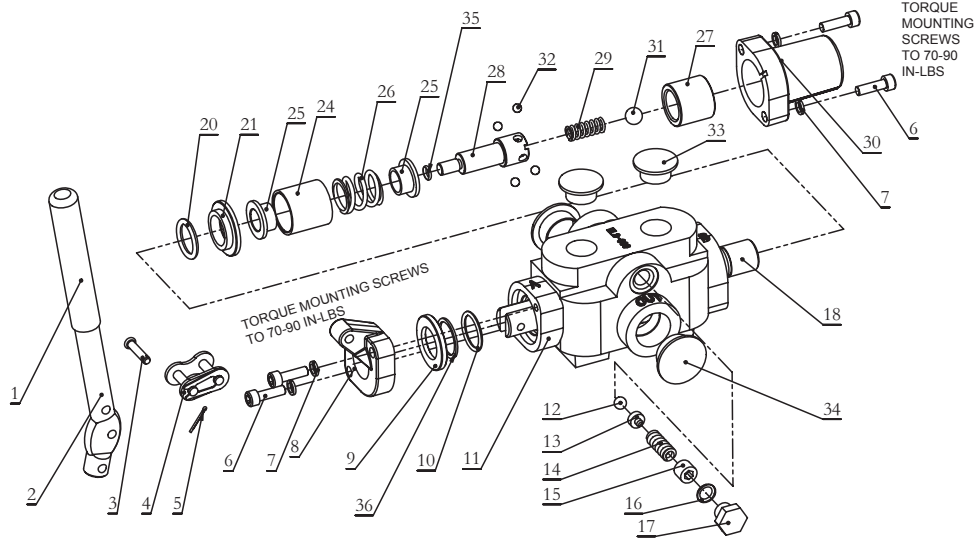


# HYDRAULIC KICK OFF CONTROL VALVE

## INSTRUCTION MANUAL

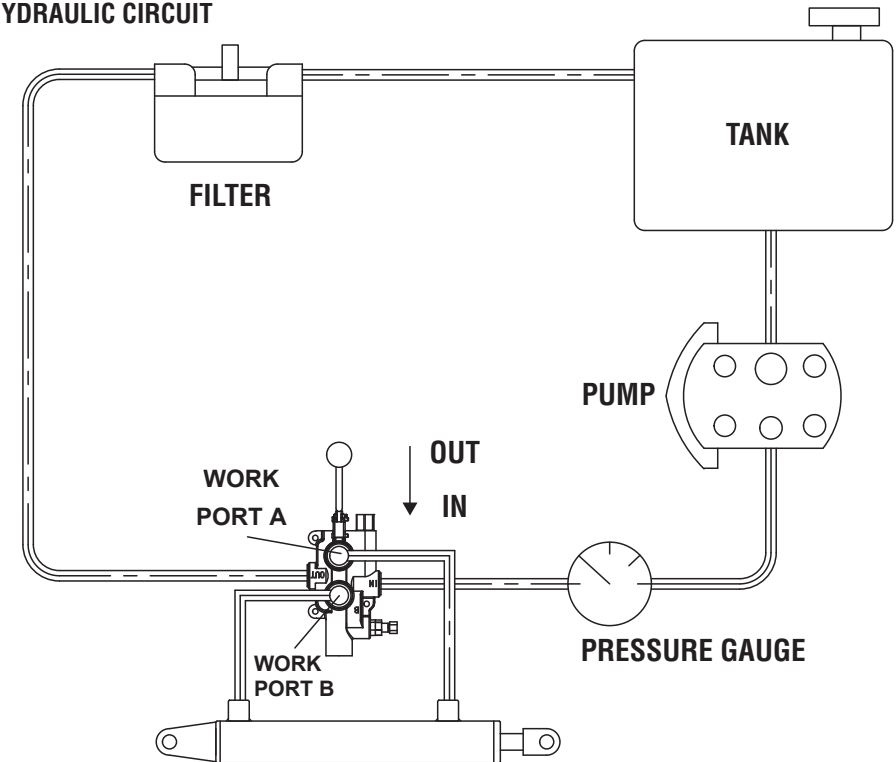


Part No.	QTY	Description	Part No.	Qty	Description	
11	1	Control Valve Body	1	1	Grip(Black)	
18	1	Valve Spool	2	1	Control Lever	
10	1	O-Ring	3	1	Clevis Pin	Handle Kit
16	1	O-Ring	4	1	Chain Link	
35	1	Seal	5	1	Cotter Pin	
20	1	O-Ring	6	2	Screw	
36	1	Back-up Ring	7	2	Washer	
21	1	Seal Retainer	8	1	Handle Bracket	
24	1	Machinery Bushing	9	1	Seal Retainer	
25	2	Spring Sleeve	33	2	Working Port Plug	
26	1	Spring, Valve Spool	34	2	In&Outlet Port Plug	
27	1	Detent Sleeve				
32	4	Steel Ball				
28	1	Detent Ball Holder				
29	1	Spring, Compression				
31	1	Steel Ball				
7	2	Washer				
6	2	Screw				
30	1	Spring Cover				
12	1	Steel Ball				
13	1	Adapter				
14	1	Spring				
15	1	Adjusting Screw				
17	1	Hex Plug				

# HYDRAULIC KICK OFF CONTROL VALVE

## INSTRUCTION MANUAL

### HYDRAULIC CIRCUIT



### INSTALLATIONS

When the handle (lever) is installed so that it sticks up on the same side of the valve as the two work ports, pulling it AWAY from the body of the valve (Spool moves IN) will retract the cylinder rod. When the handle is pushed TOWARD the valve (Spool moves OUT), the cylinder rod will extend. When the rod retracts completely, the return detent feature will make the handle kick back to neutral automatically. The detent pressure is preset to 800+/-200psi. It is non-adjustable.

