



# Service Repair Manual

## **Models**

313B and 313B CR  
EXCAVATOR

---

[Previous Screen](#)

◀ Product: EXCAVATOR  
 Model: 313B EXCAVATOR BAS  
 Configuration: 313B CR EXCAVATOR BAS00001-UP (MACHINE)

## Disassembly and Assembly 313B Excavator Machine Systems

Media Number -REN4003-02

Publication Date -01/01/2004

Date Updated -23/01/2004

i01220993

# Final Drive and Travel Motor - Disassemble

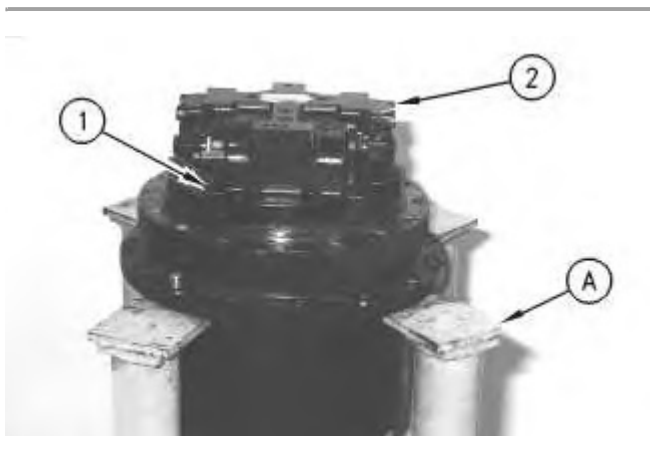
SMCS - 4050-015; 4351-015

## Disassembly Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
(A)	1P-2420	Transmission Repair Stand	2
(B)	8B-7548	Push-Puller Tool Group	1
	3H-0465	Push-Puller Plate	2
(C)	138-7573	Link Bracket	3

## Disassembly Procedure of the Travel Brake Valve



1. Fasten the final drive and the travel Motor to Tooling (A), as shown.
2. Remove bolts (1) in order to remove travel brake valve (2) .

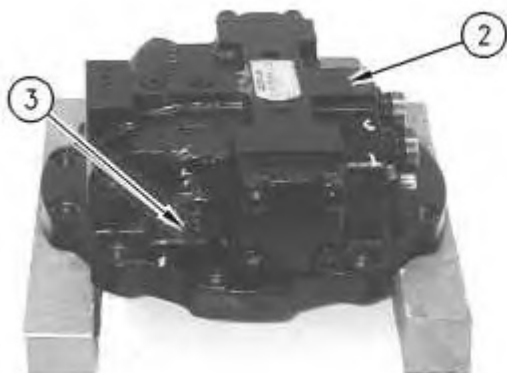


Illustration 2

3. Place travel brake valve (2) on wood blocks, as shown.
4. Remove relief valve (3) .



Illustration 3

5. Remove backup rings (5). Remove O-ring seal (7) .
  6. Remove backup ring (4). Remove O-ring seal (6) .
-

**<https://www.ebooklibonline.com>**

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

**<https://www.ebooklibonline.com>**

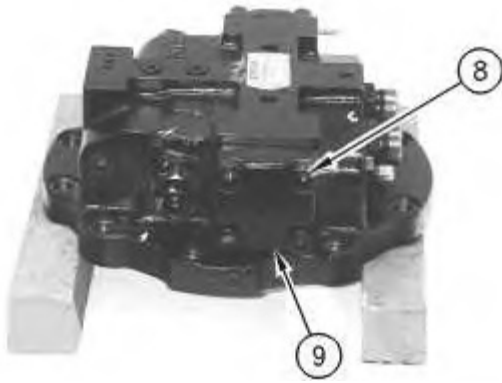


Illustration 4

g00653155

**! WARNING**

**Sudden release of spring force can cause injury.**

**To prevent the possibility of injury, follow the procedure to relieve the spring pressure.**

7. Remove two mounting bolts (8) that are diagonal to each other.
8. Alternate between the two remaining bolts. Slowly remove the bolts until the spring pressure is released.
9. Remove cap (9) from the travel brake valve.

