APOLLO 13213B15

Apollo Valve 13-213 Series Bronze Safety Relief Valve User Manual

Model: 13213B15

1. Product Overview

This manual provides essential information for the safe and effective use of the Apollo Valve 13-213 Series Bronze Safety Relief Valve. This valve is designed for protecting small to medium low-pressure steam heating boilers by removing excess pressure from the system.
Key features include:

- Relief pressure preset of 15 psi for releasing excess pressure.
- 1-1/4" male NPT threaded inlet for connecting to a female NPT threaded connection.
- Cast bronze body and steel spring for corrosion resistance.
- Flat seat, PTFE-faced disc for positive seal.
- ASME safety rated for Section IV heating boilers.

Figure 1: Front view of the Apollo Valve 13-213 Series Bronze Safety Relief Valve, showing the bronze body, NPT connections, and the pressure relief lever.

2. Safety Information

Always adhere to local codes and regulations when installing and operating pressure relief devices. Improper installation or maintenance can lead to serious injury or property damage.

- Ensure the system is depressurized and cooled before attempting any installation, maintenance, or inspection.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Do not tamper with the factory-set pressure. Any alteration voids the warranty and can compromise safety.
- Ensure proper discharge piping is installed to safely vent steam away from personnel and equipment.
- Regularly inspect the valve for signs of wear, corrosion, or damage.

3. Components and Design

The Apollo Valve 13-213 Series is constructed with durable materials designed for steam applications. Key components include:

- **Body:** Cast bronze for corrosion resistance and durability.
- **Seat:** Flat seat design with a PTFE-faced disc for a positive seal, resistance to moisture, and high temperatures. This design also facilitates positive drainage of condensate.
- **Spring:** Steel spring mechanism for reliable pressure relief.
- **Connections:** 1-1/4" male NPT inlet and 1-1/2" female NPT outlet for secure pipe connections.

Figure 2: Side view of the Apollo Valve 13-213 Series, highlighting the inlet and outlet connections and the robust bronze construction.

4. Setup and Installation

Proper installation is critical for the safe and effective operation of the relief valve. Consult a qualified professional if you are unsure about any step.

1. **System Preparation:** Ensure the steam boiler system is completely shut down, depressurized, and cooled before

beginning installation.

2. **Inlet Connection:** Thread the 1-1/4" male NPT inlet of the relief valve into the corresponding female NPT connection on the boiler. Use appropriate thread sealant (e.g., PTFE tape or pipe dope) suitable for steam applications. Tighten securely to prevent leaks, but do not overtighten.
3. **Outlet Connection:** Connect the 1-1/2" female NPT outlet of the relief valve to a discharge pipe. This pipe must be adequately sized and routed to safely vent steam to an open atmosphere or a designated safe discharge area, away from personnel and equipment. Ensure the discharge pipe has no obstructions, traps, or valves that could impede flow.
4. **Orientation:** Install the valve in an upright position, ensuring the discharge path is clear and unobstructed.
5. **Leak Check:** After installation, slowly bring the system up to operating pressure and carefully check all connections for leaks. Address any leaks immediately.

5. Operating Instructions

The Apollo 13-213 Series Safety Relief Valve operates automatically to protect the boiler from overpressure conditions. It is designed to open when the system pressure reaches its factory-set relief pressure of 15 psi.

- **Automatic Operation:** When the boiler pressure exceeds 15 psi, the valve will automatically open to discharge steam, reducing the pressure within the system.
- **Reseating:** Once the system pressure drops below the reseating pressure (typically slightly below the set pressure), the valve will automatically close, restoring the seal.
- **Manual Test Lever:** The valve is equipped with a manual test lever. It is recommended to periodically test the valve by lifting the lever to ensure it operates freely and discharges steam. This should be done carefully and only when the boiler is at a safe operating pressure, ensuring the discharge path is clear. Refer to boiler manufacturer guidelines for specific testing frequency.

6. Maintenance

Regular maintenance ensures the longevity and reliable operation of your safety relief valve. Always ensure the system is depressurized and cooled before performing any maintenance.

- **Visual Inspection:** Periodically inspect the valve for any signs of external damage, corrosion, or leaks. Check the discharge piping for obstructions.
- **Manual Testing:** As mentioned in the operating instructions, perform periodic manual tests using the lever to ensure the valve opens and closes freely.
- **Cleaning:** Keep the exterior of the valve clean. Do not use harsh chemicals that could damage the bronze or other components.
- **Professional Inspection:** It is recommended to have the valve inspected and serviced by a qualified professional at regular intervals, as per industry standards or local regulations.

