

# Table of Contents

Rule 1.0 ADMINISTRATION AND GENERAL RULES .....	1
Rule 2.0 MEMBERSHIP.....	3
Rule 3.0 RACING CLASSES & STRUCTURES .....	4
Rule 4.0 RACING FUELS.....	6
Rule 5.0 WATER SAFETY .....	7
Rule 6.0 POINTS CHAMPIONSHIP SERIES .....	9
Rule 7.0 COMPETITION RULES.....	11
Rule 8.0 BOAT SAFETY EQUIPMENT – GENERAL .....	16
Rule 9.0 DRIVERS SAFETY EQUIPMENT – GENERAL .....	23
Rule 10.0 CAPSULE BOAT SAFETY EQUIPMENT.....	25
Appendix A Definitions & Terms .....	1
Appendix B IHRA OUTLAW DRAG BOAT RACING SERIES.....	1
Appendix C Fees and Fines .....	1
Appendix D Unlimited Outboards .....	1
Appendix E CAPSULE LATCH SPECS .....	1
APPENDIX F RUDDER CLAMSHELL SPECS .....	1
APPENDIX G WINDSHIELD ATTACHMENT SPECS.....	1
APPENDIX H CAPSULE ALIGNMENT PINS .....	1
APPENDIX I SFI SPECS & RECERT. REPORTS.....	1
INDEX .....	1

*As of October/8<sup>th</sup>/2025*

# IHRA OUTLAW DRAG BOAT RACING SERIES

## Rule 1.0

### ADMINISTRATION AND GENERAL RULES

#### 1.1 General Rules

The rules and/or regulations detailed in this Rule Book are designed to provide for the orderly conduct of racing events and to establish minimum acceptable requirements for such events.

These rules shall govern the condition of all events, and, by participating in these events, all participants agree to comply with these rules. These rules are intended as a guide for the conduct of the sport and are in no way a guarantee against injury to or death of a participant, spectator, or official.

**1.1.1 Disclaimer of Warranty.** NO EXPRESS OR IMPLIED WARRANTY OF SAFETY SHALL RESULT FROM PUBLICATIONS OF/OR COMPLIANCE WITH THESE RULES AND/OR REGULATIONS.

**1.1.2 Interpretation and Enforcement of Rules.** Interpretation and enforcement of these rules is at the discretion of the IHRA president and/or IHRA officials. Any situation not specifically covered in these rules will be addressed at the discretion of the IHRA president and/or IHRA officials. The IHRA president or his officials shall be empowered to make changes to any rule or specification contained within. Furthermore, the president may impose further rules or specifications as necessary for the fair, competitive, and safe conduct of events.

These rules are in addition to (i) all other rules, regulations, memoranda, resolutions, policies, procedures, guidelines, interpretations, and directives of IHRA, including membership terms and conditions, license terms and conditions, track rules, and any sponsorship agreements (ii) all applicable laws, codes, ordinances, orders, policies, rules, regulations and requirements of any applicable governmental authority, and (iii) any applicable permits, approvals, consents or licenses related to or required for any event. In the event of any conflict or inconsistency between these rules and the provisions of any other IHRA rule, IHRA has sole and absolute discretion to resolve such conflict or inconsistency.

#### 1.2 General Safety and Waivers

**1.2.1 Assumption of Risk.** DRAG BOAT RACING IS AN INHERENTLY DANGEROUS SPORT. Each driver / participant assumes that risk when he or she participates in an IHRA event. Participation in motorsports has a significant risk of permanent injury or death that cannot be fully mitigated or eliminated. Members are required to advise their family members of this risk. Any person who (i) participates in a racing event (as a driver or other on-track participant) or (ii) attends a racing event as a spectator, fan, visitor, or otherwise ("Participant"), understands and acknowledges that there are certain risks involved, including, but not limited to, concussion, serious injury, death or permanent disability, contact or collision with other persons, vehicles, or objects, head injury, spine injury, injury to the muscular or skeletal systems, injury to internal organs, scratches, bruises, contusions, strains, sprains, fractures, verbal abuse, loss and/or damage to sight, loss and/or damage to teeth, loss and/or damage to hearing, paralysis, inadequate or negligent first aid or emergency measures, weather-related hazards, and natural hazards. The foregoing risks may arise from, among other things, high-speed driving, collisions, mechanical failures, track conditions, and the actions of the drivers. Participant acknowledges and agrees that he or she is voluntarily participating in such activities or attending such events with the knowledge of the dangers involved and agrees to assume and accept all risks of such participation or attendance.

**1.2.2 Racing Facilities.** IHRA does not take responsibility for the adequacy of the racing facility, safety personnel or equipment, or conditions at any track hosting an IHRA Drag Boat event. All Participants are obligated to inspect the racing facilities, safety personnel and equipment, and conditions of the track on a continuing basis before and during each event. Participants are obligated to inspect, observe and promptly report any concerns with the facilities, safety personnel / equipment or conditions of the track to IHRA officials.

**1.2.3 Racing Equipment.** Participants are responsible for the safety of their race cars and racing equipment and are obligated to perform their duties (whether as an Owner, Driver, or crew member) in such a manner to minimize the risk of injury to themselves and others. Neither IHRA, IHRA officials, nor any track are responsible for the adequacy or safety of a competitor's race car, racing equipment, or racing activity.

**1.2.4 Waiver.** Any Participant is required to sign IHRA and Track waivers before entering the pits and/or competitor's area. In exchange for being allowed to participate in or attend a racing event, on behalf of themselves and each of the other Releasors (as defined below), hereby releases and agrees not to sue IHRA and each of its respective affiliates and employees, officers, directors, direct and indirect owners, sub-contractors, sponsors, business partners and agents, and all other participants, operators, vendors, agencies, sponsors, advertisers, and owners and lessees of premises used in connection with or related to any boat racing related event or activity (collectively, the "Releasees") from or for, as applicable, all present and future liabilities, claims, and causes of action of any kind, whether at law or in equity, that may be made by the Participant or the Participant's family, estate, heirs, or assigns (collectively, the "Releasors") arising in any way as a result of or in connection with the Participant's participation in a racing event or associated activities, attendance at an IHRA event or associated activities, or use of any membership benefits, including but not limited to actions for property damage, personal injury, or wrongful death. Participant understands and agrees that the Releasees are not responsible for any death, injury, or property damage arising out of participation in the racing event, EVEN IF CAUSED BY THEIR OWN NEGLIGENCE.

**1.2.5 Indemnification.** Participant also agrees to defend, indemnify, and hold harmless Releasees for all liabilities, claims, damages, causes of action, costs, and expenses of any kind arising out of or in connection with the Participant's participation in the racing event, attendance at an IHRA event, or any and all related activities. Participant understands that this release and indemnification is intended to be as broad and inclusive as permitted by the laws in which the event or activity is taking place and agrees that if any portion of this release is invalid, the remainder will continue in full force and legal effect.

**1.2.6** Participant expressly waives all rights under Section 1542 of the Civil Code of the State of California, and under any and all similar laws of any jurisdiction.

Participant acknowledges that Section 1542 of the Civil Code provides as follows:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS THAT THE CREDITOR OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY.

Participant acknowledges, on behalf of itself and each of the other Releasors, that the foregoing waiver of the provisions of Section 1542 of the California Civil Code is a material term and condition of this Agreement. Participant, for itself and each of the other Releasors, expressly acknowledges that this waiver shall be given full force and effect in accordance with each and all of its express terms and provisions, including those terms and provisions relating to unknown and unsuspected claims, demands, and causes of action, if any, to the same effect as those terms and provisions relating to any other claims, demands, and causes of action hereinabove described. Participant further acknowledges, for itself and each of the other Releasors, that each is fully aware that they might hereafter discover facts or other information in addition to or different from those which they now know or believe to be true, with respect to the subject matter of the claims released in this Section. Nevertheless, the Releasors intend to hereby fully, finally, and forever settle and release all matters, disputes, differences, known or unknown, suspected or unsuspected, which might now exist or heretofore might exist in connection with such claims. The releases given herein shall be and remain in effect as a full and complete release notwithstanding the discovery or existence of any such additional or different facts or information.

**1.2.7 Medical Records.** Each Participant agrees and consents that in the event of injury or death in the course of or as a result of an event, IHRA may obtain access to and copies of all the Participant's medical records including privileged or protected health information related to such injury or death.

