

Product: WHEEL LOADER

Model: 980F WHEEL LOADER 3HK

Configuration: 980F WHEEL LOADER 3HK00001-UP (MACHINE) POWERED BY 3406 ENGINE

Disassembly and Assembly 980F & 980F SERIES II WHEEL LOADERS POWER TRAIN

Media Number -SEN4991-02

Publication Date -01/08/2004

Date Updated -18/04/2012

SEN49910025

Torque Converter

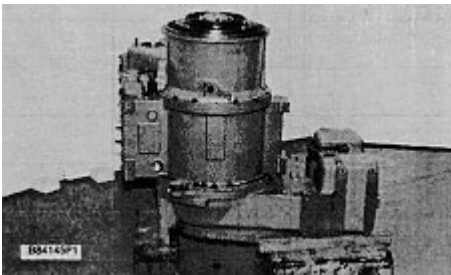
SMCS - 3101-015; 3101-016; 3101-076; 3101-077

Separate Torque Converter From Transmission

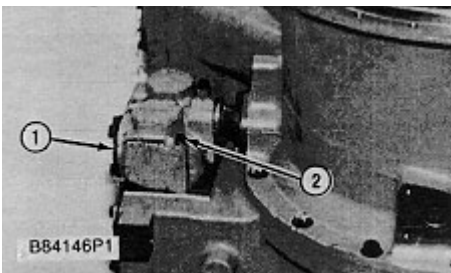
Tools Needed		A
6V2156	Link Bracket	3

Start By:

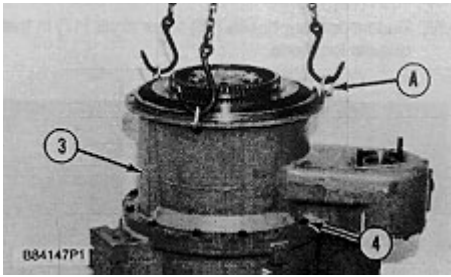
- a. remove torque converter, transmission and transfer gears



1. Put the torque converter, transmission and transfer gears in position on wooden blocks as shown. The weight of the unit is **1452 kg (3200 lb)**.



2. Remove three bolts (2) and manifold (1) from the transmission case and the elbow on the torque converter. Remove the O-ring seals from the elbow.



3. Remove tool (A) and a hoist to torque converter (3) as shown.

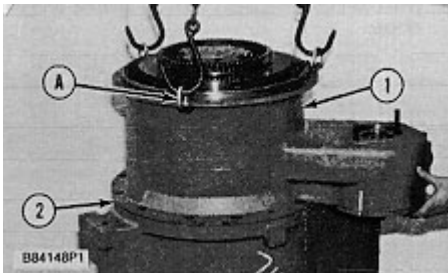
4. Remove bolts (4) and the washers that hold the torque converter to the transmission. Remove torque converter (3) from the transmission. The weight of the torque converter is **211 kg (465 lb)**.

5. Remove the O-ring seal from the transmission case.

Connect Torque Converter To Transmission

Tools Needed		A
6V2156	Link Bracket	3

1. Check the condition of the O-ring seal used between the transmission and torque converter and the O-ring seals used on the torque converter elbow. If the seals are worn or damaged, use new parts for replacement.

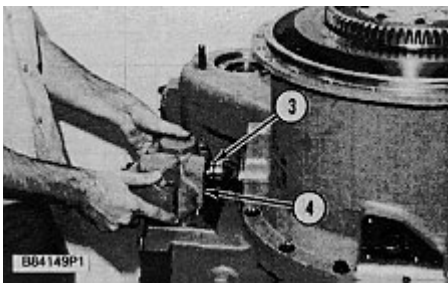


2. Install O-ring seal (2) on the transmission case. Put a thin coat of clean oil on the O-ring seal.

3. Fasten tool (A) and a hoist to torque converter (1) as shown.

4. Align the dowels in the transmission case with the dowel holes in the torque converter housing. Put torque converter (1) in position on the transmission.

5. Install the bolts and washers that hold the torque converter to the transmission.



6. Be sure O-ring seals (3) are in position on the elbow for the torque converter and on manifold (4). Put clean oil on the O-ring seals.

