



Service Repair Manual

Models

D8L TRACK-TYPE
TRACTOR Dozer

[Previous Screen](#)

Product: TRACK-TYPE TRACTOR

Model: D8L TRACK-TYPE TRACTOR 4FB

Configuration: D8L TRACTOR SPECIAL APPLICATION 4FB00001-UP (MACHINE) POWERED BY 3408 ENGINE

Disassembly and Assembly

D8L SPECIAL APPLICATION TRACTOR SERVICE MANUAL SUPPLEMENT

Media Number -SEN3053-00

Publication Date -31/10/1997

Date Updated -11/10/2001

High-Low Transmission

SMCS - 3132-011; 3132-012; 3132-015; 3132-016

Remove High-Low Transmission

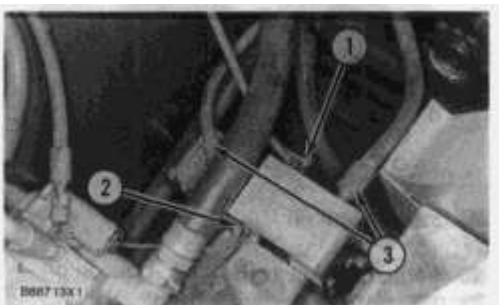
Tools Needed		A	B
5P8622	Shackle	1	
8S9906	Ratchet Puller With Pulley	1	
FT1908	Lifting Bracket		1

START BY:

- a. remove main drive shaft *
- b. remove rear middle bottom guard *

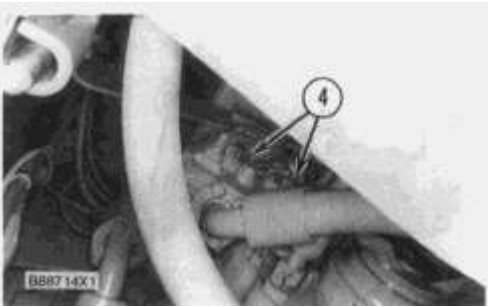
*Before the main drive shaft and bottom guard are removed, the machine must be raised approximately 20.3 cm (8 in.). For removal of the main drive shaft and bottom guard, see D8L Power Train Disassembly And Assembly section.

1. Drain the oil from the high-low transmission.

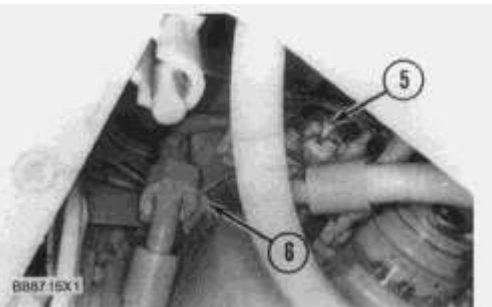


2. Remove nut (1), and disconnect the rod end from the selector valve.

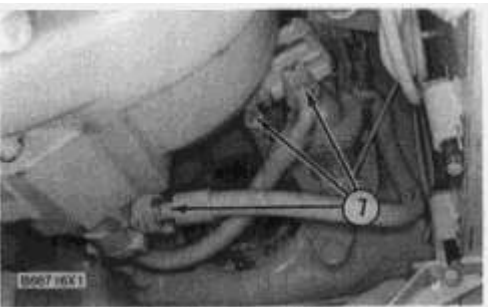
3. Disconnect wire (2) from the selector valve.
4. Disconnect two hoses (3) from the selector valve.



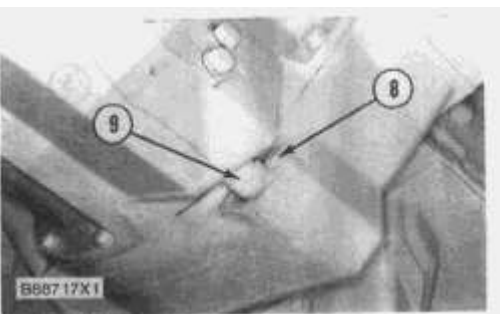
5. Disconnect three wires (4) from the lube priority valve.



6. Disconnect tube (5) from the lube priority valve.
7. Remove the two bolts that hold plate (6) to the transmission, and move tube (5) away from the transmission.



8. Disconnect three lines (7) from the transmission.



9. Remove bolt and lock (8), and push sleeve (9) into the transmission.

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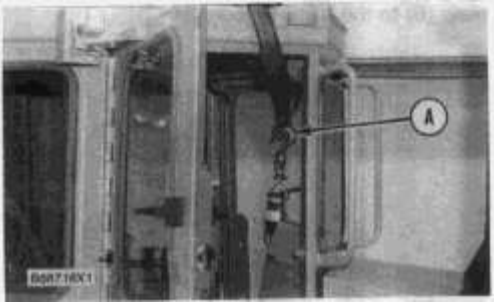
Hello dear friend!

Thank you very much for reading.

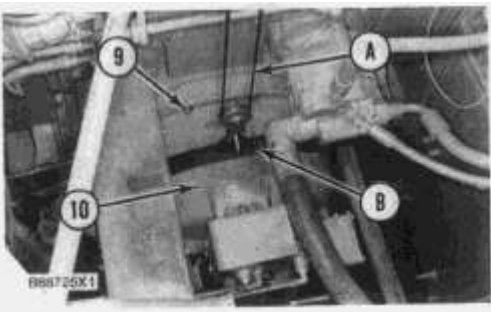
Enter the link into your browser.

The full manual is available for immediate download.

