CAT® Lift Trucks

Service Manual

Chassis & Mast

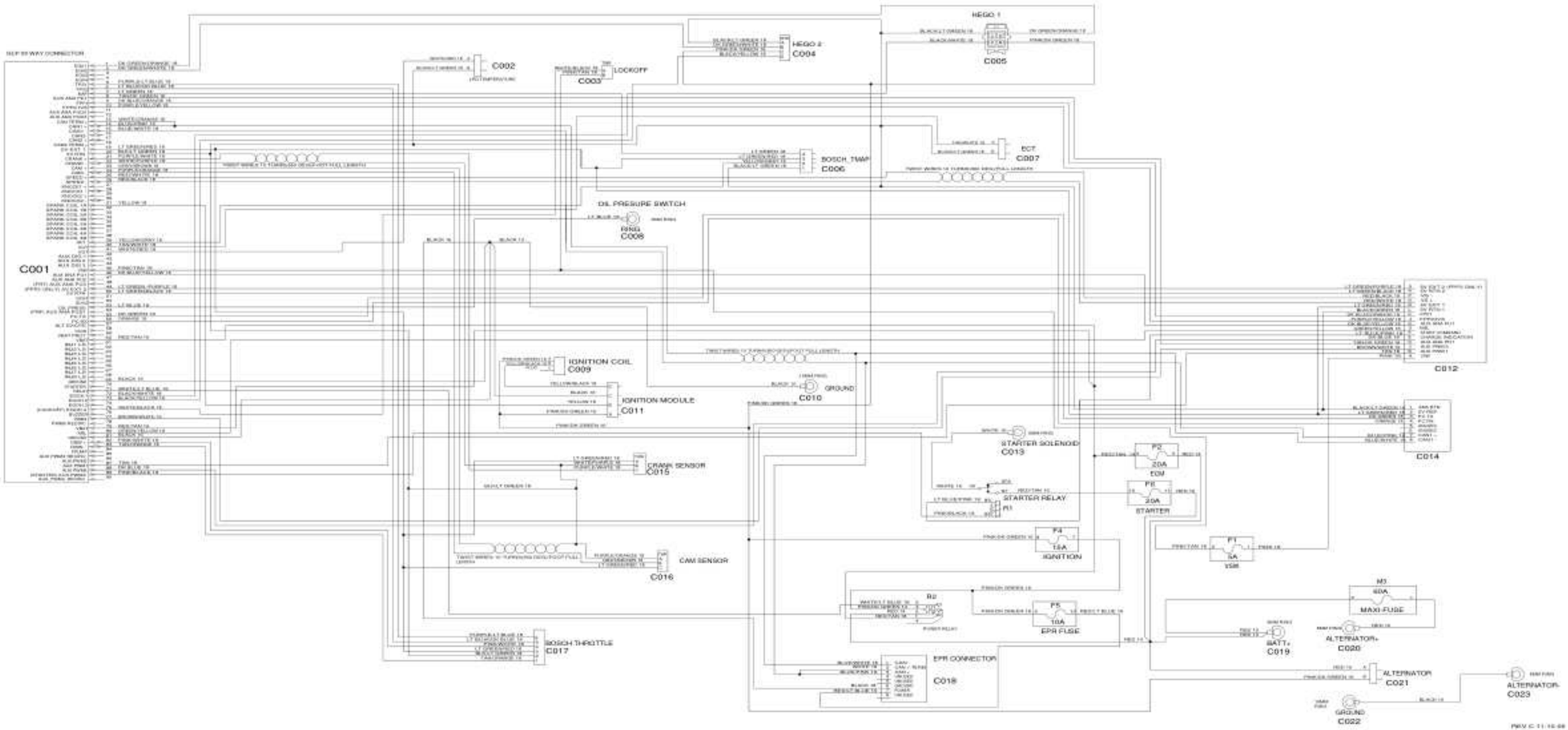
GC35K	AT87-00001-up	**GC55K**	AT88-00001-up
	AT87A-00001-10230		AT88A-00001-10230
	AT87A-10231-20230		AT88A-10231-20230
	AT87A-20231-up		AT88A-20231-up
GC40K	AT87-00001-up	**GC55K STR**	AT88-00001-up
	AT87A-00001-10230		AT88A-00001-10230
	AT87A-10231-20230		AT88A-10231-20230
	AT87A-20231-up		AT88A-20231-up
GC40K STR	AT87-00001-up	**GC60K**	AT89-00001-up
	AT87A-00001-10230		AT89A-00001-10230
	AT87A-10231-20230		AT89A-10231-20230
	AT87A-20231-up		AT89A-20231-up
GC45K SWB	AT87-00001-up	**GC70K**	AT89-00001-up
	AT87A-00001-10230		AT89A-00001-10230
	AT87A-10231-20230		AT89A-10231-20230
	AT87A-20231-up		AT89A-20231-up
GC45K STR	AT87A-20231-up	**GC70K STR**	AT89-00001-up
GC45K	AT88-00001-up		AT89A-00001-10230
	AT88A-00001-10230		AT89A-10231-20230
	AT88A-10231-20230		AT89A-20231-up

