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 ZFRE03123 and above

Part number 47917992
1st edition English
October 2015

NEW HOLLAND AGRICULTURE

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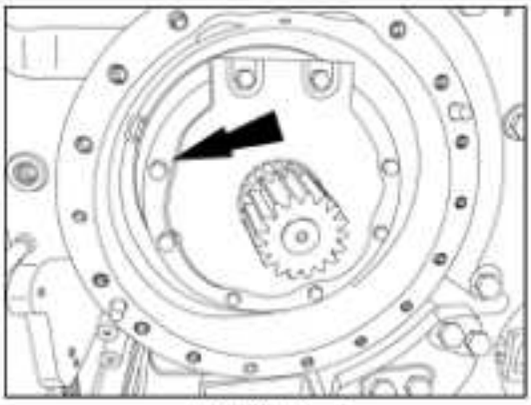
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Component	N·m	Identification	lb-ft
Brake cover bolts	177 - 197 Nm		130 - 145 lb ft

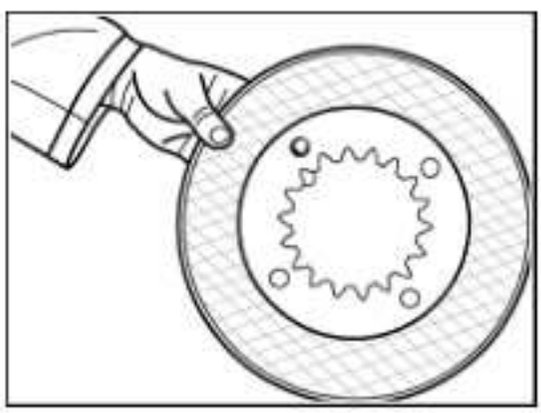
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Brakes - Service limits

T8.380 SmartTrax™ PST TIER 4B [ZFRE03123 -]	
T8.410 SmartTrax™ PST TIER 4B [ZFRE03123 -]	
T8.435 CVT TIER 4B [ZFRE03123 -]	
T8.435 SmartTrax™ CVT TIER 4B [ZFRE03123 -]	

Service brake friction plate

Replace the friction plates when plate thickness is less than **3.45 mm** (**0.136 in**).

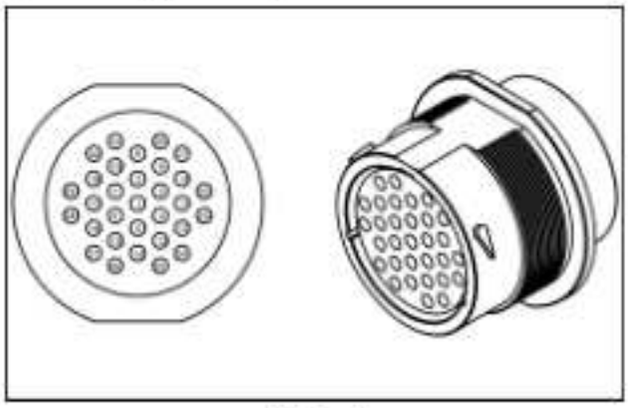


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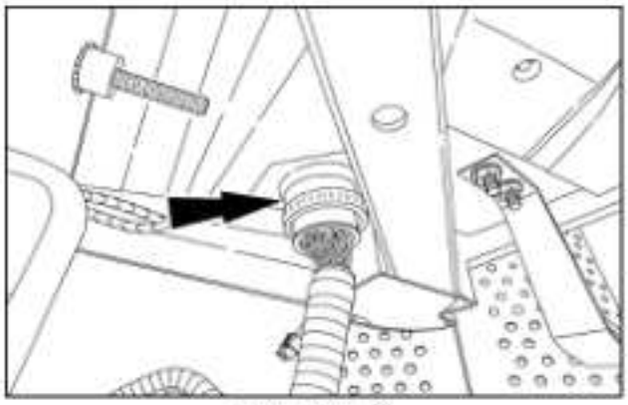
Wire connectors - Component diagram 06 - Connectors 60 - 69

X-060 - TO ENGINE HARNESS (84400777) (Female)



