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 47799439
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Wiring harnesses - Electrical schematic sheet 17 - Autoguidance controller/Global positioning system (GPS)

Type	Component	Connector / Link	Description
ECU	A-002		TO PORT A
ECU	A-003		TO PORT B
ECU	A-004		TO RTK ANTENNA
ECU	A-010		AUTOGUIDANCE CONTROLLER
Sensor	B-061		AUTOGUIDANCE SENSOR
Relay	K-014		RIGHT STEER RELAY #29
Relay	K-015		LEFT STEER RELAY #28
Switch	S-022		MANUAL SWITCH
Connector	X-010	**X-010**	TO CAB HARNESS
Connector	X-1122	**X-1122**	AUTOGUIDANCE SENSOR
Connector	X-256	**X-256**	RELAY BLOCK
Connector	X-287A	**X-287A**	MANUAL SW
Connector	X-290	**X-290**	TO OUTSIDE CAB HARNESS
Connector	X-295	**X-295**	TO PORT A
Connector	X-299	**X-299**	TO AUTOGUIDANCE HARNESS
Connector	X-386A	**X-386A**	TO GPS HARNESS
Connector	X-390	**X-390**	STEERING SOLENOID
Connector	X-391	**X-391**	TO AUTOGUIDANCE HARNESS
Connector	X-407	**X-407**	AUTOGUIDANCE CONTROLLER
Connector	X-409A	**X-409A**	AUTOGUIDANCE CONTROLLER
Connector	X-433A	**X-433A**	TO PORT B
Connector	X-433B	**X-433B**	TO RTK ANTENNA
Connector	X-434	**X-434**	TO CAB HARNESS
Connector	X-737	**X-737**	TO GPS HARNESS
Solenoid	Y-037		TO STEERING SOLENOID

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Replace the radar harness. Clear all fault codes.

A. Fault code does not re-display. Return unit to field operation.

B. Fault code re-displays. Contact ASIST before replacing the radar unit.

Wiring harnesses - Electrical schematic sheet 15 - Transmission, brakes, hitch, radar (55.100.DP-C.20.E.15)

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4120-Rear remote no. 2 - spool movement too low

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:
Low spool movement detected at the pilot head for remote valve 2.

Possible failure modes:

1. Incorrect hydraulic pressure
2. Faulty pilot head on the remote valve.
3. Worn spool 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. Fault code does not redisplay. Return unit to field operation and monitor for recurring problem.

   B. Fault codes redisplays. Continue to step **2**.
2. Check the regulated circuit hydraulic pressures. See hydraulic testing in this manual for more information.

