1750RT
1750RT NXT2/3
2100RT
2100RT NXT2/3
2500RT
2500RT NXT3

Compact Track Loader

SERVICE MANUAL

PART #50940165

Revision C - 07/18

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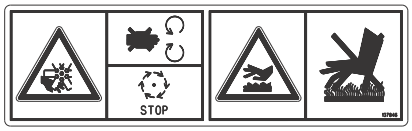
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ISO-Style Safety Decals

A



(Located inside the engine compartment)

Warning Decal

WARNING: ROTATING FAN / HOT SURFACEs

- Keep hands out or stop engine.
- Do not touch hot engine or hydraulic system parts.

B



(Located inside the engine compartment)

Warning Decal

WARNING: AVOID INJURY OR DEATH

- Read the Operator's Manual before performing any maintenance on the machine.
- Do not smoke while fueling or servicing machine. Keep sparks and open fames away from the engine compartment to avoid fire. Keep fire extinguisher nearby.
- Never attempt to bypass the keyswitch to start the engine. Use only the proper jump-starting procedure according to the Operator's Manual.
- Do not use hand to find hydraulic leaks. Escaping oil under pressure can be invisible and penetrate skin.
- Allow radiator to cool before removing cap. Loosen cap slowly to avoid burns.
- Exhaust fumes can kill. Do not operate the machine in an enclosed area without adequate ventilation.

C



(Located on the bottom of the ROPS / operator's platform and to the left of the rear cab window just above the ROPS tilt lock.)

Crush Hazard / Read Operator's Manual Decal

WARNING

- Be sure lock mechanism is securely engaged before working under ROPS.
- Read instructions for use in Operator's Manual.

D



(Located by the floor pan inside the cab, and on the manual box cover behind the operator's seat)

Read Operator's Manual Decal

WARNING: AVOID INJURY OR DEATH

- Read Operator's Manual and all safety signs before using, maintaining or servicing the machine.
- The owner is responsible to ensure all users are instructed on safe use and maintenance.
- Contact the manufacturer for information and service parts.

E



(Located on the inside of the right door pillar inside the cab)

Avoid Injury/Death/Overturn Decal

DANGER: AVOID INJURY OR DEATH

- Keep out from under lift arm unless lift arm is supported. See "Lift Arm Support" on page 102
- ALWAYS wear seatbelt.
- Operate only from operator's seat.
- Look in direction of travel. Keep children and bystanders away.

WARNING: AVOID INJURY OR DEATH

- Read Operator's Manual and all safety signs before using, maintaining or servicing the machine.

1. Lower equipment to the ground.
2. Reduce throttle, stop engine.
3. Apply park brake; remove key.
4. Check safety interlocks.

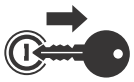
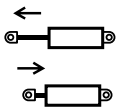
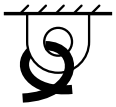
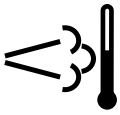
WARNING: AVOID OVERTURN

- Read Operator's Manual and all safety signs before using, maintaining or servicing the machine.
- Carry load low.
- Do not exceed Rated Operating Capacity.
- Avoid steep slopes and high speed turns.
- Travel up and down slopes with heavy end uphill.

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Indicator and Operation Symbols

 Safety Hazard	 Lift Point	 Hydraulic Oil Filter	 Fast Speed	 Slow Speed	 Hydraulic Oil	 Hydraglide™
 Engine Start	 Engine Stop	 Engine Run	 Wear Seat Belt	 Back Door Latch	 Service Hours	 Engine Oil Pressure
 Remove Key	 Crush Hazard	 Service Required	 Crush Hazard	 Hot Surface Hazard	 Rotating Fan — Keep Away	 Safety Lock
 Read Operator's Manual	 Parking Brake	 Windshield Wiper/ Washer	 Diesel Fuel	 HVAC Fan	 Auxiliary Hydraulics Flow	 Work Lights
 Lift Arm Float	 Drive System Error	 Pre-Heat	 Engine Coolant Temp	 Engine Air Filter	 Horn	 Tie-Down Point
 Module Communication Error	 Straight Tracking Adjust	 Elevated EGT Temp	 DPF Regen Accept	 DPF Regen Inhibit	DPF Service	DPF Regen
Engine Error Code	Rear Window Wiper/Washer	Air Conditioning	Air Conditioning OFF			

