SERVICE MANUAL

Boomer™ 40
Boomer™ 50
Tier 3
Compact Tractor

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Consumables

Boomer™ 40	NA
Boomer™ 50	NA

Lubricant	Type and Description	Part Number	Container Size
Engine Oil	**NEW HOLLAND AMBRA SUPER GOLD 10W-30**	9613313	**0.946 l (1 US qt)**
		86641052	**3.785 l (1 US gal)**
		9613314	**18.93 l (5 US gal)**
		9673508DS	**18.93 l (5 US gal)**
	NEW HOLLAND AMBRA SUPER GOLD 15W-40	86641081	**0.946 l (1 US qt)**
		86641082	**3.785 l (1 US gal)**
		86641084	**9.46 l (2.5 US gal)**
		86641083	**18.93 l (5 US gal)**
Transmission/Hydraulic Oil	**NEW HOLLAND AMBRA MULTI G 134™ HYDRAULIC TRANSMISSION OIL**	9624655DS	**0.946 l (1 US qt)**
		9624656DS	**3.785 l (1 US gal)**
		9624450	**9.46 l (2.5 US gal)**
		9624451	**18.93 l (5 US gal)**
	NEW HOLLAND AMBRA F200A HYDRAULIC FLUID	86523625DS	**3.785 l (1 US gal)**
Front Axle/Gear Oil	**NEW HOLLAND AMBRA HYPOIDE 90**	9613295	**0.946 l (1 US qt)**
		9613294	**9.46 l (2.5 US gal)**
		86994348	**60.6 l (16 US gal)**
Grease	**NEW HOLLAND AMBRA GR-9 MULTI-PURPOSE GREASE**	9613310	Tube **14 oz**
Coolant	ESE-M97B18-D, Ethylene Glycol Coolant Concentrate	FGCC2701DS	**3.785 l (1 US gal)**

NOTE: *Oil Capacity, with filter* ***4.7 l (5.0 US qt)***

Ambient Temp (°F)	Recommended Oil
-12 - 49 °C (10 - 120 °F)	**NEW HOLLAND AMBRA MASTERGOLD™ HSP ENGINE OIL SAE 15W-40**
-23.3 - 49 °C (-10 - 120 °F)	**NEW HOLLAND AMBRA MASTERGOLD™ HSP ENGINE OIL SAE 10W-30**
-29 - 16 °C (-20 - 60 °F)	**NEW HOLLAND AMBRA MASTERGOLD HSP SAE 5W-30**
Oil Specification API CF-4 or CH-4	

NOTE: *Tractors are originally shipped with (15W40) oil.*

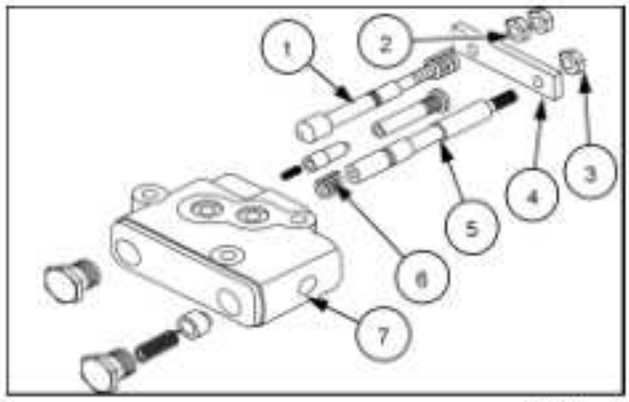
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Hitch control valve - Disassemble

Boomer™ 40	NA
Boomer™ 50	NA

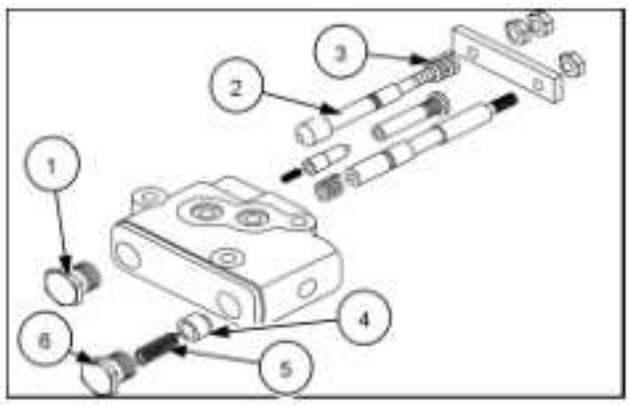
Prior operation:
Hitch control valve - Remove (35.114)

1. Remove the nut **(3)** on the end of valve spool **(5)**.
2. Remove the jam nuts **(2)** on the end of the lowering valve spool **(1)** and remove plate **(4)** from the end of the valve spools.
3. Remove valve spool **(5)** and spring **(6)** from the valve body **(7)**.



