



# Service Repair Manual

## **Models**

D5C D5C LGP XL III Tractor

---

[Previous Screen](#)

Product: TRACK-TYPE TRACTOR

Model: D5C TRACK-TYPE TRACTOR 3MK

Configuration: D5C & D5C LGP TRACTORS / POWERSHIFT / 3MK00001-UP (MACHINE) POWERED BY 3204 ENGINE

## Disassembly and Assembly D5C TRACTOR POWER TRAIN

Media Number -SEN5217-00

Publication Date -01/05/1992

Date Updated -26/10/2004

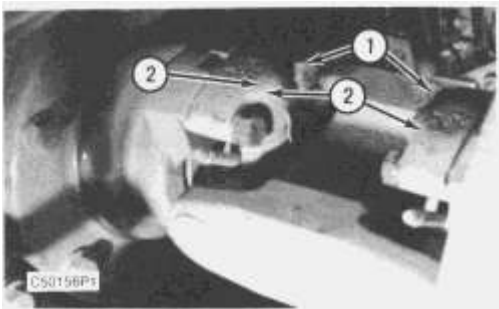
SEN52170012

### Drive Shaft

SMCS - 3253-010

## Remove & Install Drive Shaft

### 1. Remove cover under machine



2. Remove four bolts and washers (1) (each end) and two caps (2) (each end). Remove drive shaft (3).

**NOTE:** Install in the reverse order.

**NOTE:** Torque for bolts (1)  $55 \pm 7 \text{ N}\cdot\text{m}$  ( $41 \pm 5 \text{ lb ft}$ ).

[Previous Screen](#)

Product: TRACK-TYPE TRACTOR

Model: D5C TRACK-TYPE TRACTOR 3MK

Configuration: D5C &amp; D5C LGP TRACTORS / POWERSHIFT / 3MK00001-UP (MACHINE) POWERED BY 3204 ENGINE

## Disassembly and Assembly D5C TRACTOR POWER TRAIN

Media Number -SEN5217-00

Publication Date -01/05/1992

Date Updated -26/10/2004

SEN52170013

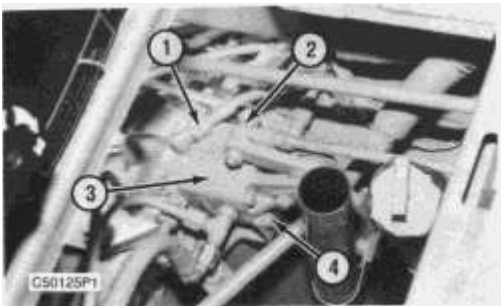
### Steering Clutch Control Valves

SMCS - 4101-011; 4101-012; 4101-015; 4101-016; 4102-010; 4102-017; 4109

### Remove & Install Steering Clutch Control Valves

Start By:

- a. remove transmission oil filter group



1. Disconnect seven line assemblies (1).
2. Remove bolt (2) to disconnect linkage.
3. Remove two bolts (4) in front and one bolt in back (not shown). Remove steering clutch control valve (3).

**NOTE:** For installation reverse steps used for removal.

**NOTE:** Tighten linkage rod bolt to 17 N·m (12.6 lb ft)

End By:

- a. install transmission oil filter group.

### Disassemble & Assemble Steering Clutch Control Valves

**<https://www.ebooklibonline.com>**

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

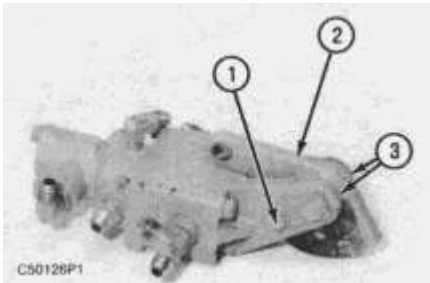
The full manual is available for immediate download.

**<https://www.ebooklibonline.com>**

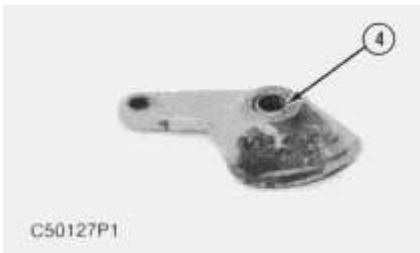
Tools Needed		A
1P510	Driver Group	1

Start By:

a. remove steering clutch control valves



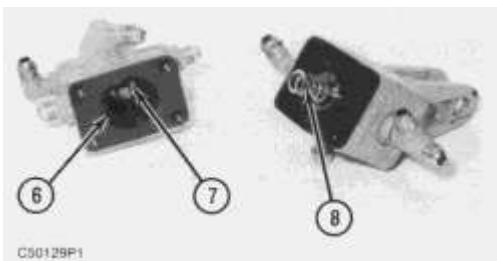
1. Remove bolt and shaft (1). Remove cam (2) and washers (3) from the cover.