7. Install manifold (4) on the transmission case and the torque converter elbow.

End By:

a. install torque converter, transmission and transfer gears

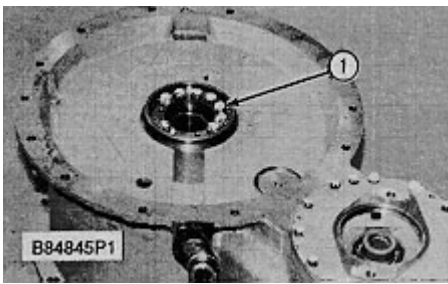
Disassemble Torque Converter

Tools Needed		A	B	C	D	E
6V2156	Link Bracket	3				
8B7548	Push-Puller		1	1		
8B7550	Leg		2			
8H0684	Ratchet Wrench		1	1		
8B7560	Step Plate		1			
8H0663	Bearing Pulling Attachment		1			
8B7549	Leg			2		
5P4808	Cap *			2		
8B7554	Bearing Cup Puller Attachment			1		
5F7343	Bearing Pulling Attachment				1	
1P0520	Driver Group				1	1

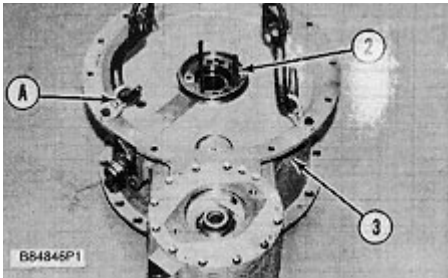
*part of 8B7548 Push-Puller

Start By:

a. separate torque converter from transmission

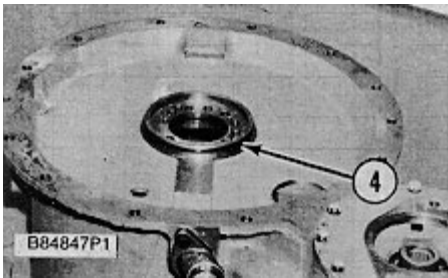


1. Remove bolts (1) and the washers that hold the torque converter to the cover assembly.

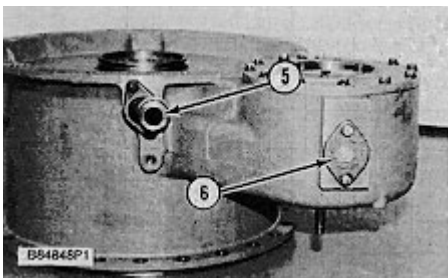


2. Fasten tool (A) and a hoist on cover assembly (3) as shown.

3. Use three 3/8" - 16 NC forcing screws (2) to loosen cover assembly (3) from the torque converter. Use tool (A) and a hoist to remove cover assembly (3). The weight of the cover assembly is **120 kg (265 lb)**.

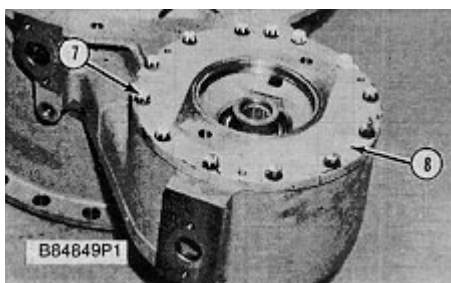


4. Remove O-ring seal (4) from the cover assembly.

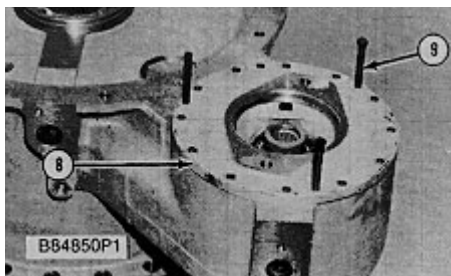


5. Remove the bolts, adapter (6) and elbow (5) from the cover assembly.

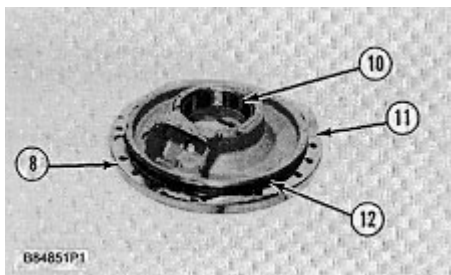
6. Remove the O-ring seals from the adapter and the elbow.