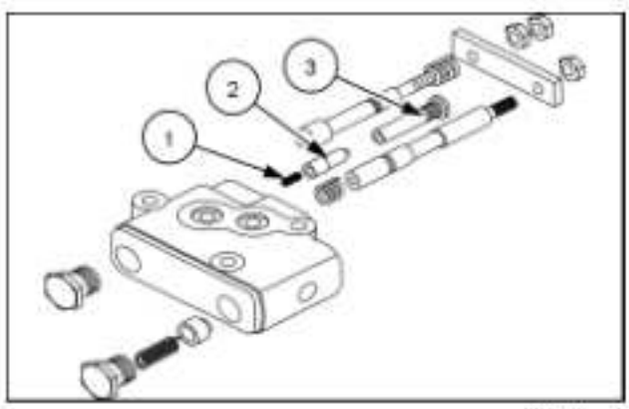
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4. Remove lowering valve seat **(1)** from the valve body.
5. Remove lowering valve **(2)** and spring **(3)** from the valve body.
6. Remove cap **(6)** from the valve body then remove spring **(5)** and unload valve **(4)**.



2

7. Remove check valve seat **(3)** from the valve body then remove check valve **(2)** and spring **(1)**.
8. Check all valve spools, seat, O-rings and valve body bores for any damage or scoring.



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Next operation:
Hitch control valve - Assemble (35.114)

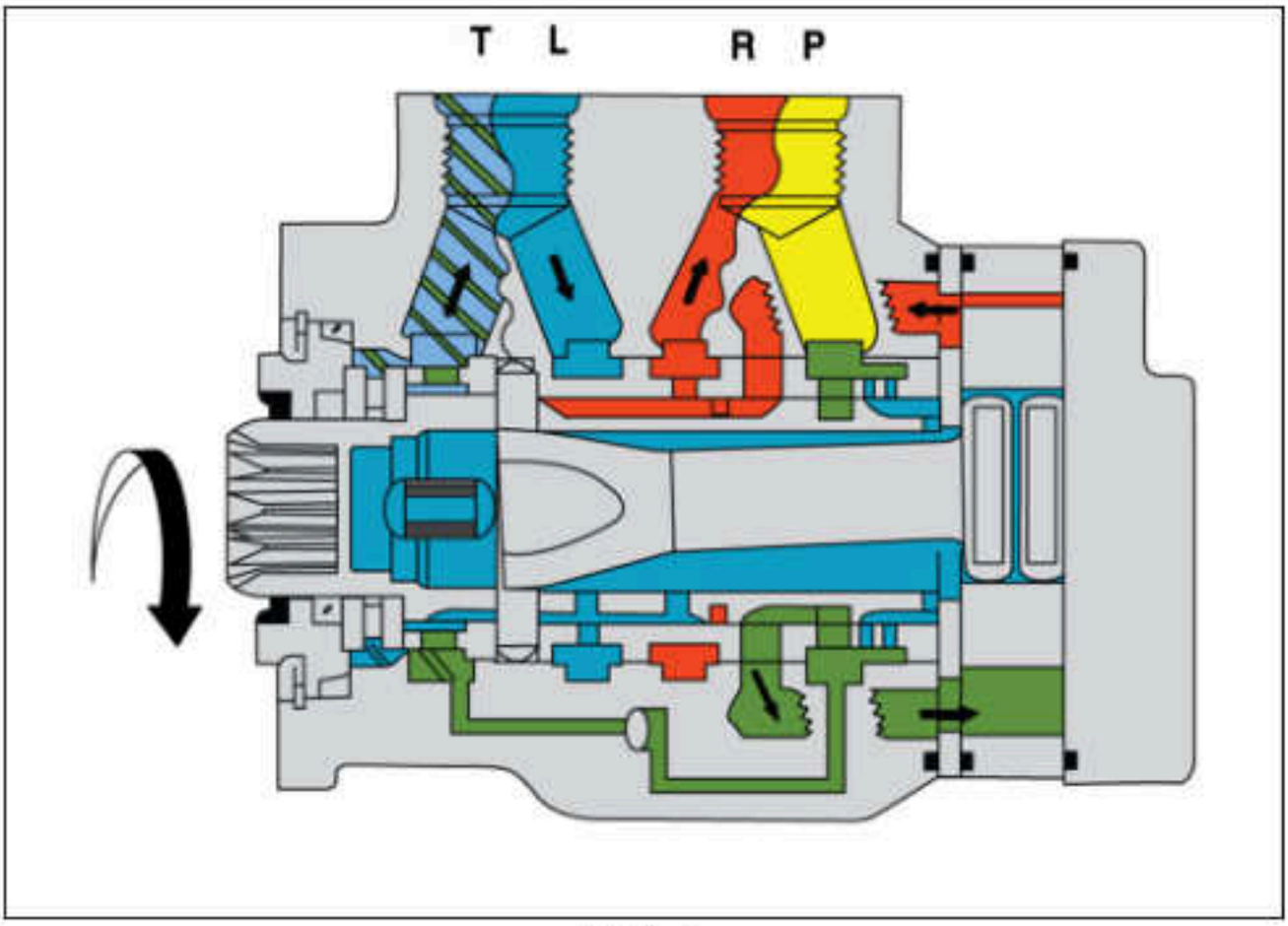
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Emergency operation

