6. Fuel supply system

Notice before service

1. Bending or twisting the control cable will affect smooth operation and may cause a short circuit or open circuit , resulting in loss of vehicle control.
2. Work should be carried out in an open and ventilated place. Smoking , using mobile phones and other behaviors that may cause sparks are prohibited at the work site .
3. Before operation , the high-pressure oil pipe should be depressurized as follows: unplug the fuel pump plug, start the engine and run it at idle speed until the engine is turned off. Turn the engine shutdown switch to " ", cut off the power of the vehicle and lock it.
4. After removing the throttle cable, do not fully open the throttle valve manually , as this may cause abnormal idling .
5. After removing the throttle valve body , use masking paper or clean non-woven fabric to block the air intake to prevent foreign matter from falling into the engine.
6. Do not damage or operate the throttle valve body, as this may cause abnormal throttle operation.
7. After removing the throttle body, prevent dust or foreign matter from entering the throttle hole or air passage . If necessary, clean it with dry compressed air.
8. Do not loosen or tighten the bolts or nuts marked with a marker on the throttle valve , as this may cause abnormal throttle opening and closing and idle speed control .
9. Do not use carburetor cleaner .
10. Throttle valve body parts not specified in this manual must not be disassembled .
11. If there is a “ ” symbol on the right side of the step , you can click it to quickly jump to the corresponding step.

CAUTION

●After reinstalling the battery or EFI components, the EFI system needs to be reset. For detailed operations , refer to the driver's manual or the precautions in the throttle valve body section of this manual.

Fuel tank removal

Notice:

● The vehicle must be parked on a flat, stable ground or a lift.

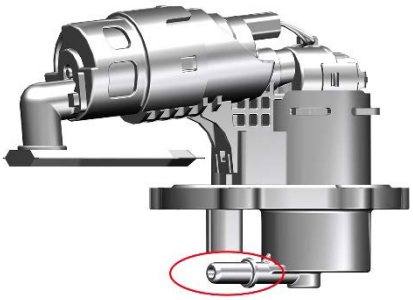
● Wait until the engine is completely cooled before operating.

●When draining coolant , wear waterproof gloves to prevent it from getting on your skin.

●The disassembly site must be ventilated and fire prevention must be taken into consideration . Please refer to the previous chapters for details and will not be repeated here.

● Use the oil pump first or wait until the fuel in the tank is almost consumed before disassembling .

● Pay attention to protecting the oil outlet of the oil pump . The high-pressure oil pipe can only be pulled out axially. Be careful not to pull or press the oil outlet radially.

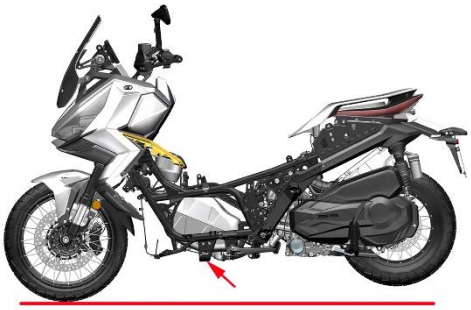


1. Disassemble the fuel tank assembly

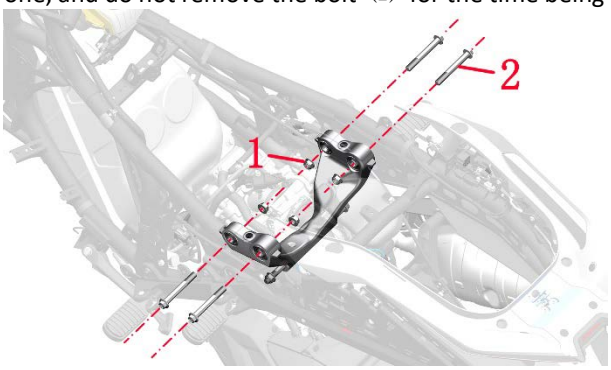
a. Follow the steps in the pre-service instructions to consume the fuel in the high-pressure fuel pipe.

b. Refer to the steps for removing the covering parts to first remove the bumper, fuel tank lock decorative cover, pedal side cover assembly, lower air duct, seat cushion, storage box, and radiator air duct.

