"OIL PRESSURE REGULATOR"
FOR ALL COMPRESSOR DIVIDER BLOCK SYSTEMS

PATTON®
DIVIDER BLOCK SYSTEMS

EXCESSIVE OIL SUPPLY PRESSURE CAUSES LUBRICATOR PUMPS TO FAIL PREMATURELY!

Oil Supplied By The Compressor Frame At 60 PSI Can Cause Premature Lubricator Pump Failure & By-Passing:
Compressor operators consider lube pumps to be worn or defective when they leak oil into the lube box. **In reality**, many are not worn or defective, but instead the leakage could be caused by excessive oil pressure from the compressor frame forcing oil to by-passing the pump piston and leak into the lube box.

Do You Have Problems Adjusting Cycle Time Of The Divider Block System?:
Patton's field service team found it was challenging to set and control the cycle time of the divider block system when oil supply pressure was in excess of 20 PSI to the lube pump.
Field testing confirms, when oil pressure to the lube pump is reduced to 20 PSI or below, cycle time of the divider block will be more consistent, lube pumps will last longer & will not by-pass oil into the lube box unless they truly are defective or plungers are compromised due to wear.

PLP-SPRA
OIL Supply Pressure Regulator

MADE IN THE U.S.A
"2 YEAR WARRANTY"

- Easy to Adjust Oil Supply Pressure
- Increases Reliability & Longevity of Lubricator Pumps
- Ease and Consistency When Adjusting Cycle Time of The Divider Block System
- Easy to Read 2" S.S. Liquid Filled Pressure Gauges

⚠ Installation Of An Oil Supply Pressure Regulator is Essential For All Divider Block Lubrication Systems!

Regulating the oil supply pressure to 20 PSI (or below) will increase the longevity and reliability of the lubricator pump and reduce the possibility of pump bypassing oil into the lube box!

PATTON DIVIDER BLOCK SYSTEMS
Pro-Tecting "Your" Compressor

1.888.788.4402
www.pattonlube.com
curtis@pattonlube.com

Patton Divider Block Systems
1004-B South Midkiff Rd.
Midland Texas 79701

BUILT TANK TOUGH
2-Year Factory Warranty

PATTON PLP-SPRA
Oil Supply Pressure Regulator
Installation & Adjustment

PATTON DIVIDER BLOCK SYSTEMS
Pro-Tecting "Your" Compressor

Specification:
Maximum Inlet Pressure: 250 psig
Maximum Outlet Pressure: 50 psi
Temperature Rating: -40° to 180°F

Installation:

- **CAUTION:** Dependable operation of the SPRA regulator depends on clean filtered oil! Always install a Patton PLP-B118A pre-filter upstream of the regulator to ensure no debris enters the regulator. (see pre-filter fig 1)

- **CAUTION:** Diaphragm will fail and oil will leak from vent hole if installed incorrectly & oil pressure is applied to the outlet of the regulator. Always mount regulator with gauge facing up (on top) and confirm oil flow direction is from Right To Left. Inlet of regulator (right) to outlet (left).

- Oil flow direction is marked on the back side of the regulator body. **NOTE:** With the regulator pressure gauge facing you **"IN"** is on the right side (fig 2) and **"OUT"** on the left side. (fig 3)

- The spring case vent hole (fig 4), on right front side of regulator body, should be protected from moisture, corrosive chemicals, or other foreign material. Inspect vent hole regularly to make sure it is not plugged.

- The SPRA is shipped with 3/8" S.S. tube fittings. Other sizes are available upon request. **NOTE:** When changing tube fittings *"Do Not allow thread sealing material to enter the regulator!"*

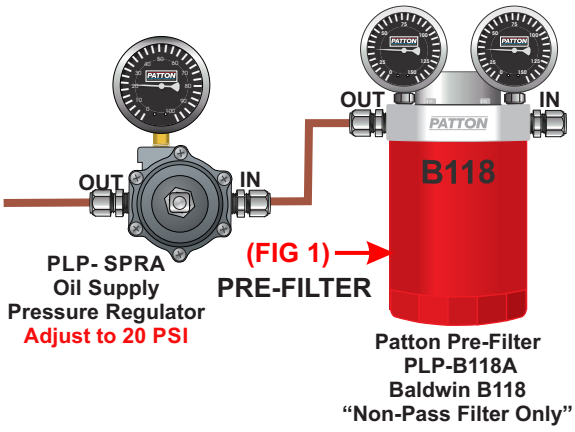
Compressor Startup and Adjustment:

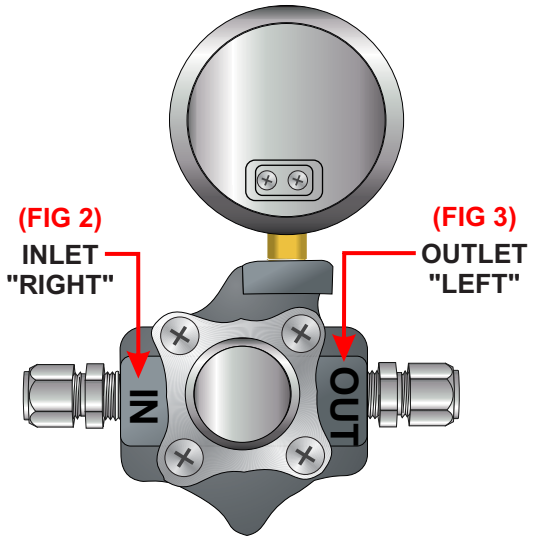
1. Use a 1/2" open end wrench to loosen lock nut (fig 5) on front of regulator.

2. Use a 5/16" open end wrench to rotate square adjusting screw (fig 6) 3 turns counter clockwise.

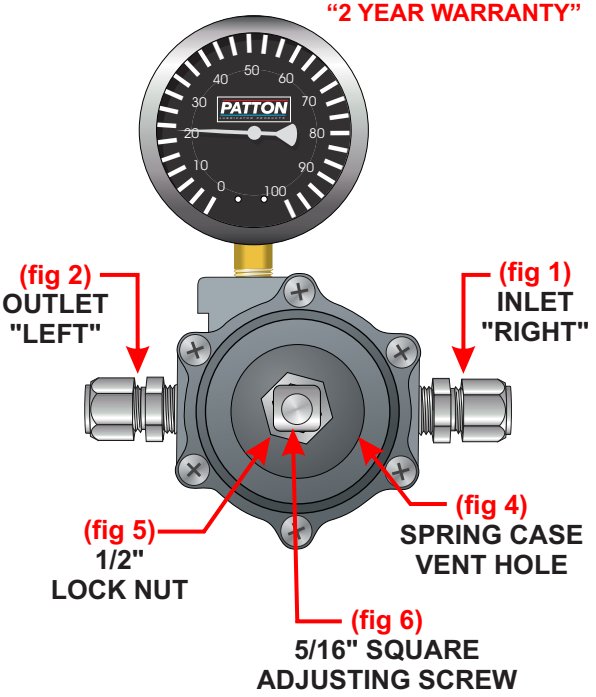
3. After compressor startup, observe pressure reading on gauge and slowly rotate square adjusting screw clockwise to raise oil pressure between 15 and 20 PSI.

4. To maintain pressure setting, hold adjusting screw (fig 6) with 5/16" open end wrench and use 1/2" open end wrench to rotate and tighten lock nut.





"2 YEAR WARRANTY"



PLP-SPRA Oil Supply Regulator

PATTON®
DIVIDER BLOCK SYSTEMS

PLP-SPRA REGULATOR

Installation and startup of PLP-SPRA Regulator

NOTE: A Minimum of 25 Micron In-line Filter Must Be Installed To Prevent Debris From Entering The Regulator.

CAUTION: DO NOT Purge The Divider Block System Through The Regulator, You Will Destroy The Diaphragm!

• Maximum Inlet Pressure:
250 psi (17,2 bar)

• Maximum Emergency Outlet Pressure:
50 psi (3,5 bar) over outlet pressure setting

• Maximum Outlet Pressure for Divider Block Lubricator Pump Inlet:
0 to 20 psi (0 to 1,4 bar)

• Temperature Capabilities:
Stainless Steel Bolting: -40° to 180°F (-40° to 82°C)

1. Regulator operation within ratings does not preclude the possibility of physical damage from external sources or debris in the lines. Regulators should be inspected for damage periodically and after an overpressure condition.

