

Cradle Standards, NCYC

1.3.4 Mandatory Minimum Design Features, Maintenance Standards and Best Practices for all cradles include:

Frame and Structure

- 1.3.4.1 a frame of steel construction and structurally sound as judged by the Cradle Committee;
- 1.3.4.2 minimum of four supporting adjustable pads to allow for minor adjustments of the hull over the cradle, located as close as possible over the axles to ensure the cradle wheels will not lift off the tracks. A maximum distance of 2' fore and aft of the axles will be permitted, depending on vessel size;
- 1.3.4.3 strapping or retainers for the supporting adjustable pads to ensure the pads remain in their desired location and inclination during the haul-out process;
- 1.3.4.4 two bow and two stern vertical post guides, extending above deck level and braced for rigidity, to allow correct positioning of the vessel, by hand, during haul-out;
- 1.3.4.5 the vertical guide post spacing or cradle structure is not to be greater than 12" larger than the boat's maximum beam;
- 1.3.4.6 a keel guide and a keel stop, for all sailboats and power boats with keels, to ensure that the floating boat is positively guided to its correct location over the cradle;
- 1.3.4.7 a "preventer" rail or other mechanism to keep the cradle from falling more than 12" in the event of a derailment;
- 1.3.4.8 bow and stern horizontal tongues, of 0.5" min. plate thickness, securely welded, with 1.3/16" plus or minus 1/16" diameter holes to accommodate shackle pins for both the up-haul cable and downhaul rope, located at a minimum height of 7" above the top of the rail;

Wheels and Axles

- 1.3.4.9 "floating axles" that are restricted from moving horizontally but are free to move vertically 1.5" plus or minus 0.5" at each end to conform to the irregularities of the tracks and to ensure that the wheels remain in contact with the track at all times;
- 1.3.4.10 should more than two axles be used, the load carrying capacity of all axles is to be equivalent to the capacity of either axle of a two axle cradle;
- 1.3.4.11 a maximum wheelbase of 11.5' to accommodate the club transfer car;
- 1.3.4.12 a wheel gauge (spacing between the outside of the wheel flanges) of 71.5" plus or minus 0.25";
- 1.3.4.13 all wheels are to have one flange. Existing cradles with double flange wheels will be allowed;
- 1.3.4.14 all wheel bearings must have provision for lubrication;

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Miscellaneous

- 1.3.4.15 the boat is to be placed on the cradle to ensure proper weight distribution on the cradle as judged by the cradle committee. For most boats, the boat's weight should rest on its keel. The adjustable pads are only intended to stabilize the boat;
- 1.3.4.16 a submersion mark on one of the forward vertical post guides to assist in determining the proper submersion depth for the cradle at haul-out;
- 1.3.4.17 fore and aft references of boat to cradle, consisting of marks on the vessel gunwale, adjacent to each of the 4 vertical post guides, for positioning of the vessel on haul-out. It is also advisable to have recorded distances between the gunwale and the 4 vertical post guides, for the purpose of centering the boat;
- 1.3.4.18 identified with boat name;
- 1.3.4.19 painted white, including post guides, and repainted to cover rust as needed;
- 1.3.4.20 whenever adjustments to the cradle are made, field testing under load should be done during the regular boating season before Labour Day so as to avoid delaying haul-out by other members during the busy haul-out season after Labour Day;
- 1.3.4.21 all cradles will be inspected on a 3 years cycle by the Cradle Inspection Committee.

jrg: 18:50, Mar 3/09