
Check the tire air pressure. (☛ p. 67)	•	•
Check the wheel bearing for play. 🔧	•	•
Check the wheel hub. 🔧	•	•
Check the rim run-out. 🔧	•	•
Check the spoke tension. (☛ p. 67)	•	•
Check the chain, rear sprocket, engine sprocket and chain guide. (☛ p. 51)	•	•
Check the chain tension. (☛ p. 50)	•	•
Grease all moving parts (e.g., hand lever, chain, ...) and check for smooth operation. 🔧	•	•
Check the fluid level of the hydraulic clutch. (☛ p. 54)	•	•
Check the front brake fluid level. (☛ p. 57)	•	•
Check the free travel of the hand brake lever. (☛ p. 56)	•	•
Check the play of the steering head bearing. (☛ p. 42)	•	•
Change the spark plug and spark plug connector. 🔧	•	•
Check the intake diaphragm. 🔧	•	•
Check the exhaust control for functioning and smooth operation. 🔧		•
Check the clutch. 🔧		•
Check all hoses (e. g. fuel, cooling, bleeding, drainage) and sleeves for tearing, tightness and correct routing. 🔧	•	•
Check the antifreeze and coolant level. (☛ p. 72)	•	•
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. 🔧	•	•
Change the glass fiber yarn filling of the main silencer. 🔧 (☛ p. 47)	•	•
Check the screws and nuts for tightness. 🔧	•	•
Check the idle. 🔧	•	•
Final check: Check the vehicle for safe operation and take a test ride.	•	•
Make the service entry in **KTM DEALER.NET** and in the service record. 🔧	•	•

S20A: Every 20 service hours - corresponds to about 140 liters of fuel (37 US gal)
S40A: Every 40 service hours - corresponds to about 280 liters of fuel (74 US gal) / after each race

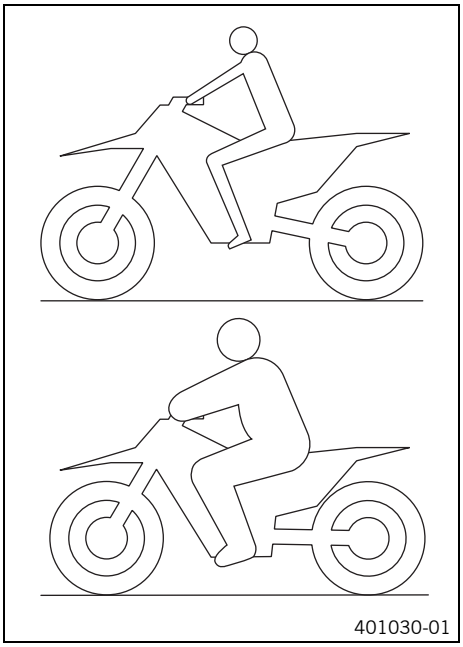
Maintenance work (as an additional order)

	S40A	S80A	J1A
Change the front brake fluid. 🔧			•
Change the rear brake fluid. 🔧			•
Change the foot brake cylinder seals. 🔧			•
Change the hydraulic clutch fluid. 🔧 (☛ p. 54)			•
Grease the steering head bearing. 🔧 (☛ p. 43)			•
Check/set the carburetor components. 🔧		•	•
Conduct a major fork service. (All XC models) 🔧	•	•	
Perform a shock absorber service. (All XC models) 🔧	•	•	
Check the starter drive. 🔧 (250/300 XC)	•	•	
Change the piston and check the cylinder. 🔧 (All 125/150 models)	•	•	
Change the connecting rod, conrod bearing and crank pin. 🔧		•	
Check the transmission and shift mechanism. 🔧		•	
Change all engine bearings. 🔧		•	

S40A: Every 40 service hours - corresponds to about 280 liters of fuel (74 US gal)
S80A: Every 80 service hours - corresponds to about 560 liters of fuel (148 US gal) / every 40 service hours after sporting use - corresponds to about 280 liters of fuel (74 US gal)
J1A: Annually

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.


401030-01

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

Guideline

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

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

Compression damping of shock absorber

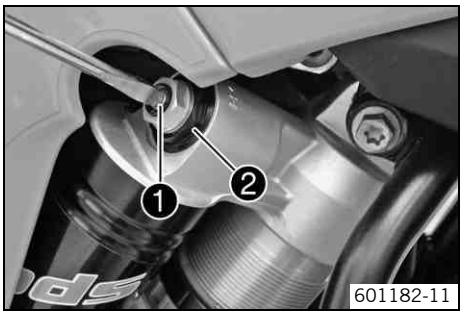
The compression damping of the shock absorber is divided into two ranges: high-speed and low-speed.
High-speed and low-speed refer to the compression speed of the rear wheel suspension and not to the vehicle speed.
The high-speed setting, for example, affects the compression when landing after a jump: the rear wheel suspension compresses more quickly.
The low-speed setting, for example, affects the compression when riding over long ground swells: the rear wheel suspension compresses more 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.

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



601182-11

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

Info
Do not loosen nut ❷!

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

Guideline

Compression damping, low-speed (125/150 SX)	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, low-speed (250 SX)	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, low-speed (150 XC USA)	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, low-speed (250/300 XC)	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks

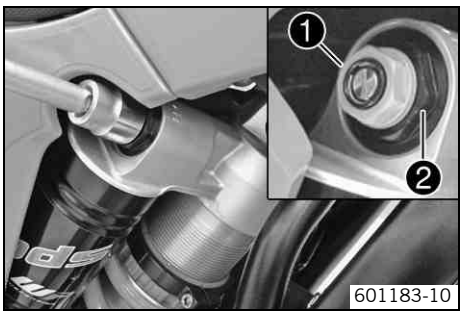
Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

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 high-speed setting can be seen during the fast compression of the shock absorber.



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

Info
Do not loosen nut ❷!

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

Guideline

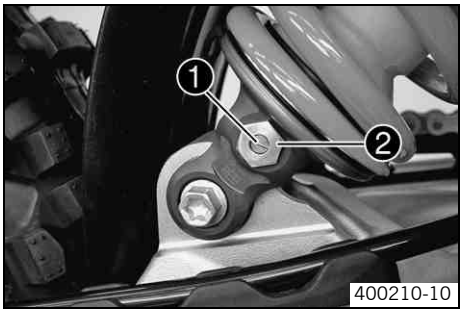
Compression damping, high-speed (125/150 SX)	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn
Compression damping, high-speed (250 SX)	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn
Compression damping, high-speed (150 XC USA)	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn
Compression damping, high-speed (250/300 XC)	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn

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

Adjusting the rebound damping of the shock absorber

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

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



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

Info
Do not loosen nut ❷!

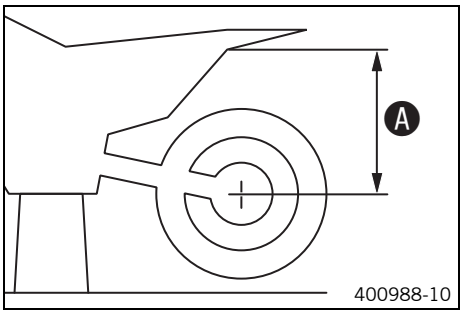
– Turn back counterclockwise by the number of clicks corresponding to the shock absorber type.

Guideline

Rebound damping (125/150 SX)	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks
Rebound damping (250 SX)	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks
Rebound damping (150 XC USA)	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks
Rebound damping (250/300 XC)	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks

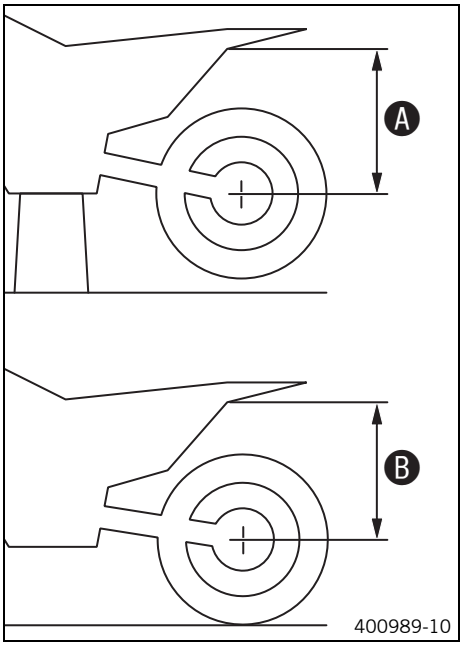
Info
Turn clockwise to increase damping; turn counterclockwise to reduce damping.

Measuring the sag of the unloaded rear wheel



- Raise the motorcycle with the lift stand. (☛ p. 37)
- Measure the distance – as vertical as possible – between the rear axle and a fixed point, for example, a mark on the side cover.
- Note down the value as dimension Ⓐ.
- Remove the motorcycle from the lift stand. (☛ p. 37)

Checking the static sag of the shock absorber



- Measure distance Ⓐ of the unloaded rear wheel. (☛ p. 31)
- 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 Ⓑ.

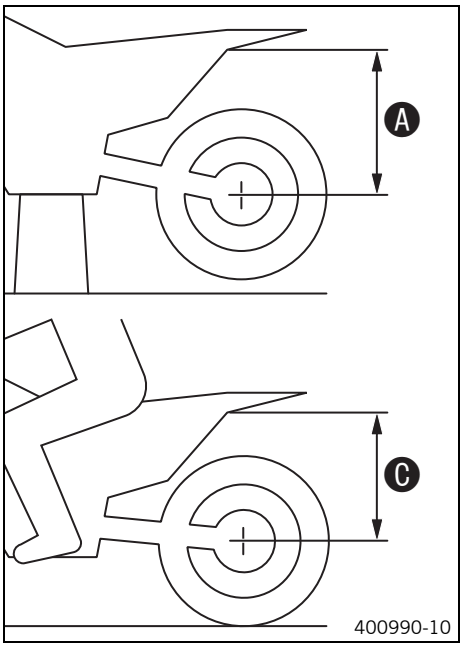
Info
The static sag is the difference between measurements Ⓐ and Ⓑ.

- Check the static sag.

Static sag (125/150 SX)	33 mm (1.3 in)
Static sag (250 SX)	33 mm (1.3 in)
Static sag (150 XC USA)	33 mm (1.3 in)
Static sag (250/300 XC)	33 mm (1.3 in)

» If the static sag is less or more than the specified value:
  - Adjust the spring preload of the shock absorber. 🔧 (☛ p. 32)

Checking the riding sag of the shock absorber



- Measure distance Ⓐ of the unloaded rear wheel. (☛ p. 31)
- 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 a fixed point.
- Note down the value as dimension Ⓒ.

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

- Check the riding sag.

Guideline

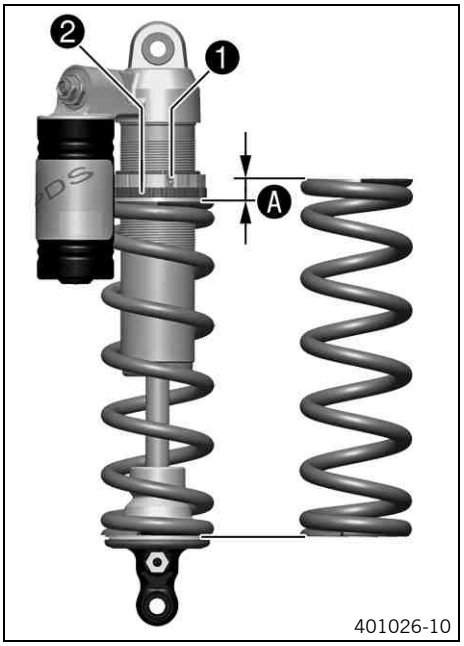
Riding sag (125/150 SX)	109 mm (4.29 in)
Riding sag (250 SX)	105 mm (4.13 in)
Riding sag (150 XC USA)	109 mm (4.29 in)
Riding sag (250/300 XC)	105 mm (4.13 in)

» If the riding sag differs from the specified measurement:
– Adjust the riding sag. 🔧 (☛ p. 32)

Adjusting the spring preload of the shock absorber 🔧

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

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



401026-10

– Remove the shock absorber. 🔧 (☛ p. 44)
– After removing the shock absorber, clean it thoroughly.
– Loosen screw ❶.
– Turn adjusting ring ❷ until the spring is no longer under tension.

Hook wrench (T106S)

– Measure the overall spring length when not under tension.
– Tighten the spring by turning adjusting ring ❷ to measurement Ⓐ.
Guideline

Spring preload (125/150 SX)	5 mm (0.2 in)
Spring preload (250 SX)	
Comfort	5 mm
Standard	3 mm
Sport	5 mm
Spring preload (150 XC USA)	7 mm (0.28 in)
Spring preload (250/300 XC)	5 mm (0.2 in)

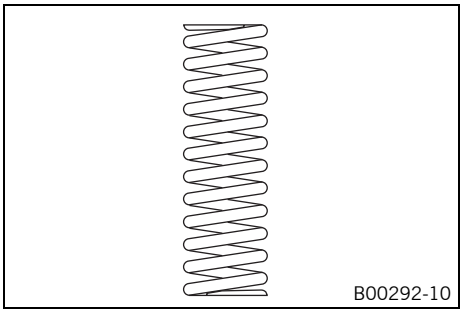
Info
Depending on the static sag and/or the riding sag, it may be necessary to increase or decrease the spring preload.

– Tighten screw ❶.
Guideline

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

– Install the shock absorber. 🔧 (☛ p. 44)

Adjusting the riding sag 🔧


B00292-10

– Remove the shock absorber. 🔧 (☛ p. 44)
– After removing the shock absorber, clean it thoroughly.
– Choose and mount a suitable spring.

Guideline

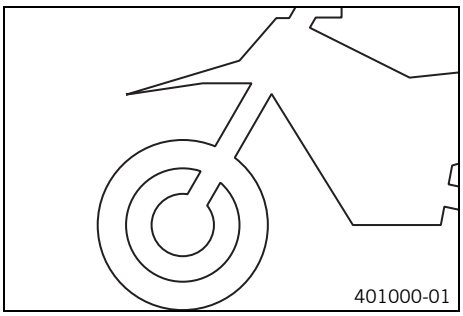
Spring rate (125/150 SX)	
Weight of rider: 65... 75 kg (143... 165 lb.)	60 N/mm (343 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	63 N/mm (360 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	66 N/mm (377 lb/in)
Spring rate (250 SX)	
Weight of rider: 65... 75 kg (143... 165 lb.)	66 N/mm (377 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	69 N/mm (394 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	72 N/mm (411 lb/in)
Spring rate (150 XC USA)	
Weight of rider: 65... 75 kg (143... 165 lb.)	60 N/mm (343 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	63 N/mm (360 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	66 N/mm (377 lb/in)
Spring rate (250/300 XC)	
Weight of rider: 65... 75 kg (143... 165 lb.)	66 N/mm (377 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	69 N/mm (394 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	72 N/mm (411 lb/in)

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

- Install the shock absorber. (☛ p. 44)
- Check the static sag of the shock absorber. (☛ p. 31)
- Check the riding sag of the shock absorber. (☛ p. 31)
- Adjust the rebound damping of the shock absorber. (☛ p. 30)

Checking the basic setting of the fork

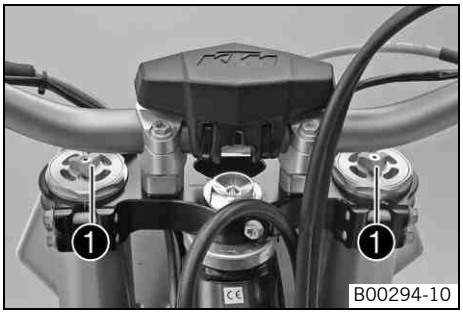
Info
For various reasons, no exact riding sag can be determined for the forks.



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

Adjusting the compression damping of the fork

Info
The hydraulic compression damping determines the fork suspension behavior.



– Turn adjusting screws ❶ clockwise all the way.

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

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

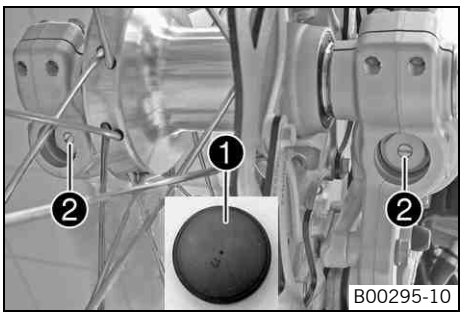
Guideline

Compression damping (125/150 SX)	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks
Compression damping (250 SX)	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks
Compression damping (150 XC USA)	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks
Compression damping (250/300 XC)	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks

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

Adjusting the rebound damping of the fork

Info
The hydraulic rebound damping determines the fork suspension behavior.



– Remove protection covers ❶.
– Turn adjusting screws ❷ clockwise all the way.

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

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

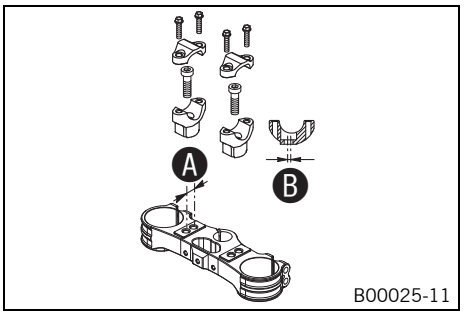
Guideline

Rebound damping (125/150 SX)	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks
Rebound damping (250 SX)	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks
Rebound damping (150 XC USA)	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks
Rebound damping (250/300 XC)	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks

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

– Mount protection covers ❶.

Handlebar position



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

Hole distance A	15 mm (0.59 in)

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

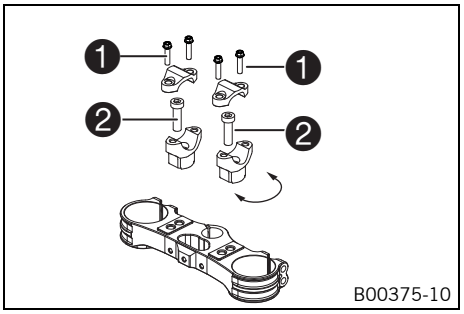
Hole distance B	3.5 mm (0.138 in)

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

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.



– Remove screws ❶. Remove the handlebar clamp. Remove the handlebar and lay it to one side.

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

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

Guideline

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

Info
Position the left and right handlebar supports evenly.

– Position the handlebar.

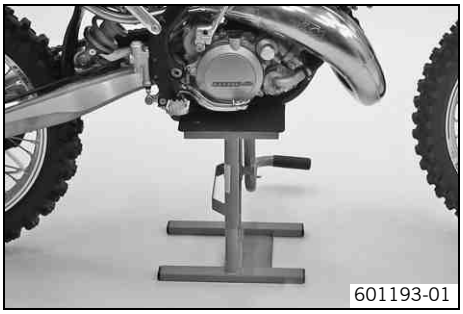
Info
Make sure cables and wiring are positioned correctly.

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

Guideline

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

Raising the motorcycle with the lift stand


601193-01

Note

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

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

– Raise the motorcycle at the frame underneath the engine.

Lift stand (54829055000)

✓ The wheels must no longer touch the ground.

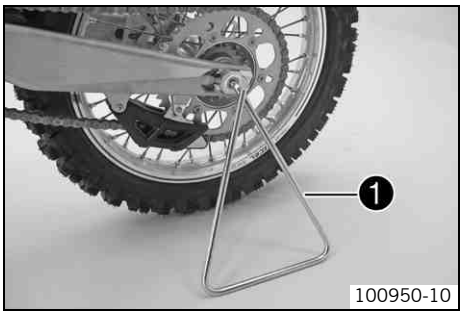
– Secure the motorcycle against falling over.

Removing the motorcycle from the lift stand

Note

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

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

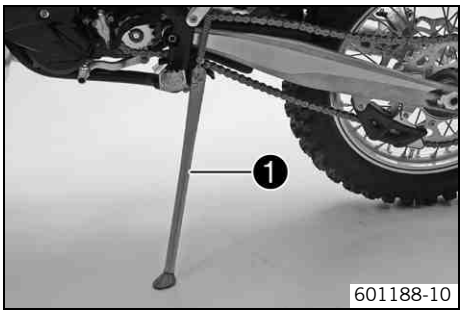


100950-10

(All SX models)

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

Info
Remove the plug-in stand before riding.



601188-10

(All XC models)

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

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

Bleeding the fork legs

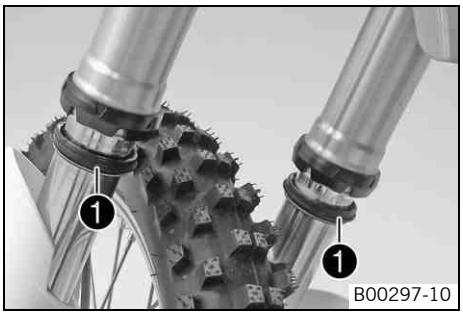
601204-10

– Raise the motorcycle with the lift stand. (☛ p. 37)
– Remove bleeder screws ❶ briefly.

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

– Mount and tighten bleeder screws.
– Remove the motorcycle from the lift stand. (☛ p. 37)

Cleaning the dust boots of the fork legs



– Raise the motorcycle with the lift stand. (☛ p. 37)
– Loosen the fork protection. (☛ p. 38)
– Push dust boots ❶ of both fork legs downwards.

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

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

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

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

Universal oil spray (☛ p. 116)

– Press the dust boots back into their normal position.
– Remove excess oil.
– Position the fork protection. (☛ p. 38)
– Remove the motorcycle from the lift stand. (☛ p. 37)

Loosening the fork protection

– Remove screws ❶ and take off the clamp.
– Remove screws ❷ on the left fork leg. Push the fork protection downwards.
– Remove the screws on the right fork leg. Push the fork protection downwards.

Positioning the fork protection

– Position the fork protection on the left fork leg. Mount and tighten screws ❶.

Guideline

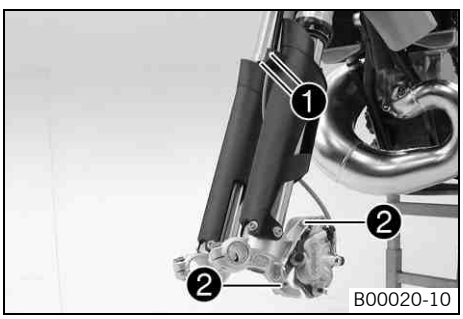
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

– Position the brake line. Position the clamp and mount and tighten screws ❷.
– Position the fork protection on the right fork leg. Mount and tighten the screws.