**1.2.8 Media.** Participants hereby grant IHRA and its assigns (a) full and unconditional permission to make still or motion pictures and any other type(s) of audio or visual recordings of their activities at the site of an IHRA event before, during, and after the event and reasonably related to the event; and (b) the exclusive, worldwide and perpetual rights to use the same, together with their names, likeness, and biographies of participants, and the names, likeness, and date of, or relating to, their entered vehicles for publicity, advertising, exhibition or exploitation, whether or not for profit, in print, audio, video, and other communications media by reproduction and sale or other distribution by any and all means now known or hereafter developed. Participants agree (a) that, without the prior written consent of IHRA, they shall not take any still or motion pictures or make any audio or visual recording of the event, participants therein, or activities at the site of the event for use other than personal, in home use of the participant, or cause or permit others to do so or to use the same; (b) that IHRA shall have exclusive, worldwide, perpetual, and universal use of any pictures or recordings made or used in violation of this paragraph; and (c) that IHRA shall be irreparably harmed by the making or use of such pictures or recordings in such fashion without such permission..

## **Rule 2.0**

### **MEMBERSHIP**

#### **2.1 Annual Membership**

Annual membership in the IHRA OUTLAW DRAG BOAT RACING SERIES or any of its divisions or chapters runs on a calendar year basis, commencing January 1st and ending December 31st of each year. The two types of annual memberships are:

**2.1.1 Racing.** Boat Owners and/or Drivers. All owners and all drivers of each boat must be fully paid annual racing members. An owner of multiple boats will be required to have only one owners racing membership. Also, a husband and wife who jointly own a race boat will be required to have only one owners racing membership.

**2.1.2 Associate.** Any individual, sponsor, or promoter desiring to be an associate member for the purpose of receiving newsletters, race fliers, or other related correspondence.

Racing memberships of each member division or chapter will be recognized by all other member divisions or chapters. However, drivers who wish to accumulate points in the High Points Championship Series or set records within a particular division or chapter must be fully paid annual racing members of that division or chapter.

Membership is open to anyone without regard to race, color, creed, national origin, religion, or sex. All members will receive a membership card, newsletter, and rule book upon payment of their dues.

**2.1.3 Social Media Policy** IHRA members must conduct themselves in a respectful manner on social media. Any member who posts negative, harmful or disparaging comments about IHRA, its teams, racers, officials sponsors or affiliated organizations will receive one formal warning. A second violation will result in termination of membership. This policy applies to all IHRA members.

#### **2.2 New Membership**

New membership in the IHRA OUTLAW DRAG BOAT RACING SERIES or any of its member divisions or chapters requires the submission of a properly completed application along with the required dues. All drivers of each boat must be racing members.

#### **2.3 Membership Renewal**

Memberships may be renewed by paying the required dues along with any pertinent information such as an address change. Failure by a boat driver to renew his membership prior to the dates listed for each division or chapter in Appendix B may result in the loss of his assigned boat racing number for the upcoming year. If in a previous year or years, a renewal applicant has acted in a manner (either verbally or physically) which is deemed detrimental to the IHRA OUTLAW DRAG BOAT RACING SERIES, a sanctioning division, member division, chapter, any Director, official, or fellow member of any member division or chapter, as well as the sport of drag boat racing in general, his application for renewal may be denied by a vote of the Board of Directors/Competition Committee, of his member division or chapter. If denied renewal membership in his original member division or chapter based upon the foregoing, no other member division or chapter may accept said applicant as a member.

#### **2.4 Single Event Membership**

This membership will be for one event only. Participant will not be eligible for points or purse. Boat number assigned will include an "X" to denote one-time member.

#### **2.5 Membership Status**

The membership status of a driver shall be that membership status which was recognized during the normal course of registration and shall apply to said driver throughout the entire event.

#### **2.6 Payments and Returned Checks**

All payments to the IHRA OUTLAW DRAG BOAT RACING SERIES, or any division or chapter thereof, must be made in U.S. funds, whether said payment is by cash or check. Any check issued and made payable to the IHRA OUTLAW DRAG BOAT RACING SERIES or any division or chapter thereof as payment of dues, entry fees, etc. which is returned by the bank upon which it is drawn as a direct result of any willful or intentional actions of the maker(s) of said check will result in the participant for whom the check was tendered forfeiting any and all rights and privileges to which he would have otherwise been entitled by virtue of said payment (beginning as of the date that the check was tendered). This shall include, but not be limited to, the loss of membership, the loss of voting privileges, the loss of any points awarded in the High Points Championship Series, as well as require restitution of any cash prizes which were paid to the participant. The restoration of privileges and accumulation of points will begin only after each individual check (along with the required handling fee as noted in Appendix C) has been satisfied by cash only in U.S. funds. The loss of any points and/or cash prizes is permanent; neither will be reinstated or returned. The division or chapter which receives any such returned check will notify IHRA OUTLAW DRAG BOAT RACING SERIES divisions or chapters in writing of said occurrence as well as notification of when reimbursement is received. If necessary, prosecution to the maximum extent allowed by law may be pursued to effect collection of the returned check(s).

## **2.7 Correspondence**

All correspondence sent to the IHRA OUTLAW DRAG BOAT RACING SERIES, or any division or chapter thereof, as well as their Directors or officers, via public mail service, courier, wire service, electronic mail, or any other means now known or hereafter developed, shall become the sole property of the IHRA OUTLAW DRAG BOAT RACING SERIES or said division or chapter. As such, said correspondence may be reproduced, published, or publicly displayed in any forum or manner as the IHRA OUTLAW DRAG BOAT RACING SERIES or its division or chapter so chooses.

## **2.8 Mailing Address**

Membership applications, renewals, any other inquiries concerning membership in the IHRA OUTLAW DRAG BOAT RACING SERIES or any division or chapter thereof, or requests for information concerning drag boat racing, should be sent to the appropriate address as listed in Appendix B. Any legal or general notice or document which needs to be sent to an individual participant will be sent via certified mail to the latest address furnished to the IHRA OUTLAW DRAG BOAT RACING SERIES or the member division or chapter on either a membership application or race registration. Such mailing shall constitute legal service even if the participant refuses to accept or fails to claim said certified mail.

# **Rule 3.0**

## **RACING CLASSES & STRUCTURES**

All classes will race on a 1,000 ft course.

## **3.1 Capsuled/Licensed Classes**

All Professional Class boats must use a driver's capsule, manufactured by a SFI Certified Manufacturer.

TFH	TOP FUEL HYDRO	
TAH	TOP ALCOHOL HYDRO	
TAF	TOP ALCOHOL FLAT	
PO	PRO OUTLAW	5.20 - 6.19
PM	PRO MODIFIED	5.60 - 6.49
PCF	PRO COMP FLAT	6.00 – 7.20
BGF	BLOWN GAS FLAT	5.80 –6.80

Boats not conforming to the above classes will be assigned a class, once proving class capability according to Rule 7.4.4.

### **3.1.1 Professional Class Structure**

**3.1.1.a Engines.** All blown or supercharged engines, as well as un-blown fuel engines may not exceed 565 cubic inches, except in Pro Modified/Pro Outlaw and Pro Jet. No multiple engines are allowed in any class. TFH and nostalgia top fuel hydro limited to 500 cu. in.

**3.1.1.b Blowers/Superchargers.** Hi-Helix or Helix blowers are allowed in all professional classes. In addition, turbochargers, centrifugal and screw type blowers are allowed in the TAH, PO, PM, BGF and PJ classes. Variable and multi speed blowers are not allowed.

**3.1.1.c Fuel.** TFH may utilize only nitromethane (sixty-five [65%] minimum) and alcohol (pure methanol). All alcohol classes must use only pure methanol. Blown Jets may utilize gasoline, alcohol (pure methanol), or a maximum of fifty percent (50%) nitromethane. Eighty percent (80%) may be used with an un-blown top alcohol hydro (TAH) with a single propeller driven boat and ninety percent (90%) with a dual propeller driven boat. Blown jets with roots-type, Hi-Helix or Helix blowers may utilize gasoline, alcohol (pure methanol), or a maximum of fifty percent (50%) nitromethane.

**3.1.1.d Hulls.** TFH must use “out-rigger” type hull utilizing a dual propellor system. All other classes may use any hull design as designated by class, with the exception that no blown engines will be permitted in any Professional class jet boat with a V-bottom.

**3.1.1.e Nitrous Oxide.** Nitrous oxide is not allowed in these Professional classes: TFH, TAH, TAF.

**3.1.1.f Propylene Oxide.** Propylene oxide is not allowed in any Professional class.

**3.1.1.g Water Injection.** Water injection may be used in any class; however, enough water must remain in the system after each run to allow a sample to be taken.