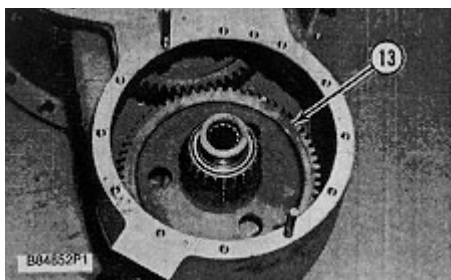
7. Remove bolts (7) and the washers that hold pump adapter (8) to the cover assembly.



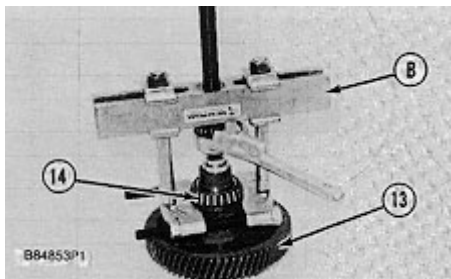
8. Use three 3/8" - 16 NC forcing screws (9) to remove pump adapter (8) from the cover assembly.



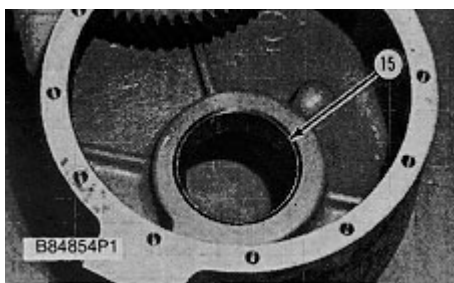
9. Remove bearing cup (10), O-ring seal (12) and shims (11) from pump adapter (8).



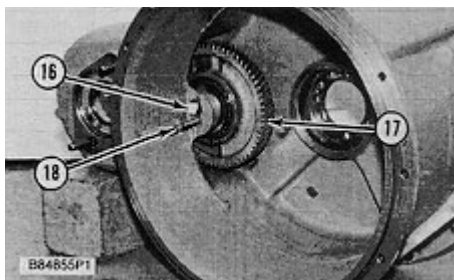
10. Remove pump gear (13) from the cover assembly.



11. Use tooling (B), and remove bearing cones (14) from each side of pump gear (13).

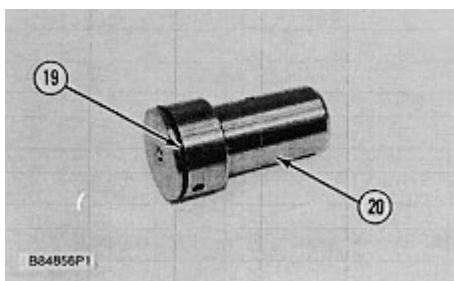


12. Use tooling (C) to remove bearing cup (15) from the cover assembly.

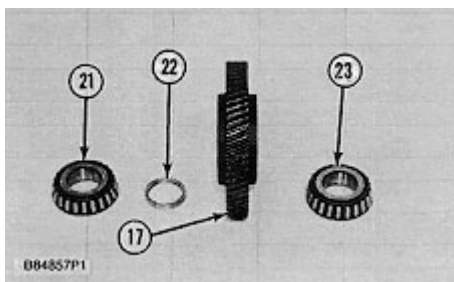


13. Remove bolt (16) and the washer from the cover assembly.

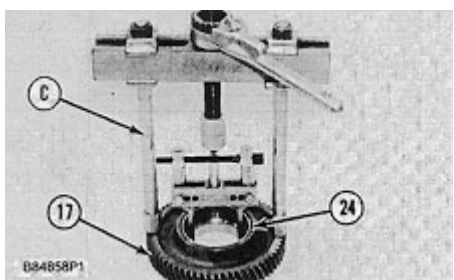
14. Use a 3/8" - 16 NC forcing screw (18) to push the shaft assembly out of the cover assembly. Remove transfer gear (17) from the cover assembly.



