

Product: WHEEL SCRAPER

Model: 621E WHEEL SCRAPER 2TF

Configuration: 621E TRACTOR/SCRAPER / POWER SHIFT / 2TF00001-00971 (MACHINE) POWERED BY 3406 ENGINE

Disassembly and Assembly 621S TRACTOR-SCRAPER VEHICLE SYSTEMS

Media Number -SEN3673-01

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SEN36730007

Steering Control Valve And Crossover Relief Valve

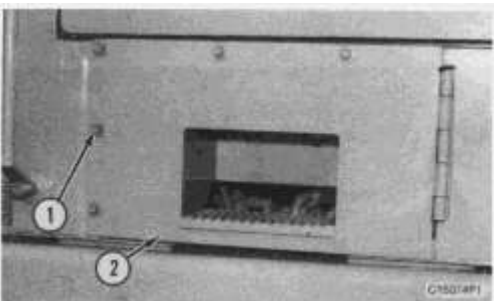
SMCS - 4307-016; 4307-010; 4307-015

Remove And Install Steering Control Valve And Crossover Relief Valve

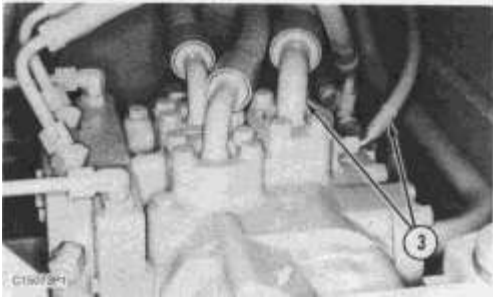


Before any hydraulic lines are disconnected, release the pressure from the hydraulic system. Start the engine and move the ejector forward all the way. Stop the engine and loosen the cap on the hydraulic tank slowly. Move all the hydraulic controls backward and forward.

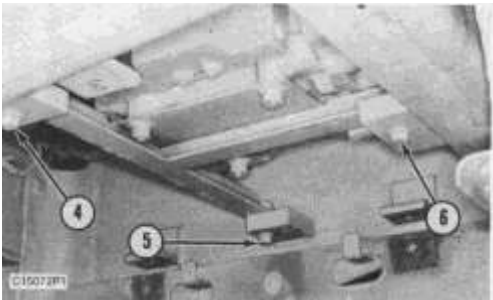
NOTE: Location of the steering control valve and crossover relief valve is directly beneath the operator's compartment.



1. Remove bolts (1) and swing access panel (2) back.



2. Disconnect all tubes and hoses (3) from the steering control valve and crossover relief valve.



3. Remove the guard plate directly beneath the operator's compartment.

4. Remove bolts (4), (5) and (6). Slide the valve and bracket forward, and lower the steering control valve and crossover relief valve down with a suitable hoist. Weight of the valve group is 72 kg (160 lb.).

NOTE: The following steps are for the installation of the steering control valve and crossover relief valve.

5. Put steering control valve and crossover relief valve in position with bolts (4), (5) and (6).

6. Install guard plate.

7. Connect all tubes and hoses (3) to the steering control valve and crossover relief valve.

8. Close access panel (2) and install bolts (1).

Disassemble Steering Control Valve And Crossover Relief Valve

Tools Needed		A	B
1P1853	Retaining Ring Pliers	1	
1P1857	Retaining Ring Pliers		1

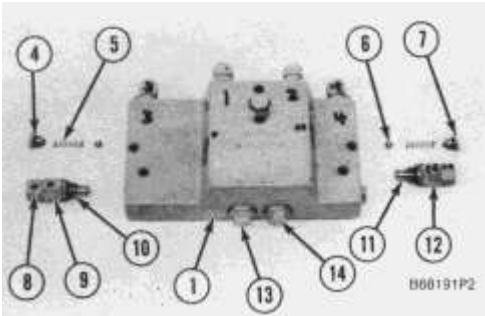
Start By:

a. remove steering control valve and crossover relief valve.

NOTE: For disassembly of the crossover relief valve, only do Steps 1 through 9.



1. Remove bolts (2) and crossover relief valve (1) from steering control valve (3). If necessary, remove the O-ring seals from the crossover relief valve.