### **3.2 Licensed Sportsman Classes**

QE	QUICK ELIMINATOR	6.00 - 6.99
PE	PRO ELIMNIATOR	6.50 - 7.49
TE	TOP ELIMINATOR	7.00 - 7.99

### **3.3 Non-Licensed Sportsman Classes**

ME	MODIFIED ELIMINATOR	8.00 - 8.99
SE	STOCK ELIMINATOR	9.00 – DIAL IN
PWC	PERSONAL WATERCRAFT 10,00 – DIAL IN	

#### **3.3.1 Sportsman (Licensed & Non) Class Structure**

**3.3.1.a Engines.** Engines may be any cubic inch displacement; they may be either naturally aspirated, supercharged or fuel injected, including Electronic Fuel Injection systems.

**3.3.1.b Blowers.** Blown engines may utilize superchargers (Centrifugal, Roots, Screw, or PSI) or turbochargers; however, proper blower restraints must be used as required based upon the fuel utilized.

**3.3.1.c Fuel.** Unless dictated by class structure, gasoline, alcohol (pure methanol or ethanol), nitromethane, E-85, or nitrous oxide may be used in any engine. PWC’s must use gasoline (4 stroke) or gas/oil mix (2 stroke).

**3.3.1.d Hulls.** Any Hull design is acceptable. V-bottom jet boats using a blower, turbo charger or nitro must utilize a rudder extending a minimum of ten (10) inches below the lowest point of the transom, mounted separate from the nozzle. The nozzle must be locked in the center position.

**3.3.1.e** The above classes comprise the makeup of the IHRA racing program. A sanctioned event need not include all of the classes listed. Each of these classes, if offered, will have the same safety requirements among all member divisions or chapters. At the discretion of the sanctioning division or chapter, a minimum number of entrants may be required to constitute a class.

### **3.4 Optional Classes**

Gambler and Second Chance will be restricted to open boats and PWC only. Boats must stay within .30 sec of the class for which the driver is licensed and/or registered. (100 mph+ requires torso type life jacket and SFI/Snell Helmet). PWC and boats will run separately at the Race Directors discretion. Optional classes are offered as time allows, and at the discretion of the Race Director and or promoter.

### **3.5 Elimination of Classes**

IHRA reserves the right to add or delete classes at the National Level.

### **3.6 Pit Spaces**

TFH/TAH – 90' X 35' TAF, Pro Mod/PO – 90' X 25' or 60' X 25' depending on trailer length. All others – 60' X 25'.

If larger space is needed, it is the boat owner's responsibility to notify race promoter and make prior arrangements. All equipment, including, but not limited to, tow vehicles, RV's, crew vehicles, golf carts, etc., must fit in assigned pit space. All others must be parked outside of pits in designated area.

## **Rule 4.0** **RACING FUELS**

### **4.1 Gasoline**

Gasoline, as refined, is a mixture of hydrocarbons. Gasoline is a good electrical insulator, or dielectric, and its relative effectiveness as an insulator is represented by its Dielectric Constant (D.C.). The average D.C. for the hydrocarbons which comprise gasoline is 2.025. This is defined as a reading of zero (0) with the Fuel Check Meter. The additions of compounds containing nitrogen and/or oxygen may produce a mixture with a D.C. greater than zero. Most gasoline will meet these criteria. The addition of nitro compounds, hydrazine or its derivatives, or soluble inorganic material is forbidden. It is recommended that any unknown gasoline be checked before use at a race.

### **4.2 Ethanol**

Ethanol (commonly referred to as grain alcohol) when used as a propellant must test pure. Testing is to be by specific gravity. Test results must measure within .002 degrees, plus or minus, of the manufacturer's purity tolerance.

### **4.3 Methanol**

Methanol (commonly referred to as alcohol) when used as a propellant must test pure. Testing is to be by specific gravity. Test results must measure within .002 degrees, plus or minus, of the manufacturer's purity tolerance.

### **4.4 Nitro – Methane**

Nitro Methane may be reduced by methanol only. No other chemical is allowed.

### **4.5 Oil Additives**

The lubricating oil used within the engine is not intended to enhance the power output of the engine through the introduction of foreign chemicals or substances into the internal combustion chambers of the engine. Thus, it is strictly prohibited to add any chemical or substance to the engine lubricating oil or oil pan which is not manufactured solely for the purpose of improving the lubricating qualities of the oil itself.

### **4.6 Fuel Samples**

**4.6.1** Random gasoline, alcohol, nitro-methane mixture, water, or oil samples may be taken from any boat at any time during a sanctioned event.

**4.6.2** All samples are subject to chemical analysis without prior notification to the competitor from whom the sample was obtained.

**4.6.3** In order for a class record to be considered for approval, a sample of either the gasoline, alcohol, or nitro-methane mixture used by the boat must be taken by the responsible official at the out ramp immediately following both the record leg run as well as the backup run. Additionally, a water sample shall be obtained after each run if the boat utilizes water injection. If there is any suspicion of any foreign or prohibited chemical or substance having been mixed with the engines lubricating oil, then an oil sample shall also be required. No samples are required for a record backup run if the run preceded the actual record leg but did not exceed the existing record.

**4.6.4** If the appropriate official is not at the out ramp when the boat comes out of the water, it will be the driver's responsibility to leave the boat at the outramp or the immediate vicinity thereof and locate the official to take the required sample.

**4.6.5** The foregoing two rules also apply to each final round class winner during eliminations.

**4.6.6** Refusal to allow any fuel or fluid sample to be taken has the same force and effect as though the sample had been taken and found to be illegal. The same fines and/or penalties may be imposed as indicated in Appendix C.

**4.6.7** If an irregularity is detected in a participant's fuel during qualifying, that participant's qualifying round will not count; if during eliminations, the boat will be eliminated from that event and the competition for that round will be reinstated as the winner. Two irregularities at the same event, regardless of when in the program that they occur, will result in an automatic and immediate disqualification of the participant from that event. If there is a third offense at any event during the racing year involving the same participant, a suspension of three (3) races or the balance of the racing year, which is the shorter, shall be the minimum penalty. A fine as indicated in Appendix C may also be imposed.

**4.6.8** If a fuel sample cannot be positively identified as to its legality after a final round win, the runner-up in the class shall also have his fuel checked. If necessary, the class monetary winnings may be withheld until such time as the fuel sample can be chemically analyzed.

## **Rule 5.0** **WATER SAFETY**

### **5.1 Accidents**

Any boat which is involved in an accident at a sanctioned event must be re-inspected by the Safety Inspector prior to the boat being allowed to make any further qualifying, elimination, or exhibition runs. Furthermore, the boat and any part thereof are also subject to retention by the IHRA OUTLAW DRAG BOAT RACING SERIES or the sanctioning division or chapter as outlined in "Retention of Boats and Parts" elsewhere in this rule book. Any driver who is involved in an accident at a sanctioned event must be examined by the medical personnel on duty at the event. Said medical personnel will make the determination as to whether the driver needs to be further examined by a physician or transported to a hospital. Refusal to allow the examination, or failure to follow the prescribed medical advice, could result in the suspension of one's Competition driver's license or notification of said refusal to the home division or chapter if the driver is competing under another division or chapter's license.

### **5.2 Accident Report**

A report must be completed on any boat involved in an accident at a sanctioned event. The report will detail the events surrounding the accident, it's probable causes, and possible means of prevention.

### **5.3 Boats Under Tow**

No driver, while his boat is being towed on the water, shall attempt to start his engine. While under tow, all boats must have the ignition switch as well as the fuel shut-off valve in the "off" position. In addition, the V-drive must be disengaged (out of gear). Failure to comply with any portion of this rule may result in disqualification.

#### **5.4 Driving to the Holding Rope**

When driving to the holding rope is allowed, the motor will be shut off as soon as the driver has reached the holding rope.

#### **5.5 Excessive ET - Open Boats**

No open boat, on any pass, will be allowed to run quicker than 5.70 sec ET on a 1000' course. Any open boat running in excess of .30 seconds of its class could be subject to disciplinary action at the discretion of the Race Director.

#### **5.6 Installation and Removal of Rudders and Drain Plugs on Ramps**

Rudders that drag while towed on the trailer may be installed or removed at the ramps. Due to environmental concerns, no fuel, oil, water, or mixture thereof may be drained or pumped from a boat at either the in or out ramp. Said liquids must be disposed of properly in designated areas.

#### **5.7 New Boats**

Any driver driving a boat that is new to him/her, or new in construction, at the discretion of the Sanction supervisor, may be required to make a half (½) track safety pass, before being allowed to compete.

#### **5.8 Safety Equipment**

All safety equipment which was required to pass the safety inspection must be operational and engaged when the boat enters the water and must remain so while the boat is on the water. (Refer to Rule 8.0, Rule 9.0, & Rule 10.0)

#### **5.9 Smoking in Boats**

Smoking is not permitted in or on any race boat (on land or water).

