SERVICE MANUAL

T8.320 / T8.350 / T8.380 / T8.410 / T8.435 / T8.380 SmartTrax™ / T8.410 SmartTrax™ / T8.435 SmartTrax™

Continuously Variable Transmission (CVT)

Tractor

PIN ZERE08100 and above

Part number 47748117
1st edition English
November 2014

MidWestTech | New Holland T8.320, T8.350, T8.380, T8.410, T8.435 SmartTrax CVT Tractor Service Manual | Publication 47748117

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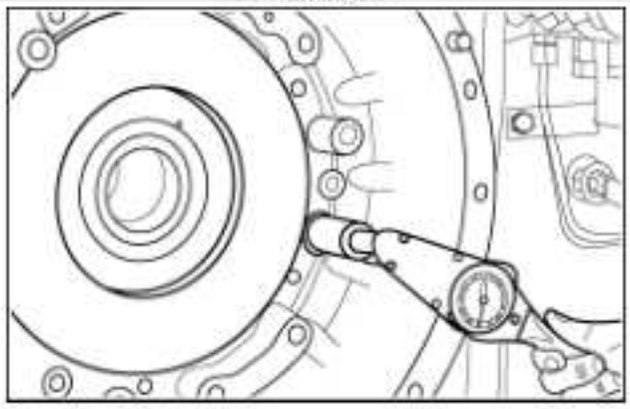
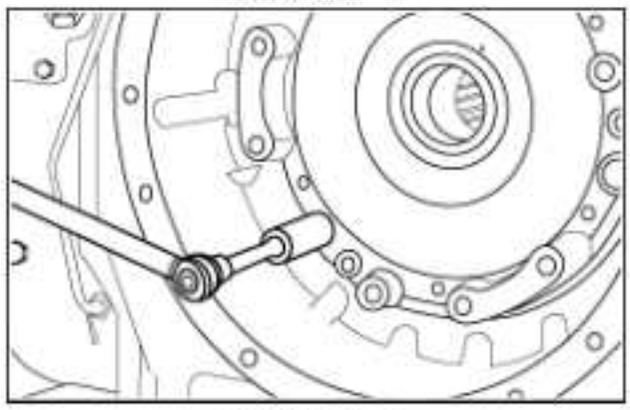
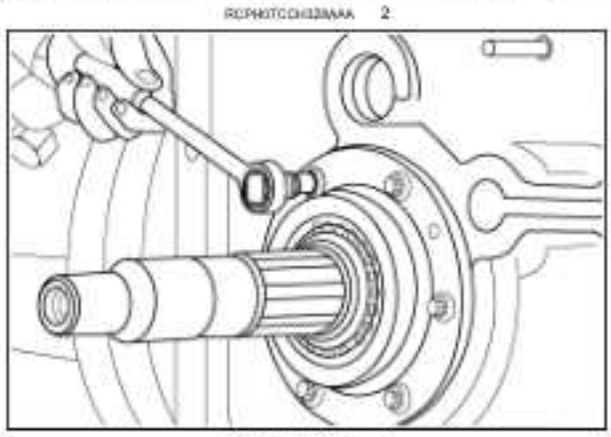
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Differential - Torque

T8.320 696110727 CVT TIER 4B [ZERE08100 -]	NA
T8.350 696110737 CVT TIER 4B [ZERE08100 -]	NA
T8.380 696110747 CVT TIER 4B [ZERE08100 -]	NA
T8.410 696110757 CVT TIER 4B [ZERE08100 -]	NA

Component	N·m	Identification	lb-ft/in
Right hand retainer	221 - 250 N·m	 RCPH0TCDH329AAA 1	163 - 184 lb ft
Left hand retainer	221 - 250 N·m	 RCPH0TCDH328AAA 2	163 - 184 lb ft
Pinion shaft assembly mounting bolts	120 - 132 Nm	 RCPH0TCDH675BAA 3	89 - 97 lb ft

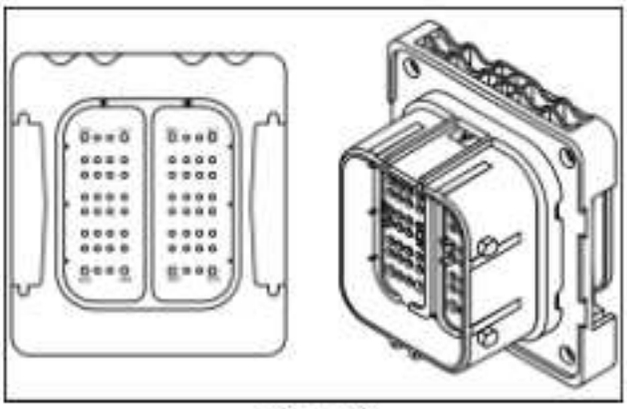
Differential - Service limits

T8.320 696110727 CVT TIER 4B [ZERE08100 -]	NA
T8.350 696110737 CVT TIER 4B [ZERE08100 -]	NA
T8.380 696110747 CVT TIER 4B [ZERE08100 -]	NA
T8.410 696110757 CVT TIER 4B [ZERE08100 -]	NA

