CATERPILLAR®

Service Repair Manual

Models

962H Wheel Loader

Product: WHEEL LOADER
Model: 962H WHEEL LOADER N4A
Configuration: 962H Wheel Loader N4A00001-UP (MACHINE) POWERED BY C7 Engine

Disassembly and Assembly
IT62H Integrated Toolcarrier and 950H and 962H Wheel Loaders Power Train
Media Number -RENR8867-05 **Publication Date -01/06/2014** **Date Updated -27/06/2014**

i02348371

Torque Converter from Transmission, Output Transfer Gears - Separate

SMCS - 3003-076

Separation Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	138-7574	Link Bracket	1
B	138-7573	Link Bracket	3
	1U-9200	Lever Puller Hoist	1

Start By:

A. Remove the torque converter, the transmission, and the output transfer gears. Refer to Disassembly and Assembly, "Torque Converter, Transmission and Output Transfer Gears - 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.

NOTICE

Care must be taken to ensure that fluids are contained during performance of inspection, maintenance, testing, adjusting and repair of the product. Be prepared to collect the fluid with suitable containers

before opening any compartment or disassembling any component containing fluids.

Refer to Special Publication, NENG2500, "Caterpillar Tools and Shop Products Guide" for tools and supplies suitable to collect and contain fluids on Caterpillar products.

Dispose of all fluids according to local regulations and mandates.

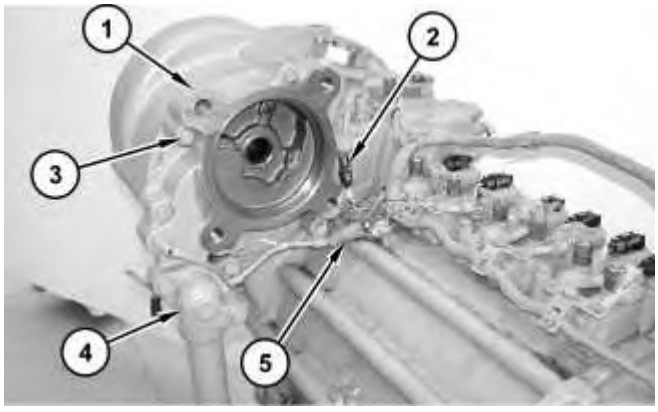

Illustration 1 g01173182

1. Disconnect harness assemblies (2) and (5) .
2. Remove tube assembly (4) .
3. Remove bolts (3) and transmission oil pump (1) .

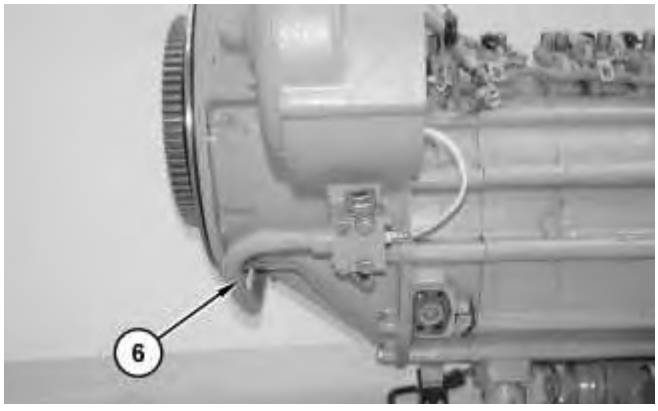

Illustration 2 g01173184

4. Remove tube assembly (6) .

Illustration 3 g01173186

5. Remove bolts (7) .

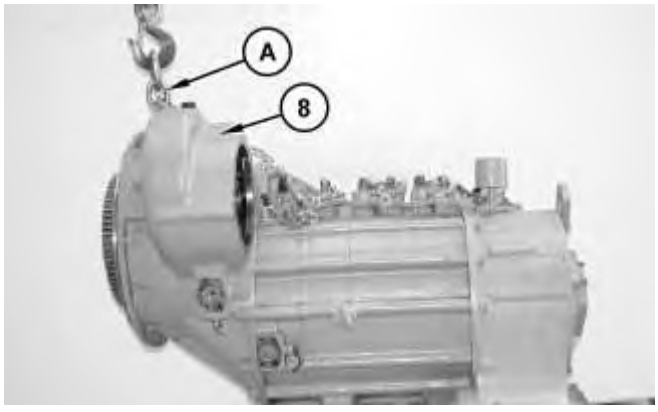

Illustration 4 g01173187

6. Attach Tooling (A) and a suitable lifting device to torque converter (8) .

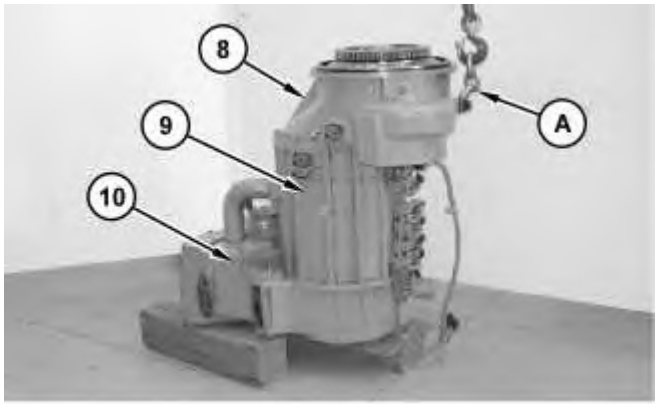

Illustration 5 g01173188

7. Reposition torque converter (8), transmission (9), and output transfer gears (10). The combined weight of torque converter (8), transmission (9), and output transfer gears (10) is approximately 816 kg (1800 lb).

