

85 SX

ITEM NO.: 3240120EN



KTM

Perform the work described in these setup instructions before the vehicle is delivered to the customer.

Read the setup instructions in their entirety before beginning work.

These setup instructions were written to correspond to the latest version of this series. We reserve the right to make modifications in the interest of technical advancement without at the same time updating these setup instructions.

A description of general workshop instructions will be omitted. Safety rules applicable for day-to-day workshop use are also not mentioned. It is assumed that the work will be performed by a fully trained mechanic.

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ISO 9001

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12 100 6061

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85 SX 19/16 (F6001Y9)
85 SX 19/16 CN (F6087Y9)
85 SX 17/14 (F6001Y8)



1 Means of representation

1.1 Conventions

1.1.1 Icons

- ✓ Indicates a desired result (e.g. of a work step or a function).
- ✗ Indicates an undesired result (e.g. of a work step or a function).
-  All work marked with this symbol requires specialist knowledge and technical understanding. Ensure that this work is carried out or supervised by trained personnel from an authorized KTM workshop, and that any special tools required are used.
-  Indicates a page reference.
-  Indicates information with more details.
-  Indicates a tip, e.g. to simplify work.
- » Indicates the result from a test step.
- ◀ Indicates the end of an activity, including any rework.

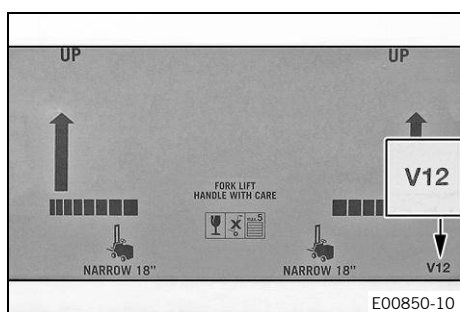
1.1.2 Formatting

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

1.1.3 Abbreviations

2–pc.	two-part
Part no.	Part number
or	respectively
approx.	circa
etc.	et cetera
poss.	possibly/possible
if necessary	if necessary
compl.	complete
min.	at least
no.	number
no fig.	no figure
s.	see
among others	among others/not limited to
and the like	and the like
etc.	et cetera
cf.	compare
e.g.	for example

2.1 Unpacking and setting up the vehicle



- Open the box.
- Remove the cable tie and wooden frame.

An assistant prevents the motorcycle from falling over.

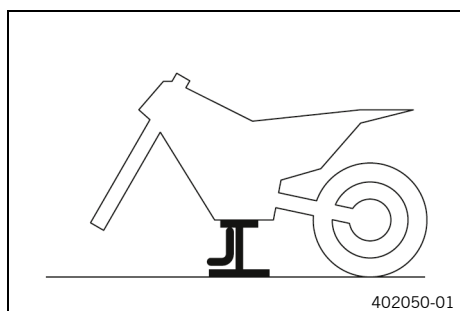
To avoid damaging the motorcycle during the setup, leave the protective film on the vehicle until you have finished.

- Remove the separate enclosure and unpack it.
- Check the separate enclosure for completeness.



Note

The procedure for missing components is described in the Customer Service Manual.

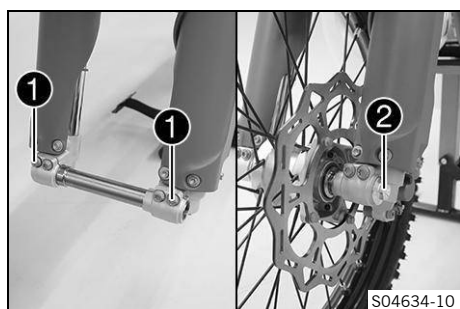


- Have a lift stand available.
- Together with an assistant, take the vehicle off the pallet.
- Position the vehicle on a lift stand.
- Check the vehicle for transport damage.



Note

The procedure in the event of transport damage is described in the Customer Service Manual.