Bearing retainer seal recess	**0.8 mm (0.031 in)**
Bearing (new) rolling torque	**4.5 - 9.0 Nm (40 - 80 lb in)**
Bearing (used) rolling torque	**2.25 - 3.95 Nm (20 - 35 lb in)**
Ring and pinion backlash	**0.179 - 0.279 mm (0.007 - 0.011 in)**

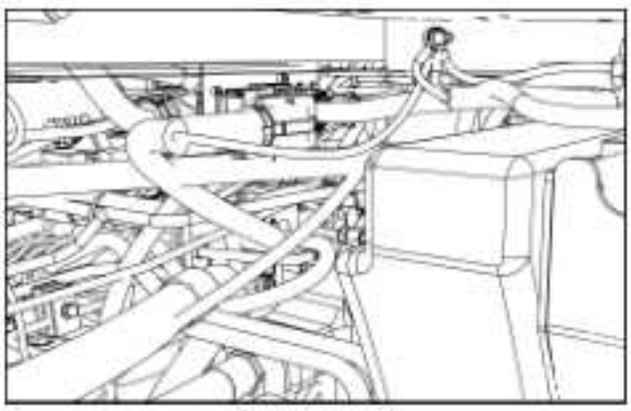
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X-026 - TO OUTSIDE CAB HARNESS (84254824) (Male)



84254824 18

84254824



RAIL14TR01HSAA 19

Pin	From	Wire	Description	Color-Size	Frame
AA1	**X-350 (Female) pin 6** CN1A	OC-516	+8V REF OUT	PK - 0.8	**Wiring harnesses - Electrical schematic sheet 41 - Hitch control system - Electronic draft control (EDC) (55.100)**
AA2	**X-442 (Female) pin 19** CN4A	OC-920	SECONDARY STEERING BYPASS SOL HI	WH - 0.8	**Wiring harnesses - Electrical schematic sheet 49 - Secondary steering system (55.100)**
AA3	**X-351 (Female) pin 6** CN1B	OC-515	LEFT DRAFT PIN SIG	WH - 0.8	**Wiring harnesses - Electrical schematic sheet 41 - Hitch control system - Electronic draft control (EDC) (55.100)**
AA4	SP-562-P-PIN1	OC-562A	PARK BRAKE RELAY DRIVER	WH - 0.8	**Wiring harnesses - Electrical schematic sheet 24 - Brake switches (55.100)**
AA4	SP-562-P-PIN1	OC-562A	PARK BRAKE RELAY DRIVER	WH - 0.8	
AA5	SP-674-P-X	OC-562C	PARK BRAKE SOL HI	WH - 0.8	
AA6	**X-355 (Female) pin 20** CN3B	OC-500	TRANS SUMP TEMP SIG	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 15 - Transmission, sensors, front suspension (55.100)**
AA7	**X-351 (Female) pin 3** CN1B	OC-870	RPTO SHAFT SIZE	TN - 0.8	**Wiring harnesses - Electrical schematic sheet 16 - Transmission, brakes, hitch, radar (55.100)**
AA8	SP-325B-P-X	OC-325E	SW B+	OR - 2.0	**Wiring harnesses - Electrical schematic sheet 14 - Transmission, power distribution (55.100)**
AB1	**X-442 (Female) pin 23** CN4A	OC-511	HITCH/EDC POSITION POT LO	GY - 0.8	**Wiring harnesses - Electrical schematic sheet 16 - Transmission, brakes, hitch, radar (55.100)**
AB2	**X-058 (Female) pin 33** CN2B	OC-921	PRIMARY STEERING PRESSURE SIGNAL	YE - 0.8	**Wiring harnesses - Electrical schematic sheet 49 - Secondary steering system (55.100)**
AB3	**X-353 (Female) pin 5** CN2A	OC-854	SYSTEM PRESS/ACC BYPASS VALVE HI	WH - 0.8	**Wiring harnesses - Electrical schematic sheet 13 - Transmission, solenoids and sensors (55.100)**
AB4	SP-562-P-PIN1	OC-562E	EURO/NA on/off PARK BREAK SOL HI	WH - 0.8	**Wiring harnesses - Electrical schematic sheet 16 - Transmission, brakes, hitch, radar (55.100)**