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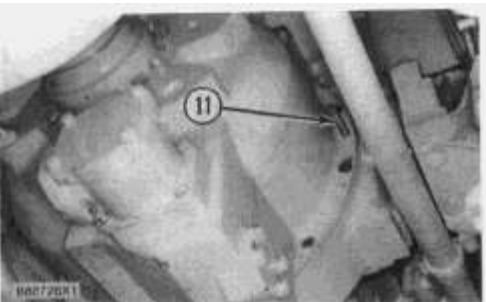


10. Attach tooling (A) to cab as shown.



11. Attach tool (B) to transmission (10).

12. Support the weight of the transmission, and remove bolts (9) that hold the transmission to the engine.

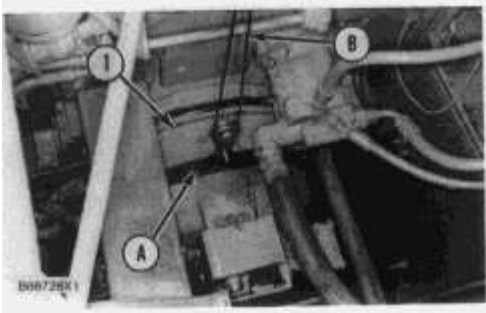


13. Use two 1/2"-13 NC forcing screws (11) to separate the transmission from the engine, and lower the transmission to the ground. The weight of the transmission is 395 kg (870 lb.).

Install High-Low Transmission

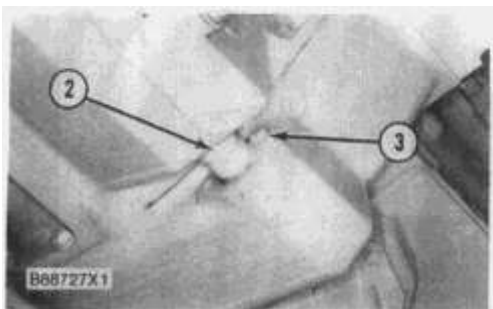
Tools Needed		A	B
FT1908	Lifting Bracket	1	
5P8622	Shackle		1
8S9906	Ratchet Puller With Pulley		1

1. Put a new O-ring seal in the groove on the face of the transmission.



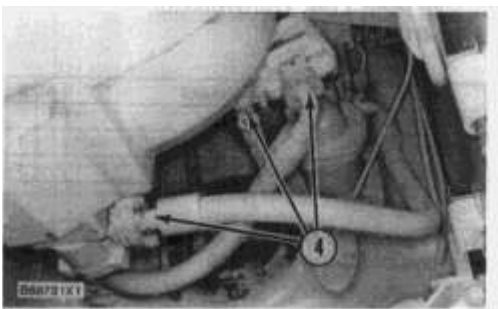
2. Install tool (A) on the transmission.

3. Put transmission (1) in position on the rear of the engine with tooling (B), and install the bolts that hold the transmission to the engine.

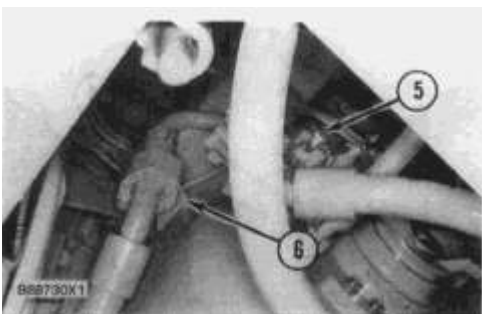


4. Inspect the O-ring seal on sleeve (2), and replace if necessary.

5. Push sleeve (2) into the flywheel housing, and install lock and bolt (3).

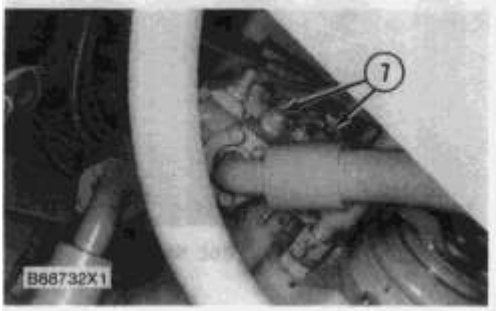


6. Connect three hoses (4) to the transmission.

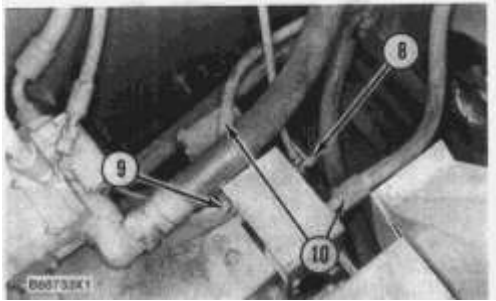


7. Connect tube (5) to the lube priority valve.

8. Put plate (6) in position on the transmission, and install the two bolts that hold plate (6) to the transmission.



9. Connect three wires (7) to the lube priority valve.



10. Connect two hoses (10) to the selector valve.

11. Connect wire (9) to the selector valve.

12. Put the rod end in position in the selector valve, and install nut (8) that holds it in place.

13. After the End By steps have been completed, start the machine, and check the oil level in the planetary transmission. Fill the planetary transmission to the correct level. See D8L Maintenance Guide.

END BY:

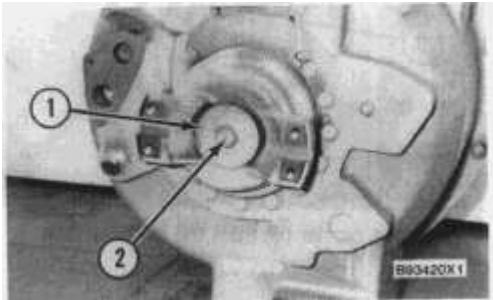
- a. install main drive shaft
- b. install rear middle bottom guard

Disassemble High-Low Transmission

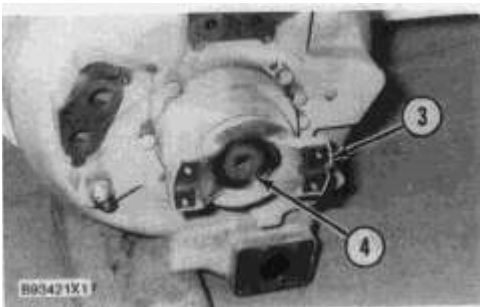
Tools Needed		A	B	C	D	E
1P2420	Repair Stand	1				
FT957	Adapter Group	1				
5P9736	Link Bracket		2			
6V2156	Link Bracket			2		
5P5197	Snap Ring Pliers				1	
1P520	Driver Group					1