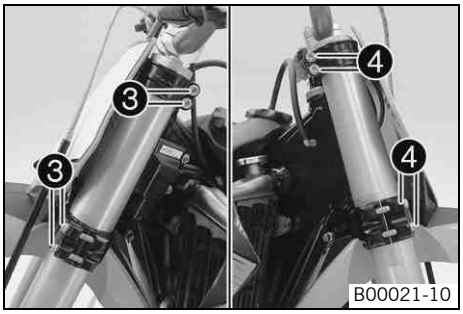
Guideline

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

Removing the fork legs 🔧



– Remove the front wheel. 🔧 (☛ p. 64)
– Remove screws ❶ and take off the clamp.
– Remove screws ❷ and take off the brake caliper.
– Allow the brake caliper and brake line to hang tension-free to the side.

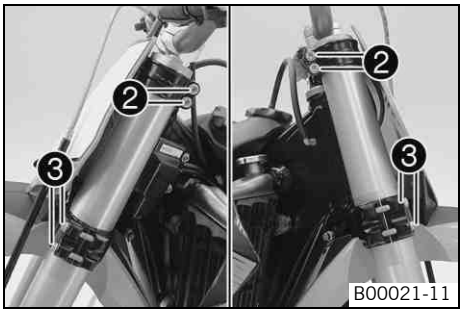


– Unscrew screws ❸. Take out the left fork leg.
– Unscrew screws ❹. Take out the right fork leg.

Installing the fork legs

– Position the fork legs.

Info
The topmost milled groove in the fork leg must be flush to the upper edge of the upper triple clamp.
Position bleeder screws ❶ toward the front.

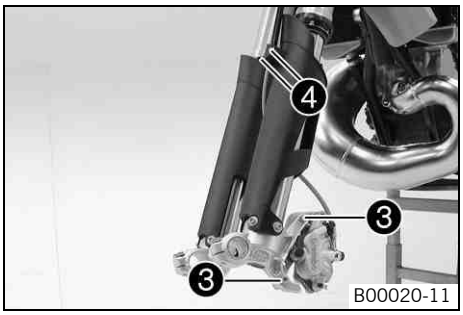


– Tighten screws ❷.
Guideline

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

– Tighten screws ❸.
Guideline

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

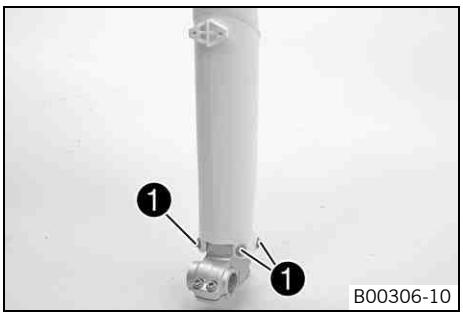


– Position the brake caliper and mount and tighten screws ❸.
Guideline

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

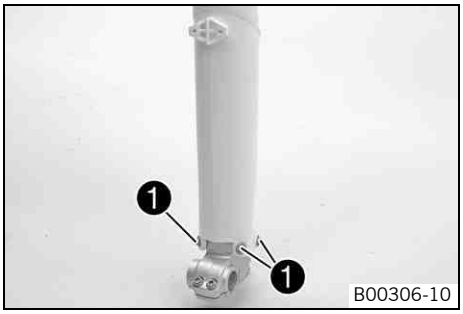
– Position the brake line. Put the clamp on, and mount and tighten screws ❹.
– Install the front wheel. (☛ p. 64)

Removing the fork protector



– Remove the fork legs. (☛ p. 38)
– Remove screws ❶ on the left fork leg. Lift off the fork protector.
– Remove the screws on the right fork leg. Lift off the fork protector.

Installing the fork protector



– Position the fork protection on the left fork leg. Mount and tighten screws ❶.

Guideline

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

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

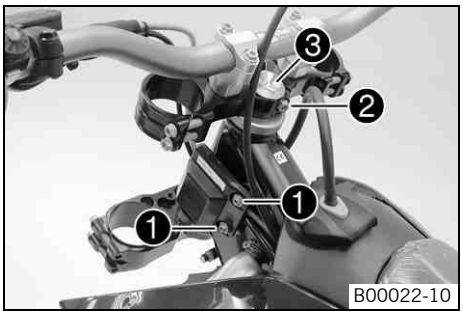
Guideline

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

– Install the fork legs. (☛ p. 39)

Removing the lower triple clamp

– Remove the fork legs. (☛ p. 38)
– Remove the start number plate. (☛ p. 43)
– Remove the front fender. (☛ p. 43)

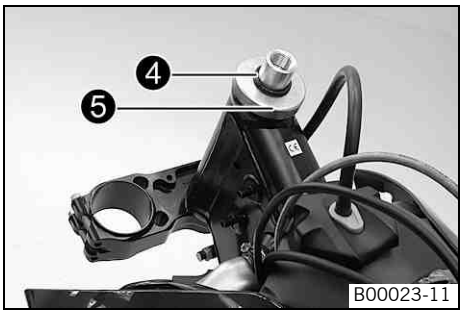


– Remove screws ❶ and hang the CDI control unit to the side.

Info
Do not unplug the CDI control unit.

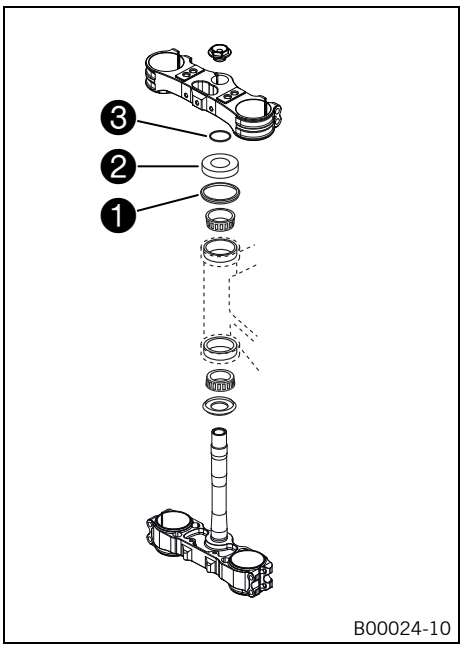
– Remove screw ❷. Remove screw ❸, take off the top triple clamp with the handlebar and place it on one side.

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



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

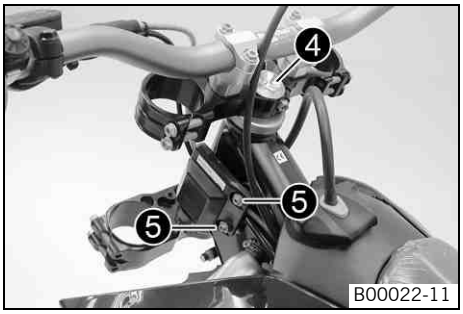
Installing the lower triple clamp



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

High viscosity grease (☛ p. 115)

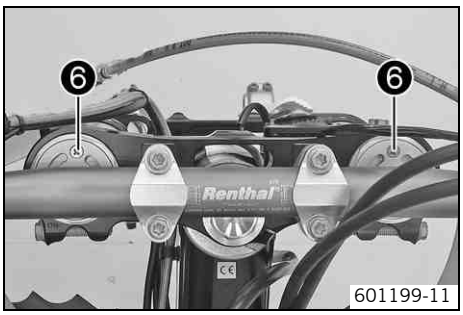
– Insert the lower triple clamp with the steering stem. Mount the upper steering head bearing.
– Check whether the top steering head seal ❶ is correctly positioned.
– Push up protective ring ❷ and O-ring ❸.



– Position the upper triple clamp with the steering.
– Mount screw ❹ but do not tighten yet.
– Install the CDI controller with screws ❺.

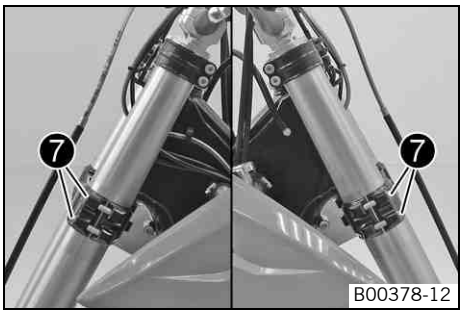
Guideline

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



– Position the fork legs.

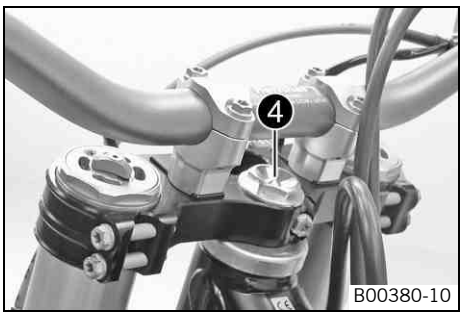
Info
The upper milled groove in the fork leg must be flush with the top edge of the upper triple clamp.
Position bleeder screws ❻ toward the front.



– Tighten screws ❼.

Guideline

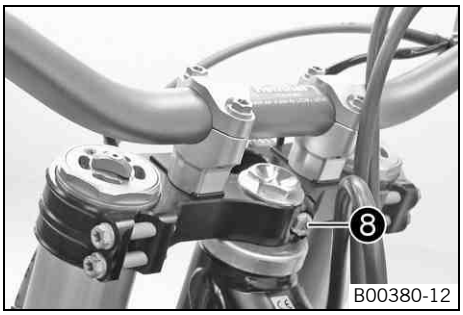
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)



– Tighten screw ❹.

Guideline

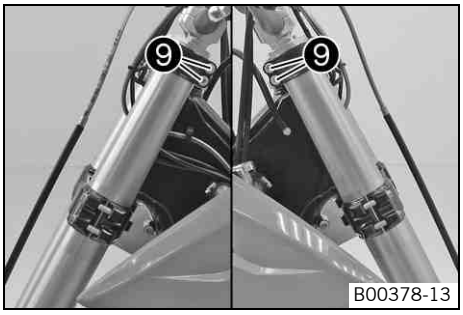
Screw, top steering head	M20x1.5	10 Nm (7.4 lbf ft)



– Mount and tighten screw ❽.

Guideline

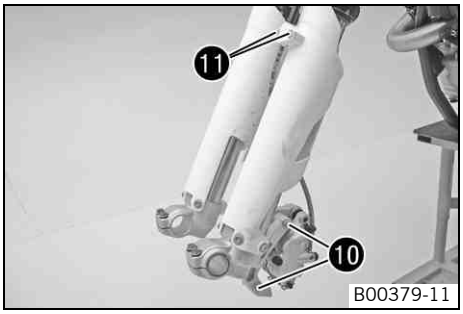
Screw, top steering stem	M8	17 Nm (12.5 lbf ft)	**Loctite® 243™**



– Tighten screws ❾.

Guideline

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



– Position the brake calipers. Mount and tighten screws ⓾.

Guideline

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

– Position the brake line and clamp. Mount and tighten screws ⓫.
– Install the front fender. (☛ p. 43)
– Install the start number plate. (☛ p. 43)
– Check that the wiring harness, throttle cables and brake and clutch lines can move freely and are routed correctly.
– Install the front wheel. 🔧 (☛ p. 64)
– Check the play of the steering head bearing. (☛ p. 42)

Checking the play of the steering head bearing

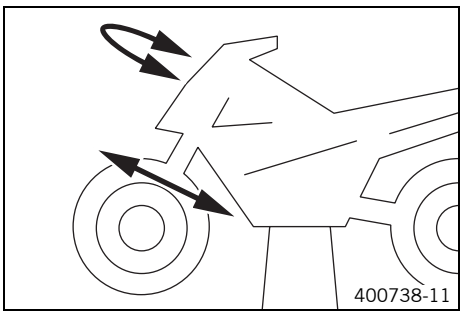
Warning

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.



– Raise the motorcycle with the lift stand. (☛ p. 37)
– Move the handlebar to the straight-ahead position. Move the fork legs to and fro in the direction of travel.

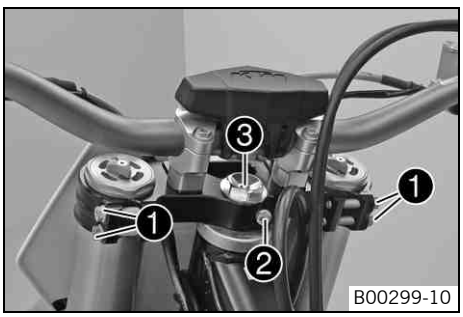
No play should be noticeable in the steering head bearing.

» If there is noticeable play present:
  – Adjust the play of the steering head bearing. 🔧 (☛ p. 42)
– 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 play of the steering head bearing. 🔧 (☛ p. 42)
  – Check the steering head bearing and replace if required.
– Remove the motorcycle from the lift stand. (☛ p. 37)

Adjusting the play of the steering head bearing 🔧



– Raise the motorcycle with the lift stand. (☛ p. 37)
– Loosen screws ❶. Remove screw ❷.
– Loosen and retighten screw ❸.

Guideline

Screw, top steering head	M20x1.5	10 Nm (7.4 lbf ft)

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

Guideline

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

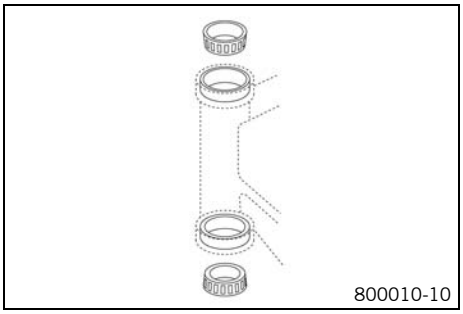
– Mount and tighten screw ❷.

Guideline

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

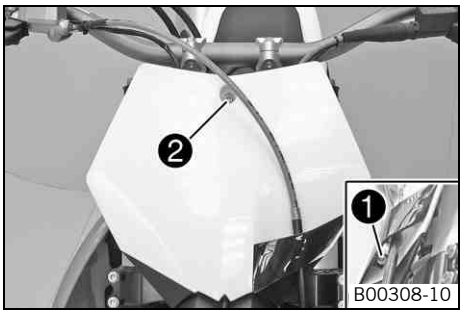
– Check the play of the steering head bearing. (☛ p. 42)

Greasing the steering head bearing



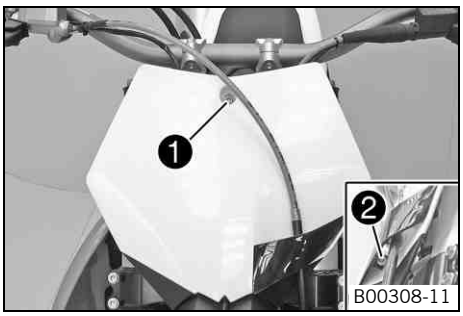
– Remove the lower triple clamp. (☛ p. 40)
– Install the lower triple clamp. (☛ p. 40)

Removing the start number plate



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

Installing the start number plate



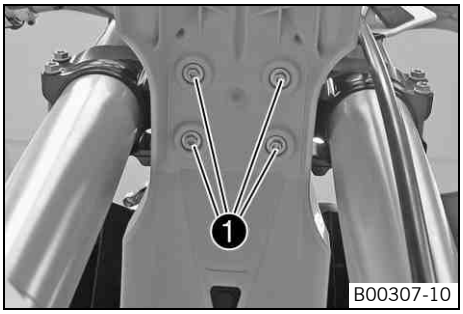
– Position the start number plate. Mount and tighten screw ❶.
Guideline

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

Info
Ensure that the holding lugs engage in the fender.

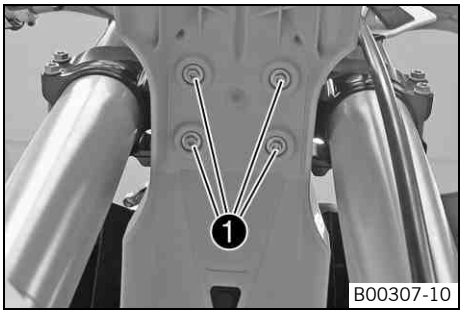
– Position the brake line. Position the clamp and mount and tighten screw ❷.

Removing the front fender



– Remove screws ❶. Remove the front fender.
– Make sure the spacers remain in place.

Installing the front fender

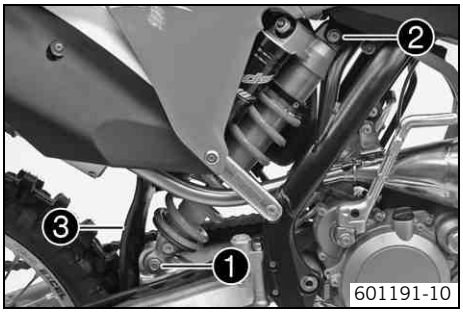


– Ensure that the spacers are mounted in the fender.
– Position the front fender. Mount and tighten screws ❶.
Guideline

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

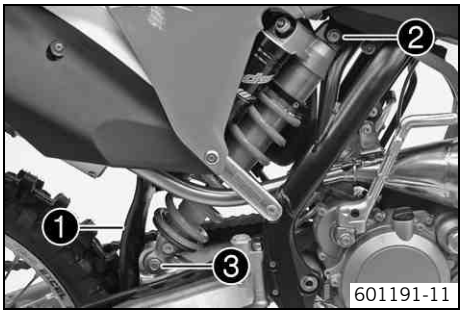
Info
Make sure the holding lugs engage in the start number plate.

Removing the shock absorber



– Raise the motorcycle with the lift stand. (☛ p. 37)
– Remove screw ❶ and lower the rear wheel with the swing arm as far as possible without blocking the rear wheel. Fix the rear wheel in this position.
– Remove screw ❷, push splash protector ❸ to the side, and remove the shock absorber.

Installing the shock absorber



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

Guideline

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

– Mount and tighten screw ❸.

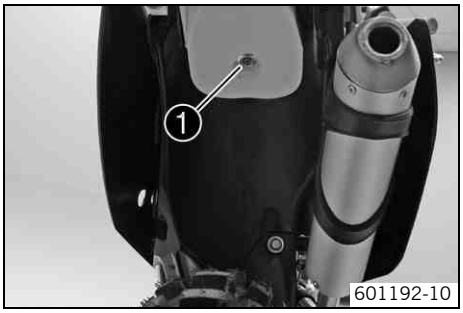
Guideline

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

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

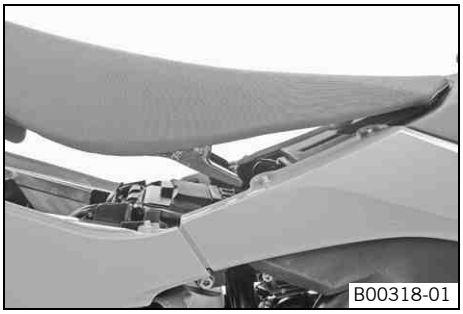
– Remove the motorcycle from the lift stand. (☛ p. 37)

Removing the seat

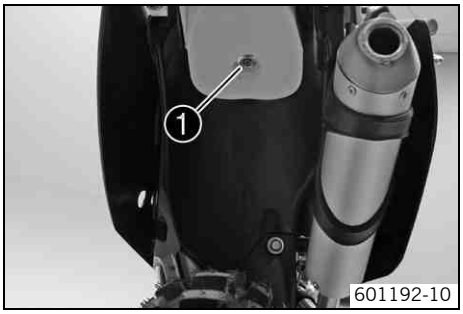


– Remove screw ❶. Lift up the seat at the rear, pull it back and then remove from above.

Mounting the seat



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



– Mount and tighten screw ❶ of the seat fixation.

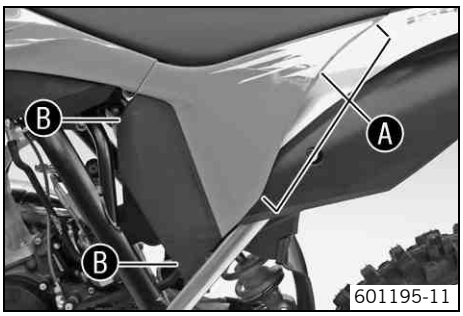
Guideline

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

Removing the air filter box lid

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

Installing the air filter box lid



– Insert the air filter box lid into the rear area Ⓐ and clip it into the front area Ⓑ.

Removing the air filter

Note

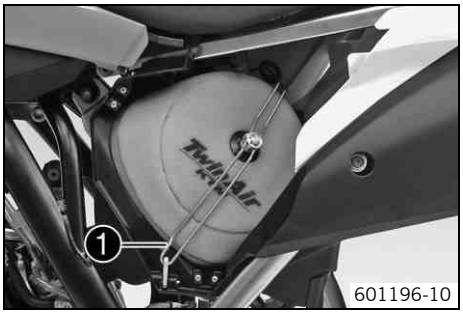
Engine failure Unfiltered intake air has a negative effect on the service life of the engine.

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

Warning

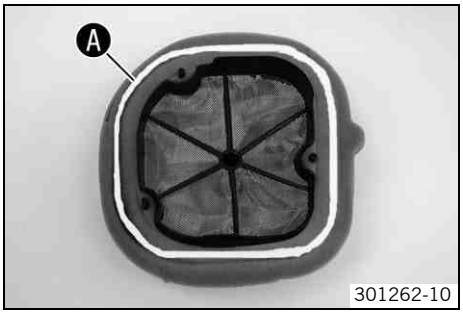
Environmental hazard Hazardous substances cause environmental damage.

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



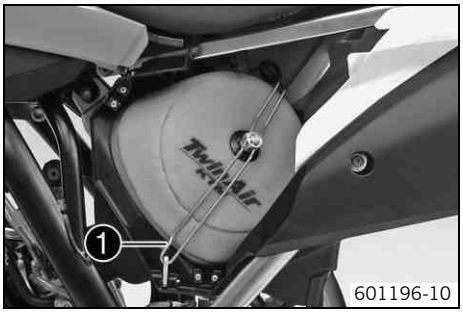
– Remove the air filter box lid. (☛ p. 45)
– Detach air filter holder ❶ at the bottom and swing it to one side. Remove the air filter with the air filter support.
– Remove the air filter from the air filter support.

Installing the air filter



– Mount the clean air filter onto the air filter support.
– Grease the air filter in area ❹.

Long-life grease (☛ p. 115)



– Put in both parts together, position them, and fix them with air filter holder ❶.

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

– Install the air filter box lid. (☛ p. 45)

Cleaning the air filter and air filter box

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

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

– Remove the air filter. (☛ p. 45)
– Wash the air filter thoroughly in special cleaning liquid and allow it to dry properly.

