OWNER'S MANUAL 2010

125 SX
150 SX
250 SX

Art. no. 3211480en

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 great pleasure riding the 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.
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5230 Mattighofen, Austria

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Symbols used

The symbols used are explained below.

✓	Indicates an expected reaction (e.g. of a work step or a function).
✗	Indicates an unexpected reaction (e.g. of a work step or a function).
	All work marked with this symbol requires specialist knowledge and technical understanding. In the interest of your own safety, have these jobs 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.

Maintenance

A prerequisite for perfect operation and prevention of wear is that the engine and chassis maintenance and adjustment work described in the owner's manual are 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, inspection and maintenance 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 can 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.
– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure B00003-10☛ 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.

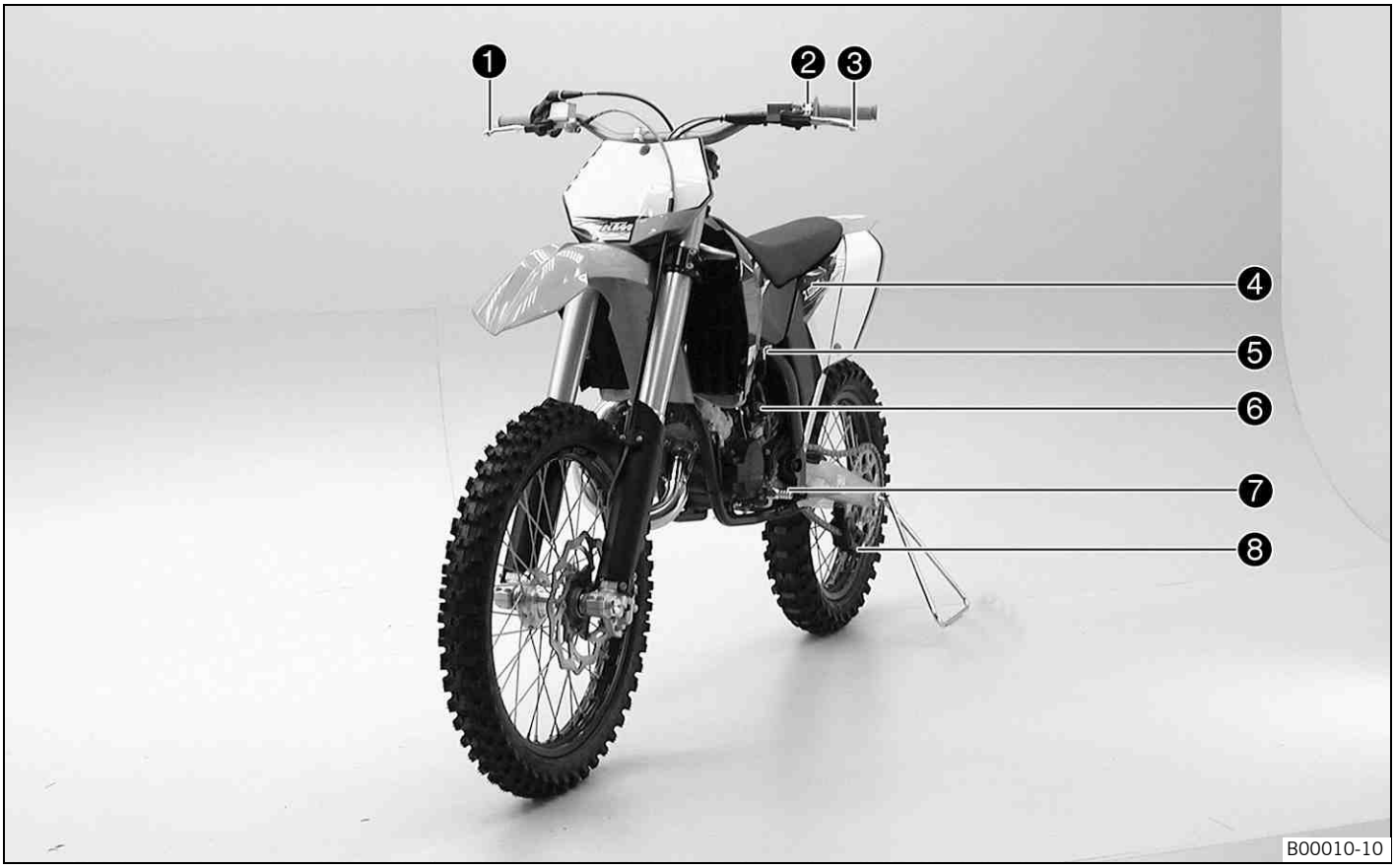
Note
Identifies a danger that will lead to considerable machine and material damage if the appropriate measures are not taken.

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
2	Short circuit button
3	Clutch lever
4	Air filter box lid
5	Fuel tap
6	Choke button
7	Shift lever
8	Chain guide

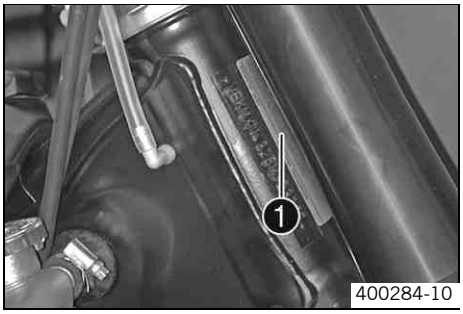
View of the vehicle from the right rear (example)

1	Shock absorber rebound adjustment
2	Level viewer for brake fluid, rear
3	Fork rebound adjustment
4	Foot brake lever
5	Kickstarter
6	Shock absorber compression adjustment
7	Throttle grip
8	Fork compression adjustment
9	Filler cap

Chassis number

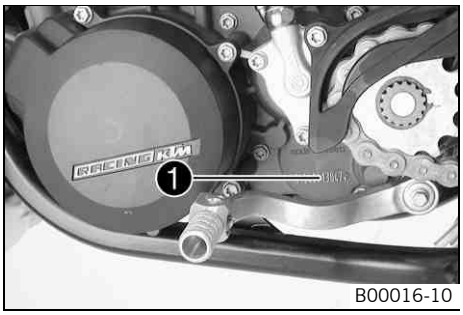
The chassis number ❶ is stamped on the right side of the steering head.

Type label



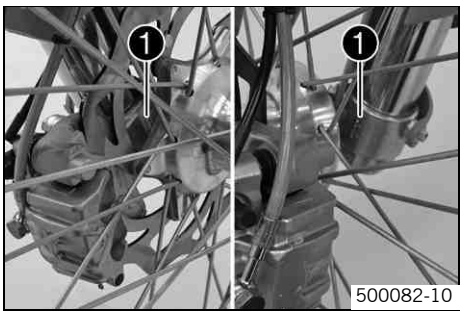
The type label ❶ is fixed to the front of the steering head.

Engine number



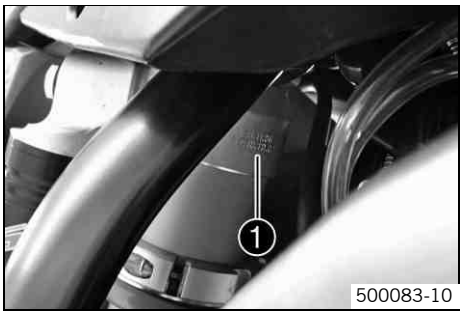
The engine number ❶ is stamped on the left side of the engine under the engine sprocket.

Fork part number



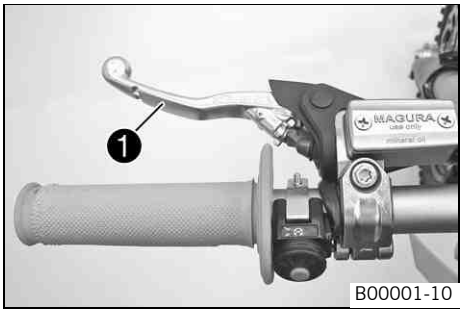
The fork part number ❶ is stamped on the inner side of the fork stub.

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.

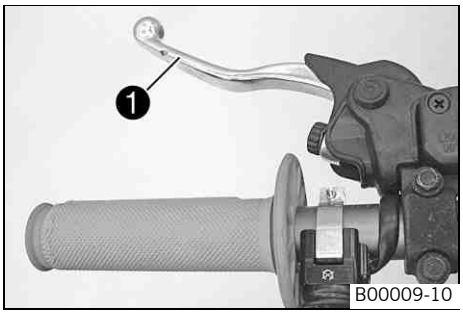
Clutch lever



B00001-10

(125 SX, 150 SX)

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

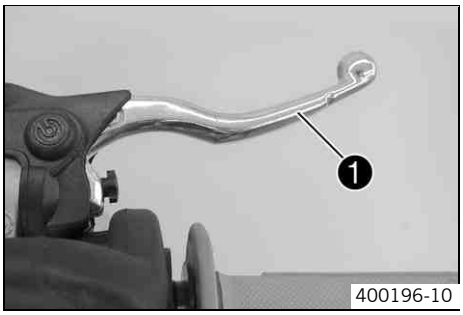


B00009-10

(250 SX)

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

Hand brake lever



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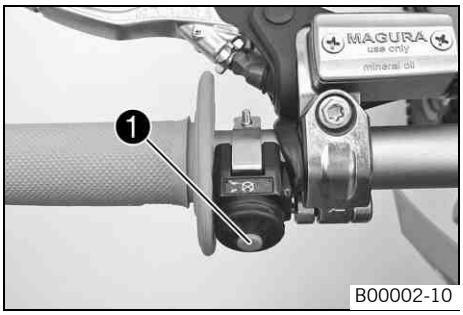
Hand brake lever ❶ is located on the right side of the handlebar.
The hand brake lever is used to activate the front brake.

Short circuit button



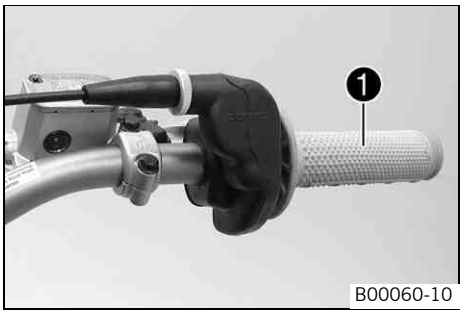
B00002-10

Short circuit button ❶ is fitted on the left side of the handlebar.

Possible states

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

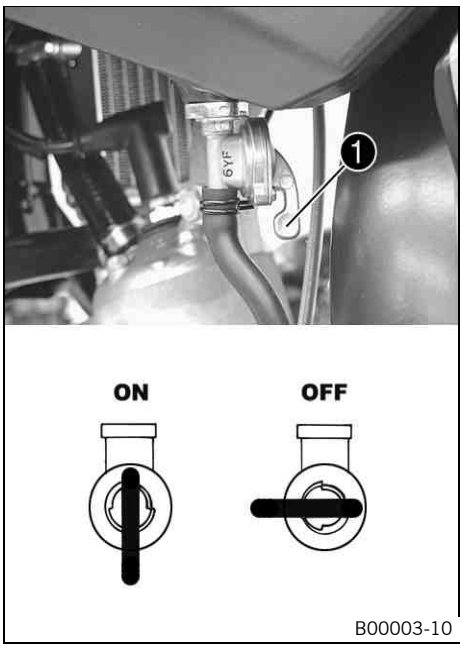
Throttle grip



B00060-10

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

Fuel tap

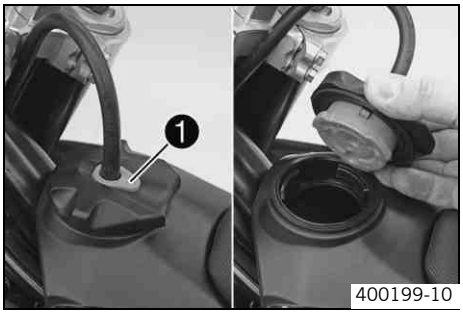


The fuel tap is on the left side of the fuel tank.
With tap handle ❶ on the fuel tap, you can open or close the supply of fuel to the carburetor.

Possible states

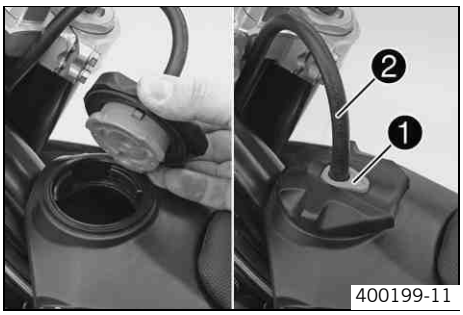
- Fuel supply closed **OFF** – No fuel can flow from the tank to the carburetor.
- Fuel supply open **ON** – Fuel can flow from the tank to the carburetor. The fuel tank empties completely.

Opening the filler cap



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

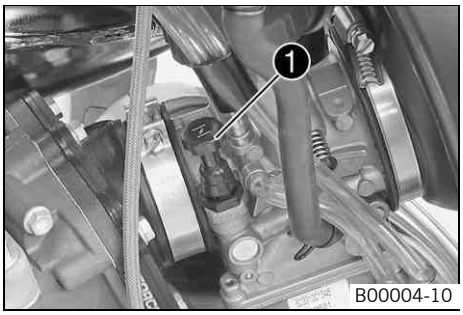
Closing the filler cap



– 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.

Choke



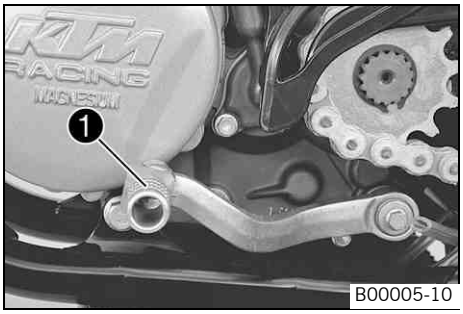
The choke ❶ is fitted on the left side of the carburetor.
Activating the choke function frees an opening through which the engine can draw extra fuel. This gives a richer fuel-air mixture, which is needed for a cold start.

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

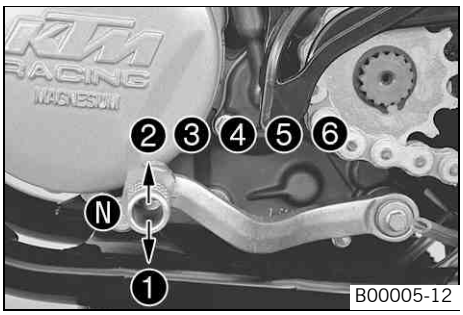
Possible states

- 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

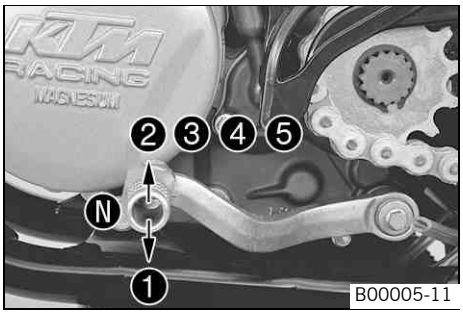


Shift lever ❶ is mounted on the left side of the engine.



(125 SX, 150 SX)

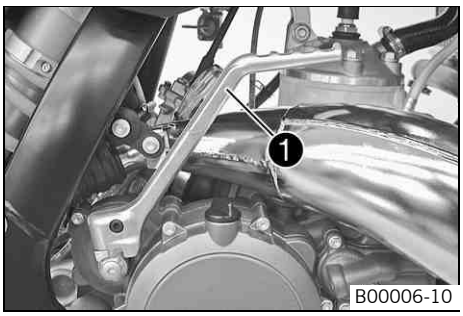
The gear positions can be seen in the photograph.
The neutral or idle position is between the first and second gears.



(250 SX)

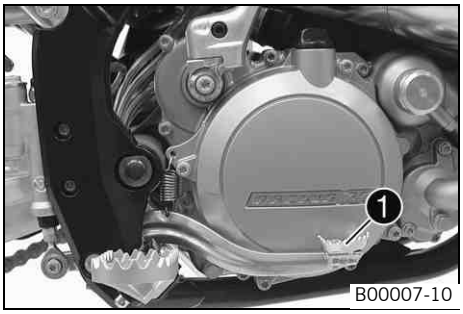
The gear positions can be seen in the photograph.
The neutral or idle position is between the first and second gears.

Kickstarter



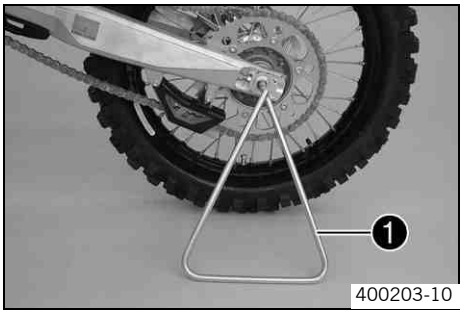
The kickstarter ❶ is fitted on the right side of the engine. The top part can be swiveled.

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.

Plug-in stand



Note

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

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

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.

Advice on first use

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

– Do not use the vehicle if you are inexperienced or if you have consumed alcohol or drugs.

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 handling characteristic due to inappropriate riding style.

– Adapt your riding speed to the road conditoins 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 permanently. The rear brake can fail due to overheating. Take your foot off the foot brake lever if you do not want to brake.

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. 64)
– Adjust the basic position of the hand brake lever. (☛ p. 43)
– Adjust the basic position of the foot brake lever. 🔧 (☛ p. 47)
– 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. 54)

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!

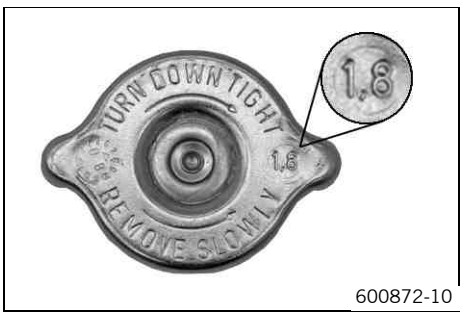
Preparing the vehicle for difficult operating conditions

– 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. 15)
– Riding on wet sand. (☛ p. 16)
– Riding on wet and muddy surfaces. (☛ p. 17)
– Riding at high temperatures and riding slowly. (☛ p. 18)
– Riding at low temperatures and in snow. (☛ p. 18)

Preparations for riding on dry sand



600872-10

– Check the radiator cap.

Value on radiator cap	1.8 bar (26 psi)

» If the value displayed does not meet specifications:

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. (☛ p. 63)

Info
Check the air filter approx. every 30 minutes.

600869-01

– Mount the dust cover for the air filter.

Dust cover for air filter (59006019000)

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

600871-01

– Mount the sand cover for the air filter.

Sand cover for air filter (59006022000)

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.


600868-01

– Clean the chain.

