RUBBER-INC.

SAFETY BULLETIN

Commercial Vehicle Valve Stem Installation for Alloy and Steel Wheels

Proper valve stem installation helps maintain tire pressure and prevent air leaks. Incorrect installation can damage the valve stem or rubber grommet, resulting in air loss and potential safety risks.

QUICK TIPS ***Always use a new grommet or O-ring of the same heat-resistant type. Replace corroded or damaged valves and valve cores.***

Commercial Alloy Wheel:



1. **Inspect the Valve Stem Hole**

Check for cracks, burrs, pits, or an out-of-round hole. Remove burrs, debris, and corrosion with a wire brush.

2. **Verify the Hole Diameter**

Confirm the diameter is 0.388 ± 0.006 inches per Tire & Rim Association specifications. The Go No-Go gauge must reach the green indicator, but not beyond it.



120540-G



Cracked

STOP! ***Do not service cracked or out-of-round holes.***

3. **Lubricate the Sealing Surfaces**



Apply a thin, even coat of #2/Supra™ or equivalent rust and corrosion inhibitor grease to the inside of the valve hole and the face of the valve stem where the O-ring seals.

Exception: Skip this step for 550 series valve stems with a rubber grommet.



168-00916

4. **Tighten to Specification**

Insert the valve stem and finger-tighten the nut. Use a calibrated torque wrench to tighten to 80–125 in-lbs (9–14 N·m). Wipe away excess inhibitor grease around the valve stem and nut. The T-540 preset torque wrench is designed for TR540 and TR550 series valves, with a preset torque of 124 ± 7 in-lbs.



WARNING ***Do not overtighten. Finger-tight + ½ turn ≈ 100 in-lbs. Finger-tight + ¾ turn ≈ 200 in-lbs, which over-stresses the valve.***

QUICK TIPS ***Final step: Inflate, check for air leaks, and install a metal, high-temperature sealing cap.***

Source: Dill Air Controls / TIA

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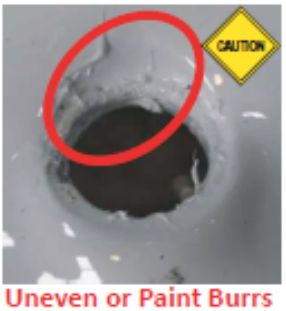
QUICK TIPS

Always use a new grommet or O-ring of the same heat-resistant type. Replace corroded or damaged valves and valve cores.

Commercial Steel Wheel:

1. **Inspect the Valve Stem Hole**

Check for cracks, burrs, pits, or an out-of-round hole. Clean debris and surface corrosion with a wire brush when needed.



Uneven or Paint Burrs



Debris

2. **Verify the Hole Diameter**

Confirm the diameter is 0.625 ± 0.008 inches per Tire & Rim Association specifications. The Go No-Go gauge must reach the green indicator, but not beyond it.


120570-G



Damaged



Out of Round

STOP!

Do not service cracked or out-of-round holes.

3. **Insert and Seat the Valve Stem**

The grommet must sit flush against the rim with no gap.


572G-6



4. **Tighten to Specification**

T-572-STRAIGHT



T-572-OPEN



Install the washer and finger-tighten the nut. Use a calibrated torque wrench to tighten to 35–55 in-lbs (4–6 N·m). For TR570 series valves, the T-572-STRAIGHT is designed for straight valve stems, while the T-572-OPEN accommodates both straight and pre-bent valve stems. Both tools provide a preset torque of 55 in-lbs.

WARNING

Do not bend the valve stem after installation. If the application needs an angled stem, use a pre-bent stem from the manufacturer. Bending a valve in the rim hole can damage the grommet and cause air loss.



QUICK TIPS

Final step: Inflate, check for air leaks, and install a metal, high-temperature sealing cap.

Source: Dill Air Controls / TIA