Magnum 180
Magnum 200
Magnum 220
Powershift Transmission (PST)
Tractor

PIN ZERH02500 and above

SERVICE MANUAL

Part number 47674199
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March 2014

CASE IH AGRICULTURE

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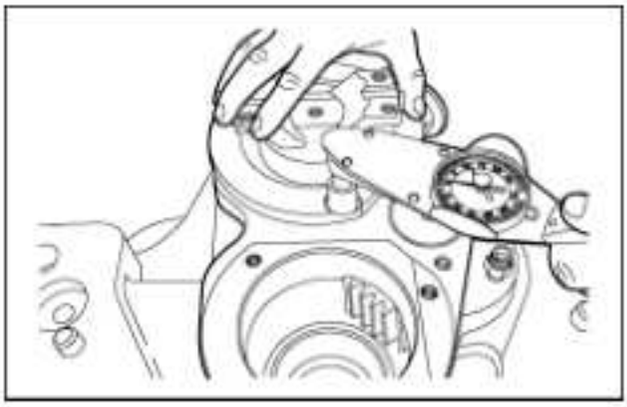
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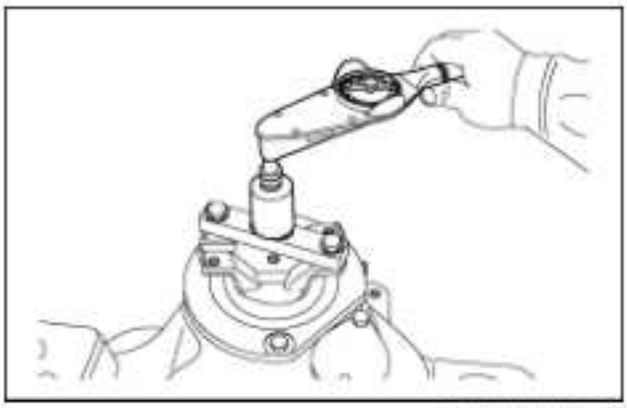
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27. Install the input cage with shims and torque the three mounting bolts to **54 Nm** (**40 lb ft**).



RDPH090CH07TAAB 27

28. Rotate the input shaft a minimum of ten revolutions. Check the rolling torque.
    - The rolling torque must be between **0.2 - 1.0 N·m** (**2.0 - 8.8 lb in**).
    - If rolling torque is below **0.2 N·m** (**2.0 lb in**), remove a small amount of shims. Torque the bearing cage bolts again and check rolling torque.
    - If the rolling torque is above **1.0 N·m** (**8.8 lb in**), add a small amount of shims. Torque the bearing cage bolts again and check rolling torque.

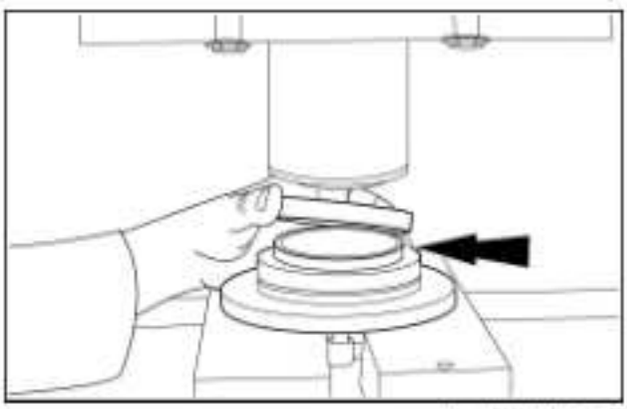


RDPH090CH08MAAB 28

29. Once the rolling torque is within specification, remove the bearing cage with shims, the input gear and set aside.

Output shaft setup

30. Press a bearing cup into the output shaft bearing cage.



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Wire harnesses - Electrical schematic frame 17 - Transmission, rear Power Take-Off (PTO), hitch (EDC), radar, brakes

