CATERPILLAR®

Service Repair Manual

Models

5230 MINING EXCAVATOR

Product: MINING EXCAVATOR
Model: 5230 MINING EXCAVATOR 7LL
Configuration: 5230 Excavator 7LL00001-UP (MACHINE) POWERED BY 3516 Engine

Disassembly and Assembly
5230 EXCAVATORS MACHINE SYSTEM
Media Number -SENR6108-03 **Publication Date -01/06/2004** **Date Updated -25/08/2009**

SENR61080033

Hydraulic Oil Cooler Fan Drive Pump

SMCS - 1387-010; 1387-015; 1387-016

Remove & Install Hydraulic Oil Cooler Fan Drive Pump

Fluid Spillage Containment

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

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 (boom, stick and bucket) before any hydraulic lines or components are disconnected or removed.

1. Release the pressure in the implement hydraulic system as follows:

a. Fully retract the rod in the stick cylinder.

b. Adjust the position of the bucket so that it will be flat on the ground when the boom is lowered.

c. Lower the boom until the bucket is flat on the ground.

d. Shut off the engine.

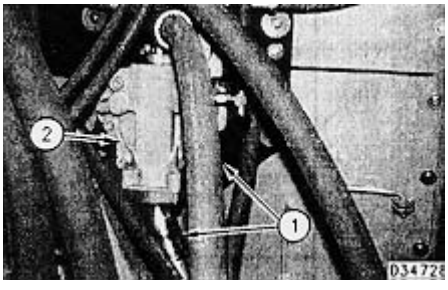
e. Check the pilot pressure at the implement pilot system test port at the pilot manifold assembly under the cab. If the pressure is below **3000 kPa (435 psi)** connect an auxiliary pump unit to this port and pump the pilot pressure to **4000 kPa (580 psi).**

f. Put the hydraulic activation control lever in the "Unlock" position and turn the start key to RUN. DO NOT START THE MACHINE.

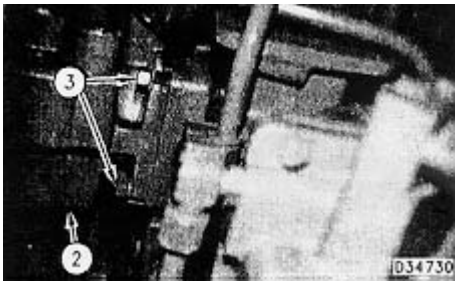
g. Move the control levers for boom, bucket, stick and swing to all full stroke positions and actuate both bottom dump trigger switches (if so equipped) on the front of the control handles. This should release any pressure that might be present in the main implement system. Disconnect the auxiliary pump unit (if used) and install the pressure gauge at the test port. Continue to move the control levers until the pilot system pressure is released. Verify the pilot system pressure is released with the pressure gauge.

h. Press the relief valve button on the hydraulic tank breather to release the tank pressure.

i. The pressure in the system has been released and lines and components can be removed or disconnected.



2. Disconnect and cap hoses (1) from hydraulic oil cooler fan drive pump (2).



3. Fasten a lifting device to hydraulic oil cooler fan drive pump (2). Remove four nuts (3) and remove hydraulic oil cooler fan drive pump (2). The weight of the hydraulic oil cooler fan drive pump is approximately **65 kg (143 lb).**

NOTE: Install the hydraulic oil cooler fan drive pump in reverse order.

4. Check the oil level in the hydraulic oil tank. If necessary, refill the hydraulic oil tank to the correct level. Refer to the Operation & Maintenance Manual for the correct capacity and fluid.

Disassemble Hydraulic Oil Cooler Fan Drive Pump

Fluid Spillage Containment

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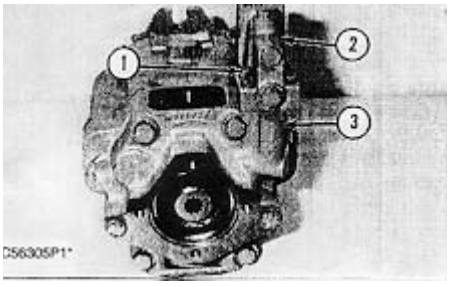
suitable containers before opening any compartment or disassembling any component containing fluids. Refer to "TOOLS AND SHOP PRODUCT GUIDE, NENG2500", for tools and supplies suitable to collect and contain fluids in Caterpillar machines. Dispose fluids according to local regulations and mandates.

