

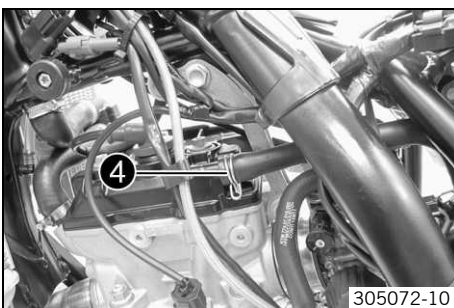
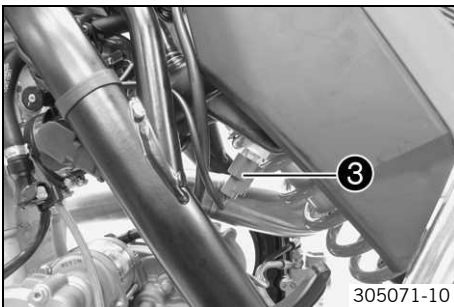
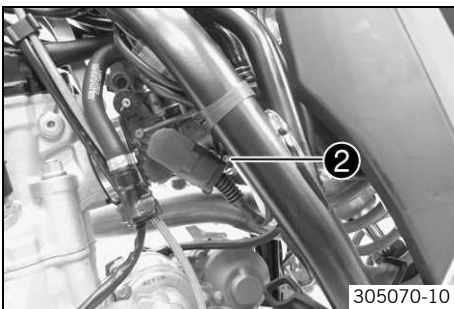
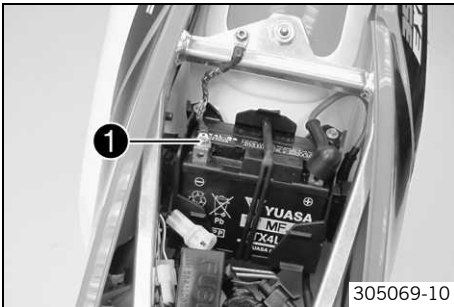
## Removing the engine

### Preliminary work

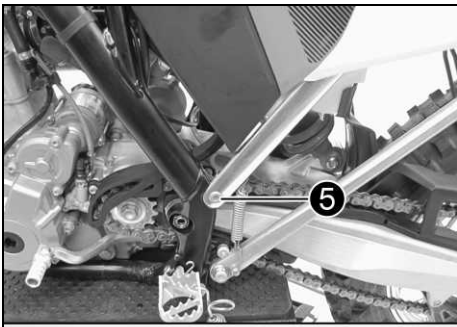
- Drain the coolant. (☞ p. 179)
- Raise the motorcycle with the lift stand. (☞ p. 10)
- Remove the main silencer. (☞ p. 65)
- Remove the seat. (☞ p. 69)
- Remove the fuel tank. (☞ p. 70)

### Main work

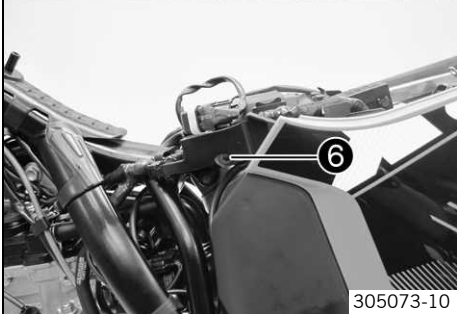
- Remove screw ❶.
- Disconnect the negative cable from the battery.



- Loosen hose clip ❷.
- Detach connector ❸.
- Push back hose clamp ❹.
- Pull off the vent hose.

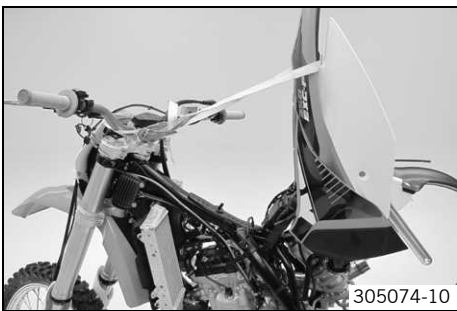


- Remove screw ⑤.
- Loosen screw ⑥.
- Repeat the operation on the opposite side.

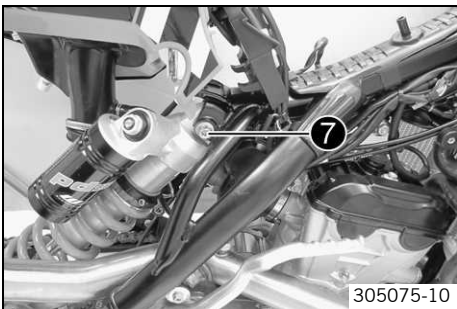


305073-10

- Swing up the subframe and secure it.

