580N
580SN-WT
580SN
590SN

Tractor Loader Backhoe

SERVICE MANUAL

English
July 2011

CASE CONSTRUCTION

MidWestTech | Case 580N, 580SN-WT, 580SN, 590SN Tractor Loader Backhoe Service Manual | Publication 84516378

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Loader Control Valve Leak Test

Test 3A

5. Run engine at **2000 RPM**. Increase pressure on flowmeter to **138 bar (2000 psi)**.
1. Raise loader. Hold loader in raised position.
2. Monitor flowmeter. Record l/min (gpm) on Flowmeter Check Sheet.

Test 3B

1. Lower loader. Hold loader in lower position.
2. Monitor flowmeter. Record l/min (gpm) results on Flowmeter Check Sheet.

Test 3C

1. Position loader approximately **45.7 cm (18 in)** above ground level. Hold bucket in rollback position.
2. Monitor flowmeter. Record l/min (gpm) results on Flowmeter Check Sheet.

Test 3D

1. Hold bucket in dump position.
2. Monitor flowmeter. Record l/min (gpm) results on Flowmeter Check Sheet.

Test 3E

1. Hold clam in open position.
2. Monitor flowmeter. Record l/min (gpm) results on Flowmeter Check Sheet.

Test 3F

1. Close clam and hold in closed position.
2. Monitor flowmeter. Record l/min (gpm) results on Flowmeter Check Sheet.

NOTE: *Compare test results from Test 2B and Tests 3A thru 3F. If results vary more than **3.8 l/min (1 US gpm)**, a problem in circuit exists.*

