



Service Manual

Chassis & Mast

MC/FC

GP15N T25C-50001-up
GP15ZN T34-50011-up
GP18N T25C-70001-up
GP18ZN T34-70001-up
GP20CN T34-20001-up
GP20N T17D-00011-up
GP20ZN T35-00011-up
GP25N T17D-50001-up
GP25ZN T35-50001-up
GP30N T13F-30011-up
GP35AN T13F-50001-up

GPE15N T25C-58001/68001-up
GPE15ZN T34-58011/68001-up
GPE18N T25C-78001/88001-up
GPE18ZN T34-78001/88001-up
GPE20CN T34-28001/38001-up
GPE20N T17D-08011/18001-up
GPE20ZN T35-08011/18001-up
GPE25N T17D-58001/68001-up
GPE25ZN T35-58001/68001-up
GPE30N T13F-38011/48001-up
GPE35AN T13F-58001/68001-up

DP15N T16D-50001/60001-up
DP18N T16D-70001/80001-up
DP20CN T16D-85001/87001-up
DP20N T18C-00011/10001-up
DP25N T18C-50001/60001-up
DP30N T14E-30011/40001-up
DP35AN T14E-50001/60001-up

For use with S4Q2, S4S and K15/K21/K25 Engine
Service Manuals.

99719-35120

- (5) Put a check mark in the check box in the T/M (F) or T/M (R) * solenoid and press “Write.” (Fig. 2-11)
- (6) As the same as above (4), check “YES” when the write validity check box is displayed and also check “OK” when the write completed check box is displayed.
 - Do not check ON for both statuses of Forward and Backward at the same time to avoid the risk of damaging the controller.

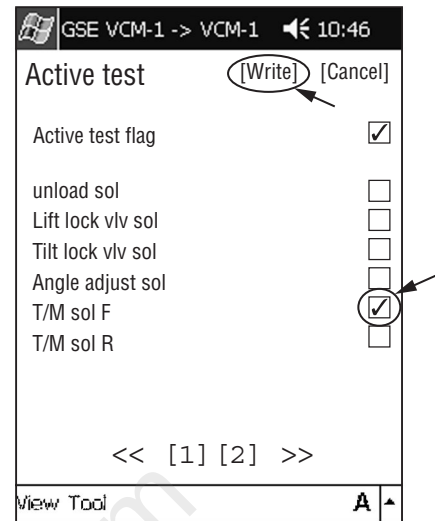


Fig. 2-11 Active Test Check Screen

- (7) Press “I/O Monitor” on the view menu which displayed by touching “View” bar of service tool screen (Fig. 2-12) and select Page [2] of I/O Monitor (Fig. 2-13).

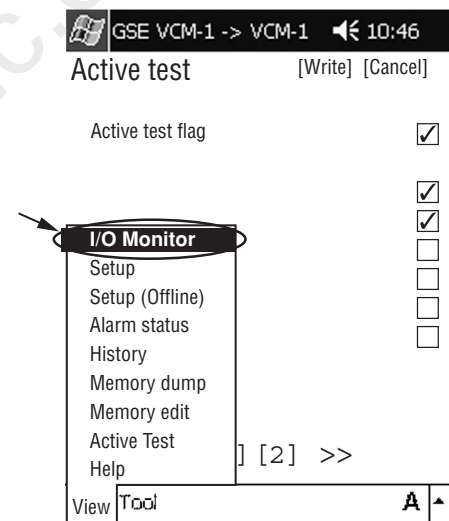
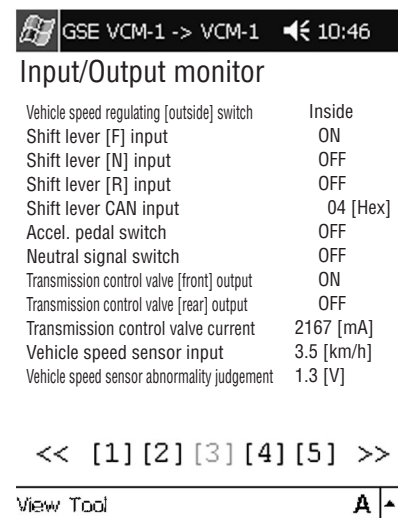


Fig. 2-12 View Menu (I/O Monitor Selection Screen)



FRONT AXLE AND REDUCTION DIFFERENTIAL

(2) Hub bearing preload adjustment and lock nut

- (a) Install the nut hand-tight with a socket wrench (special tool).

