



Service Repair Manual

Models

D25D, D30D

ARTICULATED TRUCK

[Previous Screen](#)

Product: ARTICULATED TRUCK

Model: D25D ARTICULATED TRUCK 1HK

Configuration: D25D, D30D ARTICULATED TRUCK 1HK00674-UP (MACHINE) POWERED BY 3306 ENGINE

Disassembly and Assembly

D25D, D30D AND D350D ARTICULATED DUMP TRUCKS VEHICLE SYSTEMS

Media Number -SEN8210-01

Publication Date -01/03/2005

Date Updated -05/12/2017

SENR82100029

Hitch Group

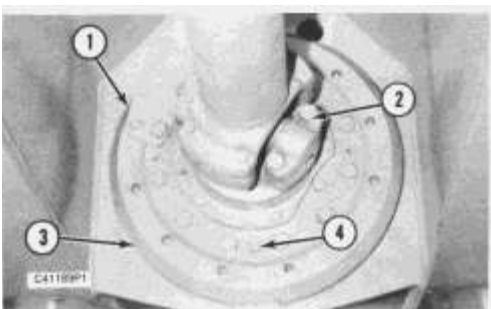
SMCS - 7057; 7113-011; 7113-012

Remove Hitch Group

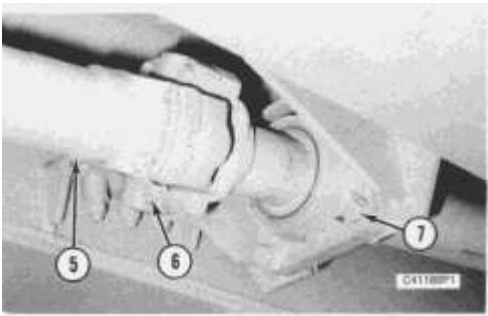
Tools Needed		A	B	C	D
5P4758	Retaining Ring Pliers	1			
5P520	Driver Group		1		
5P9736	Link Bracket			2	
4C4171	Lifting Bracket				1

Start By:

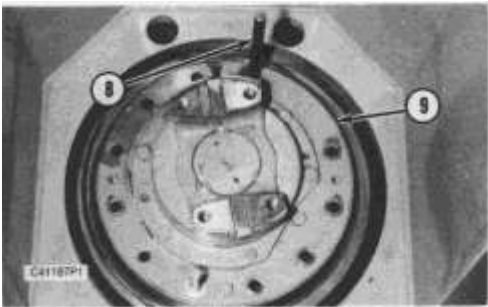
a. separation of tractor from body



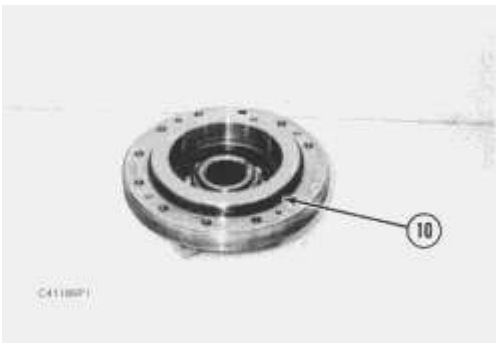
1. Remove bolt (4) and drain the oil from the hitch tube.
2. Remove bolts (2) from the drive shaft at the hitch area.
3. Remove nut lock (1) and then remove nut (3).



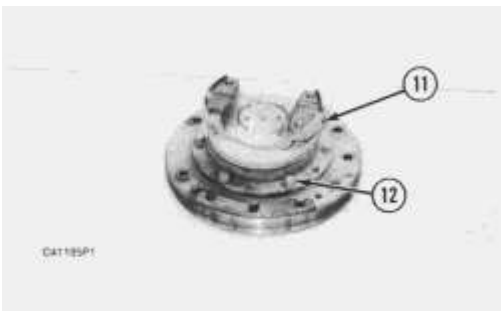
4. Remove bolts (6) from the drive shaft.
5. Remove four bolts (7) at the carrier bearing.
6. Lower the drive shaft (5) to the floor.



7. Remove all the bolts from the hitch yoke retainer.
8. Install two suitable guide bolts (8) in the retainer.
9. Remove hitch yoke retainer (9).



