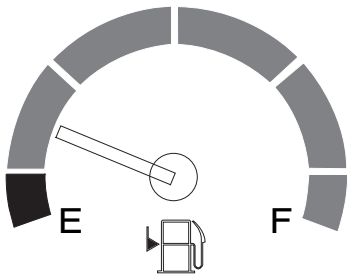
REMOVAL

1. Look at fuel level display (Figure 2) on instrument panel in operator's cabin to see what it displays. The display is divided into ten separated segments, each representing 10 percent of total fuel supply. Also, look at level gauge on side of tank to estimate volume of fuel left in tank.

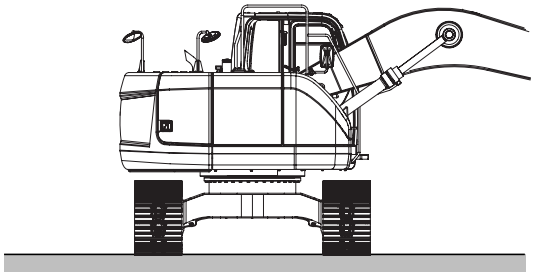
   NOTE: *If possible, work excavator until available fuel supply in tank has been run down as far as possible.*



FG014483

Figure 2

2. Park on firm and level ground and swing turntable to approximately a 90° with respect to tracks. See Figure 3.



FG016203

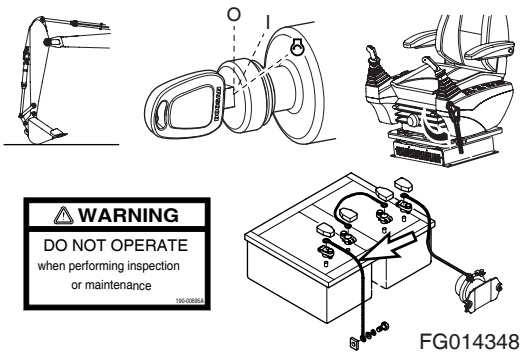
Figure 3

3. Lower front attachment (bucket) to ground.
4. Shut down engine.
5. Set safety lever on "RELEASED" position.
6. Turn starter switch to "I" (ON) position.

⚠ WARNING

If engine must be run while performing maintenance, use extreme care. Always have one person in the cabin at all times. Never leave the cabin with the engine running.

7. Fully stroke work levers (joysticks) in all directions to relieve any pressure from accumulators.
8. Set safety lever on "LOCK" position.
9. Turn key to "O" (OFF) position and remove from starter switch.
10. Hang maintenance warning tag on controls.
11. Disconnect negative (-) battery cable leading to frame from battery.



FG014348

Figure 4

12. Clean area around fuel tank fill cap (1, Figure 5). Open fuel cap.

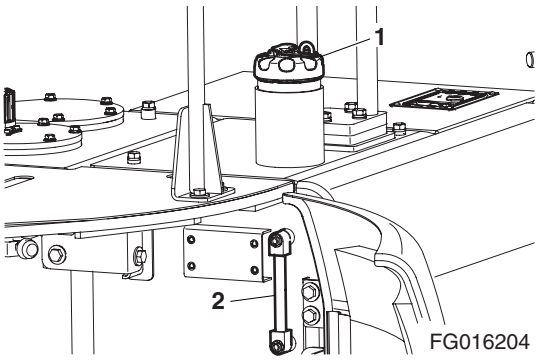


Figure 5

13. Place a large enough container under the bottom of pump room to collect remaining fuel.

    Open drain valve at bottom of tank and drain.

