Model: 336D L EXCAVATOR MPL

Configuration: 336D & 336D L Excavators MPL00001-UP (MACHINE) POWERED BY C9 Engine

Disassembly and Assembly

330D, 336D, 336D2, 340D and 340D2 Excavators and 336D MHPU Mobile Hydraulic Power Unit Machine Systems

Media Number -RENR8648-30

Publication Date -01/03/2015

Date Updated -15/08/2018

i02732014

Piston Pump (Hydraulic Fan) - Disassemble

SMCS - 1387-015-QP; 5070-015-HFN

Disassembly Procedure

Table 1

Required Tools					
Tool	Part Number Part Description				
A	1P-0510	Driver Gp	1		
В	1P-1857	Retaining Ring Pliers	1		
С	9S-9152	Bearing Puller Gp	1		

Start By:

a. Remove the piston pump. Refer to Disassembly and Assembly, "Piston Pump (Hydraulic Fan) - Remove".

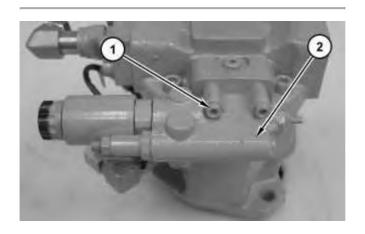


Illustration 1 g01212895

1. Remove bolts (1) and controller (2).

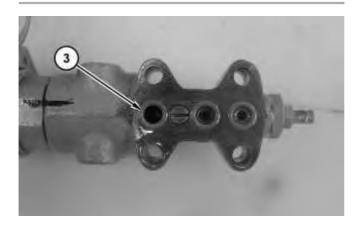


Illustration 2 g01212896

2. Remove O-ring seals (3).

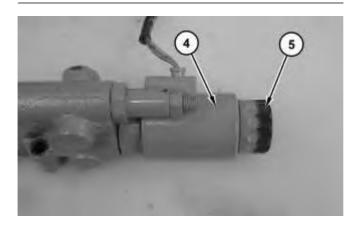


Illustration 3 g01212897

3. Remove nut (5) and coil (4).

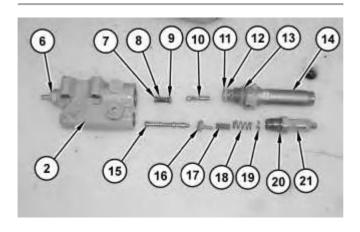


Illustration 4 g01212898

WARNING

Personal injury can result from being struck by parts propelled by a released spring force.

Make sure to wear all necessary protective equipment.

Follow the recommended procedure and use all recommended tooling to release the spring force.

- 4. Remove housing (21), O-ring seal (20), shim (19), spring (18), spring (17), poppet (16), and spool (15) from housing (2).
- 5. Cartridge (14), O-ring seal (13), backup ring (11), O-ring seal (12), spool (10), retainer (9), spring (8), and retainer (7).
- 6. Remove screw (6) from housing (2).

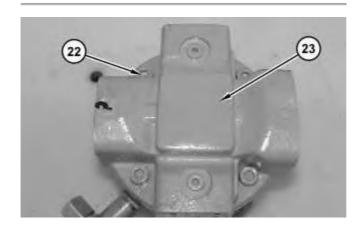


Illustration 5

g01212900

WARNING

Personal injury can result from being struck by parts propelled by a released spring force.

Make sure to wear all necessary protective equipment.

Follow the recommended procedure and use all recommended tooling to release the spring force.

