

Product: EXCAVATOR

Model: 320B EXCAVATOR 8ES

Configuration: SUPPLEMENTARY SERVICE INFORMATION (DISASSEMBLY & ASSEMBLY) F 8ES00001-UP (MACHINE)

## Disassembly and Assembly

### 320B, 320B L, 320B LN, 320B N, & 320B S EXCAVATORS MACHINE SY

Media Number -SEN9257-06

Publication Date -01/04/2004

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SEN92570016

## Track Carrier Rollers

SMCS - 4154-010; 4154-017

### Remove & Install Track Carrier Rollers

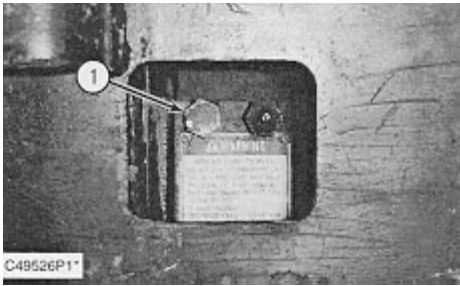
Tools Needed		A
8T-5255	Hydraulic Jack	1

1. Put the machine on a flat level floor.

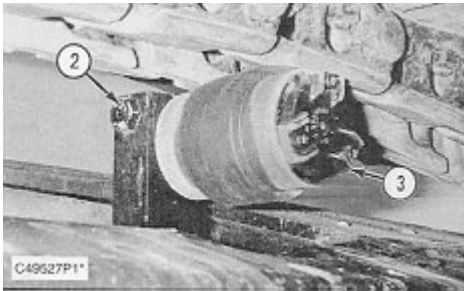


## WARNING

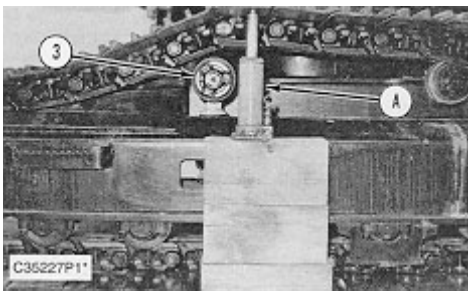
The grease in the track adjusting cylinder is under high pressure. Grease coming out of the relief valve of the track adjuster, which is under high pressure, can penetrate the body causing personal injury or death. When loosening the tension on the track, loosen the relief valve only one turn. Do Not visually inspect the relief valve to see if grease is being released from the track adjuster. Instead, watch the track to see if it loosens, if the track does not loosen after opening the relief valve, move the machine forward and backward to release the tension.



2. Release the tension on the track. Loosen relief valve (1) only one turn. If the track does not loosen after opening the relief valve, move the machine forward and backward until the tension is released.



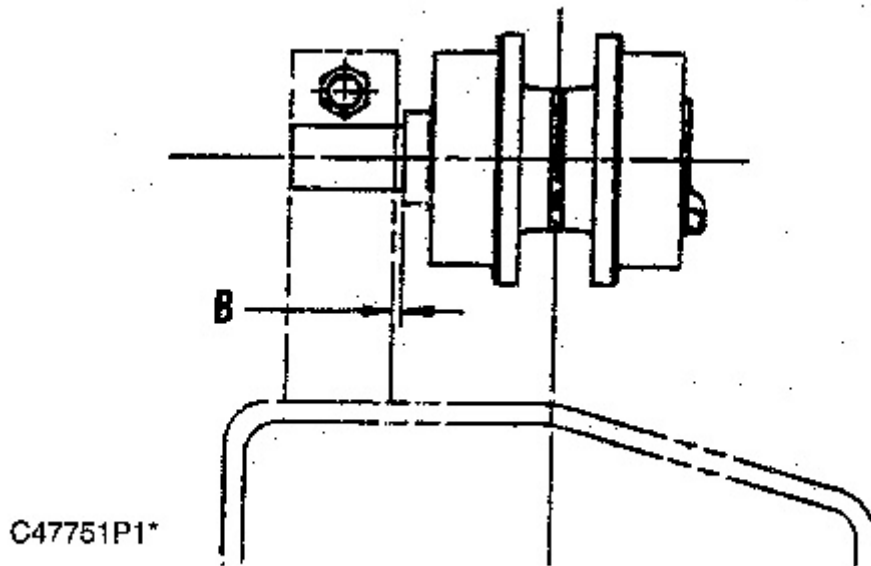
3. Loosen bolt (2) that holds track carrier roller (3) to the mounting bracket on the undercarriage frame assembly.