#### **5.10 Starting of Motors**

Firing of motors on the launch ramp on trailer is strictly prohibited, unless instructed to do so by the Ramp Manager. Out boards will be allowed to warm up, while on the trailer, at a predetermined time and specific location, before racing begins. Only one crew member and the driver will be allowed on the ramp, no one will be allowed in the water at that time.

#### **5.11 Stopping on Course**

Drivers are to make a concerted effort to drive off and clear the course, allowing the Starter and Rescue to keep the course green and the program flowing. Boats deploying parachutes shall expedite chute recovery and drive off the course if possible. Repeated offenses COULD result in loss of points (not to exceed 100) or fines (not to exceed \$250) per offense. This rule does not apply to Top Fuel Hydro. "Driving off the course" means the starter can run the next pair without waiting for your boat to be towed.

#### **5.12 Unsafe Equipment**

Any participant at a sanctioned event is subject to elimination at the event if, after passing the safety inspection, an official should determine that any of the required safety equipment is, in fact, unsafe. Should it be determined that said equipment was rendered unsafe, inoperable, or simply not activated by the direct and intentional actions of the participant, said participant may be immediately disqualified from the event. In addition to the disqualification, the participant as well as the boat may be suspended from competition at any future sanctioned events for up to six (6) months. A notification of such suspension shall be made. A request for an appeals hearing may be made; such request should be made in writing and submitted within twenty (20) days following the date of the suspension notification. The request is to be submitted to the sanctioning division or chapter's Board of Directors.

#### **5.13 PWC Safety**

Drivers must keep toes and the balls of their feet in contact with the foot well. The use of permanently attached foot blocks acceptable.

#### **5.14 Capsule Boats Starting Gear**

In the case of any capsule boat starting in gear, the course will be red lit immediately and the opposing boat will be awarded the win and will advance to the next round.

If during qualifying, the boat starting in gear forfeits that qualifying attempt. The other boat will be allowed a rerun if desired. The rerun must be accomplished before the end of the days qualifying.

If during eliminations, the round win points will be automatically awarded to the other boat. The other boat is allowed a rerun if desired. The rerun must be accomplished before the next elimination round for that class. No rescheduling of the days program will be made to accommodate the rerun.

## **Rule 6.0**

### **POINTS CHAMPIONSHIP SERIES**

#### **6.1 Professional Series**

**6.1.1 Purpose.** The purpose of the Pro Championship Series is to promote the IHRA OUTLAW DRAG BOAT RACING SERIES, Professional Class racing series to guarantee participation of the racers, and to increase awards to the racers. Each sanctioning body will maintain its own Championship Series points/awards structure.

#### **6.2 Sportsman Series**

**6.2.1 Purpose.** The purpose of the Sportsman and Bracket class championship is to provide a venue to determine a IHRA Division Champion in each class in each Division.

#### **6.3 Procedures**

**6.3.1 Duration.** Championship/Division Series run on a calendar year basis, commencing January 1st and ending December 31st of each year.

**6.3.2 Annual Meeting.** In order to receive points and/or awards in any IHRA Championship/Division Series, all owners and/or drivers of each boat must hold current, fully paid annual racing memberships in the sanctioning division or chapter and IHRA and comply with all rules and regulations as set forth in this rule book. Points towards the current years IHRA Championship shall start to accumulate on such date when the member joins IHRA.

**6.3.3 Boat Number.** All points in any Championship/Division Series are awarded to the boat number. Each boat participating in the series must have a separate racing number, unless an owner/driver wishes to race two or more boats that are registered and pass safety inspection, in the same class in an effort to determine which hull is the best. In this instance, the same number may be used on each boat and either boat or may be run during a specific round of qualifying. See 8.9 for further clarification. However, only one boat will be permitted to run in eliminations. If an owner has more than one boat, and separate numbers are required for each, points cannot be transferred from one boat number to another. Likewise, points cannot be transferred from one class to another should an owner decide to change classes at any time during the calendar year. If a boat is sold at any time during the racing season, points will not be transferred from the original owner to the new owner. The new owner may, however, continue to use the same boat number, subject to written authorization by the previous owner. Identical boat numbers cannot participate in simultaneous events.

**Boat numbers can be transferred from one boat to another as long as the new boat is not registered in competition at that event.**

**6.3.4 Participation.** In order to receive any monetary awards from a Championship/Division Series, all winners and runners-up in each Championship/Division Series class must have participated in that class at a minimum of **fifty one percent (51%)** of the current years races at which the class was offered.

**6.3.5 Registration/Inspection Points.** At each Championship/Division Series event, each eligible boat, upon passing the required pre-race safety inspection, and properly completing the registration process, will be awarded one hundred (100) points.

**6.3.6 Qualifying Points.** At each Championship/ Division Series event, each eligible boat that qualifies for the elimination program will be awarded one hundred (100) points. The boat must make a qualifying attempt as defined under “Qualifying/Qualifying Attempt” (7.6.3) in order to be awarded the one hundred (100) qualifying points.

**6.3.7 Qualifying Position Points.** At each Championship/Division Series events, qualifying positions are determined based upon E.T.’s (elapsed time). Within each class, the slowest boat will be awarded two (2) points, the second slowest boat will be awarded four (4) points, and each successive qualifying position will be awarded points in increasing increments of two (2) except the number one (1) qualifier will increase an increment of four (4) points. Qualifying position points will not be awarded if the boat made no qualifying attempt as defined under “Qualifying/Qualifying Attempt.” For example, if the seventh boat in a seven-boat field did not make a qualifying attempt, said boat would still be placed on the ladder in the seventh position, but would not receive the two qualifying position points for that position. The sixth boat, however, would still receive his normal qualifying position points (in this case, four), regardless of the fact that the boat below him received no points. No qualifying position points will be awarded to any Top Fuel Hydro, Top Alcohol Hydro or Top Alcohol Flat Bottom beyond the eighth (8th) qualifying position. All other classes will be awarded qualifying position points up to and including the sixteenth (16<sup>th</sup>) position. Any boat which makes a valid qualifying attempt and is subsequently declared broken or voluntarily withdrawn from the racing program will be awarded the appropriate qualifying position points, although the boat will not be included in the class pairings for eliminations. Any boat which is inserted into the first round of eliminations as an alternate boat will not be awarded any qualifying position points. Furthermore, no qualifying position points will be awarded to any boat if qualifying is canceled, the boats are paired either by Championship Series Points or by drawing lots.

**6.3.8 Official Record Points.** At each IHRA OUTLAW DRAG BOAT RACING SERIES event, 25 points will be awarded for setting, an official record (MPH or ET) per race event.

**6.3.9 Round Winner Points.** At each Championship/Division Series event, one hundred (100) points will be awarded to each round winner during eliminations.

**6.3.10 Official Error.** At any Championship/ Division Series event, no points whatsoever will be awarded for an official error, unless an official inadvertently awarded points to the wrong competitor. In that instance, the points would be deducted from the incorrect competitor’s total and awarded to the proper participant.

**6.3.11 Retention of Points.** Any boat which is eliminated, disqualified, declared broken, or voluntarily withdrawn from the racing program at any point during an event will retain all points earned up to the point of elimination, disqualification, etc.

**6.3.12 Incomplete Race.** At all Championship/ Division Series events which are not completed for any reason whatsoever, round winner points will be awarded only for fully completed class rounds. If a race is stopped and subsequently canceled in the middle of any class round, no round winner points for the eliminations round which was interrupted will be awarded to any boats in the incomplete class.

**6.3.13 Series/Division Winners.** Each class winner and runner-up in the Championship/ Division Series will be determined by total points accumulated in their class throughout the year. The boat that has earned the highest total points in each class is the winner in that class; the boat with the second highest total points is the runner-up in that class.

**6.3.14 Tie Breaking.** If there is a tie in total points within a class at the end of the year, the Championship Series winner and runner-up shall be determined by using the following criteria, in the order listed, to break the tie:

**6.3.14.a** The total number of Championship Series events won by each boat.

**6.3.14.b** The total number of second place (runner-up) finishes by each boat at Championship Series events.

**6.3.14.c** The total number of eliminations rounds won by each boat at Championship Series events.

**6.3.14.d** The greater number of wins by each boat in heads-up competition between the tying boats at Championship Series events.

**6.3.14.e** The total number of Championship Series events at which each boat qualified.

If the above fails to break the tie, the two (or more) boats shall be declared co-winners.

## **Rule 7.0** **COMPETITION RULES**

### **7.1 Safety/Tech Inspection**

Driver's personal safety equipment as well as the boat and its related safety equipment must pass Safety/Tech inspection, before being allowed to test and tune, qualify, or run in eliminations.

