



Hydraulic Kick Off Control Valve Instruction Manual



WARNING:

Read carefully and understand all INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury. Save these instructions in a safe place and on hand so that they can be read when required. Keep these instructions to assist in future servicing.



GENERAL SAFETY REGULATIONS



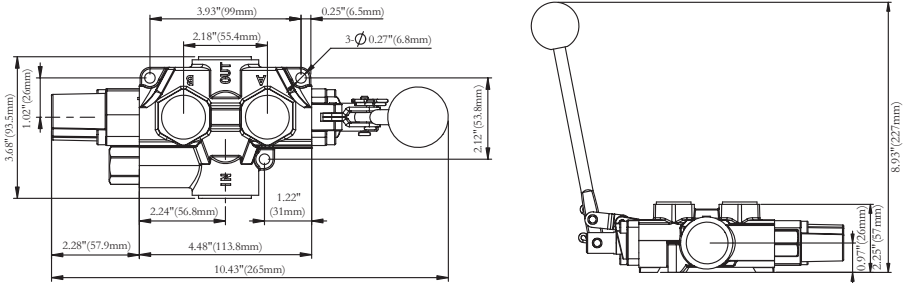
IMPROPER MOUNTING: Always use the proper size fittings. Hook up “in” & “out” as noted on the valve body. Do not over torque pipe fittings. (Use liquid pipe sealant only) Mounting surfaces should be flat and care should be taken when tightening mounting bolts. Over-tightened bolts can cause spool bind and casting breakage.

1. DO NOT hold the valve handle in the return position. This position is held firm by the detent mechanism until the cylinder retracts and kicks out to neutral position by hydraulic pressure. Holding the valve lever puts undue stress on all components and could cause serious injury.
2. DO NOT change or adjust hydraulic system components while under pressure. Serious injury could result.
3. DO NOT remove any internal parts from this valve assembly in an attempt to modify its function.
4. DO NOT Use Teflon Tape, use Liquid Pipe sealant only
5. 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.
6. 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!
7. Cracked ports are not covered under warranty.

TECHNICAL DETAILS

Maximum Tank Pressure	500 PSI
Maximum Operating Pressure	3,500PSI
Maximum Operating Temperature	180°F
Maximum Flow Rating	18 GPM
Recommended System Filtration	10 MICRON

1. Inlet/Outlet Ports: 3/4" NPT; 3/4" BSP; #10SAE available
2. Working Ports: 1/2" NPT; 3/4" NPT; 1/2" BSP; 3/4" BSP; #8 available
3. Relief valve adjustable to 3,625 PSI, preset at 1,800 PSI@ 4 GPM and 120°F
4. Detent release pressure preset at 800-1,000 PSI
5. Kick-off pressure is non-adjustable
6. Small and compact to fit your log splitter building



SAFETY PRECAUTIONS

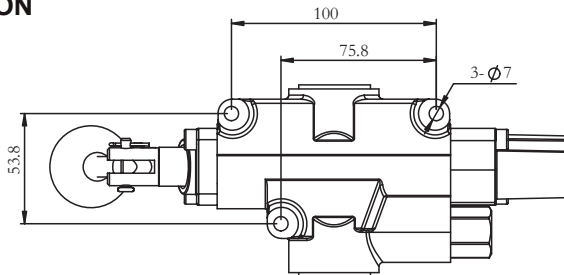
Pressure Release Detent (Kick out mechanism)

This feature provides a pressure release detent for the handle "out" position. When the spool is manually placed in the 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±100psi. The detent release pressure is non-adjustable.

Relief Valve

1. 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. Other setting can be specified.
2. The relief pressure is adjusted by removing Hex Plug (Parts No.33), and turning the Adjusting Screw (Part No 32). 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). Adjustable pressure range is 700psi to 3265psi. Do not backout adjusting screw to the point it falls out.