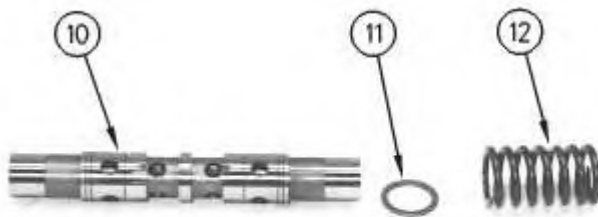


Illustration 5

g00653165

**Note:** Spool assembly (10) should not be disassembled. Spool assembly (10) is not serviced.

10. Remove spring (12), washer (11), and spool (10) from the travel brake valve.



Illustration 6

g00653171

11. Remove plug (13). Remove the O-ring seal from the plug.
12. Remove O-ring seal (14) .

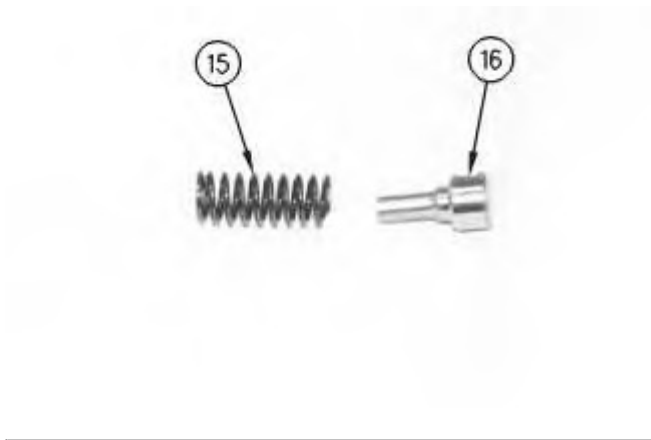
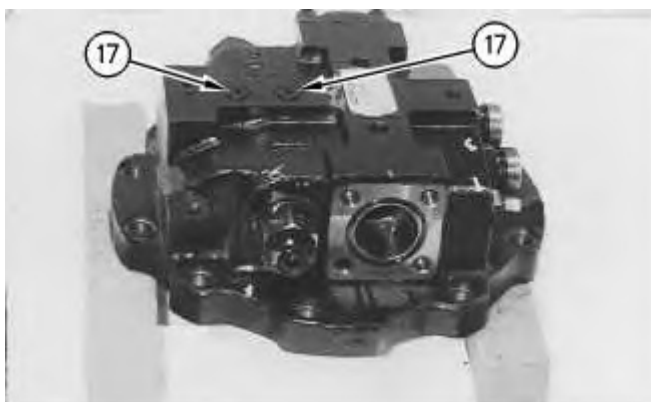


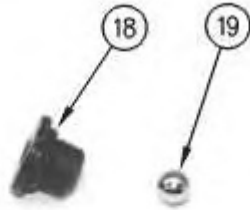
Illustration 7

g00653176

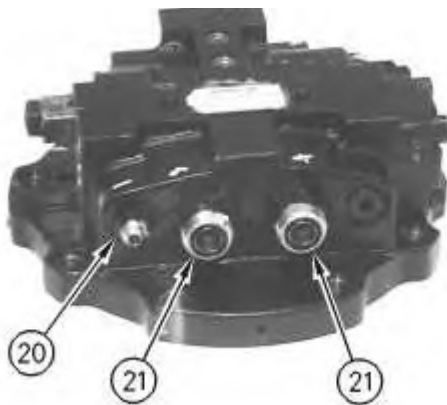
13. Remove plunger (16) and spring (15) that is located behind plug (13) .