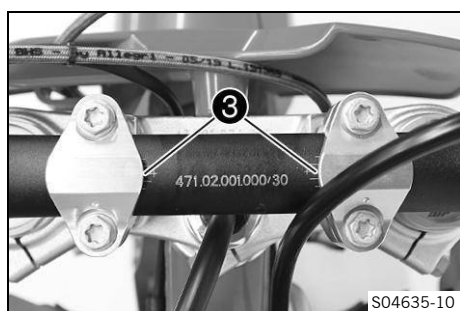
- Loosen screws ① and remove wheel spindle.
- Jack up the front wheel into the fork, position it, and insert the wheel spindle.
- Mount and tighten the screw of wheel spindle ②.

Screw, wheel spindle, front

M20×1.5

35 Nm
(25.8 ft·lb_f)

- Install the front top fender. 📖 (p. 9)
- Mount the number plate. 📖 (p. 10)
- Install the shock absorber. 🛠️ 📖 (p. 9)



WARNING

Danger of accidents A repaired handlebar poses a safety risk.

If the handlebar is bent or straightened, the material becomes fatigued. The handlebar may break as a result.

- Change the handlebar if the handlebar is damaged or bent.

- Position the handlebar.

Make sure the cables and wiring are routed correctly.

- Position the handlebar clamps.
- Align the handlebars using markings ③.

- Mount and tighten the screws evenly.

Handlebar clamp screw	
M8	20 Nm (14.8 ft·lb _f)

The markings on the handlebar should be at the center of the handlebar clamps.

Keep the installed gap widths equal when tightening.

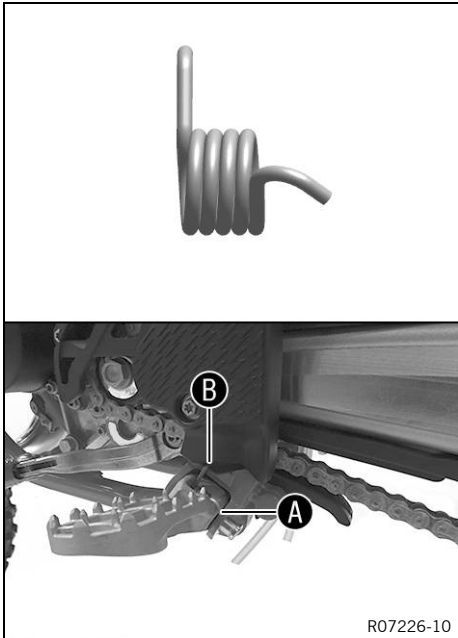
- Position the handlebar cushion and secure with cable ties.



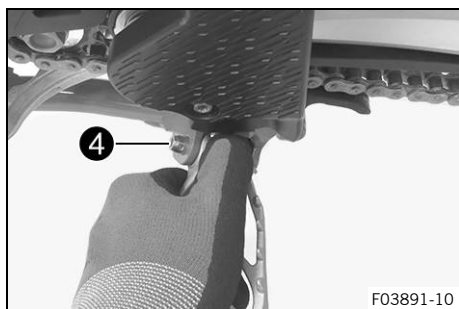
- Position the new footrest and pin.



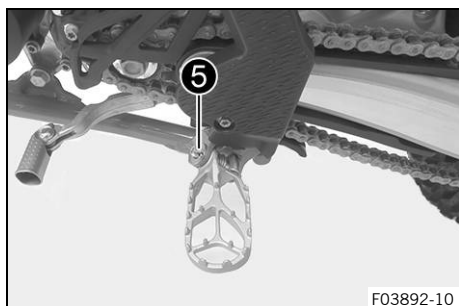
Tip
Only insert the pin to the extent that the spring can still be mounted.



- Position spring as shown.
✓ Spring **A** engages in area **B**.



- Apply pressure to the spring with your thumb.
- Mount pin ④.



- Mount the washer and split pin ⑤.
- Repeat these steps on the opposite side.
- Install the frame protector. 📖 (p. 8)



- Remove the motorcycle from the lift stand. 📖 (p. 8)
- Operate the hand brake lever several times until the brake pads are in contact with the brake disc.
- Activate the front brake and compress the fork a number of times forcefully to align the fork legs.
- Tighten screws ⑥.