2. Only personnel qualified should install, operate, and maintain a the SPRA regulator. Make sure there is no damage to or foreign material in the regulator and all tubing and piping is free of debris.

3. **Regulator will be damaged if installed incorrectly:** Install the regulator so that "oil flow is tubed into the IN through regulator to the OUT!" Regulator Body is Clearly Marked "IN - OUT."

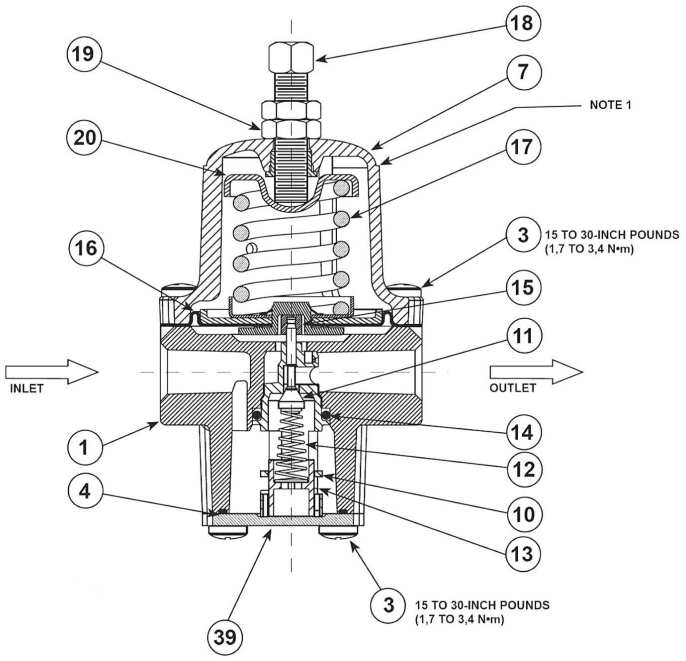
4. A clogged spring case vent hole may cause the regulator to function improperly. To keep this vent hole from being plugged and keep spring case from collecting moisture, corrosive chemicals, or other foreign material) orient vent to the lowest possible point. Inspect vent hole regularly to make sure it is not plugged.

5. Do Not apply sealing tape beyond threads or use excessive thread sealing compound.

7. Install stainless steel tube fittings into 1/4 NPT inlet connection on the inlet and 1/4 NPT outlet connection.

8. Install pressure gauge on the top 1/4 NPT outlet.

PLP-SPRA Oil Supply Regulator



Trim Maintenance:

1. Remove four bottom plate screws (3) from the bottom plate (39) and separate the bottom plate and O-ring (4) from the body (1).
2. Inspect the removed parts for damage and debris. Replace any damaged parts.
3. To remove the valve cartridge assembly, grasp the end of cartridge (10) and pull it straight out of body (1). Replace with new cartridge assembly. The cartridge assembly may be disassembled and parts may be cleaned or replaced. If the soft seat (15) was removed, make sure it is properly snapped into place before installing the valve cartridge assembly.
4. Check O-ring (14) for wear and replace, if necessary. Apply lubricant to the O-ring and place in the body. Align cartridge key to key-way in body and insert. Reinstall the O-ring (4), secure the bottom plate (39) with screws (3) and torque to 15 to 30 in-lbs / 1.7 to 3.4 N•m.

Replacing Diaphragm:

1. Back out adjusting screw (18) until compression is removed from spring (17).
2. Remove spring case screws () to separate spring case (7) from body (1). Remove upper spring seat (20) and spring (17).
3. Remove diaphragm assembly (16).
4. Place new diaphragm assembly (16) on body (1) as shown Figure 3 or 4. Push down on the diaphragm assembly to make sure the valve plug (11) strokes smoothly, approximately 1/16 in. / 1.6 mm.
5. Stack control spring (17) and upper spring seat (20) onto diaphragm assembly (16).
6. Install spring case (7) on body (1) with vent oriented to prevent clogging or entrance of trash. Install six spring case screws (3) step torque using a crisscross pattern and torque to 15 to 30 in-lbs / 1.7 to 3.4 N•m.
NOTE: *Lubricate the adjusting screw (18) thread to reduce galling of the Stainless steel.*
7. When maintenance is completed refer to Startup and Adjustment section instructions to put the regulator back into service. Start compressor and adjust pressure setting to 15-20 PSI Max. Tighten locknut (19).