84400777 1

84400777



RAL1117R03528AA 2

Pin	From	Wire	Description	Color-Size	Frame
1	SP-532A-P-X	CB-532B	AXLE SENSOR SW B+	OR - 0.8	**SHEET 38**
2	SP-181-P-X	CB-181A	ICU SENSOR GND	BL - 0.8	**SHEET 17**
3	**X-042 (Female) pin R5_87** RELAY BLOCK	CB-622A	STARTER RELAY COIL B+	WH - 1.0	**SHEET 08**
4	**X-139A (Male) pin C** HVAC CONTROL	CB-353	A/C COMPRESSOR CLUTCH	WH - 0.8	**SHEET 21**
5	**X-010 (Male) pin BC3** TO CAB HARNESS	CB-420A	CLEAN GROUND	BK - 0.8	**SHEET 36**
6	**X-010 (Male) pin BC5** TO CAB HARNESS	CB-418	STEERING POT SIGNAL (1)	YE - 0.8	
7	**X-139A (Male) pin Z** HVAC CONTROL	CB-228	HVAC HI PRESS SW	GY - 1.0	**SHEET 21**
8	**X-008 (Male) pin B8** TO CAB HARNESS	CB-748	COOLING FAN SPEED SENSOR	YE - 0.8	**SHEET 15**
9	SP-751-P-X	CB-751A	RIGHT TURN	VT - 1.0	**SHEET 22**
10	SP-752-P-X	CB-752A	LEFT TURN	VT - 1.0	
11	SP-131A-P-X	CB-131A	CAN HI (TR)	YE - 0.8	**SHEET 43**
12	SP-133A-P-X	CB-133A	CAN LO (TR)	GN - 0.8	
13	**X-008 (Male) pin C1** TO CAB HARNESS	CB-747	FAN COIL HIGH	WH - 0.8	**SHEET 15**
14	**X-239 (Female) pin 5A** FUSE BLOCK X-239	CB-765	ENGINE B+	OR - 0.8	**SHEET 07**
15	**X-010 (Male) pin BB2** TO CAB HARNESS	CB-2117A	FAN B+	PK - 0.8	**SHEET 14**
16	**X-427 (Female) pin 25** ICU CN1	CB-121	ALT EXCITE D+	YE - 0.8	**SHEET 08**
17	SP-143-P-X	CB-143A	FUEL SENDER 12V	OR - 0.8	**SHEET 06**
18	**X-426 (Female) pin 24** ICU CN3	CB-236	FUEL LEVEL SIGNAL	YE - 0.8	**SHEET 17**
19	SP-559A-P-X	CB-559D	STEER POT SEN GND	BL - 0.8	**SHEET 14**
20	**X-256 (Female) pin R5_87** RELAY BLOCK	CB-288	FUEL LIFT PUMP SIGNAL SW	OR - 1.0	**SHEET 15**

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18046-EHR (remote valve) float control switch error