7. Remove bolts (22) and head (23).

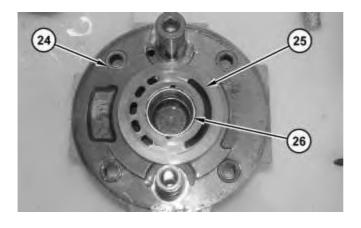


Illustration 6 g01212901

8. Remove O-ring seals (24), port plate (25), and bearing cup (26).

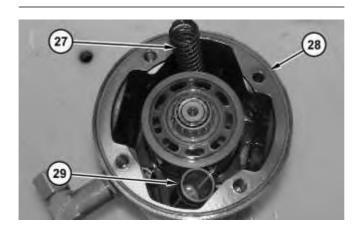


Illustration 7 g01212902

9. Remove spring (27), piston (29), and O-ring seal (28).

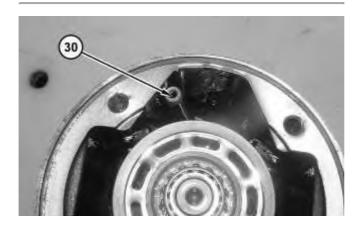


Illustration 8 g01212903

10. Remove piston (30).

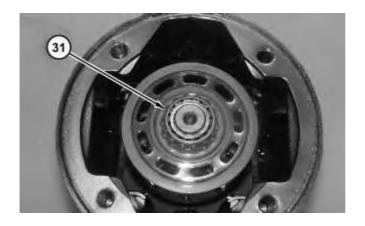


Illustration 9 g01212904

11. Remove bearing cone (31).

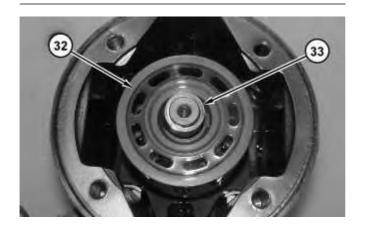


Illustration 10 g01212905

12. Remove shim (33) and rotating group (32).

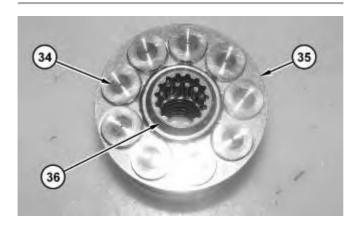


Illustration 11 g01212906

13. Remove pistons (34), retainer (35), and bearing (36).

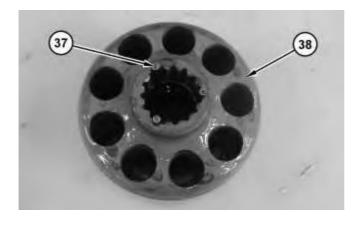


Illustration 12 g01212907

14. Remove pins (37) from barrel (38).

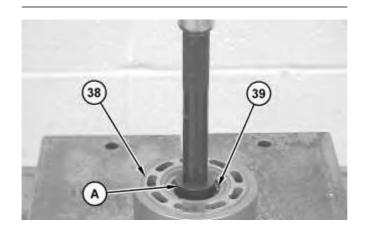


Illustration 13 g01212908

WARNING

Personal injury can result from being struck by parts propelled by a released spring force.

Make sure to wear all necessary protective equipment.

Follow the recommended procedure and use all recommended tooling to release the spring force.