8. Remove Tooling (A) .

Illustration 6 g01173189

9. Attach Tooling (B) and a suitable lifting device to torque converter (8). The weight of torque converter (8) is approximately 170 kg (375 lb).

Illustration 7 g01173190

10. Remove bolts (11) .

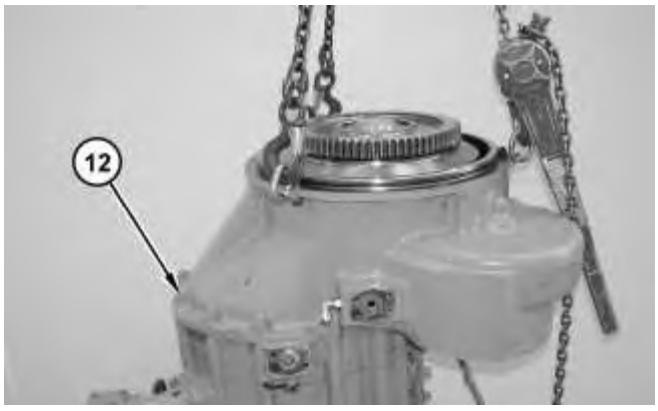

Illustration 8 g01173192

11. Remove bolts (12) .

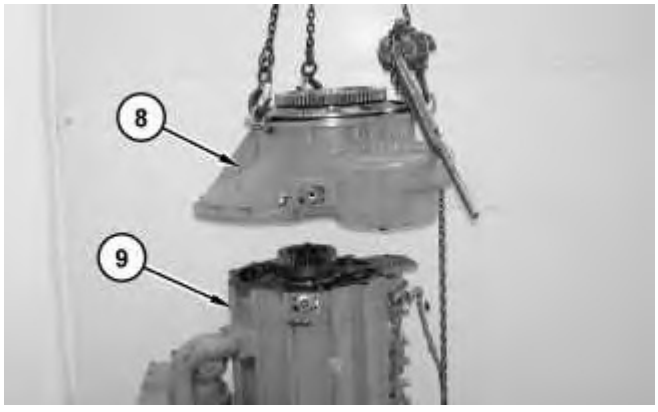

Illustration 9 g01173193

12. Remove Torque converter (8) from transmission (9) .

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Media Number -RENR8867-05 **Publication Date -01/06/2014** **Date Updated -27/06/2014**

i06170973

Torque Converter (Freewheel Stator) - Disassemble

SMCS - 3101-015

Disassembly Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	138-7575	Link Bracket	2
B	1P-7405	Eyebolt	2
C	2P-8312	Retaining Ring Pliers	1

Start By:

A. Separate the torque converter from the transmission and from the output transfer gears. Refer to Disassembly and Assembly, "Torque Converter from Transmission, Output Transfer Gears - Separate".

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.

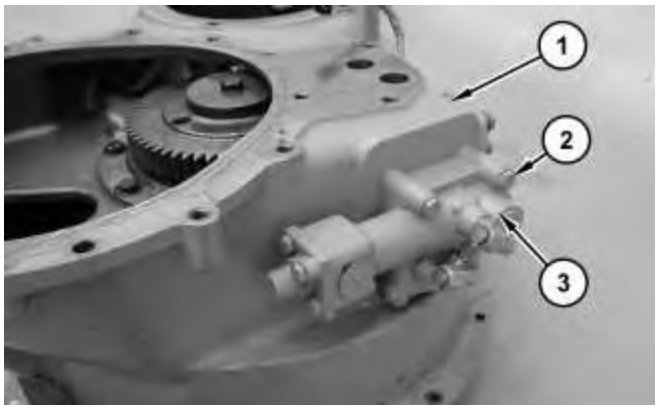

Illustration 1 g01173843

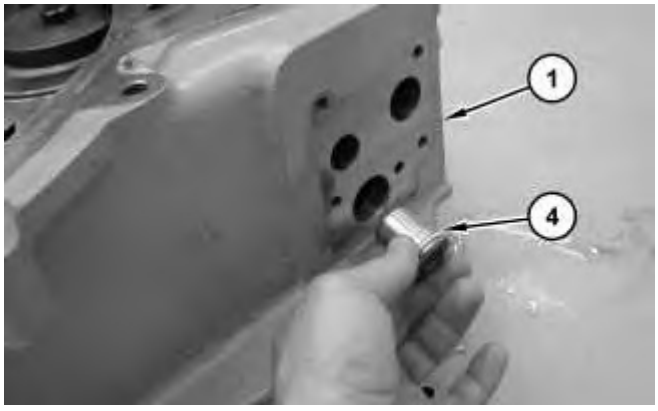

Illustration 2 g01173844

1. Remove bolts (2) and transmission hydraulic control relief valve (3) from torque converter housing (1) .
2. Remove torque converter inlet relief valve (4) and the O-ring seal.