Air filter cleaner (☛ p. 115)

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

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

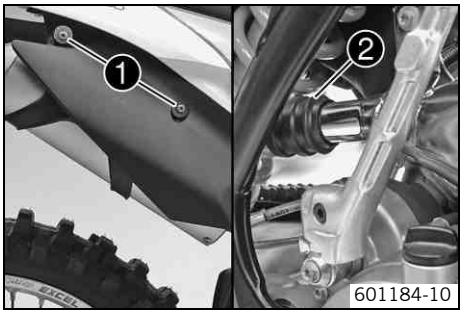
Oil for foam air filter (☛ p. 115)

– Clean the air filter box.
– Check the carburetor connection boot for damage and tightness.
– Install the air filter. (☛ p. 46)

Removing the main silencer

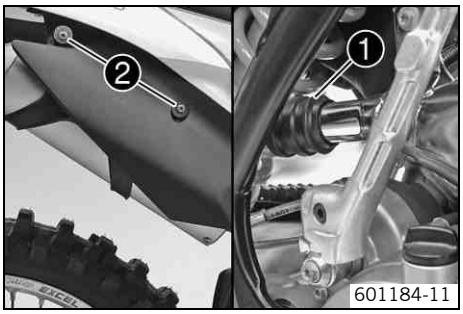
Warning
Danger of burns The exhaust system gets very hot when the vehicle is driven.

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



– Remove screws ❶.
– Pull the main silencer off of the manifold at the rubber sleeve ❷.

Installing the main silencer



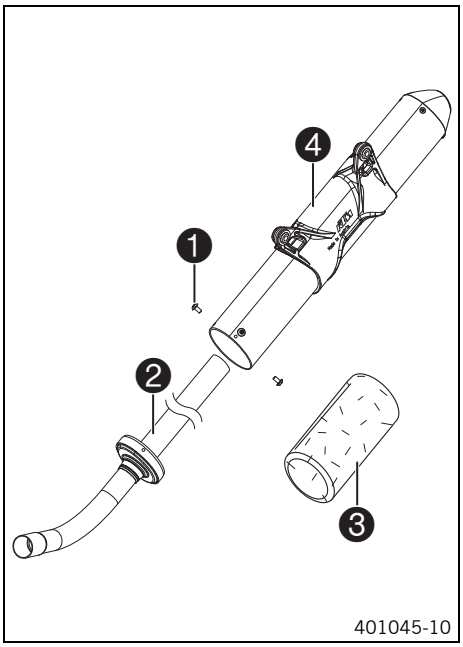
– Mount the main silencer with rubber sleeve ❶.
– Mount and tighten screws ❷.
Guideline

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

Changing the glass fiber yarn filling of the main silencer

Warning
Danger of burns The exhaust system gets very hot when the vehicle is driven.
– Allow the exhaust system to cool down. Do not touch hot components.

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



– Remove the main silencer. (☛ p. 46)
– Remove screws ❶. Pull out inside tube ❷.
– Pull the glass fiber yarn filling ❸ from the inner tube.
– Clean the parts that are to be reinstalled.
– Mount the new glass fiber yarn filling ❸ on the inner tube.
– Slide outer tube ❹ over the inner tube with the new glass fiber yarn filling.
– Mount and tighten all screws ❶.
– Install the main silencer. (☛ p. 47)

Removing the fuel tank

Danger

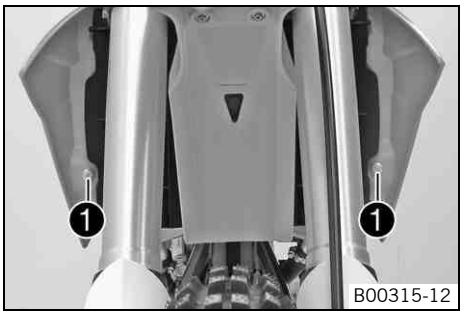
Fire hazard Fuel is highly flammable.

- 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.
- Fuel in the fuel tank expands when warm and can escape if the tank is overfilled. See the notes on refueling.

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

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

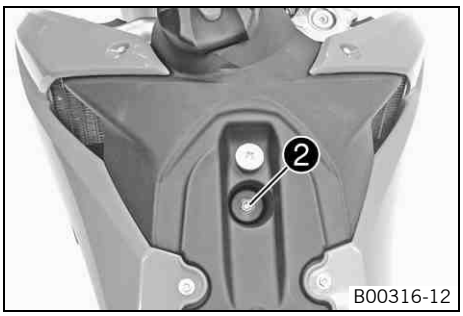


- Remove the seat. (☛ p. 44)
- Close the fuel tap.
- Pull off the fuel hose.

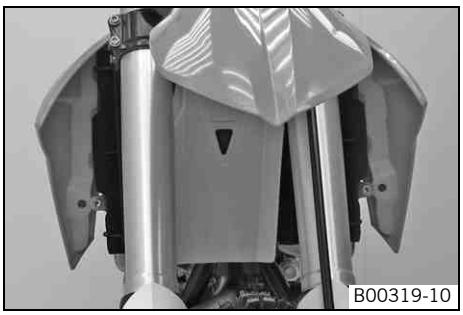
Info

Remaining fuel may run out of the fuel hose.

- Remove screws ❶ with the collar sleeve.



- Remove screw ❷ with the collar sleeve.
- Remove the tube from the fuel tank vent line.



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

Installing the fuel tank

Danger

Fire hazard Fuel is highly flammable.

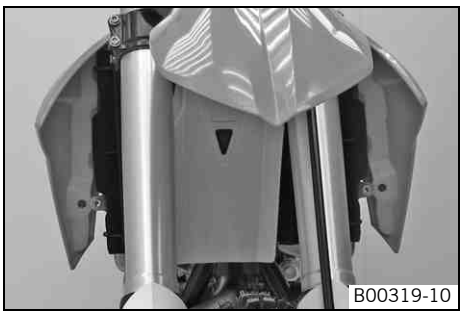
- Never refuel the vehicle near open flames or burning cigarettes, and always switch off the engine first. Be careful that no fuel is spilt, especially on hot vehicle components. Clean up spilt fuel immediately.
- Fuel in the fuel tank expands when warm and can escape if the tank is overfilled. See the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

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

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

– Check the throttle cable routing. (☛ p. 53)
– 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.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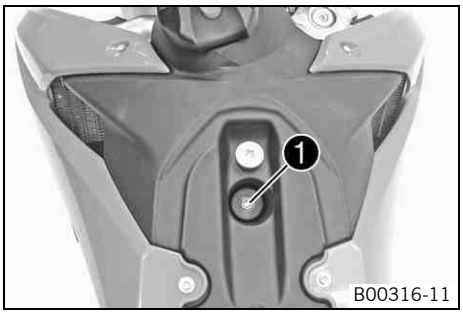
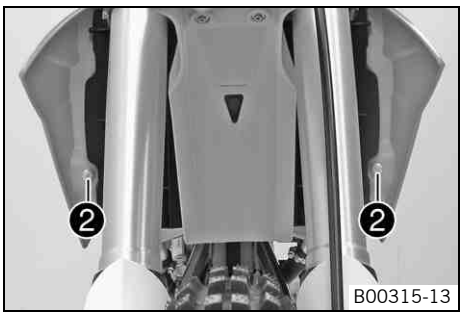


B00316-11

– Mount the fuel tank vent hose.
– Mount and tighten screw ❶ with the collar bushing.
Guideline

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



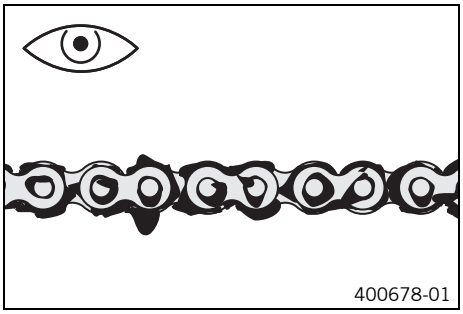
B00315-13

– Mount and tighten screws ❷ with the collar sleeve.
Guideline

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

– Connect the fuel hose.
– Mount the seat. (☛ p. 44)

Checking the chain for dirt


400678-01

– Check the chain for heavy soiling.
» If the chain is very dirty:
– Clean the chain. (☛ p. 49)

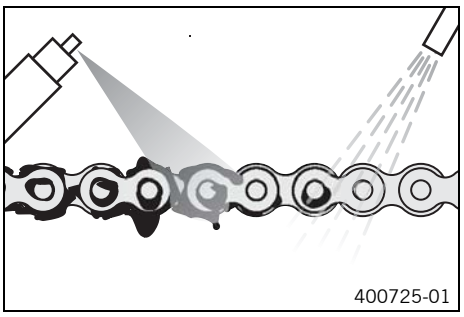
Cleaning the chain

Warning
Danger of accidents Oil or grease on the tires reduces their grip.
– Remove oil and grease with a suitable cleaning material.

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

Warning
Environmental hazard Hazardous substances cause environmental damage.
– Oil, grease, filters, fuel, cleaners, brake fluid, etc., should be disposed of as stipulated in applicable regulations.

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



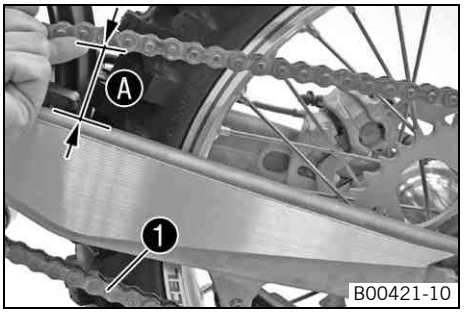
– Clean the chain regularly and then treat with chain spray.

Chain cleaner (☛ p. 115)
Off-road chain spray (☛ p. 115)

Checking the chain tension

Warning
Danger of accidents Danger caused by incorrect chain tension.

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



– Raise the motorcycle with the lift stand. (☛ p. 37)
– Push the chain at the end of the chain sliding component upwards to measure chain tension Ⓐ.

Info
The bottom chain section ❶ must be taut.
Chain wear is not always even; repeat this measurement at different chain positions.

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

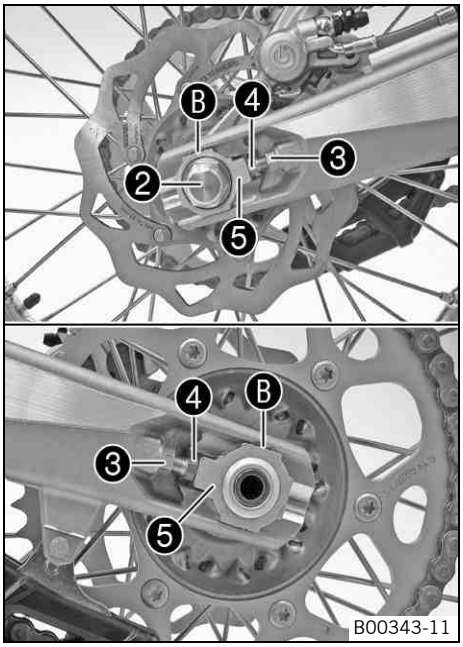
» If the chain tension does not meet specifications:
  – Adjust the chain tension. (☛ p. 50)
– Remove the motorcycle from the lift stand. (☛ p. 37)

Adjusting the chain tension

Warning
Danger of accidents Danger caused by incorrect chain tension.

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

– Raise the motorcycle with the lift stand. (☛ p. 37)
– Check the chain tension. (☛ p. 50)



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

Chain tension	55... 58 mm (2.17... 2.28 in)
Turn adjusting screws ❹ 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 ❽. The rear wheel is then correctly aligned.	

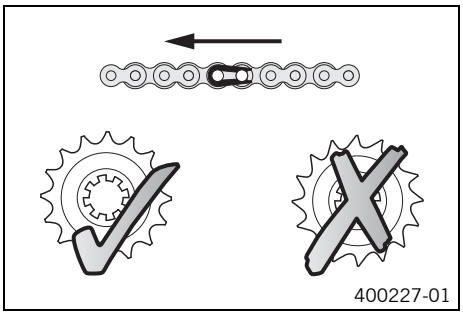
– Tighten nuts ❸.
– Make sure that chain adjusters ❺ are fitted correctly on adjusting screws ❹.
– Tighten nut ❷.
Guideline

Nut, rear wheel spindle	M20x1.5	80 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 ❺ can be turned by 180°.

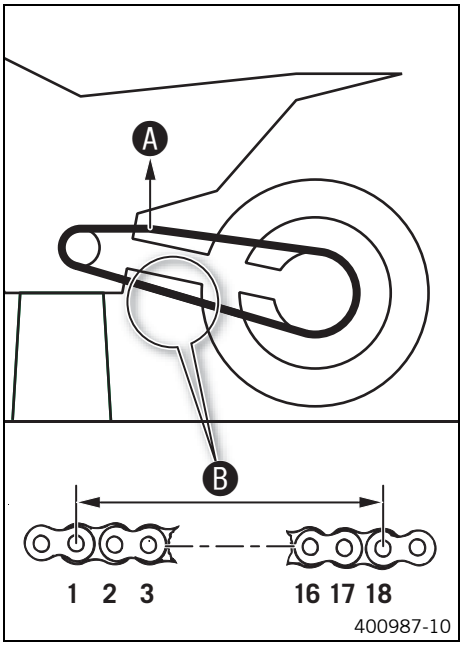
– Remove the motorcycle from the lift stand. (☛ p. 37)

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



– Raise the motorcycle with the lift stand. (☛ p. 37)
– Shift gear to neutral.
– Check the rear sprocket and engine sprocket for wear.
» If the rear sprocket or engine sprocket is worn:
– Change the rear sprocket or engine sprocket.

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



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

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

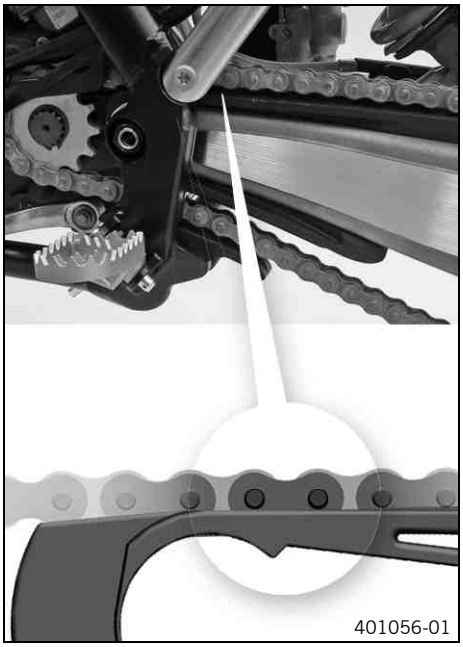
– Measure the distance ❽ of 18 chain links in the lower chain section.

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

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

» If the distance ❽ is greater than the specified measurement:
– Change the chain.

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


401056-01

– Check the chain sliding guard for wear.
  » If the lower bolt edge of the chain is in line with or below the chain sliding guard:
    – Change the chain sliding guard.
– Check the chain sliding guard for tightness.
  » If the chain sliding guard is loose:
    – Tighten the chain sliding guard.

    Guideline

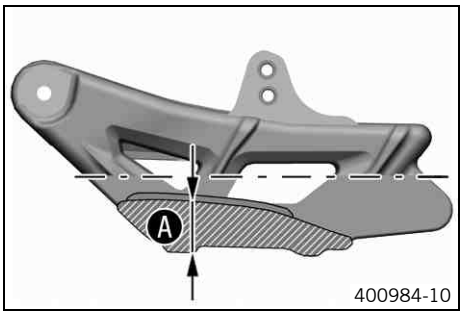
Screw, chain sliding guard	M6	6 Nm (4.4 lbf ft)	**Loctite® 243™**


401057-01

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

    Guideline

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

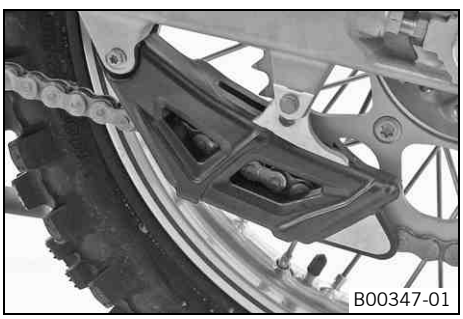


400984-10

– Measure the material thickness Ⓐ on the bottom of the chain guide.

Minimum distance Ⓐ at the lowest point	12 mm (0.47 in)

  » If the distance Ⓐ is less than the specified measurement:
    – Change the chain guide.


B00347-01

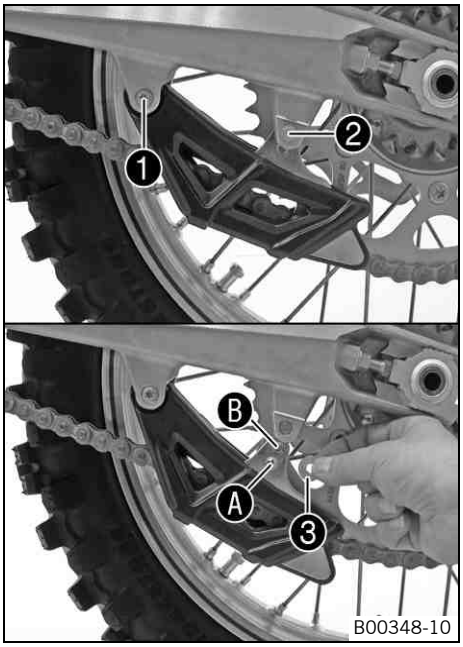
– Check the chain guide for tightness.
  » If the chain guide is loose:
    – Tighten the chain guide.

    Guideline

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

– Remove the motorcycle from the lift stand. (☛ p. 37)

Adjusting the chain guide



– Unscrew screw ❶. Remove screw ❷. Swing the chain guide down.

Condition

Number of teeth: ≤ 44 teeth

– Insert collar bushing ❸ in hole Ⓐ. Position the chain guide.
– Mount and tighten screw ❷. Tighten screw ❶.

Guideline

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

Condition

Number of teeth: ≥ 45 teeth

– Insert collar bushing ❸ in hole Ⓑ. Position the chain guide.
– Mount and tighten screw ❷. Tighten screw ❶.

Guideline

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

Checking the throttle cable routing

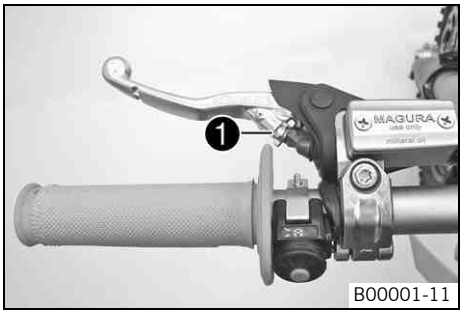
– Remove the fuel tank. (☛ p. 48)
– Check the throttle cable routing.

The throttle cable must be routed to the carburetor on the left side of the upper frame tube behind the handlebars.

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

– Install the fuel tank. (☛ p. 48)

Adjusting the basic position of the clutch lever

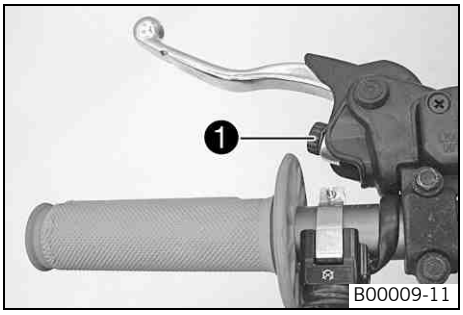


(All 125/150 models)

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

Info

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



(All 250/300 models)

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

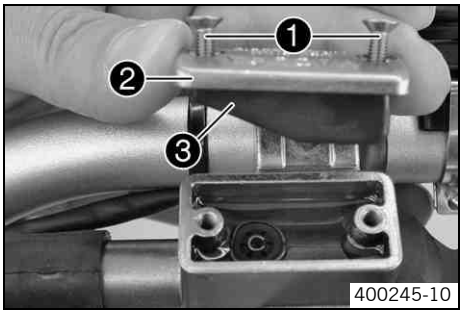
Info

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

Checking the fluid level of the hydraulic clutch

Info

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



(All 125/150 models)

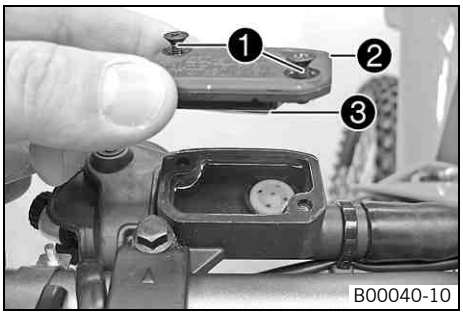
– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Remove cover ❷ with membrane ❸.
– Check the fluid level.

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

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

Hydraulic fluid (15) (☛ p. 114)

– 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 ❶.
– Remove cover ❷ with membrane ❸.
– Check the fluid level.

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

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

Brake fluid DOT 4 / DOT 5.1 (☛ p. 113)

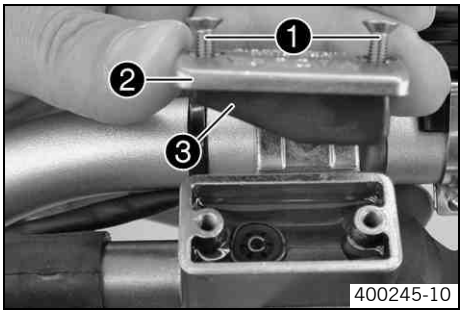
– Position the cover with the membrane. Mount and tighten the screws.

Changing the hydraulic clutch fluid

Warning

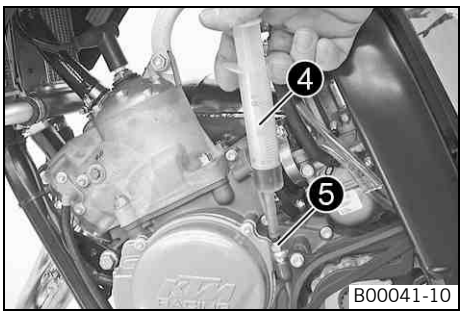
Environmental hazard Hazardous substances cause environmental damage.

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



(All 125/150 models)

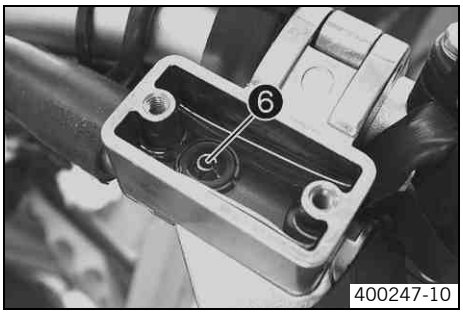
– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Remove cover ❷ with membrane ❸.



– Fill bleeding syringe ❹ with the appropriate hydraulic fluid.