10. Remove and inspect Large O-ring seal (10) from the retainer.



11. Remove bolts (12) to remove yoke assembly (11) from the retainer.

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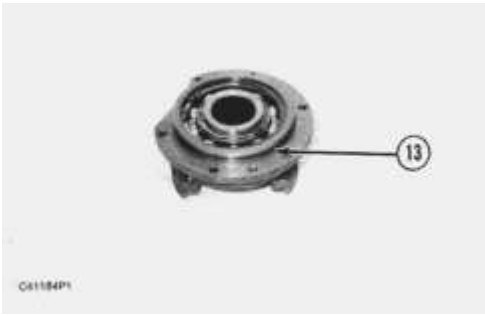
Hello dear friend!

Thank you very much for reading.

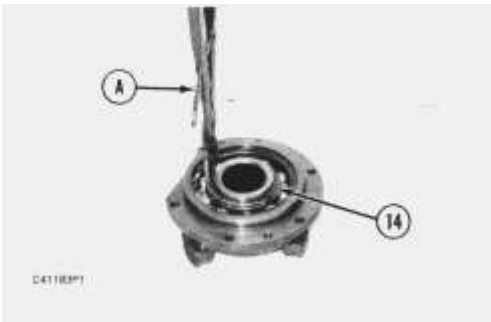
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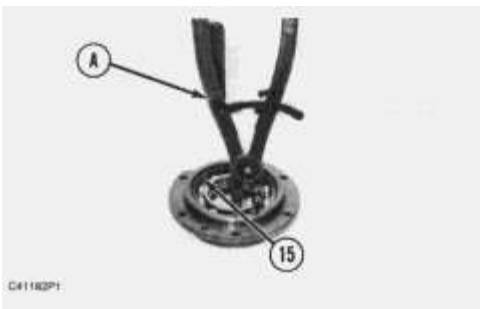


12. Remove and inspect O-ring seal (13) from the yoke assembly

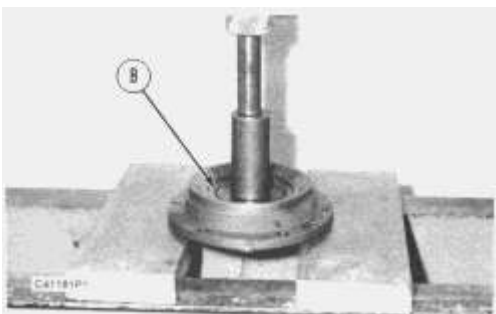


13. Remove external retaining ring (14) with tool (A).

14. Remove yoke from the flange.

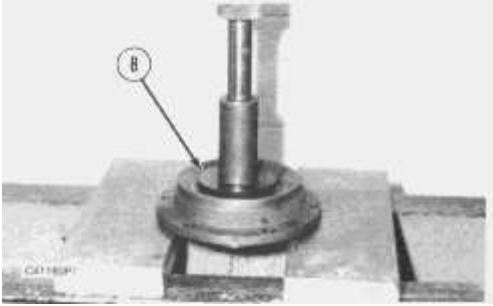


15. Remove internal retaining ring (15) from the flange with tool (A).

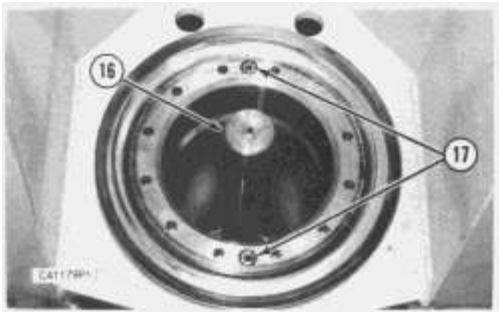


16. Put the flange in position in a press.

17. Use tool (B) and the press to push the bearing from the flange.



18. Use tool (B) and a press to gently push the seal from the flange.



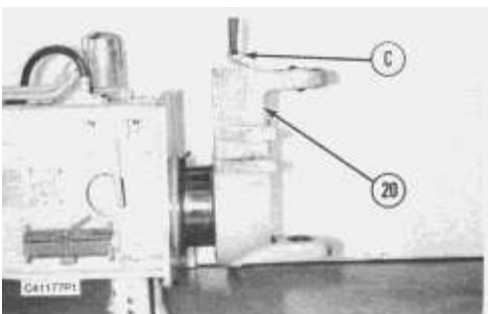
19. Remove shaft (16) from the hitch housing.

20. Remove and inspect O-ring seals (17).



21. Go to the front of the hitch. Remove bolts (18) to remove the other hitch yoke retainer (19).

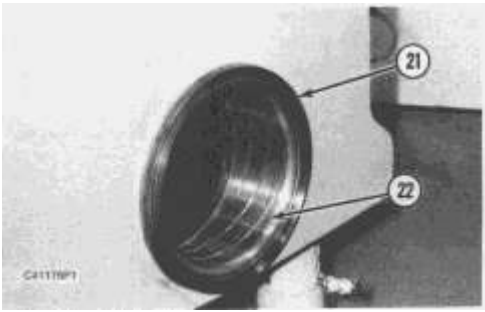
NOTE: Use Steps 10 thru 18 to disassemble hitch yoke retainer (19).



