Product: WHEEL LOADER
Model: 992 WHEEL LOADER 25K
Configuration: 992 WHEEL LOADER 25K00001-00698 (MACHINE)

Disassembly and Assembly
992 WHEEL LOADER POWER TRAIN
Media Number -REG00919-00 **Publication Date -01/04/1971** **Date Updated -21/07/2004**

REG009190017

Transfer Drive

SMCS - 3159-15; 3159-16

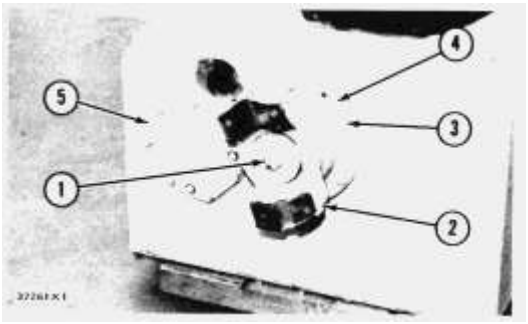
Disassemble Transfer Drive

Tools Required		A	B	C	D
1P820	Hydraulic Puller Group	1			
8B7549	Leg	2			
8B7551	Bearing Pulling Attach.	1			
8B7560	Dtep Plate	1	1		1
3H465	Plate	4			
1B4207	Nut	2			
8B7554	Bearing Pulling Attach.		1		
1H3107	Push Puller			1	
1H3110	Bearing Pulling Attach.			1	
1H3108	Leg			2	
7F9540	Hydraulic Puller			1	
1P495	Drive Plate			1	
1P2322	Puller Assembly (8H705)				1
1P546	Arm				3
1P511	Drive Plate				1

preparatory step:

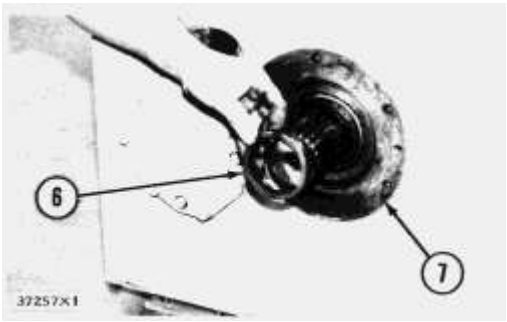
a) separate transmission from transfer drive

1. Remove the rear output yoke from output shaft.

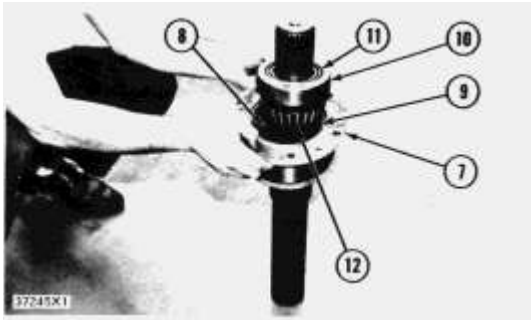


2. Remove the front output yoke assembly retaining bolt (1), retainer, and O-ring seal. Remove the front yoke assembly (2).

3. Remove the output shaft front bearing cage retainer mounting bolts (3). Using two of the bolts as forcing screws, remove retainer (4). Remove the lip-type seal from retainer.



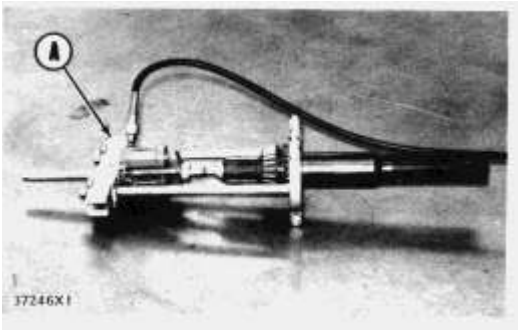
4. Remove spacer (6) from output shaft. Using two of the retainer mounting bolts (3) as forcing screws, separate the output shaft front bearing cage (7) from transfer drive housing.



5. Remove the cage (7) and output shaft from the housing.

6. Remove bearing cage (7) from shaft. Remove the bearing cup (8) and spacer (9) from cage.

NOTE: The bearing cups (8) and (10), bearing cones (11) and (12), and spacer (9) are a matched set and are not interchangeable with other cups, cones, or spacers.

