

LUCAS OIL DRAG BOAT RACING SERIES

CAPSULE INSPECTION

Note: this is only a guide for drivers and crews to check over their capsule.

1. Insure that both **SFI** stickers, **BLUE** on the capsule, **RED** on the lid, are attached and current. (rule 10.2 pg 73 - Capsule) pre 1997 capsules may not have the red sticker contact tech@lucasoildragboats.com for info

2. Remove seat, air bottle and any other loose equipment. Clean and vacuum interior.

3. Lid:

- a. Check Lid to Capsule fit, for smoothness and alignment. If necessary, sand and fill to assure smoothness, to prevent hydrolyzing between lid and capsule body.
- b. Inspect and lube hinge assy. Check mount welds for cracks, and for wear or sloppiness on hinge pins. Replace as needed.
- c. Check all **cables, including Emergency Capsule release** for proper installation and function and freedom of movement. Replace any that bind. Clean and lube all moving parts. (rule 10.5 pg 74 – Breakaways 10.5 pg 78 – External Capsule Release)
- d. Check **latch assy.**, for proper adjustment. **Capsule should latch properly without pushing release handle over center to lock.** Check all associated hardware for wear and cracks, replace and lube as needed. Inspect latches for any signs of modifications, (including but not limited to: welding on grinding or filing) from OEM. (original equipment manufacturer). Inspect alignment pins for gaps (this indicates that the lower half of the cage is settling down, and causing misalignment of the latches)

4. Roll Cage:

- a. Inspect all welds for rust and cracks. Chipped paint or coating should be resealed. Uncoated tubing shall be painted or coated to prevent corrosion. Note: powder coating impedes crack detection (pay attention to lower welds and seat bottom)
- b. No open ended tubes. All tube ends need to be capped and welded.
- c. Check throttle pedal stop or bracket that prevents throttle from going over center
- d. Check safety collars (2) on steering shaft
- e. Insure that minimum grade 5 bolts are used on attachment points on cage and lid, and that a minimum one (1) thread is showing through any nuts.
- f. Check roll cage mounting brackets. Older ones were made of mild steel and have a tendency to flex or bend, causing misalignment of pins and latches. Recommend

that bottom of frame rail be supported by spacer to support frame and not allow misalignment.

5. Canopy (Windshield):

- a. Inspect polycarbonate windscreen for cracks and delaminating. If any found, contact a SFI certified manufacturer for replacement, or for tolerances allowed
- b. **NOTE: no tinted windscreens allowed...if tinted, they need to be replaced! Rescue needs to see inside if submerged.**(rule 10.9 pg 76-Interior)
- c. Nuts/Screws may be stainless or plated. Canopy fasteners to include a steel minimum .090" or aluminum minimum .187")washer, between the lid and locknut, with a radius facing the on the outside edge, to prevent punch through. Mount screws in the apex of all corners (rule 10.27 pg 81-Windshield)
- d. Windshield attached using adhesive, screws and nuts, and gap between shell and windshield sealed. (rule 10.27 pg 81 – Windshield)

6. Capsule Body/ Shell:

- a. Check for any delaminating and cracks. Repair as needed.
- b. Check all holes where the wires, cables steering, etc., pass through, that they are only large enough for the component passing through. Any larger gap should be covered by a min 3/16" plate (may be split) attached with a min. four (4) grade 8 bolts/screws
- c. **Seat belt mounting-** make sure that mounts, shoulder spacing, and belt wrapping, and location, **meets the manufactures specifications, and installation instructions.**

Consider using a **6 point harness**. We've had injuries to the middle pelvic area, with the 5 point harnesses.

- d. **Seat Belts-** check your SFI expiration dates. All belts must be of a SFI 16.1 specification. 2 year recertification. (rule 10.17 pg 78 – Seat Belts)
- e. **Seat:** Pour in seat is mandatory. Before pouring seat, make sure driver is comfortable, in their sight lines, and helmet clearance. For information on pouring seats, contact tech@lucasoildragboats.com (rule 10.15 pg 78)
- f. **Pinger:** check pinger battery date (shelf life), and voltage. With two voltages available, it will help to label voltage on pinger. Also it is a rule that boat# be

labeled on pinger. (Pinger needs to be accessible for testing) (rule 10.12 pg 77- Locating Device).

- g. Air Tank:** Check VIP (Visual Insp. Cert.- due annually) & DOT (Hydrostatic Inspection – due every five (5) years) on air supply tank(s). Your local tank air filler has to check this, before filling your tank(s). (Ok if bottle is out of Capsule for Safety Insp.) Mount must be ¼” alum. or 1/8” steel, with 360 degree ‘cup’ to hold base (bottom) of tank. ¼” ‘push to release pin (rule 10.3 pg 73)
- h. Capsule Bottom:** Make sure bottom and 2” on sides and rear are painted bright yellow. If Capsule is yellow, a 4” red ‘X’ is required on bottom (rule 10.14 pg 77)
- i. Exterior Capsule Release:** check for “Rescue” decal (rule 10.19 pg 78)
- j. Latch Pins** must be a minimum of ½” dia. & ‘push to release’ (pg 38)
- k. Mounting:** 5/16” grade two (2) bolts, no washers, located top 1/3rd of stringer (rule 10.13 pg 77)
- l. Lifting Eyes:** Four (4): one forward of lid, one rear top of Capsule, one on each side above deck. All lift rings must be attached to frame. (rule 10.11 pg 77)

7. Floatation:

Rule 10.7 pg. 75

There is no room here for error. **“All capsules must have sufficient floatation to keep the capsule floating even when completely filled with water.”**

“All floatation, must be attached, bonded, or installed in such manner as to render the floatation virtually impossible to remove.”

“No bolts, clamps, etc. may be used to hold the floatation in place. No peanut or block foam will be allowed.”

If you are not sure if your capsule has sufficient floatation, contact a capsule manufacturer for more information. (rule 10.7 pg 75)

Note: One (1) cubic foot = 55lbs floatation support

one cu. in. = .509 oz “ “

12 cu. in. (1” x 12” x 12”) = 4.5 lbs of floatation support