4. Put wood blocks and Tool (A) under the track assembly, as shown. Lift the track assembly off of the track carrier roller. Using two persons, remove track carrier roller (3). The weight of the track carrier roller is **23 kg (50 lb)**.

**NOTE:** The following steps are for the installation of the track carrier roller.

5. Be sure the shaft of the track carrier roller and the bore in the mounting bracket on the undercarriage frame assembly is clean and free of dirt.



6. Put the track carrier roller in position in the mounting bracket. Adjust the carrier roller until distance (B), the distance between the outside face of the mounting bracket and the carrier roller is  **$7.0 \pm 0.5 \text{ mm}$  ( $.28 \pm .02 \text{ in}$ )**.
7. After adjusting the position of the carrier roller in the mounting bracket, tighten bolt (2). Torque to  $460 \pm 60 \text{ N}\cdot\text{m}$  ( $340 \pm 44 \text{ lb ft}$ ).
8. Be sure the carrier roller rotates smoothly by hand. Slowly lower the track assembly on to the carrier roller with Tool (A).
9. Tighten the tension of the track. Refer to the topic "Tracks" in the "Operation & Maintenance Manual."

## Disassemble & Assemble Track Carrier Rollers

Tools Needed		A	B	C
1P-0510	Driver Group	1		
9U-5985	Seal Installer		1	
8T-5096	Dial Indicator Group			1

Start By:

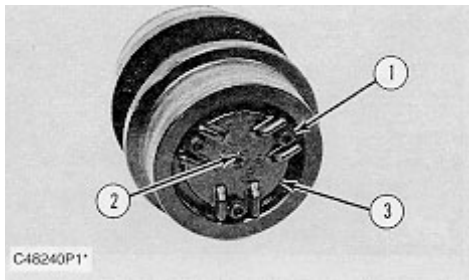
- a. remove track carrier rollers

### Fluid Spillage Containment

Care must be taken to ensure that the fluids are contained during performance of the inspection, the maintenance, the testing, the adjusting and the repair of the machine. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling any component

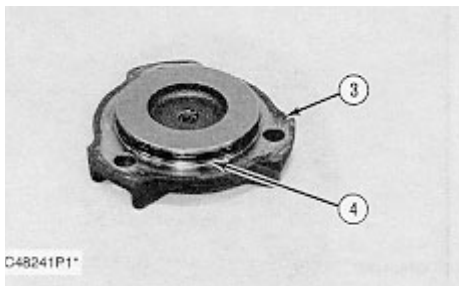
containing fluids. Refer to the "Tools And Shop Products Guide, NENG2500" the tools and the supplies suitable to collect and contain any of the fluids in Caterpillar machines. Dispose of the fluids according to local regulations and mandates.

1. Thoroughly clean the outside of the track carrier roller prior to disassembly.

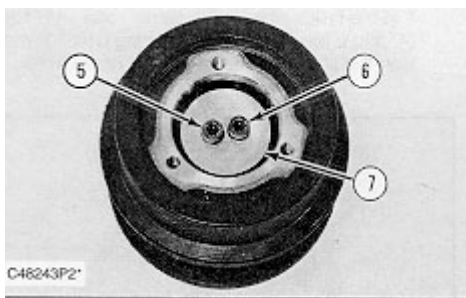


2. Remove plug (2), and drain the oil from the carrier roller in a suitable container for disposal. The capacity of the track carrier roller is **120 ± 5 ml (4.08 ± 0.17 oz)**.

