

ENERGY MANUFACTURING CO., INC.

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OPERATING INSTRUCTIONS LOGSPLITTER VALVES WITH HYDRAULIC KICK-OUT



WARNING

DO NOT GO NEAR LEAKS

- High pressure oil easily punctures skin causing serious injury, gangrene or death.
- If injured, seek emergency medical help. Immediate surgery is required to remove oil.
- Do not use finger or skin to check for leaks.
- Lower load and relieve hydraulic pressure before loosening fittings.



AWARNING

The logsplitter valve must never be subjected to back pressure of over 200 PSI (14 bar). The valve spool may inadvertently shift and activate the cylinder if back pressure at the outlet is over 200 PSI (14 bar). Serious injury could result.



WARNING: 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.



WARNING: 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 "B" port to the rod end of the cylinder.



WARNING: Do not change or adjust hydraulic system components while under pressure. Serious injury could result.



WARNING: Do not remove any internal parts from this valve assembly in an attempt to modify its function. Do not work on the valve, do not tighten fittings or remove components while under under pressure. Serious injury could result.



WARNING: 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.



WARNING: Do not tighten the relief valve adjustment screw without a gauge installed to indicate pressure. Do not bottom the relief valve adjustment screw. This is a safety device; pressure will not be released and high pressure oil could burst a component causing serious injury. Do not change or adjust hydraulic system components while under pressure.



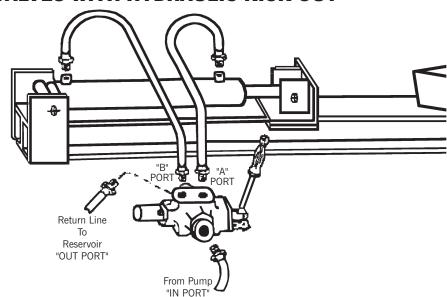
WARNING: Do not operate the splitter when the oil is too cold to allow the kick-out to function normally. Allow the splitter to run long enough to heat the oil to room temperature. If the valve does not return to neutral when you release the handle while extending the cylinder to split wood . . . **STOP USING THE SPLITTER.** The oil may be too thick, too cold, contaminated or the valve may be damaged. **STOP USE IMMEDIATELY AND CALL YOUR SPLITTER MANUFACTURER OR ENERGY AT THE TELEPHONE NUMBER LISTED ABOVE.**



OPERATING INSTRUCTIONS LOGSPLITTER VALVES WITH HYDRAULIC KICK-OUT

The log splitter valve is a four-way hydraulic directional control valve designed to operate a two-way hydraulic circuit from a single hydraulic source in an open center system.

Pull handle out to extend cylinder. Handle is spring loaded, and will return to neutral when released. Push handle in to retract and the detent will hold the handle position. At the end of the stroke, the valve will sense pressure from the cylinder and the pressure will push the handle back to neutral position.



INSTALLATION



WARNING: Before installing product, read and understand all warnings, safety labels, and instructions. Failure to do so could result in Serious Injury!

- 1. Install lever as shown in drawing.
- 2. Mount valve using 3/8"-16 NC tapped holes in the base of valve. CAUTION: Mounting valve to uneven mounting plate may cause the valve body to distort and the valve spool to bind. Move the control lever during the tightening procedure to assure that the valve spool does not lock or bind as a result of the tightening. Exerting heavy pressure on the control lever should be avoided as it may cause valve damage. IF THE VALVE SPOOL BINDS IN ANY WAY OR REFUSES TO RETURN TO NEUTRAL WITH THE SPRING WHEN THE LEVER IS RELEASED, DISCONTINUE USE AND CALL FACTORY.
- 3. Make port connections as shown in drawing. (NOTE: We do not recommend the use of Teflon tape because of potential contamination to the hydraulic system.) CAUTION: Excess tightening of the port fittings may cause the valve body to distort and the valve spool to bind. Move the control lever during the tightening procedure to assure the valve spool does not lock or bind as a result of the tightening, IF THE VALVE SPOOL BINDS IN ANY WAY OR REFUSES TO RETURN TO NEUTRAL WITH THE SPRING WHEN THE LEVER IS RELEASED, DISCONTINUE USE AND CALL FACTORY.
- 4. Since the kick-out operates from hydraulic pressure, the valve may not kick out when the oil is cold. The kick-out pressure is not adjustable. Do not remove the spring cover (Item 9) and attempt to adjust.
- 5. The kick-out mechanism works by pilot pressure in the hydraulic system. If there is too much back pressure, such as the hose to the reservoir being too small or too long, the valve may kick out prematurely. The back pressure at the "out" port must not exceed 200 PSI (14 bar).
- 6. Do not place components in the return line except for hydraulic filters with bypass valves installed. If you observe premature kick-out, the splitter gas engine may be causing excessive vibration. We would suggest you dampen the vibration by adding rubber mounting pads between the engine and the mounting plate.

ADJUSTING PRESSURE (Maximum Operating Pressure 2,500 PSI [172 bar]

7. Relief valve is normally adjusted to about 2,000 PSI (138 bar) at 2 GPM (7.6 lpm) at the factory. Adjustment can be made by removing the relief valve plug and by turning the slotted or hex-keyed adjustment screw clockwise to increase the pressure and counterclockwise to decrease the pressure. Pressure range is 400 PSI (28 bar) to 2,500 PSI (172 bar) up to 10 GPM (38 lpm).

ASSEMBLY DRAWING AND PARTS LIST

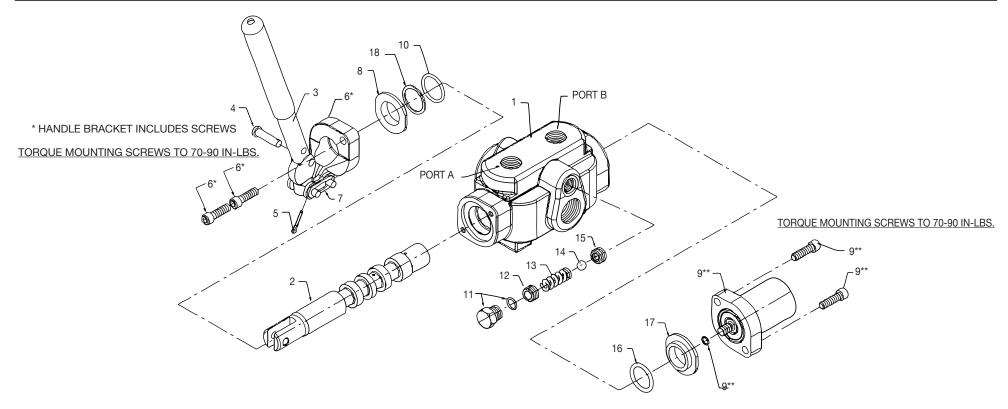


Energy Mfg. Co., Inc.

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MODEL 0C000908 4-WAY, OPEN CENTER VALVE WITH HYDRAULIC KICKOUT

website: www.energymfg.com e-mail address: info@energymfg.com



** DETENT COVER ASSEMBLY INCLUDES SCREWS AND O-RING

| ITEM | PART | | | ITEM | PART | | |
|------------|-------------|--|------|------|-------------|---|------|
| <u>NO.</u> | <u>NO</u> . | NAME | QTY. | NO. | <u>NO</u> . | NAME | QTY. |
| 1 | 0C000737 | CONTROL VALVE BODY | 1 | 13 | 19985A | RELIEF VALVE SPRING ASSEMBLY | 1 |
| 2 | 0B004773 | VALVE SPOOL | 1 | 14 | 19282A | STEEL BALL | 1 |
| 3 | 0B005146 | CONTROL HANDLE | 1 | 15 | 19902A | VALVE SEAT | 1 |
| 4 | 00080409 | CLEVIS PIN | 1 | 16 | 00082755 | O-RING | 1 |
| 5 | 00080414 | COTTER PIN | 1 | 17 | 0A007093 | SEAL RETAINER | 1 |
| 6 | 26264B | BRACKET W/SCREWS | 1 | 18 | 00082131 | BACK-UP RING | 1 |
| 7 | 00082832 | CHAIN LINK | 1 | _ | 0A007238 | SEAL KIT CONTAINS ALL SEALS USED IN VALVE | |
| 8 | 0A004912 | SEAL RETAINER | 1 | _ | 0A002851 | CONTROL LEVER ASSEMBLY | |
| 9 | 36561B | DETENT COVER ASSEMBLY W/SCREWS | 1 | | | 0B005146 HANDLE | |
| 10 | 00080311 | O-RING | 1 | | | 0A002900 GRIP | |
| 11 | 00082527 | PLUG, O-RING | | | | 00082832 CHAIN LINK | |
| 12 | 00082515 | SLOTTED OR HEX-KEYED ADJUSTMENT SCREW. | 1 | | | 26264B BRACKET W/SCREWS | |