Genie®
A TEREX COMPANY

Service and Repair Manual

SX™-150

Serial Number Range

from SX15015H-101
to SX15016H-499

from SX150H-500
to SX150H-611

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. 1268496GT
Rev B
December 2019

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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

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Table of Contents

Section 3 **Repair Procedures** **17**

Introduction 17

Platform Controls **19**

1-1 Platform Circuit Board 19

How to Remove the LED Circuit Board 20

1-2 Joysticks 21

How to Reset a Proportional Valve Coil Default 24

How to Set the Function Thresholds and Default Functions Speeds 25

How to Adjust the Function Speeds 27

How to Adjust the Function Ramp Rate Setting 27

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 (if equipped) 34

2-6 Platform Overload Recovery Message 35

Jib Boom Components **37**

3-1 Jib Boom 38

3-2 Jib Boom Lift Cylinder 39

3-3 How to Remove the Jib Boom Bellcrank 40

3-4 Jib Boom Bellcrank Angle Sensor 41

MidWestTech | Terex Genie SX-150 Telescopic Boom Lift Service Manual | Publication 126... Order the manual at mid-west-tech.com >

Table of Contents

Boom Components **43**
4-1 Primary Boom Cable Track 44
4-2 Primary Boom 46
How to Remove the Primary Boom 47
How to Disassemble the Primary Boom 49
4-3 Primary Boom Lift Cylinder 52
4-4 Extension Cylinder 54
4-5 Boom Extend and Retract Cables 56
How to Replace the Boom Extend/Retract Cables 61
4-6 Primary Boom Angle Sensor 64
4-7 Boom Length Sensor 67

Engines **69**
5-1 RPM Adjustment 69
5-2 Flex Plate 69
How to Install the Flex Plate 70

Ground Controls **71**
6-1 Bypass/Recovery Key Switch 71
How to Use the Recovery Mode 72
6-2 Circuit Boards 73
6-3 Membrane Decal 75
6-4 Full Machine Calibration 76

Display Module **77**

Hydraulic Pumps **84**
7-1 Function Pump 84
How to Prime the Function Pump 85
How to Adjust the Function Pump Standby Pressure 85
How to Adjust the Function Pump Pressure Compensator 87
7-2 Drive Pump 88
How to Prime the Drive Pump 90

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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	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

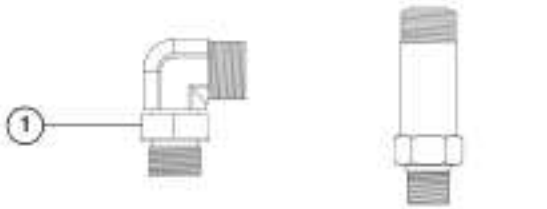
(swivel nut or hose connection)

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

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Manifolds

8-11 Valve Coils

How to Test a Coil

A properly functioning coil provides an electromotive force which operates the solenoid valve. Critical to normal operation is continuity within the coil that provides this force field.

Since coil resistance is sensitive to temperature, resistance values outside specification can produce erratic operation. When coil resistance decreases below specification, amperage increases. As resistance rises above specification, voltage increases.

While valves may operate when coil resistance is outside specification, maintaining coils within specification will help ensure proper valve function over a wide range of operating temperatures.

⚠WARNING Electrocution/burn hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

1 Tag and disconnect the wiring from the coil to be tested.

2 Test the coil resistance.

⊙ Result: The resistance should be within specification, plus or minus 30%.

☒ Result: If the resistance is not within specification, plus or minus 30%, replace the coil.

Valve Coil Resistance Specification

Note: The following coil resistance specifications are at an ambient temperature of 68°F / 20°C. As valve coil resistance is sensitive to changes in air temperature, the coil resistance will typically increase or decrease by 4% for each 18°F / 10°C that your air temperature increases or decreases from 68°F / 20°C.

Valve Coil Resistance Specification	
Function Manifold	
schematic item L	4.5Ω@12v
schematic item K	5.4Ω@12v
schematic item J, N, T, U	7.1Ω@12v
schematic item W, X	6.2Ω@12v
schematic item M	8.8Ω@12v
Steer Manifold	
schematic item BT, BU	5.6Ω@12v
schematic item BF, BH, BJ, BL	7.2@12v
Traction Manifold	
schematic item AX, AY	7.2Ω@12v
Jib Manifold	
schematic item EB, ED	6.2Ω@10v
Platform Manifold	
schematic item DB, DD, DG	6.2Ω@10v
Function Enable Manifold	
schematic item A	7.2Ω@12v
Generator Manifold	
schematic item FB, FD	7.1Ω@12v