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18044-EHR (remote valve) 3 lever position - voltage too low

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

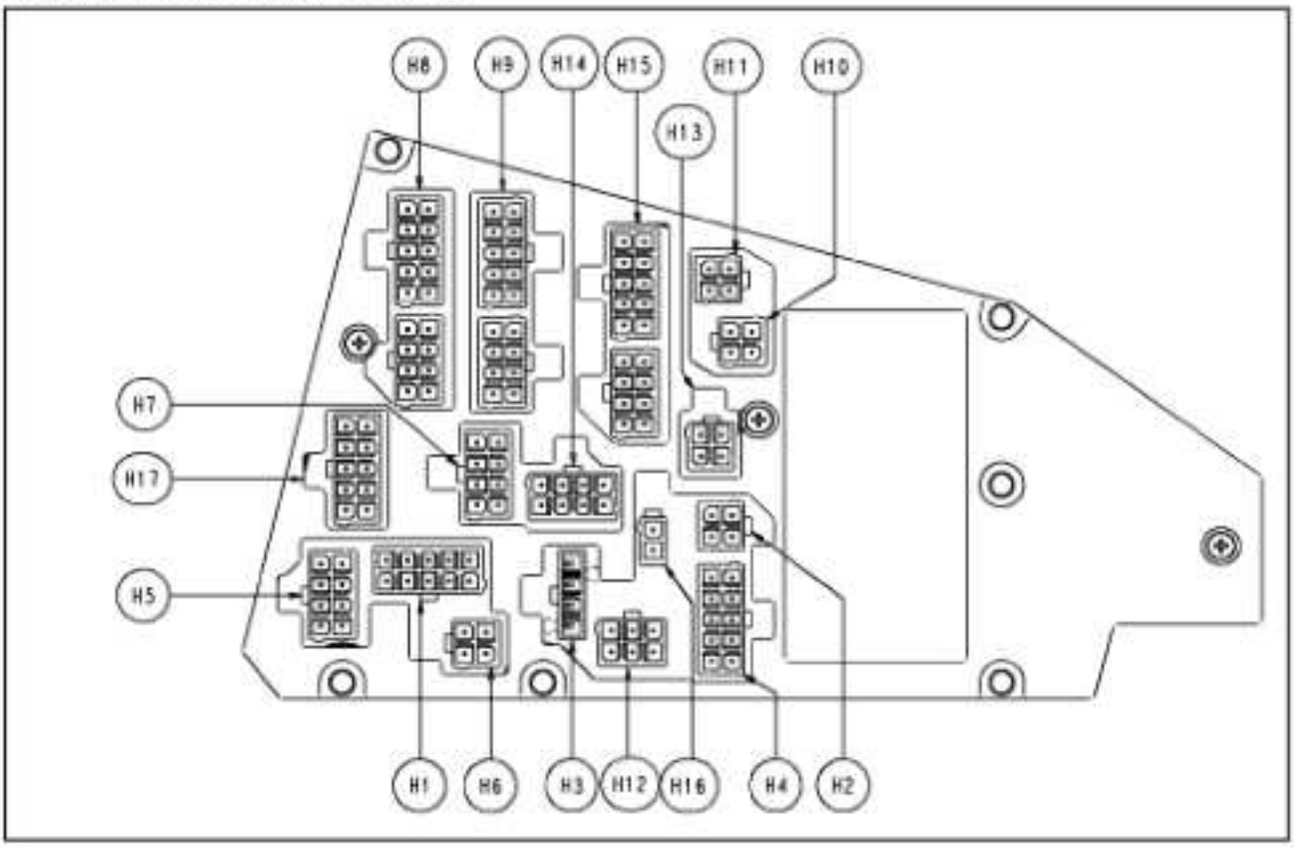
Cause:
Voltage from sensor too low (below **0.2 V**) as measured inside the armrest by the control module.