Bleed syringe (50329050000)
Hydraulic fluid (15) (☛ p. 114)

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

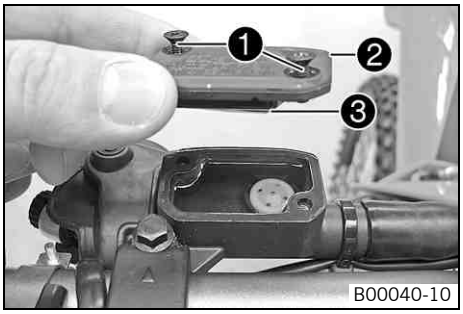


– Inject the liquid into the system until it escapes from hole ❻ of the master cylinder without bubbles.
– To prevent overflow, drain fluid occasionally from the master cylinder reservoir.
– Remove the bleeding syringe. Mount and tighten the bleeder screw.
– Correct the fluid level of the hydraulic clutch.

Guideline

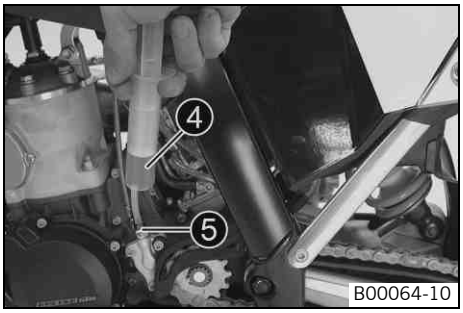
Fluid level under top edge of container	4 mm (0.16 in)

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



(All 250/300 models)

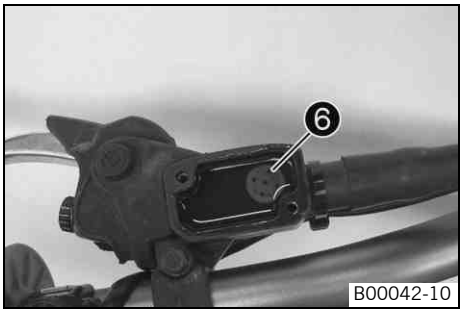
– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Remove cover ❷ with membrane ❸.



– Fill bleeding syringe ❹ with the appropriate hydraulic fluid.

Bleed syringe (50329050000)
Brake fluid DOT 4 / DOT 5.1 (☛ p. 113)

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



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

Guideline

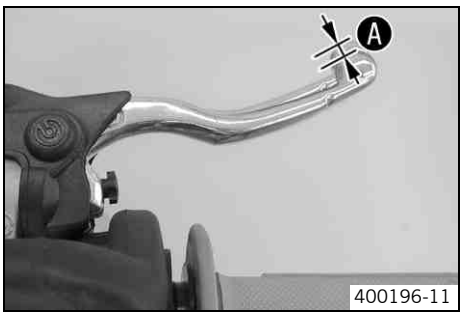
Fluid level under top edge of container	4 mm (0.16 in)

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

Checking the free travel of the hand brake lever

Warning
Danger of accidents Brake system failure.

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

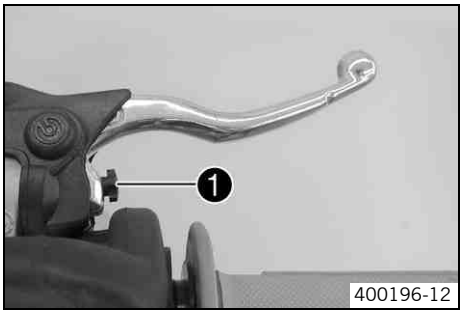


– Push the hand brake lever forward and check free travel ❹.

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. 56)

Adjusting the basic position of the hand brake lever



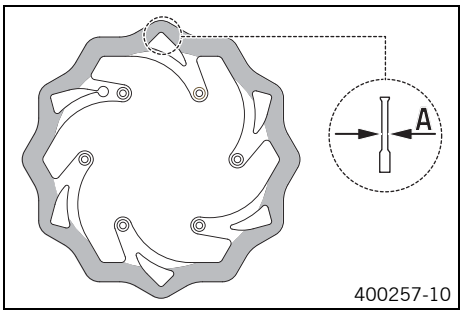
– Check the free travel of the hand brake lever. (☛ p. 56)
– Adjust the basic setting of the hand brake lever to your hand size by turning adjusting screw ❶.

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

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 ❹.

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.

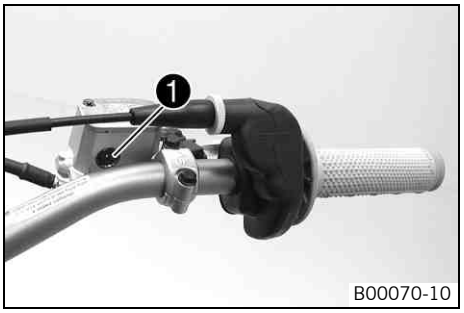
Checking the front brake fluid level

Warning
Danger of accidents Failure of the brake system.

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

Warning
Danger of accidents Reduced braking effect caused by 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.)



– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Check the brake fluid level in the viewer ❶.
  » If the brake fluid is below the **MIN** marking:
    – Add front brake fluid. 🔧 (☛ p. 57)

Adding front brake fluid 🔧

Warning
Danger of accidents Failure of the brake system.

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

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

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

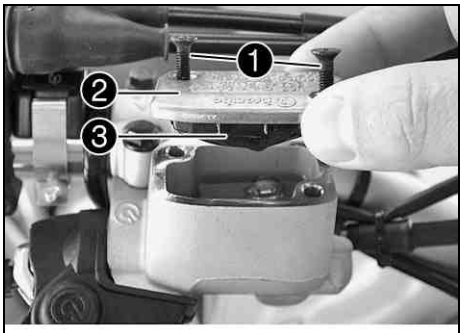
Warning
Danger of accidents Reduced braking effect caused by old brake fluid.

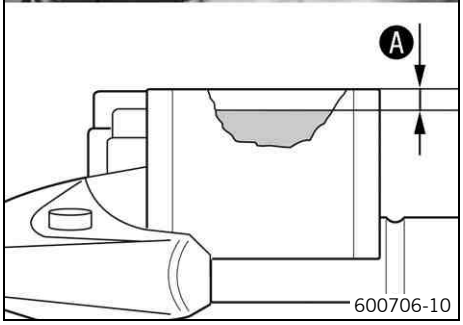
– Change the brake fluid of the front and rear brake according to the service schedule. (Your authorized KTM workshop will be glad to help.)

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! This is based on silicone oil and is colored purple. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint!
Use only clean brake fluid from a sealed container!





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

Guideline

Dimension Ⓐ (brake fluid level below top edge of container)	5 mm (0.2 in)

Brake fluid DOT 4 / DOT 5.1 (☛ p. 113)

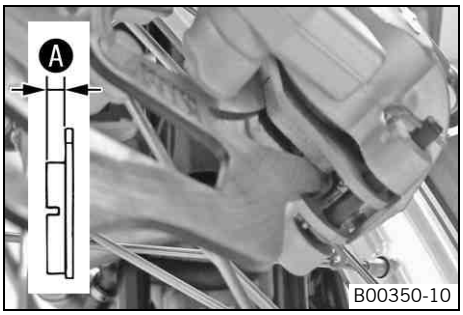
– Position the cover with the membrane. Mount and tighten the screws.

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

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 Ⓐ.

Minimum thickness Ⓐ	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
  – Change the front brake linings. 🔧 (☛ p. 58)
– Check the brake linings for damage and cracking.
» If damage or cracking is visible:
  – Change the front brake linings. 🔧 (☛ p. 58)

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 effect caused by 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.

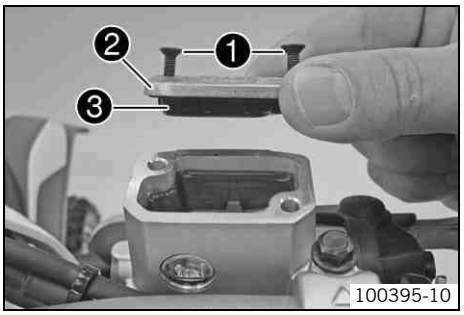
Warning

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

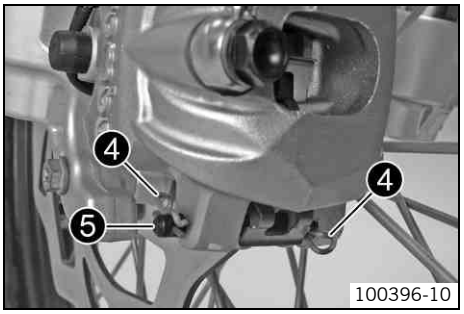
Never use DOT 5 brake fluid! This is based on silicone oil and is colored purple. Oil seals and brake lines are not designed for DOT 5 brake fluid.
Avoid contact between brake fluid and painted parts. Brake fluid attacks paint!
Use only clean brake fluid from a sealed container!



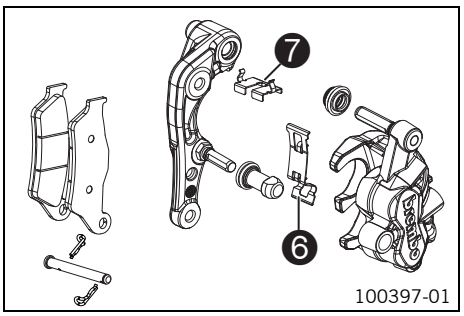
– Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Remove cover ❷ with membrane ❸.
– Press the brake caliper onto the brake disc by hand in order to push back the brake pistons. Ensure that brake fluid does not overflow from the brake fluid reservoir,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

Info

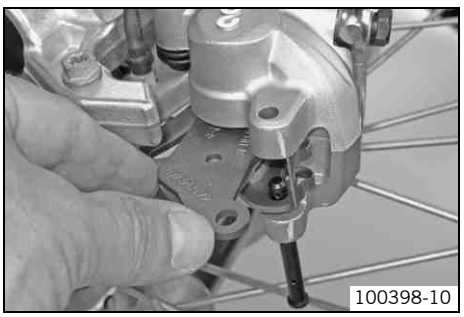
Make sure when pushing back the brake pistons that you do not press the brake caliper against the spokes.



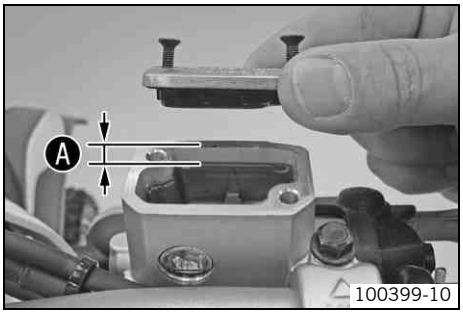
– Remove locking split pins ❹, withdraw bolt ❺, and take out the brake linings.
– Clean the brake caliper and brake caliper support.



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



– Fit the brake linings, insert the bolt, and mount the locking split pins.
– Operate the hand brake lever several times until the brake linings are lying correctly against on the brake disc and there is a pressure point.



– Correct the brake fluid quantity to level ❹.

Guideline

Dimension ❹ (brake fluid level below top edge of container)	5 mm (0.2 in)

Brake fluid DOT 4 / DOT 5.1 (☛ p. 113)

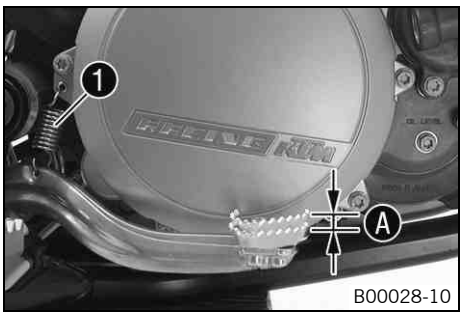
– Position the cover with the membrane. Mount and tighten the screws.

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

Checking free travel of 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 free travel on foot brake lever according to specifications.



– Disconnect spring ❶.
– Move the foot brake lever backwards and forwards between the end stop and the foot brake cylinder piston bracket and check free travel ❹.

Guideline

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

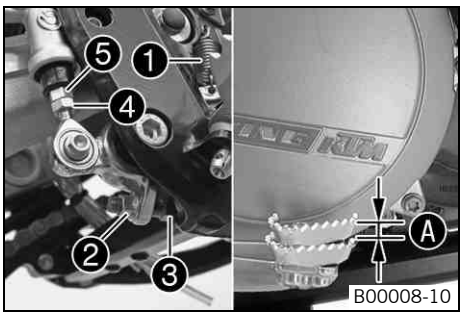
» If the free travel does not meet specifications:
– Adjust the basic position of the foot brake lever. 🔧 (☛ p. 60)

– Reconnect spring ❶.

Adjusting basic position of 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 free travel on foot brake lever according to specifications.



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

Info
The range of adjustment is limited.

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

Guideline

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

– Hold screw ❸ and tighten nut ❷.

Guideline

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

– Hold push rod ❺ and tighten nut ❹.

Guideline

Remaining nuts, chassis	M6	15 Nm (11.1 lbf ft)

– Reconnect spring ❶.

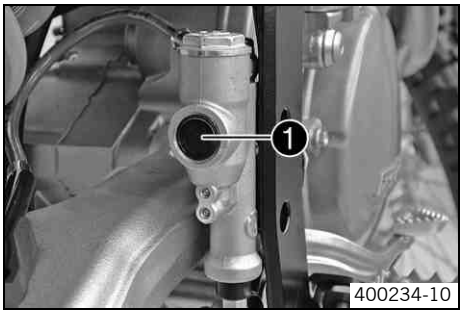
Checking the rear brake fluid level

Warning
Danger of accidents Failure of the brake system.

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

Warning
Danger of accidents Reduced braking effect caused by old brake fluid.

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



– Stand the vehicle upright.
– Check the brake fluid level in the viewer ❶.
  » If an air bubble is visible in viewer ❶:
    – Add brake fluid for the rear brake. (p. 61)

Adding brake fluid for the rear brake

Warning
Danger of accidents Failure of the brake system.

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

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

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

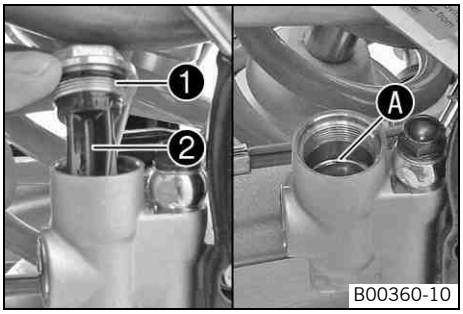
Warning
Danger of accidents Reduced braking effect caused by old brake fluid.

– 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! This is based on silicone oil and is colored purple. 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!



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

Brake fluid DOT 4 / DOT 5.1 (☛ p. 113)

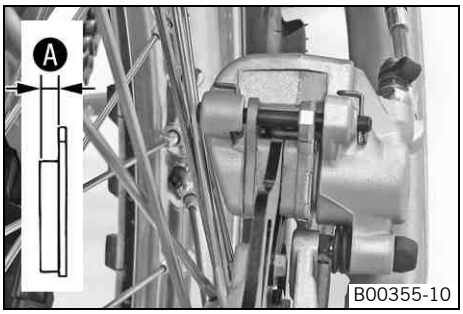
– Mount the screw cap with the membrane and the O-ring.

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

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 Ⓐ.

Minimum thickness Ⓐ	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
– Change the rear brake linings. 🔧 (☛ p. 62)
– Check the brake linings for damage and cracking.
» If damage or cracking is visible:
– Change the rear brake linings. 🔧 (☛ p. 62)

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.

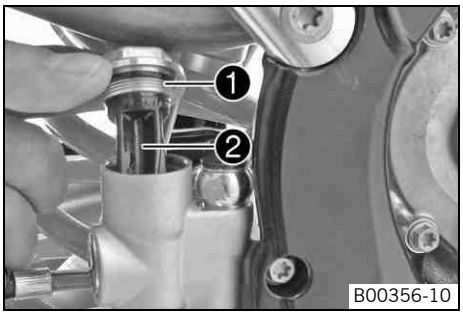
Warning
Danger of accidents Reduced braking effect caused by old brake fluid.

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

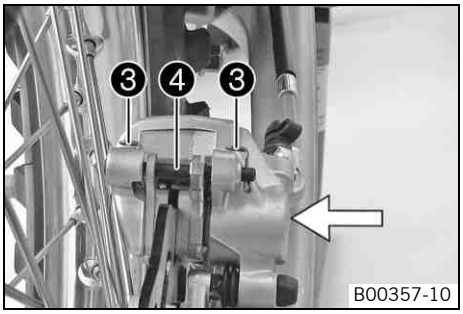
Warning
Environmental hazard Hazardous substances cause environmental damage.

– 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!



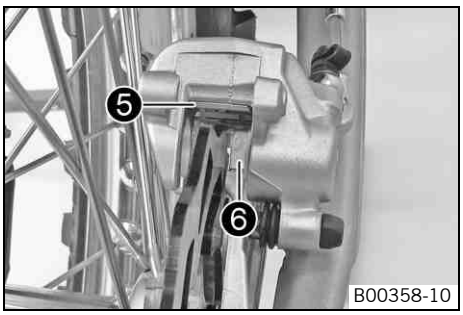
– Stand the vehicle upright.
– Remove screw cap ❶ with membrane ❷ and the O-ring.



– Press the brake caliper toward the brake disc to push back the brake piston and ensure that no brake fluid runs out of the brake fluid reservoir, sucking it off if it does.

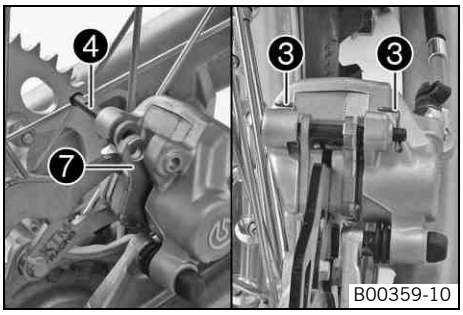
Info
Make sure when pushing back the brake piston that you do not press the brake caliper against the spokes.

– Remove locking split pins ❸, withdraw bolt ❹, and take out the brake linings.
– Clean the brake caliper and brake caliper support.



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

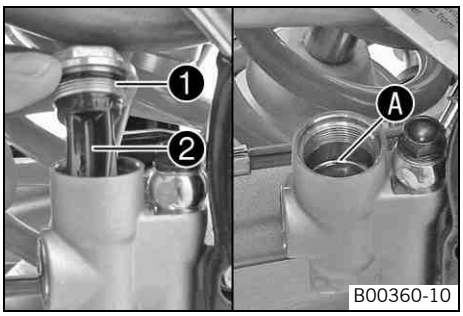
Info
The arrow on the leaf spring points in the rotation direction of the brake disc.



– Insert the brake linings, insert pin ❹, and mount locking split pins ❸.

Info
Make sure that decoupling plate ❼ is mounted on the piston side of the brake lining.

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



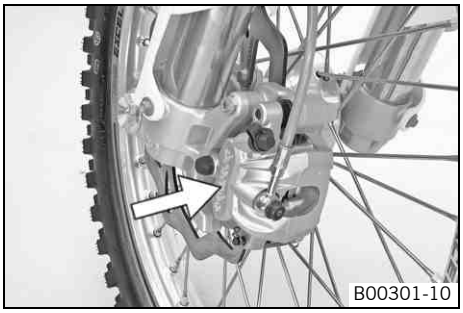
– Add brake fluid to level Ⓐ.

Brake fluid DOT 4 / DOT 5.1 (☛ p. 113)

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

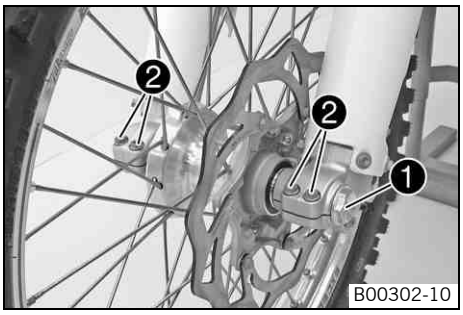
Info
Clean up overflowed or spilt brake fluid immediately with water.

Removing the front wheel

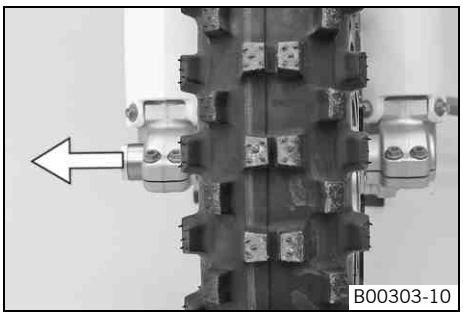


– Raise the motorcycle with the lift stand. (☛ p. 37)
– Press the brake caliper onto the brake disc by hand in order to push back the brake pistons.

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

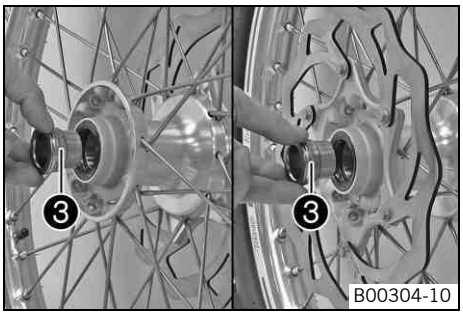


– Remove screw ❶.
– Loosen screws ❷.



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

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

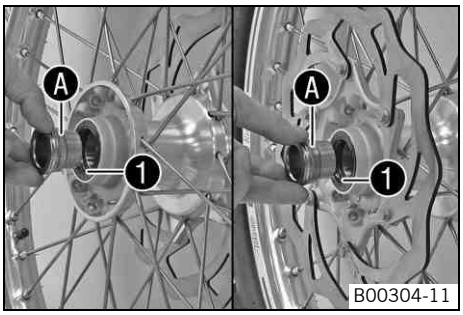


– Remove spacers ❸.

Installing the front wheel

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

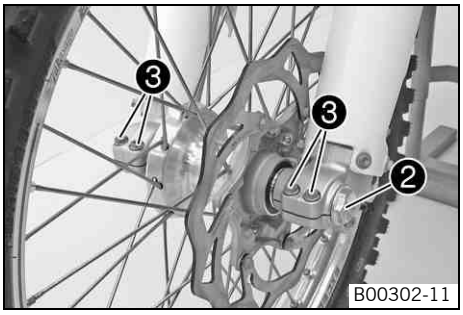
– Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.



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

Long-life grease (☛ p. 115)

– Insert the spacers.



– Lift the front wheel into the fork, position it, and insert the wheel spindle.
– Mount and tighten screw ❷.