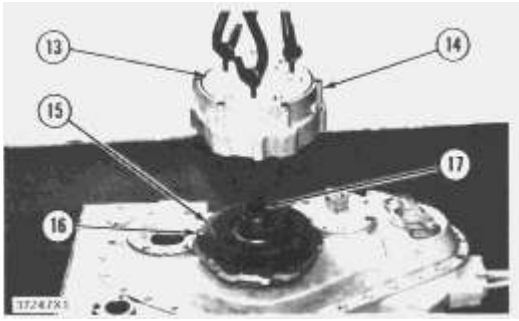


7. Remove bearing cup (10) from shaft. Using tool setup (A), remove the bearing cones from the output shaft.

8. Remove the magnetic screen cover (5) from housing. Remove the magnetic screen.

9. Attach a hoist and position the transfer drive housing with input end up as shown.

10. Remove the emergency and parking brake housing assembly mounting bolts.

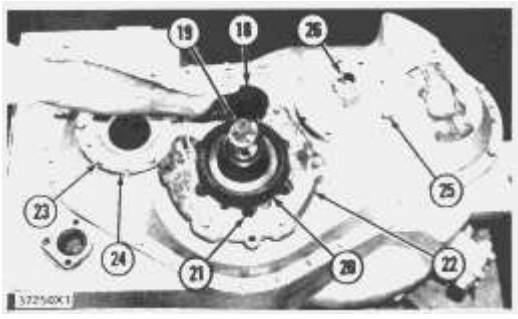


WARNING

Do not remove the plate retaining bolts (13) until housing assembly has been separated from the transfer drive housing.

11. Install three 1/2"-13NC forged eyebolts in the plate. Attach a hoist and remove the emergency and parking brake housing assembly (14)-weight 100 lbs. (45 kg).

12. Remove the brake disc assemblies (15) and plates (16).



13. Remove hub retaining bolts (17), retainer (18), and shims (19). Remove hub (20).

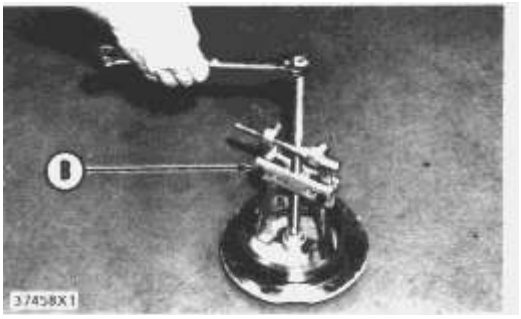
14. Remove the idler gear bearing cage retaining bolts (21). Using two of the bolts as forcing screws, separate the bearing cage (22) from housing. Remove the cage and shims. Keep shims identified for use during assembly.

15. Remove the lip-type seal, O-ring seal, and bearing cup from bearing cage (22).

16. Remove the output shaft rear bearing cage retaining bolts (23). Using two 1/2"-13NC X 3 in. long forcing screws, separate cage (24) from housing. Remove the cage and shims. Keep shims identified for use during assembly of transfer drive.

17. Remove the lip-type seal, O-ring seal, and bearing cup from bearing cage (24).

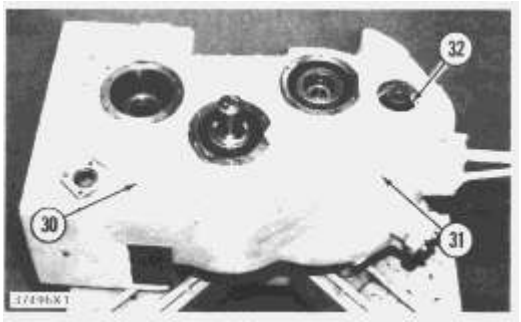
18. Remove the transmission output gear bearing cage mounting bolts (25). Using two of the bolts as forcing screws, separate bearing cage (27) from housing. Remove cage and shims. Keep shims (28) identified for use during assembly.



19. Remove the manifold (26) and tube from cage (27). Using tool setup (B), remove the bearing cup from cage.

20. Remove the transfer drive input gear flange (29).

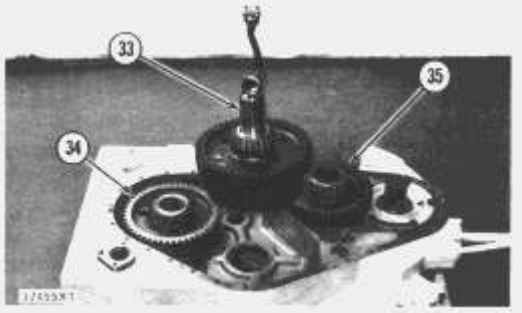
21. Remove the cover plate from bottom of the transfer drive housing.



