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Safety Inspection Training Handbook

The driver should have filled out the inspection sheet, and their safety equipment, laid out. Capsule boats should have their pinger and air bottle accessible, and inspection cover for steering disconnect off. Flat bottoms, also need the plate pedal disconnect cover off.

DRIVERS EQUIPMENT:

1. **License** (pg 27) /**Med-i-Tag** (pg 25)
 - a. Required for **all** drivers (medi-tag only for **PWC, RR, ME, SE**)
Check: expiration date-(2years Jan1-Dec31)

2. **Helmet** (pg 70)
 - a. **Snell 2000** (good thru 2011 season) **or newer**
 - b. **Open face** helmets require goggles, or shield
 - c. PWC requires minimum DOT
 - d. **Full Face required** for all Capsule drivers (pg 70)
 - e. **Restraints required** for all drivers **except PWC, RR.** SFI 38.1 (pg 71)
 - f. **Collar or HANS type** device required in Capsules (SFI approved) (pg 71)
Check for: Snell date, cracks, worn or ripped straps, interior padding, and faceplate attachment.

3. **Life Jacket** (pg 72)
 - a. Open boats: Racing Type Jacket - 100 mph and quicker
 - b. PWC & RR require a minimum Coast Guard Approved torso jacket
 - c. Re-certification: Parachute Jackets-2 years. All others- 3 years
Check: re-certification date, and for any, rips, tears, or worn straps

4. **Drivers Suit** (pg 72)
 - a. Required for all boats that use, **Alcohol, Nitro or Nitrous, and for boats 100 mph or quicker**
 - b. All other drivers (**except PWC**), are required to wear long sleeved shirts, pants, socks and full cover shoes.
 - c. **Sanctioning Patch:** located on left or right chest for Pro Drivers
Check: for wear, tears, and closed wrist & leg cuffs

5. **Ballistic Pants** (pg 70)
 - a. Required for all **open boat** drivers running **11.99** seconds or quicker and PWC's that run 70 MPH or faster **Recommended for all open boat Drivers**
 - b. **Check:** for tears, rips at seams.

6. **Gloves** (pg 72)
 - a. **Fire retardant gloves** required for all open boat Drivers, running Alcohol, Nitro,

or Nitrous.

7. **Radio Receivers/earbuds** (pg 68)
 - a. Required for **all** drivers (**except PCW**)
8. **Capsule Dunk Certification** (pg 79)
 - a. Required every four years
9. **Fuel** - enter type of fuel used

BOAT EQUIPMENT:

1. **Throttle Stop** (pg 70)
 - a. Incorporated at foot pedal, that will prevent cable or linkage binding and over-centering of butterflies.
2. **Battery Cut-Off Switch** (pg 63)
 - a. Located on **positive cable** side.
 - b. **“OFF”** position clearly labeled.
 - c. Decal indicating location (lighting bolt)

Check: operation of switch
Consider: That switch be located with-in reach of drivers left side.
3. **Crankcase Catch Can** (pg 63)
 - a. Catch can to reserve any blow-by.
 - b. Oil separator required on header systems
 - c. Vacuum recovery systems allowed
4. **Throttle Return Springs** (pg 69)
 - a. Quick action springs: single carb - minimum two(2) springs, multiple carbs – minimum one spring per carb, injector hats - minimum one spring on each side connected to the butterfly shaft arm. **Spring ends must be looped.**
 - d. Ensure that spring is not connected to cable side of attach point
5. **Bell Housing (and Flywheel Cover)** (pg 79)
 - a. If using **“car type”** clutch, cover must be a minimum steel (4130, Titanium, Hydro steel, or SFI approved aluminum.
 - b. All others; 360 degrees, made of production cast aluminum.
6. **Harmonic Balancer** (pg 65)
 - a. 1 piece. If 2 piece (stock) must be enclosed in steel cover
7. **Drive Line Guard / Loop** (pg 64)
 - a. Open boats: 360 degree, from V-drive/Jet-drive to flywheel/clutch cover
 - b. Not required on Capsule boats, or Jet boats using splined couplers
8. **Cavitation Plate Linkage** (pg 62)

