

ERL Cargo Pressure Relief Valves

Owner Manual


This manual provide detail for the ERL 4x6, 6x6, and 6x8 Cargo Pressure Relief Valves. The ERL Cargo Pressure relief valve has been designed to meet the increase flow capacity for ERL Cargo Pumps in accordance with 46 CFR 54.15-10 to meet the pressure relieving requirements of liquid tank barges.

Safety:

Follow all safety requirement when working on or around the safety relief valve. Service should only be performed by authorized personnel. Contact ERL regarding any maintenance or service required for the valve.

Specifications:

Every ERL Cargo Pressure Relief Valve is serialized and is provided with a data tag indicating the valve specifications:

 COMMERCIAL MARINE INC. New Albany, IN 47150 1-812-948-8484		<i>PRESSURE RELIEF VALVE</i>		
SERIAL NUMBER:	MODEL/SIZE:	SET PRESSURE:	ORIFICE SIZE:	INLET FLG. PRESSURE RTG:
DATE:	CAPACITY (cu ft / min):	SPRING PRELOAD:	BLOWDOWN RING SETTING:	OULET FLG. PRESSURE RTG:

1. Valve Data Tag

This data tag indicates the serial number, model/size of valve, set pressure, orifice size, date manufactured and tested, capacity, spring preload setting, blowdown ring setting, and inlet/outlet flange pressure ratings.

If the data tag becomes removed from the valve, the valve serial number is stamped on the top of the outlet flange of the valve. ERL retains the specifications for each valve and can provide this information in the event that it is needed.

Valve Sizes and Capacity:

ERL manufacturers a 4"x6", 6"x6", and 6"x8" Cargo Pressure Relief Valve. Each valve can be produced with a 150# or 300# inlet flange option. The capacity of each valve size is:

4"x6": 2,900 GPM / 4,100 BBLs/HR

6"x6": 2,900 GPM / 4,100 BBLs/HR

6"x8": 4,100 GPM / 5,800 BBLs/HR

Mounting:

The ERL Cargo Pressure Relief Valve has a 1.75" diameter lifting eye for lifting/installing the valve.



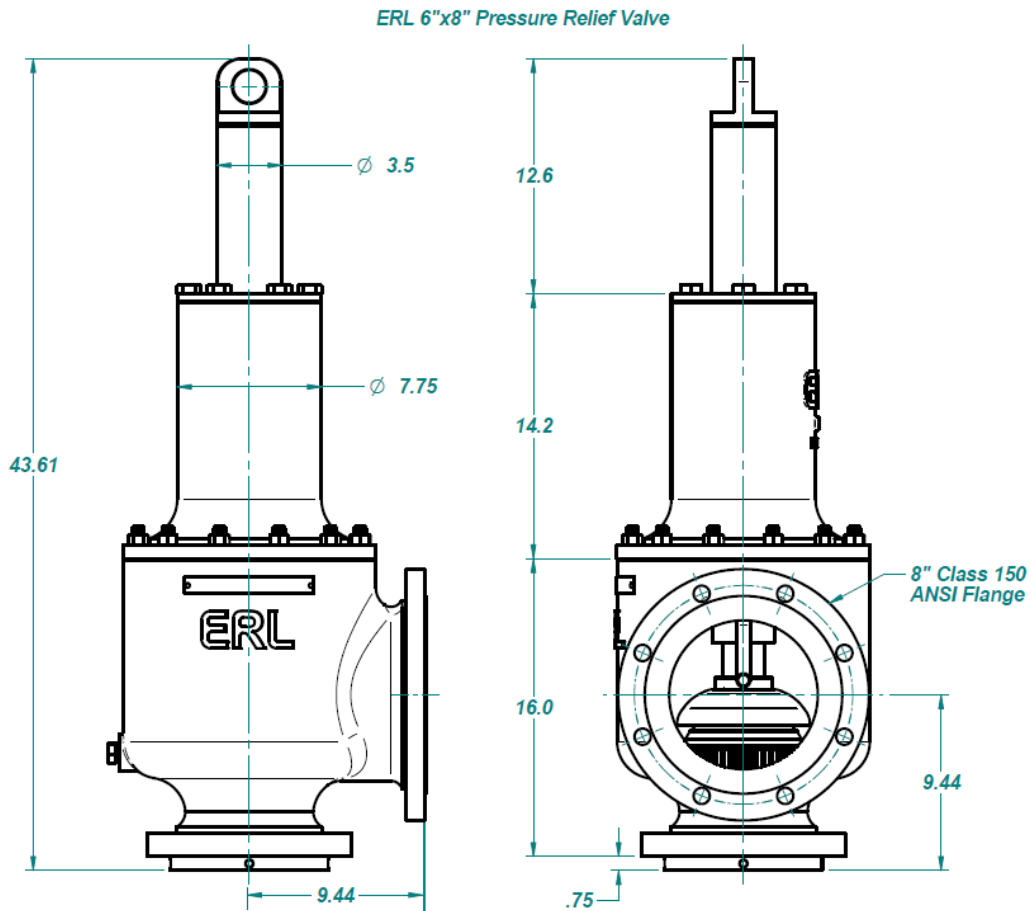
Testing:

Each Valve is tested to ASME Code Section VIII, UG-131 standard for Safety Relief Valves. Our valves are tested and inspected in our VR certified facility and on our dedicated test stand which is calibrated and setup for the allowable tolerances of the section UG-131 for setpoint, reseal pressure, and blowdown.

