TECTRAN
Solutions for Transportation Equipment

TECBULLETIN

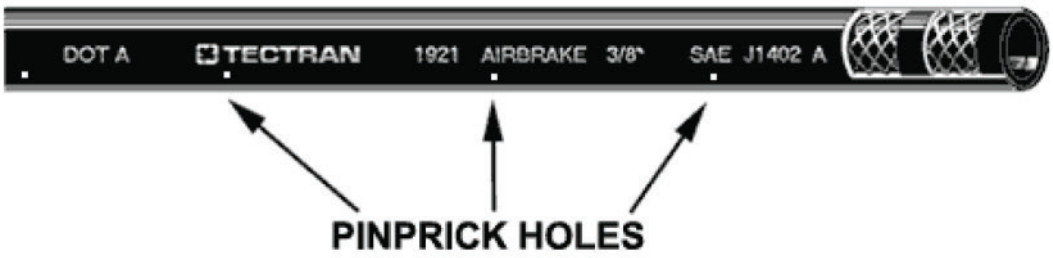
Air Brake Hose Pin Pricks in the Outer Cover

From time to time concerns are raised regarding the pin pricks in the outer cover of hose. Generally, the concern is in the perception that the holes penetrate through the complete hose wall. This is not the case. In fact, the inner core tube is protected by the existence of the pin pricks. Sometimes, "bubbling" may be observed coming from the hose at the location of the pin pricks during instances when the hose is wet. In other cases, moisture may be seen escaping from these holes in an otherwise dry environment.

There is a normal permeation of moisture and gases through the tube and within the assembly. The pin pricks in the cover provide an escape route for these, when the hose is pressurized. This prevents hose blistering, loss of adhesion, freezing and premature hose failure. Bubbling gases or escaping moisture will subside after the hose has been under pressure for awhile, (generally in less than 30 minutes).

While pin pricking, or adding perforations to the cover of the hose, is the common practice of most hose manufacturers, it is not performed by all manufacturers. This causes some confusion on the part of the user. It is a desirable practice for hoses designed to convey air or fluids under pressure and is even used in hoses designed for high pressure.

Hose can be tested to assure its integrity by pressurizing it with air at 150 psi or less and placing it under water. A true leak will be characterized by the presence of rapid continuous bubbling while it is under water.



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PRODUCT BULLETIN

SEVERE CLIMATE SOLUTIONS

Cold weather, and ice fighting chemicals can take a toll on your equipment. Tectran provides a full line of products to help you combat extreme climate conditions. We encourage you to inspect the components of your air brake and electrical systems regularly - Stay safe!

SEVERE CLIMATE SOLUTIONS

ARMOR TUBING

- Featuring a unique Armor Coating of rugged, kink and chemical-resistant polyurethane
- Super cold flexibility rating of -85°F
- Inner tubing meets DOT FMVSS - (49 CFR 571.106 & 49 CFR 393.45)
- Superior coil memory and durability
- Abrasion and cut resistant

ARMORCOILS

- » Swivel fittings on the tractor-end for ease of installation
- » **FLEX-Grip** rubberized handles
- » Heavy duty plated spring guards extend well past 2" exceeding DOT regulations

MAGNUM Dual Line System

- » Includes the same features of our **ARMORCOILS** with bonded tubing eliminates tangling and provides a "sleeve" to hold ABS cable

ARMORBRASS

- » Brass handles on trailer leads provide protection during gladhand connections
- » Extra long closed coil spring guard (DOT Requirement)
- » DOT brass fitting with Tectran identifier
- » Tubing mates with brass fitting inside the handle providing a superior kink solution

ARTICFLEX AIR BRAKE HOSE

- ArticFlex air line hose assemblies are made using special SAE J1402 hose rated for -65°F
- Blue or Red FLEX-Grips - for gladhand connection and identification
- Swivel fitting at tractor end - for easy installation
- Spring guard on tractor end - for strain relief
- Available as: Jumper Hose, Hose Assemblies, Bulk Hose & 3-in-One ABS ArticFlex AirPower Lines

The ORIGINAL

AIRPOWER LINE

- » Includes ArticFlex air line hose assemblies shown above
- » ABS power line rated -85°F
- » Enclosed in heavy duty, beveled edge, spiral wrap
- » Hanger Bracket Mounting Assembly included for easy suspension.
- » The ArticFlex air lines have swivel fittings at tractor end for quick installation

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PRODUCT BULLETIN

SEVERE CLIMATE SOLUTIONS

ARTICFLEX CABLE

- Specially formulated materials allow flexibility down to temperatures of -85°F (-65°C)
- Withstands the impact of rocks and other road debris at much lower temperatures
- Superior coil memory and durability
- Resistant to UV, ozone, gasoline, diesel fuel and commonly encountered chemicals
- Meets the stringent performance requirements SAE J2394
- Available as: Powercoils, Straight Cable Assemblies, Bulk Cable & in our line of AirPower Lines and Life Line Kits

POWERCOILS

- This ultra heavy duty construction is approved for new ABS system power requirements on single or multiple trailer configurations
- Meets the stringent performance requirements of the new SAE J2222 Standard.
- Excellent coil memory prevents sagging
- ***WeatherSeal*** provides a weatherproof barrier protecting critical wire connections from corrosion
- Durable Buffalo Plugs
- Robust “T-Grips” resists breakage

ANODIZED GLADHANDS

The chemicals used in today’s road salts are extremely corrosive. These magnesium chloride and calcium chloride mixtures help prevent ice build-up on the roads but they accelerate corrosion in parts used on traditional gladhands.

- Anodized aluminum cast body
- Stainless steel clamp and hardware
- Plated striker plate
- Stainless steel fine mesh screen
- Durable wide lipped polyurethane seals

Check our website or ask your Sales Rep about other Solution Products:

- ***DOUBLEDUAL*** - An industry first! Tectran’s one plug solution!
- **LIFELINE KITS** - comprehensive approach to reducing air and electrical hook-up line maintenance
- **Universal ABS Sensor Extensions** - alllow you to stock one part series and remove the plug as needed to create a straight or 90°extension

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TECBULLETIN

Federal Regulations pertaining to Air Brake Tubing & Hose & Use of Spring Guards

Periodically, a mechanic or inspector will observe that spring guards may not exist on tractor-trailer air brake hose hookup lines and will refer to FMVSS CFR 393.45.

The only excerpt from this CFR that relates to spring guard protection is as follows:

"(c) Nonmetallic brake tubing. Coiled nonmetallic brake tubing may be used for connections between towed and towing vehicles or between the frame of a towed vehicle and the unsprung subframe of an adjustable axle of that vehicle if --

(c)(1) The coiled tubing has a straight segment (pigtail) at each end that is guard at least 2 inches in length and is encased in a spring or similar device which prevents the tubing from kinking at the fitting at which it is attached to the vehicle; and

(c)(2) The spring guard or similar device has at least 2 inches of closed coils or similar surface at its interface with the fitting and extends at least 1 1/2 inches into the coiled segment of the tubing from its straight segment."

This requirement is for coiled nonmetallic tubing only and does not related to hose. Rubber air brake hose manufactured to SAE J1402 has a significantly thicker wall and is less prone to abrasion and kinking as is a nonmetallic tube manufactured to SAE J844.

This does not mean that hoses should not be properly protected from chafing, kinking and other mechanical abuse and care should be taken to ensure that hoses are properly installed and routed to prevent this abuse. Spring guards and other protective methods are available from Tectran should their use be desired.