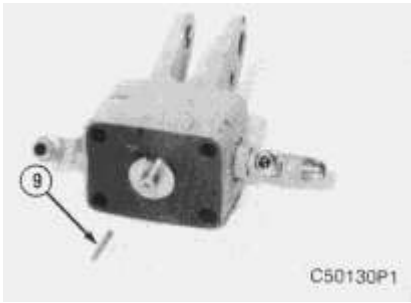
2. Remove bearing (4) from the cam.



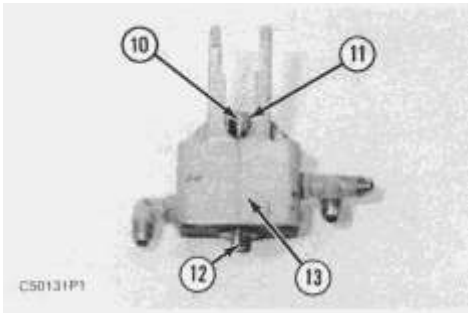
3. Remove the two bolts and cover (5) from the valve.



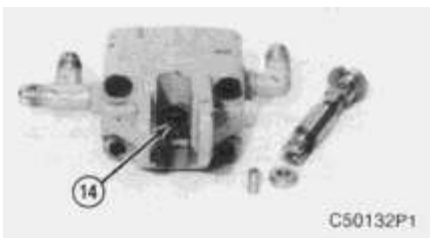
4. Remove O-ring seal (6) and spacer (7) from the valve. Remove spring (8) from the stem.



5. Remove pin (9).



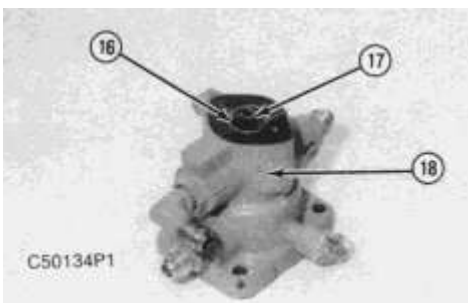
6. Turn stem 90°. Remove pin (10) and roller (11) from stem (12). Remove stem (12) from cover (13).



7. Remove seal (14) from cover.



8. Remove bolt and cover (15) from valve.



9. Remove O-ring seal (16), spring (17) and the spool from valve (18).

**NOTE:** The following steps are for assembly of the steering clutch control valve.

10. Put clean oil on all parts before assembly.

11. Install spring (17) on end of spool and install spool in valve (18).

12. Install the O-ring seal on the valve.

13. Put cover (15) in position on the valve and install one bolt to hold the cover in place.

14. Install seal (14) in the bore in cover.

15. Install stem (12) in the cover. Put roller (11) in position on the stem and install pin (10) that holds it in place. Turn the stem until the notch in the stem is in alignment with the pin in the cover and push the stem out until the shoulder on the stem is against the cover.

16. Press in pin (9).

17. Install O-ring seal (6) on the valve. Install spacer (7) on the spool. Install large spring (8) on the stem.

18. Put the cover in its original position on the valve and install the two upper bolts to hold it in place.

19. Install bearing (4) in the cam. Put the cam in position on the cover with a washer (3) on both sides of the cam. Install shaft (1) and the bolt.

End By:

a. install steering clutch control valves

## Remove Steering Clutches (Oil Cooled)

Tools Needed		A
1P510	Driver Group	1

Start By:

a. remove hydraulic tank \*

b. remove fuel tank \*

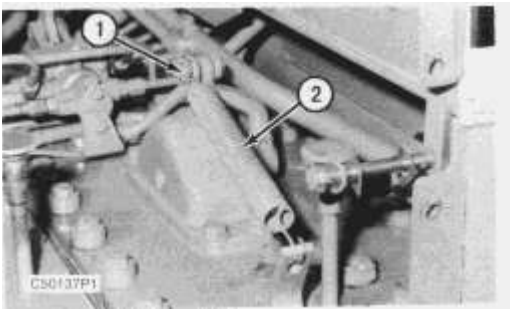
---

\*These operations are in the Disassembly And Assembly Manual, Vehicle Systems, Form No. SENR5221

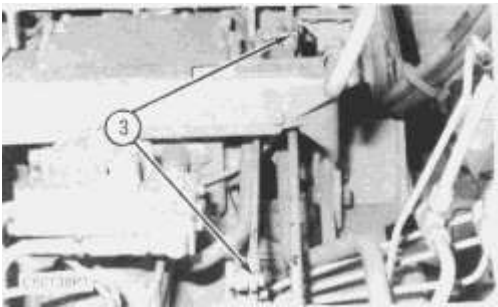
1. Drain the oil from the steering clutch compartment.

