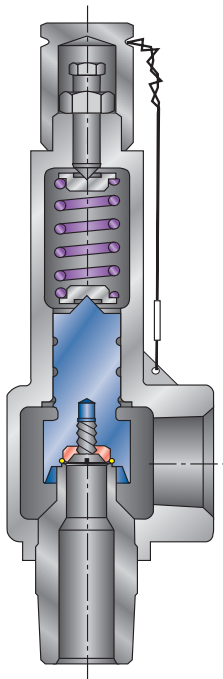




ANDERSON GREENWOOD SERIES 61 SPRING OPERATED PRESSURE RELIEF VALVES MAINTENANCE INSTRUCTIONS

Before installation these instructions must be fully read and understood



Any installation, maintenance, adjustment, test, etc. performed on the product must be done in accordance with the requirements of all applicable Anderson Greenwood procedures and instructions as well as applicable national and international codes and standards.

SAFETY PRECAUTIONS

- When the pressure relief valve is under pressure never place any part of your body near the outlet of the valve.
- The valve outlet should be piped or vented to a safe location.
- Always wear proper safety gear to protect head, eyes, ears, etc. anytime you are near pressurized valves.
- Never attempt to remove the pressure relief valve from a system that is pressurized.
- Never make adjustments to or perform maintenance on the pressure relief valve while in service unless the valve is isolated from the system pressure. If not properly isolated from the system pressure, the pressure relief valve may inadvertently open resulting in serious injury.
- Remove the pressure relief valve prior to performing any pressure testing of the system.
- The safety of lives and property often depends on the proper operation of the pressure relief valve. The valve must be maintained according to appropriate instructions and must be periodically tested and reconditioned to ensure correct function.

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Maintenance instructions for Series 61 Spring Operated Pressure Relief Valves (SOPRV). The intent of these instructions is to acquaint the user with the maintenance of this product. Please read these instructions carefully.

WARNING

Removal of the seal wires in an attempt to adjust and/or repair this product by unauthorized or unqualified persons voids the product warranty and may cause damage to equipment and serious injury or death to persons. The product is a safety related component intended for use in critical applications. The improper application, installation or maintenance of the product or the use of parts or components not manufactured by Anderson Greenwood may result in a failure of the product.

STORAGE AND HANDLING

Pressure relief valve performance may be adversely affected if the valve is stored for an extended period without proper protection. Rough handling and dirt may damage, deform, or cause misalignment of valve parts and may alter the pressure setting and adversely affect valve performance and seat tightness. It is recommended that the valve be stored in the original shipping container in a warehouse or as a minimum on a dry surface with a protective covering until installation. Inlet and outlet protectors should remain in place until the valve is ready to be installed in the system.

ANDERSON GREENWOOD SERIES 61 SPRING OPERATED PRESSURE RELIEF VALVES

MAINTENANCE INSTRUCTIONS

1 GENERAL

The Anderson, Greenwood Series 61 Safety Relief Valves is a direct acting spring loaded relief valve for gas or liquid thermal relief service and uses a plastic seat.

2 VALVE REPAIR

(Refer to Figure 1)

2.1 Disassembly

- 2.1.1 Break seal wire and remove cap from valve.
- 2.1.2 Relieve spring tension by loosening locknut and turning pressure adjusting screw counter clockwise.
- 2.1.3 Turn valve upside down and clamp body of valve in a vise and remove the nozzle.
- 2.1.4 Turn valve upright and remove the spindle assembly.

2.2 Repair

- 2.2.1 Hold spindle assembly by skirt O.D. in a soft jaw vise and remove the seat retaining screw.
- 2.2.2 Discard the old seat and replace. Lubricate the threads of the seat retaining screw with Fluorolube LG-160 or equivalent and reassemble with the spindle assembly.
- 2.2.3 Examine the seal angle of the nozzle and polish out any scratches or nicks found on this surface. Replace nozzle if necessary.
- 2.2.4 To obtain better seat seal at low set pressures, burnish seat against nozzle by chucking spindle in lathe and holding nozzle against spindle. Burnish with small force and only for a short time.

2.3 Assembly

- 2.3.1 If required, lightly lubricate pressure adjustment screw threads and bolt tip, bearing points of spring washers, nozzle threads, and cap threads with Dow Corning MolyKote "33" or equivalent. DO NOT lubricate spindle.
- 2.3.2 Turn valve upside down and clamp body of valve in a vise. Insert spindle assembly and replace nozzle.

