



Service Repair Manual

Models

M315 Excavator

Product: EXCAVATOR

Model: M315 EXCAVATOR 7ML

Configuration: M315 Excavator 7ML00001-00859 (MACHINE) POWERED BY 3054 Engine

Disassembly and Assembly M315 EXCAVATOR MACHINE SYSTEMS

Media Number -SEN8930-00

Publication Date -15/01/1997

Date Updated -02/07/2018

SEN89300043

Swing Motor

SMCS - 5058-010; 5058-017

Remove & Install Swing Motor

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 Products Guide", NENG2500 for tools and supplies suitable to collect and contain fluids in Caterpillar machines. Dispose fluids according to local regulations and mandates.

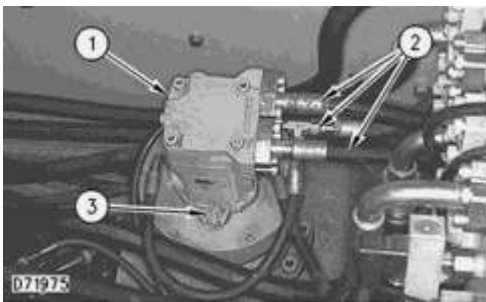


WARNING

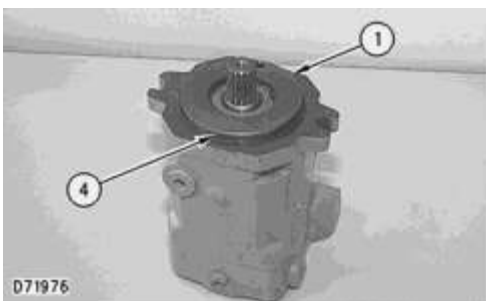
At operating temperature, the hydraulic oil is hot and under pressure. Hot oil can cause burns. To prevent possible personal injury, release the pressure in the implement hydraulic circuits (boom, stick and bucket) before any hydraulic lines or components are disconnected or removed.

1. Release the pressure in the hydraulic system as follows:
 - a. Fully retract the stick cylinder rod.
 - b. Adjust the position of the bucket so 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. Stop the engine.
 - e. Place the engine start switch in the "ON" position without starting the engine.

- f.** Move the control levers for the boom, stick, bucket and swing to all full stroke positions. This will release any pressure that might be present in the pilot system.
 - g.** Slowly move the travel pilot control pedal to "FORWARD" and "REVERSE" travel positions. This will release any pressure in the travel circuit.
 - h.** Slowly loosen and remove the pressure cap on the hydraulic tank to release the hydraulic pressure.
 - i.** Reinstall and tighten the pressure cap on the hydraulic tank.
 - j.** The pressure in the hydraulic system has been released and implement/travel lines and components can be removed.
- 2.** Drain the oil from the hydraulic oil tank into a suitable container for storage or disposal. The capacity of the hydraulic oil tank is **115 liters (29.9 U.S. gal)**.



- 3.** For installation purposes, put identification marks on three hose assemblies (2). Disconnect three hose assemblies (2) from swing motor (1). Put plugs in the ends of the hose assemblies to prevent oil loss and to keep contaminants out of the hydraulic system.
- 4.** Remove two bolts (3) and the washers that hold swing motor (1) to the swing drive. Remove swing motor (1) from the swing drive.



- 5.** Remove O-ring seal (4) from swing motor (1).

NOTE: The following steps are for the installation of the swing motor.

- 6.** Make sure the mating surfaces of the swing motor and swing drive are thoroughly clean and dry.
- 7.** Check the condition of O-ring seal (4) used between the swing motor and the swing drive. If the seal is damaged, use a new part for replacement.
- 8.** Install O-ring seal (4) on swing motor (1).

9. Put swing motor (1) in position in the machine. Install two bolts (3) and the washers that hold it.
10. Connect three hydraulic hose assemblies (2) to the swing motor in their original locations.

NOTICE

To prevent damage to the swing motor, it must be filled with hydraulic oil prior to operation.

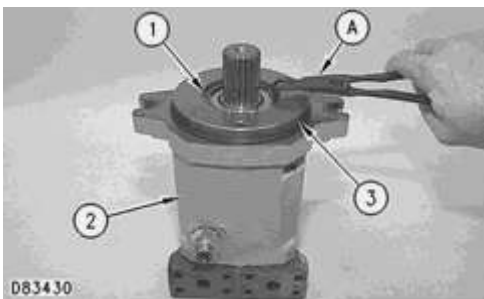
11. Fill the hydraulic oil tank and swing motor with oil to the correct level. Refer to the Operation & Maintenance Manual for the correct filling procedures.
12. Start the machine, and check the operation of the swing drive. Also, check for leaks.

Disassemble & Assemble Swing Motor

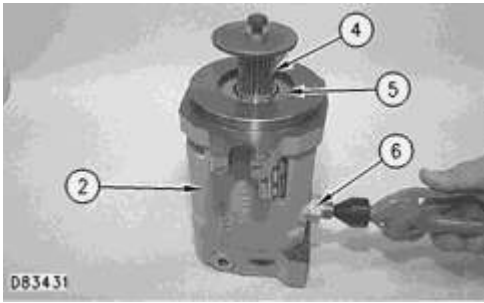
Tools Needed	A	B	C	D	E	F	G
1P-1862 Pliers	1						
1P-0074 Slide Hammer Puller Group		1					
135-9494 Puller Jaws			1				
9S-9152 Bearing Pulling Attachment				1			
1P-0510 Driver Group					1		
8T-5096 Dial Indicator Test Group						1	
6V-7030 Micrometer Depth Gauge Group							1

Start By:

- a. remove swing motor



1. Remove O-ring seal (3) from housing (2). Use Tool (A) to remove retaining ring (1) from housing (2).



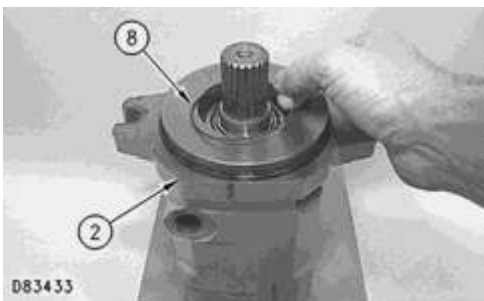
WARNING

Cover (5) must be removed from housing (2) using shop air pressure. When air pressure is applied through fitting (6), cover (5) will come off of shaft (2) with force. This can result in personal injury. To prevent possible personal injury during removal of cover (5), install a suitable size bolt and washer in the end of shaft (4) to retain the cover.

2. Install a suitable sized bolt and washer in the end of shaft (1). This will keep cover (5) from coming off of shaft (4) with force when removing cover (5) from housing (2) with air pressure applied through fitting (6). Apply shop air pressure (free of water) of **approximately 525 kPa (75 psi)** in fitting (6) to loosen cover (5) from housing (2). Remove the bolt and washer from the end of shaft (4). Remove cover (5) from shaft (4).



3. Remove seal (7) from cover (5).



4. Remove O-ring seal (8) from housing (2).

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.
You can download the most
perfect and complete manual in
the world immediately.

Our support email:
ebooklibonline@outlook.com