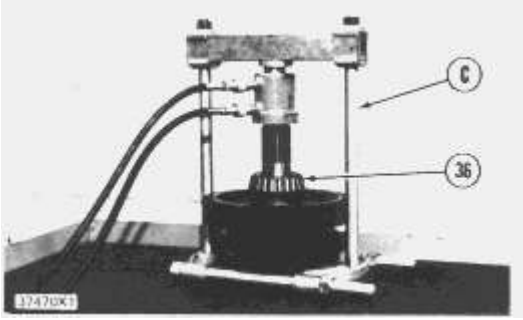
22. Remove the cover mounting bolts (30). Using two of the bolts as forcing screws, separate cover (31) from transfer drive housing.

23. Install two 1/2"-13NC forged eyebolts in cover. Attach a hoist and remove cover (31)-weight 150 lb. (68 kg).

24. Remove the input flange seal (32) from cover (31).



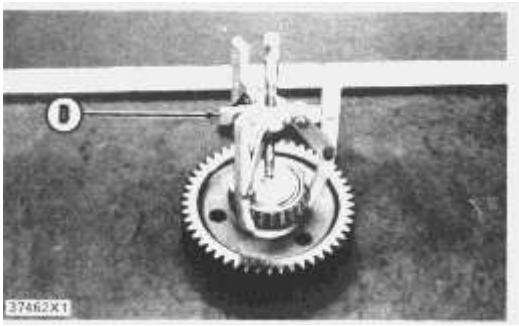
25. Install a 5/8"-11NC forged eyebolt in idler gear shaft (33). Attach a hoist and remove the idler gears and shaft.-weight 140 lbs. (64 kg).



26. Using tool setup (C), remove the rear bearing cone (36) and idler gears from shaft.

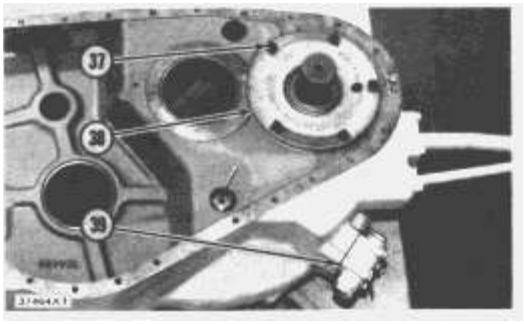
27. Remove the front bearing cone retaining ring, and press the bearing cone off shaft.

28. Remove the transfer drive output gear (34).



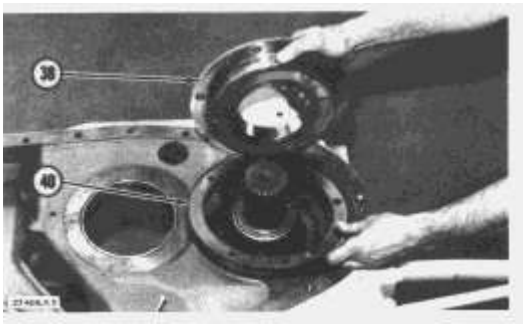
29. Using tool setup (D), remove the two bearing cones from output gear (34).

30. Remove the transmission output gear (35). Using tool setup (D), remove the two bearing cones from transmission output gear (35). Remove the retaining ring and retainer from inside of transmission output gear.



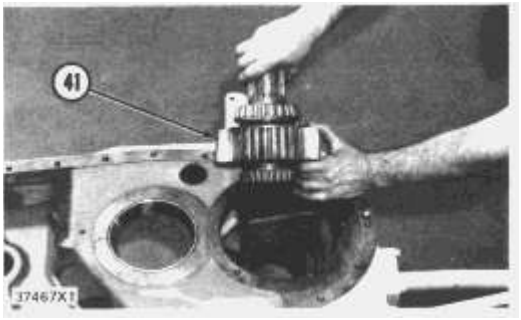
31. Remove the transfer drive input gear bearing cage mounting bolts (37) and locks.

32. Using two of the bolts (37) as forcing screws, separate input gear bearing cage (38) from the transfer drive housing.

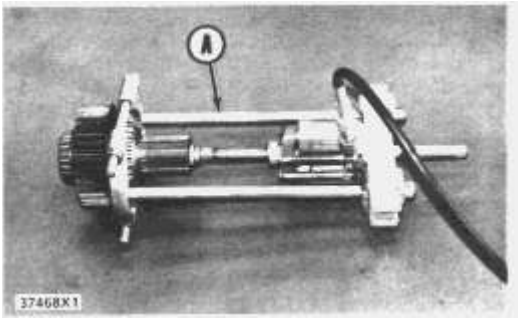


33. Remove the input gear bearing cage (38) and shims (40). Keep shims identified for use during assembly of transfer drive.