START BY:

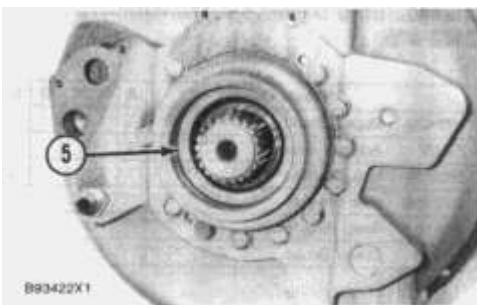
- a. remove high-low transmission
- b. remove modulation and selector valve
- c. remove lube priority valve



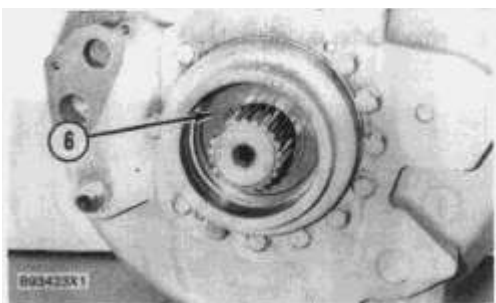
1. Remove bolt (2) and washer (1).



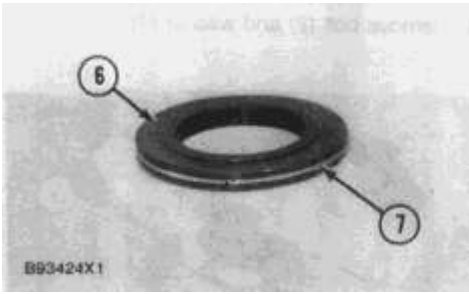
2. Remove O-ring seal (4) and yoke (3).



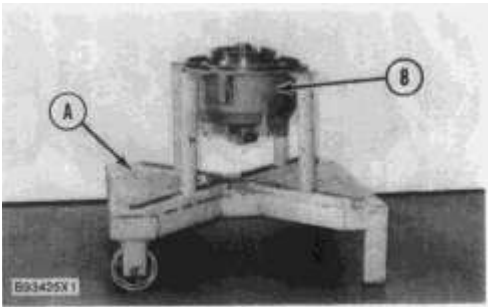
3. Remove seal (5).



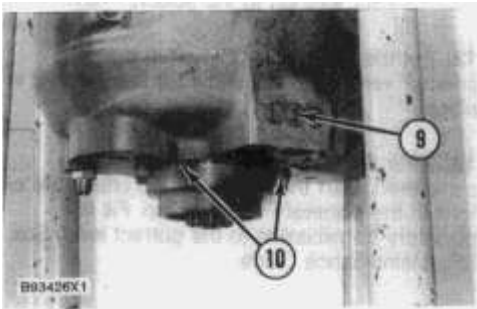
4. Remove carrier (6) from the transmission.



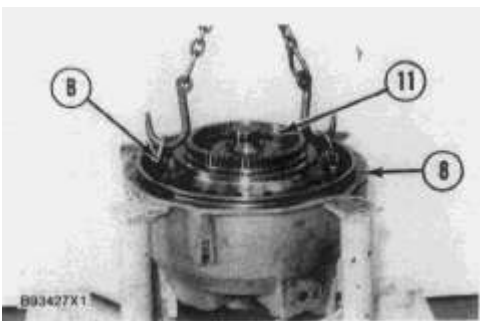
5. Remove ring (7) from carrier (6).



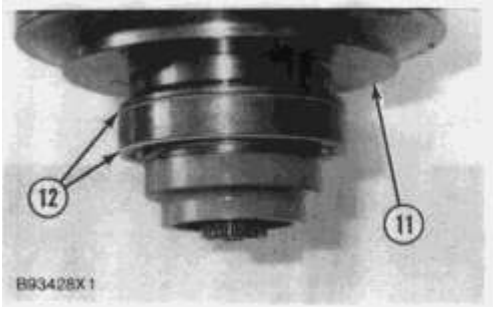
6. Position transmission (8) on tooling (A) as shown.



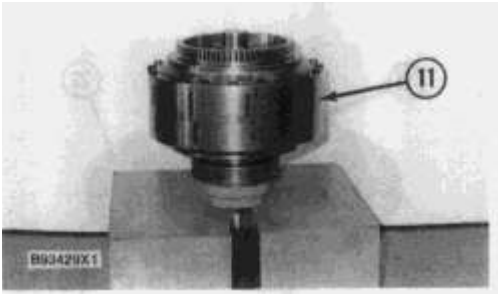
7. Remove eleven bolts (10) and bolt (9) that hold the clutch group in the cover.



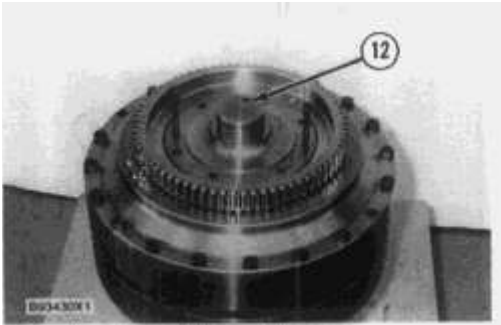
8. Fasten a hoist and tooling (B) to clutch group (11). Remove the clutch group from transmission (8). The weight of the clutch group is 277 kg (610 lb.).



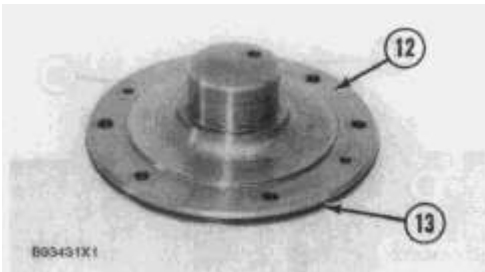
9. Remove two O-ring seals (12) from clutch group (11).