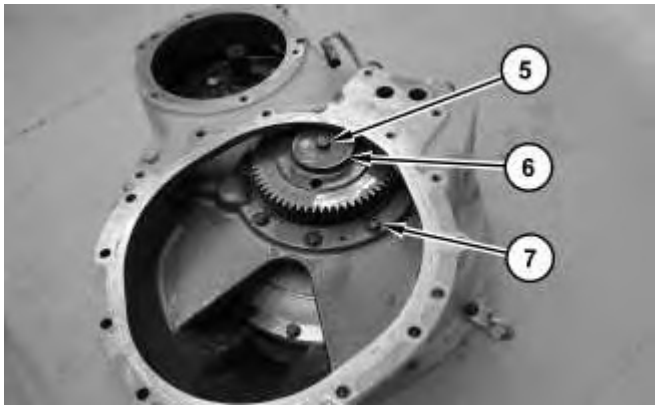

Illustration 3 g01173845

3. Remove bolt (5) and washer (6) .
4. Remove bolts (7) .

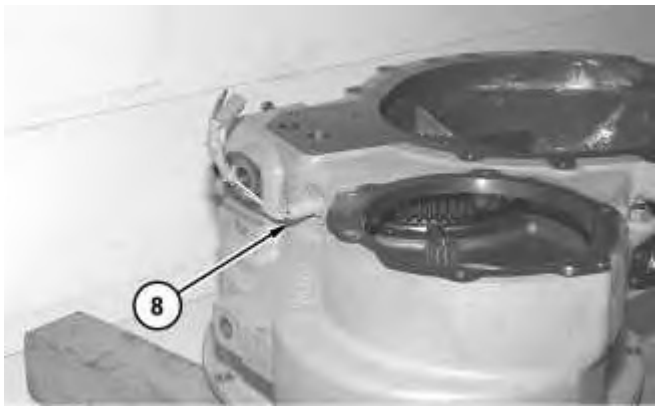

Illustration 4 g01173847

5. Remove torque converter speed sensor (8) .

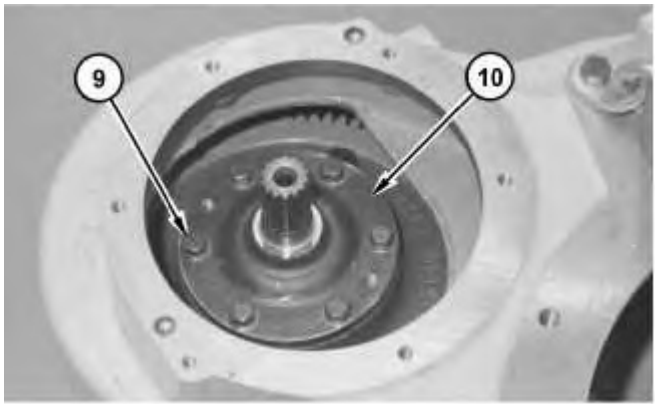

Illustration 5 g03835375

6. Remove bolts (9) and pump drive flange (10) .

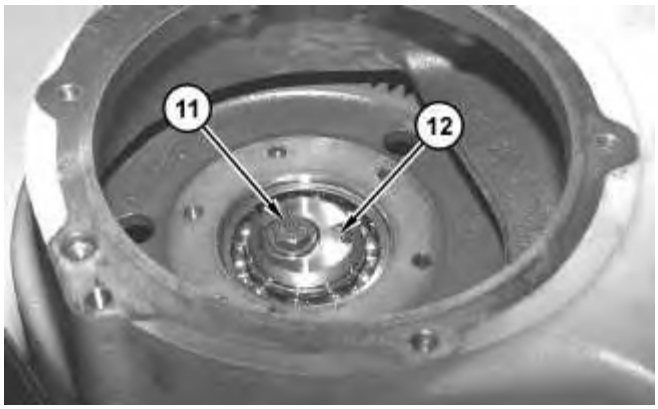

Illustration 6 g01173853

7. Remove bolt (11) from drive gear shaft (12) .

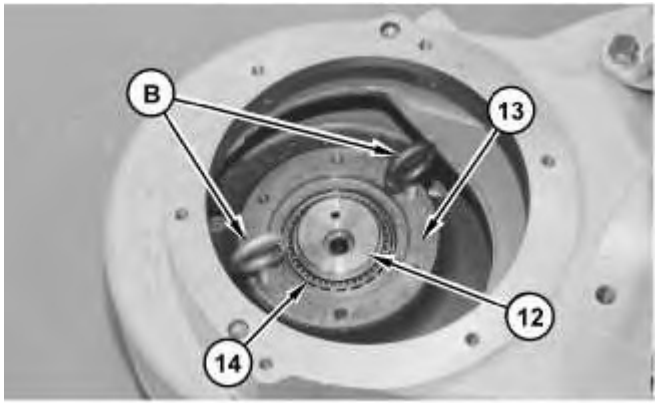

Illustration 7 g03835382

8. Install Tooling (B) in pump drive gear (13) .
9. Lift pump drive gear (13) and drive gear shaft (12) out of the housing bore.
10. Remove drive gear shaft (12) and bearing (14) from pump drive gear (13) .
11. Use Tooling (A) and a suitable lifting device to remove the torque converter housing assembly. The weight of the torque converter housing assembly is approximately 113 kg (250 lb).