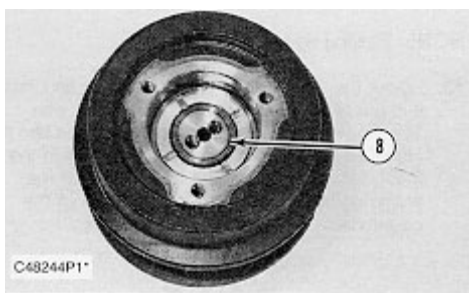
3. Remove three socket head bolts (1) and cover (3) from the track carrier roller.



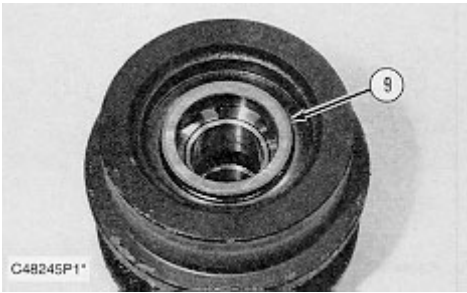
4. Remove O-ring seal (4) from cover (3).



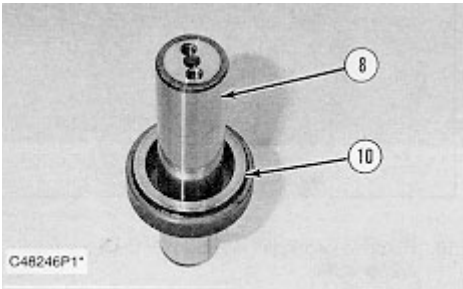
5. Remove socket head bolts (5) and (6) and retainer (7) from the end of the shaft assembly.



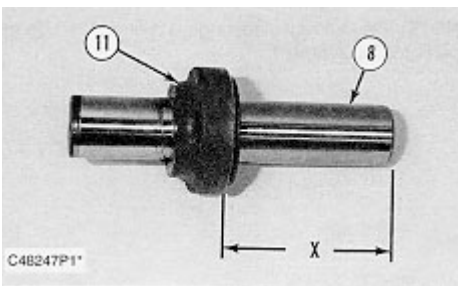
6. Carefully remove shaft assembly (8) from the track carrier roller.



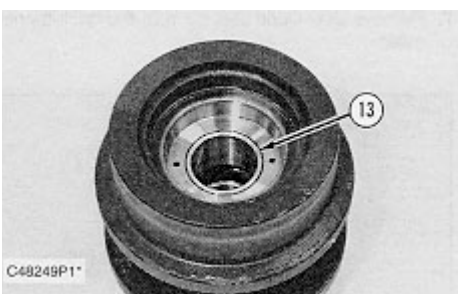
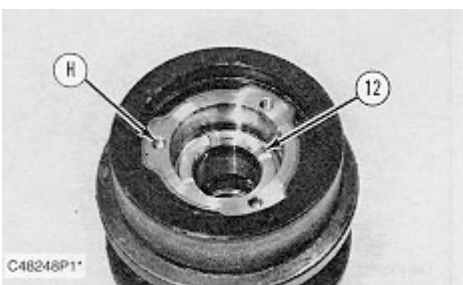
7. Remove Duo-Cone seal (9) from the track carrier roller.



8. Remove Duo-Cone seal (10) from the shaft assembly (8).



9. Measure distance (X) on the shaft assembly. Record this dimension for assembly purposes. Using a press, push shaft (8) out of collar (11). Remove the O-ring seal from inside the collar.

