FARMALL® 40B
FARMALL® 50B
Tier 3
Compact Tractor

SERVICE MANUAL

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CASE IH AGRICULTURE

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(3) Test Specifications			Charge air pressure (MM Hg)	Charge air pressure (MM Hg)
(3.1)	Timing device	N = RPM	1000	1300
		mm	**0.9 mm (0.03543296 in +/-) 0.4 mm (0.01574798 in)**	**2.3 mm (0.09055091 in +/-) 0.2 mm (0.007873992 in)**
(3.2)	Supply pump	N = RPM	1000	1,300
		kPa	**520 kPa (75.38372 psi +/-) 39 kPa (5.689337 psi)**	**608 kPa (88.18473 psi +/-) 39 kPa (5.689337 psi)**
(3.3)	Overflow delivery	N = RPM	Cubic Centimeters per 1000 strokes	BCS Pressure
(3.4)	Fuel injection quantities			
	Speed control lever position	Pump speed (RPM)	Fuel delivery (Cubic Centimeters per 1000strokes)	Charge air pressure (mmHg)
	Full - load speed	**400 RPM**	**37.0 cm³ +/- 2.0 cm³** per 1000 strokes	
		750 RPM	**35.5 cm³ +/- 2.0 cm³** per 1000 strokes	
		1300 RPM	**32.5 cm³ +/- 2.0 cm³** per 1000 strokes	
	Switch OFF Magnet valve	IDLE	M/V OFF Q = 0	
	Idling stop	**600 RPM**	Below 5.0	
(3.5)	Solenoid valve	Max. cut-in voltage	**8 V**	
		Test voltage	**12 - 14 V (12 - 14 V)**	

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Electrical system - Electrical schematic sheet 02 - Starting system, HST transmission

Farmall® 40B	NA Platform - With ROPS
Farmall® 50B	NA Platform - With ROPS

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Throttle control - Troubleshooting - Cruise control circuit, HST transmission

NOTE: *See* ***Electrical system - Electrical schematic sheet 14 - HST cruise control (55.000)***

Problem	Possible Cause	Correction
Cruise control will not maintain set speed	Blown #1 10-amp fuse	Replace 10-amp fuse
	Faulty cruise switch	Test switch, replace if necessary
	Faulty safety controller	Test controller, replace if necessary
	Faulty cruise magnet	Test magnet, replace if necessary
	Faulty brake switches	Test switches, replace if necessary
	Improper ground	Check ground location, for clean contact area
Cruise control will not remain engaged	Faulty cruise magnet	Test magnet, replace if necessary
	Debris or corrosion between magnet and HST linkage	Clean contact area of linkage and magnet face.
	Improper ground	Check ground location, for clean contact area

