CATERPILLAR®

Service Manual

Models
TL1055C
TL1255C

S/N KDE00150 & After
S/N DHW00150 & After
S/N MDD00150 & After
S/N SXM00150 & After

31200793

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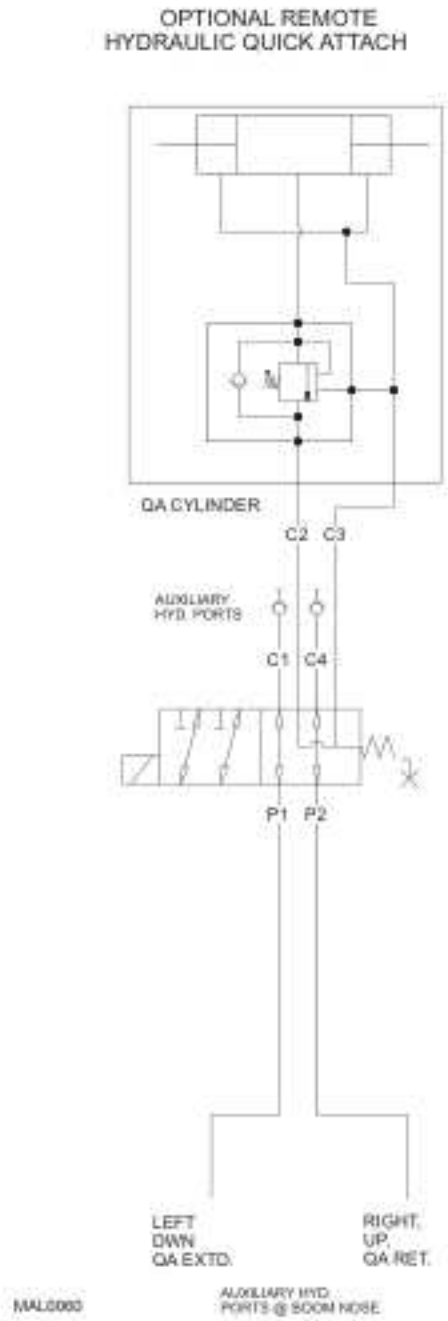
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5.4.3 Axle Assembly and Drive Shaft Troubleshooting

Problem	Cause	Remedy
1. Excessive axle noise while driving.	1. Oil level too low.	1. Fill oil to correct level. Refer to Section 2.4, "Fluids and Lubricant Capacities."
	2. Axle and/or wheel end housings filled with incorrect oil or oil level low.	2. Drain axle and/or wheel end housings and fill to correct level with hydraulic oil. Refer to Section 2.4, "Fluids and Lubricant Capacities."
	3. Incorrect alignment of ring and pinion gears.	3. Correct alignment by adding or removing shims as needed.
	4. Incorrect pinion (input) shaft bearing preload.	4. Correct bearing preload by adding or removing shims as needed.
	5. Worn or damaged bearings.	5. Replace bearings as needed.
	6. Worn or broken gear teeth.	6. Replace gears as needed.
	7. Contamination in the axle.	7. Drain axle and/or wheel end housings and fill to correct level with hydraulic oil. Refer to Section 2.4, "Fluids and Lubricant Capacities."
	8. Axle housing damaged.	8. Replace damaged parts.
2. Intermittent noise when traveling.	1. Universal joint(s) worn or damaged.	1. Repair or replace universal joints as needed.
	2. Differential ring and/or pinion gears damaged.	2. Determine cause and repair as needed.
3. Vibration or intermittent noise when traveling.	1. Drive shaft universal joint assembly(ies) incorrectly tightened.	1. Tighten capscrews to correct torque.
	2. Drive shaft universal joint(s) worn or damaged.	2. Repair or replace universal joints as needed.
	3. Drive shaft(s) damaged/ unbalanced.	3. Replace drive shaft(s) as needed.

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8.4.3 Hydraulic Schematic (Continued)



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3.2 USE OF THE CAPACITY CHART

Example

A contractor owns a model xxxxx telehandler with a 48" Carriage. He knows his fork mounted platform may be used with his model/attachment since it follows the requirements set forth in *"Approved Personnel Work Platforms"* on page 4-1.

The contractor knows the platform's capacity of 1,000 lb (454 kg) can handle the occupant's weight of 450 lb (204 kg) and the load also being lifted of 150 lb (68 kg). The contractor also knows the platform weighs 400 lb (181 kg).

The following are examples with various conditions the contractor may encounter and whether or not the platform may be lifted.

