

Improved Design for the **B757 LAVATORY HOSE**

Co-Operative Industries Aerospace & Defense PMA Approved Lavatory Hose Design

The Problem: Consistent Failures

The current hose design results in consistent failures in the field. The original design is subject to cracked and punctured elbow fittings that result in aircraft delays and cancellations. These failed conditions cause the operators expensive and unscheduled out of service maintenance to clean spillage and replace the failed hose assembly.

During normal operation (especially in winter months) the lavatory service fluid can freeze in the elbow area, obstructing the flow of fluid from the service truck to the aircraft's clean fluid holding tank. In an effort to remove the ice build up and open the flow, ground maintenance crews will typically use a sharp tool to chip away the ice buildup. Over time, the use of sharp tools results in damage to the 90° metal elbow causing a leak.

The Solution: Upgraded Design with Reduced Cost

CIA&D's upgraded lav hose design is in response to this problem. Our improved hose assembly features an elbow with a wall thickness that is double that of the original design. This 0.065", 316 stainless steel elbow guards against the sharp tools used to dislodge ice buildup. The silicone hose material provides insulation and flexibility, while offering the added strength and durability of Kevlar®, Stainless Steel, and Nomex® overbraids. This combination of materials and fittings assures a burst pressure rating of 250 psi.

This design is considered form, fit and functionally interchangeable with its predecessor. In comparison of price, you will find our design offers a significant cost savings. Other airlines have been successfully operating this upgraded service hose with excellent operational results.

Advantages & Specifications

- PMA Approved
- Improved strength and flexibility
- Kink and crush resistant
- Heat and abrasion resistant
- Resistant to hydrolysis and stress cracking
- Resistant to chlorine and liquid detergents
- Resistant to repeated freezing
- Accepts fluid temperature ranges of 0° F to 225° F
- Working Pressure: the hose is rated at 60 psi, but easily withstands operating pressures of 250 psi without failure.



Construction

- Three Braid layers of Kevlar®, stainless steel wire and Nomex®
- Corrosion resistant stainless Steel fittings and collars
- Our thicker silicone tube wall provides improved insulation and flexibility
- Doubled wall thickness of 0.065" at the elbow area

Interchangeability

CIA&D Lavatory Hose Assembly
Cross-reference:

- 301504 is interchangeable with Boeing P/N 10-60871-363
- 301509 is interchangeable with Boeing P/N 10-60871-365
- 301508 is interchangeable with P/N AS4471-12-0260

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