

DATA SHEET

HIGH-PRESSURE RELIEF VALVE



Standard Model: **7196**



FEATURES

- Functions as a secondary pressure relief valve to either an unloader or regulator for optimum system overpressure protection.
- Designed for single or multiple gun or pump system to protect from excessive pressure.
- By-passes unused flow when set relief pressure is reached to avoid excessive pressure on the pump.

COMMON SPECIFICATIONS

	U.S.	Metric
Maximum Flow	0 to 21 gpm	0 to 80 lpm
Pressure Range	100 to 7250 psi	7 to 500 bar
Maximum Relief Setting	7975 psi	550 bar
Maximum Temperature	140° F	60° C
Inlet Port	1/2" BSP(F)	1/2" BSP(F)
By-Pass Port	3/8" BSP(F)	3/8" BSP(F)
Weight	3.12 lbs.	1.42 kg
Dimensions	8.7 x 2.28 x 1.54"	221 x 58 x 39 mm

SELECTION

Select a relief valve to meet or exceed the flow and pressure requirements of the system.

INSTALLATION

The relief valve should be mounted on the discharge manifold or in the discharge line **before any other accessories in the system** to provide optimum protection to the pump. The relief valve should be teed into the discharge manifold or discharge line. The by-pass connection is at the bottom. Relief valve by-pass liquid may be returned to reservoir or drain to the floor. By-pass returned to the inlet of the pump should be done with caution to avoid pressure spikes or excessive heat build-up from recirculating liquids. The standard inlet connection is at the side.

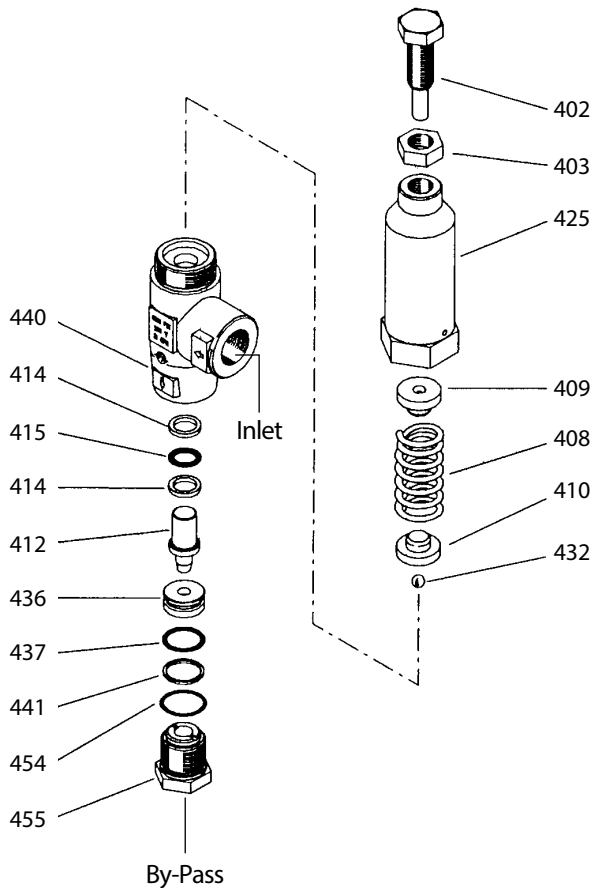
OPERATION

The pressure adjusting screw is located at the top of the relief valve. Using a wrench, the pressure setting may be increased by turning clockwise or decreased by turning counterclockwise.

The relief valve should be set in small increments. Check your pressure gauge following each adjustment. It is recommended to set your primary and secondary relief valve simultaneously in small increments. The final adjustment for the secondary relief valve should be set to relieve at approximately 200 psi above the system working pressure.

NOTE: The Relief Valve is a secondary safety device. It does not replace a pressure regulator or unloader.

EXPLODED VIEW



PARTS LIST

ITEM	DESCRIPTION	P/N	MATL	QTY
402	Adjuster, Pressure	33833	SS	1
403	Nut, Lock (M14x2)	33823	SS	1
408	Spring	33804	STL	1
409	Retainer, Spring (Upper)	33815	BB	1
410	Retainer, Spring (Lower)	33814	BB	1
412	Piston	33816	SS	1
414	Backup-Ring, Piston	—	PTFE	2
415	O-Ring, Piston	—	NBR	1
425	Housing, Spring	—	BB	1
432	Ball, Guide 1/4"	33825	SS	1
436	Seat	33826	SS	1
437	O-Ring, Seat	—	NBR	1
440	Body	—	BB	1
441	Backup-Ring, By-Pass Fitting	—	PTFE	1
454	O-Ring, By-Pass Fitting	—	NBR	1
455	Fitting, By-Pass [3/8 BSP(F)]	33829	BB	1
468	<i>Kit, O-Ring (Incls: 414, 415, 437, 441, 454)</i>	33840	NBR	1

Italics are optional items.

MATERIAL CODES (Not Part of Part Number):

BB=Brass NBR=Medium Nitrile (Buna-N)

PTFE=Pure Polytetrafluoroethylene SS=316SS STL=Steel

TROUBLESHOOTING

Valve chatters	<ul style="list-style-type: none"> Valve is improperly set. Repeat adjustment procedure.
Valve continually by-passes	<ul style="list-style-type: none"> Seat or piston valve is worn. Replace as needed.
Leaking out the top of valve	<ul style="list-style-type: none"> O-Ring or piston worn or cut. Replace as needed.

⚠ CAUTIONS AND WARNINGS

All High Pressure Systems require a primary pressure regulating device (i.e. regulator, unloader) and a secondary pressure relief device (i.e. pop-off valve, relief valve). Failure to install such relief devices could result in personal injury or damage to pump or property. Cat Pumps does not assume any liability or responsibility for the operation of a customer's high pressure system.

Read all CAUTIONS and WARNINGS before commencing service or operation of any high pressure system. The CAUTIONS and WARNINGS are included in each service manual and with each Accessory Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/cautions-warnings or can be requested directly from Cat Pumps.

WARRANTY

View the Limited Warranty on-line at www.catpumps.com/warranty.



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