Connector **X-010F**	Outside cab harness
Connector **X-010M**	Main cab harness
Connector **X-026A (F) (PST)**	Transmission harness
Connector **X-026A (M) (PST)**	Outside cab harness
Connector **X-162**	Left hand brake switch (NC)
Connector **X-163**	Right hand brake switch (NC)
Connector **X-052**	Master clutch pedal pod
Connector **X-058**	Tractor Control Unit (TCU) — CN2B
Connector **X-251**	Rear Power Take-Off (PTO) speed sensor
Connector **X-268**	Hitch (EDC) valve raise solenoid
Connector **X-270**	Hitch position sensor (Rockshaft potentiometer)
Connector **X-272**	Hitch (EDC) valve lower solenoid
Connector **X-286**	Rear Power Take-Off (PTO) brake solenoid
Connector **X-287**	Rear Power Take-Off (PTO) clutch solenoid
Connector **X-350**	Tractor Control Unit (TCU) — CN1A
Connector **X-351**	Tractor Control Unit (TCU) — CN1B
Connector **X-353**	Tractor Control Unit (TCU) — CN2A
Connector **X-355**	Tractor Control Unit (TCU) — CN3B
Connector **X-490**	Tractor Control Unit (TCU) — CN3A
Connector **X-1158**	Transmission pressure sensor
Connector **X-2014**	Radar
1.	Wire identification: TP-XXX = Powershift transmission; TP/TC-XXX = used by Powershift and CVT transmission

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18006-Engine droop control - voltage too high

NOTE: *When the cause of the error code has been rectified, clear the error code and test the system for normal operation.*

Possible failure modes:

1. Incorrect armrest configuration

Solution:

1. Before proceeding clear the fault code with the approved diagnostic equipment.

   Run the machine under normal conditions and retest.

   A. Fault code is not indicated. Return unit to field operation.

   B. Fault code is indicated. Go to step **2**
2. Check the armrest controller configuration.

   Refer to controller configuration and calibration section in service manual.

   Using the approved diagnostic equipment, check the armrest controller has been configured correctly for the options installed on the machine.

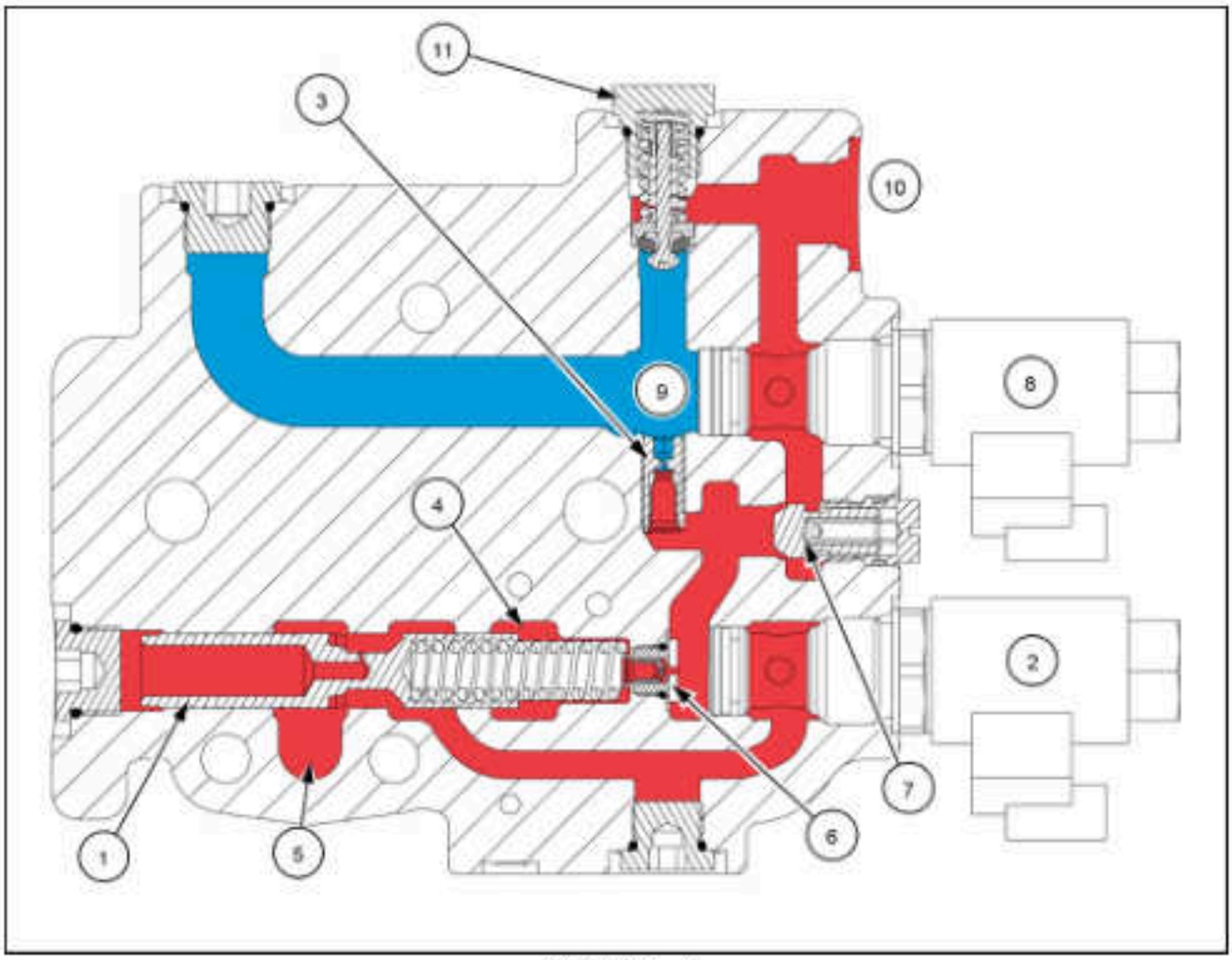
   A. Incorrect controller configuration. Using the approved diagnostic equipment, re-configure the armrest controller.

