

Model 15KX Small Volume High Pressure Regulator (Loader)**INSTALLATION AND OPERATION INSTRUCTIONS****Contents**

General	1	Adjustment	2
Operation	1	Service Suggestions	2
Installation	1	Appendix	2

General

Model 15KX Regulators are designed for 6000 psi maximum inlet pressure, with a variety of outlet ranges. Regulators in each range are available in various connection types and sizes. These minor design variations are identified by code letters following the figure number.

Check pressure range and port connection fittings against service requirements. Do not use in systems where pressure may exceed ratings given on the nameplate.

Operation

The Model 15KX is a combination reducing and relief regulator, designed to maintain a constant reduced or delivered pressure in a line or closed vessel where variations may occur in inlet pressure or in flow volume requirements.

There are two main cavities in the 15KX Regulator, separated by the controlling diaphragm. The lower cavity, in the body, contains the line fluid at the outlet pressure. The upper cavity, which houses the operating parts, is vented to the atmosphere to allow free escape of fluid from the relief valve.

When the handwheel is turned clockwise, the operating spring is compressed and drives the diaphragm assembly down to open the inlet valve. Line pressure is admitted through the inlet valve of the regulator into the body cavity, and out through the outlet port. The flow through the regulator builds up the pressure in the outlet system. This outlet pressure acts upward on the diaphragm in opposition to the operating spring. As this upward force builds up, the diaphragm assembly moves upward and allows the inlet valve to close, thus reducing or shutting off the flow and holding the outlet pressure constant.

If the outlet pressure should build up beyond the set pressure of the regulator, the increased pressure drives the diaphragm assembly up against the relief stem, opening the relief valve in the diaphragm assembly, and allowing line fluid to bleed to atmosphere until the outlet pressure falls back to its adjusted level.

Sensitivity of the relief mechanism is set by the relief adjusting screw, but regardless of screw setting, the relief valve will always vent at some fixed level above the set outlet pressure.

Changing the compression of the operating spring by turning the handwheel will cause a corresponding change in outlet pressure, thus allowing outlet pressure to be set at any point within the design range of the regulator.

Installation

1. The 15KX Regulator may be installed in any position. It should be located at the most convenient point for adjustment and service. It is designed for panel mounting, with mounting bracket adjustable over a wide range to suit the installation.
2. To mount regulator, remove handwheel screw and handwheel. Remove mounting screws from bracket, and lift mounting plate off. Using bracket screws, adjust the position of mounting bracket to fit the panel. Position regulator in panel, replace mounting plate and screws on front of panel, and tighten. Replace handwheel and handwheel screw.
3. Blow out the supply line thoroughly to eliminate scale, chips etc., before connecting regulator
4. Turn handwheel counterclockwise to limit, and admit upstream pressure to the inlet port.

Adjustment

1. Turn handwheel clockwise to increase, counterclockwise to decrease the outlet pressure. Set handwheel for desired reduced pressure.
 2. Using 1/8" hex key wrench, reach down through hole in handwheel screw, and turn relief adjusting screw clockwise until a slight flow is detected through side slot in spring barrel.
 3. Turn adjusting screw counterclockwise until venting stops. This gives the most sensitive setting.
 4. If a more stable setting is desired, turn relief adjusting screw further counterclockwise until the desired "dead range" is produced. However, do not in any case exceed four turns
- NOTE:** Whenever handwheel setting is changed, relief setting will shift slightly. Relief adjusting screw can be re-set each time to maintain the most sensitive setting or to hold a specific dead range.
5. After setting relief screw, it may be necessary to readjust handwheel to give desired outlet pressure.

The RedQ Model 15KX Regulator is now in operation.

Service Suggestions

Minor difficulties can be corrected with the regulator in the line. If the regulator does not respond to the following checks, it must be removed from the line and disassembled for cleaning and inspection.

Be sure to use only RedQ replacement parts. The Model 15KX Regulator is manufactured to extremely close tolerances which must be maintained if the regulator is to function properly.

Instructions for complete overhaul are given in W-15KX-B00-2, Maintenance Instructions.

1. Failure to deliver pressure when handwheel is turned indicates inlet trouble.
 - a. First check supply pressure.
 - b. If supply is satisfactory, filter unit may have become clogged. Filter is mounted inside inlet port fitting and may be replaced without removing regulator from its mounting. Proceed as follows:
 - i. Release inlet pressure from regulator.
 - ii. Unscrew inlet port fitting from body unit, holding body against torque to avoid damage to mounting.

