Product: EXCAVATOR
Model: 336F L XE EXCAVATOR KGH
Configuration: 336F L XE & 336F LN XE Excavators KGH00001-UP (MACHINE) POWERED BY C9.3 Engine

Disassembly and Assembly
336F Excavator Machine Systems
Media Number -UENR6140-04 **Publication Date -01/04/2015** **Date Updated -21/02/2018**

i03863290

Travel Motor - Disassemble

SMCS - 4351-015

Disassembly Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	1U-7506	Adapter	1
	8T-4244	Nut	6
	8T-4223	Hard Washer	6
	-	M12 x 1.75 by 250 mm (10 inch) Threaded Rod	1
B	8T-0651	Bolt	1
	8T-4167	Hard Washer	1
C	3E-3882	Eyebolt	1
D	1P-1859	Retaining Ring Pliers	1
E	1P-0510	Driver Gp	1
	9S-9152	Bearing Puller Gp	1
F	1P-1861	Retaining Ring Pliers	1

Start By:

a. Remove the travel motor.

1. Fasten the travel motor in Tooling (A) in a vertical position. The weight of the travel motor is approximately 60 kg (132 lb).

2. Put an alignment mark across the head and the body of the travel motor for assembly purposes. The head must be reinstalled in the head's original position on the body of the travel motor.

Illustration 1 g00887295

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.

Note: During the removal of head (2) from the travel motor, be careful not to damage the mating surfaces of the components.

3. Remove bolts (1).

4. Remove head (2) from the body of the travel motor.

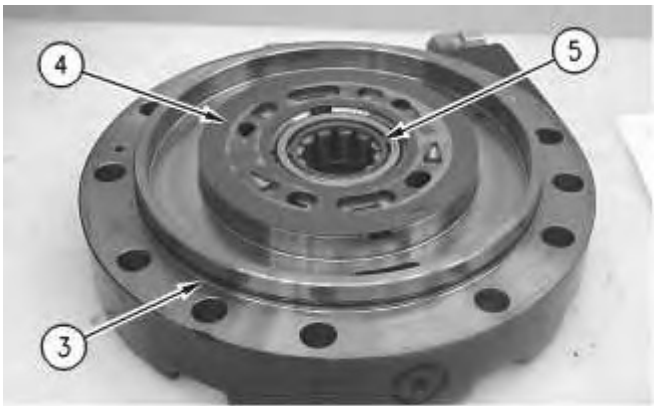

Illustration 2 g00887302

5. Remove O-ring seal (3), port plate (4), and bearing (5).

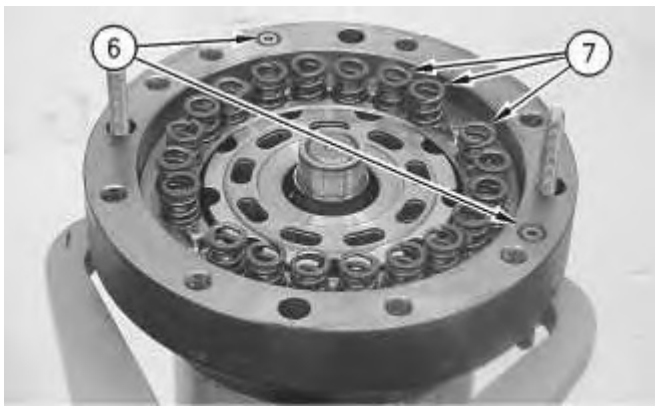

Illustration 3 g00887311

6. Remove O-ring seals (6). Remove springs (7).

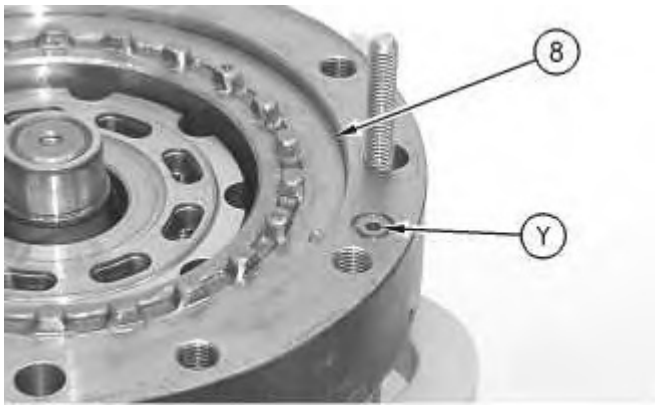

Illustration 4 g00887331

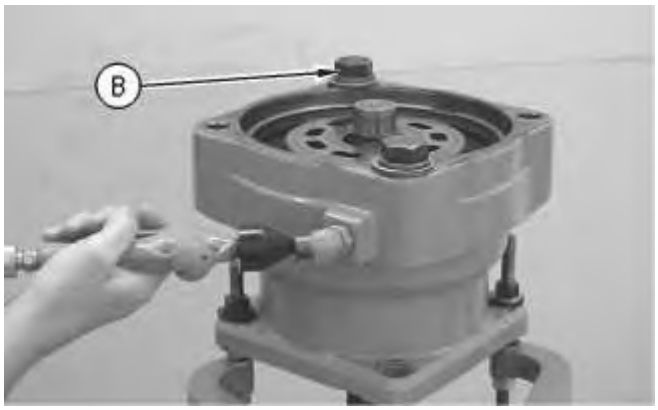

Illustration 5 g00890074

This is an example of the use of Tooling (B).

