SERVICE MANUAL

T8.320 / T8.350 / T8.380 / T8.410
Powershift Transmission (PST)

Tractor

PIN ZERE04800 and above

Part number 47685456
1st edition English
May 2014

NEW HOLLAND AGRICULTURE

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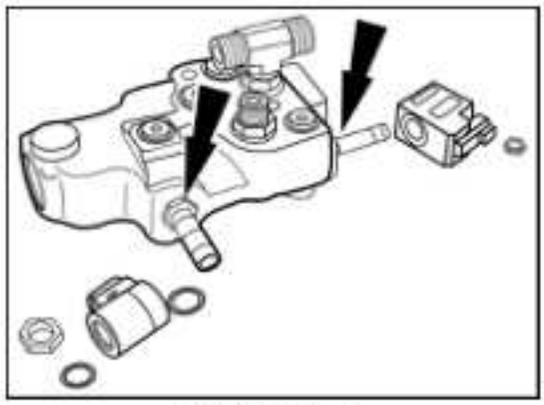
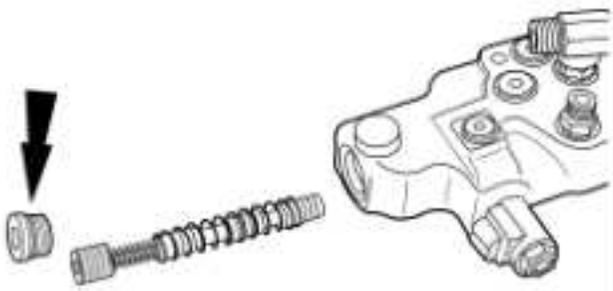
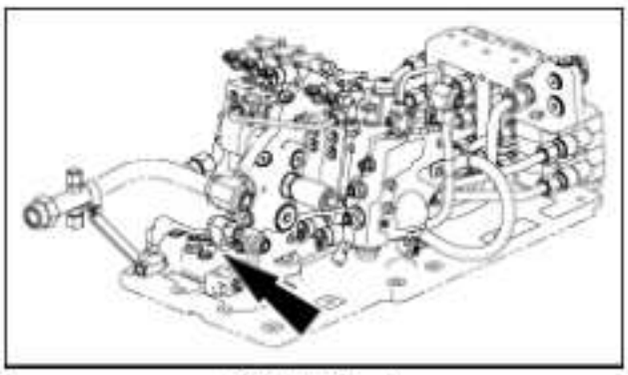
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Power Take-Off (PTO) control valve - Torque

Component	N·m	Identification	lb-ft/lb in
Solenoid valve nut	5 - 8 Nm	 RCPH0TCDH428AE 1	4 - 6 lb ft
Plug	34 - 54 Nm	 RCPH0TCDH030AE 2	25 - 40 lb ft
Solenoid cartridge	12 - 18 Nm		9 - 13 lb ft
Valve mounting bolts	41 - 46 Nm	 RCPH0TCDH033AE 3	30 - 34 lb ft

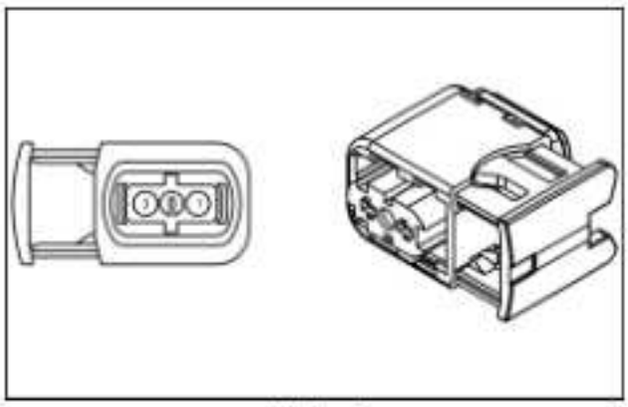
Power Take-Off (PTO) control valve - Service limits

Modulation spring (smaller) free length	**39.17 mm** (**1.542 in**)
Modulation spring load test	Replace the modulation spring if it compresses to a height of less than **39.17 mm** (**1.542 in**) with a test load of **136.5 N** (**30.7 lb**) ± **13.66 N** (**3.07 lb**).
Preload spring (larger) free length	**98.39 mm** (**3.873 in**)
Preload spring load test	Replace the preload spring if it compresses to a height of less than **47.52 mm** (**1.871 in**) with a test load of **106.75 N** (**30.7 lb**) ± **10.68 N** (**3.07 lb**).