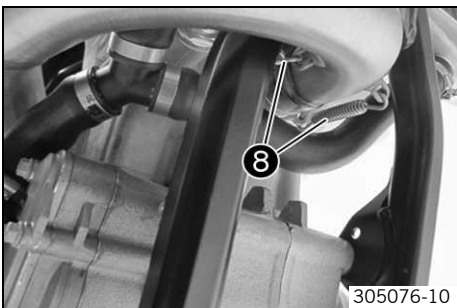


305074-10



305075-10

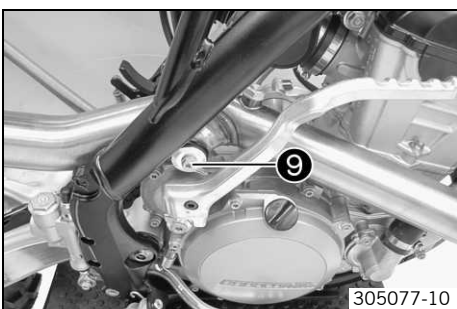
- Remove screw ⑦.
- Swing back the shock absorber.



305076-10

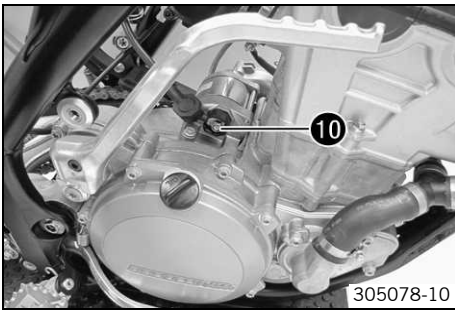
- Remove springs ⑧.

Spring hooks (50305017000) (☛ p. 272)

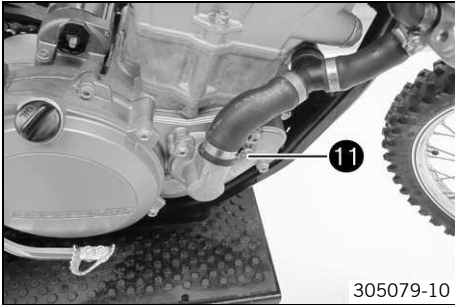


305077-10

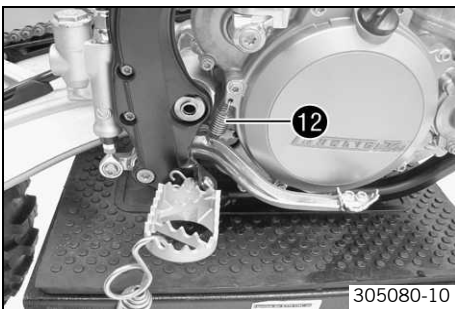
- Remove screw ⑨.
- Remove the manifold.



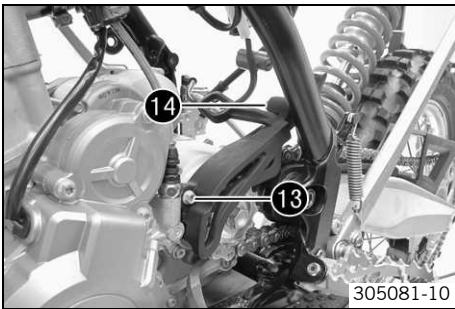
- Slide back cover.
- Remove nut 10.
- Detach the cable.



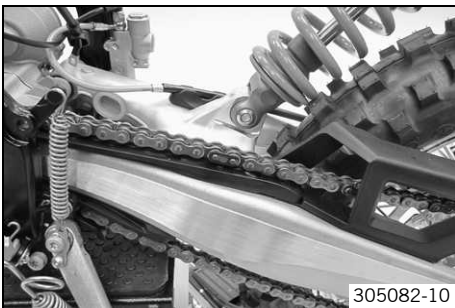
- Loosen hose clip 11.
- Take off the radiator hose.



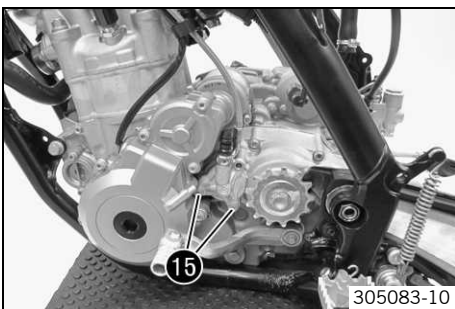
- Disconnect spring 12.