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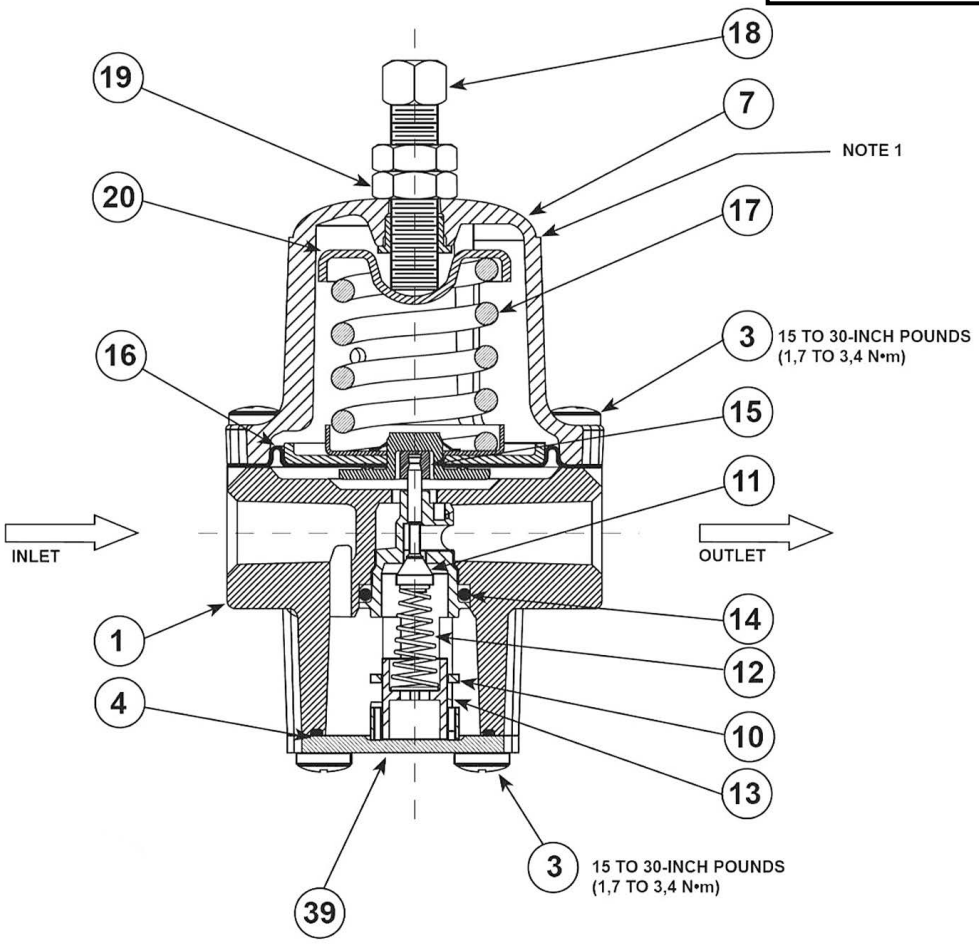

Parts List
Key Description

1 Body
3 Flange Screw
4(1) O-Ring
7 Spring Case
10(1, 2) Valve Cartridge
11(1, 2) Valve Plug
12(1, 2) Valve Spring
13(1, 2) Valve Retainer
14(1, 2) O-Ring
15(1, 2) Relief Valve Soft Seat
16(1) Diaphragm Assembly
17 Spring
18 Adjusting Screw
19 Locknut
20 Upper Spring Seat
39 Bottom Plate

1. Recommended Spare Part
2. Valve cartridge assembly includes keys 10, 11, 12, 13, 14, and 15.