

# Roof Racks

Photo #1



These cradles are designed to hold your kayak on its side on your roof racks so you are able to carry more boats on edge. In this explanation, we have fitted the parts for use on a Yakima roof rack system. You can adapt the information to work for you and your system.

To build your own J-cradles, you will need to determine which forms from your boat plans are closest to the shape that you will need on your roof racks. Measure the distance between racks on your vehicle and determine where on the boat the rack will be fitting. Find the forms that come the closest to these distances.

Cut 4 – 5 pieces of a hardwood around  $\frac{1}{4}$  in thick on your table saw. We have used ash in these photos. They should be long enough to wrap half way around the two forms that you have chosen from centerline on the deck to centerline on the hull.

Photo #2



Steam the four or five pieces in a steam tube for at least 20 minutes and then quickly remove and bend around the two forms and clamp overnight.

## Photo #1

The next day you can remove the pieces from the form mold and glue the pieces together with epoxy. Wood glue is not recommended since the pieces are likely to get wet on the roof of your car unless you completely seal with epoxy and/or glass. **Photo #2**

Photo #3



After the two cradles are glued up, clean up all the edges and plane smooth. From another piece of hardwood (1 in. thick by 2 in wide), cut a piece about two feet long. This piece will form the bottom edge that will sit on your roof rack bar. Cut four support pieces that will span the gap on the sides **Photo #3**. Glue the four pieces together with epoxy and also set a few good wood screws through the pieces and up through the bottom for extra strength.

You can choose to make your own mounting brackets from wood, but we suggest it is just as easy to purchase the pieces from your roof rack manufacturer. **Photo #4** Drill holes making sure you have enough room to turn the large wing nuts.

Photo #4



Photo #5



Once you brackets are finished, seal all the wood with several coats of epoxy to protect them from water damage.

Glue on some dense closed cell foam with industrial contact cement for padding **Photo #5**. You are ready to mount them on your vehicle.

Whenever you carry a kayak on your vehicle, make sure you have adequate straps over the boat and stern and bow lines to your bumpers.

The J-Cradles not only save space on your roof for more boats, they definitely show off your boat as you drive down the highway.