    NOTE: *Fuel tank capacity is 320 liters (84.5 U.S. gal).*

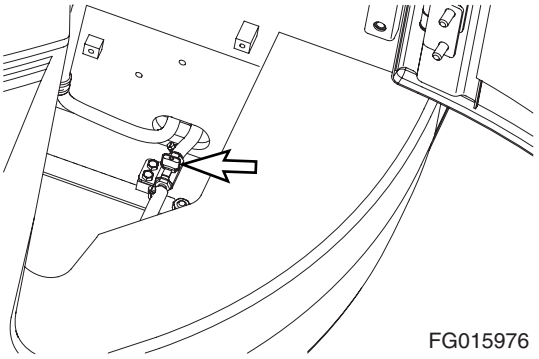


Figure 6

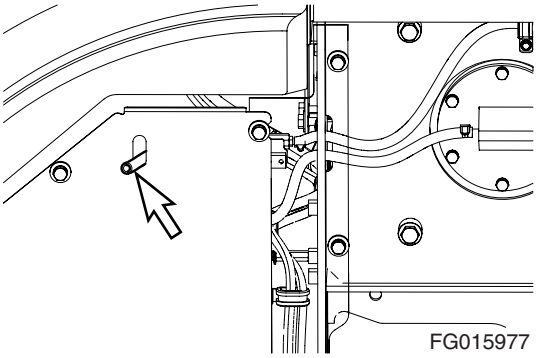


Figure 7

14. Remove the bolts of MCV cover and open it.

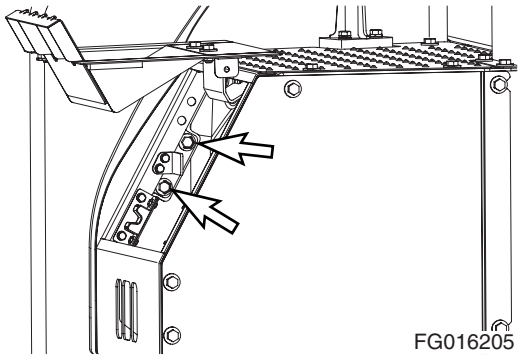


Figure 8

A. Remove the bolts at the front side of tank cover.

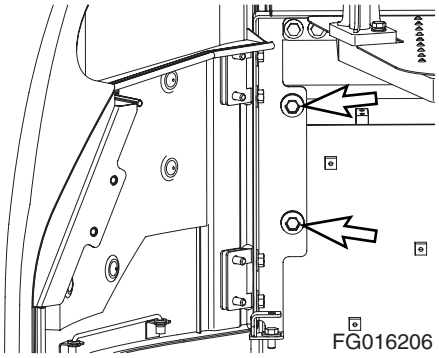


Figure 9

B. Remove the bolts at rear side of tank cover.

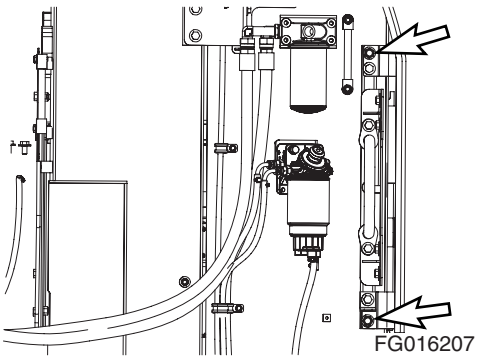


Figure 10

15. Remove bolts of bracket connect with fuel tank (Figure 11).

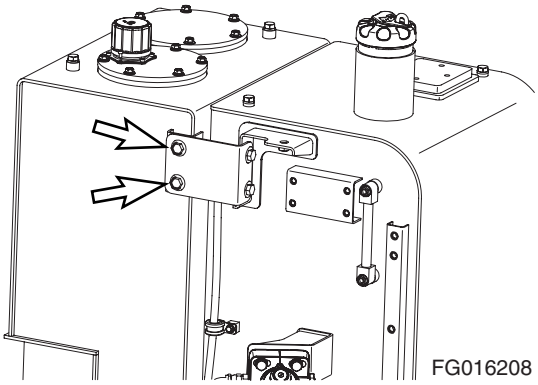


Figure 11

16. Remove fuel hose clamp (1, Figure 12).
17. Remove clamp connecting fuel hose and fuel prefilter (2, Figure 12).

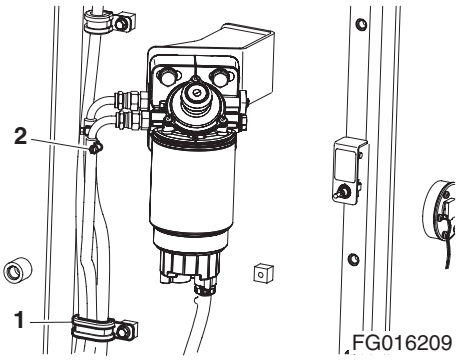


Figure 12

18. Remove prefilter mounting bolt (1, Figure 13).
19. Remove fuel sensor harness connector (2, Figure 13).

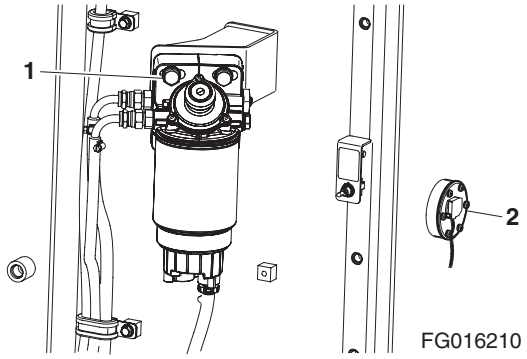


Figure 13

20. Remove engine oil filter bracket bolt (1, Figure 14).
21. Disconnect fuel return hose (2, Figure 14).
