

# *The Most Common Maintenance Issues With Fiberglass Booms*

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## **1. Not keeping the boom clean inside and out**

A dirty boom does not shed rain as well and can fail periodic dielectric tests.

## **2. Cleaning with harsh abrasive cleaners**

Abrasives and solvent cleaners are not recommended as they can scratch or soften the surface coatings. There are a number of cleaners designed for cleaning booms, such as Polywater's line of products, or you can use soap and water. Consult the service department of your manufacturer for their recommendations.

## **3. Washing with high-pressure water**

Pressure washing can cause water to diffuse through the fiberglass requiring elevated temperatures or extended time to dry out. Wash by hand and park the boom in a position that allows water to drain. A boom dielectrically tested while it is still wet can cause permanent damage.

## **4. Surface cracks due to weather, age or improper paint preparation**

These kinds of problems will require refinishing. However, refinishing the exterior of the booms without masking the interior can cause paint overspray to settle on the inside. Our research has shown that this overspray will trap moisture and prevent water from beading on this rough, sandpaper-like surface. This moisture can then lead to failed dielectric tests.

## **5. Dielectric testing over 1mA (1000 micro-amps) return current**

High leakage can harm the boom by causing it to burn. If, during your dielectric test, you reach a return current close to 1000 micro-amps, stop the test immediately and examine the boom for a hot spot. Examine the boom for any contamination such as: dirt, moisture, sticks or other debris. Let the boom cool and remove the contamination. (Dirt or moisture can cause the fiberglass to be burnt beyond repair.)

## **6. Overloading**

Even if the boom does not break, overloading can cause stress cracks and shorten the life of the fiberglass boom. A single overload can shorten a booms service life by months or years. A boom used at the rated load can remain in service for many years.

## **7. Not strapping down the boom during travel**

Subjecting a boom to repeated jolts can shorten the life of the fiberglass. This shock loading will fatigue the fiberglass and can create impact damage in the area of the boom rest.

## **8. Cable cuts and saw cuts**

Cuts can weaken the boom in the specific area of the damage. Consult the manufacturer before

repairing this type of damage.

### **9. Sunshine and ultraviolet radiation**

Sunlight and UV can attack an unpainted area of a fiberglass boom causing the exposed area to look fuzzy as the fibers are exposed. Repair surface scratches, to seal out the sun and moisture, to prevent this problem. Watson has a written procedure and instructions on refinishing an insulated fiberglass boom which can be requested by email at [watson@watsoncoatings.com](mailto:watson@watsoncoatings.com)

### **10. Improper repairs**

Using substandard material and improper repair procedures can cause a host of problems. Periodic surface repair that involves the outside coating is very common, but appropriate materials and procedures should be followed to ensure the repair is performed correctly. Structural repair should be referred to the manufacturer for a case-by-case study. Examples of structural damage include: cracks, cuts, delamination and impact damage from tree limbs or tools, and is typically identified by frayed or cut fibers in the boom.

### **11. Improper Storage**

Storing fiberglass booms in direct sunlight, untarped or uncovered, or directly on the ground are all examples of improper storage which could cause blistering and dielectric failure. Improper storage could also void the warranty. Storage of booms should always be off the ground for air ventilation and away from direct sunlight. Please see our Storage Recommendations document for more info on correct storage practices.

