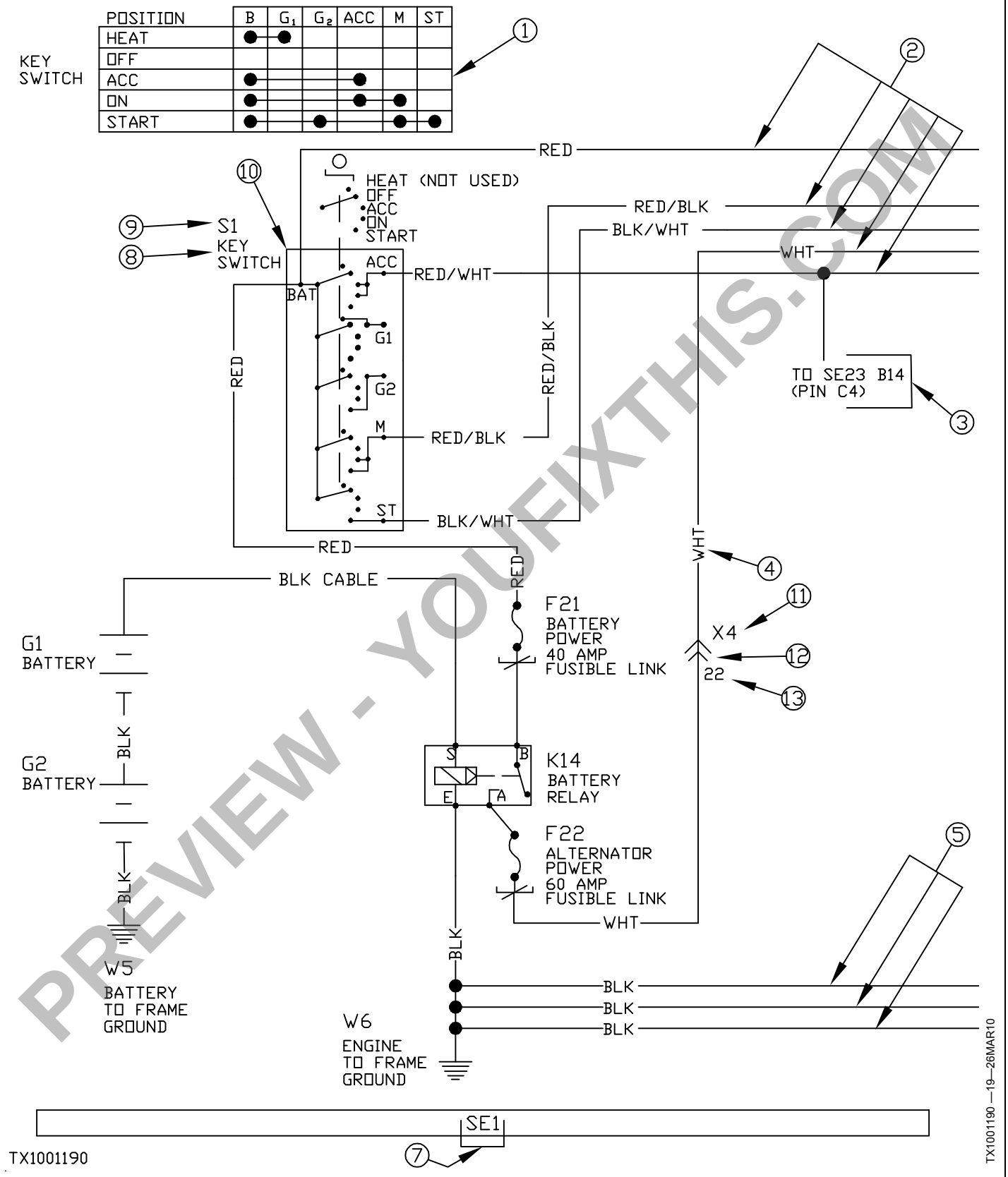
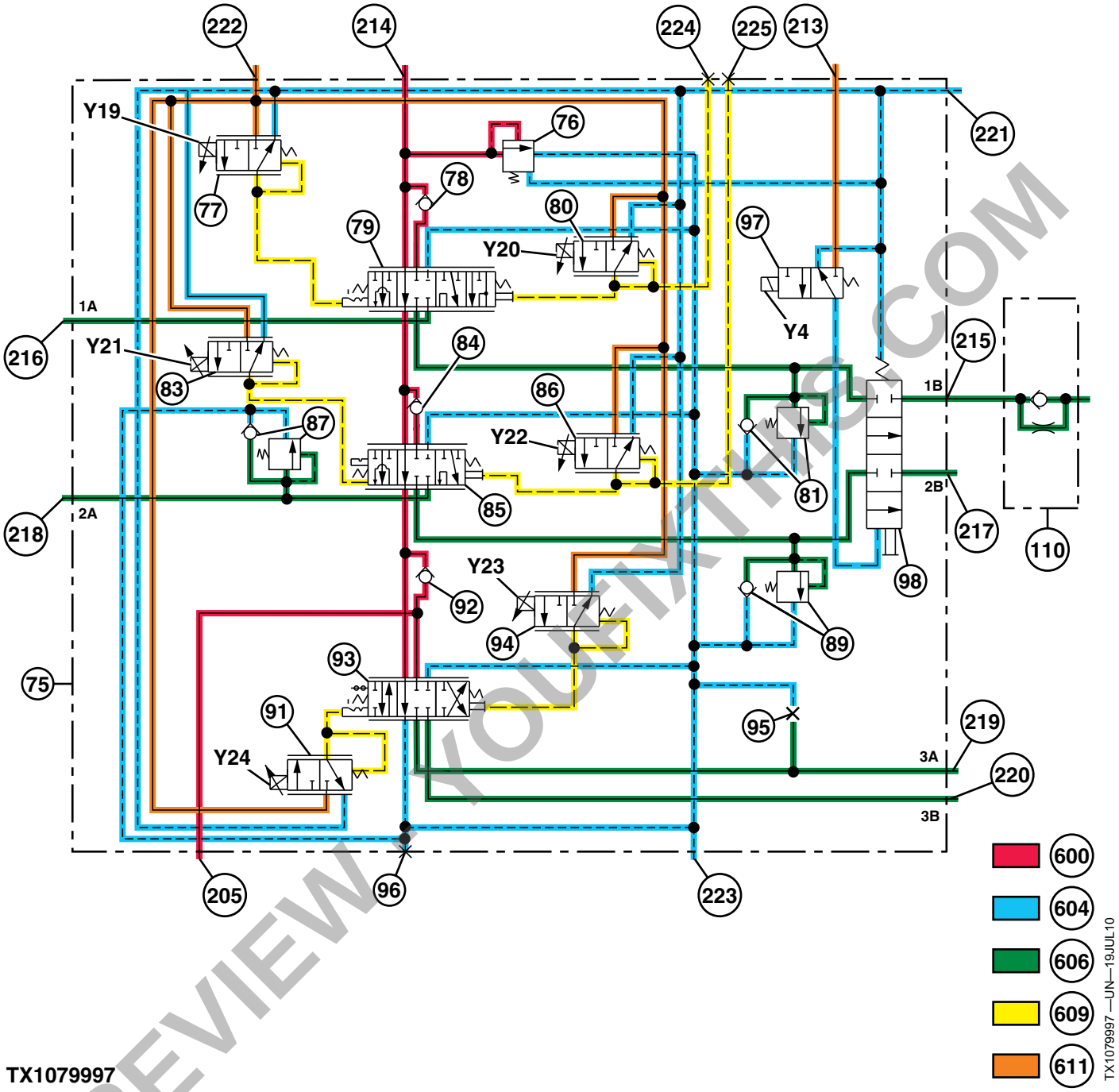
System Functional Schematic Diagram