   B. Correct controller configuration. Go to step **3**
3. Check for other armrest related fault codes.

   A. Other armrest fault codes displayed. Confirm or download the correct level of software. If the fault reoccurs, remove and replace the armrest controller. Using the approved diagnostic equipment, configure the armrest controller.

   B. No other fault codes displayed. Confirm or download the correct level of software. If the fault reoccurs, remove and replace the armrest controller. Using the approved diagnostic equipment, configure the armrest controller.

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RAISE POSITION

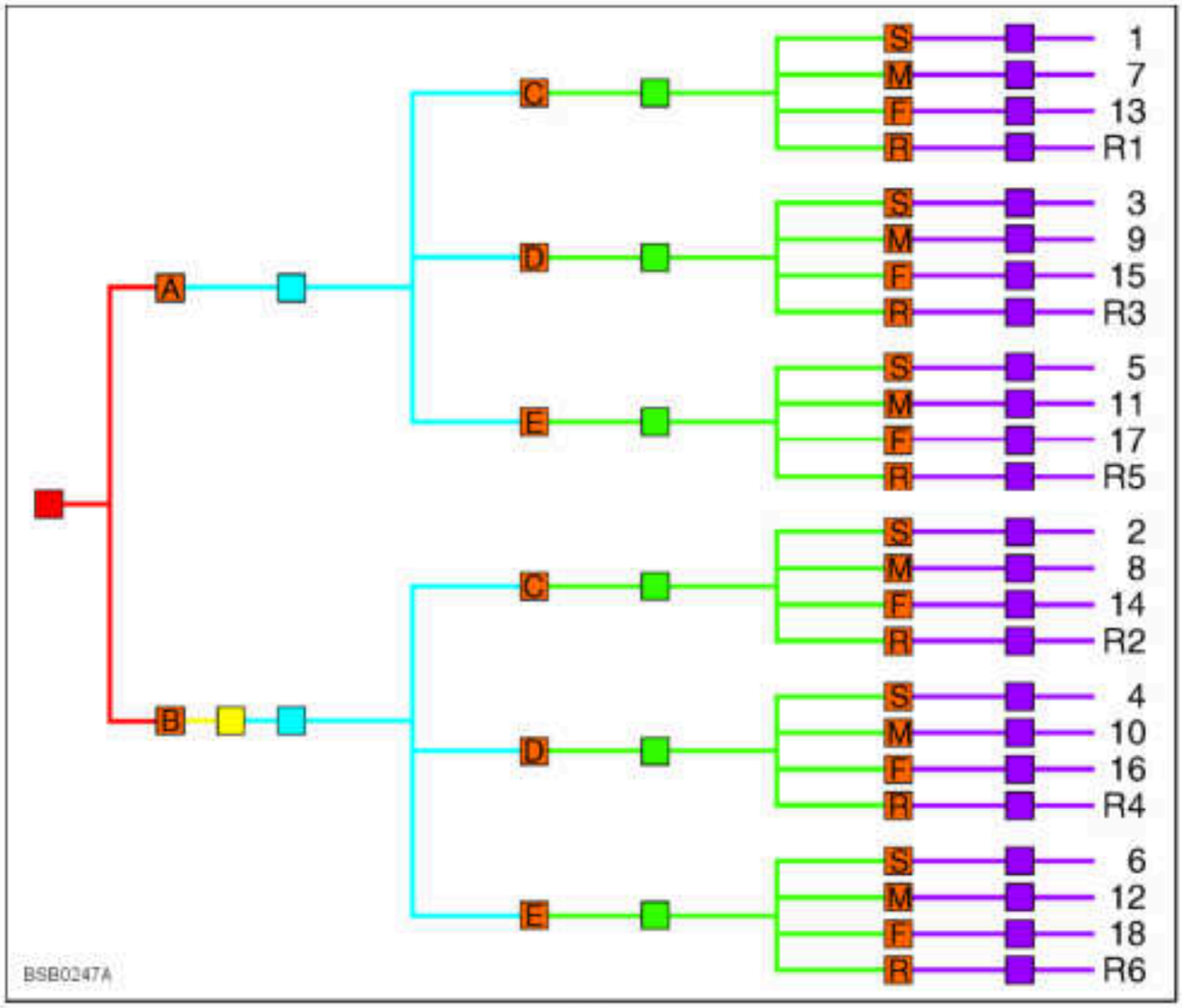
PFC pump pressure	Return to tank pressure
Trapped oil	
1. Flow control spool	7. Load check
2. Raise solenoid	8. Lower solenoid
3. Screened orifice plug	9. Return to tank
4. Pilot signal to compensator	10. Hitch cylinders
5. PFC pump supply	11. Relief valve
6. Check/orifice plug	

Lowering Function

To lower the hitch, the lower proportional solenoid valve must be energized by the central control unit (RM). The amount of spool movement depends on the amount of current supplied by the controller to the proportional solenoid. Once the lower solenoid is energized, the solenoid valve shifts opening a flow path directly back to tank.

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Powershift transmission - Logical diagram