Special tool needed

Truck Model Item	1 ton class	2, 3 ton classes
Socket wrench	91268 - 00800	03703 - 59001

- (b) Rotate the hub and tap its periphery with a soft-head mallet for snug assembling.
- (c) Fully tighten the lock nut to obtain hub bearing preload within the specified limits.

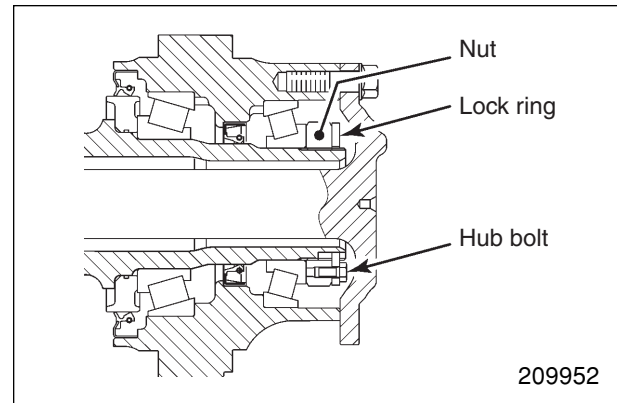
Notice: To check the hub bearing preload, hook a spring scale on the hub bolt, then pull it to measure the tangential force of the hub bolt.

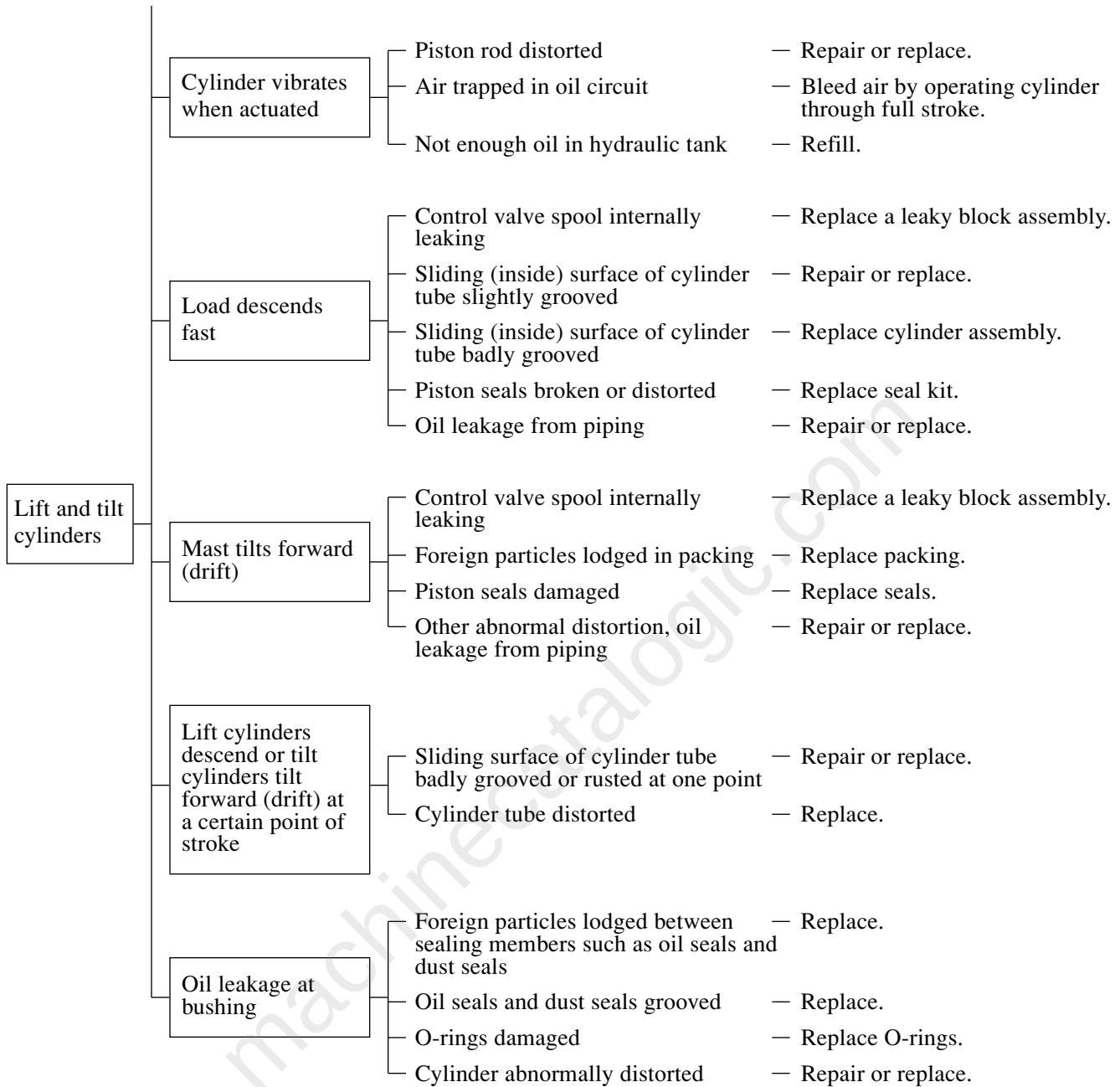
Unit: N (kgf) [lbf]

