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 ZGRE05001 and above; PIN ZHRE01013 and above

Part number 48115485
1st edition English
April 2017

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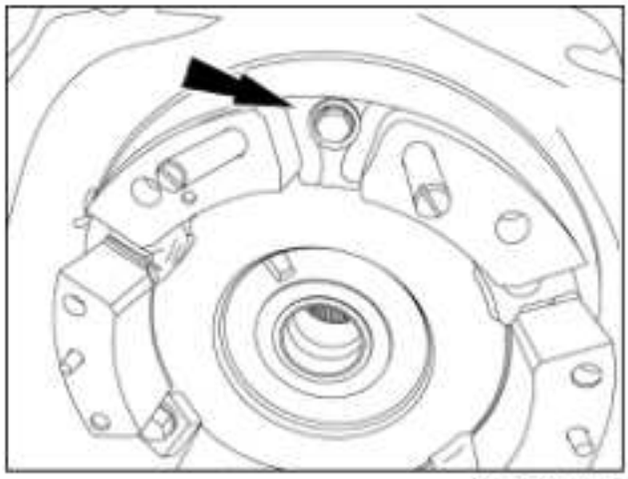
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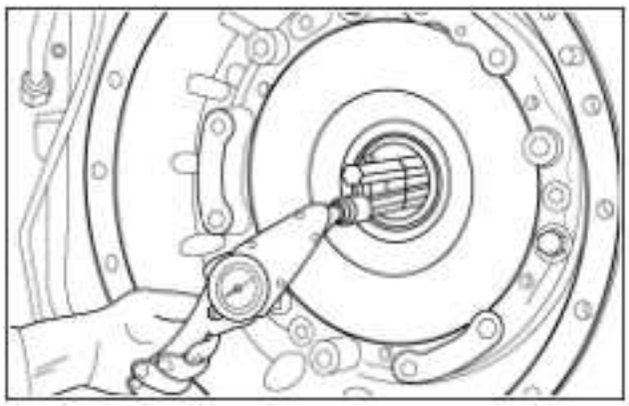
7. Tighten the three bearing retainer bolts while rotating the differential to seat the bearings. Torque the bolts equally and evenly in steps of **2.8 Nm (25 lb in)** until **11 Nm (100 lb in)** of torque is reached on each bolt.



RAIL13TR30088AA 7

8. Check the rolling torque:
   A. Install the rolling torque adapter – special tool **380000880** – into the differential assembly.
   B. Loosen the right hand carrier bolts evenly until they are finger tight.
   C. Tighten the right hand carrier bolts equally and evenly until a rolling torque of **8 N·m (70 lb in)** is reached.

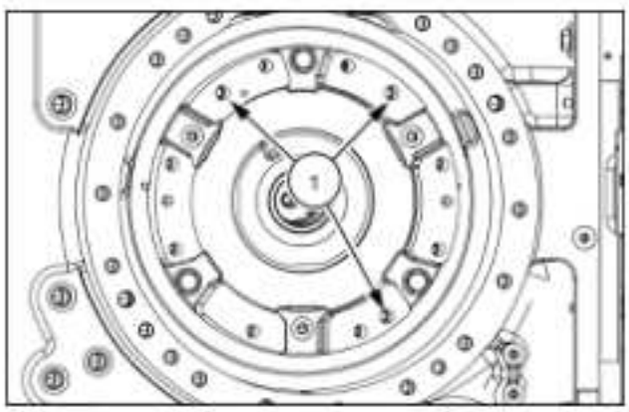
NOTICE: *Do not tighten beyond this point.*



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9. Use a depth micrometer to measure from the right hand bearing retainer face to the rear frame through the three holes **(1)**. Average the three measurements and record the dimension. This dimension is used to determine the thickness of the new shim pack.