BSB0247A 1

Powershift transmission power flow

Transmission output drive

Clutch pack engaged

Drive out of C,D or E clutch, depending on ratio selected

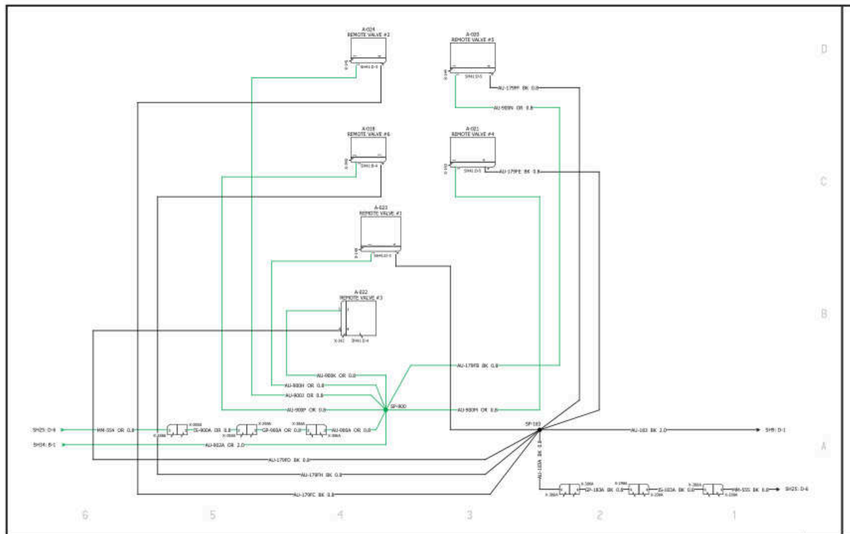
Drive after A or B clutch

Drive from B clutch when B engaged

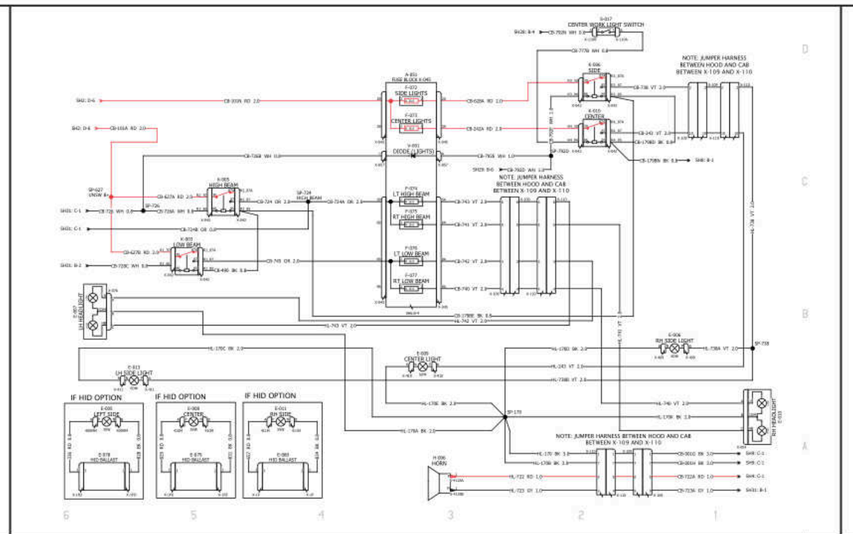
Drive in from engine

A = clutch A
B = clutch B
C = clutch C
D = clutch D
E = clutch E
F = fast range clutch
S = slow range clutch
M = medium range clutch
R = reverse range clutch

