

Ballast Control Valve



- **Drip-Tight Shutoff**
- **Reliable Actuation**
- **Powerful Hydraulic Operated Control**
- **Corrosion Resistance to Salt Water**
- **Designed to withstand Shocks & Vibration**
- **Approved Specifications MIL-S-901C**
- **Approved Specifications MIL-SSTD-167**

The Cla-Val Model 200M-3 Ballast Valve is intended for use in flooding ballast tanks and voids with sea water. The valve is designed to be hydraulically-operated by a remotely-located selector valve, usually situated a control console. This feature permits the valve to be installed in relatively inaccessible locations. The 240M-3 is approved and has found wide acceptance by the U.S. Navy and is equally suitable for use in ballast tanks or voids of offshore oil drilling rigs. It may also be used as remotely-controlled dump valve.

The 240M-3 is a piston-operated ballast valve designed for ruggedness and durability, incorporating the “know-how” of over 30 years of successful experience in manufacturing valves. The valve is made of materials specifically suitable for use in sea water. It incorporates a synthetic rubber-to-metal seat for positive tightness. Ductile iron is used as the principal material for its well-known toughness and resistance to salt water corrosion. For additional protection against corrosion, the ductile iron components are treated with metallic zinc silicate coating which bonds chemically, as well as physically, forming an insoluble barrier to the environments.

O-ring seals are throughout for positive static sealing, whereas lip-type seals specifically engineered for long life are used for dynamic sealing of the piston and valve stem.

All fasteners are locked securely in place by use of cotter pins, safety wire, and/or lockwashers.

The 240M-3 Ballast Valve is also designed to withstand the effects of shock and vibration. The valve has been shock and vibration tested in accordance with Specifications MIL-S901C and MIL-STD-167 and has been approved.

The design and construction complies with the U.S. Navy Bureau of Ships specifications and meets all requirements of the U.S. Coast Guard and American Bureau of Shipping regulations.

SPECIFICATIONS

Size: 3”, 4”, 6”, 8”, 10”, 14” and 24” Diameter Seat Openings

Flange Details: See drawing on reverse side

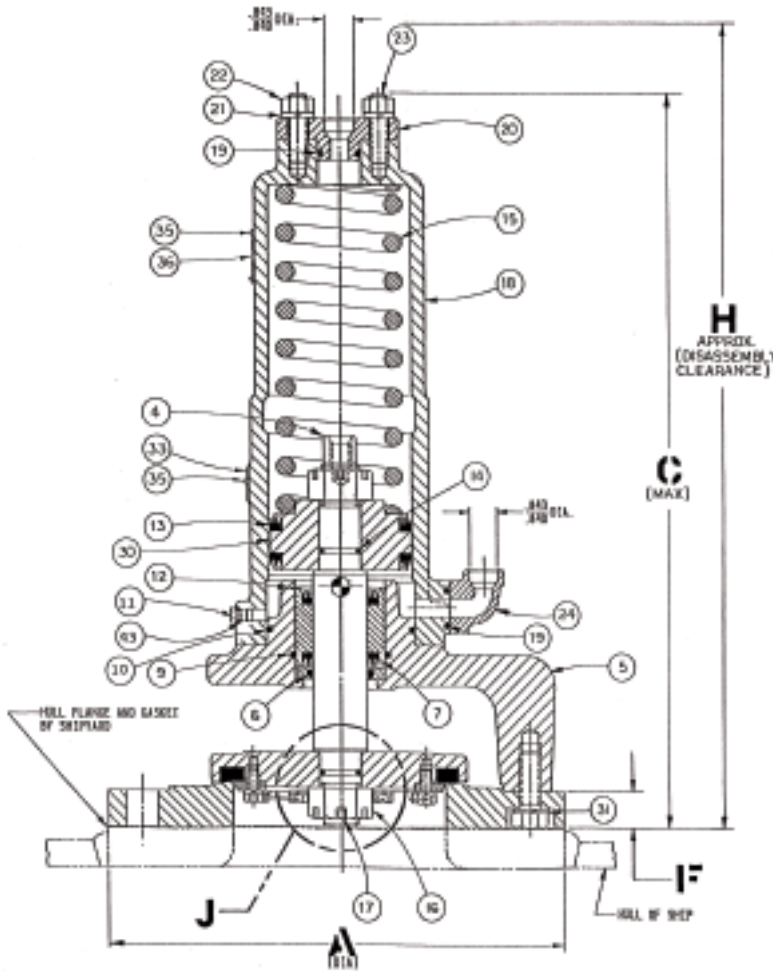
Materials: Seat Ring, Cylinder, Bracket and Disc Retainer - Ductile Iron
Flanges and Piston - Valve Bronze
Packings Rings, O-Rings, Disc and Wiper Ring - Synthetic Rubber
Spring - Chrome Vanadium, Black Oxide Coated
Bearing - SAE 660 Bronze
Miscellaneous Hardware and Components - Monel