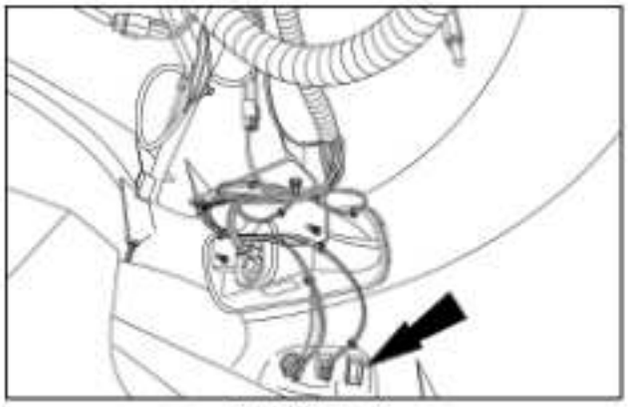
NOTICE: *If any two readings vary by more than **0.254 mm (0.01 in)**, loosen the bolts and check for proper seating, burrs or foreign material. Repeat the procedure until the readings are within the specification.*



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Next operation:
Differential - Backlash - 127 mm (5.0 in) axle (27.106)

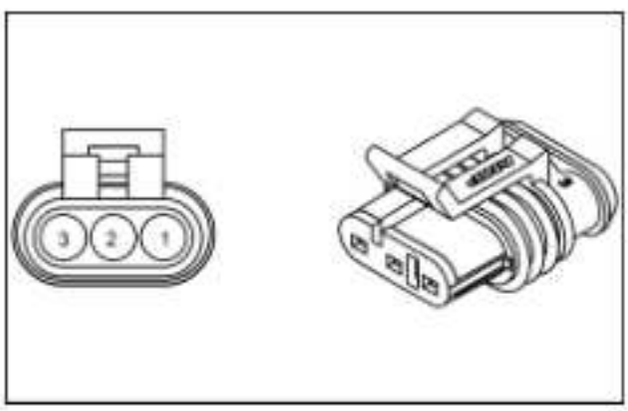
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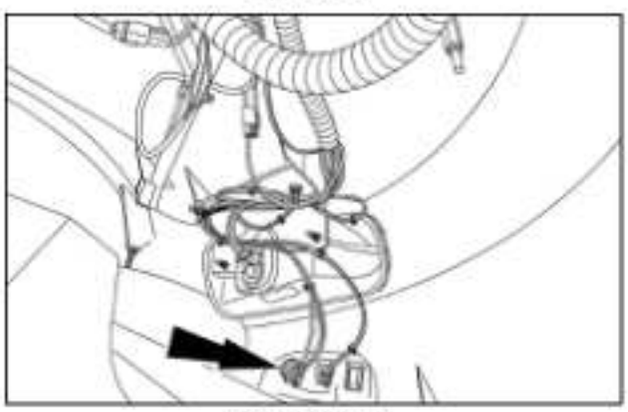
Pin	From	Wire	Description	Color-Size	Frame
1	**X-020 (Male) pin 10** TO FENDER HARNESS	FR-2032B	REMOTE EHR NO (EXTEND)	YE - 0.8	**SHEET 35**
2	**X-020 (Male) pin 6** TO FENDER HARNESS	FR-283A	REMOTE EHR B+	OR - 0.8	
3	**X-021 (Male) pin 1** TO FENDER HARNESS	FR-2033B	REMOTE EHR NC (RETRACT)	YE - 0.8	

X-402 - REMOTE PTO SW [S-030] (84062580) (Female)



84062580 5

84062580



RAIL14TR0013AA 6

Pin	From	Wire	Description	Color-Size	Frame
1	**X-020 (Male) pin 7** TO FENDER HARNESS	FR-452	REMOTE PTO IN	YE - 0.8	**SHEET 35**
2	**X-020 (Male) pin 8** TO FENDER HARNESS	FR-453	REMOTE PTO NC	YE - 0.8	
3	**X-020 (Male) pin 9** TO FENDER HARNESS	FR-956B	REMOTE PTO NO	YE - 0.8	

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4140 - Rear remote no. 3 - unable to reach neutral

NOTE: *Each remote valve consists of a valve body and a pilot head. The pilot contains the extend and retract solenoids, a sensor to determine spool position, as well as a microprocessor. The pilot head can only be serviced as a compete assembly. The microprocessor controls the extend and retract solenoids and reports the position of the main spool over the CAN bus to the Armrest Control Unit (ARU) and the lower display on the Instrument Control Unit (ICU).*

Cause:
Spool unable to reach neutral position detected at the pilot head for remote valve 3.

Possible failure modes:

1. A valve section was recently replaced and the tie bolts over torqued
2. Faulty pilot head on the remote valve.
3. Contamination in the valve body.