3. Run engine at **2000 RPM**. Increase pressure on flowmeter to **138 bar (2001.0 psi)**.

NOTE: *If equipped with uni-directional valve, ensure valve is off.*

Backhoe Control Valve Leak Test

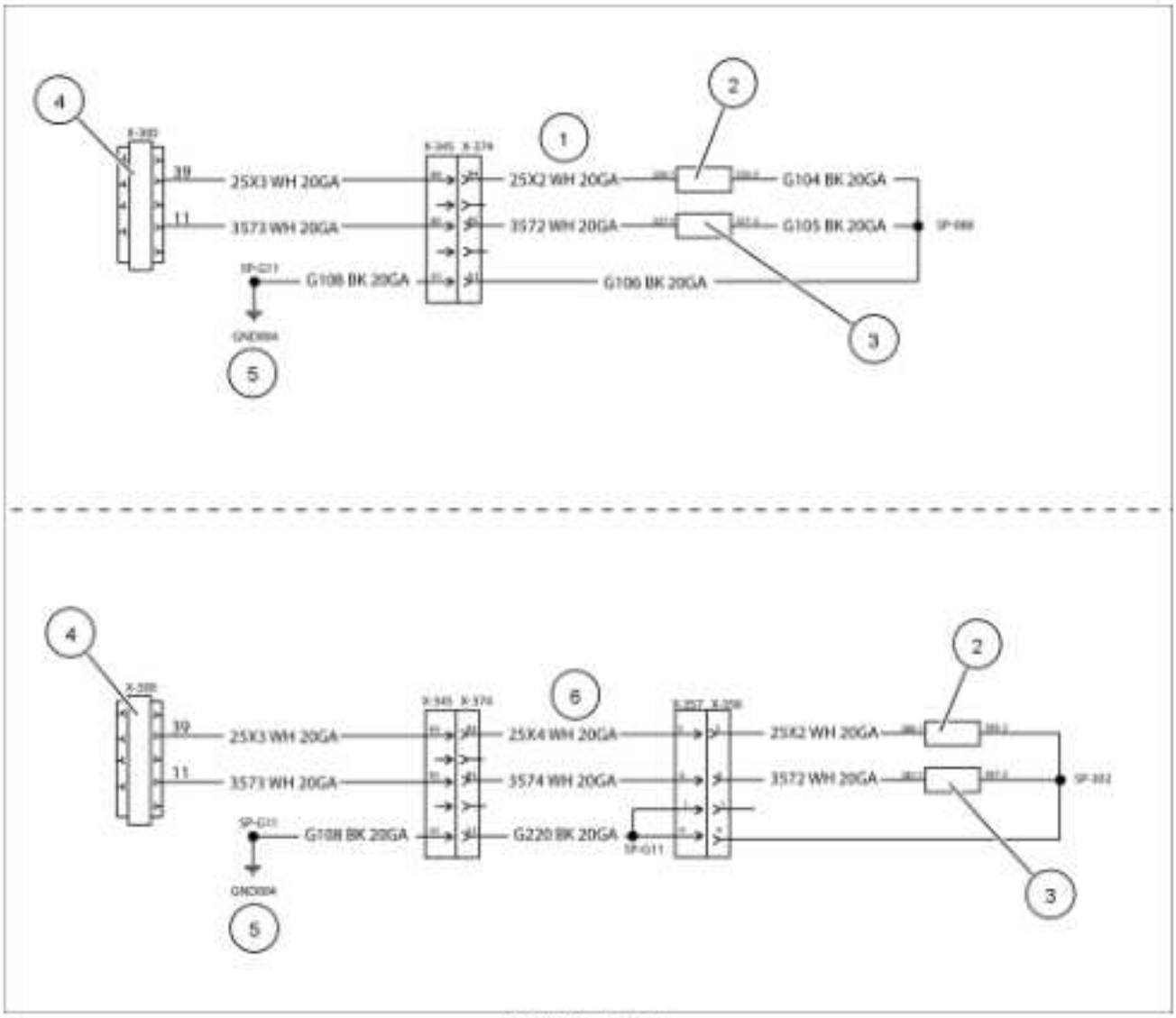
Test 4A

1. Position backhoe to left side.
2. Monitor flowmeter. Record l/min (gpm) results on Flowmeter Check Sheet.

Test 4B

1. Position backhoe to right side.

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RCPH10TLB823GAM 2

Schematic legend			
(1)	S-Type Transmission Harness	(4)	Trax Control
(2)	4WD Solenoid	(5)	GND004 Cab Ground Side Console on Loader Control
(3)	Differential Lock Solenoid	(6)	H-Type Transmission with Powershift Jumper Harness

(1) Inspect Trax connector X-300, 4WD Solenoid connector and Differential Lock solenoid connector. All connections should be secure, tight, free of corrosion, abrasion and/or damage.

(2) Inspect the harness from the Trax Control to the 4WD and Differential Lock Solenoids. Verify that the harness is free of damage, corrosion, abrasion and incorrect attachment.

A. OK – The connectors are secure and the harness is free of damage. Go to Step **3**.

B. NOT OK – The connectors or the harness has damage. Repair or replace the harness or connectors as required. Return to Step **1** to confirm elimination of fault.

3. Measure the resistance to chassis ground.

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4998-Unknown transmission error code with amber lamp

Context:
The Instrument Cluster received and error message that it did not recognize.

Cause:
The Instrument Cluster received and error message that it did not recognize. The Instrument Cluster will illuminate the Amber warning lamp.

Possible failure modes:

1. Incompatible software versions.

Solution:

1. Verify that the fault code is still active, refer to **0000 - Retrieving fault codes, Backhoes**.
   Prior to clearing fault codes write down all fault codes, number of occurrences, and engine hours at last occurrence.

   (1) Use the Electronic Service Tool to clear all fault codes.

   (2) To check for fault code: Start and operate machine.

   A. OK – Fault is not recorded again. OK to return the machine to service.

   B. NOT OK – Fault code 4998 is recorded again. Go to Step **2**.

2. Update Instrument Cluster software

   (1) Verify that the Instrument Cluster and Trax Control have the latest versions of software. Contact Technical Services Group for assistance.

   A. Return to Step **1** to confirm elimination of fault. If fault is recorded again, contact Technical Services Group for assistance.