Guideline

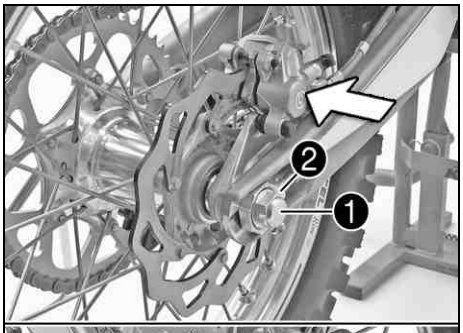
Screw, front wheel spindle	M24x1.5	45 Nm (33.2 lbf ft)

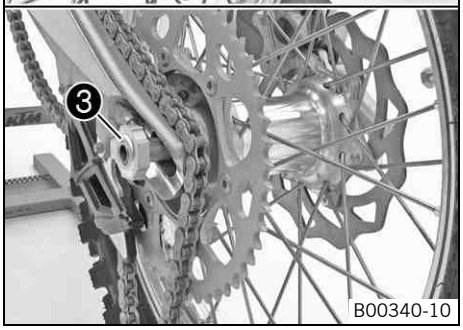
– Operate the hand brake lever several times until the brake linings are lying correctly against on the brake disc.
– Remove the motorcycle from the lift stand. (☛ p. 37)
– Pull the front wheel brake and push down hard on the fork several times to align the fork legs.
– Tighten screws ❸.

Guideline

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

Removing the rear wheel



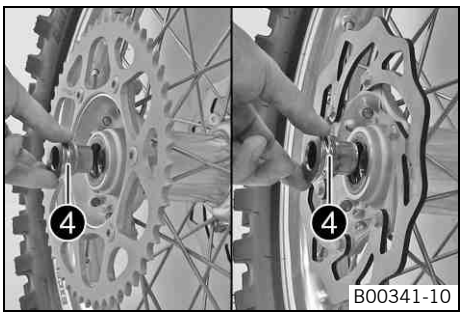


– Raise the motorcycle with the lift stand. (☛ p. 37)
– Press the brake caliper onto the brake disc by hand in order to push back the brake piston.

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

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

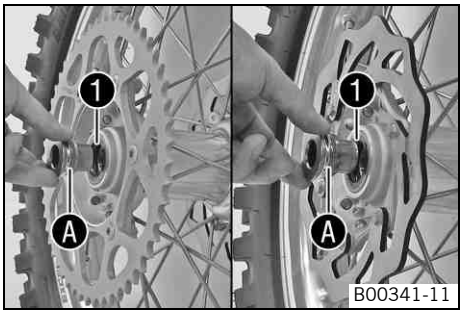


– Remove spacers ❹.

Installing the rear wheel

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

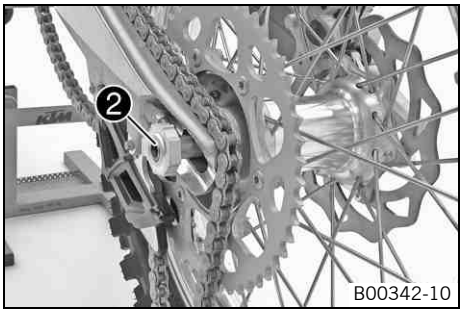
– Always keep the brake discs free of oil and grease, and clean them with brake cleaner when necessary.



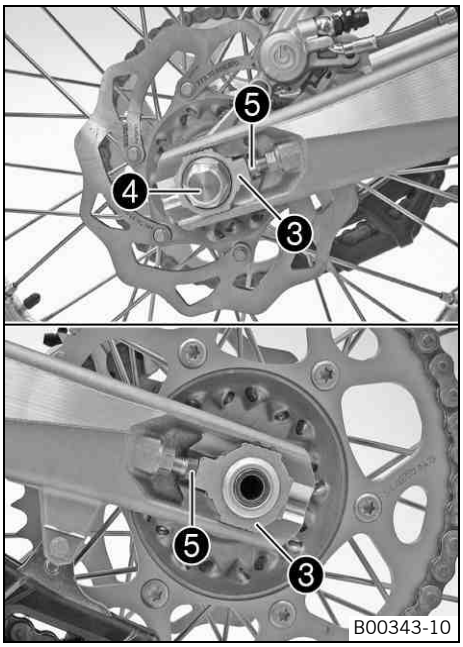
– Check the wheel bearing for damage and wear.
  » If the wheel bearing is damaged or worn:
    – Change the wheel bearing.
– Clean and grease shaft seal rings ❶ and bearing surface Ⓐ of the spacers.

Long-life grease (☛ p. 115)

– Insert the spacers.



– Lift the rear wheel into the swing arm, position it, and insert wheel spindle ❷.
– Apply the chain.



– Position chain adjuster ❸. Mount nut ❹, but do not tighten it yet.
– Make sure that chain adjusters ❸ are fitted correctly on adjusting screws ❺.
– Check the chain tension. (☛ p. 50)
– Tighten nut ❹.

Guideline

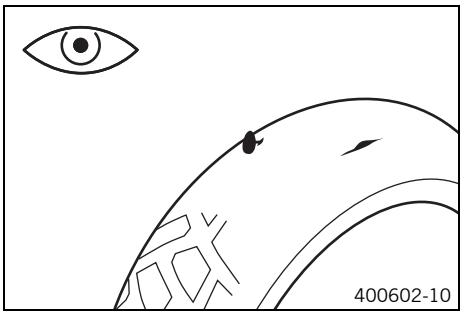
Nut, rear wheel spindle	M20x1.5	80 Nm (59 lbf ft)

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

– Operate the foot brake lever several times until the brake linings are lying correctly against the brake disc and there is a pressure point.
– Remove the motorcycle from the lift stand. (☛ p. 37)

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.



– 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)

  » 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.

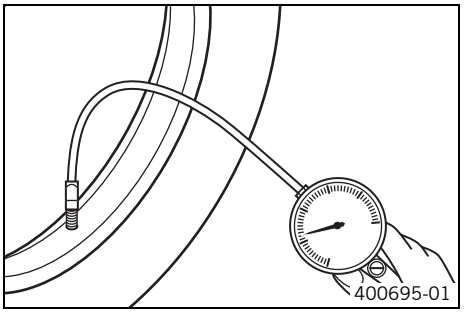
» If the tire is older than five years:

– Change the tire.

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.

Checking the spoke tension

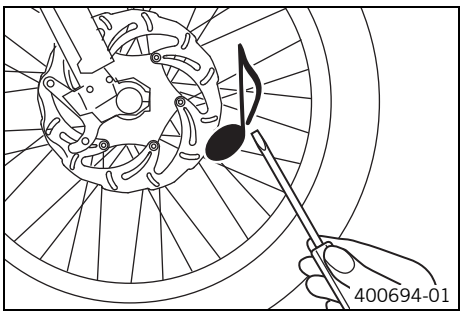
Warning

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.

Info

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

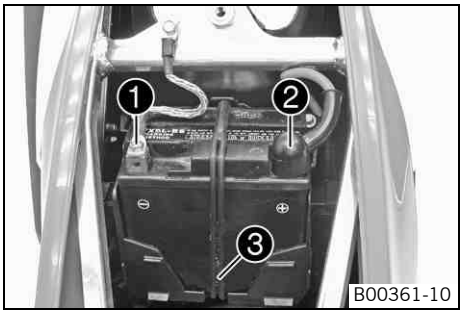
Spoke nipple, front wheel	M4.5	5... 6 Nm (3.7... 4.4 lbf ft)
Spoke nipple, rear wheel	M4.5	5... 6 Nm (3.7... 4.4 lbf ft)

Torque wrench with various accessories in set (58429094000)

Removing the battery 🔧 (250/300 XC)

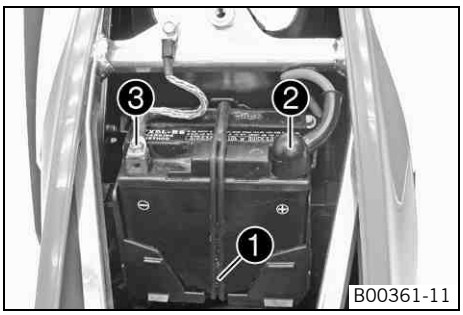
Warning
Risk of injury Battery acid and battery gases cause serious cauterization.

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and goggles.
- Avoid contact with battery acid and battery gases.
- Keep the battery away from sparks or open fire. Charge only in well ventilated rooms.
- Flush with copious amounts of water in case of skin contact. If battery acid comes into contact with the eyes, flush the eyes with water for at least 15 minutes and consult a physician.



- Switch off all power consumers and switch off the engine.
- Remove the seat. (☛ p. 44)
- Disconnect negative cable ❶ of the battery.
- Pull back the positive terminal cover ❷ and disconnect the positive cable of the battery.
- Detach rubber band ❸ at the bottom.
- Lift the battery up.

Installing the battery 🔧 (250/300 XC)



- Place the battery in the battery holder.

  Battery (YTX4L-BS) (☛ p. 105)
- Reconnect rubber band ❶.
- Attach the positive cable and replace the positive terminal cover ❷.
- Attach negative cable ❸.
- Mount the seat. (☛ p. 44)

Recharging the battery 🔧 (250/300 XC)

Warning
Risk of injury Battery acid and battery gases cause serious cauterization.

- Keep batteries out of the reach of children.
- Wear suitable protective clothing and goggles.
- Avoid contact with battery acid and battery gases.
- Keep the battery away from sparks or open fire. Charge only in well ventilated rooms.
- Flush with copious amounts of water in case of skin contact. If battery acid comes into contact with the eyes, flush the eyes with water for at least 15 minutes and consult a physician.

Warning
Environmental hazard Battery parts and acid are harmful to the environment.

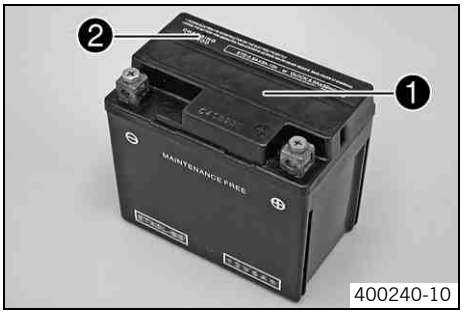
- Do not discard batteries with the household trash. Dispose of a defective battery in an environmentally compatible manner. Give the battery to your KTM dealer or to a recycling center that accepts used batteries.

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 still loses power steadily.
The charge state and the type of charge are very important for the service life of the battery.
Rapid recharging with a high charging current shortens the battery's service life.
If the charging current, charging voltage and charging time are exceeded, electrolyte escapes through the safety valves. This reduces the battery capacity.
If the battery is depleted from starting the vehicle repeatedly, 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 sulfate, destroying the battery.
The battery is maintenance-free, i.e., the acid level does not have to be checked.



– Switch off all power consumers and switch off the engine.
– Remove the seat. (☛ p. 44)
– Disconnect the negative cable of the battery to avoid damage to the motorcycle's electronics.
– Connect the battery charger to the battery. Switch on the battery charger.

Battery charger (58429074000)

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

Info

Never remove lid ❶.
Charge the battery with a maximum of 10% of the capacity specified on the battery housing ❷.

– Switch off the charger after charging. Disconnect the battery.

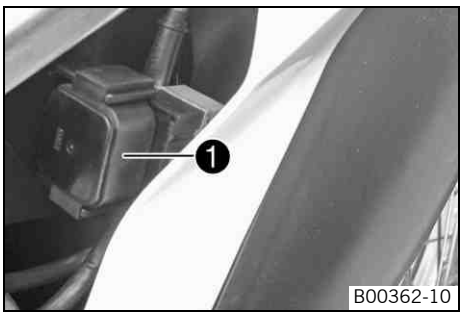
Guideline

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

– Mount the seat. (☛ p. 44)

Removing the main fuse (250/300 XC)

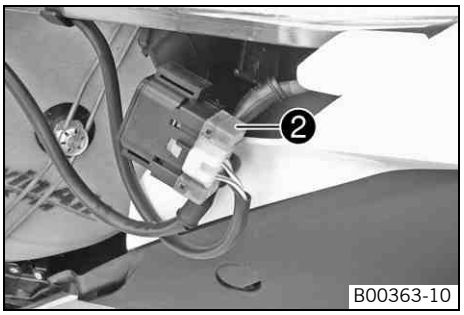
– Switch off all power consumers and switch off the engine.
– Remove the air filter box lid. (☛ p. 45)



– Pull starter relay ❶ off of the bracket.

Info

The main fuse is located in the starter relay ❶ under the filter box cover.

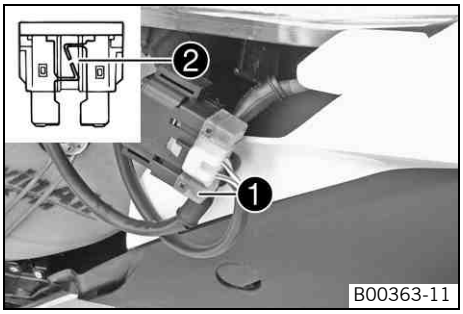


– Remove the protection cover ❷.
– Remove main fuse.

Installing the main fuse (250/300 XC)

Warning
Fire hazard The electrical system can be overloaded by the use of incorrect fuses.

– Use only fuses with the prescribed amperage. Never by-pass or repair fuses.



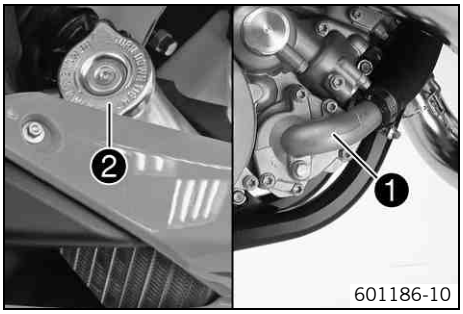
– Insert the main fuse.

Fuse (58011109110)

Info
A reserve fuse ❶ is located in the starter relay.
Replace a faulty fuse ❷ by an equivalent fuse only.

– Replace the protection cover.
– Mount the starter relay on the holder.
– Install the air filter box lid. (☛ p. 45)

Cooling system

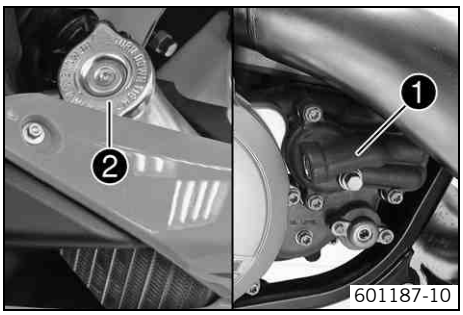


(All 125/150 models)

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

120 °C (248 °F)

Cooling is effected by the air stream.
The lower the speed, the less the cooling effect. Dirty cooling fins also reduce the cooling effect.



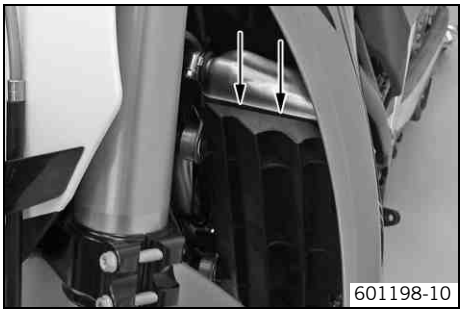
(All 250/300 models)

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

120 °C (248 °F)

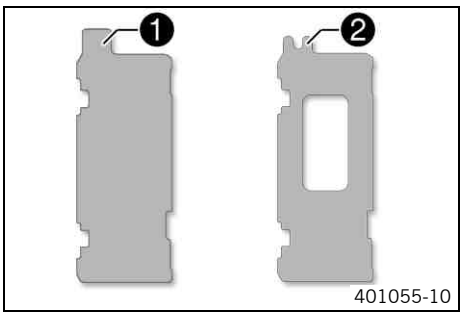
Cooling is effected by the air stream.
The lower the speed, the less the cooling effect. Dirty cooling fins also reduce the cooling effect.

Radiator cover (All SX 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)

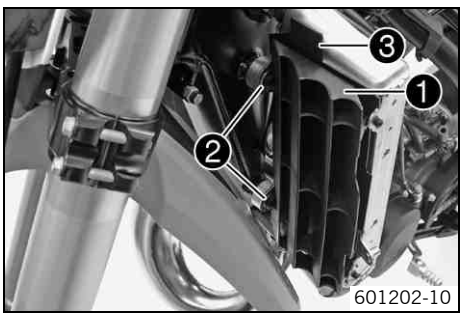


The radiator cover is installed in front of the left radiator, depending on the ambient temperature.

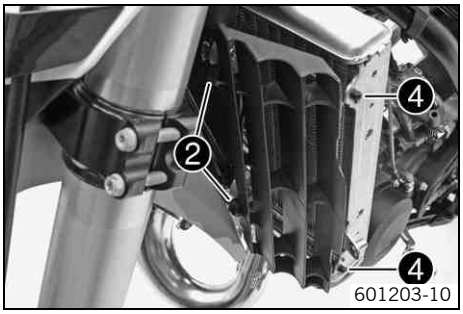
Radiator cover ❶ without notch	< 7 °C (< 45 °F)
Radiator cover ❷ with notch	7… 16 °C (45… 61 °F)
Without radiator cover	> 16 °C (> 61 °F)

Info
Do not use both radiator covers at the same time.

Removing the radiator cover (All SX models)



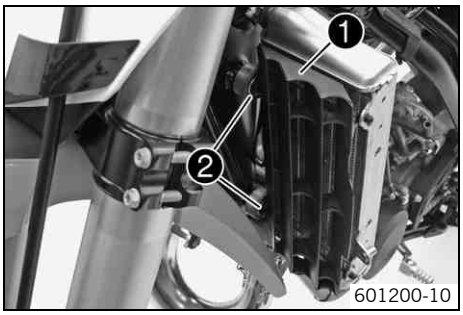
– Remove the fuel tank. 🔧 (☛ p. 48)
– Detach radiator shield ❶ at mounting points ❷ and remove it. Remove radiator cover ❸.



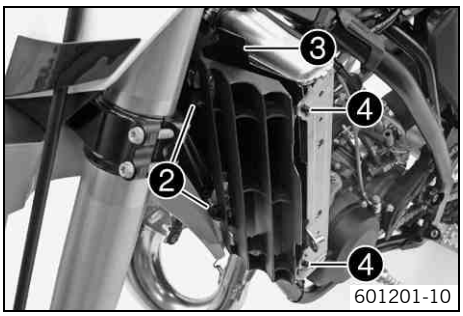
– Attach the radiator shield at holding lugs ❹. Attach mounting points ❷ at the radiator.
– Install the fuel tank. 🔧 (☛ p. 48)

Installing the radiator cover (All SX models)

– Remove the fuel tank. 🔧 (☛ p. 48)



– Detach radiator shield ❶ at mounting points ❷ and remove it.



– Position the corresponding radiator cover ❸ and attach the radiator shield at holding lugs ❹. Attach mounting points ❷ at the radiator.
– Install the fuel tank. 🔧 (☛ p. 48)

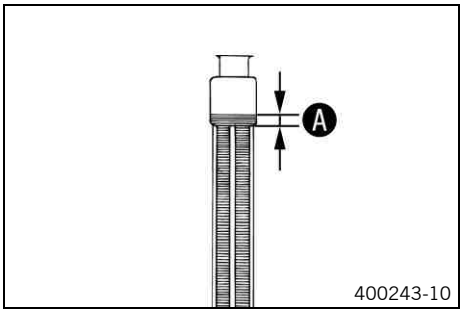
Checking the antifreeze and coolant level

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

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

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

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



Condition
The engine is cold.

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

−25… −45 °C (−13… −49 °F)

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

– Check the coolant level in the radiator.

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

» If the level of the coolant does not meet specifications:

– Correct the coolant level.

Alternative 1

Coolant (☛ p. 113)

Alternative 2

Coolant (mixed ready to use) (☛ p. 113)

– Mount the radiator cap.

Checking the coolant level

Warning

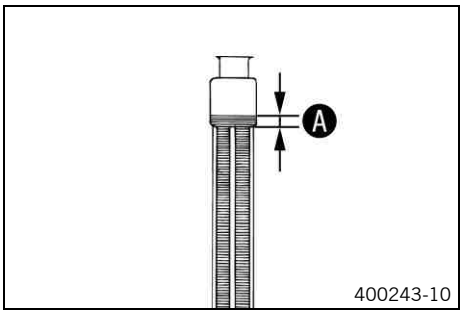
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

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

Warning

Danger of poisoning Coolant is poisonous and a health hazard.

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



Condition

The engine is cold.

– Stand the motorcycle upright on a horizontal surface.

– Remove the radiator cap.

– Check the coolant level in the radiator.

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

» If the level of the coolant does not meet specifications:

– Correct the coolant level.

Alternative 1

Coolant (☛ p. 113)

Alternative 2

Coolant (mixed ready to use) (☛ p. 113)

– Mount the radiator cap.

Draining the coolant

Warning

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

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

Warning

Danger of poisoning Coolant is poisonous and a health hazard.

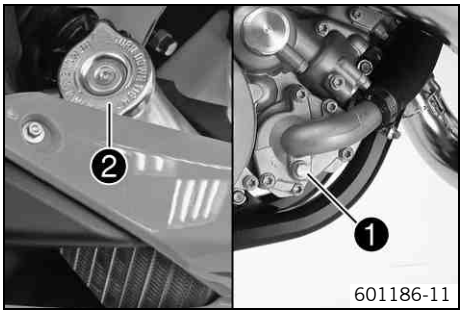
– Avoid contact between coolant and skin, eyes and clothing. If it gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If coolant is swallowed, contact a doctor immediately. Change clothes that have come into contact with coolants.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

Condition

The engine is cold.

– Position the motorcycle upright.

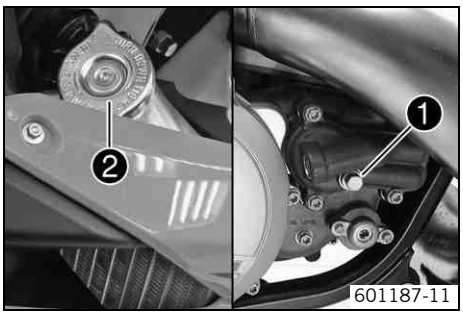
– Place a suitable container under the water pump cover.



