

## Disassembly and Assembly

311B, 312B & 312B L EXCAVATORS MACHINE SYSTEMS

Media Number -SEN9235-01

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SEN92350039

# Main Hydraulic Pump

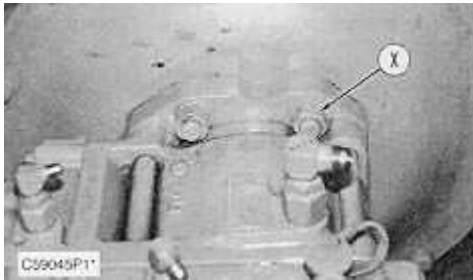
SMCS - 5062-017; 5070-010; 5070-017

## Remove & Install Main Hydraulic Pump

### Fluid Spillage Containment

Care must be taken to ensure that the fluids are contained during performance of the inspection, the maintenance, the testing, the adjusting and the repair of the machine. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling of the any components containing fluids. Refer to the "Tools And Shop Products Guide", NENG2500 for the tools and the supplies suitable to collect and contain any of the fluids in Caterpillar machines. Dispose of the fluids according to local regulations and mandates.

**NOTE:** The 3064 Engine removal and the installation procedure was completed with the main hydraulic pump still connected. The main hydraulic pump was then separated and connected in another procedure. The 3064 Engine can be removed with or without the main hydraulic pump.



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### NOTICE

**Do not attempt to remove the main hydraulic pump with four nuts (X) that hold the pump to the adapter and the flywheel housing. The bolts are required to be tightened from the coupling side of the adapter, therefore the main hydraulic pump can only be removed by removing the bolts that hold the adapter to the flywheel housing.**

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Start By:

- a. remove hood assembly\*

\*This operation is in the 3064 Engine Supplement For 311B & 312B Excavators Disassembly & Assembly module, SENR9223.

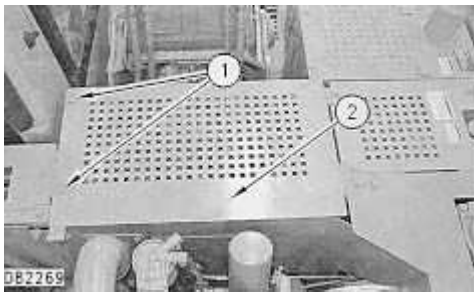
## **WARNING**

**At operating temperature, the hydraulic oil tank is hot and under pressure. Hot oil can cause burns. To prevent possible personal injury, release the pressure in the implement hydraulic circuits (the boom, the stick and the bucket) before any of the hydraulic lines or any of the components are disconnected or removed.**

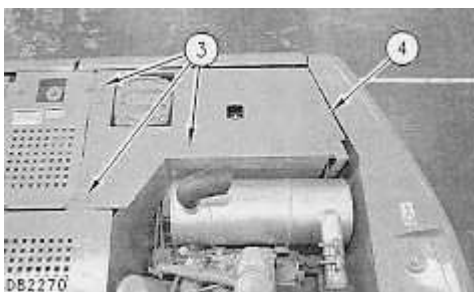
1. Release the pressure in the implement hydraulic circuits (the boom, the stick and the bucket) before any of the hydraulic lines or any of the components are disconnected or removed. Release the pressure as follows:
  - a. Shut off the engine and place key in the "ON" position. Put the hydraulic activation control lever in the "UNLOCK" position.
  - b. Move the control levers for the boom, the stick and the swing to all full stroke positions. This will release any pressure that might be present in the pilot system.
  - c. Return the key to the "OFF" position.
  - d. Slowly loosen the fill plug on the hydraulic tank, and release the pressure.
  - e. Tighten the fill plug on the hydraulic tank.
  - f. The pressure in the hydraulic system has been released, the lines and the components can be removed.

**NOTE:** Drain the hydraulic tank oil into a suitable container.

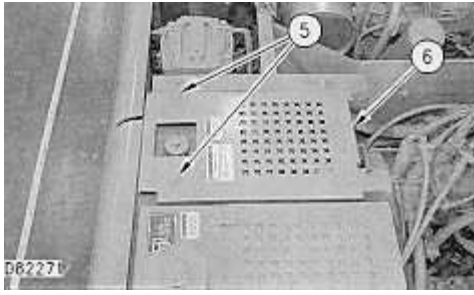
2. Drain the oil from the hydraulic oil tank into a suitable container. The capacity of the hydraulic oil tank is **99 liters (26 U.S. gal)**.