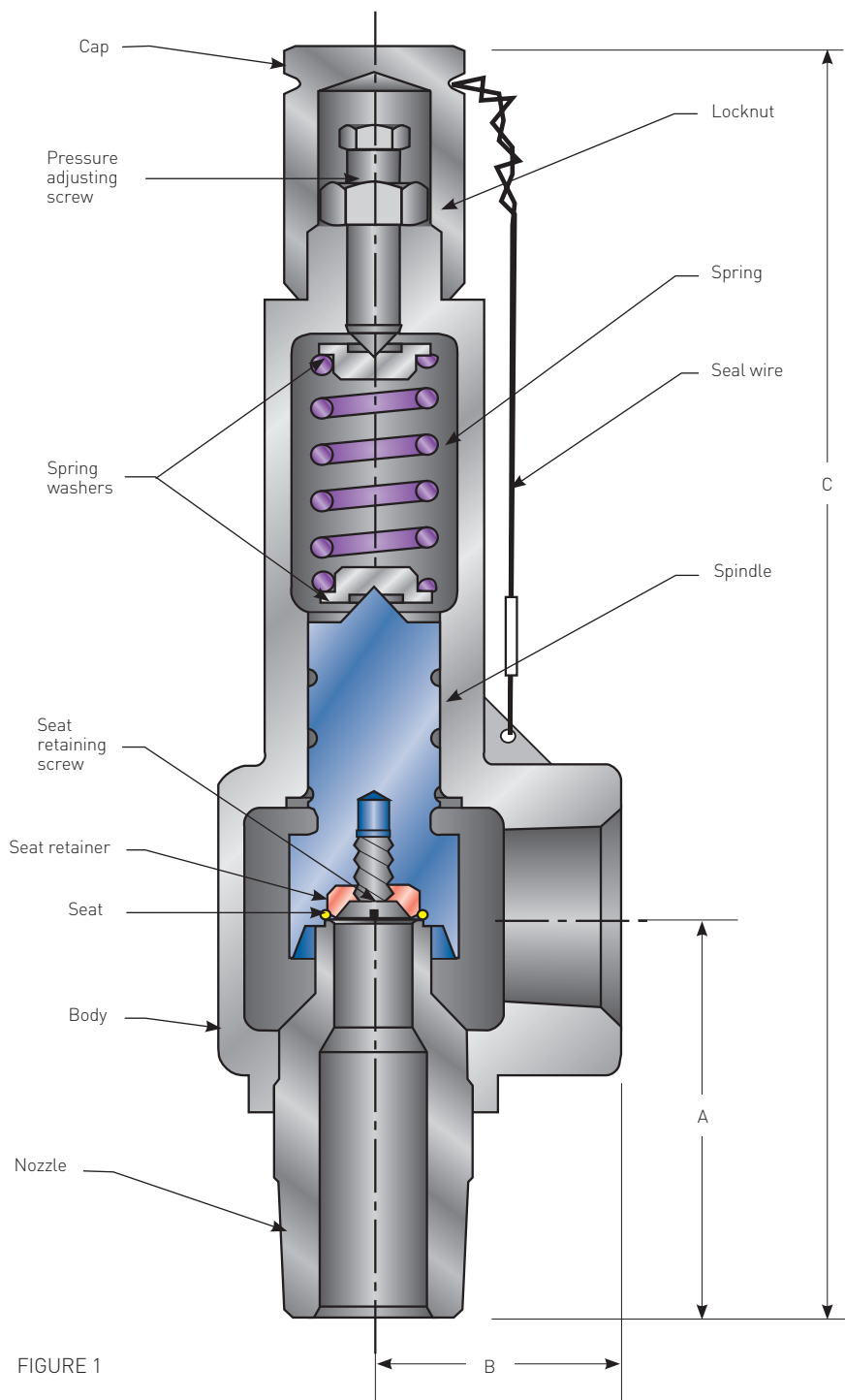


FIGURE 1

ANDERSON GREENWOOD SERIES 61 SPRING OPERATED PRESSURE RELIEF VALVES

MAINTENANCE INSTRUCTIONS

3 VALVE ADJUSTMENT

3.1 General

The only adjustment required for the Series 61 valve is for set pressure. The reseal pressure is not adjustable.

3.2 Set pressure

Turn pressure adjusting screw in most of the way. Increase inlet pressure to the desired level, back out pressure adjusting screw until the valve actuates, and tighten lock nut. Readjust as required.

3.3 ADJUSTMENT TOLERANCES

Set pressure range		Valve operating characteristic	Tolerance*
psig	kpag		
Above 70	Above 483	Set pressure	±3%
70 and below	483 and below		±2 psi [±13.8 kPa]
100 and above	689 and above	Cracking pressure	95%
Below 100	Below 689		90%
All	All	Reseat pressure	75%

* Percent tolerance is of specified set pressure.

4 SEAT LEAKAGE

4.1 General

If the valve leaks after repair, check for foreign particles trapped between the seat and nozzle. If any are found they may have damaged the seat making it necessary to replace it. If no foreign particles are found, the procedure described in Section 4.2 may be used to eliminate seat leakage.

4.2 Seat sealing procedure

Heat the valve for 15 to 30 minutes in an oven preheated to 250-300°F [121-149°C]. A concentrated heat source such as a heat gun or open flame must not be used. After the valve has air-cooled to room temperature, retest per Section 4 to insure seat tightness. If results have not improved, the valve should be disassembled and the seat replaced.

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