(All 125/150 models)

– Remove screw ❶. Remove radiator cap ❷.
– Completely drain the coolant.
– Mount screw ❶ with a new seal ring and tighten it.
Guideline

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



(All 250/300 models)

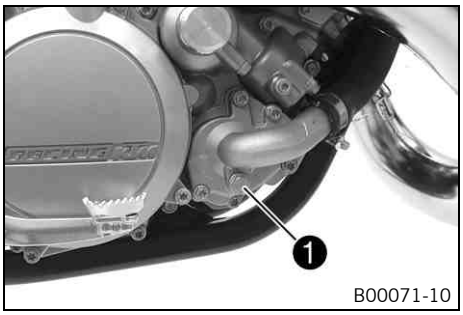
– Remove screw ❶. Remove radiator cap ❷.
– Completely drain the coolant.
– Mount screw ❶ with a new seal ring and tighten it.
Guideline

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

Refilling with coolant

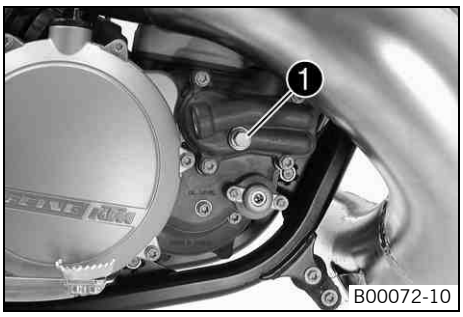
Warning
Danger of poisoning Coolant is poisonous and a health hazard.

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



(All 125/150 models)

– Make sure that screw ❶ is tightened.



(All 250/300 models)

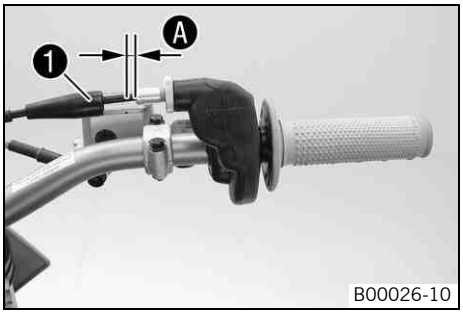
– Make sure that screw ❶ is tightened.

– Position the motorcycle upright.
– Fill the radiator completely with coolant.

Coolant	1.2 l (1.3 qt.)	Coolant (☛ p. 113)
		Coolant (mixed ready to use) (☛ p. 113)

– Mount radiator cap ❷.
– Run the engine until it is warm.
– Check the coolant level. (☛ p. 73)

Checking the play in the throttle cable



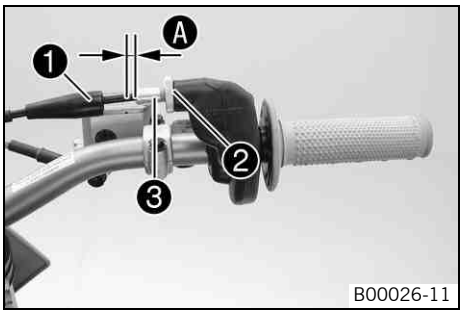
– Move the handlebar to the straight-ahead position.
– Push back bellows ❶.
– Pull back the throttle cable casing until you sense a resistance.
– Now check throttle cable play Ⓐ.

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

» If the throttle cable play does not meet specifications:
– Adjust the play in the throttle cable. 🔧 (☛ p. 75)

– Slide on sleeve ❶. Check the throttle grip for smooth operation.

Adjusting the play in the throttle cable 🔧



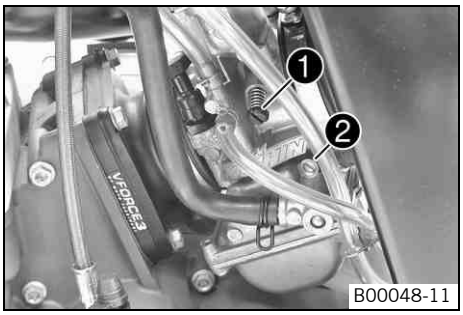
– Move the handlebar to the straight-ahead position.
– Push back bellows ❶.
– Loosen nut ❷. Turn adjusting screw ❸ in as far as possible.
– Turn the adjusting screw so that there is play Ⓐ at the outer casing of the throttle cable.

Guideline

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

– Tighten the nut.
– Slide on sleeve ❶. Check the throttle grip for smooth operation.

Carburetor



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.

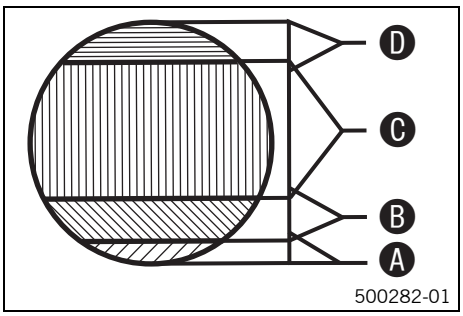
(All 125/150 models)

Elevation above sea level	500 m (1,640 ft)
Ambient temperature	20 °C (68 °F)
Super unleaded gasoline, mixed with 2-stroke engine oil (1:40) (☛ p. 114)	

(All 250/300 models)

Elevation above sea level	500 m (1,640 ft)
Ambient temperature	20 °C (68 °F)
Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 114)	

The idle speed is adjusted with adjusting screw ❶.
The idle mixture is adjusted with the idle air adjusting screw ❷.



Idle air range A
Operation with the throttle slide closed. This range is influenced by adjusting screw ❶ and the idle air adjusting screw ❷.

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 part-load setting, and if it abruptly reaches full power at a high rpm, the carburetor setting is too rich, or 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 above events occur on idle or

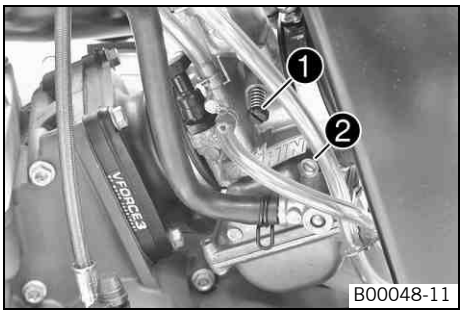
just above it, the idle system must be set to a leaner setting if the engine is stuttering or to a richer setting if the engine is knocking.

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-colored 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.

Carburetor - adjusting the idle speed



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

Guideline

Idle air adjusting screw (125 SX)	
Open	1.5 turns
Idle air adjusting screw (150 SX)	
Open	2 turns
Idle air adjusting screw (150 XC USA)	
Open	1.5 turns
Idle air adjusting screw (250 SX)	
Open	1.0 turn
Idle air adjusting screw (250 XC EU/USA)	
Open	1.5 turns
Idle air adjusting screw (300 XC EU/USA)	
Open	2 turns

– Run the engine until warm.

Guideline

Warm-up time	≥ 5 min

Danger

Danger of poisoning Exhaust gases are poisonous 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 ❶.

Guideline

Choke function deactivated – The choke lever is pushed in to the stop. (☛ p. 12)	
Idle speed	1,400… 1,500 rpm

– Turn idle air adjusting screw ❷ slowly in a clockwise direction until the idle speed begins to fall.
– Note the position and turn the idle air adjusting screw slowly counterclockwise until the idle speed falls again.
– Adjust to the point between these two positions with the highest idle speed.

Info

If there is a large 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, you need to install a smaller idling jet.

After changing the idling jet, repeat the adjusting steps from the beginning.

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

Emptying the carburetor float chamber

Danger

Fire hazard Fuel is highly flammable.

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

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

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

Warning

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

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

Info

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

(All SX models)

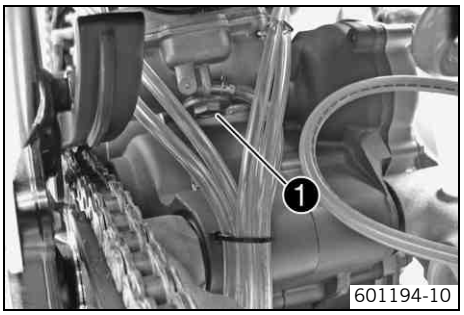
– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure 601185-10☛ p. 12)

✓ No more fuel flows from the tank to the carburetor.

(All XC models)

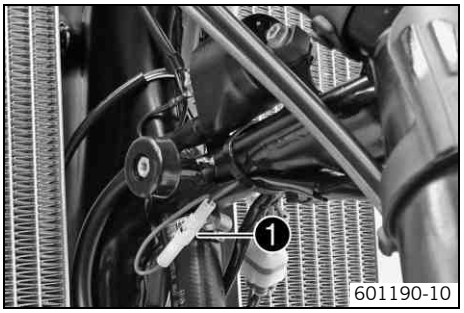
– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure 601157-11☛ p. 11)

✓ No more fuel flows from the tank to the carburetor.



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

Ignition curve plug connection



Plug connection ❶ is located in front of the fuel tank on the left side of the frame.

Possible states

- Soft – The plug connection is disconnected to achieve better rideability.
- Performance – The plug connection is connected to achieve better performance.

Changing the ignition curve

Change the ignition curve from Performance to Soft.

– Disconnect plug connection ❶. (Figure 601190-10☛ p. 77)

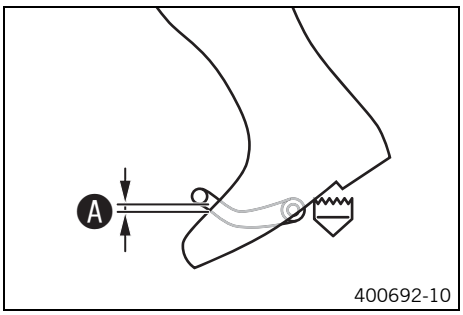
✓ Soft – better rideability

Change the ignition curve from Soft to Performance.

– Connect plug connection ❶. (Figure 601190-10☛ p. 77)

✓ Performance – better performance

Checking the basic position of the shift lever



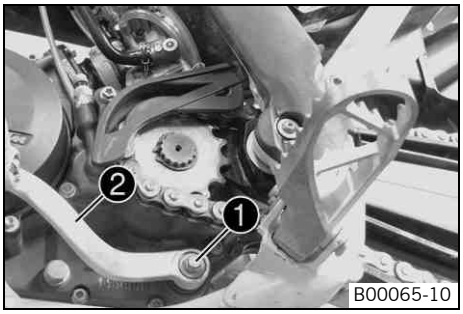
– Sit on the vehicle in the riding position and determine the distance Ⓐ between the upper edge of your boot and the shift lever.

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

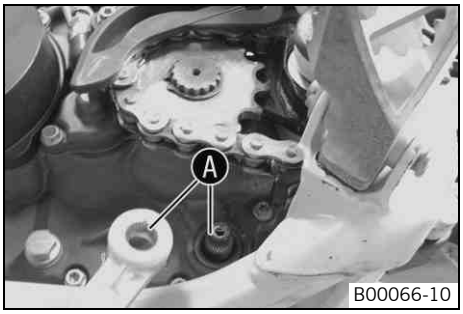
» If the distance does not meet specifications:

– Adjust the basic position of the shift lever. 🔧 (☛ p. 78)

Adjusting the basic position of the shift lever 🔧



– Remove screw ❶ and remove shift lever ❷.



– Clean gear teeth Ⓐ of the shift lever and shift shaft.

– Mount the shift lever on the shift shaft in the required position and engage the gearing.

Info

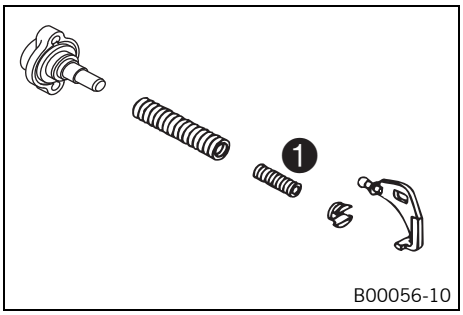
The range of adjustment is limited.
The shift lever must not come into contact with any other vehicle components during the shift procedure.

– Mount and tighten the screw.

Guideline

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

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 contained in the separate enclosure for softer performance.
- Auxiliary spring with red marking – Auxiliary spring contained in the separate enclosure for more aggressive performance.

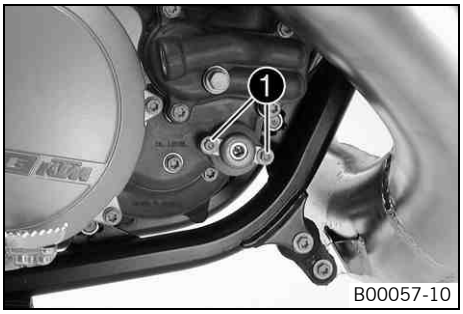
The engine characteristic can be influenced by different spring strengths of the auxiliary spring ❶.

Engine characteristic - adjust the auxiliary spring 🔧 (All 250/300 models)

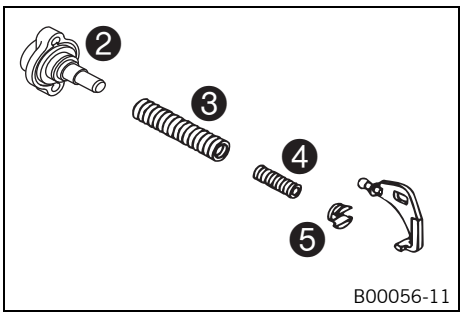
Warning
Danger of burns Some vehicle components become very hot when the vehicle is operated.

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

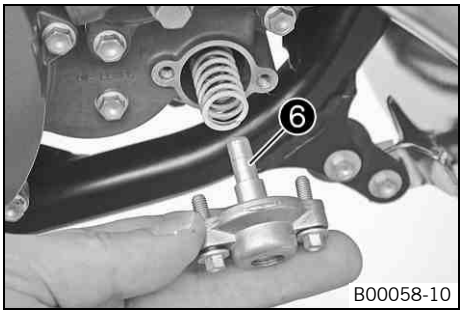
– Tilt the motorcycle approx. 45° to the left and secure it in this position to prevent it from falling over.



– Remove screws ❶.



– Take locking cap ❷, adjusting spring ❸, auxiliary spring ❹ and spring insert ❺ out of the clutch cover.
– Pull both springs off of the spring insert.



– Mount the desired auxiliary spring ❹ and adjusting spring ❸ and slide them into the clutch cover together.

Auxiliary spring with yellow marking (54837072300)
Auxiliary spring with green marking (54837072100)
Auxiliary spring with red marking (54837072000)

✓ The cut-out of spring insert ❺ engages in the angle lever.

Info
Under no circumstances should screw ❻ be turned as this would have a negative effect on the engine characteristic.

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

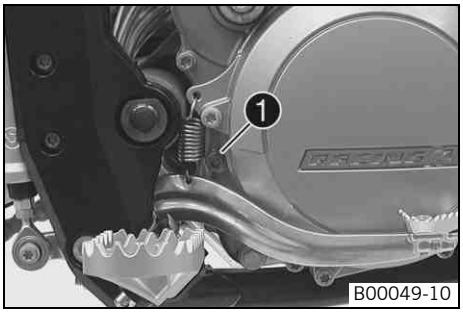
Guideline

Screw, exhaust control cover	M5	5 Nm (3.7 lbf ft)

Checking the gear oil level

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

– Stand the motorcycle upright on a horizontal surface.



(All 125/150 models)

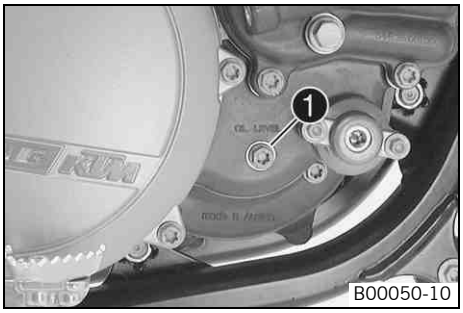
– Remove gear oil level check screw ❶.
– Check the gear oil level.

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

» If no gear oil flows out:
– Add gear oil. 🔧 (☛ p. 82)

– Mount and tighten the gear oil level check screw.
Guideline

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



(All 250/300 models)

– Remove gear oil level check screw ❶.
– Check the gear oil level.

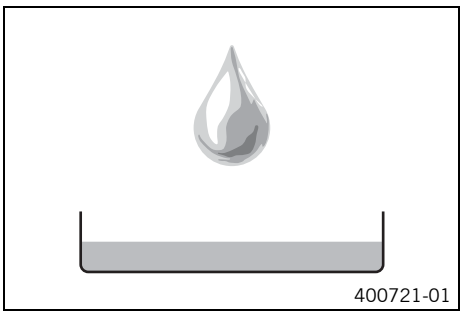
A small amount of gear oil should flow out of the hole.

» If no gear oil flows out:
– Add gear oil. 🔧 (☛ p. 82)

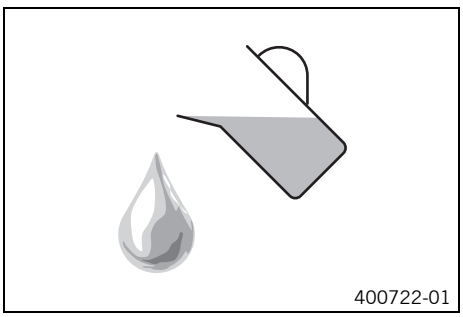
– Mount and tighten the gear oil level check screw.
Guideline

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

Changing the gear oil 🔧



– Drain the gear oil. 🔧 (☛ p. 81)



– Refill with gear oil. 🔧 (☛ p. 81)

Draining the gear oil

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

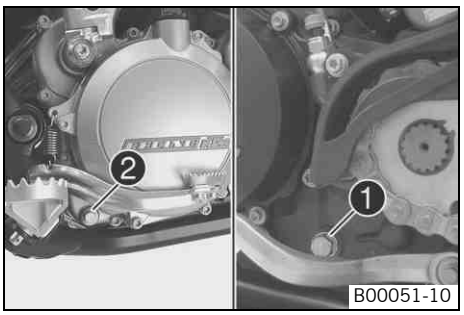
– Wear appropriate protective clothing and safety gloves. In case of burns, rinse immediately with lukewarm water.

Warning
Environmental hazard Hazardous substances cause environmental damage.

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

Info
Drain the gear oil only when the engine is warm.

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



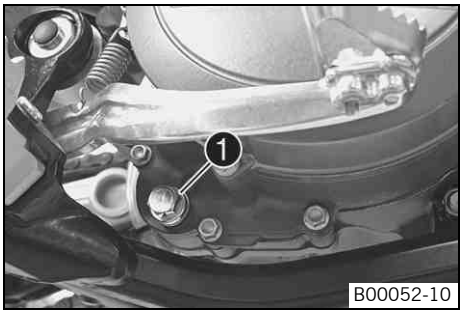
(All 125/150 models)

– Remove the gear oil drain plug with magnet ❶.
– Remove the gear oil drain plug ❷.
– Completely drain the gear oil.
– Clean the gear oil drain plug thoroughly.
– Clean the sealing area on the engine.
– Mount the gear oil drain plug with magnet ❶ and the seal ring and tighten it.
Guideline

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

– Mount gear oil drain plug ❷ with the seal ring and tighten it.
Guideline

Gear oil drain plug	M10x1	15 Nm (11.1 lbf ft)



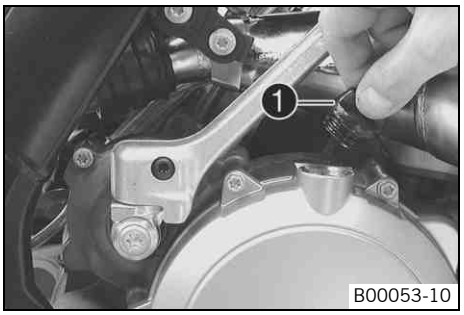
(All 250/300 models)

– Remove the gear oil drain plug with magnet ❶.
– Completely drain the gear oil.
– Thoroughly clean the gear oil drain plug with a magnet.
– Clean the sealing area on the engine.
– Mount the gear oil drain plug with magnet ❶ and the seal ring and tighten it.
Guideline

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

Refilling with gear oil

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



– Remove screw cap ❶ and fill up gear oil.

Gear oil (All 125/150 models)	0.70 l (0.74 qt.)	Engine oil (15W/50) (☛ p. 113)
Gear oil (All 250/300 models)	0.80 l (0.85 qt.)	Engine oil (15W/50) (☛ p. 113)

– Mount and tighten the screw cap.

Danger

Danger of poisoning Exhaust gases are poisonous 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.

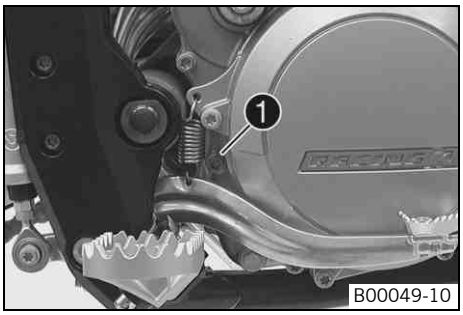
– Start the engine and check that it is oil-tight.
– Check the gear oil level. (☛ p. 80)

Adding gear oil

Info

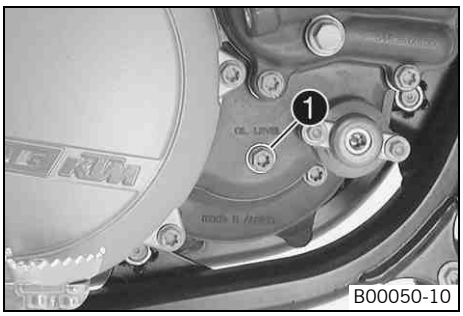
Too little gear oil or poor-quality oil results in premature wear of the transmission.
The gear oil must be added when the engine is cold.

– Place the motorcycle on a level surface.



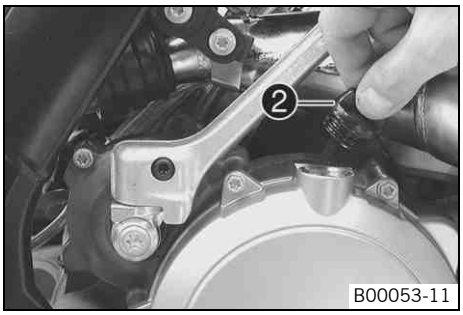
(All 125/150 models)

– Remove gear oil level check screw ❶.



(All 250/300 models)

– Remove gear oil level check screw ❶.



– Remove screw cap ❷.
– Add gear oil until it flows out of the hole of the gear oil level check screw.

Engine oil (15W/50) (☛ p. 113)

– Mount and tighten the gear oil level check screw.

Guideline

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

– Mount and tighten screw cap ❷.

Danger

Danger of poisoning Exhaust gases are poisonous 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.

Cleaning the motorcycle

Note

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

– Never clean the vehicle with high-pressure cleaning equipment or a strong water-jet. The excessive pressure can penetrate electrical components, socket connects, throttle cables, and bearings, etc., and can damage 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. 115)

Info

Use warm water containing normal motorcycle cleaner and a soft sponge.

– After rinsing the motorcycle with a gentle water spray, allow it to dry thoroughly.
– Empty the carburetor float chamber. 🔧 (☛ p. 77)

Warning

Danger of accidents Reduced braking efficiency due to wet or dirty brakes.