Possible failure modes:

1. Faulty remote valve3 lever
2. Incorrect armrest configuration
3. Faulty connector
4. Swapped connectors
5. Faulty armrest controller

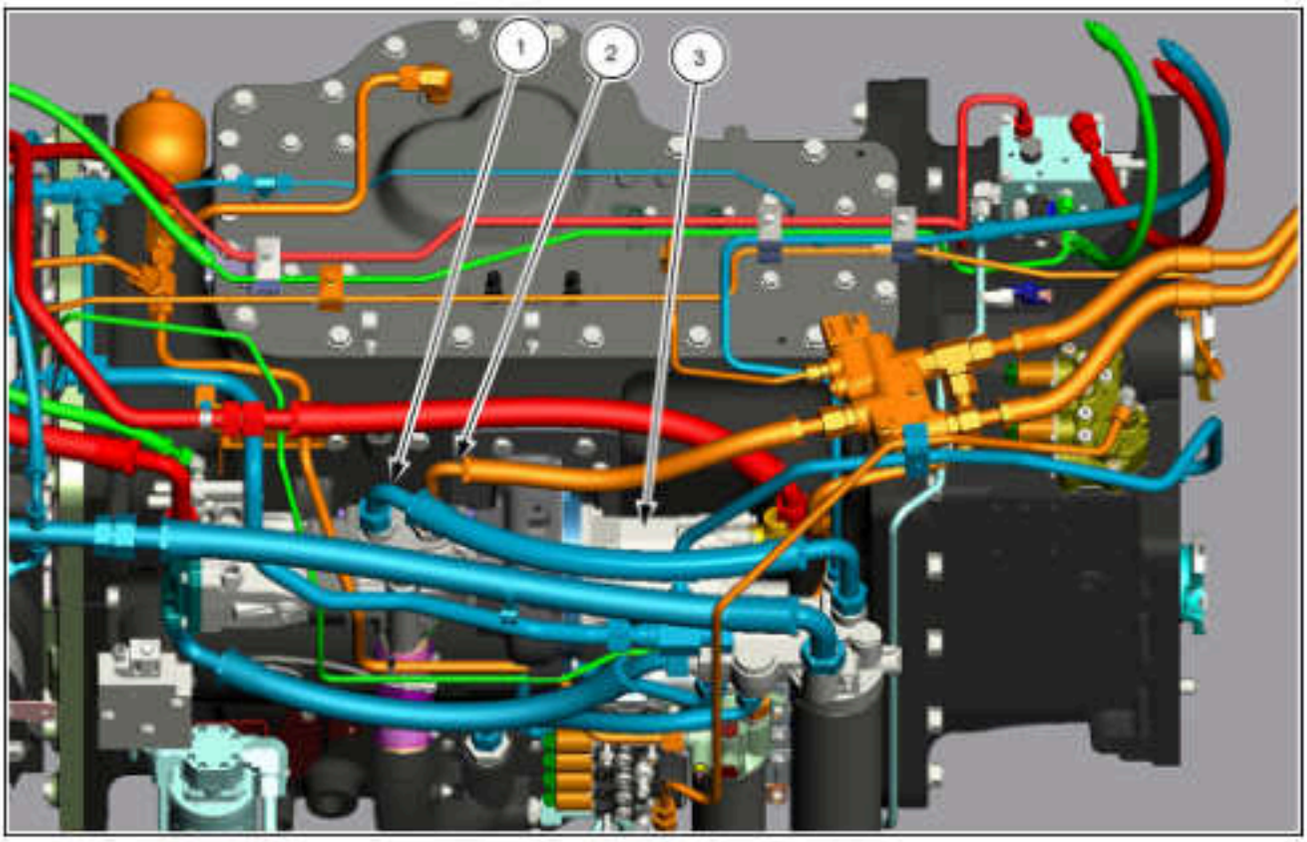
Solution:

1. Check if the fault code is still active. Clear all fault codes. Operate the tractor under normal conditions.
   A. Fault code does not redisplay. Return unit to field operation and monitor for continuing problems.
   B. Fault code redisplays. Continue to step **2**.
2. Use the monitor screen function on the electronic service tool (EST) to check the remote lever 3 operation. Refer to the EST user guide.
   A. Lever not operating correctly. Continue with step **3**.
   B. Lever operating correctly. Return unit to field operation and monitor for problem.
3. Check the armrest controller connectors.