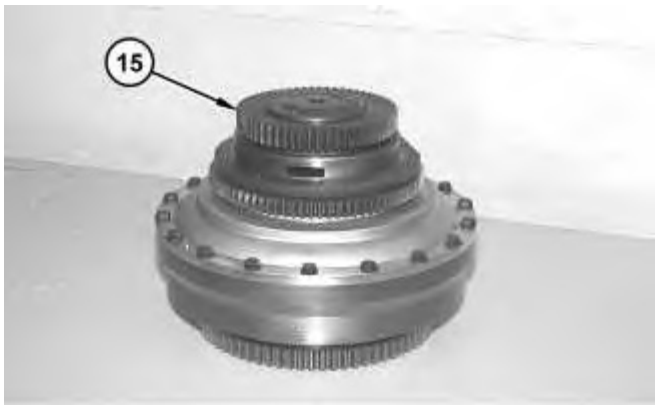

Illustration 8 g01173861

12. Remove drive gear (15) .

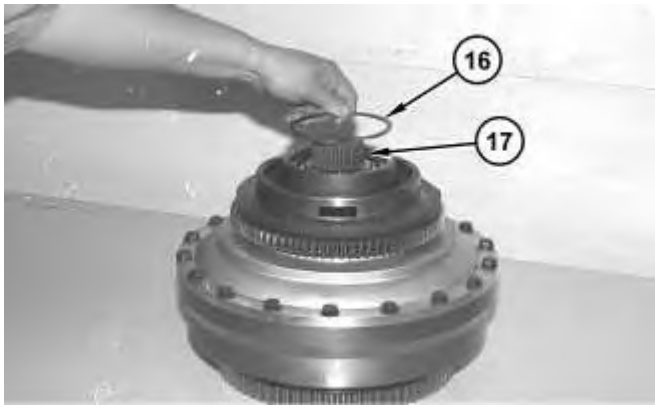

Illustration 9 g01173862

13. Remove retaining ring (16) .
14. Use a soft faced hammer in order to free the bearing from the carrier assembly. Remove output shaft (17) from the carrier assembly.

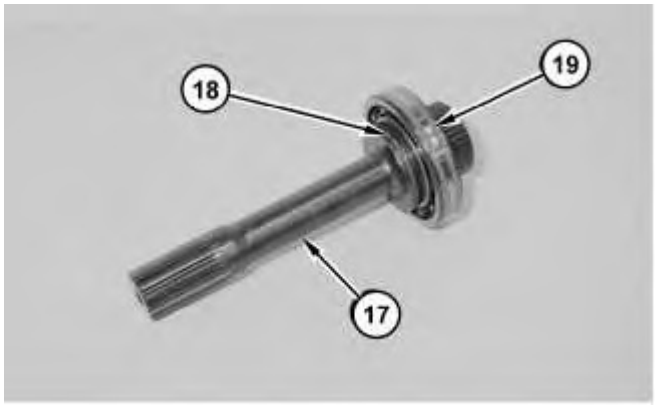

Illustration 10 g03835392

15. Remove seal ring (18) from output shaft (17) .
16. Use a suitable press to remove bearing (19) .

Illustration 11 g01173864

17. Remove bolts (20) and impeller (21) .

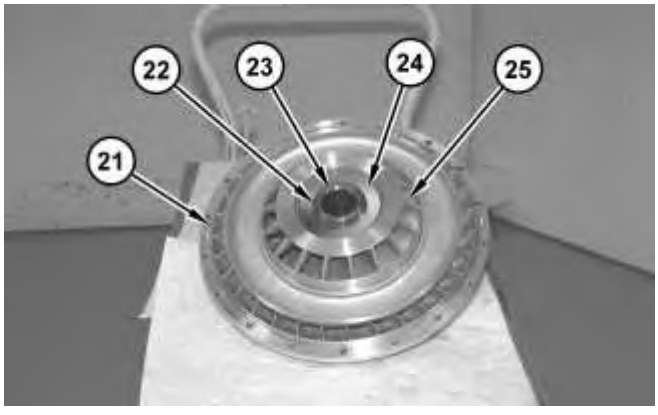

Illustration 12 g01173866

18. Reposition impeller (21) .
19. Remove retaining ring (22) and spacer (24) from carrier shaft (23) .
20. Remove stator (25) .