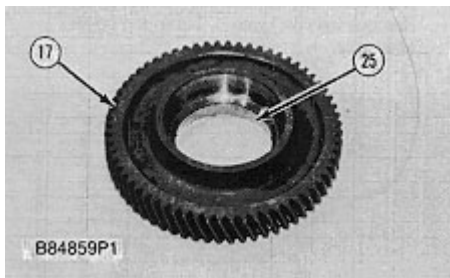
15. Remove O-ring seal (19) from shaft assembly (20).



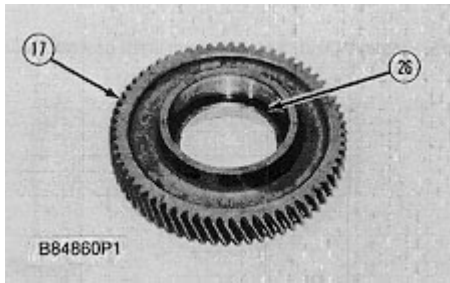
16. Remove bearing cone (21), spacer (22) and bearing cone (23) from transfer gear (17).



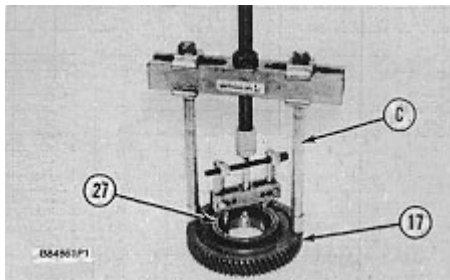
17. Use tooling (C) to remove bearing cup (24) from transfer gear (17).



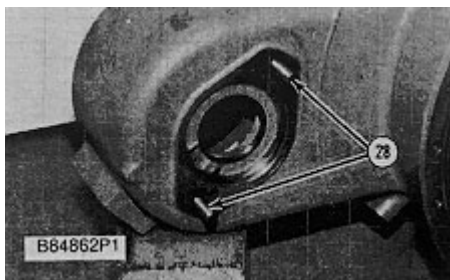
18. Remove spacer (25) from transfer gear (17).



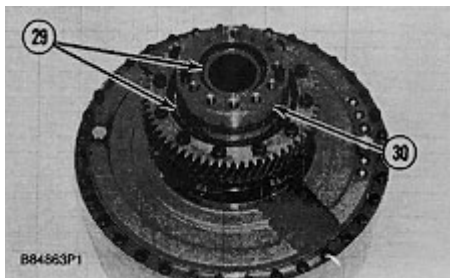
19. Remove retaining ring (26) from transfer gear (17).



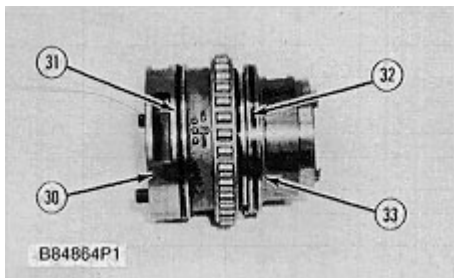
20. Use tooling (C), and remove bearing cup (27) from transfer gear (17).



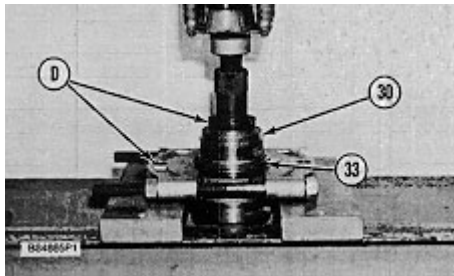
21. If necessary, remove studs (28) from the cover assembly.



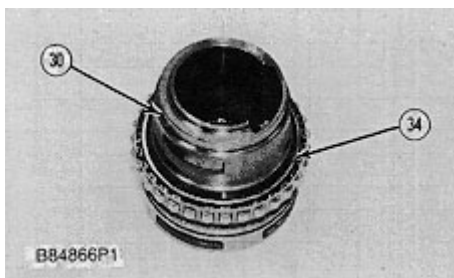
22. Remove retaining rings (29) and bearing carrier (30) from the carrier assembly.



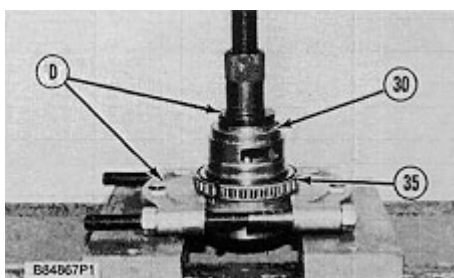
23. Remove O-ring seal (31) from bearing carrier (30) and seal ring (32) from ring carrier (33).



