



# Service Repair Manual

## **Models**

# M315 Excavator

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Product: EXCAVATOR

Model: M315 EXCAVATOR 7ML

Configuration: M315 Excavator 7ML00860-UP (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

SEN89300029

## Travel Motor

SMCS - 4351-010; 4351-017

## Remove & Install Travel Motor

Start By:

- a. remove drive shaft (rear)\*

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\*This operation is in the M315 Power train Disassembly & Assembly module, SENR8924

### 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.



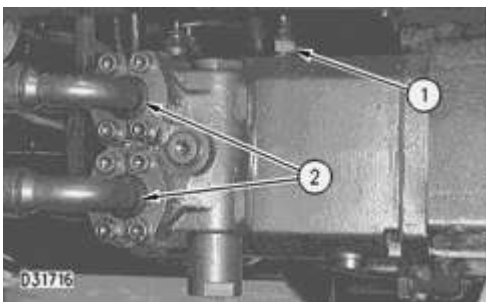
**At operating temperature, the hydraulic oil is hot and under pressure. Hot oil can cause burns. To prevent possible personal injury, release the pressure in the implement hydraulic circuits (boom, stick and bucket) before any hydraulic lines or components are disconnected or removed.**

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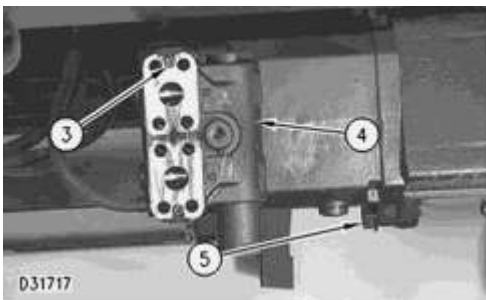
1. Release the pressure in the hydraulic system as follows:

- 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. Drain the oil from the transmission in to a suitable container for storage or disposal. The capacity of the transmission is **3 liters (.8 U.S. gal)**.
  4. Drain the oil from the travel motor into a suitable container for disposal.

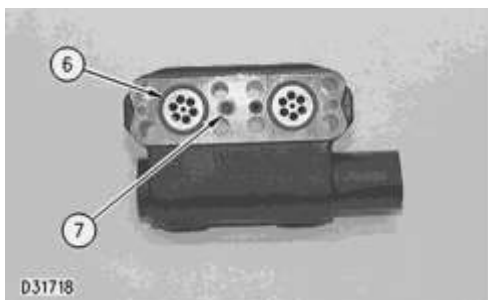


5. Disconnect two hose assemblies (2) from the travel brake valve. Disconnect hose assembly (1) from the travel motor. Put plugs in the hose assemblies to prevent oil loss and to keep contaminants out of the hydraulic system.

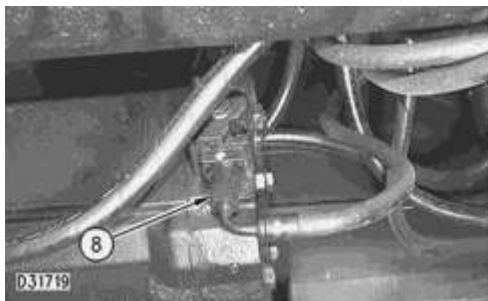


6. Remove two socket head bolts (3). Remove travel brake valve (4) from the travel motor.

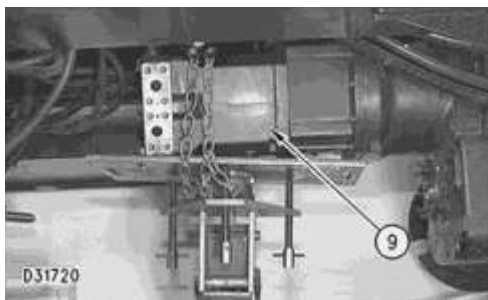
7. Remove lower mounting bolt (5) that holds the travel motor to the transmission.



8. Remove two large O-ring seals (6) and two small O-ring seals (7) from the travel brake valve.



9. Disconnect hose assembly (8) from the travel motor. Put a plug in the hose assembly to prevent oil loss and to keep contaminants out of the hydraulic system.



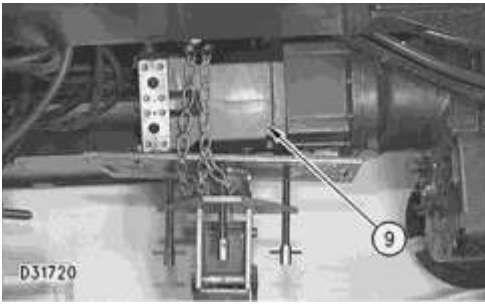
10. Put a suitable floor jack in position under travel motor (9) as shown. Fasten the travel motor to the floor jack. Remove the upper mounting bolt that holds the travel motor to the transmission. Carefully pry the travel motor out of the transmission housing. The weight of the travel motor is **57 kg (125 lb)**.

11. Remove the O-ring seal from the travel motor housing.

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

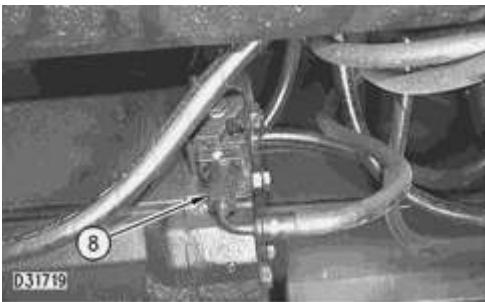
12. Check the condition of the O-ring seal used between the travel motor and the transmission. If the seal is damaged, use a new part for replacement.

13. Install the O-ring seal on the travel motor housing. Lubricate the seal with clean oil.

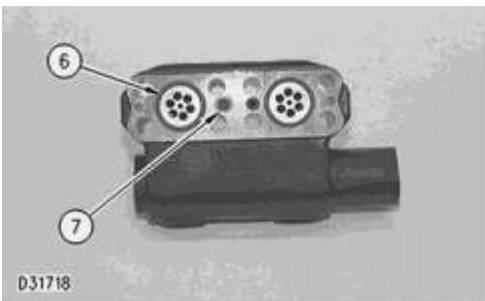


**14.** Fill the travel motor with clean hydraulic oil. Fasten travel motor (9) to a suitable floor jack. Carefully install the travel motor in the transmission housing. Install the bolts that hold the travel motor in place.

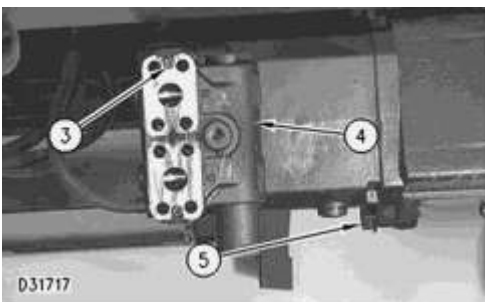
**15.** Check the condition of the O-ring seals used in the ends of hose assemblies (1), (2) and (8). If the seals are damaged, use a new parts for replacement.



**16.** Connect hose assembly (8) to the travel motor.



**17.** Install two O-ring seals (7) and two O-ring seals (6) in the travel brake valve as shown.



**18.** Put travel brake valve (4) in position on the travel motor. Install two socket head bolts (3) that hold the travel brake valve in place.

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