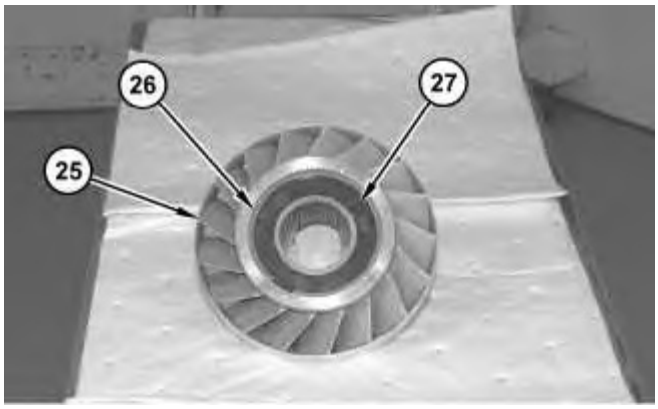

Illustration 13 g01173867

21. Remove retaining ring (26) and washer (27) from stator (25) . Repeat this Step for the other side of stator (25) .

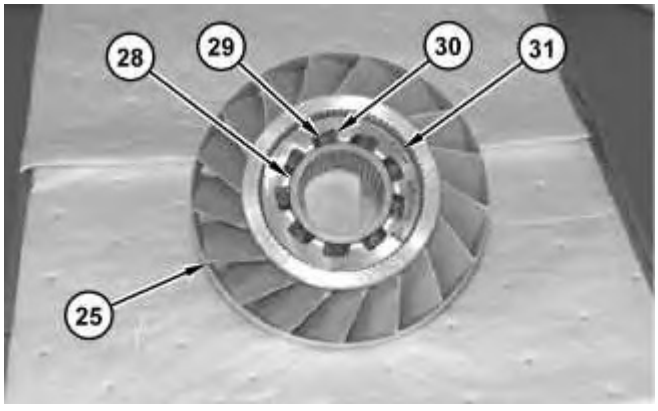

Illustration 14 g01173868

22. Remove race (28) , rollers (29) , springs (30) , and cam (31) from stator (25) .

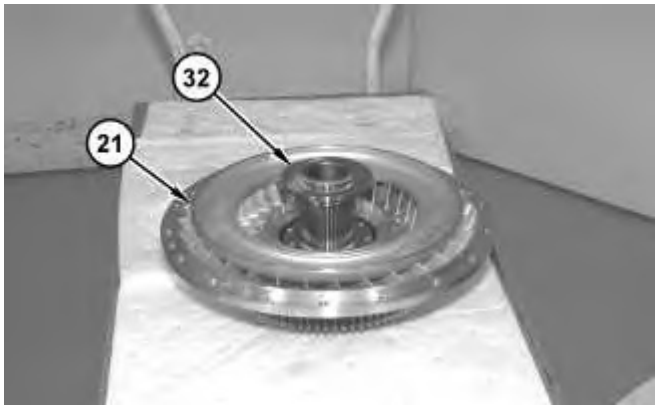

Illustration 15 g01173870

23. Remove spacer (32) from impeller (21) .

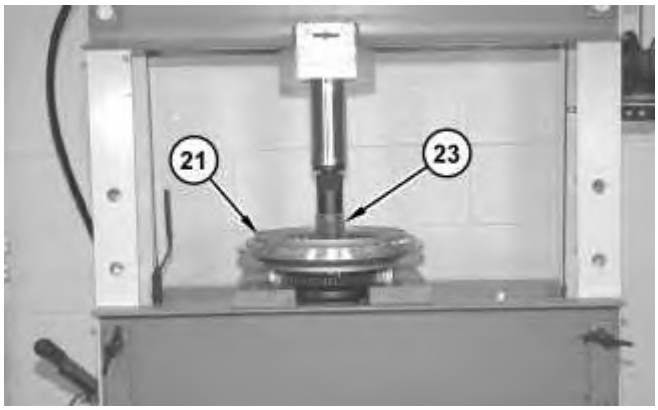

Illustration 16 g01173872

24. Use a suitable press to remove carrier shaft (24) from impeller (21) .

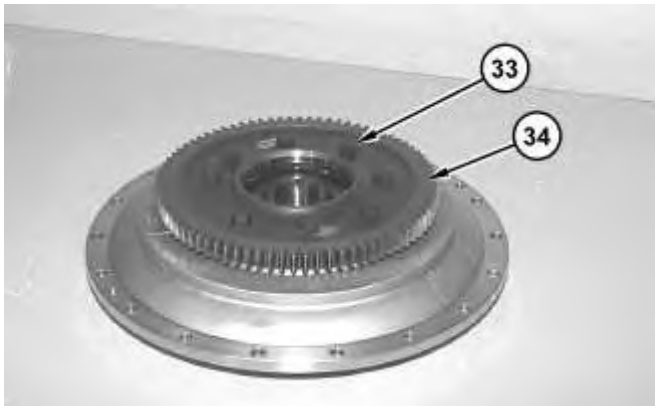

Illustration 17 g01173917

25. Remove bolts (33) and drive gear (34) .

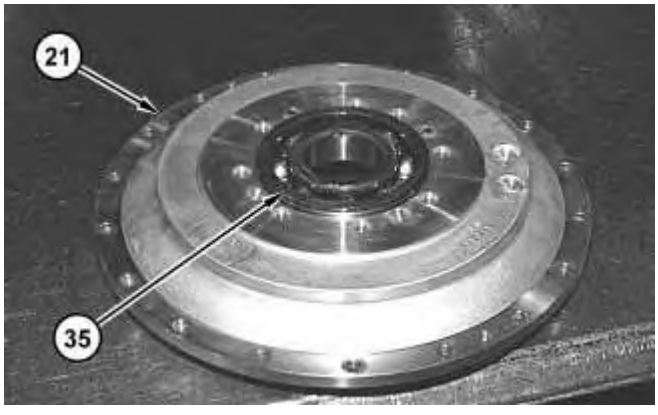

Illustration 18 g01173920

26. Remove bearing (35) from impeller (21) .

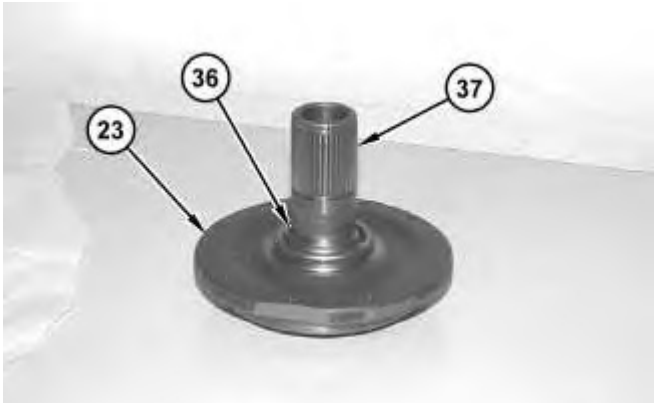

Illustration 19 g01173923

27. Remove seal ring (36) from carrier shaft (23) .
28. If necessary, remove locating dowel (37) .

Illustration 20 g01173921

29. Remove ring (40) , retaining ring (38) , and cover (39) from housing (41) .

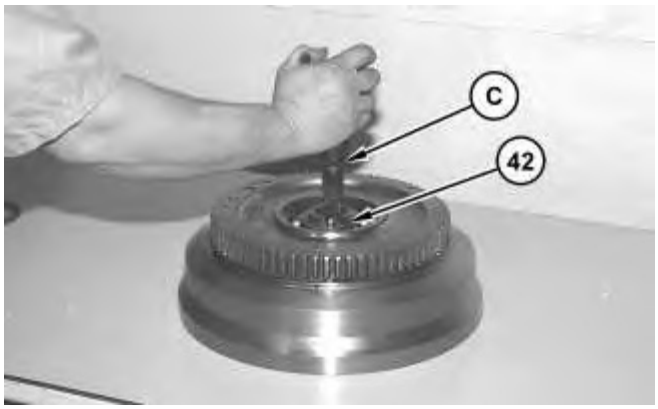

Illustration 21 g01173924

30. Use Tooling (C) in order to remove retaining ring (42) .