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

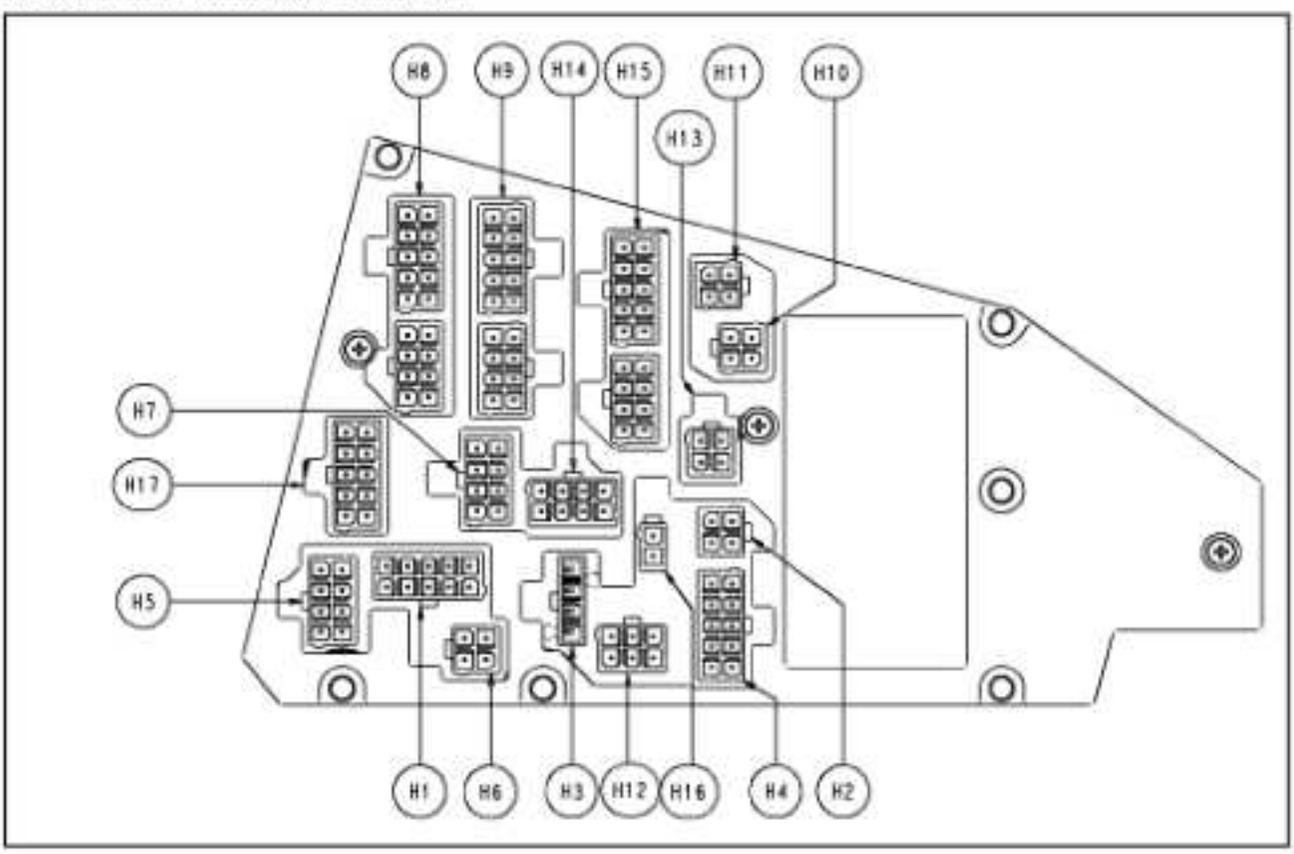
Cause:
Switch or connection is faulty.

Possible failure modes:

1. Faulty EHR float control switch
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 float button operation. Refer to the EST user guide.
   A. Button not operating correctly. Continue with step **3**.
   B. Button operating correctly. Return unit to field operation and monitor for problem.
3. Check the armrest controller connectors.

