



Yacht Cradle Assembly Instructions

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These instructions are based on the Atlas cradle design principle, some cradles vary in small respects, but the assembly principles remain the same. Two people should be able to assemble a four leg cradle in about 1/2 hour. Assembly by one person is possible.

Tools / Facilities required

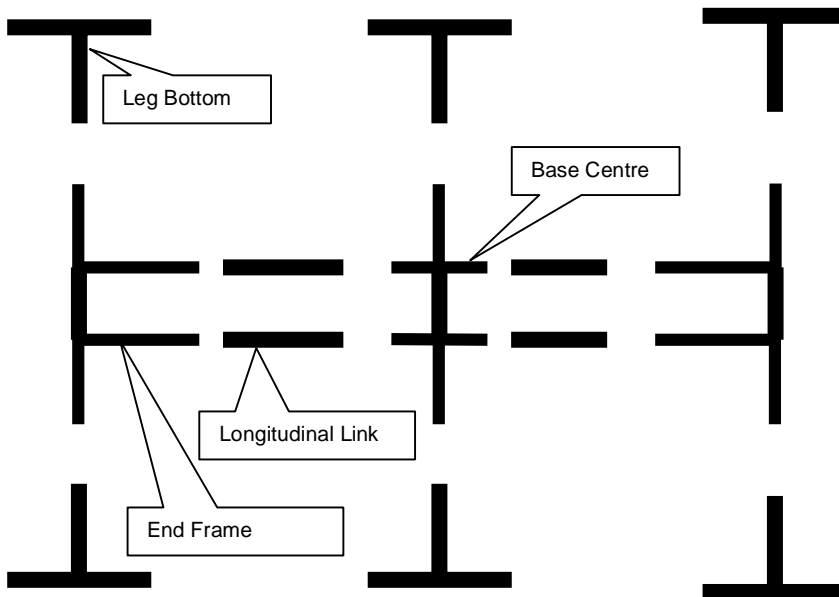
- Piece of reasonably flat ground of sufficient size
- Large Hammer
- Bulk of timber
- 24 mm A/F Socket and wrench or Spanner
- 2 x 30 mm A/F Spanner / Socket with wrench
- Good quality grease

Stage 1

Check that you have all the parts. Layout the base components on the ground as shown.

The illustration is for a 6 leg cradle. 4 leg cradles have a base joiner instead of centre base.

The number of each of the components shown varies according to the cradle specification required.



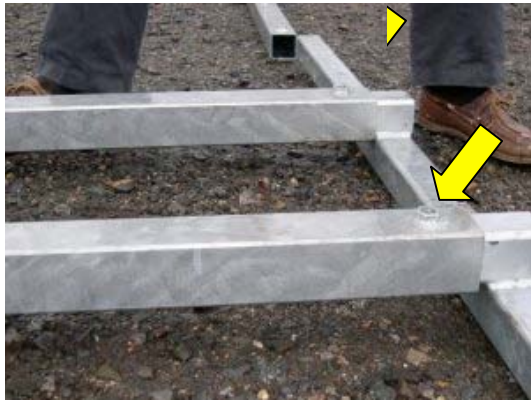
Stage 2

Fit longitudinal links over spigots on end frame on both sides.

Repeat this assembly process for all Longitudinal links to end frames and base joiners.

The weld nut and the hole in the spigot must line up for insertion of the retaining screw. Firm blows with a large hammer USING BULK OF TIMBER TO PROTECT END FRAME may be required.





Stage 3

Ensure that the weld nuts (arrowed) line up with the hole in the frame spigot below,



Apply grease to the short M16 screws supplied and fit them to the weld nuts shown above and tighten until the screw head reaches the weld nut.
Note the locating hole in the spigot is designed to be a tight fit to the nut so some resistance is to be expected.



Stage 4

Now each of the leg bottom sections can be fitted over the transverse links.

Placing a chock (axe handle in picture) under the transverse link will assist.

The weld nut needs to be precisely located over the appropriate (see table below) locating hole in the transverse link. Gentle tapping as shown helps.

IMPORTANT the same hole each side of the cradle must be used.