14. Remove plugs (17) from the travel brake valve.



15. Remove ball (19) that is located behind each plug (17) .
16. Remove O-ring seal (18) from each plug.



17. Remove hydraulic fitting (20). Remove the O-ring seal from the hydraulic fitting.
18. Remove hydraulic fittings (21). Remove the O-ring seals from the hydraulic fitting.
-



---

Illustration 11

g00653249

19. Remove plug (22). Remove the O-ring seal from the plug.

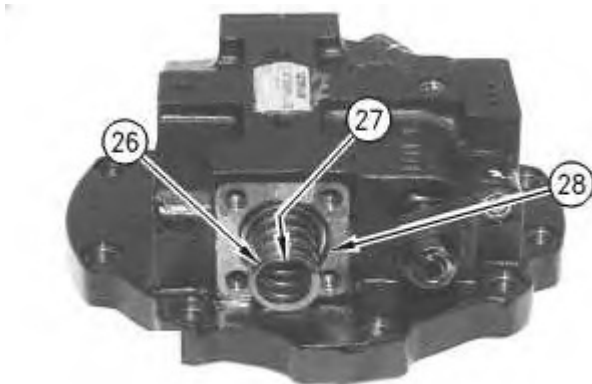


---

Illustration 12

g00653252

20. Remove hydraulic fitting (25). Remove the O-ring seal from the hydraulic fitting.  
21. Remove bolts (23). Remove cap (24) .



