

TECHNICAL SERVICE BULLETIN

Bulletin No.: TSB-044

Date: August 31, 2022

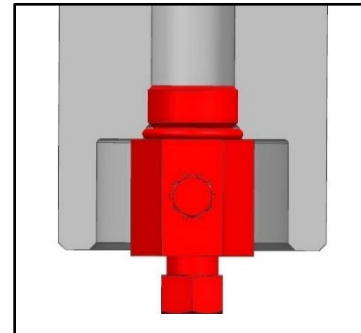
Subject: VP Cylinder Drain Valves

Models: All Quantum VP Trailers with Drain Valves

Background

Some Quantum Virtual Pipeline (VP) trailers are built with a factory option that includes a drain valve installed in the bottom of the cylinder. This drain valve allows draining of any oils or liquids that may accumulate in the bottom of the cylinder without completely depressurizing the cylinders.

There are three different part numbers for the drain valve that can be used in the VP trailer cylinders, two of these drain valves (119625-002 and 120823) are almost completely contained and protected within the body of the lower cylinder adapter itself. The third drain valve (120729-002) is taller than the other two drain valves and protrudes from the bottom of the adapter by approximately 13 millimeters.



Only the 120729-002 drain valve that protrudes from the bottom of the cylinder adapter is of a concern at this time and is the only one that is addressed by this bulletin.

Condition

In the event of a severe collision or roll over, where the lower mountings that restrain the cylinders have been broken; it is possible for some of these drain valves to contact the floor of the trailer due to excessive cylinder movement. If there is enough energy from the collision, this contact may damage the drain valve or its interface to the cylinder resulting in a leak at the bottom of the cylinder.

Cause

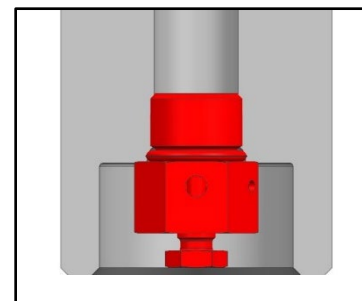
The system was originally designed to use a cylinder drain valve that when installed was contained within and protected by the lower cylinder adapter. Due to supply chain issues, another supplier for this component needed to be sourced, the part supplied by the new supplier was approximately 13mm taller than the original design.

The additional height of the taller cylinder drain valve was not perceived to be a problem until a recent incident was experienced in the field where this cylinder drain valve did contact the floor of the container during a roll over event and damaged the drain valve.

Correction

Installation of this new drain valve is a voluntary update, but Quantum does recommend that these drain valves be replaced during the next scheduled annual maintenance or drain interval.

Replacement drain valve assemblies (120823) will be made available free of charge to customers who have 120729-002 drain valves currently installed in Quantum trailers.



TECHNICAL SERVICE BULLETIN**Labor Time**

Estimated labor time per cyl:

0.2 – 0.3 hours.

VP Lite Trailers:

Labor OP: N/A

Time: N/A

Parts Information

Description	Part Number	Fits	Qty
Drain valve assembly	120823	VP 20',40' or 45' series trailers	A/R

To request replacement drain valve assemblies, contact Quantum Warranty Department at 949.390.3424 or at gtwarranty@qtw.com. When requesting replacement drain valve assemblies, please provide your trailer(s) S/N and address where the parts are to be shipped.

Application

This bulletin may be applied to any Quantum VP Lite 20',40' or 45' series trailer.

Contact Information:E-Mail: QTSservice@qtw.com

Phone: U.S. 800.816.8691

Outside U.S. 949.930.3411

Fax: 949.930.3401

TECHNICAL SERVICE BULLETIN

The following procedure provides instructions for removing and replacing the drain valve installed on VP trailers.

DANGER

This procedure must not be performed if there is **any** pressure present in the cylinders being serviced.

Always isolate the cylinders being serviced and verify they have been completely discharged and before proceeding.

