Product: TRACK LOADER
 Model: 963K TRACK LOADER LBL
 Configuration: 963K TRACK-TYPE LOADER LBL00001-UP (MACHINE) POWERED BY C7.1 Engine

### **Disassembly and Assembly**

963K Track Type Loader Power Train

Media Number -UENR0008-02

Publication Date -01/10/2016

Date Updated -07/10/2016

i06841166

## **Final Drive and Sprocket - Disassemble**

**SMCS -** 4050-015; 4164-015

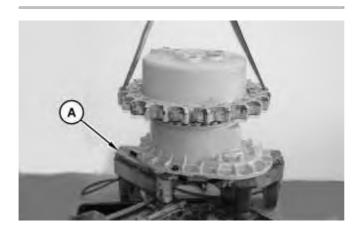
## **Disassembly Procedure**

Table 1     Required Tools					
A	1P-2420	Transmission Repair Stand	1		
	FT-0996	Positioning Gp	1		
	FT-0957	Positioning Gp	1		
В	439-3938	Link Bracket			
C	1U-6400	Three Jaw Puller	1		
D	1P-0820	Hydraulic Puller	1		
	3H-0465	Push-Puller Plate	4		
	5F-7369	Puller Leg	2		
	350-7768	Electric Hydraulic Pump Gp (115 V)	1		
	350-7769	Electric Hydraulic Pump Gp (230 V)	1		
	4C-5655	Threaded Adapter	2		
	1P-0527	Plate	1		
E	439-3940	Link Bracket	2		
F	1P-2322	Combination Puller			
G	1P-0074	Slide Hammer Puller Gp			

4C-5655	Threaded Adapter	1
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### Start By:

- a. Remove the final drive and sprocket.
- b. Remove the track brakes.