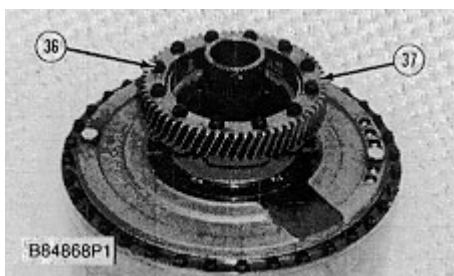
24. Use tooling (D) and a press to remove ring carrier (33) from bearing carrier (30).



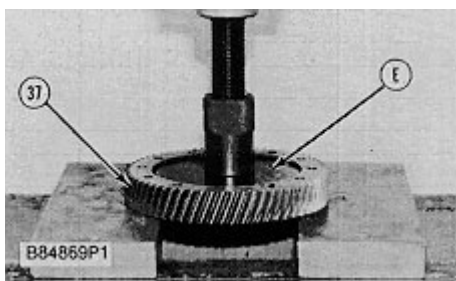
25. Remove retaining ring (34) from bearing carrier (30).



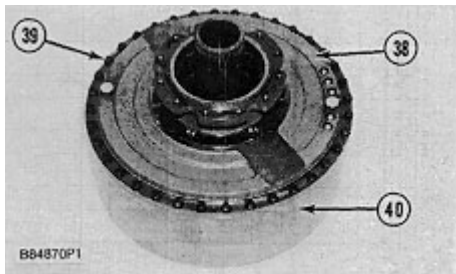
26. Use tooling (D) and a press to remove inner bearing (35) from bearing carrier (30).



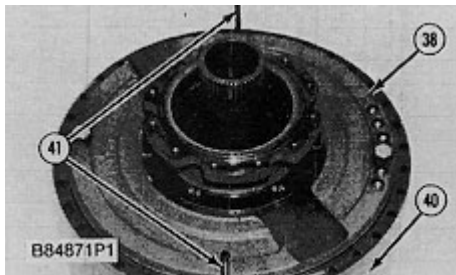
27. Remove bolts (36) and the washers and drive gear (37) from the drive flange.



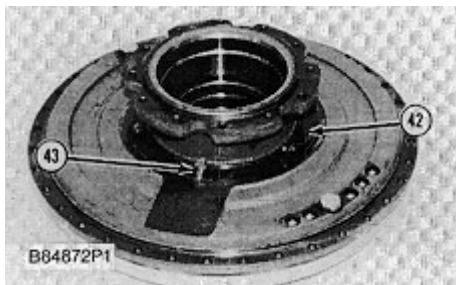
28. Use tool (E) and a press to remove the outer bearing race from drive gear (37).



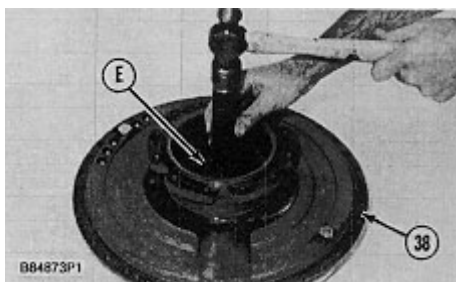
29. Remove bolts (39) that hold drive flange (38) to rotating housing (40).



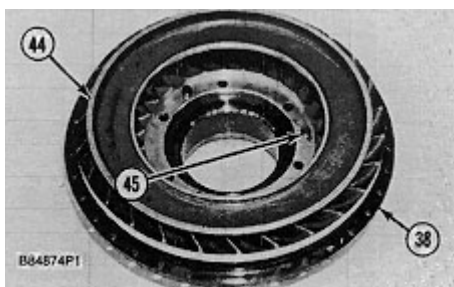
30. Use two 5/16" - 18 NC forcing screws (41) to remove drive flange (38) from rotating housing (40). The weight of the drive flange is **23 kg (51 lb)**.