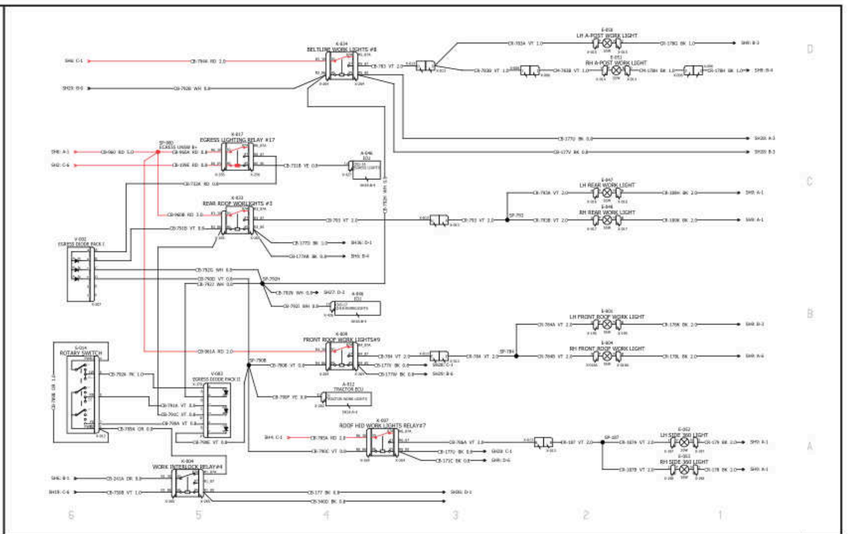
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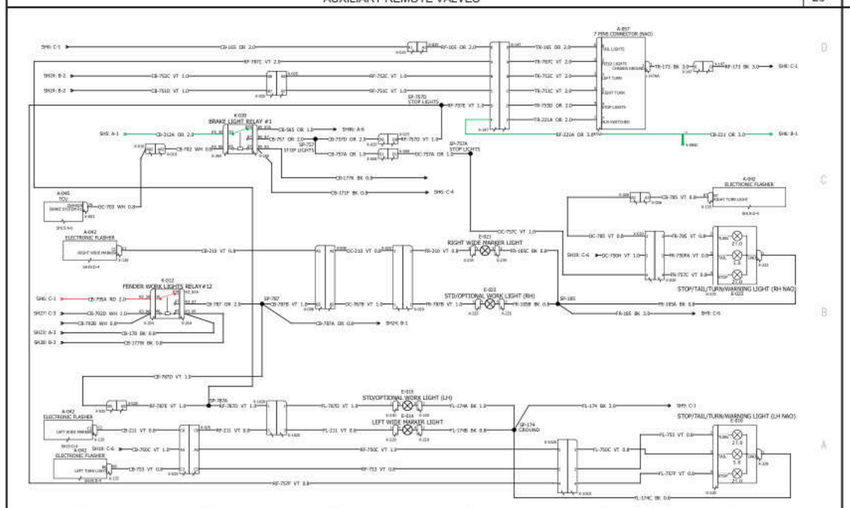
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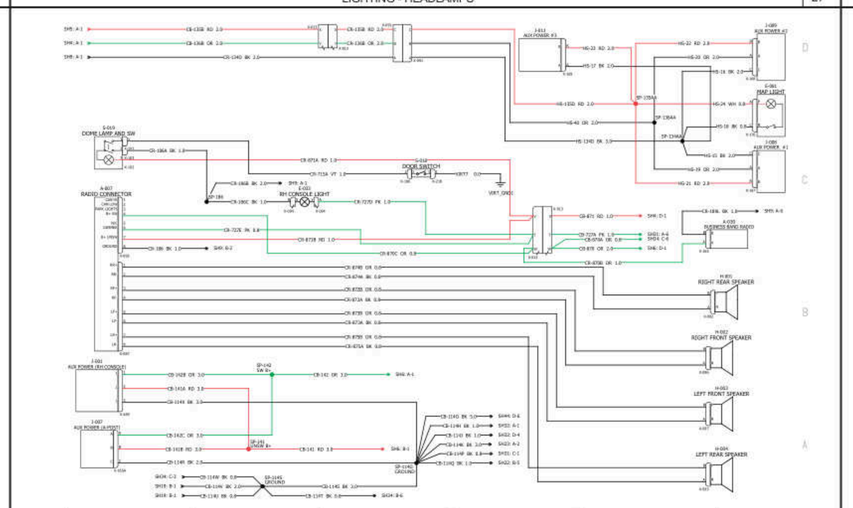