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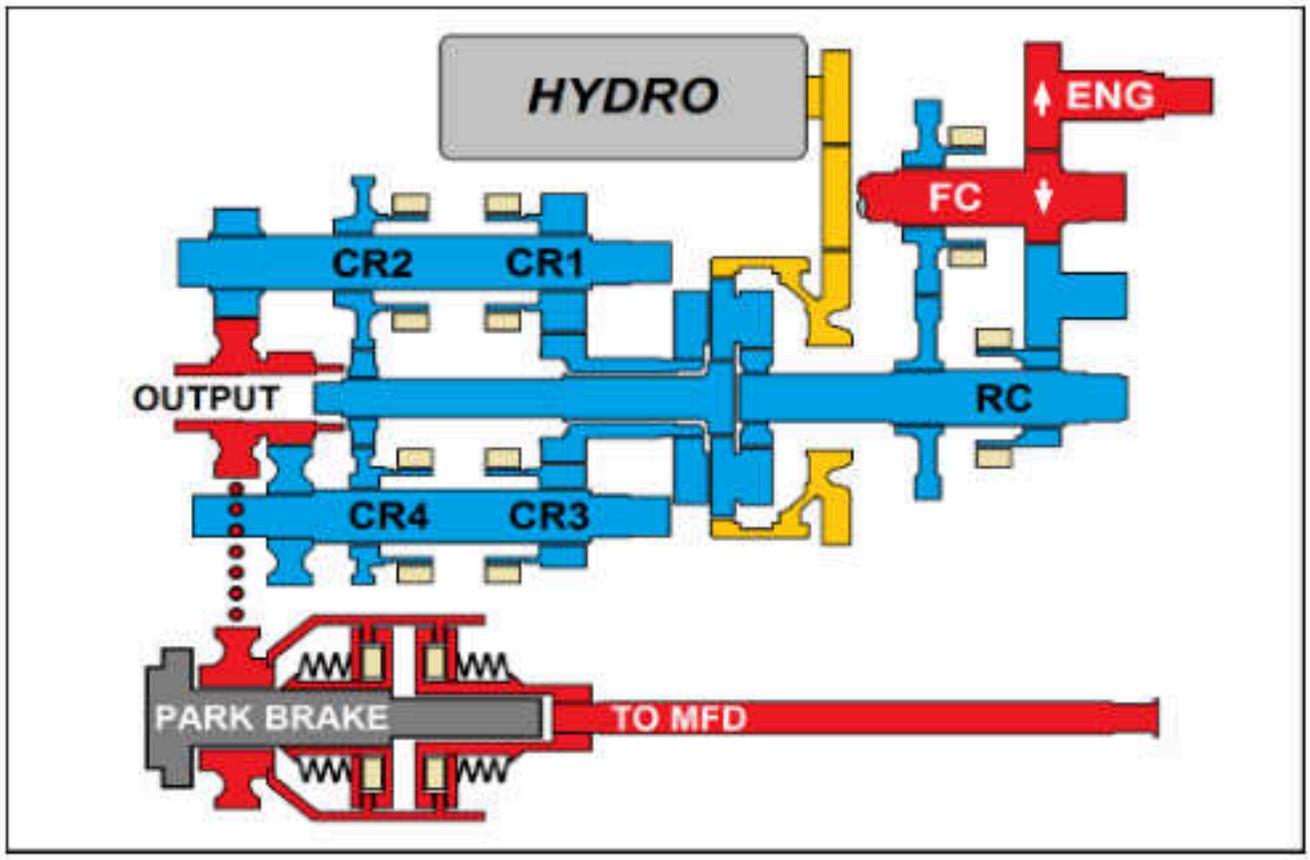
High flow pressure/flow compensating pump — Component identification



RAIL13TR032746A 3

1. Charge/lubrication pump outlet	3. High flow PFC pump
2. Regulated charge pump outlet	

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RAIL13TR04699PA 7

Park position with Mechanical Front Drive (MFD) engaged

Torque transmitting/clutch pressurized	HSU driven
Non-torque transmitting	Clutch not pressurized

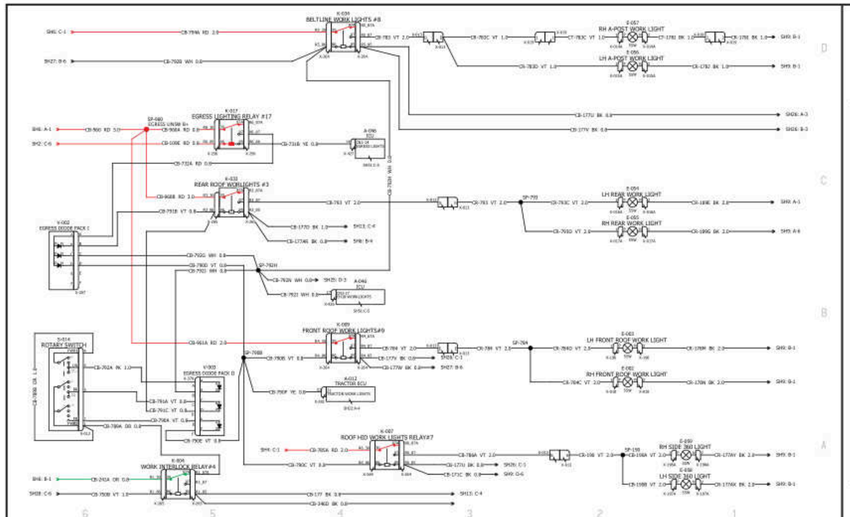
In park, no drive clutches are engaged, but the park brake is; and this locks the output shaft of the transmission. If the Mechanical Front Drive (MFD) clutch is not released, braking is also through the front axle.