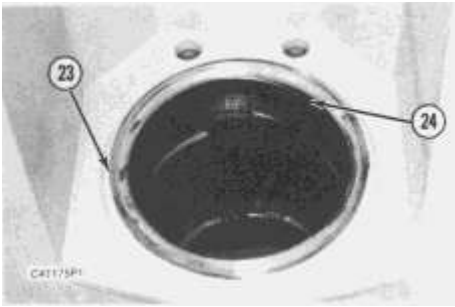
22. Install tooling (C) on the hitch group and then fasten a hoist.

23. Remove hitch group (20) from its housing.

NOTE: Tool (D) can be used as an alternate tool to remove hitch group (20).



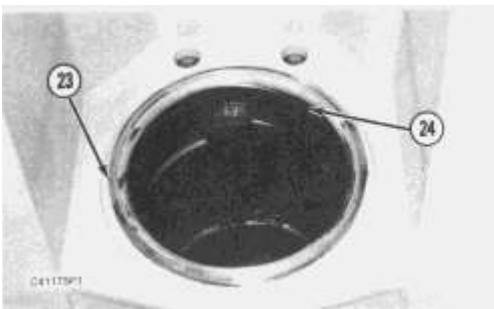
24. Remove front seal (21) and bearing assembly (22) from the hitch housing if necessary.



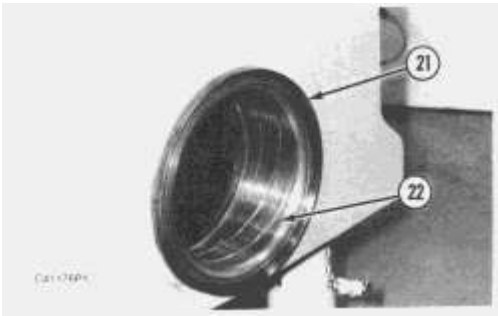
25. Remove rear seal (23) and bearing assembly (24) from the hitch housing if necessary.

Install Hitch Group

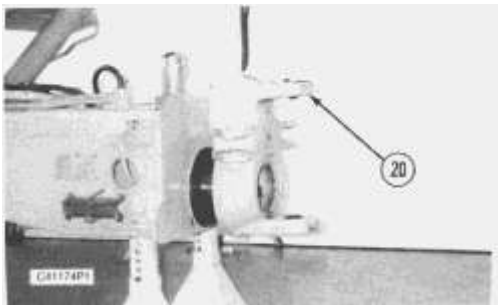
Tools Needed		A	B	C	D
5P4758	Retaining Ring Pliers	1			
5P520	Driver Group		1		
5P9736	Link Bracket			2	
4C4171	Lifting Bracket				1



1. Install a new rear bearing assembly (24) and rear seal assembly (23) in the hitch housing if necessary.



2. Install a new front bearing assembly (22) and front seal (21) in the hitch housing if necessary.



3. Install tooling (C) on the hitch group and then fasten a hoist.

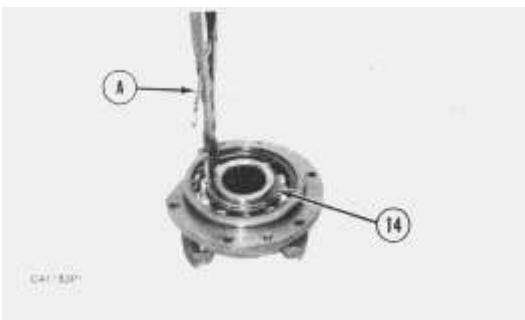
NOTE: Tool (D) can be used as an alternate tool to install hitch group (20).

4. Put hitch group (20) in position in the hitch housing.



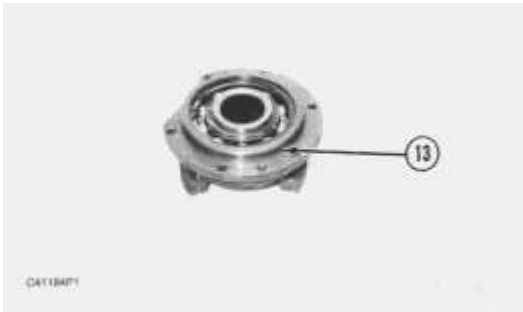
5. Install the seal and bearing in the retainer flange with tool group (B).