Screw, fork shoe	
M8	15 Nm (11.1 ft·lb _r)

- Unpack and install the accessories included in the scope of supply (optional).

Read the accompanying mounting instructions.

- Attach the stickers included in the scope of supply (optional).
- Refuel. 📖 (p. 16)
- Position all controls in their exact positions on the handlebar.
- Tighten all screws.
- Remove the remaining film, padding, the corrugated cardboard, and the other packaging material.
- Prepare the vehicle according to the specifications of the pre-sales inspection for handover to the customer.



3.1 Raising the motorcycle with a lift stand



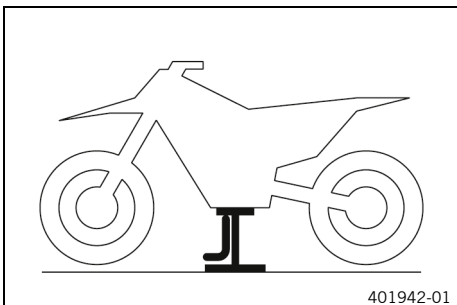
NOTE

Material damage The vehicle may be damaged if parked incorrectly.

Damage can occur if the vehicle rolls away or falls over.

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

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



- Raise the motorcycle at the frame underneath the engine.
✓ Neither wheel is in contact with the ground.
- Secure the motorcycle against falling over.

3.2 Removing the motorcycle from the lift stand



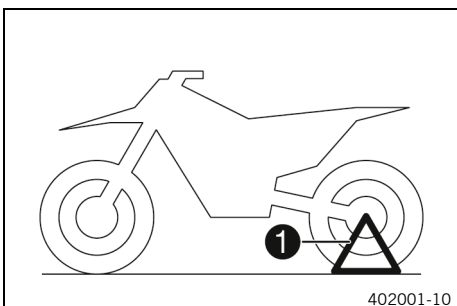
NOTE

Material damage The vehicle may be damaged if parked incorrectly.

Damage can occur if the vehicle rolls away or falls over.

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

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



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



Note

Remove the plug-in stand before riding.

3.3 Installing the frame protector



- Position the left frame protector.
- Insert the right frame protector from below and push it to the rear.
- Mount screw ❶ and bushing and tighten.

Screw, frame protector

M5

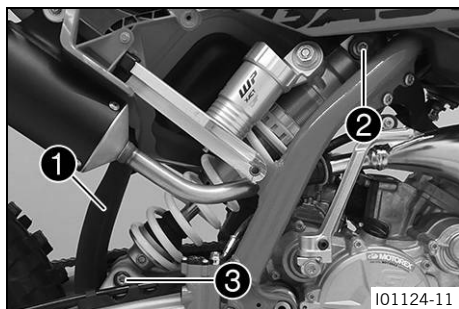
3 Nm
(2.2 ft·lb_r)

- Secure the frame protector with cable ties.

Turn the head of the cable tie so far back that it does not touch any other components.



3.4 Installing the shock absorber



Installation procedure

- Push splash protector **1** to the side and position the shock absorber.
- Mount and tighten screw **2**.

Top shock absorber screw	
M12	60 Nm (44.3 ft·lb _f) Loctite® 2701

- Mount and tighten screw **3**.

Bottom shock absorber screw	
M12	60 Nm (44.3 ft·lb _f) Loctite® 2701

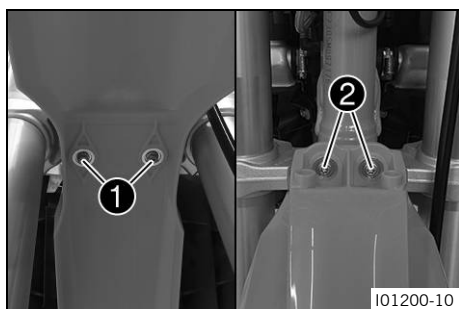
- Attach brake line.

Reworking

- Remove the motorcycle from the lift stand. (p. 8)



3.5 Installing the front top fender



Installation procedure

- Position the front fender.
- Mount and tighten screws **1**.

