A TEREX COMPANY

Service and Repair Manual

SX™-150

Serial Number Range
from SX150H-612

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

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

Part No. 1300669GT
Rev A
December 2019

Order the manual at mid-west-tech.com >

Table of Contents

Introduction	**Introduction**	**ii**
	Important Information	ii
	Find a Manual for this Model	ii
	Revision History	iii
	Serial Number Legend	iv
Section 1	**Safety Rules**	**v**
	General Safety Rules	v
Section 2	**Specifications**	**1**
	Machine Specifications	1
	Performance Specifications	2
	Hydraulic Oil Specifications	3
	Hydraulic Component Specifications	6
	Manifold Component Specifications	7
	Deutz TD2011L04i Engine Specifications	8
	Deutz TD 2.9 Engine Specifications	9
	Perkins 1104D-44T Engine Specifications	10
	Perkins 854F-34T Engine Specifications	12
	Machine Torque Specifications	13
	Hydraulic Hose and Fitting Torque Specifications	14
	Torque Procedure	15

MidWestTech | Terex Genie SX-150 Telescopic Boom Lift Service Manual | Publication 130... Order the manual at mid-west-tech.com >

Table of Contents

Section 3 **Repair Procedures** **18**

Introduction 18

Platform Controls **20**

1-1 Platform Circuit Board 20

How to Remove the LED Circuit Board 21

1-2 Joysticks 22

How to Reset a Proportional Valve Coil Default 25

How to Set the Function Thresholds and Default Functions Speeds 26

How to Adjust the Function Speeds 28

How to Adjust the Function Ramp Rate Setting 28

Platform Components **29**

2-1 Platform 29

2-2 Platform Leveling Cylinder 30

2-3 Platform Rotator 31

How to Bleed the Platform Rotator 32

2-4 Platform Level Sensor 33

2-5 Platform Overload System 34

How to Calibrate the Platform Overload System 34

How to Perform a Zero Load Cell Calibration 36

How to Replace the Platform Overload Load Cell 37

2-6 Platform Overload Recovery Message 37

Jib Boom Components **39**

3-1 Jib Boom 40

3-2 Jib Boom Lift Cylinder 41

3-3 How to Remove the Jib Boom Bellcrank 42

3-4 Jib Boom Bellcrank Angle Sensor 43

MidWestTech | Terex Genie SX-150 Telescopic Boom Lift Service Manual | Publication 130... Order the manual at mid-west-tech.com >

Table of Contents

Boom Components **45**
4-1 Primary Boom Cable Track 46
4-2 Primary Boom 48
How to Remove the Primary Boom 49
How to Disassemble the Primary Boom 51
4-3 Primary Boom Lift Cylinder 53
4-4 Extension Cylinder 55
4-5 Boom Extend and Retract Cables 58
How to Replace the Boom Extend/Retract Cables 62
4-6 Primary Boom Angle Sensor 65
4-7 Boom Length Sensor 68

Engines **70**
5-1 RPM Adjustment 70
5-2 Flex Plate 70
How to Install the Flex Plate 71

Ground Controls **72**
6-1 Bypass/Recovery Key Switch 72
How to Use the Recovery Mode 73
6-2 Circuit Boards 74
6-3 Membrane Decal 76
6-4 Full Machine Calibration 77

Display Module **78**

Hydraulic Pumps **85**
7-1 Function Pump 85
How to Prime the Function Pump 86
How to Adjust the Function Pump Standby Pressure 86
How to Adjust the Function Pump Pressure Compensator 88
7-2 Drive Pump 89
How to Prime the Drive Pump 91

MidWestTech | Terex Genie SX-150 Telescopic Boom Lift Service Manual | Publication 130... Order the manual at mid-west-tech.com >

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	18 ft-lbs / 25 Nm
-6	30 ft-lbs / 41 Nm
-8	40 ft-lbs / 55 Nm
-10	60 ft-lbs / 81 Nm
-12	85 ft-lbs / 115 Nm
-16	110 ft-lbs / 150 Nm
-20	150 ft-lbs / 205 Nm
-24	230 ft-lbs / 315 Nm

JIC 37° Fittings

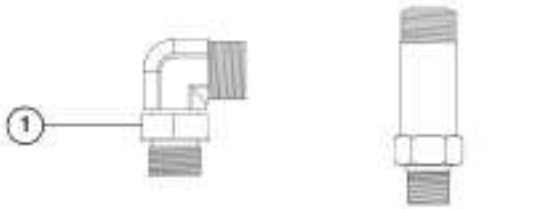
(swivel nut or hose connection)

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



Adjustable Fitting

Non-adjustable fitting

1 jam nut

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

MidWestTech | Terex Genie SX-150 Telescopic Boom Lift Service Manual | Publication 130... Order the manual at mid-west-tech.com >