7. Place a shop towel over brake piston (8). Retain brake piston (8) with Tooling (B). Apply approximately 525 kPa (75 psi) of shop air pressure to brake release Port (Y). Make sure that the shop air pressure is free of water. Brake piston (8) will move up the piston guide, and out of the piston guide. Remove brake piston (8) from the body of the travel motor.

Illustration 6 g00887336

8. Remove seal (9) and backup ring (10) from the brake piston.
9. Remove seal (11) and backup ring (12) from the brake piston.

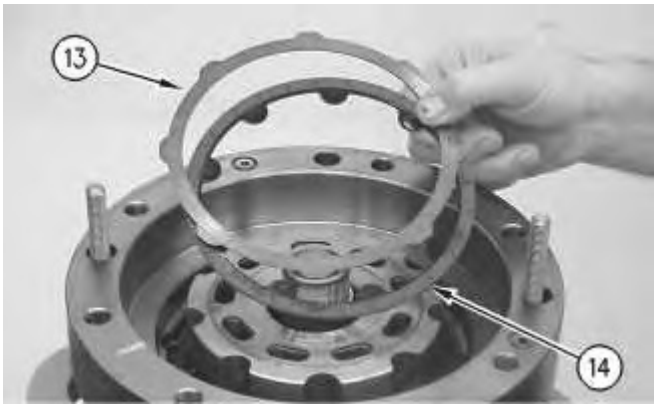

Illustration 7 g00887355

10. Remove plates (13) and friction discs (14).

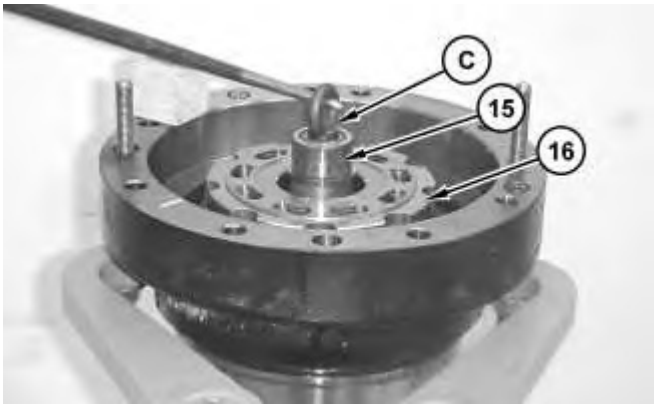

Illustration 8 g02107957

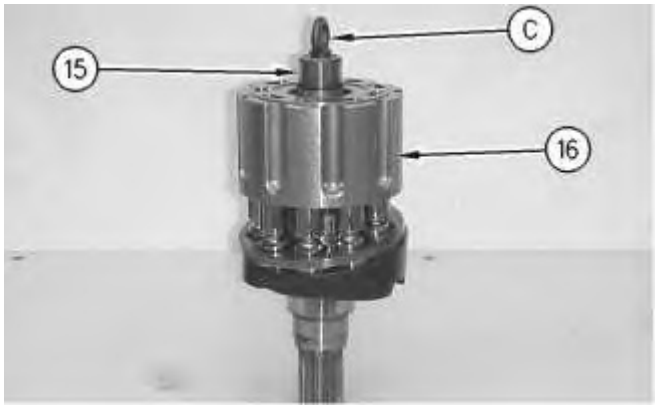

Illustration 9 g00887405

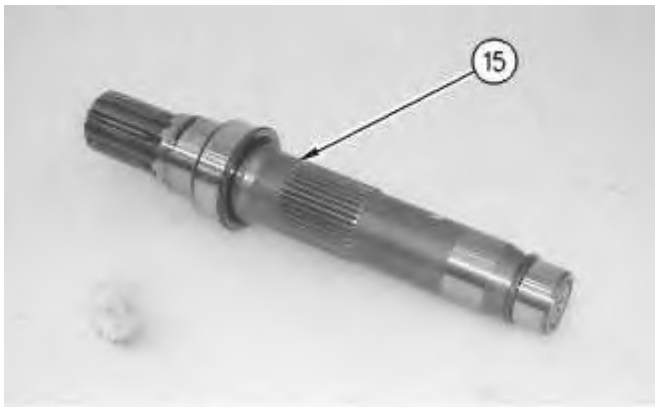

Illustration 10 g00887424

11. Install Tooling (C) into shaft (15). Use a prybar to remove the rotating assembly (16) from the housing.
12. Remove Tooling (C) from shaft (15).
13. Remove shaft (15) from rotating assembly (16).

