CATERPILLAR®

Service Repair Manual

Models

D400E II ARTICULATED TRUCK

Product: ARTICULATED TRUCK
Model: D400E II ARTICULATED TRUCK 8PS
Configuration: D400E Series II Articulated Truck 8PS00001-UP (MACHINE) POWERED BY 3406E Engine

Disassembly and Assembly
D400E Series II Articulated Truck Power Train
Media Number -RENR1511-02 **Publication Date -01/12/2005** **Date Updated -19/12/2005**

i02251927

Torque Converter - Disassemble

SMCS - 3101-015

Disassembly Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	138-7573	Link Bracket	2
	8S-9906	Ratchet Puller	1
B	1P-0520	Driver Group	1
C	5F-7366	Forcing Screw	1
	1H-3112	Puller Assembly	1
D	2P-8312	Snap Ring Pliers	1
E	8B-7551	Bearing Puller	1
	8B-7550	Leg	2
	8B-7548	Puller	1
	8H-0684	Ratchet Wrench	1
F	1P-2321	Combination Puller	1

Start By:

A. Separate the torque converter from the engine. Refer to Disassembly and Assembly, RENR1511, "Engine and Torque Converter - Separate".

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.

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.

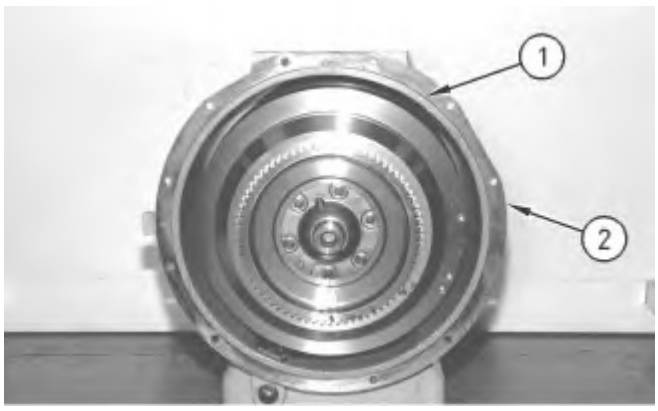

Illustration 1 g00583290

1. Remove O-ring seal (1) from torque converter cover (2) .

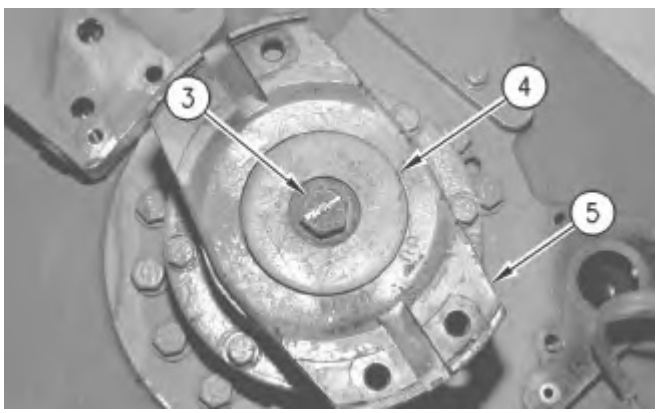

Illustration 2 g00583291

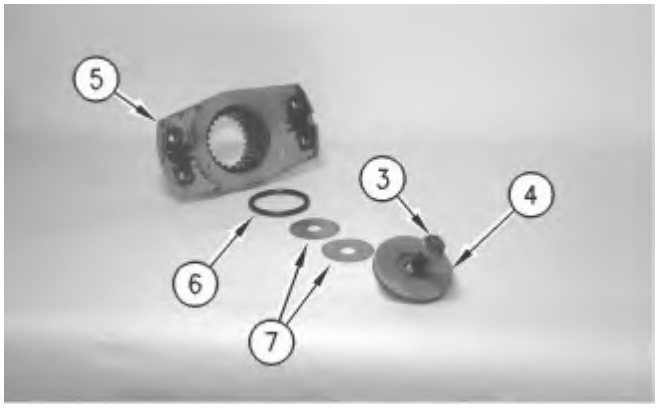

Illustration 3 g00583293

2. Remove bolt (3) , hard washer (4) , shims (7) , O-ring seal (6) , and flange (5) from the torque converter cover.

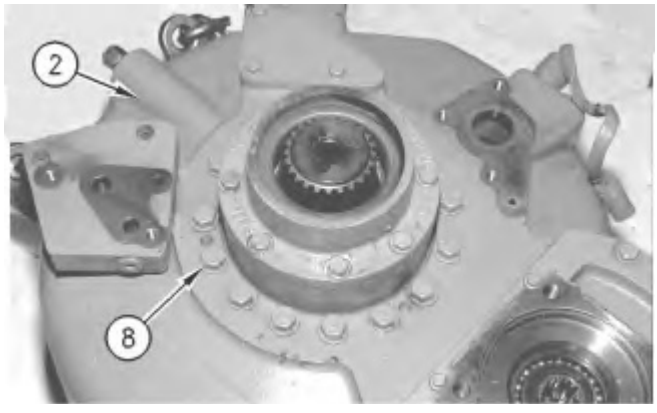

Illustration 4 g00583297

3. Remove bolts (8) and the hard washers that secure cover (2) to the torque converter.

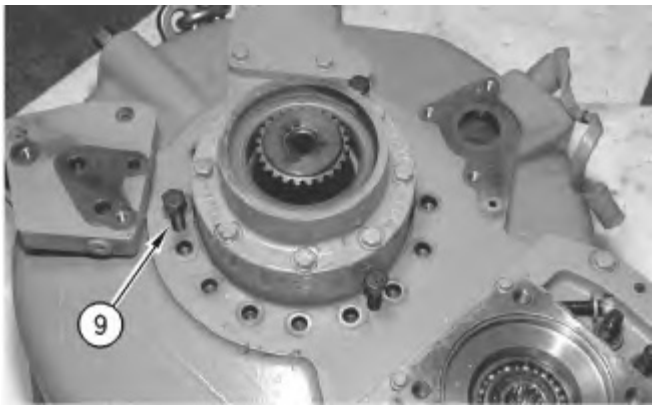

Illustration 5 g00583539

4. Use three 1/2" - 13 NC forcing screws (9) in order to separate the cover from the torque converter.

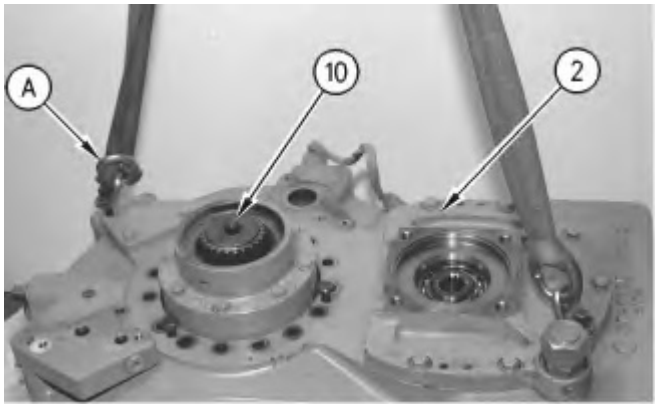

Illustration 6 g00583540

5. Attach Tooling (A) , appropriate lifting straps, and a hoist to cover (2) . Remove cover (2) from torque converter (10) . The weight of the cover is approximately 153 kg (338 lb).

6. Rotate the torque converter assembly by 180 degrees. The weight of the converter assembly is approximately 180 kg (397 lb).