For use with GM4.3L, G6 Engine Service Manual and Fuel System Supplements

99739-82100

MidWestTech | Caterpillar GC35K, GC40K, GC40K STR, GC45K SWB, GC45K STR, GC45... Order the manual at mid-west-tech.com >

Electrical System Schematic
Engine (2007-01~up)

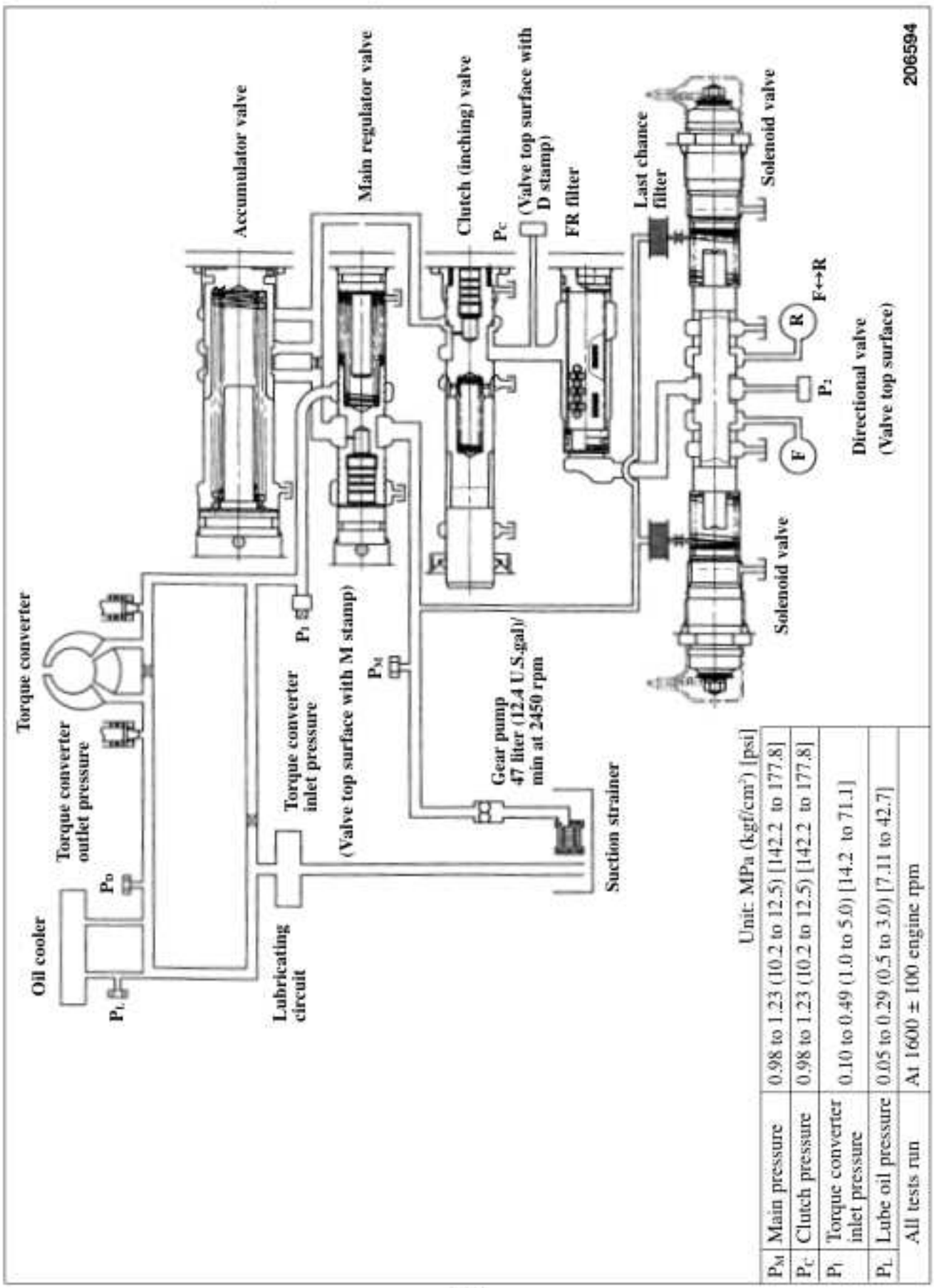


Schematic No.	Used for	Truck Model	Serial No.
ESD19-74121	99739-82100	GC35K, 40K GC40K STR GC45K SWB	AT87A-10231-up
		GC45K, 55K GC55K STR	AT88A-10231-up
		GC60K, 70K GC70K STR	AT89A-10231-up

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Powershift Transmission Hydraulic System Schematic