Check: Linkage and plate bolts for tightness

9. **Bolts** (pg 62)
Check: that a minimum 1(one) thread is showing. Also check ny-locks for cracking. (**NOTE: Ny-locks are designed for one-time use**)
10. **Blower Restraints** (pg 61)
a. TFH, TAH, TAF (TFJ, TAJ, BAH) recertification every two (2) years
b. all others - recertification every four (4) years
c. not required on blown gas
11. **Fuel Shut-off(s)** (pg 65)
a. required on all supercharged and injected engines
Check: operation and that travel hits stops. If air operated: check return springs (2)
12. **Steering** (pg 69)
a. 3/16" min. cable, 1/8" min. on exposed unblown Jet boats
b. Double clamps on all cable ends
Check: Left, Right and center travel, steering wheel/mount secure, cables taunt
13. **Rudder** (pg 68)
a. No Chrome or rudders w/chrome removed
b. All Hydro rudders must extend a min to bottom of prop
c. Through hull rudders require safety collar
Check: rudder bushing play
14. **Bow Eye(s)** (pg 62)
a. forward Bow Eye on all boats
b. Hydros/Pickle Forks require additional Bow Eye: forward, left sponson
15. **Rope Deflector** (pg 65)
c. Required on all boats
d. Secured at both ends Capsules: slip joint at capsule
16. **Parachute(s)** (pg 80)
a. Required on all Pro Class Hydros
b. TFH requires three (3) chutes, TAH two (2) chutes
Check: parachute release & operation (two separate systems)
17. **Boat, Tow Vehicle & Trailer #'s** (pg 62 - 63)
Boat - displayed on both sides of boat contrasting in color
a. Single set: 4" tall, mounted above valve covers contrasting in color
b. Dual set: 3" tall, mounted above valve covers, 6" tall on sides
Tow Vehicle -
a. 3" white on upper corner of front and rear passenger side windows
Trailer -
a. 3" white on right rear of trailer (black, if trailer is white)
18. **Trailer Safety Chains** (pg 69)
a. required on all trailers
Check: that they are being used

19. **5# Fire Extinguisher** (pg 65)
 - a. located in rear of tow vehicle and easily accessible
20. **Series Sponsor Decals** (pg 63)
 - a. **LODBRS** and supporting sanction body decals on both sides of boat
21. **Equipment Secure** (pg 59)
 - a. all equipment (paddle, primer bottles etc) secured or tied down
22. **Bilge Pump** (pg 60)
 - a. must be electric - If automatic, must have manual override
 - b. **Check:** On and off operation

JET BOATS:

1. **Ratchet/Pop-Off Valve** (pg 66)
 - a. Ratchet required on all jet boats 8.99 sec and quicker
 - b. Pop-Off valve required on 7.99 sec and quicker

NOTE: Both can be used
2. **Pump Loader** (pg 68)
 - a. all jet boats are required to have a Pump Loader
 - b. Loader secured w/ **four (4) 5/16" grade 8 screws, two (2) of which must be drilled through and secured w/nuts.**
3. **Pump Hardware Secure** (pg 59)

Check: all mounting and system(s) operating gate for secured mounting, and that nothing is hanging below the intake except the side rails.

PROPELLER BOATS: (hydros, flatbottoms, outboards)

1. **Prop Shaft(s)** (pg 67)

Check: minimum dia.
2. **Safety Collar(s)** (pg 69)
 - a. Flatbottoms: one (1)
 - b. Hydros: two (2)
3. **Neutral Device** (Engagement/Disengagement) (pg 64)
 - a. a device making it possible to engage or disengage propulsion device, while the engine is running.

4. **Prop Shaft Release (Whiraway)** (pg 68)
 - a. Required on all propeller boats **except TFH - Check:** Operation
5. **Propeller** (pg 67)
 - a. no chrome, coated, brass, or aluminum allowed (hinders crack detection)
 - b. hub must be with-in $\frac{3}{4}$ " of the strut barrel
6. **Prop Nut** (propeller) (pg 67)
 - a. Lock nut, castle nut, or double nut, with minimum $\frac{1}{8}$ " cotter pin
7. **Strut** (propeller) (pg 63)
 - a. no chrome, coating, brass, or aluminum allowed (hinders crack detection)
8. **Paddle** (optional) (pg 67)
 - a. Securely mounted, within easy reach of driver

CAPSULE BOATS

1. **SFI Canopy & Capsule Certification** (pg 73)
 - a. lid is red (97 and newer).....write down ser# (**note: no tinted windshields that would hamper Rescue seeing into underwater, allowed**)
 - b. capsule is blue.....write down ser#
2. **Dunk Certificate (Capsule Orientation)** (pg 79)
 - a. due every four years
3. **Air Supply - VIP/DOT Dates** (pg 73)
 - a. tank must have current (calendar year) visual insp. cert. (VIP) (annually) and hydrostatic (DOT) (5 year) stamp on tank.
4. **Mask/ Regulator (Air Supply)** (pg 73-74)
 - a. must have visible pressure gauge
 - b. pressurized or on demand life support system
5. **Coupler/T-Fitting (Air supply)** (pg 73-74)
 - a. a manufacturer installed quick release coupler system must be used
Check: face shield to helmet and neck sock to helmet seals
6. **Air Tank Hold Down (Air Supply)** (pg 73-74)
 - a. quick release bracket ($\frac{1}{4}$ " aluminum or $\frac{1}{8}$ " steel)
 - b. 360 degree 'cup' type holder on base (bottom) of tank mount
 - c. $\frac{1}{4}$ " 'push only' quick release on forward end of mount
7. **Air Pressure (Air Supply)** (pg 73-74)
 - a. high press: 2,800 – 3,000 PSI
 - b. low press: 1,900 – 2,000