---

Illustration 13

g00653253

22. Remove spring (26) and washer (27). Remove O-ring seal (28) .



Illustration 14

g00653257

23. Remove relief valve (29) .



Illustration 15

g00653261

24. Remove backup rings (31). Remove O-ring seal (33) .

25. Remove backup ring (30). Remove O-ring seal (32) .

---

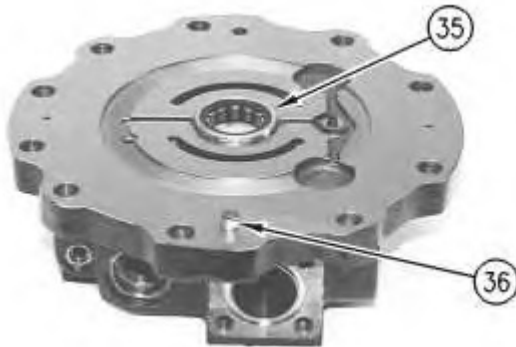


---

Illustration 16

g00653269

26. Remove plate (34) .



---

Illustration 17

g00653279

27. Remove roller bearing (35) .

28. Remove location pin (36) .

## **Disassembly Procedure of the Travel Motor**

---

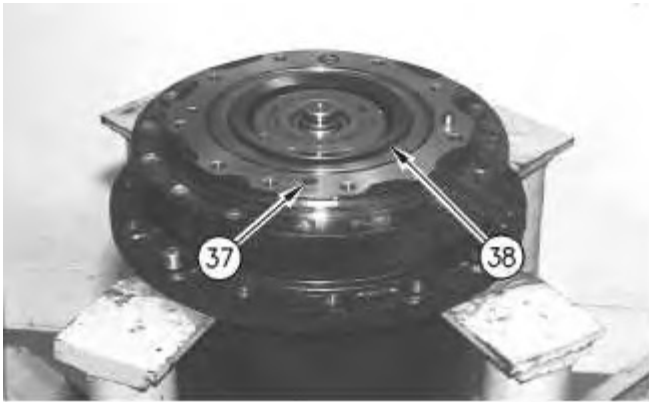


Illustration 18

g00653313

1. Remove O-ring seal (37) .
2. Remove washer set (38) .

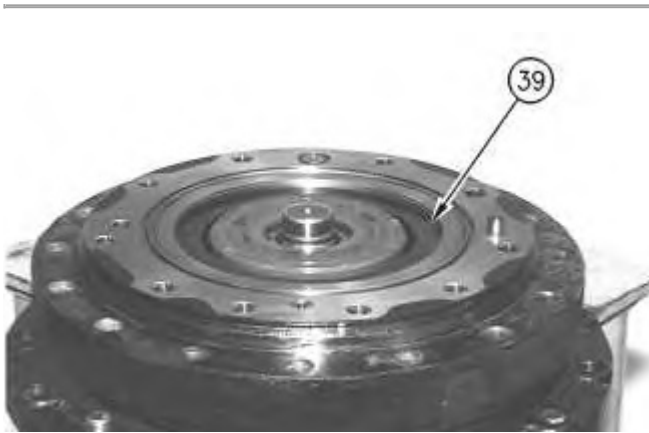


Illustration 19

g00653373

3. Remove shims (39) .

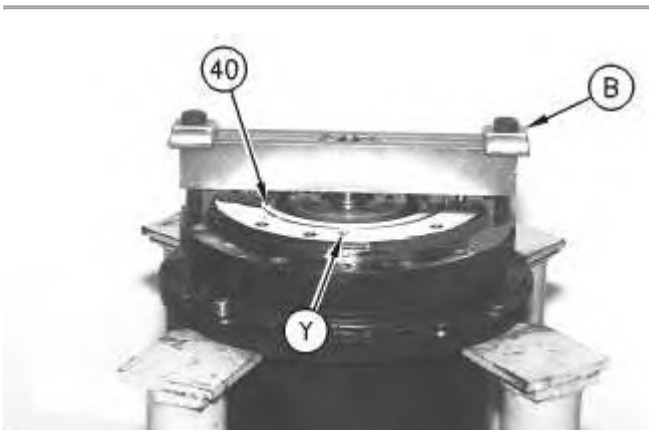


Illustration 20

g00653377

4. Install Tooling (B), as shown.

**Note:** Use the following steps to release the brake pressure and remove the brake piston.

- a. While you retain brake piston (39) with Tooling (B), apply shop air pressure of approximately 517 kPa (75 psi) to brake release port (Y) .

**Note:** The brake piston will move out of the travel motor body.

- b. Remove brake piston (39) .



Illustration 21

g00653385

5. Remove backup ring (42). Remove O-ring seal (41) .

6. Remove backup ring (44). Remove O-ring seal (43) .



Illustration 22

g00653393

7. Remove friction plates and steel plates (45) .

---

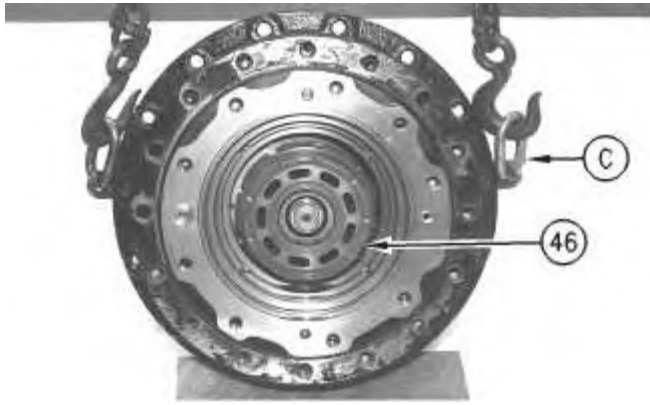


Illustration 23

g00653395

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

8. Fasten Tooling (C), lifting straps, and a hoist to the final drive. Position the final drive, as shown.
9. Remove barrel assembly (46) .



Illustration 24

g00653402

**Note:** The shoe retainer and piston shoes are not serviced separately. Mark the location of the piston shoes in the barrel and mark the location of the piston shoes in the retainer. The piston shoes must be installed into the original locations.