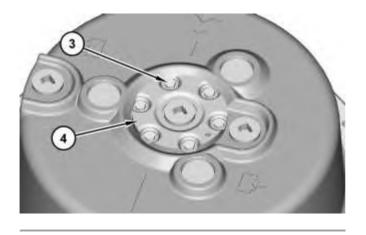
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Illustration 1
```

g01291262



Illustration 2

- 1. Attach Tooling (A) and a suitable lifting device to the final drive. The weight of the final drive is approximately 522 kg (1150 lb). Position the final drive onto Tooling (A).
- 2. Remove bolts (1) and sprocket segments (2).



g01291251

3. Remove bolts (3) and cover (4).

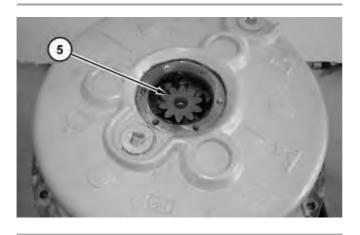


Illustration 4

g01291267

4. Remove sun gear shaft (5).

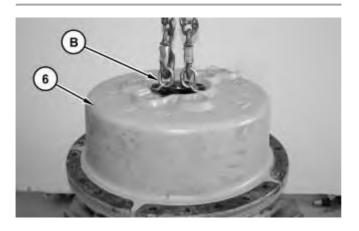
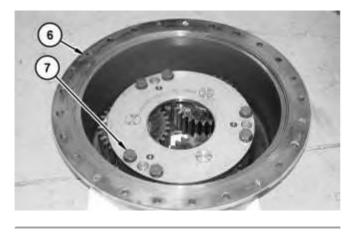


Illustration 5

g01291271

5. Attach Tooling (B) and a suitable lifting device to carrier assembly (6). The weight of carrier assembly (6) is approximately 136 kg (300 lb). Remove carrier assembly (6).



g01291290

6. Reposition carrier assembly (6) and remove bolts (7).

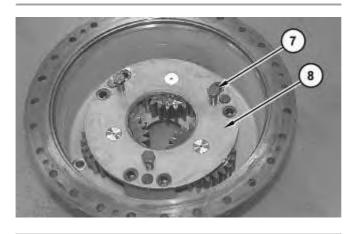


Illustration 7

g01291345

7. Use bolts (7) to remove plate (8).

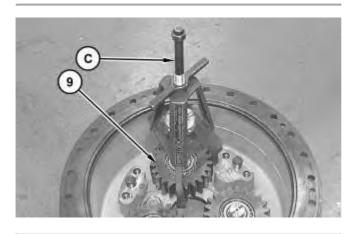
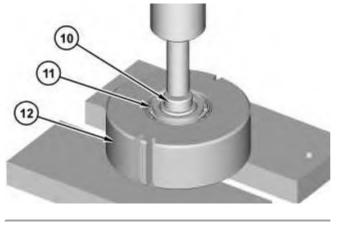


Illustration 8

g01291348

8. Install Tooling (C) to remove the gear and shaft assembly (9).



g01297364

- 9. Use a suitable press to remove shaft (10) from bearing cone (11) and gear and shaft assembly (12).
- 10. Place shaft (10) and the bearing cone in a position to remove the remaining bearing cone from the other end of shaft (10).

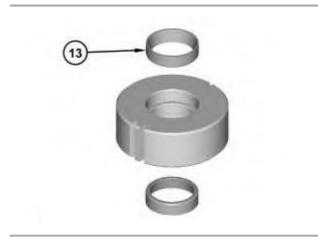


Illustration 10

g01297505

11. Remove bearing cups (13).



12. Remove bolts (14) and retainer (15).

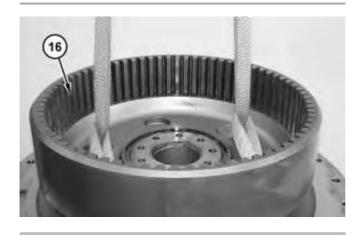
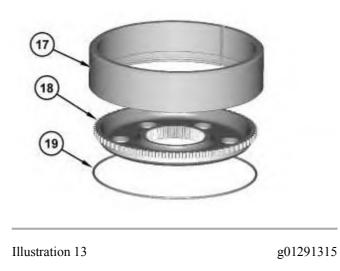


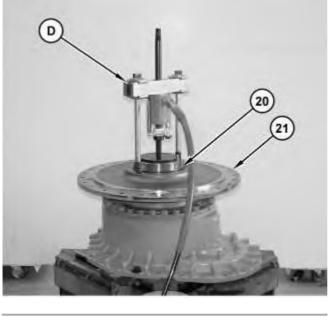
Illustration 12

g01291308

13. Attach a suitable lifting device to ring gear assembly (16). The weight of ring gear assembly (16) is approximately 45 kg (100 lb). Remove ring gear assembly (16).