Pressure Rating: Cylinder - Hydrostatic Test 1100 psig
Cylinder - Maximum Operating Pressure 550 psig

Operating Fluid: Hydraulic Oil

Operating Pressure Connections: Flanges counterboard to receive 0.675” O.D” Tubing and brazing.

240M-3 Ballast Control Valve



Description	Valve Size						
	3"	4"	6"	8"	10"	14"	24"
A	13	13	13	14 3/8	16 1/8	19 1/2	34 3/4
B	3	4	6	8	10	13 3/8	25 1/4
C (Maximum)	20 3/4	20 3/4	20 3/4	24 3/8	30 19/32	36 27/32	50
D	1	1	1	1 1/4	1 1/4	1 1/4	2
Mounting Holes Dia.	1 5/16	1 5/16	1 5/16	1 1/2	1 1/2	1 1/2	2 1/16
No. of Bolts Holes	6	6	6	6	6	8	16
Bolt Circle Dia.	11	11	11	12 1/2	14	16 7/8	31 1/4
E	30"	30"	30"	34"	40"	49"	65"
Weight (Lbs)	60	90	117	142	215	392	799

Shock Test Data: Per MIL-S-901C, GR A, CL 1-Type A
 Tested by American Laboratories
 Fullerton, California
 Report No. 364-74675
 Dated: January - 1965