The HSU motor drives the large compound planetary ring gear. By varying the speed of the ring gear, the output speed of the planetary system is varied. The engine drives the input sun in the planetary system through the forward or reverse clutch.

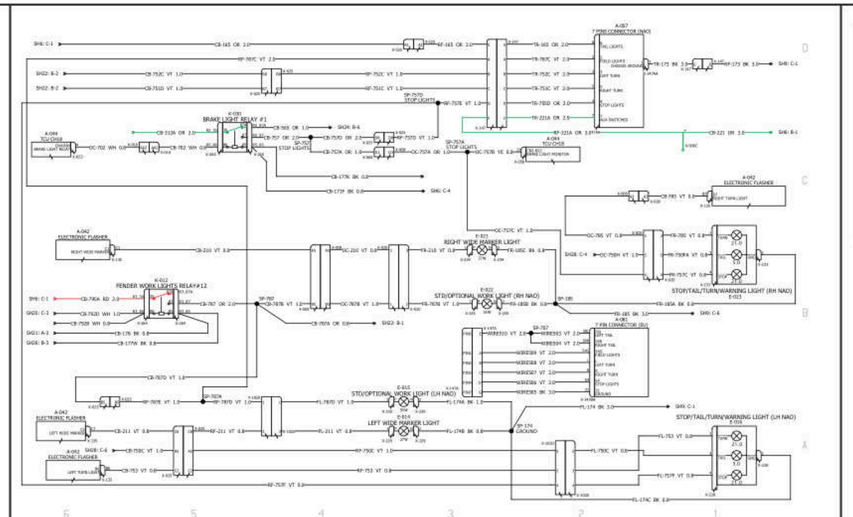
The dual output planetary; one output from the planetary carrier, the other from the output sun gear shaft drives two range shafts containing the four range clutches.

As the vehicle speed increases, the clutches alternate between the planetary outputs and range shafts to ensure seamless shifts and constant transmission output speed increase. The pump swashes back and forth as the clutches are shifted. The TCU calculates when the off-going and the on-coming clutches are speed matched so there is minimal slipping of the clutches during transition. One of the two range shafts then drives the transmission output shaft, depending on which clutch is selected.

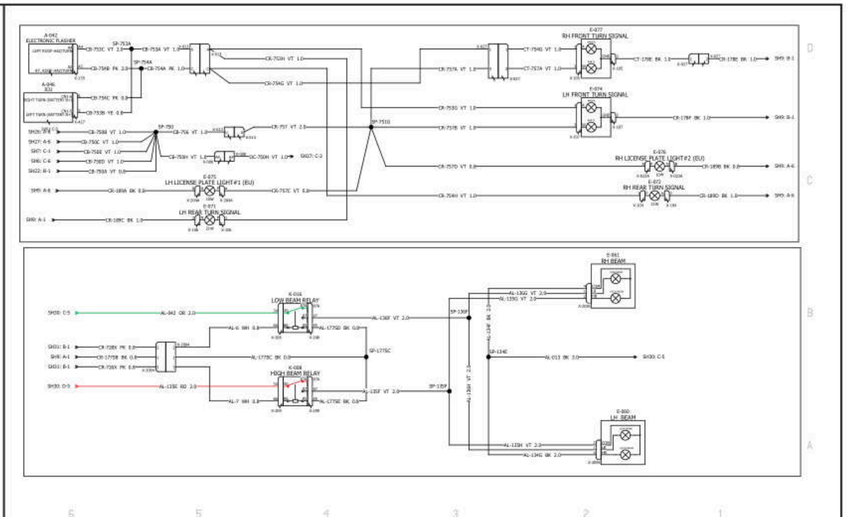
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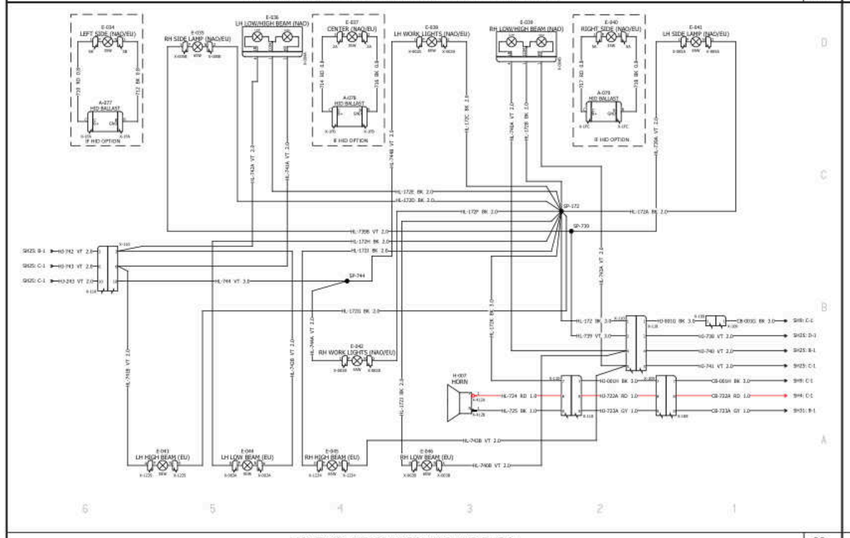
LIGHTING - ROOF WORKLAMPS AND FRONT HITCH LAMPS 26