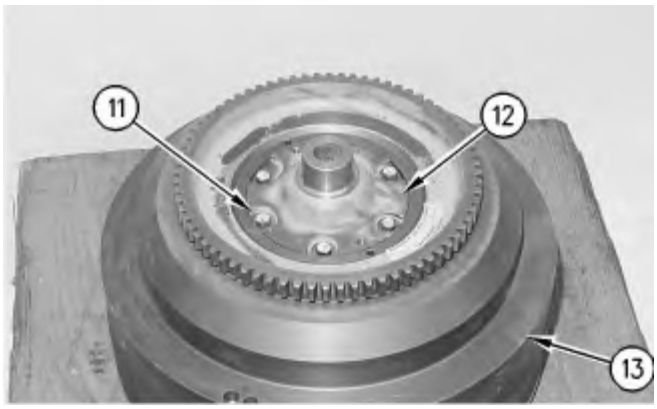

Illustration 7 g00583299

7. Remove bolts (11) and torque converter pilot hub (12) from housing (13) .

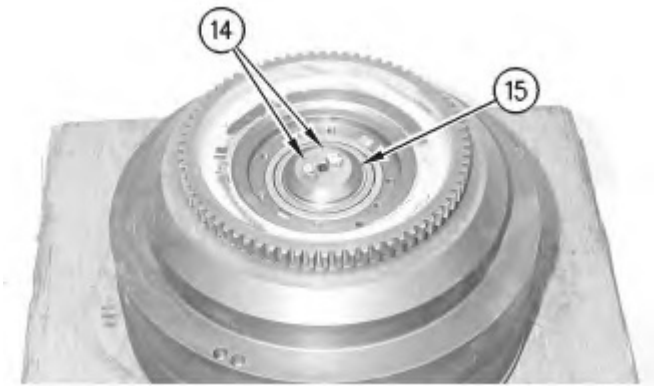

Illustration 8 g00583301

8. Remove two bolts (14) , plate (15) , and the washer from the shaft.

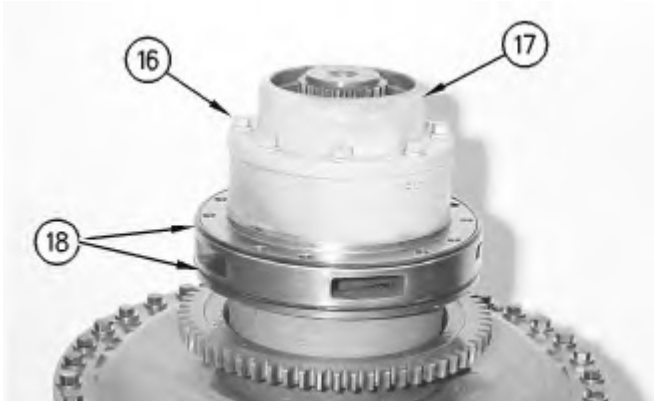

Illustration 9 g00583499

9. Rotate the torque converter assembly by 180 degrees. The weight of the converter assembly is approximately 180 kg (397 lb). Remove two O-ring seals (18) . Remove bolts (16) , the lockwashers, retainer (17) and the gasket.

Illustration 10 g00583304

10. Remove lip type seal (19) from retainer (17) . Note the orientation of the lip type seal to retainer (17) for assembly purposes.

Illustration 11 g00583305

11. Remove shaft assembly (20) from the torque converter.

Illustration 12 g00583306

12. Put a support under carrier (22) . Use a press in order to push shaft (20) out of bearing (21) and the carrier. Remove the O-ring seals from the carrier.

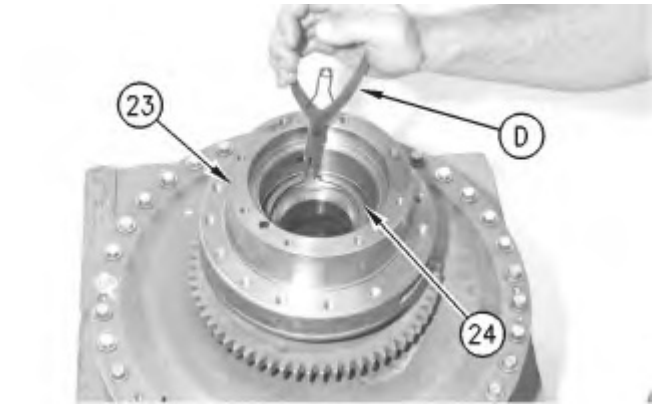

Illustration 13 g00583307

13. Use Tooling (D) in order to remove retainer ring (24) that holds carrier (23) on the carrier assembly. Remove the carrier from the converter assembly.

Illustration 14 g00583308

14. Rotate carrier (23) by 180 degrees. Remove retainer ring (25) that holds sleeve (26) and bearing (27) in carrier (23) .