Opening Setpoint, Reseat Pressure, and Blowdown settings are all tested and recorded for each valve and must pass with the allowable tolerances listed in UG-131.

Cargo Pressure Relief Valves shall be recertified annually per 46 CFR 151.04-5 to verify that the opening setpoint, reseal pressure, and blowdown are within the tolerance of UG-131.

Dimensions:



Valve Assembly:

Pressure Relief Valve - ERL 6 x 8 - 150 lb.

Item	Description	Part No.	Qty.
PRV1-6X8	Bonnet	360AE109C	1
PRV3-6X8	Adjusting Screw	360AE299C	1
PRV4-6X8	Nozzle	360AE210C	1
PRV5-6X8	Ring Adjusting	360AE219C	1
PRV6-6X8	Outlet Guide	360AE299C	2
PRV7-6X8	Lock Adjusting Ring	360AE290C	1
PRV8-6X8	Cap Weidment	360AE139C	1
PRV9-6X8	Spring Retainer	360AE200C	2
PRV10-6X8	Hel Nut 5/8 - 11/2 - 8	214AE120B	1
PRV12-6X8	Spindle Assembly	360AE200C	1
PRV13-6X8	Disc Assembly	360AE249C	1
PRV17-6X8	Cap Assembly	360AE150C	1
PRV18-6X8	MCS 3/4x10 x 1/4x4	82240A83T	6
PRV19-6X8	Threaded Rod 5/8-11 x 2-3/4	360AE280C	12
PRV20-6X8	Hel Nut 5/8-11	34804439I	12
PRV21-6X8	Compression Spring	360AE210C	1
PRV22-6X8	Outlet Lock	360AE200C	1
PRV23-6X8	Cap Bonnet	360AE139C	1
PRV24-6X8-150	Body Assembly	360AE109C	1
PRV-DT	Body Top	302AF070B	1
D13	Drive Screw #8		2

TORQUE SEQUENCE

6 Studs

8 Studs

12 Studs

DATE: 6/16/20
 DRAWN: D. URBAN
 PART NAME: Assembly Drawing 150 lb.
 UNIT NAME: Pressure Relief Valve ERL 6 x 8 - 150 lb.
 SCALE: ntc
 JOB NO.: n/a
 DRAWING NO.: 380AE100C
 ITEM NO.: PRV-6X8-150

ERL ELECTROMECHANICAL RESEARCH LABORATORIES, Inc.
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Materials List:

	Description	Material
PRV1-6X8	Bonnet 360AE105C 1	ASME SA216 WCC Carbon Steel - 3-Stage Epoxy Coating Paint
PRV2-6X8	Base, 150lb. 360AE115C 1	ASME SA216 WCC Carbon Steel - 3-Stage Epoxy Coating Paint
PRV13-6X8	Adjusting Screw 362AE265C 1	416 Stainless Steel
PRV14-6X8	6X8 Nozzle 362AE270C 1	316 Stainless Steel
PRV15-6X8	Ring, Adjusting 362AE275C 1	316 Stainless Steel
PRV16-6X8	Gasket, Guide 362AE285C 2	Soft Iron - 1/16" Thick
PRV17-6X8	Lock, Adjusting Ring 362AE290C 1	316 Stainless Steel
PRV18-6X8	Cap, weldment 360AE135C 1	303 Stainless Steel
PRV19-6X8	Spring Retainer 362AE200C 2	1018 Carbon Steel, Electroless Nickel Plated
PRV20-6X8	Hex Nut, thin, 1-1/2 - 8 274AE120B 1	316 Stainless Steel
PRV21-6X8	Drain Tube 362AE220C 1	316 Stainless Steel
PRV24-6X8	Spindle Assembly 362AE260C 1	416 Stainless Steel
PRV26-6X8	Disc Assembly 362AE245C 1	316 Stainless Steel
PRV27-6X8	Guide Assembly 360AE150C 1	316 Stainless Steel
PRV28-6X8	HHCS, 3/4-10 x 1-1/4 92240A837 6	18-8 Stainless Steel
PRV29-6X8	Threaded Rod, 5/8-11 x 2-3/4 362AE280C 12	304 Stainless Steel
PRV30-6X8	Hex Nut, 5/8-11 94804A351 12	316 Stainless Steel
PRV31-6X8	Compression Spring 362AE210C 1	Chrome Alloy, Powder Coated
PRV32-6X8	Gasket Lock 362AE300C 1	Soft Iron - 1/16" Thick
PRV33-6X8	Cap Gasket 360AE133C 1	Soft Iron - 1/16" Thick



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