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Features

Standard Features

Table 18: Features : Standard Features

All-Tach® attachment mounting system	Dual-element air cleaner with indicator
Engine alert system with error code display	Elevated planetary final drives with SAHR disc brakes
Back-up alarm	Maintenance-free track rollers
Self-leveling hydraulic lift action	EH-controlled hydrostatic drive
Auxiliary hydraulics - proportional electric control/continuous flow	Hand and foot throttles
IdealTrax™ automatic track tensioning system	Combination radiator and hydraulic oil cooler
12-volt battery	Drive sensitivity adjustment
Grid/manifold heater starter assist - automatic/manual	Interlock system for lift, tilt cylinders, auxiliary hydraulic functions and drives
Liquid-cooled diesel engine	Mechanical lift cylinder support
Horn	Rubber track undercarriage system
Independent hydraulic reservoir and cooler	Tilt-out foot pod - easy clean out
Joystick (electric-hydraulic) "hands-only" ISO controls	Vandalism lock provisions
Restraint bar and retractable seat belt	Single flange front / dual flange rear idlers
ROPS/FOPS - Level 2-approved	Two front and two rear halogen lights
Multi-function display screen - warning lights, gauges and configuration	Full-suspension seat - 6-way adjustable seat, controls and armrests
Two-speed hydrostatic drive system	Seat mounted controls and switches
Engine automatic shutdown system - low oil pressure	

Optional Features

Table 19: Features : Optional Features

Hydraglide™	High-flow auxiliary hydraulics
Cab enclosure	Air conditioning/HVAC with defrost
Swing-out door	High-capacity counterweight
Dual-hand (case controls)/ISO controls - selectable	Engine intake pre-cleaner
Power-A-Tach® attachment mounting system	AM/FM radio
Speed control, variable - selectable On/Off	Impact resistant swing-out door
Selectable (On/Off) self-leveling hydraulic lift action	Air suspension seat
Engine block heater (Yanmar engine)	Strobe light
Fold-up door	Oil pan heater (Deutz engine)
Easy Manager (Later Machines)	Rear view camera (Later Machines)

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Windshield Wipers/Washer

Wiper/Washer Control

Press bottom (A, Fig 41) of wiper switch (C) to activate the wipers. Press and release top (B) of wiper switch (C) to turn the wipers off.

NOTE: *Indicator (D) is on when the wipers are activated.*

Push and hold top (B) of wiper switch (C) to activate the washer spray. Release the button to stop the spray.

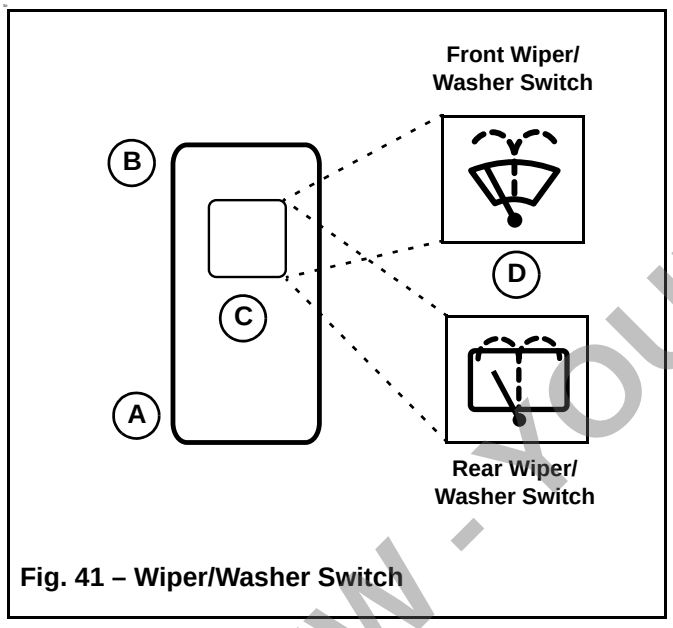


Fig. 41 – Wiper/Washer Switch

Washer Fluid Reservoir

See “Windshield Washer Reservoir” on page 154 for windshield washer reservoir location and filling information.

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NOTES

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Hydraglide™ Ride Control System (Option)

Hydraglide™ cushions lift arm loads during transport. It provides a smoother ride over uneven surfaces.

IMPORTANT: *Hydraglide™ is automatically deactivated when the machine is shut off.*

IMPORTANT: *Do not use Hydraglide™ when digging. Precise control of the digging operation is difficult with the Hydraglide™ option activated.*

⚠ WARNING

Do not use Hydraglide™ when using pallet forks.

Activate Hydraglide™ when driving on public roads, for lighter loads, and for light off-road transport. Deactivate Hydraglide™ when working with heavy loads, such as when picking up excavated material.

⚠ WARNING

When Hydraglide™ is activated, the lift arm may drop slightly without a load, or several inches with a heavy load.

On the right joystick, press switch (H, Fig. 85) to toggle Hydraglide™ on/off.

The Hydraglide™ indicator (J) on the multi-function display lights up when Hydraglide™ is activated.