   A. Pressures are incorrect. Repair or replace component(s) as required. Return unit to field operation.

   B. Pressures are correct. 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.

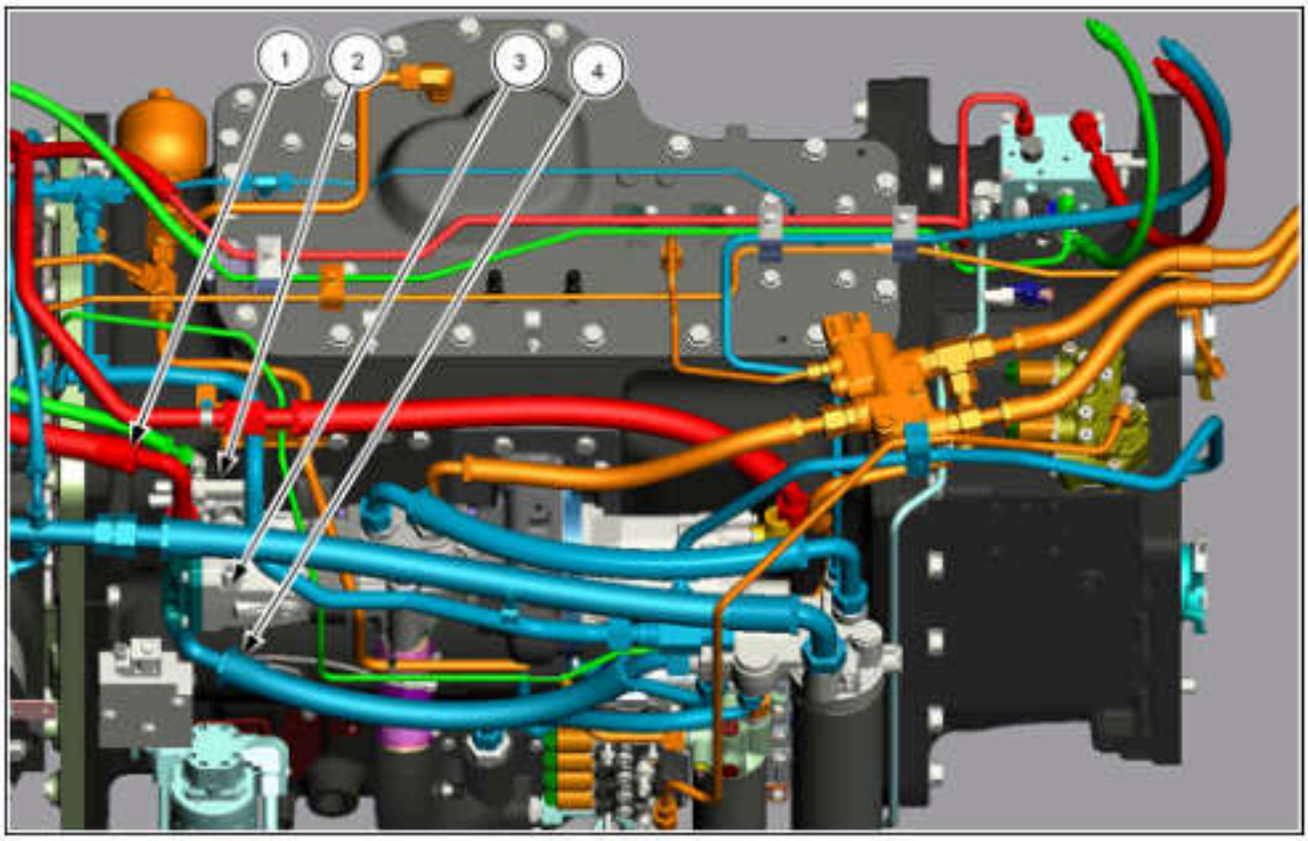
   A. Spool does not move freely. Continue with step **6**.

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

   Retest system operation.

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

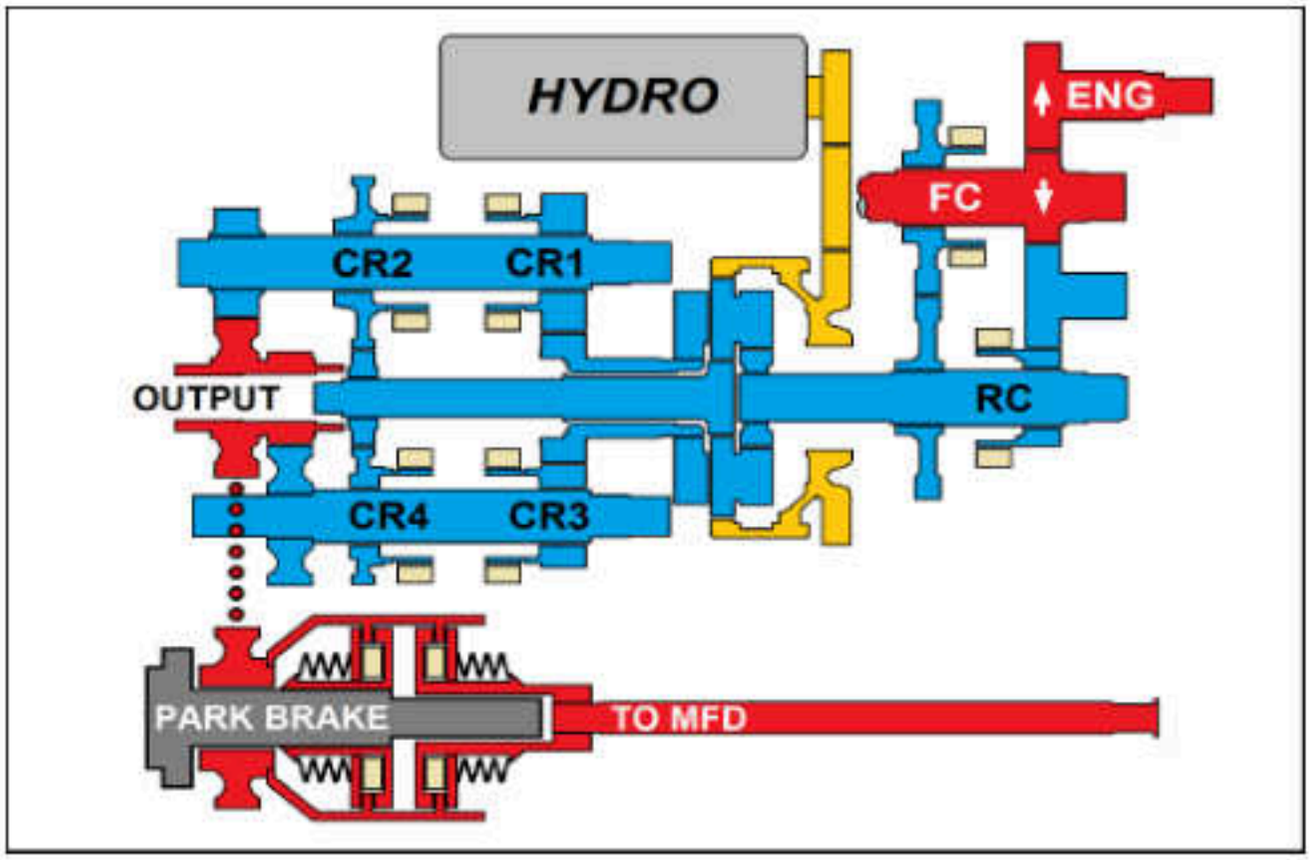
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1. Megaflow pump outlet supply to remote/hitch manifold	3. Megaflow PFC pump
2. Megaflow PFC pump compensator	4. Megaflow pump inlet supply