10. Remove shoe retainer (49) and piston shoes (47) from barrel (48) .
11. Remove piston shoes (47) from retainer (49) .



---

Illustration 25

g00653411

12. Remove bushing (50) .



---

Illustration 26

g00653417

13. Remove pins (51) .



---

Illustration 27

g00653423

---

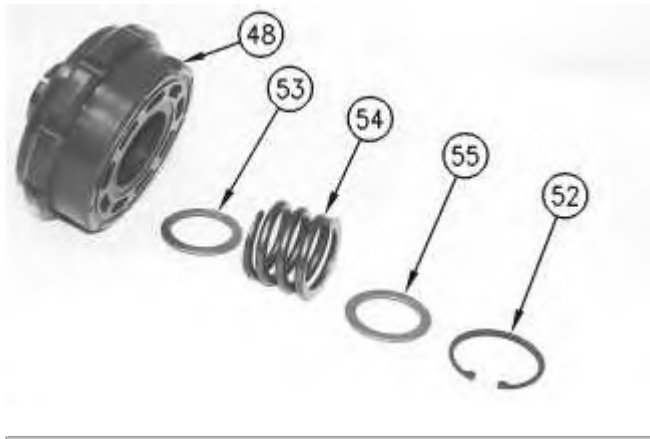


Illustration 28

g00653434

**! WARNING**

**Sudden release of spring force can cause injury.**

**To prevent the possibility of injury, follow the procedure to relieve the spring pressure.**

14. Use a press to apply pressure on washer (55) .
15. Remove retaining ring (52) .
16. Slowly release the pressure of the press.
17. Remove washer (55), spring (54), and washer (53) .



Illustration 29

g00653455

18. Remove cam plate (56) .

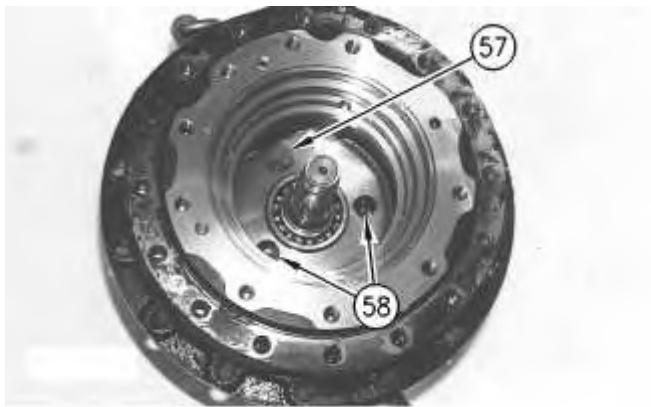


Illustration 30

g00653461

**Note:** Mark the location of each ball and mark the location of the piston for assembly purposes.

19. Remove piston (57) .
20. Remove balls (58) .

## Disassembly Procedure of the Final Drive

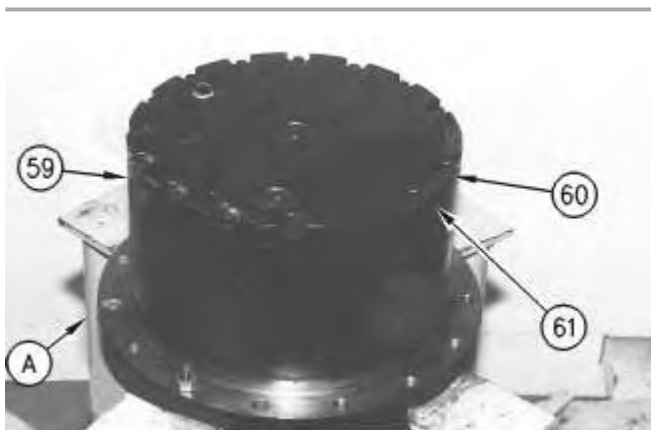


Illustration 31

g00653465

1. Fasten the final drive to Tooling (A), as shown.
  2. Remove bolts (60) and the washers.
  3. Use a soft faced hammer to break the seal between ring gear (59) and cover (61). Remove cover (61) .
-

