



Service Repair Manual

Models

962K Wheel Loader

Previous Screen

Product: WHEEL LOADER

Model: 962K WHEEL LOADER X4T

Configuration: 962K Wheel Loader X4T00001-UP (MACHINE) POWERED BY C7.1 Engine

**Disassembly and Assembly
950K and 962K Wheel Loaders Machine Systems**

Media Number -KENR5805-00

Publication Date -01/10/2011

Date Updated -03/10/2011

i04552398

Piston Pump (Steering) - Disassemble

SMCS - 4306-015; 5070-015-ZH

Disassembly Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	1P-0510	Driver Gp	1
B	1P-1861	Retaining Ring Pliers	1

Start By:

- A. Remove the steering pump.

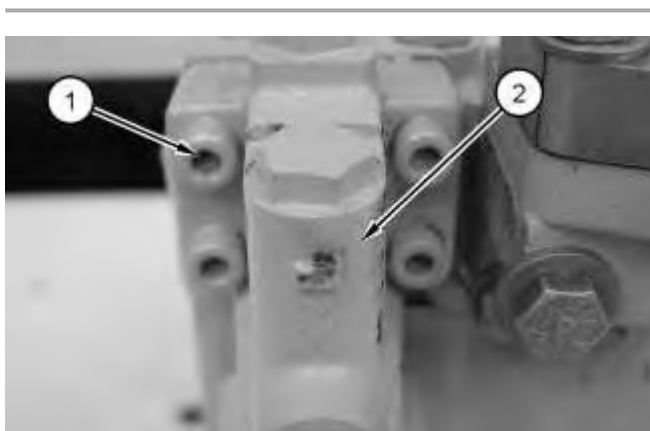


Illustration 1

g01145338

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

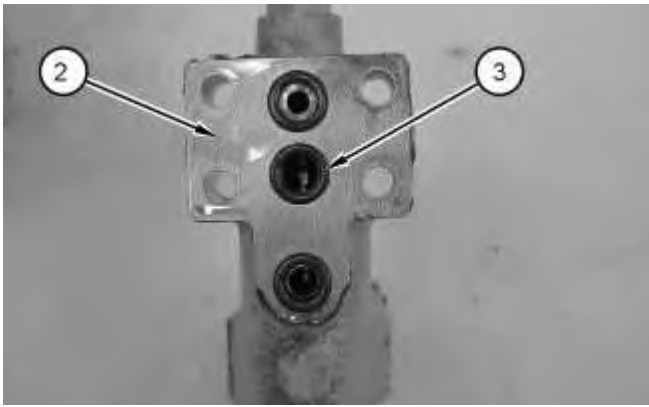


Illustration 2

g01145339

2. Remove O-ring seals (3) from valve (2) .

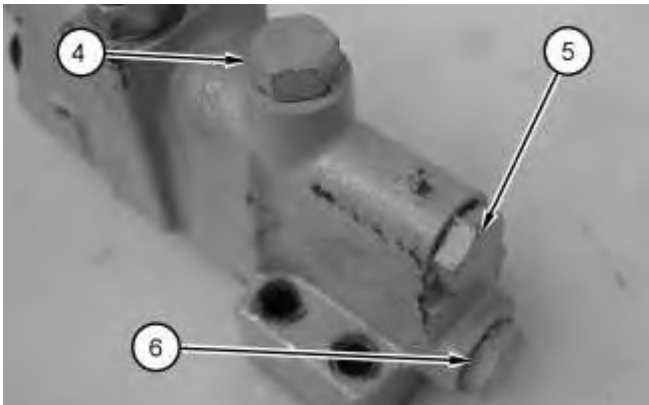


Illustration 3

g01145340



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.

3. Remove plug (4), the O-ring seals, plug (5), and plug (6) .

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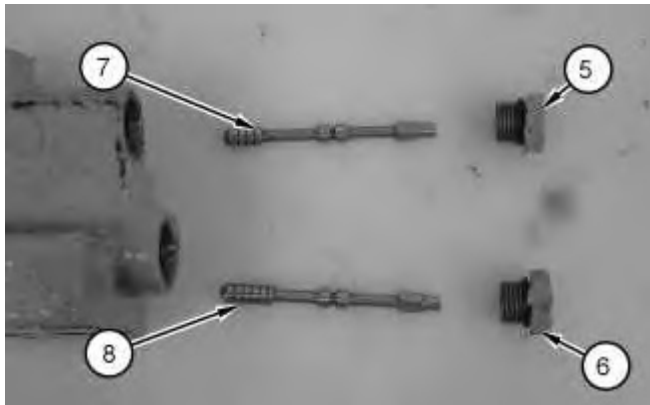