	Load Weight (including platform, load & personnel)	Distance	Height	OK to Lift
1	1000 lb (454 kg)	16 ft (4,9 m)	10 ft (3,0 m)	Yes
2	1000 lb (454 kg)	26 ft (7,9 m)	16 ft (4,9 m)	NO
3	1000 lb (454 kg)	21 ft (6,4 m)	24 ft (7,3 m)	NO
4	1000 lb (454 kg)	8 ft (2,4 m)	30 ft (9,1 m)	Yes

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ASSEMBLY

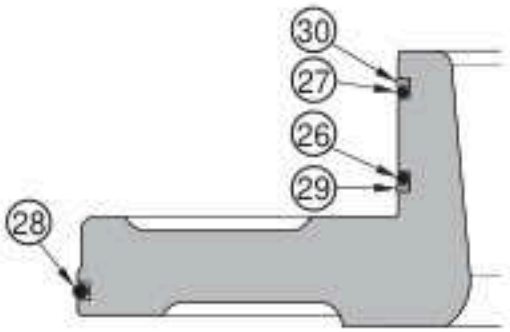


FIGURE 23: Thoroughly clean negative brake piston as well as beds and seal seats.
Replace o-ring seals (26), (27) and (28) as well as anti-extrusion rings (29) and (30), keeping to assembling positions.

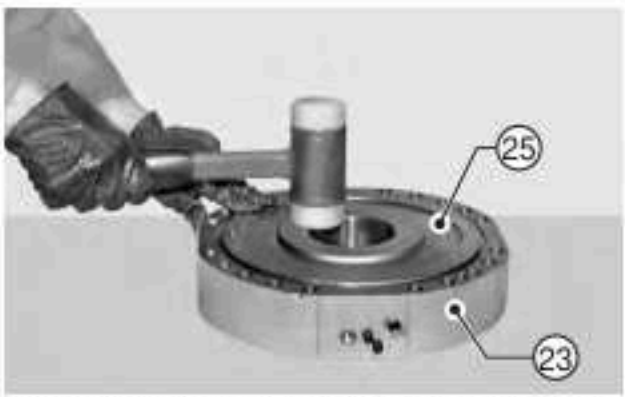


FIGURE 24: Lubricate seals (26), (27) and (28) with oil and, using a plastic hammer, install piston (25) into brake cylinder (23).

⚠CAUTION

1- Hammer around the whole rim
2 - Check match marks of guide pin hole

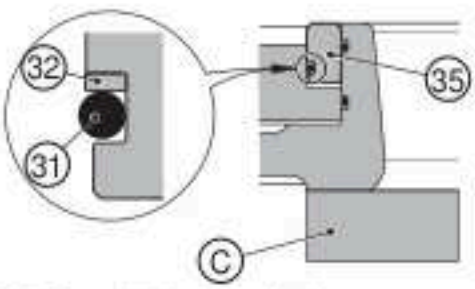


FIGURE 25: Turn the kit over and lay it on a support "C". Clean piston (35) of service brake as well as bed and seal seat. Replace o-ring (31) and anti-extrusion ring (32) observing assembling position.

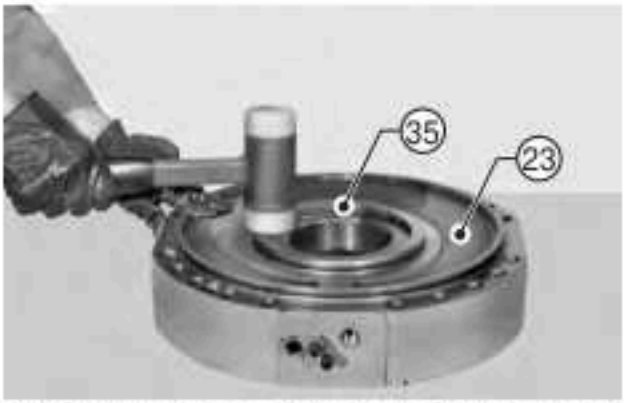


FIGURE 26: Lubricate seal (31) with oil and install piston (35) in brake cylinder (25) using a plastic hammer.