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HYDRAULIC - PNEUMATIC - ELECTRICAL - ELECTRONIC SYSTEMS - A

FAULT CODES - 50.A
4000 - 9012

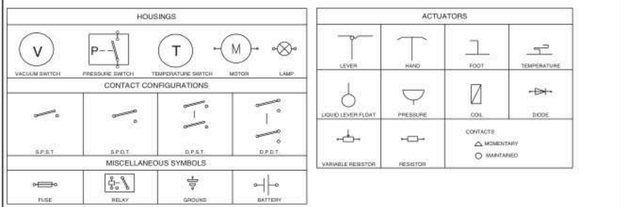
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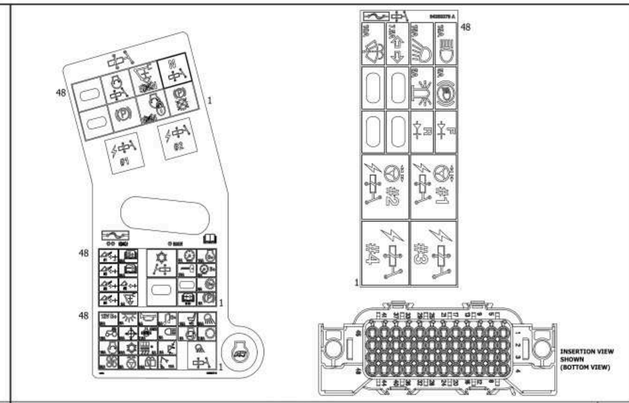
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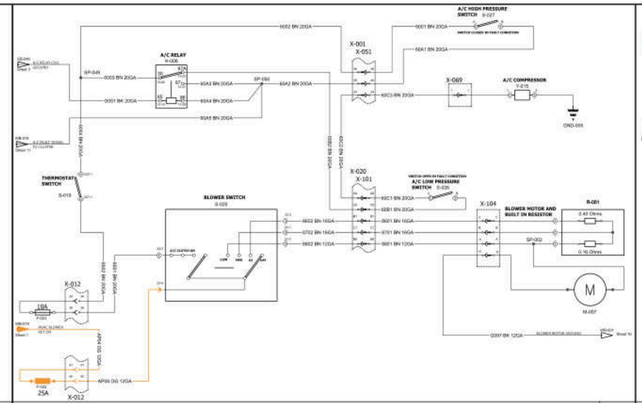
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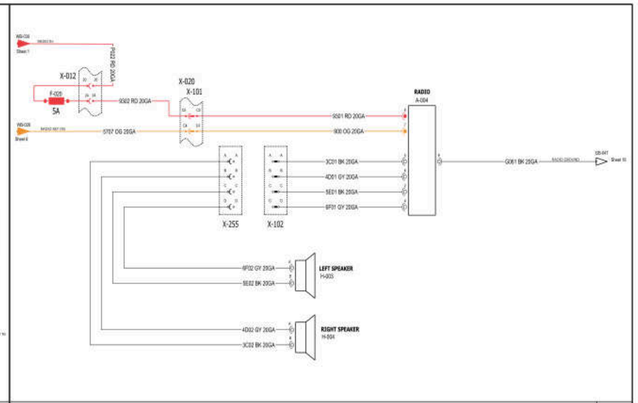
