



Service Manual

Chassis & Mast

MC

DP60NM

T20D-00011-up

DP70NM

T20D-10011-up, AT20D-40011-up

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1.4 Removing Pipes/Hoses, Oil Cooler, and Radiator

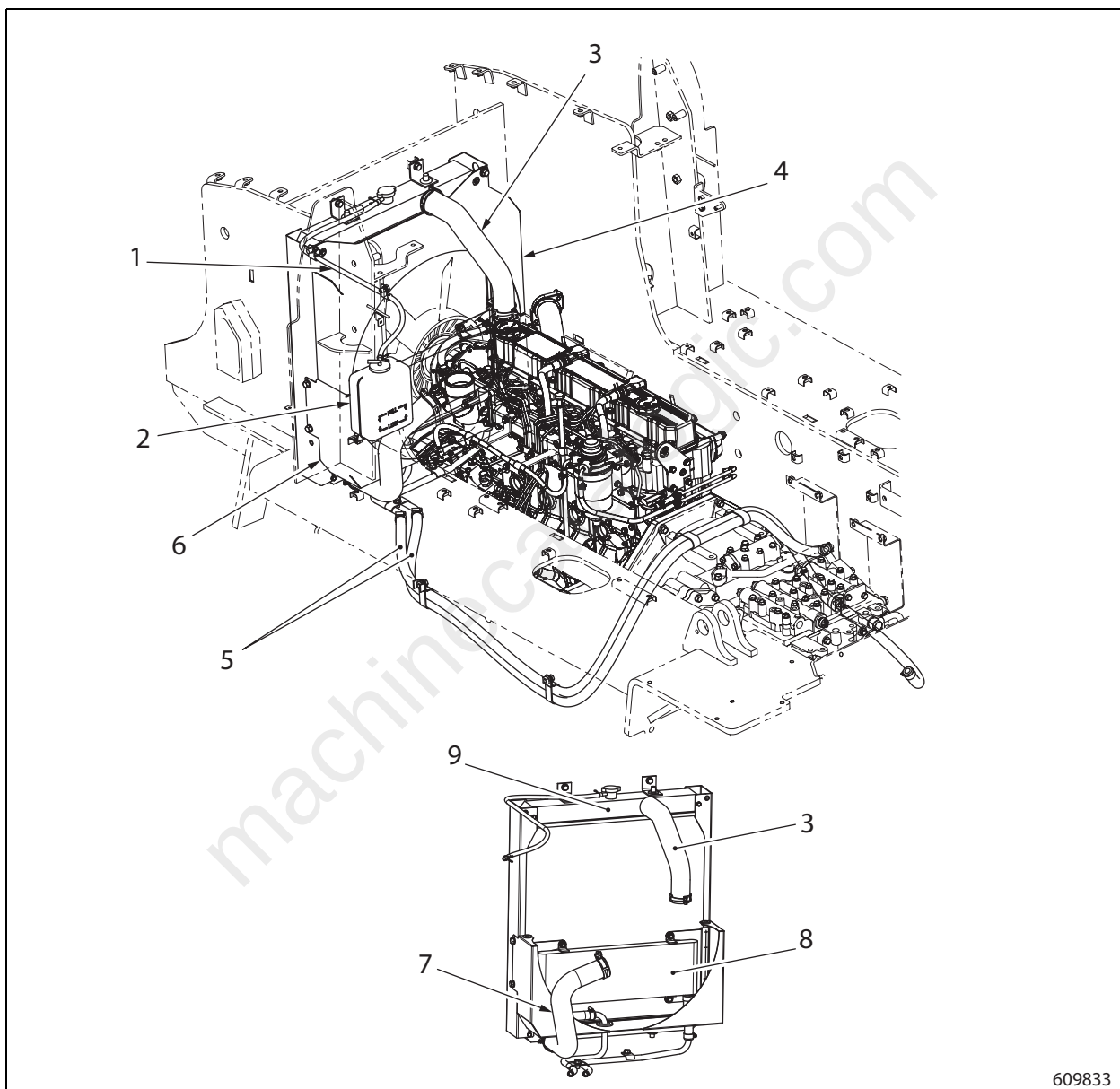
Preparation

⚠ CAUTION

- DO NOT open the drain cock when the coolant is hot.
- Antifreeze/coolant is poisonous. Keep it in the container for disposal. Ask a hazardous waste company for disposal.

Drain the coolant by loosening the drain cock at the bottom of the radiator.

