SERVICE MANUAL

Speedrower® 160
Tier 4B (final)
Self-Propelled Windrower

PIN YGG677501 and above

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NEW HOLLAND AGRICULTURE

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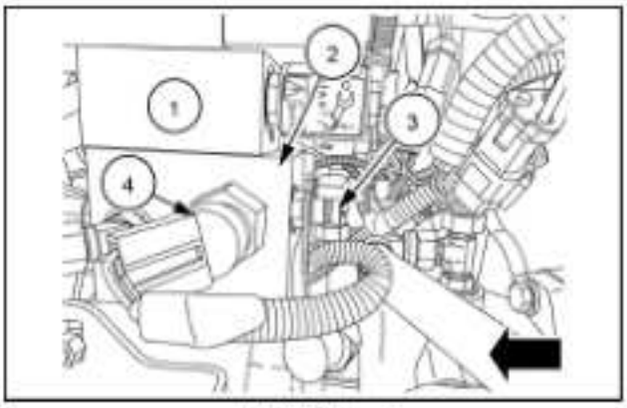
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Relief valve - Pressure test - Charge pressure manifold

Speedrower® 160	NA

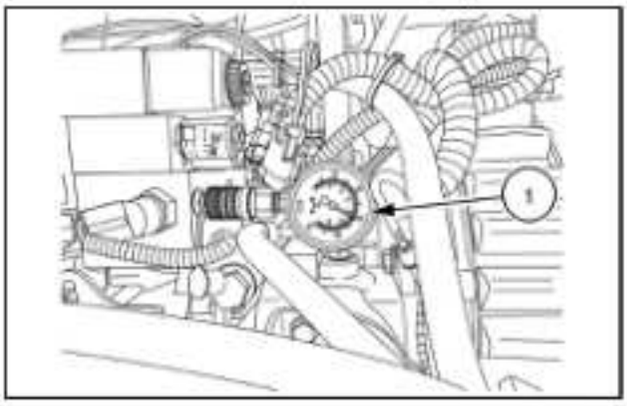


NHL14WR0017SAA 1

Ref.	Component	Ref.	Component
(1)	Auto-guidance valve	(3)	Diagnostic port with rubber dust cap
(2)	Charge manifold	(4)	Pressure switch

NOTICE: *The hydraulic linkage must be adjusted to true neutral to obtain a measurement of the actual pump relief valve setting. If any amount of oil flows to the wheel motors to create a pressure differential between the high-pressure and low-pressure sides of the wheel motor, the shuttle valves will shift and divert flow away from the pump relief valve.*

1. Install a **4140 kPa** or **41.4 bar** (**600 psi**) **380040153** pressure gauge **(1)** on the charge pressure diagnostic test fitting **(3)**.
2. Perform the test with the hydraulic oil at approximately **38 – 82 °C** (**100 – 180 °F**)



NHL14WR0352T4A 2

3. Record the pressure reading when the Multi-Function Handle (MFH) is in neutral and the engine is at **1300 RPM** for the 4 cylinder units and **1200 RPM** for the 6 cylinder units.
4. The charge pressure value should be approximately **20.7 – 22.8 bar** (**300 – 330 psi**) .

Next operation:
If the charge pressure relief valve requires adjustment, see **Relief valve - Adjust - Charge pressure manifold (35.105)** for more information.

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Wiring harnesses - Electrical schematic sheet 55 - Controller Area Network (CAN) - Engine

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Type	Component	Connector / Link	Description
ECU	**A-014**	**X-041 X-174**	MODULE, NH3 SENSOR
Sensor	**B-028**	**X-062**	SENSOR, NOX #1, UPSTREAM (DOC IN)
Sensor	**B-029**	**X-064**	SENSOR, NOX #2, DOWNSTREAM (SCR OUT)
Sensor	**B-031**	**X-067**	SENSOR, UREA QUALITY
Resistor	**R-013**	**X-090**	RESISTOR, CAN TERMINATION
Connector	X-041	**X-041**	A-014 MODULE, NH3 SENSOR
Connector	X-062	**X-062**	B-028 SENSOR, NOX #1, UPSTREAM (SCR IN)
Connector	X-064	**X-064**	B-029 SENSOR, NOX #2, DOWNSTREAM (SCR OUT)
Connector	X-067	**X-067**	B-031 SENSOR, UREA QUALITY
Connector	X-090	**X-090**	R-013 RESISTOR, CAN TERMINATION
Connector	X-158	**X-158**	ET TO ENGINE PASS THRU