- DO NOT connect hoses differently from the diagram or the valve will stay in the extend (splitting) position and could cause serious injury. Do not connect the input flow from the pump to the outlet port or connect the "A" port to the base end of the cylinder.

The "B" port is the work port farther to the handle. This port must be connected to the base end of the cylinder, where hydraulic oil acts on the piston to extend the rod in the direction of splitting a log. Oil is supplied to the "B" port by pushing the valve spool "OUT".

- DO NOT connect a return line (low pressure) filter directly to the outlet of the valve. Decompression of the cylinder could blow off the filter cartridge, causing an oil spill and possibly spraying operators or bystanders with hot hydraulic oil.

# HYDRAULIC KICK OFF CONTROL VALVE

## INSTRUCTION MANUAL

### SAFETY

#### Pressure Release Detent

This valve features a pressure release detent. When the spool is manually placed in the retract detent position, oil is directed to the "A" work port (the port closest to the handle). When the pressure in the "A" port reaches a preset level, the detent will release and the spool will center. The factory setting is 800+/-200PSI. The detent release pressure is non-adjustable.

#### Relief Valve

An adjustable ball spring relief valve is standard on all Detent Control valves. The standard factory setting is 2, 250PSI @ 4 gpm and 120°F. The relief pressure is adjusted by removing the Hex Plug (Parts No.17), and turning the Adjusting Screw (Part No. 15). Turning the Adjusting Screw clockwise will increase the pressure and counter-clockwise will decrease the pressure. A pressure gauge must be installed in the inlet line whenever the relief pressure is adjusted. The adjustable pressure range is 800+/-200PSI to 3265PSI. Do not back out the adjusting screw too far or it may fall out.

**IMPROPER MOUNTING:** Always use the proper size fittings. Hook up "IN" & "OUT" as noted on the valve body. Do not over torque pipe fittings. Mounting surfaces should be flat and care should be taken when tightening mounting bolts. Over-tightening bolts can cause the spool bind and failure of the casting.

#### WARNING:

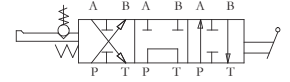
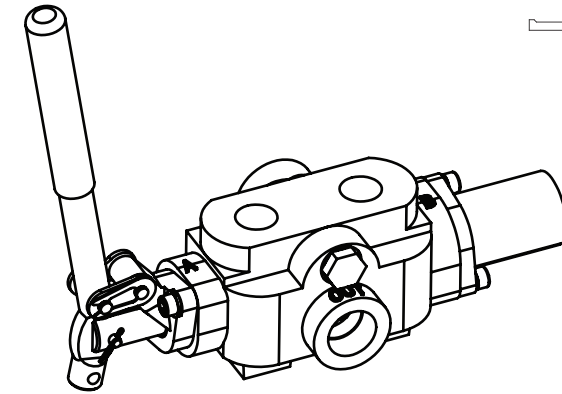
- DO NOT hold the valve handle in the return position. The spool is held in the return position by the detent mechanism until the cylinder retracts and the hydraulic pressure kicks the handle into neutral. Holding the valve lever puts under stress on valve components and could cause serious injury.
- DO NOT change or adjust hydraulic system components while under pressure. Serious injury could result.
- DO NOT remove any internal parts from this valve assembly in an attempt to modify its function.
- Make sure all bolts are tightened and torqued to the recommended specification. Bent or broken parts should not be used. Replace immediately. Always use exact replacements. Always protect valve spool from paint overspray.
- Faulty quick disconnects can cause high back pressures and sticking spools. Check quick disconnects periodically to make sure they are functioning properly. If valve spool does not center or appears to stick, do not use!
- Cracked ports are not covered under warranty.

# HYDRAULIC KICK OFF CONTROL VALVE

## INSTRUCTION MANUAL

MODEL: LS305NBA42 (1/2" Work Ports) SKU: 91-135-VALV-03

MODEL: LS306NBA42 (3/4" Work Ports) SKU: 91-135-VALV-04



### SPECIFICATIONS

MAXIMUM TANK PRESSURE .....	500 PSI
MAXIMUM OPERATING PRESSURE .....	3,500 PSI
MAXIMUM OPERATING TEMPERATURE .....	180°F
MAXIMUM FLOW RATING .....	30 GPM
RECOMMENDED SYSTEM FILTRATION .....	10 MICRON

- Inlet/Outlet Ports: 3/4" NPT
- Working Ports:
  - 1/2"NPT: LS305NBA42
  - 3/4"NPT: LS306NBA42
- Relief valve adjustable to 3,265 PSI, preset at 2,250 PSI@ 4 GPM and 120°F
- Detent release pressure preset at 800+/-200 PSI
- Detent pressure is non-adjustable
- Handle can be installed in "UP" or "DOWN" position.

### INSTALLATION DIMENSIONS