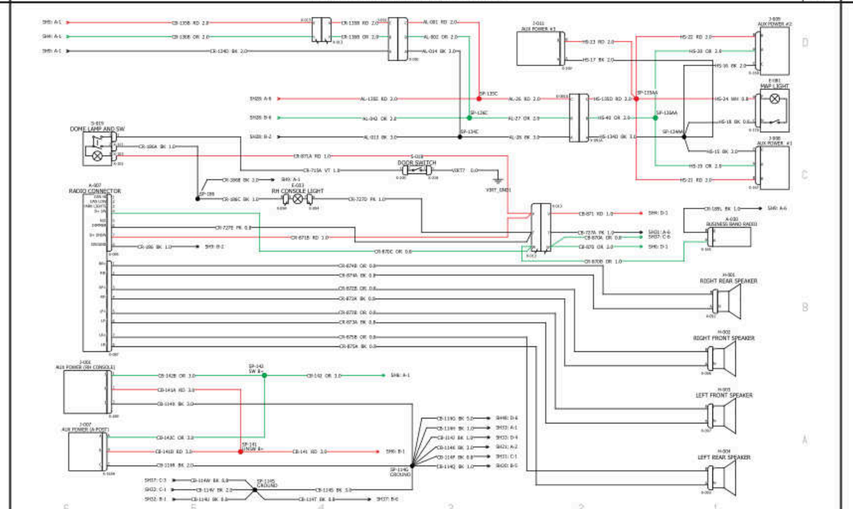
LIGHTING - FENDER AND TRAILER 27



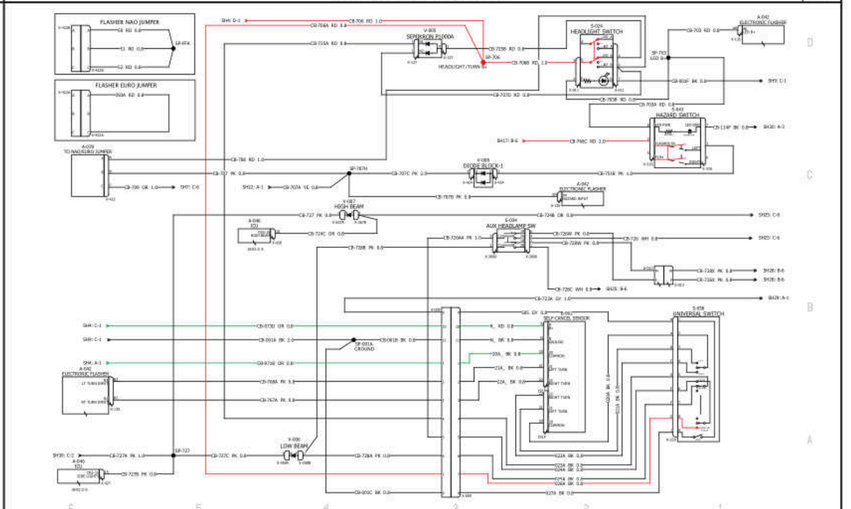
LIGHTING - ROOF TURN LIGHTS 28



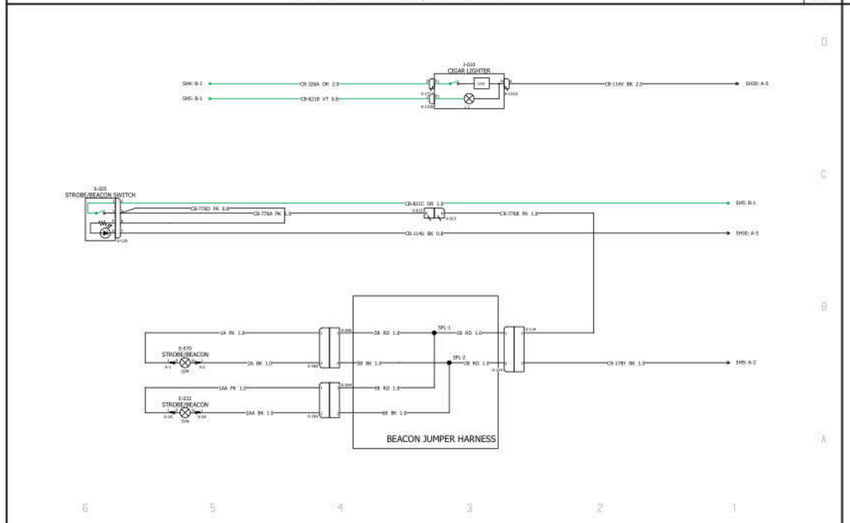
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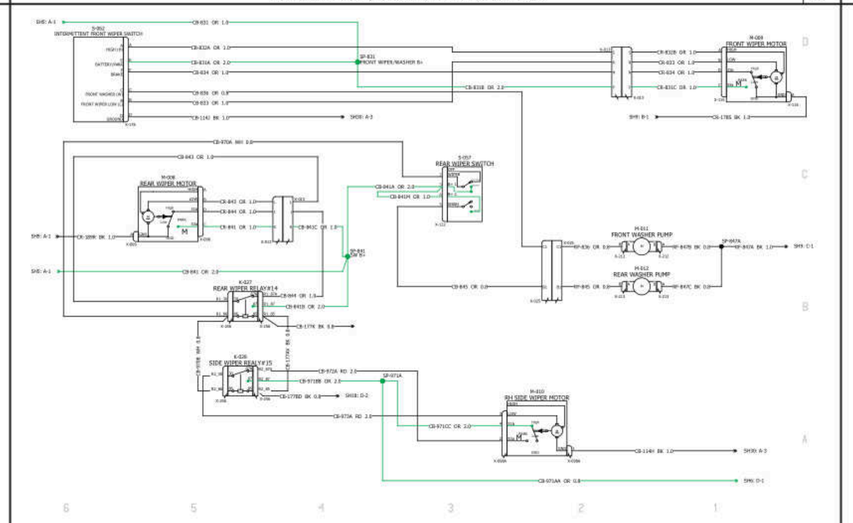
