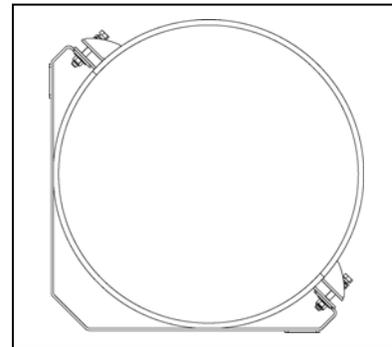


INFORMATION ONLY

Bulletin No.: CYL-TSB-004
Date: May 7, 2014
Subject: Cylinder Bracket and Strap Installation
Models: Quantum Type 4 Cylinders

Background

A number of cylinder bracket assemblies are available from various manufacturers that can be used to secure the Quantum Type 4 gaseous fuel cylinders to a vehicle. These bracket assemblies must be properly assembled and installed.


Condition

If the cylinder bracket assemblies are improperly installed or the preload applied to the cylinder straps is incorrect, the cylinder bracket assembly can fail to properly retain the cylinder. If this occurs a fuel line may loosen or fatigue due to cylinder movement or the cylinder could be damaged. Either scenario could lead to a fuel leak creating a fire hazard.

Cause

Improper cylinder bracket alignment or strap preload may result in uneven pressure being applied to the cylinder strap isolator. This uneven pressure may result in premature isolator failure, damage to the cylinder and or cylinder bracket assembly. The preload applied to properly secure the cylinder in the brackets will vary depending on the cylinder manufacturer and or cylinder bracket manufacturer.

Correction

The installer is ultimately responsible for ensuring the proper alignment and installation processes for the cylinder and cylinder brackets being installed.

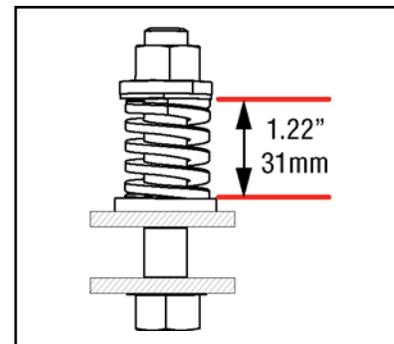
The following specification is only valid for the Quantum cylinder bracket assembly (PN 115959) when used in a bed mount application with a Quantum 25" diameter Type 4 cylinders measuring 60" or less and not approved for any other sized cylinder.

Bracket Asm. Part Number	Cylinder Diameter	Installed Spring Height
115959	25" (Nominal)	1.22" (31mm)

Important: The installed spring height specification shown in the table is for a 25" diameter Quantum Type 4 cylinder installed in the specified bracket using new cylinder isolators, new locking fasteners, and with less than 500 psi (3447 kPa) of pressure in the cylinder.

Reuse of the cylinder isolators or strap hardware will affect the final assembly and may result in damage to the cylinder and or cylinder bracket assembly.

This bracket has been tested to support a cylinder in the horizontal position only.



INFORMATION ONLY

When using a cylinder bracket assembly other than the one noted above, Quantum recommends the following precautions:

Installation:

- Use the cylinder bracket manufacturer's recommended assembly instructions.
- Verify that the rubber isolator is properly seated on the cylinder brackets and straps.
- Verify the preload applied the cylinder bracket strap has not altered the shape of the strap.
- Verify the cylinder will NOT move freely in the completed cylinder bracket assembly.

The following recommendations should be followed when servicing any cylinder in any bracket assembly to ensure proper retention and service life.

Servicing:

- If a locking fastener is used, always replace the cylinder strap nuts and or bolts when they have been removed with equivalent replacement parts.
- Always replace the cylinder isolators when the cylinder strap has been loosened or removed.

Important: A Type 4 fuel cylinder will expand and contract as the internal pressure increases and decreases. In order to compensate for expansion and contraction the cylinder strap rubber isolator is designed to deform slightly. Always install new isolators in order to achieve accurate bracket strap spring height. Accurate bracket strap spring height can only be achieved at cylinder pressures below 500 psi (3447 kPa).

- Always check the bracket assembly spring height when the cylinder pressure is below 500 psi (3447 kPa).
- DO NOT check the bracket assembly spring height on a bracket strap after it has been in service.

Important: Do not verify the cylinder strap preload on a fully pressurized cylinder. A Type 4 cylinder will expand and contract as the internal pressure increases and decreases. In order to compensate for expansion and contraction the cylinder strap rubber isolator is designed to deform slightly. The rubber isolators will eventually settle slightly causing the bracket assembly spring height to vary from the initially installed spring height.

- Inspect the cylinder brackets, straps, mounting frame, and mounting hardware for cracks, corrosion, deformation, or other damage.

Contact Information:

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Parts Information

None