6. Install internal retaining ring (15) in retainer flange with tool (A).



7. Install yoke on the retainer flange.

8. Install external retaining ring (14) with tool (A).

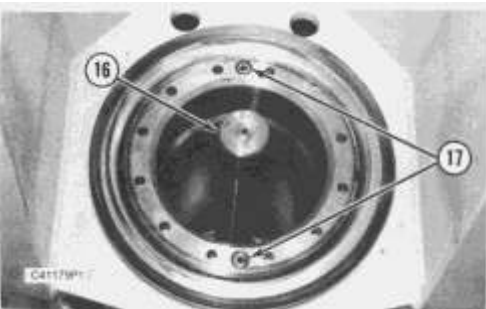


9. Install a new O-ring seal (13) on the yoke assembly.



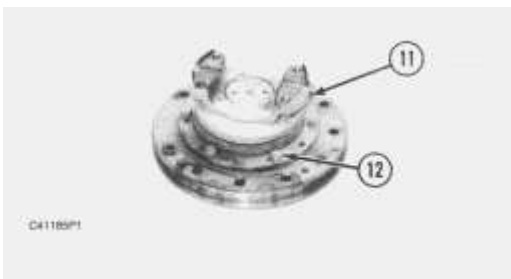
10. Put front hitch yoke retainer assembly (19) in position in the hitch housing.

11. Install bolts (18) that holds the hitch yoke retainer assembly in position in the hitch housing.



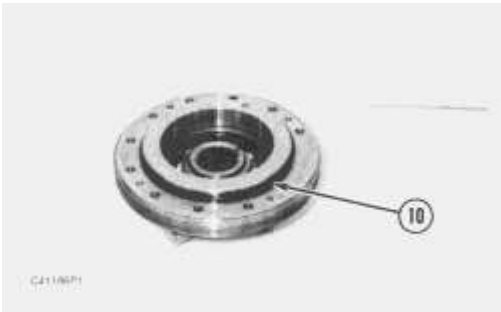
12. Install shaft (16) in the hitch housing.

13. Install new O-ring seal (17).

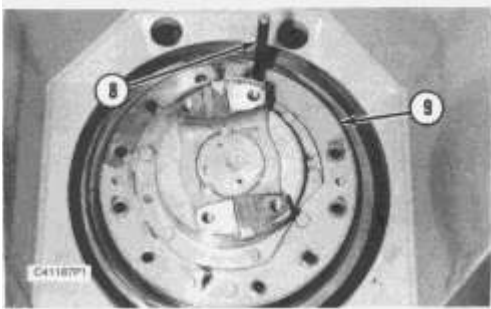


NOTE: Use Steps 5 thru 9 to assemble hitch yoke retainer assembly (9).

14. Install yoke assembly (11) on the retainer with bolts (12).

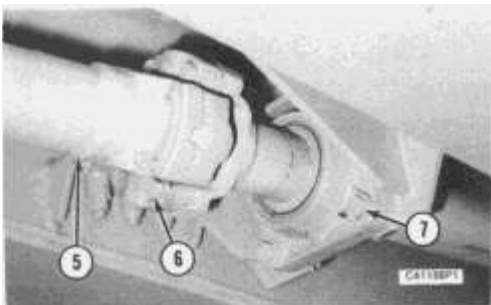


15. Install a new O-ring seal (10) on the retainer.



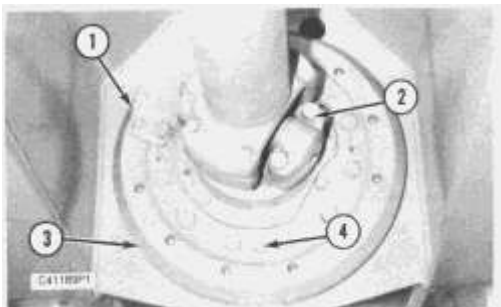
16. Install two suitable guide bolts (8) and install hitch yoke retainer assembly (9).