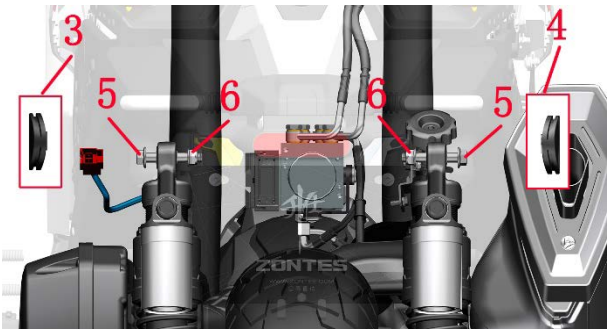
c. Refer to the steps for disassembling the engine and unplug the wiring harness plug , oil pipe interface and water pipe interface on the engine . Remove the plug of the rear wheel speed sensor. Park the vehicle in a flat and wide place, turn the steering wheel to the right, place a stool of appropriate height under the direction of the arrow, and lift the rear wheel of the vehicle off the ground.



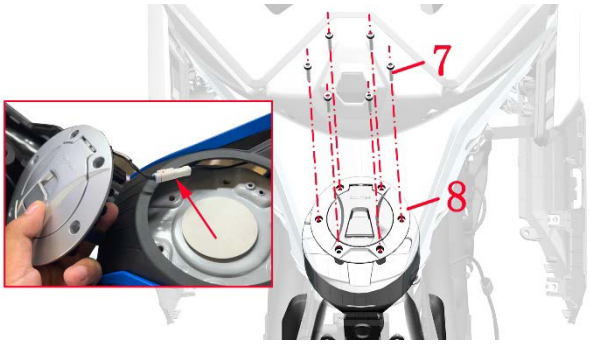
d. Use a 17 # spanner to fix the nut (1), and use a 14 # sleeve to loosen the bolt (2). Remove the four nuts (1) one by one, and do not remove the bolt (2) for the time being .



e. Remove the left plug (3) and the right plug (4). Use a 14 # spanner to fix the nut (6), and use a 14 # socket + ratchet spanner to loosen the bolt (5) . Remove the two nuts (6). One person holds the rear wheel, and the other person removes the two bolts (5) on the rear shock absorber. After removing the bolts, the rear wheel can be gently placed on the ground. One person holds the engine, and the other person removes the four bolts (2) on the frame. After removing the bolts, the engine can be gently placed on the ground.

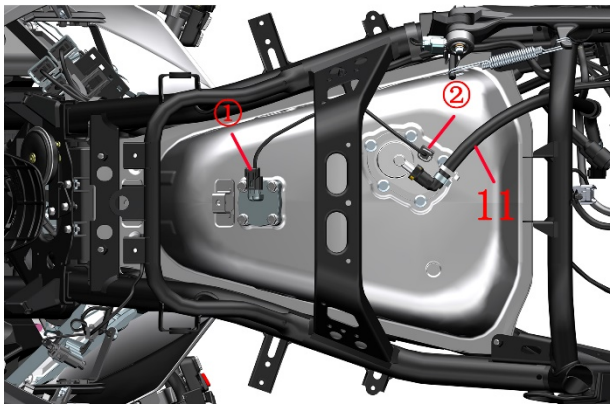


f. Use a 4# hexagon socket to remove the six M5 × 30 bolts (7), pick up the fuel tank lock (8), find the plug pointed by the arrow, unplug the plug and remove the fuel tank lock (8).

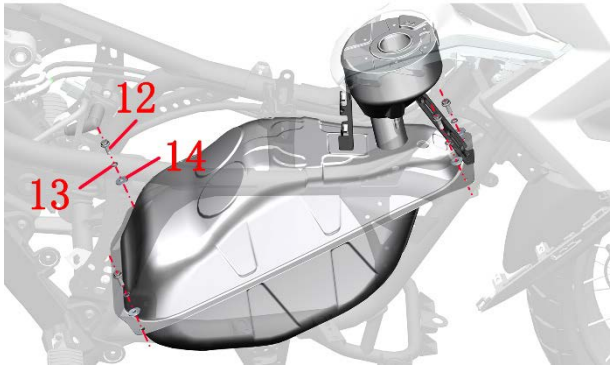


g . Unplug the two plugs on the drive box (10), remove the two bolts (9) with a T25 hexagonal wrench , and remove the drive box (10).

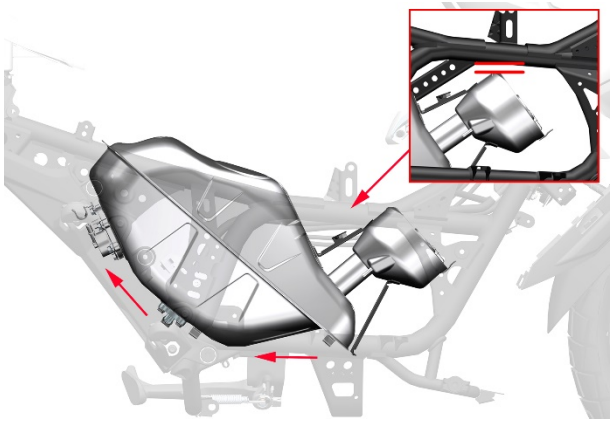
h. Press the anti-drop buckle of the oil level sensor plug ① and unplug the plug ① . Remove the oil pump plug ② in the same way. Press the anti-drop buckle of the high-pressure oil pipe (11) on the oil pump end and unplug the high-pressure oil pipe (11) along the axis of the oil pump outlet.



i. Use a ratchet wrench + 10# socket to remove the four M6 × 1 6 bolts and remove washers (13) and (14).



j. Slightly lift the fuel tank assembly from the rear end , move it backward until the fuel tank filling port safely passes under the frame, and then remove the fuel tank assembly upwards.



