

This memo concerns the screw holes for the screws that fasten the classic Lido 14 mast hinge to the deck of the boat. It is not unusual for the screws to work loose, for the screw hole to become enlarged, or for the screws to be torn completely out. In the end, it's often necessary to repair the screw hole.

Background

Depending on how tight (or loose) you rig your shrouds, the mast may lean hard against the hinge which will tug the screws upward – stripping the hole in the process. The ability of the screws to tear out is actually quite important on the Lido 14. If the mast were to fall sideways (which occurs for a variety of preventable reasons), the hinge should be allowed to easily tear away from the boat and to "go" with the mast. A hinge that is too firmly attached to the boat will result in damage to the hinge, the mast, and perhaps the boat itself. For this reason, **the only fasteners that should be used to hold the hinge to the boat should be #10 Stainless Steel Tapping Screws - preferably with oval heads - with a length between 1.5" and 2"**.

Steps for Repairing a Stripped-Out Mast Hinge Screw Hole

1. Remove the mast hinge
2. Drill out the stripped hole using a 3/8" diameter drill. You're drilling into a Douglas Fir 2x4 piece of lumber - so the wood is moderately soft. It's not unusual to find that the wood is somewhat rotted- you'll be able to tell by the shavings that come up out of the hole. That's of little concern. Do not drill all the way thru the wood - just a bit more than what you'll need for the length of the screws you will be installing.
3. Prepare a piece of 3/8" wood dowel so that it is about 1/8" shorter than the hole depth. The wood need not be special - most dowel material available in hardware stores (e.g. Ace Hardware, The Home Depot) seems to be a low grade softwood. And that's OK. DO NOT use hardwoods (e.g. oak) as the difference in hardness between the original deck beam wood (Douglas Fir) and the dowel will present a problem if you end up relocating the hinge and find out that you need to drill near the edge of the dowel.
4. Place masking tape all around the hole location to prevent glue from getting onto the boat to make clean up go easier.
5. Wet the walls of the hole and the dowel with glue. Gorilla glue and epoxy are both excellent choices.
6. Tap the dowel into the hole so that the top of the dowel is flush with the deck. The glue is likely to splatter or squirt a little.
7. Let the glue cure
8. Clean the deck area as necessary. This may include removing any old potting material that was used to help hold the hinge to the boat and it may include trimming excess dowel that sticks up above the deck.
9. Install the mast hinge. Do not use any material (glue, potting compound, sealant) between the hinge and the boat.
10. Mark center of the hole where the dowel has been installed
11. Remove mast hinge
12. Drill a 1/8" pilot hole at marked location to the full depth of the screw to be installed.
13. Install mast hinge using fresh screws. Again, DO NOT use any material (glue, potting compound, sealant) between the hinge and the boat. DO NOT glue the screws into the holes.

Need a Short Term Fix?

Inserting toothpicks, matchsticks, or similar pieces of wood into an enlarged hole - optionally with a bit of glue - or using #12 size screws are acceptable short term fixes.

Multiple Screw Holes?

If you elect to do repair/service more than one hole, it's a good practice to leave at least two functioning holes intact to allow you to relocate the hinge. If you were going to treat all four holes, I would recommend treating two diagonally opposite holes at a time. If treating multiple holes, it's a great time to evaluate the exact placement of the mast hinge and determine if it should be relocated slightly - it's not uncommon to find that the hinge could/should be moved to improve the position of the mast.