A TEREX COMPANY

Service and Repair Manual

S-40
S-45
S-40 TRAX
S-45 TRAX

Serial Number Range

from S4015-20505 to S4016H-23499
from S4515-20505 to S4516H-23499
from S40H-23500
fromS45H-23500

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. 1268491
Rev A3
May 2018

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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 ¼
-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



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)	15 ft-lbs / 20.3 Nm
	ORFS (Non-adj)	26 ft-lbs / 35.3 Nm
	37° (Non-adj)	22 ft-lbs / 30 Nm
-6	ORFS (Adj / Non-adj)	35 ft-lbs / 47.5 Nm
	37° (Adj / Non-adj)	29 ft-lbs / 39.3 Nm
-8	ORFS (Adj / Non-adj)	60 ft-lbs / 81.3 Nm
	37° (Adj / Non-adj)	52 ft-lbs / 70.5 Nm
-10	ORFS (Adj / Non-adj)	100 ft-lbs / 135.6 Nm
	37° (Adj / Non-adj)	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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Ford MSG-425 Engine Fault Codes

How to Retrieve Ford Engine Fault Codes

The ECM constantly monitors the engine by the use of sensors on the engine. The ECM also uses signals from the sensors to initiate sequential fuel injection and make constant and instantaneous changes to ignition timing, fuel delivery and throttle position to maintain the engine's running condition at its highest efficiency while at the same time keeping exhaust emissions to a minimum. When a sensor fails or returns signals that are outside of set parameters, the ECM will store a fault code in memory that relates to the appropriate sensor and will turn on the Check Engine Light.

Note: Perform this procedure with the key switch in the off position.

1 Open the ground controls side cover and locate the run/test toggle switch on the side of the ground control box.

2 Pull out the red Emergency Stop button to the on position at both the ground and platform controls.

3 Move and hold the run/test toggle switch to the test position.

⊙ Result: The check engine light should turn on. The check engine light should begin to blink.

4 Continue to hold the run/test toggle switch in the test position and count the blinks.

Note: Before the fault codes are displayed, the check engine light will blink a code 1-6-5-4 three times. After the fault codes, the check engine light will blink a code 1-6-5-4 three times again indicating the end of the stored codes.

Note: If any fault codes are present, the ECM will blink a three digit code three times for each code stored in memory. It will blink the first digit of a three digit code, pause, blink the second digit, pause, and then blink the third digit. For example: the check engine light blinks 5 consecutive times, blinks 3 times and then 1 time. That would indicate code 531.

Note: Once a fault code has been retrieved and the repair has been completed, the ECM memory must be reset to clear the fault code from the ECM. Refer to Fault Codes Procedure, *How to Clear Engine Fault Codes from the ECM.*

How to Clear Engine Fault Codes from the ECM

Note: Perform this procedure with the engine off and the key switch in the off position.