Continued on next page

LW86157,000022F -19-06OCT09-2/3

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TX1079997

Hydraulic Control Valve Schematic

Continued on next page

BR70016,0000093 -19-03APR14-3/5

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John Deere Engine

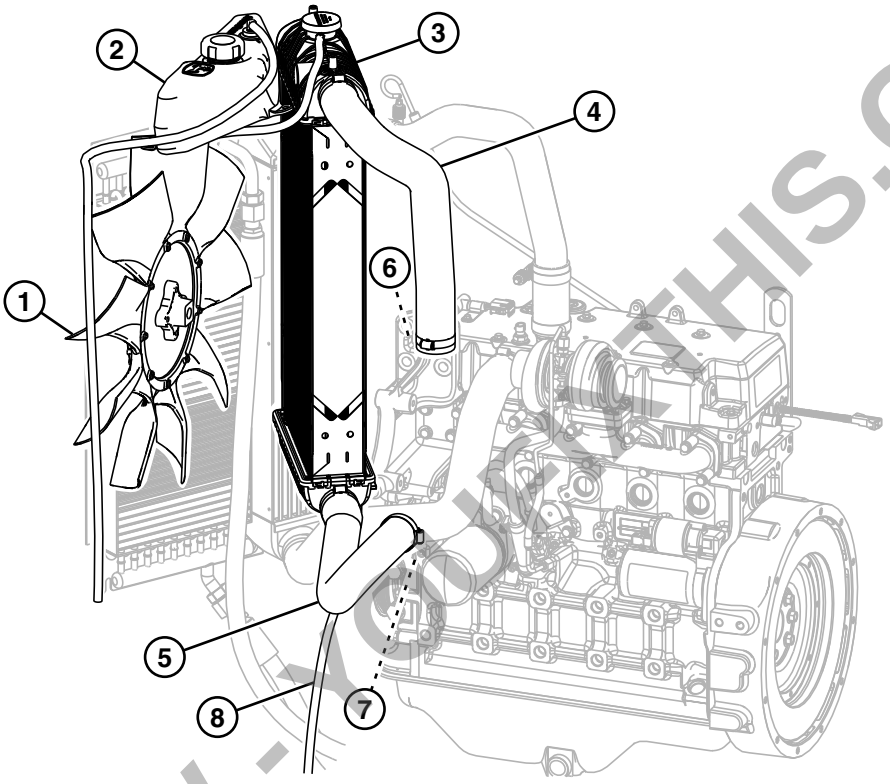
For more information on John Deere PowerTech™ engines and components, see the following component technical manual.

- See PowerTech™ E 2.4L and 3.0L Diesel Engines. (CTM101019.)

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TF44157,0000E8B -19-05SEP12-1/1

Engine Cooling System Component Location



TX1064677 —UN—07OCT09

TX1064677

Engine Cooling System Component Location

1— Fan
2— Coolant Surge Tank
3— Radiator
4— Thermostat Housing-to-Radiator Pipe
5— Radiator-to-Coolant Pump Pipe
6— Thermostat Housing
7— Coolant Pump
8— Radiator Drain Hose

TF44157,0000CDE -19-27OCT09-1/1

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Engine Control Unit (ECU) Diagnostic Trouble Codes

The diagnostic trouble code number is indicated by a suspect parameter number (SPN) and a failure mode indicator (FMI) number. In the example 000744.04, 000744 is the SPN and 04 is the FMI number.

Diagnostic trouble codes can be displayed using the engagement and monitor unit (EMU) or by using the Service ADVISOR™ diagnostic application. See Reading Diagnostic Trouble Codes (DTCs). (Group 9015-16.)

For in-depth diagnostics on machine specific ECU diagnostic trouble codes, see specific code diagnostic procedures in this group. Additional engine control unit DTC diagnostic procedures for John Deere PowerTech E™ engines are located in the component technical manual (CTM), PowerTech™ E 2.4L and 3.0L Diesel Engines Component Technical Manual. (CTM101019.)

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KK70125,000043E -19-17NOV09-1/1

000029.03 — Foot Throttle Sensor Out of Range High

Input from engine speed control pedal (B19) is shorted to power (5 volts or greater).

KK70125,0000440 -19-16NOV09-1/5

Foot Throttle Sensor Out of Range High Diagnostic Procedure

KK70125,0000440 -19-16NOV09-2/5

1 Short to Power Check	Key switch OFF. Disconnect engine control unit (ECU) J2 connector (X16). See Main Harness (W3) Component Location. (Group 9015-10.) Disconnect engine speed control pedal (B19) connector. Turn key switch ON. Using a multimeter, check for voltage on wire E34 WHT between pin F3 of ECU J2 connector (X16) and machine ground. Is voltage indicated?	**YES:** Short to power in wire harness. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.) **NO:** Go to Connector Check.

KK70125,0000440 -19-16NOV09-3/5

2 Connector Check	Turn key switch OFF. Check ECU J2 connector (X16) and engine speed control pedal (B19) connector for any damage, corrosion, or debris that could cause short to power condition for E34 WHT wire. Are connectors in good condition and free of corrosion and debris?	**YES:** Go to Wire Check. **NO:** Repair or replace connector. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)

Continued on next page

KK70125,0000440 -19-16NOV09-4/5

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1 Connector Check	Key switch OFF.	
	Check engine control unit (ECU) J2 connector (X16) and starter relay connector (X65) for corrosion, loose fit, bent/pushed out terminals or crimp malfunctions. See Main Harness (W3) Component Location. (Group 9015-10.)	**YES:** Go to Component Check.
	Are connectors in good condition?	**NO:** Repair or replace connector(s) or terminal(s) as needed.

KK70125,0000452 -19-16NOV09-3/6

2 Component Check	Key switch OFF.	
	Check resistance across pins 85 and 86 of starter relay (K1). See Electrical Component Specifications. (Group 9015-20.)	**YES:** Go to Wire Harness Check.
	Is solenoid resistance within specifications?	**NO:** Replace starter relay (K1).

