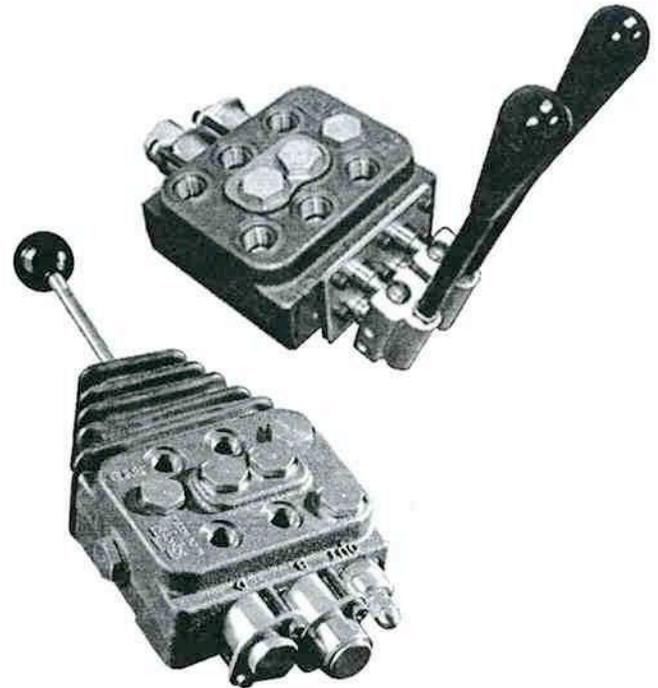




## HYDRAULIC VALVE

**DIRECTIONAL CONTROL  
DV LOADER SERIES**  
Specification Sheet

The **CROSS DV series** directional control loader valve offers extremely low leakage with outstanding load-holding capability in a compact, space saving model. All ports come out the same surface of the valve and it will fit in a space less than 6 inches wide. Float and regen capabilities, load checks, built-in power beyond and single handle actuator make this valve ideally suited for the mobile loader market.



### GENERAL SPECIFICATIONS

Number of spools.....	two
Rated working pressure.....	3000 psi
Maximum shock and surge pressure.....	4000 psi
Rated flow capacity (2 spool options available).....	8-10 gpm, 15 gpm
Mounting - bottom surface.....	Two mounting holes for 5/16" dia. bolts
Maximum spool leakage (at 1000 psi w/120 SUS oil at 120F).....	5 cc/min

### MATERIAL SPECIFICATIONS

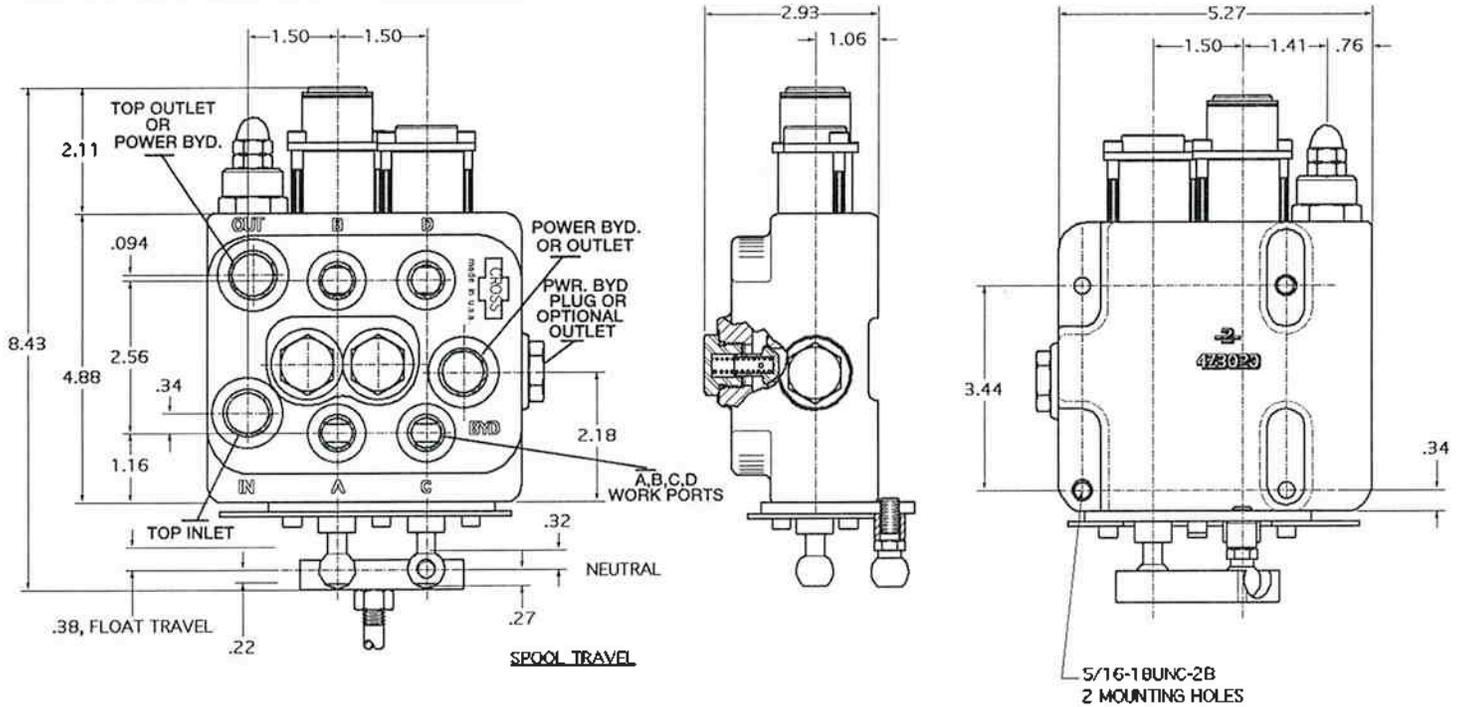
Body.....	Class 50 grey iron
Spools.....	Ground, plated and polished steel alloy
Seals.....	Buna N

### STANDARD FEATURES

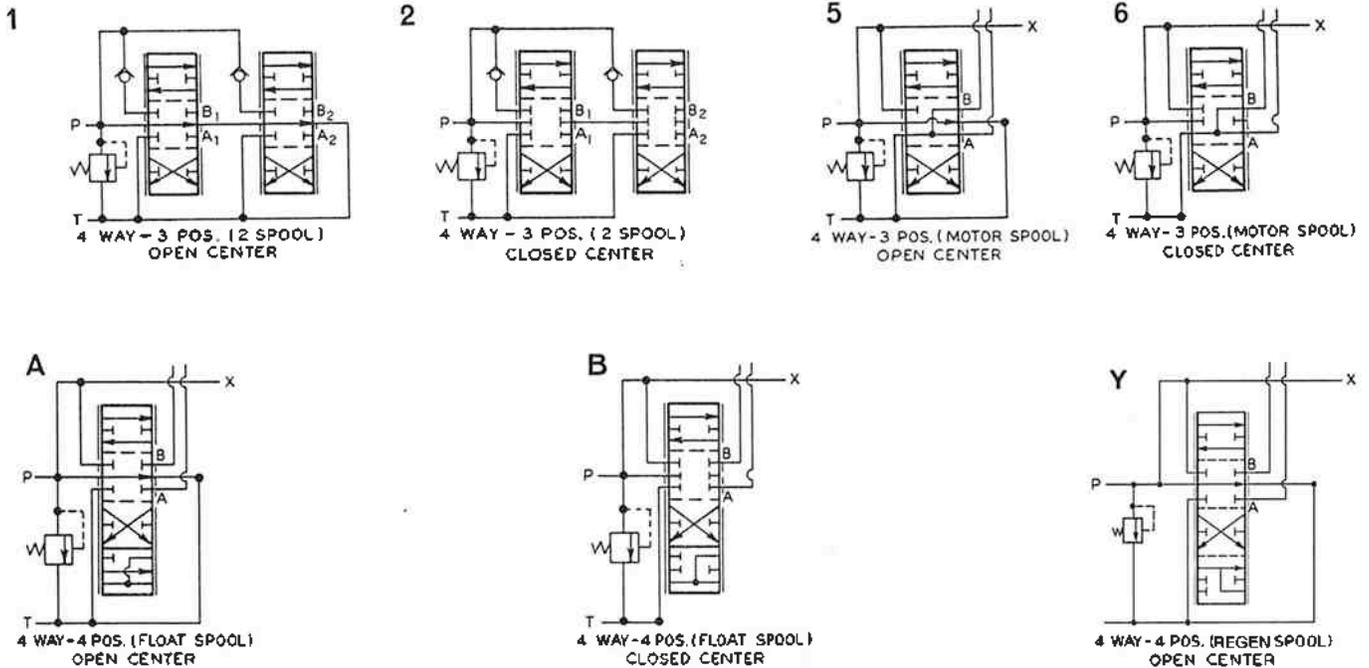
- Parallel operation
- Excellent spool metering characteristics
- Open center: 4 way, 4 position (float) on first spool;  
4 way, 3 position or regen on second spool
- Integral load holding check valves prevent reverse when shifting from neutral
- Integral differential poppet type relief valve, adjustable
- Balanced, select-fit spools to provide minimum leakage, smooth operation
- 3/4 - 16 (SAE #8) inlet, outlet and power beyond with 3/4-16 (SAE #8) work ports
- Built-in power beyond capability
- Handles or single handle actuator assembly with rubber boot



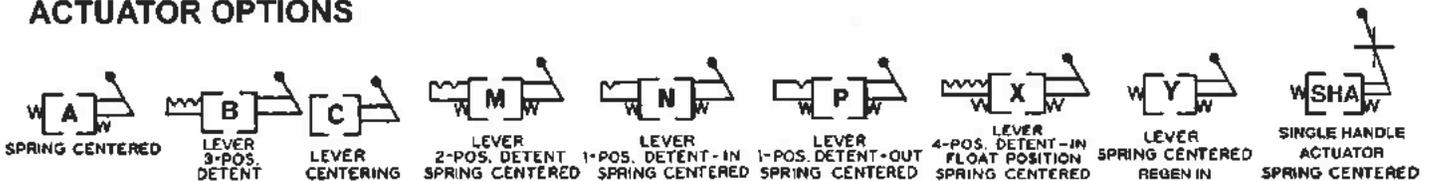
**DIMENSIONAL DATA in inches**



**SPOOL OPTIONS**



**ACTUATOR OPTIONS**





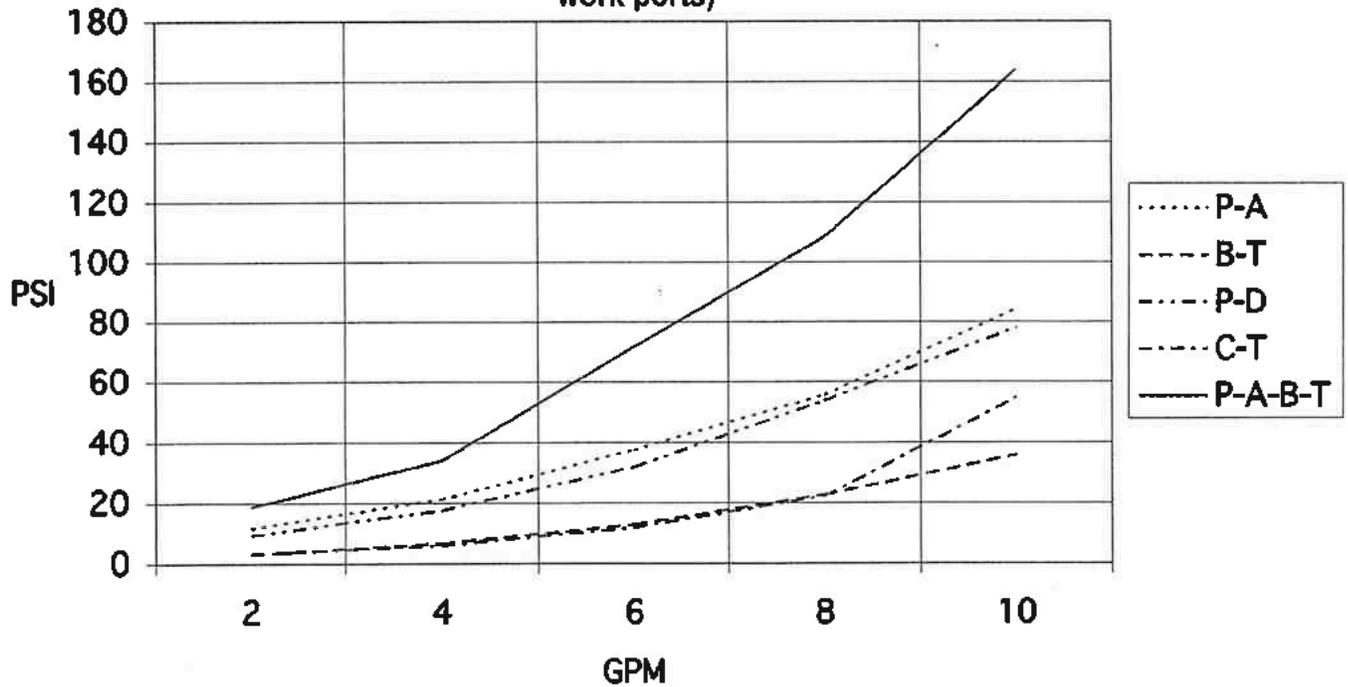
# HYDRAULIC VALVE

DIRECTIONAL CONTROL  
DV LOADER SERIES  
Specification Sheet

## TYPICAL PERFORMANCE DATA

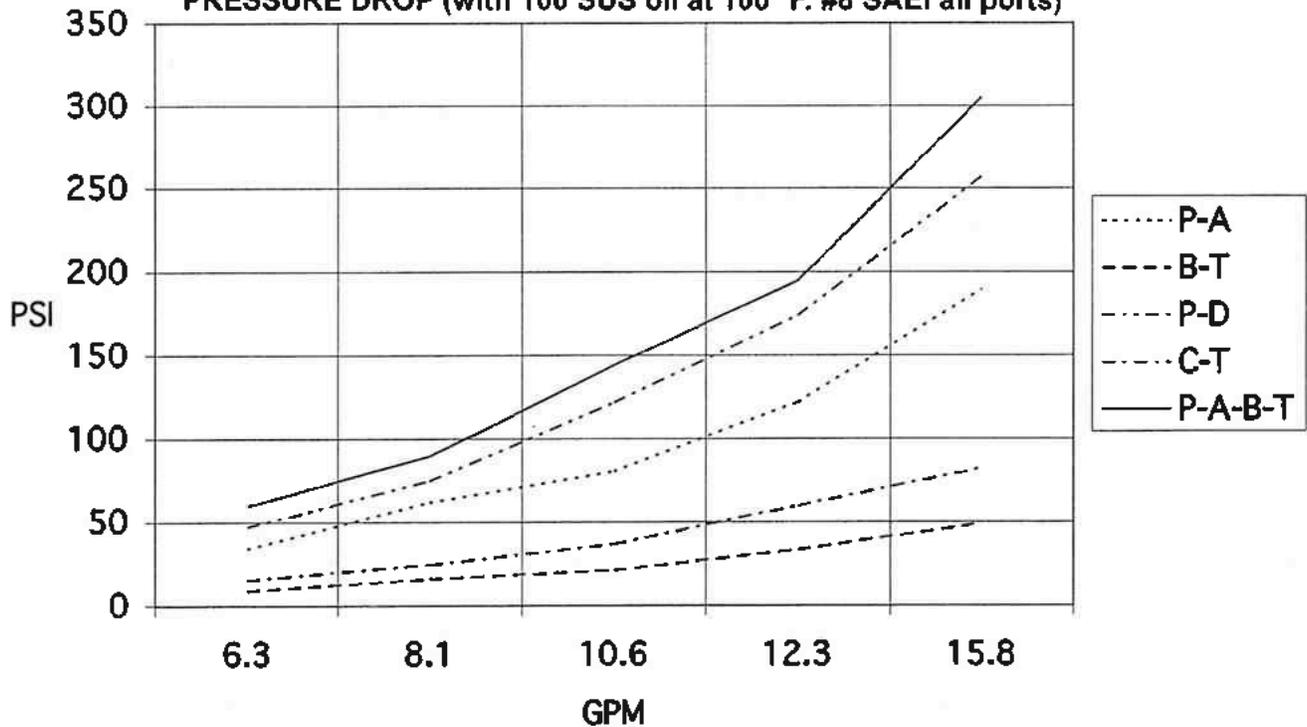
### DV10

PRESSURE DROP (with 100 SUS oil at 100° F. SAE #8 in & out, #6 work ports)



### DV15

PRESSURE DROP (with 100 SUS oil at 100° F. #8 SAEI all ports)





**ORDERING INFORMATION**

Model No.	No. Spools	Spool Type	Actuator Options	Relief Valve	Power Beyond	Outlet Port Location	Port Size & Type	Handle
DV10	2	1	A	A	0	P	0	0
10 GPM		4-Way, 3-Pos. Open Ctr.	3-Pos. Spring Centered	1,000 PSI	No Pwr. Byd.	Std. Top Inlet & Outlet	9/16-18 SAE Work Ports, 3/4-16 In & Out	Handle
DV15	2	2	B	B	3	1	1	1
15 GPM		4-Way, 3-Pos. Closed Ctr.	3-Position Manual Detent	1,500 PSI	Conv. Plug	Top Outlet BYD. 3/4-16 SAE	3/4-16 SAE Work, In & Out Ports	Less Hdl. Ass'y. (drilled hole in ball)
		5	C	C	4	2	2	
		4-Way, 3-Pos. Open Ctr. Motoring	Manual, No Detent, No Spr. Ctr.	2,000 PSI	Pwr. Byd. 3/4-16 SAE	Right Side Outlet 3/4-16 SAE	9/16-18 SAE Work, In & Out Ports	
		6	M	D	5			3
		4-Way, 3-Pos. Closed Ctr. Motoring	2-Pos. Det. "In" & "Out", Spr. Ctr..	None	Closed Center			Single Handle Actuator Assy.
		A	N	E				4
		4-Way, 4-Pos. Open Ctr. Float Spool	1-Pos. Det. "In" only, Spr. Ctr.	Other				Single Hdl. Act. Ass'y. rotated 180 deg. (no regen on 2nd spool.)
		B	P	F				
		4-Way, 4-Pos. Closed Ctr. Float Spool	1-Pos. Det. "Out" only, Spr. Ctr.	Adj. 500-1500 PSI set @ 1000 PSI				
		C	X	G				
		4-Way, 4-Pos. Open Ctr. Regen IN Position	4-Pos. Spr. Ctr. to Neutral, Det. in Float	Adj. 1500-3000 PSI set @ 2000 PSI				
			Y					
			4-Pos. Spr. Ctr. w/ Regen					

**DV10 2 AC XY F 3 P 0 3**

Example: DV102ACXYF3P03 is a DV10 10 GPM manually operated double spool valve. First spool is 4-way, 4-position spring centered with detent in float. Second spool is 4 way, 4 position, open center, regen "In", spring centered with regen. Adjustable relief valve is set @ 1500 psi. Power beyond has conversion plug. Standard port location: inlet and outlet SAE #8, 3/4-16 thread, work ports SAE #6, 9/16-18 thread with single handle actuator location.



**CROSS MANUFACTURING INC.**

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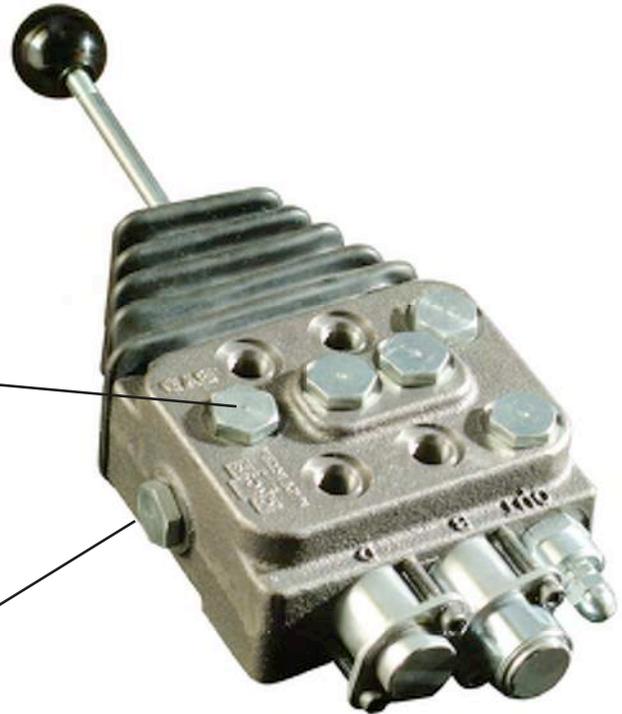


# DV LOADER VALVE

## Power Beyond Conversion

**Remove plug** from Top Power Beyond and plumb directly in to top power beyond location (3/4-16). (No Power Beyond Sleeve is required.)

**Install #1V2853 Conversion Plug Assy.** in End Outlet Location.



The **CROSS DV series loader valve** was designed for the mobile loader market but its compact size and versatility make it suitable for many applications. It is proving to be a durable, low leakage valve with excellent metering characteristics. The DV is available in a 10 and 15 gpm version and features a newly designed manual joystick control with protective boot or conventional handles.

Standard DV valve models (SDV) are listed in our Full Line catalog and will be discounted as the full line products or see DV specification sheet for a full list of options. (Current surcharges are applicable.)

**We invite your inquiries and look forward to serving your needs!**



### **CROSS MANUFACTURING, INC.**

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