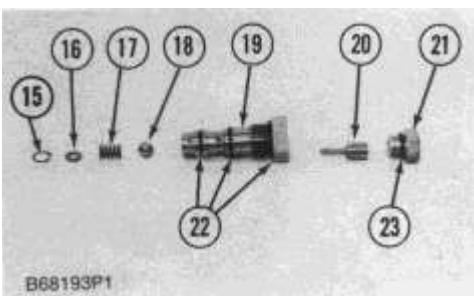
2. Remove plugs (4), springs (5) and balls (6) from both ends of crossover relief valve (1). If necessary; remove O-ring seals (7) from plugs (4).

3. Remove relief valves (9) from both ends of crossover relief valve (1).

4. Remove the rings and O-rings (11) and (10) from relief valves (9).

5. Carefully remove caps (8) and gaskets (12) from relief valves (9).

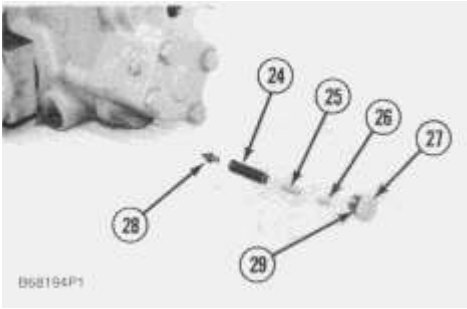
6. Put identification marks on check valves (13) and (14) as to their location in crossover relief valve (1). Remove check valve assemblies (13) and (14) from the crossover relief valve.



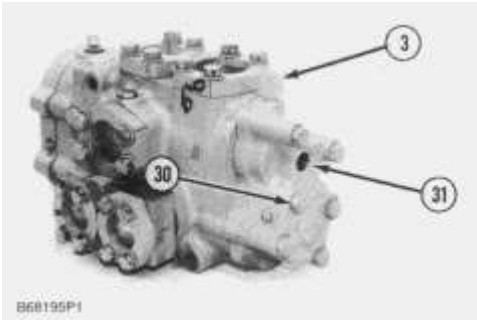
7. Use tool (A), and remove snap rings (15) from valve bodies (19).

8. Remove spacers (16), springs (17) and balls (18) from valve bodies (19).

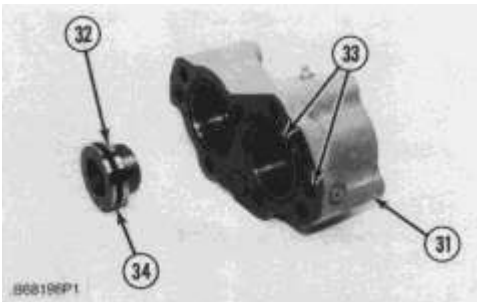
9. Remove plugs (21) and stems (20) from valve bodies (19). If necessary, remove O-ring seals (22) and (23) from the valve bodies and the plugs.



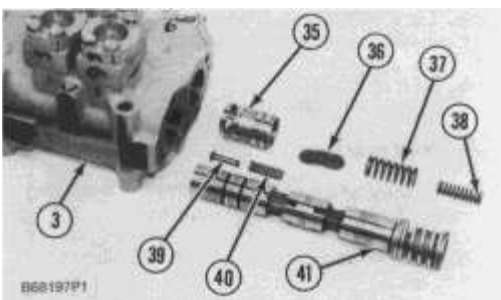
10. Remove plug (27), shims (26), rod (25), spring (24) and valve (28) from the steering control valve. If necessary, remove O-ring seal (29) from plug (27).



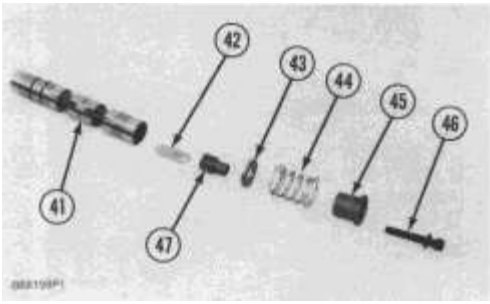
11. Remove bolts (30) and cover (31) from steering control valve (3).



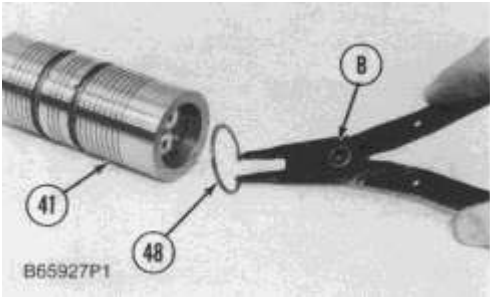
12. Remove seat (32) from cover (31). If necessary, remove O-ring seals (33) and (34) from cover (31) and seat (32).