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Connector X-9018 - Exhaust gas absolute pressure sensor

CONNECTOR X-9018 - Exhaust gas absolute pressure sensor			
PIN NUMBER	**WIRE NUMBER**	**CIRCUIT REFERENCE**	**ELECTRICAL SCHEMATIC FRAME**
1	EN-033	Sensor supply	**Wire harnesses - Electrical schematic sheet 05 - Engine inputs/outputs (55.100)**
2	EN-034	Sensor ground	
3	EN-035	Sensor signal	



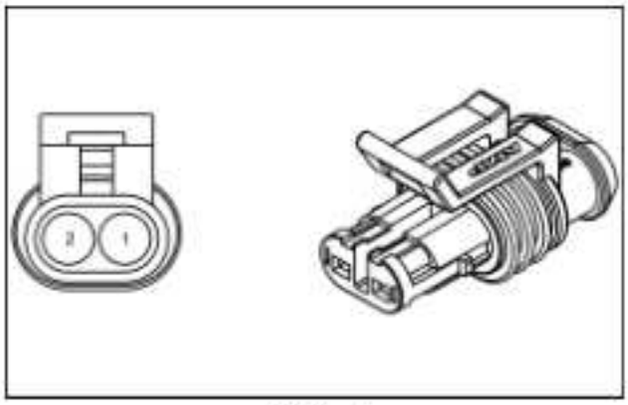
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Connector X-9019 - Fuel pre-filter clogging pressure sensor

CONNECTOR X-9019 - Fuel pre-filter clogging pressure sensor			
PIN NUMBER	**WIRE NUMBER**	**CIRCUIT REFERENCE**	**ELECTRICAL SCHEMATIC FRAME**
1	EN-034B	Sensor ground	**Wire harnesses - Electrical schematic sheet 05 - Engine inputs/outputs (55.100)**
2	-	-	
3	EN-037A	Sensor supply	**Wire harnesses - Electrical schematic sheet 05 - Engine inputs/outputs (55.100)**
4	EN-036	Sensor signal	

Connector X-9020 - Fuel filter clogging sensor

CONNECTOR X-9020 - Fuel filter clogging sensor			
PIN NUMBER	**WIRE NUMBER**	**CIRCUIT REFERENCE**	**ELECTRICAL SCHEMATIC FRAME**
1	EN-606	Ground	**Wire harnesses - Electrical schematic sheet 05 - Engine inputs/outputs (55.100)**
2	EN-038	Signal	



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A. Error code does not redisplay. Return unit to field operation.