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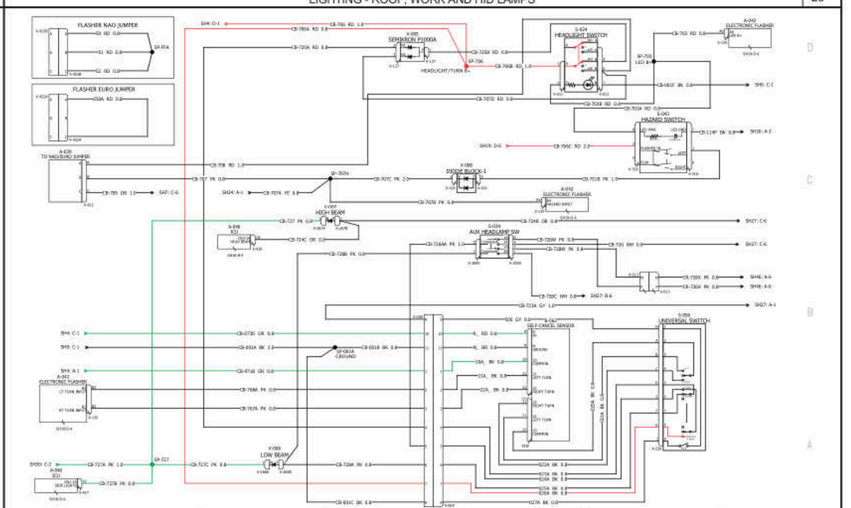
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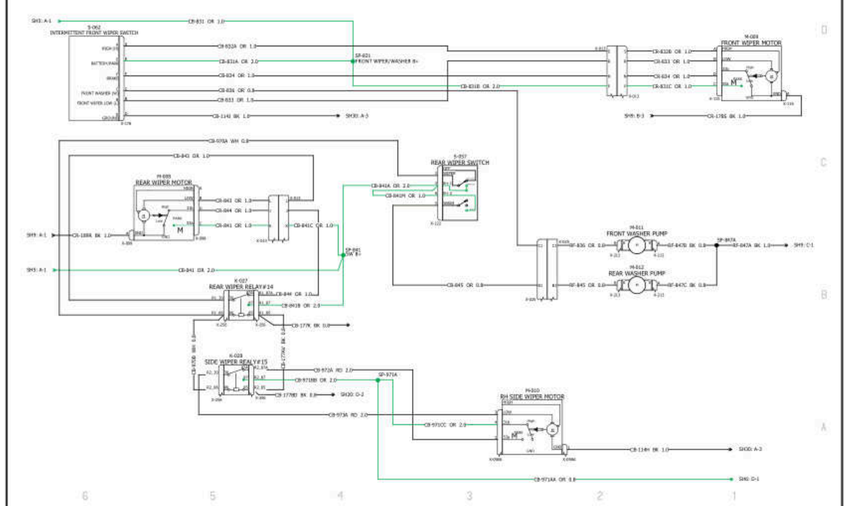
LIGHTING - FENDER AND TRAILER 29



