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Updated - Technical Service Bulletin

SUBJECT: REMEDIAL PROCEDURE TO ADDRESS POSSIBLE OXYGEN LEAKS FROM CONTROL VALVES
DATE: MARCH 13, 2018
BULLETIN NO.: TSB 2018-01 (Revised)
AFFECTED MODEL(S): **BR22 PLUS** EXOTHERMIC CUTTING TORCH
AFFECTED SERIALS: **REVISED 39302-39304, 39334-40038** (This does not affect the Original BR22 model)

To all affected end users and distributors,

A recent report of an external oxygen leak from the control valve of a **BR22 PLUS** prompted an investigation to determine root cause. The result of that investigation concluded that machining debris in the O-ring groove of the Control Valve Nut has interfered with the oxygen seal in the valve assembly. There may be additional **BR22 PLUS** torches out in the marketplace that could also leak at the control valve stem while the valve lever is depressed. We do not believe this to be a safety issue due to the leak volume and location. Because Broco-Rankin accepts nothing less than quality in the hands of our customers, we are providing this notice to notify the appropriate parties of the next steps.

What Broco-Rankin is doing:

- We are issuing this notice to inform customers of a potential for **BR-22 PLUS** torches manufactured between September 2017 and February 2018, serial numbers 39302-39304, 39334 through 40038 to experience an external oxygen leak at the oxygen control valve stem while the lever is depressed.
- We will provide replacement torches in exchange for new unused torches that are in the specified range.
- We will provide replacement torches or replacement parts for affected torches in customer use that exhibit the aforementioned oxygen leak.

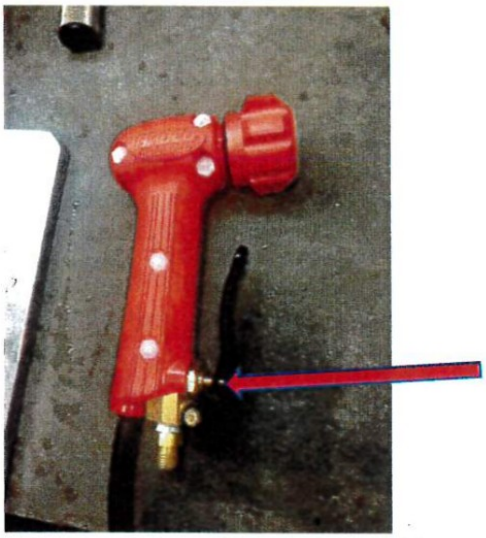
What is expected of the customer:

- Distributors should pass this notice to all customers who purchased and may have purchased a **BR-22 PLUS** torch in the specified affected range.
- LOCATING THE SERIAL NUMBER
    - The serial number is etched on the backside of the torch head. Simply remove the 5 nylon screws and separate the halves of the torch.
    - For customers with new BR22 PLUS torches, the serial number can be found on a tag on the power cable.
- Distributors should remove from inventory and return all unsold **BR-22 PLUS** torches that are in the specified affected range for replacement.

- Customers who are using **BR-22 PLUS** torches that are and may be within the affected specified range should inspect and leak test their torches to see if the condition exists.
- Customers who are in possession of torches that leak should remove those torches from service and contact Broco-Rankin customer service for remedial action.

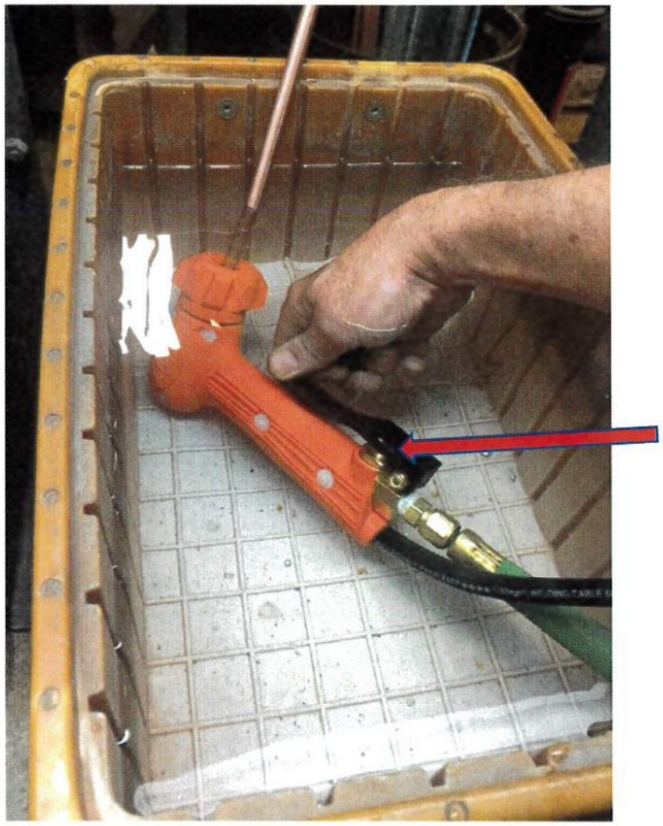
LEAK TEST PROCEDURE

- The picture below shows what a BR22 PLUS torch looks like and the location of the valve stem leak. If this is not what your torch looks like, do not continue!



- Outfit the BR22 PLUS torch as shown with an 18" cutting rod inserted and the collet tightened.

- Set oxygen pressure to 180psi (double that of normal operating pressure) and submerge the entire BR22 PLUS torch under water in a suitable container of your choice with the end of the cutting rod raised above the water to exhaust the oxygen gas. Be sure that the valve section is submerged at least 2" below the water surface for clear detection of any possible oxygen leaks.
- Keep the BR22 PLUS submerged for about 30 seconds before carrying out the next steps. You will likely see some bubbles here from air pockets inside the torch body.
- With the end of the rod raised above water, depress the valve lever with a 2 second count and while doing so, inspect the valve stem area (shown in the picture with a red arrow) for any steady stream of bubbles. Repeat this step 5-10 times.



- If the stream of bubbles is present, please remove the BR22 PLUS torch from service and contact Broco-Rankin. If there are no visible leaks, please resume use of the product as intended.

Approved by:

Quality

Engineering

President