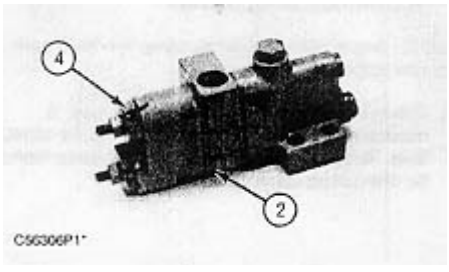
Start By:

a. remove hydraulic oil cooler fan drive pump

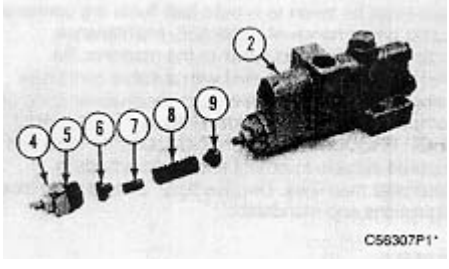
1. Thoroughly clean the outside of the hydraulic oil cooler fan drive pump prior to disassembly.



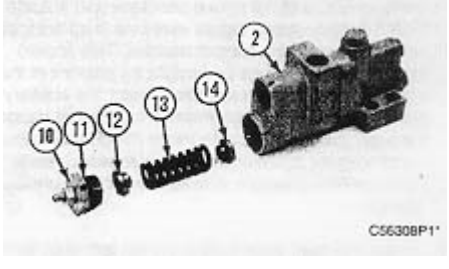
2. Remove bolts (1) and remove pressure valve (2) from head (3).



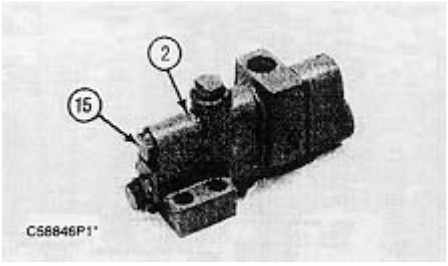
3. Remove plug (4) from pressure valve (2).



4. Remove O-ring seal (5) from plug (4). Remove guide (6), pin (7), spring (8) and guide (9) from pressure valve (2).

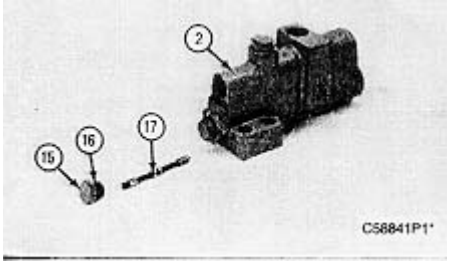


5. Remove plug (10), O-ring seal (11), guide (12), spring (13) and guide (14) from pressure valve (2).

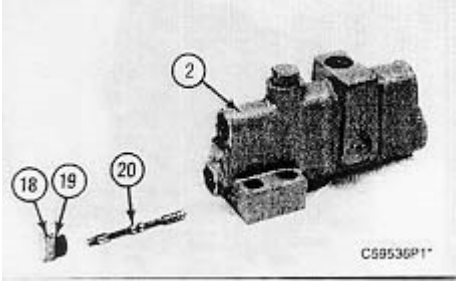


6. Reposition pressure valve (2) as shown.

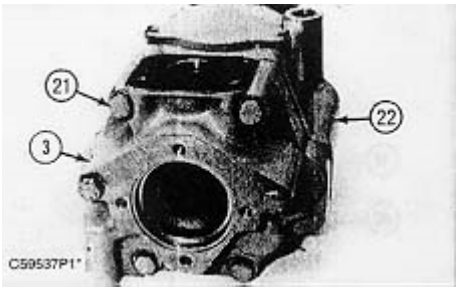
7. Remove plug (15) from pressure valve (2).



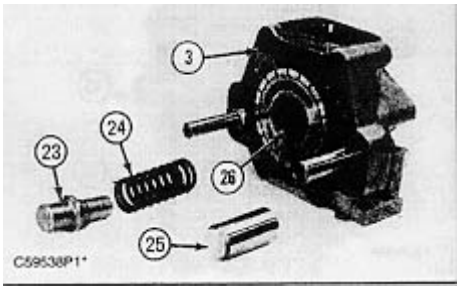
8. Remove O-ring seal (16) from plug (15). Remove spool (17) from pressure valve (2).



9. Remove plug (18), O-ring seal (19) and spool (20) from pressure valve (2).



10. Remove bolts (21) and head (3) from housing (22).



11. Remove piston (23), spring (24) and piston (25) located under head (3).

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