    A. Remove the bolts (1, Figure 15) to separate fuel tank from oil tank.

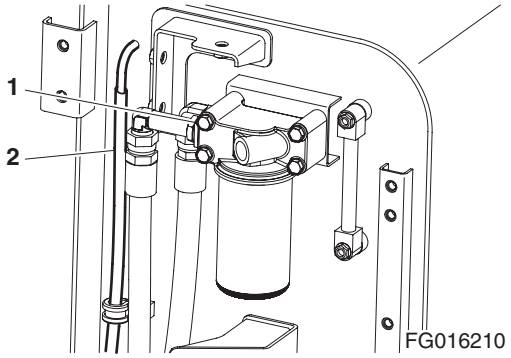


Figure 14

22. Remove the hose of fuel feed pump (optional) (2, Figure 15) from fuel tank.

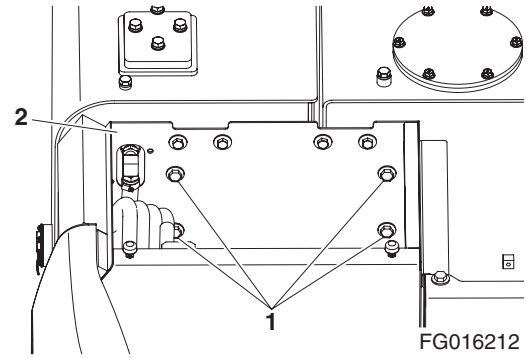


Figure 15

    A. Remove the hose (1, Figure 16) from fuel feed pump (optional).
    B. Remove the sensor harness (2, Figure 16) from fuel tank.

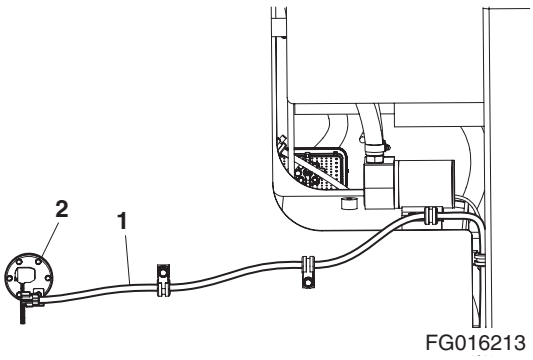


Figure 16

23. Install two 12 mm eyebolts in threaded holes (38 and 39, Figure 17). Using a suitable lifting device, sling eyebolts.

24. Remove four bolts (7) and spacers (13, Figure 17) holding tank (1) to frame. Lift tank 25 mm (1") and make sure it is balanced. Make sure that there are no other electrical wires or hoses connected to tank. Completely remove tank after inspection.

    NOTE: *The clear level gauge on the side of the tank is easily damaged. Be careful of obstacles and wind gusts.*

25. Remove shims (9, Figure 17).

    NOTE: *If tank is to be reused note position and amount of shims used for each mounting bolt location.*