2. Remove the fuel pump

Turn the fuel tank assembly over so that the fuel pump is facing upwards and placed firmly . You can use a small wooden chair to turn it over so that the chair surface is grounded and place the fuel tank assembly on it.

Use a 10 # socket to loosen the five M6 × 20 bolts (1) diagonally , grab the high-pressure oil pipe bracket (2), remove the bolts (1) completely, and then remove the oil pump (3) .

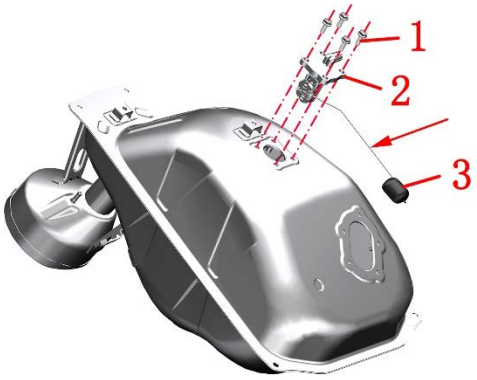
When reassembling, pre -tighten diagonally first and then tighten the five bolts (1) , otherwise the sealing rubber ring of the fuel pump (3) will be compressed unevenly and easily cause leakage, resulting in safety hazards .

Remark :

fuel pump is a precision component that needs to be assembled in a dust-free workshop and requires strict testing, so it is forbidden to disassemble it by yourself. Therefore, the fuel pump disassembly process is not explained here .

3. Remove the oil level sensor

Use a 10 # sleeve to remove the four M6 × 16 bolts (1) and pull the sensor (2) outward . Be careful not to pull it forcefully to avoid deformation of the float connecting rod and increase the deviation of the oil display.

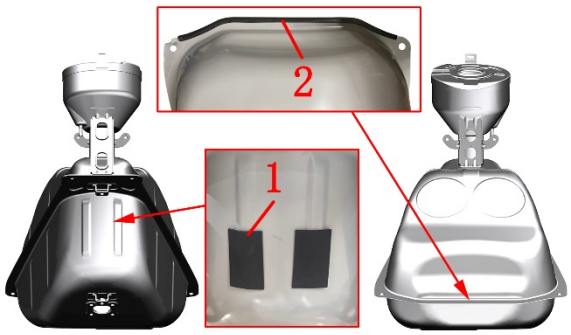


When reassembling, you need to pre-tighten the 4 bolts diagonally first and then tighten them . Otherwise, the uneven compression of the sealing rubber ring of the oil level sensor may easily lead to leakage and cause safety hazards .

4. Remove the external parts of the fuel tank assembly

a. Battery rubber pad (1) is pasted on the fuel tank shell and is difficult to remove. If you need to remove it, you can use a hot air gun to heat it slightly and then tear it off, or use a detergent to remove self-adhesive stickers to remove it.

b . Remove the adhesive strip directly (2).



Examine

1. Fuel pressure test

test methods, refer to the fuel pump section in the Maintenance chapter .

2. Fuel pump inspection

Unlock the vehicle and turn the engine ignition switch to " " . You should be able to hear the sound of the fuel pump running . If you do not hear the sound of the fuel pump running , turn off the engine and power off first .

Refer to the previous fuel tank removal steps to unplug the fuel pump plug.

Use a multimeter to measure the voltage at the cable end of the fuel pump plug . Unlock the vehicle, turn the engine off switch to " " and the fuel pump will accumulate pressure for about 5 seconds . During this period, the battery voltage should be measurable.

If the battery voltage can still be measured without starting the engine after pressure accumulation, you need to check whether the fuel pump relay is normal. If the relay is normal, the fuel pump is abnormal and needs to be replaced.

3. Oil level sensor

Use the resistance range of a multimeter to measure the resistance. The lowest position (empty oil): 287 ~ 313Ω , the highest position (full oil): 27 ~ 79Ω .

Pull the float connecting rod ; there should be no sticking during rotation and the contacts should be in good contact.

Check the appearance of the float and there should be no damage.