Illustration 4

g01145341

4. Remove spool (7) and spool (8) .
5. Remove the O-ring seals from plug (5) and plug (6) .

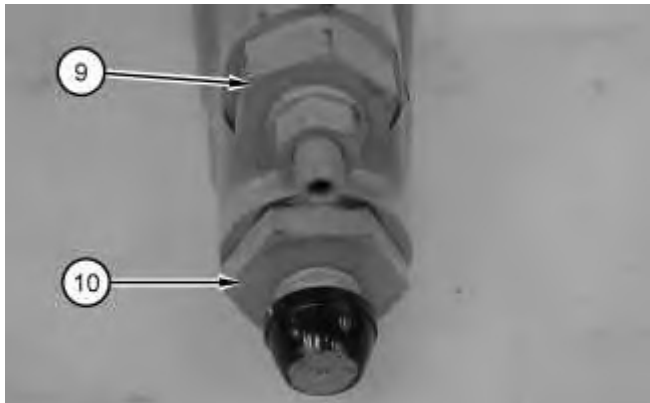


Illustration 5

g01145342

 **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.

-
6. Remove adjustment screw (9) and adjustment screw (10) .

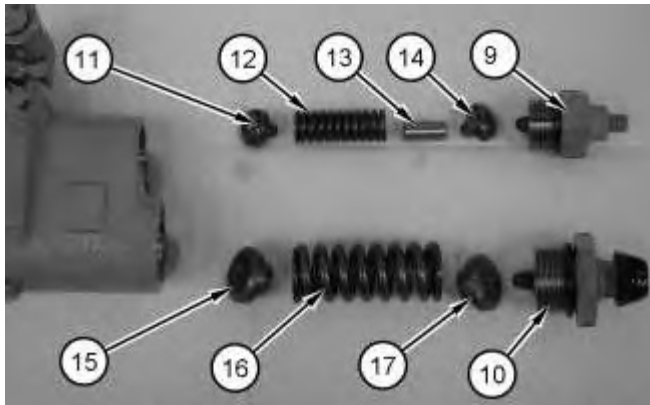


Illustration 6

g01145354

7. Remove retainer (14), spacer (13), spring (12), and retainer (11) .
8. Remove retainer (17), spring (16), and retainer (15) .
9. Remove the O-ring seals from adjustment screw (9) and adjustment screw (10) .

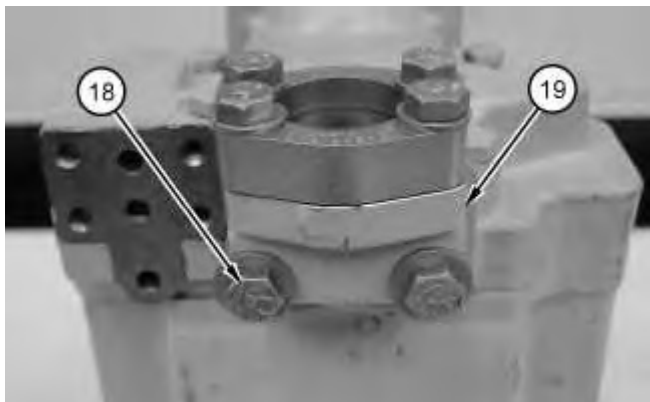


Illustration 7

g01145355

10. Remove bolts (18) and elbow (19) .
-



Illustration 8

g01145356

 **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.

11. Remove bolts (20) and head (21) .



Illustration 9

g01145522

12. Remove plate (22) .



Illustration 10

g01145523

13. Remove bearing cup (23) and pin (24) .

Note: Place the steering pump on suitable blocks, as shown.