KK70125,0000452 -19-16NOV09-4/6

3 Open Circuit Check	Key switch OFF.	
	Disconnect ECU J2 connector (X16).	
	Remove starter relay (K1).	
	Using a multimeter, check continuity of wire R04 BLK between pin C2 of ECU J2 connector (X16) and pin 85 of starter relay connector (X65).	**YES:** Go to next step in this check.
	Is continuity indicated?	**NO:** Open circuit in wire R04 BLK. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)
	Key switch OFF.	
	Disconnect ECU J2 connector (X16).	
	Remove polarity sensing diode (V2).	
	Check continuity of wire J07 TAN between pin 4 of diode block connector (X64) and pin 86 of starter relay connector (X65).	**YES:** Go to Short Circuit Check.
	Is continuity indicated?	**NO:** Open circuit in wire R04 BLK. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)

KK70125,0000452 -19-16NOV09-5/6

4 Short to Ground Check	Key switch OFF.	
	Disconnect ECU J2 connector (X16).	
	Remove starter relay (K1).	
	Using a multimeter, check for continuity to ground at pin C2 (wire R04 BLK) of ECU J2 connector (X16).	**YES:** Short to ground in wire harness. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)
	Is continuity to ground indicated?	**NO:** Checks complete.

KK70125,0000452 -19-16NOV09-6/6

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12. Install new O-ring on motor speed sensor (1). If sensor shims do not need to be adjusted, proceed to next step.

    If sensor shims need to be adjusted, complete the following procedure to set air gap distance (7):

    a. Remove nut (5) and current shims (6) from stud (3).

    b. Install sensor and push sensor in until it touches target within hydrostatic motor.

NOTE: If measurement of distance (8) is difficult to obtain with caliper, use gauge blocks if available.

    c. Measure distance (8).

    d. Add 0.75 mm to distance (8).

    e. Measure and stack nut (5) and shims, as needed, to attain this dimension

    f. Install motor speed sensor. Tighten nut (5) to specification.

Specification

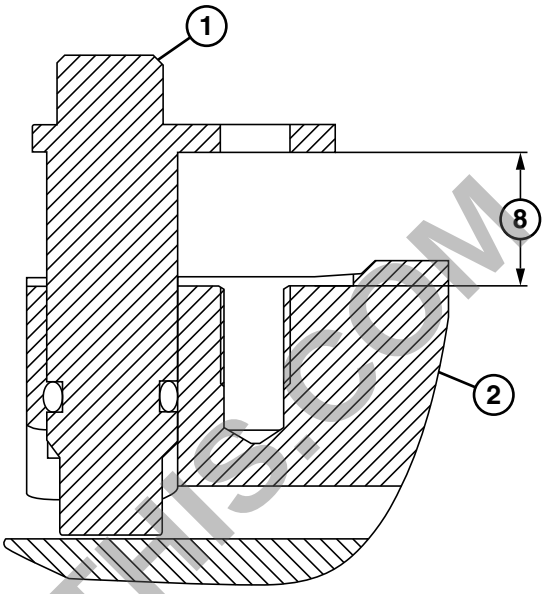
Motor Speed Sensor Nut (5)—Torque.....15 N·m (133 lb.-in.)

13. Install motor speed sensor. Tighten nut (4) to specification.

Specification

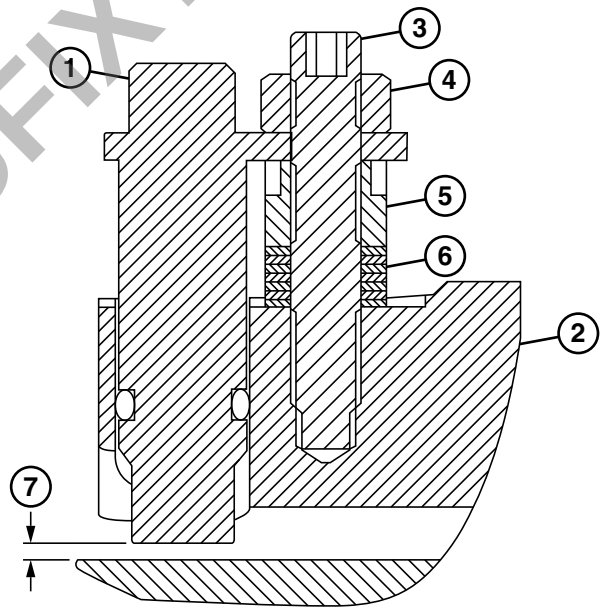
Motor Speed Sensor Nut (4)—Torque.....15 N·m (133 lb.-in.)

14. Connect motor speed sensor harness connector (9).
15. Secure speed sensor harness to hydrostatic motor using clamps (10) and cap screws.
16. For left motor speed sensor, install access plate on bottom of machine.
17. Install footwell in machine.
18. Lower operator's station. See Raising Operator's Station. (Operator's Manual.)
19. Release boom lock and lower boom. See Boom Lock. (Operator's Manual.)
20. Remove machine from blocks, if necessary. See Raising and Blocking Machine. (Operator's Manual.)



TX1128164 —UN—14DEC12

Motor Speed Sensor Remove and Install (air gap measurement)



TX1128163 —UN—14DEC12

Motor Speed Sensor Remove and Install (sensor installed)

1— Motor Speed Sensor
2— Hydrostatic Motor
3— Stud
4— Nut
5— Nut
6— Shim (as required)
7— Air Gap Distance (0.75 mm)
8— Distance