1 Open the engine side turntable cover and locate the battery.

2 Disconnect the negative battery cable from the battery for a minimum of 5 minutes.

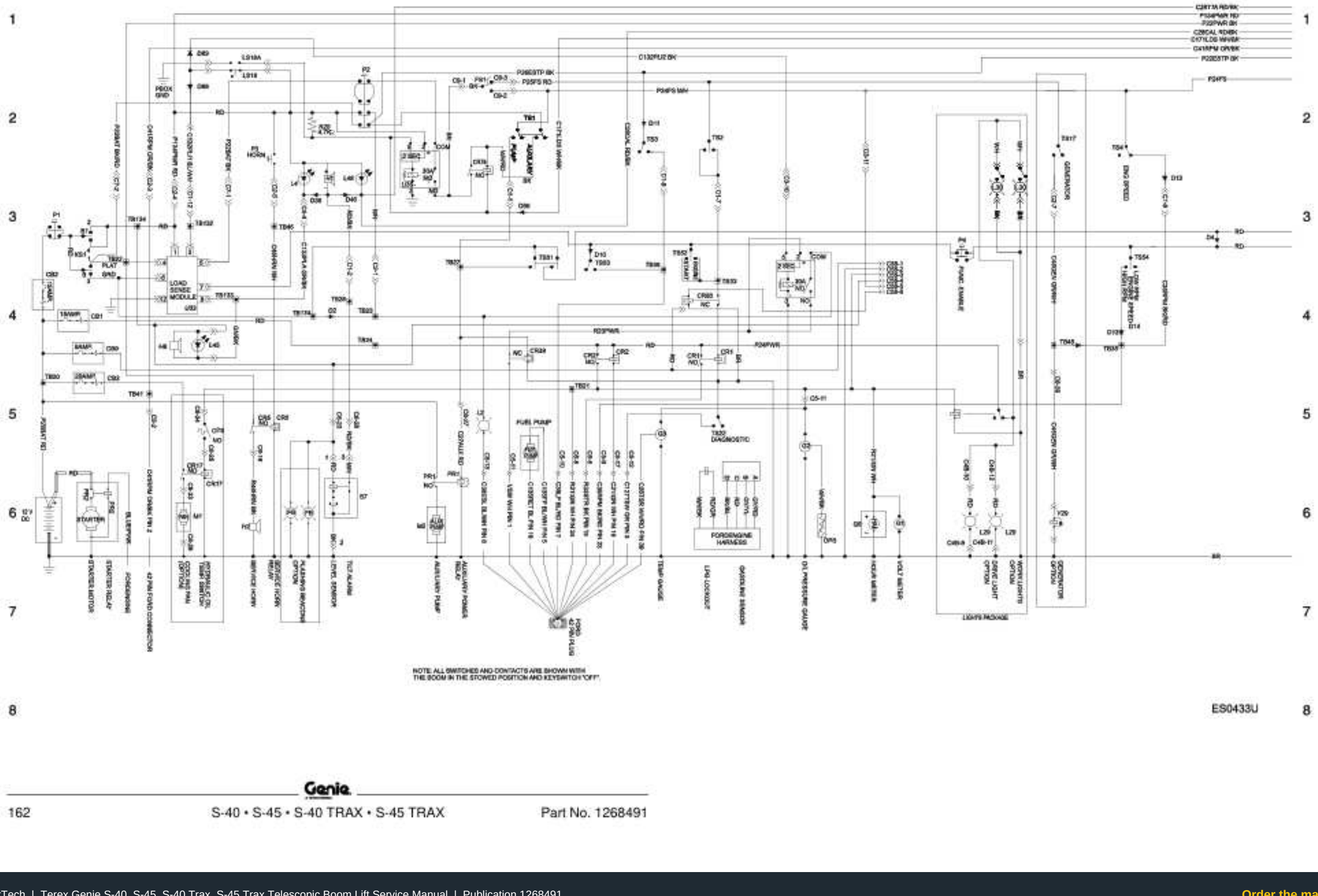
⚠WARNING Electrocution/burn hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

3 Connect the negative battery cable to the battery.

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Electrical Schematic

Ford MSG-425 Models (AS)