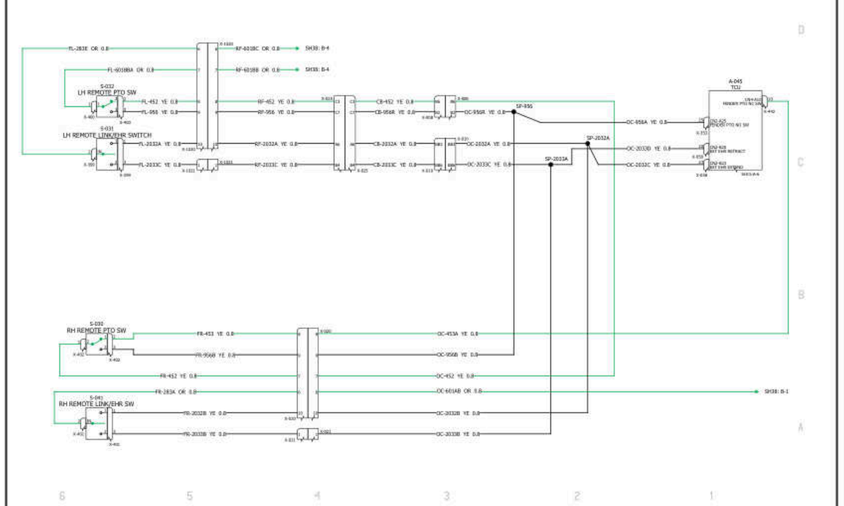
LIGHTING - DOME, AUXILIARY POWER AND RADIO 30



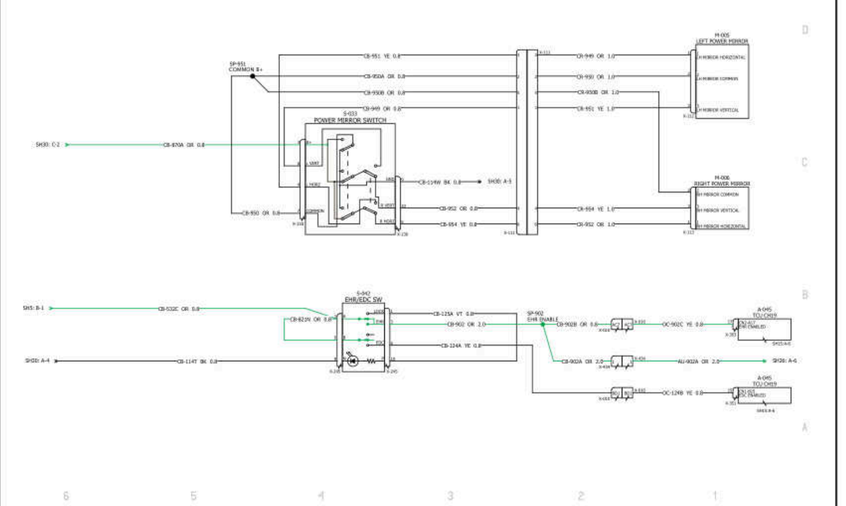
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