B. Error code redisplays. Continue to step **6**.

6. Swap the pilot head causing the error with another pilot head.

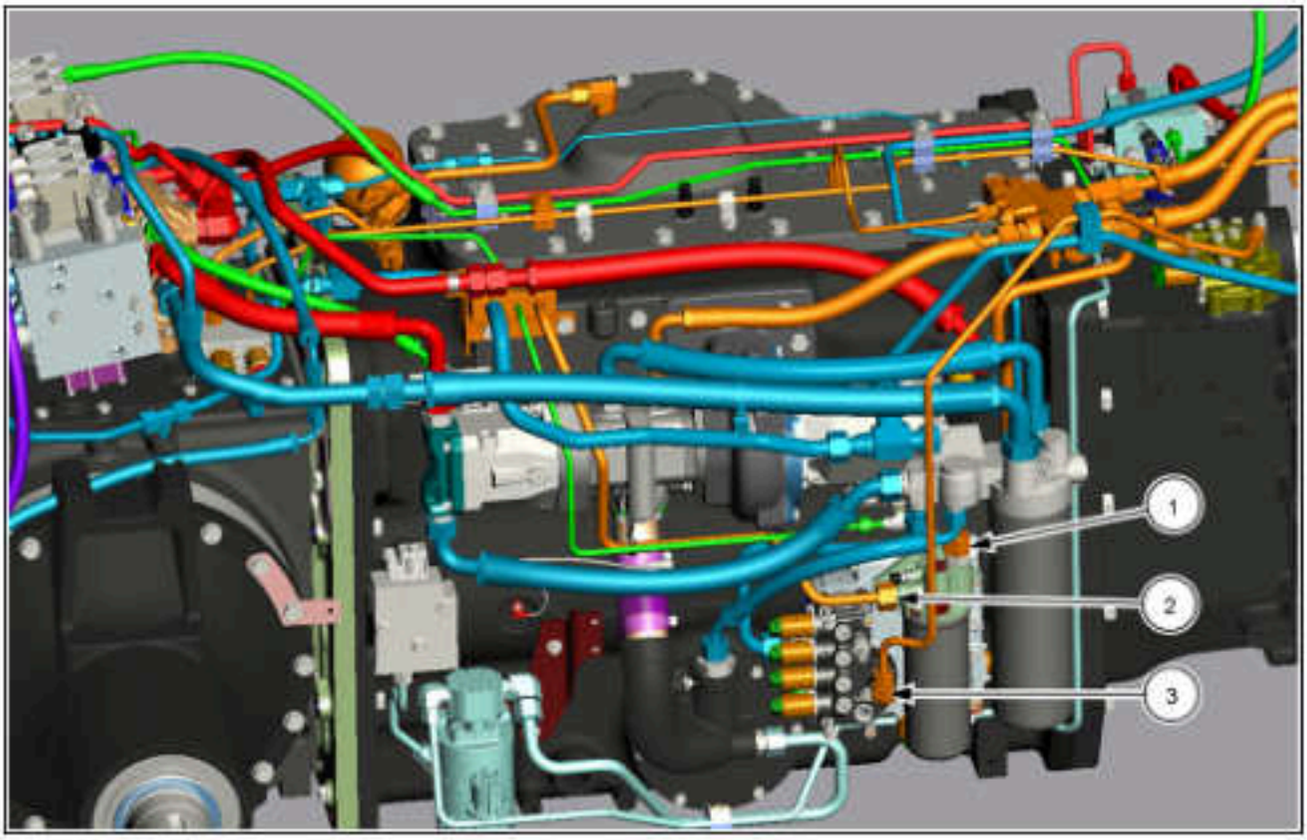
   Retest system operation.

   A. Error code follows the pilot head move. Replace the pilot head. Return unit to field operation.

   B. Error code does not follow the pilot head move. Return the pilot heads to their original location and submit a concern to ASIST.

Wire harnesses - Electrical schematic sheet 23 (55.100.DP-C.20.E.23)
Wire harnesses - Electrical schematic sheet 46 (55.100.DP-C.20.E.46)