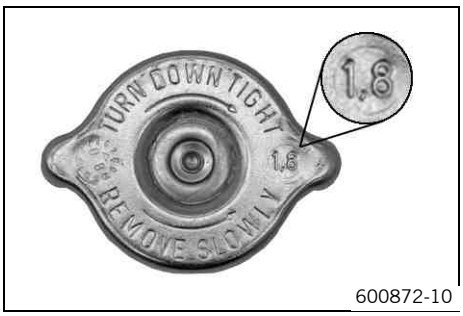
Chain cleaner (☛ p. 96)

– Mount the steel sprocket.

Tip
Do not lubricate the chain.

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

Preparations for riding on wet sand



600872-10

– Check the radiator cap.

Value on radiator cap	1.8 bar (26 psi)

» If the value displayed does not meet specifications:

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. (☛ p. 63)

Info
Check the air filter approx. every 30 minutes.


600870-01

– 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.


600868-01

– Clean the chain.

Chain cleaner (p. 96)

– Mount the steel sprocket.

Tip
Do not lubricate the chain.

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

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. (p. 63)

Info
Check the air filter approx. every 30 minutes.


600870-01

– Mount the rain cover for the air filter.

Rain cover for air filter (59006021000)

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

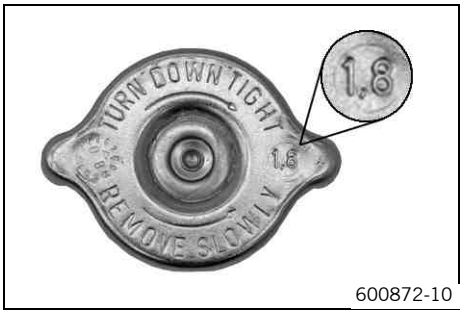
– Adjust the carburetor jetting and setting.

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


600868-01

– Mount the steel sprocket.
– Clean the motorcycle. (p. 74)
– Carefully align bent radiator fins.

Preparations for riding at high temperatures and riding slowly



600872-10

– Check the radiator cap.

Value on radiator cap	1.8 bar (26 psi)

» If the value displayed does not meet specifications:

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. (☛ p. 63)

Info
Check the air filter approx. every 30 minutes.


600868-01

– Adjust the secondary ratio to the nature of the terrain.

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

– Clean the chain.

Chain cleaner (☛ p. 96)

– Clean the radiator fins.
– Carefully align bent radiator fins.
– Check the coolant level. (☛ p. 59)

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. (☛ p. 63)

Info
Check the air filter approx. every 30 minutes.


600870-01

– 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 before putting into operation

Info
Make sure that the motorcycle is in a perfect technical condition before use.
In the interests of riding safety, make a habit of making a general check before you ride.

- Check the gear oil level. (☛ p. 68)
- Check the chain tension. (☛ p. 40)
- Check the chain for dirt. (☛ p. 39)
- Check the tire condition. (☛ p. 53)
- Check the tire air pressure. (☛ p. 54)
- Check the front brake fluid level. (☛ p. 43)
- Check the rear brake fluid level. (☛ p. 47)
- Check the front brake linings. (☛ p. 44)
- Check the rear brake linings. (☛ p. 48)
- Check the brake system function.
- Check the coolant level. (☛ p. 59)
- Check the settings of all controls and ensure that they can be operated smoothly.

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 one week

- Empty the carburetor float chamber. 🔧 (☛ p. 68)

- Turn handle ❶ of the fuel tap to the **ON** position. (Figure B00003-10☛ 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.

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

Info
Do not open the throttle.

Starting up

Info
The plug-in stand must be removed before riding.

– 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 overspeeds and the rear wheel can block.

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 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 get very hot when the vehicle is in use.

– 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 can 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 short circuit button ⊠ while the engine is idling until the engine stops.
– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure B00003-10☛ p. 11)
– Insert the plug-in stand on the left side of the wheel spindle.
– Park the motorcycle on firm ground.

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.

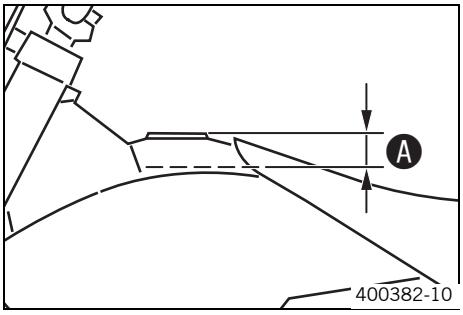
Warning
Danger of poisoning Fuel is poisonous and a health hazard.

– 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.	8 l (2.1 US gal)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:40) (☛ p. 95) (125 SX, 150 SX)
		Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 95) (250 SX)

– Close the filler cap. (☛ p. 11)

Important maintenance work that must be done in an authorized KTM workshop

		S10N	S20A	S40A
Engine	Check the gear oil level. (☛ p. 68)		•	•
	Change the gear oil. 🔧 (☛ p. 69)	•		•
	Check spark plug and replace if required. 🔧	•	•	•
	Clean the spark plug connectors and check for tightness. 🔧		•	•
	Check that the screws in the shift lever and the kickstarter are tight.	•	•	•
	Check the engine mounting screws for tightness.	•	•	•
Carburetor	Check intake flange and carburetor connection boot for cracks and leakage.	•		•
	Check idle.	•		•
	Check vent hoses for damage and routing without sharp bends.	•		•
Attachments	Check the cooling system for leakage.	•		•
	Check the antifreeze and coolant level. (☛ p. 58)	•		•
	Check the exhaust system for leakage and looseness.		•	•
	Check the cables for damage, smooth operation and routing without sharp bends.	•	•	•
	Check the fluid level of the hydraulic clutch. (☛ p. 64)	•	•	•
	Clean the air filter. 🔧 (☛ p. 63)	•	•	•
	Check the cables for damage and routing without sharp bends.	•		•
Brakes	Check the front brake linings. (☛ p. 44)	•		•
	Check the rear brake linings. (☛ p. 48)	•		•
	Check the brake discs. (☛ p. 42)	•		•
	Check the front brake fluid level. (☛ p. 43)	•	•	•
	Check the rear brake fluid level. (☛ p. 47)	•	•	•
	Check the brake lines for damage and leakage.	•		•
	Check the free travel of the hand brake lever. (☛ p. 43)	•	•	•
	Check the free play of the foot brake lever. (☛ p. 46)	•	•	•
	Check the brake system function.	•	•	•
	Check the screws and guide bolts of the brake system for tightness.	•	•	•
Chassis	Check the shock absorber and fork for leakage and functioning. 🔧	•	•	•
	Clean the dust boots of the fork legs. (☛ p. 32)	•	•	•
	Bleed the fork legs. (☛ p. 32)	•	•	•
	Check the swingarm bearing.	•		•
	Check the frame and swingarm for damage.	•		•
	Check the play of the steering head bearing. (☛ p. 33)	•		•
	Check all screws to see if they are tight.	•		•
Wheels	Check the spoke tension. (☛ p. 54)	•	•	•
	Check the wheel hubs for damage.	•	•	•
	Check rim run-out.	•	•	•
	Check the tire condition. (☛ p. 53)	•	•	•
	Check the tire air pressure. (☛ p. 54)	•	•	•
	Check chain wear. (☛ p. 40)	•	•	•
	Check the chain tension. (☛ p. 40)	•	•	•
	Clean the chain. (☛ p. 39)	•	•	•
	Check the wheel bearing for play.	•		•
	Clean and grease the adjusting screws of chain adjuster.	•	•	•

S10N: Once after 10 service hours - corresponds to about 70 liters of fuel (18.5 US gal)
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 a race

Important maintenance work to be carried out by an authorized KTM workshop (as additional order)

	S10A	S20N	S20A	S30A	S40A	S80A	J1A
Check/set the carburetor components.						•	
Check the intake diaphragm.			•		•	•	
Check the clutch lining discs.			•		•	•	
Check the length of the clutch springs.			•		•	•	
Check the cylinder and piston.			•		•	•	
Check the seating of the piston pin.			•		•	•	
Check exhaust control for functioning and smooth operation, clean.			•		•	•	
Change the crankshaft main bearing.						•	
Change the conrod bearing.					•	•	
Fully check the transmission.					•	•	
Check the shift mechanism.					•	•	
Conduct a major fork service.				•			
Conduct a minor fork service.	•		•	•	•	•	
Perform a shock absorber service.		•			•	•	
Grease the steering head bearing. (☛ p. 37)							•
Change the foot brake cylinder seals.					•	•	
Change the glass fiber yarn filling of the main silencer. (☛ p. 61)			•		•	•	
Change the hydraulic clutch fluid. (☛ p. 65)							•
Change the front brake fluid.							•
Change the rear brake fluid.							•
Treat electric contacts with contact spray.							•

S10A: Every 10 service hours - corresponds to about 70 liters of fuel (18.5 US gal)
S20N: Once after 20 service hours - corresponds to about 140 liters of fuel (37 US gal)
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)
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)
J1A: annually

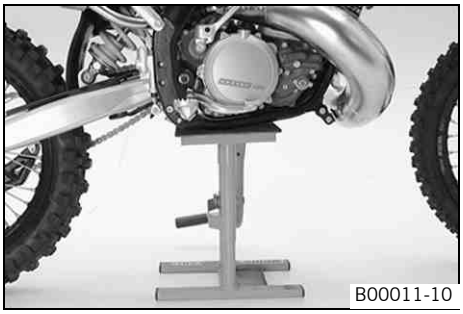
Important checks and maintenance work to be carried out by the rider

	NB1A
Check the gear oil level. (☛ p. 68)	•
Check the front brake fluid level. (☛ p. 43)	•
Check the rear brake fluid level. (☛ p. 47)	•
Check the front brake linings. (☛ p. 44)	•
Check the rear brake linings. (☛ p. 48)	•
Check and adjust the cables.	•
Bleed the fork legs. (☛ p. 32)	•
Clean the dust boots of the fork legs. (☛ p. 32)	•
Clean the chain. (☛ p. 39)	•
Check the chain tension. (☛ p. 40)	•
Check chain wear. (☛ p. 40)	•
Check the rear sprocket/engine sprocket for wear. (☛ p. 40)	•
Clean the air filter. (☛ p. 63)	•
Check the tire air pressure. (☛ p. 54)	•
Check the tire condition. (☛ p. 53)	•

	NB1A
Check the coolant level. (☛ p. 59)	•
Empty the carburetor float chamber. 🔧 (☛ p. 68)	•
Check all controls for smooth operation.	•
Check braking.	•
Check all screws, nuts and hose clamps regularly for tightness.	•

NB1A: Depending on conditions of use according to requirements.

Jacking up the motorcycle


B00011-10

Note

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

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

– Jack up the motorcycle underneath the engine. The wheels must no longer touch the ground.

Work stand (54829055000)

– Secure the motorcycle against falling over.

Removing the motorcycle from the work stand

Note

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

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

– Remove the motorcycle from the work stand.
– Remove the work stand.

Checking the basic chassis setting with the rider's weight

Info

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

– For optimal motorcycle riding characteristics and to avoid damage to forks, shock absorbers, swing arm and frame, the basic settings of the suspension components must match your body 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 your weight is above or below the standard range, you need to adjust the basic setting of the suspension components 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 shock absorber can separately regulate compression damping in the low- and high-speed ranges (Dual Compression Control). Here, low-speed and high-speed refer to the movement of the shock absorber during compression and not the riding speed of the motorcycle.
Changes in the settings in the low-speed range have an impact on the high-speed range and vice versa.

Adjusting the high-speed compression damping of the shock absorber

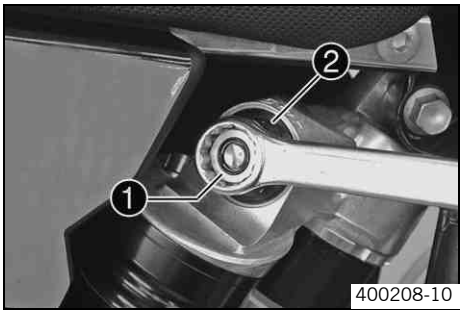
Danger

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 with a ring wrench.

Info
Do not loosen nut ❷!

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

Guideline

(125 SX, 150 SX)

Compression damping, high-speed	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn

(250 SX)

Compression damping, high-speed	
Comfort	2 turns
Standard	1.5 turns
Sport	1 turn

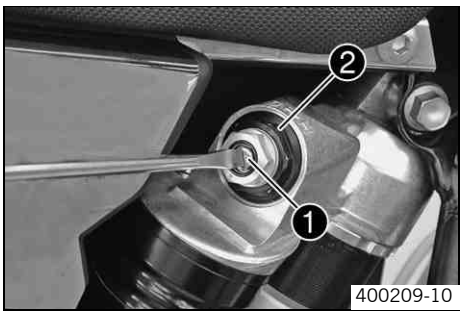
Info
Turn clockwise to increase damping, turn counterclockwise to reduce damping.

Adjusting the low-speed compression damping of the shock absorber

Danger
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.



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

Info
Do not loosen nut ❷!

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

Guideline

(125 SX, 150 SX)

Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks

(250 SX)

Compression damping, low-speed	
Comfort	17 clicks
Standard	15 clicks
Sport	13 clicks

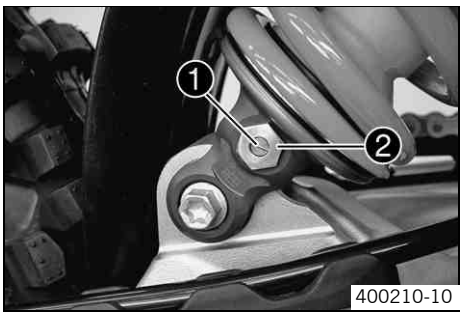
Info
Turn clockwise to increase damping, turn counterclockwise to reduce damping.

Adjusting the rebound damping of the shock absorber

Danger

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

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



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

Info

Do not loosen nut ❷!

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

Guideline

(125 SX, 150 SX)

Rebound damping	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks

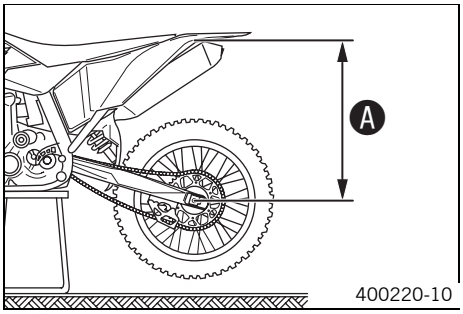
(250 SX)

Rebound damping	
Comfort	24 clicks
Standard	22 clicks
Sport	22 clicks

Info

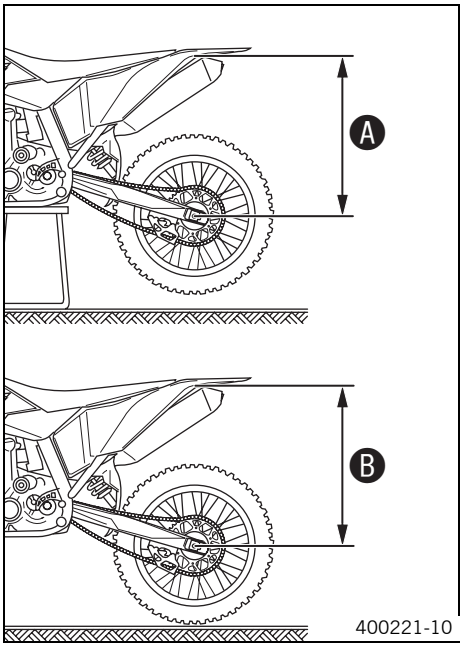
Turn clockwise to increase damping, turn counterclockwise to reduce damping.

Measuring the sag of the unloaded rear wheel



– Jack up the motorcycle. (☛ p. 26)
– Measure the distance – as vertical as possible – between the rear axle and a fixed point, for example, a mark on the side cover.
– Make a note of the value as measurement Ⓐ.
– Remove the motorcycle from the work stand. (☛ p. 26)

Checking the static sag of the shock absorber



– Measure distance ❹ of the unloaded rear wheel. (☛ p. 28)
– Ask someone to help you by holding the motorcycle upright.
– Measure the distance between the rear axle and the fixed point again.
– Make a note of the value as measurement ❺.

Info
The static sag is the difference between measurements ❹ and ❺.

– Check the static sag.

(125 SX, 150 SX)

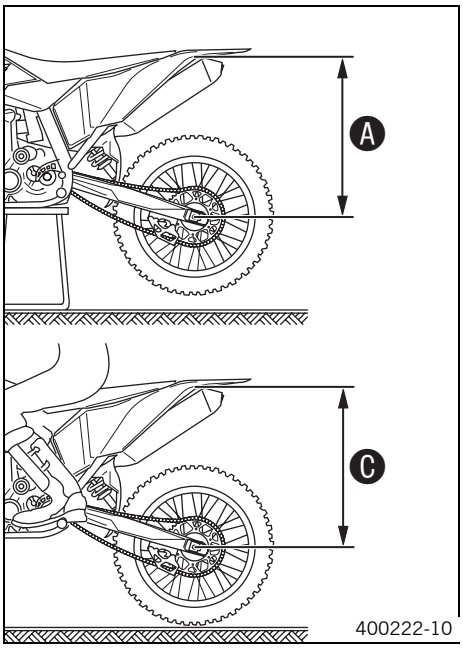
Static sag	33 mm (1.3 in)

(250 SX)

Static sag	33 mm (1.3 in)

» If the static sag is less or more than the specified value:
– Adjust the spring preload of the shock absorber. 🔧 (☛ p. 29)

Checking the riding sag of the shock absorber



– Measure distance ❹ of the unloaded rear wheel. (☛ p. 28)
– With another person holding the motorcycle, the rider, wearing a full set of protective clothing, sits on the saddle in the normal sitting position (feet on footrests) and bounces up and down a few times until the rear suspension levels out.
– The other person now measures the distance between the rear axle and a fixed point.
– Make a note of the value as measurement ❻.

Info
The riding sag is the difference between measurements ❹ and ❻.

– Check the riding sag.

Guideline

(125 SX, 150 SX)

Riding sag	107 mm (4.21 in)

(250 SX)

Riding sag	105 mm (4.13 in)

» If the riding sag differs from the specified measurement:
– Adjust the riding sag. 🔧 (☛ p. 30)

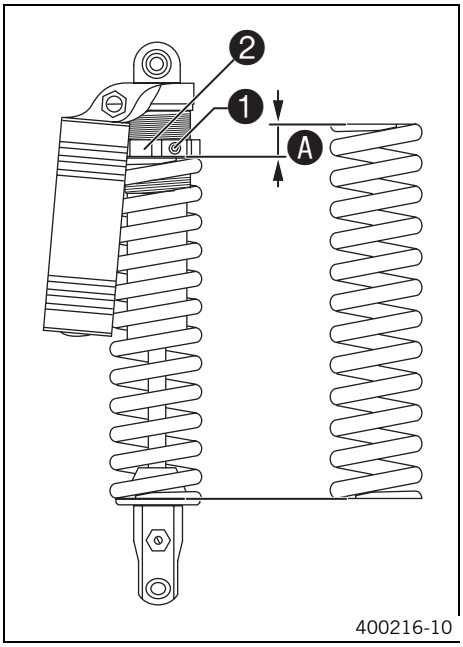
Adjusting the spring preload of the shock absorber 🔧

Danger
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.

