

## Repairing Damaged E-LAM® Laminated Wood Poles

### General Information

Although E-LAM® poles are built to last, various types of damage can occur during normal handling. For each, LWS recommends a certain method for repair.

The most common type of pole damage is cosmetic rather than structural. Normal handling will produce gouges, small splinters, and scuffs that do not require any kind of repair. Likewise, minor damage that occurs below the ground line does not need repair.

When LWS engineers determine that above-ground damage is merely cosmetic, they will likely recommend that the loose wood fiber simply be removed

with a draw-knife or similar tool. The photo below shows minor damage to a corner that has been shaved off.



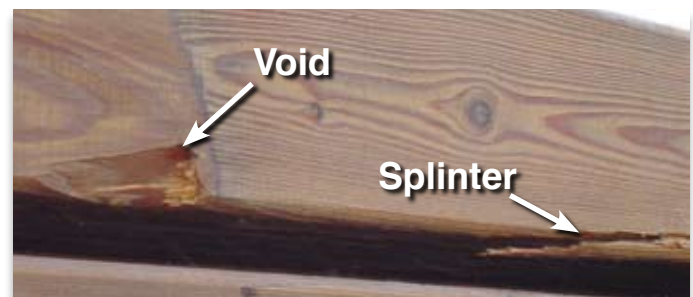
### Most Common Types of Repairable Damage

Listed below are the most common types of damage that can occur to E-LAM® poles during normal handling and installation.

**GOUGE** – Gouges are usually caused by forklift forks, pole grabs, or choker chains. They typically result in slight separations of wood fiber.

**SPLINTER** – Splinters are often more severe than a gouge. They usually occur when forks catch the corner of the pole and begin to split the wood fiber but the wood remains attached.

**VOID** – Voids (missing chunks) can be the most severe type of damage. They result from severe gouges or splinters where the wood fiber is torn from the pole completely.



**ATTENTION:** Do not attempt to make repairs on E-LAM® poles until LWS engineers have evaluated the damage and have recommended the proper method of repair. Use the Pole Damage Assessment Sheet on page 4 of this bulletin to provide LWS an accurate description of the type and extent of damage.

# Repair Procedures

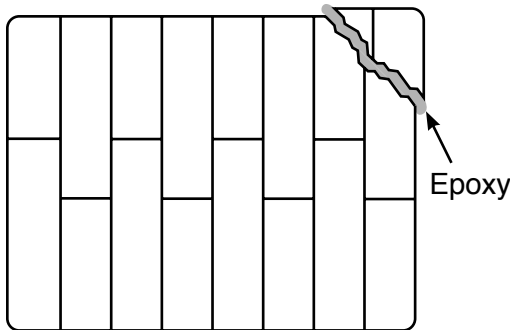
Listed below are the basic steps required and tools needed to fix two of the most common types of repairable damage. Depending on the size and extent of the damage, the amount of epoxy to be applied and the number of tension straps needed will vary.

## Tools Needed

- Two-Part Timber Repair Epoxy Glue
- Dual Barrel Applicator Gun
- 3/4" Wide Ratchet Straps, 6'-10' Long
- Cardboard
- Duct Tape
- WD-40 Spray
- Putty Knife
- Brown Spray Paint

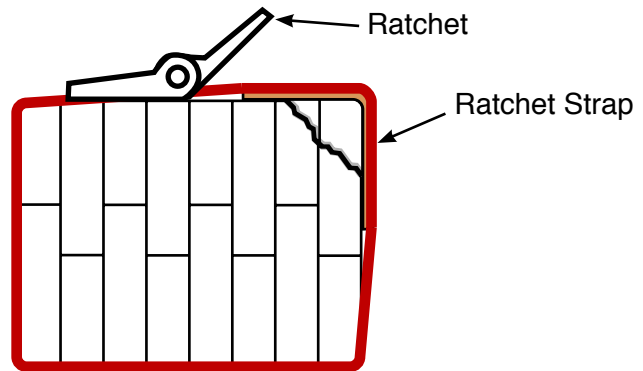
### Splinter Repair – Step 1

Gently pry the splintered piece away from the pole. Then inject a liberal amount of bonding epoxy into the gap.



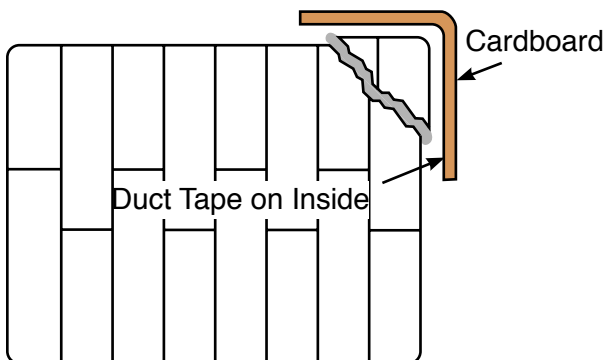
### Splinter Repair – Step 3

Attach ratchet straps every 12" along splinter and tighten as tight as possible. Scrape off excess epoxy and allow to set until completely hardened.



### Splinter Repair – Step 2

Apply duct tape to one side of a small piece of cardboard (approx. 4" x 7") and coat the tape with WD-40 oil. This cardboard will serve as "non-stick" protection for the ratchet strap.