Compact Track Loader

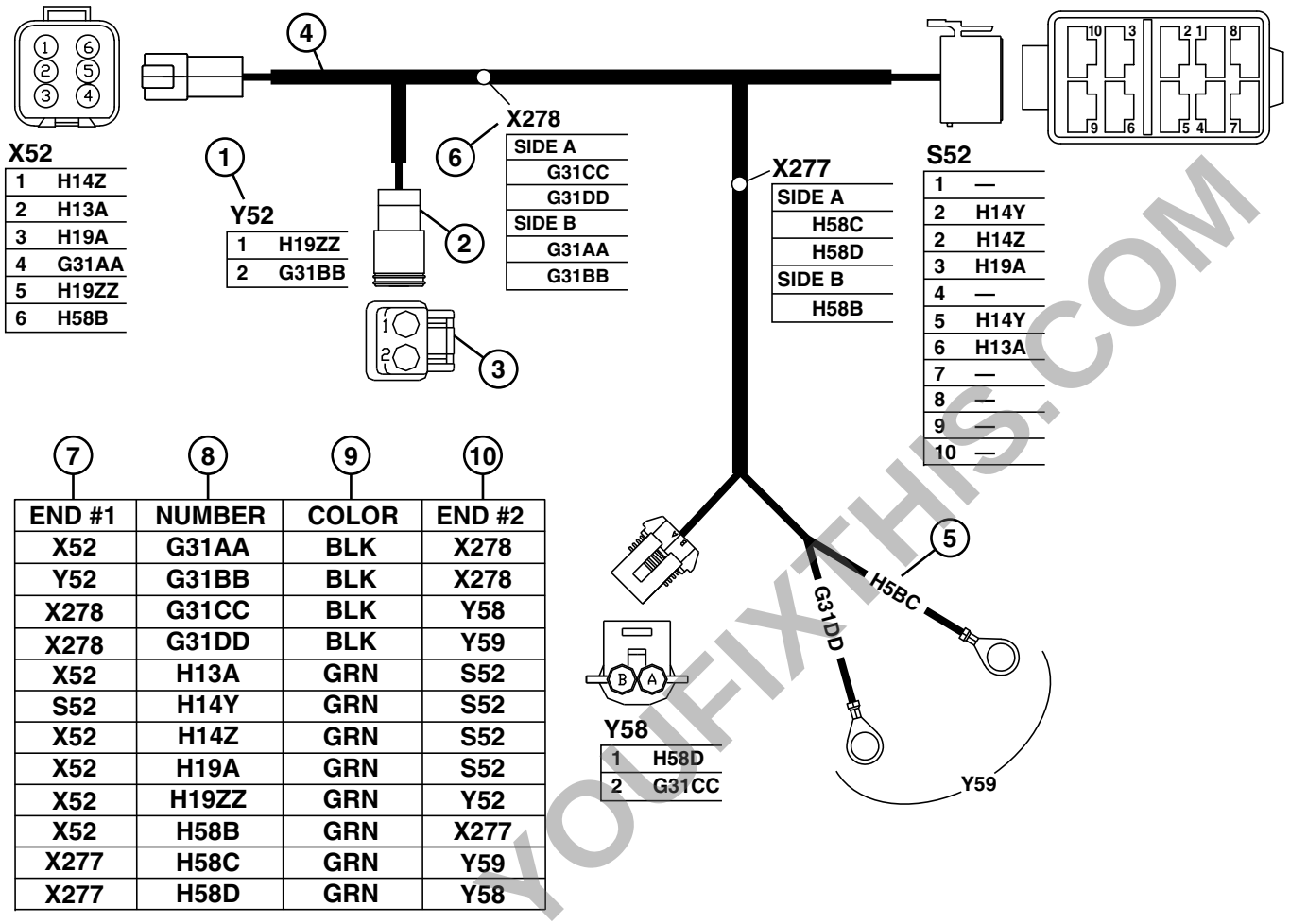
1. Remove front attachment and park machine on a flat level surface.
2. Raise boom and engage boom lock. See Boom Lock. (Operator's Manual.)
3. Raise operator's station. See Raising Operator's Station. (Operator's Manual.)
4. Remove tracks. See Track Remove and Install. (Group 0130.)
5. Remove front and rear hydrostatic motor covers.
6. Clean area around motor speed sensor.
7. Remove speed sensor O-ring and discard.
8. Remove footwell to access speed sensor harness connector.

Continued on next page

BR70016,0000135 -19-18DEC12-12/13

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Wiring Diagram



7 END #1	8 NUMBER	9 COLOR	10 END #2
X52	G31AA	BLK	X278
Y52	G31BB	BLK	X278
X278	G31CC	BLK	Y58
X278	G31DD	BLK	Y59
X52	H13A	GRN	S52
S52	H14Y	GRN	S52
X52	H14Z	GRN	S52
X52	H19A	GRN	S52
X52	H19ZZ	GRN	Y52
X52	H58B	GRN	X277
X277	H58C	GRN	Y59
X277	H58D	GRN	Y58

TX1020361

Wiring Diagram Example

1— Component Identification Number
2— Connector
3— Connector End View
4— Wire Harness
5— Wire Number
6— Wire Splice
7— Wire End #1 Termination Location
8— Wire Number
9— Wire Color
10— Wire End #2 Termination Location

Each harness on the machine is drawn showing connectors, wires, and splices. A “W” component identification number identifies harnesses. (W6, Etc.) The harness is drawn showing spatial arrangement of components and branches.

A component identification or connector number (1) identifies each component. The harness branch (4) is terminated by a top or side view of the connector (2). If more than one wire is supplied to the connector, a harness side connector end view (3) is provided. Each wire number is labeled for the appropriate pin. If only one wire is supplied to the connector, the wire number (5) is indicated.

An “X” component identification number of 100 or higher identifies splices (6). Each splice lists side A wires and side B wires to differentiate the side of the harness that the wires come from.

A wire legend is provided for each harness. A component identification number is listed in the “END #1” column (7) to indicate the termination location of one end of a wire. In the center, the wire number (8) and wire color (9) are listed. A component identification number in the “END #2” column (10) identifies the opposite end of the wire.

Component Location Diagram

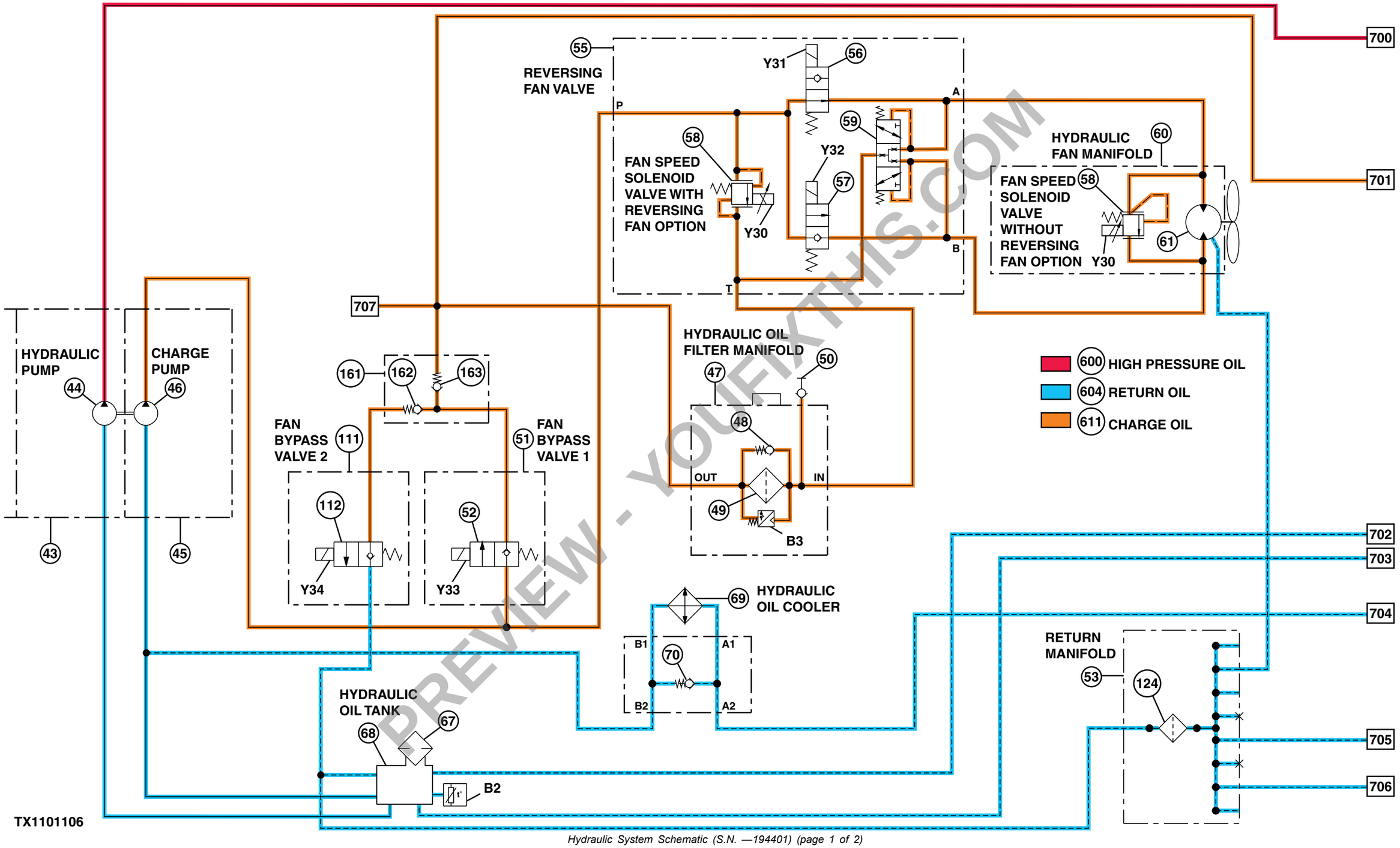
The Component Location Diagram is a pictorial view by harness showing location of all electrical components, connectors, harness main ground locations and harness band and clamp location. Each component will be identified by the same identification letter/number and description used in the System Functional Schematic Diagram.