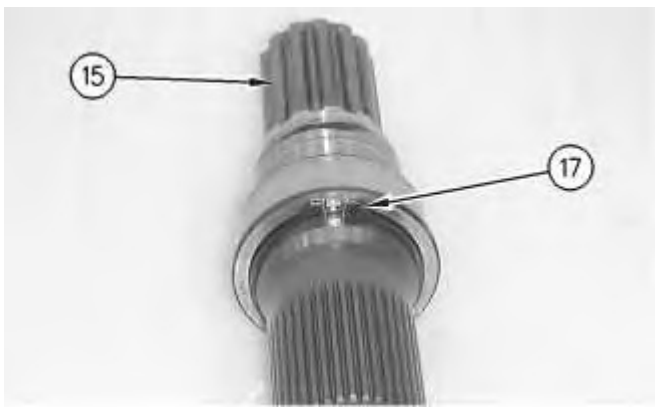

Illustration 11 g00887426

14. Use Tooling (D) in order to remove retaining ring (17) from shaft (15).

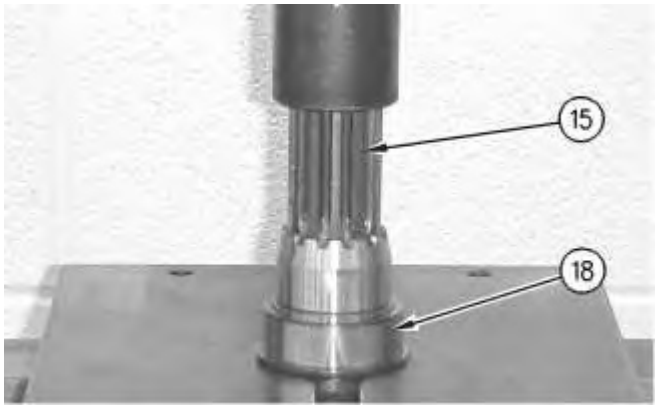

Illustration 12 g00887445

15. Use a suitable press in order to remove bearing race (18) from shaft (15).

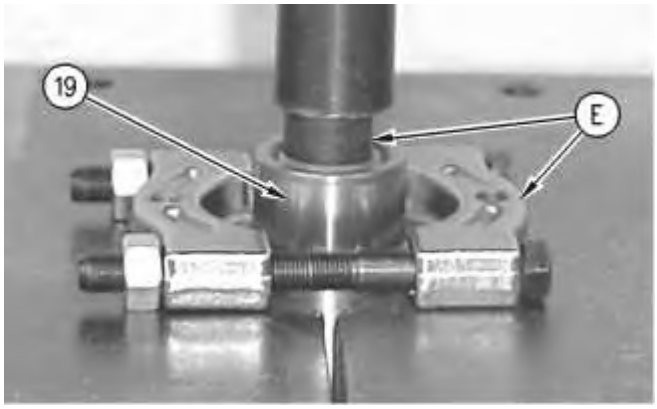

Illustration 13 g00887463

16. Rotate shaft (15). Use a suitable press and tooling (E) in order to remove bearing race (19) from shaft (15).

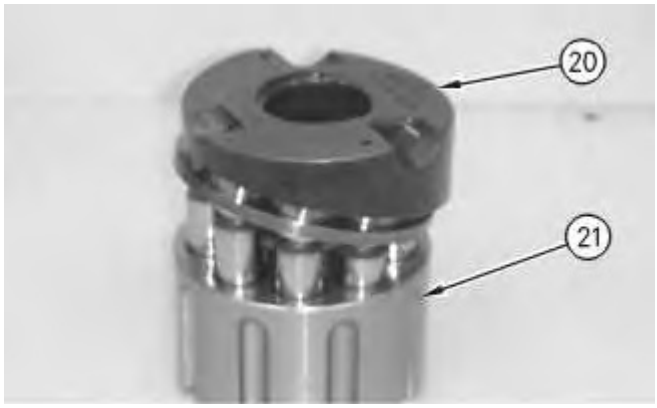

Illustration 14 g00887501

17. Remove cam plate (20) from barrel assembly (21).

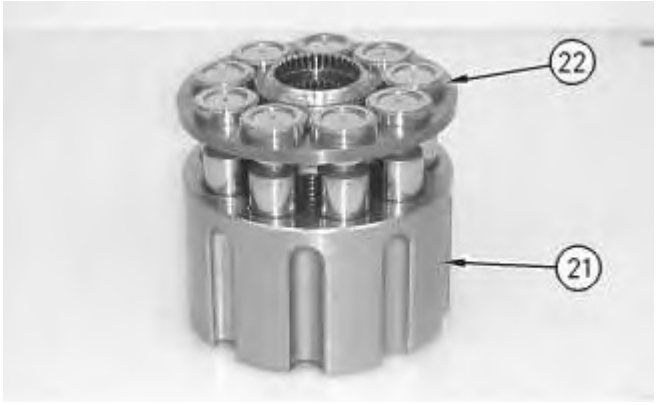

Illustration 15 g00887520

18. Remove piston assemblies and retainer plate (22) from barrel assembly (21).

    Note: Place marks on the pistons and the barrel assembly. The pistons must be returned to the original position.

Illustration 16 g00887558

WARNING

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Make sure to wear all necessary protective equipment.