2. Remove the battery and battery frame.

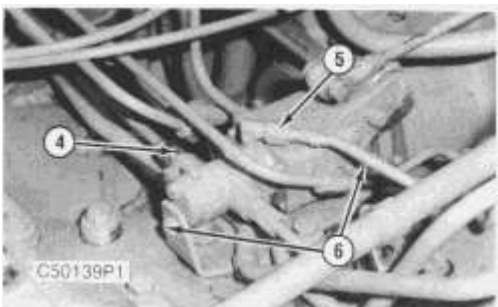
3. Remove seat and seat frame.



4. Remove spring (2) and brake linkage (1).

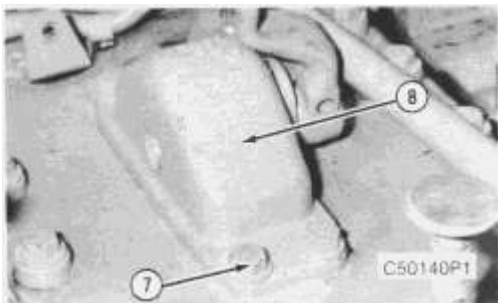


5. Disconnect steering clutch linkage (3) from the pedal assembly and steering control valve.

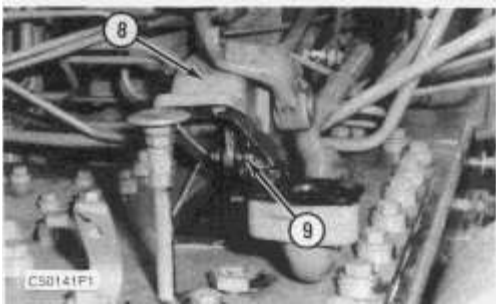


6. Disconnect seven lines (4) from control valve (5).

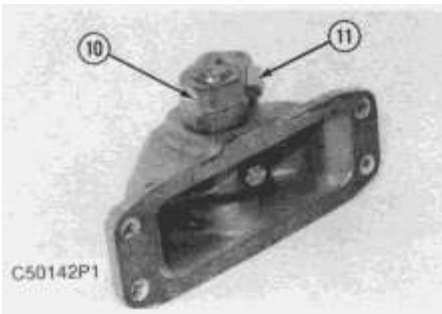
7. Remove three bolts (6) and remove control valve (5).



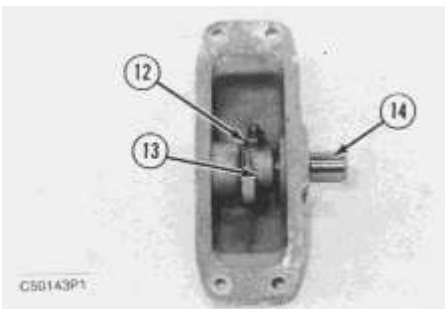
8. Remove four bolts (7) that hold brake housing (8) in place.



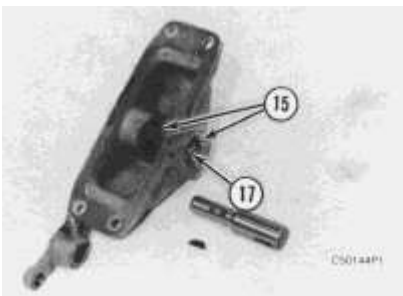
9. Lift brake housing (8) up and remove pin lock (9). Remove the pin and brake housing (8).



10. Remove bolt (11) and remove lever (10) from the shaft. Remove the key from the shaft.

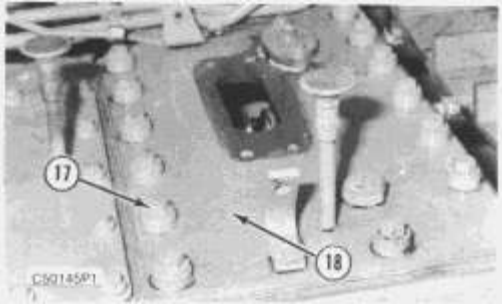


11. Loosen nut (12) and slide shaft (14) from the brake housing. Remove the key from the shaft. Remove lever (13) from the brake housing.

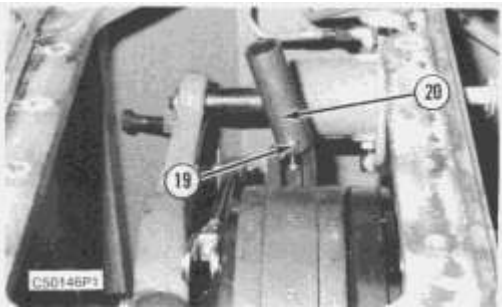


12. Inspect and replace, if needed, lip type seal (16).

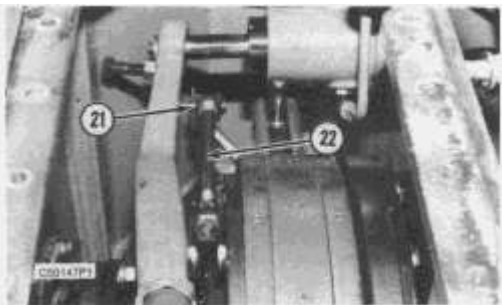
13. Inspect and replace, if needed, bearings (15). Use tooling (A) to remove and install bearings.