– Remove the shock absorber. 🔧 (☛ p. 30)
– After removing the shock absorber, clean it thoroughly.



– Unscrew screw ❶.
– Turn adjusting ring ❷ until the spring is no longer under tension.

Combination wrench (50329080000)
Hook wrench (T106S)

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

Guideline

(125 SX, 150 SX)

Spring preload	5 mm (0.2 in)

(250 SX)

Spring preload	6 mm (0.24 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	M6	5 Nm (3.7 lbf ft)

– Install the shock absorber. (☛ p. 31)

Adjusting the riding sag

– Remove the shock absorber. (☛ p. 30)
– After removing the shock absorber, clean it thoroughly.
– Choose and mount a suitable spring.

Guideline

(125 SX, 150 SX)

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)

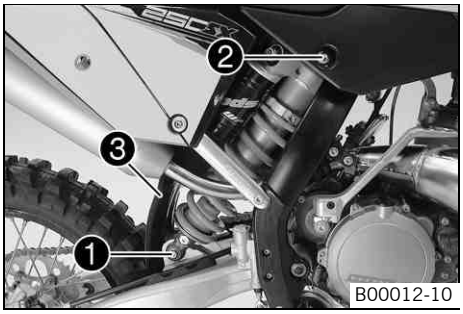
(250 SX)

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)

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

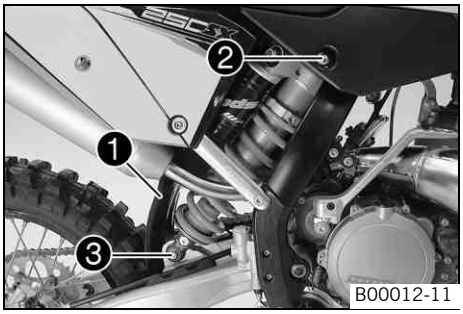
– Install the shock absorber. (☛ p. 31)
– Check the static sag of the shock absorber. (☛ p. 29)
– Check the riding sag of the shock absorber. (☛ p. 29)
– Adjust the rebound damping of the shock absorber. (☛ p. 28)

Removing the shock absorber



– Jack up the motorcycle. (☛ p. 26)
– 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® 243™**

– Mount and tighten screw ❸.

Guideline

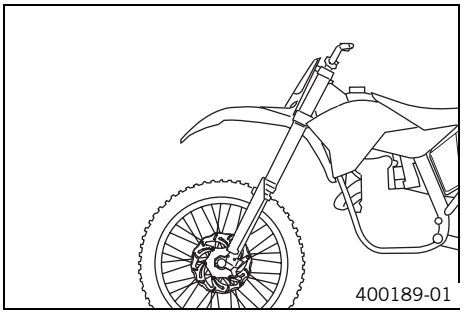
Screw, bottom shock absorber	M12	80 Nm (59 lbf ft)	**Loctite® 243™**

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 work stand. (☛ p. 26)

Checking the basic setting of the fork

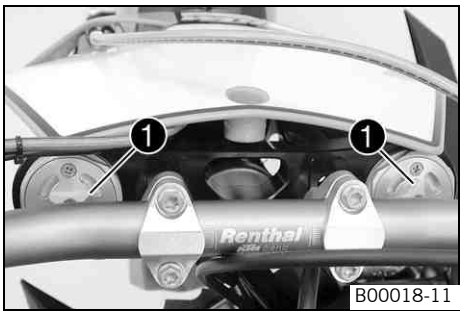
Info
For various reasons, no exact riding sag can be determined for the forks.



– As with the shock absorber, smaller weight differences can be compensated by the spring preload.
– However, if your fork often bottoms out (hard end stop on compression), you must fit harder springs 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

(125 SX, 150 SX)

Compression damping	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks

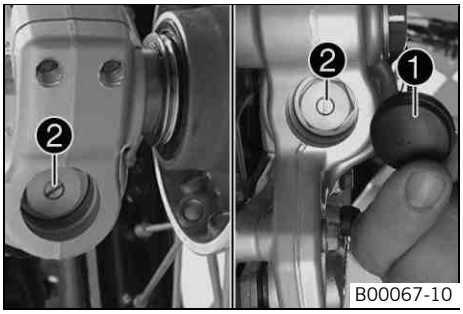
(250 SX)

Compression damping	
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.



B00067-10

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

Info
The 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

(125 SX, 150 SX)

Rebound damping	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks

(250 SX)

Rebound damping	
Comfort	14 clicks
Standard	12 clicks
Sport	10 clicks

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

– Mount protection covers ❶.

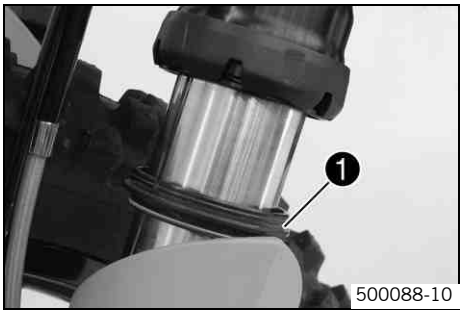
Bleeding the fork legs

B00018-10

– Jack up the motorcycle. (☛ p. 26)
– 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 work stand. (☛ p. 26)

Cleaning the dust boots of the fork legs

– Jack up the motorcycle. (☛ p. 26)
– Loosen the fork protection. (☛ p. 33)



– 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. 97)

– Press the dust boots back into their normal position.
– Remove excess oil.
– Position the fork protection. (☛ p. 33)
– Remove the motorcycle from the work stand. (☛ p. 26)

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)

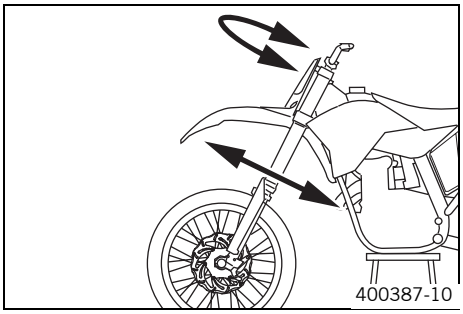
Checking the play of the steering head bearing

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 for a lengthy period with play in the steering head bearing, the bearing and the bearing seats in the frame can be damaged after time.

– Jack up the motorcycle. (☛ p. 26)


400387-10

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

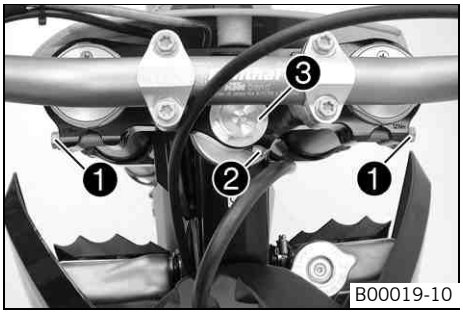
No play should be noticeable in the steering head bearing.

» If there is noticeable play present:
  – Adjust the play of the steering head bearing. 🔧 (☛ p. 34)
– 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. 34)
  – Check the steering head bearing and replace if required.
– Remove the motorcycle from the work stand. (☛ p. 26)

Adjusting the play of the steering head bearing 🔧



B00019-10

– Jack up the motorcycle. (☛ p. 26)
– 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.

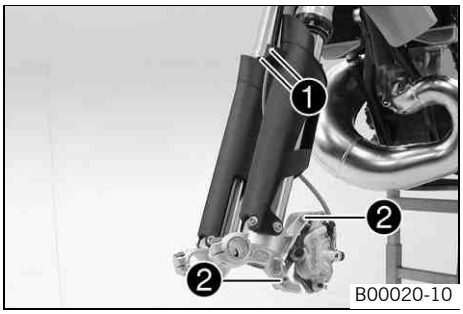
Guideline

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

– Check the play of the steering head bearing. (☛ p. 33)

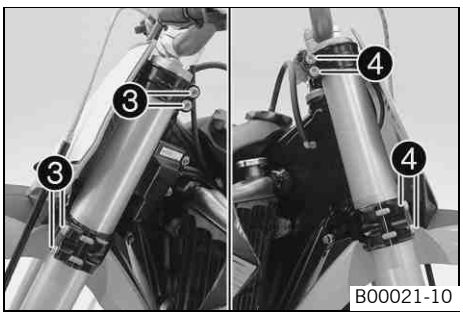
Removing the fork legs 🔧

– Remove the front wheel. 🔧 (☛ p. 50)



B00020-10

– 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.



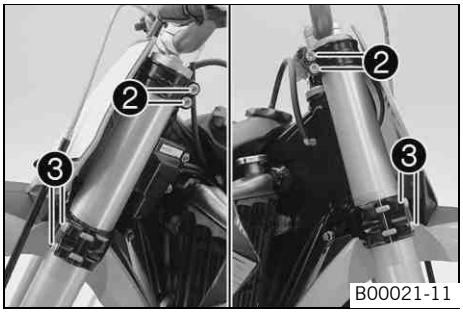
B00021-10

– 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.

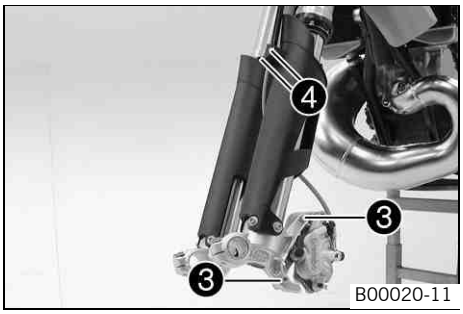


– Tighten screws ❷.
Guideline

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)

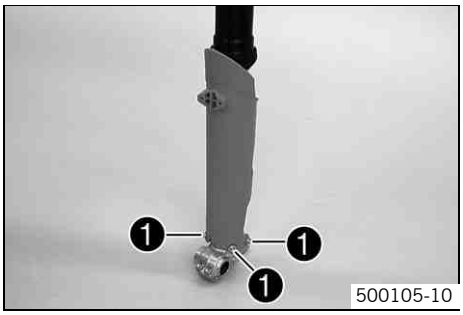


– Position the brake caliper and mount and tighten screws ❸.
Guideline

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

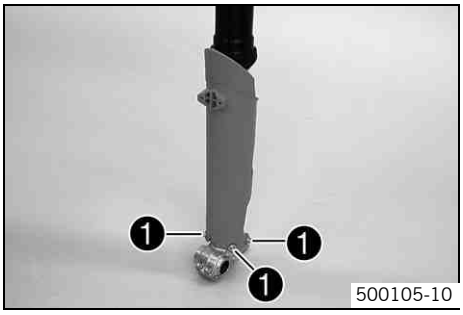
– Position the brake line. Put the clamp on, and mount and tighten screws ❹.
– Install the front wheel. (☛ p. 51)

Removing the fork protector



– Remove the fork legs. (☛ p. 34)
– 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

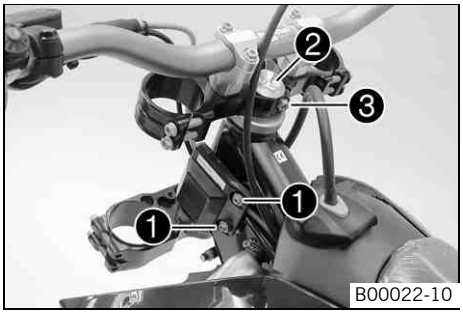
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

– 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. 35)

Removing the lower triple clamp

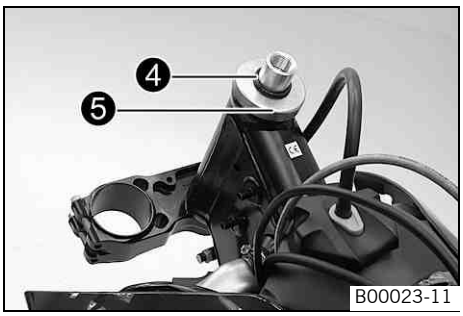


- Remove the fork legs. (☛ p. 34)
- Remove the start number plate. (☛ p. 37)
- Remove the front fender. (☛ p. 37)
- Remove screws ❶ and hang the CDI control unit to the side.

Info
Do not unplug the CDI control unit.

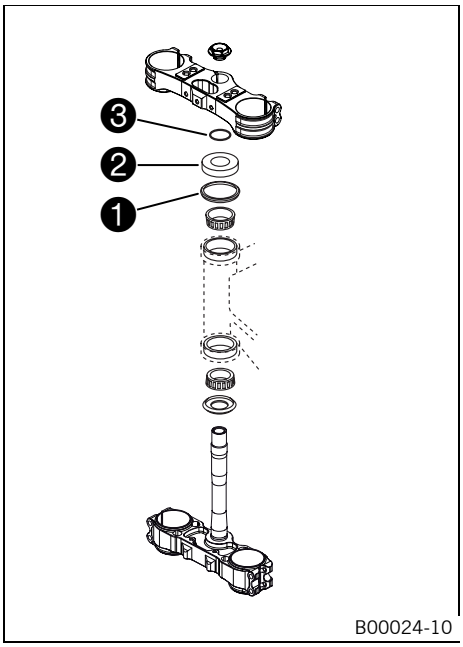
- Remove screw ❷. Remove screw ❸, take off the top triple clamp with the handlebar and place it on one side.

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



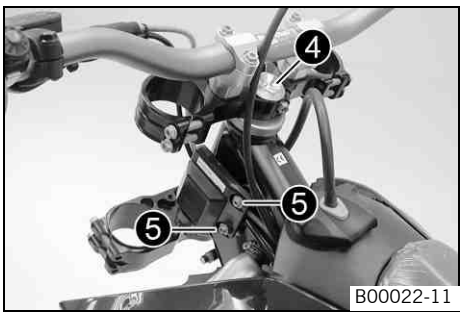
- Clean the bearing and sealing elements, check for damage, and grease.

Long-life grease (☛ p. 96)

- Insert the lower triple clamp with the steering stem. Mount the upper steering head bearing.

Info
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 and tighten screw ❹.

Guideline

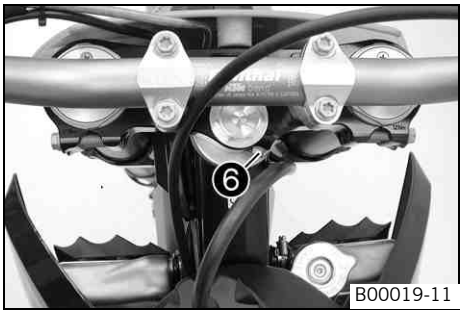
Screw, top steering head	M20x1.5	10 Nm (7.4 lbf ft)

- Position the clutch line, wiring harness and CDI control unit. Mount and tighten screws ❺.

Guideline

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

- Install the front fender. (☛ p. 37)
- Install the start number plate. (☛ p. 38)
- Install the fork legs. (☛ p. 35)



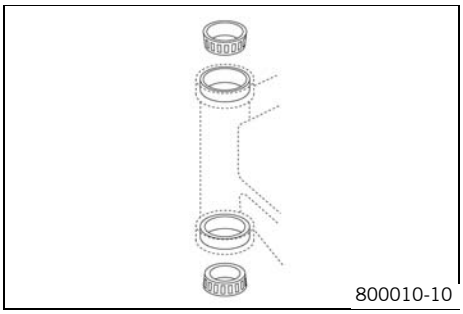
– Mount and tighten screw ❻.

Guideline

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

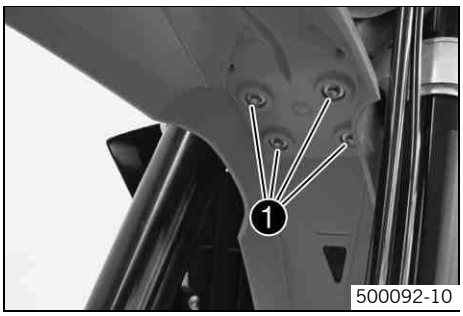
– Check that the wiring harness, throttle cables and brake and clutch lines can move freely and are routed correctly.
– Check the play of the steering head bearing. (☛ p. 33)

Greasing the steering head bearing



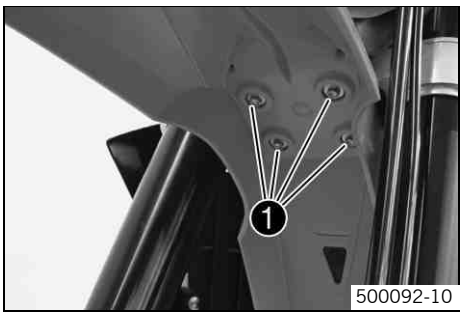
– Remove the lower triple clamp. (☛ p. 36)
– Install the lower triple clamp. (☛ p. 36)

Removing the front fender



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

Installing the front fender



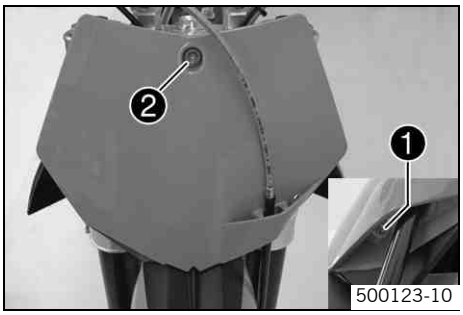
– Ensure that the spacers are mounted in the fender.
– Position the front fender. Mount and tighten screws ❶.

Guideline

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

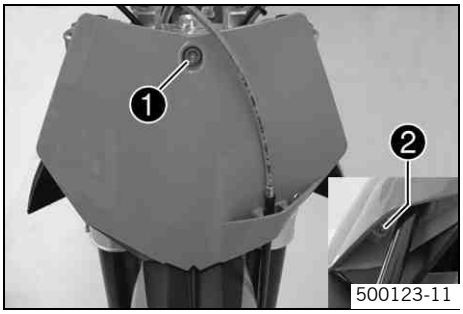
Info
Make sure the holding lugs engage in the start number plate.

Removing the 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.

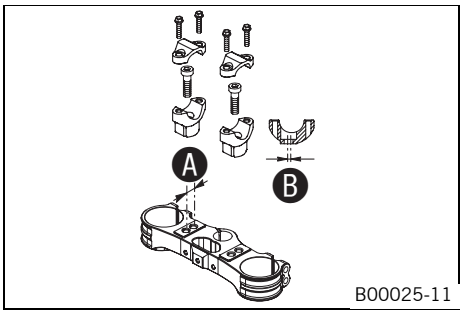
Guideline

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.

