

Installation procedures for application of the 10” wide keelstrips for Aerius I and II

NOTE: It is very important that the following procedures be followed to assure proper adhesion of the keelstrip to the hull.

THINGS YOU SHOULD KNOW AND FOLLOW BEFORE GETTING STARTED

- ** The Long Haul Keelstrips must be applied to the hull using a neoprene based rubber cement.
- ** If you are using a cement that was purchased from someone other than Long Haul Products it is recommended that the cement and a sample of keelstrip be tested before application of full keelstrip is undertaken.
- ** Temperature at the time of application should be in the 65 degree to 90 degree Fahrenheit range.
- ** High humidity can adversely affect the adhesion process.
- ** Application should always be done in a well ventilated structure.
(REMEMBER: Solvents and rubber cements are **FLAMMABLE. Application of these products should only be used in areas that are free of any type of ignition source.**
- ** Two major problems associated with keelstrip installation on older hulls are:
 1. The hull is stiff, brittle and cracking or
 2. The hull has large areas of delaminating*Either one of these problems makes installation of keelstrips impractical.*

Items you will need for installing your keelstrips:

- 1-10” keelstrip
- 1-Ink pen
- 1-Hard object to press down on keelstrip
- 1-Heat gun
- 1-2” paint brush
- (Toluene solvent)
- (Multiple clean cotton rags)
- 1-Full half a day, don't try to cut corners.
- 1-Qt. Neoprene Cement

(If you are installing a complete set of keelstrips 1-10” and 2-2.5” , you will need more materials than listed above).

Installation Steps:

1. Assemble the boat and inflate the air-sponsons so the bow deck seam runs down the center of the bow deck bar. This assures proper alignment of the hull on the frame.
2. Set the assembled boat with the hull facing up on tables or saw horses.
3. Using a heat gun, pull up the bow and stern rubber stems. Both ends should be pulled back approximately 6”. Lay the bumpers over onto themselves and tape down.
4. Unroll the keelstrip on to the hull with the bow end of the keelstrip on the bow end of the

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- hull. (The keelstrip is marked with either bow or stern)
5. Mark a short center line on the end of each keelstrip. Align the center marks up with the bow and stern wood pieces. You can feel the bow and stern wood pieces through the hull. The keelstrip will lie under the rubber stems about 5-1/2” on each end. Tape the keelstrip to the hull in the proper position.
 6. Take a ink pen and mark the hull on the ends of the keelstrip, a mark that corresponds with the center marks that you made on the keelstrip ends and a short mark along both edges of the keelstrip about every 10” .
 7. Remove the tape from the keelstrip and hull. Flip the keelstrip over so the adhesive surface faces up. Wipe the entire surface of the keelstrip with a damp cotton rag soaked with Toluene. Let the solvent evaporate from the keelstrip. Roll the keelstrip up starting at the stern end. The rubber surface should be rolled to the inside, the adhesive surface will be showing when the strip is rolled up.
 8. Put the rolled up keelstrip back into its plastic bag.
 9. Sand the rubber hull with 50 grit sandpaper. Sand beyond your pen marks about 1/8” . Your hull has a shine to the rubber, you want to sand the rubber to the point that you can no longer see the shine of the rubber. Sanding the rubber is a very important part of the preparation, so don't skimp on this job!
 10. Wipe the hull clean with rags soaked with toluene solvent.
 11. Do not allow your pen marks on the hull to vanish after sanding and cleaning. You may have to remark these pen lines if they become faint.
 12. Apply masking tape along your pen lines on the outer edge. Apply the tape about 1/8” beyond your marks. Tape is applied to the hull so you do not have a lot of extra glue beyond the keelstrip.
 13. Apply one coat of neoprene cement to the hull. It is important that the cement be applied evenly to the hull. Let the first coat sit for 30 minutes.
 14. Apply second coat of rubber cement to hull. Let this coat sit for approximately 10 minutes. Before the keelstrip is applied make sure there are no wet spot of rubber cement. Cement should be tacky but not wet and stringy to touch.

Application of the keelstrip must be done using the following techniques.

1. Your keelstrip is rolled so you start the application at the bow.
2. Hold the rolled up keelstrip in one hand. (This hand you should have a rubber glove on, so you do not touch the surface with your skin).
3. With your other hand, touch the keelstrip to the glued surface by aligning the mark on the end of the keelstrip to the marks on your hull. The first contact should be about the size of your thumb print. Lay the keelstrip edge that is on your side of the boat onto you first mark along the hull.
4. Keep the far edge of the keelstrip lifted up so it does not come in contact with the hull.
5. Unroll the keelstrip slightly and stick the keelstrip to your second mark on your side.

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6. Now start to lay the keelstrip down on the opposite side of the hull.
7. Lay the edge of the keelstrip onto the hull one mark at a time, and then lay the opposite edge down as you move down from mark to mark.
8. As the keelstrip is being layed down, you want to use a hard object to press the keelstrip down onto the hull between the keel stringers. This motion should be from front to rear forcing out air between the hull and the keelstrip.
9. After the keelstrip has been layed down take your hard object and press down every square inch of keelstrip to assure proper bonding.
10. When the keelstrip has been completely pressed down, lay the bumpers back onto the hull and trace around them where they need to be re-glued. Sand the keelstrip and hull with 50 grit sandpaper. Clean hull with solvent and remove any old rubber cement from the rubber stems with a rag soaked with solvent.
11. Tape the rubber stems back over onto themselves.
12. Apply two coats rubber cement to the hull and rubber stem, following the same gluing guideline from before--from keelstrip.
13. Once the application of the glue has been properly completed, roll the rubber stems back onto the hull and press down firmly with the hard object used previously.
14. Allow the keelstrip to cure for at least 24 hours before disassembling the boat or folding up the hull.

The main problem associated with loss of adhesion of the keelstrip to the hull is improper folding techniques.

Follow these simple, but useful guidelines.

1. Lay hull out flat.
2. Fold hull from the outside edges toward the middle, make sure not to fold on the edge of the keelstrip. Try to leave at least 1” away from and keelstrip edge.
3. Fold from bow or stern end in towards the middle of boat, you will want to go in about 2-1/2 to 3 feet in on each fold. When folding the stern end of boat in, make sure to place padding in between rudder bracket and the deck of boat.
4. When folding boat in towards the middle, make sure that no fold is on bumper either.

REMEMBER THE PROPER STORAGE TECHNIQUES

1. Always complete dry the hull before it is folded and stored away.
2. Outdoor storage of your folding kayak will destroy your boat, even with the best of intentions.
3. The best storage for your boat is folded up in a cool, dry, dark place.
4. If you have been out in saltwater, make sure to rinse off your hull and frame with fresh water and let it dry out, before storing.
5. Remember, mice like to build nests with high quality cotton material.
6. Temporary storage outside or car topping your boat, you should consider our Long Haul Kayak Cover.

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