PO boats of hydroplane design must pass PM tech. PO non-hydroplane hull design must pass TAF/TFH tech. Screw blowers allowed.

### **7.2 Drivers Meeting**

If roll call is taken, any driver who is absent will be required to meet with the Sanction Supervisor and/or Race Director, to explain the reason(s) for their absence, prior to participating. Failure to attend mandatory Drivers Meetings may result in the driver's disqualification for the event.

### **7.3 Competition Driver's License**

**7.3.1 Class Requirement.** All drivers in TFH, TAH, TAF, TFJ, PM, PO, BGF, PCF, PJ, PE, QE, and TE classes, participating in a sanctioned event are required to have a valid Competition Driver's License for the class in which they intend to compete. No driver will be allowed to enter competition without a Competition Driver's License. Competition Drivers Licenses from each division or chapter will be recognized by all other divisions or chapters. If racing using another association's license, and said driver wishes to obtain a Competition Driver's License from a different sanctioning division or chapter, the sanctioning division or chapter will issue its license only after observing said driver throughout the entire event (assuming that said driver passes all the sanctioning division or chapters requirements for the license). An issued license can be used only by the driver to whom it was assigned.

**Under no circumstances will a boat that is in competition be allowed to be used for a license pass for another driver once qualifying has been completed. License passes will only be allowed after completion of qualifying or on Elimination Race Day, at the discretion of race officials.**

**7.3.2 Med I Tag.** All drivers, in all classes are required to wear their Med I Tag around their neck at all times when operating a boat.

**7.3.3 Age Requirements.** All drivers in the Professional and Sportsman classes must have attained a minimum age of eighteen (18) years in order to apply for and be granted a Competition Driver's License. Drivers in the SE and ME classes are not required to have a Competition Driver's License, but they must have attained a minimum age of sixteen (16) years. PWC must be a minimum age of 12. Any competitor under the age of 16 must have completed a state approved boater's safety course.

**7.3.4 Physical.** No physical is required for any Bracket class or any other class running 8:00 seconds or slower. Each driver in the Professional and Sportsman classes is required to take a physical prior to applying for a Competition Driver's License. The standard physical form provided by your sanctioning division or chapter can be used but is not mandatory; a DOT/FAA physical form or printout/letter from physician's office will also be accepted. This physical is required to be performed every two years. It is the responsibility of the driver to have his physical form available at the first race of the season at which he applies for a new or renewal Competition Driver's License. Any driver who is found to have submitted a fraudulent physical form shall be subject to having his home division or chapters license suspended or revoked (to be determined by the Board of Directors) in addition to, or in lieu of a fine as noted in Appendix C. There is no grace period if a driver does not have a physical.

**7.3.5 Duration of License.** All Competition Drivers Licenses are issued for a two (2) year period or until physical expiration date and will coincide with the driver's physical date. A fee set by the individual sanctioning body will be charged for the license. It is the driver's responsibility to keep the license and physical current.

**7.3.6 Class Restriction.** No driver will be allowed to drive a boat in any class higher or quicker than the one specified on his license. In any class where different engine and hull combinations are permitted, the driver's license will indicate the actual engine and/or hull combination which is authorized (i.e., TFH, TAF, TAH, TFJ, etc.).

**7.3.7 Visual Aid.** The Competition Driver's License will indicate if visual aid is required in order to drive (as indicated on the driver's state driving license or on his physical form).

**7.3.8 Class Upgrade.** Any driver holding a valid Competition Driver's License who wishes to upgrade to another class must pass the same driving test as required of a new driver. If, however, the driver will be driving the same boat in which he has previously been competing, his qualifying passes may be considered as his driving test. If this option is exercised, the qualifying passes will be run as single lane passes. The qualifying passes must be representative of the class for which the driver is attempting to license and will be observed by the appropriate personnel to determine if the driver qualifies for the upgrade. No new physical examination will be required providing that his current Competition Driver's License has not expired. A fee as indicated in Appendix C will be charged for any upgrade.

**7.3.9 License Renewal.** In order to renew a Competition Driver's License, a driver must submit a renewal application along with a new physical examination (see "Physical" above). If a license has expired and remained inactive for six (6) months or longer, the driver, at the Sanction Supervisor or Race Directors discretion may be required to take a new Competition Driver's License test. The driver must also pay the license renewal fee as indicated in Appendix C.

**7.3.10 License Suspension/Revocation.** Any driver found violating the rules or regulations contained herein or failing to follow proper directions of any sanctioning division or chapter official shall be subject to having his Competition Driver's License suspended or revoked. A Competition Driver's License may also be suspended or revoked for serious infractions of the rules of another drag boat racing association if the driver was competing at another association's race using his home division or chapters Competition Driver's License. The division issuing the license would act in such an instance only after receiving a formal written notification from the other association detailing the problem(s). At that point, the Board of Directors/Competition Committee of the division or chapter which issued the license would thoroughly review the situation and make a decision.

#### **7.3.11 Driver's License Test.**

**7.3.11.a** In order for a new driver to obtain a Competition Driver's License, he must have the physical examination completed prior to his arrival at the race event (see "Physical" above) and pay the required fee as indicated in Appendix C. All fees paid for a driving test will be forfeited at the end of the calendar year in which they were paid, even if the driving test has not been successfully completed.

**7.3.11.b** The Race Director or designee shall be responsible for instructing the testing driver as to what requirements will be needed to pass test. The driving test must be conducted at a sanctioned event (includes sanctioned test and tune events). Arrangements for the driving test must be made at the time of registration. All test runs will be single lane runs. No side by side runs will be permitted during Competition Driver's License testing. The following test runs must be accomplished in the order in which they are listed: A first-half course run. This is to be an acceleration run, beginning at the starting line and ending with deceleration at mid-course. A full course pass, with safe shutdown and must be representative of the class for which the driver has applied. In Pro Mod, PO, PCF, BGF, PJ, PE, QE, and TE classes, the full course pass must be within .49 sec for the class the Driver is testing for. TAF and TFJ must attain an elapsed time (E.T.) of 6.00 or quicker and TAH 5.00 or quicker in order to obtain a license in these classes. The full course run may be the first qualifying pass made by the driver, as long as it is run in that class during a normal qualifying session, and the driver's license test is successfully completed. Both test runs shall be closely monitored and observed by the appropriate officials. New drivers and upgrades are not guaranteed that they will be issued their Competition Driver's License and subsequently allowed into competition at the same event as they apply for the license.

#### **7.4 Registration**

**7.4.1** At their discretion, the IHRA OUTLAW DRAG BOAT RACING SERIES, as well as the sanctioning division or chapter reserve the right to refuse to allow any person or persons to register and/or participate in any sanctioned event. The following must be accomplished prior to leaving the registration area.

**7.4.1.a** Racing membership verified for all owners and all drivers of each boat.

**7.4.1.b** Competition Driver's License checked for class and expiration date for all drivers of each boat.

**7.4.1.c** All forms and releases must be completed and signed by each owner, driver, and crew member.

**7.4.1.d** Payment of all dues, fees, etc. A receipt will be issued for all monies paid.

**7.4.1.e** No one will be granted a pit space without a boat that can pass tech. No crew passes will be issued. Spectator vehicle, RV, and people passes will be required.

No boat will be allowed to attempt to test and tune, qualify, or compete in eliminations without all of the above items having been completed and passing Safety/Tech inspection.

**7.4.2** **Membership/Forms/Releases.** All owners and all drivers of each boat registering to compete in a sanctioned event must be fully paid annual racing members of one of the member divisions; otherwise the owners and each driver must join the sanctioning division or chapter. The owner's racing number must match the number on the boat. Boat numbers cannot be changed nor hull ownership transferred after the boat has once registered at any specific event. The driver of the boat must have a valid Competition Driver's License for the class in which he desires to register. Each owner, driver, and participant must also execute and sign any and all registration and release forms as required.

**7.4.3** **One Boat/One Class.** All boats may compete in only one class at any one event. Participants must pick a class in which to register and attempt to qualify; however, after qualifying, they will be permitted to change to any other class for which they are qualified if they so desire. See "Qualifying/Class Changes" elsewhere in this rule book for a more detailed explanation. At the discretion of the Sanction Supervisor, one boat may enter multiple classes at pre-specified events. Drivers/Owners within the applicable Division/Chapter will be notified in advance of the event.