– Clean or dry dirty or wet brakes 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 positions in the engine and the brakes to evaporate.

– Push back the protection caps on the handlebar controls to allow water that may have penetrated there to evaporate.
– After the motorcycle has cooled down, lubricate all moving parts and bearings.
– Clean the chain. (☛ p. 49)
– Treat bare metal parts (except for brake discs and exhaust system) with anti-corrosion materials.

Cleaning and preserving materials for metal, rubber and plastic (☛ p. 115)

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

Cleaning and preserving materials for metal, rubber and plastic (☛ p. 115)

Storage

Warning

Danger of poisoning Fuel is poisonous and a health hazard.

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

Info

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

– Clean the motorcycle. (☛ p. 83)
– Change the gear oil. 🔧 (☛ p. 80)
– Check the antifreeze and coolant level. (☛ p. 72)
– Drain the fuel from the tank into a suitable container.
– Empty the carburetor float chamber. 🔧 (☛ p. 77)
– Check the tire air pressure. (☛ p. 67)
– Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

Info

KTM recommends raising the motorcycle.

– Raise the motorcycle with the lift stand. (☛ p. 37)
– Cover the vehicle with a tarp or cover that is permeable to air.

Info

Do not use non-porous materials since they prevent humidity from escaping, thus causing corrosion.
Avoid running the engine for a short time only. 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.

Putting into operation after storage

– Remove the motorcycle from the lift stand. (☛ p. 37)
– Refuel. (☛ p. 22)
– Perform checks and maintenance work when preparing the vehicle for use. (☛ p. 20)
– Make a test ride.

Faults	Possible cause	Action
The engine cannot be cranked (electric starter) (250/300 XC)	Operating error	– Go through the steps of starting the engine. (☛ p. 20)
	Battery discharged	– Recharge the battery. 🔧 (☛ p. 68) – Check the charging voltage. 🔧 – Check the closed current. 🔧 – Check the alternator. 🔧
	Main fuse is blown	– Remove the main fuse. (☛ p. 69) – Install the main fuse. (☛ p. 70)
	Starter relay faulty	– Check the starter relay. 🔧
	Starter motor faulty	– Check the starter motor. 🔧
Engine turns but does not start	Operating error	– Go through the steps of starting the engine. (☛ p. 20)
	Motorcycle was out of use for a long time and there is old fuel in the float chamber	– Empty the carburetor float chamber. 🔧 (☛ p. 77)
	Fuel feed interrupted	– Check the fuel tank breather. – Clean the fuel tap. – Check/set the carburetor components.
	Spark plug oily or wet	– Clean and dry the spark plug, or change it if necessary.
	Electrode distance (plug gap) of spark plug too wide	– Adjust the plug gap. Guideline **(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. 🔧
	Short circuit cable in wiring harness frayed, kill switch defective	– Check the short circuit button. 🔧
	Socket connector or ignition coil is loose or oxidized	– Clean the plug-in 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 distorted	– Carburetor - adjust the idle speed. 🔧 (☛ p. 76)
	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. 46)
	Exhaust system leaky, deformed or too little glass fiber yarn filling in main silencer	– Check exhaust system for damage. – Change the glass fiber yarn filling of the main silencer. 🔧 (☛ p. 47)
	Fault in ignition system	– Check the ignition system. 🔧
	Diaphragm or reed valve housing damaged	– Check the diaphragm and reed valve housing.

Faults	Possible cause	Action
Engine stalls or is popping into the carburetor	Lack of fuel	**(All SX models)** – Turn handle ❶ of the fuel tap to the **ON** position. (Figure 601185-10☛ p. 12) **(All XC models)** – Turn handle ❶ of the fuel tap to the **ON** position. (Figure 601157-11☛ p. 11) – Refuel. (☛ p. 22)
	Engine takes in bad air	– Check the intake flange and carburetor for tightness.
	Socket connector or ignition coil is loose or oxidized	– Clean the plug-in 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. (☛ p. 73)
	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. 73) – Refill with coolant. 🔧 (☛ p. 74)
	Damaged cylinder head or cylinder head gasket	– Check the cylinder head or cylinder head gasket.
	Bent radiator hose	– Change the radiator hose. 🔧
	Incorrect ignition point due to loose stator	– Adjust the ignition. 🔧
White smoke emission (steam in exhaust gas)	Damaged cylinder head or cylinder head gasket	– Check the cylinder head or cylinder head gasket.
Gear oil exits at the vent hose	Too much gear oil added	– Check the gear oil level. (☛ p. 80)
Water in the gear oil	Damaged shaft seal ring or water pump	– Check the shaft seal ring and water pump.

125 SX

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control
Displacement	124.8 cm³ (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	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)	43.7 mm (1.72 in)
Primary transmission	23:73
Clutch	Multidisc clutch in oil bath/hydraulically activated
Gearbox	6-gear, claw shifted
Transmission ratio	
1st gear	13:32
2nd gear	15:30
3rd gear	17:28
4th gear	20:28
5th gear	19:23
6th gear	22:24
Ignition	Contactless controlled fully electronic ignition with digital ignition adjustment, type Kokusan
Ignition point (BTDC)	1.4 mm (0.055 in)
Spark plug	NGK BR9 ECMVX
Spark plug electrode gap	0.60 mm (0.0236 in)
Starting aid	Kickstarter

150 SX

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control
Displacement	143.6 cm³ (8.763 cu in)
Stroke	58.4 mm (2.299 in)
Bore	56 mm (2.2 in)
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)	44.3 mm (1.744 in)
Primary transmission	23:73
Clutch	Multidisc clutch in oil bath/hydraulically activated
Gearbox	6-gear, claw shifted
Transmission ratio	
1st gear	13:32
2nd gear	15:30
3rd gear	17:28
4th gear	20:28
5th gear	19:23

6th gear	22:24
Ignition	Contactless controlled fully electronic ignition with digital ignition adjustment, type Kokusan
Ignition point (BTDC)	1.4 mm (0.055 in)
Spark plug	NGK BR9 ECMVX
Spark plug electrode gap	0.60 mm (0.0236 in)
Starting aid	Kickstarter

150 XC USA

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control
Displacement	143.6 cm³ (8.763 cu in)
Stroke	58.4 mm (2.299 in)
Bore	56 mm (2.2 in)
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)	44.3 mm (1.744 in)
Primary transmission	23:73
Clutch	Multidisc clutch in oil bath/hydraulically activated
Gearbox	6-gear, claw shifted
Transmission ratio	
1st gear	13:32
2nd gear	15:30
3rd gear	17:28
4th gear	19:26
5th gear	21:25
6th gear	22:23
Ignition	Contactless controlled fully electronic ignition with digital ignition adjustment, type Kokusan
Ignition point (BTDC)	1.4 mm (0.055 in)
Spark plug	NGK BR9 ECMVX
Spark plug electrode gap	0.60 mm (0.0236 in)
Starting aid	Kickstarter

250 SX

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control
Displacement	249 cm³ (15.19 cu in)
Stroke	72 mm (2.83 in)
Bore	66.4 mm (2.614 in)
Exhaust valve - Beginning of adjustment	5,500 rpm
Exhaust valve - end of adjustment with red auxiliary spring	7,000 rpm
Exhaust valve - end of adjustment with yellow auxiliary spring	7,500 rpm
Exhaust valve - end of adjustment with green auxiliary spring	7,900 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	
1st gear	14:28
2nd gear	15:24
3rd gear	18:24
4th gear	21:24
5th gear	22:21
Ignition	Contactless controlled fully electronic ignition with digital ignition adjustment, type Kokusan
Ignition point (BTDC)	1.9 mm (0.075 in)
Spark plug	NGK BR 8 ECM
Spark plug electrode gap	0.60 mm (0.0236 in)
Starting aid	Kick starter

250 XC EU/USA

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control
Displacement	249 cm³ (15.19 cu in)
Stroke	72 mm (2.83 in)
Bore	66.4 mm (2.614 in)
Exhaust valve - Beginning of adjustment	5,500 rpm
Exhaust valve - end of adjustment with red auxiliary spring	7,300 rpm
Exhaust valve - end of adjustment with yellow auxiliary spring	7,800 rpm
Exhaust valve - end of adjustment with green auxiliary spring	8,300 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	
1st gear	15:31
2nd gear	16:25
3rd gear	20:25
4th gear	22:23
5th gear	25:22
6th gear	26:20
Ignition	Contactless controlled fully electronic ignition with digital ignition adjustment, type Kokusan
Ignition point (BTDC)	1.9 mm (0.075 in)
Spark plug	NGK BR 7 ES
Spark plug electrode gap	0.60 mm (0.0236 in)
Starting aid	Kick starter and electric starter

300 XC EU/USA

Design	1-cylinder 2-stroke engine, water-cooled, with reed intake and exhaust control
Displacement	293 cm³ (17.88 cu in)
Stroke	72 mm (2.83 in)
Bore	72 mm (2.83 in)
Exhaust valve - Beginning of adjustment	5,500 rpm
Exhaust valve - end of adjustment with red auxiliary spring	7,300 rpm
Exhaust valve - end of adjustment with yellow auxiliary spring	7,800 rpm
Exhaust valve - end of adjustment with green auxiliary spring	8,300 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 mm (1.89 in)
Primary transmission	26:72
Clutch	Multidisc clutch in oil bath/hydraulically activated
Gearbox	6-gear, claw shifted
Transmission ratio	
1st gear	15:31
2nd gear	16:25
3rd gear	20:25
4th gear	22:23
5th gear	25:22
6th gear	26:20
Ignition	Contactless controlled fully electronic ignition with digital ignition adjustment, type Kokusan
Ignition point (BTDC)	1.9 mm (0.075 in)
Spark plug	NGK BR 7 ES
Spark plug electrode gap	0.60 mm (0.0236 in)
Starting aid	Kick starter and electric starter

Capacity - transmission oil

Gear oil (All 125/150 models)	0.70 l (0.74 qt.)	Engine oil (15W/50) (☛ p. 113)
Gear oil (All 250/300 models)	0.80 l (0.85 qt.)	Engine oil (15W/50) (☛ p. 113)

Capacity - coolant

Coolant	1.2 l (1.3 qt.)	Coolant (☛ p. 113)
		Coolant (mixed ready to use) (☛ p. 113)

All 125/150 models

Screw, membrane	M4	2 Nm (1.5 lbf ft)	**Loctite® 243™**
Locking screw for bearing	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, alternator cover	M5	5 Nm (3.7 lbf ft)	–
Screw, exhaust control cover	M5	5 Nm (3.7 lbf ft)	–
Screw, exhaust flange	M5	6 Nm (4.4 lbf ft)	–
Screw, ignition system/stator	M5	6 Nm (4.4 lbf ft)	**Loctite® 222**
Screw, lock washer, axle for control flap	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, locking lever	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, water pump wheel	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Bleeder screw, cylinder head	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch slave cylinder	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, clutch spring	M6	10 Nm (7.4 lbf ft)	–
Screw, engine housing	M6	10 Nm (7.4 lbf ft)	–
Screw, exhaust control	M6	10 Nm (7.4 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, kick starter stop plate	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, shift lever	M6	14 Nm (10.3 lbf ft)	**Loctite® 243™**
Screw, shifting gate	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, cylinder head	M7	18 Nm (13.3 lbf ft)	–
Axle for control flap, exhaust control	M8	Step 1 3 Nm (2.2 lbf ft) Step 2 (loosen, counter-clockwise) 1/4 turn	–
Nut, cylinder base	M8	30 Nm (22.1 lbf ft)	–
Screw, cylinder base	M8	35 Nm (25.8 lbf ft)	–
Screw, kickstarter	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**
Screw, shift drum locating	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**
Screw, engine sprocket	M10	60 Nm (44.3 lbf ft)	**Loctite® 2701**
Drain plug, water pump cover	M10x1	15 Nm (11.1 lbf ft)	–
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	130 Nm (95.9 lbf ft)	**Loctite® 243™**
Nut, exhaust control, bearing support	M26x1	35 Nm (25.8 lbf ft)	–

250 SX

Screw ,stator	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
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, exhaust control cover	M5	5 Nm (3.7 lbf ft)	–
Screw, ignition pulse generator	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
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® 243™**

Screw, water pump wheel	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch slave cylinder	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, clutch spring	M6	10 Nm (7.4 lbf ft)	–
Screw, control flap, exhaust control	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, engine housing	M6x40	10 Nm (7.4 lbf ft)	–
Screw, engine housing	M6x55	10 Nm (7.4 lbf ft)	–
Screw, engine housing	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, kick starter stop plate	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, kickstarter spring	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, shift drum bearing retainer	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, water pump cover	M6	10 Nm (7.4 lbf ft)	–
Screw, cylinder head	M8	27 Nm (19.9 lbf ft)	–
Screw, kickstarter	M8	25 Nm (18.4 lbf ft)	**Loctite® 2701**
Nut, cylinder base	M10	35 Nm (25.8 lbf ft)	–
Screw, engine sprocket	M10	60 Nm (44.3 lbf ft)	**Loctite® 2701**
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	100 Nm (73.8 lbf ft)	**Loctite® 2701**
Nut, primary gear	M18LHx1.5	150 Nm (110.6 lbf ft)	**Loctite® 243™**

250/300 XC

Screw, angle lever, exhaust control	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, exhaust control cover	M5	5 Nm (3.7 lbf ft)	–
Screw, ignition pulse generator	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
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® 243™**
Screw, water pump wheel	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw ,stator	M6	8 Nm (5.9 lbf ft)	**Loctite® 243™**
Screw, alternator cover	M6	8 Nm (5.9 lbf ft)	–
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch slave cylinder	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, clutch spring	M6	10 Nm (7.4 lbf ft)	–
Screw, control flap, exhaust control	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, engine housing	M6x40	10 Nm (7.4 lbf ft)	–
Screw, engine housing	M6x55	10 Nm (7.4 lbf ft)	–
Screw, engine housing	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, kick starter stop plate	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, kickstarter spring	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, shift drum bearing retainer	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, starter motor	M6	8 Nm (5.9 lbf ft)	–
Screw, water pump cover	M6	10 Nm (7.4 lbf ft)	–
Screw, cylinder head	M8	27 Nm (19.9 lbf ft)	–
Screw, kickstarter	M8	25 Nm (18.4 lbf ft)	**Loctite® 2701**
Nut, cylinder base	M10	35 Nm (25.8 lbf ft)	–
Screw, engine sprocket	M10	60 Nm (44.3 lbf ft)	**Loctite® 2701**
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	100 Nm (73.8 lbf ft)	**Loctite® 2701**
Nut, primary gear	M18LHx1.5	150 Nm (110.6 lbf ft)	**Loctite® 243™**

125 SX

Carburetor type	KEIHIN PWK 38S AG
Carburetor identification number	AQ7_0
Needle position	3rd position from top
Jet needle	NOZI (NOZH, NOZJ)
Main jet	182 (180, 185)
Idling jet	42 (40, 45)
Starting jet	85
Idle air adjusting screw	
Open	1.5 turns
Throttle slide	7 with cut-out

Carburetor - basic setting for sandy surfaces (125 SX)

Idle air adjusting screw	
Open	1.5 turns
Idling jet	45
Jet needle	NOZH
Needle position	4th position from top
Main jet	208

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

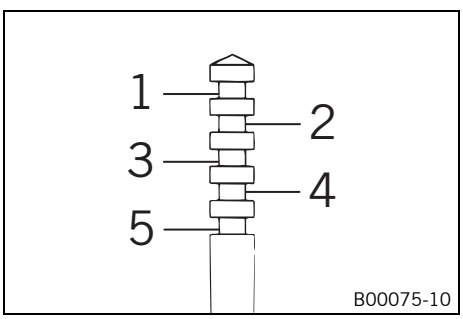
Carburetor configuration (125 SX)

KEIHIN PWK 38S AG

M/FT ASL ↓	TEMP →	-20°C ... -7°C *-2°F ... 20°F*	-6°C ... 5°C *19°F ... 41°F*	6°C ... 15°C *42°F ... 60°F*	16°C ... 24°C *61 °F ... 78°F*	25°C ... 36°C *79°F ... 98°F*	37°C ... 49°C *99°F ... 120°F*
3.000 m *10,000 ft* ↑ 2.301 m *7,501 ft*	ASO IJ NDL POS MJ	1,5 42 NOZI 3 182	2 42 NOZI 3 182	2,5 40 NOZI 2 180	2,5 38 NOZJ 2 178	3 38 NOZK 1 175	
2.300 m *7,500 ft* ↑ 1.501 m *5,001 ft*	ASO IJ NDL POS MJ	1,5 42 NOZI 4 185	1,5 42 NOZI 3 182	2 42 NOZI 3 182	2,5 40 NOZI 2 180	2,5 38 NOZJ 2 178	3 38 NOZK 1 175
1.500 m *5,000 ft* ↑ 751 m *2,501 ft*	ASO IJ NDL POS MJ	1,5 45 NOZH 4 188	1,5 42 NOZI 4 185	1,5 42 NOZI 3 182	2 42 NOZI 3 182	2,5 40 NOZI 2 180	2,5 38 NOZJ 2 178
750 m *2,500 ft* ↑ 301 m *1,001 ft*	ASO IJ NDL POS MJ	1,5 48 NOZG 4 190	1,5 45 NOZH 4 188	1,5 42 NOZI 4 185	**1,5** **42** **NOZI** **3** **182**	2 42 NOZI 3 182	2,5 40 NOZI 2 180
300 m *1,000 ft* ↑ 0 m *0 ft*	ASO IJ NDL POS MJ	1 48 NOZF 5 192	1,5 48 NOZG 4 190	1,5 45 NOZH 4 188	1,5 42 NOZI 4 185	1,5 42 NOZI 3 182	2 42 NOZI 3 182

400709-01

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



1... 5	Needle position from above

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

Info
Not for sandy surfaces

150 SX

Carburetor type	KEIHIN PWK 38S AG
Carburetor identification number	BC0_0
Needle position	2nd position from top
Jet needle	NOZI (NOZH, NOZJ)
Main jet	182 (180, 185)
Idling jet	40 (42)
Starting jet	85
Idle air adjusting screw	
Open	2 turns
Throttle slide	6.5 with cut-out

Carburetor - basic setting for sandy surfaces (150 SX)

Idle air adjusting screw	
Open	1.5 turns
Idling jet	45
Jet needle	NOZH
Needle position	3rd position from top
Main jet	208

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

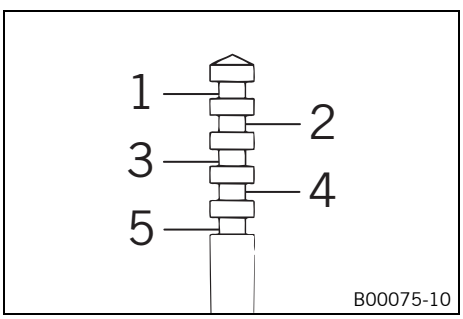
Carburetor configuration (150 SX)

KEIHIN PWK 38S AG

M/FT ASL ↓	TEMP →	-20°C ... -7°C *-2°F ... 20°F*	-6°C ... 5°C *19°F ... 41°F*	6°C ... 15°C *42°F ... 60°F*	16°C ... 24°C *61°F ... 78°F*	25°C ... 36°C *79°F ... 98°F*	37°C ... 49°C *99°F ... 120°F*
3.000 m *10,000 ft* ↑ 2.301 m *7,501 ft*	ASO IJ NDL POS MJ	2 40 NOZI 2 182	2,5 40 NOZI 2 182	2,5 40 NOZJ 2 180	2,5 38 NOZJ 1 178	3 38 NOZK 1 175	
2.300 m *7,500 ft* ↑ 1.501 m *5,001 ft*	ASO IJ NDL POS MJ	2 42 NOZI 3 185	2 40 NOZI 2 182	2,5 40 NOZI 2 182	2,5 40 NOZJ 2 180	2,5 38 NOZJ 1 178	3 38 NOZK 1 175
1.500 m *5,000 ft* ↑ 751 m *2,501 ft*	ASO IJ NDL POS MJ	2 45 NOZH 3 190	2 42 NOZI 3 185	2 40 NOZI 2 182	2,5 40 NOZI 2 182	2,5 40 NOZJ 2 180	2,5 38 NOZJ 1 178
750 m *2,500 ft* ↑ 301 m *1,001 ft*	ASO IJ NDL POS MJ	1,5 45 NOZG 4 192	2 45 NOZH 3 190	2 42 NOZI 3 185	**2** **40** **NOZI** **2** **182**	2,5 40 NOZI 2 182	2,5 40 NOZJ 2 180
300 m *1,000 ft* ↑ 0 m *0 ft*	ASO IJ NDL POS MJ	1,5 48 NOZF 4 195	1,5 45 NOZG 4 192	2 45 NOZH 3 190	2 42 NOZI 3 185	2 40 NOZI 2 182	2,5 40 NOZI 2 182

401037-01

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



1... 5	Needle position from above

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

Info
Not for sandy surfaces

250 SX

Carburetor type	KEIHIN PWK 36S AG
Carburetor identification number	FK0180
Needle position	3rd position from top
Jet needle	N1EI (N1EH, N1EJ)
Main jet	158 (155, 160)
Idling jet	42 (40)
Starting jet	85
Idle air adjusting screw	
Open	1.0 turn
Throttle slide	6.5 with cut-out

Carburetor - basic setting for sandy surfaces (250 SX)

Idle air adjusting screw	
Open	1.0 turn
Idling jet	45
Jet needle	NOZG
Needle position	4th position from top
Main jet	175

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

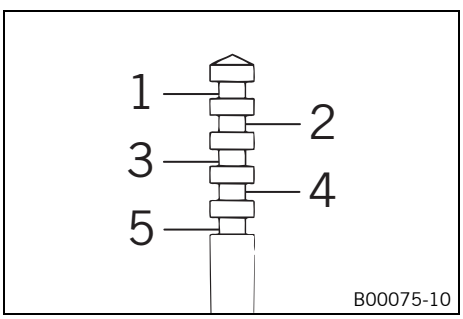
Carburetor configuration (250 SX)