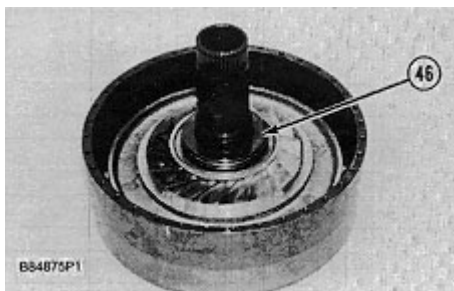
31. Remove bolts (43) and washers (42) that hold the hub and impeller to the drive flange.



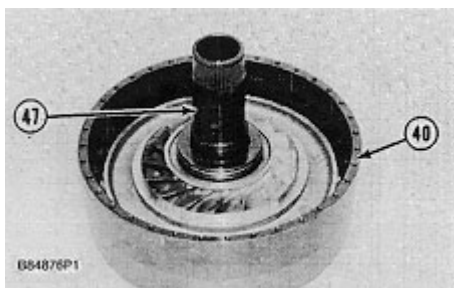
32. Use tool (E), and remove the hub from drive flange (38).



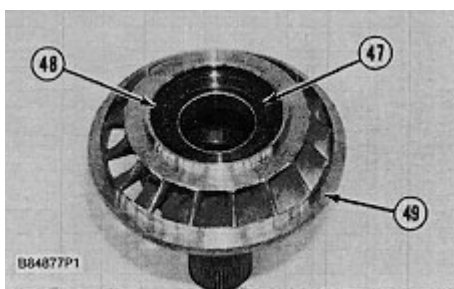
33. Remove impeller (44) from drive flange (38). If necessary, remove dowels (45) from the drive flange.



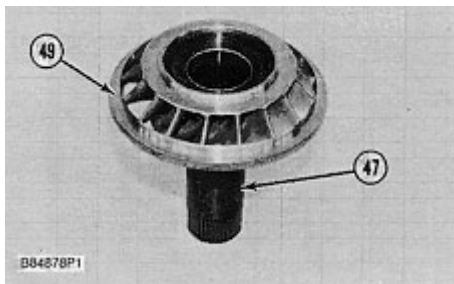
34. Remove two thrust bearing races (46) and the thrust bearing from the carrier assembly.



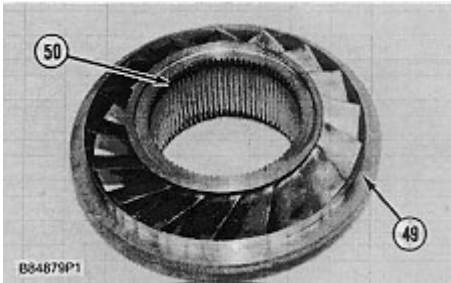
35. Remove carrier assembly (47) and the stator as a unit from rotating housing (40).



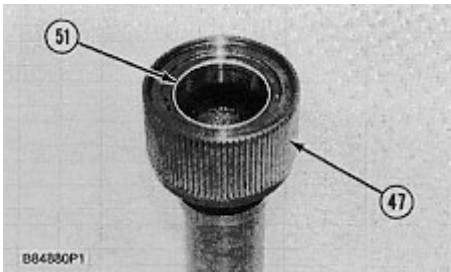
36. Remove retaining ring (48) that holds stator (49) to carrier assembly (47).



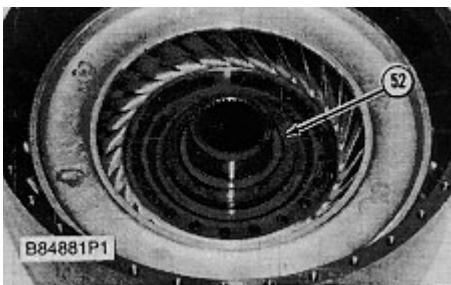
37. Heat stator (49) and carrier assembly (47) as a unit to a **minimum temperature of 121°C (250°F) for one hour** to expand the stator. Remove stator (49) from carrier assembly (47).



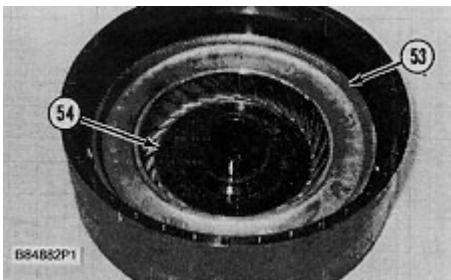
38. Remove retaining ring (50) from stator (48).