17. Install the bolts that hold the yoke retainer assembly. Remove the two guide bolts.



18. Raise the drive shaft (5) into position and install four bolts (7) at the carrier bearing.

19. Install bolts (6) on the drive shaft.



20. Install hitch thrust flange (3) with nut lock (1).

21. Install bolts (2) on the drive shaft at the hitch area.

22. Put the correct amount of oil in the hitch tube and install bolt (4).

End By:

a. connection of tractor to body

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[Previous Screen](#)

Product: ARTICULATED TRUCK

Model: D25D ARTICULATED TRUCK 1HK

Configuration: D25D, D30D ARTICULATED TRUCK 1HK00674-UP (MACHINE) POWERED BY 3306 ENGINE

Disassembly and Assembly

D25D, D30D AND D350D ARTICULATED DUMP TRUCKS VEHICLE SYSTEMS

Media Number -SEN8210-01

Publication Date -01/03/2005

Date Updated -05/12/2017

SEN82100030

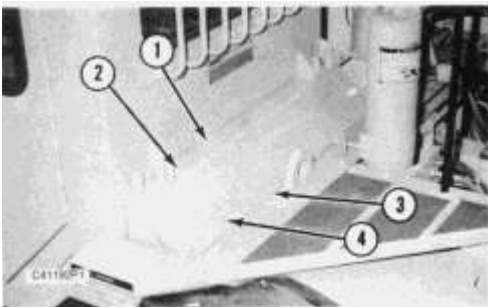
Suspension Cylinders

SMCS - 7201-010; 7201-017

Remove & Install Suspension Cylinders



The suspension system may drop the machine suddenly, leaving no clearance between the axle housing, main frame, tires and mud guards. Working in these areas can result in personal injury or death by crushing. Stay clear until the engine is stopped and the suspension is lowered to the service position.

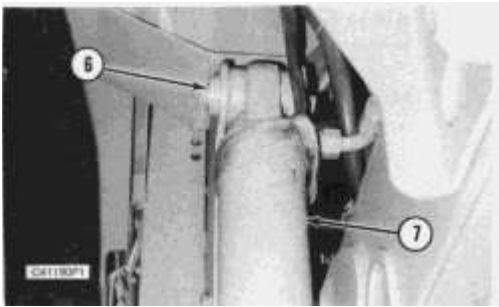


NOTE: Take the weight off the front of the machine by raising it with two 50 ton screw jacks, also install a suitable floor jack underneath the axle housing.

1. Remove bolts (4) to remove cover (3).
2. Remove bolts (2) and then remove metal guard (1).



3. Fasten strap (5) and a hoist to the suspension cylinder.



4. Remove cylinder mounting pin (6) and then remove suspension cylinder (7). Weight of the suspension cylinder is **39 Kg (86 lb.)**.

The following steps are for the installation of the suspension cylinder.

5. Put the suspension cylinder (7) in position and install the cylinder mounting pin (6).
6. Remove strap (5) and the hoist from the suspension cylinder.
7. Install metal guard (1) and bolts (2).
8. Install rubber cover (3) and bolts (4).

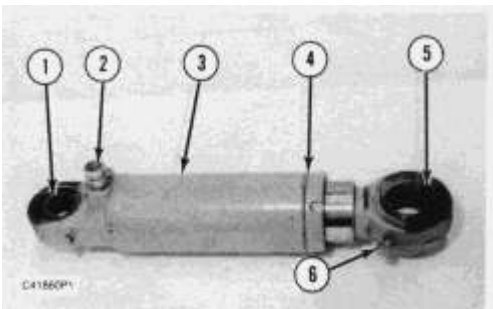
Disassemble & Assemble Suspension Cylinders

Tools Needed		A	B	C	D	E	F	G
7F9306	Wrench	1						
	Spanner Wrench*		1					
6V7820	Torque Multiplier			1				
9S1742	Hex Bit Set				1			
1P1861	Retaining Ring Pliers					1		
5P4758	Retaining Ring Pliers						1	
1P510	Driver Group							1
FT1645	Spacer							1

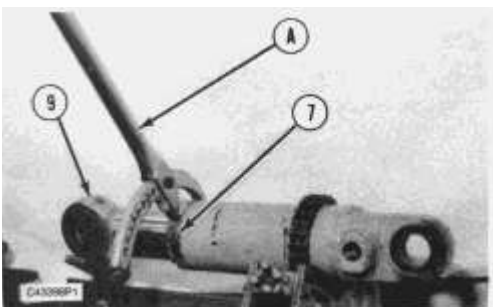
* Contact the Service Technology Group for the correct Part No. for Tool (B).