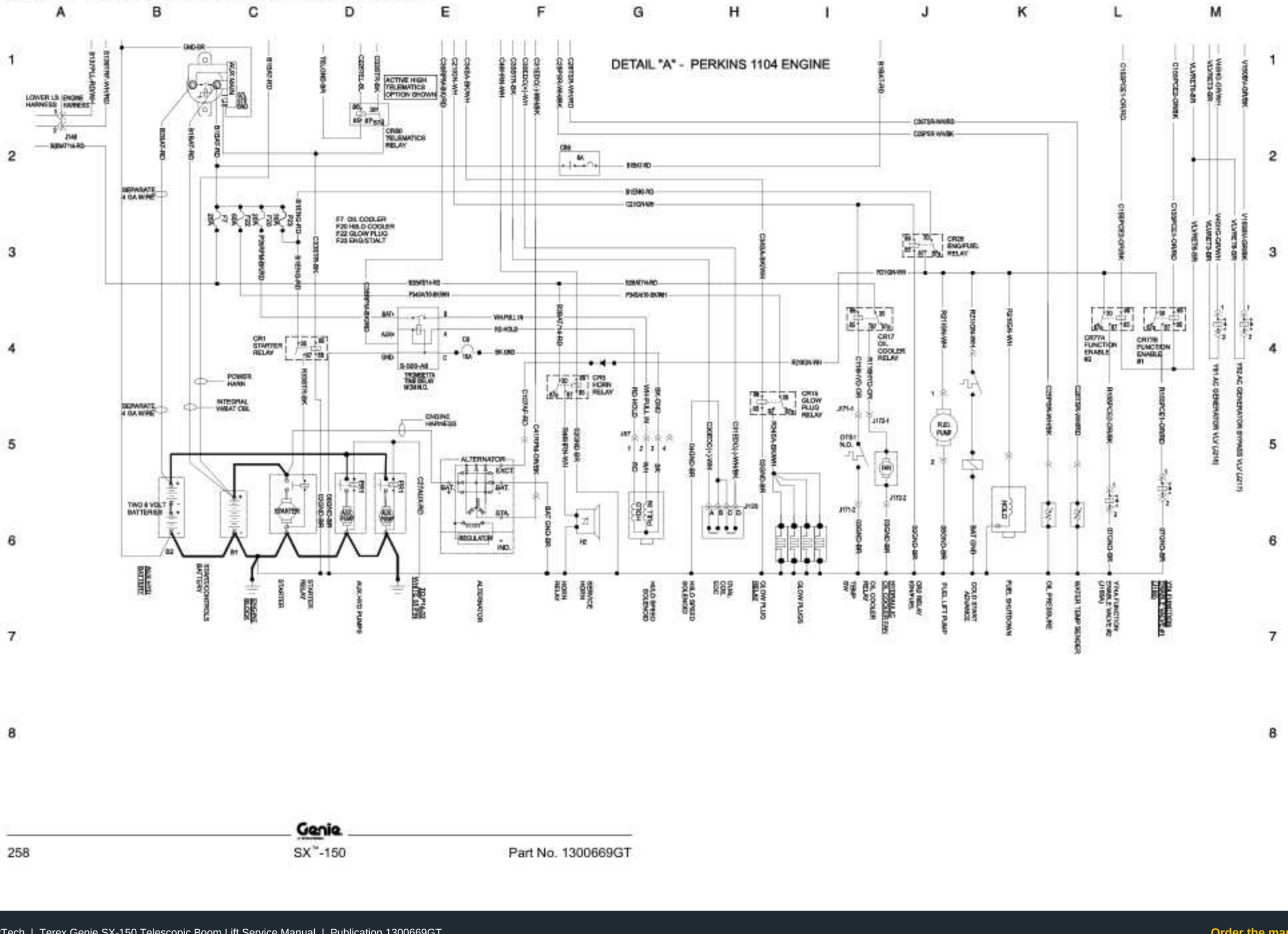
Control System Fault Codes

SPN = Suspect Parameter Number
FMI = Failure Mode Identifier

SPN	FMI	Description	Refer to Engine Manual
3702	6	Diesel Particulate Filter Active Regeneration Inhibited Status : Current Above Normal	Indicator Lamp Circuit- Test
4765	3	After treatment #1 Diesel Oxidation Catalyst Intake Gas Temperature :Voltage Above Normal	Engine Temperature Sensor Open or Short Circuit - Test
4765	4	After treatment #1 Diesel Oxidation Catalyst Intake Gas Temperature :Voltage Below Normal	Engine Temperature Sensor Open or Short Circuit- Test
5055	17	Engine Oil Viscosity : Low - least severe (1)	Oil Contains Fuel
5055	18	Engine Oil Viscosity : Low - moderate severity (2)	Oil Contains Fuel
5099	6	Engine Oil Pressure Low Lamp Data : Current Above Normal	Indicator Lamp Circuit- Test
5319	31	After treatment Diesel Particulate Filter Incomplete Regeneration	Diesel Particulate Filter Active Regeneration Was Interrupted
5324	7	Engine Glow Plug 1: Not Responding Properly	Glow Plug Starting Aid - Test
5325	7	Engine Glow Plug 2 :Not Responding Properly	Glow Plug Starting Aid - Test
5326	7	Engine Glow Plug 3 :Not Responding Properly	Glow Plug Starting Aid - Test
5327	7	Engine Glow Plug 4 :Not Responding Properly	Glow Plug Starting Aid - Test
5419	5	Engine Throttle Actuator #1 :Current Below Normal	Motorized Valve- Test