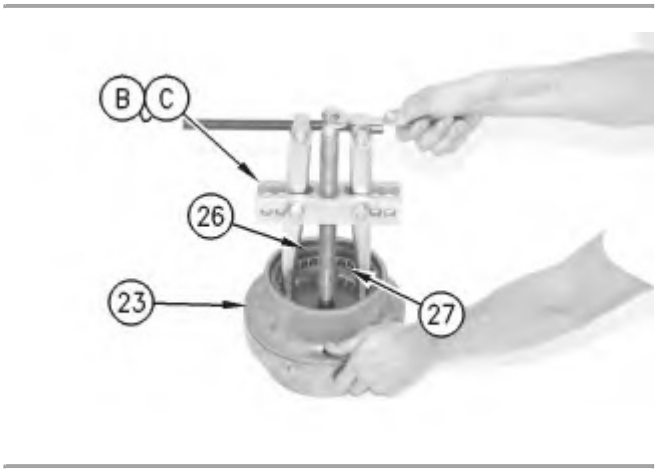

Illustration 15 g00583330

15. Use Tooling (B) and (C) in order to remove sleeve (26) and bearing (27) from carrier (23) .

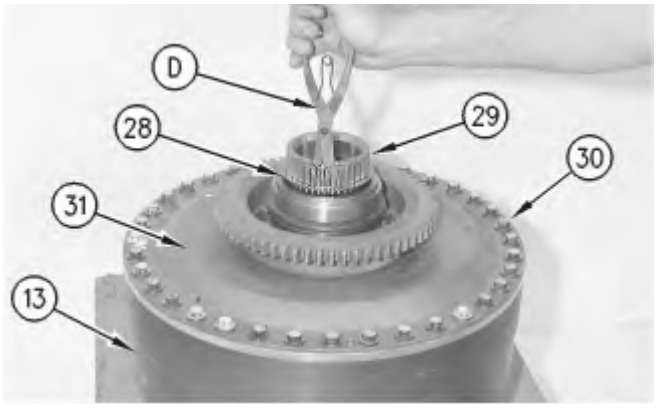

Illustration 16 g00583332

16. Use Tooling (D) in order to remove retainer ring (28) from carrier assembly (29) . Remove bolts (30) and the hard washers that secure plate (31) and the impeller to housing (13) .

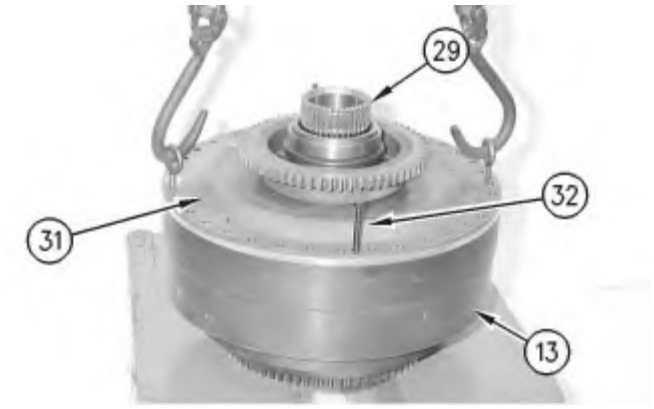

Illustration 17 g00583333

17. Install two 3/8 " - 16 NC Forged Eyebolts. Attach a hoist, as shown. Use two 3/8 " - 16 NC forcing screws (32) in order to separate the impeller and carrier assembly (29) from housing (13) . Remove plate (31) and remove the impeller from housing (13) . The weight of the impeller assembly is 29 kg (64 lb).