Illustration 11

g01145357

14. Remove bearing cone (26) and gasket (25) .

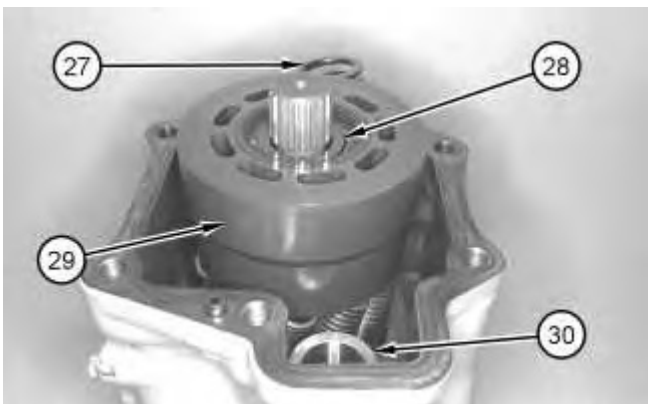


Illustration 12

g01145358

15. Remove shim (28) and barrel assembly (29) .

16. Remove spring (27) and piston (30) .

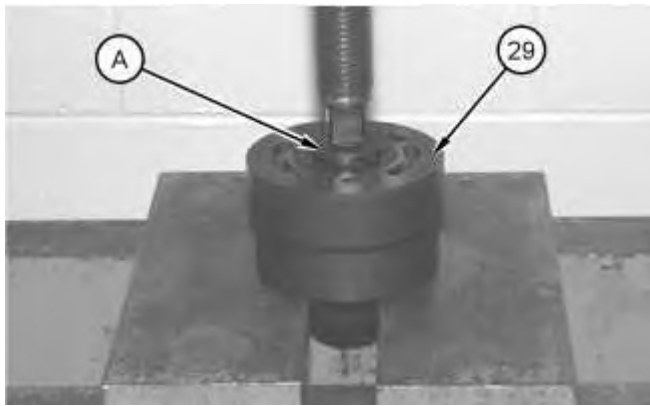


Illustration 13

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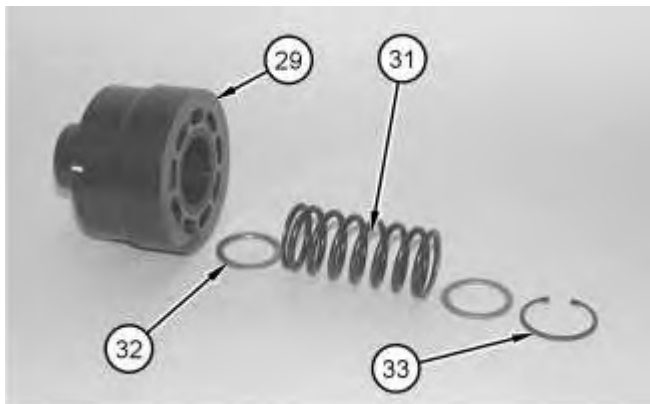


Illustration 14

g01145360

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.

17. Use Tooling (A) and a suitable press to disassemble barrel assembly (29) .

- a. Compress spring (31) until Tooling (A) is below retaining ring (33) .
- b. Remove retaining ring (33) and slowly release the spring tension.
- c. Remove spring (31) and washers (32) .