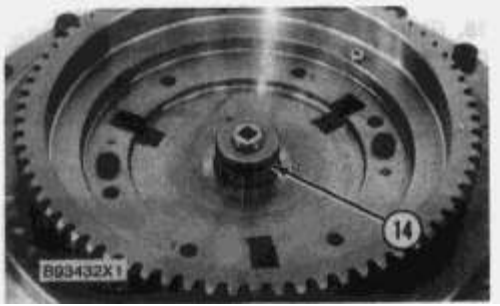
10. Position clutch group (11) on blocks as shown.



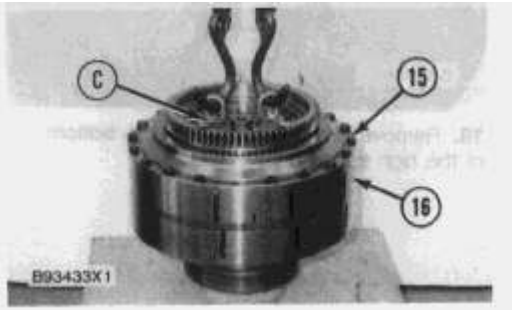
11. Remove the six bolts that hold hub (12) to the clutch group. Install two 3/8"-16 NC forcing screws in hub (12). Tighten the forcing screws evenly, and remove the hub.



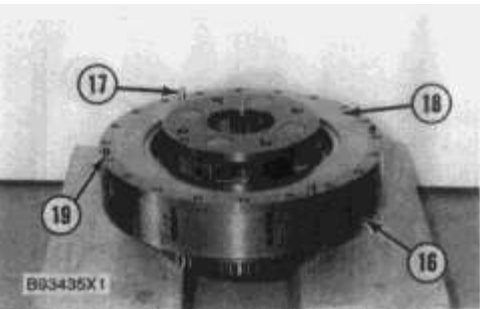
12. Remove O-ring seal (13) from hub (12).



13. Remove ring (14) from the shaft.



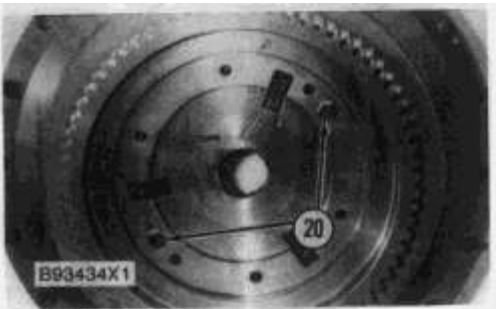
14. Fasten a hoist and tooling (C) to high speed clutch group (16). Remove bolts (15), and remove the clutch group. The weight of the high speed clutch group is 141 kg (310 lb.).



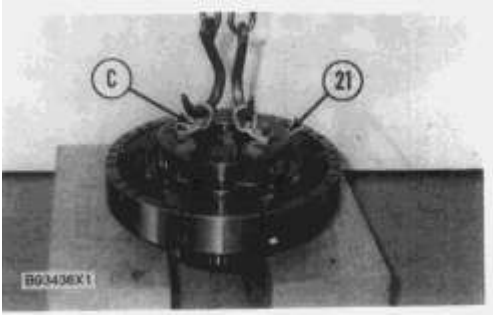
15. Position high speed clutch group (16) on blocks as shown.

16. Remove two bolts (19), and remove plate assembly (18) from the clutch group.

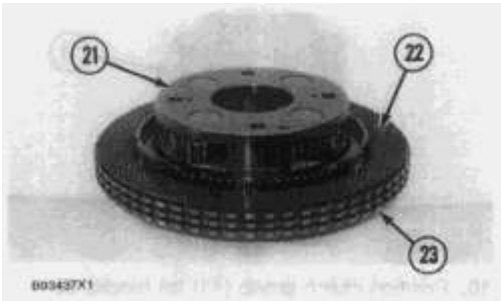
17. If necessary, remove two dowels (17) from the plate assembly.



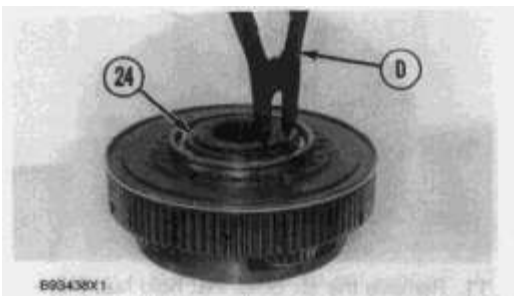
18. Remove two bolts (20) from the bottom of the high speed clutch group.



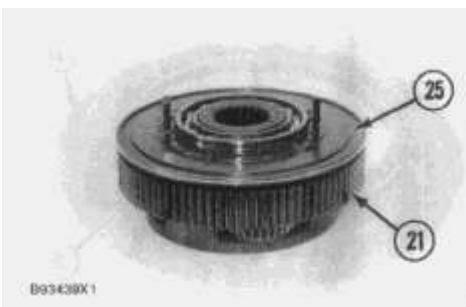
19. Fasten a hoist and tooling (C) to carrier (21). Remove carrier (21) and the discs and plates as a unit. The weight of the carrier, discs and plates is 59 kg (130 lb.).



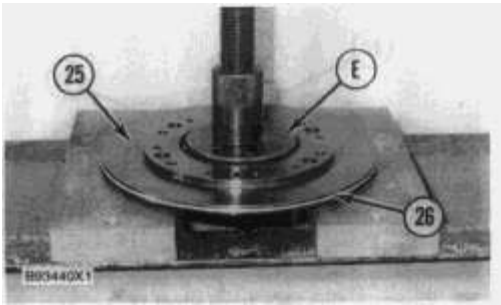
20. Remove four discs (22) and three plates (23) from carrier (21).



21. Use tool (D), and remove snap ring (24) from the carrier.

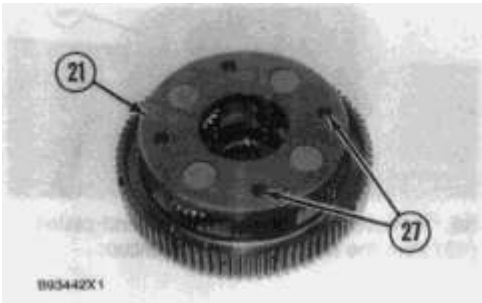


22. Install two 3/8"-16 NC forcing screws in piston (25). Tighten the forcing screws evenly, and remove the piston from carrier (21).