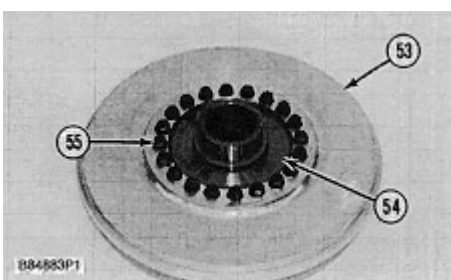
39. Remove sleeve bearing (51) from carrier assembly (47).



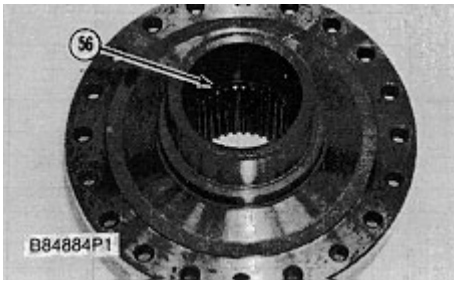
40. Remove thrust race (52) and the thrust bearing from the hub.



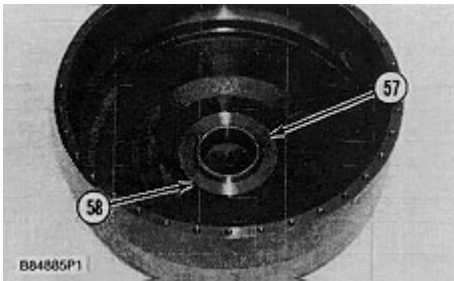
41. Remove turbine (53) and hub (54) as a unit from the rotating housing.



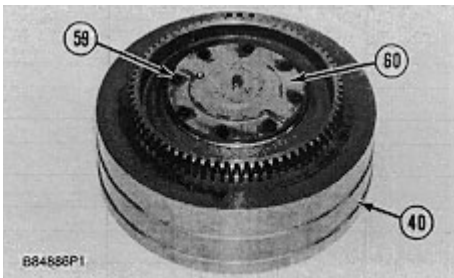
42. Remove bolts (55) and the washers. Remove turbine (53) from the hub (54).



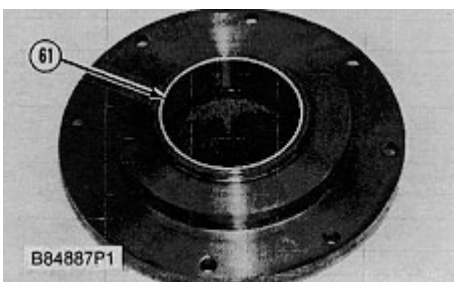
43. Remove retaining ring (56) from the hub.



44. Remove two thrust bearing races (57) and thrust bearing (58) from the cover assembly.



45. Remove bolts (59) and the washers. Remove cover (60) from rotating housing (40).

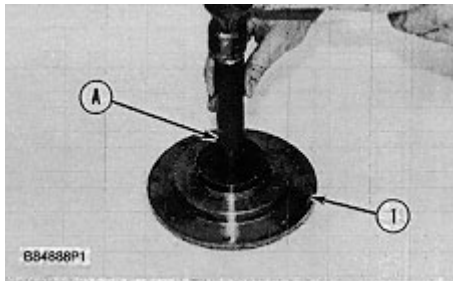


46. Remove sleeve bearing (61) from the cover.

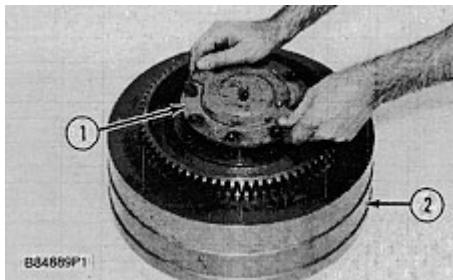
Assemble Torque Converter

Tools Needed		A	B	C
1P0520	Driver Group	1		
8S2328	Dial Indicator Test Group		1	
5P2390	Gauge Tool Group		1	
6V2156	Link Bracket			3

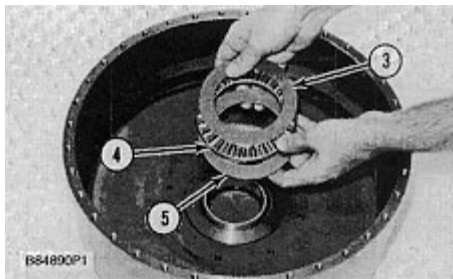
1. Check all parts of the torque converter for wear or damage. If any of the parts are worn or damaged, use new parts for replacement. Be sure all parts of the torque converter are thoroughly clean and free of dirt and debris prior to assembly.