14. Remove retaining ring (19) and hub (18) from ring gear (17).





g01291318

15. Use Tooling (D) to remove bearing cone (20) and hub (21).

**Note:** Maximum pressure must not exceed 39300 kPa (5700 psi) or damage to the Tooling or the component could result.

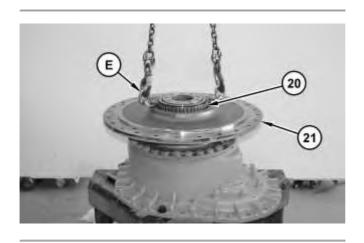


Illustration 15

- 16. Remove bearing cone (20).
- 17. Attach Tooling (E) and a suitable lifting device to hub (21). The weight of hub (21) is approximately 73 kg (160 lb). Remove hub (21).



g01291328

18. Remove Duo-Cone seal (22) and bearing cup (23) from hub (21).

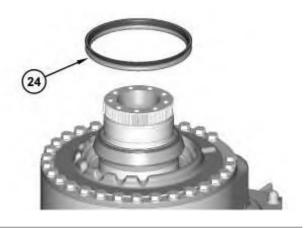


Illustration 17

g01291331

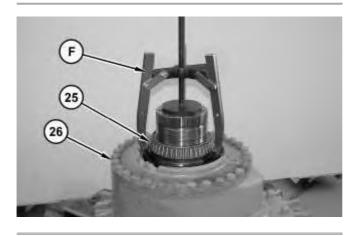
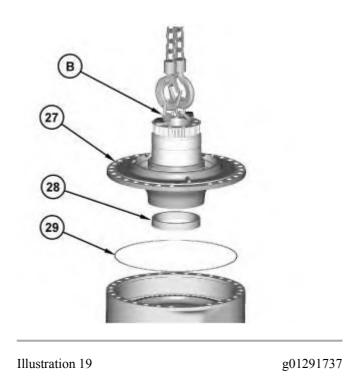
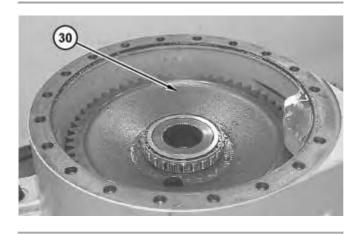
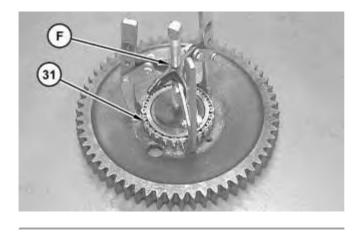


Illustration 18



- 19. Remove Duo-Cone seal (24).
- 20. Use Tooling (F) to remove bearing cone (25).
- 21. Attach Tooling (B) and a suitable lifting device to hub assembly (27). The weight of hub assembly (27) is approximately 128 kg (282 lb). Remove bolts (26), hub assembly (27), and O-ring seal (29).
- 22. Remove bearing race (28) from hub assembly (27).





g01291747

- 23. Remove gear (30).
- 24. Use Tooling (F) to remove bearing (31) from gear (30).

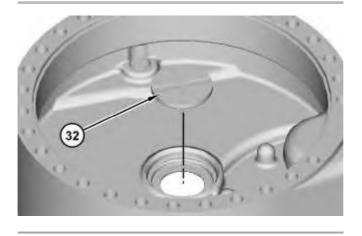


Illustration 22

g01291853

25. Remove thrust plate (32).

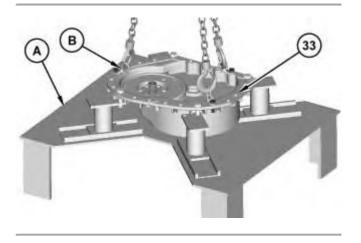


Illustration 23

26. Attach Tooling (B) and a suitable lifting device to housing assembly (33). The weight of housing assembly (33) is approximately 75 kg (165 lb). Position housing assembly (33) onto Tooling (A).

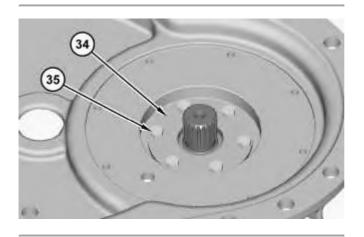


Illustration 24

g01291919

27. Remove bolts (35) and plate (34).

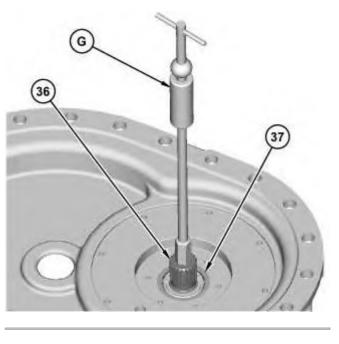
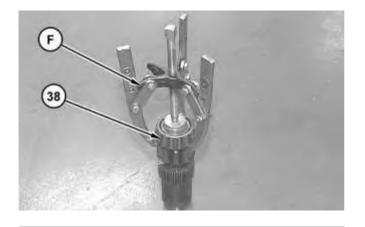


Illustration 25

g01291922

