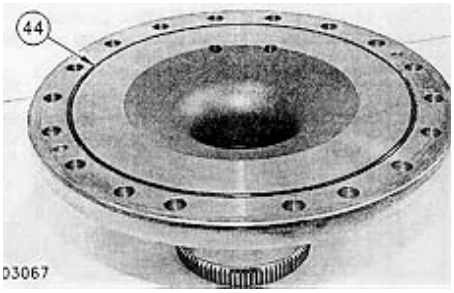
NOTE: Removal may cause damage to the cone.



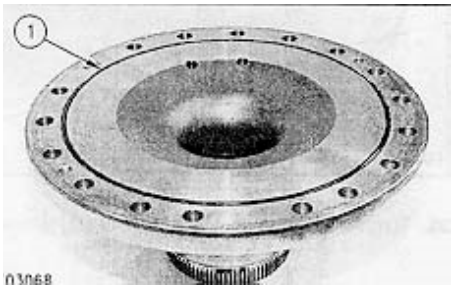
35. Turn the spindle over and remove O-ring seal (44).

Assemble Front Drive

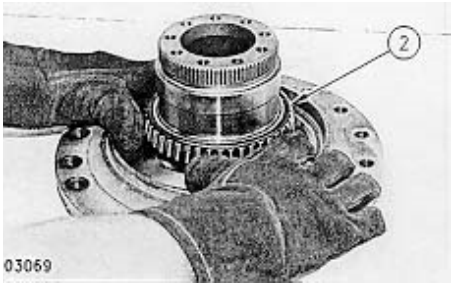
Tools Needed	A	B	C	D	E
1U-6437 Seal Installer	1				
138-7575 Link Bracket		3			
1P-0765 Seal Guide			1		
1P-0510 Driver Group				1	
1P-2420 Repair Stand					1

Fluid Spillage Containment

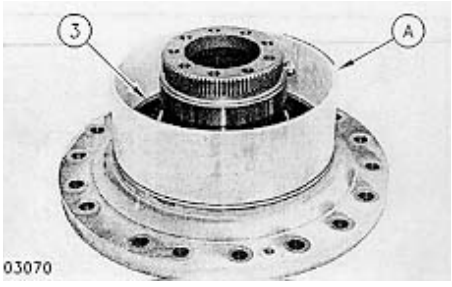
Care must be taken to ensure that fluids are contained during performance of inspection, maintenance, testing, adjusting and repair of the machine. Be prepared to collect the fluid with suitable containers before opening any compartment or disassembling any component containing fluids. Refer to "Tools And Shop Products Guide," NENG2500 for tools and supplies suitable to collect and contain fluids in Caterpillar machines. Dispose fluids according to local regulations and mandates.



1. Install O-ring seal (1) on the spindle.

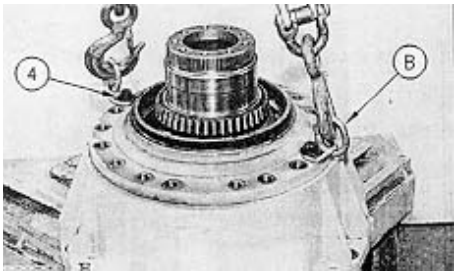


2. Heat bearing cone (2) to **120° C (248° F).**Use temperature resistant gloves to install bearing cone (2) on the spindle as shown. Make sure the bearing cone is properly seated.

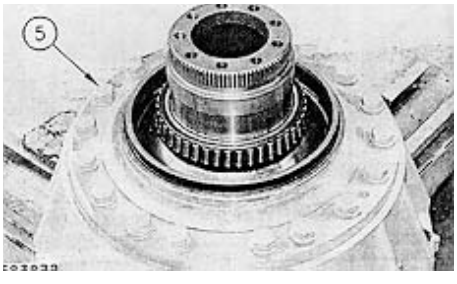


NOTE: Refer to "Assembly And Installation Of Conventional Duo-Cone Seals" in this module.

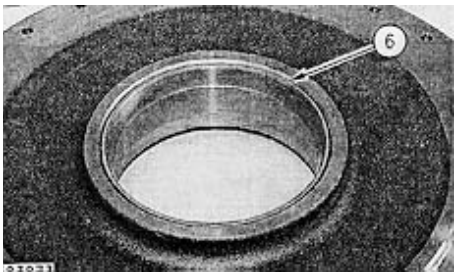
3. Using Tooling (A), install Duo-Cone seal (3) in the spindle. Make sure the rubber torics and all surfaces contacting them are clean and dry at assembly. The seal ring must be assembled square with bore and rubber toric must not be bulged or twisted.



4. Install Tooling (B) as shown using two **M12 X 40 mm**bolts (4) and washers. Attach a suitable lifting device and position the spindle assembly on the case. The weight of the spindle assembly is **43 Kg (95 lb).**Remove Tooling (B).