⚠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

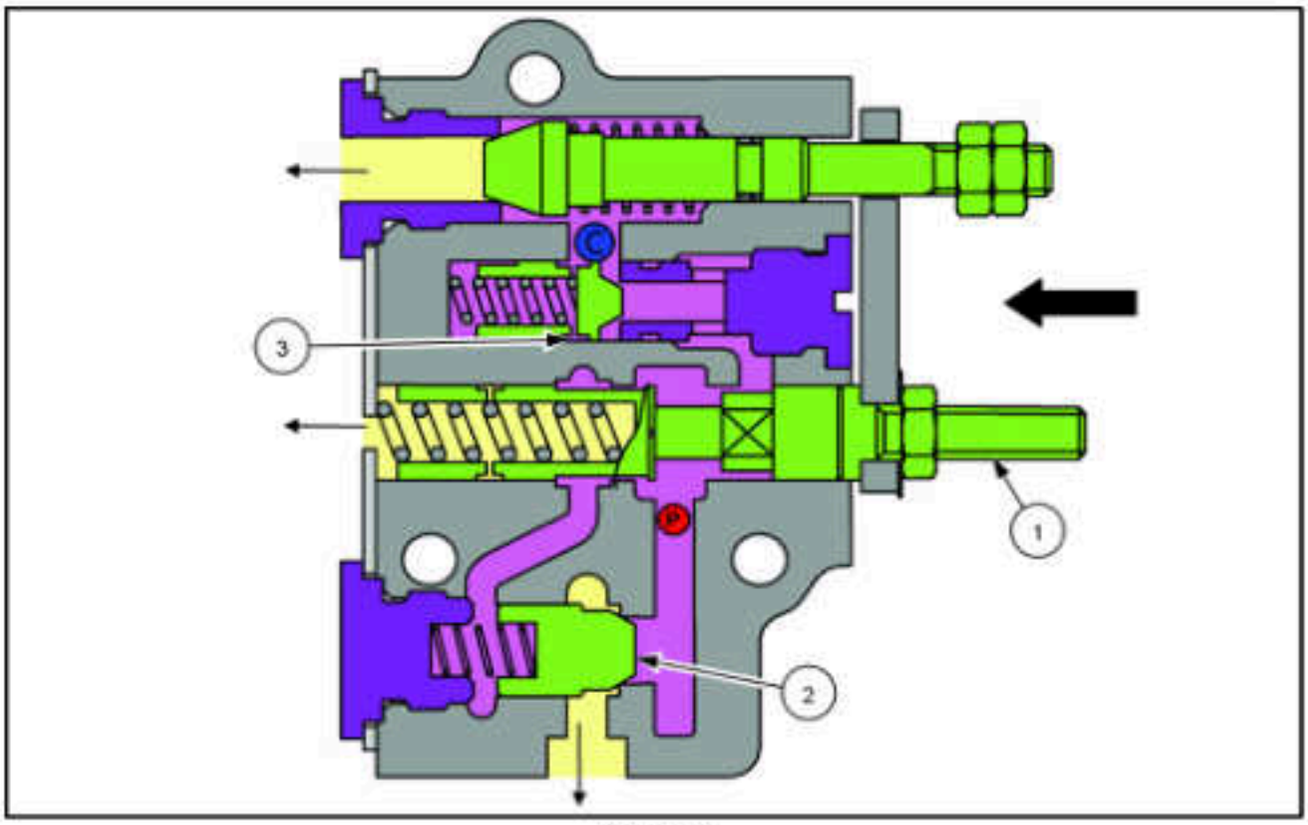
(T) - Tank
(L) - Left steer port
(R) - Right steer port
(P) - Pump discharge