Screw, front fender	
M6	12 Nm (8.9 ft·lb _f)

- Mount and tighten screws **2**.

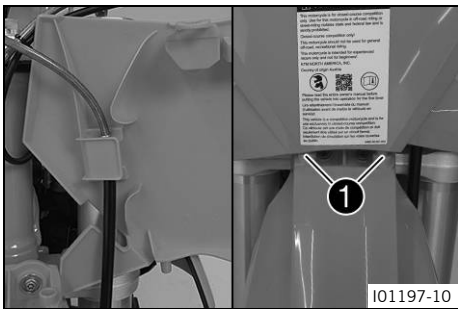
Screw, front fender	
M6	12 Nm (8.9 ft·lb _f)

Reworking

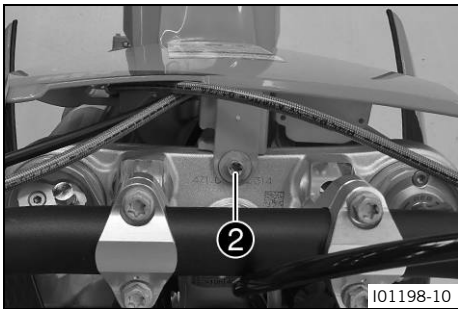
- Mount the number plate. (p. 10)



3.6 Mounting the number plate



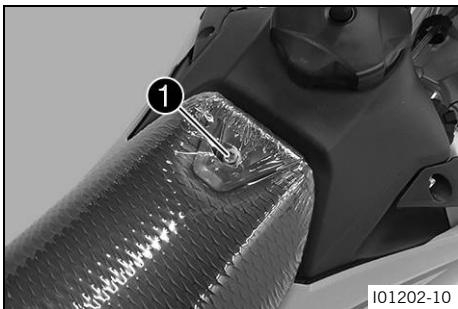
- Attach the start number plate to the brake line.
- Position the number plate.
- ✓ Holding lugs **1** engage in the fender.



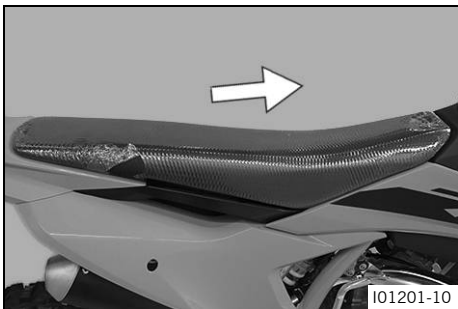
- Mount and tighten screw **2**.

Start number plate screw	
M6	4 Nm (3.0 ft·lb _f)

3.7 Removing the seat

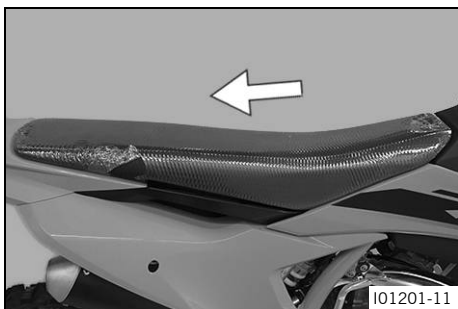


- Remove screw **1**.



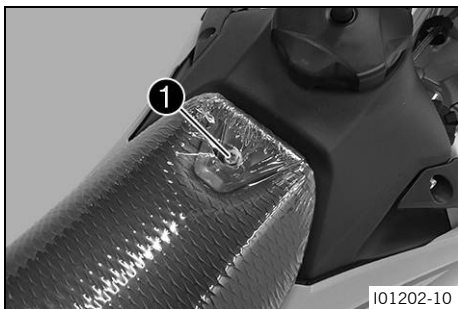
- Remove the seat forward and upward.

3.8 Mounting the seat



- Attach the seat to the collar bushings at the front and simultaneously push it back.

Make sure the seat is latched in place correctly.



- Mount and tighten screw ① of the seat fixing.