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Control System Fault Codes

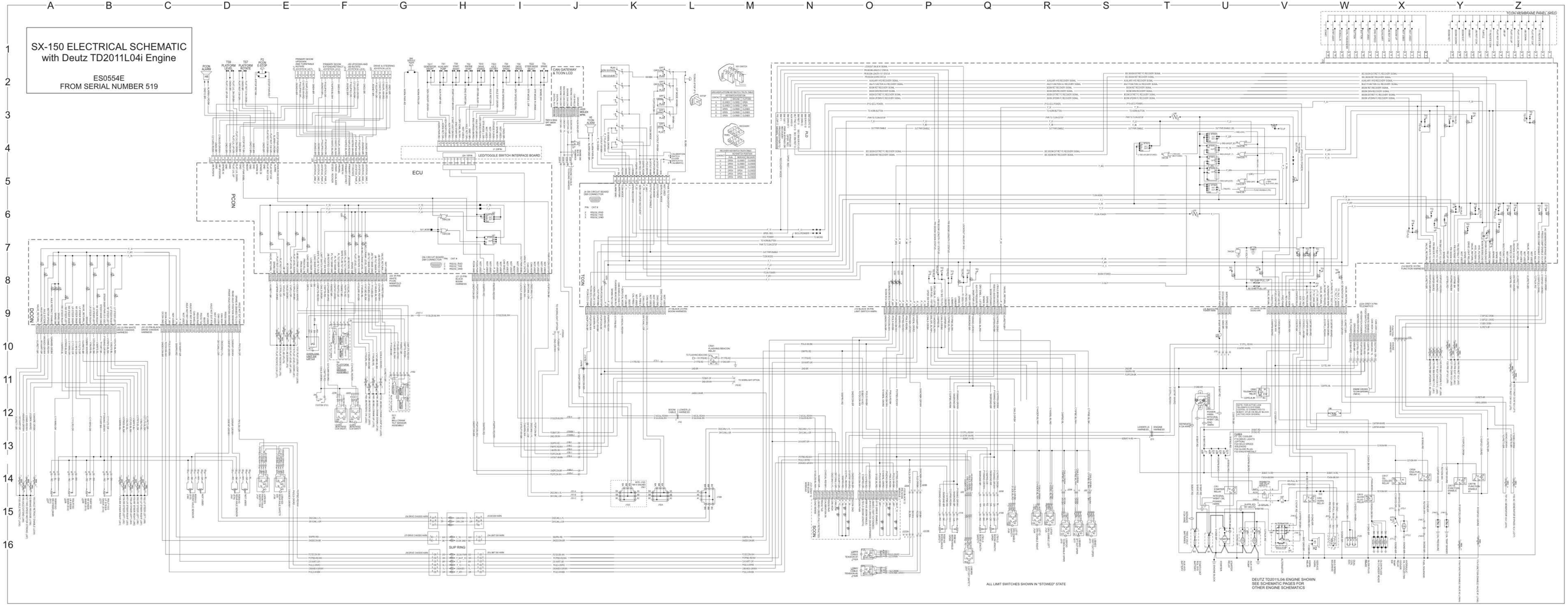
SPN = Suspect Parameter Number
FMI = Failure Mode Identifier

SPN	FMI	Description	Refer to Engine Manual
1076	2	Engine Fuel Injection Pump Fuel Control Valve :Erratic, Intermittent, or Incorrect	Solenoid Valve - Test
1076	5	Engine Fuel Injection Pump Fuel Control Valve :Current Below Normal	Solenoid Valve - Test
1076	6	Engine Fuel Injection Pump Fuel Control Valve :Current Above Normal	Solenoid Valve- Test
1081	5	Engine Wait to Start Lamp :Current Below Normal	Indicator Lamp Circuit - Test
1081	6	Engine Wait to Start Lamp :Current Above Normal	Indicator Lamp Circuit- Test
1127	16	Engine Turbocharger 1 Boost Pressure : High - moderate severity (2)	Intake Manifold Air Pressure Is High
1127	18	Engine Turbocharger 1 Boost Pressure :Low - moderate severity (2)	Intake Manifold Air Pressure Is Low
1188	5	Engine Turbocharger Wastegate Actuator 1 Position :Current Below Normal	Solenoid Valve - Test
1188	6	Engine Turbocharger Wastegate Actuator 1 Position :Current Above Normal	Solenoid Valve - Test
1209	3	Engine Exhaust Gas Pressure :Voltage Above Normal	Engine Pressure Sensor Open or Short Circuit - Test
1209	4	Engine Exhaust Gas Pressure :Voltage Below Normal	Engine Pressure Sensor Open or Short Circuit- Test
1221	2	Continuously Monitored Systems Support/Status :Erratic,Intermittent,or Incorrect	ECM Memory- Test
1221	14	Continuously Monitored Systems Support/Status : Special Instruction	Another diagnostic code has requested engine speed limitation. The warning lamp will flash.The engine speed is limited to 1200rpm. Troubleshoot all other diagnostic codes.No troubleshooting is required for this diagnostic code.
1239	0	Engine Fuel Leakage 1 :High- most severe (3)	Fuel Rail Pressure Problem
1485	7	ECM Main Relay :Not Responding Properly	Electrical Power Supply- Test
1485	14	ECM Main Relay :Special Instruction	Electrical Power Supply- Test

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SX-150 ELECTRICAL SCHEMATIC with Deutz TD2011L04i Engine

ES0554E
FROM SERIAL NUMBER 519



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