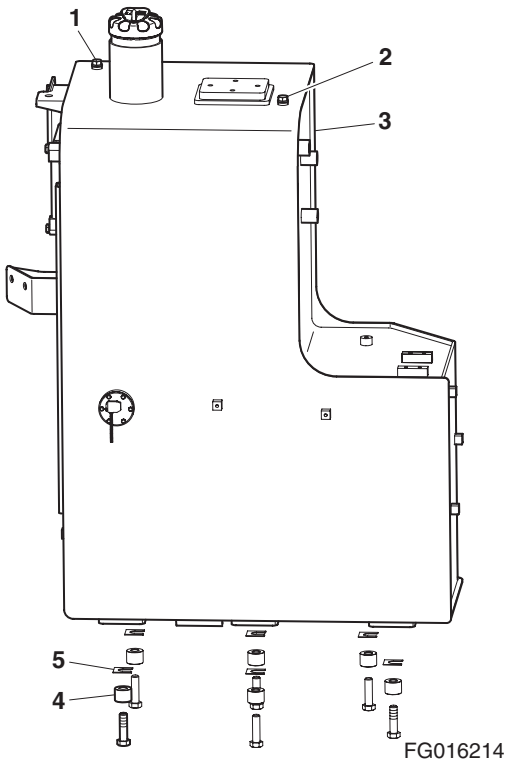


Figure 17

INSTALLATION

1. Install two 12 mm eyebolts in threaded holes (38 and 39, Figure 18). Using a suitable lifting device, sling eyebolts.
2. Set fuel tank (1, Figure 18) into position. Install four bolts (7) and spacers (13) finger tight, to secure tank to frame.

   NOTE: *The clear level gauge on the side of the tank is easily damaged. Be careful of obstacles and wind gusts.*
3. Install shims (9, Figure 18) as needed to prevent tank (1) from rocking or stress from mounting bolts (7).
4. Tighten mounting bolts (7, Figure 18) after shims are installed.