7. Troubleshooting

This section addresses common issues you might encounter with your safety relief valve.

Problem	Possible Cause	Solution
Valve Leaks Continuously	Debris on seat, damaged seat/disc, incorrect system pressure.	Manually cycle the valve to clear debris. If leaking persists, the valve may need replacement or professional servicing. Verify system pressure is below set point.

Problem	Possible Cause	Solution
Valve Does Not Open	System pressure not reaching set point, valve stuck due to corrosion/deposits, incorrect valve for application.	Verify boiler pressure gauge accuracy. Attempt manual test. If stuck, valve may need replacement. Ensure valve specifications match system requirements.
Valve Opens Prematurely	System pressure fluctuating, valve spring fatigue, incorrect valve for application.	Monitor system pressure stability. If valve is old or frequently cycles, it may need replacement. Ensure valve specifications match system requirements.

For issues not listed or if solutions do not resolve the problem, contact a qualified technician or the manufacturer.

8. Specifications

Detailed technical specifications for the Apollo Valve 13-213 Series Bronze Safety Relief Valve:

Model Number: 13213B15

Valve Type: Pressure Relief Valve

Material: Bronze (Body), Steel (Spring), PTFE (Seat Disc)

Set Pressure: 15 psi (Pounds per Square Inch)

Inlet Connection Type: 1-1/4" NPT Male Threaded

Outlet Connection Type: 1-1/2" FNPT Female Threaded

Maximum Operating Temperature: Up to 250 degrees F

Number of Ports: 2

Compliance: ASME Section IV - Low Pressure Steam Heating Boilers

Manufacturer: Conbraco

First Available Date: May 31, 2012

Package Dimensions: 5.04 x 3.5 x 2.91 inches

Item Weight: 2.05 Pounds

9. Warranty Information

Specific warranty details for the Apollo Valve 13-213 Series are not provided within this manual. For comprehensive warranty information, please refer to the official documentation provided with your purchase or contact Apollo Valves directly through their official website or customer service channels.

10. Support and Contact

If you require technical assistance, have questions regarding installation, operation, or maintenance, or need to report an issue, please contact the manufacturer:

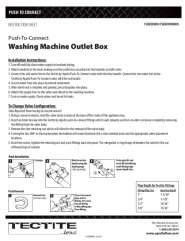
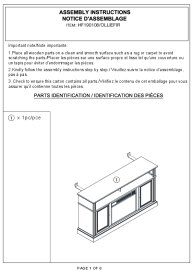
Brand: APOLLO

Manufacturer: Conbraco

Website: www.apollovalves.com (Please note: This is a general link to the brand's website, specific support pages may vary.)

Always provide your product model number (13213B15) when seeking support.

Related Documents - 13213B15

	Apollo Air Electric Scooter User Manual - Setup, Operation, and Safety Comprehensive user manual for the Apollo Air electric scooter, covering setup, operation, safety guidelines, maintenance, and warranty information. Learn how to safely enjoy your Apollo Air.
	Push-To-Connect Washing Machine Outlet Box Installation Guide Instruction sheet for installing the Tectite by Apollo Push-To-Connect Washing Machine Outlet Box, including step-by-step installation and valve configuration details.
	Apollo Tank Max 69TANKMAX Installation Instructions Detailed installation instructions and safety precautions for the Apollo Tank Max 69TANKMAX thermostatic mixing valve, designed to provide more hot water safely.
	Apollo Go Electric Scooter User Manual Comprehensive user manual for the Apollo Go electric scooter, covering setup, operation, maintenance, troubleshooting, and safety guidelines.
	Apollo Go Electric Scooter User Manual This user manual provides comprehensive instructions for the Apollo Go electric scooter, covering unboxing, assembly, operation, charging, maintenance, safety guidelines, troubleshooting, and warranty information. Learn how to set up, ride, and care for your Apollo Go electric scooter.
	Apollo 23G Electric Fireplace Insert Assembly and User Manual Comprehensive guide for assembling and operating the Apollo 23G electric fireplace insert, including safety instructions, parts identification, and troubleshooting tips for model HF190108/OLLIEFIR.