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Abort code	Abort code text	Possible Cause	Action
13	Header knife speed is adjusted too low. Should be close to 1400 SPM	***NOTICE:*** *This abort is only trigger, during a MY13 or older Draper header calibration.*	Adjust the knife speed, by adjusting the priority flow divider valve on the header priority flow divider block.
		During Reel calibration, the knife speed drops below 1400 SPM.	
14	MFH/MFP Lever Not In Neutral	The Multi-function handle (MFH) is not in the neutral position.	Put the MFH in the neutral position.
15	Steering Wheel Not In Neutral	The Steering wheel is not in the neutral position.	Put the steering wheel in the neutral position.
16	Propulsion Cylinder Not In Neutral	The Propulsion cylinder is not in the neutral position.	Put the propulsion cylinder in the neutral position.
17	Park Brake Not Set	The Park brake is not engaged.	Engage the park brake.
18	Generic calibration fault (fmi set for corresponding fault)	Designated for unknown abort code.	Re-start the calibration.
19	PTO was not engaged	The PTO switch is not engaged.	Engage the PTO switch.
20	Propulsion fault - B060 extended calibration value not within valid range	When extended, B-060 voltage is Not between **0.6 – 1.0 V**	Perform the following: 1. Check the sensor electrical wiring. Refer to the following fault code resolution(s) for further diagnosis: E0321. 2. Re-start the calibration.
21	Propulsion fault - B059 retracted calibration value not within valid range	When retracted, B-059 voltage is Not between **4.0 – 4.4 V**	Perform the following: 1. Check the sensor electrical wiring. Refer to the following fault code resolution(s) for further diagnosis: E0319. 2. Re-start the calibration.
22	Propulsion fault - B059 extended calibration value not within valid range	When extended, B-059 voltage is Not between **0.6 – 1.0 V**	Perform the following: 1. Check the sensor electrical wiring. Refer to the following fault code resolution(s) for further diagnosis: E0318. 2. Re-start the calibration.
23	Propulsion fault - B060 retracted calibration value not within valid range	When retracted, B-060 voltage is Not between **4.0 – 4.4 V**	Perform the following: 1. Check the sensor electrical wiring. Refer to the following fault code resolution(s) for further diagnosis: E0322. 2. Re-start the calibration.

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Hydraulic systems - Overview - Setting header flotation - Draper header only

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NOTE: *All the steps described must be done with the engine running at high idle (> **2000 RPM**) PARK BRAKE ENGAGED, and the header PTO switch off unless described otherwise.*

STEP 1. Before beginning, make the following checks:

- Be sure unit is at normal operating temperature
- Set header tilt cylinder in the mid position
- If equipped, with the engine off, set the rear axle suspension air springs to the proper pressure
- If equipped, set castering gauge wheels to operating position
- Set cut height cylinders to operating position

STEP 2. Set "Header Drop Rate" to "5" as a starting point. Header drop rate range - "0 (slower) to 10 (faster)"

4-Line Display:

- Configure → Header Config → Drop Rate

Color Touchscreen Display (if equipped) :

- Toolbox →Header → Header Drop Rate

STEP 3. Set initial float pressure to 1500 using flotation switch(es) in cab. Lower the header.

Header reaches the ground with one push of the button?

YES

NO

Reduce float setting by 50, try to lower header. Continue lowering the float setting by 50 until header reaches ground with one push of the lower button.

STEP 4. With header in operating position, make flotation adjustments by checking the weight at each end of the header. The maximum weight at each end of the header should not exceed **68 kg** (**150 lb**) for sickle headers and for draper headers. Adjust by using flotation switch(es) in cab. If adjusted properly, header should float evenly on both sides in operating position. If weight is not even at each end of the header, proceed to next flow chart box. After header is lifted manually, header must fall to ground unaided when released.

NOTE: *Unit must stay running for **30 s** after changing the setting to allow the system to lock the value into memory.*

Is the weight the same at each end of header?