Handlebar position



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

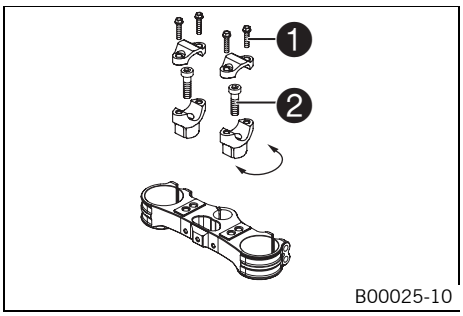
Hole distance A	15 mm (0.59 in)

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



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

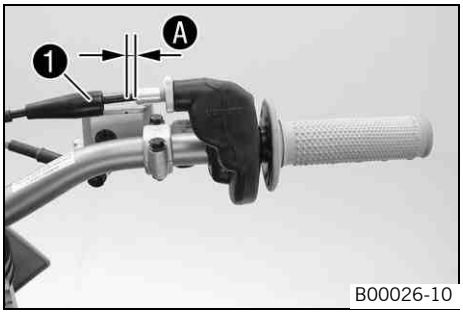
Info
Make sure cables and wiring are positioned correctly.

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

Guideline

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

Checking the play in the throttle cable



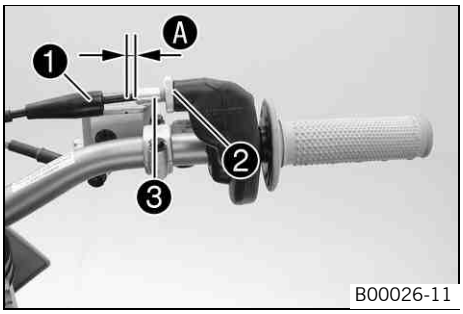
B00026-10

– 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. 39)
– Push on bellows ❶. Check the throttle grip for smooth operation.

Adjusting the play in the throttle cable



B00026-11

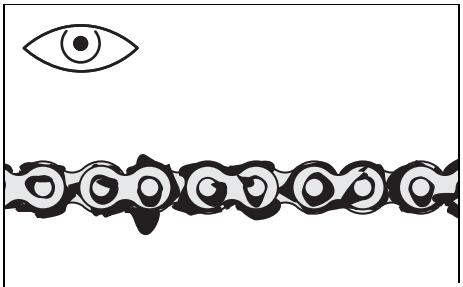
– Move the handlebar to the straight-ahead position.
– Push back bellows ❶.
– Loosen nut ❷. Turn adjusting screw ❸ in as far as possible.
– Turn the adjusting screw so that there is play Ⓐ at the outer casing of the throttle cable.

Guideline

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

– Tighten the nut.
– Push on bellows ❶. Check the throttle grip for smooth operation.

Checking the chain for dirt


400678-01

– Check the chain for heavy soiling.
» If the chain is very dirty:
– Clean the chain. (☛ p. 39)

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.

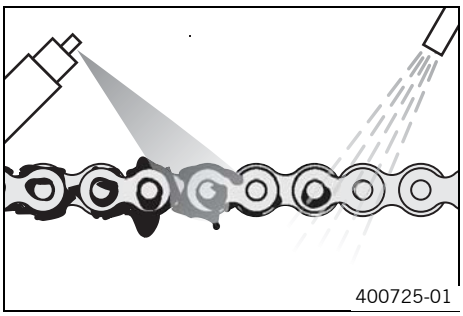
Warning
Danger of accidents Reduced braking efficiency due to oil or grease on the brake discs.

– 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.


400725-01

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

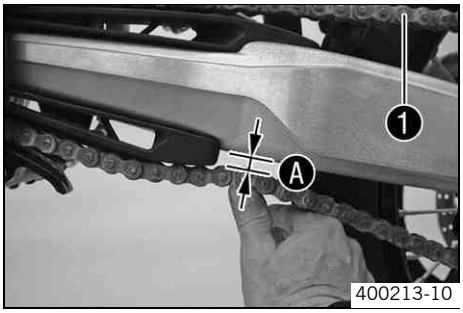
Chain cleaner (☛ p. 96)
Off-road chain spray (☛ p. 96)

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.



400213-10

– Jack up the motorcycle. (☛ p. 26)
– Push the chain at the end of the chain sliding component upwards to measure chain tension Ⓐ.

Info

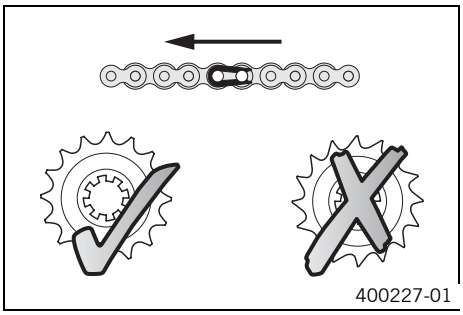
The upper chain section ❶ must be taut.
Chain wear is not always even, so you should repeat this measurement at different chain positions.

Chain tension	8... 10 mm (0.31... 0.39 in)

» If the chain tension does not meet specifications:
– Adjust the chain tension. (☛ p. 41)

– Remove the motorcycle from the work stand. (☛ p. 26)

Checking the rear sprocket/engine sprocket for wear


400227-01

– Check the rear sprocket/engine sprocket for wear.
» If the rear sprocket/engine sprocket are worn:
– Replace the rear sprocket/engine sprocket.

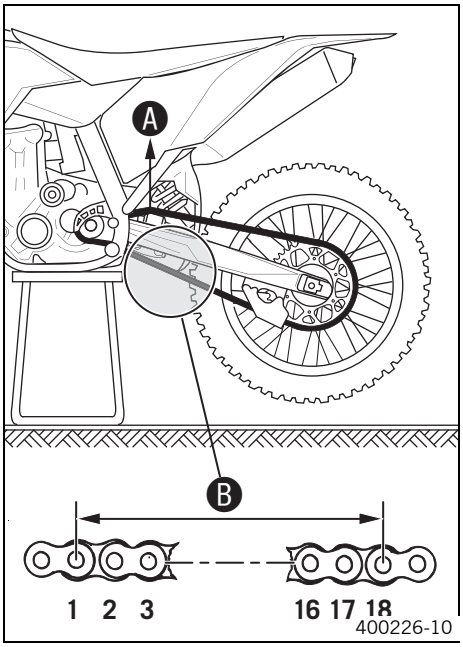
Info

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

– Check the chain guide for tightness and wear.

Checking chain wear

– Jack up the motorcycle. (☛ p. 26)



– Shift gear to neutral.
– Pull on the upper part of the chain with the specified weight Ⓐ.

Guideline

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

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

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

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

» If the distance Ⓑ is greater than the specified measurement:
– Replace the chain.

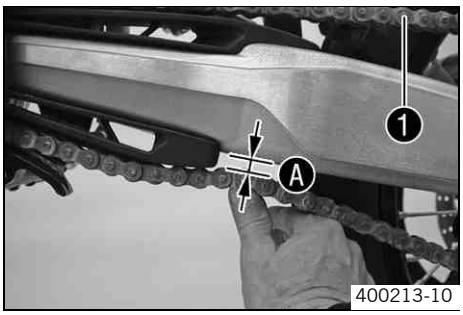
Info
When you replace the chain, you should also replace rear sprocket and engine sprocket.
New chains wear out faster on old, worn sprockets.

– Remove the motorcycle from the work stand. (☛ p. 26)

Adjusting the chain tension

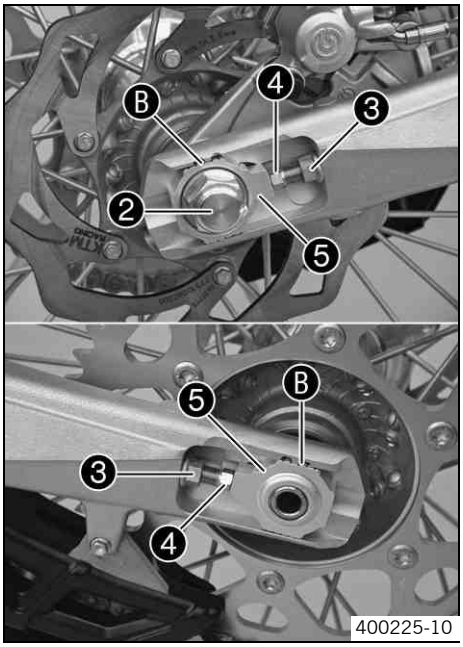
Warning
Danger of accidents Danger caused by incorrect chain tension.

– 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.



– Jack up the motorcycle. (☛ p. 26)
– Push the chain at the end of the chain sliding component upwards to measure chain tension Ⓐ.

Info
The upper chain section ❶ must be taut.
Chain wear is not always even, so you should repeat this measurement at different chain positions.



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

Chain tension	8... 10 mm (0.31... 0.39 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.	

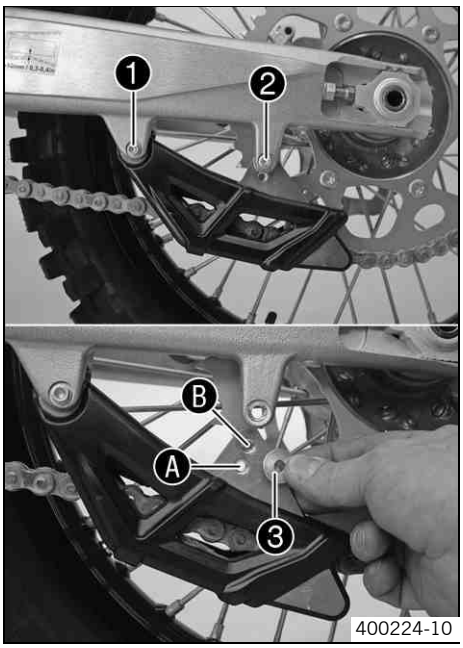
– Tighten nuts ❸.
– Make sure that chain adjusters ❺ are fitted correctly on adjusting screws ❹.
– Tighten nut ❷.
Guideline

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 work stand. (☛ p. 26)

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

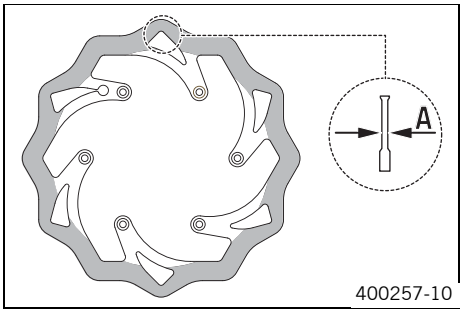
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

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 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 Ⓐ.

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)

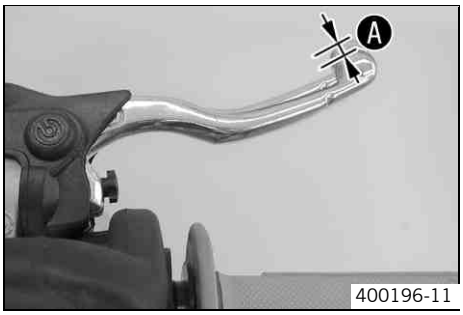
» If the brake disc thickness is less than the specified value:
– Change the brake disc.

– 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 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.

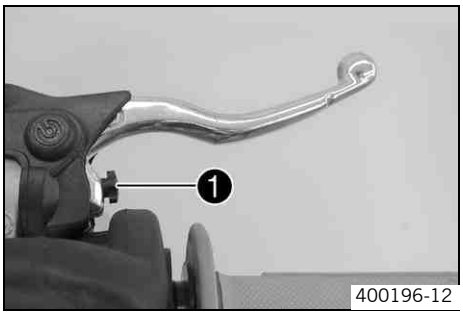


– Push the hand brake lever forward and check free travel Ⓐ.

Free play 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. 43)

Adjusting the basic position of the hand brake lever



– Check the free travel of the hand brake lever. (☛ p. 43)
– 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!

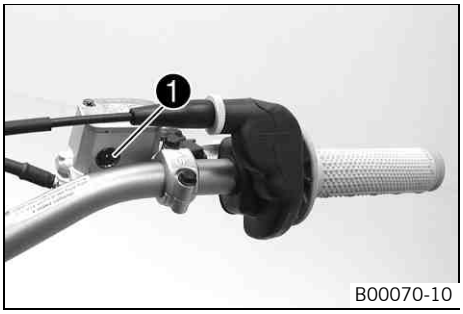
Checking the front brake fluid level

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 brakes 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. 44)

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 gets into your eyes, rinse thoroughly with water and contact a doctor immediately.

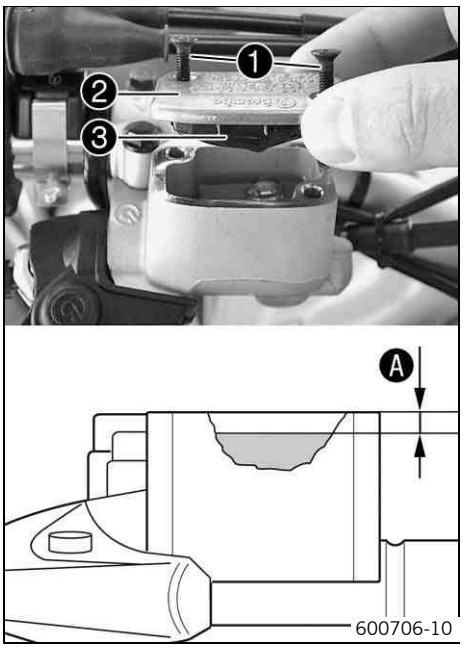
Warning
Danger of accidents Reduced braking effect caused by old brake fluid.

– Change the brake fluid of the front and rear brakes 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 user 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. 94)

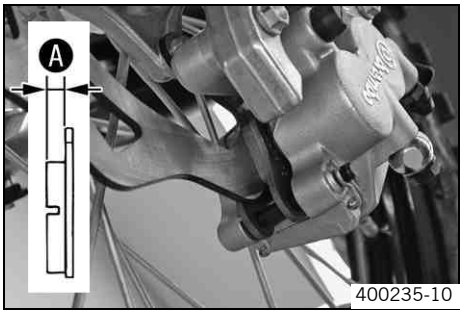
– Position the cover with the membrane. Mount and tighten the screws.

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 ❹.

Minimum thickness ❹	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
– Change the front brake linings. 🔧 (☛ p. 46)

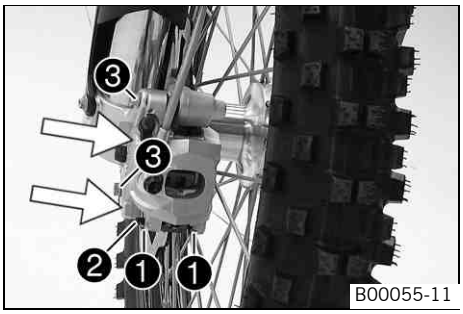
– Check the brake linings for damage and cracking.

» If damage or cracking is visible:
– Change the front brake linings. 🔧 (☛ p. 46)

Removing 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.)



– 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 locking split pins ❶, withdraw bolt ❷, and take out the brake linings.
– Remove screws ❸ and take off the brake caliper.
– Clean the brake caliper and brake caliper support.

Installing the front brake linings 🔧

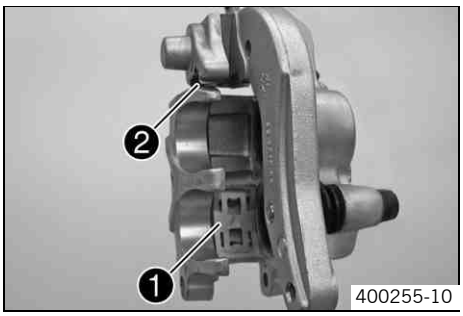
Warning
Danger of accidents Reduced braking efficiency due to oil or grease on the brake discs.

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

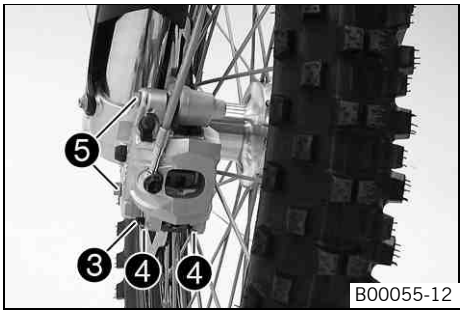
Warning
Danger of accidents Reduced braking efficiency due to use of non-approved brake linings.

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

– Check the brake discs. (☛ p. 42)
– Check that leaf spring ❶ in the brake caliper and sliding plate ❷ 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 bolt ❸, and mount locking split pins ❹.
– Position the brake caliper and mount and tighten screws ❺.

Guideline

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

– Operate the hand brake lever repeatedly until the brake linings lie on the brake disc and there is a pressure point.

Changing the front brake linings

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

- Avoid contact with skin and eyes, and keep out of the reach of children.
- Wear suitable protective clothing and goggles.
- If brake fluid gets into your eyes, rinse thoroughly with water and contact a doctor immediately.

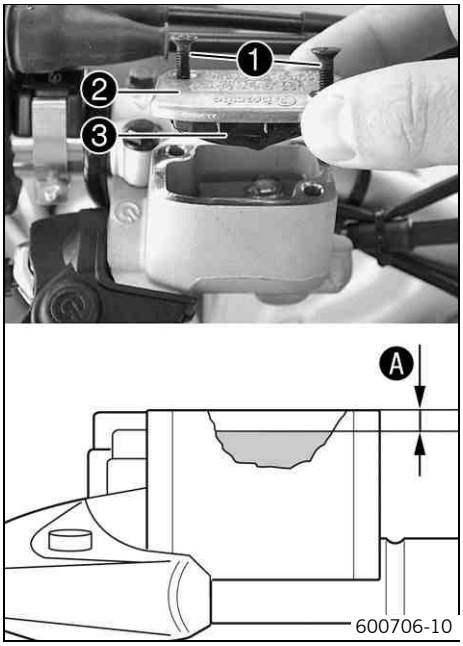
Warning
Danger of accidents Reduced braking effect caused by old brake fluid.

- Change the brake fluid of the front and rear brakes 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 user 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!



- Remove the front brake linings. (p. 45)
- Move the brake fluid reservoir mounted on the handlebar to a horizontal position.
- Remove screws ❶.
- Remove cover ❷ with membrane ❸.
- Press the brake piston back to its basic position and make sure that no brake fluid overflows from the brake fluid reservoir.
- Install the front brake linings. (p. 45)
- 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. 94)

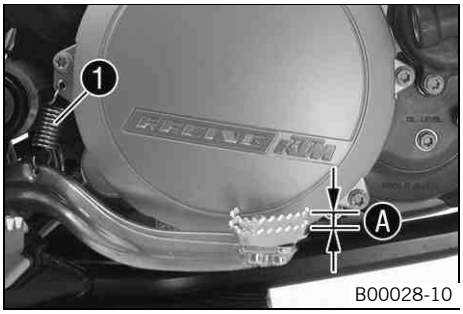
- Position the cover with the membrane. Mount and tighten the screws.