**7.4.4** **Class Capability.** A boat may enter any class as long as it meets all the criteria for that class as set forth in this rule book and has the capability of running speeds and elapsed times representative of that class. The Sanction Supervisor shall have the final decision as to the capability of any boat. The purpose of this rule is to prevent a boat from entering a class for the sole purpose of increasing the purse in that class when the purse structure is based on the number of boats entered.

**7.4.5** **Multiple Drivers/One Boat.** If there is more than one driver for any particular boat, each driver must be a fully paid annual racing member of one of the member divisions and have a valid Competition Driver's License for the class in which the boat is being registered. Furthermore, each driver must execute and sign all required registration and release forms.

**7.4.6** **Safety Pass.** A safety pass must be requested by the Race Director and is designed to allow officials to observe the boat and driver, to determine the safety of both to compete. All safety passes must be run as ½ track singles unless otherwise directed by the Race Director. No Start Clock, ET or MPH will be received, and will be run if time allows. Failure to complete a safety pass will keep that driver/boat in the safety pass mode, until Race Director approves return to competition.

**7.4.7** **Exhibition Pass.** Allowed once the boat is out of competition, if time allows and will receive ET and MPH.

**7.4.8** **Suspension.** No boat will be allowed to register or participate in any sanctioned event if IHRA or the sanctioning division or chapter has been formally notified in writing of a suspension from competition involving the owner, driver, or any crew member by any of the other major drag boat racing sanctioning bodies. Only the sanctioning body which originated the suspension may, in writing, revoke the suspension. Any owner, driver, or crew member who is suspended as described herein may appeal his suspension to IHRA Rules Committee. Their decision shall be final.

**7.4.9** **Entry Fees.** Entry fees for a particular event are set by the sanctioning association of that event.

**7.4.10** **Registration Closed.** No boat will be allowed to register after registration has been officially closed, unless prior approval is received from the Sanction Supervisor.

**7.4.11** **Boat Ownership at Event.** Once a boat has been registered at the event it may not be sold and raced under another number.

**7.4.12** **Time Slips.** Time slips shall be available to all boats making a pass, with the exception of boats making a safety or license pass.

## **7.5** **Starting Procedures**

**7.5.1 Point of View.** All references herein shall be as seen by a driver sitting in a boat at the starting line holding rope.

**7.5.2 Holding Ropes.** The starting line holding rope shall be located one hundred and twenty-five (125) feet behind the starting line. The holding rope shall be marked with a red streamer to mark the outside of the respective lane. This red marker shall be the holding spot for the next boat to run in that lane. An additional red streamer shall mark the closest point that a boat may line up next to the starters platform. A yellow streamer will mark the center of each lane.

**7.5.3 Reaction Timers.** Reaction timers will be an integral part of the official starting system. In the unlikely event of a system malfunction which causes the foul start light to work improperly, the reaction times may be used to determine foul starts. Reaction times for each competitor shall be posted at the timing tower along with the E.T. and M.P.H. for each run.

**7.5.4 Starting Clock.** All race courses will use the official starting clock and timing system furnished by the sanctioning division or chapter. The lights on the right side of the clock will represent the right lane, and those on the left side, the left lane. The lights for each lane shall be situated vertically, commencing with red at the top, amber in the center, and green at the bottom. The computer will be the deciding factor in a foul situation if a discrepancy occurs between the reaction time and the starting clock, unless it is an obvious malfunction of the equipment.

**7.5.5 Starting Clock Definitions.** Each of the following definitions of starting clock light functions applies to either lane.

**7.5.5.a Red Lights.** Course Closed! Drivers must come to an immediate stop. Do not proceed any further until so instructed by the Starter. Failure to heed the red lights is grounds for disqualification (determination to be made at the discretion of the Starter). Starting of engines while the Red Light (if used) is on will void that run.

**7.5.5.b Blinking/Solid Amber Light.** This indicates to the driver that the starting clock countdown is imminent. Watch the clock closely! Engines should be running.

**7.5.5.c Solid Green Light.** Indicated a legal start. GO!

**7.5.5.d Solid Red Light.** Indicates that a foul start has occurred in that particular lane. The boat in the lane displaying the solid red light has broken the starting line light sensor beam prior to receiving a green light.

#### **7.5.6 Starting Sequence**

- ❖ Course red lights are on.
- ❖ Starter will notify the next driver (using his boat number) to watch the lights.
- ❖ Course red lights are turned off, and the amber lights will begin flashing for twenty-five (25) seconds, at which time each driver may commence his starting procedure.
- ❖ After the amber lights have flashed for twenty-five (25) seconds, they will go solid for five (5) seconds. This will be a warning that the countdown is about to begin.
- ❖ After the five (5) second warning, the solid amber lights will go out and the countdown will begin. The countdown will start at "9" and will count down to "1." When the "1" goes out, the green light(s) will come on. Should a boat cross the starting line before the green light comes on, a flashing red light will light, indicating that a foul start has occurred in that lane.
- ❖ After displaying either a solid green or flashing red light, the lights will go out a minimum of five (5) seconds after the lead boat has crossed the starting line, and the lights will go "red" to await the next starting sequence.

#### **7.6 Qualifying**

**7.6.1 Driver Limitation.** Each driver who enters competition at a sanctioned event will be permitted with approval from the Sanction Supervisor to drive more than one boat during qualifying. If driving boats in different classes, the driver must be licensed for each class. Qualifying will not be held up at any point to accommodate a driver wishing to drive a second boat.

**7.6.2 Number of Qualifiers.** All classes except Top Alcohol Flat, Top Alcohol Hydro, and Top Fuel Hydro shall consist of thirty-two (32) boat fields at divisional races as well as National Series Events. Top Alcohol Flat and Top Alcohol Hydro will be limited to a sixteen (16) boat field and Top Fuel Hydro to an eight (8) boat field.

**7.6.3 Qualifying Attempt.** All boats will be given an opportunity to qualify by class in order to compete in eliminations. Any boat that does not report to the launch ramp and complete a qualifying attempt when called by class will receive no time as well as no makeup pass. A qualifying attempt is defined as a boat starting its engine and leaving the holding rope when so instructed, under its own power and subsequently crossing the start line. No repair work, requiring outside assistance will be allowed for any boat once it has been launched into the water.

**7.6.4 Qualifying Attempt Voided.** On any qualifying attempt, any driver who snags the holding rope due to his or his crew's own negligence, hits any of the timing equipment, or runs outside of his lane boundaries, will forfeit that qualifying attempt and receive no makeup. The owner of any boat which damages any association equipment may be held liable for the cost of said equipment.

**7.6.5 Foul Start (Red Light).** During qualifying, any competitor who commits a foul start will not be penalized. The boat will receive both the E.T. and M.P.H. for that run, and the run will still be considered a valid qualifying run.

**7.6.6 Breakout/Failure to Prove Capability.** During qualifying, any E.T. format class boat that breaks out or fails to prove capability for the class will not be eliminated or penalized in any manner. However, qualifying positions will be affected as described under "Pairing for Eliminations."

**7.6.7 Identical E.T.'s.** If two or more boats in the same class record identical E.T.s during qualifying, the boat registering the Reaction Time (R.T.), shall be considered the quicker for the purposes of pairing for eliminations. If the boats were to have both identical E.T.s and R.T.'s then the boat which first recorded the E.T. would be considered the quicker for the purposes of pairing for eliminations. In the event that the run was a dead heat, that round would be rerun.

**7.6.8 Official Error/Malfunction.** Should any competitor fail to receive an E.T. on any qualifying run due to either an official error or a mechanical malfunction of the timing system, every effort shall be made to give that boat a makeup run.

**7.6.9 Class Changes.** If any competitor wishes to change from the class in which he registered, it is his responsibility to notify the timing tower within thirty (30) minutes of the cancellation or conclusion of qualifying as to what class in which he wishes to compete. If any owner or driver changes classes pursuant to this rule, the qualifying E.T.s will be transferred to the declared class and be used for pairing purposes accordingly. Likewise, all points including registration, qualifying, qualifying position, etc. will be awarded in the declared class. No boat will be permitted to move to a quicker class if the safety requirements for that class have not or cannot be met. Only the owner or driver may request to change classes, and he must sign the appropriate form at the timing tower in order to effect the change. Failure to notify the timing tower of a desire to change classes will result in the boat remaining in the class in which it was registered.

**7.6.10 Qualifying Incomplete.** If qualifying is not completed at any sanctioned race, no E.T.'s from any incomplete class round will be considered for qualifying purposes. A class round is considered complete when the class is called to the ramp, launched, and each boat which proceeds to the starting line holding rope has been given an opportunity to make a qualifying attempt. If a class round is interrupted in the middle of the round, the E.T.s for the boats which have run will not be considered unless the remainder of the class is subsequently able to complete that round. If the interruption requires that the boats be removed from the water, only those boats which were on the starting line holding rope and were not permitted to make a qualifying attempt will be allowed to return to the water if the class is recalled at a later time. Any class which is unable to complete its first round of qualifying will be paired as outlined under "Qualifying Canceled."

