A TEREX COMPANY

Service and Repair Manual

GTH-5519 *(Deutz Tier 4i)*

Serial Number Range

From GTH5514B-101
to GTH5516B-4410

From GTH5516M-4411
to GTH5516M-5799

From GTH55M-5800

This manual includes:
Repair procedures
Fault Codes
Electrical and Hydraulic
Schematics

For detailed maintenance procedures, Refer to the appropriate Maintenance Manual for your machine.

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SPECIFICATIONS

Hydraulic Hose and Fitting Torque Specifications

Your machine is equipped with Parker Seal-Lok™ ORFS or 37° JIC fittings and hose ends. Genie specifications require that fittings and hose ends be torqued to specification when they are removed and installed or when new hoses or fittings are installed.

Seal-Lok™ Fittings
(hose end - ORFS)

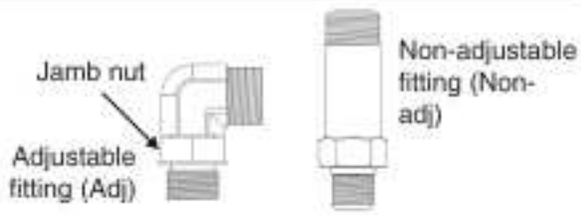
SAE Dash size	Torque
-4	10 ft-lbs / 13.6 Nm
-6	30 ft-lbs / 40.7 Nm
-8	40 ft-lbs / 54.2 Nm
-10	60 ft-lbs / 81.3 Nm
-12	85 ft-lbs / 115 Nm
-16	110 ft-lbs / 150 Nm
-20	140 ft-lbs / 190 Nm
-24	180 ft-lbs / 245 Nm

JIC 37° Fittings
(swivel nut or hose connection)

SAE Dash size	Thread Size	Flats
-4	7/16-20	2
-6	9/16-18	1 1/16
-8	3/4-16	1
-10	7/8-14	1
-12	1 1/16-12	1
-16	1 5/16-12	1
-20	1 5/8-12	1
-24	1 7/8-12	1

SAE O-ring Boss Port
(tube fitting - installed into Aluminum)
(all types)

SAE Dash size	Torque
-4	14 ft-lbs / 19 Nm
-6	23 ft-lbs / 31.2 Nm
-8	36 ft-lbs / 54.2 Nm
-10	62 ft-lbs / 84 Nm
-12	84 ft-lbs / 114 Nm
-16	125 ft-lbs / 169.5 Nm
-20	151 ft-lbs / 204.7 Nm
-24	184 ft-lbs / 249.5 Nm



SAE O-ring Boss Port
(tube fitting - installed into Steel)

SAE Dash size		Torque
-4	ORFS / 37° (Adj) ORFS (Non-adj) 37° (Non-adj)	15 ft-lbs / 20.3 Nm 26 ft-lbs / 35.3 Nm 22 ft-lbs / 30 Nm
-6	ORFS (Adj / Non-adj) 37° (Adj / Non-adj)	35 ft-lbs / 47.5 Nm 29 ft-lbs / 39.3 Nm
-8	ORFS (Adj / Non-adj) 37° (Adj / Non-adj)	60 ft-lbs / 81.3 Nm 52 ft-lbs / 70.5 Nm
-10	ORFS (Adj / Non-adj) 37° (Adj / Non-adj)	100 ft-lbs / 135.6 Nm 85 ft-lbs / 115.3 Nm
-12	(All types)	135 ft-lbs / 183 Nm
-16	(All types)	200 ft-lbs / 271.2 Nm
-20	(All types)	250 ft-lbs / 339 Nm
-24	(All types)	305 ft-lbs / 413.5 Nm

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FAULT CODES

Diagnostic Display

When the engine Electronic Control Module (ECM) detects an abnormal operating condition, a fault code is immediately stored in the ECM memory. The presence of faults is indicated by the word "SERVICE" (replacing GENIE) on the LCD display which is located on the gauge cluster in the operator's compartment.
The gauge cluster also includes two warning lights.
They are an amber colored light which signals an abnormal engine condition which should be corrected as soon as possible and a red colored light which signals an engine condition which requires the operator to shut down the engine as soon as possible.
The ECM will, in some cases, automatically shut down the engine when the red light is displayed.