LW86157,000022F -19-06OCT09-4/3

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Hydraulic System Schematic

TX1101106 —UN—19NOV11



Hydraulic System Schematic (S.N. —194401) (page 1 of 2)

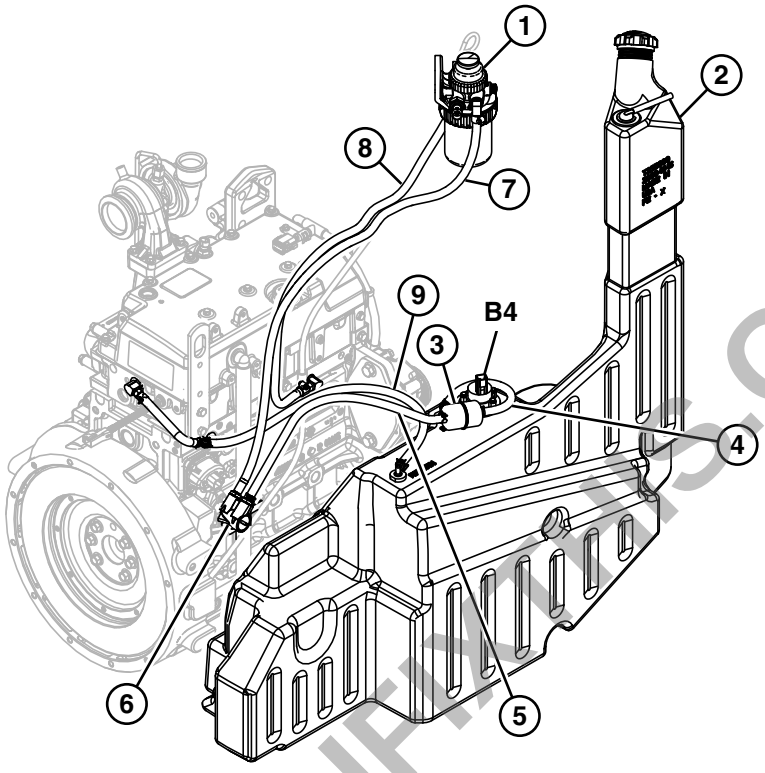
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BR70016,000010C -19-22NOV11-1/8

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Engine Fuel System Component Location



TX1064638 —UN—06OCT09

TX1064638

Engine Fuel System Component Location

1— Water Separator Fuel Filter
2— Fuel Tank
3— In-Line Fuel Filter
4— Fuel Tank-to-In-Line Fuel Filter Hose
5— In-Line Fuel Filter-to-Fuel Transfer Pump Hose
6— Fuel Transfer Pump
7— Fuel Transfer Pump-to-Water Separator Fuel Filter Hose
8— Water Separator Fuel Filter-to-Fuel Rack Hose
9— Fuel Rack-to-Fuel Tank Hose
B4— Fuel Level Sensor

TF44157,0000CE0 -19-04NOV09-1/1

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3 Wire Check	Key switch OFF. ECU J2 connector (X16) disconnected. Engine speed control pedal (B19) disconnected. Using a multimeter, check for continuity between pin F3 (wire E34 WHT) of ECU J2 connector (X16) and other pins in same connector. Is continuity indicated between any circuits?	**YES:** Short circuit in wire harness. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.) **NO:** Engine speed control pedal (B19) malfunction. Replace pedal sensor.

KK70125,0000440 -19-16NOV09-5/5

000029.04 — Foot Throttle Sensor Out of Range Low

Input from engine speed control pedal (B19) is open or shorted to ground.

KK70125,0000441 -19-16NOV09-1/4

Foot Throttle Sensor Out of Range Low Diagnostic Procedure

KK70125,0000441 -19-16NOV09-2/4

1 Connector Check	Key switch OFF. Check engine control unit (ECU) J2 connector (X16) and engine speed control pedal (B19) connector for corrosion, loose fit, bent/pushed out terminals or crimp malfunctions. See Main Harness (W3) Component Location. (Group 9015-10.) Are connectors in good condition?	**YES:** Go to Wire Harness Check. **NO:** Repair or replace connector(s) or terminal(s) as needed.

KK70125,0000441 -19-16NOV09-3/4

2 Wire Harness Check	Key switch OFF. Disconnect ECU J2 connector (X16). Disconnect engine speed control pedal (B19). Using a multimeter, check continuity of wire E34 WHT between pin F3 of ECU J2 connector (X16) and engine speed control pedal (B19) connector. Is continuity indicated?	**YES:** Go to next step in this check. **NO:** Open circuit in wire harness. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)
	Check for continuity to ground at pin F3 (wire E34 WHT) of ECU J2 connector (X16). Is continuity to ground indicated?	**YES:** Short to ground in wire harness. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.) **NO:** Engine speed control pedal (B19) malfunction. Replace pedal sensor.

KK70125,0000441 -19-16NOV09-4/4

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Drive Chain Tension Check and Adjustment

SPECIFICATIONS	
Chain Tension Play (at tire tread) (maximum)	6.35 mm 0.25 in
Drive Chain Play (up and down) (maximum)	5 mm 0.197 in
Axle Housing Nut Torque	305 N·m 225 lb·ft

1. Park machine on flat, level surface.
2. Lower boom and bucket, engage park brake and turn engine off.
3. Raise and block skid steer loader. See Raising and Blocking Machine. (Operator's Manual.)
4. Check chain tension by rotating each wheel by hand forward and rearward. If wheel play is not below specification, adjust chain tension.