- 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

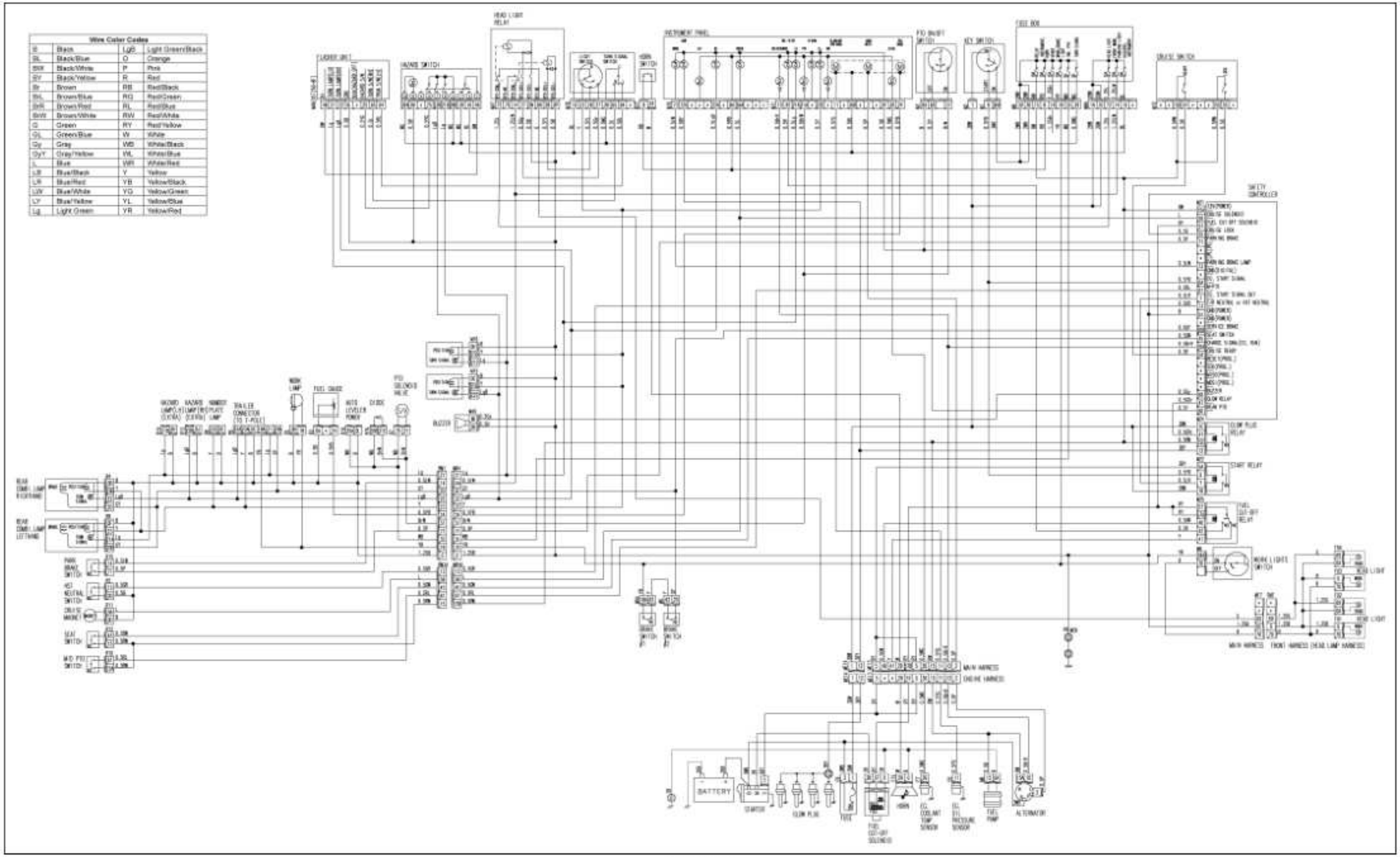
When the valve spool **(1)** moves inward in the "RAISE" position, oil flow being supplied by the pump is route around the valve spool to the backside of the unload valve **(2)** allowing the unload valve to remain seated. When the unload valve remains seated, pressure increases in the valve passage 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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Wire Color Codes			
B	Black	LgR	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
GyY	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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