Truck Model Item	1 ton class	2, 3 ton classes
Tangential force of hub bolt (increment from when preload is zero)	5.6 to 56 (0.6 to 5.7) [1.2 to 12.5]	4.5 to 45 (0.5 to 4.6) [1.0 to 10.1]
Starting torque of hub rotation (increment from when preload is zero)	0.5 to 4.9 N·m (0.05 to 0.5 kgf·m) [0.35 to 3.7 lbf·ft]	

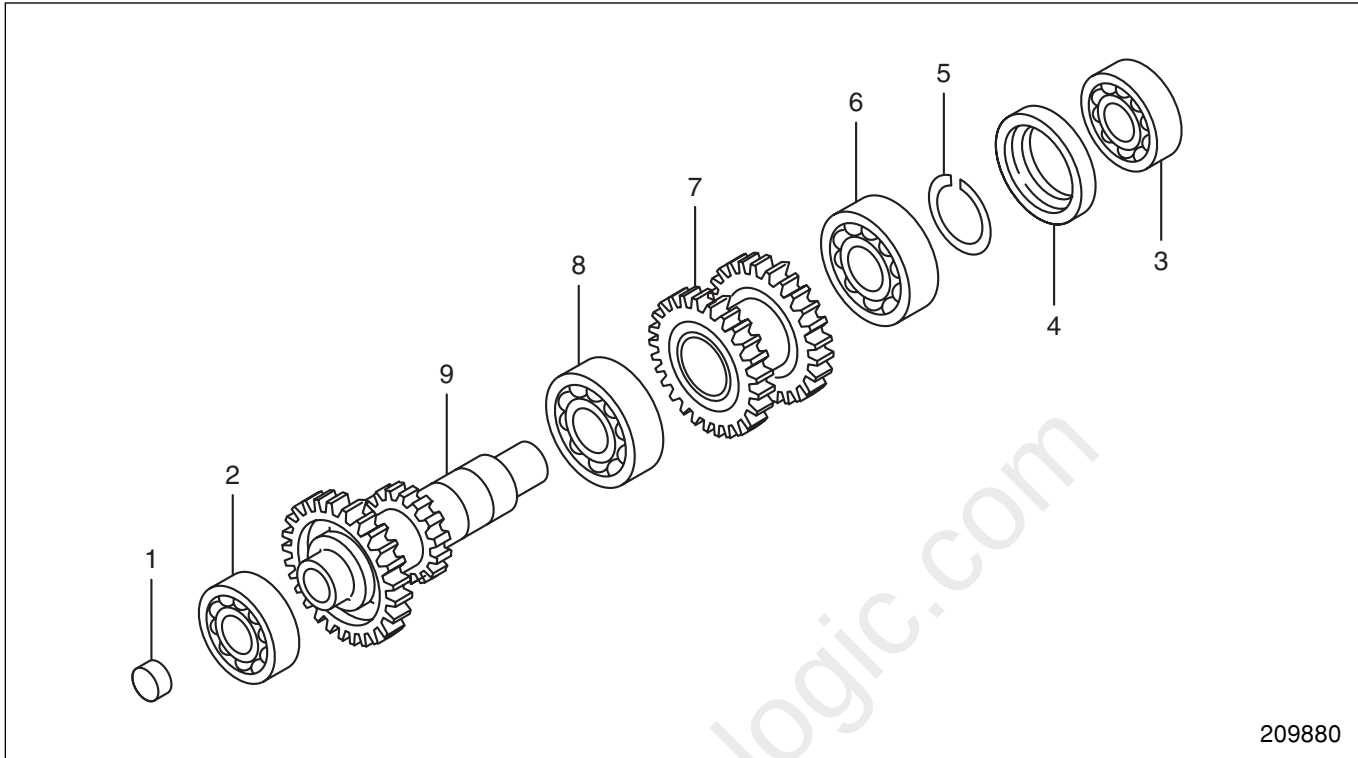
- (d) Fit the lock ring into place and tighten the lock bolt.
- (e) Check the preload again.
- (3) Drain plug
- (a) Tighten the drain plug to the specified torque.

