

Tubing Inspection

Solution

Aluminum Tubing Inspection
For Telescoping Poles

All new tubing received should be given at least a minimal inspection before attempting to telescope the tubes together, and remove any damage found. Aluminum is a soft metal which can easily be damaged through shipping or mishandling along the way. Minor damage is relatively easy to correct.

Damage below the tubing surface is not a problem, but damage which occurs above the surface can rub on the opposing surface as it passes. This creates a furrow, much like a farm plow would create in a field. Like a plow, the tip pushes down into the surface, but it also throws up material on both sides of the contact point. This is a new defect which creates a new contact point for the next time the tube is inserted. These defects can accumulate; eventually, the tubes can lock together. For telescoping poles, free movement is critical.

Visual Inspection:

Look over all of the external surfaces, locating any dents, dings, scratches or other defects which may cause problems. For minor damage, you may be able to use a metal polish to remove it. For larger damage, use scouring pads or light sandpaper, then use steel wool and, finally, polish. Lubrication allows easier assembly, but be aware that it is a very large attractor for dust, dirt, and other foreign objects.

Tactile Inspection:

Sometimes the sense of touch is more accurate than sight in finding defects. If you hold the tube in your hand and slide it gently, you can feel any bumps or scratches. These can usually be buffed out with polish or a fine grade steel wool.

Special Inspection:

If the tubing has slots cut into it, or holes drilled, you should remove any sharp edges from inside the tube to prevent new scratches. A screwdriver can remove most of the larger defects, but a burnishing tool or a rounded nutdriver edge can make a much smoother appearance. A screwdriver tends to create new damage due to the sharp edges. Another location to inspect for sharp edges is on the inside and outside rims of the tubing, on both ends.

Rub the tubes with a clean cloth to remove any dust on the outer surface. For the inside surface, there's not a lot that can be done, but look inside with the far end lit up to see if there are any major defects. Take a clean cloth and push it all the way through the tube and out the far end. This should remove any loose dirt and metal particles.

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