CATERPILLAR®

Service Repair Manual

Models

735 ARTICULATED TRUCK

Model: 735 ARTICULATED TRUCK AWR

Configuration: 735 Articulated Truck AWR00001-UP (MACHINE) POWERED BY 3406E Engine

Disassembly and Assembly 735, 740 and 740 EJECTOR

Articulated Trucks Machine Systems

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i02399138

Piston Pump (Steering) - Assemble

SMCS - 5070-016-ZH

S/N - AWR1-UP

S/N - B1N1-UP

Assembly Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	1P-1857	Retaining Ring Pliers	1
В	1P-1858	Retaining Ring Pliers	1
С	1P-0510	Driver Group	1
D	8T-5096	Dial Indicator Gp	1
E	9S-3263	Thread Lock Compound	1

Note: You must replace bearing cups and bearing cones together. Lubricate the bearing cups and the bearing cones with clean lubricant in order to prevent the formation of rust.

Note: Cleanliness is an important factor. Before assembly, all parts should be thoroughly cleaned in cleaning fluid. Allow the parts to air dry. Wiping cloths or rags should not be used to dry parts. Lint may be deposited on the parts which may cause later trouble. Inspect all parts. If any parts are worn or damaged, use new Caterpillar parts for replacement.

Note: Apply a light film of 10W oil to all components before assembly.

- 1. Check all of the O-ring seals and the components for wear or damage. Replace the components, if necessary.
- 2. Lubricate all of the O-ring seals lightly with the lubricant that is being sealed.

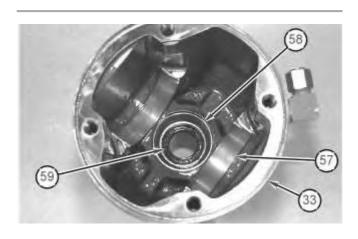


Illustration 1

g01204839

- 3. Lower the temperature of bearing cup (58) in order to install bearing cup (58) into pump housing (33).
- 4. Use Tooling (C) to install lip seal (59) into pump housing (33). The side of lip seal (59) that is equipped with the spring should be installed toward bearing cup (58).
- 5. Invert pump housing (33).

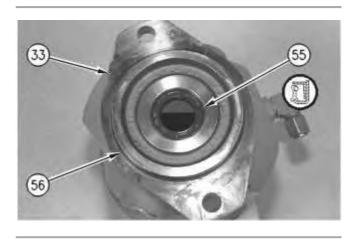


Illustration 2

g00603861

- 6. Use Tooling (A) in order to Install retaining ring (55) into pump housing (33).
- 7. Install O-ring seal (56) onto pump housing (33).
- 8. Invert pump housing (33) and support the pump housing on suitable cribbing.

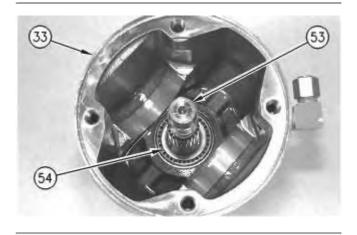


Illustration 3 g00551343

9. Raise the temperature of bearing cone (54) in order to install bearing cone (54) onto pump shaft (53). Install bearing cone (54) and the pump shaft into pump housing (33).

10. Use the following steps to determine the preload on the bearing of the pump assembly.

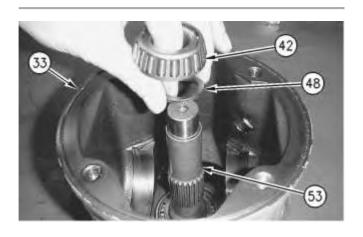


Illustration 4 g00789125

a. Install bearing cone (42) and adjustment spacer (48) on pump shaft (53).

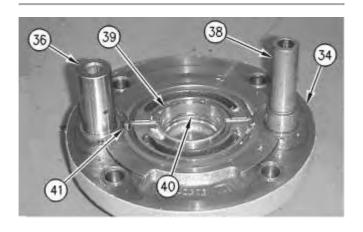


Illustration 5 g00789089

- b. Lower the temperature of bearing cup (39) in order to install bearing cup (39) and spacer (40) into break off plug (34). Install pin (41) into brake off plug (34).
- c. Apply Tooling (E) to the threads on piston guide (36) and plunger guide (38). Install the piston guide and the plunger guide into break off plug (34) and tighten both guides to a torque of 180 N·m (130 lb ft).

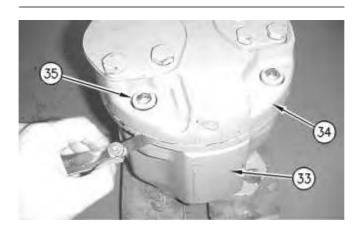


Illustration 6 g00789138

- d. Position break off plug (34) onto pump housing (33). Install four socket head bolts (35) but do not tighten at this point.
- e. Use a feeler gauge to measure the distance between the break off plug and the pump housing. Take measurements at three equal locations on the surface between the break off plug and the pump housing.
- f. The average of the three dimensions should be zero to 0.050 mm (0.0020 inch). Adjustment spacer (48) must be replaced or ground to this dimension.
- g. When the correct dimension is achieved tighten bolts (35) to $250 \pm 40 \text{ N} \cdot \text{m}$ (185 ± 30 lb ft).
- h. Invert the pump.

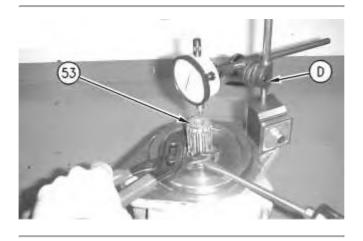


Illustration 7 g00789180

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