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

19. Remove ball (23) and springs (24).

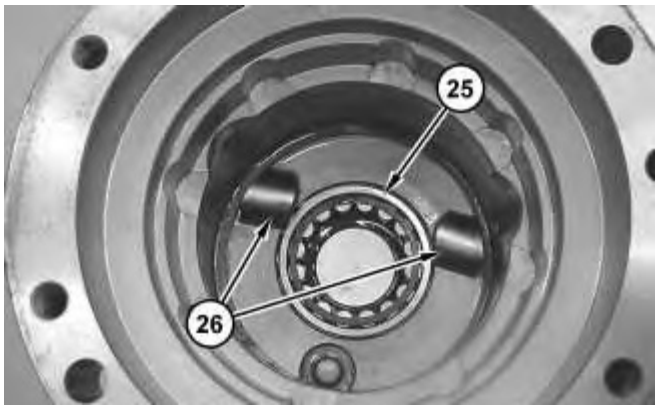

Illustration 17 g02107975

20. Remove bearing (25).
21. Remove keys (26) and locating pins (not shown) from the body of the travel motor.

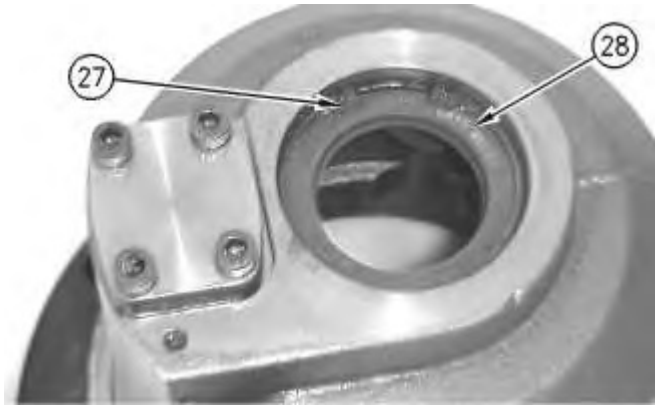

Illustration 18 g00887589

22. Rotate the housing. Use Tooling (F) in order to remove retaining ring (27).
23. Remove lip seal (28).

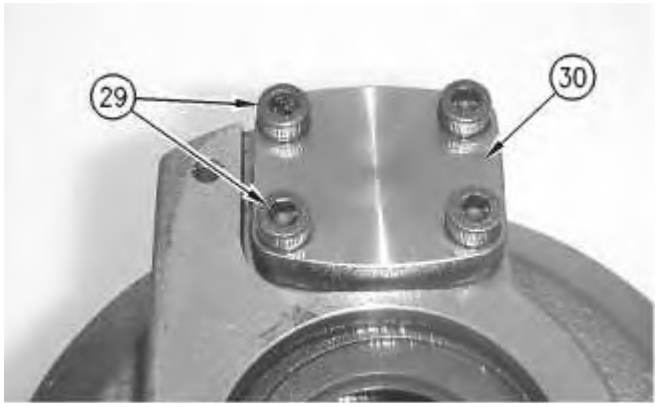

Illustration 19 g00887619

24. Remove bolts (29) and cover (30).

Illustration 20 g00887729

25. Remove seal (31) and backup ring (32).

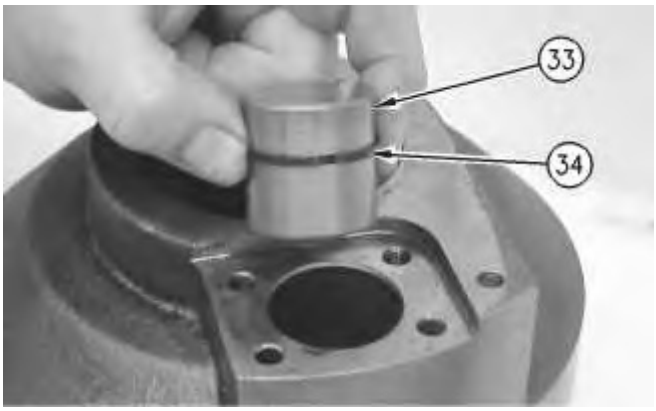

Illustration 21 g00887754

26. Remove piston actuator (33) and seal (34).

Illustration 22 g00887762

27. Remove O-ring seal (35) from the housing of the travel motor.

Product: EXCAVATOR
Model: 336F L XE EXCAVATOR KGH
Configuration: 336F L XE & 336F LN XE Excavators KGH00001-UP (MACHINE) POWERED BY C9.3 Engine

Disassembly and Assembly
336F Excavator Machine Systems
Media Number -UENR6140-04 **Publication Date -01/04/2015** **Date Updated -21/02/2018**

i07195340

Travel Motor - Disassemble

SMCS - 4351-015

Disassembly Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	1P-2420	Transmission Repair Stand	1
B	421-5662	Lifting Eye Assembly	1
C	6V-5215	M8 X 1.25 X 16 MM Bolt	2
	9M-1974	M8 Hard Washer	2
D	1P-0510	Driver Gp	1

Start By:

a. Remove travel motor.

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, "Dealer Service Tool Catalog" for tools and supplies suitable to collect and contain fluids on Cat® products.

Dispose of all fluids according to local regulations and mandates.

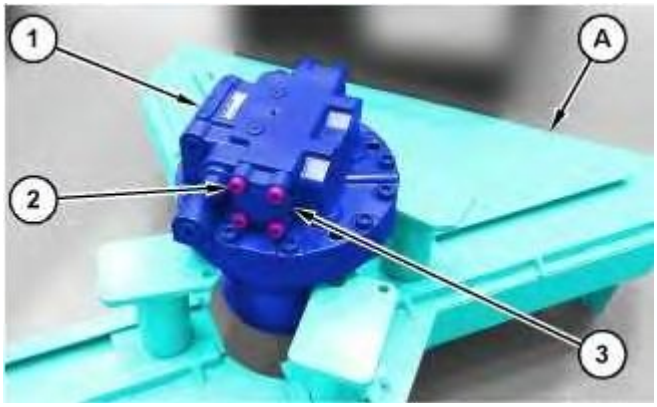

Illustration 1 g06249277

1. Fasten travel motor (1) in a vertical position on Tooling (A). The weight of travel motor (1) is approximately 82 kg (180 lb).

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.

2. Remove bolts (2) and cap (3).

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.