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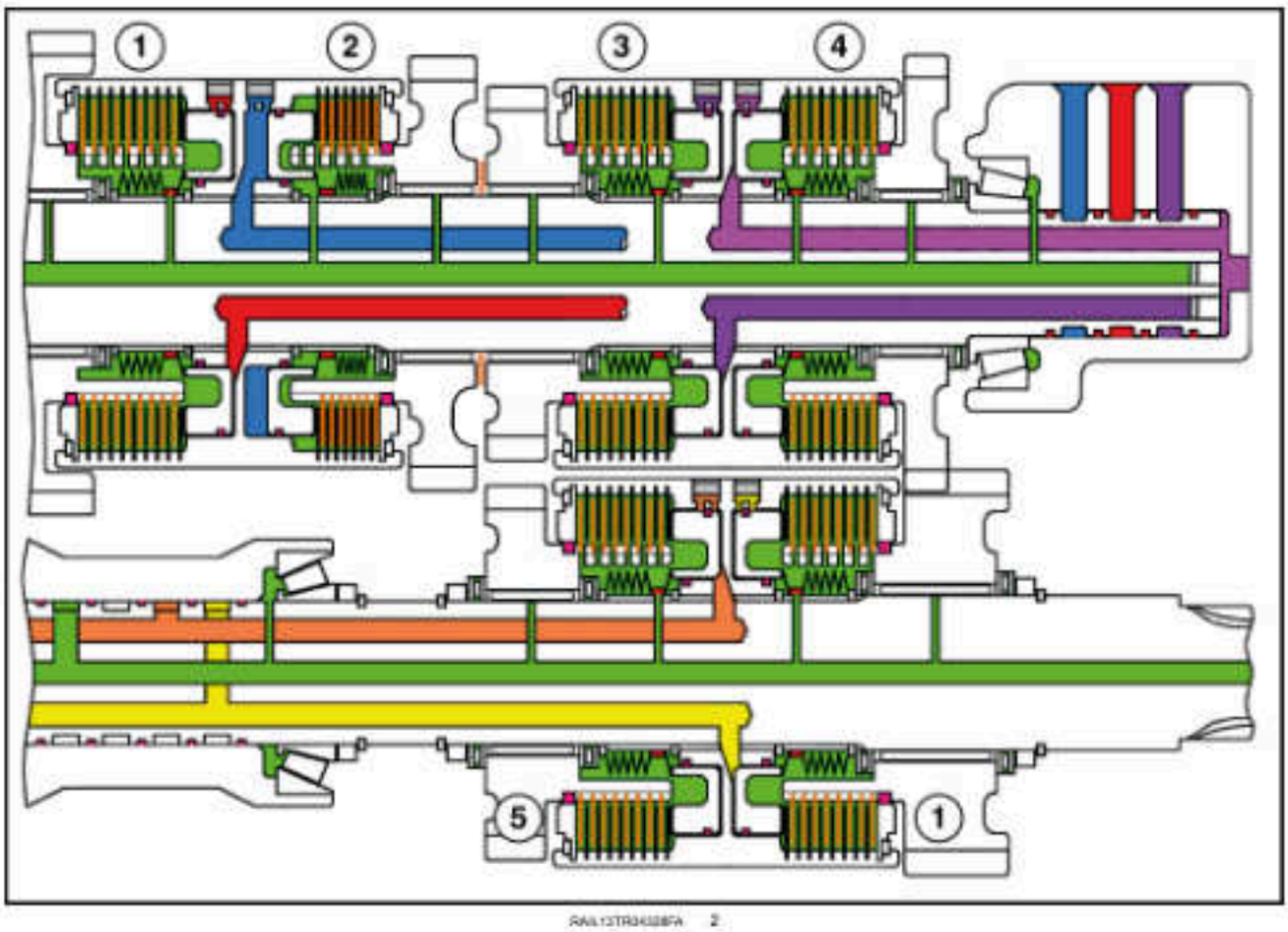
RAIL15TR03773PA 2

Regulated circuit flow

1. Cooler return to regulated circuit filter assembly
2. Regulated supply outlet
3. Regulated supply outlet to transmission forward/reverse control valve

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Speed housing clutch oil supply



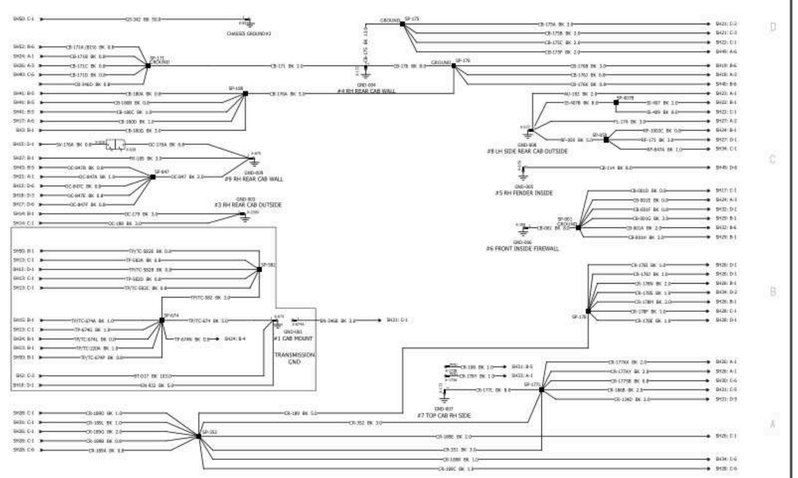
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Lubrication oil
Odd clutch supply
Even clutch supply
1-2 clutch supply
3-4 clutch supply
5-6 clutch supply
Reverse clutch supply