Solution:

1. Check if the error code is still active.

   Clear the error code and test the system for normal operation.

   A. Error code does not redisplay. Return unit to field operation and monitor for recurring problem.

   B. Error code redisplays. Continue to step **2**.
2. If a remote valve section was replaced recently, check the torque on the tie bolts through the stack.

   If required, loosen and torque the bolts to **47 – 52 N·m** (**35 – 38 lb ft**).

   Test valve operation.

   A. Bolts over torqued. Spool now returns to neutral. Return unit to field operation.

   B. Bolts torqued correctly. Continue to step **3**.
3. Download the most current software into all remote valves. (All pilot heads must be at the same software level.)

   Renumber the remote valves.

   Calibrate the armrest control levers using the procedure in this manual. When calibration is complete, set all timers to continuous and set the flow controls to continuous.

   Calibrate the remote valves using the procedure in this manual.

   Test remote system operation.

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

   B. Error code redisplays. Continue to step **4**.
4. Remove the pilot head from the remote valve causing the error code.

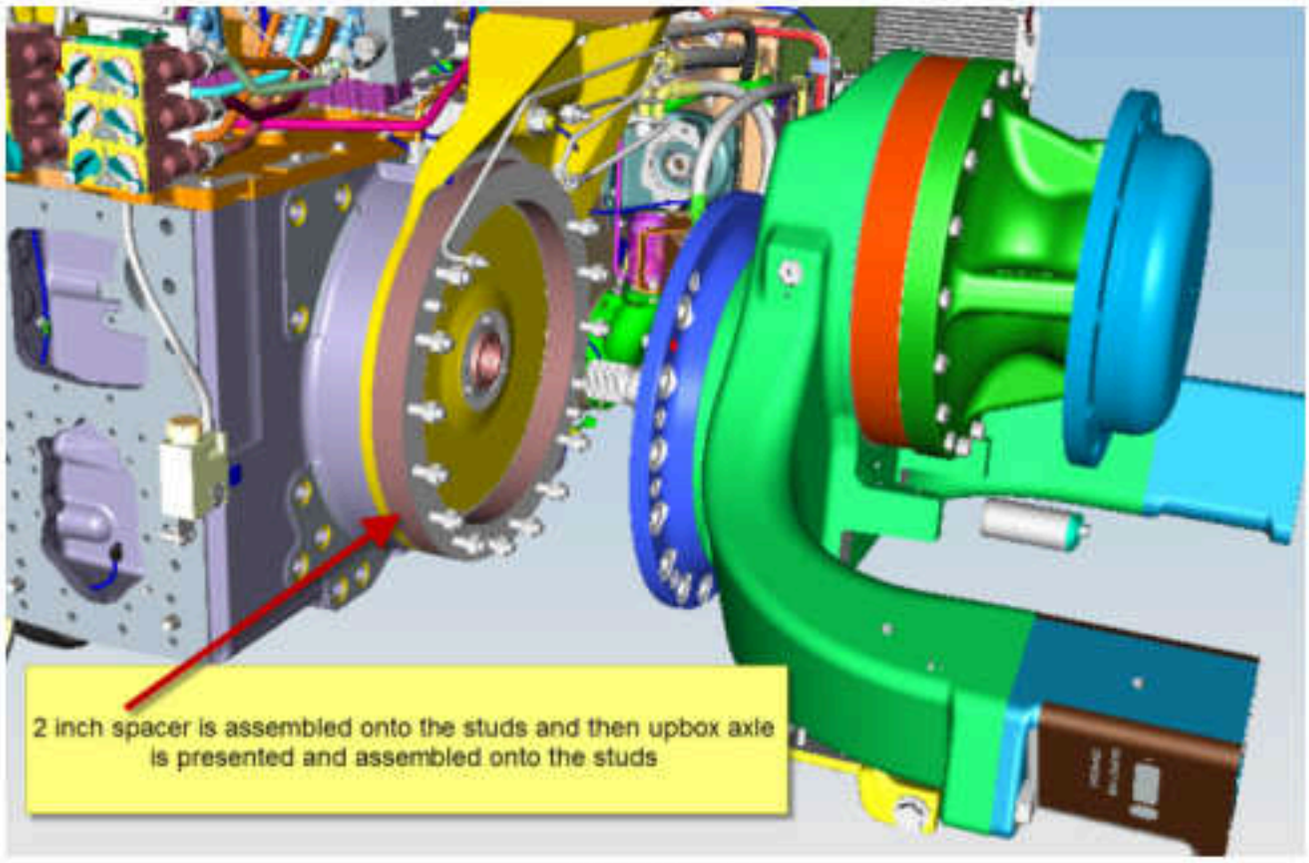
   Press on the end of the spool with your thumb to test operation.