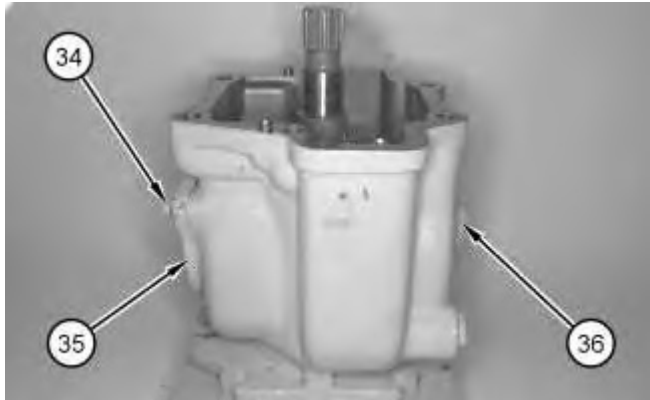


Illustration 15

g01145361

18. Remove bolts (34) and cover (35) .
19. Remove plug (36) .



Illustration 16

g01145362

20. Remove O-ring seal (38) from the cover. Remove O-ring seal (39) from the plug.
 21. Remove shaft (37) .
-

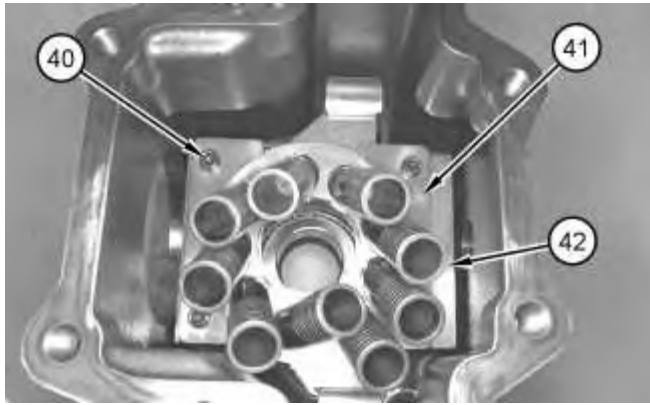


Illustration 17

g01145365

22. Remove bolts (40) and two spacer plates (41) .
23. Remove pistons (42) and the plate.

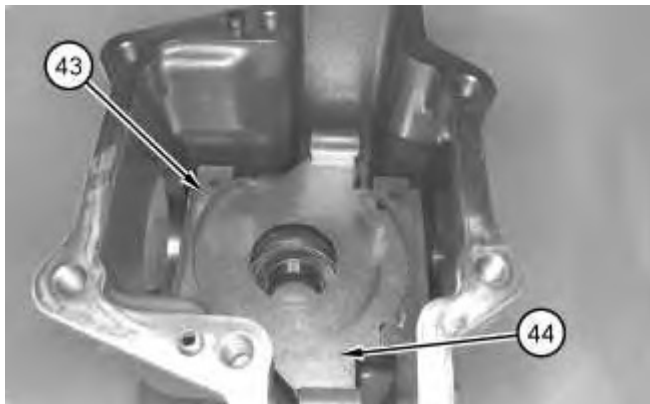


Illustration 18

g01145366

24. Remove spacer plates (43) and swashplate (44) .



Illustration 19

g01145367

25. Remove bearing cone (45) .

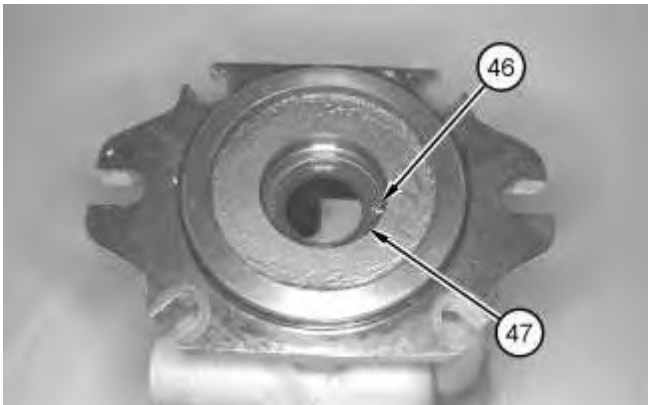


Illustration 20

g01145368

26. Use Tooling (B) in order to remove retaining ring (46) and seal (47) .

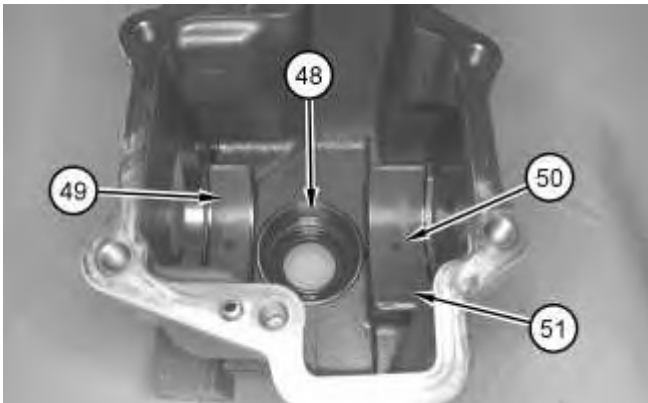


Illustration 21

g01145369

27. Remove bearing cup (48) .

28. Remove screws (50). Remove bearings (49) and (51) .

Previous Screen

Product: WHEEL LOADER

Model: 962K WHEEL LOADER X4T

Configuration: 962K Wheel Loader X4T00001-UP (MACHINE) POWERED BY C7.1 Engine

**Disassembly and Assembly
950K and 962K Wheel Loaders Machine Systems**

Media Number -KENR5805-00

Publication Date -01/10/2011

Date Updated -03/10/2011

i04552403

Piston Pump (Steering) - Assemble

SMCS - 4306-016; 5070-016-ZH

Assembly Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	1P-0510	Driver Gp	1
B	1P-1861	Retaining Ring Pliers	1