23. Use a press and tool (E) to remove the bearing from piston (25).

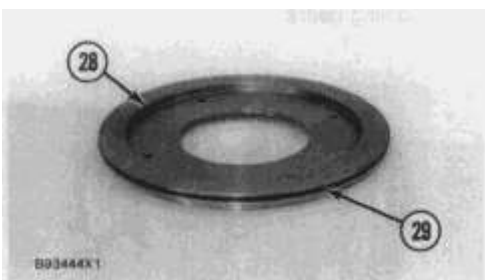
24. Remove ring (26) from the piston.



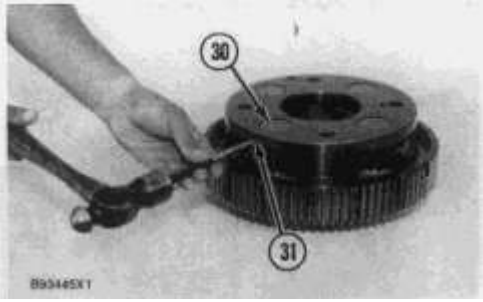
25. Remove four bolts (27) from carrier (21).



26. Use two 3/8\"-16 NC forged eyebolts, and remove manifold (28) from the carrier.

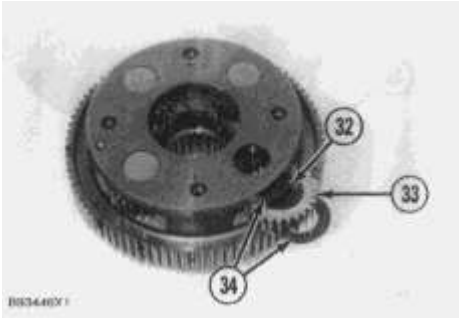


27. Remove O-ring seal (29) from manifold (28).



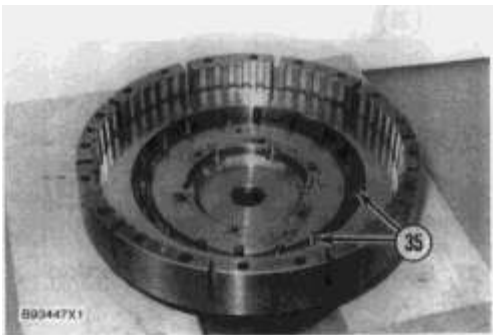
28. Use a hammer and punch to push pin (31) into shaft (30). Remove shaft (30) from the carrier.

29. Remove pin (31) from shaft (30).

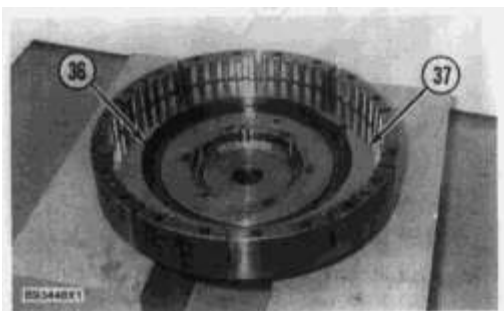


30. Remove two discs (34), bearing (32) and gear (33) from the carrier.

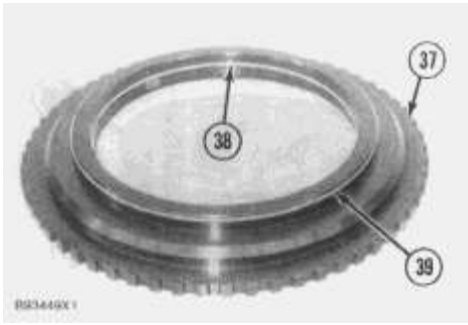
31. Repeat Steps 28 through 30 to remove the remaining gears.



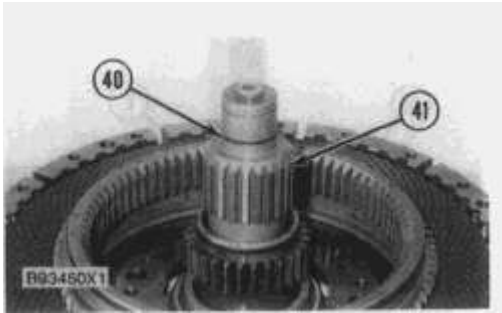
32. Remove eighteen springs (35).



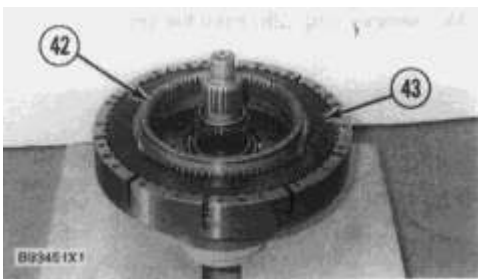
33. Install two 3/8"-16 NC forcing screws (36) in piston (37). Tighten the forcing screws evenly, and remove piston (37).



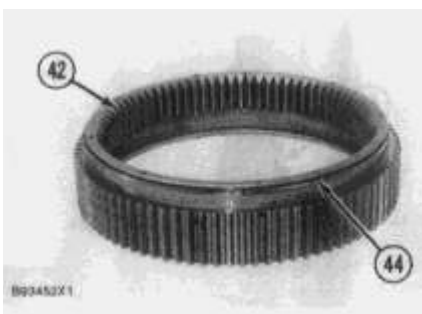
34. Remove rings (38) and (39) from piston (37).



35. Remove ring (40) from shaft (41).



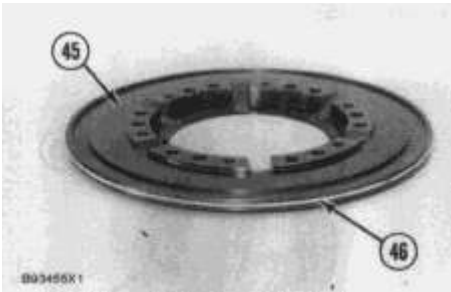
36. Remove gear (42) and discs and plates (43) from the low speed clutch group.