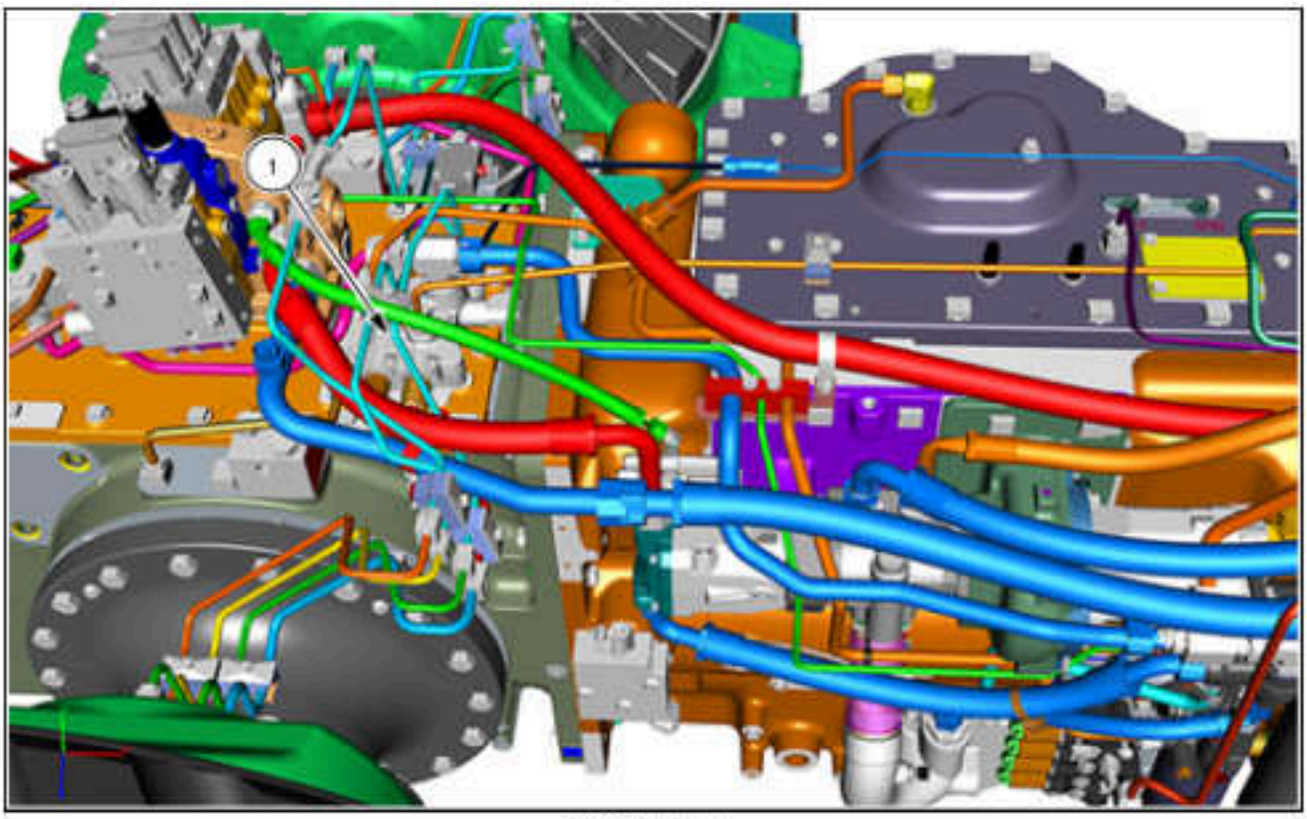


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Power Take-Off (PTO) control valve - Dynamic description

T8.380 SmartTrax™ PST TIER 4B [ZFRE03123 -]	
T8.410 SmartTrax™ PST TIER 4B [ZFRE03123 -]	
T8.435 SmartTrax™ CVT TIER 4B [ZFRE03123 -]	

The Power Take-Off (PTO)/differential lock/lube valve is located on top of the rear frame housing. The PTO/differential lock/lube valve controls the PTO and differential lock operation and distributes lube flow.



RAIL14TR04012GA 1

1. PTO/differential lock/lube valve	

The regulated pressure circuit supplies the PTO and differential lock functions. The regulated supply to both the PTO and differential lock is limited to **22.4 - 24.5 bar** (**325 - 355 psi**). The supply to the PTO clutch and differential lock are internally ported through the rear frame assembly.

The charge/lube circuit supplies the lubrication functions of the valve for these lubrication points: differential lock, pinion, front and rear hydro bearings, rear axle final drives, and service brakes. The amount of lube to the left and right brakes is controlled with the lube solenoid valve. The lube solenoid is used by the Tractor Control Unit (TCU) to minimize lube to the brakes and direct oil to the lube points when the brakes are not applied. When the brakes are applied, a signal from brake pedal switch energizes the lube solenoid to increase flow to the brakes.

The Tractor Control Unit (TCU) controller lubricates the rear axle final drive when these conditions are met:

- engine speed is above **1400 RPM**
- or ground speed is above **35 km/h** (**22 mph**)
- and oil temperature is above **65 °C** (**149 °F**).