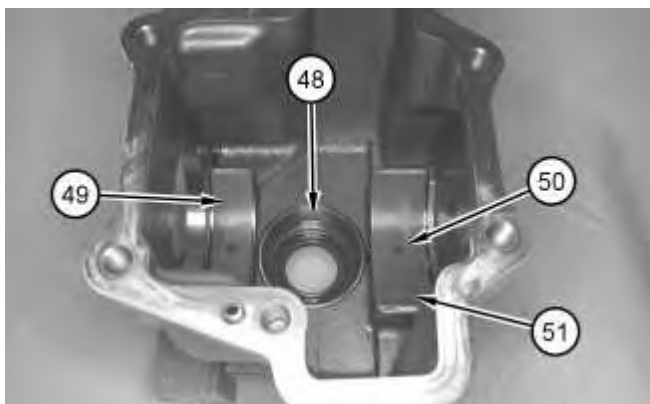


Illustration 1

g01145369

1. Lower the temperature of bearing cup (48) .
2. Install bearing cup (48) .

3. Install bearings (49) and (51) .

4. Install screws (50) .

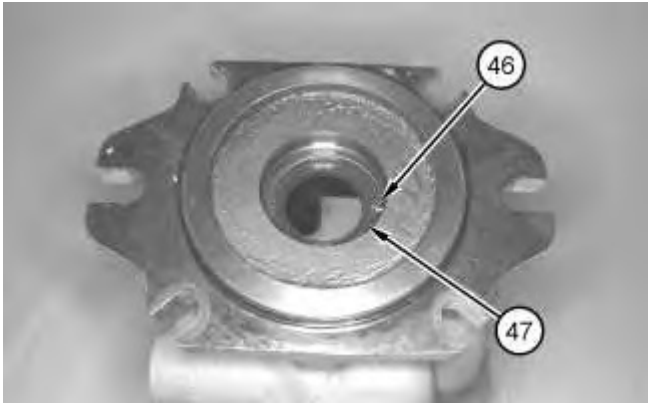


Illustration 2

g01145368

5. Install seal (47) .

6. Use Tooling (B) in order to install retaining ring (46) .



Illustration 3

g01145367

7. Install bearing cone (45) .

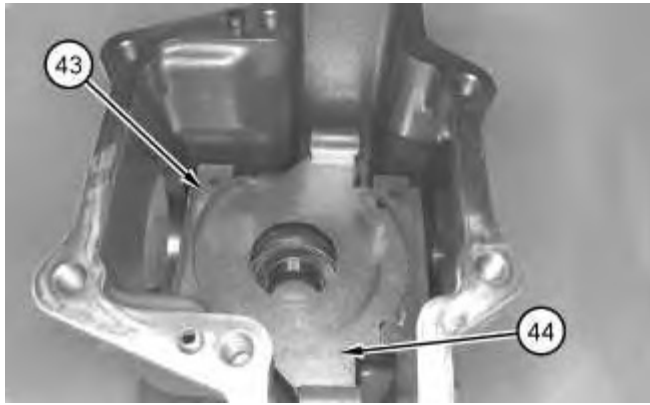


Illustration 4

g01145366

8. Install swashplate (44) and spacer plates (43) .

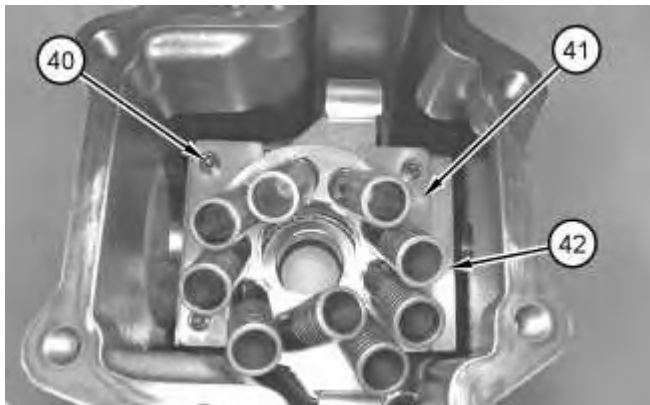


Illustration 5

g01145365

9. Install pistons (42) and the plate.
10. Install bolts (40) and two spacer plates (41) .



Illustration 6

g01145362

11. Install O-ring seal (38) onto the cover. Install O-ring seal (39) onto the plug.
12. Install shaft (37) .

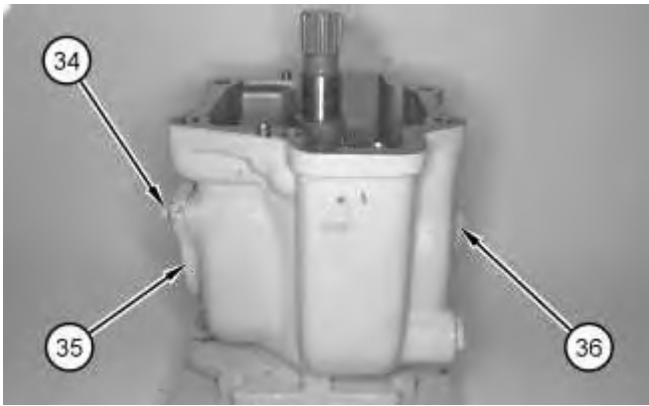


Illustration 7

g01145361

13. Install cover (35) and bolts (34) .
14. Install plug (36) .

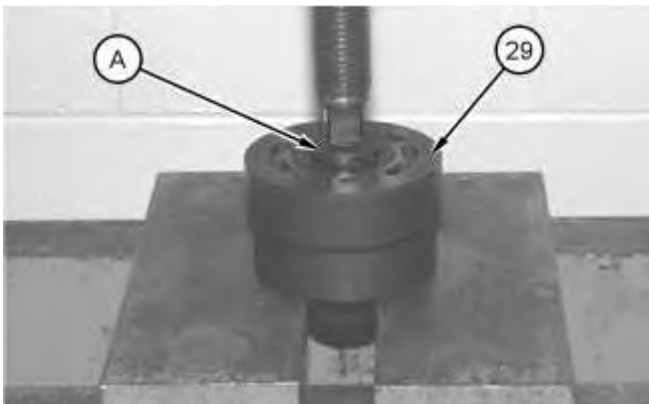


Illustration 8

g01145359

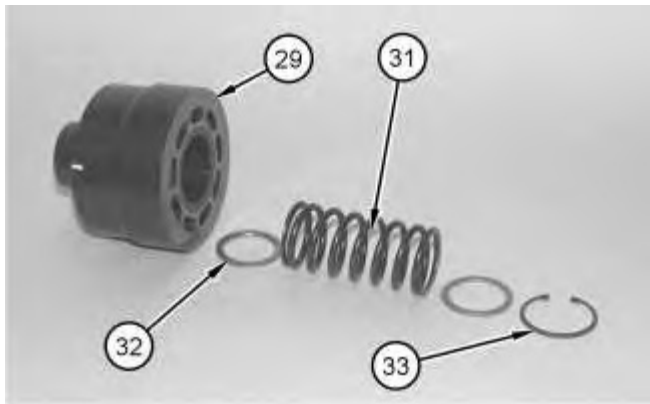


Illustration 9

g01145360

 **WARNING**

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.