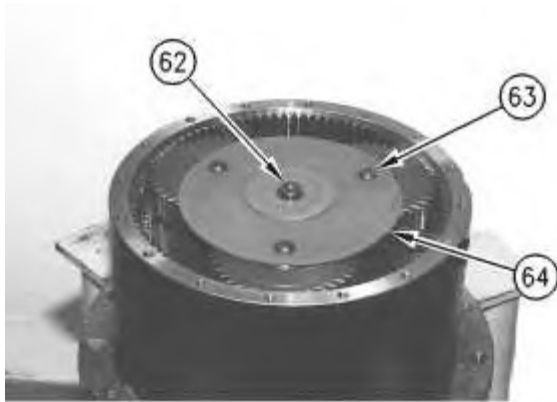


Illustration 32

g00653472

4. Remove washer (62) .
5. Remove bolts (63) .
6. Remove plate (64) .



Illustration 33

g00653483

7. Remove sun gear (65) .



8. Remove carrier assembly (66) .

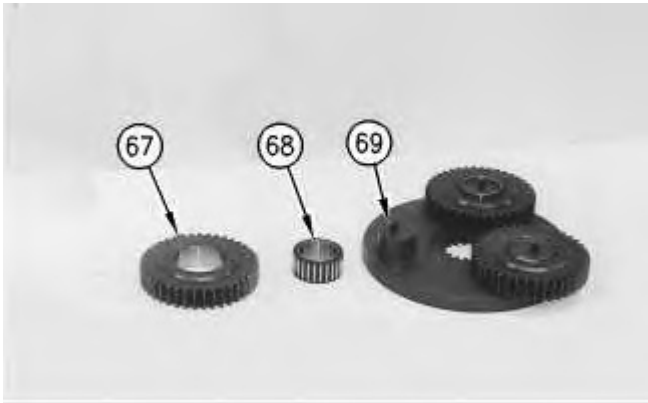


Illustration 35

9. Remove planetary gear (67) and bearing (68) .
10. Remove race (69) .

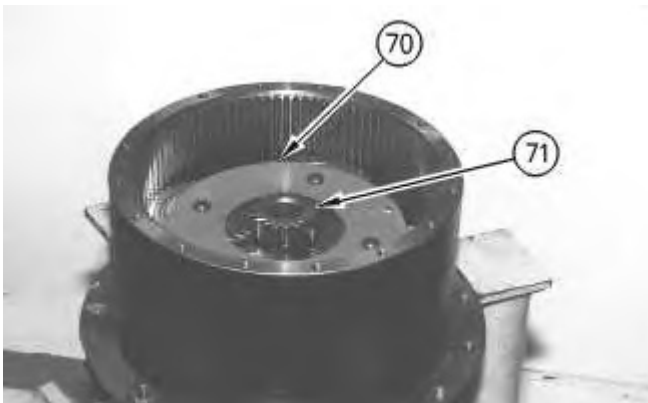


Illustration 36

11. Remove sun gear (71) from carrier assembly (70) .
-



Illustration 37

g00653511

12. Remove retaining ring (72) from sun gear (71) .

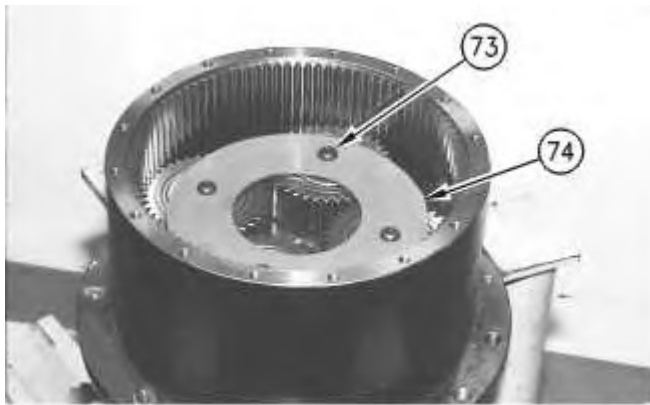


Illustration 38

g00653514

13. Remove bolts (73). Remove plate (74) .

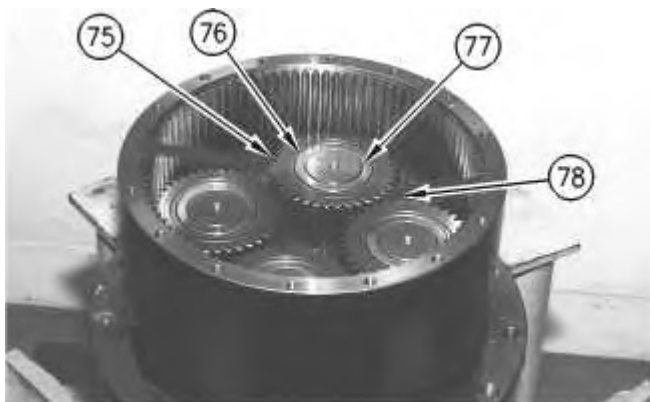


Illustration 39

g00653518

14. Remove planetary gear (75), bearing (76), race (77), and washer (78) from the carrier assembly.
15. Repeat Step 14 in order to remove the other planetary gears.