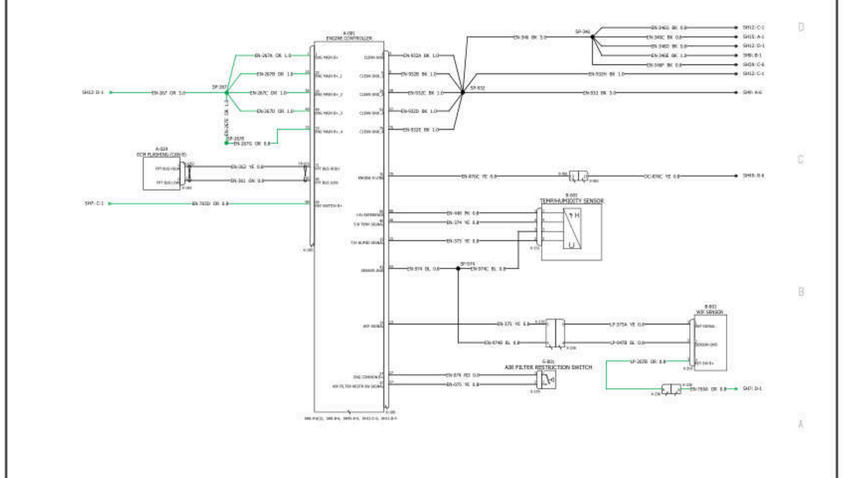
1. 1-2 clutch	4. Reverse clutch
2. 3-4 clutch	5. Odd clutch
3. 5-6 clutch	6. Even clutch

As oil is supplied to a clutch, the clutch locks and its gear is locked to the shaft. Torque is transmitted from the shaft through the clutch to the gear, or from the gear through the clutch to the shaft. Gears are in constant mesh, and the even gear is in mesh with the reverse gear/clutch and a countershaft gear. The even gear is used as an idler in some reverse gears and as direct drive to the reverse clutch in others. The master clutch is located between the speed output shaft and the range input shaft. All clutches are constantly supplied pressurized lubricating oil to keep them clean and cool.

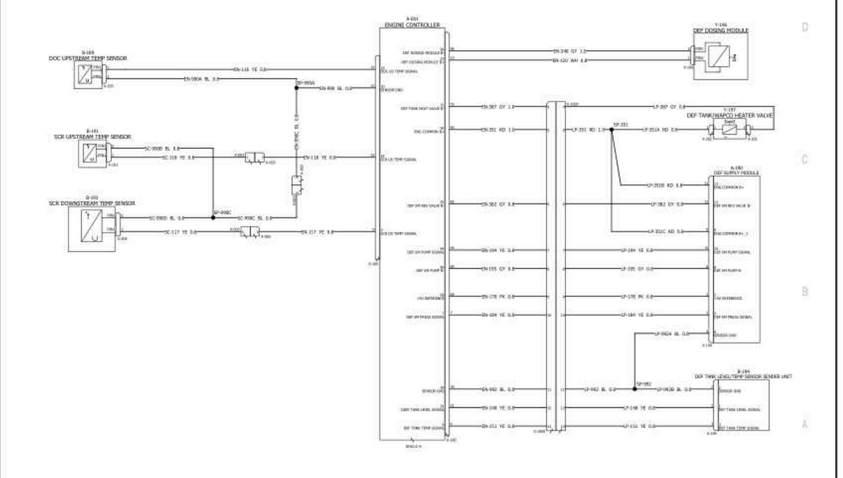
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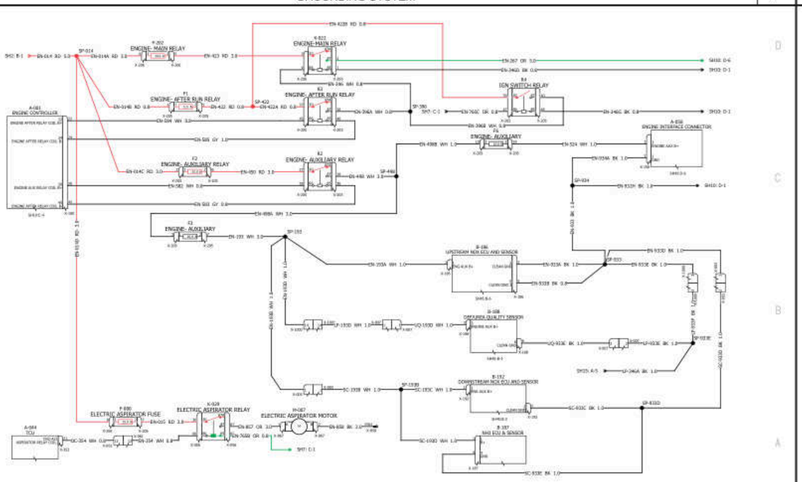
GROUNDING SYSTEM 9