Specification

Chain Tension—Play (at tire tread) (maximum)..... 6.35 mm
0.25 in

5. As necessary, drain chain case oil.



T195296A —UN—01OCT03

Check Wheel Play

6. Remove chain case access plate. See Chain Case Access Plate Remove and Install. (Group 0250.)

TF44157,0000D7D -19-05OCT17-1/2

7. Loosen axle housing mounting nuts.
8. Adjust drive chain as necessary. After adjustment, drive chain should have free play movement up and down.

Specification

Drive Chain—Play (up and down) (maximum)..... 5 mm
0.197 in

To loosen drive chain:

- Push rear axle housing forward.
- Push front axle housing rearward.

To tighten drive chain:

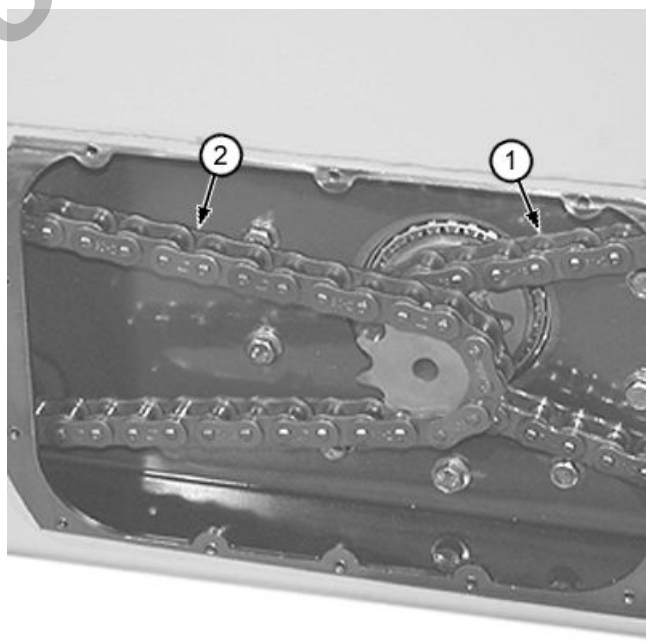
- Push rear axle housing rearward.
- Push front axle housing forward.

9. Tighten axle housing nuts.

Specification

Axle Housing Nut—Torque.....305 N·m
225 lb·ft

10. Install chain case access plate. See Chain Case Access Plate Remove and Install. (Group 0250.)
11. Fill chain case with oil. See Check Chain Case Oil Level. (Operator's Manual.)



T195298A —UN—01OCT03

Chain Case

1— Front Drive Chain **2— Rear Drive Chain**

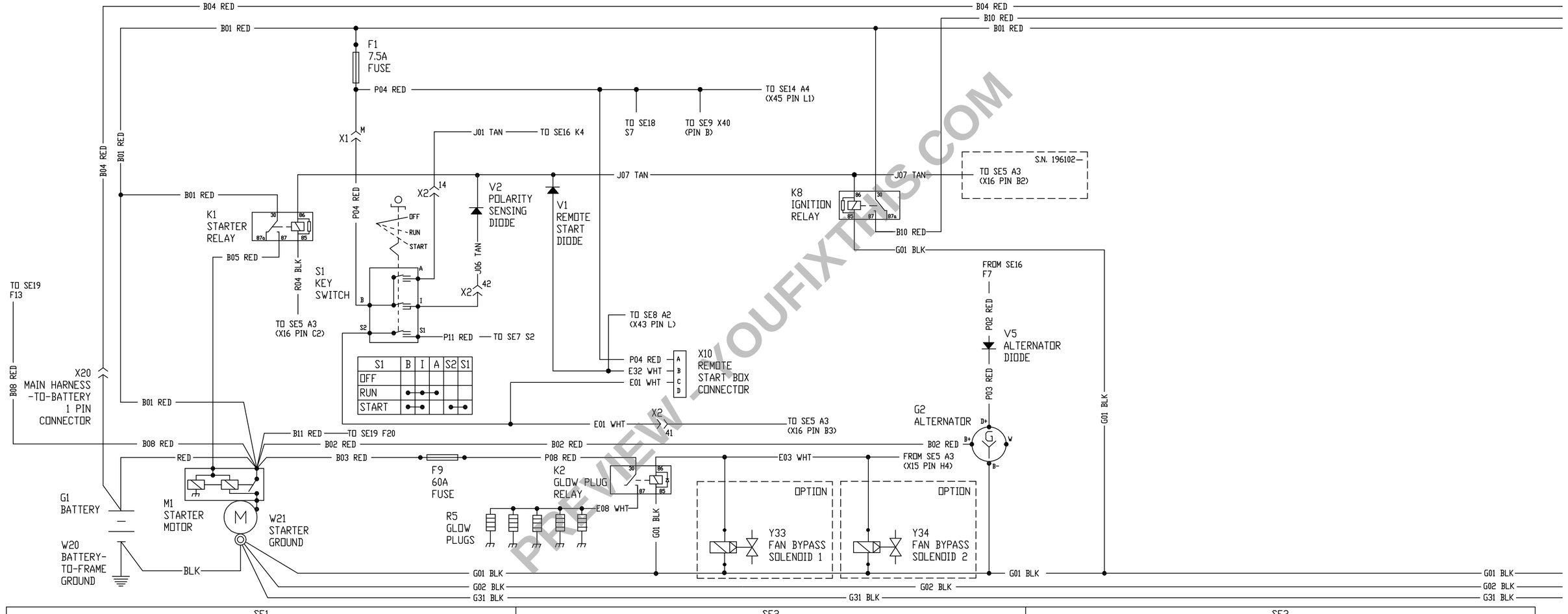
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System Functional Schematic

TX1101626 —UN—17JAN12



TX1101626

EH CONTROLS SYSTEM FUNCTIONAL SCHEMATIC (1 OF 7)

System Functional Schematic (SE1—SE3)