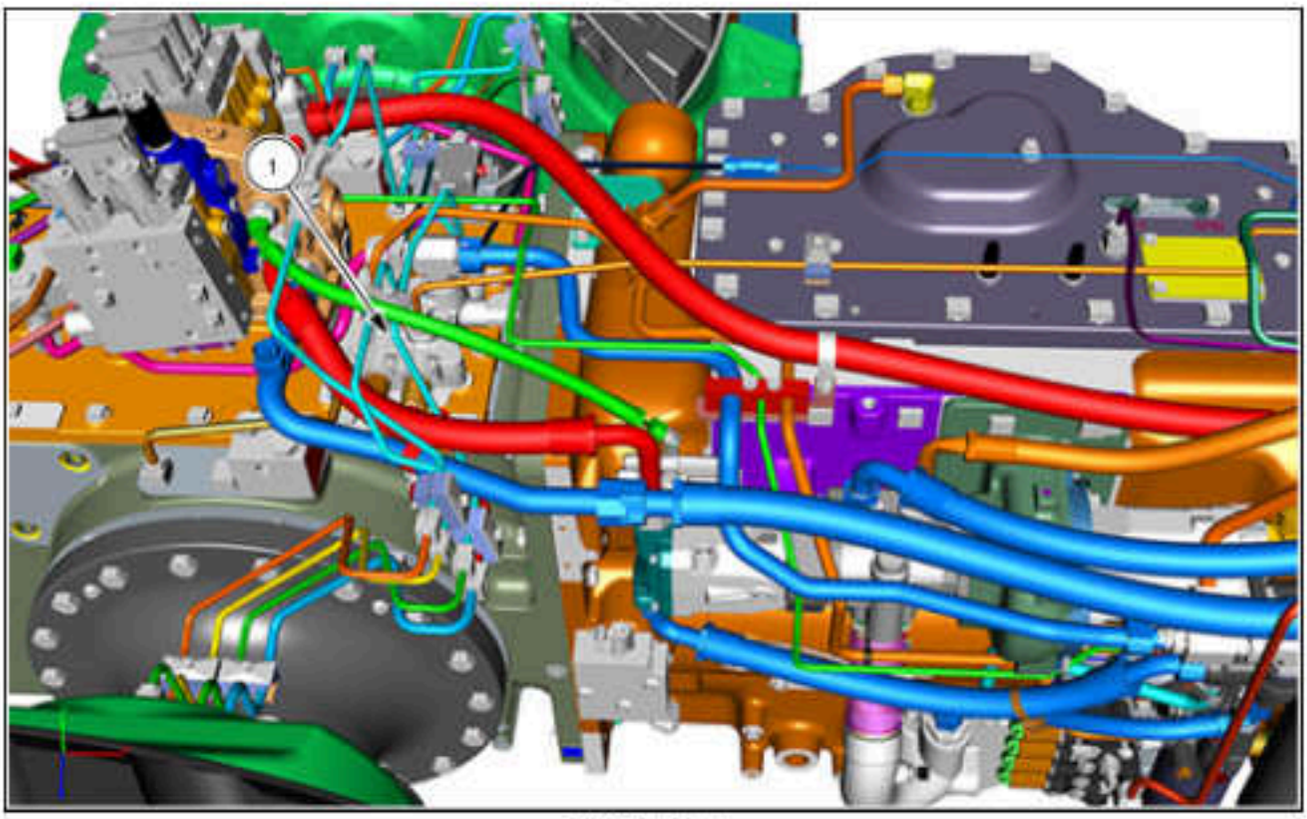
When the TCU detects no ground speed or when transmission temperature is below **65 °C** (**149 °F**), the lubrication solenoid is deenergized, which blocks lube oil flow to the rear axle final drives.

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Differential lock control valve - Dynamic description

T8.380 SmartTrax™ PST TIER 4B [ZFRE03123 -]	
T8.410 SmartTrax™ PST TIER 4B [ZFRE03123 -]	
T8.435 SmartTrax™ CVT TIER 4B [ZFRE03123 -]	

The Power Take-Off (PTO)/differential lock/lube valve is located on top of the rear frame housing. The PTO/differential lock/lube valve controls the PTO and differential lock operation and distributes lube flow.



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1. PTO/differential lock/lube valve	

The regulated pressure circuit supplies the PTO and differential lock functions. The regulated supply to both the PTO and differential lock is limited to **22.4 - 24.5 bar** (**325 - 355 psi**). The supply to the PTO clutch and differential lock are internally ported through the rear frame assembly.