15. Use Tooling (A), Tooling (B), and a suitable press in order to remove retaining ring (39) from barrel (38).

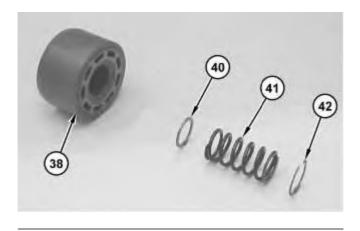


Illustration 14 g01373818

16. Remove shim (42), spring (41), and shim (40) from barrel (38).

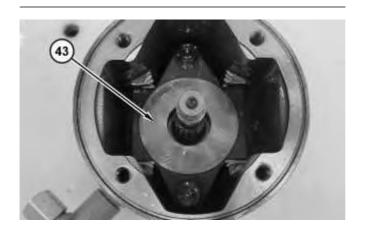


Illustration 15 g01212910

17. Remove swashplate (43).

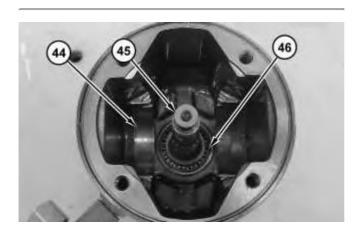


Illustration 16 g01212911

18. Remove shaft (45), bearing cone (46), and bearings (44).

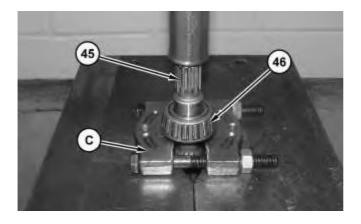


Illustration 17 g01212912

19. Use Tooling (C) in order to remove bearing cone (46) from shaft (45).

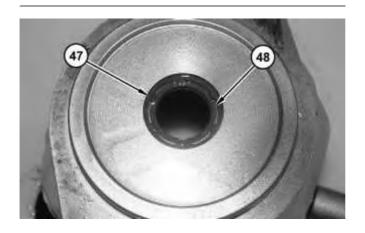


Illustration 18 g01212913

- 20. Use Tooling (B) in order to remove retaining ring (47).
- 21. Remove lip seal (48).



Illustration 19 g01212915

22. Remove bearing cup (49).

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Disassembly and Assembly

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Media Number -RENR8648-30

Publication Date -01/03/2015

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i02732015

Piston Pump (Hydraulic Fan) - Assemble

SMCS - 1387-016-QP; 5070-016-HFN

Assembly Procedure

Table 1

Required Tools					
Tool	Part Number	Part Description	Qty		
В	1P-1857	Retaining Ring Pliers	1		
D	8T-5096	Dial Indicator Gp	1		



Illustration 1 g01212915

1. Lower the temperature of bearing cup (49). Install bearing cup (49).

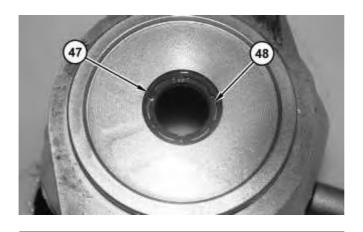


Illustration 2 g01212913

- 2. Install lip seal (48).
- 3. Use Tooling (B) in order to install retaining ring (47).

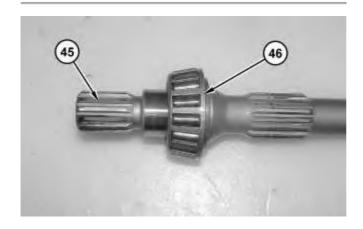


Illustration 3 g01213404

- 4. Raise the temperature of bearing cone (46).
- 5. Install bearing cone (46) onto shaft (45).

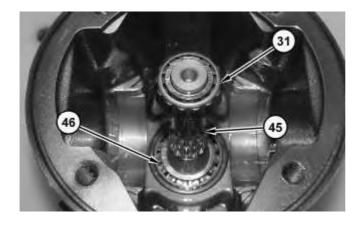


Illustration 4 g01213405

6. Install bearing cone (46), shaft (45), and bearing cone (31).

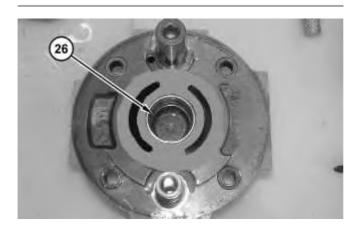


Illustration 5 g01213407

7. Lower the temperature of bearing cone (26). Install bearing cone (26).

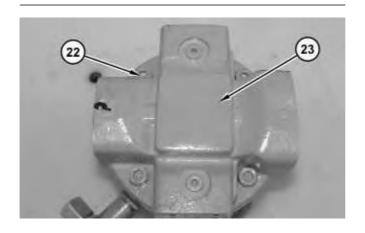


Illustration 6 g01212900

- 8. Position head (23) onto the housing.
- 9. Install bolts (22).