Illustration 18 g00583334

18. Use Tooling (B) and (E) in order to remove bearing race (33) from the hub.

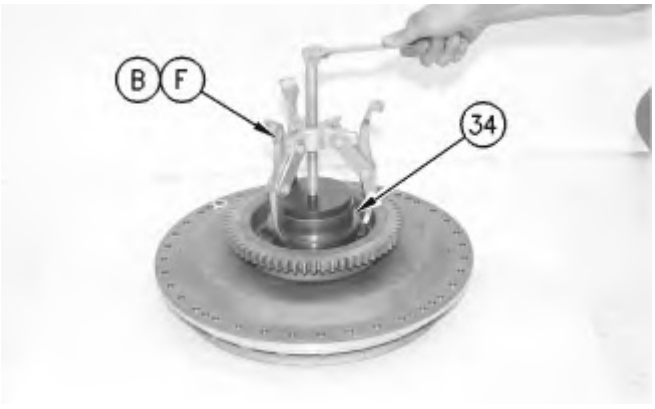

Illustration 19 g00583335

19. Use Tooling (B) and (F) in order to remove carrier (34) from the hub. Remove the ring seal from the hub.

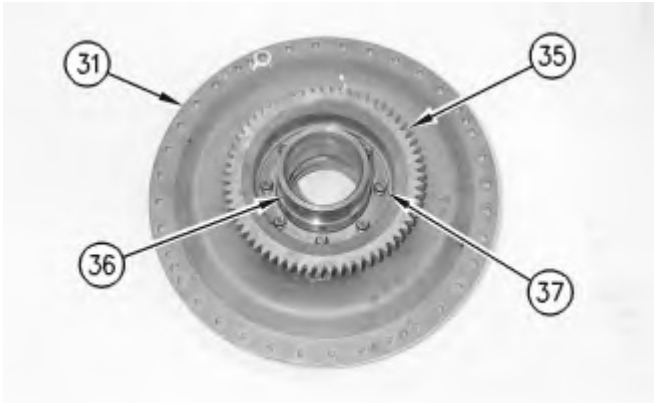

Illustration 20 g00583336

20. Remove bolts (37) that hold hub (36) , gear (35) , plate (31) , and the impeller together. Remove the gear and the plate from the hub and the impeller.

Illustration 21 g00583337

21. Remove O-ring seal (39) and impeller (38) from hub (36) .

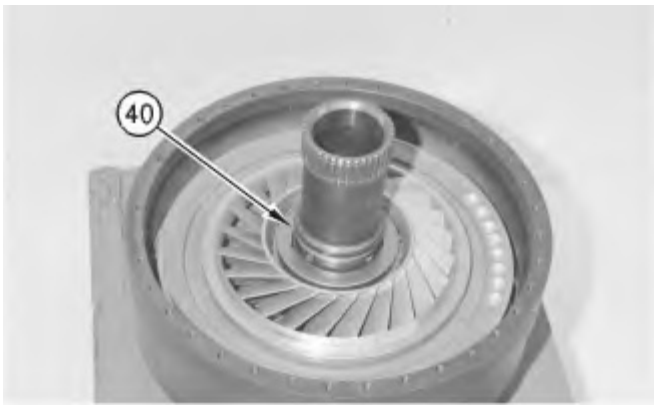

Illustration 22 g00583338

22. Remove the race and retainer assembly (40) from the stator assembly. Remove the bearing from the stator assembly.

Illustration 23 g00583339

23. Use two persons in order to remove the stator and carrier assembly (41) from the turbine and the housing. The weight of the stator and carrier assembly is approximately 28 kg (62 lb).

Illustration 24 g00583706

24. Remove retaining ring (42) from stator assembly (41) .

25. Remove carrier assembly (29) from stator assembly (41) . Remove plate (43) , the springs, and the rollers from the stator assembly.