⚠CAUTION

1- Hammer around the whole rim
2 - Check direction of installation

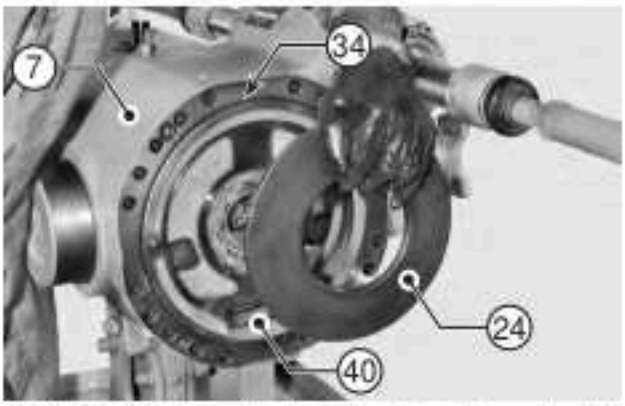


FIGURE 27: Coat the outer rim of the Belleville washer (24) with grease and place it in the appropriate seat in the intermediate cover.
Install a new o-ring (34) in the intermediate cover.

⚠CAUTION

The outer rim of the Belleville washer must be centered in the intermediate cover (40).

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ASSEMBLY

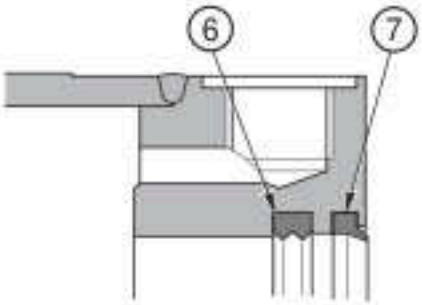


FIGURE 12: Grease and install the piston rod seal ring (6) and scraper ring (7) into cylinder (3).

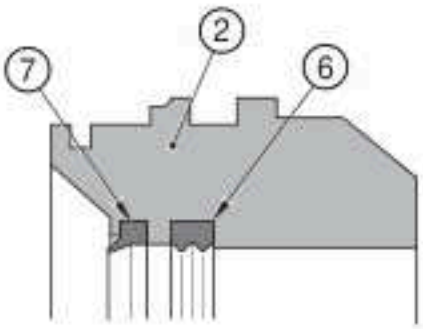


FIGURE 13: Grease and install the piston rod seal ring (6) and scraper ring (7) into the head (2).

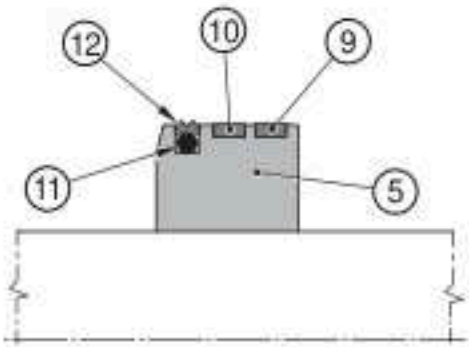


FIGURE 14: Fit seal (8) on the outside of the head (2).

⚠CAUTION

1 - To ease installation, grease the outer surface of the piston.

2 - Do not roll the seal (8).

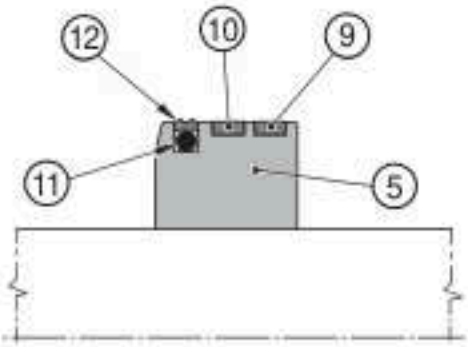


FIGURE 15: Prepare piston (5) by fitting it with guide ring (9), magnetic ring (10), o-ring (11), and seal (12).

⚠CAUTION

1 - To ease installation, lubricate with grease.

2 - If a centring sensor is not required, the magnetic ring (10) can be replaced with an additional guide ring (9).

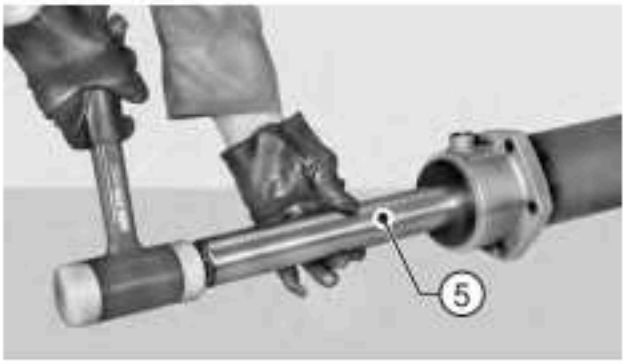


FIGURE 16: Install the piston (5) into the cylinder approximately 150 mm using a plastic hammer.