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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.

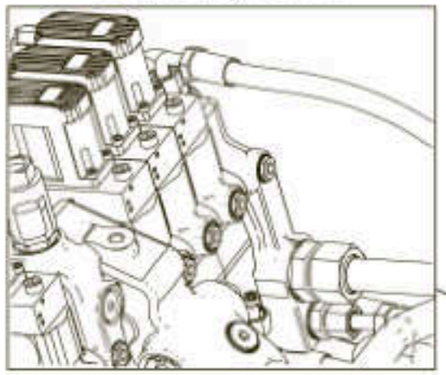
The HSU motor drives the large compound planetary ring gear. By varying the speed of the ring gear, the output speed of the planetary system is varied. The engine drives the input sun in the planetary system through the forward or reverse clutch.

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.

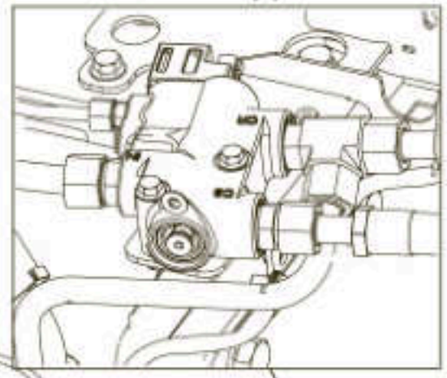
As the vehicle speed increases, the clutches alternate between the planetary outputs and range shafts to ensure seamless shifts and constant transmission output speed increase. The pump swashes back and forth as the clutches are shifted. The TCU calculates when the off-going and the on-coming clutches 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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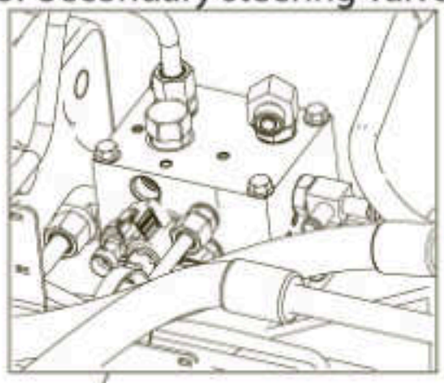
1. Priority valve



