SERVICE MANUAL

Boomer™ 40 Cab / Boomer™ 50 Cab

Compact Tractor

Boomer™ 40 - From PIN 0 to 2103012735; From PIN 2103012736 to 2106014859; PIN 2106014860 and above;
Boomer™ 50 - From PIN 0 to 2105012137; From PIN 2105012138 to 2105013791; PIN 2105013792 and above

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December 2016

NEW HOLLAND AGRICULTURE

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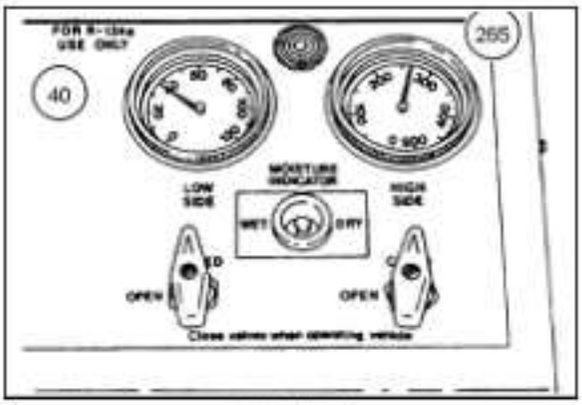
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Air conditioning - Pressure test - Example 7

Boomer™ 40 4WD, Cab, Europe	WE Platform - With cab
Boomer™ 40 [0 - 2103012735]	WE Platform - With cab
Boomer™ 40 [2103012736 - 2106014859]	WE Platform - With cab
Boomer™ 40 [2106014860 -]	WE Platform - With cab
Boomer™ 50 4WD, Cab, Europe	WE Platform - With cab
Boomer™ 50 [0 - 2105012137]	WE Platform - With cab
Boomer™ 50 [2105012138 - 2105013791]	WE Platform - With cab
Boomer™ 50 [2105013792 -]	WE Platform - With cab



Symptoms

1. Insufficient or no cooling.
2. Low side pressure reading is too high. The gauge should read **20.7 - 207 kPa (3 - 30 psi)**.
3. The high side pressure is too high for correct gauge readings.

DIAGNOSIS: Air in system. This, and the moisture in the air, contaminates the refrigerant, causing the system to malfunction.

Corrective Procedures

1. Extract the refrigerant from the system.
2. Replace the receiver/dryer.
3. Evacuate the system.
4. Charge the system.
5. Performance test the system.

NOTE: *Test procedure based upon ambient temperature of* ***35 °C (95 °F)****. For proper high side gauge reading for other ambient temperatures, refer to the pressure-temperature chart.*

Ambient Temperature* °C (°F)	High Pressure Gauge Reading kPa (psi)
21 °C (70 °F)	786 - 924 kPa (114 - 134 psi)
24 °C (75 °F)	869 - 1007 kPa (126 - 146 psi)
26 °C (80 °F)	972 - 1110 kPa (141 - 161 psi)
29.5 °C (85 °F)	1096 - 1234 kPa (159 - 179 psi)
32 °C (90 °F)	1158 - 1296 kPa (168 - 188 psi)
35 °C (95 °F)	1248 - 1386 kPa (181 - 201 psi)
38 °C (100 °F)	1386 - 1524 kPa (201 - 221 psi)
40.5 °C (105 °F)	1503 - 1641 kPa (218 - 238 psi)
43 °C (110 °F)	1696 - 1834 kPa (246 - 266 psi)

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Problem	Possible Cause	Correction
	Faulty compressor and/or compressor clutch.	Perform electrical checks. Refer to electrical section.
Insufficient Cooling	Dirty Evaporator coil and/or filter.	Visually inspect. Clean as necessary.
	Dirty Condenser core.	Visually inspect. Clean as necessary.
	Compressor drive belt slipping.	Visually inspect. Adjust as necessary.
	Faulty expansion valve operation.	Expansion Valve - Testing.
	Evaporator icing up.	Refer to "Pressure Test" in this section.
	Low refrigerant charge.	Refer to "Pressure Test" in this section.
	Heater Valve leak through.	Operate engine at **1500 RPM** for **15 min** to warm engine coolant. Op- erate the A/C system at maximum cooling. Install stem thermometer in mid-cab louver and record tempera- ture. Close heater core supply valve. Wait a few minutes and check the temperature. If the temperature drops, valve leak through is the problem; replace heater valve. Refer to "Heater Valve - Removal."