- Remove screw 13.
- Remove screw 14.
- Take off the engine sprocket cover.



- Remove the connecting link of the chain.
- Take off the chain.

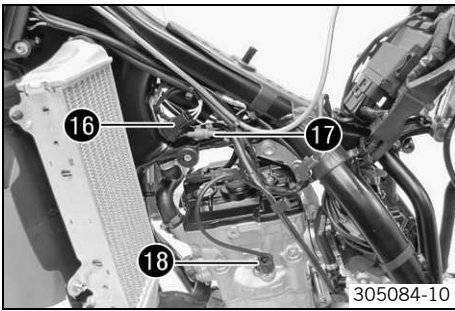


- Remove screws 15.
- Take off the clutch slave cylinder and hang it to the side.

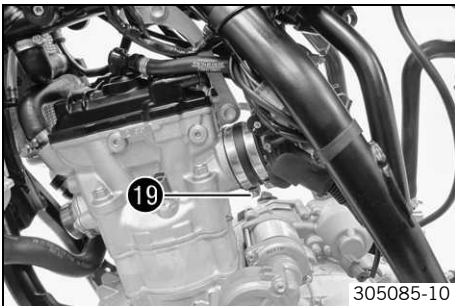


**Info**

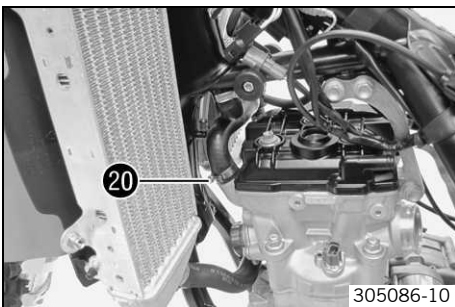
Do not kink the clutch line.  
Do not activate the clutch lever if the clutch slave cylinder has been removed.



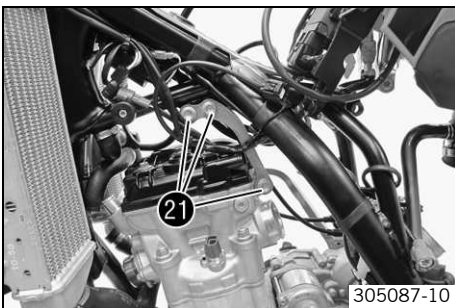
- Detach connector 16.
- Detach connector 17.
- Detach connector 18.
- Pull of the spark plug connector.



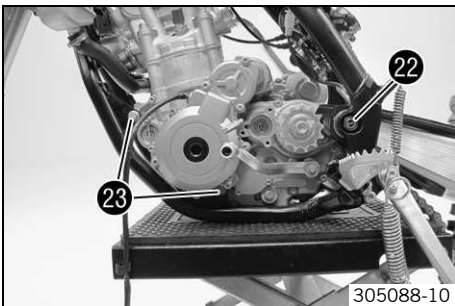
- Loosen hose clip 19.
- Pull off the throttle valve body from the rear.



- Loosen hose clip 20.
- Take off the radiator hose.



- Remove screw connections 21.
- Remove the engine braces.

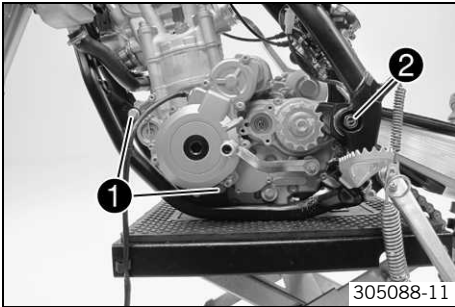


- Remove nut 22.
- Remove the swingarm pivot.
- Pull the swingarm slightly toward the rear.
- Remove screws 23.
- Lift out the engine from the side.

**i Info**

You should have an assistant for this step.  
 Make sure that the engine is sufficiently secured against falling over.  
 Protect the frame and attachments from damage.

## Installing the engine



### Main work

- Position the engine in the frame.
- Mount screws ① but do not tighten yet.