15. Use Tooling (A) and a suitable press to assemble barrel assembly (29).
 - a. Install spring (31) and washers (32).
 - b. Compress spring (31) until Tooling (A) is below retaining ring (33).
 - c. Install retaining ring (33) and slowly release the spring tension.

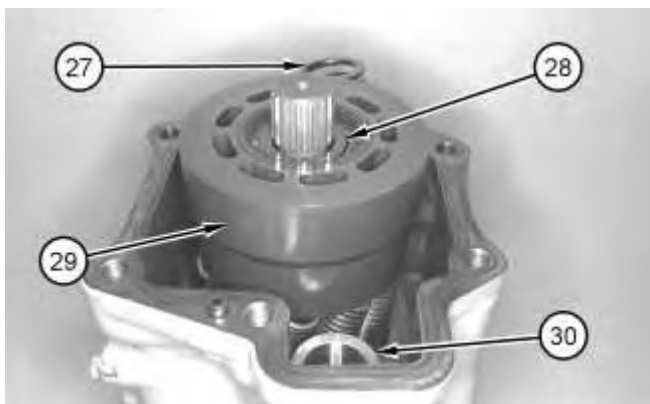


Illustration 10

g01145358

16. Install barrel assembly (29) and shim (28).

17. Install spring (27) and piston (30) .

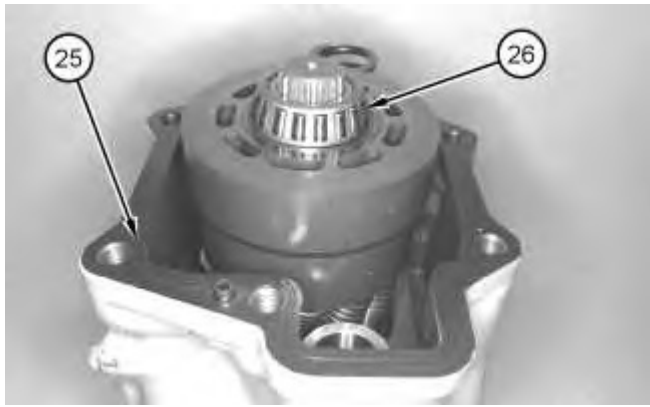


Illustration 11

g01145357

18. Install bearing cone (26) and gasket (25) .



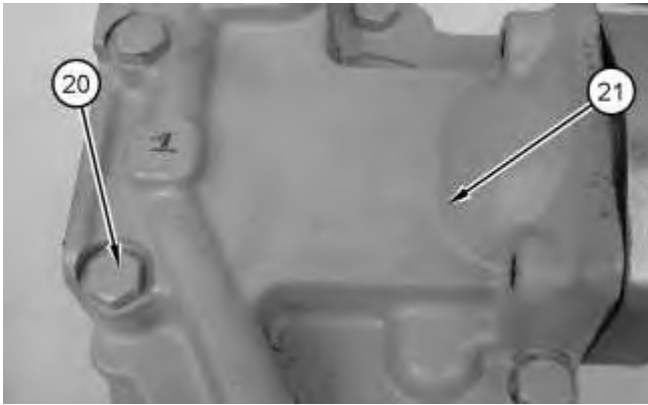
Illustration 12

g01145523

19. Install bearing cup (22) and pin (24) .



20. Install plate (22) .

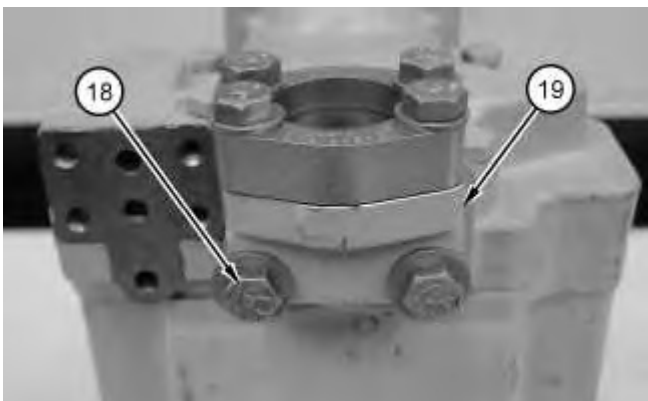


! WARNING

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.

21. Install head (21) and bolts (20) .
22. Tighten bolts (20) to a torque of $91 \pm 4 \text{ N}\cdot\text{m}$ ($67 \pm 3 \text{ lb ft}$).