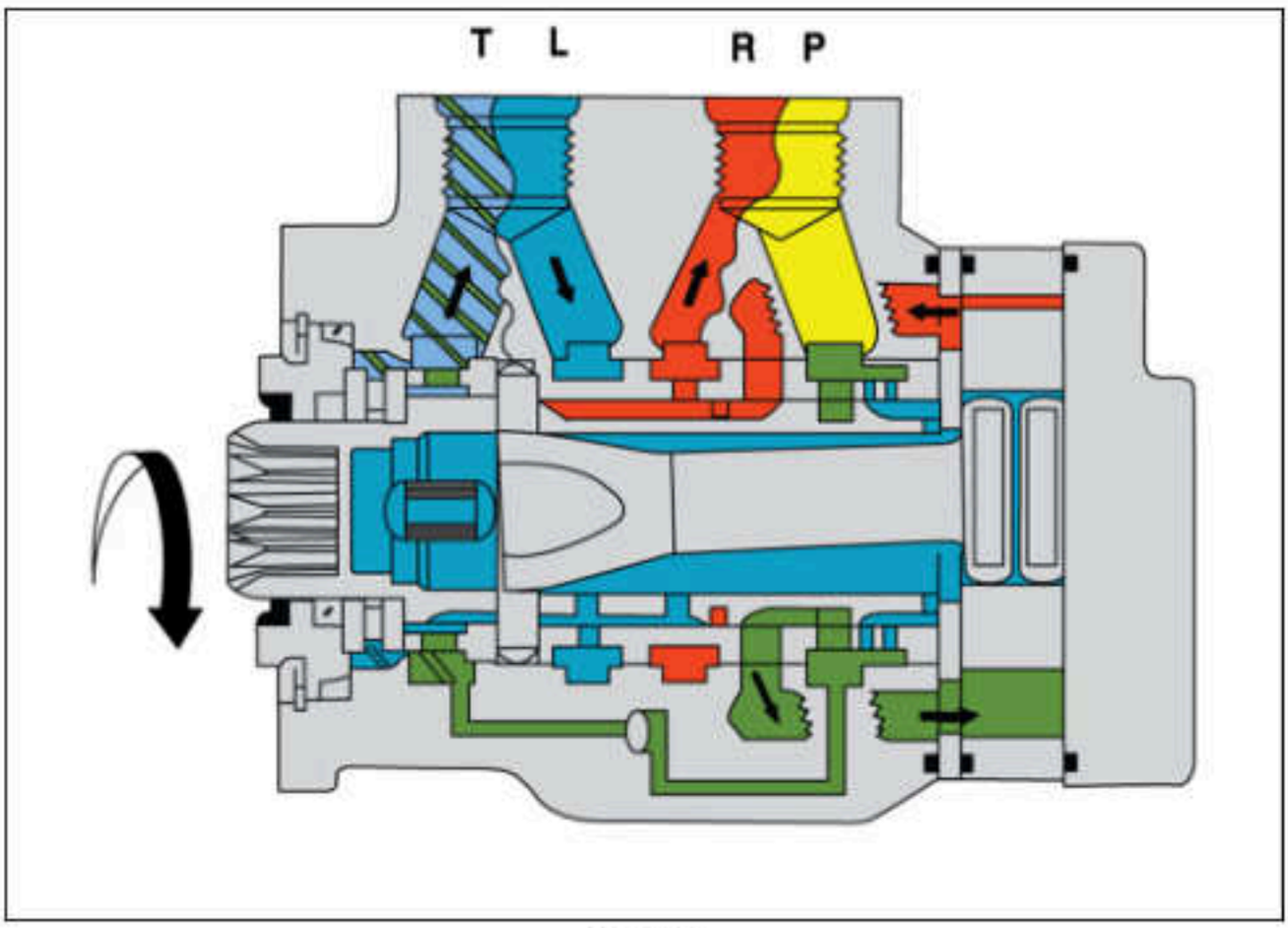
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Emergency operation

