MR DIVIDER VALVES

MAX. OPERATING PRESSURE - 3500 PSI

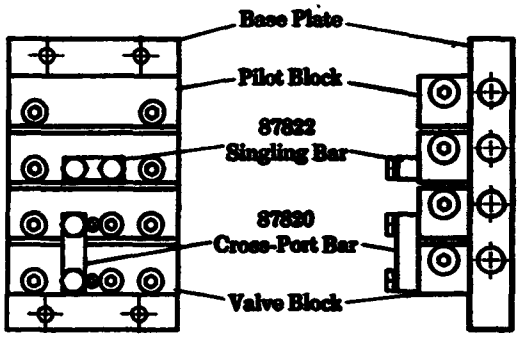
DESCRIPTION

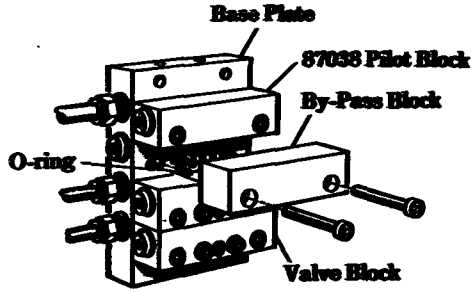
"MR" Divider Valves are used exclusively in Mon-O-Loop systems in conjunction with a pump, FRH reverser, and a control panel. Each divider valve is comprised of a pilot block and from one to seven working valve blocks fastened to a base plate with o-ring seals, either buna-N or viton, between the valve blocks and the base plate.

The pilot block is the no. 1 valve block on every "MR" Divider Valve. Its piston is a flow directing piston only and does not supply any lubrication points.

Valve blocks contain metering pistons which discharge predetermined amounts of lubricant with each cycle. Valve blocks can be single, twins or cross-ported and can be externally or internally singled and/or cross-ported. When cross-porting, lubricant output must be taken from the valve block farthest from the pilot block.

A by-pass block can be used in any position on the base plate except the pilot block position. Its use makes it possible to add or delete lubrication points without disturbing existing piping. Two by-pass blocks are available, the 87036 By-Pass Block with buna-N o-rings and the 87037 By-Pass Block with viton o-rings.



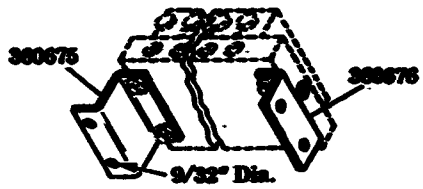


The pilot block, valve blocks and by-pass blocks (if any) are fastened to a base plate mounted on the machine to be lubricated. The base plate contains the divider's inlet and outlet connections, interrelated passageways, and built-in check valves. All piping of lubricant to and from the divider valve is connected to the base plate.

Optional cycle indicators provide positive indication of system operation. The indicator pin is an extension of the piston in a valve block and will cycle back and forth as the piston moves.

Refer to the Modular Lube Planning Manual for system designing and an in-depth explanation of operation. An in-line filter should be installed between the pump and the divider valves. Check valves should be installed at all bearing points. Refer to Section M50 Page 1 Series for check valves.

Mounting brackets are shown below for mounting the Divider Valve assembly.



"MR" BASE PLATES

Base Designation	Outlets	Valve Block Capacity	Max. By-Pass Blocks
87040-1	1 or 2	1	0
87040-2	2-4	2	1
87040-3	2-6	3	2
87040-4	2-8	4	3
87040-5	2-10	5	4
87040-6	2-12	6	5
87040-7	2-14	7	6

"MR" VALVE BLOCKS

* Cycle Indicator Pin (Buna-N O-rings only)

VALVE BLOCK				TWIN (T)		SINGLE (S)	
w/Buna-N O-ring	w/Viton O-ring	C.I.P.* Left	C.I.P.* Right	Outlets	Discharge/Outlet	Outlets	Discharge/Outlet
87034-05	87035-05	—	—	2	.005 cu. in.	1	.010 cu. in.
87034-10	87035-10	—	—	2	.010 cu. in.	1	.020 cu. in.
87034-15	87035-15	—	—	2	.015 cu. in.	1	.030 cu. in.
87034-20	87035-20	87069-20	87076-20	2	.020 cu. in.	1	.040 cu. in.
87034-25	87035-25	87069-25	87076-25	2	.025 cu. in.	1	.050 cu. in.
87034-30	87035-30	87069-30	87076-30	2	.030 cu. in.	1	.060 cu. in.
87034-35	87035-35	87069-35	87076-35	2	.035 cu. in.	1	.070 cu. in.
87034-40	87035-40	87069-40	87076-40	2	.040 cu. in.	1	.080 cu. in.

OPERATION

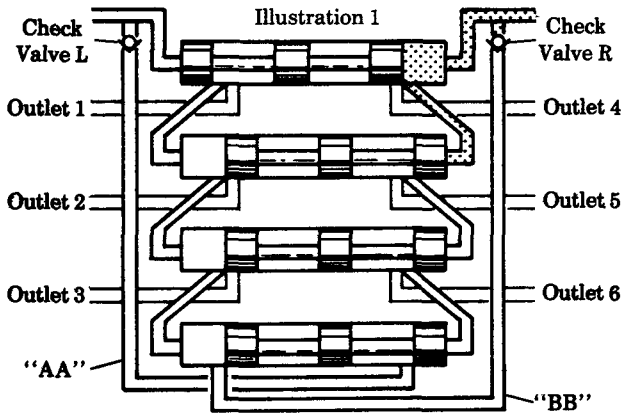
The valve blocks in an "MR" Divider Valve dispense lubricant in progression. Incoming flow directed behind piston 1 causes the piston to move from right to left. Check valve "R" prevents flow through By-Pass line "BB". (See illustration 1)

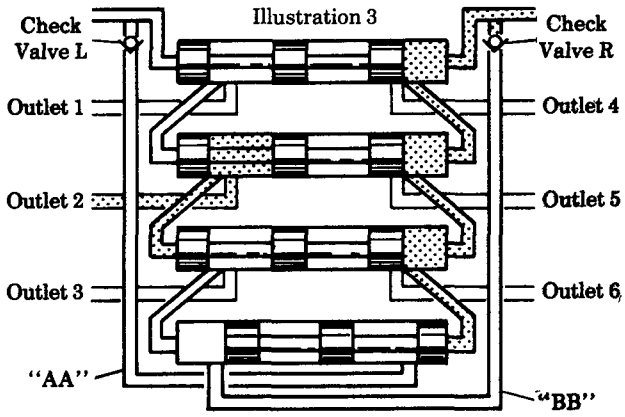
Piston 1 shift directs flow behind piston 2. Flow causes piston 2 to move from right to left dispensing piston 2 output through valve ports of piston 1 and through outlet 1. (See illustration 2)

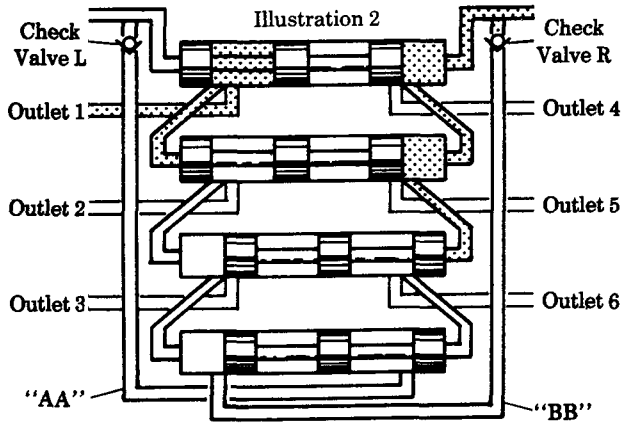
Completion of piston 2 shift directs flow behind piston 3. Flow moves piston 3 from right to left dispensing piston 3 output through valve ports of piston 2 and through outlet 2. (See illustration 3)

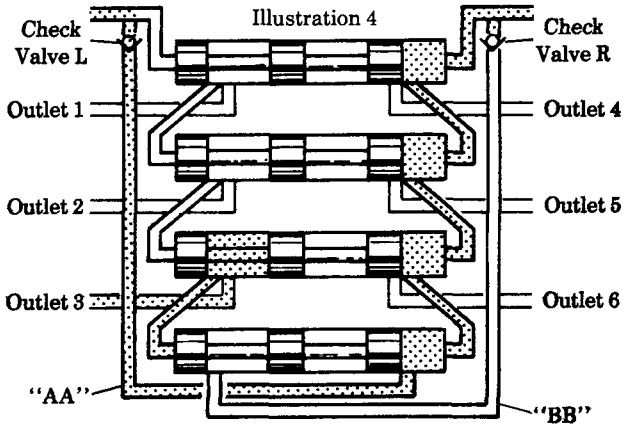
Shifting of piston 3 directs flow behind piston 4 moving piston 4 from left to right. In shifting, piston 4 dispenses its output through piston 3 valve ports and through outlet 3. (See illustration 4)

Completion of piston 4 shift opens By-Pass line "AA". Lubricant flows through line "AA", past Check Valve "L" and down the main supply line to the next divider valve. When all "MR" divider valves in the system have completed this first half-cycle, the flow reverser sends lubricant flow in the opposite direction. Flow is now directed to the left side of piston 1 to begin the second half-cycle. When all divider valves in the system have completed this half-cycle, lubricant flow is returned to the reverser signalling completion of one cycle.

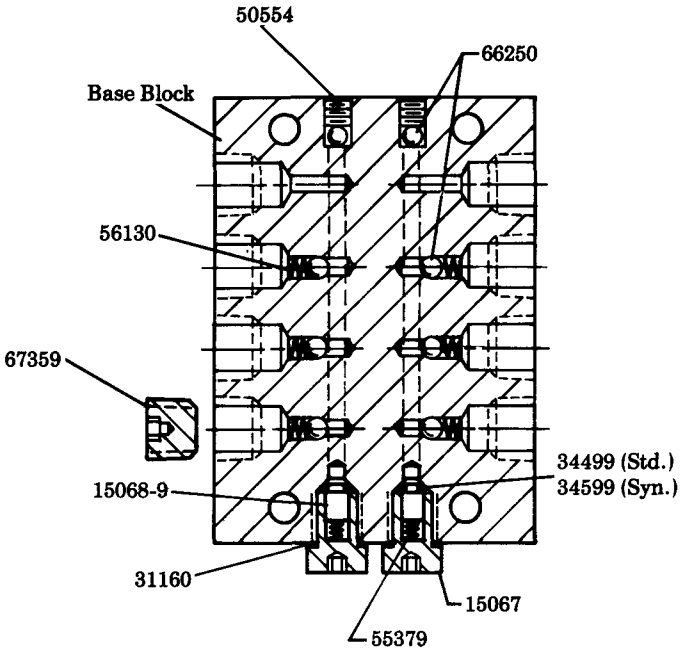




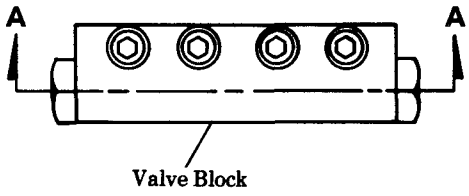


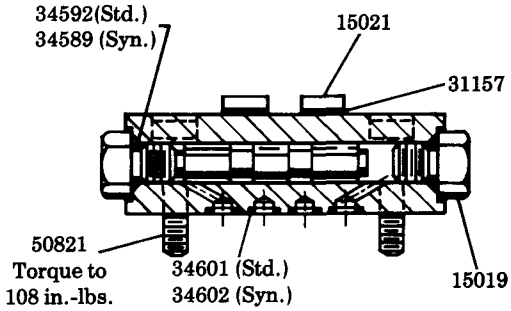


Base Block

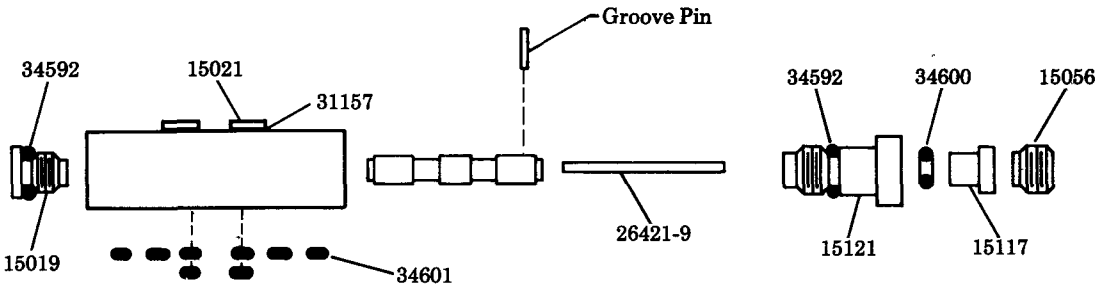


Valve Block





Section A-A

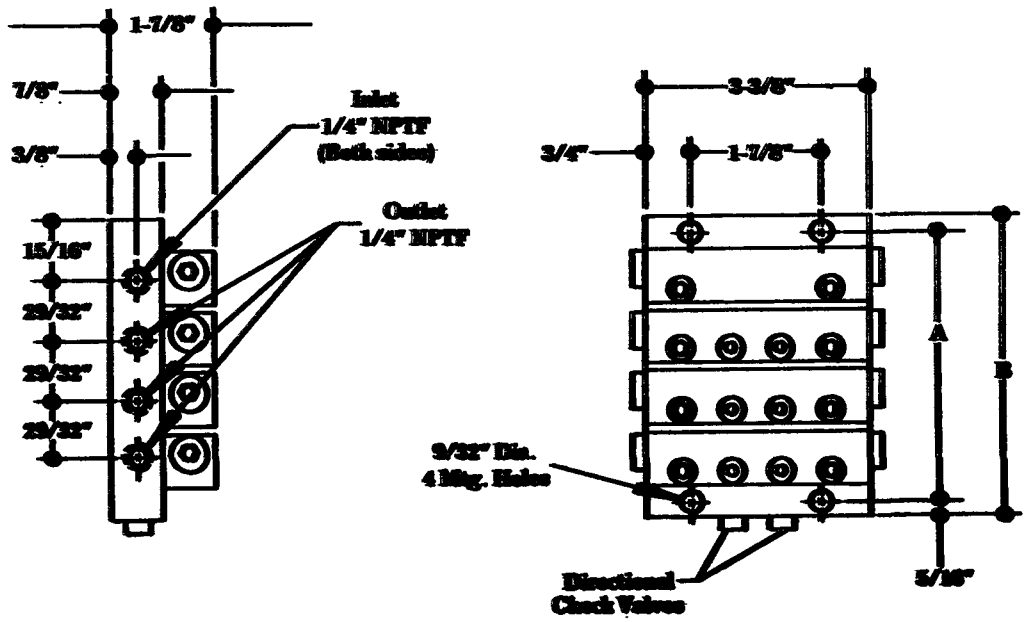


Cycle Indicator Block

		GROOVE PIN	
		70062-9	69815-9
INDICATOR BLOCK	RIGHT	87069-20 and 87069-25	87069-30 thru 87069-40
	LEFT	87076-20 and 87076-25	87076-30 thru 87076-40

SERVICE PARTS

PART	DESCRIPTION	PART	DESCRIPTION
15019	Enclosure screw	34592	O-ring
15021	Plug	34599	O-ring
15056	Retainer	34600	O-ring
15067	Valve screw	34601	O-ring
15068-9	Poppet	34602	O-ring
15117	Bearing	50554	Screw
15121	Indicator body	50821	Screw
26421-9	Indicator pin	55379	Spring
31157	Gasket	56130	Spring
31160	Gasket	66250	Ball
34499	O-ring	67359	Pipe plug
34589	O-ring	87038	Pilot block



Base Block	A	B
57040-1	2-15/32"	3-3/32"
57040-2	3-3/8"	4"
57040-3	4-9/32"	4-23/32"
57040-4	5-3/16"	5-13/16"
57040-5	6-3/32"	6-23/32"
57040-6	7"	7-5/8"
57040-7	7-29/32"	8-17/32"

PORTING DESIGNATION

Description	Valve Block Stamping	Ordering Code
Twin	T	T
Single	S	S
Single Cross-port Right	SCR	J
Single Cross-port Left	SCL	K
Twin Cross-port (Right & Left)	TC	C
Twin Cross-port Left	TCL	E
Twin Cross-port Right	TCR	D

ORDERING EXAMPLE:
MR Valve Block
Size—.020 cu. in.
Twin Cross-port Right & Left
57034-20C

RETAIN THIS INFORMATION FOR FUTURE REFERENCE

When ordering replacement parts, list: Part Number, Description, Model Number, and Series Letter.

LINCOLN ST. LOUIS provides a Distributor Network that stocks equipment and replacement parts.