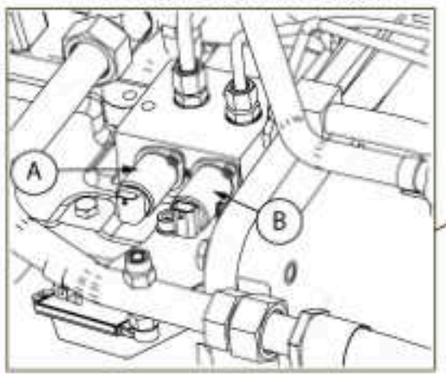
2. Oil cooler bypass valve

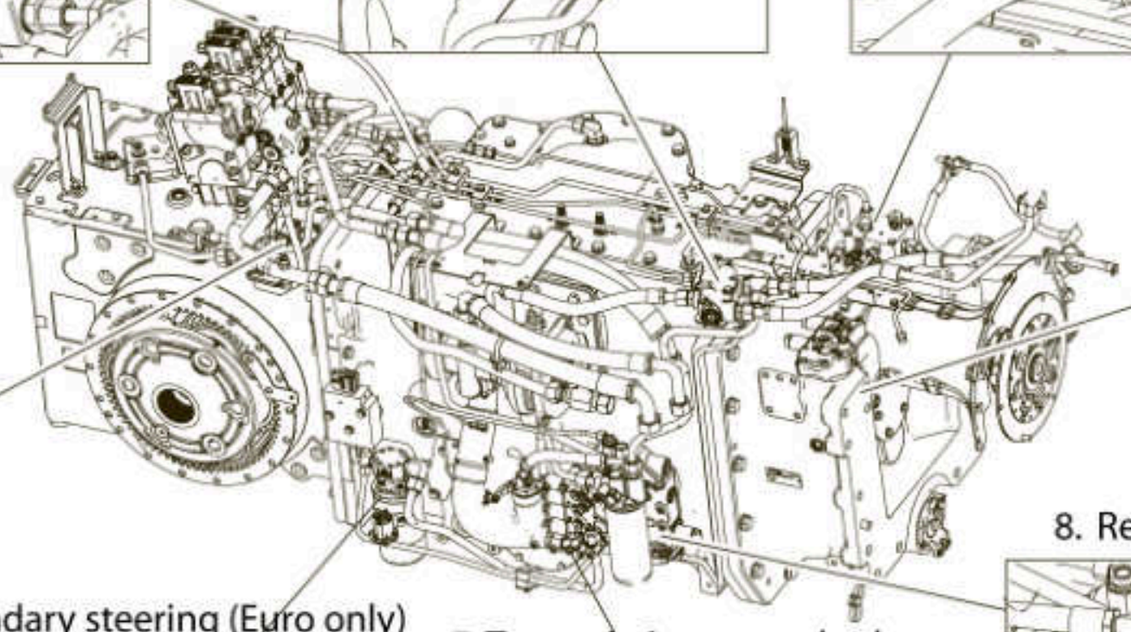


3. Secondary steering valve (Euro only)

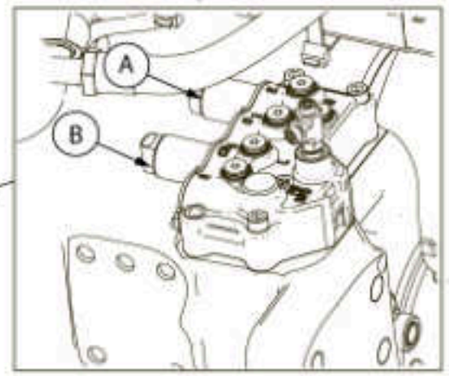


4. Rear PTO brake
MFD Differential lock

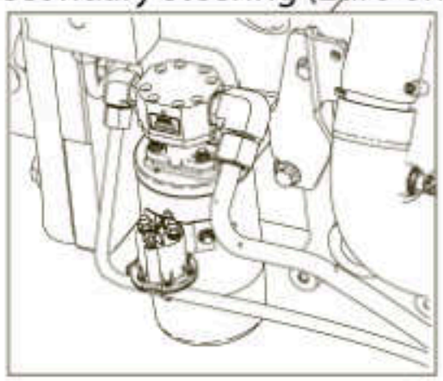




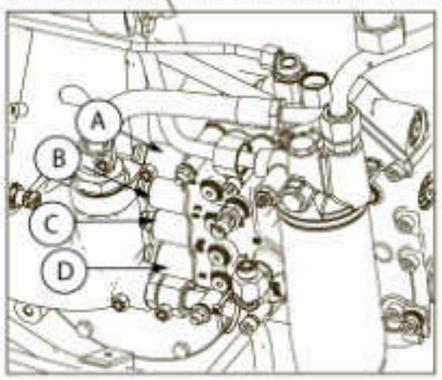
5. Forward/Reverse valve



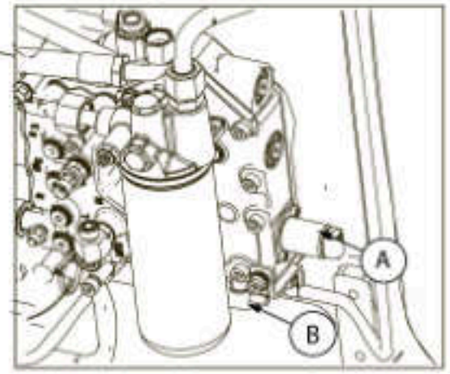
6. Secondary steering (Euro only)



7. Transmission control valve



8. Regulator valve



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