23. Install elbow (19) and bolts (18) .

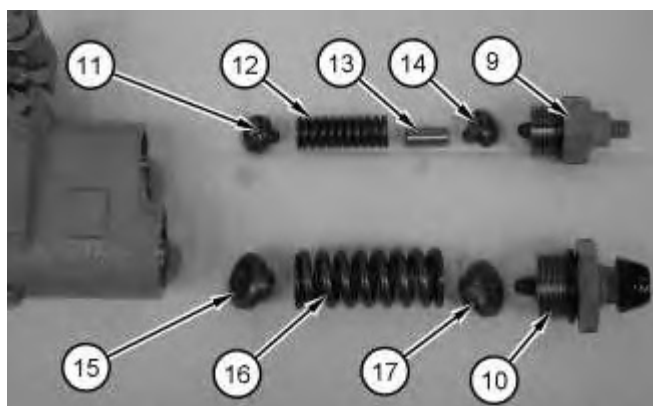


Illustration 16

24. Install the O-ring seals onto adjustment screw (9) and adjustment screw (10) .
25. Install retainer (15), spring (16), and retainer (17) .
26. Remove retainer (11), spring (12), spacer (13), and retainer (14) .



Illustration 17

! WARNING

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.

27. Install adjustment screw (9) and adjustment screw (10) .

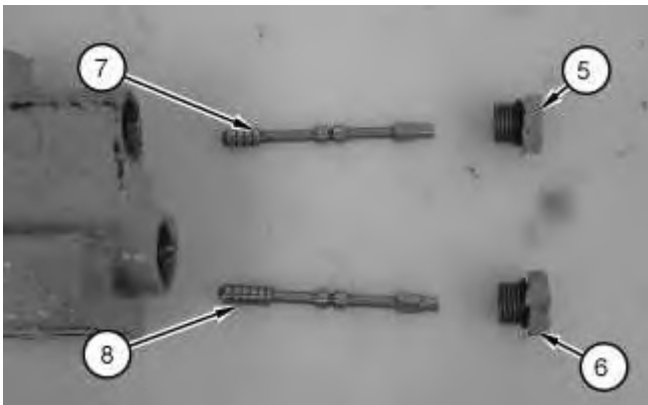


Illustration 18

g01145341

28. Install spool (7) and spool (8) .

29. Install the O-ring seals onto plug (5) and plug (6) .

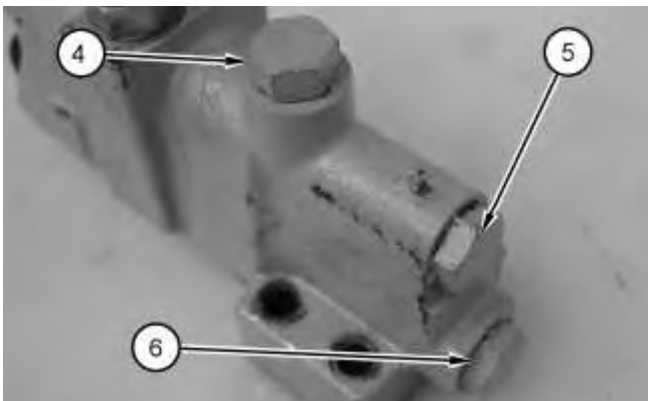


Illustration 19

g01145340

30. Install the O-ring seal, plug (4), plug (5), and plug (6) .

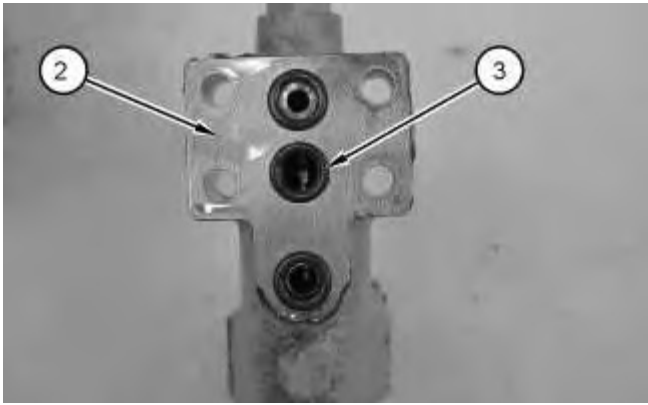


Illustration 20

g01145339

31. Install O-ring seals (3) onto valve (2) .

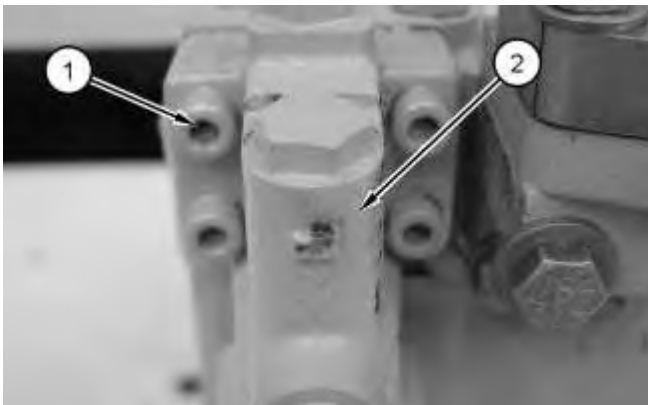


Illustration 21

g01145338

32. Install valve (2) and bolts (1) .
33. Tighten bolts (1) to a torque of $34 \pm 3 \text{ N}\cdot\text{m}$ ($25 \pm 2 \text{ lb ft}$).



