

High Pressure Relief Valve

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 l/m)
Pressure Range	400-5000 psi	(28-345 bar)
Maximum Temperature	140°F	(60°C)
Inlet Port	3/8" BSPF	(3/8" BSPF)
Discharge Port.....	3/8" BSPF	(3/8" BSPF)
By-Pass Port	3/8" BSPF	(3/8" BSPF)
Weight	16.8 oz.	(.47 kg)
Dimensions.....	5.22 x 1.97 x 1.18"	(132.5 x 50 x 30 mm)

Relief valve is stamped with a European safety pressure. Use only at above specifications to assure proper relief valve life and performance.

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.

(continued on back)

⚠ 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.

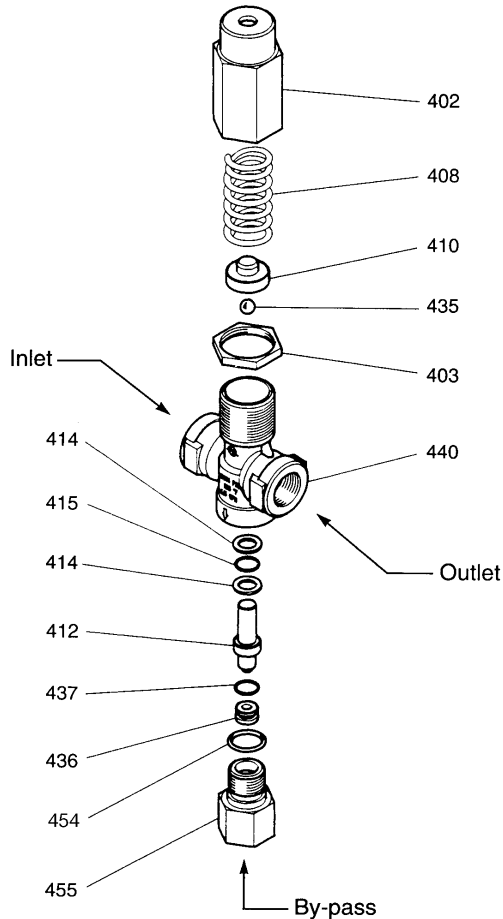
Read all CAUTIONS and WARNINGS before commencing service or operation of any high pressure system. The CAUTIONS and WARNINGS are included in each service manual and with each Data sheet. CAUTIONS and WARNINGS can also be viewed online at www.catpumps.com/cautions-warnings or can be requested directly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

WARRANTY

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

"Customer confidence is our greatest asset"

EXPLODED VIEW



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**.

REMEMBER, THE RELIEF VALVE IS A SECONDARY SAFETY DEVICE. IT DOES NOT REPLACE A PRESSURE REGULATOR OR UNLOADER.

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 on piston worn or cut. Replace as needed.

PARTS LIST

ITEM	P/N	MATL	DESCRIPTION	QTY
402	33404	BB	Cap, Adjusting	1
403	33327	BB	Nut, Lock	1
408	33329	STZP	Spring	1
410	33408	BB	Retainer, Spring	1
412	33409	S	Piston	1
414	32873	PTFE	Back-up-Ring, Piston	2
415	—	NBR	O-Ring, Piston	1
435	33328	S	Ball, Seat 1/4"	1
436	33383	S	Seat	1
437	33559	FPM	O-Ring, Seat	1
440	—	BB	Valve Body	1
454	—	NBR	O-Ring, Fitting	1
455	33405	BB	Fitting, By-pass	1
468	33435	NBR	Kit, O-Ring (Incls: 414, 415, 437, 439)	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 STZP=Steel/Zinc Plated

World Headquarters

CAT PUMPS

1681 - 94th Lane N.E. Minneapolis, MN 55449 - 4324

Phone (763) 780-5440 — FAX (763) 780-2958

e-mail: techsupport@catpumps.com

www.catpumps.com

International Inquiries

FAX (763) 785-4329

e-mail: intlsales@catpumps.com



The Pumps with Nine Lives

CAT PUMPS (U.K.) LTD.

1 Fleet Business Park, Sandy Lane, Church Crookham

FLEET, Hampshire GU52 8BF, England

Phone Fleet 44 1252-622031 — Fax 44 1252-626655

e-mail: sales@catpumps.co.uk www.catpumps.co.uk

N.V. CAT PUMPS INTERNATIONAL S.A.

Heiveldkens 6A, 2550 Kontich, Belgium

Phone 32-3-450.71.50 — Fax 32-3-450.71.51

e-mail: cpi@catpumps.be www.catpumps.be

CAT PUMPS DEUTSCHLAND GmbH

Buchwiese 2, D-65510 Idstein, Germany

Phone 49 6126-9303 0 — Fax 49 6126-9303 33

e-mail: catpumps@t-online.de www.catpumps.de