NOTE: *Indicator (J) in the multi-function display is lit when the Hydraglide™ option is activated.*

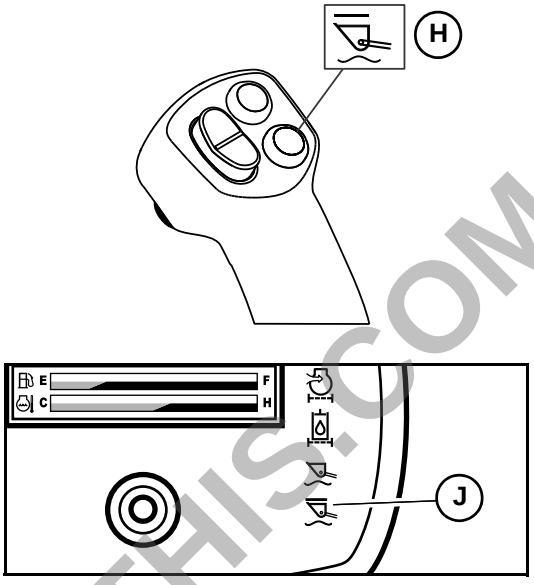


Fig. 85 – Hydraglide™ Button/Indicator

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Model 2500RT Engine Removal/ Installation

Engine Removal – Model 2500RT

IMPORTANT: *Park the machine where the engine can be supported and removed with an engine hoist or similar device.*

NOTE: *Some machines may vary slightly from what is shown in the photographs in this manual. Procedures are similar, however, in all cases.*

NOTE: *Label all hoses and note their locations before disconnecting to ensure correct installation.*

1. Complete the Mandatory Safety Shutdown Procedure. See "Mandatory Safety Shutdown Procedure" on page 22.
2. Disconnect the negative cable from the battery.
3. Access the engine compartment according to "Engine Access" on page 119.
4. Drain the cooling system according to "Draining/Refilling Cooling System" on page 125.

IMPORTANT: *Dispose of waste coolant according to environmental laws. DO NOT pour coolant onto the ground or down a drain.*

NOTE: *The capacity of the cooling system is approximately 15 L (4 gals.).*

5. Drain the hydraulic reservoir system according to "Changing Hydraulic Oil and Filter" on page 132.

IMPORTANT: *Always dispose of hydraulic fluids according to environmental laws or take to a recycling center for proper disposal. DO NOT pour onto the ground or down a drain.*

NOTE: *The capacity of the hydraulic reservoir is approximately 84 L (22 gals.).*

6. If the machine is equipped with air conditioning:
   a. Discharge and recover air conditioning refrigerant.
   a. Disconnect the condenser fan connector (B, Fig. 221) from the main harness connector.

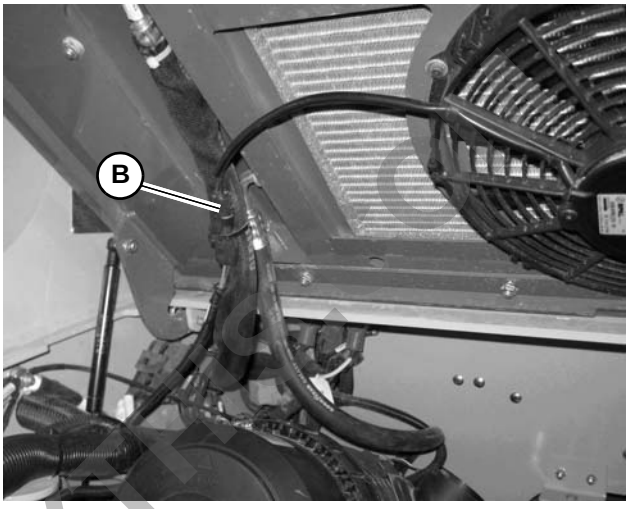


Fig. 221 – Disconnect Condenser Connector (Air Conditioned Machines Only)

   b. Disconnect air conditioning supply (C, Fig. 3) and return (D) lines from the condenser.

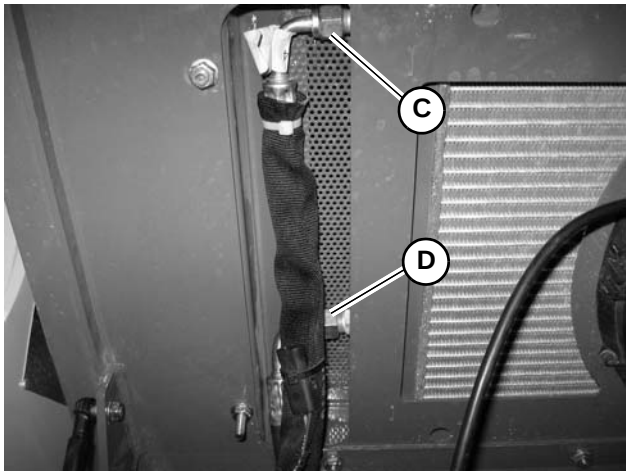


Fig. 222 – Disconnect Condenser Lines (Air Conditioned Machines Only)