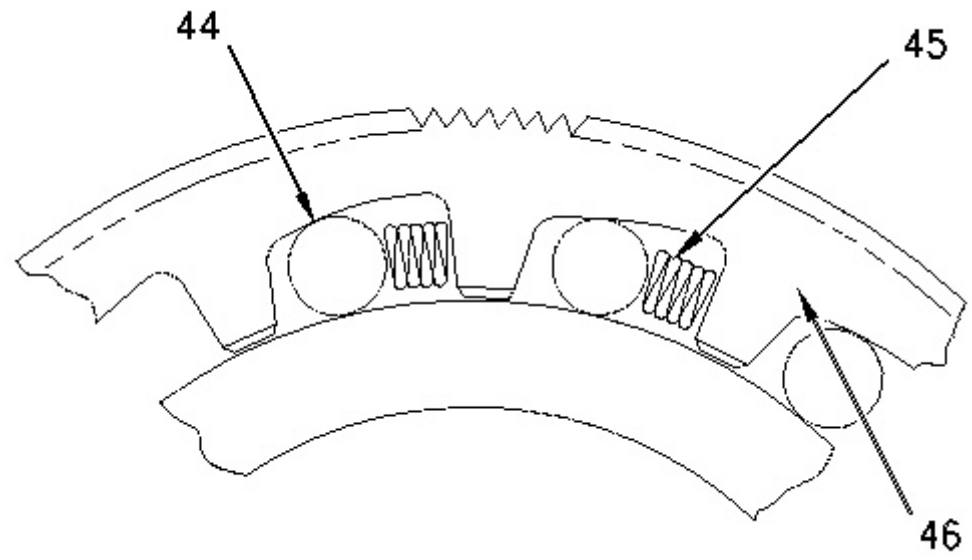

Illustration 25 g00583303

26. Remove springs (45) and rollers (44) from cam (46) .

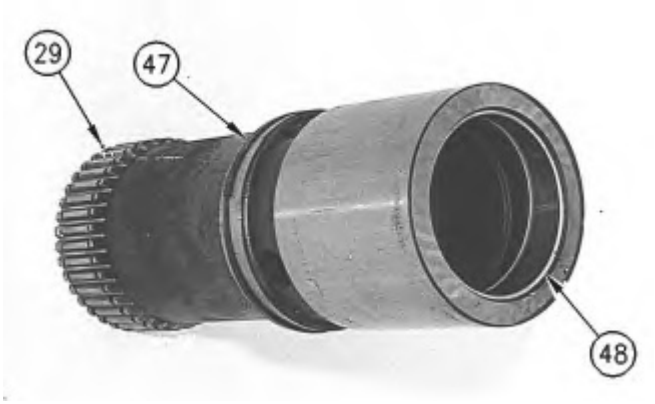

Illustration 26 g00583340

27. Remove ring (47) from carrier (29) . Remove bearing (48) from the carrier only if a replacement is required. Removal can cause damage to the bearing.

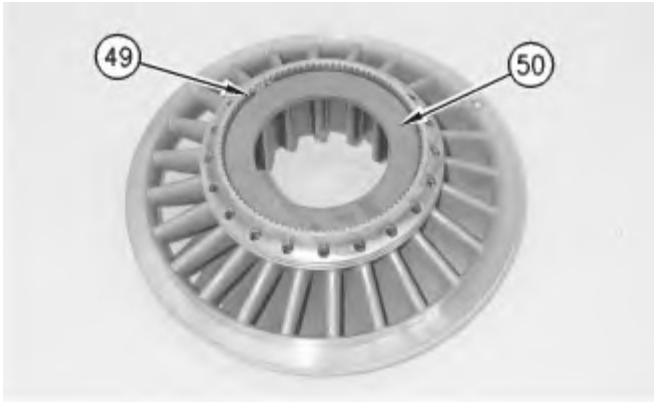

Illustration 27 g00583341

28. Rotate the stator by 180 degrees. Remove retainer ring (49) and plate (50) from the stator.

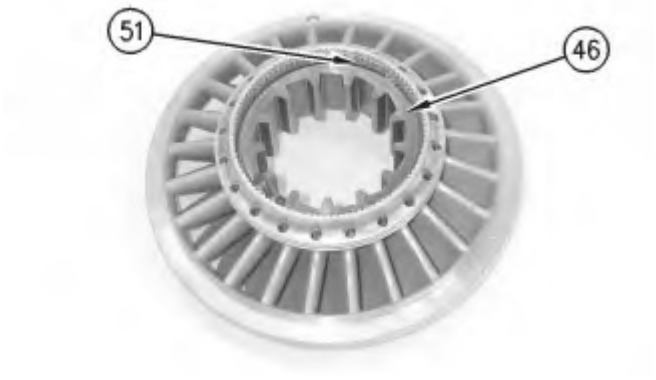

Illustration 28 g00583342

29. Remove retainer ring (51) from the stator. Heat the stator to a maximum temperature of 135 °C (275 °F) for approximately fifteen minutes. Push cam (46) out of the stator.

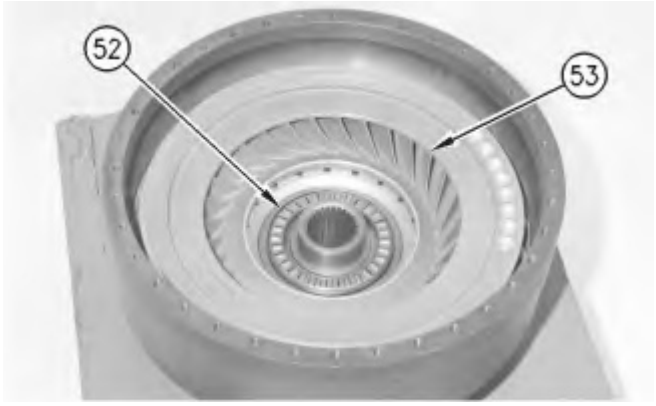

Illustration 29 g00583343

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