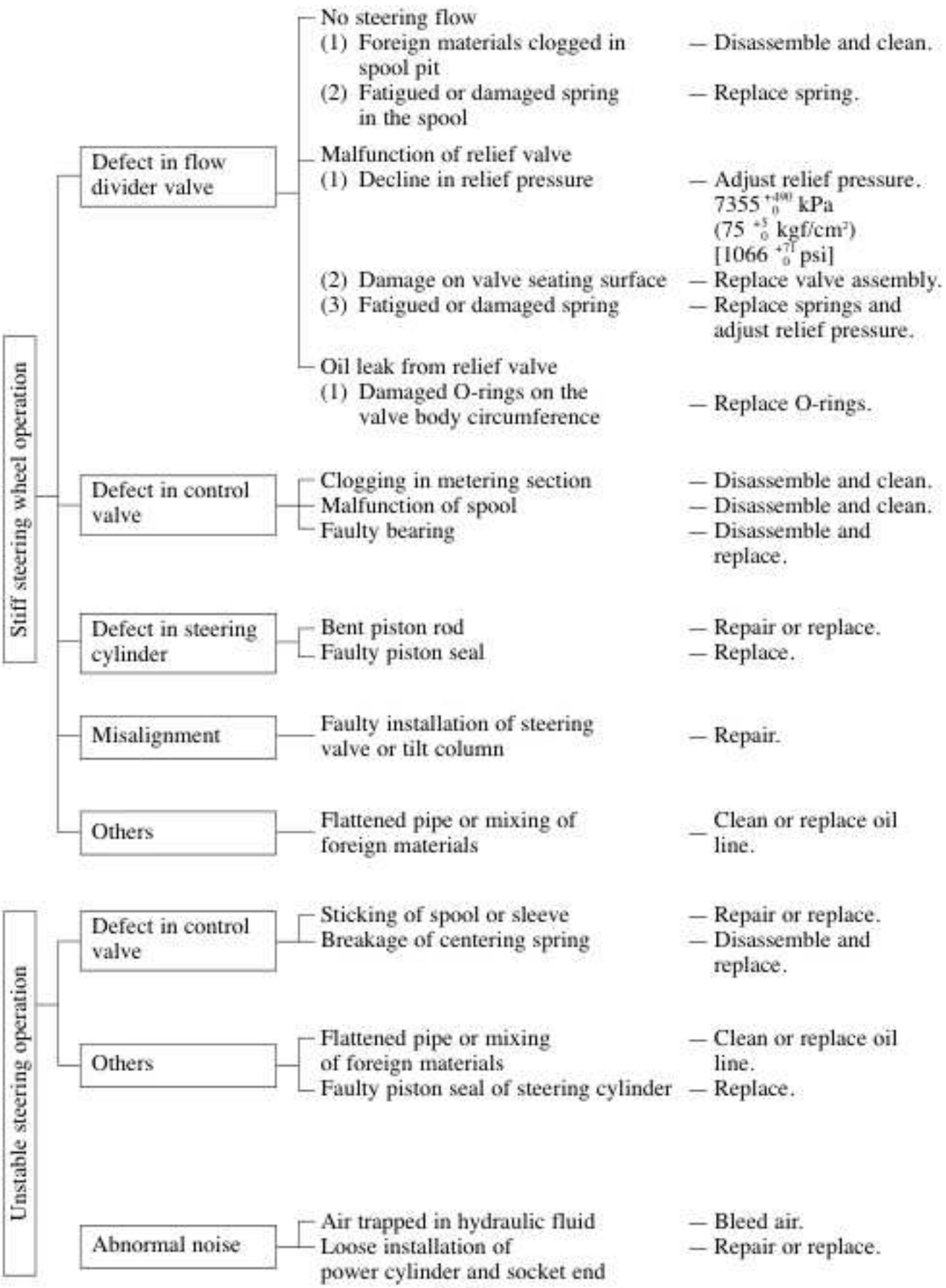


Unit: MPa (kgf/cm²) [psi]

P_M	Main pressure	0.98 to 1.23 (10.2 to 12.5) [142.2 to 177.8]
P_C	Clutch pressure	0.98 to 1.23 (10.2 to 12.5) [142.2 to 177.8]
P_I	Torque converter inlet pressure	0.10 to 0.49 (1.0 to 5.0) [14.2 to 71.1]