The charge/lube circuit supplies the lubrication functions of the valve for these lubrication points: differential lock, pinion, front and rear hydro bearings, rear axle final drives, and service brakes. The amount of lube to the left and right brakes is controlled with the lube solenoid valve. The lube solenoid is used by the Tractor Control Unit (TCU) to minimize lube to the brakes and direct oil to the lube points when the brakes are not applied. When the brakes are applied, a signal from brake pedal switch energizes the lube solenoid to increase flow to the brakes.

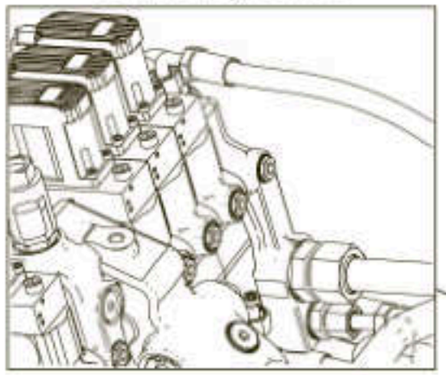
The Tractor Control Unit (TCU) controller lubricates the rear axle final drive when these conditions are met:

- engine speed is above **1400 RPM**
- or ground speed is above **35 km/h** (**22 mph**)
- and oil temperature is above **65 °C** (**149 °F**).

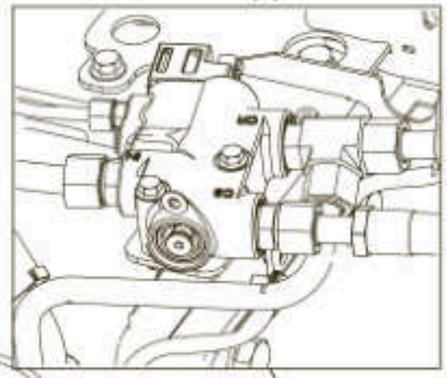
When the TCU detects no ground speed or when transmission temperature is below **65 °C** (**149 °F**), the lubrication solenoid is deenergized, which blocks lube oil flow to the rear axle final drives.

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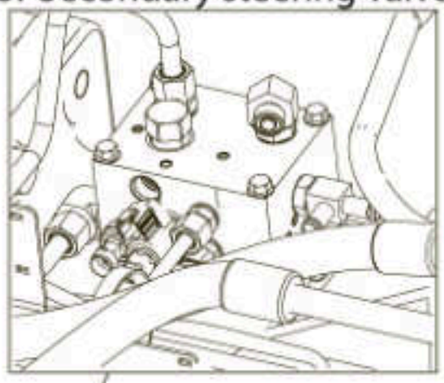
1. Priority valve