   NOTE: *Bolt torque is 27 kg•m (200 ft lb).*

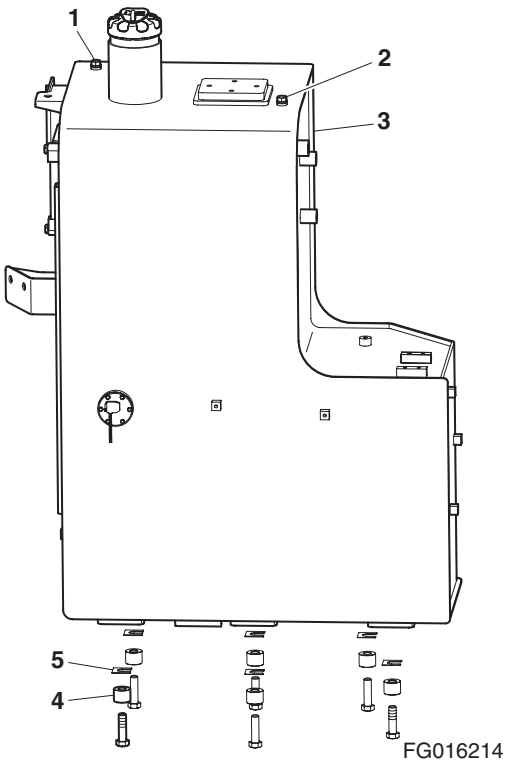


Figure 18

5. Install engine oil filter (1, Figure 19).
6. Connect fuel return line (2,Figure 19).

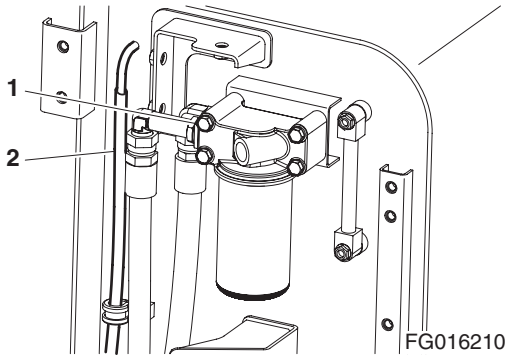


Figure 19

7. Install fuel prefilter (1, Figure 20).
8. Connect fuel sensor harness connector (2, Figure 20).

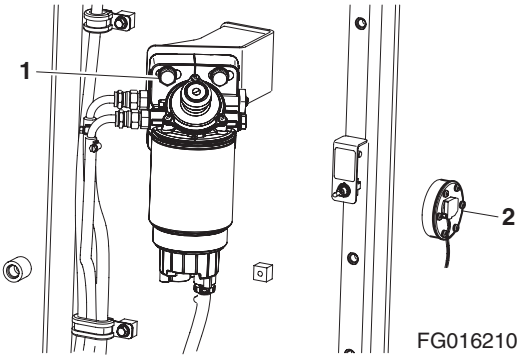


Figure 20

9. Fasten fuel hose clamp (1, Figure 21).
10. Fasten clamp connects fuel hose and prefiter.

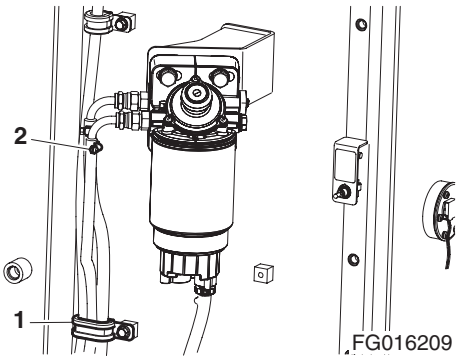


Figure 21

11. Install bracket tied with oil tank (Figure 22).

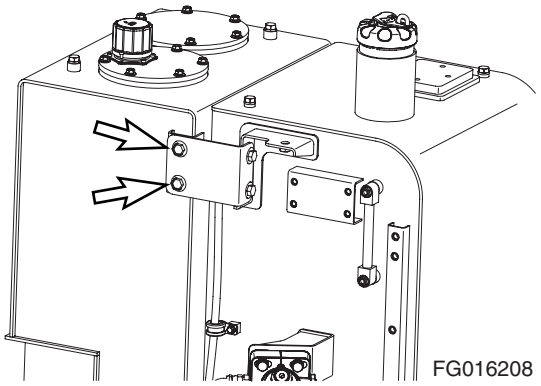


Figure 22

12. Place a large enough container under the bottom of pump room to collect remaining fuel.

    Close drain valve at bottom of tank and drain.
13. Connect negative (-) battery cable to battery.

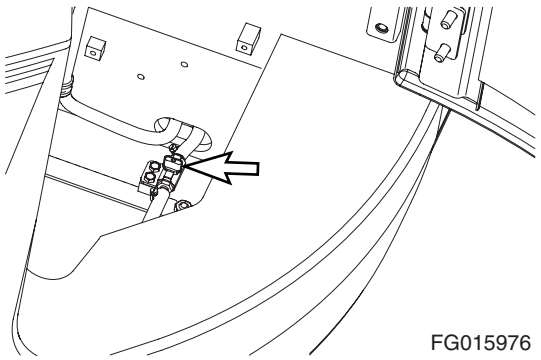


Figure 23

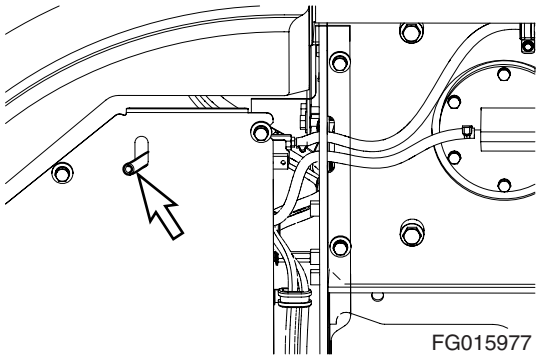


Figure 24

START-UP PROCEDURES

If engine does not start, the fuel system may need priming. Prime the fuel system using the following procedure:

1. Stop Engine.
2. Open right rear door and then there is fuel filter.

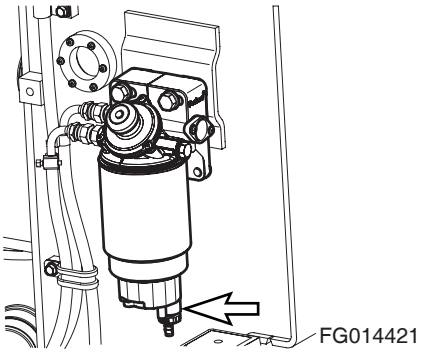


Figure 25

3. Loosen plug (1, Figure 26) on top of fuel filter head.
4. Pump hand operated primer pump (2, Figure 26) by the fuel injection pump. Pump primer until fuel is present at plug hole in fuel filter head.
5. Tighten plug in fuel filter head.
6. Continue to pump primer pump until a strong resistance is felt.
7. Start engine and look for signs of leaks.

Repeat procedure if necessary.