NO

Adjust independent flotation switches as needed.

Repeat STEP 4

YES

STEP 5. Is the header drop rate satisfactory?

NO

4-Line Display:

- Enter the configuration mode and adjust drop rate

Color touchscreen display:

- Enter the "toolbox" and adjust drop rate

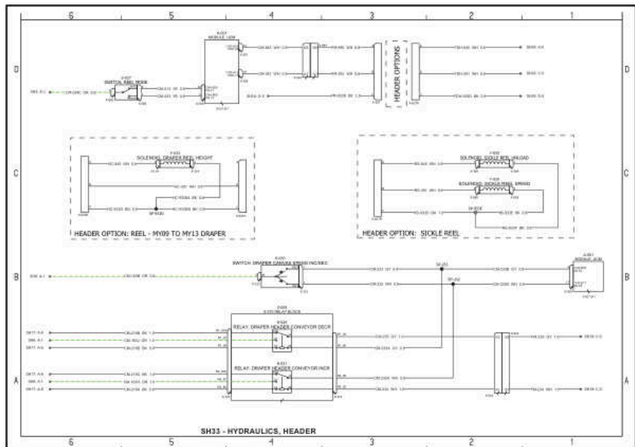
Step 6. Before going to the field:

- If unit is equipped with deck shift, repeat steps 3 and 4 for every position of the decks. Unit will remember individual settings for each position as operator moves decks
- If equipped, with the engine off, recheck the rear axle suspension air springs for proper pressure

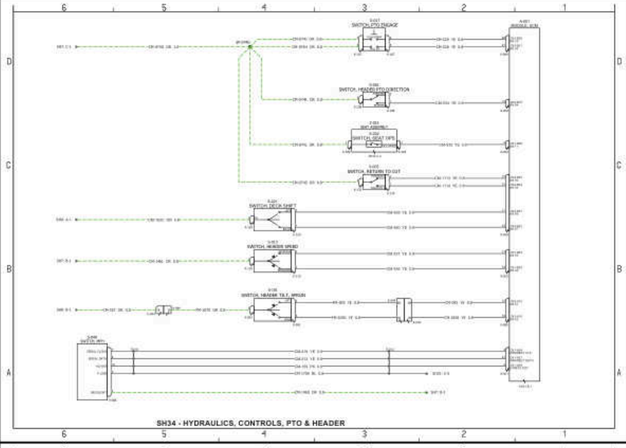
YES

STEP 7. Make final adjustments to the float pressure during operation. The header must stay at operating position with minimum weight.

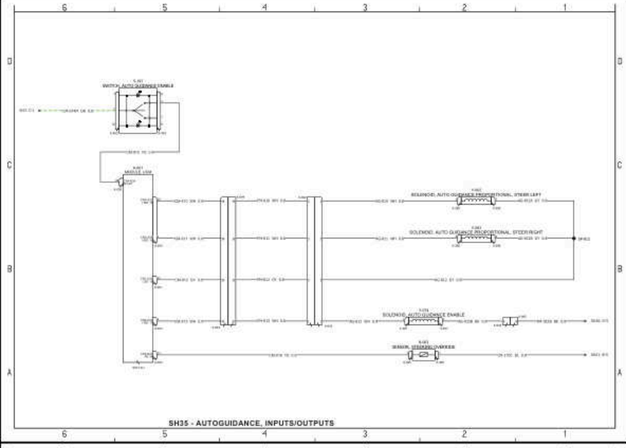
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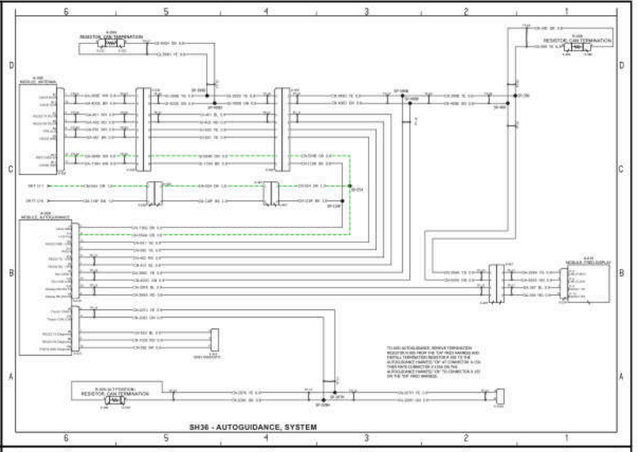
SH33 - HYDRAULICS, HEADER