5419	6	Engine Throttle Actuator #1 :Current Above Normal	Motorized Valve - Test
5419	7	Engine Throttle Actuator #1 :Not Responding Properly	Motorized Valve- Test
5571	2	High Pressure Common Rail Fuel Pressure Relief Valve :Erratic, Intermittent, or Incorrect	Fuel Rail Pressure Problem
5571	7	High Pressure Common Rail Fuel Pressure Relief Valve :Not Responding Properly	Fuel Rail Pressure Problem
5571	10	High Pressure Common Rail Fuel Pressure Relief Valve : Abnormal Rate of Change	Fuel Rail Pressure Problem
5571	14	High Pressure Common Rail Fuel Pressure Relief Valve : Special Instruction	Fuel Rail Pressure Problem
5571	16	High Pressure Common Rail Fuel Pressure Relief Valve :High - moderate severity (2)	Fuel Rail Pressure Problem
5826	16	Emission Control System Operator Inducement Severity :High - moderate severity (2)	Refer to "Operator Inducement Codes".

MidWestTech | Terex Genie SX-150 Telescopic Boom Lift Service Manual | Publication 130... Order the manual at mid-west-tech.com >

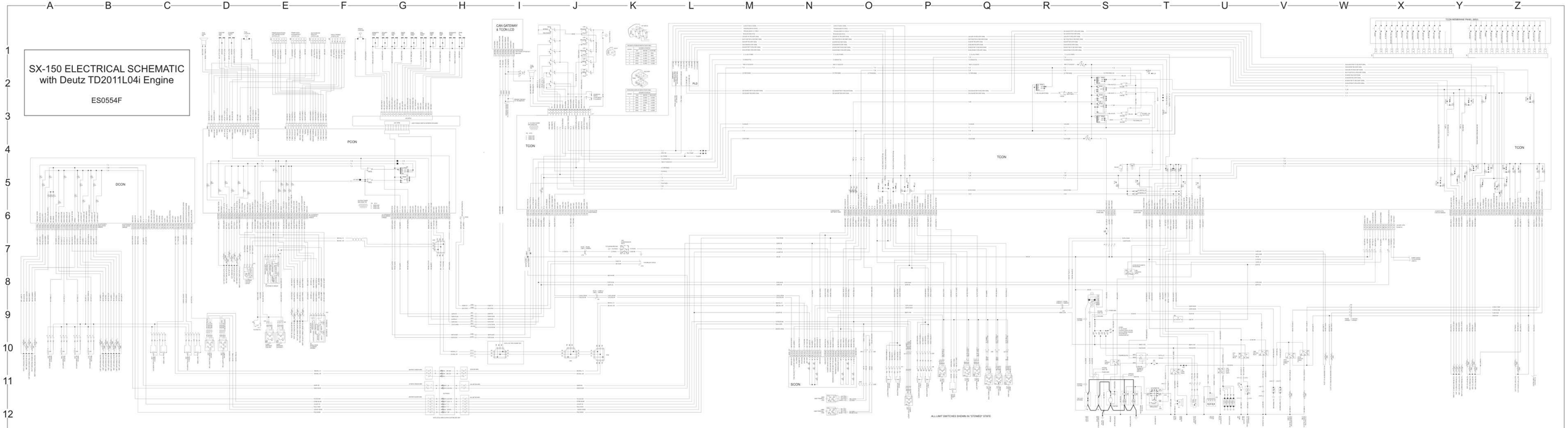
Perkins 1104D-44T Engine Electrical Schematic



MidWestTech | Terex Genie SX-150 Telescopic Boom Lift Service Manual | Publication 1300669GT
Order the manual at mid-west-tech.com >

SX-150 ELECTRICAL SCHEMATIC with Deutz TD2011L04i Engine

ES0554F



Order the manual at mid-west-tech.com »