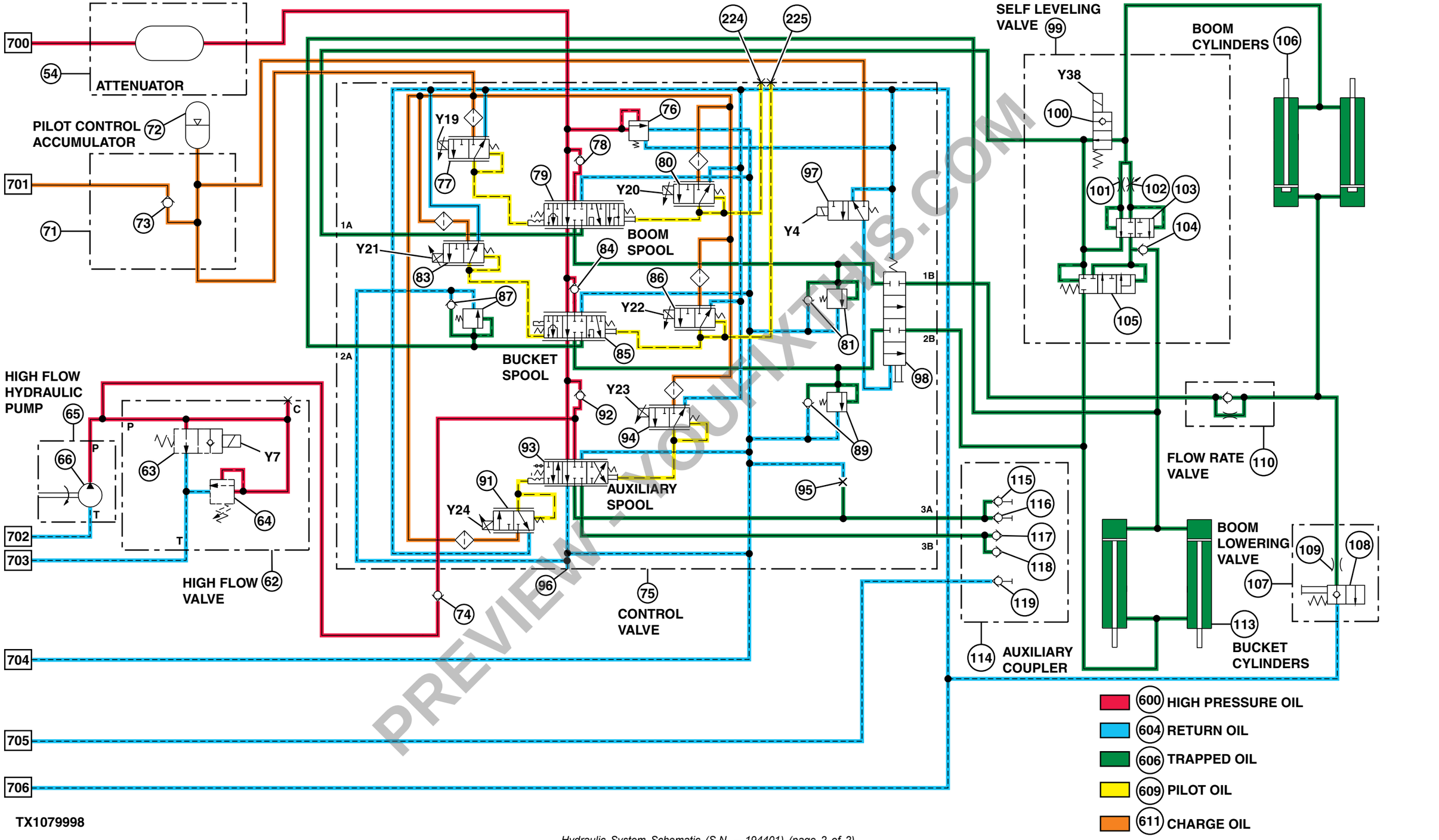
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ML82895,0000760 -19-01APR14-1/14

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TX1079998 —UN—19JUL10



TX1079998

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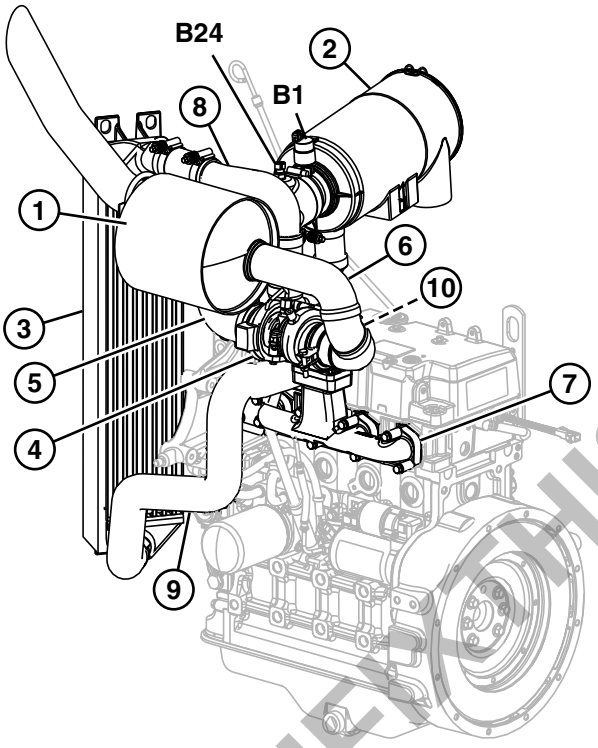
Hydraulic System Schematic (S.N. —194401) (page 2 of 2)

BR70016,000010C -19-22NOV11-3/8

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Engine Intake and Exhaust Component Location



TX1064650 —UN—07OCT09

TX1064650

Engine Intake and Exhaust Component Location

1— Muffler
2— Air Cleaner Assembly
3— Charge Air Cooler
4— Turbocharger
5— Air Cleaner Assembly-to-Turbocharger Pipe
6— Turbocharger-to-Muffler Pipe
7— Exhaust Manifold
8— Turbocharger-to-Charge Air Cooler Pipe
9— Charge Air Cooler-to-Intake Manifold Pipe
10— Intake Manifold
B1— Air Filter Restriction Switch
B24— Ambient Air Temperature Sensor

TF44157,0000CE1 -19-27OCT09-1/1

Engine Hard to Start or Does Not Start When Cold

KK70125,0000A2D -19-17JAN12-1/8

Engine Hard to Start or Does Not Start When Cold Diagnostic Procedure

KK70125,0000A2D -19-17JAN12-2/8

1 Engine Software Check	*NOTE: Park brake drag and poor starting performance can occur if ECU software is not at correct version.* Verify that engine control unit (ECU) is programmed with the correct software version. Is ECU software at correct version	**YES:** Go to Cold Start Package Check. **NO:** Program engine control unit (ECU) with correct software version.

Continued on next page

KK70125,0000A2D -19-17JAN12-3/8

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000029.14 — Foot Throttle Sensor (Out of Range High)

Engine speed control pedal (B19) is or has been out of range high. Sensor will not reset code until returned to slow idle (zero) position or the key switch is cycled. Return engine speed control pedal (B19) to slow idle position or cycle key switch.

KK70125,0000442 -19-16NOV09-1/1

000091.03 — Hand Throttle Sensor Out of Range High

Input from engine speed control dial (B18) is shorted to power (5 volts or greater).

KK70125,0000443 -19-16NOV09-1/5

Hand Throttle Sensor Out of Range High Diagnostic Procedure

KK70125,0000443 -19-16NOV09-2/5

1 Short to Power Check	Key switch OFF. Disconnect engine control unit (ECU) J2 connector (X16). See Main Harness (W3) Component Location. (Group 9015-10.) Disconnect engine speed control dial (B18) connector. See Cab Harness (W2) Component Location. (Group 9015-10.) Turn key switch ON. Using a multimeter, check for voltage on wire E33 WHT between pin A4 of ECU J2 connector (X16) and machine ground. Is voltage indicated?	**YES:** Short to power in wire harness. Repair or replace harness. See Cab Harness (W2) Wiring Diagram. See Main Harness (W3) Wiring Diagram. (Group 9015-10.) **NO:** Go to Connector Check.