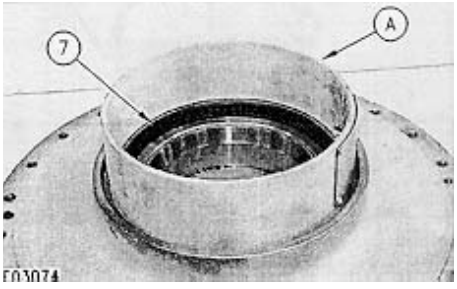


5. Install eighteen bolts (5) and washers.



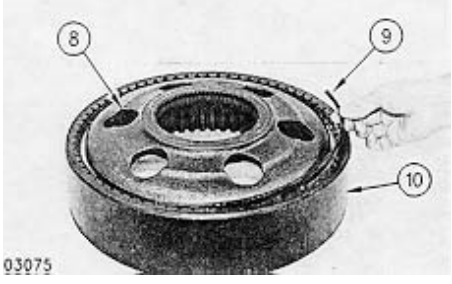
6. Lower the temperature of cup (6) and install the cup in the hub.

7. Repeat Step 6 for the opposite side.

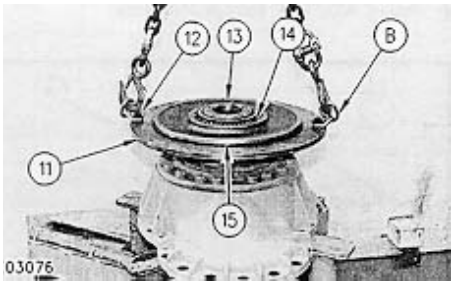


NOTE: Refer to "Assembly And Installation Of Conventional Duo-Cone Seals" in this module.

8. Using Tooling (A), install Duo-Cone seal in the hub assembly. Make sure the rubber torics and all surfaces contacting them are clean and dry at assembly. The seal ring must be assembled square with the bore and rubber toric must not be bulged or twisted.



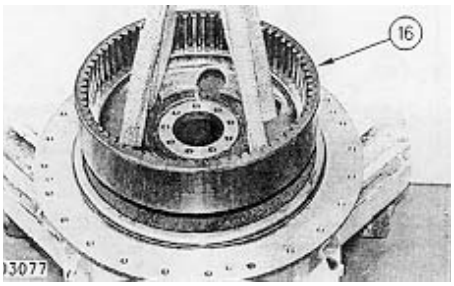
9. Install hub (8) and ring (9) in gear (10).

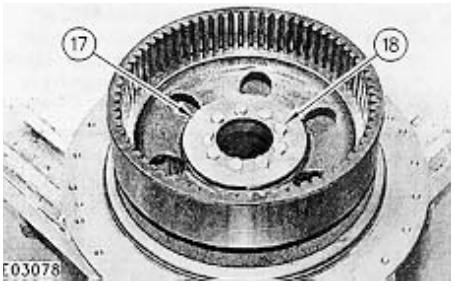


10. Install Tooling (B) on hub assembly (11) as shown using two **1/2 X 1-1/2**bolts (12) and washers. Attach a suitable lifting device and position the hub assembly on spindle (13). The weight of the hub assembly is **64 Kg (140 lb).**Remove Tooling (B) and install O-ring seal (15).

11. Heat bearing cone (14) to **120° C (248° F).**Use temperature resistant gloves to install bearing cone (2) on the spindle as shown.

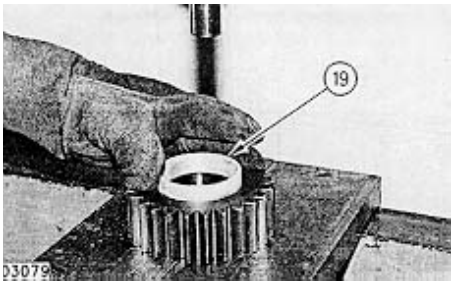
NOTE: While the bearing cone is still hot, proceed to Steps 12 and 13.





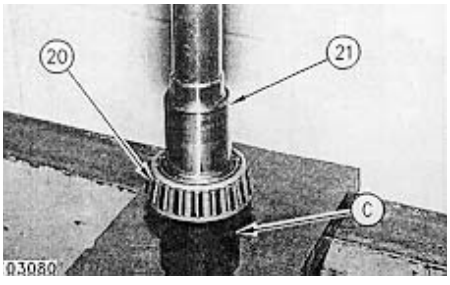
12. Install gear assembly (16) on the spindle

13. Install retainer (17) and nine bolts (18). Tighten the nine bolts (18) to a torque of **120 ± 20 N*m (88 ± 15 lb ft).**



14. Lower the temperature of cup (19) and use temperature resistant gloves to install cup (19) in the gear as shown.

15. Repeat Step 14 for the opposite side.



16. Heat bearing cone (20) to **120° C (248° F).**Place bearing cone (20) as shown on Tooling (C). Using a press, install shaft (21) until it is seated against Tooling (C).