Start By:

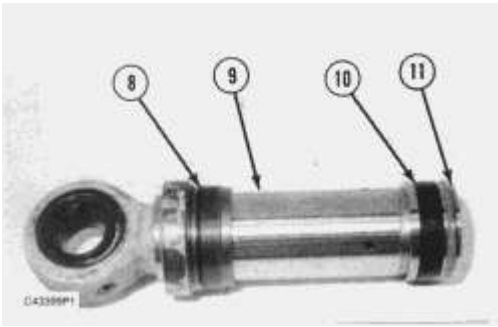
a. remove suspension cylinder



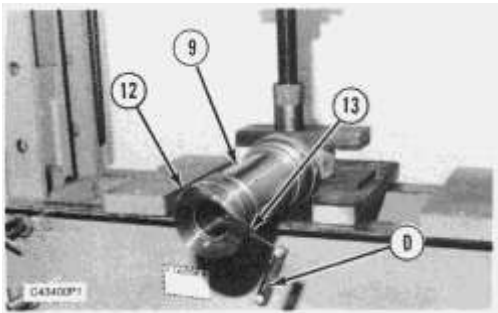
1. Remove one adapter (2) from the suspension cylinder (3). Use tool (E) to remove retainer ring (1) and tool (F) to remove to retainer rings (5).
2. Remove two grease fittings (6) from the suspension cylinder (3).
3. Remove the retainer (4) from the cylinder.



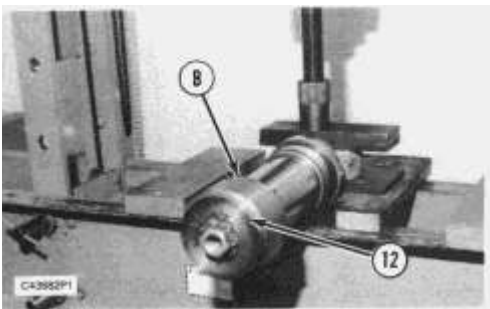
4. Put the suspension cylinder (3) in an appropriate holding fixture.
5. Use tool (A) to remove the end cap (7) from the suspension cylinder.



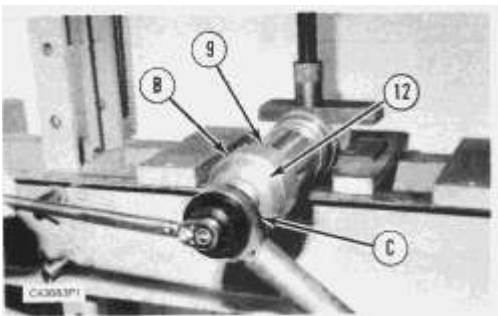
6. Separate the rod assembly (9) from the suspension cylinder body.
7. Remove seal (8), wear ring (10) and seal (11) from the rod assembly.



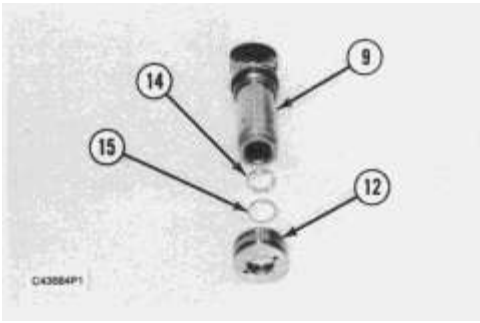
8. Put the rod assembly (9) in position in a suitable holding fixture.
9. Use tool (D) to remove screw (13) from piston (12).



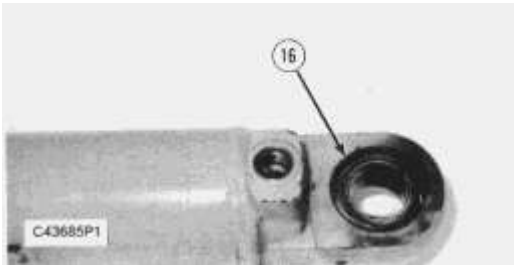
10. Put tool (B) in position on piston (12) and secure it by tightening three screws in tool (B).



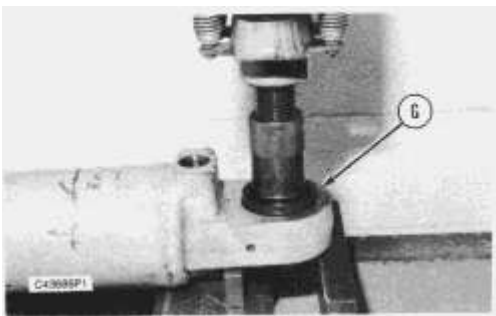
11. Put tool (C) on tool (B) and proceed to remove piston (12) from the rod (9).



12. Remove piston (12), valve ring (15), and cushion ring (14) from the rod (9).



13. Inspect bearings (16) in the suspension cylinder body.



14. If it necessary to replace the bearings, put the cylinder body in position in a press and use tool group (G) to push the bearings from the cylinder body.