28. Use Tooling (G) to remove gear assembly (36) and upper bearing cup (37).



g01292019

29. Use Tooling (F) to remove bearing cones (38).

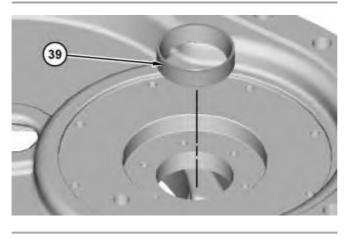


Illustration 27

g01291923

30. Remove lower bearing cup (39).

Product: TRACK LOADER
Model: 963K TRACK LOADER LBL
Configuration: 963K TRACK-TYPE LOADER LBL00001-UP (MACHINE) POWERED BY C7.1 Engine

### **Disassembly and Assembly**

963K Track Type Loader Power Train

Media Number -UENR0008-02

Publication Date -01/10/2016

Date Updated -07/10/2016

i07024228

## **Final Drive and Sprocket - Assemble**

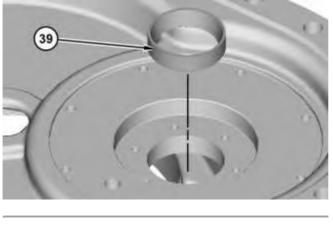
SMCS - 4050-016; 4164-016

## **Assembly Procedure**

Table 1

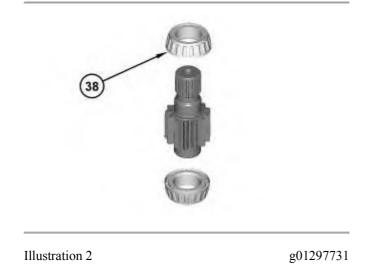
Required Tools					
Tool	Part Number	Part Description	Qty		
A	1P-2420	Transmission Repair Stand	1		
	FT-0996	Positioning Gp	1		
	FT-0957	Positioning Gp	1		
В	439-3938	Link Bracket	2		
E	439-3940	Link Bracket	2		
F	1U-9895	Crossblock	1		
Н	-	Loctite 5127	-		

**Note:** Check the O-ring seals, the gaskets, and the seals for wear or for damage. Replace the components, if necessary.

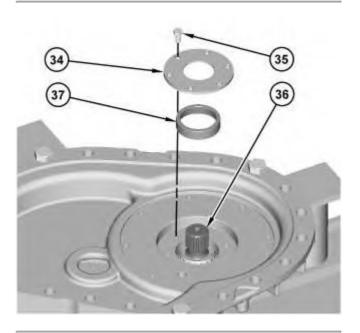


g01291923

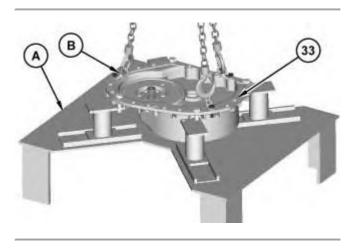
1. Lower the temperature of lower bearing cup (39) and install lower bearing cup (39).



2. Raise the temperature of bearing cones (38) and install bearing cones (38).



- 3. Install gear assembly (36). Lower the temperature of upper bearing cup (37) and install upper bearing cup (37).
- 4. Install plate (34) and bolts (35).



g01291930

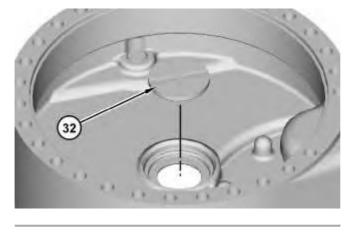
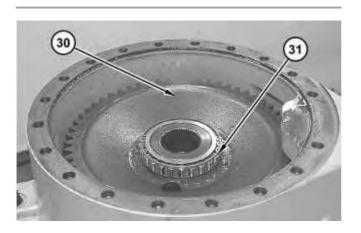


Illustration 5

- 5. Attach Tooling (B) and a suitable lifting device to housing assembly (33). The weight of housing assembly (33) is approximately 75 kg (165 lb).
- 6. Reposition housing assembly (33). Install thrust plate (32).