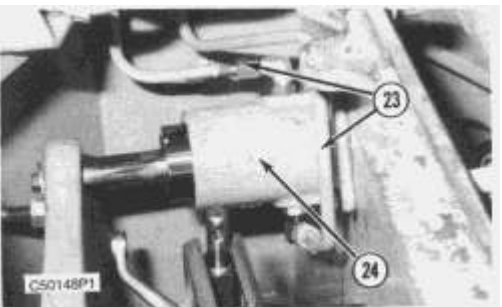
14. Remove nineteen bolts (17) washers and spacers and remove cover (18).



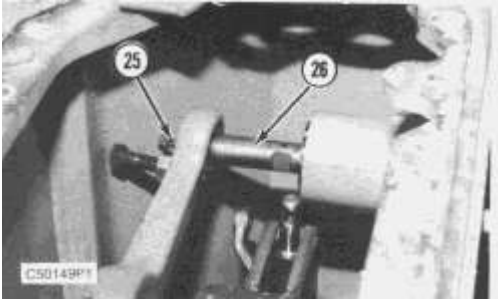
15. Remove nut and bolt (19) and remove sleeve (20).



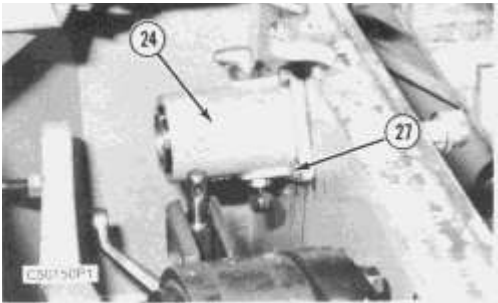
16. Remove the cotter pin and pin (21) that hold brake linkage (22) in place and remove linkage (22).



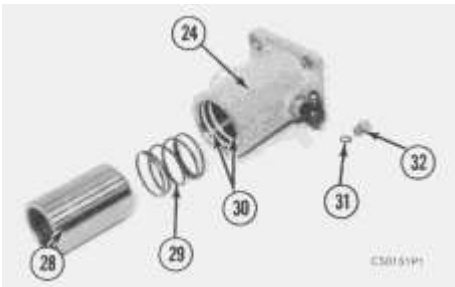
17. Remove two oil lines (23) from the clutch cylinder (24).



18. Disconnect yoke by removing bolt (25). Remove pin (26) from the clutch cylinder.

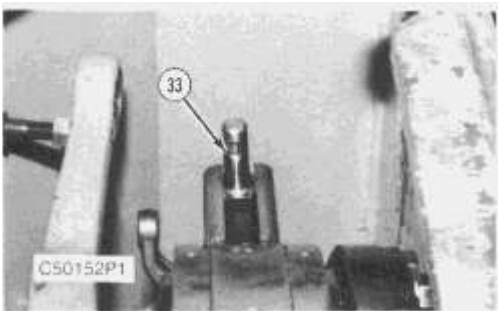


19. Remove four bolts (27) and remove cylinder (24).

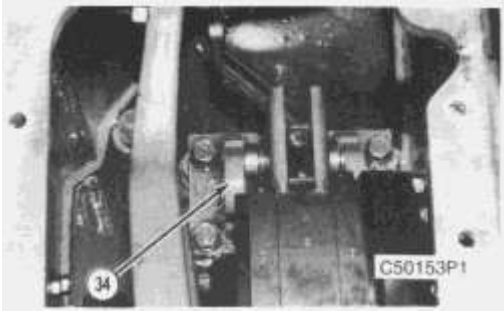


20. Remove piston (28) and spring (29).

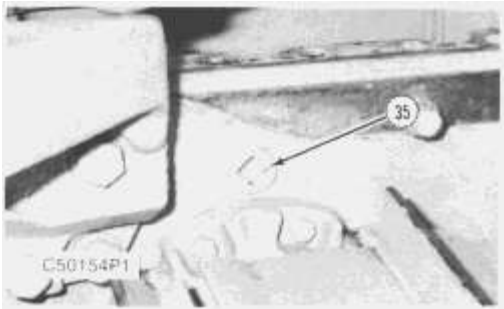
21. Remove plug (32) and O-ring seal (31) from cylinder (24).



22. Remove bar (33).



23. Remove four bolts that hold brake band support (34) in position on bottom of steering clutch compartment, and remove the support.



24. Remove plug (35) for access to bolts that hold final drive pinion flange to steering clutch.



25. Push the tractor forward or backward to turn the steering clutch. Remove bolts (36) and (37) except for one on each side of the steering clutch.