Item No.	Name	Qty.	Material	Material Specification	3"	4"	6"	8"	10"	14"	24"
					Stock No. 14580-06C	Stock No. 14580-07A	Stock No. 14580-01D	Stock No. 14580-02B	Stock No. 14580-03K	Stock No. 14580-04H	Stock No. 14580-05E
1	Seat Ring	1	Monel	QQ-N-288 Comp. B	26602-01B	26602-01H	49943-01C	49925-01K	49854-01B	49952-01D	14332-01K
2	Disc*	1	Syn. Rubber	ASTM D2000	V1734-01A	V5467-01D	39255F	41301D	41495D	49941J	14342A
3	Disc Retainer	1	"G" Bronze	ASTM B584 Alloy 905	26606-01C	26603-01K	49944-01A	49926-01H	49855-01J	49956-01E	14336-01A
4	Stem	1	Monel	QQ-N-286 CL. A	26601-01D	26601-01D	49945K	49927H	49856J	49957E	14346B
5	Bracket	1	"G" Bronze	ASTM B584 Alloy 905	49946-01F	49946-01F	49946-01F	49928-01D	49857-01E	49958-01A	14359E
6	Wiper	1	Syn. Rubber	Commercial	49873D	49873D	49873D	49873D	49874B	49875J	14565G
7	Packing Ring	2	Syn. Rubber	Commercial	49865K	49865K	49865K	49865K	49866H	49867F	14563B
8	Bushing, Gland	1	Bronze	SAE 660	49929D	49929D	49929D	49929D	49858E	49959A	14394B
9	O-ring*	1	Syn. Rubber	MIL-P-5315	00589C	00589C	00589C	00589C	00591J	00594C	00656K
10	O-ring*	1	Syn. Rubber	MIL-P-5315	00600H	00600H	00600H	00600H	00608A	00620F	00494F
11	Plug, Str. Thd.	1	Monel	QQ-N-281 CL. B	91515-01F	91515-01F	91515-01F	91515-01F	91515-01F	91515-01F	91515-01F
12	Retainer Ring	1	302 SS	AISI 302	84081-07E	84081-07E	84081-07E	84081-07E	84081-10J	84081-13C	84081-28A
13	Packing Ring*	2	Syn. Rubber	Commercial	49869B	49869B	49869B	49869B	49870K	49871H	-
14	O-ring*	2	Syn. Rubber	MIL-P-5315	00538K	00538K	00538K	00538K	00540F	00546C	00554G
15	Spring	1	Steel	SAE 5160	49947F	49947F	49947F	49930B	39789D	49960J	13298F
16	Nut, Hex-Slotted	2	Monel	QQ-N-281-CL. B	67817-24H	67817-24H	67817-24H	67817-24H	32273F	49951H	14397-01C
17	Pin, Cotter	2	Monel	QQ-N-281 CL. A	67994-30B	67994-30B	67994-30B	67994-30B	67994-30B	67994-36J	67996-32C
18	Cylinder	1	"G" Bronze	ASTM B584 Alloy 905	49948-01B	49948-01B	49948-01B	49931-01H	49859-01A	49961-01E	14387F
19	O-ring*	2	Syn. Rubber	MIL-P-5315	00572J	00572J	00572J	00572J	00572J	00572J	00572J
20	Flange, Companion	1	Copper-Nickel		49860-01J	49860-01J	49860-01J	49860-01J	49860-01J	49860-01J	18433-01B
21	Lockwasher	4	Monel	QQ-N-281 CL. A	67584-49A	67584-49A	67584-49A	67584-49A	67584-49A	67584-49A	67584-49A
22	Nut, Hex	4	Monel	QQ-N-281 CL. A	67805-22G	67805-22G	67805-22G	67805-22G	67805-22G	67805-22G	67805-22G
23	Stud, Thd.	4	Monel	QQ-N-281 CL. A	C1904G	C1904G	C1904G	C1904G	C1904G	C1904G	C1904G
24	Flange, Elbow	1	Copper-Nickel	ASTM B369 Alloy C96400	49861-01G	49861-01G	49861-01G	49861-01G	49861-01G	49861-01G	49861-01G
25	Bolt, Hex HD.	4	Monel	QQ-N-281 CL. A	67608-61C	67608-61C	67608-61C	67608-61C	67609-61A	67609-61A	14566-02A
26	Bolt, Hex Hd.	4	Monel	QQ-N-281 CL. A	67608-59G	67608-59G	67608-59G	67608-59G	67609-59E	67609-59E	14566-01C
27	Disc Guide	1	Monel	QQ-N-281 COMP. B	26605-01E	26608-01J	49949B	49932H	39783G	49962E	14339-01E
28	Screw, Cap	12	Monel	QQ-N-281 CL. A	-	-	49889K	49889K	49889K	49890H	14436A
29	Lockwasher	12	Monel	QQ-N-281 CL. A	-	-	67584-46G	67584-46G	67584-46G	67584-47E	67584-51G
30	Piston	1	Brass	ASTM B16	49933F	49933F	49933F	49933F	49862G	49963C	-
31	Lockwasher	8	Monel	QQ-N-281 CL. A	67584-51G	67584-51G	67584-51G	67584-51G	67584-52E	67584-52E	-
32	Wire, Safety	as req	Monel	QQ-N-281 CL. A	65193F	65193F	65193F	65193F	65193F	65193F	65193F
33	Nameplate	1	Brass	ASTM B16	36348B	36348B	36348B	36348B	36348B	36348B	36348B
34	Retainer, Wiper	1	Bronze	SAE 660	49934D	49934D	49934D	49934D	49863E	49964A	14370B
35	Screw, Drive	6	410 SS	AISI 410	67999D	67999D	67999D	67999D	67999D	67999D	67999D
36	Nameplate, Springload	1	Brass	ASTM B16	60029G	60029G	60029G	60029G	60029G	60029G	60029G
37	Spring, Large Nested	as req	Steel	SAE 5160	-	-	-	-	-	-	13297H