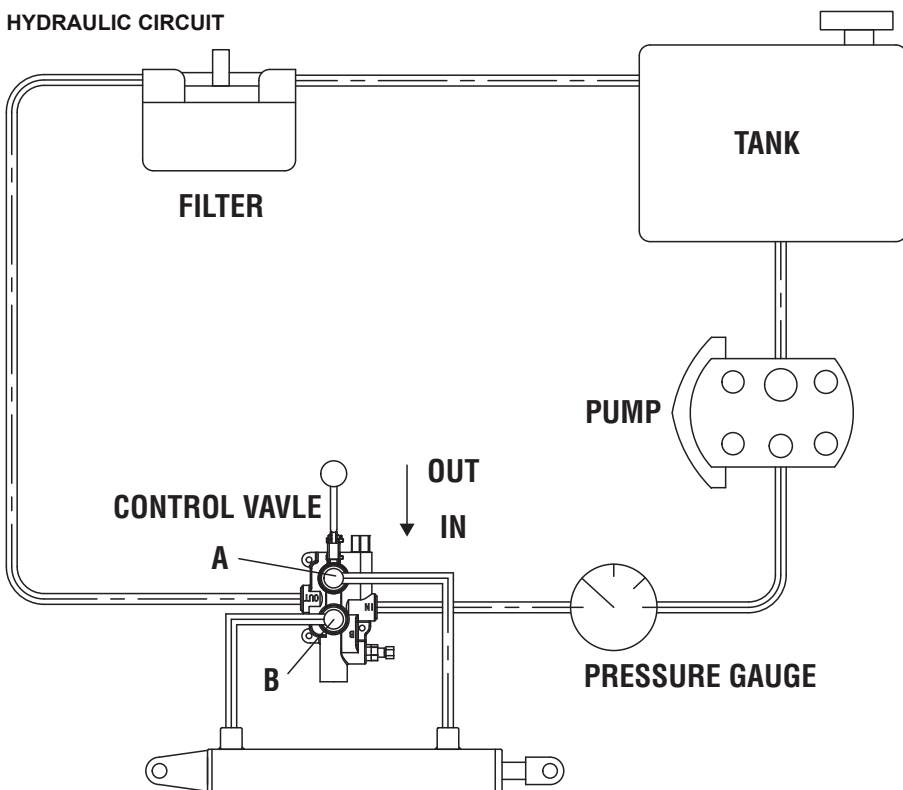
INSTALLATION



1. The valve is mounted so the handle is on the cylinder rod end as shown. Push handle IN, cylinder extends to split log. Pull handle out, cylinder retract. When the cylinder retracts completely, handle kick back to neutral automatically. The kick-out pressure is non-adjustable preset at 700psi.
 - DO NOT connect hoses to cylinder opposite from the diagram or the valve will stay in power extend (splitting) position and could cause serious injury. This includes connecting the input flow to the out port or connecting the "A" port to the base end of the cylinder.

2. THE OIL FLOW WHICH STROKES THE CYLINDER IN THE LOGSPLITTING DIRECTION MUST COME FROM THE VALVE PORT AWAY FROM THE HANDLE-("B" PORT). "B" port should always be plumbed to the base end of the cylinder. Oil is supplied to this port by shifting the valve handle IN as noted in the above installations.
 - DO NOT connect a return line (low pressure) filter directly to the outlet of the logsplitter valve. Decompression of the cylinder could blow off the filter cartridge, causing an oil spill and possible spraying of operators or bystanders with hot hydraulic oil.

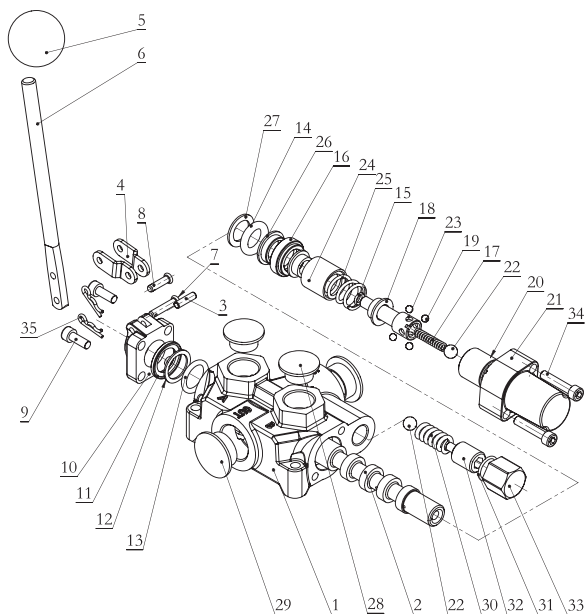
HYDRAULIC CIRCUIT



TROUBLE SHOOTING

Problem(s)	Corrective Action
Pumps work fine, valve won't be able to function properly.	Hydraulic hoses are hooked up incorrectly. Find the diagram of the detent valve set up. There will be input valves for the pressurized and un-pressurized hose connections, and the diagram will show you which ones go on which side of the detent valve and in what order.
The pressure won't be enough for the mechanism to work properly.	Check for leaks. If the hoses aren't connected completely in the detent valve, or if there's a leak in one of the hoses.
The detent function of the valve doesn't work	Check the position of the lever. A detent valve lever can be pushed up or down to put the valve into operation. If you're used to the lever going one way on one log splitter, you might have overlooked the valve position on a different log splitter that works differently. Check the manual to be sure you have proper lever position.
	Check the pressure going into the detent valve. Detent valves can be set for 800 to 2,000 pounds per square inch. If you have the wrong pressure going into the wrong setting, you're going to have poor results, if any at all. Be sure that the pressure and the hoses all measure up.

EXPLODED AND PARTS LIST



TORQUE
MOUNTING
SCREWS
TO 70-90
IN-LBS

Part No.	Q'ty	Description	Part No.	Q'ty	Description
1	1	Control Valve Body	3	1	Pin
2	1	Valve Spool	5	1	Knob(Black)
13	1	O-Ring	6	1	Control Lever
31	1	O-Ring	7	1	Clevis Pin
15	1	Seal	8	1	Clevis Pin
14	1	O-Ring	4	2	Chain Link
12	1	Back-up Ring	35	2	Cotter Pin
27	1	Back-up Washer	9	2	Screw
26	1	Seal Retainer	10	1	Handle Bracket
24	1	Machinery Bushing	11	1	Seal Retainer
18	2	Stop Cup	28	2	Working Port Plug
16	1	Spring Sleeve	29	2	In&Outlet Port Plug
25	1	Spring,Valve Spool			
20	1	Detent Sleeve			
19	4	Steel Ball			
23	1	Detent Ball Holder			
17	1	Spring, Compression			
22	1	Steel Ball			
34	2	Screw			
21	1	Spring Cover			
22	1	Steel Ball			
30	1	Spring			
32	1	Adjusting Screw			
33	1	Hex Plug			

Handle Kit

Detent Kit

Relief Kit



Intradin (Shanghai) Machinery Co., Ltd.
iti-fluid@intradinchina.com
www.intradin.com