Illustration 22 g01173925

31. Remove spacer (43) and O-ring seal (44) .

Illustration 23 g01173926

32. Turn the housing onto the opposite side and remove turbine assembly (45) .

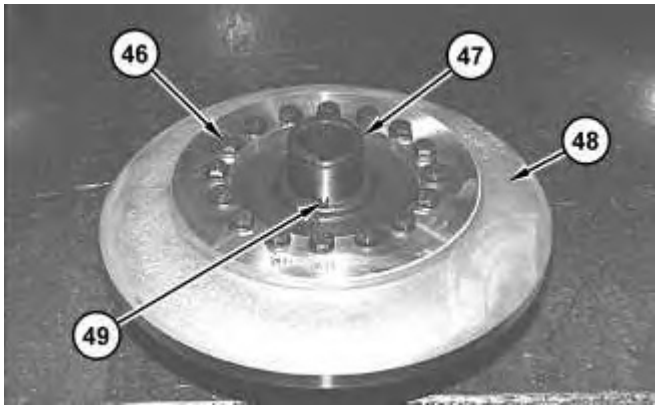

Illustration 24 g01173927

33. Remove bolts (46) in order to separate turbine (47) from hub (48) .

34. If necessary, remove locating dowel (49) .

Illustration 25 g01173928

35. Remove roller bearing (50) .

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Media Number -RENR8867-05 **Publication Date -01/06/2014** **Date Updated -27/06/2014**

i06171004

Torque Converter (Freewheel Stator) - Assemble

SMCS - 3101-016

Assembly Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	138-7575	Link Bracket	2
B	1P-7405	Eyebolt	2
C	2P-8312	Retaining Ring Pliers	1

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 g01173928

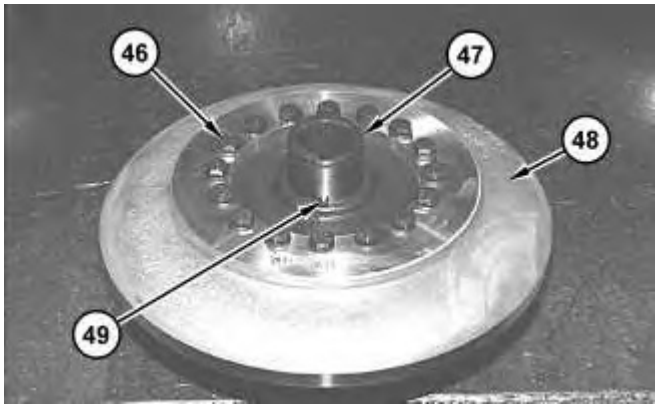

Illustration 2 g01173927

1. If necessary, install locating dowel (49) .
2. Install bearing (50) so that the notch in bearing (50) is in alignment with locating dowel (49) .
3. Install turbine (47) to hub (48) and install bolts (46) . Tighten bolts (46) to a torque of 60 ± 7 N·m (44 ± 5 lb ft).