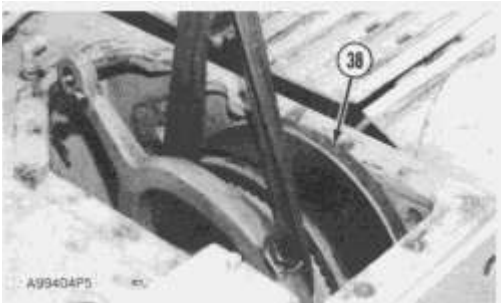


26. Fasten a hoist to steering clutch (38). Remove the last two bolts and remove steering clutch (38) from the steering clutch compartment. The weight of the steering clutch is **74 kg (165 lb)**.

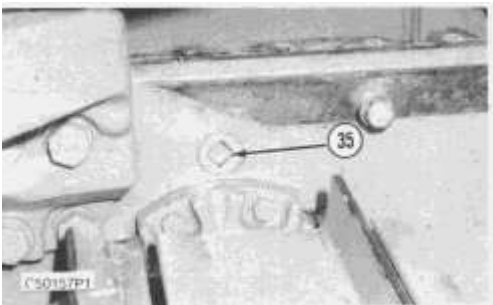
27. Steps are the same for removal of both sides.

## Install Steering Clutches (Oil Cooled)

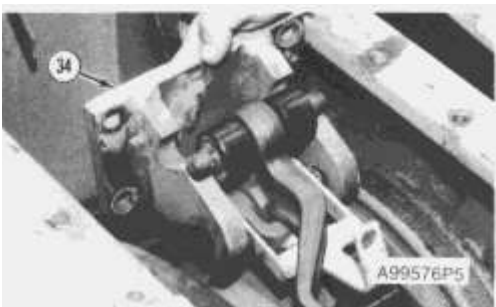
Tools Needed		A
1P510	Driver Group	1



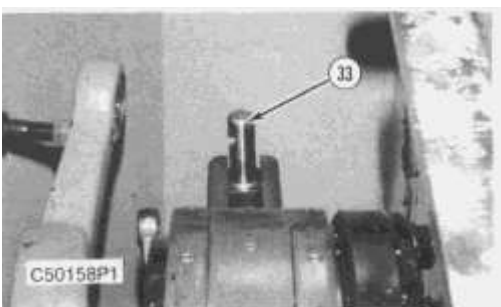
1. Put **5P0960 Multipurpose Grease** on the ball and insert at each end of the yoke on the steering clutch. Fasten a hoist and position steering clutch (38) in the steering clutch compartment.



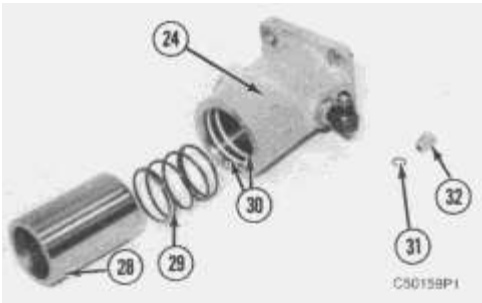
2. Put **5P3413 Thread Sealant** on the threads of plug (35) and install the plug.



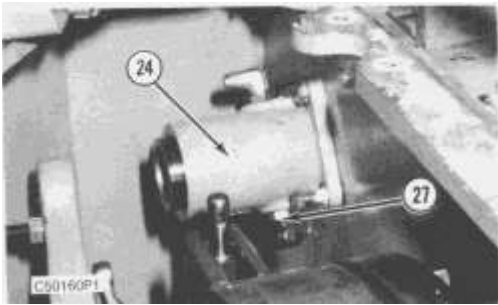
3. Put support (34) in position on the brake band and turn the brake band and support to the bottom of the steering clutch compartment. Install the four bolts that hold the support in place.



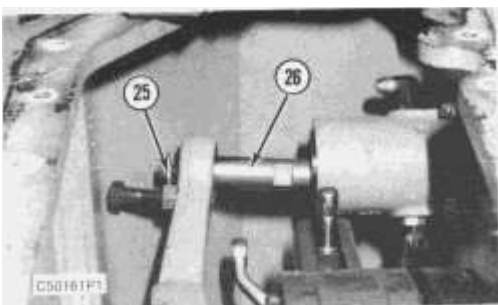
4. Install bar (33).



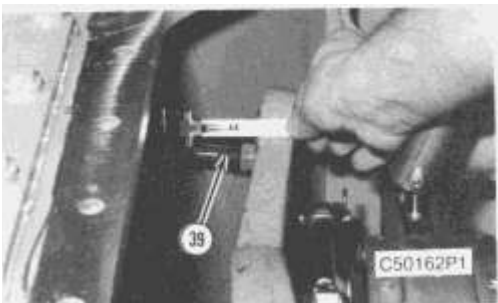
5. Install seals (30) in cylinder. Install spring (29) and piston (28) in cylinder (24).
6. Install O-ring seal (31) on plug (32), and install the plug in cylinder (24).