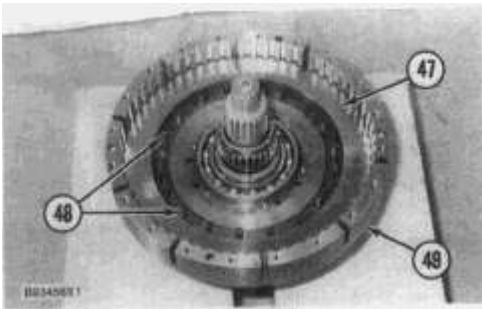
37. Remove ring (44) from gear (42).



38. Remove the six bolts that hold piston (45) in place. Use two 3/8"-16 NC forcing screws (36) to remove the piston.

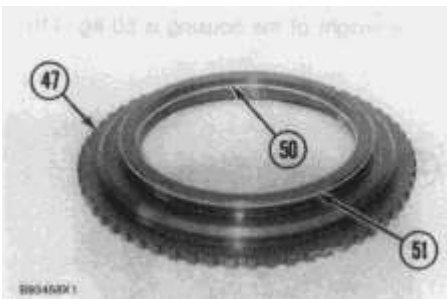


39. Remove ring (46) from piston (45).

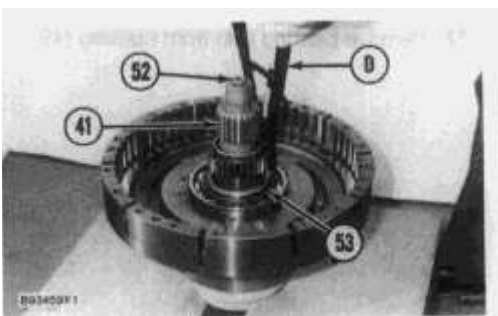


40. Remove eighteen springs (48).

41. Use two 3/8"-16 NC forged eyebolts to remove piston (47) from housing (49).

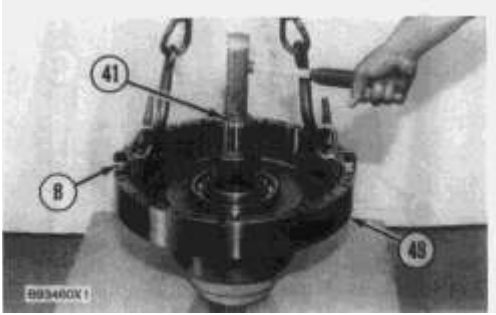


42. Remove rings (50) and (51) from piston (47).



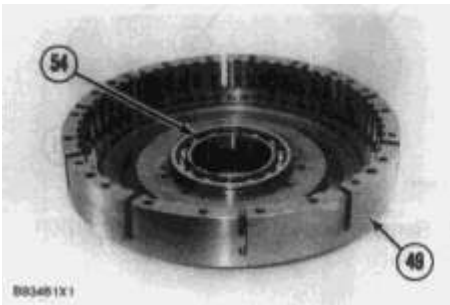
43. Use tool (D) to remove snap ring (53).

44. Remove plug (52) from shaft (41).

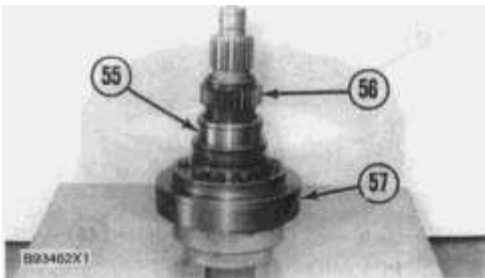


45. Fasten a hoist and tool (B) to housing (49).

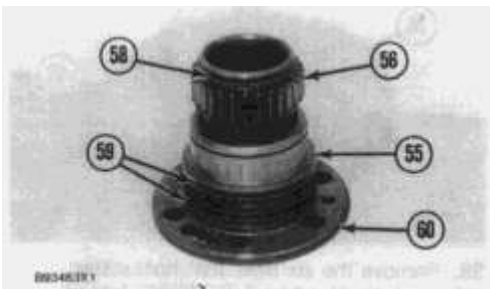
46. Raise housing (49) approximately 38 mm (1.5 in.), and use a rubber mallet to push shaft (41) through the bearing. Remove housing (49). The weight of the housing is 50 kg (110 lb.ft.).



47. Remove bearing (54) from housing (49).

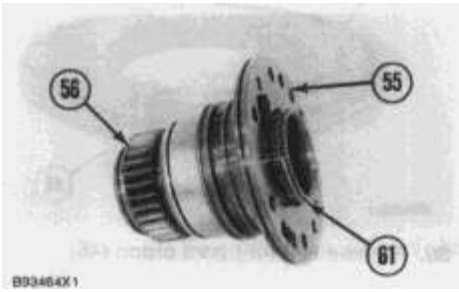


48. Remove the bolts that hold carrier (55) to manifold (57), and remove carrier (55) and gear (56) as an assembly.

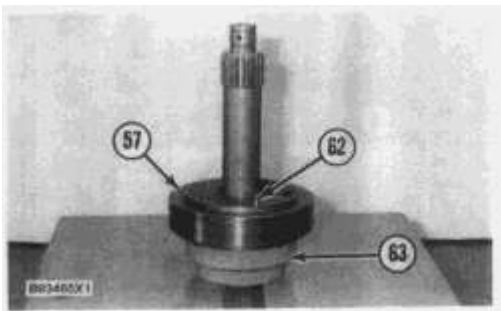


49. Remove ring (58) from gear (56).

50. Remove two rings (59) and ring (60) from carrier (55).

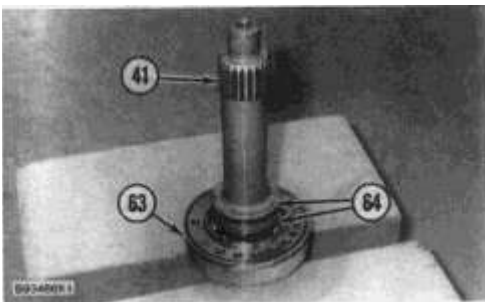


51. Remove ring (61) from gear (56), and remove the gear from carrier (55).



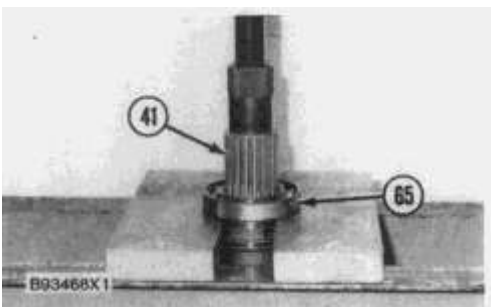
52. Remove manifold (57) from retainer (63).