Illustration 22

g00359153

34. Use a dial indicator to check the axial shaft end play. Put the dial indicator on the end of the shaft and pull on the shaft.

The correct axial shaft end play is 0.010 to 0.10 mm (0.0004 to 0.004 inch). Use the correct shim to achieve this dimension.

End By: Install the steering pump.

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Previous Screen

Product: WHEEL LOADER

Model: 962K WHEEL LOADER X4T

Configuration: 962K Wheel Loader X4T00001-UP (MACHINE) POWERED BY C7.1 Engine

**Disassembly and Assembly
950K and 962K Wheel Loaders Machine Systems**

Media Number -KENR5805-00

Publication Date -01/10/2011

Date Updated -03/10/2011

i04560022

Secondary Steering Pump and Electric Motor - Remove and Install

SMCS - 4324-010-MW; 4324-010-SE; 4324-010; 4324-010-GT; 4325-010-SE; 5073-010-SST

Removal Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
A	FT-2674	Vacuum Cap	1

Start By:

- A. Remove the axle oil cooler (if equipped).
 - B. Remove power train guard.
 1. Release the hydraulic system pressure.
 2. Turn the battery disconnect switch to the OFF position.
-

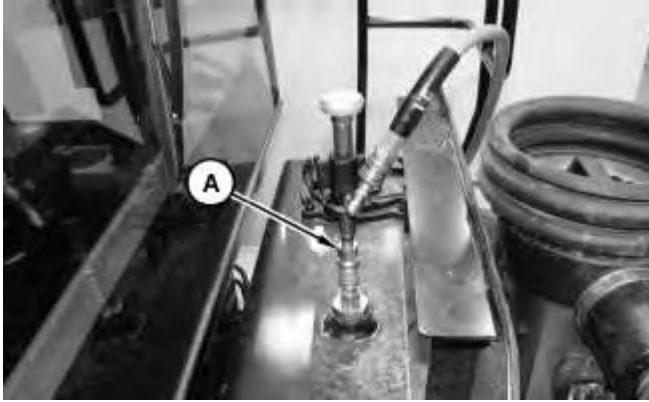


Illustration 1

g02622290

3. Install Tooling (A) onto the hydraulic tank. Attach an air supply hose onto Tooling (A). Apply 276 to 414 kPa (40 to 60 psi) of air. This procedure will pull vacuum on the hydraulic system.

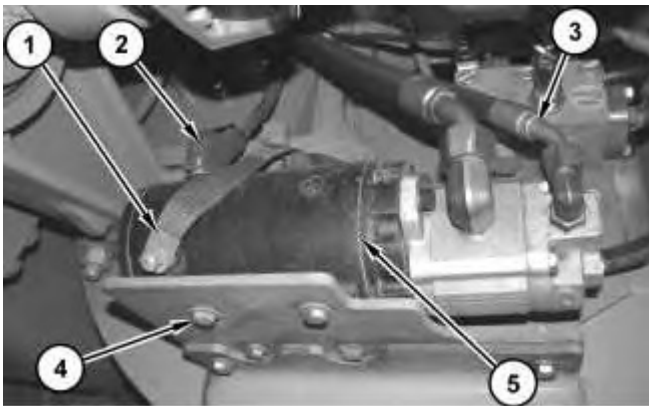


Illustration 2

g02726440

4. Disconnect ground strap (1).
5. Disconnect cable assembly (2) .
6. Disconnect hose assemblies (3) .
7. Use two people in order to remove electric motor, and secondary steering pump (5). The weight of electric motor and secondary steering pump (5) is approximately 30 kg (65 lb). Remove bolts (4), and remove electric motor and secondary steering pump (5) .



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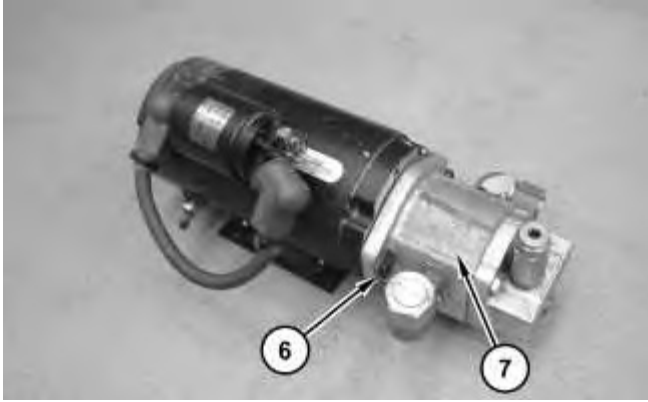


Illustration 3

g02726520

8. Remove bolts (6). in order to
9. Remove secondary steering pump (7) and the gasket.

Installation Procedure

1. Install electric motor and secondary steering pump (5) in the reverse order of removal.

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