BOOM CLEANING GUIDELINES

If you test your aerial truck's dielectric integrity annually, but don't address maintenance between tests, read this article.

Utilities have a variety of programs to maintain the integrity of their boom trucks. Sometimes overlooked is the regular maintenance and cleaning of the fiberglass boom between annual or semi-annual dielectric testing and service. **Who removes the hydraulic fluid, pine pitch, road tar, and other contaminants that build up during the normal exposure of the boom, and how do they do it?**

Dirt accumulated during normal use can affect the dielectric properties of your boom. These include road debris, salt spray, hydraulic fluid, grease, pine pitch, creosote, and more. When residue builds on the boom, water sheets out rather than beading up and running off. This pooling or sheeting of water on dirty booms can keep the booms from meeting dielectric standards and potentially pose a hazard in the field.

What does your company use to clean fiberglass booms? Common degreasers or solvents can actually harm and strip the gel coat on the boom causing weak or soft spots. Many crews have access to solvents and they know how well these solvents remove grease. They may not know the harmful effects solvents can have on the fiberglass portion of the boom arm or bucket. Some cleaners contain abrasives and leave a considerable residue. Others, like acetone, xylene, and toluene, can cause permanent damage if left in contact with the surface for too long a period. These solvents are also flammable and have other hazards. Personnel should be trained on the proper products for use on the boom and bucket areas to keep the truck in proper working order.

Mild, non-abrasive, low-residue soap in warm water is the safest way to clean your boom arms. **For the hard-to-remove dirt you need to get off before the washing, try the B-1 Boom Wipe from American Polywater Corporation.** The B-1 Wipe is a large towel saturated with a cleaner that will not harm the gel coat or leave a residue, but it does a great job on the contaminants mentioned above. The ready-to-go wipe package is easy for line personnel to keep on the truck for immediate usage. Never use abrasive pads for cleaning tough dirt areas. These pads scratch the boom and remove the protective gel coat layer.

Once your boom is properly cleaned, a good wax is in order to protect the surface and force water beading during misty or wet weather. American Polywater manufactures a specialty fiberglass wax available in pint cans or individual towelettes. All products that are used on your boom truck should be approved by the aerial lift manufacturer. Cleaners and protectants designed specifically for fiberglass booms are recommended.

Companies should follow boom truck manufacturer guidelines on the frequency of dielectric testing, proper cleaning practice, and other maintenance procedures. The ANSI A92.2-1990 Standard (Section 5.4.3) also addresses proper dielectric testing intervals and field inspections for aerial truck testing.

By following manufacturer and industry guidelines on the maintenance of boom trucks, **your aerial fleet will be safer and last longer.**

Polywater® S-1 Hot Stick Wipes Meet OSHA & the IEEE Requirements for Daily Hot Stick Maintenance

IEEE Std 978-1984

4.3 Cleaning and Waxing

Before each use, insulating tools should be wiped with a clean, absorbent paper towel or clean, absorbent cloth and followed by wiping with a silicone treated cloth.

Caution: Do not use cloths that have been washed in harsh solvents, since some residues on the cloth can be deposited on the pole surface.

If simple wiping does not remove the contaminant then apply denatured alcohol with a paper towel or clean, absorbent cloth and follow by wiping with a silicone-treated cloth. Other solvents or cleaners may be used as recommended by the manufacturers of the insulating tools.

Caution: Do not use soap detergents, liquid or powered form such as 409, Fantastic, Comet, ND-150, Bon-Ami, Ajax, etc., to clean fiberglass tools under field conditions because of the following problems:

(1) The above described cleaning agents will leave a conductive residue unless rinsed with generous amounts of water (usually not available in the field).

(2) Abrasive cleaners will destroy the surface gloss on the stick.

Note: All fiberglass tools that are subjected to such cleaning agents should be electrically tested under wetting conditions to ensure complete removal of residue from soap-type cleaners (see 5.3). Waxing is not necessary after every use of the tools but rather as needed to maintain a glossy surface that will cause any moisture or water to bead on the surface (see 5.5). Before the tool is rewaxed, to avoid a wax buildup, the pole should always be cleaned with a solvent or cleanser recommended by the manufacturer of the tools.

Waxing imparts not only a glossy finish to the surface of the fiberglass but also adds to the electrical integrity of the tool by providing a protective barrier against dirt, creosote, and other contaminants, and moisture.

OSHA Regulation

1910.269 Part J – Live Line Tools

(j)(2)(i)

Each live-line tool shall be wiped clean and visually inspected for defects before use each day.

(j)(2)(ii)

If any defect or contamination that could adversely affect the insulating qualities or mechanical integrity of the liveline tool is present after wiping, the tool shall be removed from service and examined and tested according to paragraph (j)(2)(iii) of this section for examination, cleaning, repair, and testing as follows:

(j)(2)(iii)(A)

Each tool shall be thoroughly examined for defects…1910.269(j) (2)(iii)(B)

(j)(2)(iii)(B)

If a defect or contamination that could adversely affect the insulating qualities or mechanical integrity of the live-line tool is found, the tool shall be repaired and refinished or shall be permanently removed from service. If no such defect or contamination is found, the tool shall be cleaned and waxed.

(j)(2)(iii)(C)

The tool shall be tested in accordance with paragraphs (j)(2)(iii)(D) and (j)(2)(iii)(E) of this section under the following conditions:

(j)(2)(iii)(C)(1)

After the tool has been repaired or refinished; and

(j)(2)(iii)(C)(2)

After the examination if repair or refinishing is not performed, unless the tool is made of FRP rod or foam-filled FRP tube and the employer can demonstrate that the tool has no defects that could cause it to fail in use.

IMPORTANT NOTICE: The statements here are made in good faith based on tests and observations we believe to be reliable. However, the completeness and accuracy of the information is not guaranteed. Before using, the end-user should conduct whatever evaluations are necessary to determine that the product is suitable for the intended use.

American Polywater expressly disclaims any implied warranties and conditions of merchantability and fitness for a particular purpose. American Polywater's only obligation shall be to replace such quantity of the product proven to be defective. Except for the replacement remedy, American Polywater shall not be liable for any loss, injury, or direct, indirect, or consequential damages resulting from a product's use, regardless of the legal theory asserted.

© 2022 American Polywater Corporation LIT-BOOMSTICKGUIDE/REV000

Polywater®
Solutions at work®

American Polywater Corporation
11222 60th Street N.
Stillwater, MN 55082 USA

+1 651-430-2270 Main
+31 10 233 0578 Europe, Middle East, N. Africa
email: support@polywater.com