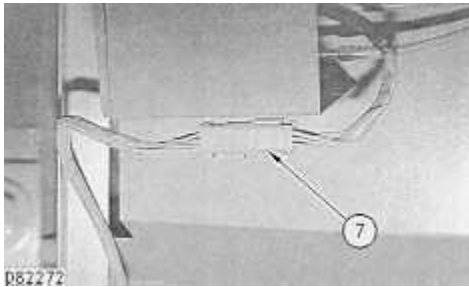
3. Remove two bolts (1) and the washers that secure plate (2). Remove plate (2) from the machine.



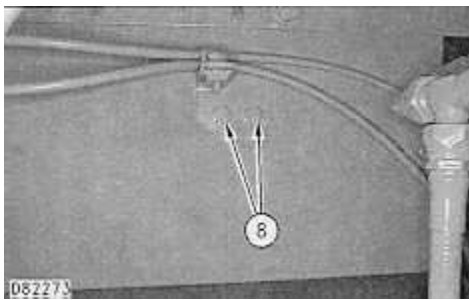
4. Remove five bolts (3) and the washers that secure plate (4). Remove plate (4) from the machine.



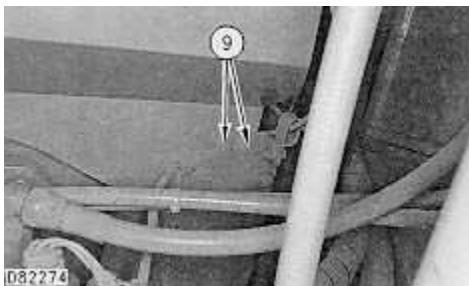
5. Remove four bolts (5) and the washers that secure plate (6). Remove plate (6) from the machine.



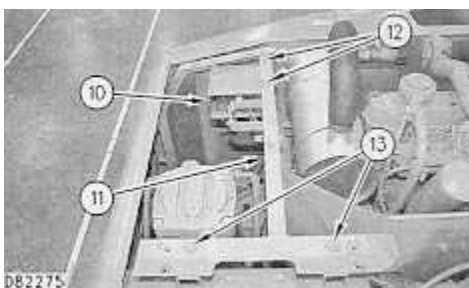
6. Disconnect electrical connector (7) from the governor motor control.



7. Remove two bolts (8) and the washers that secure the governor cable clamp.

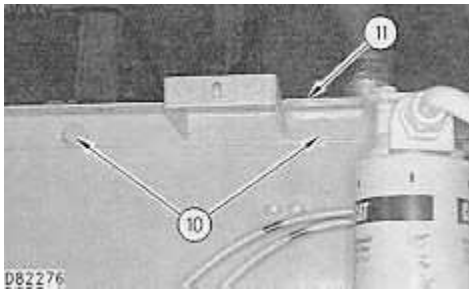


8. Remove two bolts (9) and the washers that secure the governor cable clamp.

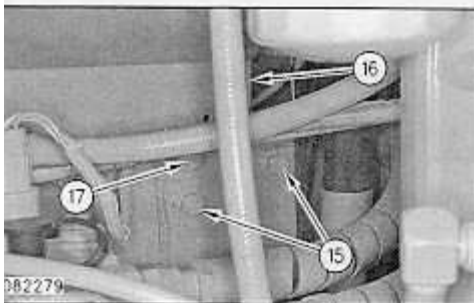
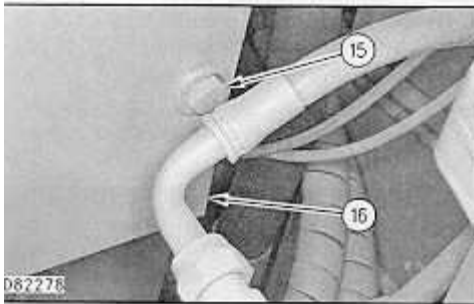
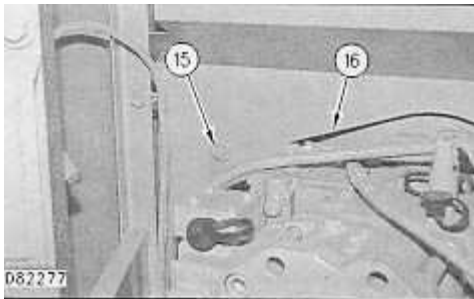


9. Remove three bolts (12) and the washers that secure the governor motor control (10) to support (11).

**10.** Remove three bolts (13) and the washers that secure support (11) to the machine.



**11.** Remove final two bolts (14) and the washers that secure support (11) from the machine. Remove support (11) from the machine.



**12.** Remove four bolts (15) that secure guard (16).

**13.** Remove bolts (17) that secure the wire clamp to guard (16). Remove guard (16).