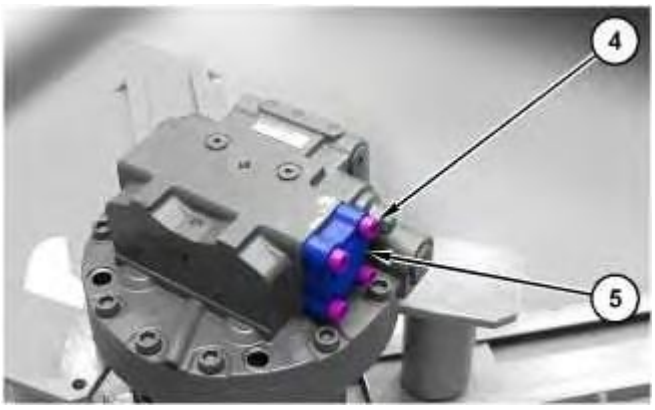

Illustration 2 g06249309

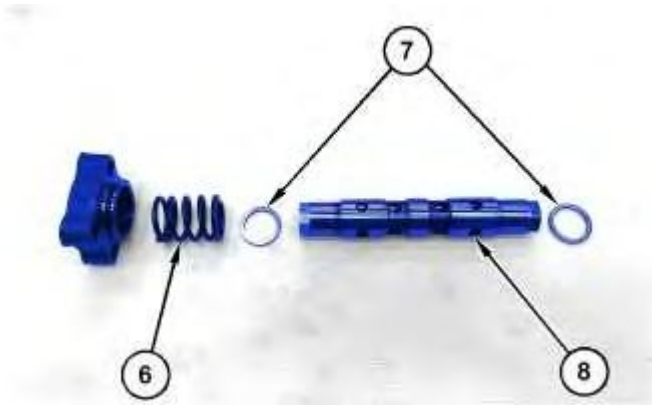

Illustration 3 g06249323

Illustration 4 g06249325

3. Remove bolts (4) and cap (5).
4. Remove spring (6), spring (9), spool assembly (8), and spring seats (7).

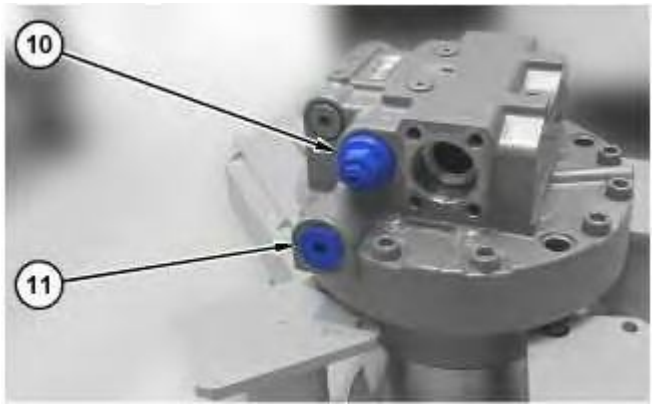

Illustration 5 g06249329

5. Remove plug (11), relief valve (10), and the O-ring seals.

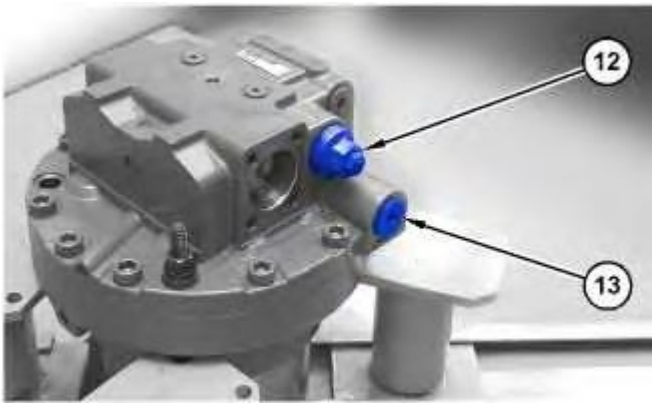

Illustration 6 g06249334

6. Remove plug (13), relief valve (12), and the O-ring seals.

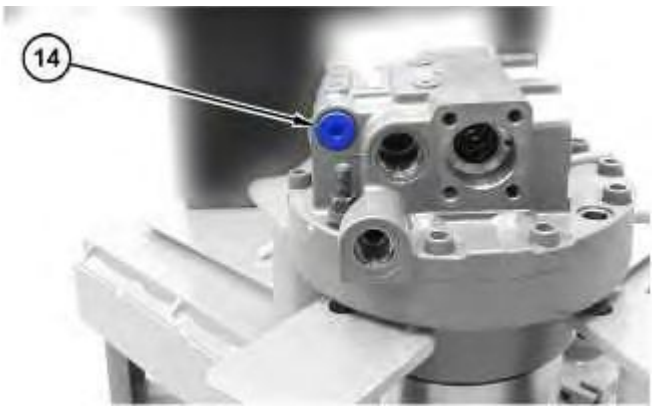

Illustration 7 g06249337

7. Remove plug (14), and the O-ring seal.

Illustration 8 g06249341

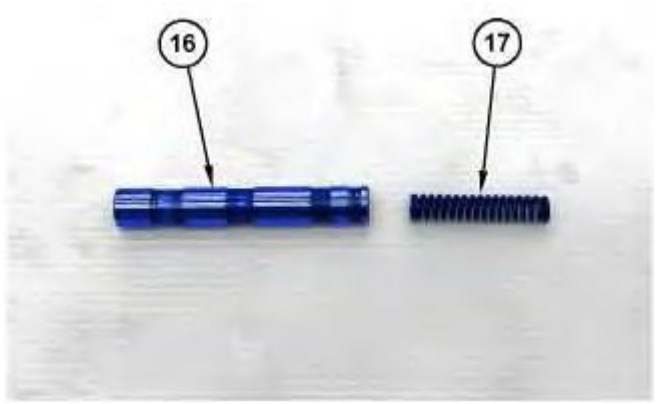

Illustration 9 g06249344

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.