P_L	Lube oil pressure	0.05 to 0.29 (0.5 to 3.0) [7.11 to 42.7]
	All tests run	At 1600 ± 100 engine rpm

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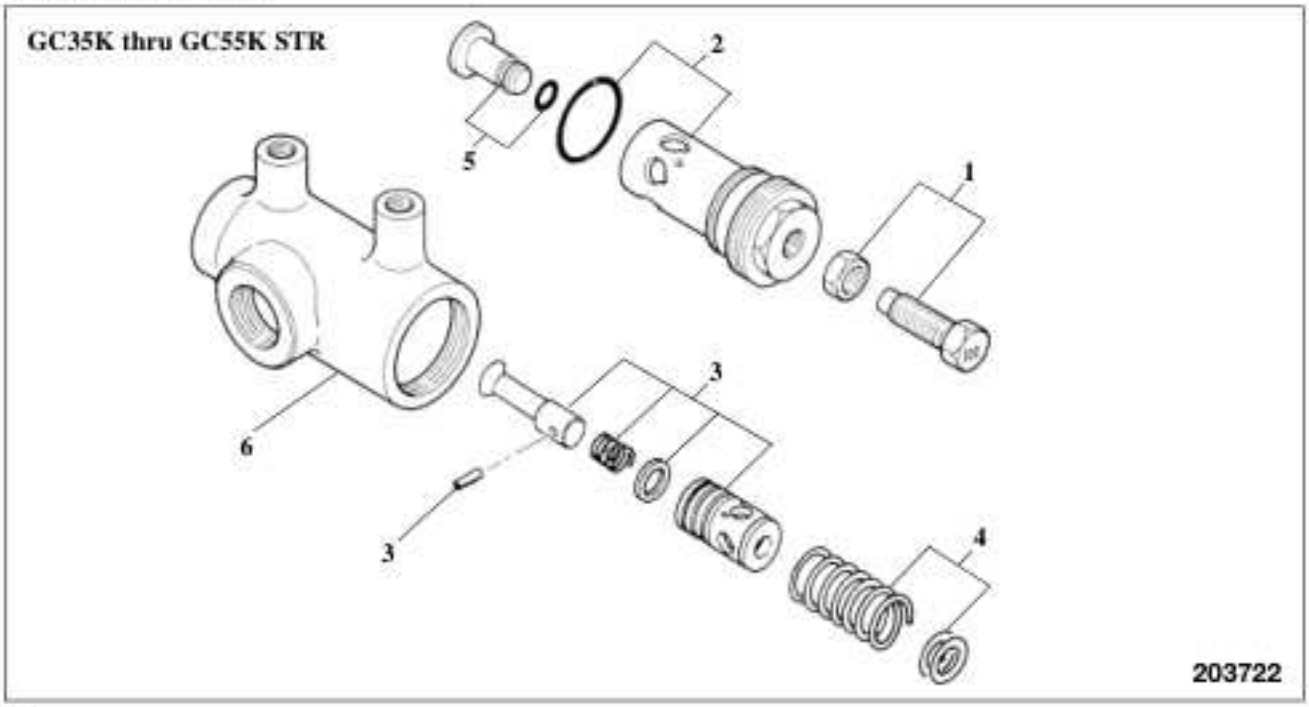
Troubleshooting



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Flow Regulator Valve

Disassembly (No.1)



Sequence

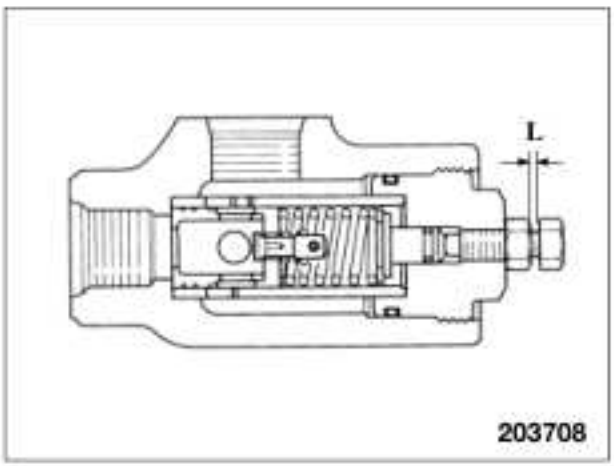
1 Lock nut, Set bolt
2 Sleeve, O-ring
3 Piston, Valve, Spring, Pin and Washer
4 Spring, Shims
5 Guide, O-ring
6 Body

Inspection after disassembly

(1) Check the springs for fatigue.
(2) Check seat and sliding faces of valve and piston.
(3) Check the sliding surfaces of the piston and valve body for damage.

NOTE

Replace the flow regulator valve as an assembly if any part is defective.



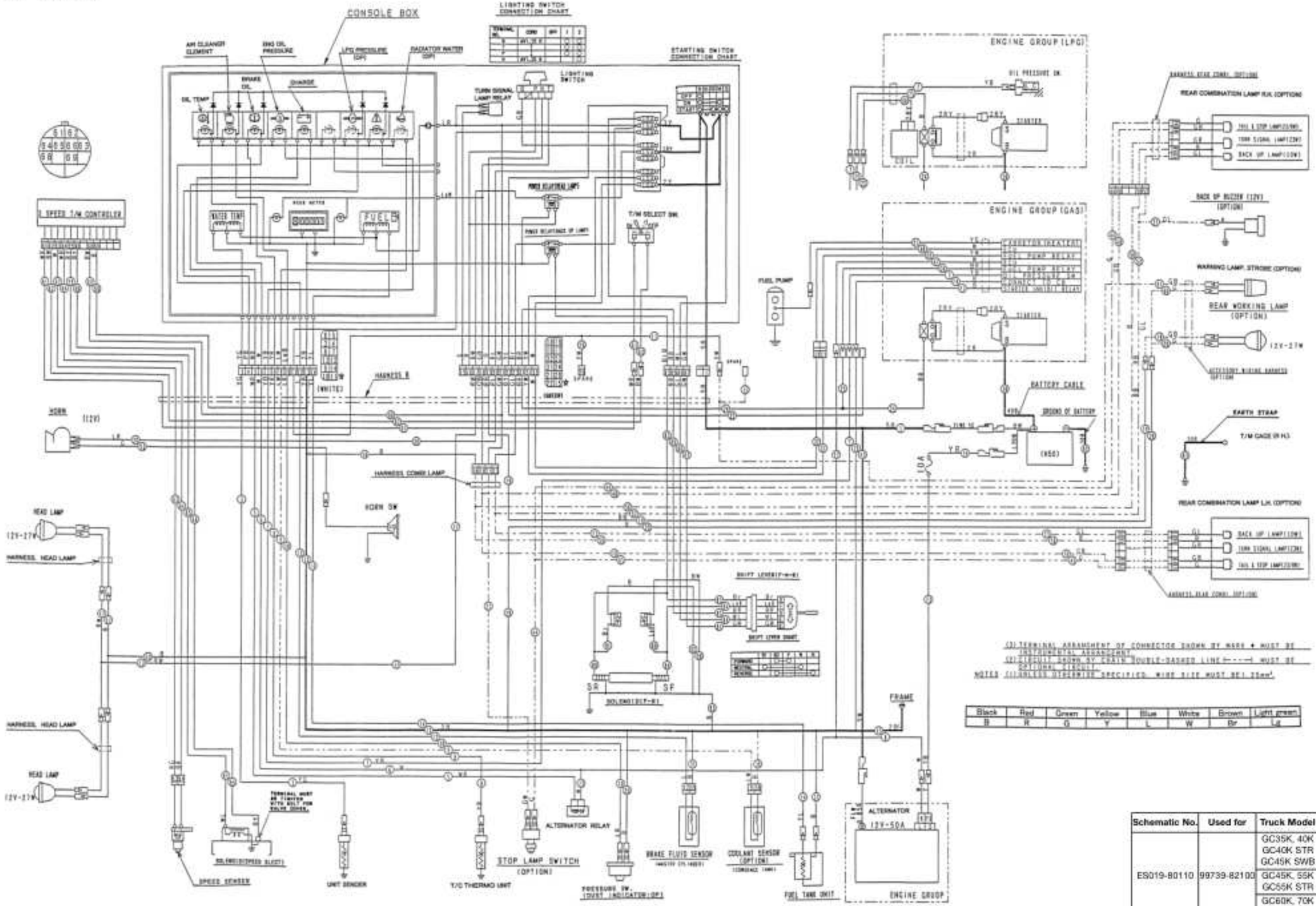
Cautions for assembly

(1) Clean parts completely before assembly, and make sure that parts are free of dust and other particles.
(2) Be careful to mounting direction of piston 3 when installing to the flow regulator valve.
(3) Use set bolt dimension L for assembly as follows. Measure and check the lowering speed under rated load.

Control flow rate	115 liter/min (30.38 U.S.gal)	Dimension L	1.5 mm (0.059 in.)	GC45K thru GC55K STR
	100 liter/min (26.42 U.S.gal)		3 mm (0.118 in.)	GC35K thru GC40K STR

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Electrical System Schematic
Chassis (1998-01~2003-12)



Schematic No.	Used for	Truck Model	Serial No.
ES019-80110	99739-82100	GC35K, 40K GC40K STR GC45K SWB	AT87-00001-up
		GC45K, 55K GC55K STR	AT88-00001-up
		GC60K, 70K GC70K STR	AT89-00001-up

MidWestTech | Caterpillar GC35K, GC40K, GC40K STR, GC45K SWB, GC45K STR, GC45K, GC55K, GC55K STR, GC60K, GC70K, GC70K STR Forklift Service Manual | Publication 99739-82100
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