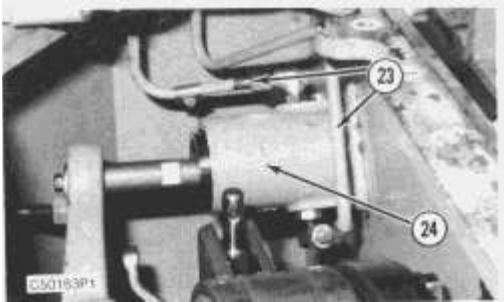
7. Put **7M7260 Liquid Gasket Material** on the base of cylinder (24). Put cylinder (24) in position in the steering clutch compartment.
8. Put **5P3413 Pipe Sealant** on the threads of bolts (27) that hold the cylinder in place, and install the bolts.



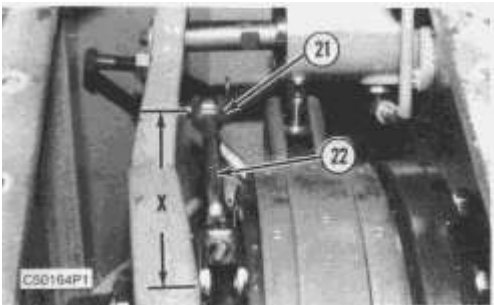
9. Install pin (26) and bolt and washer (25).



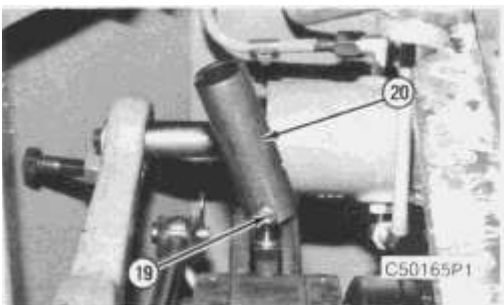
10. If necessary, make an adjustment to bolt (39) until the distance between the bolt and the steering clutch housing is **8 mm (.315 in)**.



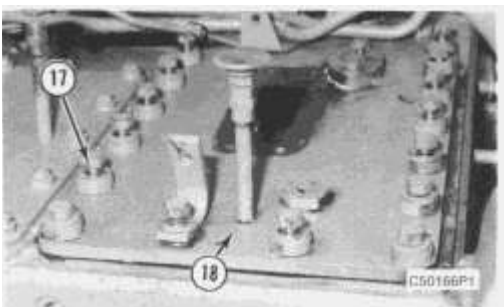
11. Connect two oil line (23) to cylinder (24).



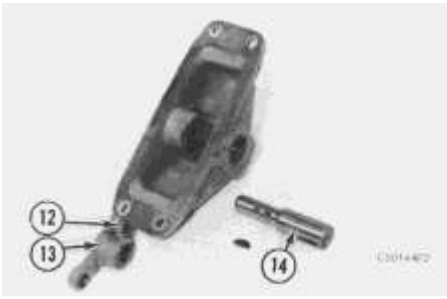
12. Install linkage (22) with pin and cotter pin (21). If necessary, make an adjustment to brake linkage (22) so distance (X), between the center of the pins, is  $332.7 \pm 1.5 \text{ mm}$  ( $13.1 \pm .059 \text{ in}$ ).



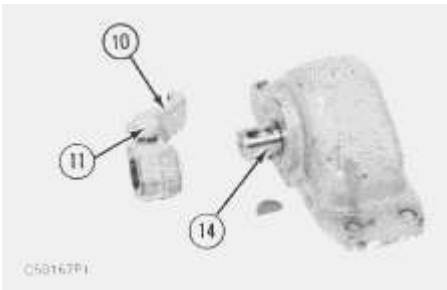
13. Install sleeve (20) and bolt and nut (19).



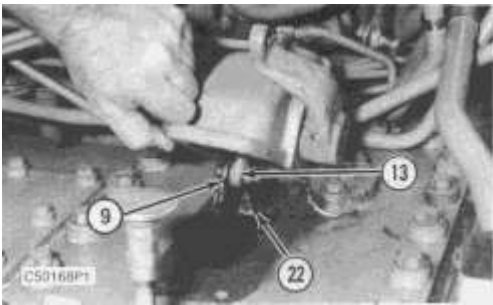
14. Put **3S6252 Sealant** on the contact surfaces of cover (18) and the steering clutch case. Put cover (18) in position. Put **5P3413 Thread Sealant** on the threads of the bolts (17) that hold cover to the steering clutch case. Install the bolts.