Raise the temperature of bearing (31) and install bearing (31) onto gear (30). Install gear (30).

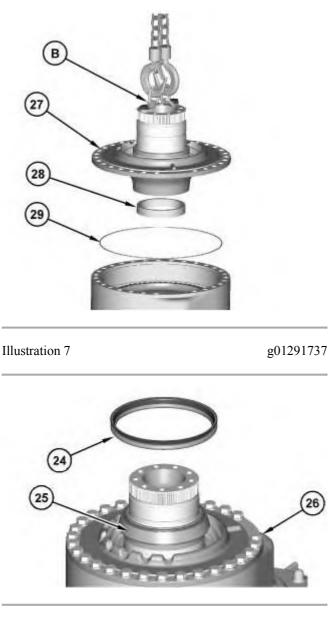
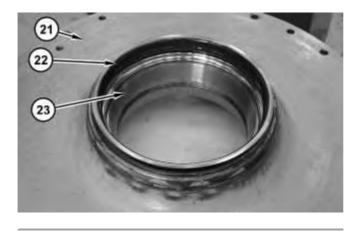


Illustration 8



- 8. Lower the temperature of bearing race (28) and install bearing race (28) into hub assembly (27).
- 9. Attach Tooling (B) and a suitable lifting device to hub assembly (27). The weight of hub assembly (27) is approximately 128 kg (282 lb). Install O-ring seal (29), hub assembly (27), and bolts (26). Tighten bolts (26) to a torque of 300 ± 40 N ⋅ m (221 ± 30 lb ft).
- 10. Raise the temperature of bearing cone (25) and install bearing cone (25).
- 11. Install Duo-Cone seal (24). Refer to Disassembly and Assembly, "Duo-Cone Conventional Seals Install".



g01291328

12. Lower the temperature of bearing cup (23) and install bearing cup (23). Install Duo-Cone seal (22) into hub (21). Refer to Disassembly and Assembly, "Duo-Cone Conventional Seals - Install".

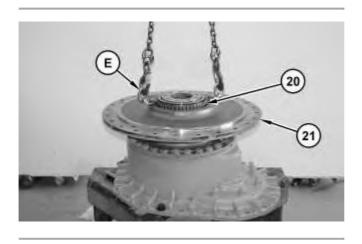
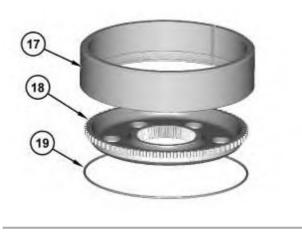


Illustration 10

- 13. Attach Tooling (E) and a suitable lifting device to hub (21). The weight of hub (21) is approximately 73 kg (160 lb). Install hub (21).
- 14. Raise the temperature of bearing cone (20) and install bearing cone (20).



15. Install hub (18) and retaining ring (19) onto ring gear (17).

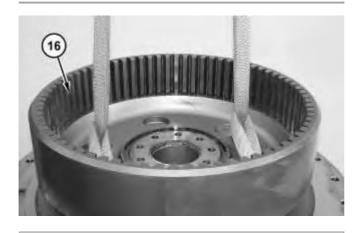


Illustration 12

g01291308

16. Attach a suitable lifting device to ring gear assembly (16). The weight of ring gear assembly (16) is approximately 45 kg (100 lb). Install ring gear assembly (16).

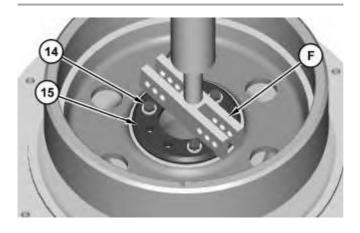


Illustration 13

g01300489

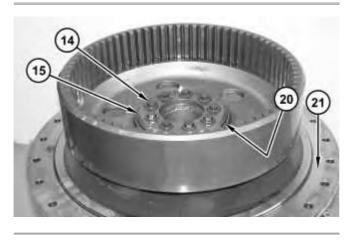


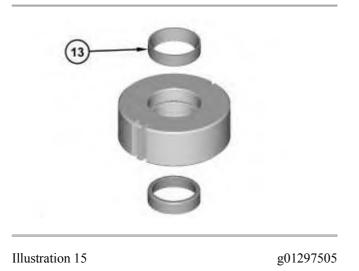
Illustration 14

g01297769

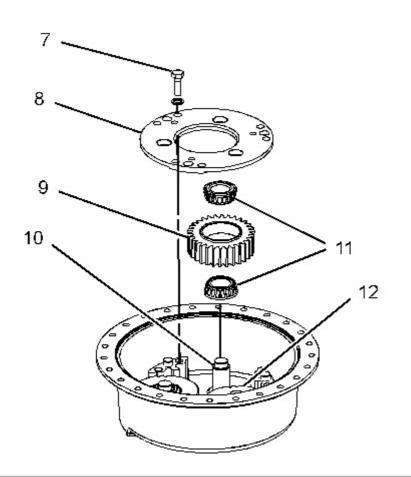
