

## Gas cylinder valves – potential failures

Safety Flash Published on 1 July 2000 Generated on 17 January 2025 IMCA SF 03/00

We have recently received the attached safety alert issued by Air Products regarding Sherwood valves.



### **SAFETY ALERT - ATTENTION SAFETY DEPARTMENT!!!**

#### **IMMEDIATE ACTION REQUIRED**

This alert is to inform you of potential hazards associated with two specific lots of compressed gas cylinder valves and provide recommendations for addressing cylinders which utilize these valves.

##### **The Problem**

Air Products and Chemicals, Inc. has been advised by a valve supplier that certain lots of cylinder valves, as described in the following section, may have had excessive torque applied to the bonnet during assembly, resulting in damaged threads. There have been a few reported failures of these bonnets during filling of cylinders with these valves. These failures have resulted in the high pressure expulsion of the handwheel and bonnet assemblies. These expulsions have been reported to be of sufficient force to potentially cause injury to personnel and damage to property.

##### **Affected Valves**

The valves were manufactured by Sherwood and sold for use throughout the industrial gas industry. They are of the TV series with CGA-580 cylinder connections. This connection is used for argon, helium, nitrogen and nonflammable gas mixtures. The valves have the connection number, **CGA 580**, and date code stamped into the wrench flat of the valve body. Please refer to the information provided by Sherwood (see reverse side) for the exact location of these stampings. The potentially impacted lots are identified by the date codes **48-99** and **03-00**.

##### **Recommendations**

Carefully check the valves on all industrial gas cylinders containing argon, helium, nitrogen, nonflammable gas mixtures or any other cylinders equipped with valves with **CGA 580** connections. Check the valves for the following stampings as shown in Illustration 1 of the Sherwood alert:

**CGA 580**      or      **CGA 580**  
**48-99**                      **03-00**

If you find any cylinders supplied by Air Products and Chemicals, Inc. (as identified on the product label or on the neck ring of the cylinder), with valves bearing these stampings in your inventory, the following actions must be taken.

If the cylinders are not in use, quarantine the cylinders immediately and mark with a DO NOT USE tag. Contact Air Products to arrange for pickup and replacement by Air Products.

**If your cylinder is connected to a pressurized system with or without the valve open, DO NOT TOUCH THE CYLINDER OR CYLINDER VALVE!** The potential for bonnet expulsion primarily exists when the valve is opened or the cylinder is connected to a pressurized system. Isolate the area and contact Air Products for assistance.

800-224-2724

If the cylinders belong to a supplier other than Air Products, contact that company for instructions.

Attachments: Sherwood Safety Alert (See Reverse Side)

## **SAFETY ALERT\* - ATTENTION SAFETY DEPARTMENT**

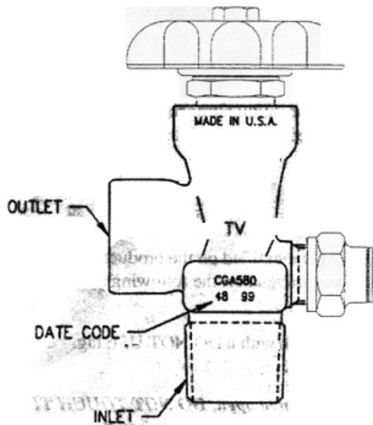
Sherwood has received three reports involving Sherwood TV 5861 valves in which the bonnet, upper stem and hand wheel assembly reportedly ejected from the valve body on the first filling event of the cylinder in which the valve was installed. Sherwood's initial investigation has revealed that the bonnet thread strength may have been compromised.

In the interest of safety we are requesting that our customers quarantine the following valves with the date code of 48-99 and 03-00 (location of date code on Illustration No 1).

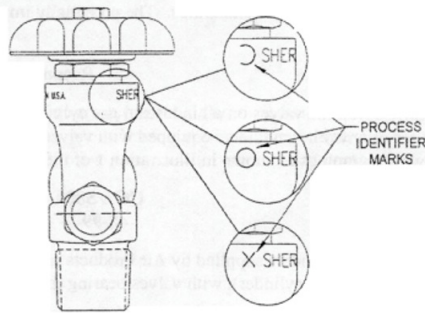
Sherwood does not believe that the reported phenomenon involves TV series valves listed above with a manufacturing process identifier mark "▷"; "O" or "X" and it is NOT necessary to quarantine TV series valves listed above with the specified date codes which have the manufacturing process identifier: "▷"; "O" or "X" (Illustration No. 2).

Sherwood will repair or replace quarantined valves as warranted.

**Illustration No. 1**



**Illustration No. 2**



\*Excerpt from Sherwood Safety Alert received June 15, 2000.

-See Reverse Side-

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