   Spool should move freely within the bore and extend out slightly – approximately **9.350 mm** (**0.368 in**) – beyond the body surface.

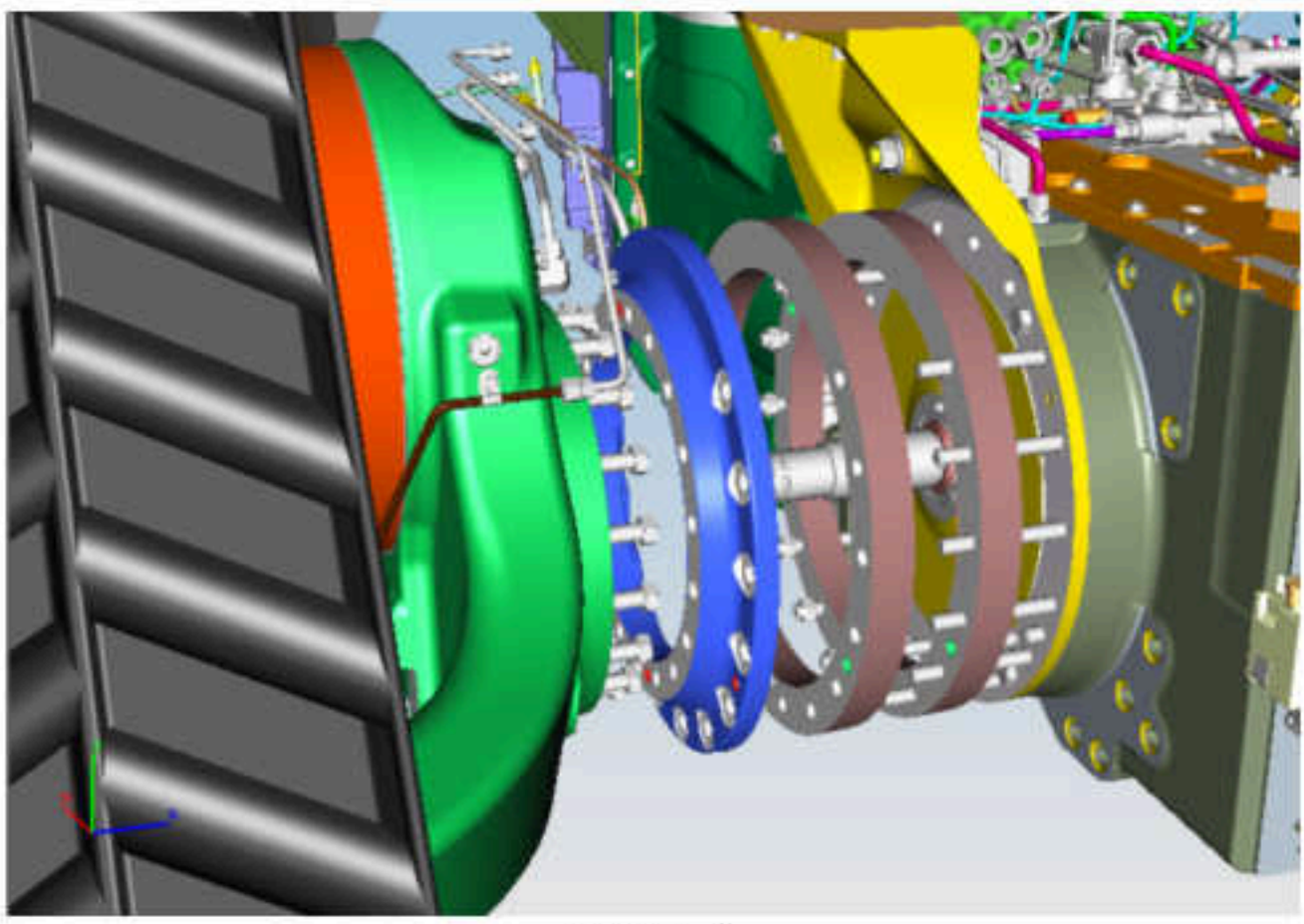
   A. Spool does not move freely. Continue with step **6**.