8. Remove plug (15), spool assembly (16), spring (17), and the O-ring seals.

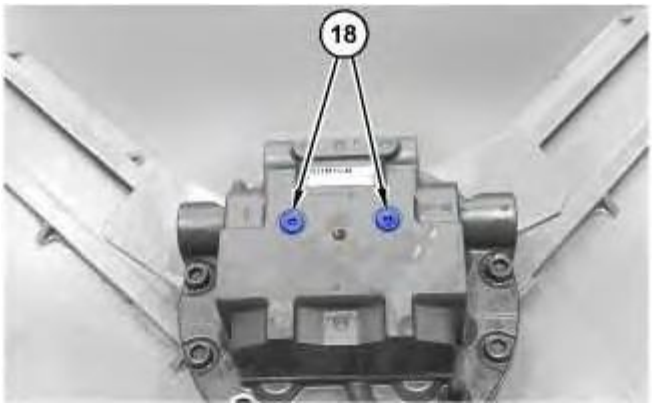

Illustration 10 g06249348

9. Remove plugs (18) and the O-ring seals.

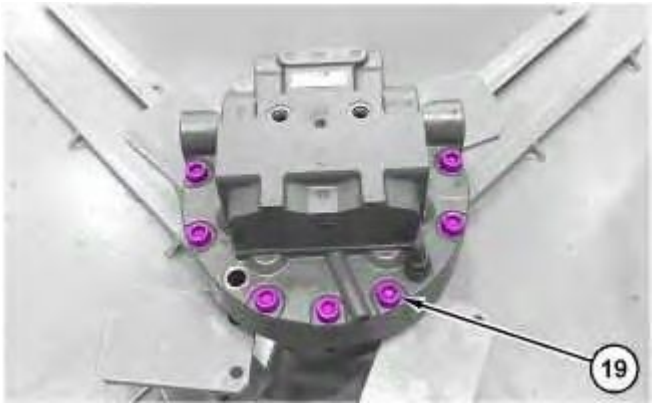

Illustration 11 g06249351

10. Remove bolts (19).

Illustration 12 g06249354

11. Attach Tooling (B) and a suitable lifting device to motor head assembly (20). The weight of motor head assembly (20) is approximately 27 kg (60 lb). Remove motor head assembly (20).

Illustration 13 g06250338

12. Remove the ball bearing that is located on the bottom side of motor head assembly (20).

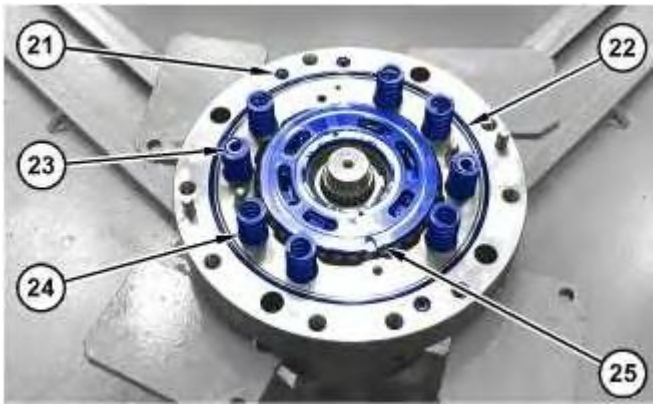

Illustration 14 g06249364

Port plate (25) may still be adhered to the bottom of motor head assembly (20).

13. Remove O-ring seals (21), O-ring seal (22), springs (23), springs (24), and port plate (25).

Note: Note the location of springs (23). They must be installed in the same location during the assembly procedure.

Illustration 15 g06249511

14. Insert Tooling (C) into piston assembly (26). Use a suitable prying device and Tooling (C) to remove piston assembly (26).

Illustration 16 g06250418

15. Remove O-ring seal (27) and O-ring seal (28).

Illustration 17 g06249522

16. Use suitable prying devices to remove guide assembly (29).

Illustration 18 g06249535

17. Remove O-ring seal (30).

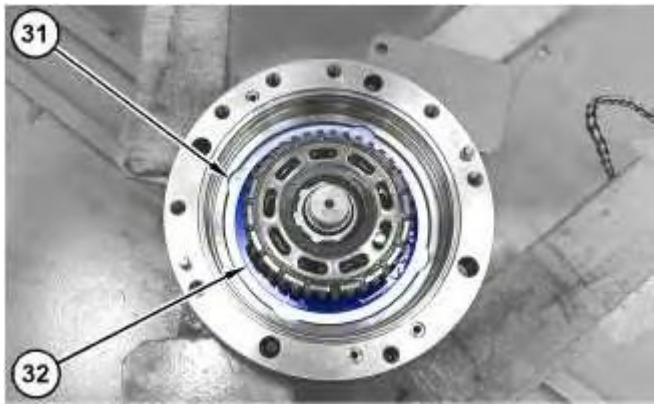

Illustration 19 g06249539

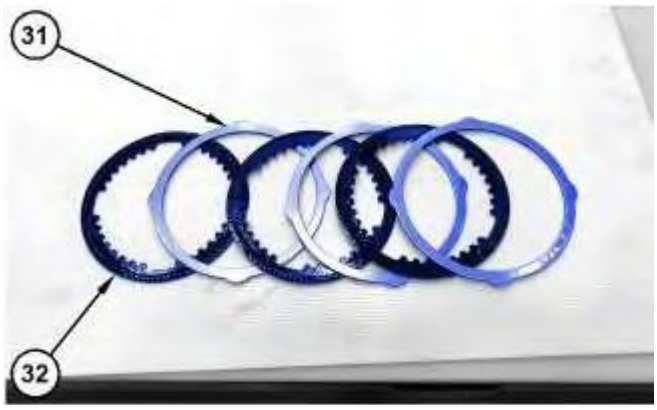

Illustration 20 g06249544

18. Remove separator plates (31) and friction plates (32). Note the alternating order of separator plates (31) and friction plates (32) for assembly purposes.