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

Checking the free play of the foot brake lever

Warning
Danger of accidents Brake system failure.

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



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

Guideline

Free play of 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. 47)

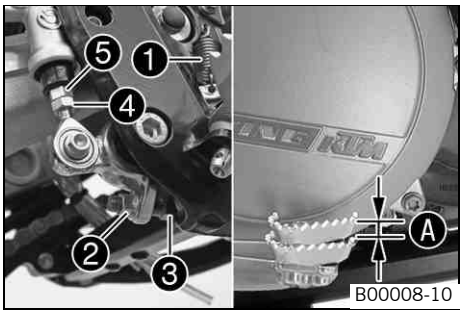
– Attach spring ❶.

Adjusting the basic position of the foot brake lever 🔧

Warning

Danger of accidents Brake system failure.

– If there is no free travel on the foot brake pedal, pressure builds up on the rear brake circuit. The rear brake can fail due to overheating. Adjust free travel on foot brake pedal 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 Ⓐ. If necessary, adjust the basic position of the foot brake lever.

Guideline

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

– Hold screw ❸ and tighten nut ❷.

Guideline

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

– Hold push rod ❺ and tighten nut ❹.

Guideline

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

– Attach spring ❶.

Checking the rear brake fluid level

Warning

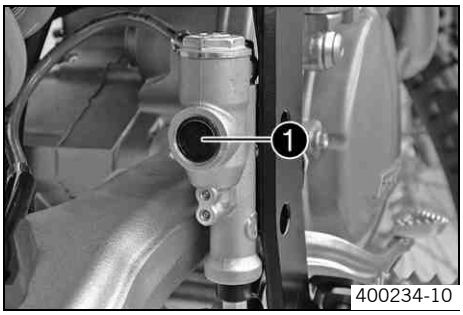
Danger of accidents Failure of the brake system.

– 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 brakes 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 rear brake fluid. 🔧 (☛ p. 48)

Adding rear brake fluid

Warning
Danger of accidents Failure of the brake system.

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

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

– Avoid contact with skin and eyes, and keep out of the reach of children.
– Wear suitable protective clothing and goggles.
– If brake fluid gets into your eyes, rinse thoroughly with water and contact a doctor immediately.

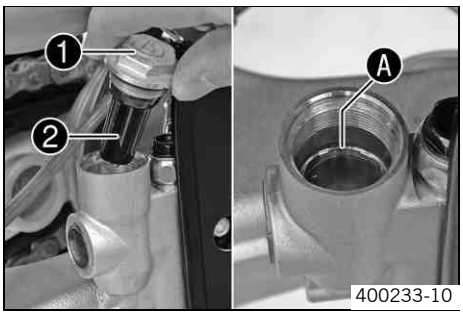
Warning
Danger of accidents Reduced braking effect caused by old brake fluid.

– Change the brake fluid of the front and rear brakes 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 user 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!



400233-10

– 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. 94)

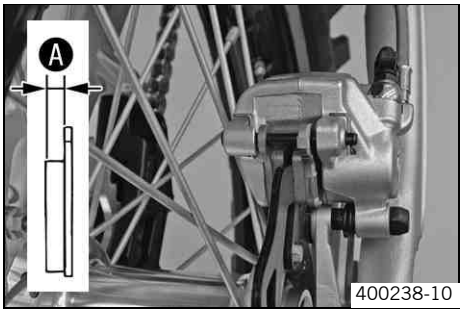
– Mount the screw cap with the membrane and the O-ring.

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.)



400238-10

– Check the brake linings for minimum thickness Ⓐ.

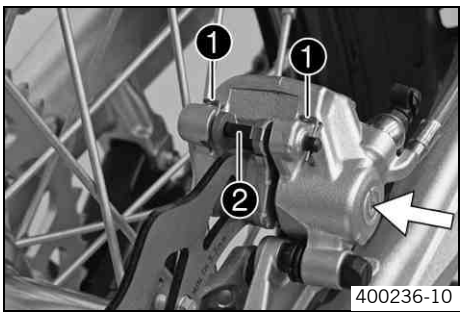
Minimum thickness Ⓐ	≥ 1 mm (≥ 0.04 in)

» If the minimum thickness is less than specified:
– Change the rear brake linings. 🔧 (☛ p. 50)
– Check the brake linings for damage and cracking.
» If damage or cracking is visible:
– Change the rear brake linings. 🔧 (☛ p. 50)

Removing the rear brake linings

Warning
Danger of accident Brake system failure.

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



– 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 locking split pins ❶, withdraw bolt ❷, and take out the brake linings.
– Clean the brake caliper and brake caliper support.

Installing the rear brake linings

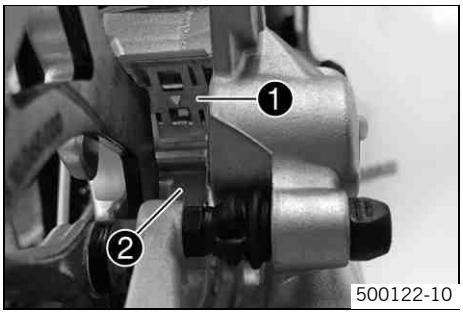
Warning
Danger of accidents Reduced braking efficiency due to oil or grease on the brake discs.

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

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

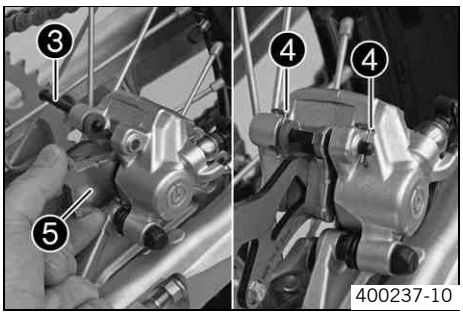
– Brake linings available from accessory suppliers are often not tested and approved for use on KTM vehicles. The construction and friction factor of the brake linings and therefore the brake power can differ considerably from the original KTM brake linings. If brake linings are used that differ from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

– Check the brake discs. (☛ p. 42)
– Check that leaf spring ❶ in the brake caliper and sliding plate ❷ 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 bolt ❸, and mount locking split pins ❹.



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

– Operate the foot brake lever repeatedly until the brake linings lie on the brake disc and there is a pressure point.

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 gets into your eyes, rinse thoroughly with water and contact a doctor immediately.

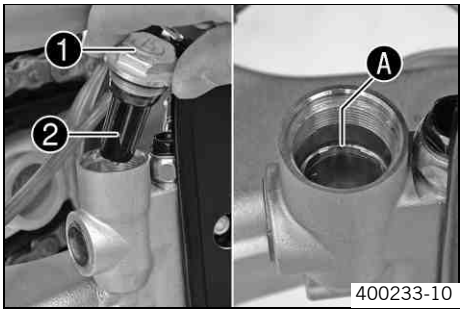
Warning
Danger of accidents Reduced braking effect caused by old brake fluid.

- Change the brake fluid of the front and rear brakes 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 user 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!



- Remove the rear brake linings. (p. 49)
- Stand the vehicle upright.
- Remove screw cap ❶ with membrane ❷ and the O-ring.
- Press the brake piston back to its basic position and make sure that no brake fluid overflows from the brake fluid reservoir.
- Install the rear brake linings. (p. 49)
- Add brake fluid to level Ⓐ.

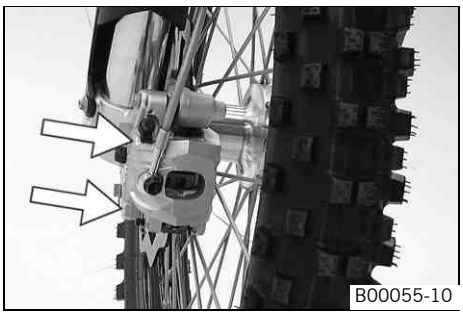
Brake fluid DOT 4 / DOT 5.1 (p. 94)

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

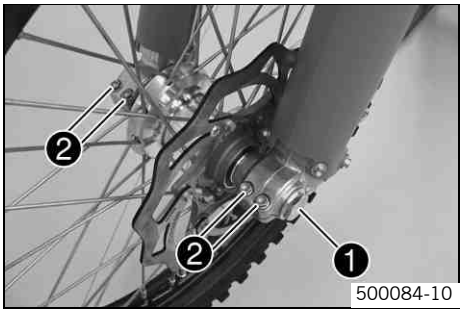
Info
Clean up overflowed or spilt brake fluid immediately with water.

Removing the front wheel

- Jack up the motorcycle. (p. 26)
- 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.

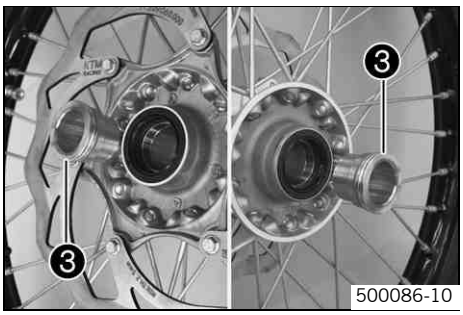


- Remove screw ❶.
- Loosen screws ❷.


500085-10

– 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.

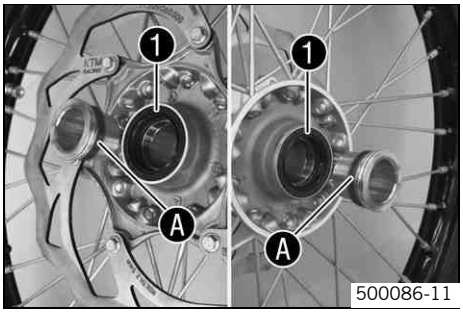


500086-10

– 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.

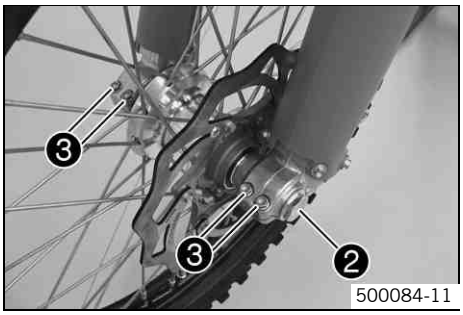


500086-11

– Clean and grease shaft seal rings ❶ and bearing surface Ⓐ of the spacers.

Long-life grease (☛ p. 96)

– Insert the spacers.



500084-11

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

Guideline

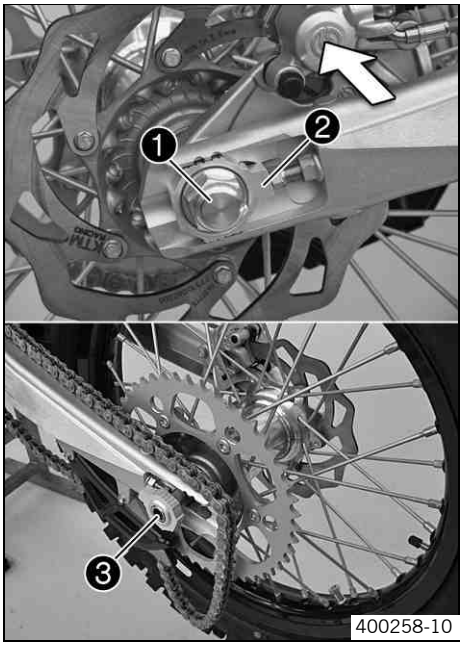
Screw, front wheel spindle	M24x1.5	45 Nm (33.2 lbf ft)

– Operate the hand brake lever several times until the brake linings are lying correctly on the brake disc.
– Remove the motorcycle from the work stand. (☛ p. 26)
– 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



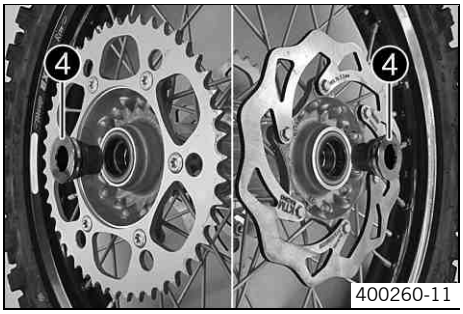
400258-10

– Jack up the motorcycle. (☛ p. 26)
– 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.

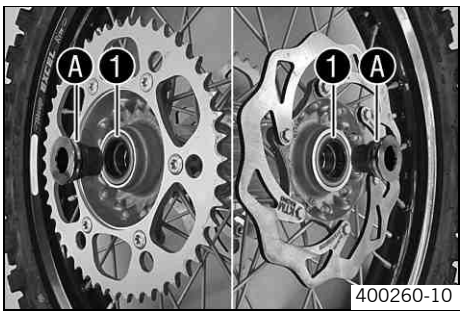


400260-11

– 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.

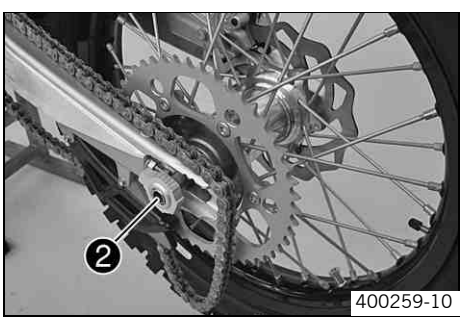


400260-10

– Clean and grease shaft seal rings ❶ and bearing surface Ⓐ of the spacers.

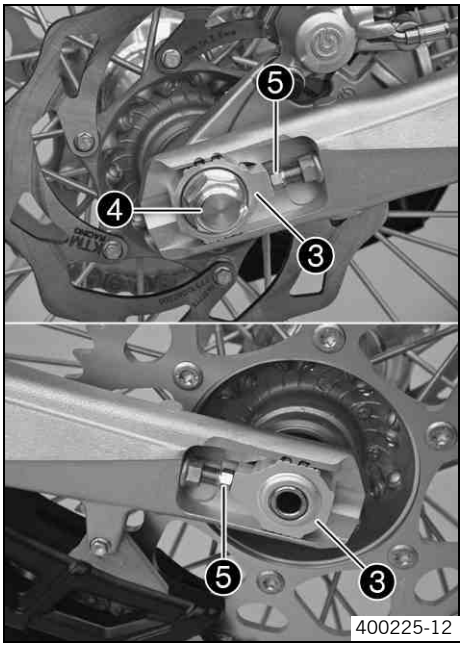
Long-life grease (☛ p. 96)

– Insert the spacers.



400259-10

– 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.
– Check the chain tension. (☛ p. 40)
– Make sure that chain adjusters ❸ are fitted correctly on adjusting screws ❺.
– Tighten nut ❹.

Guideline

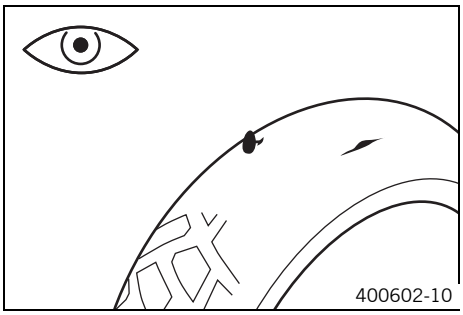
Nut, rear wheel spindle	M20x1.5	80 Nm (59 lbf ft)

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 repeatedly until the brake linings lie on the brake disc and there is a pressure point.
– Remove the motorcycle from the work stand. (☛ p. 26)

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 tires exhibit 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)

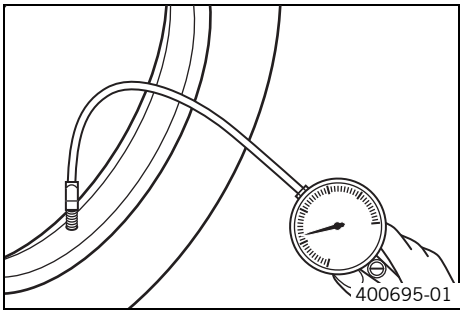
  » If the tread depth is less than the minimum permissible depth:
    – Change the tire.
– Check the age of the tires.

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 tires are 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.


400695-01

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

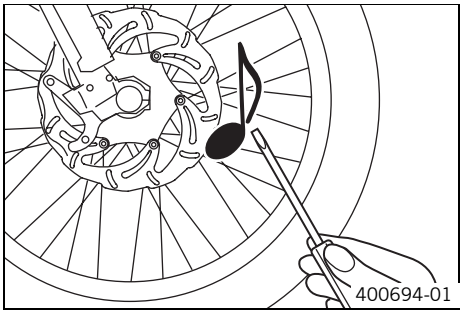
Tire air pressure off road	
Front	1.0 bar (15 psi)
Rear	1.0 bar (15 psi)

» 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.


400694-01

– 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.

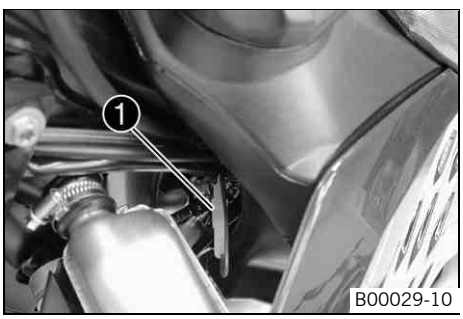
You should hear a high note.

» 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	M5	5... 6 Nm (3.7... 4.4 lbf ft)

Torque wrench with various accessories in set (58429094000)

Ignition curve plug connection



B00029-10

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 B00029-10☛ p. 54)

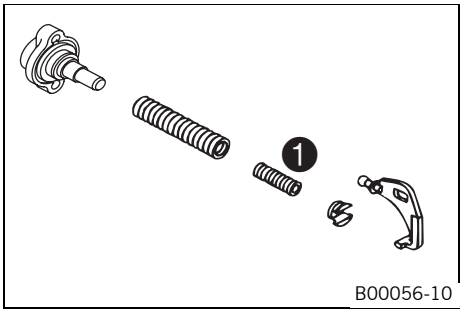
✓ Soft – better rideability

Change the ignition curve from Soft to Performance.

– Connect plug connection ❶. (Figure B00029-10☛ p. 54)

✓ Performance – better performance

Engine characteristic - auxiliary spring (250 SX)



B00056-10

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.

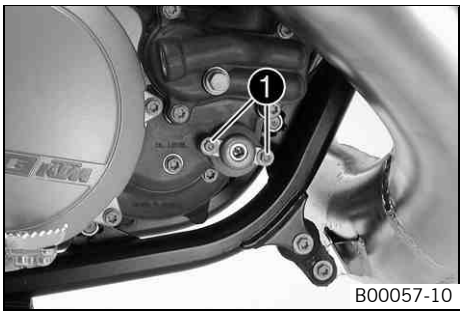
Engine characteristic - adjusting the auxiliary spring 🔧 (250 SX)

Warning

Danger of burns Some vehicle components get very hot when the vehicle is in use.

