

KEEL STRIP INSTALLATION INSTRUCTIONS

For 10" and 8" Keel Strips on Long Haul MKII and Klepper All and AI model kayaks.

THOROUGHLY READ ALL DIRECTIONS BEFORE BEGINNING. FOLLOW DIRECTIONS EXACTLY TO AVOID DAMAGING HULL/KEEL STRIP. THIS IS AN EXACT PROCESS. PROCEED SLOWLY AND ACCURATELY, UNDERSTANDING EACH STEP BEFORE YOU START. ERRORS CAN RESULT IN PERMANENT HULL DAMAGE.

SAFETY NOTES:

- **Use eye protection while using chemicals and solvents.**
- **Use light rubber gloves while holding keel strip during attachment.**
- **Use heavy rubber gloves when using solvents.**
- **Solvents/rubber cement are highly flammable. Use in a well-ventilated area with no ignition sources.**
- **Recommended solvents include toluene, acetone, methyl ethyl ketone (MEK), and white camp fuel.**

Installation Notes:

- These directions assume there is no keel strip currently on the kayak.
- This process should be done under a roof, with no direct sunlight, and in a temperature range of 55 to 90 degrees Fahrenheit.
- Recommend low humidity for proper application and drying.
- Call Mark Eckhart, Long Haul Master Boat Builder, with questions at 970-856-3662. Good luck!

Preparation:

1. Assemble boat with the hull equally aligned on the frame. Make sure the bow deck seam is centered on the bow deck bar.
2. Place the boat upside down on a work surface that is the proper working height for you while standing.
3. Roll the keel strip out on the bottom of the boat.
4. Align the keel strip so it equally overlaps the bumpers approximately 4" on each end.
5. Locate the keel strip end on top of each bumper and make a pen mark on the top of the bumper down onto the hull rubber. Set keel strip aside.
6. With Klepper bumpers use a heat gun to soften old bumper glue roughly 1 inch past your pen marks on the bumpers. Heating the glue is critical to ensure bumper material does not tear.
7. Gently pull the bumper away from the hull and lay the bumpers back onto themselves and tape down.
8. Remove all old glue from the hull and bumpers using a recommended solvent.
9. Place new keel strip onto the hull and align it down the center of the hull. Tape in place.
10. Trace keel strip down both sides lengthwise and around ends with an ink pen to mark placement.
11. Remove new keel strip and set aside.
12. To prepare hull to accept keel strip, sand area inside pen lines only with 60 grit sandpaper just until the hull rubber has lost its sheen.

13. Wipe hull rubber clean with solvent and stick masking tape 1/8" beyond the outer edges of the ink lines.
14. Use solvent to clean off all dust from the hull.
15. After the hull has been cleaned, roll out keel strip on the hull and clean the white surface of the new keel strip with solvent.
16. Flip keel strip over and clean rubber side with solvent.
17. Roll up keel strip with white side out and place in a plastic bag to keep strip clean and in a roll.

Installation:

1. Apply first coat of Long Haul rubber cement to sanded surface of hull. Let dry 10–15 minutes.
2. Apply second coat to hull and let dry 5-10 minutes.
3. DO NOT APPLY RUBBER CEMENT TO KEEL STRIP MATERIAL.
4. Hold keel strip in one hand rolled up. You will bond white surface of keel strip to the hull.
5. CAREFULLY ALIGN KEEL STRIP BEFORE ALLOWING IT TO TOUCH THE HULL. CORRECT INITIAL ALIGNMENT/CONTACT IS CRITICAL AS ONCE CONTACT IS MADE KEEL STRIP WILL ADHERE TO THE HULL.
6. If keel strip becomes misaligned during application and you pull it off the hull to reset, you MUST reapply cement to any hull areas that have lost cement BEFORE you reset the keel strip on the hull.
7. Unroll a 10" – 12" length of keel strip. Starting at the end with white side down, using the masking tape as your guide, pull roll to create tension and slowly adhere strip to glued area on the keel, maintaining tension as you apply.
8. Press keel strip down lengthwise, hand-smoothing the keel strip with lengthwise strokes moving from bow to stern.
9. Next, make a second pass down the center of the 10" – 12" length of keel strip. Use the same lengthwise motion with a hard, smooth, rounded object, only between the stringers (avoid the edges of the keel strip). Long, lengthwise strokes from bow to stern will force air out of from underneath avoiding air bubbles and wrinkles.
10. Repeat steps #7 - #9 in 10" – 12" lengths until entire keel strip is applied and pressed down firmly.
11. Using the hard, smooth object make short, right-angle strokes from the center of the keel stringer to the edge of the keel strip.
12. If any air bubbles are present, gently stick a pin into bubble to release air then press down to seal.
13. Once keel strip is applied, lay bumper ends back over the keel strip and trace edges with a pen.
14. Sand inside of tracing with 60 grit sandpaper and wipe clean with solvent.
15. Apply 2 coats of Long Haul rubber cement to the inside of the bumper and hull section, 20 minutes apart then roll the bumper back onto the hull and press to secure.