   B. Spool moves freely. Continue with step **5**.
5. Swap the pilot head causing the error with another pilot head.

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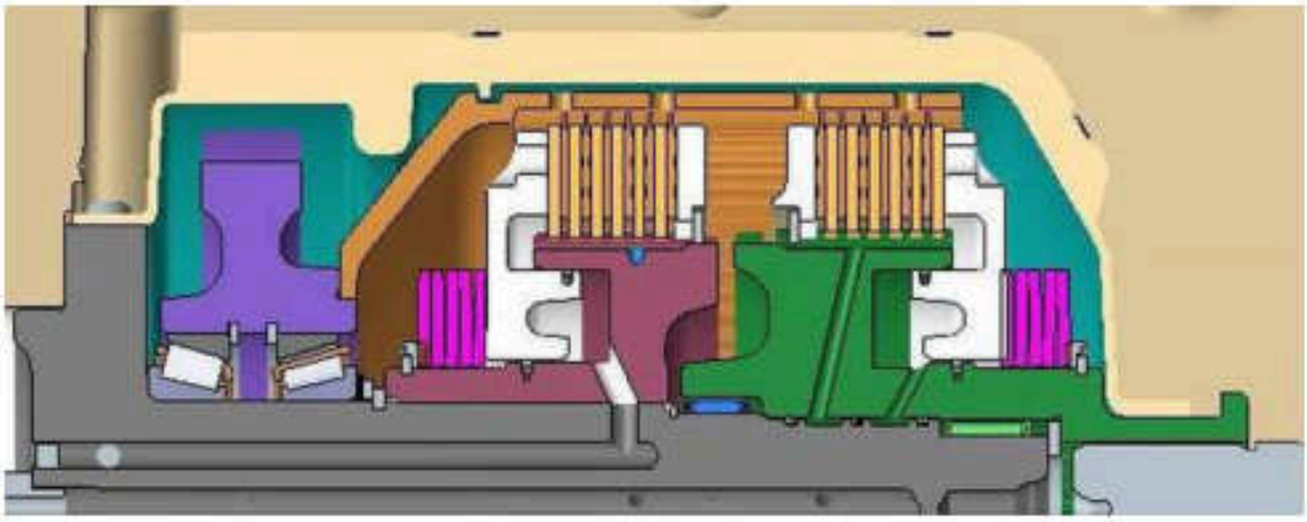
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RAIL1STR01838UA 11