Failure to follow these instructions will result in death or serious injury.

Cylinder Aft pin Inspection

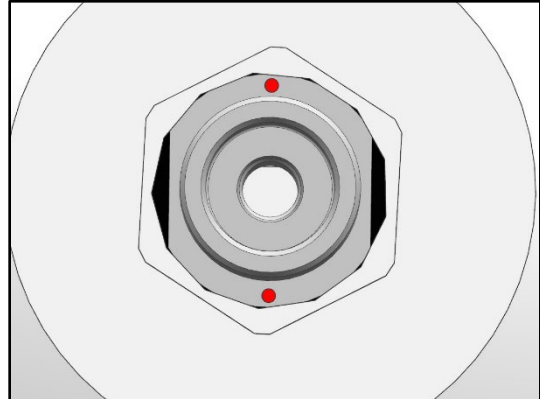
CAUTION

Failure to follow these steps may result in damage to the cylinder resulting in a leak. Make sure to inspect for the presence of these pins prior to removal of a plug or drain valve from the bottom of the cylinder.

When removing either drain plugs or drain valves from the cylinder the following steps MUST be completed first.

1. Looking at the bottom of the cylinder, verify the locating pins in cylinder adapter are present. Use of an inspection mirror may be required.
2. If both pins are not present, insert a drift punch or something similar in pin hole before proceeding to remove the drain plug.

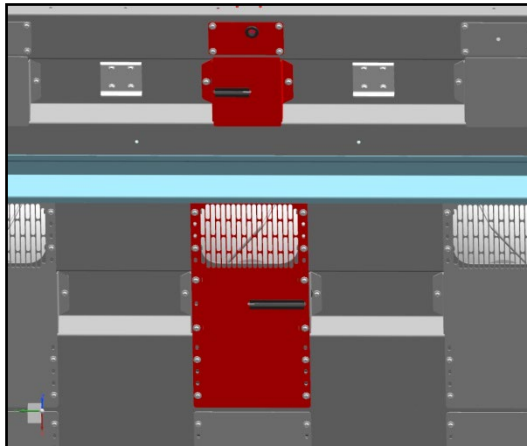
Failure to secure the cylinder adapter could result in loosening of adapter. This may result in an irreparable leak past the seals in the adapter.



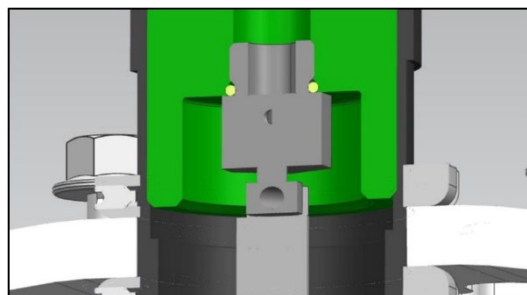
TECHNICAL SERVICE BULLETIN

Drain Valve R&R

1. Remove and retain the fasteners securing the lower panel under the cylinder being serviced.
2. Remove and retain the lower panel.



3. Using an appropriately sized socket, remove and discard the drain valve from the bottom of the cylinder.
4. Allow the cylinder to completely drain any fluids that may be present.
5. Clean the drain port in the bottom of the cylinder with isopropyl alcohol or equivalent.



6. Lubricate the O-ring on the drain valve fitting.
7. Using an appropriately sized socket, Install the drain valve fitting in the bottom of the cylinder finger tight.

Tighten to 48 lb. ft. (65 N.m.)

8. Verify the drain valve is secure.
Tighten to 8 lb. ft. (11Nm)
9. Pressurize the cylinder and leak check all disturbed fittings. Repair as needed.

TECHNICAL SERVICE BULLETIN**Drain Valve R&R (cont.)**

10. Install any previously removed lower panels and tighten:
- For 6 mm bolts Tighten to 10 lb. ft. (14 N.m.)
 - For 8 mm bolts Tighten to 24 lb. ft. (32 N.m.)