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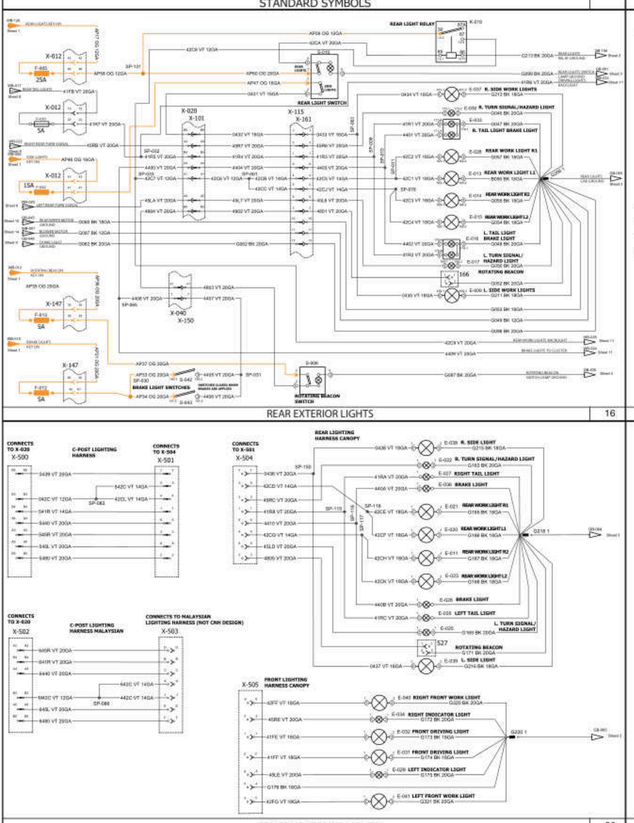
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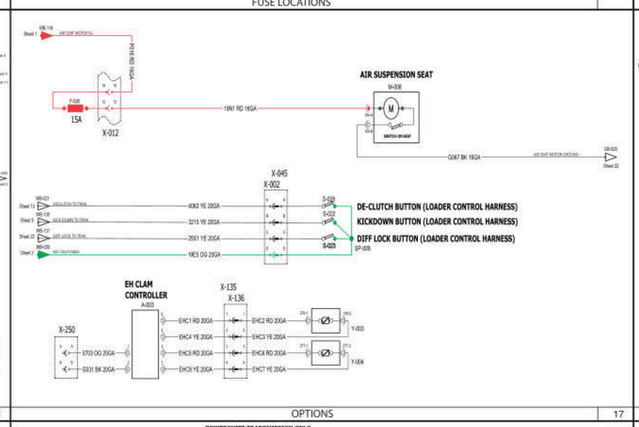
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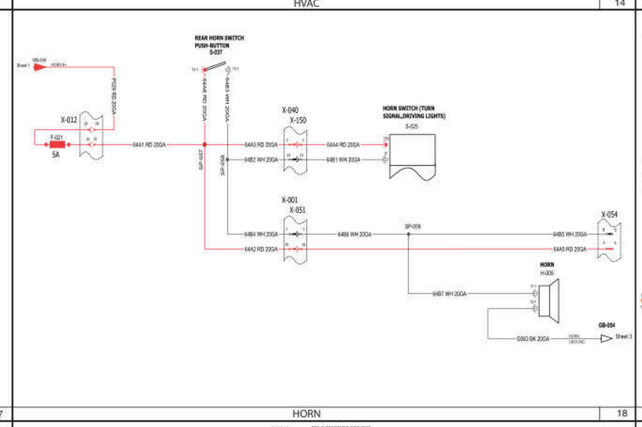
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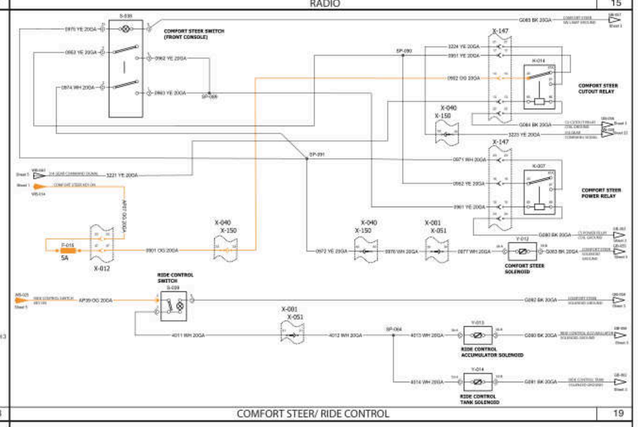
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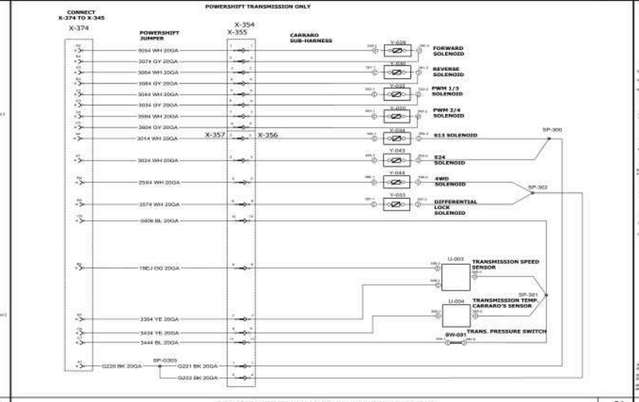