LIGHTING - DOME, AUXILIARY POWER AND RADIO 30



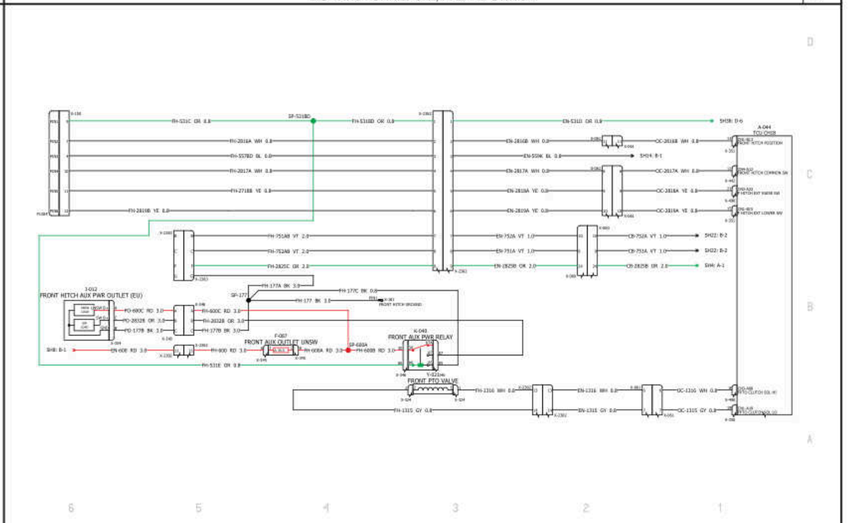
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FRONT AND REAR WIPERS AND WASHER 33



FRONT HITCH 34

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