NOTE: To assemble the suspension cylinder, use the reverse order of the disassemble procedure and then follow the steps below.

15. In Step 10, tighten the piston (12) to a torque of **800 N·m (590 lb.ft.)**.

16. In Step 9, tighten the screw (13) to a torque of **49 N·m (36 lb.ft.)**.

17. In Step 5, tighten the end cap (7) to a torque of **400 N·m (295 lb. ft.)**.

End By:

a. install suspension cylinder

[Previous Screen](#)

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Media Number -SEN8210-01

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Date Updated -05/12/2017

SEN82100031

Brake Shoes

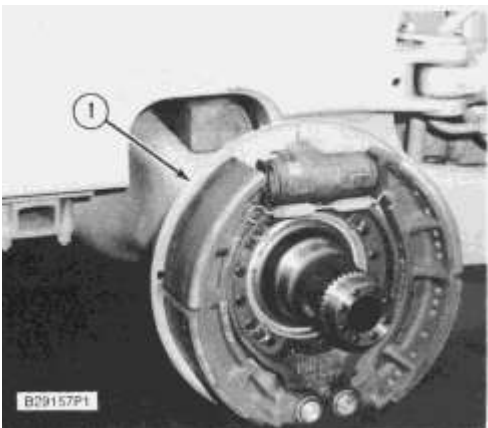
SMCS - 4253-011; 4253-012

Remove Brake Shoes

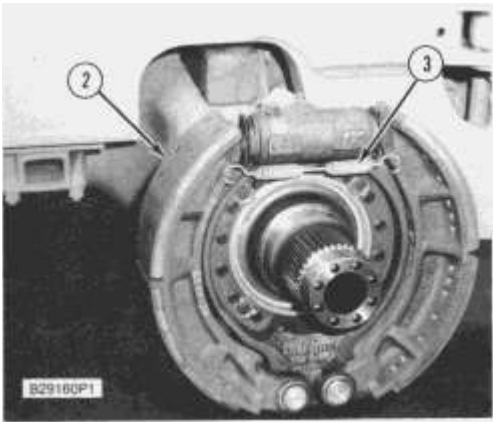
Start By:

- a. remove wheels, bearings and Duo-Cone seals

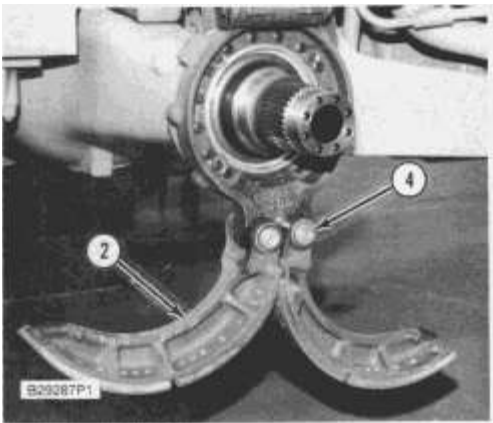
NOTE: The above operation is in the POWER TRAIN Disassembly And Assembly section.



1. Remove the bolts and cover (1) from the of the brake spider.



2. Use an acceptable brake tool to remove spring (3) that holds brake shoes (2) together.



3. Remove the springs, retainers and felt washers from one end of each pin (4).

4. Remove pins (4) from the spider and remove brake shoes (2) from the spider.

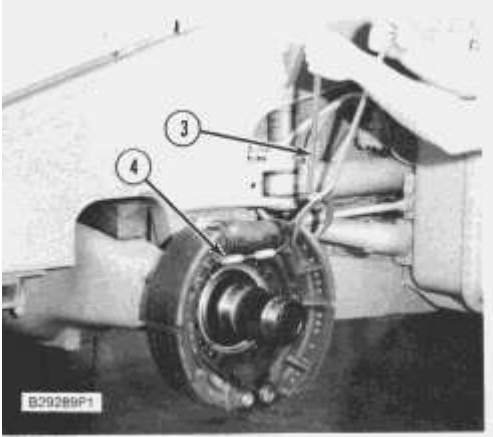
Install Brake Shoes



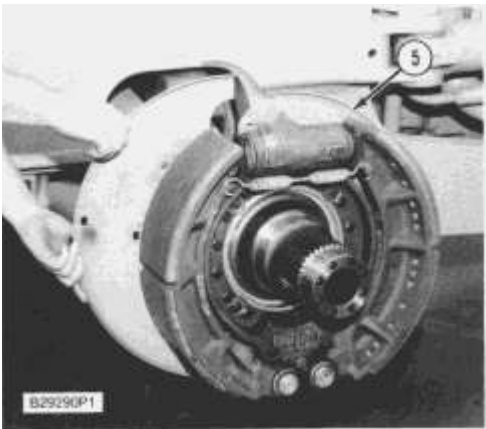
1. Install the felt washers, retainers and springs one end of pins (1).