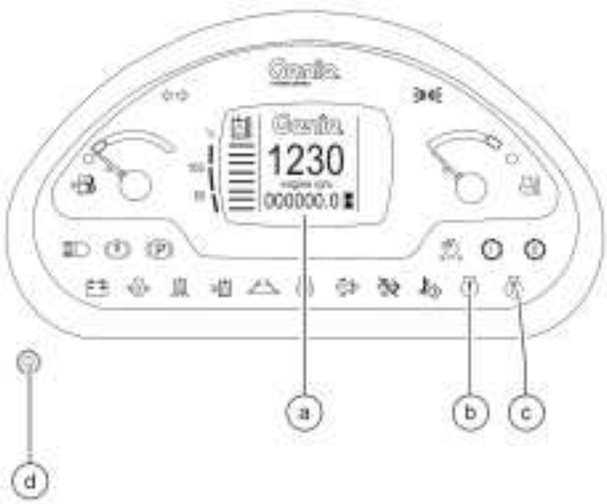
Active Fault Codes
To make the active fault codes visible, start the engine, press the diagnostic button "d" and hold it pressed for at least 5 seconds.
To quit the active fault codes page, press the diagnostic button "d" and hold it pressed for at least 5 seconds.

Active Codes vs Stored Codes
Active fault codes, indicating an engine condition or conditions which have not been corrected, are signaled on the LCD display by the word "SERVICE" replacing "GENIE".

Stored fault codes are the cumulative history of fault codes which the ECM has detected. These fault codes may be recalled by service personnel at a later time even if the condition which caused the engine fault has ceased to exist.

Note: Additional hardware will be necessary to access stored codes.

Decoding Fault Codes
The Suspect Parameter Number (SPN) and the Failure Mode Identifier (FMI), when combined, are the basis for an engine fault code. The SPN number indicates the affected component; the FMI number reveals the type of failure that has occurred. Comparing the combination of numbers to the fault code chart on the following pages will help to determine the exact engine fault and a corrective course of action. For additional information, refer to the engine operator's manual which came with your machine.



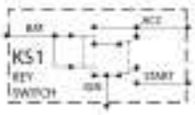
Gauge Cluster

a LCD screen
b amber warning light
c stop engine light
d diagnostic button

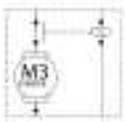
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Electrical and Hydraulic Symbols Legends