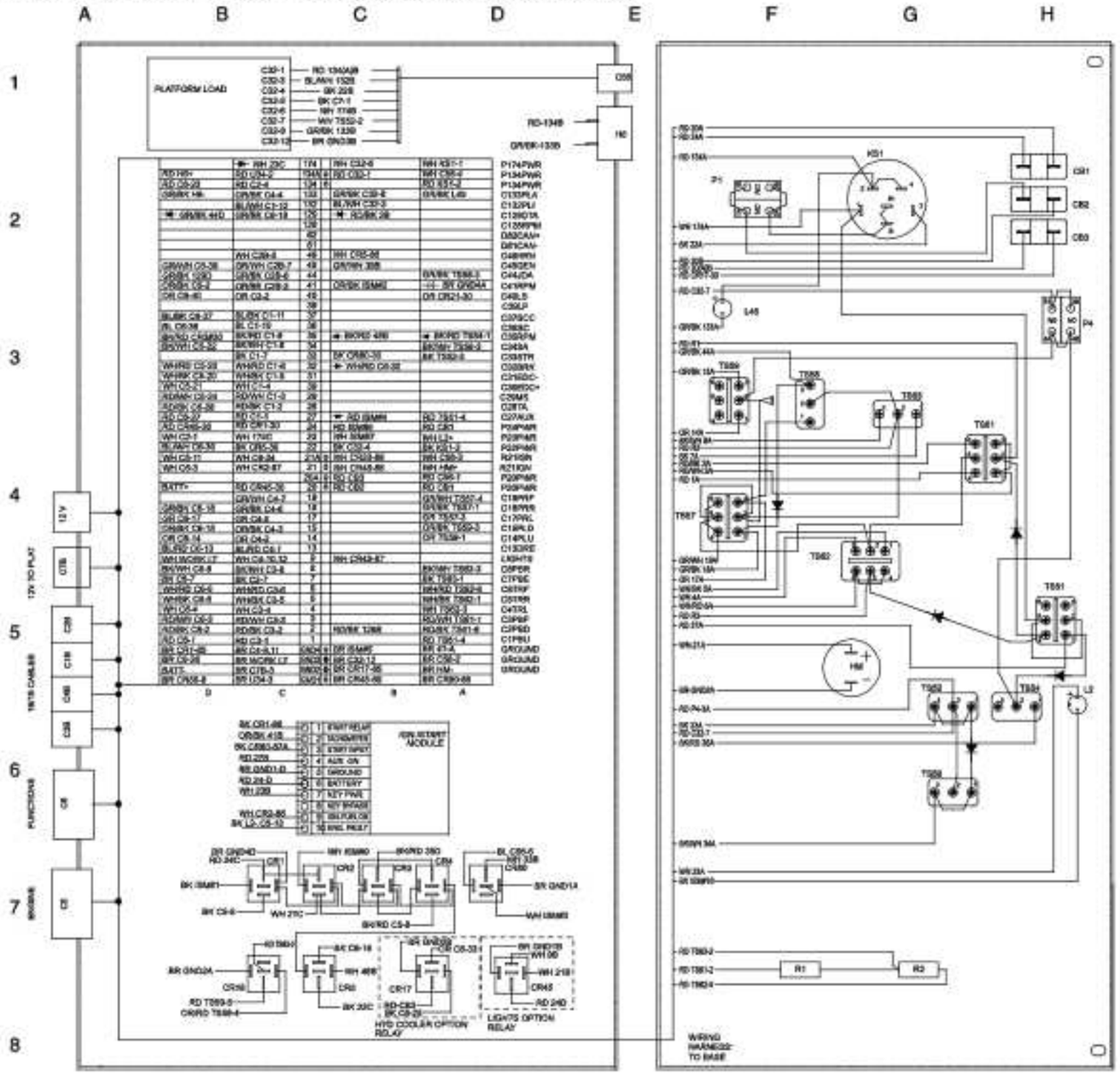


NOTE: ALL SWITCHES AND CONTACTS ARE SHOWN WITH THE BOOM IN THE STOWED POSITION AND KEYSWITCH "OFF".

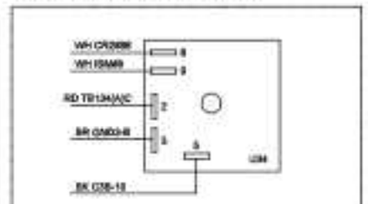
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Ground Control Box

Deutz D2011L03i and Perkins 404D Models (ANSI/CSA_CE_AS)

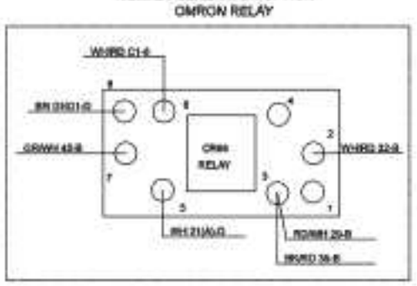


LOAD SENSE OPTION - TIMER RELAY

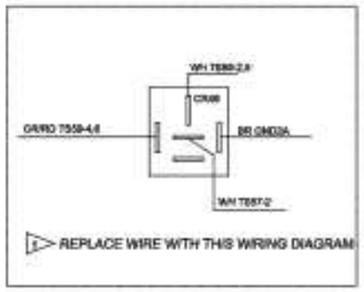


REPLACE WIRE WITH THIS WIRING DIAGRAM

WELDER GENERATOR OPTION
OMRON RELAY



CE OPTION
PLATFORM LEVEL DISABLE



REPLACE WIRE WITH THIS WIRING DIAGRAM

DESCRIPTION	LABEL
EMERGENCY STOP BUTTON	PS
FUNCTION ENABLE	FS
KEY SWITCH	KS1
AUXILIARY SWITCH	TS01
ENGINE START SWITCH	TS02
ENGINE SPEED SWITCH	TS04
STARTER AID SWITCH	TS05
PLATFORM ROTATE SWITCH	TS07
PLATFORM LEVEL SWITCH	TS08
BOOM EXTEND/RETRACT SWITCH	TS03
PRIMARY BOOM UP/DOWN SWITCH	TS01
TURNTABLE ROTATE SWITCH	TS09
JIB BOOM UP/DOWN SWITCH	TS06
CIRCUIT BREAKER, CONTROLS, 15A	CB1
CIRCUIT BREAKER, ENGINE, 15A	CB2
CIRCUIT BREAKER, OPTIONS, 20A	CB3
RESISTOR, 6 OHM, BOOM FUNCTION	R1
RESISTOR, 7.5 OHM, TURNTABLE ROTATE	R2
CHECK (ENG) LED	L2
HOUR METER	HM
IGN. START RELAY	CR1
IGN. POWER RELAY	CR2
HIGH IDLE (RPM) CUTOUT RELAY	CR3
RPM RELAY	CR4
HORN RELAY	CR5
COOLING FAN RELAY	CR17
LIGHTS PACKAGE RELAY	CR45
TELEMATICS ENGINE CUT RELAY	CR60
PLATFORM OVERLOAD ALARM	HR
PLAT OVERLOAD MODULE	U33
LOAD SENSE TIME DELAY RELAY (10A)	U34
PLAT OVERLOAD LED	L45
PLATFORM FUNCTION CUTOUT	CR18

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