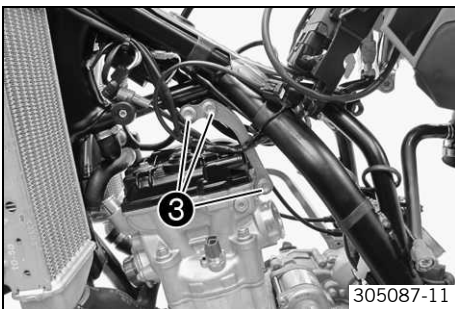
#### Guideline

Engine attachment bolt	M10	60 Nm (44.3 lbf ft)
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- Position the swingarm.
- Mount the swingarm pivot.
- Mount nut ② but do not tighten it yet.

#### Guideline

Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)
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- Position the engine braces.
- Mount and tighten screw caps ③.

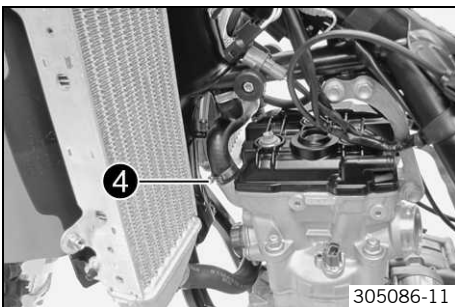
#### Guideline

Screw, engine brace	M8	33 Nm (24.3 lbf ft)
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- Tighten screws ① and nut ②.

#### Guideline

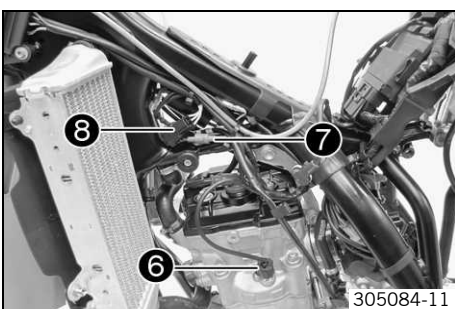
Engine attachment bolt	M10	60 Nm (44.3 lbf ft)
Nut, swingarm pivot	M16x1.5	100 Nm (73.8 lbf ft)



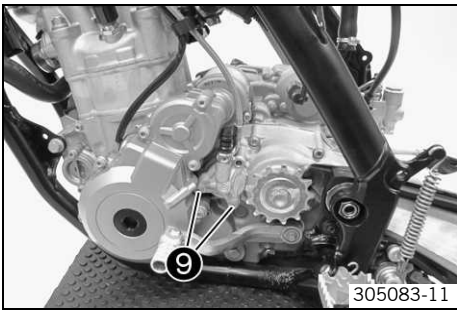
- Mount the radiator hose.
- Position and tighten hose clip ④.



- Mount the throttle valve body.
- Position and tighten hose clip ⑤.



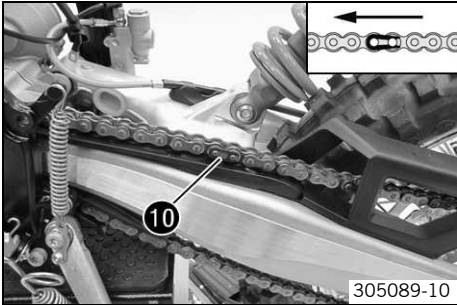
- Plug in connector ⑥.
- Plug in connector ⑦.
- Plug in connector ⑧.
- Mount the spark plug connector.



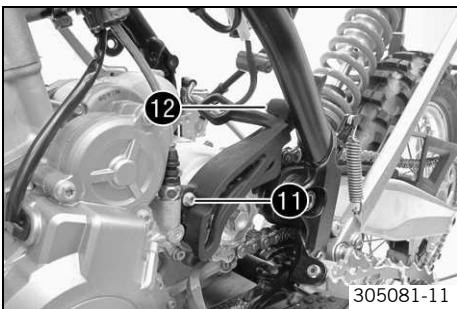
- Position the clutch slave cylinder with the gasket.
- Mount and tighten screws 9.

Guideline

Screw, clutch slave cylinder	M6	10 Nm (7.4 lbf ft)
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- Mount the chain.
- Connect the chain with connecting link 10.



- Position the engine sprocket cover.
- Mount and tighten screw 11.

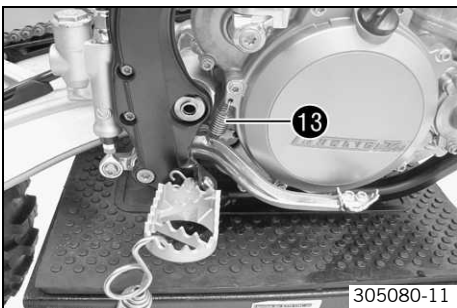
Guideline

Screw, clutch slave cylinder	M6	10 Nm (7.4 lbf ft)
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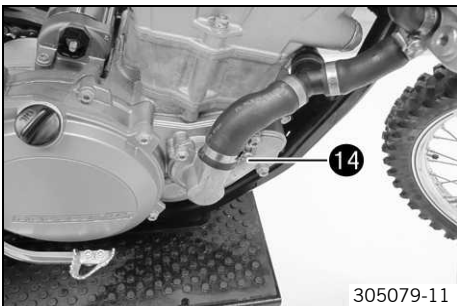
- Mount and tighten screw 12.