Screw, seat installation

M6

8 Nm
(5.9 ft·lb_f)

3.9 Removing the fuel tank



DANGER

Fire hazard Fuel is highly flammable.

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

- Do not refuel the vehicle in the vicinity of open flames, glowing, or smoldering objects.
- Make sure that nobody smokes in the vicinity of the vehicle during the refueling process.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
- If any fuel is spilled, wipe it up immediately.
- Do not overfill the fuel tank.



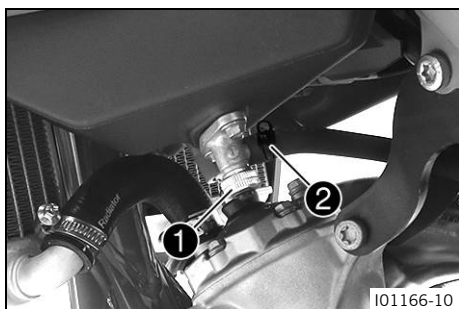
WARNING

Danger of poisoning Fuel is harmful to health.

- Do not allow fuel to come into contact with skin, eyes, or clothing.
- Consult a doctor immediately if fuel has been ingested.
- Do not inhale fuel vapors.
- Rinse the affected area immediately with plenty of water in the event of contact with skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if fuel comes into contact with eyes.
- If fuel spills on to your clothing, change the clothing.
- Store fuel properly in a suitable container and keep out of the reach of children.

Preparatory work

- Remove the seat.  (p. 10)



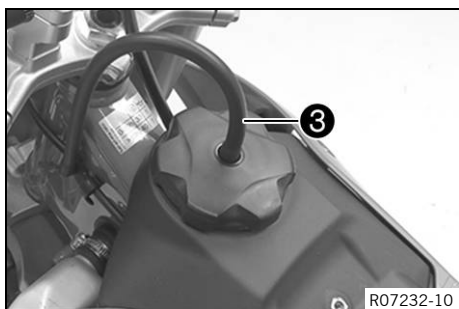
Removal process

- Close fuel petcock ①.
- Pull off the fuel hose with clamp ②.

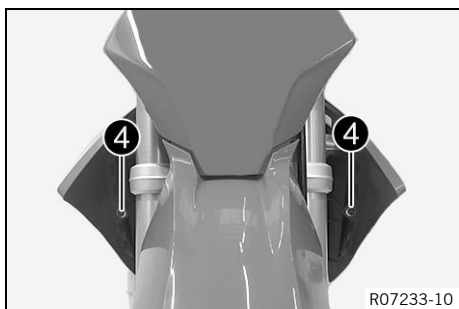


Note

Remaining fuel may flow out of the fuel hose.



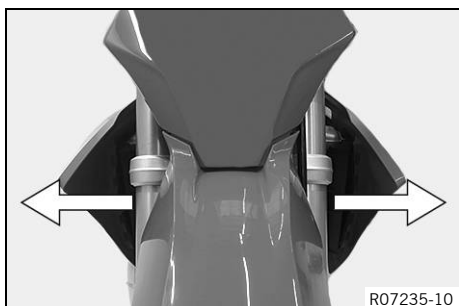
- Remove the hose from fuel tank vent ③.



- Remove ④ screws.



- Remove screw ⑤ with the rubber bushing.



- Pull both spoolers off laterally from the radiator bracket and lift off the fuel tank.

3.10 Installing the fuel tank



DANGER

Fire hazard Fuel is highly flammable.

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

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- Make sure that nobody smokes in the vicinity of the vehicle during the refueling process.
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- Do not overfill the fuel tank.



WARNING

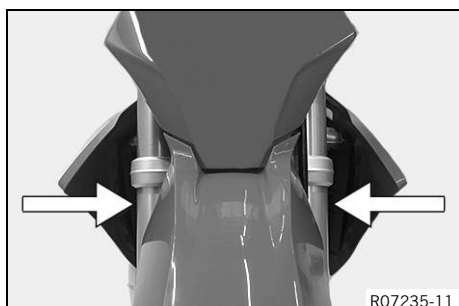
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- If fuel spills on to your clothing, change the clothing.
- Store fuel properly in a suitable container and keep out of the reach of children.