Electrical Schematic Symbols



Key switch



Engine start


Control relay



Alternator


Fuse


Circuit breaker


Horn or Alarm

Light


Valve coil


Valve coil with diode


Switch

Diode


Proximity switch


Limit switch


Temperature switch


Fuel level sender


Battery


Pressure switch

Hydraulic Schematic Symbols


Pressure switch


Hydraulic cylinder


Axle

Orifice

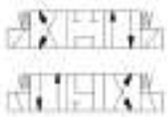

Adjustable orifice


Filter


Check valve

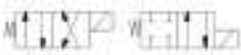

Flow regulator


Relief valve

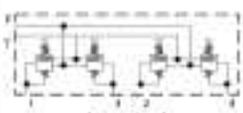

3 position 4 way solenoid valve

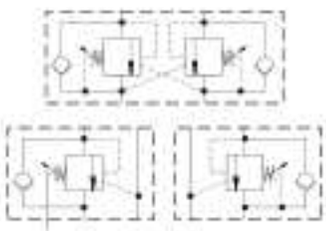

2 position 3 way directional valve


3 position 4 way proportional directional valve


2 position 4 way solenoid valve


2 position 2 way solenoid valve


Joystick

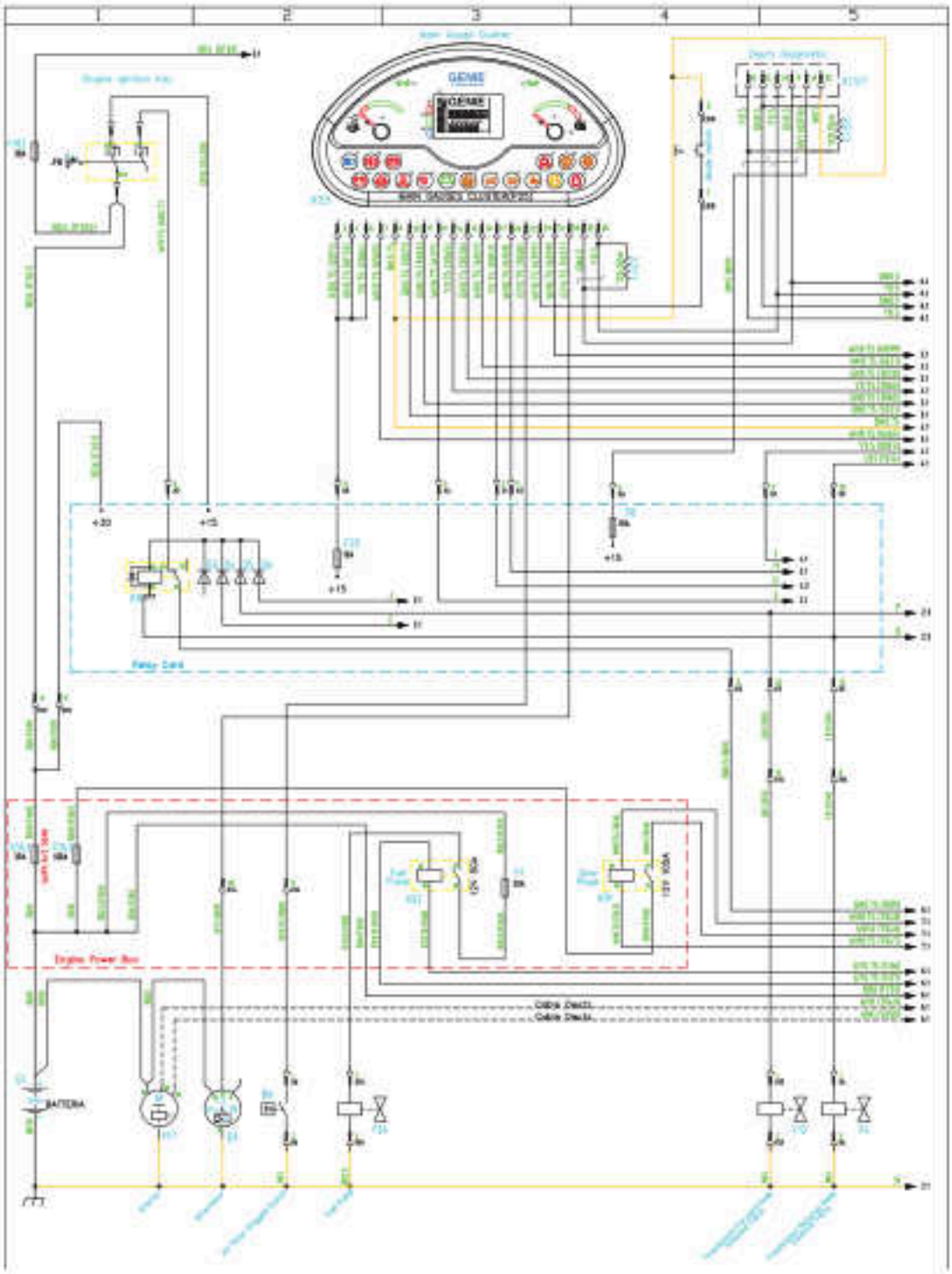

Counterbalance valve