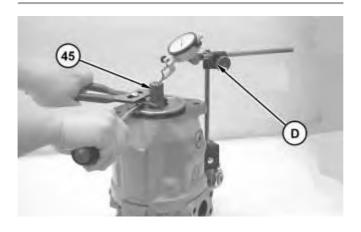


Illustration 7 g01213409

10. Use Tooling (D) in order to determine the end play of shaft (45).

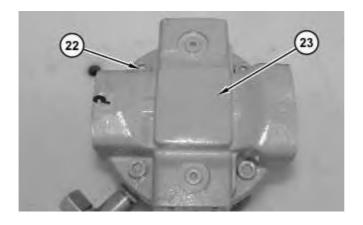


Illustration 8 g01212900

11. Remove bolts (22) and head (23).

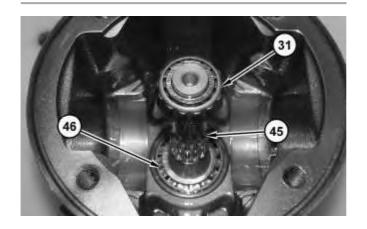


Illustration 9 g01213405

12. Remove bearing cone (31).

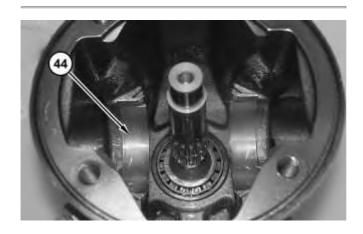


Illustration 10 g01213433

13. Install bearings (44).

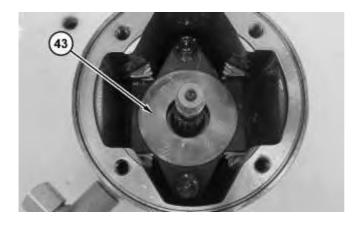


Illustration 11

g01212910

14. Install swashplate (43).

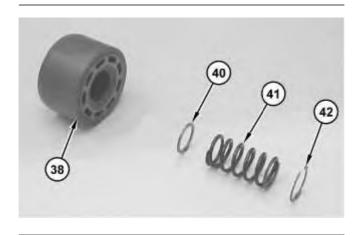


Illustration 12

g01373818

15. Install shim (40), spring (41), and shim (42) to barrel (38).

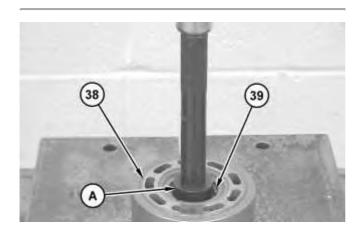


Illustration 13

g01212908



Improper assembly of parts that are spring loaded can cause bodily injury.

To prevent possible injury, follow the established assembly procedure and wear protective equipment.

16. Use Tooling (A), Tooling (B), and a suitable press in order to install retaining ring (39) into barrel (38).

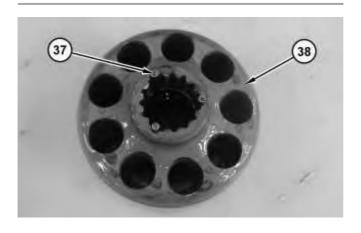


Illustration 14

g01212907

17. Install pins (37) into barrel (38).

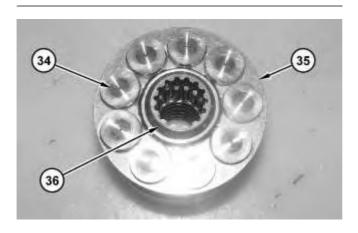


Illustration 15

g01212906

18. Install bearing (36), retainer (35), and pistons (34).

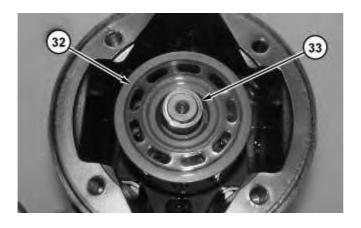


Illustration 16 g01212905

19. Install rotating group (32) and shim (33).

Note: Shim thickness was determined on Step 9.