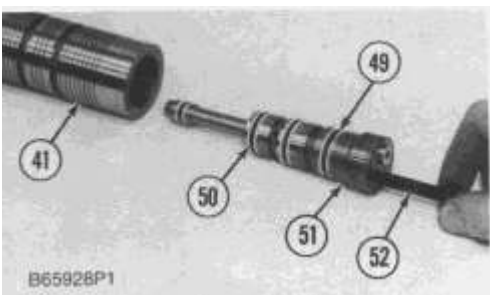
13. Remove valve (35), shims (36), springs (37) and (38), spring (40), strainer (39) and spool (41) from steering control valve (3).



14. Remove bolt (46), retainer (45), spring (44), spacer (43), retainer (47) and shims (42) from spool (41).

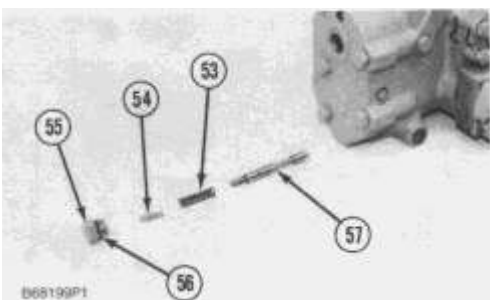


15. Use tool (B), and remove snap ring (48) from spool (41).



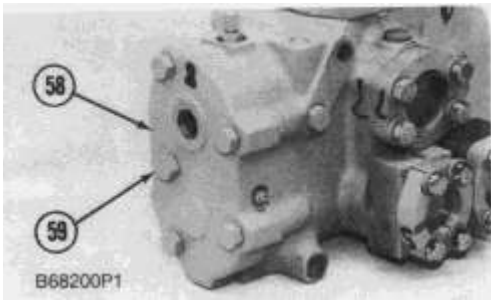
16. Remove one of the plugs from separator (51), and install a 5/16" - 24 NF bolt (52). Use bolt (52) to remove separator (51) from spool (41).

17. Remove rings (50) and O-ring seals (49) from separator (51).

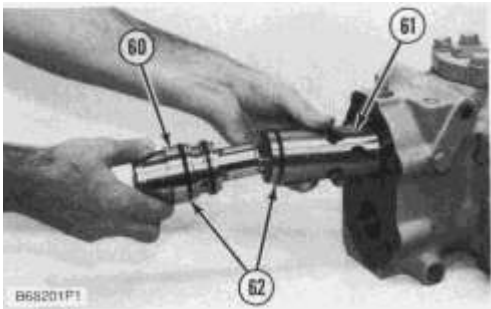


18. Remove plug (55), shims (54), spring (53) and stem (57) from the steering control valve.

19. Remove O-ring seal (56) from plug (55).

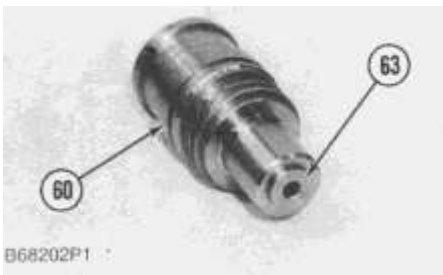


20. Remove bolts (59) and cover (58) from the steering control valve. Remove the O-ring seals from the cover.



21. Remove valve (60) and spacer (61) from the steering control valve.

22. Remove O-ring seals (62) from the valve and spacer.



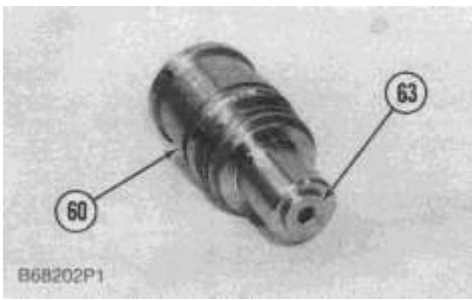
23. If necessary, remove plug (63) and the O-ring seal from valve (60).

Assemble Steering Control Valve And Crossover Relief Valve

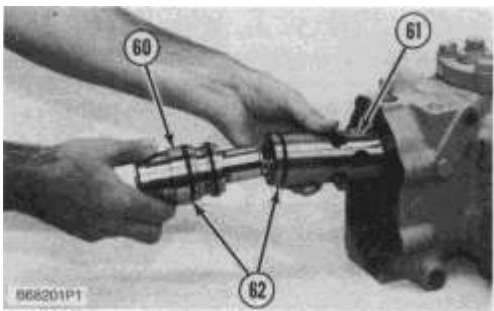
Tools Needed		A	B
1P1853	Retaining Ring Pliers	1	
1P1857	Retaining Ring Pliers		1

1. Inspect all parts of the steering control valve and crossover relief valve for wear or damage, and make a replacement if necessary.