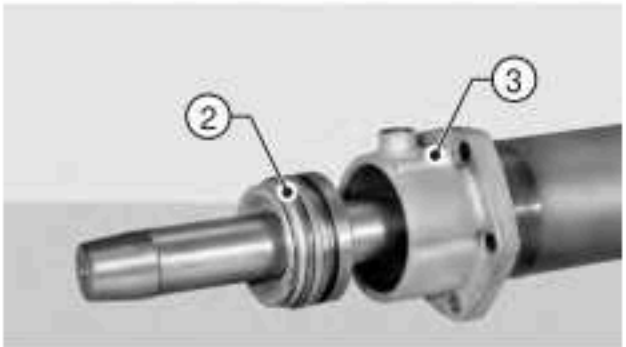
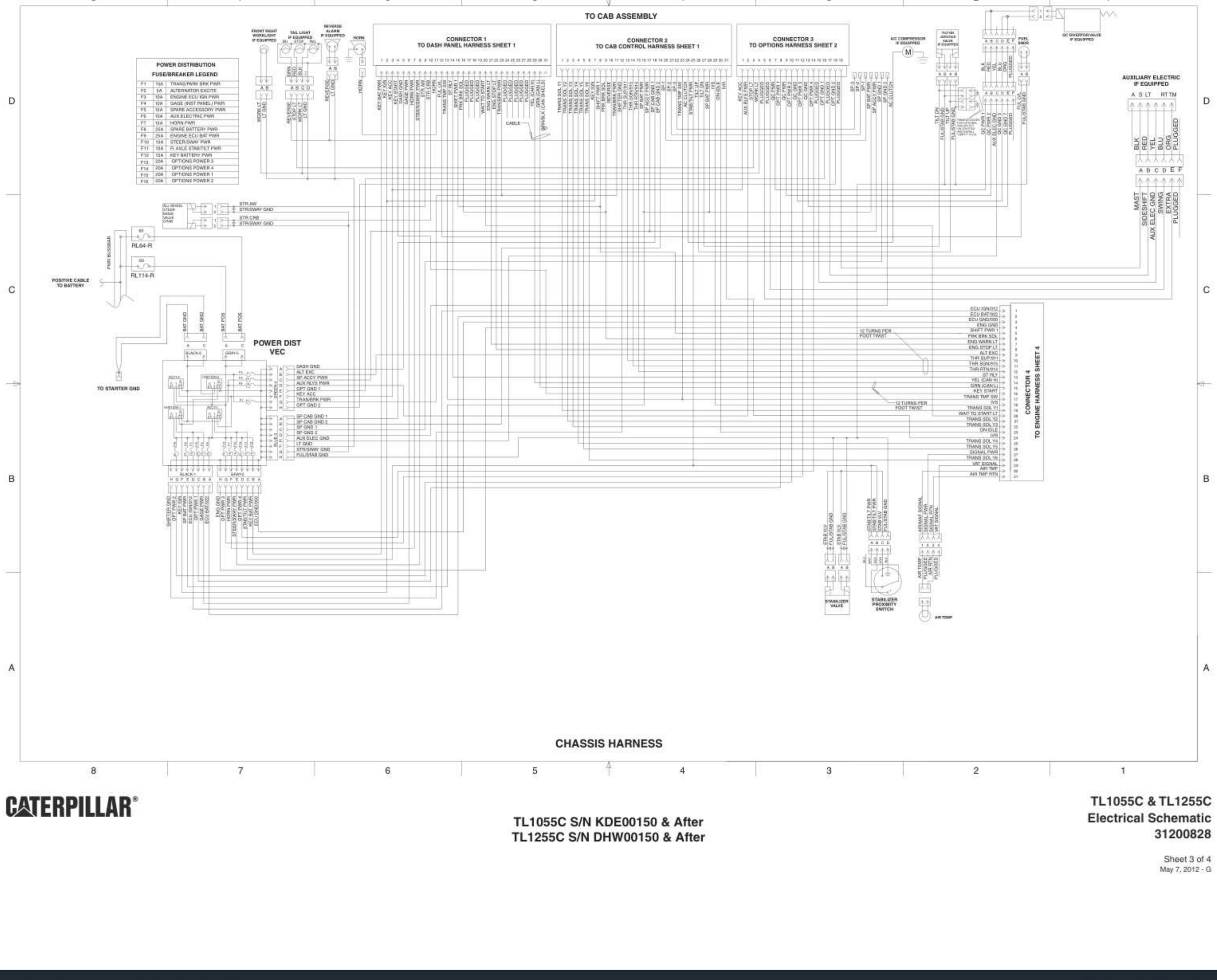


FIGURE 17: Grease the seals of the head (2). Slip the head onto the piston and, using a plastic hammer, introduce head into cylinder (3).

NOTE:

Install the head flush with the cylinder.

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