17. To properly seat bearing cone (20), use Tooling (F) and a suitable press to apply an axial load of 120000 N (26977 lb). Continually rotate hub (21). Install three of bolts (14) that are

located 120 degrees from each other and retainer (15). Tighten the bolts evenly to a torque of  $95 \pm 10 \text{ N} \cdot \text{m}$  ( $70 \pm 7 \text{ lb ft}$ ).

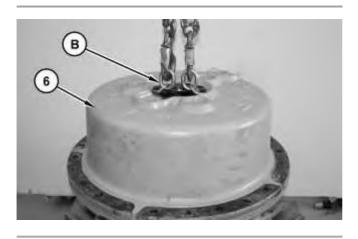
18. Remove Tooling (F) and install remaining bolts (14). Tighten all bolts (14) to a torque of  $120 \pm 20$  N·m (89 ± 15 lb ft).



19. Lower the temperature of bearing  $\sup(13)$  and install bearing  $\sup(13)$ .



- 20. Install shaft (10). Raise the temperature of bearing cone (11) and install bearing cone (11). Install gear and shaft assembly (9). Raise the temperature of remaining bearing cone (11) and install bearing cone (11). Repeat for the remaining gear and shaft assemblies (12).
- 21. Position plate (8) and install bolts (7). Tighten bolts (7) to a torque of  $570 \pm 80$  N·m (420 ± 59 lb ft).



g01291271

22. Attach Tooling (B) and a suitable lifting device to carrier assembly (6). The weight of carrier assembly (6) is approximately 136 kg (300 lb). Position carrier assembly (6).

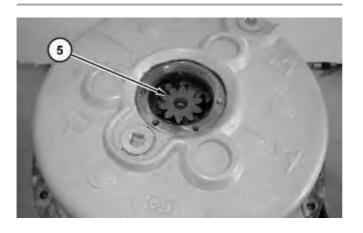
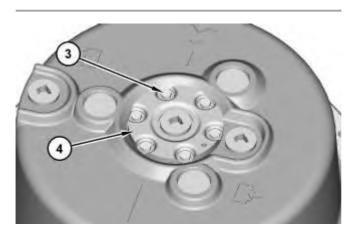


Illustration 18

g01291267

23. Install sun gear shaft (5).



#### g01291251

24. Apply Tooling (H) to cover (4) and the threads of bolts (3). Install cover (4) and bolts (3).

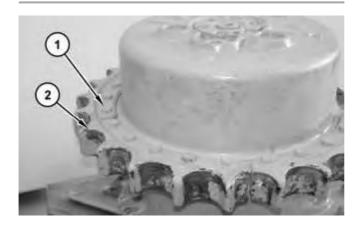


Illustration 20

g01291250

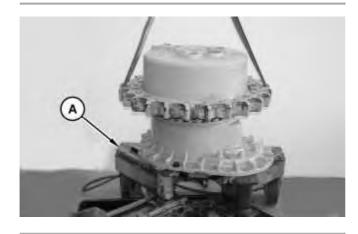


Illustration 21

g01291262

- 25. Install sprocket segments (2) and bolts (1). Lubricate bolts (1) with SAE 30 or an equivalent lubricant. Tighten bolts (1) to a torque of 175 ± 40 N ⋅ m (129 ± 30lb ft) plus an additional 1/3 turn.
- 26. Attach a suitable lifting device to the final drive. The weight of the final drive is approximately 522 kg (1150 lb). Disconnect and remove the final drive from Tooling (A).