Hole Location	Cradle Width	Note
Outer	4.5 M	BMIF recommends that for yachts laid up with mast removed that the cradle width should be a least equal to the maximum vessel beam. For yachts laid up with mast stepped the cradle width should at least 1.25 times the vessels maximum beam. Base extensions can be supplied to enable use by yachts up to 4.5 M (14'6") beam to be laid up with mast stepped.
Middle	3.8 M	
Inner	3.0 M	



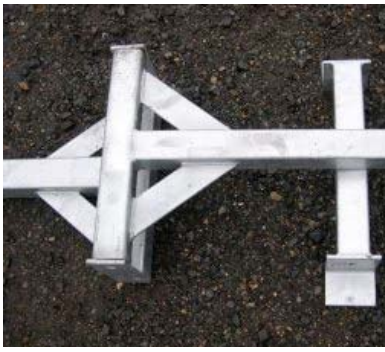
Once fully aligned insert and screw down a greased short M16 screw.
The standard range of Atlas Cradles covered here are not suitable for yachts with a draft greater than 2.0 Metres.



Stage 5

The picture shows the middle leg section ready to be fitted to the leg bottom using the long pin shown.

This picture shows how one of the keel supports is inverted and used to support the mid leg to aid the lining up of the leg pivot holes. The pin is then inserted in the direction shown by the arrow.



Once inserted the long pin is retained by the clip as shown.



Stage 6

Once the pin has been inserted the mid leg can be swung over to the storage position as shown, this position is ideal for storage as it enables cradles to be stacked. Note the upper leg section (not shown) can be left in position for storage.



The nut and bolt are removed from the rigging screw and the thread is greased. The rigging screw is then fitted in place as shown.



Grease is applied to the rigging screw threads and the rigging screw screwed in and out to distribute the grease.



Stage 7

The upper leg is inserted into the mid Leg and a small pin passed through the hole in the mid leg and one of the holes in the upper leg (see laying up instructions) and secured by the clip shown.

The tube of the pad assembly is inserted into the upper leg.

The cradle is now ready for setting up to accept the yacht.

IMPORTANT – If your yacht is being placed on the cradle by a boat yard or other party these instructions must be made available to the people concerned. In all cases the individuals undertaking the work must be competent in the required skills.

The following requirements are not specific to Atlas Cradles they should be followed for all types of cradle.

Stage 8 – Setting up cradle and laying up yacht.

1. The cradle must be free from physical damage that may impair strength, must be free of structural corrosion and be complete as supplied. Parts from different cradles should not be mixed.
2. The cradle should be positioned on firm reasonably level ground.
3. The position should be as sheltered as possible.
4. Again where possible the boat should be pointing into the prevailing wind.
5. The cradle base transverse sections must be adequately supported by the ground, any areas where there is a significant gap between the base and the ground must be packed with good quality supporting material. With the cradle empty there should be no perceptible movement if this section is stood upon.
6. Prior to placing the yacht in the cradle it is a good idea to approximately set up the legs, to do this :-
 - a. Set the base width according to the table in stage 4.
 - b. Estimate the beam at waterline level of the yacht at each leg position.
 - c. Set the angle of and the extension of each leg to the approximate beam + 200 mm and the top of the pad to waterline level.
7. The keel supports must be located close to the leading edge, and close to the trailing edge of the keel but at a position that is secure if minor movement occurs.
8. The yacht should be placed centrally in the cradle.
9. The keel supports must transfer all the displacement of the yacht to the base rails. The legs purely provide resistance to rolling, pitching and wind forces.
10. For boats with wing keels or other types that do not fit within the base rails suitable chocking must be provided.
11. For normal fin keels chocking must be provided to eliminate the possibility of sideways movement of the keel during high side winds.
12. Setting up cradle legs is critical. The leg is far stronger in compression than in bending.
 - a. Legs should never be set at an angle to horizontal of greater than 60 degrees.
 - b. The rigging screw should be tightened sufficiently to prevent movement of the yacht, but not over tightened as this will induce bending stresses.
13. Yachts with a high draught to keel ratio (Racing Type Yachts) are particularly vulnerable to high winds, for such yachts additional fore and aft centre line support should be considered (See atlas accessories).
14. Where possible yachts should be laid up with masts un-stepped, however if this is not possible windage should be reduced as far as possible by removing sails, covers, spray hoods and other high windage items.
15. Further precautions should be taken for yachts laid up in known exposed positions.
 - a. Cradle leg bracing chains should be used (See atlas accessories).
 - b. The yacht should be secured to strong ground anchor points to toe rail or straps completely over the superstructure.