**7.6.11 Qualifying Canceled.** If qualifying is canceled at the first race of the season, boats shall draw lots for the purpose of pairing for eliminations. At any subsequent race, the boats will be paired by class for eliminations using the Championship Series point totals for each boat (highest number of points equals #1 qualifier; second highest number of points equals #2 qualifier, etc.). Boats having no points shall draw lots for the remaining qualifying positions. If qualifying is canceled, all competitors must run in the class in which they registered, unless they notify the timing tower of a desire to change classes as explained previously in this section under "Class Changes." If in the opinion of both the Sanction Supervisor and Race Director, a single round of qualifying can be accomplished on the day of eliminations, this option may be exercised. Their decision shall be final.

**7.6.12 Qualifying on Shortened Course.**

**7.6.12.a** In the event of adverse weather conditions or other uncontrollable factors which prevent qualifications to held or completed on the full-length course, the Race Director may elect to hold qualifications on an alternate-length course, as conditions dictate. This decision will be solely the decision of the Race Director and will be made on a class- by-class basis, depending upon conditions.

**7.6.12.b** If and when conditions allow, at the Race Director's direction the course may revert back to the normal length. All boats in each class **will** run their qualification run(s) on the same length course. In the event one full qualifying round is made on the normal course, and another round is run on the alternate course, the qualifying round made on the normal course will determine the official qualifying positioned.

**7.6.13 660' Qualifying Eliminations.**

Pro Outlaw 3.80 Index

Pro Modified 4.10 Index

Pro Comp Flat 3.80 – Fastest Dial In

Blown Gas Flat 3.80 – Fastest Dial In

Quick Eliminator 4.40 Index

Pro Eliminator 4.70 Index

Modified Eliminator 5.60 Index

Stock Eliminator 5.80 – Fastest Dial In

PWC                      6.00 – Fastest Dial In

**7.7 Eliminations**

**7.7.1 Pairings.** Pairing for eliminations shall be based upon the lowest legitimate qualifying E.T. for each boat. Boats will be placed on the standard ladder system according to their respective E.T.'s and the number of boats in their class. If, in any E.T. format class, none of the qualifying E.T.s fall within the E.T. range of the class in which the boat was registered, but the owner and/or driver has elected to remain in that class, the boat will be considered the slow boat in the class and paired for eliminations accordingly. Should there be more than one boat in any class which has no qualifying E.T.s within the E.T. bracket; said boats will be assigned qualifying positions below those boats that legitimately qualified for the class. These boats will be assigned qualifying positions beginning with the boat which broke out of the E.T. bracket by the least amount, followed by all other boats which broke out in ascending order of the breakout amount. In turn, they will be followed by the boat that failed to prove capability by the least amount, followed by all other boats that failed to prove capability in ascending order of the failure to prove capability.

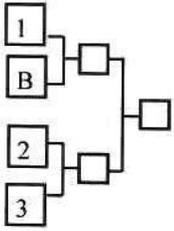
**7.7.2 Broken/Damaged Boats.** During qualifying, any boat that suffers HULL damage will not be paired for eliminations. These and boats must report to the tower 30 minutes after qualifying to Declare broke. If the crew is able to make repairs overnight and tech passes the repairs, they can report to the tower one (1) hour before the First Round of Racing Eliminations begins to Declare Unbroken and be inserted back into the ladders into their qualifying position.

No other pairing will take place unless there is an official error.

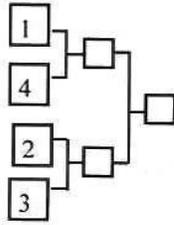
*SEE FOLLOWING PAGES FOR PAIRING LADDERS*

**Pairing Ladders**

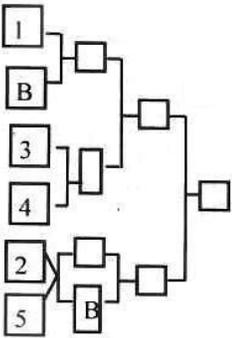
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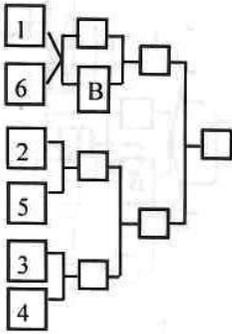
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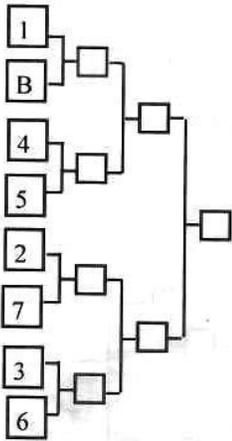
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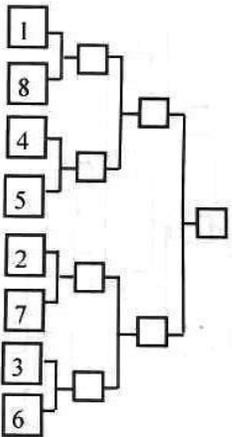
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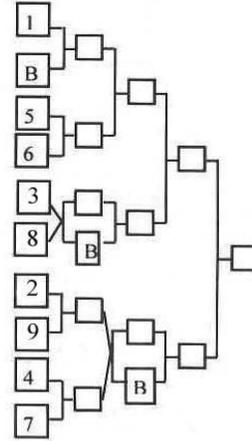


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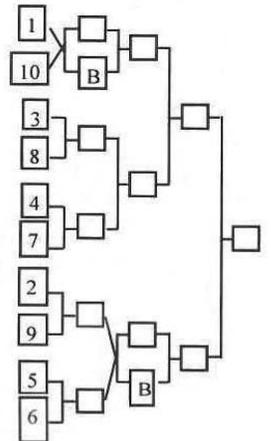


**Pairing Ladders**

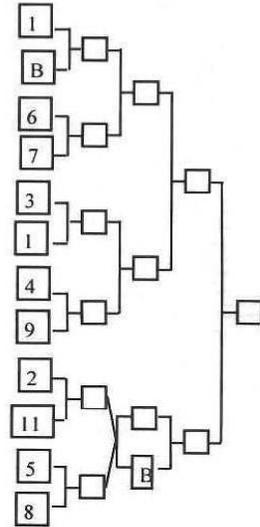
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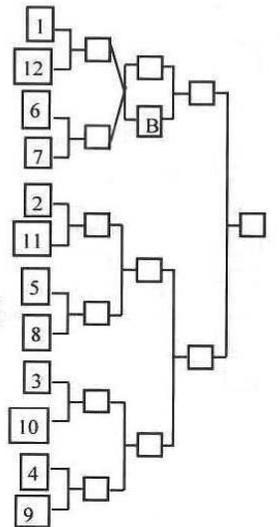
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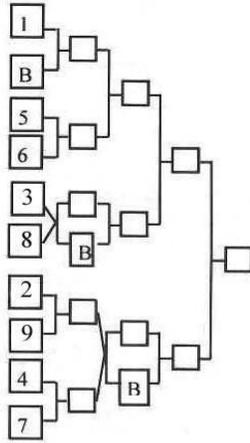


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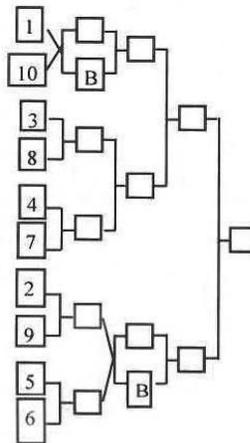