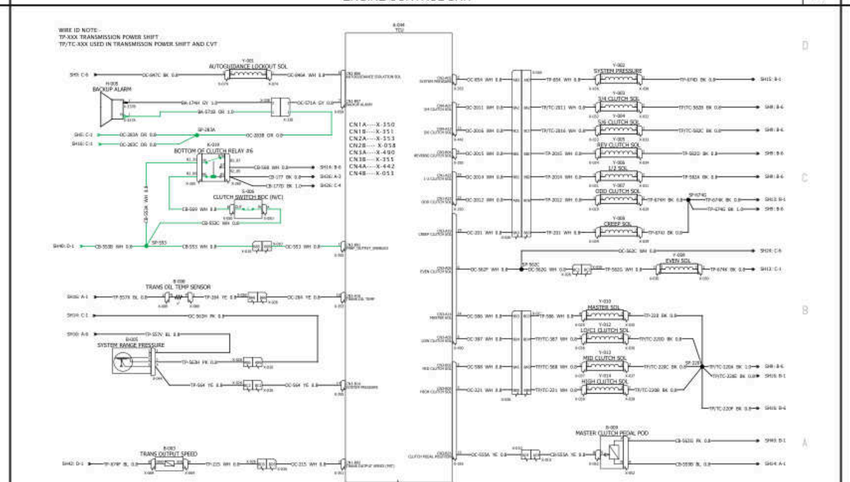
ENGINE CONTROL UNIT 10



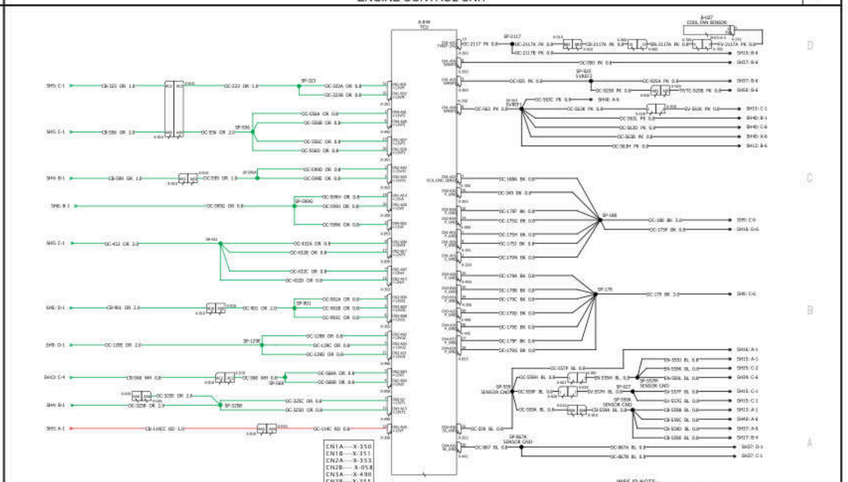
ENGINE CONTROL UNIT 11



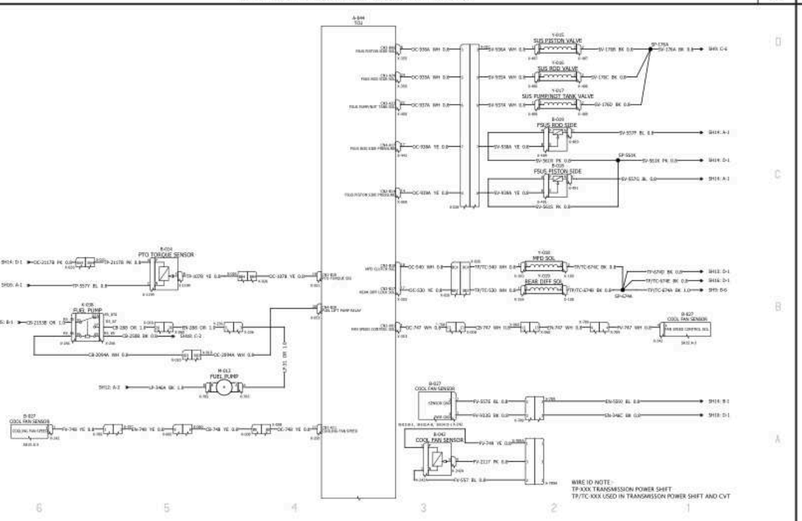
POWER DISTRIBUTION ENGINE / SENSORS 12



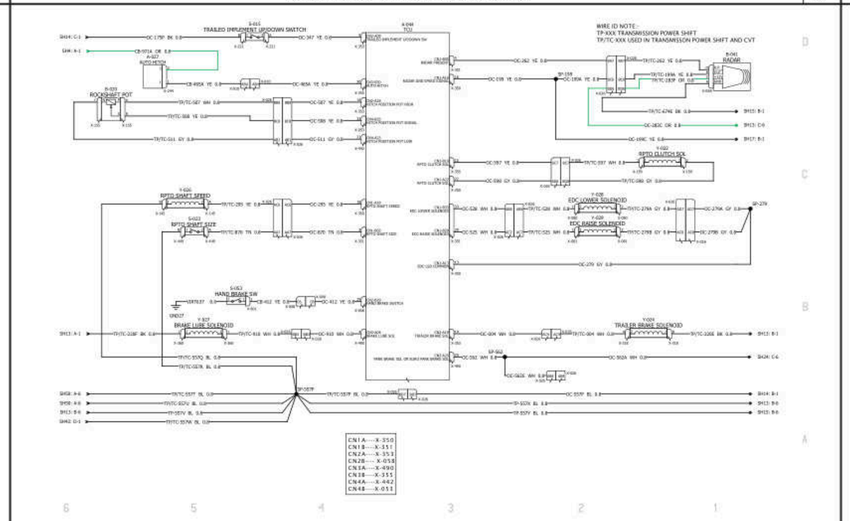