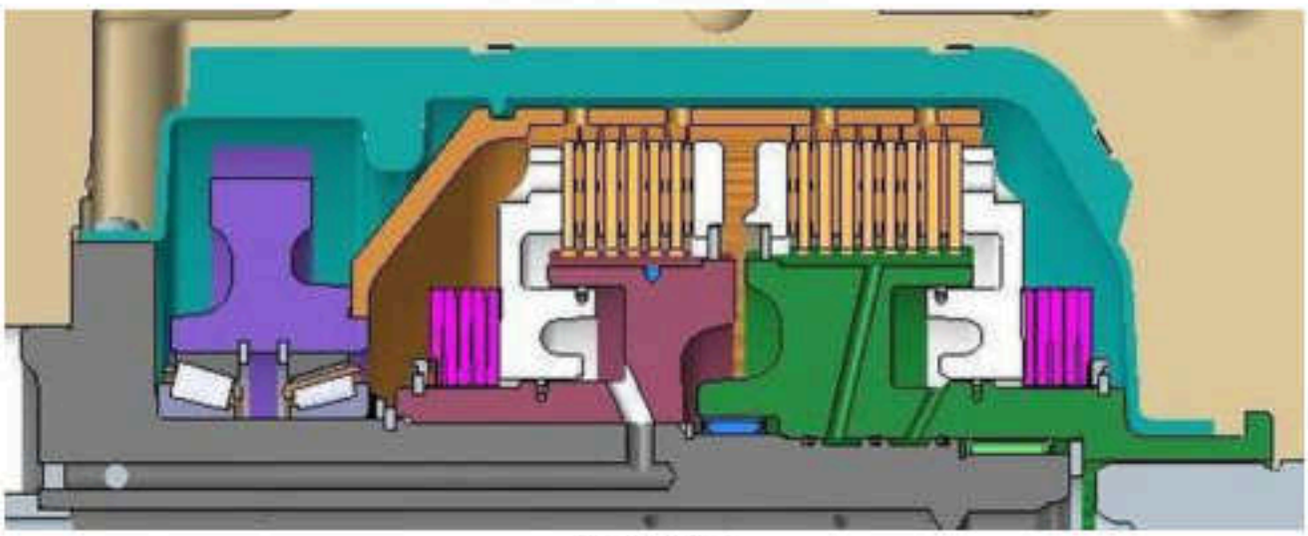
2032 mm (80 in) tread spacing

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Park brake 12 bolt front axle



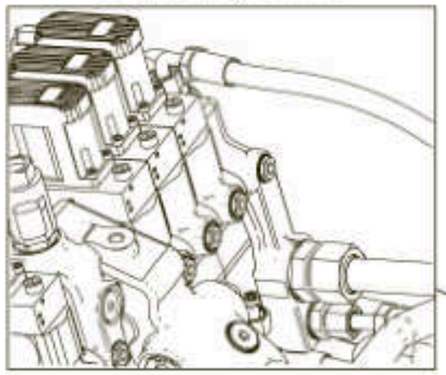
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Park brake class 5.0 front axle

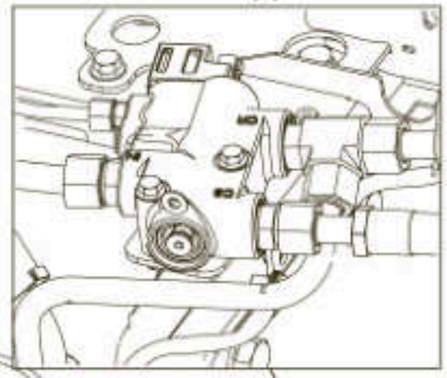
Model	T8.320	T8.350	T8.380	T8.410
PTO Hp	205	235	265	290
No. of friction plates	6			6
Friction plate	Standard			Heavy duty
Belleville spring	Standard			Standard
# of Belleville springs	5			5

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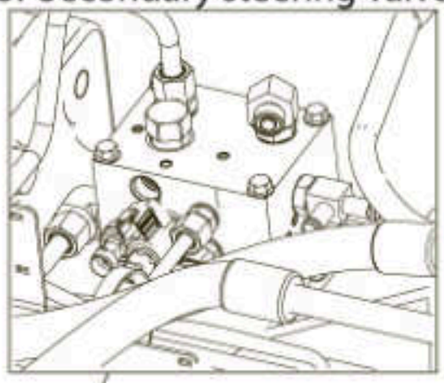
1. Priority valve