Installation procedure

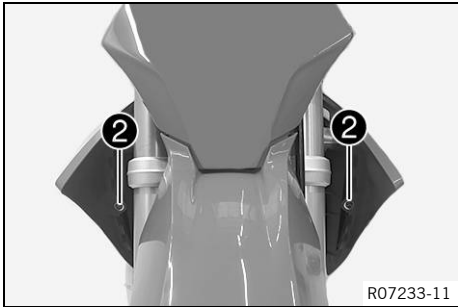
- Check the throttle cable routing.  (p. 14)
- Position the fuel tank and fit the two spoilers to the sides of the radiator mount.

Make sure that no wires or cables are trapped or damaged.



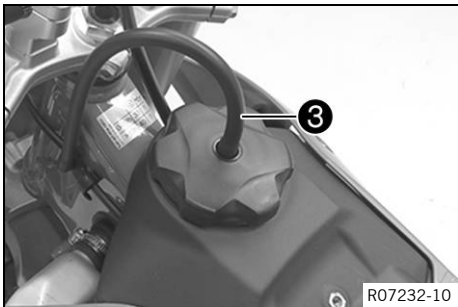
- Mount and tighten screw **1** with the rubber bushing.

Remaining screws on chassis	
M6	10 Nm (7.4 ft·lb _f)

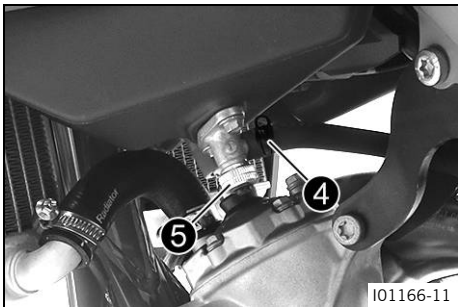


- Mount and tighten screws 2.

Remaining screws on chassis	
M6	10 Nm (7.4 ft·lb _r)



- Mount fuel tank vent 3.



- Mount the fuel hose with clamp 4.
- Open fuel petcock 5.

Reworking

- Mount the seat. 📖 (p. 11)

3.11 Checking the throttle cable routing



WARNING

Danger of accidents The throttle cable can become kinked, jammed, or blocked if it has been routed incorrectly.

If the throttle cable is kinked, jammed or blocked, the speed can no longer be controlled.

- Make sure that the throttle cable routing and the play in the throttle cable complies with the specification.

Preparatory work

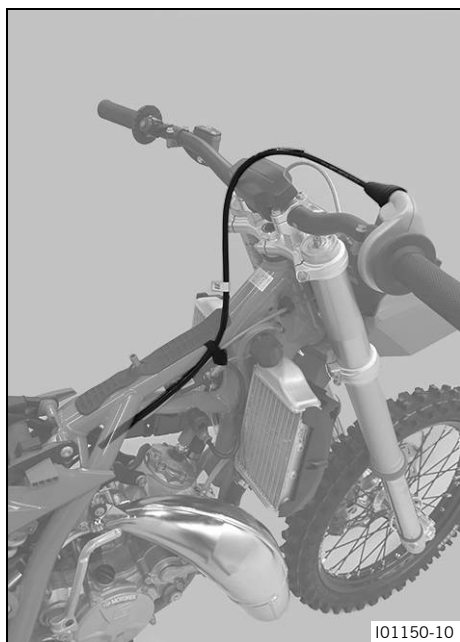
- Remove the seat. 📖 (p. 10)
- Remove the fuel tank. 🔧 📖 (p. 11)

Control process

- Check the throttle cable routing.

The throttle cable must be routed along the back of the handlebar, to the right of the frame, above the fuel tank roller, and to the carburetor.

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



Reworking

- Install the fuel tank.   (p. 13)
- Mount the seat.  (p. 11)



3.12 Opening the fuel tank cap



DANGER

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

- Do not refuel the vehicle in the vicinity of open flames, glowing, or smoldering objects.
- Make sure that nobody smokes in the vicinity of the vehicle during the refueling process.
- Switch off the engine for refueling.
- Make sure that no fuel is spilled; particularly not on hot parts of the vehicle.
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- Do not overfill the fuel tank.