NOTE: *Cap and plug lines to prevent contamination.*

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Engine Troubleshooting

Table 23: Engine Troubleshooting

Problem	Possible Cause	Corrective Action
Engine does not start	Error code “0”. Arm rest/safety bar in raised position; cab door not closed (if equipped); operator’s seat not occupied	Lower arm rests/safety bars to operating position. Engine will not start with either arm rest/safety bar raised, or the cab door open (if equipped). Occupy operator’s seat
	Engine error code “1078-4”	Check starting circuit wiring
	Blown fuse	Replace fuse
	Dead battery	Charge or replace battery. See “Jump-Starting” on page 88
	Operator not in operator’s seat	Operator’s seat must be occupied for the engine to start
	Malfunctioning seat switch or safety bar arm/rest switch	Replace seat switch or safety bar arm/rest switch
	Cab door open (if equipped)	Close cab door
	Starter malfunction	Repair/replace starter
	Engine electronics logic error	Refer to engine service manual
Engine turns over but does not start	Engine cranking speed too slow	Check battery and charge/replace as necessary
		Tighten cables at battery terminals
	Fuel tank empty	Fill tank and vent fuel system as necessary
	Fuel filter plugged or restricted	Replace fuel filter
	Paraffin separation in winter	Use winter grade diesel fuel
	Fuel line leakage	Tighten all threaded connections and clamps
	Pre-heating module malfunction	Check connection and voltage and charge/replace as necessary
	Fuel shut-off solenoid not energizing	Check electrical connections/voltage to shut-off solenoid
	Fuel filter restricted	Replace filter
	Fuel pump malfunction	Repair/replace fuel pump. Refer to engine service manual
	Fuel shutoff valve on water separator closed	Open valve
	Fuel hose restriction	Check for pinched fuel hose

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Error Codes

The tables in this section describe error codes which may be reported on the multi-function display screen. More than one error can be reported at one time, and each error code will display on a separate screen. Multiple errors will be reported on a summary screen. See “Multi-Function Display” on page 50.

Controller Communication Error Codes

NOTE: *See “Control Modules” on page 151 for controller locations.*

Table 31: Controller Communication Error Codes

Error Code	Error Description
1-2	No Communication between engine control module to display
1-3	No Communication between drive / lift arm / standard aux. flow control module to display
1-4	No Communication between display to main / drive control module
1-5	No Communication between multi-function control module to display
27	No CAN communication engine control module to main / drive control module
28	No CAN Communication main / drive control module to display
29	No CAN Communication drive / lift arm / standard aux. flow control module to main / drive control module

Yanmar Engine Diagnostic Trouble Codes (DTC) - Models 1750RT/2100RT

Table 32: Yanmar Engine Diagnostic Trouble Codes (DTC) - Models 1750RT/2100RT

DTC			Error Item	
SPN	FMI	P-Code	Part	State
28	0	P1126	Acceleration Sensor 3	Sensor failure (throttle in open position)
	1	P1125	Acceleration Sensor 3	Sensor failure (throttle in closed position)
	2	P0224	Acceleration Sensor 3	Intermittent fault
	3	P0223	Acceleration Sensor 2	Acceleration sensor 2 fault (high voltage)
	4	P0222	Acceleration Sensor 2	Acceleration sensor 2 fault (low voltage)
29	0	P1226	Travel Pedal Position Sensor "B"	Above normal operation range
	1	P1225	Travel Pedal Position Sensor "B"	Below normal operation range
	4	P0227	Acceleration Sensor 3	Acceleration sensor 3 fault (high voltage)
	3	P0228	Acceleration Sensor 3	Acceleration sensor 3 fault (high voltage)
	8	P1127	Acceleration Sensor 3	Sensor failure (pulse communication)
		P1227	Travel Pedal Position Sensor "B”	Communication fault
	15	P1228	Travel Pedal Position Sensor "B"	Not available
51	3	P02E9	Intake Throttle Opening Sensor	Intake throttle opening sensor fault (high voltage)
	4	P02E8	Intake Throttle Opening Sensor	Intake throttle opening sensor fault (low voltage)
91	2	P0124	Acceleration Sensor 1	Intermittent fault
	3	P0123	Acceleration Sensor 1	Acceleration sensor 1 fault (high voltage)
	4	P0122	Acceleration Sensor 1	Acceleration sensor 1 fault (low voltage)
100	1	P1198	Oil Pressure Switch	Low oil pressure fault alarm
	4	P1192	Oil Pressure Switch	Oil pressure switch open circuit
102	3	P0238	EGR Low Pressure Side Sensor	EGR low pressure side sensor fault (high voltage)
	4	P0237	EGR Low Pressure Side Sensor	EGR low pressure side sensor fault (low voltage)
	13	P0236	EGR Low Pressure Side Sensor	Abnormal learning value

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Table 38: 2500RT Connector Names / Schematics Locations

Name	Schematic Page	Name	Schematic Page	Name	Schematic Page	Name	Schematic Page	Name	Schematic Page
C126	363	C127	351, 358, 362	C128	364	C129	364	C130	364
C131	349	C132	361	C133	N/A	C134	N/A	C135	N/A
C136	N/A	C137	N/A	C138	N/A	C139	361	C140	N/A
C141	N/A	C142	348, 358, 359, 360, 362, 363	C143	351, 359	C144	N/A	C145	N/A
C146	348	C147	357	C148	N/A	C149	N/A	C150	362
C151	359	C152	349	C153	349	C154	348, 351, 352	C155	348
C156	N/A	C157	N/A	C158	N/A	C159	N/A	C160	361
C161	N/A	C162	N/A	C163	N/A	C164	N/A	C165	N/A
C166	350	C167	349	C168	348	C169	N/A	C170	N/A
C171	N/A	C172	N/A	C173	N/A	C174	348	C175	N/A
C176	361	C177	361	C178A	361	C178B	361	C179	348
C180	N/A	C181	N/A	C182	349	C183	N/A	C184	N/A
C185	348	C186	357	C187	349	C188	N/A	C189	N/A
C190	349	C191	348	C192	348				