Illustration 3 g01173926

4. Install turbine assembly (45) into the impeller housing.

Illustration 4 g01173925

5. Install spacer (43) and O-ring seal (44) .

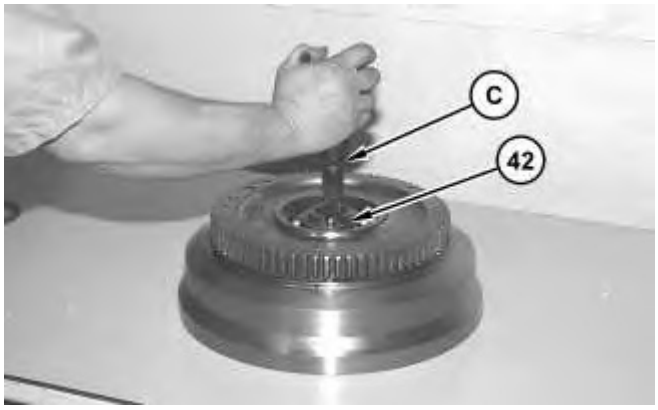

Illustration 5 g01173924

6. Use Tooling (C) to install retaining ring (42) .

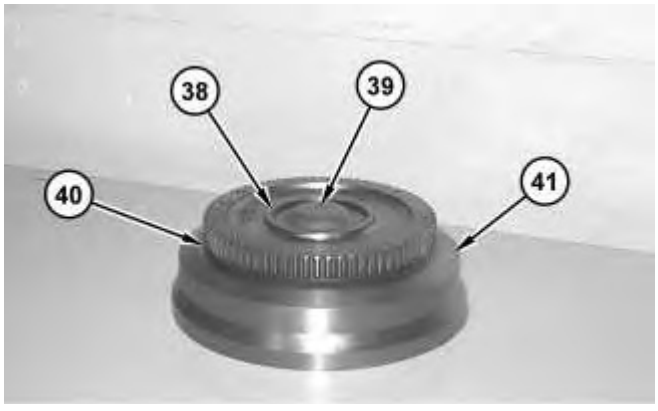

Illustration 6 g01173921

7. Install cover (39) , retaining ring (38) , and ring (40) on housing (41) .

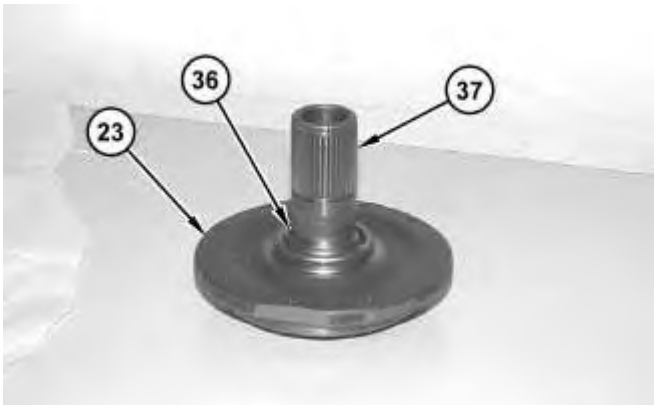

Illustration 7 g01173923

8. If necessary, install locating dowel (37) .
9. Install seal ring (36) on carrier shaft (23) .

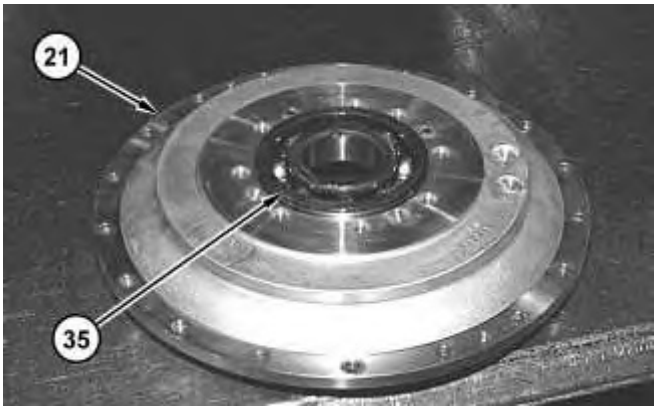

Illustration 8 g01173920

10. Install bearing (35) in impeller (21) .

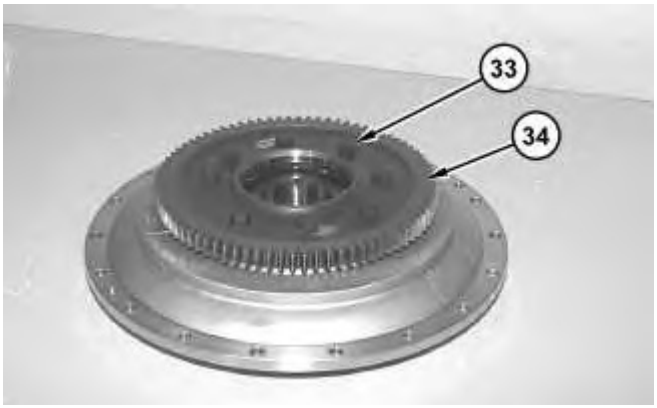

Illustration 9 g01173917

11. Install drive gear (34) and bolts (33) . Tighten bolts (33) to a torque of 105 ± 15 N·m (77 ± 11 lb ft).

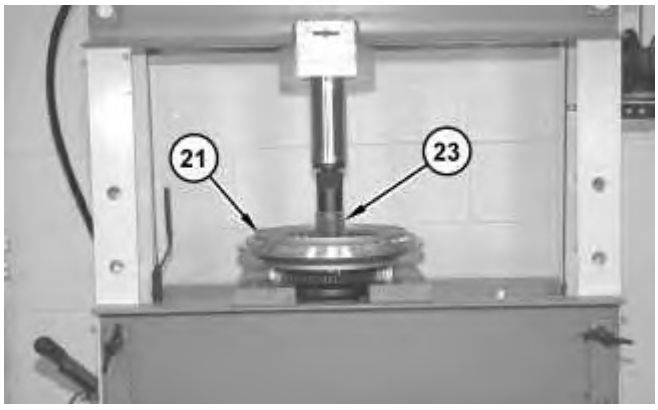

Illustration 10 g01173872

12. Use a suitable press to install carrier shaft (23) in impeller (21) .

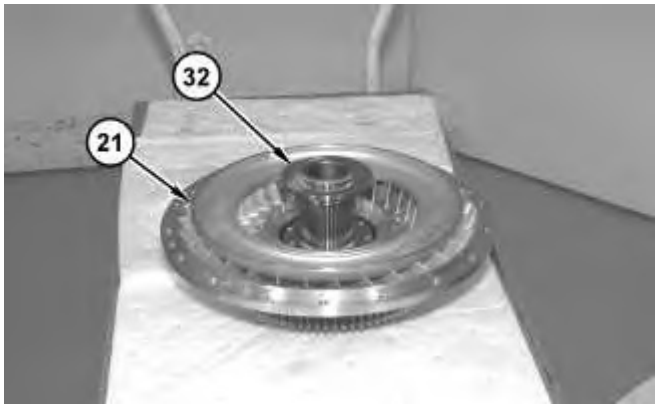