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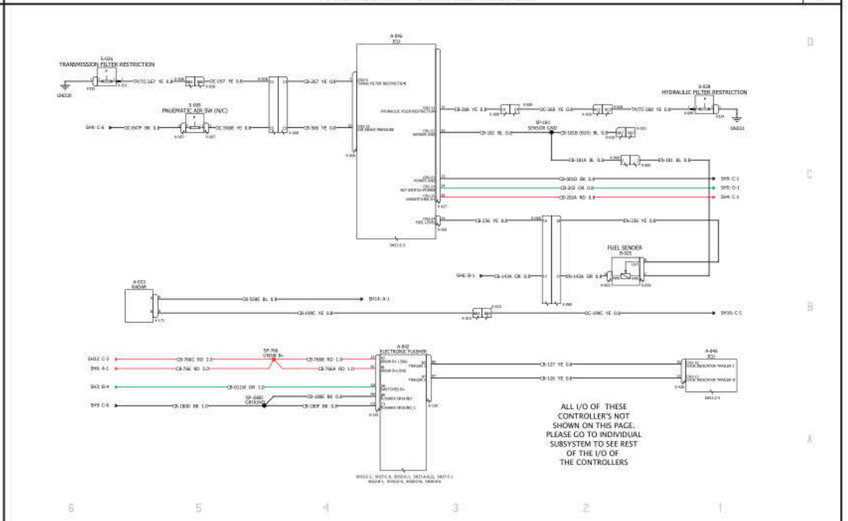
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TRANSMISSION - SENSORS, FRONT SUSPENSION 15



TRANSMISSION - BRAKES, HITCH, RADAR 16



INSTRUMENT CLUSTER, ELECTRONIC FLASHER 17

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