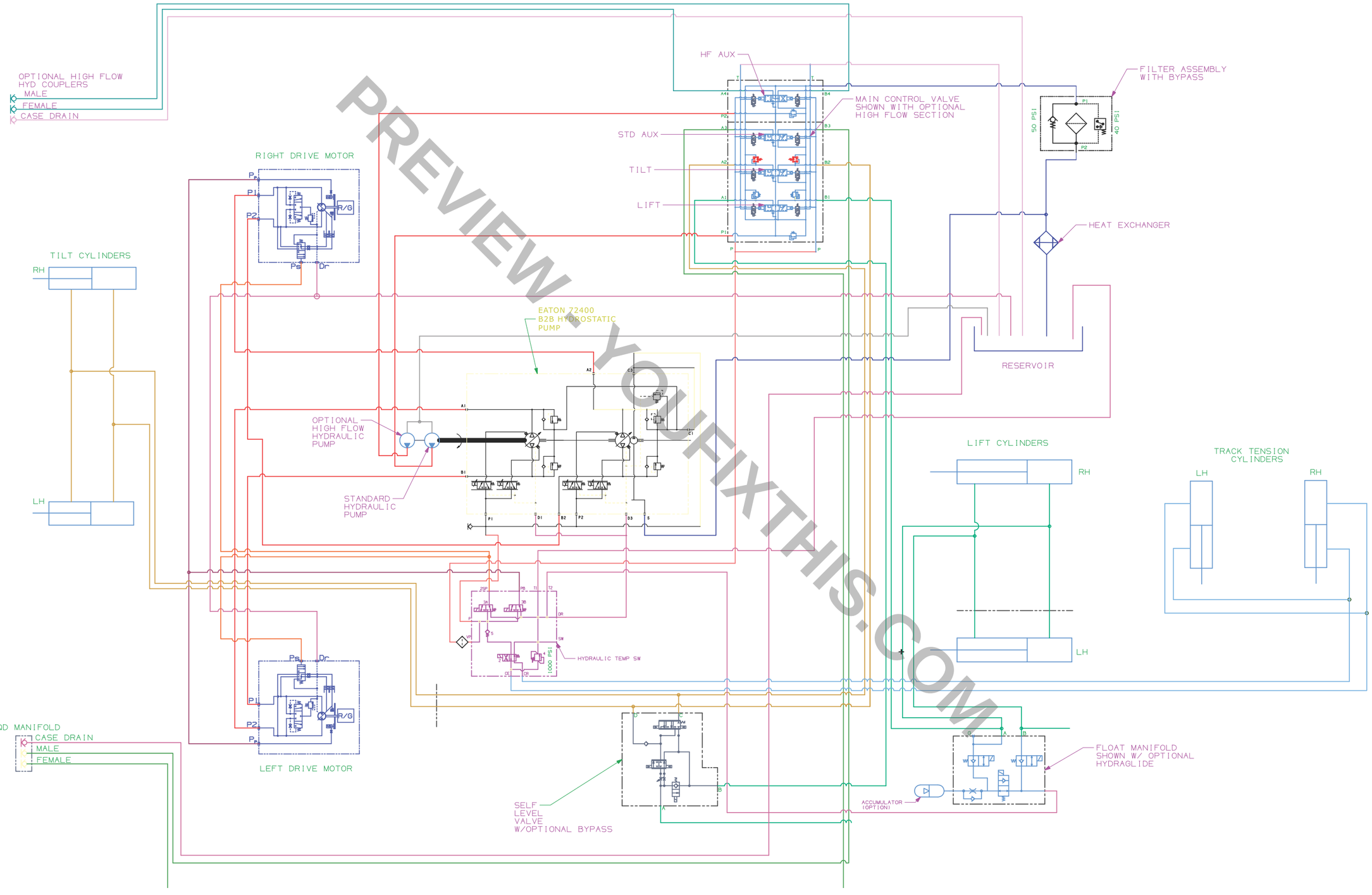
Table 39: 2500RT Splice Locations and Functions