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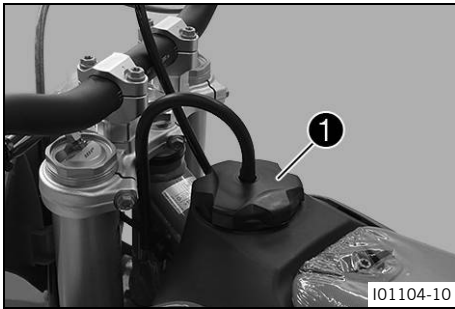
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- Rinse the affected area immediately with plenty of water in the event of contact with skin.
- Rinse eyes thoroughly with water and consult a doctor immediately if fuel comes into contact with eyes.
- If fuel spills on to your clothing, change the clothing.
- Store fuel properly in a suitable container and keep out of the reach of children.



NOTE

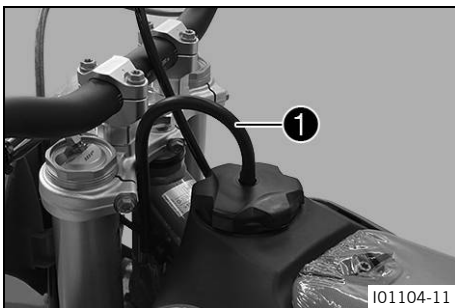
Environmental hazard Improper handling of fuel is dangerous to the environment.

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



- Turn fuel tank cap ① counterclockwise and lift it off.

3.13 Closing the fuel tank cap



- Mount the fuel tank cap and turn it clockwise until the fuel tank is tightly closed.

Route hose of fuel tank vent ① without kinks.

3.14 Refueling



DANGER

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- Make sure that nobody smokes in the vicinity of the vehicle during the refueling process.
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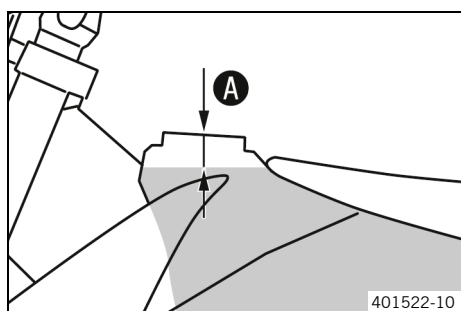


NOTE

Environmental hazard Improper handling of fuel is dangerous to the environment.

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

- Switch off the engine.
- Open the fuel tank cap.  (p. 15)
- Fill the fuel tank with fuel no higher than **A**.



Level A	35 mm (1.38 in)
----------------	--------------------

Fuel tank capacity, approx.	
Super unleaded (98 octane) mixed with 2-stroke engine oil Mixture ratio: 1:40	5.4 l (1.43 liq. gal _{US})

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



4.1 Tightening torque

4.1.1 Vehicle tightening torque

Screw, stop button	M3	0.4 Nm (0.30 ft·lb _f)
Screw, fixed grip	M4	5 Nm (3.7 ft·lb _f)
Screw, carburetor cover	M4	2 Nm (1.5 ft·lb _f)
Screw, main silencer	M5	7 Nm (5.2 ft·lb _f)
Screw, shock absorber adjusting ring	M5	5 Nm (3.7 ft·lb _f)
Remaining nuts on chassis	M5	5 Nm (3.7 ft·lb _f)
Remaining screws on chassis	M5	5 Nm (3.7 ft·lb _f)
Screw, seat installation	M6	8 Nm (5.9 ft·lb _f)
Remaining nuts on chassis	M6	10 Nm (7.4 ft·lb _f)
Remaining screws on chassis	M6	10 Nm (7.4 ft·lb _f)
Screw, rear brake disc	M6	14 Nm (10.3 ft·lb _f)
Screw, front brake disc	M6	14 Nm (10.3 ft·lb _f) Loctite® 243
Screw, brake cylinder	M6	10 Nm (7.4 ft·lb _f) Loctite® 243
Screw, throttle twist grip	M6	5 Nm (3.7 ft·lb _f)
Screw, ball joint of push rod on brake cylinder	M6	10 Nm (7.4 ft·lb _f) Loctite® 243
Screw, front fender	M6	12 Nm (8.9 ft·lb _f)
Start number plate screw	M6	4 Nm (3.0 ft·lb _f)
Nut, push rod, foot brake lever	M6	6 Nm (4.4 ft·lb _f)
Screw, front brake assembly on handlebar	M6	5 Nm (3.7 ft·lb _f)
Screw, clutch assembly on handlebar	M6	5 Nm (3.7 ft·lb _f)

