

**Service Call:**

Maintenance of Fiberglass to Steel Joint

**Tools Required:**

Maintenance Manual

Sealant

Caulking Gun if Sealant is to be Applied

**Model(s):**

All Insulated Aerials

## Tech Tip Safety Rules



### **Danger**

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

### **Do Not Perform Maintenance Unless:**

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
  - manufacturer's instructions and safety rules
  - employer's safety rules and worksite regulations
  - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

## Introduction

Maintenance of the caulking or sealant at the fiberglass to steel joint is very important. Failure to properly maintain the joint can lead to corrosion of the steel boom section or water and contaminants wicking into the fiberglass.



If corrosion progresses, the structural integrity of the boom is affected due to a reduction in the thickness of the material.

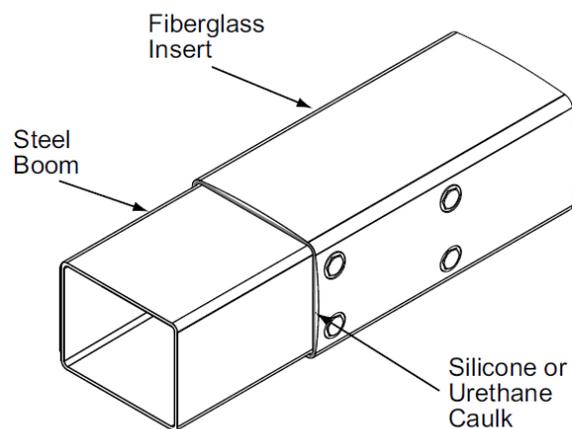
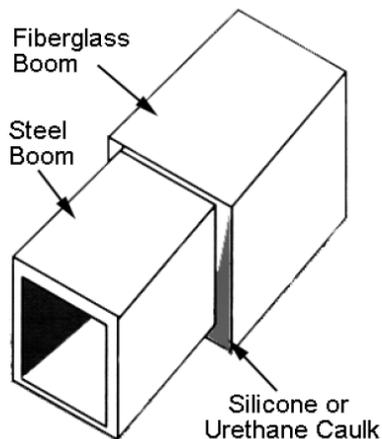


Water entering where the fiberglass is bonded to the steel can carry substances which can accelerate corrosion of the steel. In cold climates, it can freeze and cause the bond to fail.



Below is an example of the information available in the unit specific maintenance manual.

The joint at the fiberglass and steel sections of the upper boom and the lower boom insert must be sealed with a bead of urethane or silicone caulk to prevent moisture entering the joint. Clean the area and apply a bead all around. Smooth so it bonds to both the steel and the fiberglass.



**Failure to maintain the caulk seal will trap moisture so the boom tubing can rust to the extent replacement will be necessary.**

## Overview

If the corrosion is more than just on the surface and cannot be repaired in the following steps, contact Terex Utilities Technical Support at 1-844-Terex4U (1- 844-837-3948) or [utilities.service@terex.com](mailto:utilities.service@terex.com) for further instructions.

## Step 1

Remove the sealant well past any area where it has been compromised or shows corrosion. This allows for a thorough inspection of the paint or powder coat finish, steel boom section, and the fiberglass to steel area.

## Step 2

Clean steel the boom section and completely remove any rust. There are several commercially available rust removers, such as Naval Jelly or Evapo-Rust. Do not use a rust converter product.

## **Step 3**

If the area is large or has minor pitting, sandblasting will clean the boom down to bare metal, exposing the true extent of the corrosion. Contact Terex Utilities Technical Support for further analysis.

## **Step 4**

While it is clean, inspect the area between the steel and the fiberglass. There should be no gaps, crack indications in the glue, or any indication of corrosion. If there are any concerns, contact Technical Support for further analysis.

## Step 5

Prime the bare metal with a zinc rich primer, following manufacturers application and safety guidelines. This should be readily available at your local auto parts or auto refinishing supply store. Finish painting by following the top coat manufacturer's application and safety guidelines.



## Step 6

Apply caulking to the fiberglass to steel boom joint, ensuring it adheres to both surfaces. The edge of the fiberglass boom section must be sealed if the original seal is damaged.



## Step 7

The product used in manufacturing the booms is 3M Polyurethane Adhesive Sealant. It has been found to perform better than silicone products.



## Part numbers:

3M: 62791

Grainger: 4YDH4