Name	Schematic Page	Function	Name	Schematic Page	Function
SPL1	359	Rear Door Ground	SPL2	359	Rear Door Ground
SPL3	360	Wiper Ground	SPL4	359	Rear Work Light Power
SPL5	357	High-Flow Reverse Power	SPL6	359	Rear Door Alarm Power
SPL7	363	Cab Power	SPL8	356	CAN Low
SPL9	363	CAN High	SPL10	356	CAN Low
SPL11	356	CAN High	SPL12	356	Cab Control Ground
SPL13	356	Cab Control Ground	SPL14	360	Cab Ground
SPL15	362	Cab Ground	SPL16	356	Cab Control Ground
SPL17	357	Cab Ground	SPL18	363	Seat Power
SPL19	360	ROPS Ground	SPL20	354	Drive Pump Power
SPL21	350	Throttle Ground	SPL22	360	Wiper Power
SPL23	359	ROPS Work Light Power	SPL24	351	Radio/Beacon Power
SPL25	359	ROPS Ground	SPL26	358	HVAC High Speed Power
SPL29	354	Swash Plate Sensor Power	SPL30	354	Swash Plate Sensor Ground
SPL31	353	Chassis Hydro Ground	SPL32	353	Chassis Hydro Ground
SPL33	364	Chassis Ground	SPL35	353	Float Solenoid Power
SPL36	354	Drive Pump Power	SPL37	354	Controller #2 Power
SPL40	358	A/C Power	SPL41	358	HVAC High Speed Power
SPL42	355	CAN Low	SPL43	355	CAN High
SPL44	353	Park Brake Power	SPL45	364	Chassis Ground
SPL46	361	EU Lighting Power	SPL47	364	Chassis Ground
SPL49	348	Main Switched Power	SPL50	351	Main Switched Power
SPL52	350	Sensor Ground	SPL53	356	Throttle Power

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Hydraulic Schematic



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Torque Specifications

Note: Use these torque values when tightening hardware (excluding: locknuts and self-tapping, thread forming and sheet metal screws) unless specified otherwise.

Hydraulic fittings with various seals (light application). All torque values are in lb.-ft. (Nm) unless marked otherwise.

Thread	Straight pipe fitting with thread and screwed plug (GE)			Non-return valve with elastic seal	Identification aid outside Ø
	Sealing washer	Elastic seal	O-ring		
M10X1.0	7 (9)	13 (18)	11 (15)	13 (18)	0.4 in. (10 mm)
M12X1.5	15 (20)	18 (25)	18 (25)	18 (25)	0.5 in. (12 mm)
M14X1.5	26 (35)	33 (45)	26 (35)	26 (35)	0.6 in. (14 mm)
M16X1.5	33 (45)	41 (55)	30 (40)	37 (50)	0.6 in. (16 mm)
M18X1.5	41 (55)	52 (70)	33 (45)	52 (70)	0.7 in. (18 mm)
M22X1.5	48 (65)	92 (125)	44 (60)	92 (125)	0.9 in. (22 mm)
M27X2.0	66 (90)	133 (180)	74 (100)	107 (145)	1.0 in. (27 mm)
M33X2.0	111 (150)	229 (310)	118 (160)	155 (210)	1.3 in. (33 mm)
M42X2.0	177 (240)	332 (450)	155 (210)	266 (360)	1.7 in. (42 mm)
M48X2.0	214 (290)	398 (540)	192 (260)	398 (540)	1.9 in. (48 mm)
G1/8A	7 (9)	13 (18)	11 (15)	13 (18)	0.4 in. (9.73 mm)
G1/4A	26 (35)	26 (35)	22 (30)	26 (35)	0.5 in. (13.16 mm)
G3/8A	33 (45)	52 (70)	33 (45)	37 (50)	0.7 in. (16.66 mm)
G1/2A	48 (65)	66 (90)	41 (55)	48 (65)	0.8 in. (20.96 mm)
G3/4A	66 (90)	133 (180)	74 (100)	103 (140)	1.0 in. (26.44 mm)
G1A	111 (150)	229 (310)	118 (160)	140 (190)	1.3 in. (33.25 mm)
G1 1/4A	177 (240)	332 (450)	155 (210)	266 (360)	1.7 in. (41.91 mm)
G1 1/2A	214 (290)	398 (540)	192 (260)	398 (540)	1.9 in. (47.80 mm)

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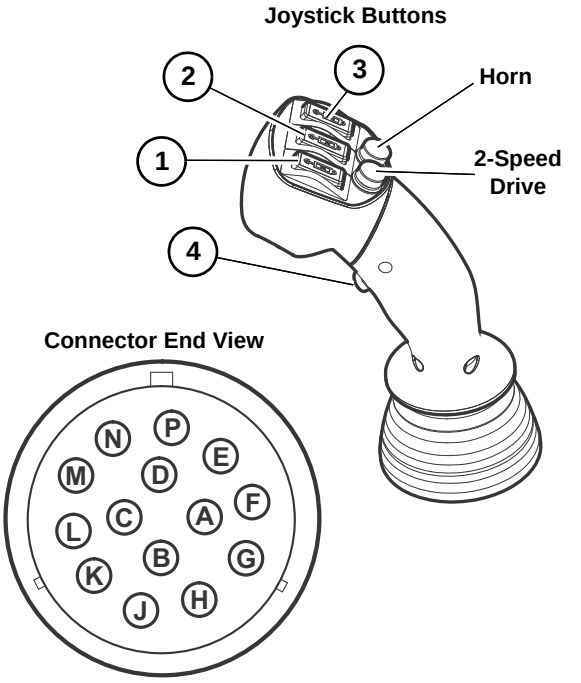