KK70125,0000443 -19-16NOV09-3/5

2 Connector Check	Turn key switch OFF. Check ECU J2 connector (X16), cab harness-to-main harness 47-pin connector (X2), and engine speed control dial (B18) connector for any damage, corrosion, or debris that could cause short to power condition for E33 WHT wire. Are connectors in good condition and free of corrosion and debris?	**YES:** Go to Wire Check. **NO:** Repair or replace connector. See Cab Harness (W2) Wiring Diagram. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)

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Recognize Safety Information

This is the safety alert symbol. When this symbol is noticed on the machine or in this manual, be alert for the potential of personal injury.

Follow the precautions and safe operating practices highlighted by this symbol.

A signal word — DANGER, WARNING, or CAUTION — is used with the safety alert symbol. DANGER identifies the most serious hazards.

On the machine, DANGER signs are red in color, WARNING signs are orange, and CAUTION signs are yellow. DANGER and WARNING signs are located near specific hazards. General precautions are on CAUTION labels.



T133555 —UN—15APR13

T133588 —19—28AUG00

TX03679,00016CC -19-03JAN07-1/1

Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.



TS201 —UN—15APR13

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.

DX,READ -19-16JUN09-1/1

Operate Only If Qualified

Do not operate this machine unless the operator's manual has been read carefully, and you have been qualified by supervised training and instruction.

Operator should be familiar with the job site and surroundings before operating. Try all controls and machine functions with the machine in an open area before starting to work.

Know and observe all safety rules that may apply to every work situation and work site.

TX03679,00016FA -19-03JAN07-1/1

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1 Short to Power Check	Turn key switch OFF.	
	Disconnect bucket dump solenoid (Y22). See Main Harness (W3) Component Location. (Group 9015-10.)(Group 9015-10.)	
	Disconnect HCU J3 connector (X46). See Main Harness (W3) Component Location. (Group 9015-10.)	
	Turn key switch ON.	
	Using a multimeter, check voltage of R36 BLK wire at bucket dump solenoid (Y22) connector.	**YES:** Short to power in R36 BLK wire. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)
	Is voltage indicated?	**NO:** Go to Connector Check.

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2 Connector Check	Turn key switch OFF.	
	Inspect HCU J3 connector (X46) for any damage, corrosion, or debris that could cause short to power condition for R36 BLK wire.	**YES:** Go to Wire Check.
	Is HCU J3 connector (X46) in good condition and free of corrosion and debris?	**NO:** Repair or replace connector. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)

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3 Wire Check	Key switch OFF.	
	Bucket dump solenoid (Y22) disconnected.	
	HCU J3 connector (X46) disconnected.	
	Using a multimeter, check for continuity between pin F2 (wire R36 BLK) of HCU J3 connector (X46) and other pins in same connector.	**YES:** Short circuit in wire harness. Repair or replace harness. See Main Harness (W3) Wiring Diagram. (Group 9015-10.)
	Is continuity indicated between any circuits?	**NO:** Go to Solenoid Check.

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4 Solenoid Check	Key switch OFF.	
	Check resistance of bucket dump solenoid (Y22). See Electrical Component Specifications. (Group 9015-20.)	**YES:** Checks complete.
	Is resistance within specification?	**NO:** Replace bucket dump solenoid (Y22).

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520653.16 — Bucket Dump Solenoid Current Moderately High Value

High side driver output malfunction (always on) or shorted to power. Low side driver is disabled.

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AS79221,00000E1 -19-02JUN17-4/4

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Left C1 Hydrostatic Pump Solenoid (Y18)	**IMPORTANT: Avoid damage to solenoid. Do not apply power directly to solenoid to test. Direct power damages the solenoid due to high amperage. Use EMU display or Service ADVISOR™ to view voltage or current.** **View solenoid current using the EMU, see Engagement and Monitor Unit Data Items. (Group 9015-16.)** *NOTE: If equipped with pattern select, ensure that machine is in H pattern.* Activate left forward travel function. Does left forward travel function operate correctly?	**YES:** Left C1 hydrostatic pump solenoid is OK. **NO:** Continue check.
	Switch left C1 hydrostatic pump solenoid with a known good solenoid. Did the problem follow the left C1 hydrostatic pump solenoid?	**YES:** Solenoid has malfunctioned. Replace. **NO:** Continue check.
	Disconnect left C1 hydrostatic pump solenoid from harness. Measure resistance across solenoid terminals. Does solenoid resistance meet specification? See Electrical Component Specifications. (Group 9015-20.)	**YES:** Solenoid is OK. **NO:** Solenoid has malfunctioned. Replace.

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Boom Up Solenoid (Y19)	**IMPORTANT: Avoid damage to solenoid. Do not apply power directly to solenoid to test. Direct power damages the solenoid due to high amperage. Use EMU display or Service ADVISOR™ to view voltage or current.** **View solenoid current using the EMU, see Engagement and Monitor Unit Data Items. (Group 9015-16.)** Start machine and enable hydraulics. Operate the boom and bucket functions. Does boom up function operate?	**YES:** Boom up solenoid is OK. **NO:** No hydraulic functions operate. Check Port Lock Solenoid (Y4). **NO:** Boom up function does not operate. Continue check.
	Switch boom up solenoid with a known good solenoid. Did the problem follow the boom up solenoid?	**YES:** Solenoid has malfunctioned. Replace. **NO:** Continue check.
	Disconnect boom up solenoid from harness. Measure resistance across the terminals of boom up solenoid. Does solenoid resistance meet specification? See Electrical Component Specifications. (Group 9015-20.)	**YES:** Solenoid is OK. **NO:** Solenoid has malfunctioned. Replace.

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4 Charge Oil Pressure Check (System Cold)	Check charge oil pressure at hydraulic oil filter manifold with machine cool (hydraulic oil, engine coolant, and manifold air temperatures less than 38°C [100°F]). See Charge Pressure Relief Valve Test. (Group 9025-25.) Is charge oil pressure at hydraulic oil filter manifold above minimum specification?	**YES:** Go to next step in this check. **NO:** Check charge pump flow. See Charge Pump Flow Test. (Group 902525.) If charge pump flow meets specification, replace charge pressure relief valve.
	Check charge oil pressure at pump outlet at fast idle with machine cool (systems less than 38°C [100°F]). Compare charge oil pressure at pump outlet to pressure at hydraulic oil filter manifold. *NOTE: Pressure difference should be approximately 1380—2070 kPa (14—21 bar) (200—300 psi).* Is pressure difference greater than 6900 kPa (69 bar) (1000 psi) with machine cool (less than 38°C [100°F])?	**YES:** Remove hydraulic fan speed solenoid. Inspect for any debris or other malfunction that would prevent normal solenoid operation. **NO:** Go to Charge Oil Pressure Check (Operating Temperature).

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