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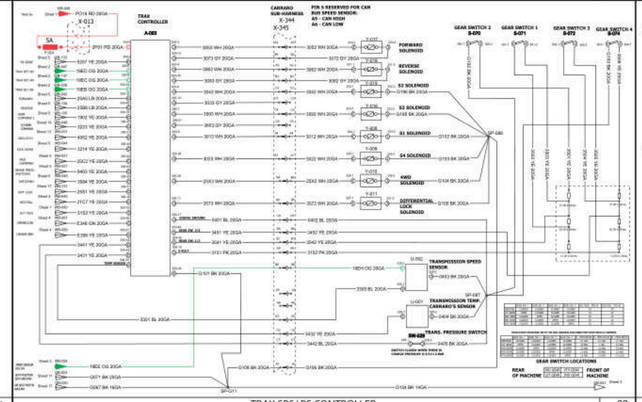


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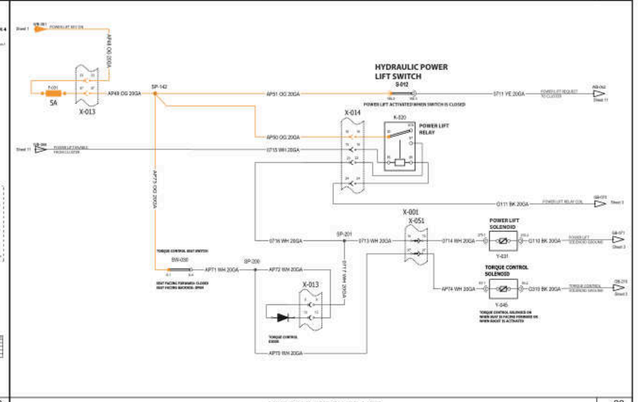
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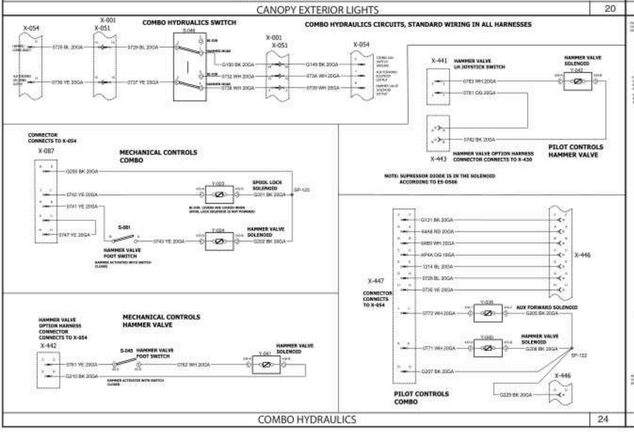
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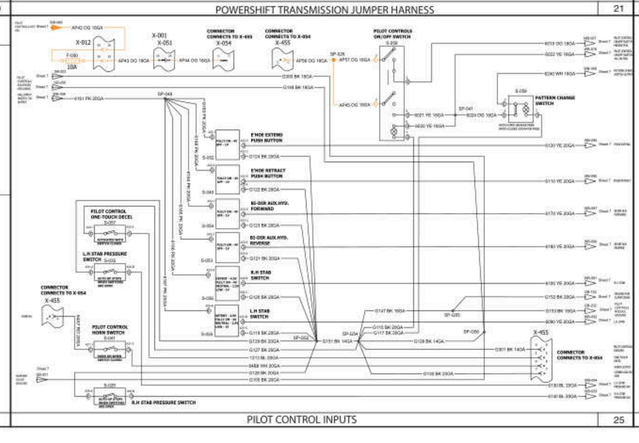
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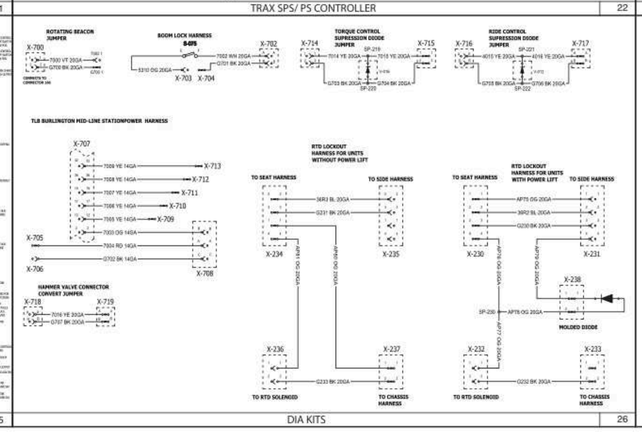
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580SN, 580SN-WT AND 590SN
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HPCR ENGINE
SPS/PS TRANSMISSION
RAC 84470420

LEGEND

INDICATES CONSTANT POWER

INDICATES POWER WHEN KEY SWITCH IS ON

INDICATES POWER WHEN KEY SWITCH IS IN START POSITION

INDICATES SWITCHED POWER FROM CONTROL RELAYS

RAC84470420S1S2

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