Illustration 21 g06249564

19. Remove barrel assembly (33).

    Note: Do not allow the components of barrel assembly (33) to come apart while you remove barrel assembly (33). The components of barrel assembly (33) must be reinstalled into the original positions.

Illustration 22 g06249598

Note: Mark the component locations for assembly purposes before you disassemble the barrel assembly.

20. Remove piston assemblies (34) and retainer (35).

Illustration 23 g06249609

21. Remove hold down ball (36).

Illustration 24 g06249621

22. Remove dowel pins (37).

Illustration 25 g06249657

23. Put location marks on swashplate (38) for assembly purposes. Remove swashplate (38).

Illustration 26 g06249682

24. Remove pistons (39) and the balls.

Illustration 27 g06249751

25. Remove springs (40).

WARNING

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Make sure to wear all necessary protective equipment.

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

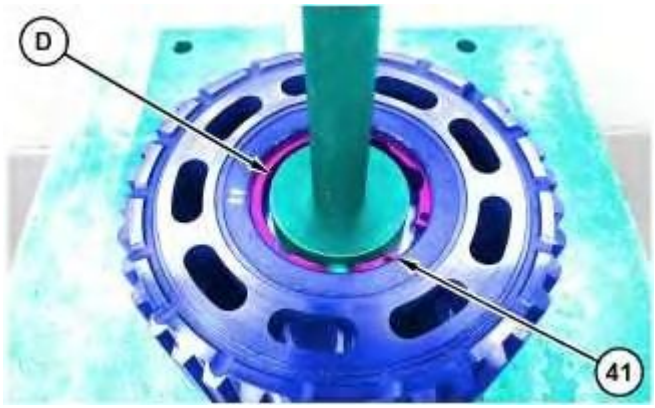

Illustration 28 g06249755

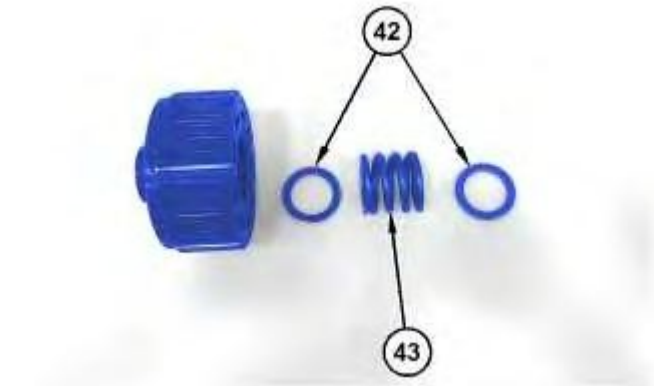

Illustration 29 g06249758

26. Use a suitable press and Tooling (D) to remove snap ring (41), spacers (42), and spring (43).

Illustration 30 g06249760

27. Use a soft faced hammer to remove shaft assembly (44). Remove shaft assembly (44) in the direction that is indicated by the arrow.

28. Remove O-ring seal (45).

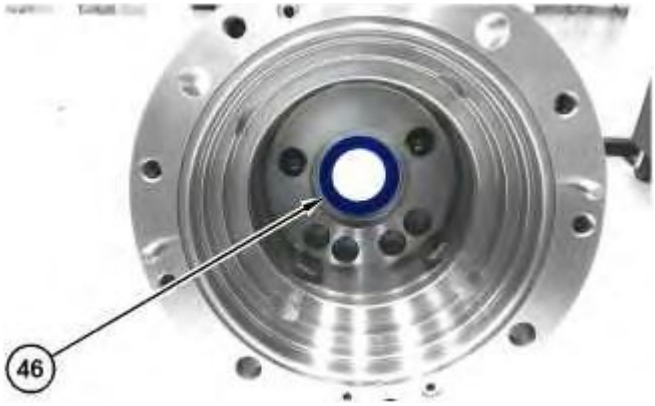

Illustration 31 g06249762

29. Remove lip seal (46).

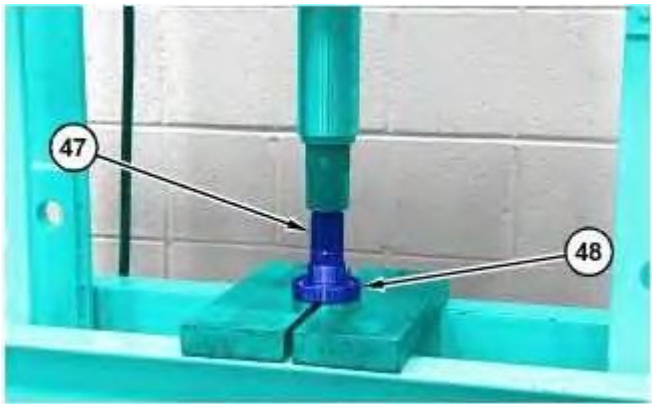

Illustration 32 g06249763

30. Use a suitable press to push shaft (47) out of bearing (48).

Product: EXCAVATOR
Model: 336F L XE EXCAVATOR KGH
Configuration: 336F L XE & 336F LN XE Excavators KGH00001-UP (MACHINE) POWERED BY C9.3 Engine