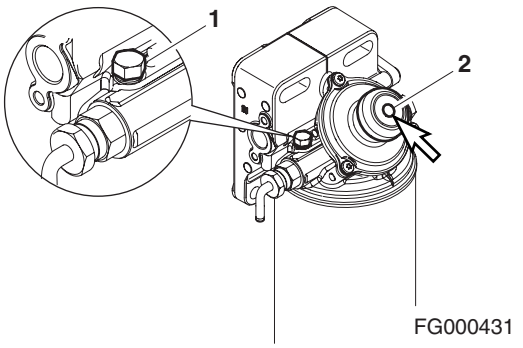


Figure 26

Fuel Transfer Pump

Edition 1

MEMO

Table of Contents

Fuel Transfer Pump

MEMO

SAFETY PRECAUTIONS

CAUTION

Follow all safety recommendations and safe shop practices outlined in the front of this manual or those contained within this section.

Always use tools and equipment that are in good working order.

Use lifting and hoisting equipment capable of safely handling load.

Remember, that ultimately safety is your own personal responsibility.

APPLICABLE MODELS

The contents of this section apply to the following models and serial number ranges.

MODEL	SERIAL NUMBER RANGE
DX140LC	5001 and Up
DX140LCR	5001 and Up
DX180LC	5001 and Up
DX225LC	5001 and Up
DX225NLC	5001 and Up
DX235LCR	5001 and Up
DX255LC	5001 and Up
DX300LC	5001 and Up

GENERAL DESCRIPTION

Theory of Operation

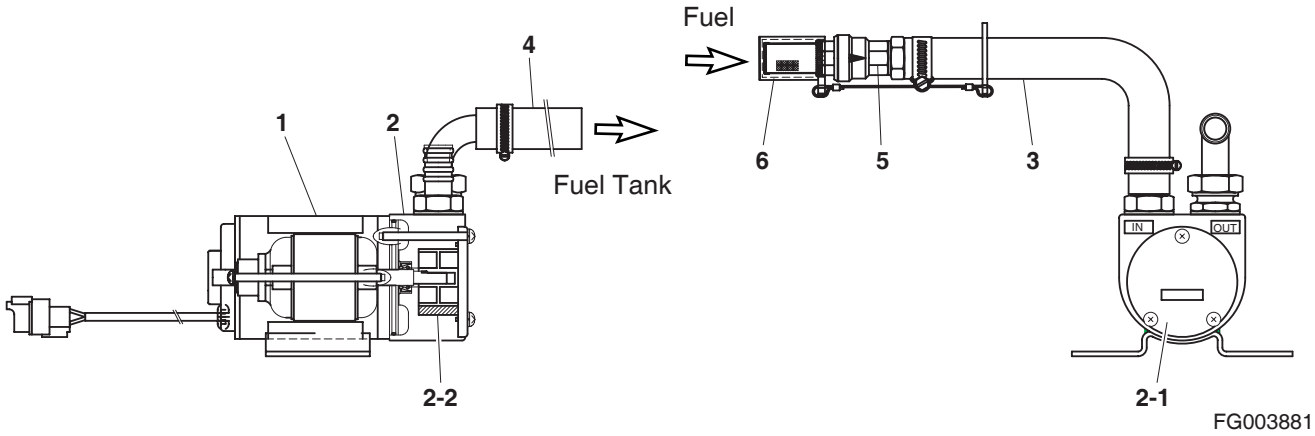


Figure 1

Reference Number	Description
1	Motor
2	Pump
2-1	Pump Cover
2-2	Rotor and Vane

Reference Number	Description
3	Inlet Hose
4	Outlet Hose
5	Check Valve
6	Strainer Cap

The fuel pump consists of a motor, pump, switch, and hose assembly.

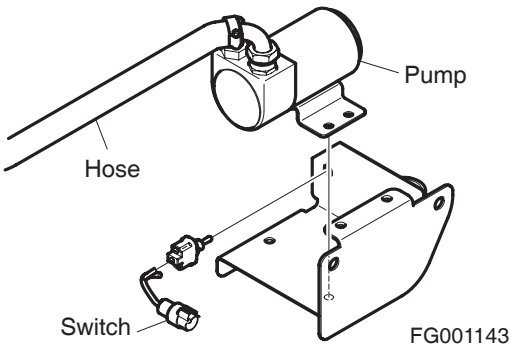


Figure 2