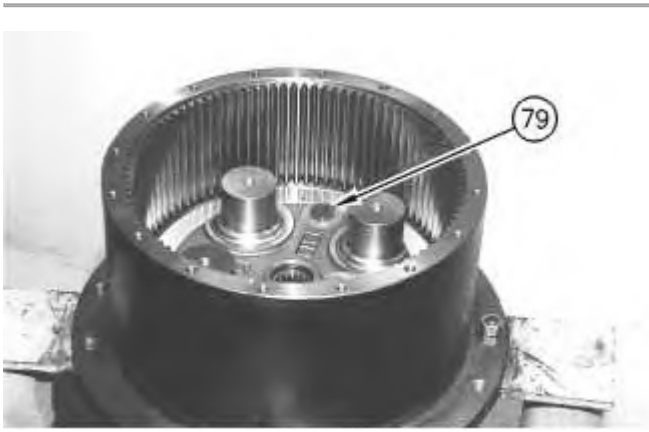


Illustration 40

g00653575

16. Remove bolt (79) from the planetary carrier.

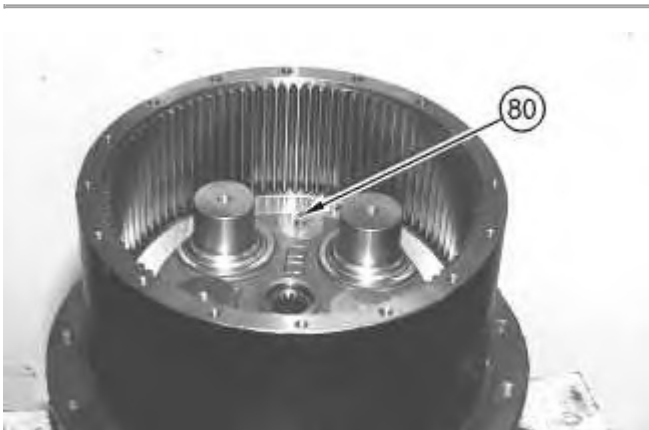


Illustration 41

g00653581

17. Use a magnet in order to remove pin (80) .
-



Illustration 42

g00653585

18. Remove nut (81) from the final drive housing.

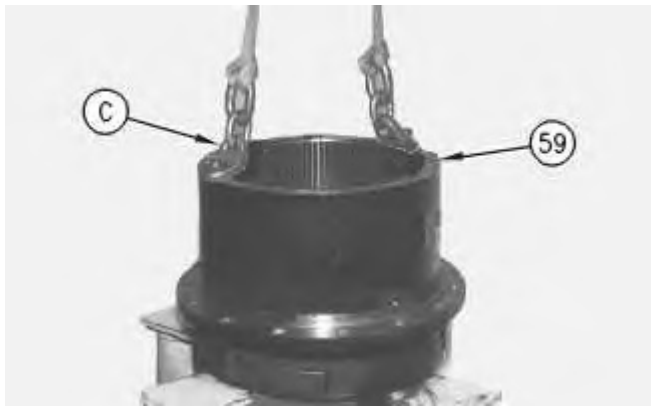


Illustration 43

g00653590

19. Fasten Tooling (C), lifting straps, and a hoist to ring gear (59) .
20. Remove ring gear (59) .



Illustration 44

g00653612

21. Remove bearing (82) .



Illustration 45

g00653616

22. Remove bearing race (83) .



Illustration 46

g00653619

23. Reposition the ring gear, as shown.

24. Remove bearing race (84) .

---



Illustration 47

g00653623

25. Remove duo-cone seal (85) .



Illustration 48

g00653627

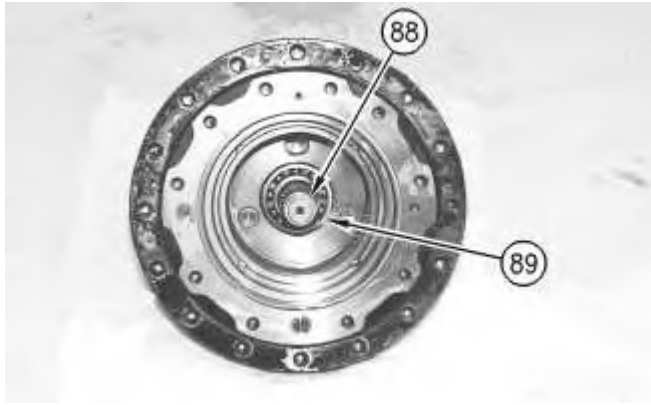
26. Remove bearing (86) .



Illustration 49

g00653630

27. Remove duo-cone seal (87) .



---

Illustration 50

g00653634

28. Remove shaft (88) .

29. Remove bearing (89) from the shaft.

[Previous Screen](#)

◀ Product: EXCAVATOR  
 Model: 313B EXCAVATOR BAS  
 Configuration: 313B CR EXCAVATOR BAS00001-UP (MACHINE)

## Disassembly and Assembly 313B Excavator Machine Systems

Media Number -REN4003-02

Publication Date -01/01/2004

Date Updated -23/01/2004