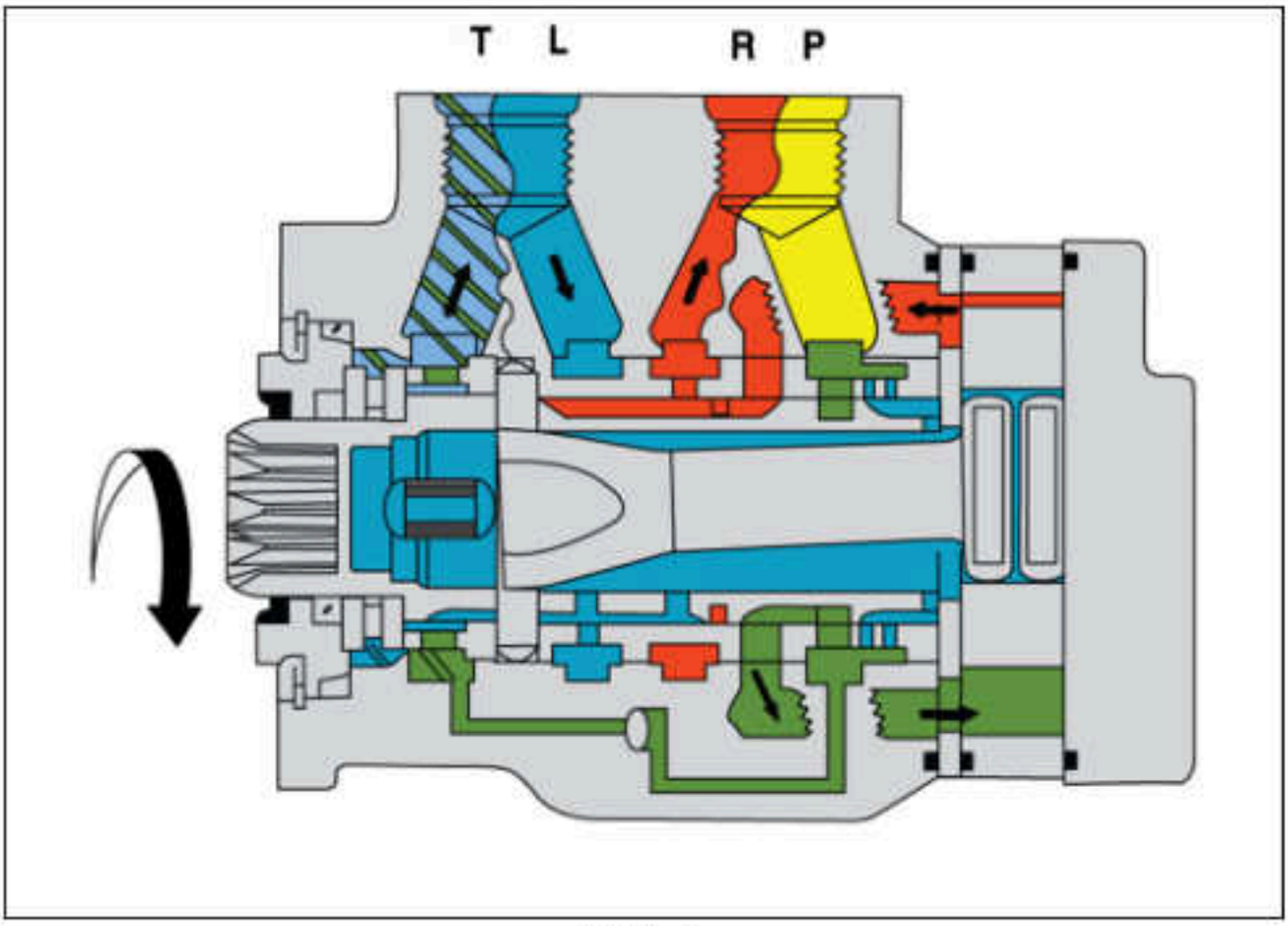
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Emergency operation

⚠WARNING

Loss of control hazard!
Because of the slow responsiveness of the steering in this condition, you should not travel at high speeds or on downhill roads.
Failure to comply could result in death or serious injury.

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Emergency mode steering manually

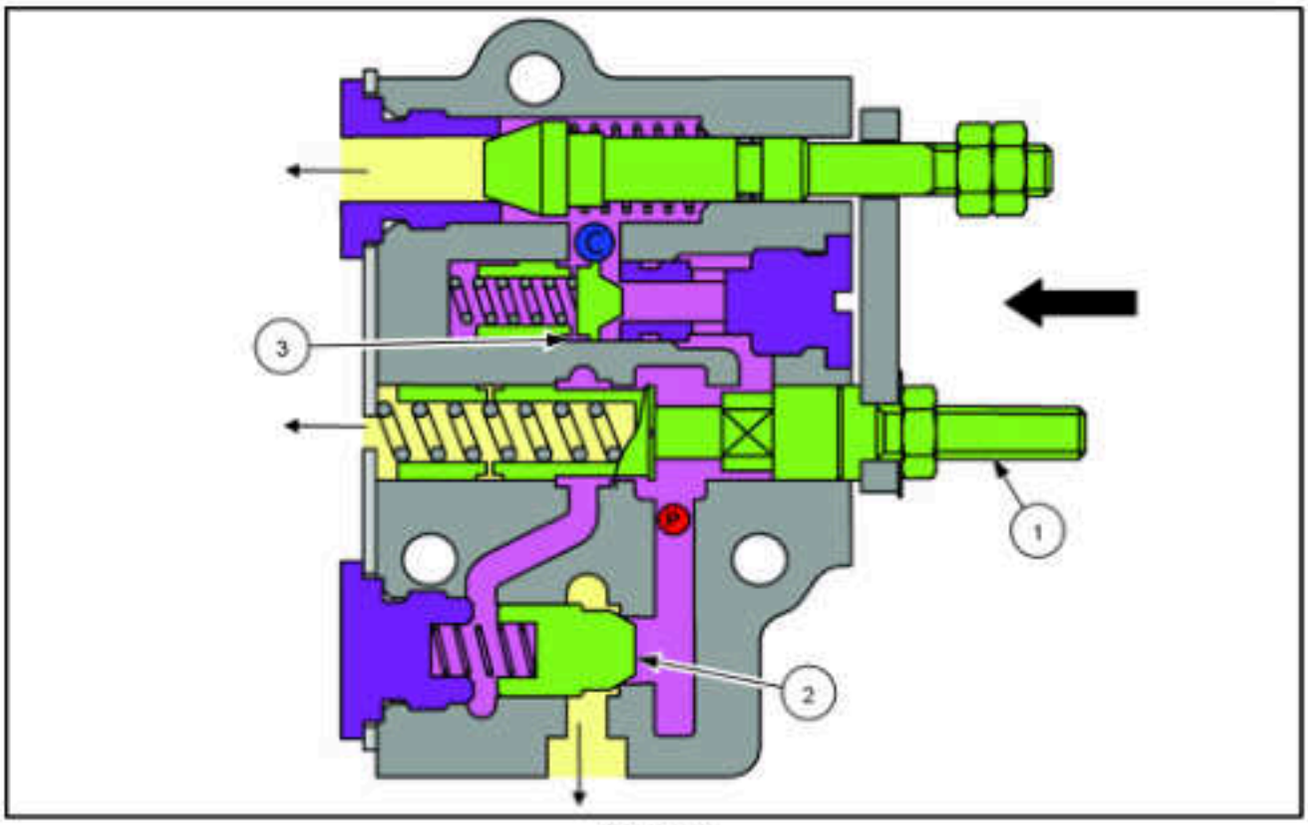
(T) - Tank
(L) - Left steer port
(R) - Right steer port
(P) - Pump discharge

Pressurized oil from pump
Oil from rotor
Discharge
Suction
Suction or discharge
Neutral

NOTICE: *In the EMERGENCY manual steering mode, if steering becomes difficult to do, STOP and transport the tractor by trailer.*

If hydraulic pressure is not generated by the hydraulic pump, the "Rocker" inside the valve serves as a hand pump, and allows the steering cylinder to operate.
The oil returning to the port **(T)** is sent to the rotor **(1)** through the check valve and the rotor sends oil to the cylinder. At this time, the oil in the opposite side returns to the port **(T)** again and repeats the procedure previously described.

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Raise position

When the valve spool **(1)** moves inward in the "RAISE" position, oil flow being supplied by the pump is route around the valve spool to the backside of the unload valve **(2)** allowing the unload valve to remain seated. When the unload valve remains seated, pressure increases in the valve passage until the pressure on the front side of the check valve **(3)** is greater than the pressure on the backside of the valve, allowing the check valve to open. When the check valve opens, the oil supplied by the pump is routed to the HPL lift cylinder and the 3pt hitch raises.

- Cylinder pressure
- High pressure
- Return oil

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