Tightening torque	127.5 ± 9.8 N·m (13.0 ± 1.0 kgf·m) [94.0 ± 7.2 lbf·ft]
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Disassembling Input Gear Assembly



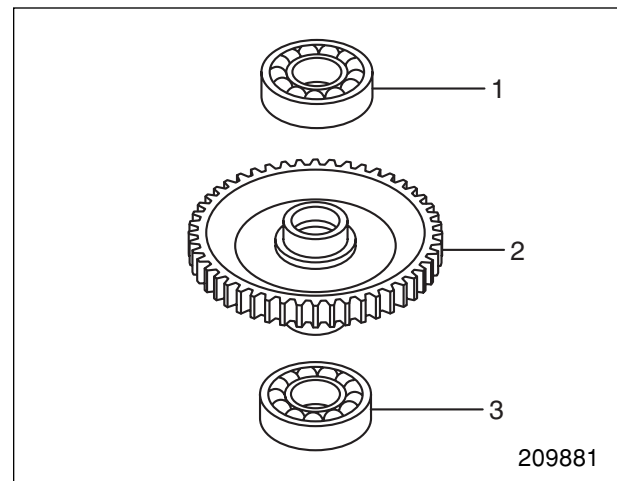
Sequence

- | | |
|----------------|----------------|
| 1 Sealing cap | 6 Ball bearing |
| 2 Ball bearing | 7 Idler gear |
| 3 Ball bearing | 8 Ball bearing |
| 4 Spacer | 9 Input gear |
| 5 Snap ring | |