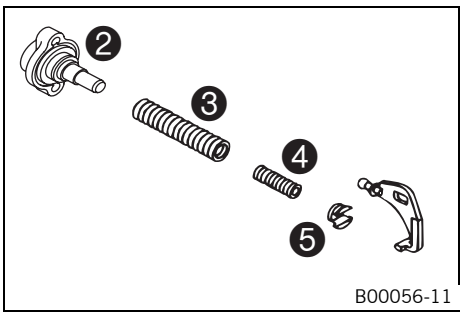
– Do not touch hot components such as exhaust system, radiator, engine, shock absorber and brakes. Allow these components to cool down before starting work on them.

– Tilt the motorcycle approx. 45° to the left and fix it in this position.



B00057-10

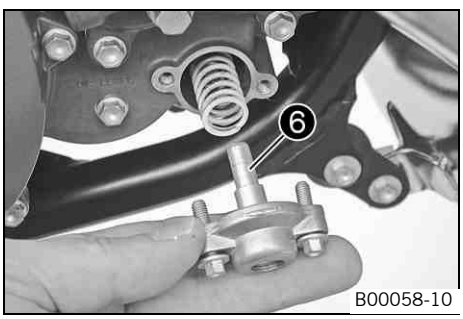
– Remove screws ❶.



B00056-11

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

– Pull both springs out of the spring insert.



B00058-10

– Mount the required 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 notch in the spring insert ❺ engages in the angle lever.

Info

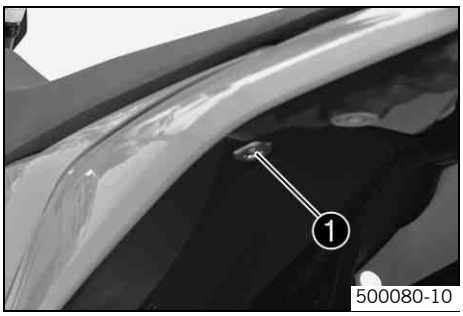
It is important that screw ❻ is not turned as this would be detrimental to the engine characteristic.

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

Guideline

Remaining screws, engine	M5	6 Nm (4.4 lbf ft)

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 the screw of the seat fixing.

Guideline

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

Removing the fuel tank

Danger

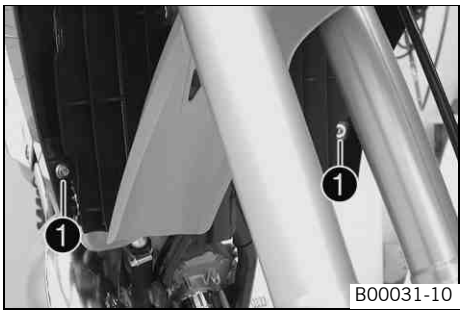
Fire hazard Fuel is highly flammable.

– 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.

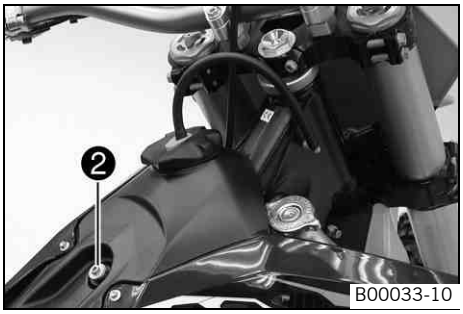


– Remove the seat. (☛ p. 56)
– Close the fuel tap.
– Pull off the fuel hose.

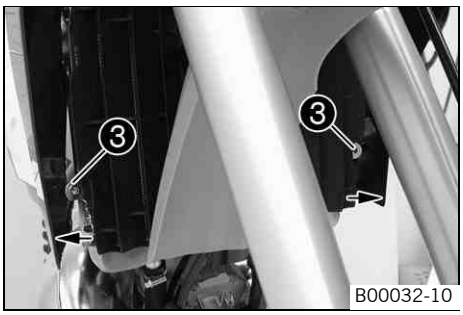
Info

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 sideways off of radiator bracket ❸ 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.

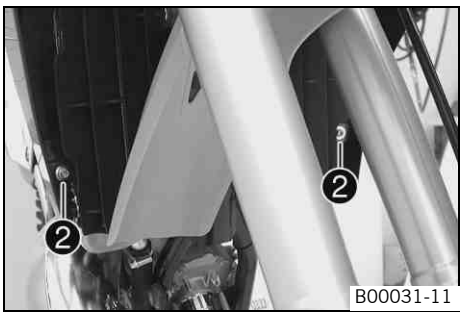
– Avoid contact of the fuel with skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come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

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

– Mount the fuel tank vent hose.
– Mount and tighten ❶ with the collar sleeve.

Guideline

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



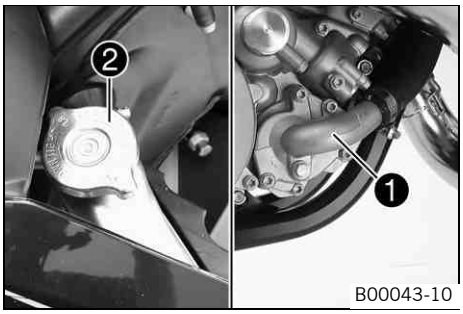
– Mount and tighten screws ❷ with the collar sleeve.

Guideline

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

– Connect the fuel hose.
– Mount the seat. (☛ p. 56)

Cooling system

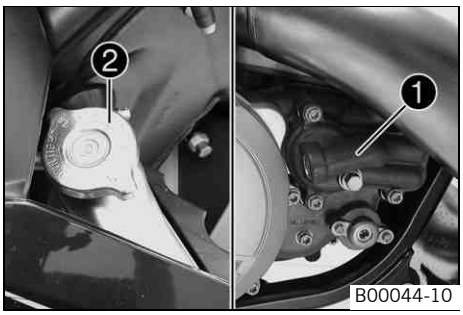


(125 SX, 150 SX)

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.



(250 SX)

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.

Checking the antifreeze and coolant level

Warning

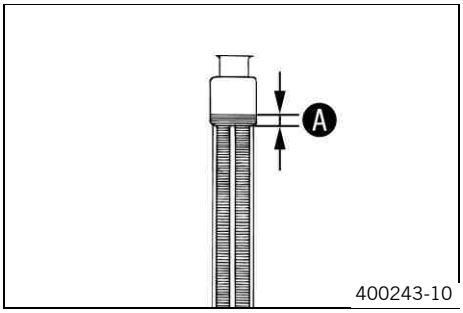
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

– 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 fuel 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. 94)

Alternative 2

Coolant (mixed ready to use) (☛ p. 94)

– Mount the radiator cap.

Checking the coolant level

Warning

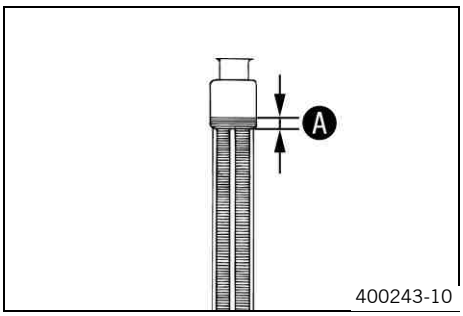
Danger of scalding During motorcycle operation, the coolant gets very hot and is under pressure.

– 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 fuel 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. 94)

Alternative 2

Coolant (mixed ready to use) (☛ p. 94)

– 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

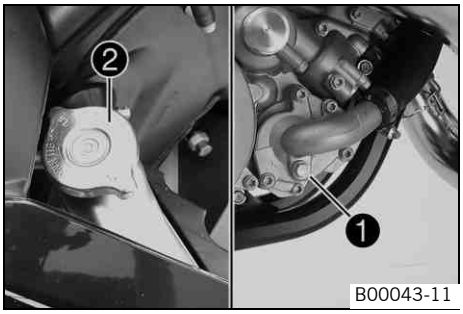
Danger of poisoning Coolant is poisonous and a health hazard.

– Avoid contact between coolant and skin, eyes and clothing. If fuel 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.
– Place a suitable container under the water pump cover.

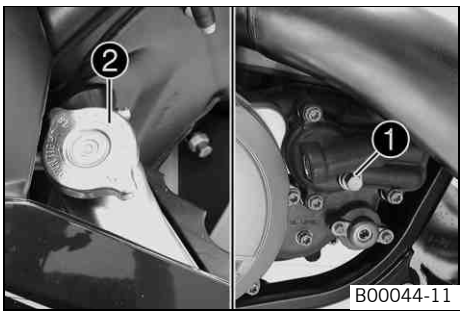


(125 SX, 150 SX)

– 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)



(250 SX)

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

Guideline

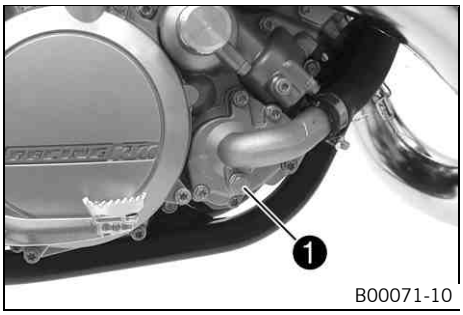
Drain plug, water pump cover	M10x1	15 Nm (11.1 lbf ft)

Refilling with coolant

Warning

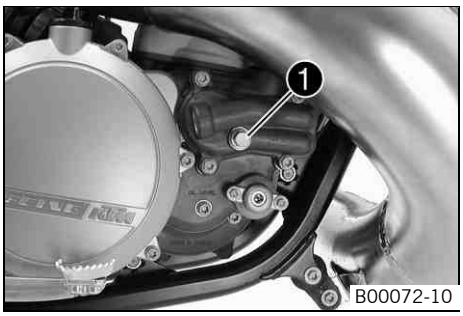
Danger of poisoning Coolant is poisonous and a health hazard.

– Avoid contact between coolant and skin, eyes and clothing. If fuel 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.



(125 SX, 150 SX)

– Make sure that screw ❶ is tightened.



(250 SX)

– Make sure that screw ❶ is tightened.

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

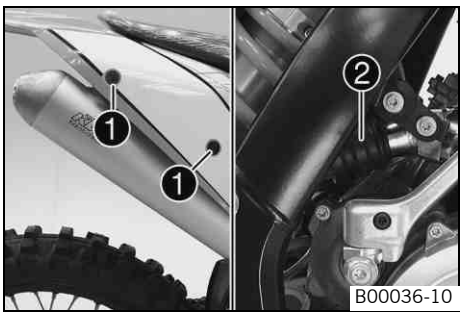
Coolant	1.2 l (1.3 qt.)	Coolant (☛ p. 94)
		Coolant (mixed ready to use) (☛ p. 94)

– Mount radiator cap ❷.
– Run the engine until it is warm.
– Check the coolant level. (☛ p. 59)

Removing the main silencer

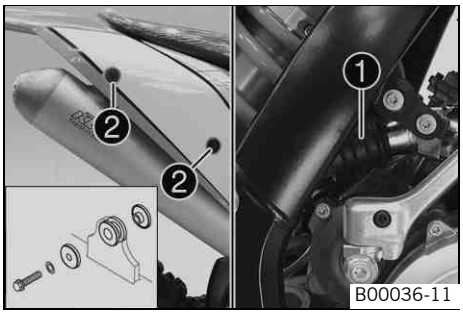
Warning
Danger of burns The exhaust system gets very hot when the vehicle is driven.

– 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

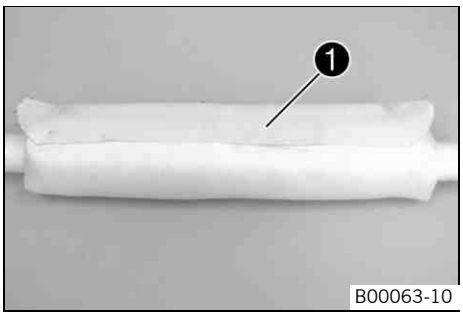


– Mount the main silencer with rubber sleeve ❶.
– Mount and tighten screws ❷.

Guideline

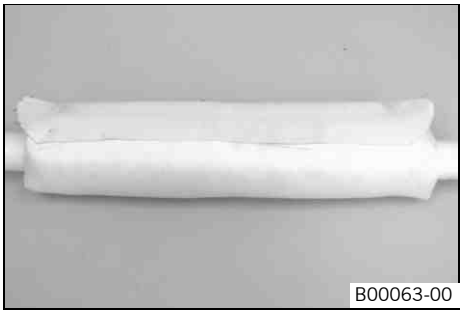
Remaining screws, chassis	M6	10 Nm (7.4 lbf ft)

Glass fiber yarn filling of main silencer



The main silencer is filled with glass fiber yarn ❶.
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.

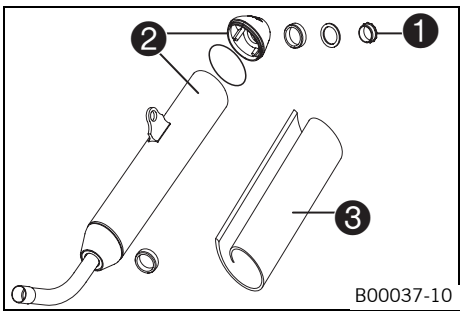
Changing the glass fiber yarn filling of the main silencer



– Remove the glass fiber yarn filling of the main silencer. (☛ p. 62)
– Install the glass fiber yarn filling of the main silencer. (☛ p. 62)

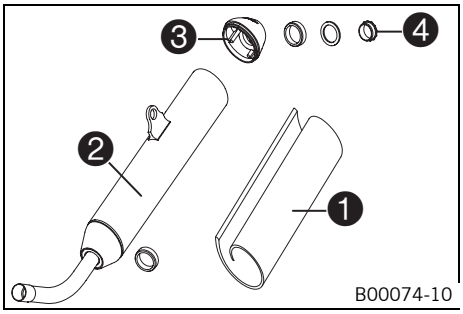
Removing the glass fiber yarn filling of the main silencer

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.



– Remove the main silencer. (☛ p. 61)
– Remove nut ❶.
– Remove the locking cap and outer tube ❷.
– Pull the glass fiber yarn filling ❸ from the inner tube.
– Clean the parts that are to be reinstalled.

Installing the glass fiber yarn filling of the main silencer



– Slide the glass fiber yarn filling ❶ over the inner tube.
– Slide the outer tube ❷ over the glass fiber yarn filling.

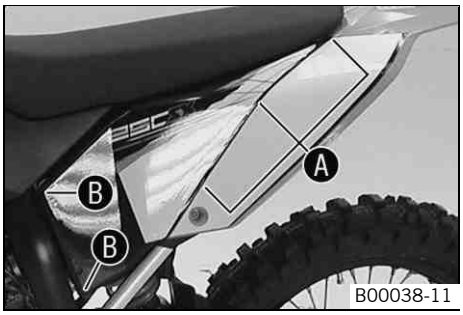
Info
Ensure that the O-rings are seated properly.

– Insert locking cap ❸ into the outer tube.
– Mount and tighten nut ❹.
– Install the main silencer. (☛ p. 61)

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

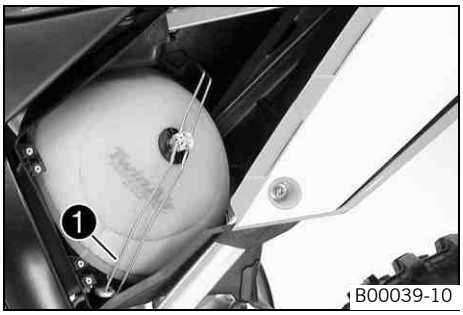
Engine failure Unfiltered intake air has a negative effect on the service life of the engine.

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

Warning

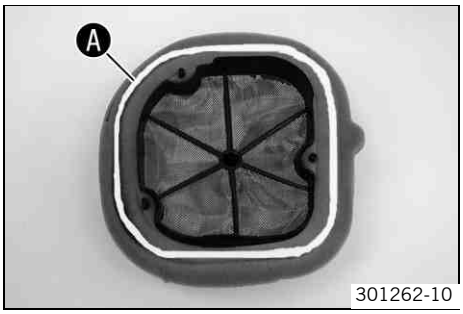
Environmental hazard Hazardous substances cause environmental damage.

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



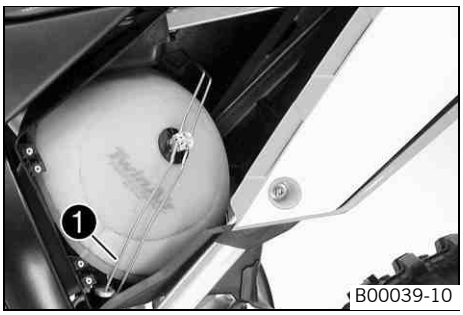
– Remove the air filter box lid. (☛ p. 62)
– Detach air filter holder ❶ at the bottom and swing it to one side. Remove the air filter with the air filter support.
– Remove the air filter from the air filter support.

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. 96)



– 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. 62)

Cleaning the air filter

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. 63)
– Wash the air filter thoroughly in special cleaning liquid and allow it to dry properly.

Air filter cleaner (☛ p. 96)

Info

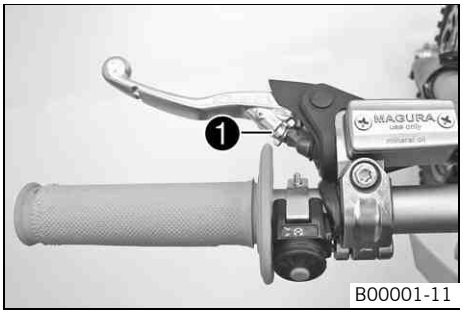
Only press the air filter to dry it; never wring it out.

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

Oil for foam air filter (☛ p. 96)

– Clean the air filter box.
– Check the carburetor connection boot for damage and tightness.
– Install the air filter. 🔧 (☛ p. 63)

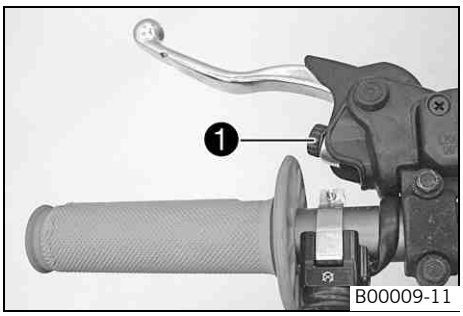
Adjusting the basic position of the clutch lever



(125 SX, 150 SX)

– 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!