53. If necessary, remove dowels (62) from the manifold.



54. Remove shaft (41) and the bearing from retainer (63).

55. Remove two rings (64) from the shaft.



56. Use a press to remove bearing (65) from shaft (41).

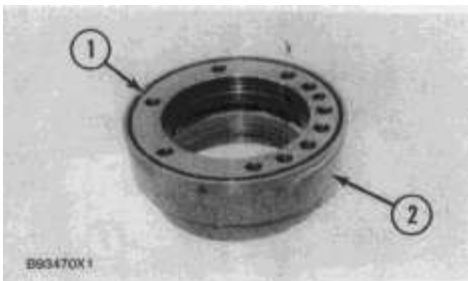


57. Remove O-ring seal (66) from retainer (63).

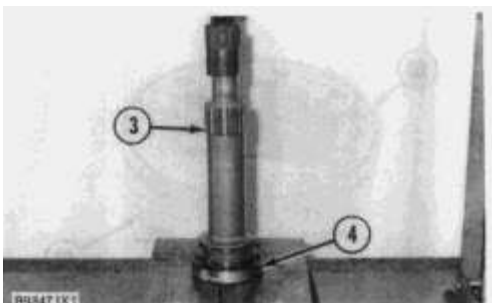
Assemble High-Low Transmission

Tools Needed		A	B	C	D
5P9736	Link Bracket	2			
5P5197	Pliers		1		
1P520	Driver Group			1	
6V2156	Link Bracket				2

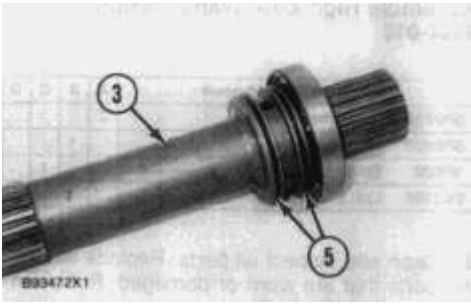
1. Clean and inspect all parts. Replace all of the parts that are worn or damaged. Put clean oil on all O-rings and seals.



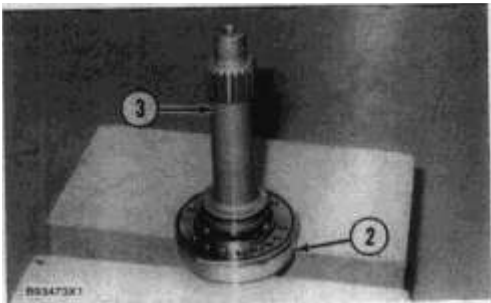
2. Put O-ring seal (1) in position in the groove in retainer (2).



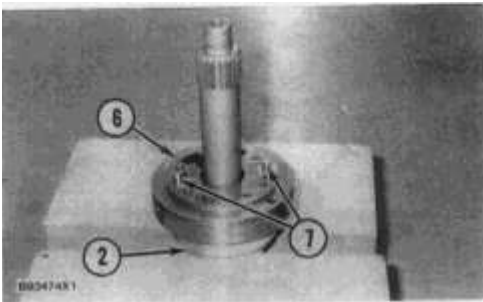
3. Use a press to install bearing (4) on shaft (3).