⚠ 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

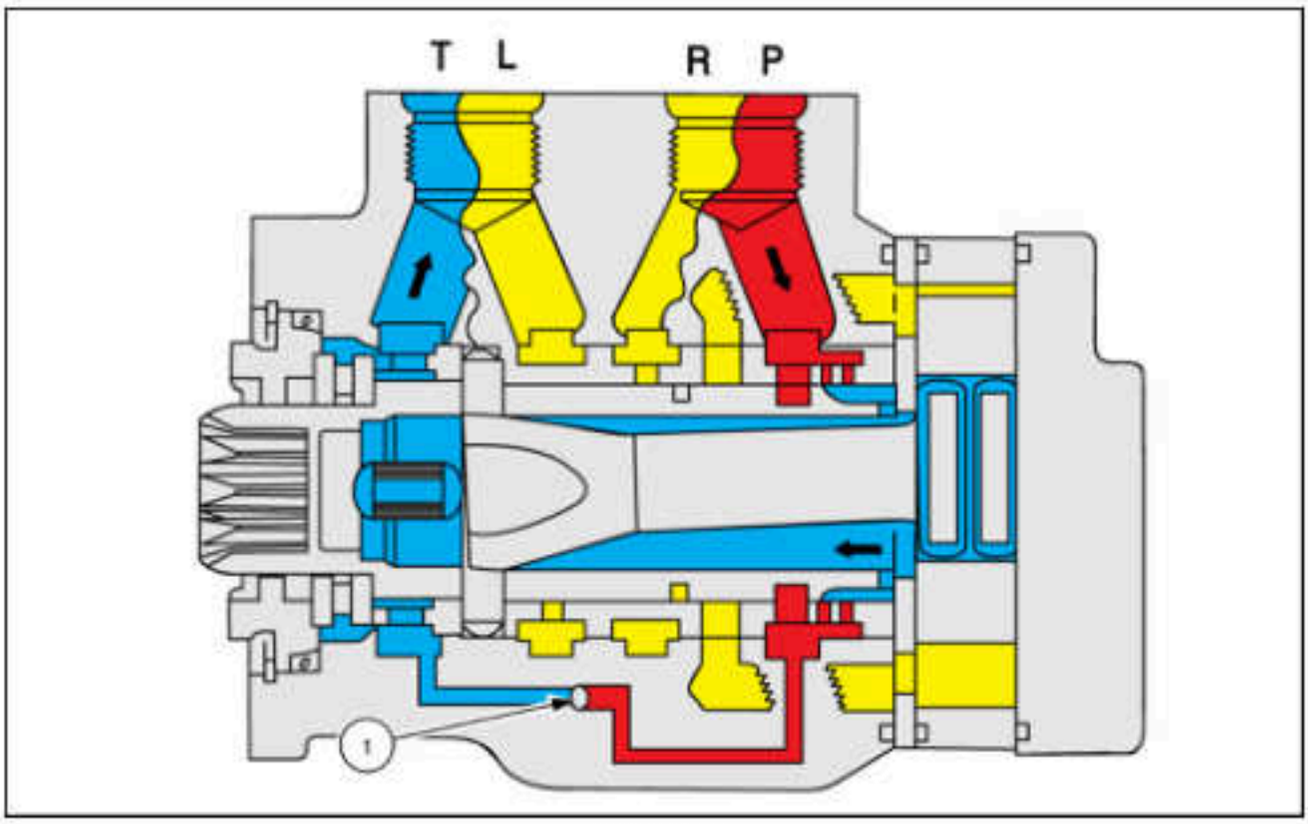
- Pressurized oil from pump
- Oil from rotor
- Discharge
- Suction
- Suction or discharge
- Neutral

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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Neutral position



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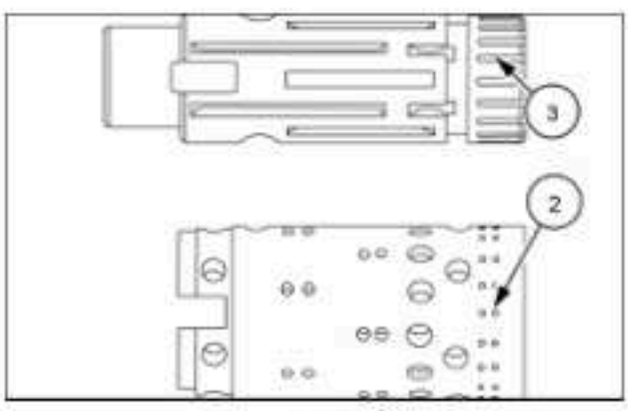
Neutral position

(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

Pressurized oil from the pump flows to the port **(P)**, seating the check valve **(1)**, preventing oil from flowing to the port **(T)**.