- iii. Remove filter unit and inspect. If feasible, it may be cleaned and re-used. If not, discard and replace with new filter unit.
 - iv. Replace inlet port fitting and tighten. On aluminum port fittings use 75 ft-lb torque; on corrosion-resistant steel port fittings, use 140 ft-lb torque to ensure a tight metal-to-metal seal. Use a second wrench on the outlet port fitting to hold unit against torque and avoid damage to panel.
2. Small continuous venting through spring barrel indicates relief valve trouble.
 - a. Check relief valve setting as directed in the Adjustment section.
 - b. If leak continues, blow out dirt or scale by turning relief adjusting screw clockwise one or two turns. This opens the relief valve wide and allows line fluid to blow out through it. Re-set as before.
3. Heavy flow of line fluid out through spring barrel indicates diaphragm failure.
 - a. Remove regulator from line for disassembly and replacement of damaged parts. Refer to W-15KX-B00-2, Maintenance Instructions.

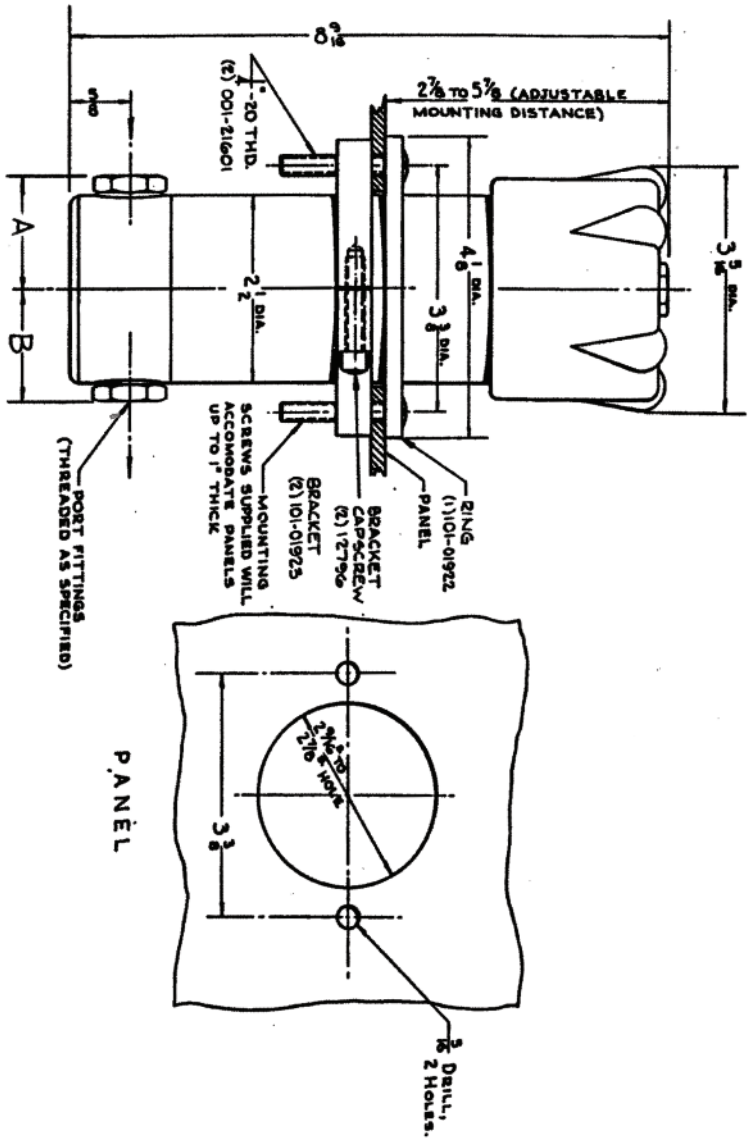
Appendix

Assembly Drawing

Parts List

W-15KX-BO1

W-15KX-BO1



PORT FITTING SIZE					
1/8 THRU 1/2	3/8	1/2	3/4	1	1 1/4
A	1.54	2.29	3.11	3.48	3.58
B	1.54	2.14	3.02	3.35	3.48

UNCONTROLLED DOCUMENT

DESIGNED BY	AK	DATE	5-23-61	APPROVED BY	RLC	DRAWING NO.	W-15KX-BO1
MODEL						TITLE	SMALL VOLUME REGULATOR
ISIX							

REVISED 5-14-64
 REVISED 1-9-65
 REVISED 5-5-66

RedQ
Dresser, Inc.
2822 S. 1030 W.
Salt Lake City, Utah 84119
Phone: 801.487.2225 Fax: 801.487.2587
www.mooneycontrols.com

©2008 Dresser, Inc.
RedQ is a trademark of Dresser, Inc.



www.dresser.com

W-15KX-B00-1
4.08