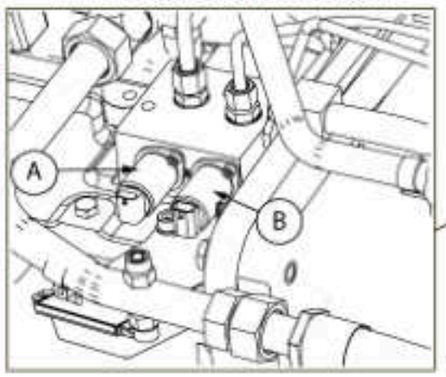
2. Oil cooler bypass valve

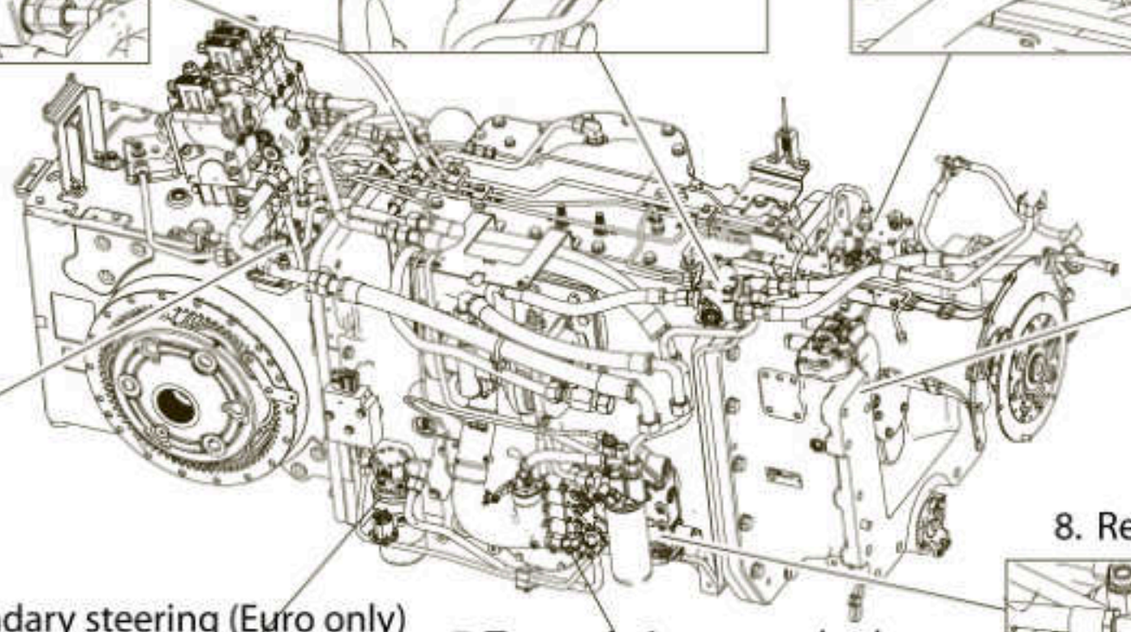


3. Secondary steering valve (Euro only)

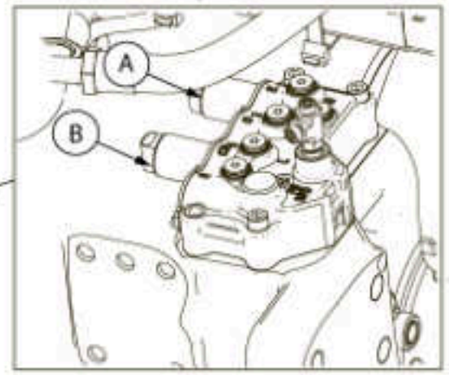


4. Rear PTO brake
MFD Differential lock

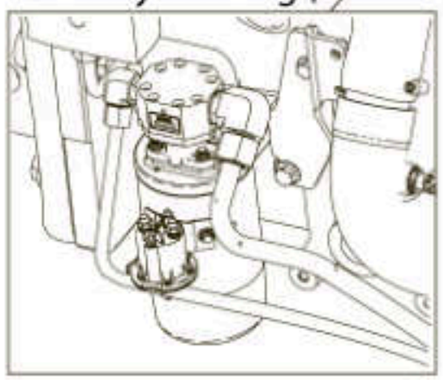




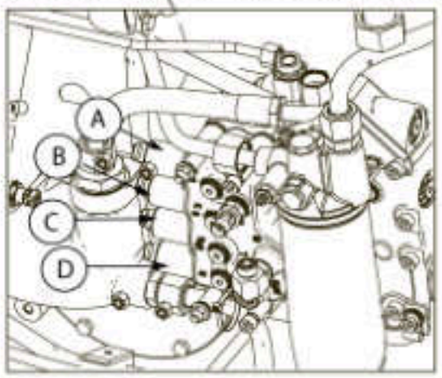
5. Forward/Reverse valve



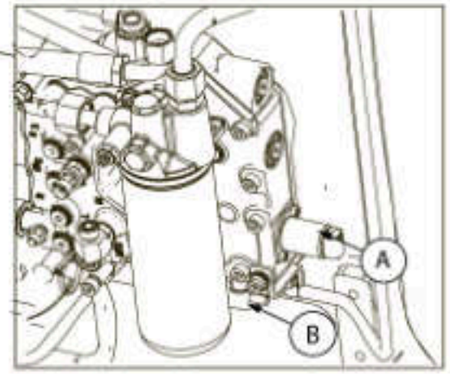
6. Secondary steering (Euro only)



7. Transmission control valve



8. Regulator valve



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