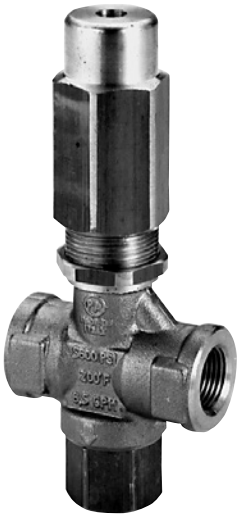
DATA SHEET
HIGH-PRESSURE RELIEF VALVE

The Pumps with Nine Lives

Standard Model: 7190



FEATURES

- Functions as a secondary pressure relief valve to either an unloader or regulator for optimum system overpressure protection.
- By-passes unused flow when set relief pressure is reached to avoid excessive pressure on the pump.
- Lightweight, compact design conveniently mounts directly into the discharge line.

SPECIFICATIONS	U.S. Measure	Metric Measure
Flow Range	0-6.5 gpm	0-25 lpm
Pressure Range	508-5076 psi	35-350 bar
Maximum Relief Setting	5500 psi	379 bar
Maximum Temperature	140˚ F	60˚ C
Inlet Port	3/8" BSP(F)	3/8" BSP(F)
Discharge Port	3/8" BSP(F)	3/8" BSP(F)
By-Pass Port	3/8" BSP(F)	3/8" BSP(F)
Weight	16.8 oz	0.47 kg
Dimensions	5.22 x 1.97 x 1.06"	132.5 x 50 x 27 mm

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

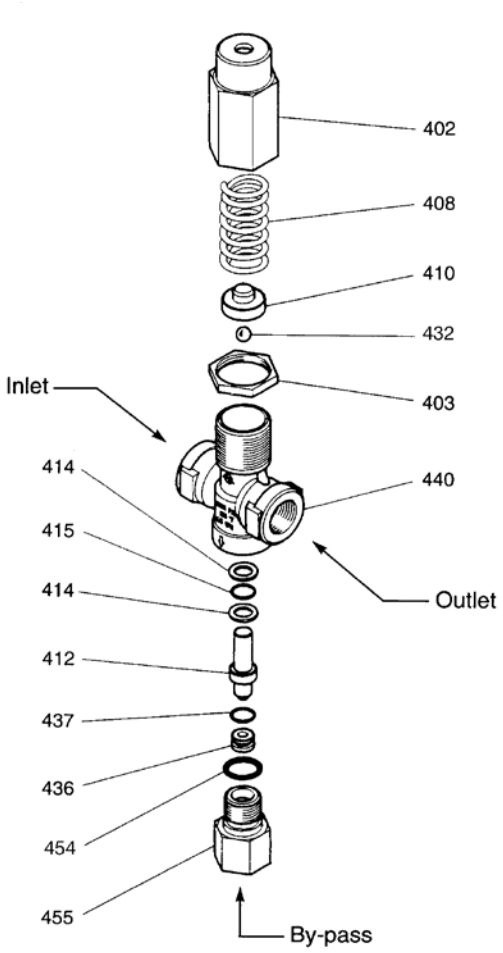
INSTALLATION
The relief valve should be mounted in the discharge line **before any other accessories in the system** to provide optimum protection to the pump. The by-pass from the relief valve may be returned to the reservoir or drain to the floor. By-pass returned to the inlet of the pump should be done with caution to avoid pressure spikes or excessive heat build-up from recirculating liquids.

OPERATION
The hex adjustment cap is located at the top of the relief valve, the inlet and discharge ports are located on the sides and the by-pass port is located at the bottom. Using a 27mm 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	Cap, Adjusting	33404	BB	1
403	Nut, Lock	33327	BB	1
408	Spring	33329	STZP	1
410	Retainer, Spring	33408	BB	1
412	Piston	33409	S	1
414	Backup-Ring, Piston	—	PTFE	2
415	O-Ring, Piston	—	NBR	1
432	Ball, Guide 1/4"	33825	SS	1
436	Seat	33383	S	1
437	O-Ring, Seat	—	FPM	1
440	Valve Body	—	BB	1
454	O-Ring, Fitting	—	NBR	1
455	Fitting, By-pass	33405	BB	1
468	*Kit, O-Ring (Incldes: 414,415,437,454)*	*33435*	*NBR*	*1*

Italics are optional items.
Material Codes (Not Part of Part No.):
BB=Brass FPM=Fluorocarbon NBR=Medium Nitrile (Buna-N)
PTFE=Pure Polytetrafluoroethylene S=304SS SS=316SS
STZP=Steel/Zinc Plated

TROUBLESHOOTING

Valve chatters	• Valve is improperly set. Repeat adjustment procedure.
Valve continually by-passes	• Seat or piston valve is worn. Replace as needed.
Leaking out the top of valve	• O-Ring on 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.

The Pumps with Nine Lives

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