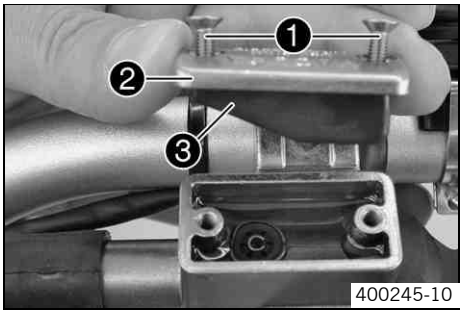
(250 SX)

– 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.



(125 SX, 150 SX)

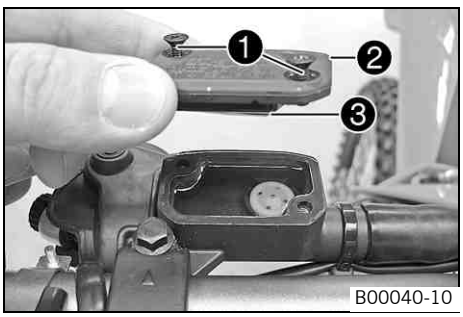
– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Remove cover ❷ with membrane ❸.
– Check the fluid level.

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. 94)

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



(250 SX)

– 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)

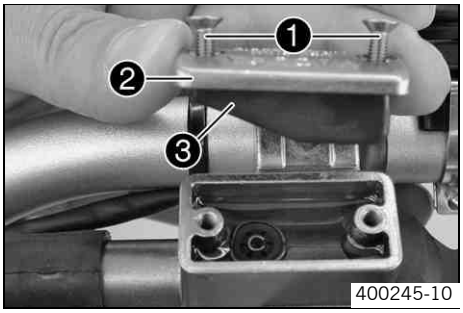
» If the level of the fluid does not meet specifications:
– Correct the fluid level of the hydraulic clutch.

Brake fluid DOT 4 / DOT 5.1 (☛ p. 94)

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

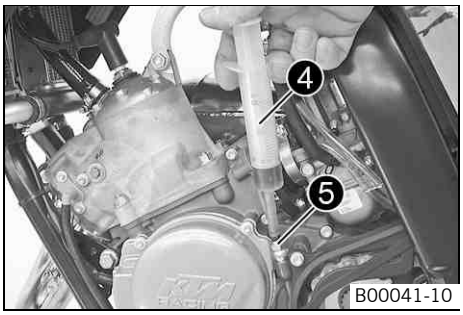
Changing the hydraulic clutch fluid

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.



400245-10

(125 SX, 150 SX)
– Move the clutch fluid reservoir mounted on the handlebar to a horizontal position.
– Remove screws ❶.
– Remove cover ❷ with membrane ❸.

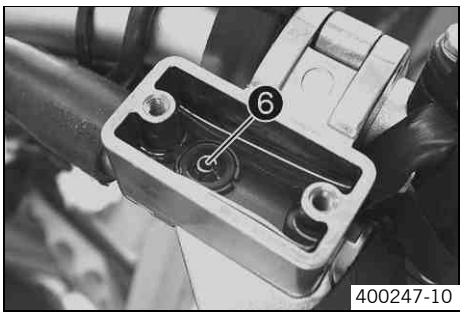


B00041-10

– Fill bleeding syringe ❹ with the appropriate hydraulic fluid.

Bleed syringe (50329050000)
Hydraulic fluid (15) (☛ p. 94)

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

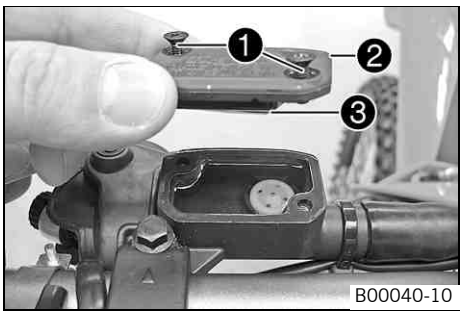


400247-10

– 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

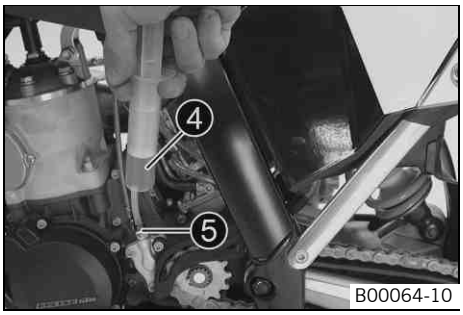
Fluid level under top edge of container	4 mm (0.16 in)

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



B00040-10

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

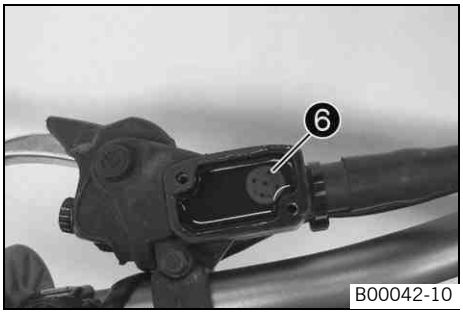


B00064-10

– Fill bleeding syringe ❹ with the appropriate hydraulic fluid.

Bleed syringe (50329050000)
Brake fluid DOT 4 / DOT 5.1 (☛ p. 94)

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



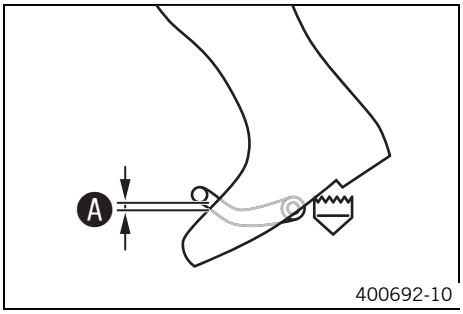
– Inject the liquid into the system until it escapes from hole ❻ of the master cylinder without bubbles.
– To prevent overflow, drain fluid occasionally from the master cylinder reservoir.
– Remove the bleeding syringe. Mount and tighten the bleeder screw.
– Correct the fluid level of the hydraulic clutch.

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 basic position of the shift lever

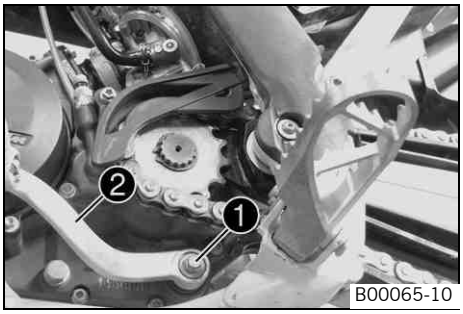


– Sit on the vehicle in the riding position and determine the distance between the upper edge of your boot and shift lever ❹.

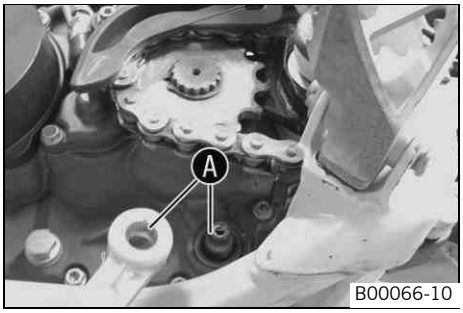
Distance between shift lever and upper edge of boot	10... 20 mm (0.39... 0.79 in)

» If the distance does not meet specifications:
– Adjust the basic position of the shift lever. 🔧 (☛ p. 66)

Adjusting the basic position of the shift lever 🔧



– Remove screw ❶ and remove shift lever ❷.



– Clean gear teeth ❹ of the shift lever and shift shaft.
– Mount the shift lever on the shift shaft in the required position and engage the gearing.

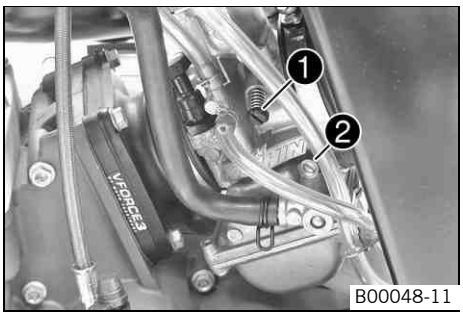
Info
When positioning the shift lever, ensure that there is sufficient distance to the adjacent components.

– Mount and tighten the screw.

Guideline

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

Carburetor



The idle setting of the carburetor has a big influence on the starting behavior, idling stability and the response to opening of the throttle. 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 carburetor factory settings are as follows.

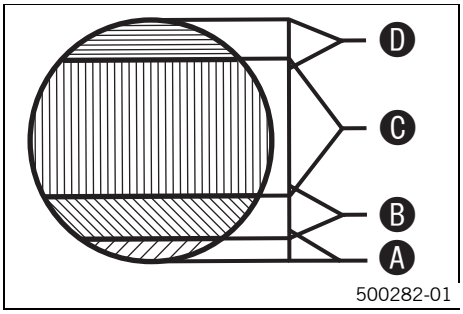
(125 SX, 150 SX)

Altitude 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. 95)	

(250 SX)

Altitude 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. 95)	

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



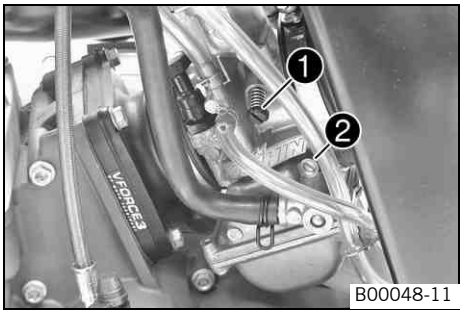
Idle range A
Operation with the throttle slide closed. The range is influenced by the adjustment screw ❶ and the idle air adjusting screw ❷.

Transition range B
Behavior of the engine when the throttle slide is opened. This range is influenced by the idling jet and the shape of the throttle slide.
If the engine stutters and smokes heavily when the throttle slide is opened despite a good idle and part-load setting, and if it achieves full power abruptly at high engine speeds, the carburetor setting is too rich, the float level is too high or the float needle valve is not tight.

Part-load range C
Operation with the throttle slide partially opened. This range is influenced by the jet needle (shape and position). In the lower range, the engine tuning is influenced by the idle setting and in the upper range by the main jet.
If the engine stutters when accelerating with the throttle slide partially opened, the jet needle must be lowered by one step. If the engine knocks during acceleration when it reaches full power engine speed, the jet needle must be raised. If the behavior described above is exhibited while in idle or just above idle, the idle system must be run leaner if there is stuttering and richer if there is knocking.

Full-load range D
Operation with the throttle slide fully opened (full throttle). This range is influenced by the main jet and jet needle.
If the insulator of a new spark plug is very light or white after riding full throttle for a short period, 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, 150 SX)	
Open	1.5 turns
Idle air adjusting screw (250 SX)	
Open	1.0 turn

– 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. 11)	
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.

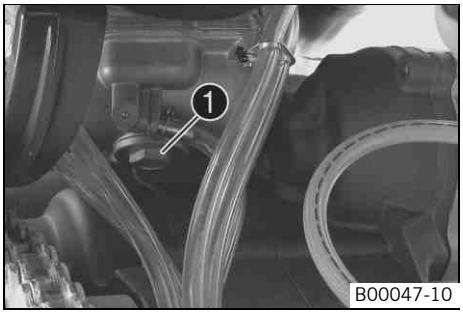
– Avoid contact between fuel and skin, eyes and clothing. Do not inhale fuel vapors. If fuel gets into your eyes, rinse immediately with water and contact a doctor. Wash affected skin areas immediately with soap and water. If fuel is swallowed, contact a doctor immediately. Change clothing that has come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

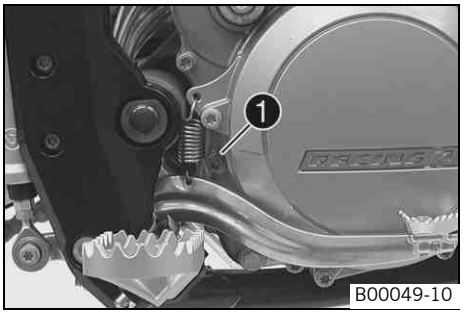
– Turn handle ❶ of the fuel tap to the **OFF** position. (Figure B00003-10 p. 11)
✓ No more fuel flows from the tank to the carburetor.
– Place a cloth beneath the carburetor to soak up emerging fuel.
– Remove plug ❶.
– Completely drain the fuel.
– Mount and tighten the plug.



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.



(125 SX, 150 SX)

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

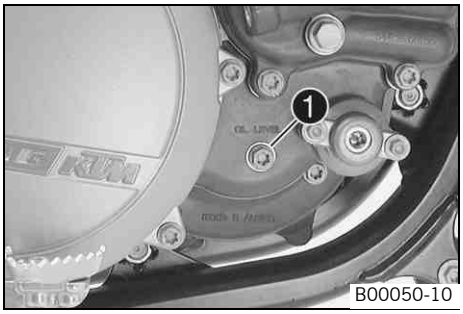
A small amount of gear oil should flow out of the hole.

» If no gear oil flows out:
– Add gear oil. 🔧 (☛ p. 70)

– Mount and tighten the gear oil level check screw.

Guideline

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



(250 SX)

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

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

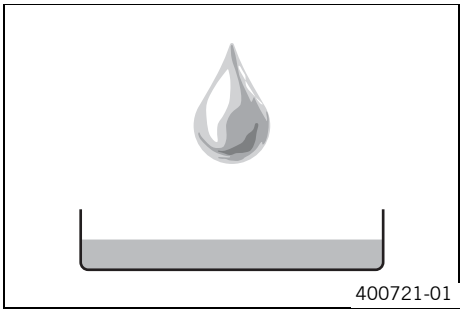
» If no gear oil flows out:
– Add gear oil. 🔧 (☛ p. 70)

– Mount and tighten the gear oil level check screw.

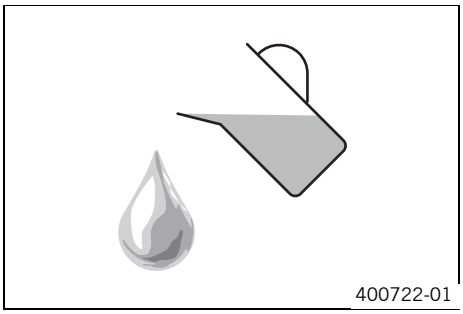
Guideline

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

Changing the gear oil 🔧



– Drain the gear oil. 🔧 (☛ p. 69)



– Refill with gear oil. 🔧 (☛ p. 70)

Draining the gear oil 🔧

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

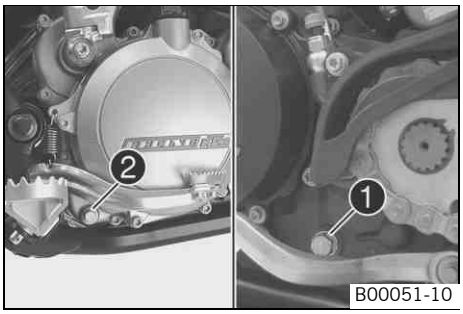
– Wear appropriate protective clothing and safety gloves. In case of burns, rinse immediately with lukewarm water.

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.



B00051-10

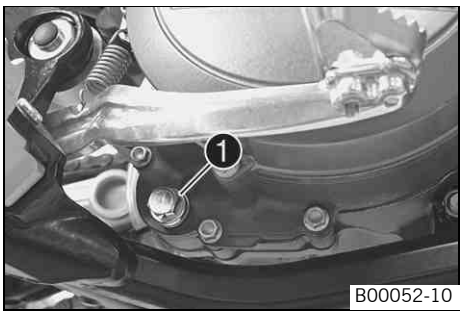
(125 SX, 150 SX)

– 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)



B00052-10

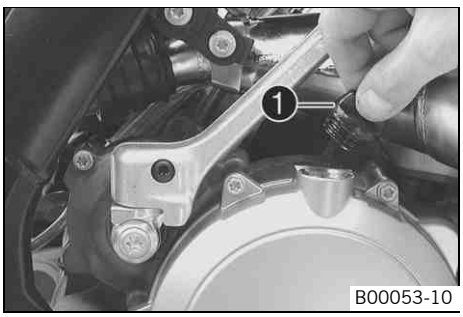
(250 SX)

– 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.



B00053-10

– Remove screw cap ❶ and fill up gear oil.

Gear oil	0.70 l (0.74 qt.)	Engine oil (15W/50) (☛ p. 94)

– Mount and tighten the screw cap.

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

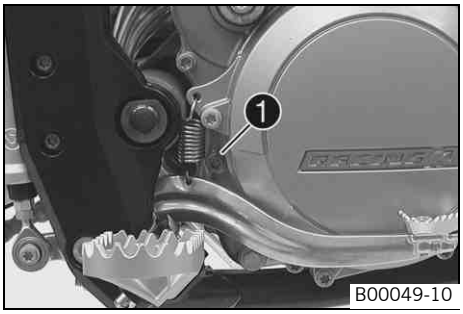
– When running the engine, always make sure there is sufficient ventilation, and do not start or run the engine in an enclosed space without an effective exhaust extraction system.

– Start the engine and check that it is oil-tight.
– Check the gear oil level. (☛ p. 68)

Adding gear oil

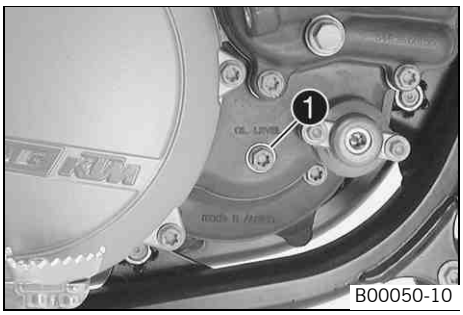
Info
Too little gear oil or poor-quality oil results in premature wear of the transmission.
The gear oil must be added when the engine is cold.

– Place the motorcycle on a level surface.



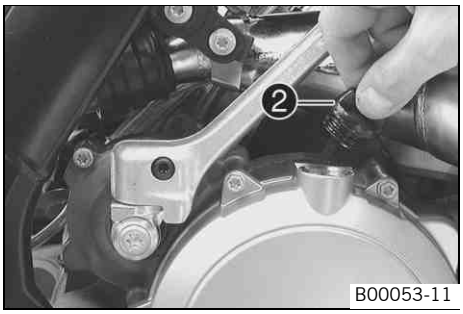
(125 SX, 150 SX)

– Remove gear oil level check screw ❶.



(250 SX)

– 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. 94)

– 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.