Fig. 105 – Joystick Switch-to-Pin Assignments

Table 3: 14-Pin Joystick and Pin Assignments

Joystick Switch	Switch Position	Switch Type	Connector Pin	Amp
1	Forward	Momentary	C	15
	Back		D	
2	Forward	Momentary	E	10
	Back		F	
3	Forward	Momentary	G	10
	Back		H	
4	Pressed	Latching	A	15

Pin Description	Connector Pin	Amp
Ground	B	15
Power (with key ON)	K	15
Not Assigned	L	N/A
Not Assigned	M	N/A
Not Assigned	N	N/A
Not Assigned	P	N/A
Not Assigned	J	N/A

NOTE: *Depending upon the attachment, an adapter harness may be necessary. Refer to the documentation supplied with the attachment.*

Lifting the Machine using a Crane

⚠ WARNING

The crane and the lifting gear must be adjusted to the proper dimensions. Always lift the machine so it is horizontal when it is raised.

Make sure the crane and the lifting gear (cables, chains) have sufficient load-bearing capacity. The crane and the lifting gear must be adjusted to the proper dimensions.

Secure the machine against unintentional movement!

Keep clear of suspended loads.

Never lift with anyone in or on the machine.

Securely fasten the lifting gear to the machine at the designated lift points.

The crane lifting crew must include experienced crane operators only.

Lift the machine only with no attachments, with the exception that the standard bucket can remain attached. The bucket must be empty and set to transport position. See “Attachment Transport Position” on page 96.

Crane Lifting Preparation

IMPORTANT: *Crane handling requires lifting gear with a spreader bar with 4 ropes, chains, etc.*

1. If a bucket is attached, make sure it is emptied. Tilt the bucket back.
2. Lower the lift arm.
3. Raise the arm rests/safety bars to apply the parking brake and lock out the hydraulic functions.
4. Turn off the engine and remove the ignition key.
5. If equipped, close and lock the cab door. Do not allow anyone to stay in the cab.

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60. Tilt the top of radiator (Q, Fig. 349) back to gain access to hydraulic hose (X) at the bottom of assembly (Q).

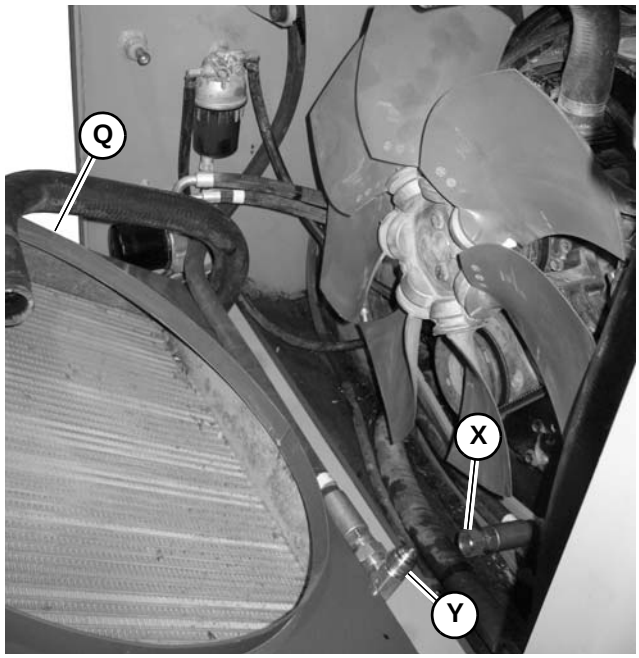


Fig. 349 – Lower Radiator Hydraulic Hose

61. Disconnect, cap, and plug the hydraulic hose (X, Fig. 349) and fitting (Y).

62. Remove radiator (Q) from the machine.

NOTE: *Radiator (Q) is heavy. A hoist or other similar lifting device is recommended when removing the radiator.*