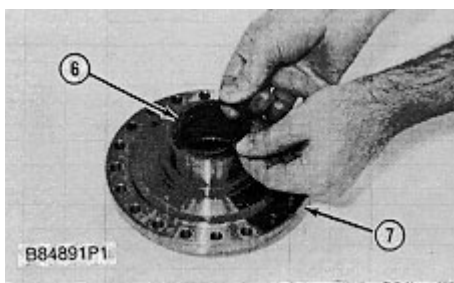
2. Using tool (A), install the sleeve bearing in cover (1). Install the sleeve bearing until it is even with the outside surface of the cover.



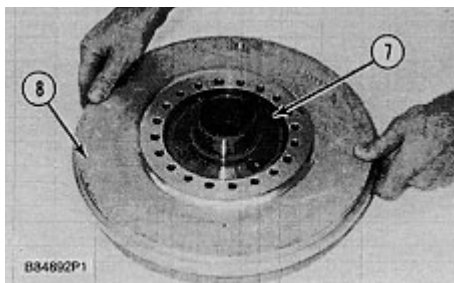
3. Put cover (1) in position on rotating housing (2). Install the bolts and washers that hold cover (1) in place. Tighten the bolts to a torque of $30 \pm 5 \text{ N}\cdot\text{m}$ ($22 \pm 4 \text{ lb ft}$).



4. Put thrust bearing race (5), thrust bearing (4), and thrust bearing race (3) in position on the cover.



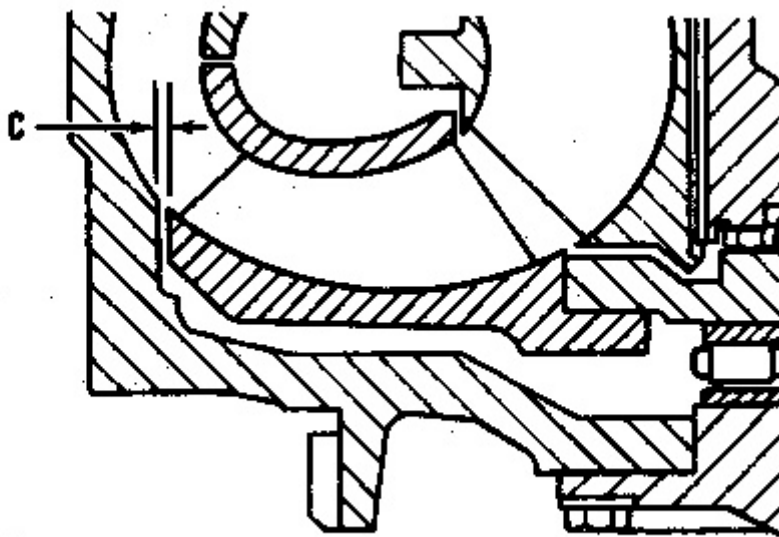
5. Install retaining ring (6) in hub (7).



6. Put turbine (8) in position on hub (7) as shown. Install the bolts that hold the turbine in place. Tighten the bolts to a torque of $55 \pm 10 \text{ N}\cdot\text{m}$ ($40 \pm 7 \text{ lb ft}$).



7. Put turbine (8) and the hub as a unit in position in the housing. Check the clearance between the hub and sleeve bearing in the cover. The clearance must be $0.150 \pm 0.051 \text{ mm}$ ($.0059 \pm .0020 \text{ in}$).



A72682P4

Thank you so much for reading.
Please click the “Buy Now!”
button below to download the
complete manual.



After you pay.

You can download the most
perfect and complete manual in
the world immediately.

Our support email:

ebooklibonline@outlook.com