Faults	Possible cause	Action
Engine turns but does not start	Operating error	– Go through the steps of starting the engine. (☛ p. 19)
	Motorcycle was out of use for a long time and there is old fuel in the float chamber	– Empty the carburetor float chamber. 🔧 (☛ p. 68)
	Fuel feed interrupted	– Check the fuel tank breather. – Clean the fuel tap. – Check/set the carburetor components.
	Engine flooded	– Clean and dry the spark plug, or change it if necessary.
	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 **(125 SX, 150 SX)** Spark plug electrode gap 0.60 mm (0.0236 in) **(250 SX)** Spark plug electrode gap 0.60 mm (0.0236 in)
	Fault in ignition system	– Check the ignition system. 🔧
	Short circuit cable in cable harness frayed, short circuit button 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. 67)
	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. 🔧 (☛ p. 63)
	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. 61)
	Fault in ignition system	– Check the ignition system. 🔧
	Diaphragm or reed valve housing damaged	– Check the diaphragm and reed valve housing.
Engine stalls or is popping into the carburetor	Lack of fuel	– Turn handle ❶ of the fuel tap to the **ON** position. (Figure B00003-10☛ p. 11) – Refuel. (☛ p. 21)
	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. 59)
	Too little air stream	– Switch off engine when stationary.

Faults	Possible cause	Action
Engine overheats	Radiator fins very dirty	– Clean the radiator fins.
	Foam formation in cooling system	– Drain the coolant. 🔧 (☛ p. 59) – Refill with coolant. 🔧 (☛ p. 60)
	Damaged cylinder head or cylinder head gasket	– Check the cylinder head or cylinder head gasket.
	Bent radiator hose	– Change the radiator hose. 🔧
	Incorrect ignition point due to loose stator	– Adjust the ignition. 🔧
White smoke emission (steam in exhaust gas)	Damaged cylinder head or cylinder head gasket	– Check the cylinder head or cylinder head gasket.
Gear oil exits at the vent hose	Too much gear oil added	– Check the gear oil level. (☛ p. 68)
Water in the gear oil	Damaged shaft seal ring or water pump	– Check the shaft seal ring and water pump.

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 are 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. 96)

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. 68)

Warning

Danger of accidents Reduced braking 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 protective covers from the handlebar armatures to allow the water to evaporate.
– After the motorcycle has cooled off, oil or grease all moving parts and bearings.
– Clean the chain. (☛ p. 39)
– Treat bare metal parts (except for brake discs and exhaust system) with anti-corrosion materials.

Cleaning and polishing materials for metal, rubber and plastic (☛ p. 96)

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

Cleaning and polishing materials for metal, rubber and plastic (☛ p. 96)

– To prevent electrical problems, treat electric contacts and switches with contact spray.

Contact spray (☛ p. 96)

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. 74)
– Change the gear oil. 🔧 (☛ p. 69)
– Check the antifreeze and coolant level. (☛ p. 58)
– Drain the fuel from the tank into a suitable container.
– Empty the carburetor float chamber. 🔧 (☛ p. 68)
– Check the tire air pressure. (☛ p. 54)
– Store the vehicle in a dry location that is not subject to large fluctuations in temperature.

Info

KTM recommends jacking up the motorcycle.

– Jack up the motorcycle. (☛ p. 26)
– 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 work stand. (☛ p. 26)
– Refuel. (☛ p. 21)
– Checks before putting into operation. (☛ p. 19)
– Make a test ride.

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)	43.5 mm (1.713 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	Kokusan 2K-1
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)	43.1 mm (1.697 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	Kokusan 2K-1
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 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)	47.5 mm (1.87 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	Kokusan - Stator 2K-1 / Rotor 2K-2
Ignition point (BTDC)	1.9 mm (0.075 in)
Spark plug	NGK BR8 ECM
Spark plug electrode gap	0.60 mm (0.0236 in)
Starting aid	Kickstarter

Capacity - gear oil

Gear oil	0.70 l (0.74 qt.)	Engine oil (15W/50) (☛ p. 94)

Capacity - coolant

Coolant	1.2 l (1.3 qt.)	Coolant (☛ p. 94)
		Coolant (mixed ready to use) (☛ p. 94)

125 SX, 150 SX

Remaining screws, engine	M5	6 Nm (4.4 lbf ft)	–
Screw, alternator cover	M5	5 Nm (3.7 lbf ft)	–
Screw, exhaust control cover	M5	5 Nm (3.7 lbf ft)	–
Screw, ignition system/stator	M5	6 Nm (4.4 lbf ft)	**Loctite® 222**
Screw, water pump wheel	M5	6 Nm (4.4 lbf ft)	**Loctite® 243™**
Remaining screws, engine	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch spring	M6	10 Nm (7.4 lbf ft)	–
Screw, engine housing	M6	10 Nm (7.4 lbf ft)	–
Screw, gear oil level check	M6	10 Nm (7.4 lbf ft)	–
Screw, shift lever	M6	14 Nm (10.3 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)	–
Nuts, cylinder base	M8	30 Nm (22.1 lbf ft)	–
Remaining screws, engine	M8	25 Nm (18.4 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™**
Remaining screws, engine	M10	45 Nm (33.2 lbf ft)	–
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™**

250 SX

Remaining screws, engine	M5	6 Nm (4.4 lbf ft)	–
Screw, alternator cover	M5	5 Nm (3.7 lbf ft)	–
Screw, exhaust control cover	M5	5 Nm (3.7 lbf ft)	–
Screw, ignition system/stator	M5	6 Nm (4.4 lbf ft)	**Loctite® 222**
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™**
Remaining screws, engine	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch cover	M6	10 Nm (7.4 lbf ft)	–
Screw, clutch spring	M6	10 Nm (7.4 lbf ft)	–
Screw, control flap of exhaust control	M6	10 Nm (7.4 lbf ft)	**Loctite® 243™**
Screw, engine housing	M6	10 Nm (7.4 lbf ft)	–
Screw, gear oil level check	M6	10 Nm (7.4 lbf ft)	–
Screw, intake flange	M6	8 Nm (5.9 lbf ft)	–
Screw, intermediate wheel bolt	M6	8 Nm (5.9 lbf ft)	**Loctite® 2701**
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)	**Loctite® 243™**
Remaining screws, engine	M8	25 Nm (18.4 lbf ft)	–
Screw, cylinder head	M8	27 Nm (19.9 lbf ft)	–
Screw, kickstarter	M8	25 Nm (18.4 lbf ft)	**Loctite® 243™**
Nuts, cylinder base	M10	35 Nm (25.8 lbf ft)	–
Remaining screws, engine	M10	45 Nm (33.2 lbf ft)	–

Drain plug, water pump cover	M10x1	15 Nm (11.1 lbf ft)	–
Nut, rotor	M12x1	60 Nm (44.3 lbf ft)	–
Gear oil drain plug with magnet	M12x1.5	20 Nm (14.8 lbf ft)	–
Spark plug	M14x1.25	25 Nm (18.4 lbf ft)	–
Nut, inner clutch hub	M18x1.5	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
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.

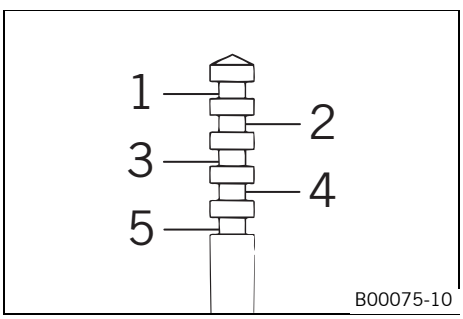
Carburetor configuration (125 SX)

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



B00075-10

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	AQ8
Needle position	2nd 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	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.

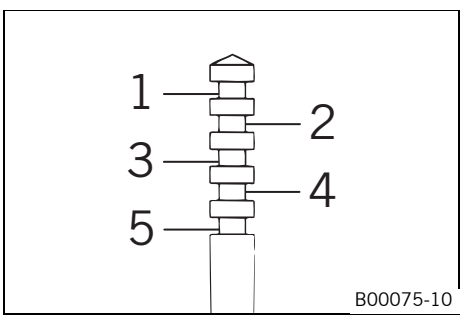
Carburetor configuration (150 SX)

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	1,5 42 NOZI 2 182	2 42 NOZI 2 182	2,5 40 NOZI 2 180	2,5 40 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	1,5 42 NOZI 3 185	1,5 42 NOZI 2 182	2 42 NOZI 2 182	2 40 NOZI 2 180	2,5 40 NOZJ 1 178	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 3 188	1,5 42 NOZI 3 185	1,5 42 NOZI 2 182	2 42 NOZI 2 182	2 40 NOZI 2 180	2,5 40 NOZJ 1 178
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 3 188	1,5 42 NOZI 3 185	**1,5** **42** **NOZI** **2** **182**	2 42 NOZI 2 182	2 40 NOZI 2 180
300 m *1,000 ft* ↑ 0 m *0 ft*	ASO IJ NDL POS MJ	1,5 48 NOZF 5 192	1,5 48 NOZG 4 190	1,5 45 NOZH 3 188	1,5 42 NOZI 3 185	1,5 42 NOZI 2 182	2 42 NOZI 2 182

400710-01

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



B00075-10

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)
Main jet	158 (155, 160)
Idling jet	42 (40)
Starting jet	85
Idle air adjusting screw	
Open	1.0 turn
Throttle slide	6,5

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.

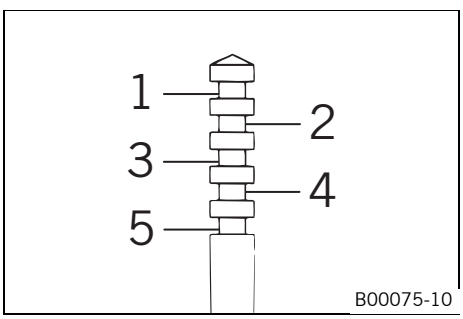
Carburetor configuration (250 SX)

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	1 42 N1EI 3 158	1 40 N1EI 3 158	1 38 N1EI 2 155	2 38 N1EJ 2 152	2,5 38 N1EJ 1 150	
2.300 m *7,500 ft* ↑ 1.501 m *5,001 ft*	ASO IJ NDL POS MJ	1 42 N1EH 3 160	1 42 N1EI 3 158	1 40 N1EI 3 158	1 38 N1EI 2 155	2 38 N1EJ 2 152	2,5 38 N1EJ 1 150
1.500 m *5,000 ft* ↑ 751 m *2,501 ft*	ASO IJ NDL POS MJ	1 45 N1EH 4 162	1 42 N1EH 3 160	1 42 N1EI 3 158	1 40 N1EI 3 158	1 38 N1EI 2 155	2 38 N1EJ 2 152
750 m *2,500 ft* ↑ 301 m *1,001 ft*	ASO IJ NDL POS MJ	1 45 N1EG 4 165	1 45 N1EH 4 162	1 42 N1EH 3 160	**1** **42** **N1EI** **3** **158**	1 40 N1EI 3 158	1 38 N1EI 2 155
300 m *1,000 ft* ↑ 0 m *0 ft*	ASO IJ NDL POS MJ	0,75 48 N1EF 5 168	1 45 N1EG 4 165	1 45 N1EH 4 162	1 42 N1EH 3 160	1 42 N1EI 3 158	1 40 N1EI 3 158

400711-01

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



B00075-10

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	335 mm (13.19 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)	13:50
Secondary ratio (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 (125 SX, 150 SX)	1,471±10 mm (57.91±0.39 in)
Wheelbase (250 SX)	1,475±10 mm (58.07±0.39 in)
Seat height unloaded	985 mm (38.78 in)
Ground clearance unloaded (125 SX, 150 SX)	390 mm (15.35 in)
Ground clearance unloaded (250 SX)	385 mm (15.16 in)
Weight without fuel, approx. (125 SX, 150 SX)	90.8 kg (200.2 lb.)
Weight without fuel, approx. (250 SX)	95.4 kg (210.3 lb.)
Maximum permissible front axle load	145 kg (320 lb.)
Maximum permissible rear axle load	190 kg (419 lb.)
Maximum permissible overall weight	335 kg (739 lb.)

Tires

Validity	Front tire	Rear tire
(125 SX, 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
Additional information is available in the Service section under: http://www.ktm.com		

Capacity - fuel

Total fuel tank capacity, approx.	8 l (2.1 US gal)	Super unleaded gasoline, mixed with 2-stroke engine oil (1:40) (☛ p. 95) (125 SX, 150 SX)
		Super unleaded gasoline, mixed with 2-stroke engine oil (1:60) (☛ p. 95) (250 SX)

125 SX, 150 SX

Fork part number	14.18.7J.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. 94)
Oil capacity fork leg without cartridge	350 ml (11.83 fl. oz.)	Fork oil (SAE 5) (☛ p. 94)

250 SX

Fork part number	14.18.7J.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. 94)
Oil capacity fork leg without cartridge	360 ml (12.17 fl. oz.)	Fork oil (SAE 5) (☛ p. 94)

125 SX, 150 SX

Shock absorber part number	12.18.7J.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	107 mm (4.21 in)
Fitted length	411 mm (16.18 in)
Shock absorber oil (☛ p. 95)	SAE 2.5

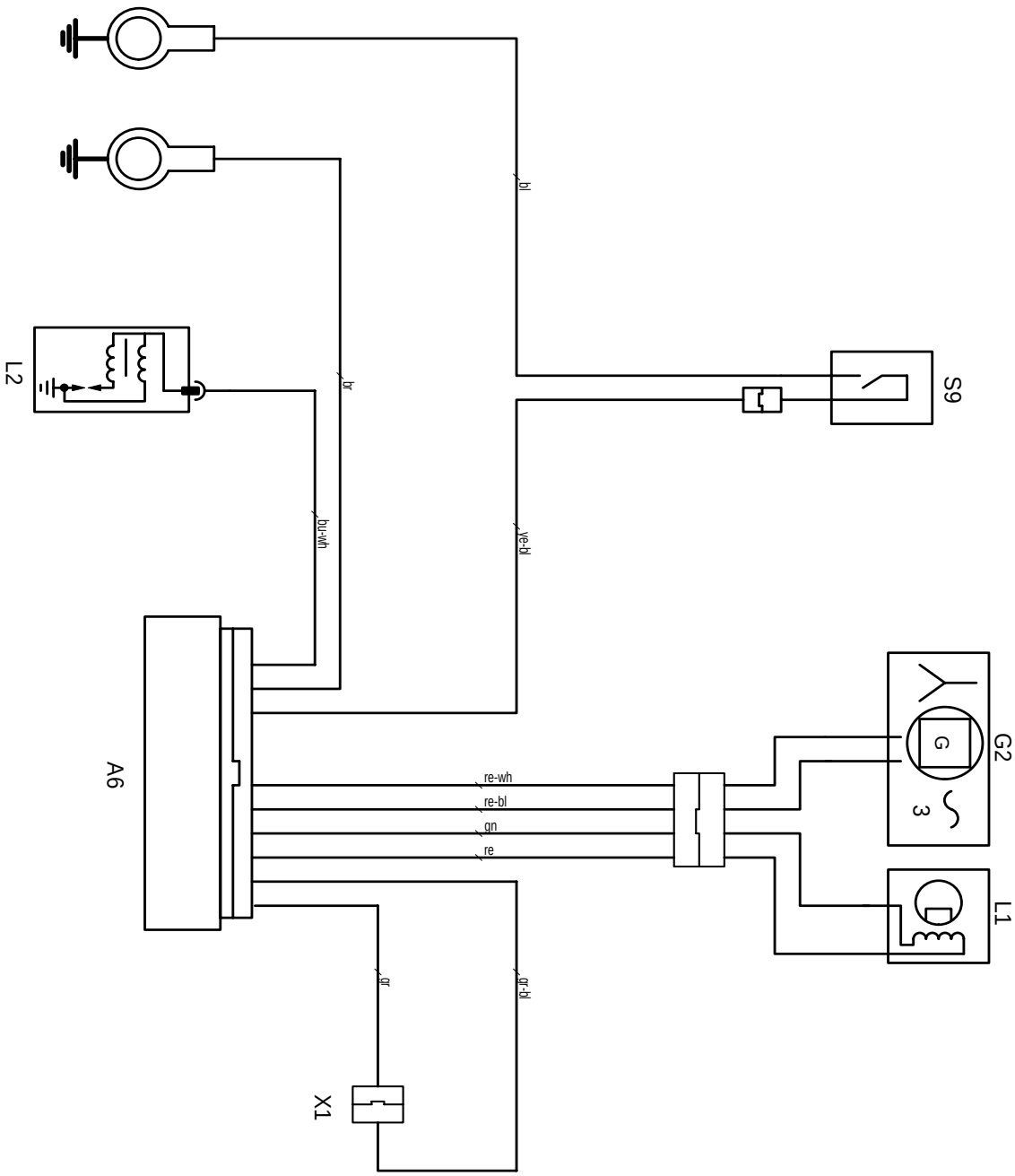
250 SX

Shock absorber part number	12.18.7J.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	6 mm (0.24 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	411 mm (16.18 in)

Shock absorber oil (☛ p. 95)	SAE 2.5

Spoke nipple, front wheel	M4.5	5... 6 Nm (3.7... 4.4 lbf ft)	–
Spoke nipple, rear wheel	M5	5... 6 Nm (3.7... 4.4 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)	–
Screw, front brake disc	M6	14 Nm (10.3 lbf ft)	–
Screw, rear brake disc	M6	14 Nm (10.3 lbf ft)	–
Screw, shock absorber adjusting ring	M6	5 Nm (3.7 lbf ft)	–
Nut, rear sprocket screw	M8	35 Nm (25.8 lbf ft)	**Loctite® 243™**
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, 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® 243™**
Screw, top triple clamp	M8	17 Nm (12.5 lbf ft)	–
Engine bracket screw	M10	60 Nm (44.3 lbf ft)	–
Remaining nuts, chassis	M10	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® 243™**
Screw, top shock absorber	M12	80 Nm (59 lbf ft)	**Loctite® 243™**
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)	–

Wiring diagram



B00059-10

Components	
A6	CDI controller
G2	Generator
L1	Pulse generator
L2	Ignition coil
X1	Plug-in connector, ignition curve
S9	Short circuit button
Cable colors	
gn	Green
gr-bl	Gray-black
gr	Gray
bl	Black
ye-bl	Yellow-black
bu-wh	Blue-white
re	Red
re-wh	Red-white
re-bl	Red-black
br	Brown

Brake fluid DOT 4 / DOT 5.1

according to
– DOT

Guideline
– Use only brake fluid that complies with the specified standards (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. 98)
– SAE (☛ p. 98) (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. 98) (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 fluid that complies with the specified standards (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. 98) (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. 98) (1:40)

Mixture ratio

1:40	2-stroke engine oil 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. 98) (1:60)

Mixture ratio

1:60	2-stroke engine oil 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 611**

Cleaning and polishing materials for metal, rubber and plastic

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Protect & Shine 645**

Contact spray

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Accu Contact**

Long-life grease

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Fett 2000**

Motorcycle cleaner

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Moto Clean 900**

Off-road chain spray

Guideline

– KTM recommends **Motorex®** products.

Supplier
Motorex®

– **Chain Lube 622**

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 Universal**

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.

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.

A

Accessories 5

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