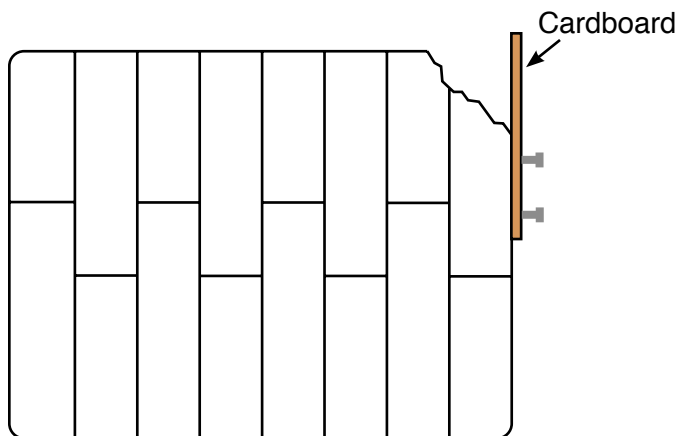
### Splinter Repair – Step 4

Remove the ratchet straps and spray brown enamel paint on the repaired area.



## Void Repair – Step 1

Measure the damaged area and cut a rigid piece of cardboard (or similar material) several inches larger than the damaged area. Cover one side of the piece of cardboard with duct tape and spray the taped side with WD-40. Temporarily secure the cardboard to one side of the damaged area as shown with nails or staples.

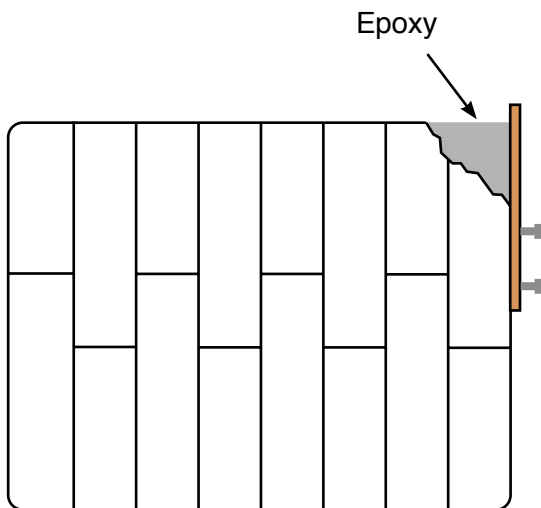


## Void Repair - Step 3

Allow the epoxy to cure until completely hardened then remove the cardboard, nails and staples. Spray paint the repaired area with brown enamel paint.

## Void Repair – Step 2

Fill the void area with epoxy and smooth with a putty knife. If necessary, give the cardboard additional support with duct tape, as shown in the photo above right.

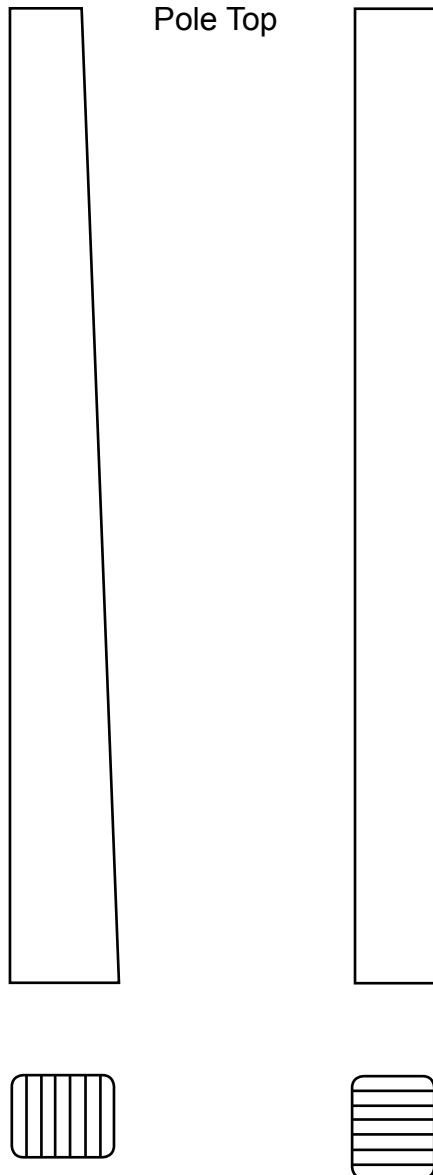


**NOTE: After repair is complete, always remove all nails and/or staples from the pole.**

# Pole Damage Assessment Worksheet

By providing our engineering department with detailed information on the nature of the damage, we can assess the structural damage, if any, and recommend the appropriate repair procedure.

Indicate the location of the damage and also the location of any pre-drilled holes (if near the damage) on the diagram below.



Indicate the location and depth of the damage on the section diagrams above.

NAME: \_\_\_\_\_

COMPANY: \_\_\_\_\_

PHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

### POLE INFORMATION

Pole size & class (from the tags located on the pole and pole butt). Example: PEL-H1-90

\_\_\_\_\_

#### STEP 1

Take photos of damaged area(s) on pole.

#### STEP 2

Indicate what type of damage it is:

Gouge    Splinter    Void

#### STEP 3

Where is the damage:

Corner of Pole    Face of Pole

#### STEP 4

Measure length and depth of damage and note on diagram at left.

#### STEP 5

Measure the location of the damage from the top of the pole down and illustrate on diagram at left.

#### STEP 6

Measure the width and depth of the pole at the location of damage:

