

RELAY VALVE

TYPE R-8

CATALOG
03-B-04

The Relay Valve is primarily used on long wheel base vehicles to apply and release rear axle(s) service or parking brakes.

It is an air operated, graduating, directional control valve of high capacity and fast response. Upon receipt of signal pressure from the service brake valve the relay valve will graduate, hold and release air pressure from the brake chambers to which it is connected.

The relay valve is used to balance the time of brake applications on heavy duty vehicles. They are especially needed where large volumes of air are required or long service lines cause the capacity of the brake valve to be exceeded.

Relay valves can be remote or reservoir mounted and differ primarily in the design. The R-1 and R-5 are diaphragm operated. The R-6 and R-8 are piston operation.

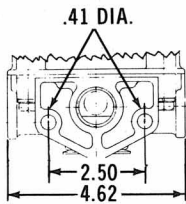
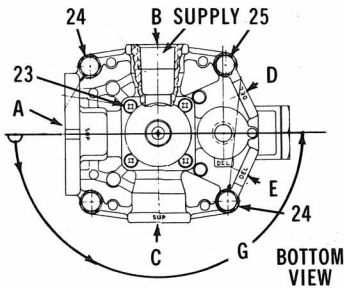
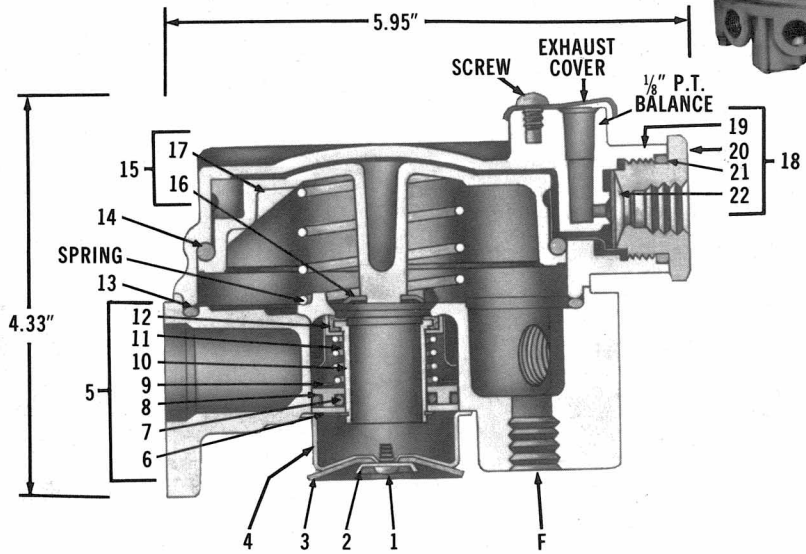
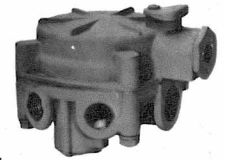
For installation & maintenance information, see Service Data Sheet SD-03-29.

Weight - 2.9 Lbs.

Maintenance Kits is Pc. No. 287370.

VMRS No. 13-010-009

DEVICE CODE IS 1061



PARTIAL VIEW
MTG. FLANGE

COMMON SERVICE PARTS													
NO.	PC. NO.	QTY.	DESCRIPTION	NO.	PC. NO.	QTY.	DESCRIPTION						
1	245756	1	SCREW	15	285153	1	RELAY PISTON ASSY.						
2	239943	1	DIAPHRAGM WASHER	16	249318	1	EXHAUST VALVE SEAT						
3	A	1	DIAPHRAGM	17	249319	1	RELAY PISTON						
4	249313	1	EXHAUST COVER	18	285152	1	COVER COMPLETE						
5	A	1	INLET & EXHAUST VALVE ASSY.	19	249315	1	COVER						
6	A	1	RETAINING RING	20	249317	1	CAP NUT						
7	A	1	INTERIOR O-RING	21	A	1	O-RING						
8	A	1	EXTERIOR O-RING	22	A	1	DIAPHRAGM						
9	A	1	O-RING RETAINER	23	292275	4	#10 MACH. SCREW						
10	A	1	INLET & EXHAUST VALVE	24	291929	2	MACH. SCREW 5/16 x 2						
11	A	1	VALVE SPRING	25	291928	2	MACH. SCREW 5/16 x 1 1/4						
12	A	1	VALVE RETAINER										
13	A	1	SEALING RING										
14	A	1	RELAY PISTON O-RING										

A - Furnished in Maintenance Kit 287370

SUB ASSY AND DETAIL REFERENCE

R-8 RELAY VALVE O.E. PC. NO.	FOR SERV. OR REMFR. EXCH. USE PC. NO.	CUSTOMER IDENTIFICATION	REFERENCE DETAILS												G SERV. PORT LOCATION (DEG.)	PRESS. DIFF. (P.S.I.)
			BODY PC. NO.	SPRING PC. NO.	EXHAUST COVER PC. NO.	SCREW PC. NO.	A P.T. SIZE	PORTS & PIPE PLUGS								
								B 3/4	C 3/4	D 1/2	E 1/2	F 1/4				
101298	101298	NONE	293301	NONE	NONE	NONE	NONE	NONE(1)	NONE(1)	NONE(1)	NONE(1)	230576	180	3		
286370	286370	NONE	290401	NONE	249321	245756	NONE	NONE	NONE	NONE	NONE	NONE	90	3		
286371	286371	NONE	290401	NONE	NONE	NONE	NONE	239048	NONE	NONE	NONE	NONE	90	3		
286892	286371	FORD D5HA-24449-AA	290401	NONE	NONE	NONE	NONE	239048	NONE	NONE	NONE	NONE	90	3		
287084	287084	NONE	290401	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	90	3		
287085	287224	20QE401R	292133	NONE	NONE	NONE	NONE	NONE(1)	NO THD	NONE	NONE	230576	270	3		
		MACK 20QE1280R														
287224	287224	NONE	290414	NONE	NONE	NONE	NONE	NONE	NO THD	NONE	NONE	230576	270	3		
287260	287260	NONE	290401	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	180	3		
287277	286371	KENWORTH K295-130	290401	NONE	NONE	NONE	NONE	239048	NONE	NONE	NONE	230576	90	3		
287347	286370	MACK 20QE402	290401	NONE	249321	245756	NONE	239048	NONE	NONE	NONE	230576	90	3		
287421	287421	NONE	291241	NONE	249321	245756	3/4"	239048	239048	230049	230049	NONE(2)	180	3		
288221	288221	NONE	291521	NONE	249321	245756	NONE	NONE	NONE	NONE	NONE	NONE(1)	90	3		
288369	288369	NONE	290401	NONE	249321	245756	NONE	NONE	NONE	NONE	NONE	NONE	180	3		
288755	288755	NONE	290401	NONE	244854	NONE	NONE	NONE	NONE	NONE	NONE	NONE	180	5		
288900	288900	NONE	290401	NONE	249321	245756	NONE	NONE	239048	NONE	NONE	230576	270	3		
B289395	289395	20QE410	293301	NONE	NONE	NONE	NONE	NONE(1)	NONE(1)	NONE(1)	NONE(1)	230576	90	3		
		MACK 20QE1279														
289795	289795	NONE	291521	NONE	249321	245756	NONE	NONE	NONE	NONE(1)	NONE	NONE(1)	180	3		

B - SUBSTITUTE COVER COMPLETE 289509 FOR ITEM 18. OMIT ITEM 22. (1) — 1/2" P.T. (2) — 3/8" P.T.
ADD PIPE PLUG, 233410 (1/8) IN BALANCE PORT.

The R-8P Relay Valve is a special purpose device designed specifically for use on semi-trailer converter dollies. It has a 0 p.s.i. differential between the service (control) and delivery ports while standard relay valves typically have a 2-4 p.s.i. differential.

By providing a balanced pressure signal to all trailer and dolly brakes, the R-8P aids in achieving overall vehicle brake balance and stability. The R-8P also substantially improves brake lining wear balance on combination vehicles by causing even the most distant brake to contribute its share of braking effort.

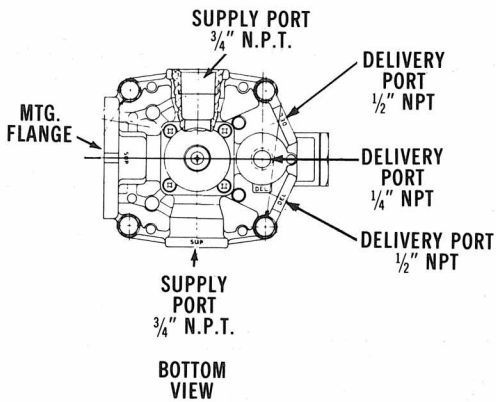
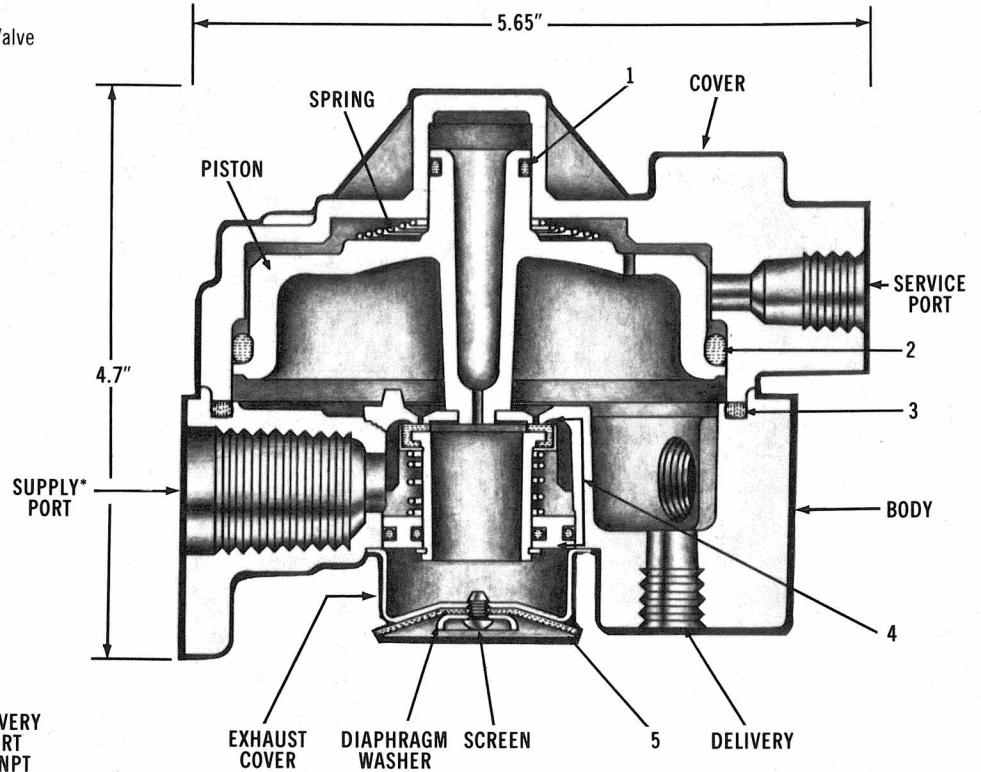
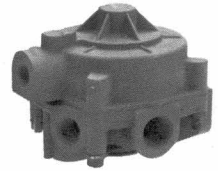
It is basically a variation of the standard R-8 Relay Valve (Catalog pg. 03-B-4).

WEIGHT - 3 LBS.

MAINTENANCE KIT PC. NO. - 103799

VMRS NO. - 13-010-009

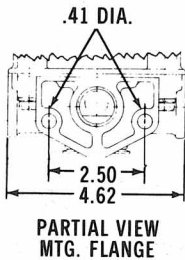
DEVICE CODE IS 1061



* SUPPLY PORTS SHOWN 90° OUT OF PHASE.
SEE BOTTOM VIEW FOR PROPER LOCATION

FOR SERVICE USE PC. NO. 287114

NOTE: DETAIL COMPONENT PARTS NOT INDIVIDUALLY AVAILABLE.



MAINTENANCE KIT 103799		
CONTAINS THE FOLLOWING COMPONENTS WHICH ARE KEYED TO THE SECTIONAL VIEW.		
NO.	DESCRIPTION	QTY.
1	O-RING	1
2	O-RING	1
3	SEALING RING	1
4	INLFT/EXHAUST VALVE ASSY.	1
5	EXHAUST DIAPHRAGM	1