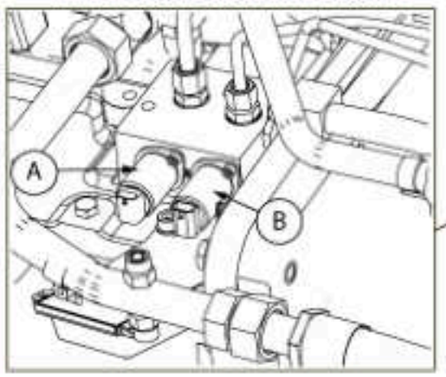
2. Oil cooler bypass valve

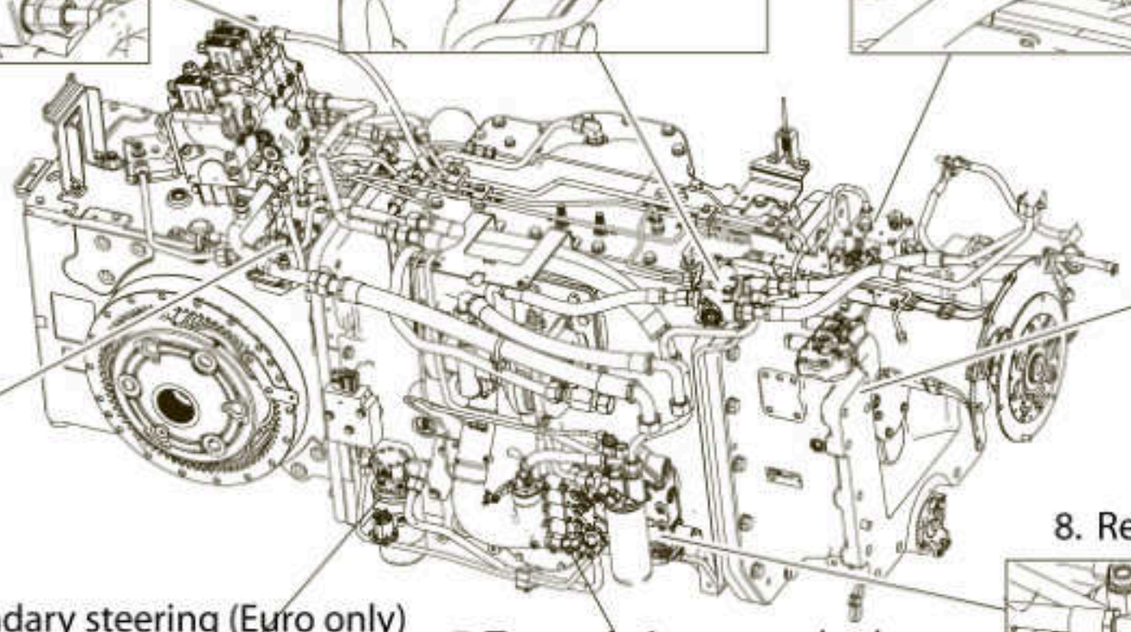


3. Secondary steering valve (Euro only)

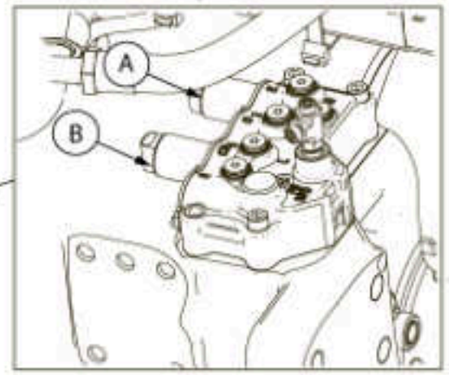


4. Rear PTO brake
MFD Differential lock

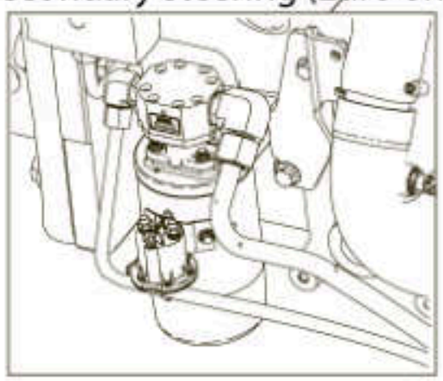




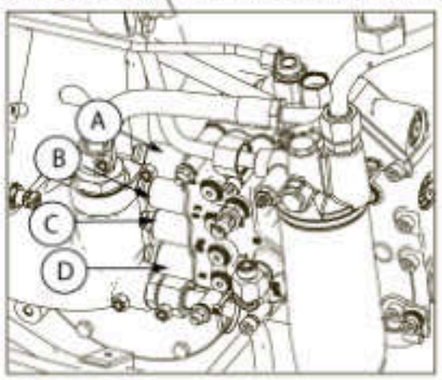
5. Forward/Reverse valve



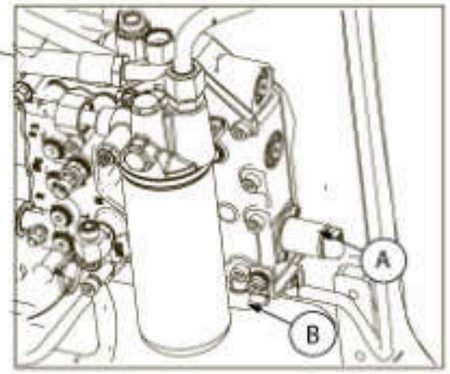
6. Secondary steering (Euro only)



7. Transmission control valve



8. Regulator valve



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