#### End By:

- a. Install the track brakes.
- b. Install the final drive and sprocket.

Product: TRACK LOADER
 Model: 963K TRACK LOADER LBL
 Configuration: 963K TRACK-TYPE LOADER LBL00001-UP (MACHINE) POWERED BY C7.1 Engine

### **Disassembly and Assembly**

963K Track Type Loader Power Train

Media Number -UENR0008-02

Publication Date -01/10/2016

Date Updated -07/10/2016

i06781634

## **Track Brake - Remove and Install**

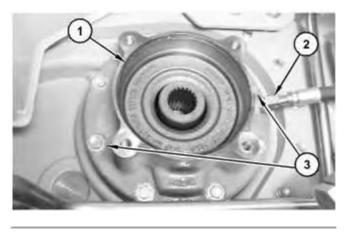
SMCS - 4251-010

## **Removal Procedure**

Table 1							
<b>Required Tools</b>							
Tool	Part Number	Part Description	Qty				
Α	-	M12 Guide Stud 1.75 by 200 mm	2				
	439-5246	Pump As	1				
В	6V-8936	Reducer	1				
D	3B-7722	Pipe Bushing	1				
	116-1859	Elbow	1				

### **Start By:**

a. Remove the piston motor (hydrostatic).



g06112390

1. Remove O-ring seal (1). Disconnect hose assembly (2). Remove two bolts (3).

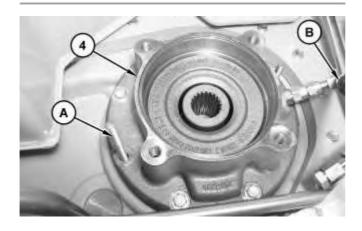


Illustration 2

g01333620

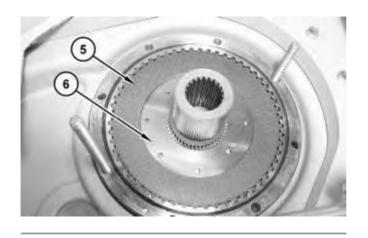


Personal injury can result from being struck by parts propelled by a released spring force.

Make sure to wear all necessary protective equipment.

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

- 2. Install Tooling (A) into the bolt holes. Install Tooling (B) to release the piston. Remove remaining six bolts (3).
- 3. Use two people to remove housing (4). The weight of housing (4) is approximately 28 kg (62 lb).



g01333631

4. Remove friction discs (5) and plates (6).

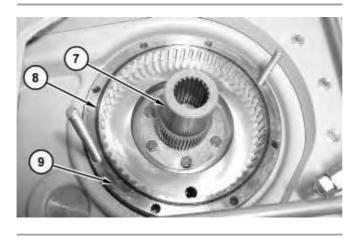


Illustration 4

g01333634

5. Remove shaft (7), O-ring seals (8), and ring (9).

# **Installation Procedure**

- 1. Install the track brake in the reverse order of removal.
  - a. Apply SAE 30 or equivalent lubricant to both sides of friction discs (5) and plates (6).

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