Disassembly and Assembly
336F Excavator Machine Systems
Media Number -UENR6140-04 **Publication Date -01/04/2015** **Date Updated -21/02/2018**

i07175112

Travel Motor - Assemble

SMCS - 4351-016

Assembly Procedure

Table 1

Required Tools			
Tool	**Part Number**	**Part Description**	**Qty**
A	1U-7506	Adapter	1
	8T-4244	Nut	6
	8T-4223	Hard Washer	6
	-	M12 x 1.75 X 250 mm (10 inch) Threaded Rod	1
C	3E-3882	Eyebolt	1
D	1P-1859	Retaining Ring Pliers	1
E	1P-0510	Driver Gp	1
	9S-9152	Bearing Puller Gp	1
F	1P-1861	Retaining Ring Pliers	1
G	-	Loctite 242	-

Illustration 1 g00887762

1. Install O-ring seal (35) onto the housing of the travel motor.

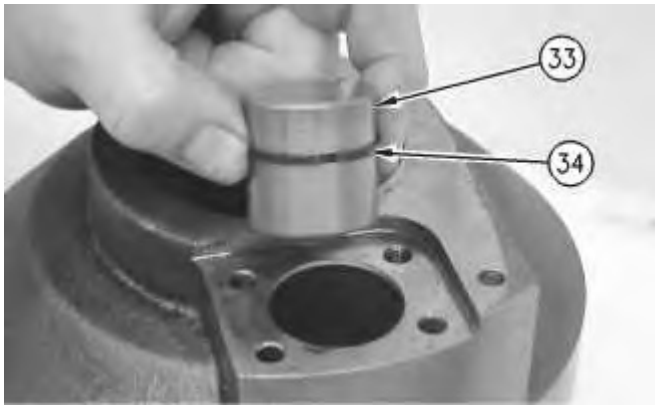

Illustration 2 g00887754

2. Install seal (34) and piston actuator (33). Lubricate the surfaces of piston actuator (33) with lubricant that is being sealed.

Illustration 3 g00887729

3. Install backup ring (32) and seal (31).

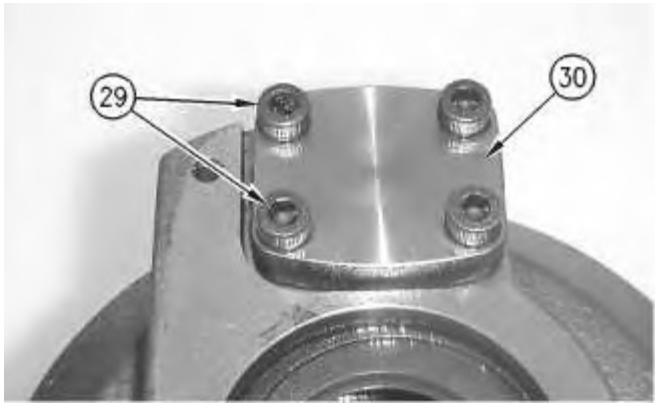

Illustration 4 g00887619

4. Install cover (30) and bolts (29). Tighten bolts (29) to a torque of 28 ± 7 N·m (21 ± 5 lb ft).

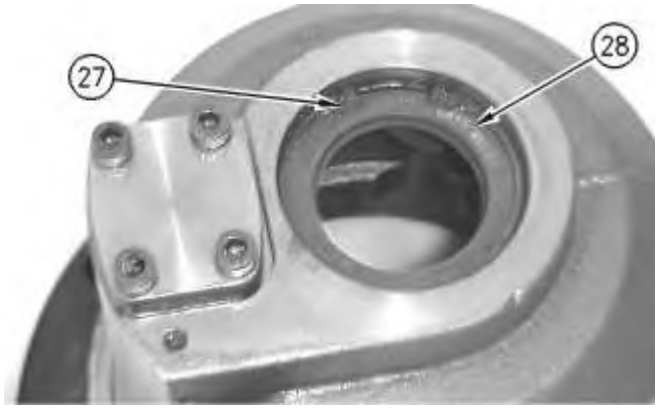

Illustration 5 g00887589

5. Apply Tooling (G) to the mating surface of lip seal (28). Use Tooling (E) to install lip seal (28). Lubricate the sealing lip of lip seal (28) with lubricant that is being sealed.

6. Use Tooling (F) to install retaining ring (27).

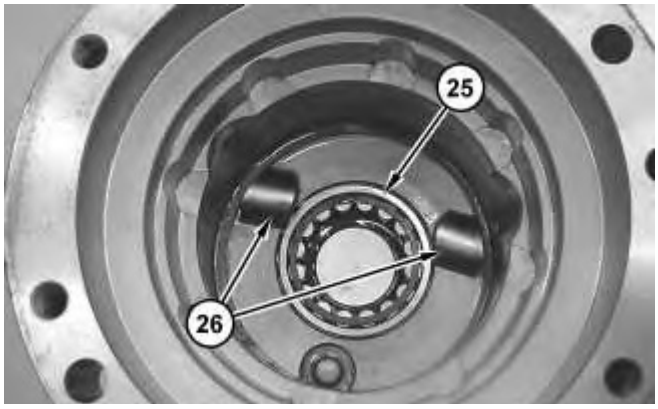

Illustration 6 g02107975

7. Rotate the housing.