Screw, fuel tank spoiler on radiator	M6	6 Nm (4.4 ft·lb _f)
Screw, ignition coil	M6	6.4 Nm (4.72 ft·lb _f)
Throttle cable wire on carburetor cover	M6×0.75	1.3 Nm (0.96 ft·lb _f)
Brake line guide screw on swingarm	M6	4.5 Nm (3.32 ft·lb _f) Loctite® 243
Screw, rear mounting	M6	6 Nm (4.4 ft·lb _f)
Steering stem clamp screw	M8	20 Nm (14.8 ft·lb _f) Loctite® 243
Nut, rim lock	M8	12 Nm (8.9 ft·lb _f)
Remaining nuts on chassis	M8	25 Nm (18.4 ft·lb _f)
Remaining screws on chassis	M8	25 Nm (18.4 ft·lb _f)
Screw, subframe, top	M8	35 Nm (25.8 ft·lb _f) Loctite® 243
Screw, front brake caliper	M8	25 Nm (18.4 ft·lb _f) Loctite® 243
Rear brake caliper screw	M8	18 Nm (13.3 ft·lb _f) Loctite® 243
Screw, top triple clamp	M8	20 Nm (14.8 ft·lb _f)
Screw, bottom triple clamp	M8	15 Nm (11.1 ft·lb _f)
Screw, fork shoe	M8	15 Nm (11.1 ft·lb _f)
Screw, rear sprocket	M8	35 Nm (25.8 ft·lb _f) Loctite® 2701
Screw, engine brace	M8	25 Nm (18.4 ft·lb _f) Loctite® 243
Handlebar clamp screw	M8	20 Nm (14.8 ft·lb _f)
Screw, foot brake lever stop	M8	20 Nm (14.8 ft·lb _f)
Screw, front sprocket cover	M8	15 Nm (11.1 ft·lb _f)

4 Technical data

Screw, chain slider	M8	15 Nm (11.1 ft·lb _f)
Screw, subframe, bottom	M8	30 Nm (22.1 ft·lb _f) Loctite® 2701
Engine bracket screw	M10	45 Nm (33.2 ft·lb _f)
Remaining nuts on chassis	M10	45 Nm (33.2 ft·lb _f)
Remaining screws on chassis	M10	45 Nm (33.2 ft·lb _f)
Bushing, foot brake lever	M10	45 Nm (33.2 ft·lb _f) Loctite® 243
Screw, handlebar mount	M10	40 Nm (29.5 ft·lb _f) Loctite® 243
Top shock absorber screw	M12	60 Nm (44.3 ft·lb _f) Loctite® 2701
Bottom shock absorber screw	M12	60 Nm (44.3 ft·lb _f) Loctite® 2701
Nut, swingarm pivot	M14×1.5	75 Nm (55.3 ft·lb _f)
Nut, steering stem	M20×1.5	10 Nm (7.4 ft·lb _f)
Nut, wheel spindle, rear	M20×1.5	80 Nm (59.0 ft·lb _f)
Screw, wheel spindle, front	M20×1.5	35 Nm (25.8 ft·lb _f)
Spoke nipple	M4,5	5 Nm (3.7 ft·lb _f)
Remaining screws on chassis	EJOT PT® – K60×20	2 Nm (1.5 ft·lb _f)



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