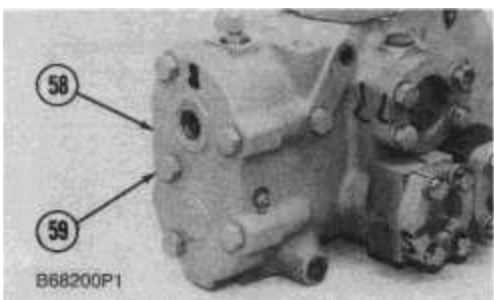
NOTE: For assembly of the crossover relief valve, only do Steps 21-30.



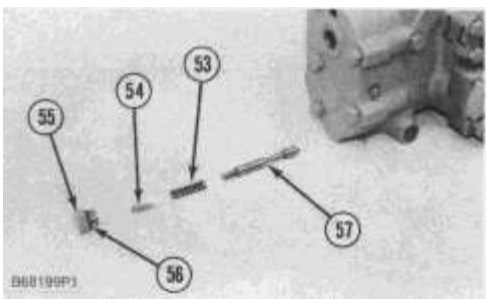
2. Make sure the O-ring seal is in position on plug (63).
3. Put 5P3413 Pipe Sealant with Teflon on the threads of plug (63), and install it in valve (60).



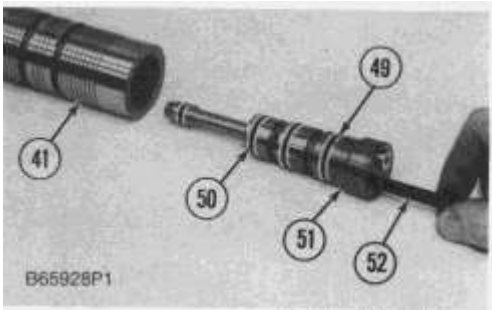
4. Put O-ring seals (62) in position on valve (60) and spacer (61).
5. Install spacer (61) and valve (60) in the steering control valve as shown.



6. Put the O-ring seals in position on cover (58), and install the cover on the steering control valve.

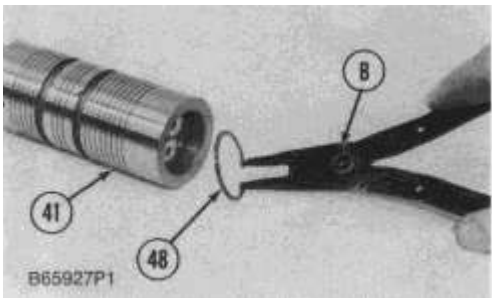


7. Put O-ring seal (56) in position on plug (55).
8. Install stem (57), spring (52), original shims (54) and plug (55).

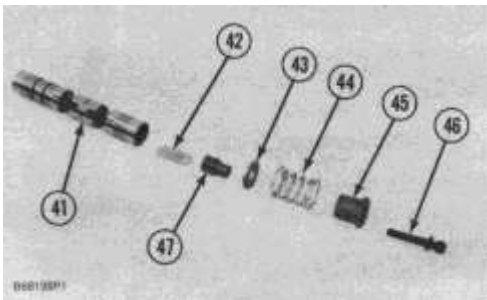


9. Install O-ring seals (49) and rings (50) on separator (51).

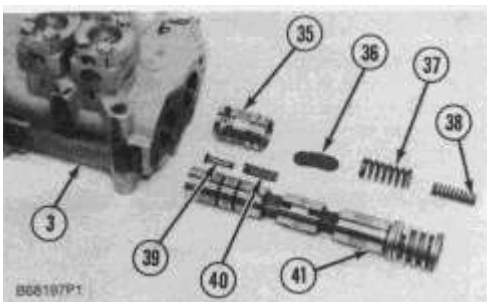
10. Install separator (51) in spool (41).