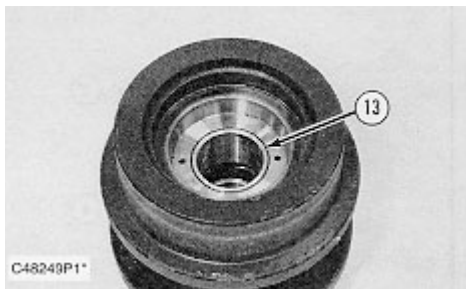


10. Remove bearings (12) and (13) from the track carrier roller.

**NOTE:** The following steps are for the assembly of the track carrier rollers.

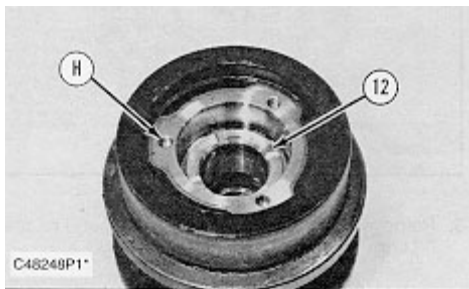
**11.** Thoroughly clean all parts of the track carrier roller prior to assembly.

**NOTE:** Do Not reuse bearings (12) and (13). Use new parts for replacement.



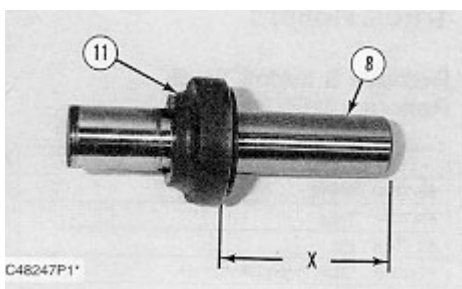
**NOTE:** Bearing (13) is a straight bearing.

**12.** Lower the temperature of bearing (13), and install it in the inside bore of the carrier roller with Tooling (A) and a press. Install the bearing until it is even with the shaft counterbore in the carrier roller.



**NOTE:** Bearing (12) has a flange on it.

**13.** Lower the temperature of bearing (12), and install it in the outside bore of the carrier roller with Tooling (A) and a press. The outside bore can be identified by the three threaded holes (H) in the track carrier roller. Install the bearing until the flange on the bearing makes contact with the counterbore in the track carrier roller.



**14.** Check the condition of the O-ring seal used in collar (11). If the O-ring seal is damaged, use a new part for replacement. Install the O-ring seal in the collar. Put clean oil on the O-ring seal.

**15.** Using a press, install collar (11) on shaft (8) until dimension (X) is  $129.2 \pm 0.2$  mm (5.09 ± .008 in).

**16.** Determine shaft end play as follows:

**NOTE:** Do Not install the Duo-Cone seals in the track carrier roller or collar (11) at this time.

- a. Install shaft assembly (8) in the track carrier roller without Duo-Cone seals.
- b. Install retainer (7) and socket head bolts (5) and (6) on the end of shaft assembly (8).
- c. Use Tooling (C) to measure the end play of shaft assembly (8). The end play of the shaft assembly must be **0.20 to 0.75 mm (.008 to .030 in)**. Bearing (12) controls the amount of shaft end play.
- d. Disassemble the track carrier roller, but **Do Not** remove collar (11) from shaft (8).

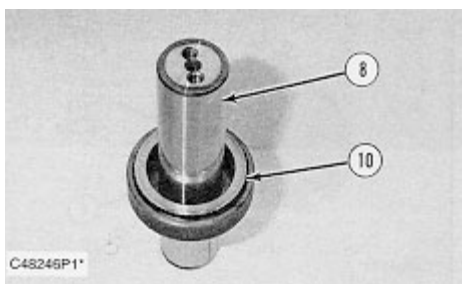
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### NOTICE

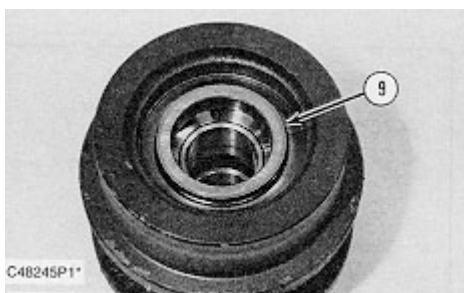
**Refer to the topic "Assembly And Installation Of Conventional Duo-Cone Seals" in this module.**

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



**17.** Install Duo-Cone seal (10) in collar (11) with Tool (B).



**18.** Install Duo-Cone seal (9) in the track carrier roller (side without three threaded holes) with Tool (B).



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