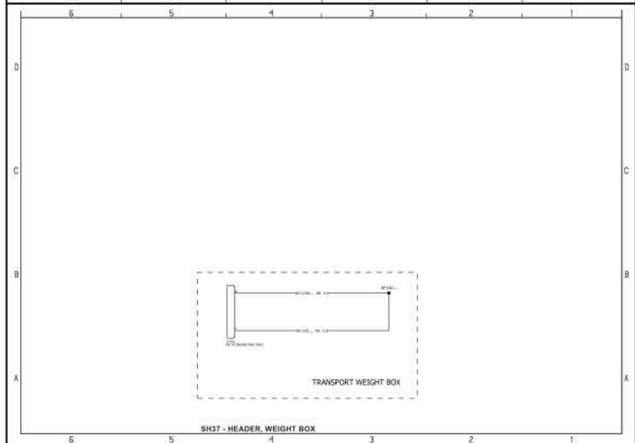
SH34 - HYDRAULICS, CONTROLS, PTO & HEADER



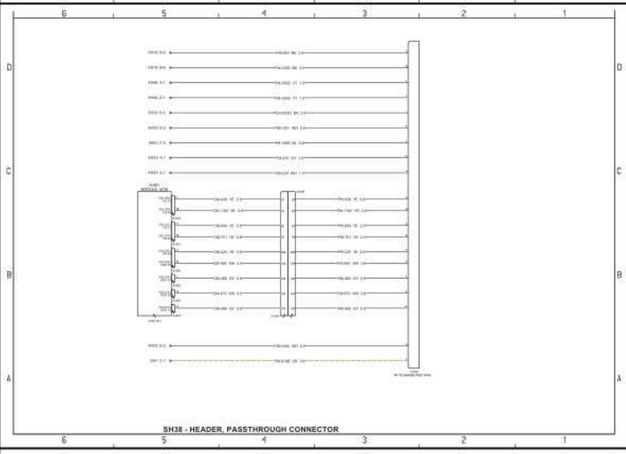
SH35 - AUTOGUIDANCE, INPUTS/OUTPUTS



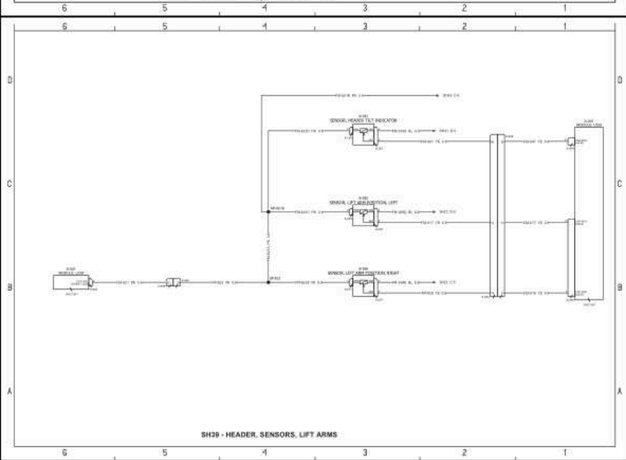
SH36 - AUTOGUIDANCE, SYSTEM



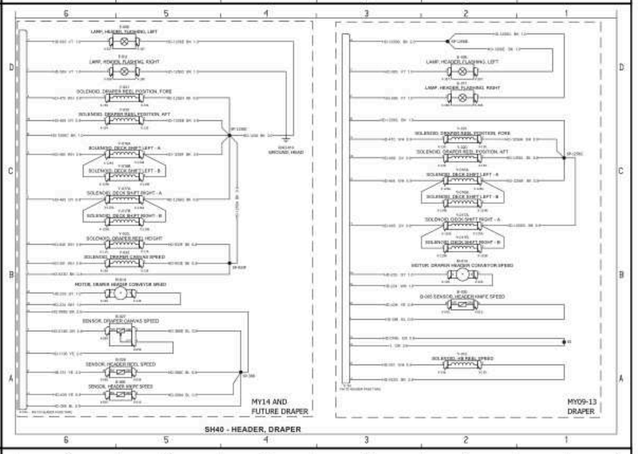
SH37 - HEADER, WEIGHT BOX