2. Put brake shoes (2) in position on the spider and install pins (1).

3. Install the felt washers, retainers and springs on the other end of pins (1) to hold them in position.



4. Use an acceptable brake tool (3) to install spring (4).



5. Install covers (5) on the back of the brake spider.

End By:

a. install wheels, bearings and Duo-Cone seals

Previous Screen

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SEN82100032

Wheel Spindles

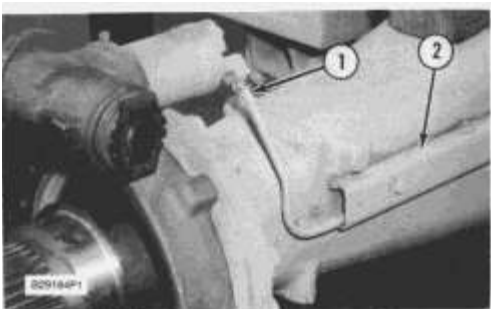
SMCS - 4205-011; 4205-012

Remove Wheel Spindles

Tools Needed		A
6V2156	Link Bracket	2

Start By:

- a. remove brake shoes



1. Remove guard (2) from over brake line (1).
2. Disconnect brake line (1) from the wheel brake cylinder assembly.



Suggest:

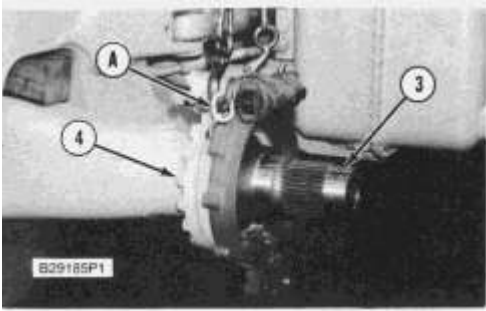
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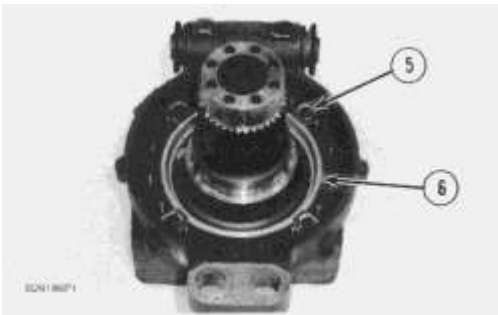
first, and then click the above link

to download the complete manual.

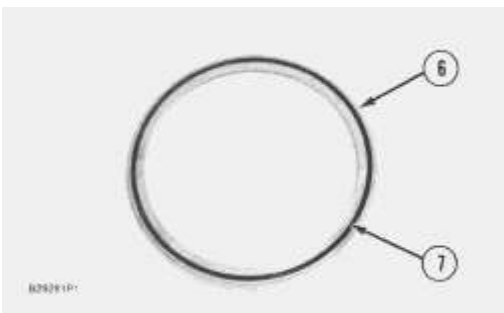
Thank you so much for reading



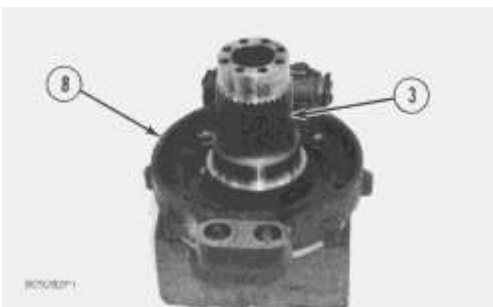
3. Use tooling (A) and fasten a hoist to wheel spindle (3) and the brake spider.
4. Remove bolts (4) and remove wheel spindle (3) and the brake spider from the axle housing. The weight of the unit is **59 Kg (130 lb.)**.
5. Remove the O-ring seal from the back of wheel spindle (3).



6. Remove bolts (5), the locks and bars that hold Duo-Cone seal retainer (6) and the spider in position.
7. Remove retainer (6) from the spider and wheel spindle.



8. Remove O-ring seal (7) from the back of retainer (6).



9. Remove brake spider (8) from wheel spindle (3).

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