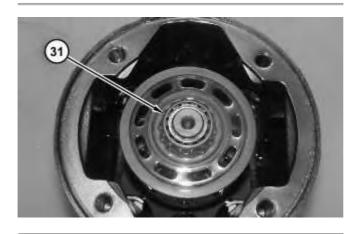


Illustration 17 g01212904

20. Install bearing cone (31).

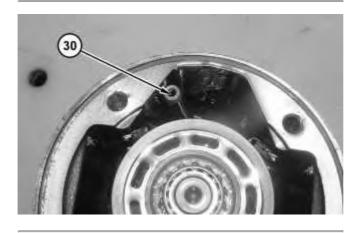


Illustration 18 g01212903

21. Install piston (30).

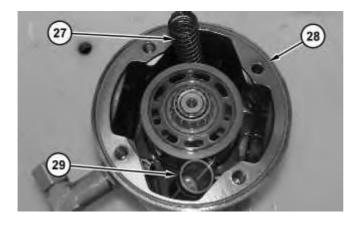


Illustration 19

22. Install spring (27), piston (29), and O-ring seal (28).

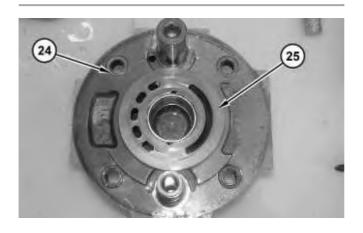


Illustration 20 g01213436

23. Install O-ring seals (24) and port plate (25).

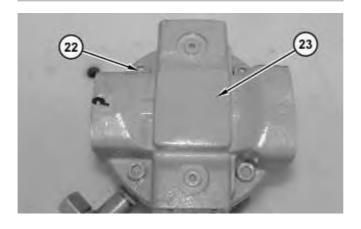


Illustration 21 g01212900



g01212902

Improper assembly of parts that are spring loaded can cause bodily injury.

To prevent possible injury, follow the established assembly procedure and wear protective equipment.

24. Install head (23) and bolts (22).

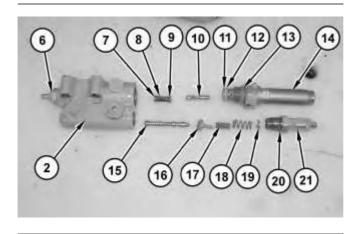


Illustration 22

A WARNING

g01212898

Improper assembly of parts that are spring loaded can cause bodily injury.

To prevent possible injury, follow the established assembly procedure and wear protective equipment.

- 25. Install spool (15), poppet (16), spring (17), spring (18), shim (19), O-ring seal (20), and housing (21) into housing (2).
- 26. Install retainer (7), spring (8), retainer (9), spool (10), O-ring seal (12), backup ring (11), O-ring seal (13), and cartridge (14).
- 27. Install screw (6) into housing (2).

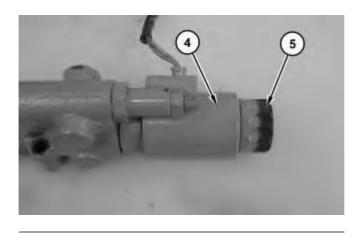


Illustration 23 g01212897

28. Install coil (4) and nut (5).

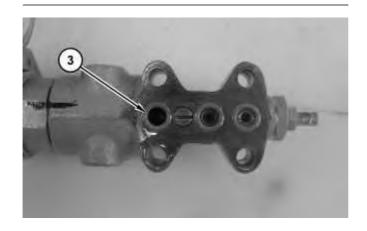


Illustration 24 g01212896

29. Install O-ring seals (3).

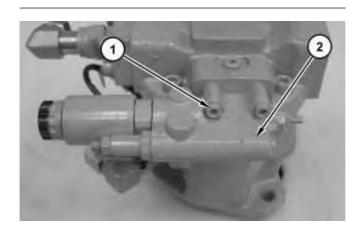


Illustration 25 g01212895

30. Install controller (2) and bolts (1).

End By:

Model: 336D L EXCAVATOR MPL

Configuration: 336D & 336D L Excavators MPL00001-UP (MACHINE) POWERED BY C9 Engine

Disassembly and Assembly

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i02424411

Piston Pump (Hydraulic Fan) - Install

SMCS - 1387-012-QP; 5070-012-HFN

Installation Procedure

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 parts for replacement.

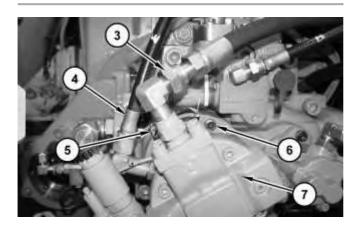


Illustration 1

g01211400

- 1. Position piston pump (7) and install bolts (6).
- 2. Connect harness assembly (5).
- 3. Connect hose assemblies (3) and (4).