Removal sequence



609833

- | | |
|--------------------------|--------------------------------|
| 1. Vent hose | 6. Lower cowl |
| 2. Reserve tank | 7. Radiator lower hose |
| 3. Radiator upper hose | 8. Torque converter oil cooler |
| 4. Upper cowl | 9. Radiator |
| 5. Torque converter hose | |

5. Removing Steering Valve

- (1) Remove the cover from the steering column.
- (2) Disconnect hoses (4 places) from the steering valve.
- (3) Remove bolts and remove the steering valve.

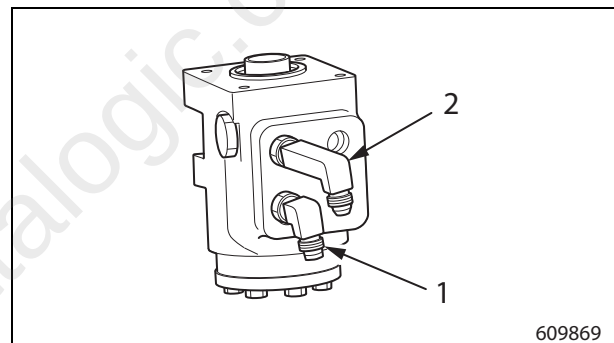
6. Installing Steering Valve

To install follow the removal sequence in reverse and also follow the instructions below:

- Apply grease on the serrated portion at the lower part of the steering shaft.
- To install hoses on the steering valve, remove the steering valve.
- Tighten the mounting bolts to the specified torque.
- When installing hoses on the steering valve, pay attention to the orientation.

Special tool	Part number
Hose remover	91K67-00400

- (1) Install P port connector and O-ring.
- (2) Install T port connector and O-ring.

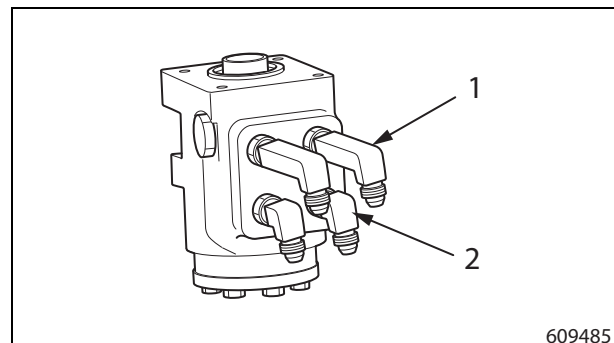


1. P port connector

2. T port connector

Item	Tightening torque
P port connector	63 to 77 N·m (6.42 to 7.85 kgf·m) [46.47 to 56.79 lbf·ft]
T port connector	63 to 77 N·m (6.42 to 7.85 kgf·m) [46.47 to 56.79 lbf·ft]

- (3) Install L and R port connectors and O-rings.



1. L port connector

2. R port connector

Item	Tightening torque
L port connector	63 to 77 N·m (6.42 to 7.85 kgf·m) [46.47 to 56.79 lbf·ft]
R port connector	63 to 77 N·m (6.42 to 7.85 kgf·m) [46.47 to 56.79 lbf·ft]

3. Periodic Replacement Parts

The safety critical parts (marked with *) and elements for safe operation listed below must be replaced at every specified periods.

No.	Periodic Replacement Parts	Replacement periods			Remarks
		Every specified year	Every specified month	Every specified hours	
1	* Master cylinder and wheel cylinder repair kit parts	1		2400	
2	* Brake booster repair kit parts	1		2400	
3	* Stop light switch	2		4800	
4	* Vacuum pump hose	1 to 2		2400 to 4800	
5	* High pressure hoses for loading/unloading operation	1 to 2		2400 to 4800	
6	* Rubber parts for power cylinder	2		4800	
7	* Power steering hose	2		4800	
8	* Lift chain	2		4800	
9	* Fuel hose	2		4800	
10	Engine oil filter element		3	500	Also 1 month after delivery
11	Fuel filter element		6	500	Also 1 month after delivery
12	Hydraulic tank return filter		6	1200	Also 1 month after delivery
13	Air cleaner element		6	1200	Clean every 2 weeks
14	Engine coolant	1		2400	

Note: "*" indicates safety critical parts.

Full Version Available

Caterpillar DP70NM Forklift Service and Operator Manual (99709-27100)

Caterpillar DP70NM forklift service manual, covers hydraulics, mast, drive unit, wiring, and engine service data. Downloadable PDF format.

[VIEW THE FULL MANUAL](#)