34. Remove the bearing cup from cage (38).



35. Remove the transfer drive input gear (41).



36. Using tool setup (A), remove the two bearing cones from input gear (41).

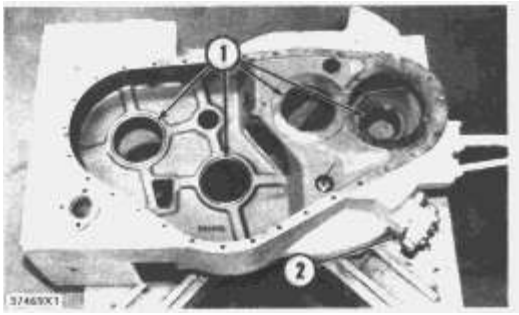
37. Attach a hoist and turn the transfer drive housing over.

38. Remove the bearing cups from housing.

39. Remove the transmission lubrication relief valve (39).

Assemble Transfer Drive

Tools Required		A	B	C
1P522	Drive Plate	1		
1P532	Handle	1	1	
1P523	Drive Plate		1	
8S2328	Dial Test Indicator Group			1



1. Install the four bearing cups (1) in transfer drive housing.

2. Attach a hoist and turn the housing over with input end up as shown.

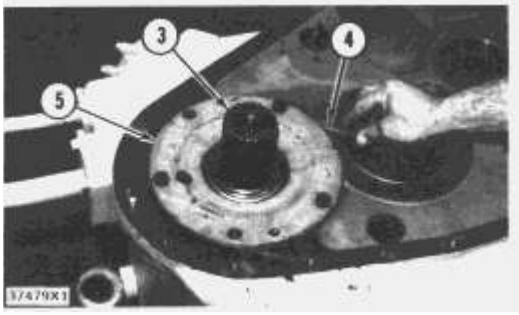
3. Install the transmission lubrication relief valve (2).

4. Heat the two input gear bearing cones in oil at a temperature not to exceed 275° F (135° C) for ten minutes. Install the two bearing cones on the input gear.

5. Position the input gear in transfer drive housing.

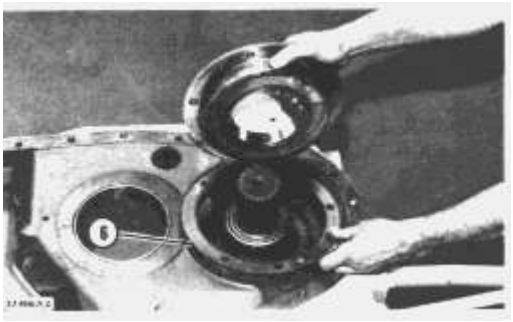
6. Install the bearing cup in input gear bearing cage.

7. With the transfer drive housing positioned with gear centerlines vertical as shown, adjust the input gear end play as follows:



a) Install the input gear bearing cage (5) without shims. Install three evenly spaced retaining bolts. While rotating the input gear (3) by hand, tighten the three bolts to 60 ± 6 lb. in. (69,2 ± 6,9 cm.kg).

b) Using a thickness gauge (4), measure the gap between cage and housing at three different locations. Remove the bearing cage (5).

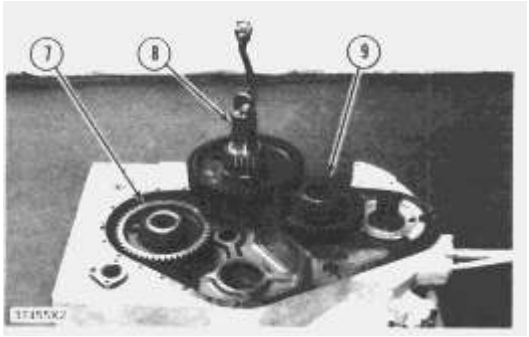


c) Re-install bearing cage with a shim pack (6) equal in thickness to average measured gap plus .017 ± .005 in. (0,43 ± 0,13 mm).

d) Install the cage retaining bolts and locks. Tighten bolts to 65 ± 5 lb. ft. (9,0 ± 0,7 mkg). Using indicator group (C), check the end play of input gear.

e) End play should be .005 in. (0,127 mm). Adjust the shim thickness under cage until correct end play is obtained. Bend the retaining bolt locks.

8. Heat the transmission output gear bearing cones, transfer drive output gear bearing cones, and idler gear bearing cones in oil for ten minutes at a temperature not to exceed .275° F (135° C).



9. Install the two bearing cones on transfer drive output gear. Position output gear (7) in transfer drive housing.

10. Install the two bearing cones on transmission output gear. Install the retainer and retaining ring on inside of gear. Install the transmission output gear (9) in housing.