

Simple Way to Install a Lifiable Floorboard or Casting Deck in a Boat (without using a fixed underlying support structure that tends to interfere with access to the compartment)

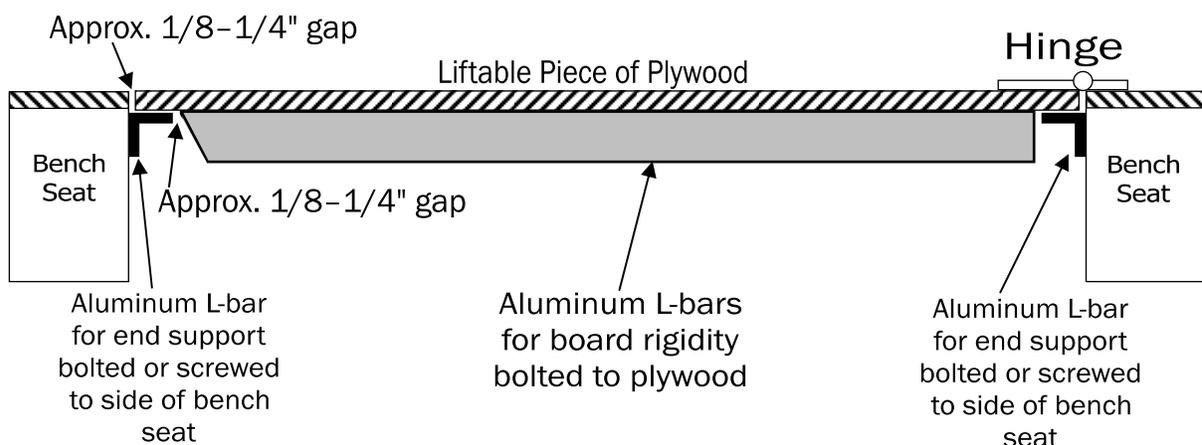
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Occasionally a visitor to my boat conversion web page (at correllconcepts.com) asks me how I made the liftable bow (casting deck) board and liftable floorboards in the boat, which happens to be a Lund SSV-18. They ask for drawings, which I don't have. And they request more photos, but all the photos I have of the boat are already on the web page.

So, I decided to create a short explanation of how to install a simple liftable floorboard or bow casting deck board in a basic aluminum fishing boat. By the way, this is not the exact way the liftable floor boards were installed in my Lund SSV conversion. The reason is, I didn't discover this method until after I had nearly completed the installation of the liftable floorboards. I did, however, use this concept for the liftable bow deck board. So the actual installation of the liftable floorboards in the Lund SSV-18 is more complicated than this. After I discovered this method I "kicked myself in the butt" for not realizing it earlier, and thereby making my conversion job easier.

So, here's the simple way to create a liftable floor or deck board in your aluminum boat. Drawing and explanation is on the next page. The drawing shows how a liftable deck can be installed in the span between two bench seats.

Side View



- 1 - The plywood can be any thickness you like. I used 3/8" marine plywood on my Lund SSV-18 conversion, to keep weight to a minimum. But most guys would probably opt to go with at least 1/2" plywood.
- 2 - The aluminum L-bar for the end supports can be 1"x1"x1/8" thick. Or, if you like they can be larger than that. They should be firmly fastened to the vertical side of the bench seat, or to some other strong-enough surface. Bolting is preferred but if bolting can't be done, large screws with lock washers will probably work.
- 3 - The aluminum bars that run end-to-end under the plywood can be whatever size you deem safe. Probably nothing smaller than 1.5"x1.5"x1/8" thick should be used. For greater rigidity, use 2"x2"x1/8" thick bars. For super (overkill) rigidity, use 2"x2"x1/4" bars. Also, if you need a super-rigid bar but can only find 1/8" thick bars (and not 1/4" thick), or can only find 1.5x1.5" bar (and not 2x2" bar), you can create your own super-rigid bar. Simply bolt two L-bars together, creating what results in a single super-strong T-bar.

Bolt (don't screw) the bars to the underside of the plywood. Use a lock washer, or better yet, nylock bolts. I used 1/4"-size bolts, which is what I would suggest. I used stainless steel but if you'd like to save money use regular zinc bolts. If you'd like to have a "finished look" use the bagel-shaped finish washers on the top side (between the bolt head and the plywood). Or, use flat-head bolts and countersink

them into the wood so the head of the bolt is flush with the plywood surface. Either way works and, in my opinion, both look fine.