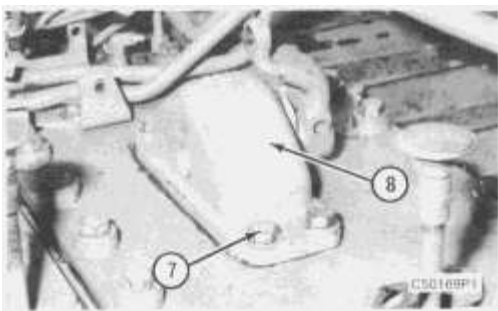
15. Install key in shaft (14). Install shaft (14) in housing through lever (13). Tighten bolt (12).



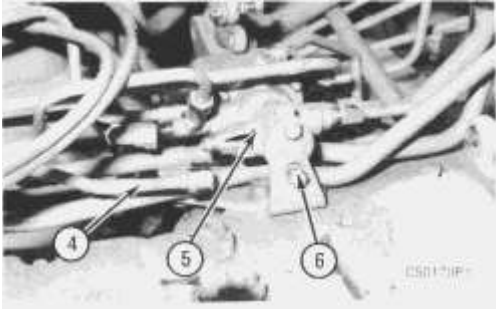
16. Install key in shaft (14). Install lever (11) on shaft (14). Tighten bolt (10).



17. Put the brake housing in position as shown. Connect brake linkage (22) to lever (13) with pin and lock pin (9).

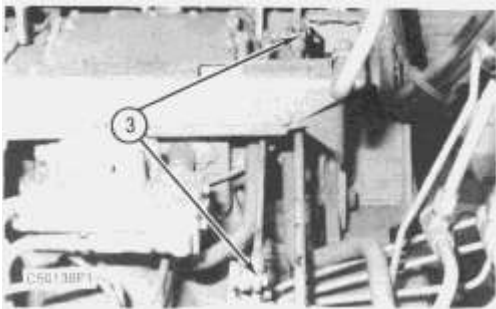


18. Put **3S6252 Sealant** between brake housing (8) and the cover. Put **9S3263 Thread Lock** on the threads of bolts (7), and install the bolts.

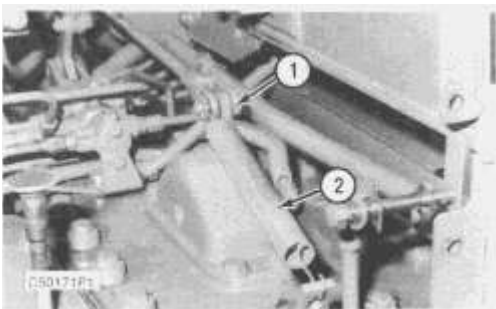


19. Put steering clutch control valve (5) in place on cover. Put **5P3413 Thread Sealant** on threads of bolts (6) and install three bolts.

20. Connect seven lines (4).



21. Connect linkage (3) to pedal assembly and steering control valve.



22. Install brake linkage (1) and spring (2).

23. Install the seat frame and seat.

24. Install the battery frame and battery.

25. Fill the steering clutch compartment with oil to the correct level. See the Operation And Maintenance Manual.

26. Check the steering clutches and brakes for correct adjustments. See the topics, Steering Clutch Adjustment and Brake adjustment in Specifications.

27. Steps are the same for installation of both sides.

End By:

a. install fuel tank \*

b. install hydraulic tank \*

\*These operations are in the Disassembly And Assembly Manual, Vehicle Systems, Form No. SENR5221

## Disassemble Steering Clutches

Tools Needed		A	B	C	D	E	F	G
3B6352	Wrench	1						
8B7548	Puller Assembly (Crossbar)		1	1	1			
3H465	Plate		2	4	2			
0L1329	Bolt		2					
1D4719	Nut		2					
5P4770	Spanner Wrench					1		
6V9061	Pump Group (or electric)			1	1			
1P520	Driver Group			1				
7S8431	Plate			1				
8B7549	Leg			2				
8B7556	Adapters			2				
8S7650	Cylinder Assembly			1				
5P3036	Installer Ring			1				
7F9540	Puller Assembly				1			
1D4602	Bolt				2			
	Washer				2			
FT610	Clutch Stand						1	
5P9736	Link Bracket							2

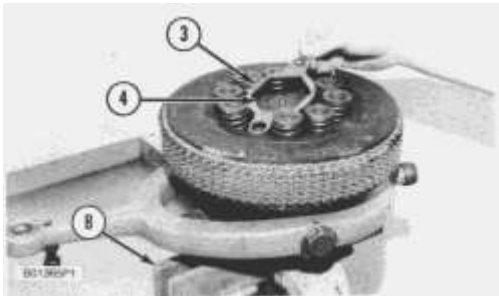
Tools Needed		H
8B7548	Puller Assembly (Crossbar)	1
3H465	Plate	2
0S1569	Bolt	2