Guideline

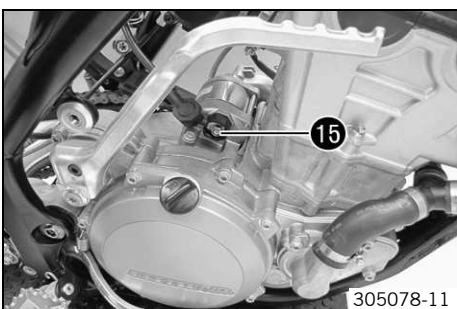
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
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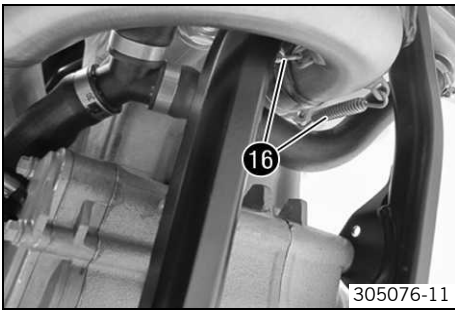
- Mount spring 13.



- Mount the radiator hose.
- Position and tighten hose clip 14.

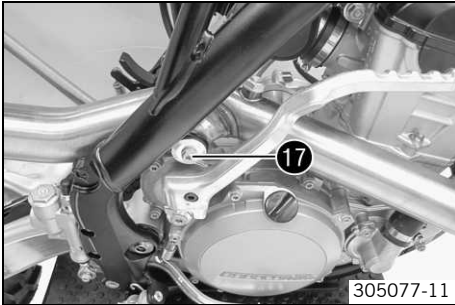


- Position the cable.
- Mount and tighten nut 15.
- Position the cover.



- Position the manifold and mount springs 16.

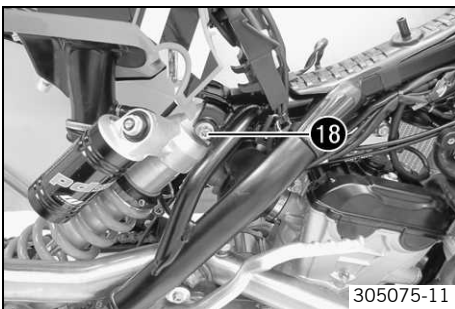
Spring hooks (50305017000) (☛ p. 272)



- Mount and tighten screw 17.

Guideline

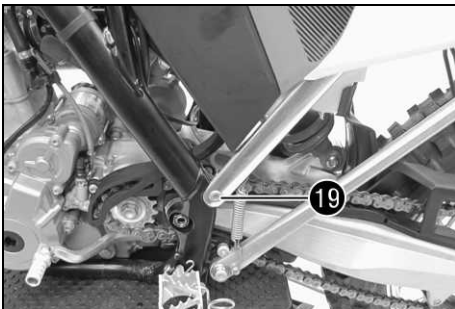
Remaining screws, chassis	M8	25 Nm (18.4 lbf ft)
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- Position the shock absorber.
- Mount and tighten screw 18.

Guideline

Screw, top shock absorber	M12	80 Nm (59 lbf ft)	<b>Loctite® 2701</b>
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- Remove the fixation and position the subframe.



**Info**

Watch out for the intake flange.

- Mount and tighten screw 19.

Guideline

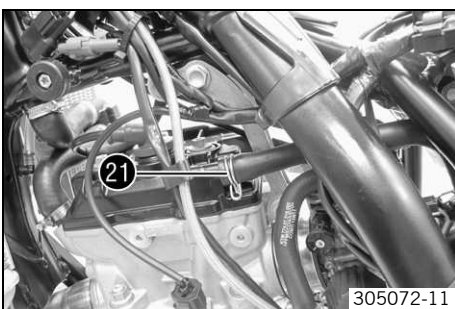
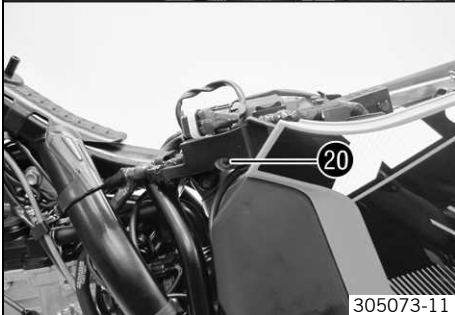
Screw, subframe	M8	35 Nm (25.8 lbf ft)	<b>Loctite® 2701</b>
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- Remove screw 20.
- Mount and tighten screw 20.