Disassembling Output Gear

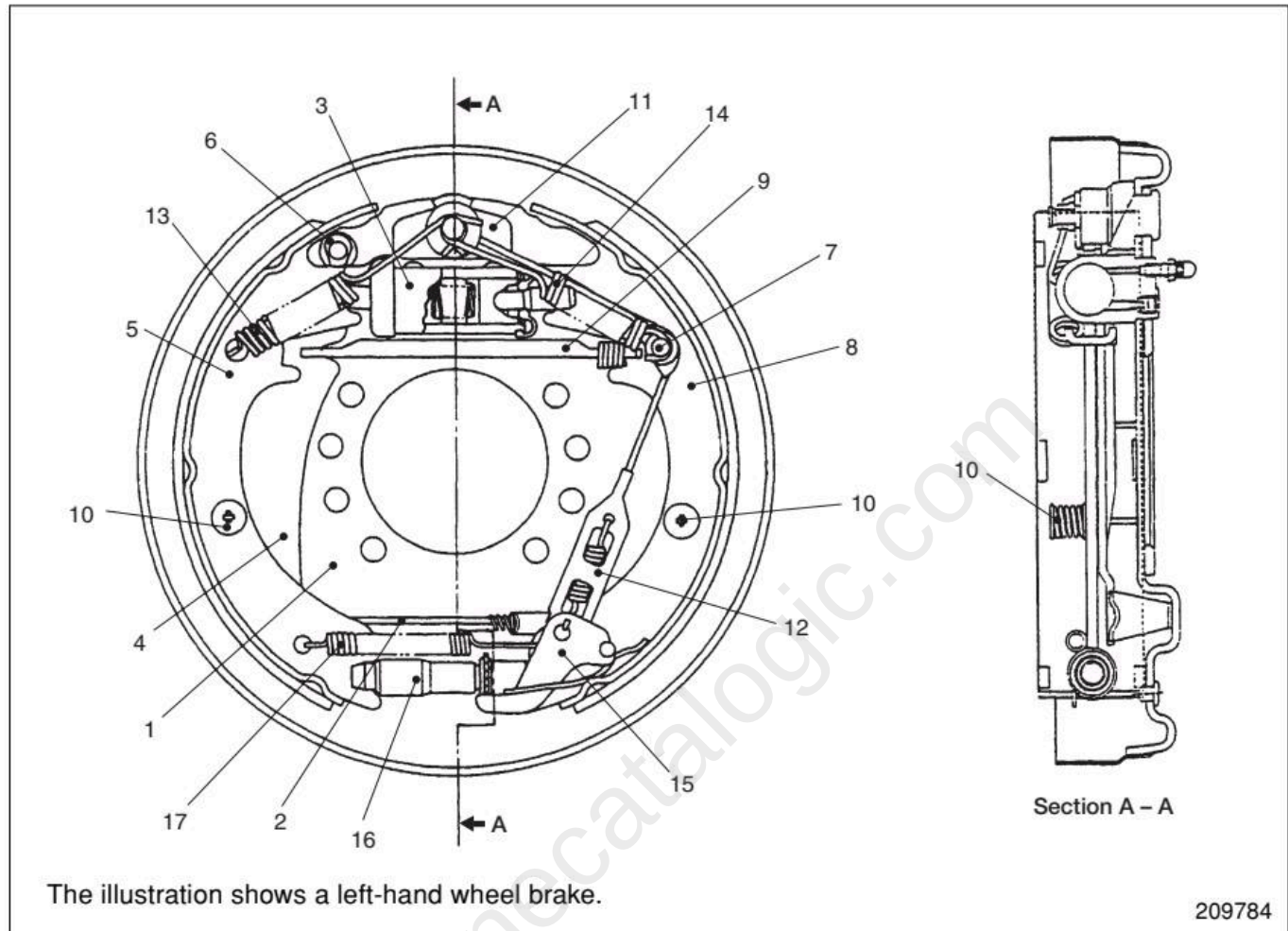
Sequence

- 1 Ball bearing
- 2 Output gear
- 3 Ball bearing



BRAKE SYSTEM

2, 3 ton classes



Sequence

- | | |
|--|--------------------------------------|
| 1 Backing plate assembly | 9 Strut, Anti-rattling spring |
| 2 Parking brake cable, Snap ring | 10 Pin, Hold-down spring, Cup |
| 3 Wheel cylinder | 11 Shoe guide plate |
| Prepare Parts 4, 5 and 6 in assembly beforehand. | 12 Cable with spring |
| 4 Parking brake lever | 13 Return spring (primary) |
| 5 Primary shoe and lining assembly | 14 Return spring (secondary) |
| 6 Retainer, Washer | 15 Adjusting lever, Adjusting spring |
| Prepare Parts 7 and 8 in assembly beforehand. | 16 Adjusting screw |
| 7 Pin, Sheave, Washer | 17 Return spring |
| 8 Secondary shoe and lining assembly | |

Full Version Available

Caterpillar GPE20ZN Forklift Service and Operator Manual (99719-35120)

Caterpillar GPE20ZN service manual, covers hydraulics, wiring, drive unit, controller diagnostics, and service data. Searchable PDF download.

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