Start By:

a. remove steering clutches



1. Remove brake band (2) and outer drum (1) from the steering clutch.



2. Install tooling (B) to the end of the clutch shaft and install it in a vise.

3. Remove lock (3). Use tooling (A) and loosen nut (4) until it is even with the top of the shaft.

 **WARNING**

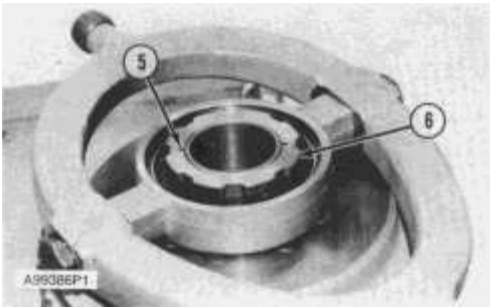
**Do not remove nut (4). This will keep the drum on the shaft when it is loosened from the taper on the shaft.**

---

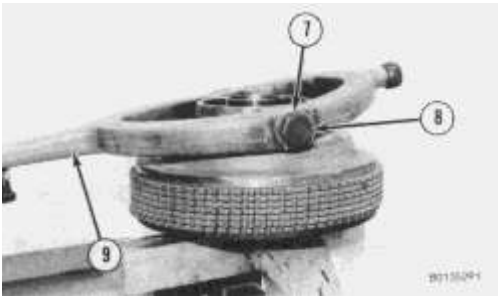


4. Remove the steering clutch from the vise. The weight is approximately **45 kg (100 lb)**.

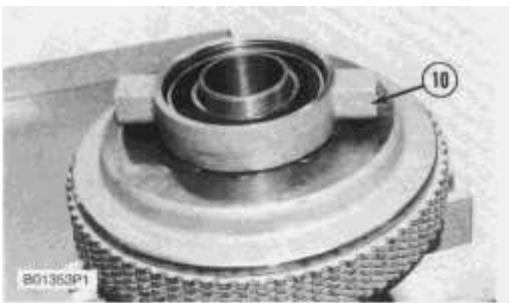
5. Use tooling (D) as shown to push the shaft from the inner drum. Remove tooling (D) and nut (4). Remove the shaft from the steering clutch.



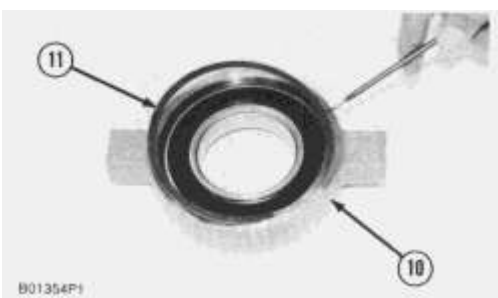
6. Install tooling (H) on the other side of the steering clutch and install it in a vise.
7. Remove two setscrews (5). Use tool (E) and remove spanner nut (6) from the plate assembly.



8. Bend locks (7) down and remove bolts (8) that hold the yoke in place.
9. Remove yoke (9) from the plate assembly.



10. Use a pry bar on each side of the bearing cage and remove bearing cage (10) from the plate assembly.



11. Remove retaining ring (11) from bearing cage (10).



**Suggest:**

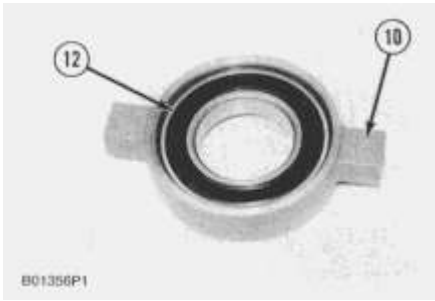
**If the above button click is invalid.**

**Please download this document**

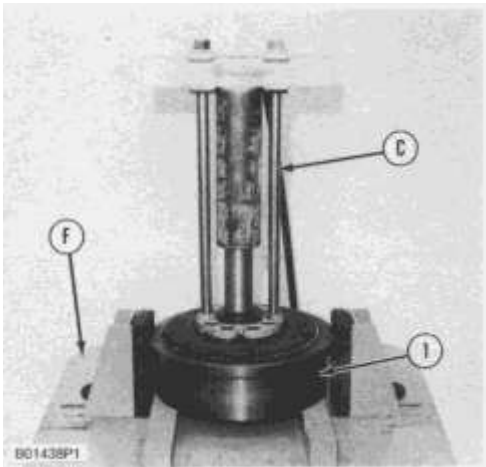
**first, and then click the above link**

**to download the complete manual.**

**Thank you so much for reading**



12. Remove bearing (12) from bearing cage (10).



13. Put two pieces of wood (13) on tool (F), as shown, as a support for the steering clutches. Install drum (1). Make an alignment of the centers of the clutches and drum (1).



**Use only enough force to put the steering clutch springs under compression to remove the locks from the studs. Be extra careful that 5P3036 Installer Ring moves freely on the studs.**

14. Install tooling (C), as shown, and put the steering clutch spring under compression.



15. Remove locks (14) from the studs.

16. Slowly release the pressure on the steering clutch springs. Remove tooling (C).

**<https://www.ebooklibonline.com>**

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

**<https://www.ebooklibonline.com>**