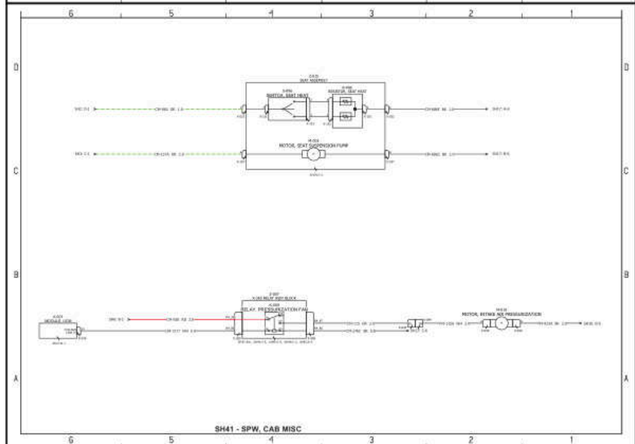
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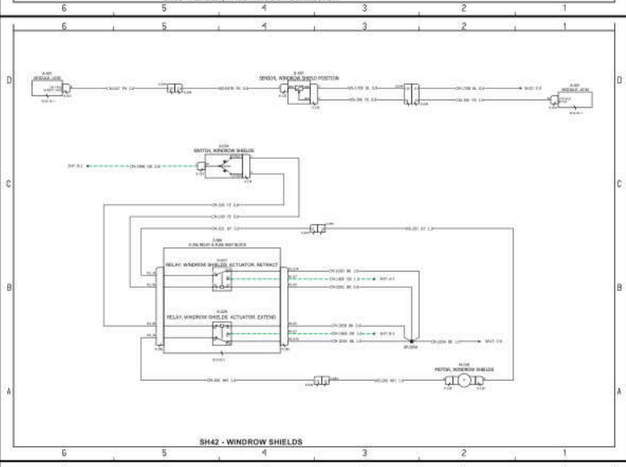
SH39 - HEADER, SENSORS, LIFT ARMS



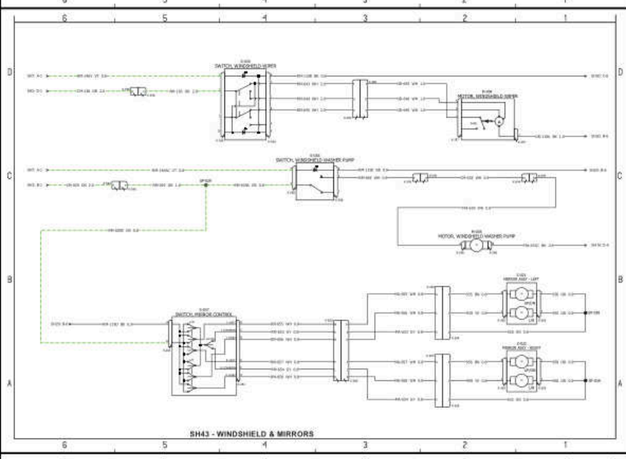
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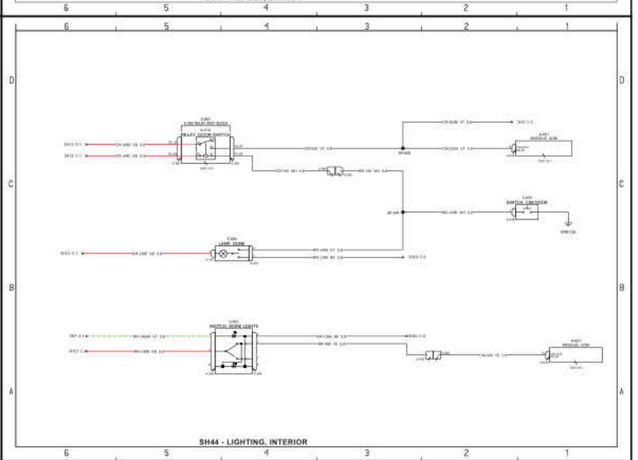
SH41 - SPW, CAB MISC