63. Remove nut (Z, Fig. 350), and disconnect wires (A) and (D) from starter motor (S).

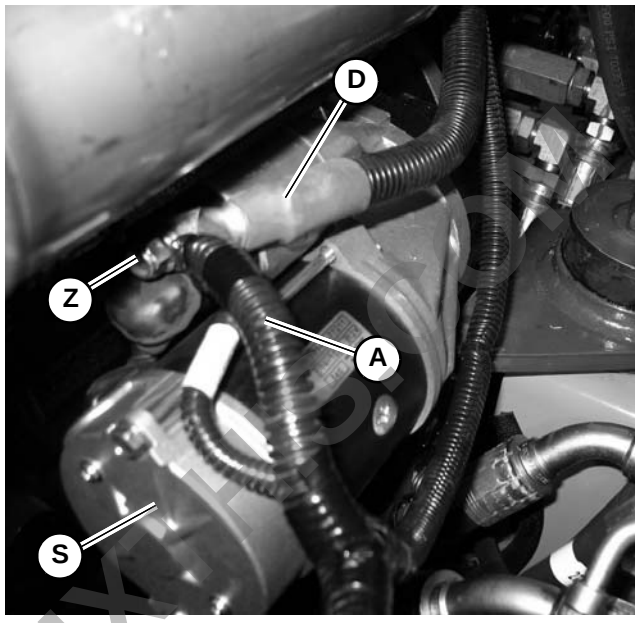


Fig. 350 – Starter Motor Electrical Connections

64. Remove nut (P, Fig. 351) and disconnect wire (T) from alternator (N).

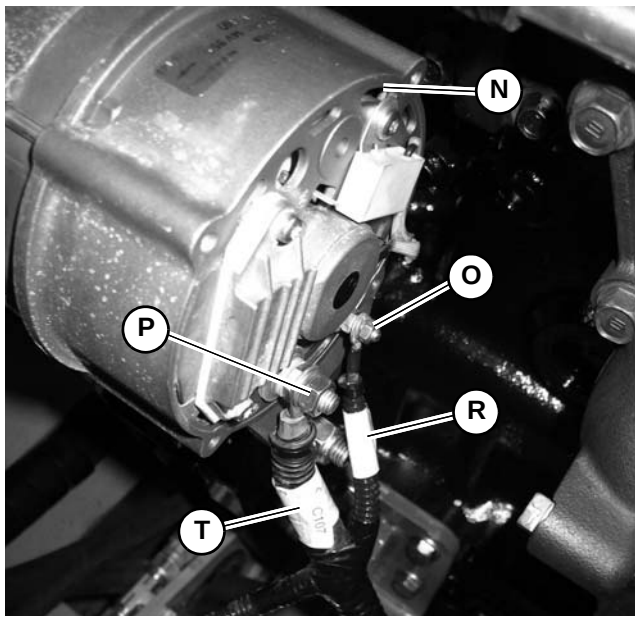


Fig. 351 – Alternator Electrical Connections

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Table 32: Yanmar Engine Diagnostic Trouble Codes (DTC) - Models 1750RT/2100RT

DTC			Error Item	
SPN	FMI	P-Code	Part	State
3251	0	P2452	DPF Differential Pressure Sensor	DPF differential pressure sensor differential pressure abnormally high
	3	P2455	DPF Differential Pressure Sensor	DPF differential pressure sensor fault (high voltage)
	4	P2454	DPF Differential Pressure Sensor	DPF differential pressure sensor fault (low voltage)
	13	P2453	DPF Differential Pressure Sensor	Abnormal learning value
3609	3	P1455	DPF High Pressure Sensor	DPF high pressure side sensor fault (high voltage)
	4	P1454	DPF High Pressure Sensor	DPF high pressure side sensor fault (low voltage)
3719	0	P1424	DPF OP Interface	Backup mode
	7	P1446	DPF OP Interface	Recovery regeneration prohibition
	9	P1445	DPF OP Interface	Recovery regeneration failure
	16	P1421	DPF OP Interface	Stationary regeneration standby
3720	0	P1420	DPF OP Interface	Ash cleaning request 2
	16	P242F	DPF OP Interface	Ash cleaning request 1
4257	12	P0611	Injector (Common)	Injector drive IC error
37251	16	P1437	DPF	Maintenance (maintenance not performed for a given period of time)
522241	2	P1224	Engine Fuel Rack Actuator Relay	Intermittent fault
	3	P1223	Engine Fuel Rack Actuator Relay	Circuit fault B
	4	P1222	Engine Fuel Rack Actuator Relay	Circuit fault A
	7	P1221	Reserved	N/A
522242	2	P1244	Cold Start Device	Intermittent fault
	3	P1243	Cold Start Device	Circuit fault B
	4	P1242	Cold Start Device	Circuit fault A
522243	2	P1234	Air Heater Relay	Intermittent fault
	3	P1233	Air Heater Relay	Circuit fault B
	4	P1232	Air Heater Relay	Circuit fault A
	5	P0543	Start Auxiliary Relay	Start auxiliary relay interrupted
	6	P0541	Start Auxiliary Relay	Start auxiliary relay GND interrupted
522251	3	P1403	EGR Stepping Motor "A"	Circuit fault B
	4	P1402	EGR Stepping Motor "A"	Circuit fault A
522252	3	P1413	EGR Stepping Motor "B"	Circuit fault B
	4	P1412	EGR Stepping Motor "B"	Circuit fault A
522253	3	P1423	EGR Stepping Motor "C"	Circuit fault B
	4	P1422	EGR Stepping Motor "C"	Circuit fault A
522254	3	P1433	EGR Stepping Motor "D"	Circuit fault B
	4	P1432	EGR Stepping Motor "D"	Circuit fault A
522314	0	P1217	Engine Coolant Temperature	Abnormal temperature
522323	0	P1101	Air Cleaner Switch	Air cleaner clogged alarm
522329	0	P1151	Oil/Water Separator Switch	Oil/water separator alarm
522400	2	P0336	Crank Sensor	Crank signal malfunction
	5	P0337	Crank Sensor	No crank signal

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