Illustration 11 g01173870

13. Install spacer (32) on impeller (21) .

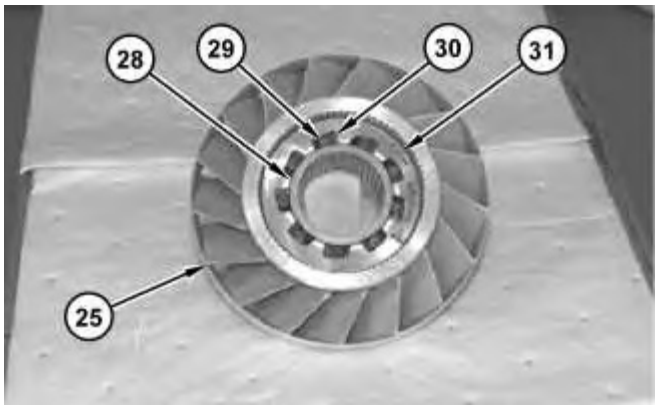

Illustration 12 g01173868

Note: If necessary, raise the temperature of stator (25) in order to install cam (31) .

14. Install cam (31) , springs (30) , rollers (29) , and race (28) in stator (25) .

    Note: Install springs (30) with the maximum number of loops toward the outside diameter of cam (31) .

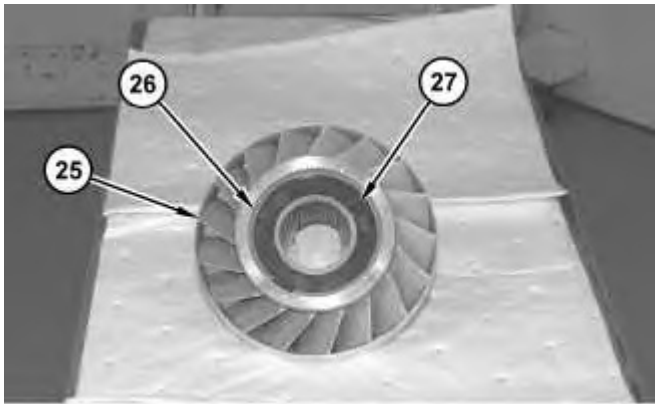

Illustration 13 g01173867

15. Install washer (27) and retaining ring (26) in stator (25) . Repeat this step for the other side of stator (25) .

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to download the complete manual.

Thank you so much for reading

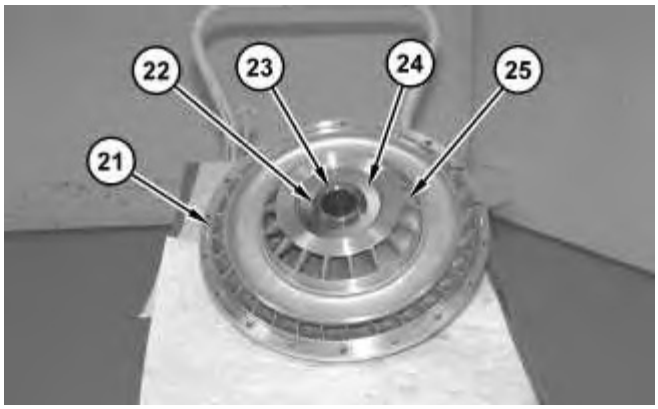

Illustration 14 g01173866

16. Install stator (25) on impeller (21) .
17. Install spacer (24) and retaining ring (22) over carrier shaft (23) .

Illustration 15 g01173864

18. Install impeller (21) and bolts (20) . Tighten bolts (20) to a torque of 60 ± 7 N·m (44 ± 5 lb ft).