11. Use tool (B), and install snap ring (48) in spool (41).



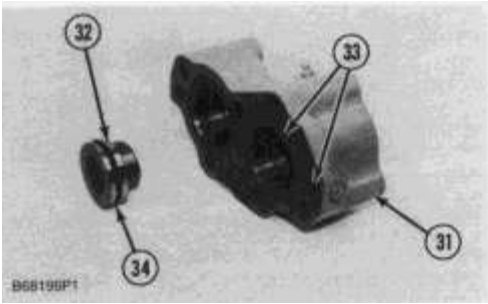
12. Install original shims (42), retainer (47), spacer (43), spring (44), retainer (45) and bolt (46) in spool (41).



13. Install valve (35) and original shims (36) in steering control valve (3).

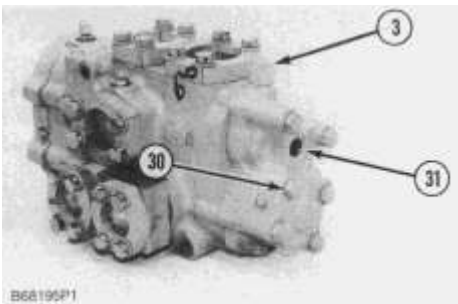
14. Install strainer (39) and spring (40) in steering control valve (3).

15. Install spool (41) in steering control valve (3).

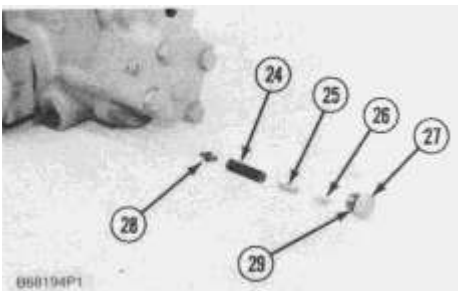


16. Put O-ring seals (33) and (34) in position on cover (31) and seat (32).

17. Install seat (32) in cover (31).

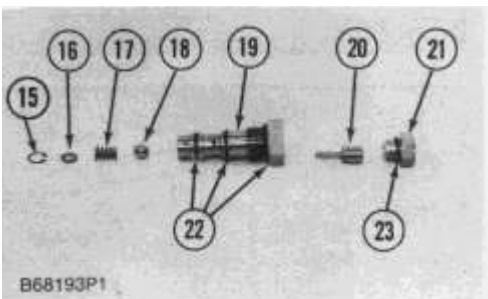


18. Put springs (37) and (38) in position, and install cover (31) on the steering control valve.



19. Install O-ring seal (29) on plug (27).

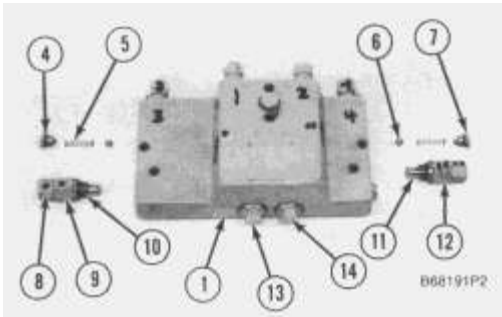
20. Install valve (29), spring (24), rod (25), original shims (26) and plug (27) in the steering control valve.



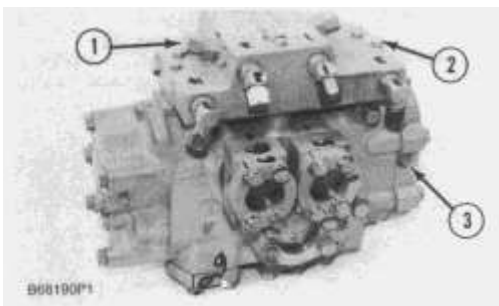
21. Install O-ring seals (22) and (23) on valve bodies (19) and plug (21).

22. Install balls (18), springs (17) and spacers (16). Use tool (A) to install snap rings (15) in valve bodies (19).

23. Install stems (20) and plugs (21) in valve bodies (19).



24. Install check valves (13) and (14) in crossover relief valve (1). Be sure the check valves are in the correct locations according to their identification marks.
25. Install O-ring seals (7) on plugs (4).
26. Install balls (6), springs (5) and plugs (4) in crossover relief valve (1).
27. Install gaskets (12) and caps (8) on relief valves (11).
28. Put O-ring seals (10) in position on relief valves (11), and install the valves in crossover relief valve (1).



29. Put the O-ring seals in position, and install crossover relief valve (1) on steering control valve (3).
30. For the correct valve adjustment, see Steering Control Valve And Crossover Relief Valve in Testing And Adjusting Manual.

End By:

- a. install steering control valve and crossover relief valve.
-



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