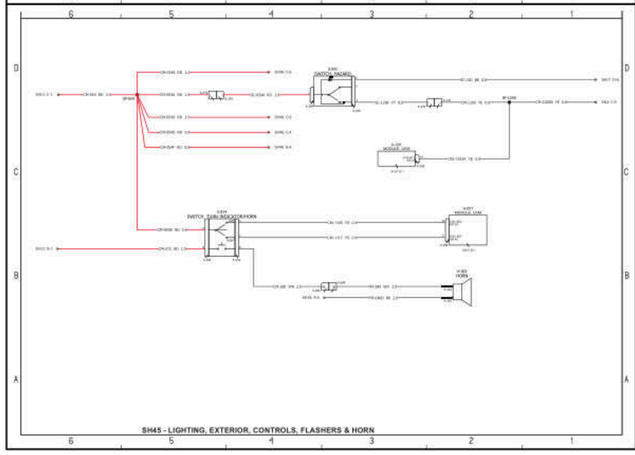
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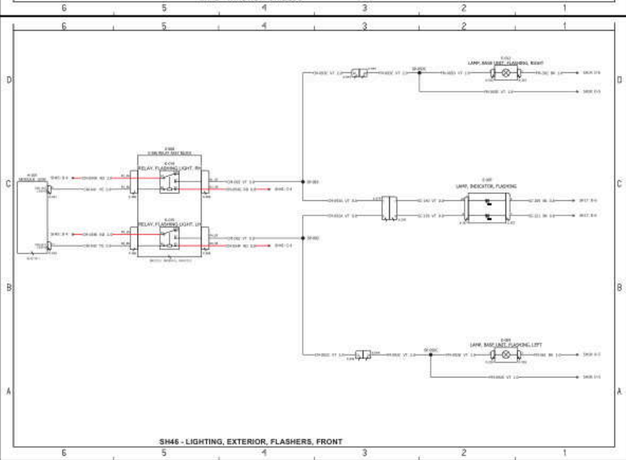
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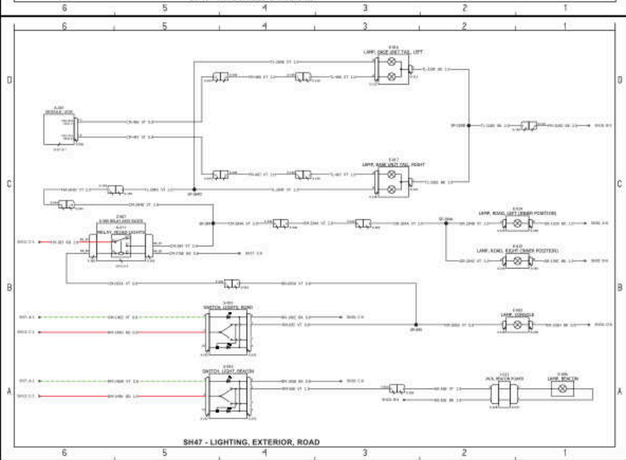
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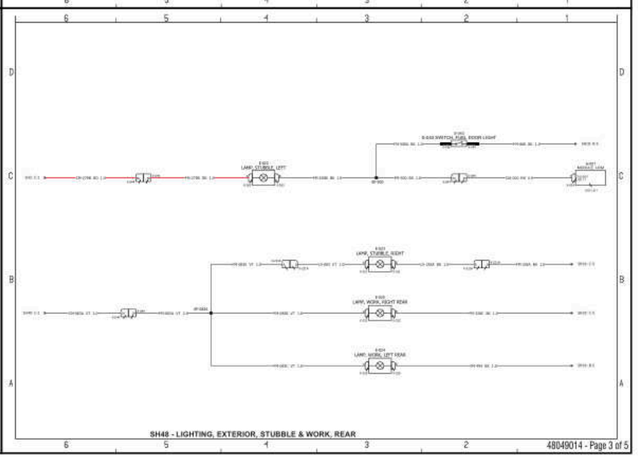
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SH46 - LIGHTING, EXTERIOR, FLASHERS, FRONT



SH47 - LIGHTING, EXTERIOR, ROAD



SH48 - LIGHTING, EXTERIOR, STUBBLE & WORK, REAR

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