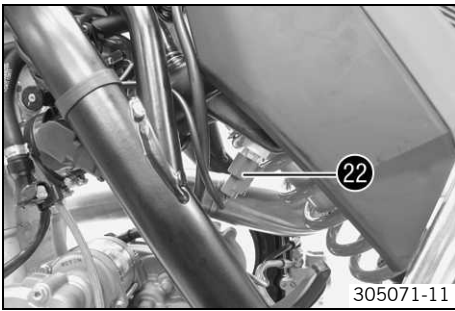
Guideline

Screw, subframe	M8	35 Nm (25.8 lbf ft)	<b>Loctite® 2701</b>
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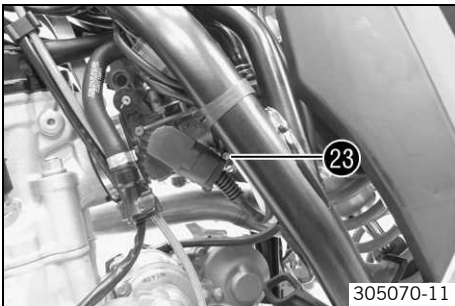
- Repeat the operation on the opposite side.



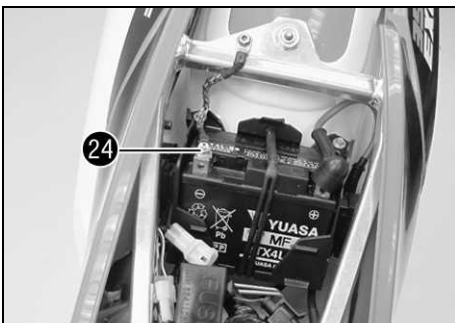
- Mount the vent hose.
- Position hose clamp 21.



- Plug in connector 22.



- Position and tighten hose clip 23.



- Connect negative cable 24 of the battery.

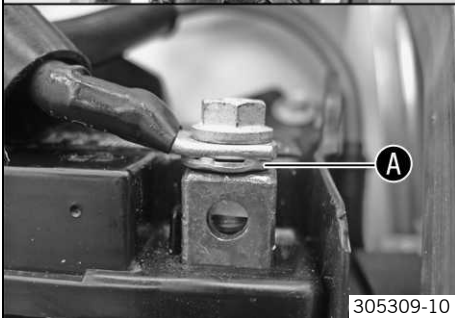
Guideline

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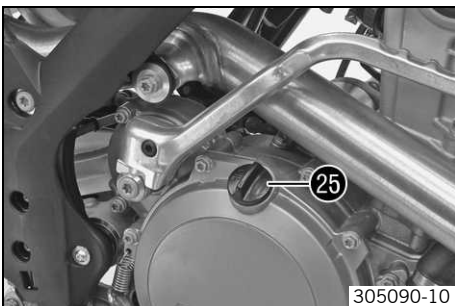


**Info**

Contact disk A must be mounted between battery terminal and cable socket with the claws facing up.



- Refill the coolant. (☛ p. 180)
- Install the main silencer. (☛ p. 65)
- Remove the motorcycle from the lift stand. (☛ p. 10)
- Install the fuel tank. (☛ p. 71)
- Mount the seat. (☛ p. 70)



- Remove screw connection 25 on the clutch cover and fill up with engine oil.

Engine oil	1.20 l (1.27 qt.)	Engine oil (SAE 10W/50) (☛ p. 268)	
		Alternative engine oil for harsh operating conditions and increased performance	Engine oil (SAE 10W/60) (00062010035) (☛ p. 268)

- Mount and tighten screw connection 25.



**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.
- Switch off the engine.
- Check the engine oil level. (☛ p. 181)
- Check the coolant level. (☛ p. 179)

**Subsequent work**

- Take a test ride.



- Read out the fault memory using the KTM diagnostics tool.
- Check the engine for leakage.
- Check the engine oil level. (☛ p. 181)
- Check the coolant level. (☛ p. 179)