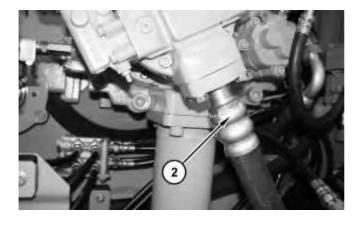


Illustration 2 g01211399

4. Connect hose assembly (2).



Illustration 3 g01206719

- 5. Close door (1).
- 6. Fill the hydraulic system with oil. Refer to Operation and Maintenance Manual, "Refill Capacities".

Model: 336D L EXCAVATOR MPL

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Disassembly and Assembly

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i02415451

Piston Motor (Hydraulic Fan) - Remove

SMCS - 1386-011-QP; 5058-011-FM

Removal Procedure

Start By:

a. Remove the fan. Refer to Disassembly and Assembly, "Fan - Remove".

Note: Cleanliness is an important factor. Before the disassembly procedure, the exterior of the component should be thoroughly cleaned. This will help to prevent dirt from entering the internal mechanism.

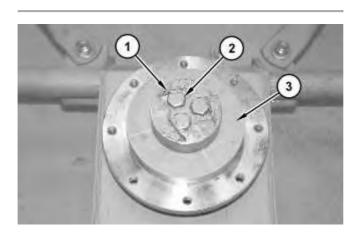


Illustration 1

g01207415

- 1. Bend locking tabs (1) backward.
- 2. Remove bolts (2) and hub (3).

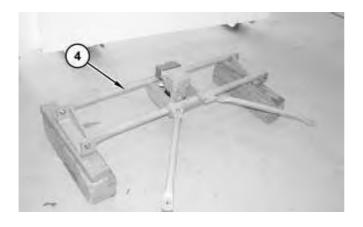


Illustration 2 g01207416

3. Use a suitable lifting device to position fan motor assembly (4) onto suitable cribbing. The weight of fan motor assembly (4) is approximately 68 kg (150 lb).

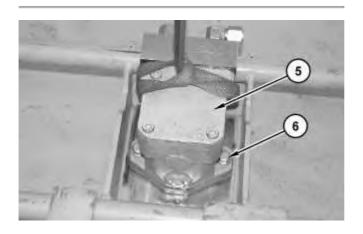


Illustration 3 g01207418

- 4. Attach a suitable lifting device to piston motor (5). The weight of piston motor (5) is approximately 23 kg (50 lb).
- 5. Remove bolts (6) and fan motor (5).

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Disassembly and Assembly

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i02415272

Piston Motor (Hydraulic Fan) - Disassemble

SMCS - 1386-015-QP; 5058-015-FM; 5058-015-HFN

Disassembly Procedure

Table 1

Required Tools					
Tool	Part Number Part Description				
A	9S-9152	Bearing Puller Gp	1		
В	1P-1861	Retaining Ring Pliers	1		
С	1P-0510	Driver Gp	1		

Start By:

a. Remove the piston motor. Refer to Disassembly and Assembly, "Piston Motor (Hydraulic Fan) - Remove".

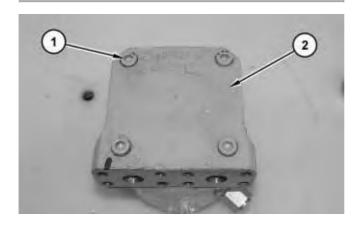


Illustration 1 g01207275

WARNING

Personal injury can result from being struck by parts propelled by a released spring force.

Make sure to wear all necessary protective equipment.

Follow the recommended procedure and use all recommended tooling to release the spring force.

1. Remove bolts (1) and head (2).

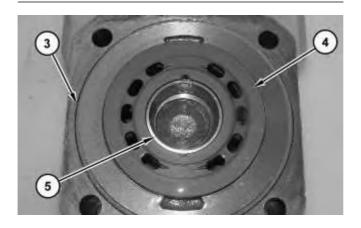


Illustration 2 g01207276

2. Remove O-ring seal (3), port plate (4), and bearing cup (5).

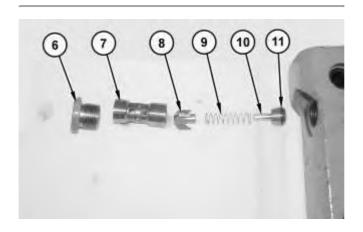


Illustration 3 g01207278





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