8. **Pour-In Seat** (pg 78)
 - a. mandatory - **No One Race Exemptions**

9. **Seat Belts** (pg 78)
 - a. recertified every two (2) years
 - b. minimum 5 point system (think about a 6 or 7 pt)
 - c. no **“push to release”** latches allowed

Check: certification date, condition of belts and proper installation.

10. **Pinger Voltage (Locating Device)** (pg 77)
(**accessible for testing**)
 - a. required in all capsule boats
 - b. two types of batteries: 7.4v (6v min.) & 3.2v (2.66v min)
 - c. Boat number and battery voltage should be on battery

Check: battery type and voltage

11. **Drivers Cage Padding (Interior)** (pg 76)
 - a. installed around head hoop and supports in the roll cage assy.

(Note: There is no rule regarding Drivers Helmet Head Clearance. Recommend 2” top and side clearance)

12. **Floation: Capsule - Hull** (pg 75)
 - a. sufficient floation to keep capsule/hull afloat even if full of water
 - b. floation must be securely attached, and not removable

13. **Canopy Latching / Fit (Capsules)** (pg 76)

Check: for gaps that may allow water to hydraulic the lid open

Check: that latch system works (driver should not have to “set” handle)
recommend that Driver also check system after launching

14. **Latch Pins** (pg 77)
 - a. min. ½” dia.; ‘push only’ to release

Check: operation of Pin removal (if ‘bimba’ is used, check with ‘bimba’ engaged)

15. **Break-Away Connections and Cables** (pg 74)
 - a. all cables and hoses must be a breakaway design. One-piece allowed if using RBR type cable holders.
 - b. air system fuel shutoffs allowed, as long as return springs (2) are used

Check: Steering (all) and Plate (Flat bottoms) slip disconnects, no cavitation plate rods running through capsule, steering box has anti rotation bracket.(pg69)

16. **Capsule Mounting** (pg 77)
 - a. max of four (4) 5/16”grade two (2) bolts, no washers, located top 1/3 rd of Stringer.

17. **Lifting Eyes (Clear)** (pg 77)
 - a. Four (4) eyes: one on top of Capsule, one fwd of lid (must be in sight, or visible through an inspection cover) and one on each side, above the deck.

Check: all eyes are clear, and free of obstruction

18. **Exterior Lid Release** (pg 78)
Mandatory **No Exemptions**
 - a. check for location decal (Rescue)
19. **Fire System** (pg 75)
 - a. Gauge visible, minimum of two (2) single or one (1) multi-orifice nozzle, directed at each side of engine
 - b. 10 lb. minimum bottle size
20. **Capsule Bottom Painted Yellow (Paint)** (pg 77)
 - a. Bottom and 2" up side and back
 - b. If Capsule is yellow in color, a red 'X' four (4) inches across on bottom

BLOWN BOATS:

1. **Restraints** (pg 61)
 - a. Roots type: min 14.1 straps – Alcohol, Nitro 14.21 - Nitro (bag)
 - b. Screw type: 14.21 (bag)
 - c. Not required for Blown Gas - need to be current if installed
2. **Insp. Date** (pg 61)
 - a. TFH, TAH, TAF – 2 years all others - 4 years
3. **Fuel Shut-Off(s)** (pg 65)
 - a. Required on all blown and I fuel injected boats
Check: Operation, and that travel hits stops. Air operated: check springs

MISC. EQUIPMENT:

1. **Tow Vehicle- Trailer #'s** (pg 62)
 - a. Boat class and number on passenger side of front and rear windows, min of 3" Tall, white in color, 3" white (black) on right rear of trailer
2. **5# Fire Extinguisher** (pg 65)
 - a. Located in rear of tow vehicle and easily accessible
3. **Trailer Safety Chains** (pg 69)
 - a. Required on all trailers
Check: that they are being used
4. **Series Sponsor(s) Decals** (pg 63)
 - a. **LODBRS** and sponsoring sanction body decals on both sides of boat
5. **Equipment Secure** (common sense) (pg 59)
 - a. **Check:** that all mounted equipment, wiring and hoses are secure
6. **VERIFY ENGINE KILL SWITCH** (pg 67)