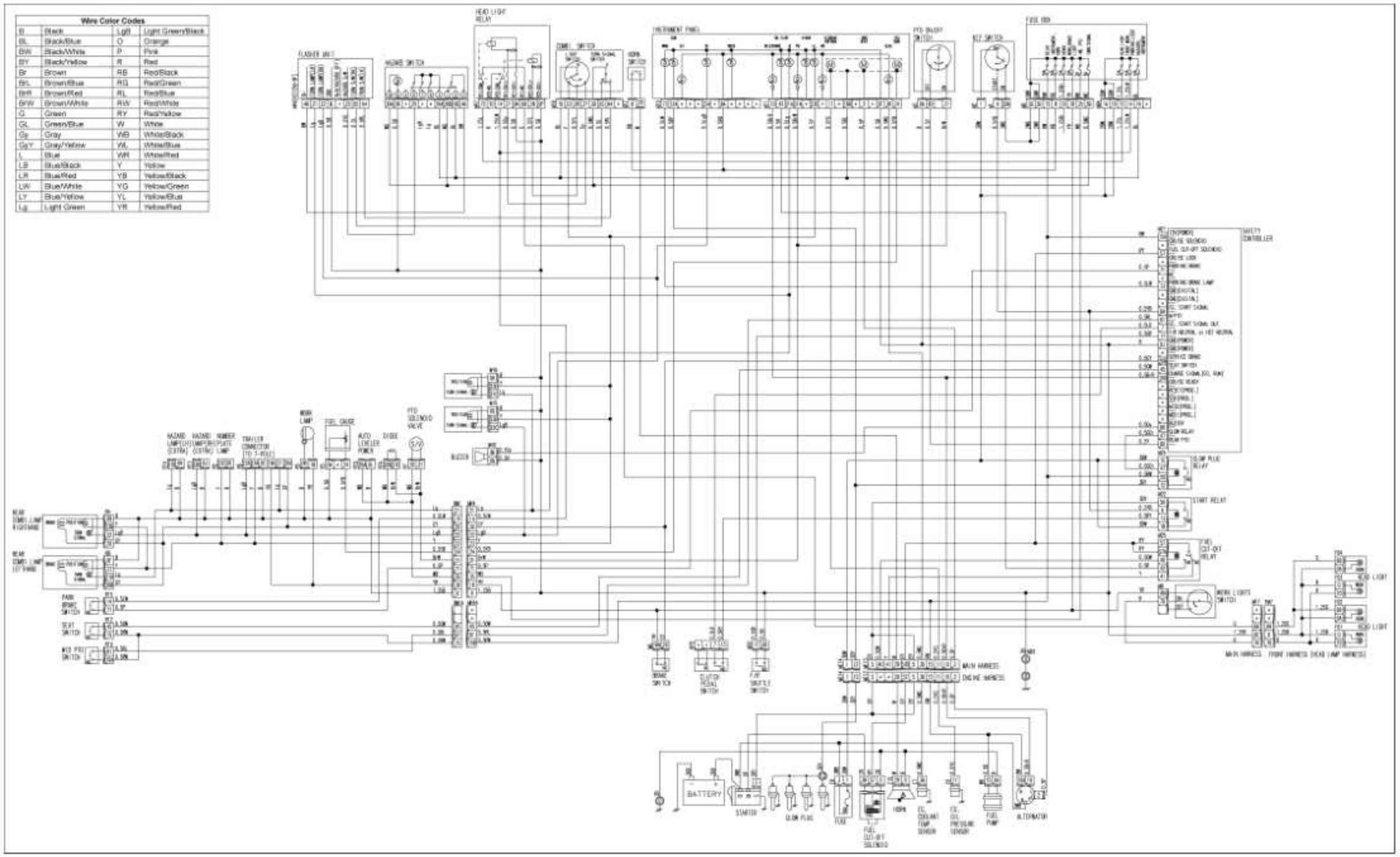
The port **(2)** coincides with the groove **(3)** and oil flows out to the port **(T)** through the center of rotation valve.



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Wire Color Codes			
B	Black	Lg/B	Light Green/Black
BL	Black/Blue	O	Orange
BW	Black/White	P	Pink
BY	Black/Yellow	R	Red
Br	Brown	RB	Red/Black
BrL	Brown/Blue	RG	Red/Green
BrR	Brown/Red	RL	Red/Blue
BrW	Brown/White	RW	Red/White
G	Green	RY	Red/Yellow
GL	Green/Blue	W	White
Gy	Gray	WB	White/Black
Gy/Y	Gray/Yellow	WL	White/Blue
L	Blue	WR	White/Red
LB	Blue/Black	Y	Yellow
LR	Blue/Red	YB	Yellow/Black
LW	Blue/White	YG	Yellow/Green
LY	Blue/Yellow	YL	Yellow/Blue
Lg	Light Green	YR	Yellow/Red



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