KEIHIN PWK 36S AG

M/FT ASL ↓	TEMP →	-20°C ... -7°C *-2°F ... 20°F*	-6°C ... 5°C *19°F ... 41°F*	6°C ... 15°C *42°F ... 60°F*	16°C ... 24°C *61°F ... 78°F*	25°C ... 36°C *79°F ... 98°F*	37°C ... 49°C *99°F ... 120°F*
3.000 m *10,000 ft* ↑ 2.301 m *7,501 ft*	ASO IJ NDL POS MJ	2 42 N1EI 3 158	2 40 N1EI 3 158	2 38 N1EJ 2 155	2,5 38 N1EK 2 152	3 38 N1EK 1 150	
2.300 m *7,500 ft* ↑ 1.501 m *5,001 ft*	ASO IJ NDL POS MJ	1,5 42 N1EI 3 160	2 42 N1EI 3 158	2 40 N1EI 3 158	2 38 N1EJ 2 155	2,5 38 N1EK 2 152	3 38 N1EK 1 150
1.500 m *5,000 ft* ↑ 751 m *2,501 ft*	ASO IJ NDL POS MJ	1,5 45 N1EH 4 162	1,5 42 N1EI 3 160	2 42 N1EI 3 158	2 40 N1EI 3 158	2 38 N1EJ 2 155	2,5 38 N1EK 2 152
750 m *2,500 ft* ↑ 301 m *1,001 ft*	ASO IJ NDL POS MJ	1,5 45 N1EG 4 165	1,5 45 N1EH 4 162	1,5 42 N1EI 3 160	**2** **42** **N1EI** **3** **158**	2 40 N1EI 3 158	2 38 N1EJ 2 155
300 m *1,000 ft* ↑ 0 m *0 ft*	ASO IJ NDL POS MJ	1 48 N1EF 4 170	1,5 45 N1EG 4 165	1,5 45 N1EH 4 162	1,5 42 N1EI 3 160	2 42 N1EI 3 158	2 40 N1EI 3 158

401038-01

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



1... 5	Needle position from above

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

Info
Not for sandy surfaces

150 XC USA

Carburetor type	KEIHIN PWK 36S AG
Carburetor identification number	BC1_0
Needle position	3rd position from top
Jet needle	NOZI (NOZH, NOZJ)
Main jet	170 (168, 172)
Idling jet	42 (40, 45)
Starting jet	85
Idle air adjusting screw	
Open	1.5 turns
Throttle slide	7 with cut-out

Carburetor configuration (150 XC USA)

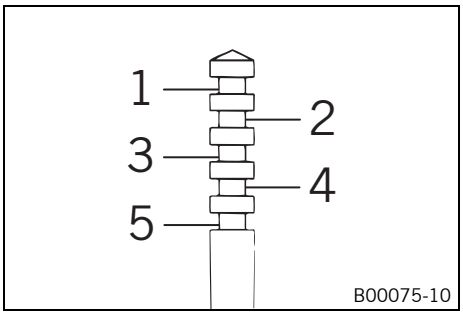
KEIHIN PWK 36S AG

M/FT ASL ↓	TEMP →	-20°C ... -7°C *-2°F ... 20°F*	-6°C ... 5°C *19°F ... 41°F*	6°C ... 15°C *42°F ... 60°F*	16°C ... 24°C *61°F ... 78°F*	25°C ... 36°C *79°F ... 98°F*	37°C ... 49°C *99°F ... 120°F*
3.000 m *10,000 ft* ↑ 2.301 m *7,501 ft*	ASO IJ NDL POS MJ	1,5 42 NOZI 3 170	2 42 NOZJ 3 168	2 40 NOZJ 2 165	2,5 40 NOZK 2 162	3 38 NOZK 1 160	
2.300 m *7,500 ft* ↑ 1.501 m *5,001 ft*	ASO IJ NDL POS MJ	1,5 42 NOZH 3 175	1,5 42 NOZI 3 170	2 42 NOZJ 3 168	2 40 NOZJ 2 165	2,5 40 NOZK 2 162	3 38 NOZK 1 160
1.500 m *5,000 ft* ↑ 751 m *2,501 ft*	ASO IJ NDL POS MJ	1,5 45 NOZH 4 178	1,5 42 NOZH 3 175	1,5 42 NOZI 3 170	1 42 NOZJ 3 168	2 40 NOZJ 2 165	2,5 40 NOZK 2 162
750 m *2,500 ft* ↑ 301 m *1,001 ft*	ASO IJ NDL POS MJ	1,5 45 NOZG 4 180	1,5 45 NOZH 4 178	1,5 42 NOZH 3 175	**1,5** **42** **NOZI** **3** **170**	2 42 NOZJ 3 168	2 40 NOZJ 2 165
300 m *1,000 ft* ↑ 0 m *0 ft*	ASO IJ NDL POS MJ	1,5 48 NOZF 4 185	1,5 45 NOZG 4 180	1,5 45 NOZH 4 178	1,5 42 NOZH 3 175	1,5 42 NOZI 3 170	2 42 NOZJ 3 168

401039-01

M/FT ASL	Sea level
TEMP	Temperature
ASO	Idle air adjusting screw is open
IJ	Idling jet
NDL	Needle

POS	Needle position from above
MJ	Main jet



1... 5	Needle position from above

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

Info
Not for sandy surfaces

250 XC EU/USA

Carburetor type	KEIHIN PWK 36S AG
Carburetor identification number	BC3_0
Needle position	4th position from top
Jet needle	N8RW (N8RH)
Main jet	168 (170)
Idling jet	35
Starting jet	85
Idle air adjusting screw	
Open	1.5 turns
Throttle slide	7 with cut-out

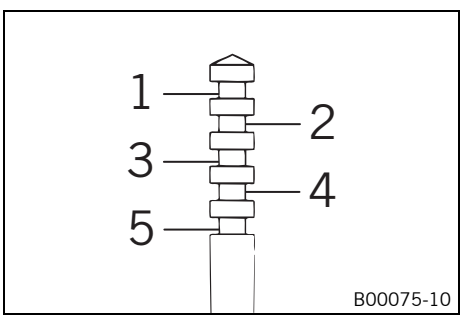
Carburetor configuration (250 XC EU/USA)

KEIHIN PWK 36S AG

M/FT ASL ↓	TEMP →	-20°C ... -7°C *-2°F ... 20°F*	-6°C ... 5°C *19°F ... 41°F*	6°C ... 15°C *42°F ... 60°F*	16°C ... 24°C *61 °F ... 78°F*	25°C ... 36°C *79°F ... 98°F*	37°C ... 49°C *99°F ... 120°F*
3.000 m *10,000 ft* ↑ 2.301 m *7,501 ft*	ASO IJ NDL POS MJ	1,5 35 N8RW 4 168	1,5 35 N8RW 3 168	2 35 N8RJ 3 165	2,5 35 N8RJ 2 162	3 35 N8RK 2 160	
2.300 m *7,500 ft* ↑ 1.501 m *5,001 ft*	ASO IJ NDL POS MJ	1 35 N8RH 4 170	1,5 35 N8RW 4 168	1,5 35 N8RW 3 168	2 35 N8RJ 3 165	2,5 35 N8RJ 2 162	3 35 N8RK 2 160
1.500 m *5,000 ft* ↑ 751 m *2,501 ft*	ASO IJ NDL POS MJ	1 38 N8RH 4 175	1 35 N8RH 4 170	1,5 35 N8RW 4 168	1,5 35 N8RW 3 168	2 35 N8RJ 3 165	2,5 35 N8RJ 2 162
750 m *2,500 ft* ↑ 301 m *1,001 ft*	ASO IJ NDL POS MJ	1 40 N8RG 4 178	1 38 N8RH 4 175	1 35 N8RH 4 170	**1,5** **35** **N8RW** **4** **168**	1,5 35 N8RW 3 168	2 35 N8RJ 3 165
300 m *1,000 ft* ↑ 0 m *0 ft*	ASO IJ NDL POS MJ	1 42 N8RF 5 180	1 40 N8RG 4 178	1 38 N8RH 4 175	1 35 N8RH 4 170	1,5 35 N8RW 4 168	1,5 35 N8RW 3 168

401040-01

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



1... 5	Needle position from above

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

Info
Not for sandy surfaces

300 XC EU/USA

Carburetor type	KEIHIN PWK 36S AG
Carburetor identification number	BC5_0
Needle position	4th position from top
Jet needle	N2ZK (N2ZJ, N2ZL)
Main jet	165 (162)
Idling jet	35
Starting jet	85
Idle air adjusting screw	
Open	2 turns
Throttle slide	7 with cut-out

Carburetor configuration (300 XC EU/USA)

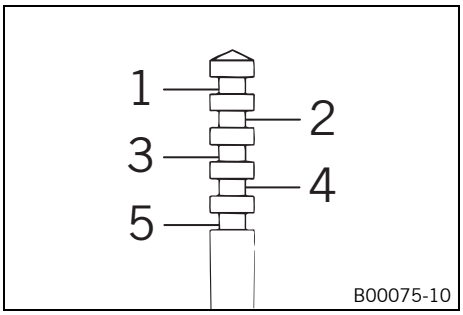
KEIHIN PWK 36S AG

M/FT ASL ↓	TEMP →	-20°C ... -7°C *-2°F ... 20°F*	-6°C ... 5°C *19°F ... 41°F*	6°C ... 15°C *42°F ... 60°F*	16°C ... 24°C *61°F ... 78°F*	25°C ... 36°C *79°F ... 98°F*	37°C ... 49°C *99°F ... 120°F*
3.000 m *10,000 ft* ↑ 2.301 m *7,501 ft*	ASO IJ NDL POS MJ	2 35 N2ZK 4 165	2 35 N2ZK 3 165	2,5 35 N2ZL 3 162	3 35 N2ZL 2 160	3,5 35 N2ZL 2 158	
2.300 m *7,500 ft* ↑ 1.501 m *5,001 ft*	ASO IJ NDL POS MJ	1,5 35 N2ZJ 4 168	2 35 N2ZK 4 165	2 35 N2ZK 3 165	2,5 35 N2ZL 3 162	3 35 N2ZL 2 160	3,5 35 N2ZL 2 158
1.500 m *5,000 ft* ↑ 751 m *2,501 ft*	ASO IJ NDL POS MJ	1,5 38 N2ZW 4 170	1,5 35 N2ZJ 4 168	2 35 N2ZK 4 165	2 35 N2ZK 3 165	2,5 35 N2ZL 3 162	3 35 N2ZL 2 160
750 m *2,500 ft* ↑ 301 m *1,001 ft*	ASO IJ NDL POS MJ	1 40 N2ZW 5 172	1,5 38 N2ZW 4 170	1,5 35 N2ZJ 4 168	**2** **35** **N2ZK** **4** **165**	2 35 N2ZK 3 165	2,5 35 N2ZL 3 162
300 m *1,000 ft* ↑ 0 m *0 ft*	ASO IJ NDL POS MJ	1 40 N2ZH 5 175	1 40 N2ZW 5 172	1,5 38 N2ZW 4 170	1,5 35 N2ZJ 4 168	2 35 N2ZK 4 165	2 35 N2ZK 3 165

401044-01

M/FT ASL	Sea level
TEMP	Temperature
ASO	Idle air adjusting screw is open
IJ	Idling jet
NDL	Needle

POS	Needle position from above
MJ	Main jet



1... 5	Needle position from above

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

Info
Not for sandy surfaces

Frame	Central tube frame made of chrome molybdenum steel tubing
Fork	**WP Suspension** Up Side Down 4860 MXMA CC
Suspension travel	
front	300 mm (11.81 in)
Rear	336 mm (13.23 in)
Fork offset	22 mm (0.87 in)
Shock absorber	**WP Suspension** PDS 5018 DCC
Brake system	Disc brakes, brake calipers on floating bearings
Brake discs - diameter	
Front	260 mm (10.24 in)
Rear	220 mm (8.66 in)
Brake discs - wear limit	
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 (125 SX, 150 XC USA)	13:50
Secondary ratio (250/300 XC, 150 SX)	14:50
Secondary ratio (250 SX)	13:48
Chain	5/8 x 1/4"
Rear sprockets available	38, 40, 42, 45, 48, 49, 50, 51, 52
Steering head angle	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	992 mm (39.06 in)
Ground clearance unloaded (All 125/150 models, 250 XC EU/USA)	395 mm (15.55 in)
Ground clearance unloaded (250 SX, 300 XC EU/USA)	385 mm (15.16 in)
Weight without fuel, approx. (125/150 SX)	89 kg (196 lb.)
Weight without fuel, approx. (150 XC USA)	90.1 kg (198.6 lb.)
Weight without fuel, approx. (250 SX)	94.2 kg (207.7 lb.)
Weight without fuel, approx. (250/300 XC)	101.1 kg (222.9 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.)

Battery	YTX4L-BS	Battery voltage: 12 V Nominal capacity: 3 Ah Maintenance-free

Tires

Validity	Front tire	Rear tire
(125/150 SX)	**80/100 - 21 51M TT** Bridgestone M59	**100/90 - 19 57M TT** Bridgestone M70
(250 SX)	**80/100 - 21 51M TT** Bridgestone M59	**110/90 - 19 62M TT** Bridgestone M70
(150 XC USA)	**80/100 - 21 51M TT** Bridgestone M59	**100/100 - 18 59M TT** Bridgestone M402
(250/300 XC)	**80/100 - 21 51M TT** Bridgestone M59	**110/100 - 18 64M TT** Bridgestone M402
Additional information is available in the Service section under: http://www.ktm.com		

Capacity - fuel

Total fuel tank capacity, approx.	7.5 l (1.98 US gal)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:40) (☛ p. 114) (125/150 SX)
		Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 114) (250 SX)
Total fuel tank capacity, approx.	11.5 l (3.04 US gal)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:40) (☛ p. 114) (150 XC USA)
		Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 114) (250/300 XC)

125/150 SX

Fork part number	14.18.7K.01
Fork	**WP Suspension** Up Side 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)	492 mm (19.37 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)
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 5) (☛ p. 113)
Oil capacity fork leg without cartridge	350 ml (11.83 fl. oz.)	Fork oil (SAE 5) (☛ p. 113)

250 SX

Fork part number	14.18.7K.03
Fork	**WP Suspension** Up Side 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)	492 mm (19.37 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)
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 5) (☛ p. 113)
Oil capacity fork leg without cartridge	380 ml (12.85 fl. oz.)	Fork oil (SAE 5) (☛ p. 113)

150 XC USA

Fork part number	14.18.7K.27
Fork	**WP Suspension** Up Side 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)	492 mm (19.37 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)
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 5) (☛ p. 113)
Oil capacity fork leg without cartridge	365 ml (12.34 fl. oz.)	Fork oil (SAE 5) (☛ p. 113)

250/300 XC

Fork part number	14.18.7K.28
Fork	**WP Suspension** Up Side 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)	492 mm (19.37 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)
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 5) (☛ p. 113)
Oil capacity fork leg without cartridge	365 ml (12.34 fl. oz.)	Fork oil (SAE 5) (☛ p. 113)

125/150 SX

Shock absorber part number	12.18.7K.01
Shock absorber	**WP Suspension** PDS 5018 DCC
Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn
Rebound damping	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks
Spring preload	5 mm (0.2 in)
Spring rate	
Weight of rider: 65... 75 kg (143... 165 lb.)	60 N/mm (343 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	63 N/mm (360 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	66 N/mm (377 lb/in)
Spring length	250 mm (9.84 in)
Gas pressure	10 bar (145 psi)
Static sag	33 mm (1.3 in)
Riding sag	109 mm (4.29 in)
Fitted length	417 mm (16.42 in)
Shock absorber oil (☛ p. 114)	SAE 2,5

250 SX

Shock absorber part number	12.18.7K.03
Shock absorber	**WP Suspension** PDS 5018 DCC
Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn
Rebound damping	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks
Spring preload	
Comfort	5 mm
Standard	3 mm
Sport	5 mm
Spring rate	
Weight of rider: 65... 75 kg (143... 165 lb.)	66 N/mm (377 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	69 N/mm (394 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	72 N/mm (411 lb/in)
Spring length	250 mm (9.84 in)
Gas pressure	10 bar (145 psi)

Static sag	33 mm (1.3 in)
Riding sag	105 mm (4.13 in)
Fitted length	417 mm (16.42 in)
Shock absorber oil (☛ p. 114)	SAE 2,5

150 XC USA

Shock absorber part number	12.18.7K.27
Shock absorber	**WP Suspension** PDS 5018 DCC
Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn
Rebound damping	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks
Spring preload	7 mm (0.28 in)
Spring rate	
Weight of rider: 65... 75 kg (143... 165 lb.)	60 N/mm (343 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	63 N/mm (360 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	66 N/mm (377 lb/in)
Spring length	250 mm (9.84 in)
Gas pressure	10 bar (145 psi)
Static sag	33 mm (1.3 in)
Riding sag	109 mm (4.29 in)
Fitted length	417 mm (16.42 in)
Shock absorber oil (☛ p. 114)	SAE 2,5

250/300 XC

Shock absorber part number	12.18.7K.28
Shock absorber	**WP Suspension** PDS 5018 DCC
Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks
Compression damping, high-speed	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn
Rebound damping	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks
Spring preload	5 mm (0.2 in)
Spring rate	
Weight of rider: 65... 75 kg (143... 165 lb.)	66 N/mm (377 lb/in)
Weight of rider: 75... 85 kg (165... 187 lb.)	69 N/mm (394 lb/in)
Weight of rider: 85... 95 kg (187... 209 lb.)	72 N/mm (411 lb/in)

Spring length	250 mm (9.84 in)
Gas pressure	10 bar (145 psi)
Static sag	33 mm (1.3 in)
Riding sag	105 mm (4.13 in)
Fitted length	417 mm (16.42 in)
Shock absorber oil (☛ p. 114)	SAE 2,5

Spoke nipple, front wheel	M4.5	5... 6 Nm (3.7... 4.4 lbf ft)	–
Spoke nipple, rear wheel	M4.5	5... 6 Nm (3.7... 4.4 lbf ft)	–
Screw, shock absorber adjusting ring	M5	5 Nm (3.7 lbf ft)	–
Remaining nuts, chassis	M6	15 Nm (11.1 lbf ft)	–
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)	–
Screw, ball joint of push rod on foot brake cylinder	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, chain sliding guard	M6	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	**Loctite® 243™**
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	**Loctite® 243™**
Nut, foot brake lever stop	M8	20 Nm (14.8 lbf ft)	–
Nut, rear sprocket screw	M8	35 Nm (25.8 lbf ft)	**Loctite® 2701**
Nut, rim lock	M8	10 Nm (7.4 lbf ft)	–
Remaining nuts, chassis	M8	30 Nm (22.1 lbf ft)	–
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)	–
Screw, bottom triple clamp	M8	12 Nm (8.9 lbf ft)	–
Screw, chain sliding piece	M8	15 Nm (11.1 lbf ft)	–
Screw, engine brace	M8	33 Nm (24.3 lbf ft)	–
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, subframe	M8	35 Nm (25.8 lbf ft)	**Loctite® 2701**
Screw, top steering stem	M8	17 Nm (12.5 lbf ft)	**Loctite® 243™**
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)	–
Side stand holder	M8x20	40 Nm (29.5 lbf ft)	**Loctite® 2701**
Side stand holder	M8x26	40 Nm (29.5 lbf ft)	**Loctite® 2701**
Engine bracket screw	M10x105	60 Nm (44.3 lbf ft)	–
Engine bracket screw	M10x115	60 Nm (44.3 lbf ft)	–
Engine bracket screw	M10x123	60 Nm (44.3 lbf ft)	–
Remaining nuts, chassis	M10	50 Nm (36.9 lbf ft)	–
Remaining screws, chassis	M10	45 Nm (33.2 lbf ft)	–
Screw, handlebar support	M10	40 Nm (29.5 lbf ft)	**Loctite® 243™**
Screw, bottom shock absorber	M12	80 Nm (59 lbf ft)	**Loctite® 2701**
Screw, top shock absorber	M12	80 Nm (59 lbf ft)	**Loctite® 2701**
Nut, seat fixing	M12x1	20 Nm (14.8 lbf ft)	–
Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)	–
Nut, rear wheel spindle	M20x1.5	80 Nm (59 lbf ft)	–
Screw, top steering head	M20x1.5	10 Nm (7.4 lbf ft)	–
Screw-in nozzles, cooling system	M20x1.5	12 Nm (8.9 lbf ft)	**Loctite® 243™**
Screw, front wheel spindle	M24x1.5	45 Nm (33.2 lbf ft)	–

2-stroke engine oil

According to
– JASO FC (☛ p. 117)

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

Fully synthetic

Supplier
Motorex®
– **Cross Power 2T**

Brake fluid DOT 4 / DOT 5.1

According to
– DOT

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

Supplier
Castrol
– **RESPONSE BRAKE FLUID SUPER DOT 4**

Motorex®
– **Brake Fluid DOT 5.1**

Coolant

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

Mixture ratio

Antifreeze protection: −25... −45 °C (−13... −49 °F)	50 % corrosion inhibitor/antifreeze 50 % distilled water

Coolant (mixed ready to use)

Antifreeze	−40 °C (−40 °F)

Supplier
Motorex®
– **Anti Freeze**

Engine oil (15W/50)

According to
– JASO T903 MA (☛ p. 117)
– SAE (☛ p. 117) (15W/50)

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

Supplier
Motorex®
– **Top Speed 4T**

Fork oil (SAE 5)

According to
– SAE (☛ p. 117) (SAE 5)

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

Supplier
Motorex®
– **Racing Fork Oil**

Hydraulic fluid (15)

According to
– ISO VG (15)

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

Supplier
Motorex®
– **Hydraulic Fluid 75**

Shock absorber oil (SAE 2,5) (50180342S1)

According to
– SAE (☛ p. 117) (SAE 2,5)

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

Super unleaded gasoline, mixed with 2-stroke engine oil (1:40)

According to
– DIN EN 228
– JASO FC (☛ p. 117) (1:40)

Mixture ratio

1:40	2-stroke engine oil (☛ p. 113) Super unleaded (ROZ 95 / RON 95 / PON 91)

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

According to
– DIN EN 228
– JASO FC (☛ p. 117) (1:60)

Mixture ratio

1:60	2-stroke engine oil (☛ p. 113) Super unleaded (ROZ 95 / RON 95 / PON 91)

Air filter cleaner

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Twin Air Dirt Bio Remover**

Chain cleaner

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Chain Clean**

Cleaning and preserving materials for metal, rubber and plastic

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Protect & Shine**

High viscosity grease

Guideline

– KTM recommends **SKF®** products.

Supplier
SKF®

– **LGHB 2**

Long-life grease

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Bike Grease 2000**

Motorcycle cleaner

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Moto Clean 900**

Off-road chain spray

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Chainlube Offroad**

Oil for foam air filter

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Twin Air Liquid Bio Power**

Universal oil spray

Guideline

– KTM recommends **Motorex®** products.

Supplier

Motorex®

– **Joker 440 Synthetic**

JASO FC

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

JASO T903 MA

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

SAE

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

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05/2010 Photo: Mitterbauer

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