4. Put two rings (5) in position on shaft (3).

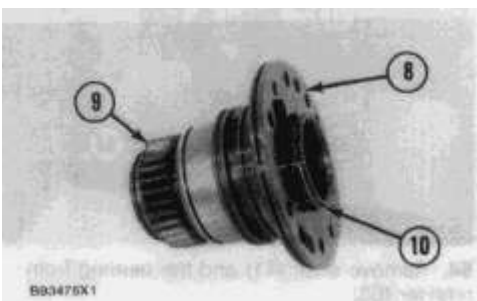


5. Position retainer (2) on blocks as shown, and install shaft (3) in the retainer.

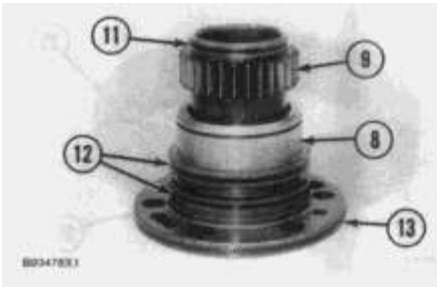


6. If dowels (7) were removed from the manifold, install dowels (7) to a depth of 13.00 ± 0.25 mm ($.512 \pm .010$ in.).

7. Align the bolt holes in manifold (6) with the holes in retainer (2), and put the manifold in position.

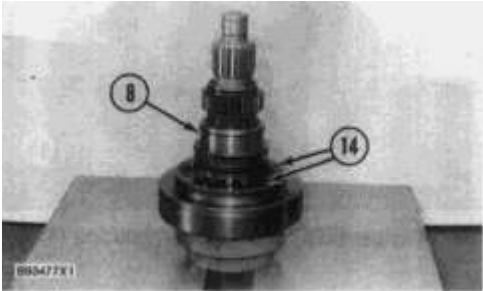


8. Install gear (9) in carrier (8), and install ring (10).

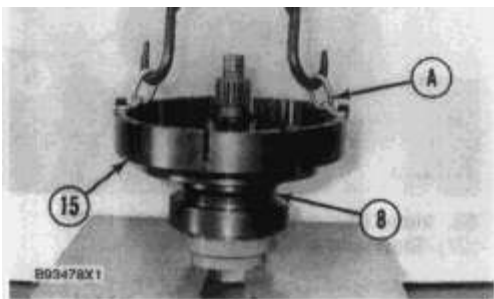


9. Install ring (13) and two rings (12) on carrier (8).

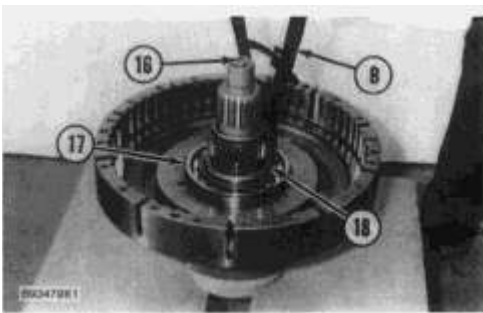
10. Install ring (11) on gear (9).



11. Put carrier (8) and the gear in position on the manifold, and install bolts (14).



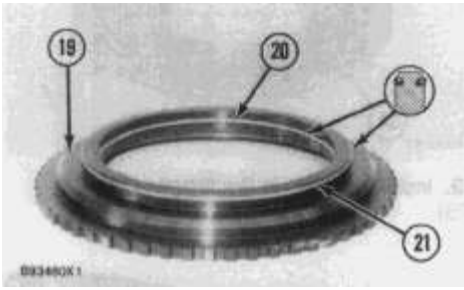
12. Attach a hoist and tool (A) to housing (15). Put housing (15) in position on carrier (8).



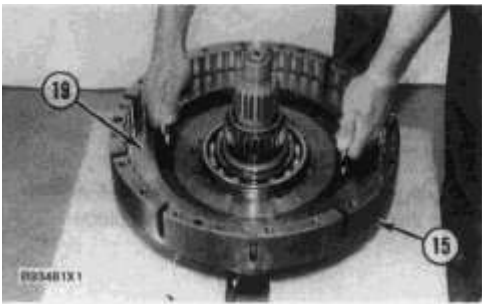
13. Install plug (16) in the shaft.

14. Align the notch in the inside race of bearing (17) with the dowel in the carrier, and install bearing (17).

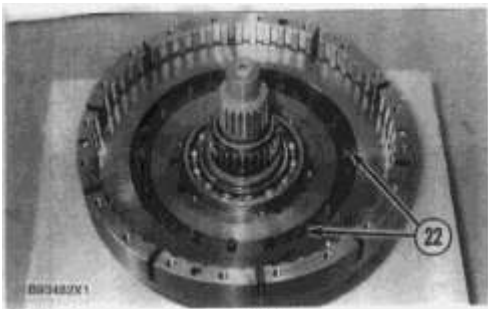
15. Install snap ring (18) with tool (B).



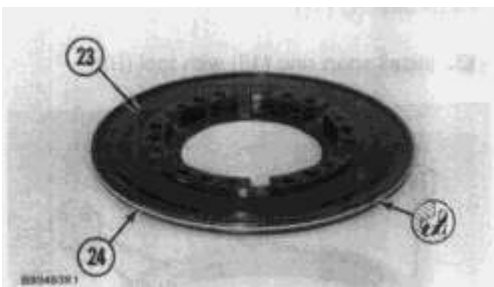
16. Put rings (20) and (21) in position in the grooves of position (19).



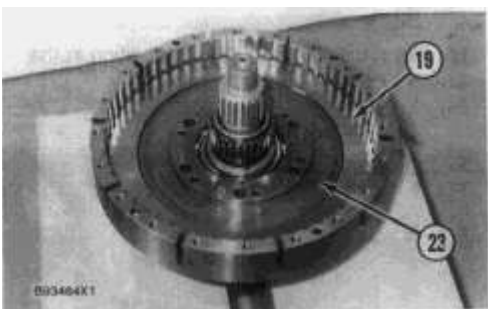
17. Use two 3/8"-16 NC eyebolts, and install piston (19) in housing (15).



18. Put eighteen springs (22) in position in the piston.



19. Install ring (24) in the groove in piston (23).





Suggest:

If the above button click is invalid.

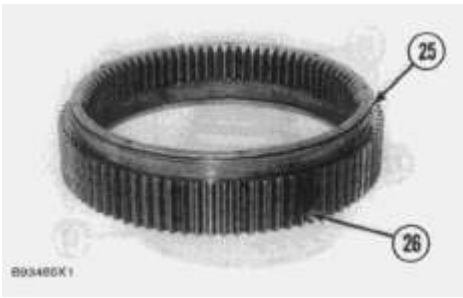
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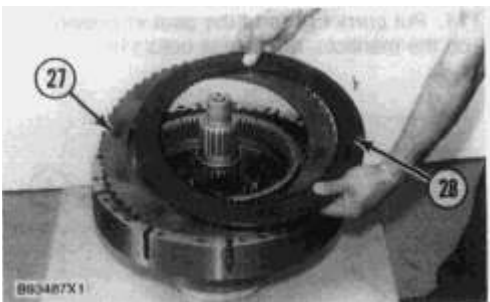
20. Put piston (23) in position in piston (19), and install the bolts that hold it in place.



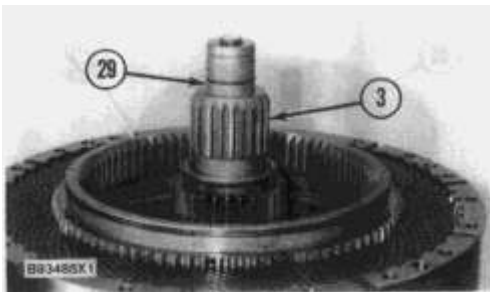
21. Install ring (25) on gear (26).



22. Put gear (26) in position in housing (15).



23. Install four discs (28) and three plates (27). Start with a disc.



24. Install ring (29) in the groove in shaft (3).

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