i01223357

# Final Drive and Travel Motor - Assemble

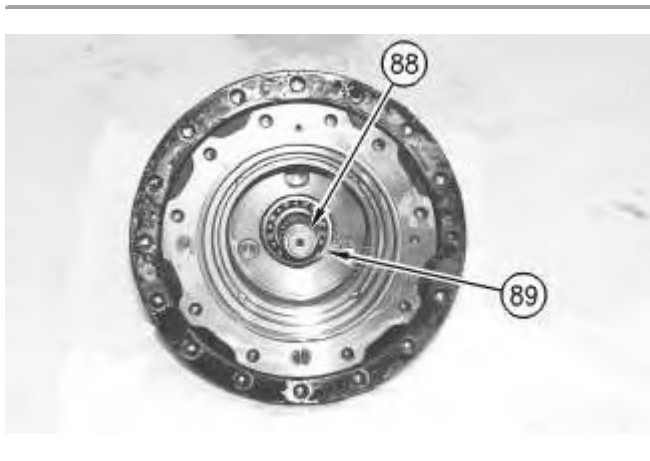
SMCS - 4050-016; 4351-016

## Assembly Procedure

Table 1

Required Tools			
Tool	Part Number	Part Description	Qty
(A)	1P-2420	Transmission Repair Stand	2
(B)	1U-7084	1-1/2 inch 12pt Socket	1
(C)	138-7573	Link Bracket	3
(D)	1U-6434	Duo-Cone Seal Installer	1

## Assembly Procedure of the Travel Motor



1. Install bearing (89) on the shaft.
2. Install shaft (88) .



Illustration 2

**Note:** Refer to Disassembly and Assembly, "Duo-Cone Conventional Seal - Install" in this manual.

**Note:** The rubber seals and all surfaces that contact the seals must be clean and dry. After installation of the seals, apply clean SAE 30 oil on the contact surfaces of the metal seals.

3. Use Tooling (D) in order to install duo-cone seal (87) .



Illustration 3

4. Install bearing (86) .
-

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](mailto:ebooklibonline@outlook.com)



---

Illustration 4

g00653619

5. Install bearing race (84) .



---

Illustration 5

g00653616

6. Reposition the ring gear, as shown.

7. Install bearing race (83) .



---

Illustration 6

g00653612

**<https://www.ebooklibonline.com>**

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

**<https://www.ebooklibonline.com>**