Also, if you cover the plywood with vinyl you can attached the aluminum bars to the plywood and then apply the vinyl afterward, thereby covering the bolt heads. But, be aware, if you do this you won't later be able to access the bolts without first removing (a piece of) the vinyl. For this reason I opted to attach the aluminum bars after installing the vinyl. I used the bagel-shaped finish washers, and it looked fine. By the way, I would suggest getting your fasteners with a phillips-head, as opposed to a slot head, for two reasons: (1) phillips is easier to install and (2) it looks better if the bolt or screw head happens to be exposed.

Install an aluminum L-bar near each (left and right) edge of the board, and then "fill in the middle" with perhaps two or three more bars, all of them running parallel, end-to-end. The number of bars you need to use will depend on (a) the size of the board, (b) the thickness of the board, (c) the size of the L-bars, and (d) the size of the load that the board must carry.

If you'd like to gauge how many bars will be needed, you can set up a test. Install the two outside-edge bars and then place the board on the pavement with some bricks (or boards) at each of the two ends, with the bricks underneath the edge, and raising the entire rig off the pavement. These bricks should be positioned to simulate the aluminum end-bars in the boat (that will be attached to the bench seats), OR if the aluminum end-bars are already in the boat, just temporarily place the board in the boat. Then stand on and walk on the board. Notice how much it flexes in the center. Then decide how many (if any) additional L-bars you need to install in the middle of the board to give it greater rigidity. After installing any additional L-bar(s), re-test the board again using the same method as before. Basically, the "trade-off" is between size of L-bars vs. number of L-bars. The larger the bars the fewer that are needed; or the smaller the bars the more that are needed.

When bolting the bars to the underside of the plywood, place a bolt near each end

of the bar, no farther than **1-inch** from the end of the bar. Then fill in the middle with two or three more bolts.

The drawing shows the opening end (or left end) of the L-bar having a beveled end (non-square end). This isn't absolutely necessary, but it ensures that the end edge of the L-bar clears the end support bar when the floor panel is opened and closed. I also think it looks better than a square end, but of course that's a trivial point.

- 4 - Install two hinges on one end of the plywood. Since the hinges are only for raising the liftable floorboard, and don't hold any load, you can use screws to fasten the hinges to the board and to the bench seat. But, if it's possible to use bolts, I would suggest doing so.
- 5 - For something to grab for lifting the board, install a handle, or eye-bolt, or just drill a hole in the board. Or, you can install the turn-buckle-like handle that many boats have for their hatch covers. You likely can obtain it from a boat dealer, or from Cabela's or Bass Pro (cabelas.com or basspro.com). An advantage of the turn-buckle-like handle is it secures the board in the down position, which can have benefits, especially if the plywood panel that you're using is slightly warped.
- 6 - If you plan on mounting a seat base to the board, you'll probably want to install a "hold-down" device at each of the two corners at the opening edge of the board (at the end opposite the hinge end). This keeps the board firmly in place when fishing in rolling waves. Of course, the "turn-buckle-like handle" described in paragraph 5 above could serve this purpose if two were installed.
- 7 - If you have an option on which end of the board to place the hinges (front edge vs. rear edge) I would suggest putting them on the front edge, so the board could never catch the wind during trailering and flip the board open. Or, put latches on the opening edge of the board.
- 8 - If you didn't want to incur the cost of using aluminum L-bar, you could probably do this installation with plywood and 2x4s. But, of course, it would be heavier.

- 9** - If you're going to be mounting a seat onto the floorboard or deck board, you might give consideration to positioning two of the underlying aluminum L-bars so that at least one bolt on each of the left and right sides of the seat base goes through both the plywood and an L-bar. Or, in place of doing that, you might give consideration to having a small piece of additional plywood (say, 12"x12") attached to the underside of the floorboard where the seat base will go, so that the bolts for the seat base extend through a double-thickness of plywood.
- 10** - The drawing on page 2 shows installation for a deck board. But the installation for a floorboard is nearly identical, except that instead of the board being aligned with the tops of adjacent bench seats the board would now be positioned below the bench seat tops, or a few inches above the bottom hull of the boat. The hinges would then be connected to the top edge of the board, as shown in the drawing, but the butt end of the hinge would now be attached to the vertical side of the bench seat (as opposed to the top of the bench seat).
- 11** - Lastly, I've given you my best thoughts on how to do this. These thoughts are based on my personal experience. I'm quite sure you can make it work for your boat, but I provide no guarantee or assurance that it will work in your situation or in your boat. Meaning, you bear all risk and responsibility for the results of this project. In closing, I pass on this suggestion: Whenever you come to a decision involving two or more options, and you don't know for sure which one to take, I suggest you consider opting for the one that will provide the greatest measure of safety down the road.

I wish you the best with your installation project, and hope it results in many happy times on the water.