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Electrical Schematic

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Up to SN GTH5515B-2364

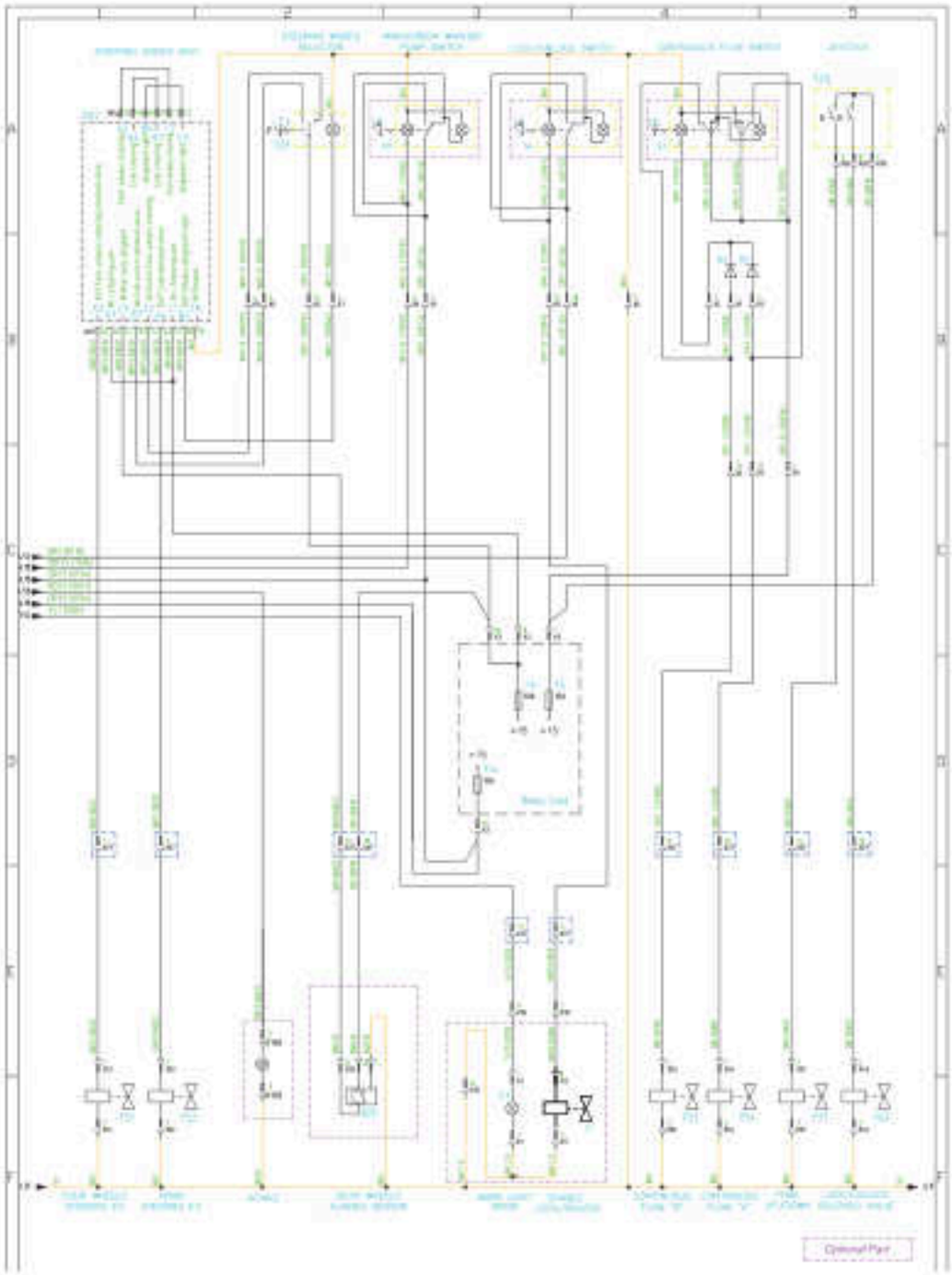


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ELECTRICAL SCHEMATIC

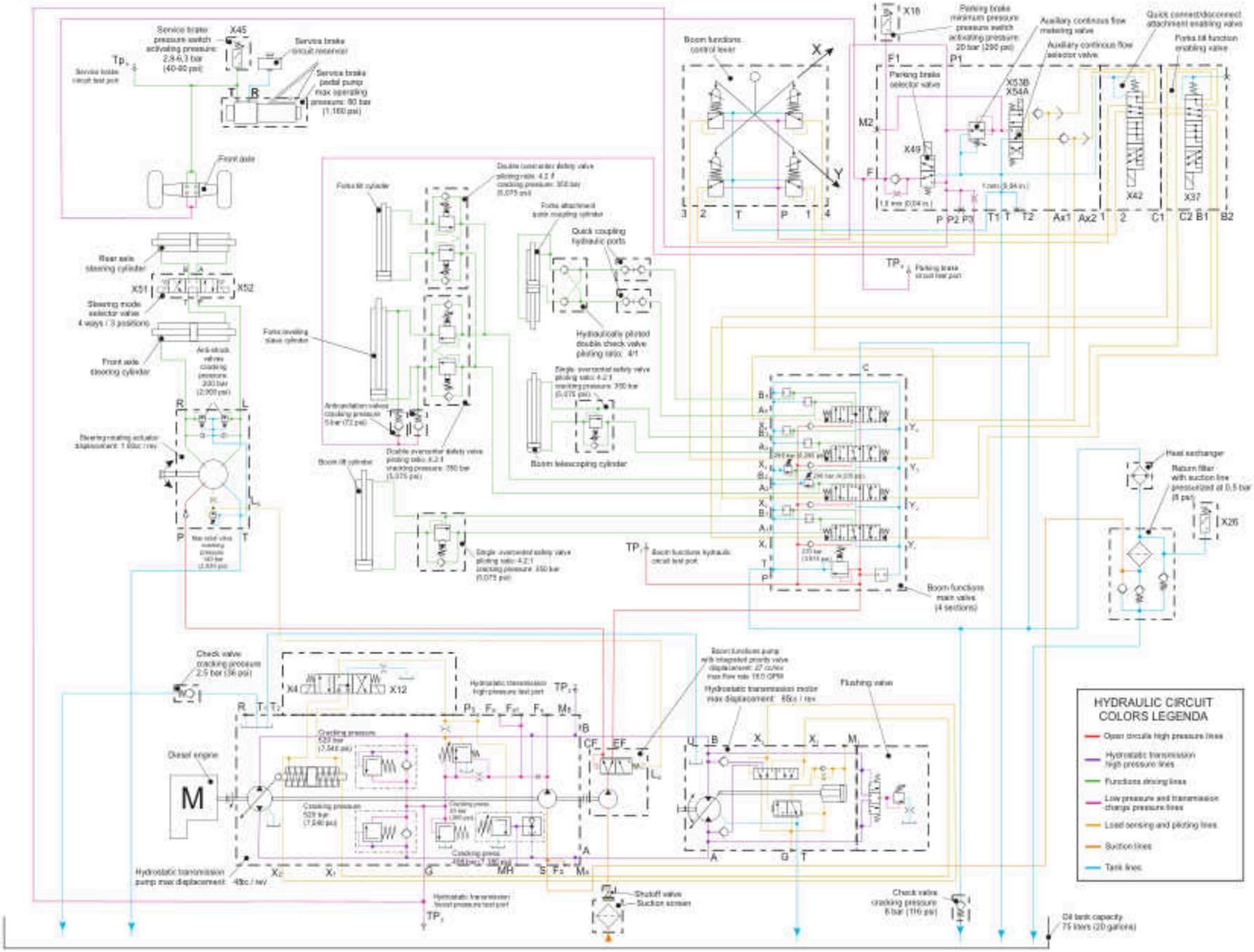
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Hydraulic Schematic



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