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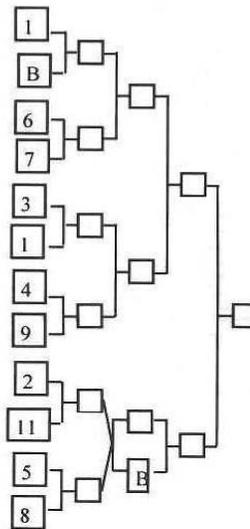
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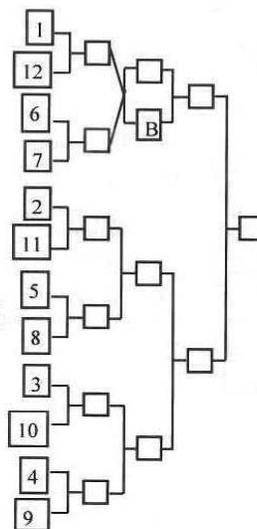
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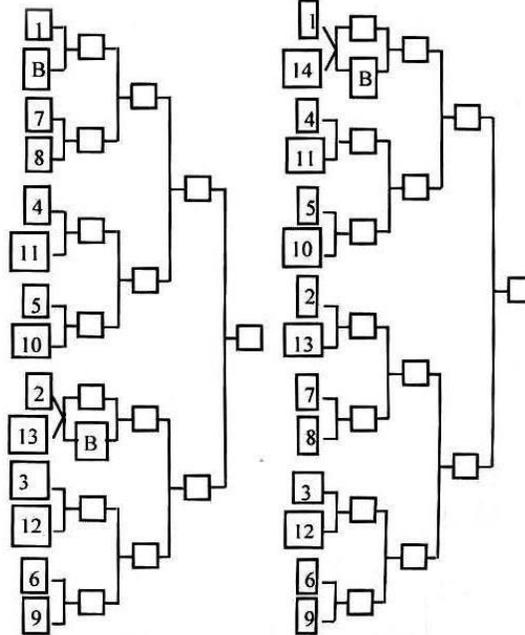
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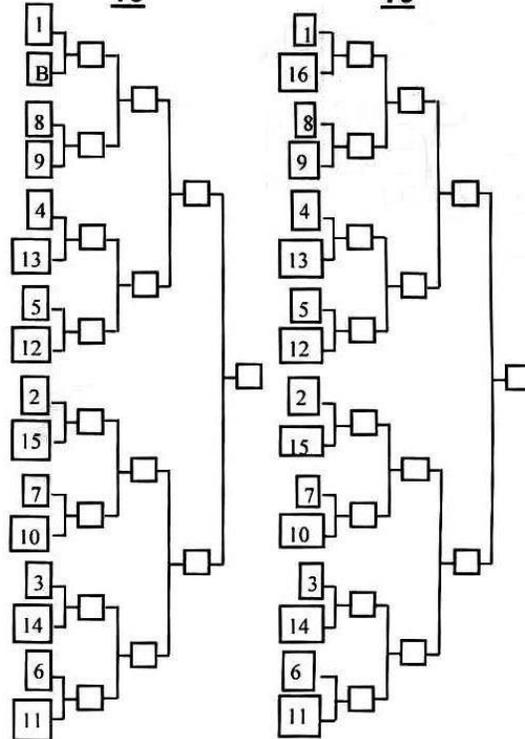
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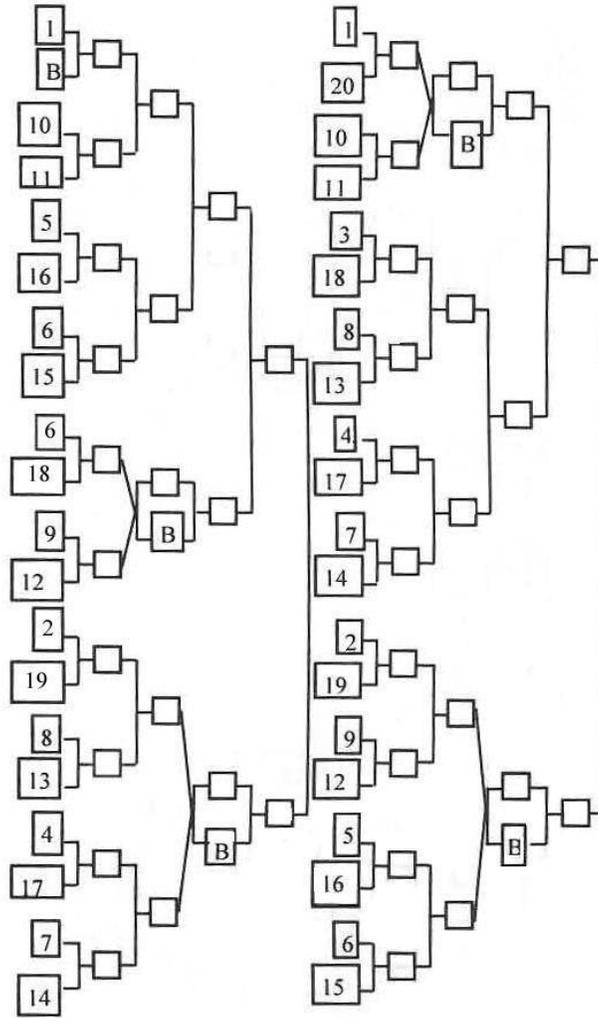




Pairing Ladders

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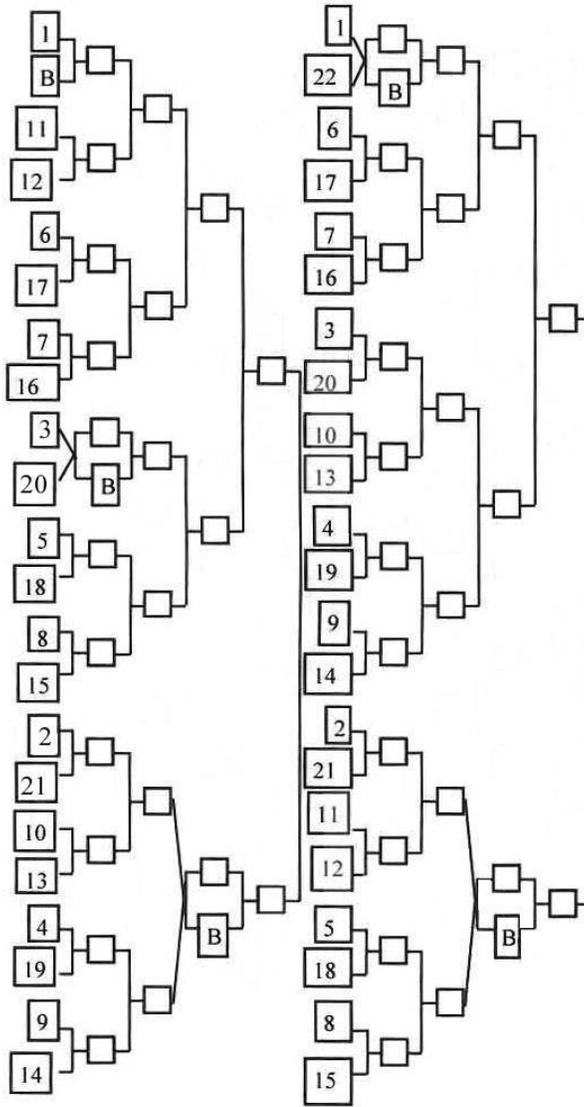
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***Pairing Ladders***

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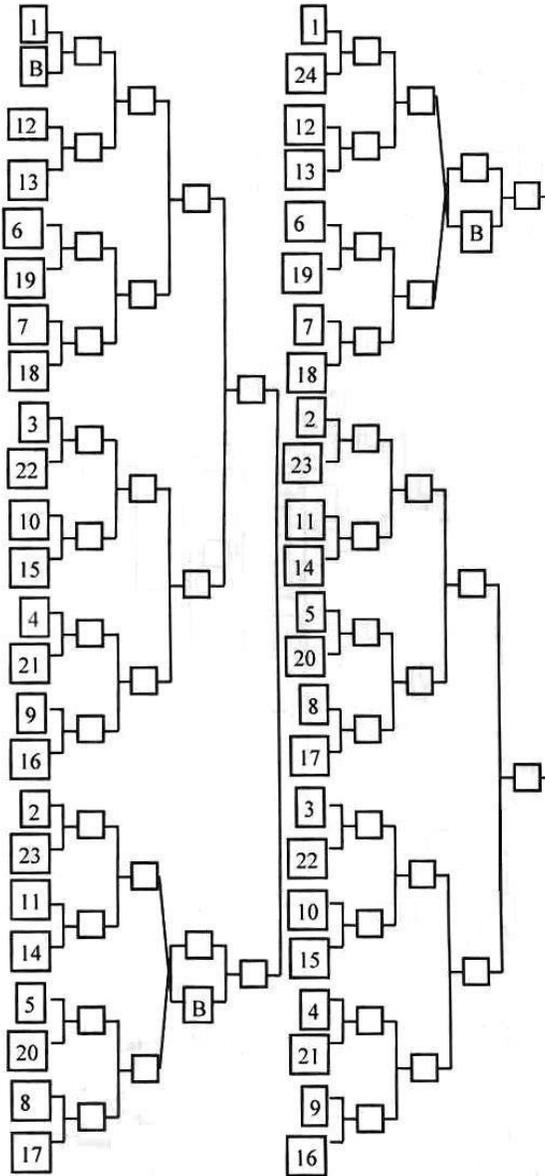
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**Pairing Ladders**

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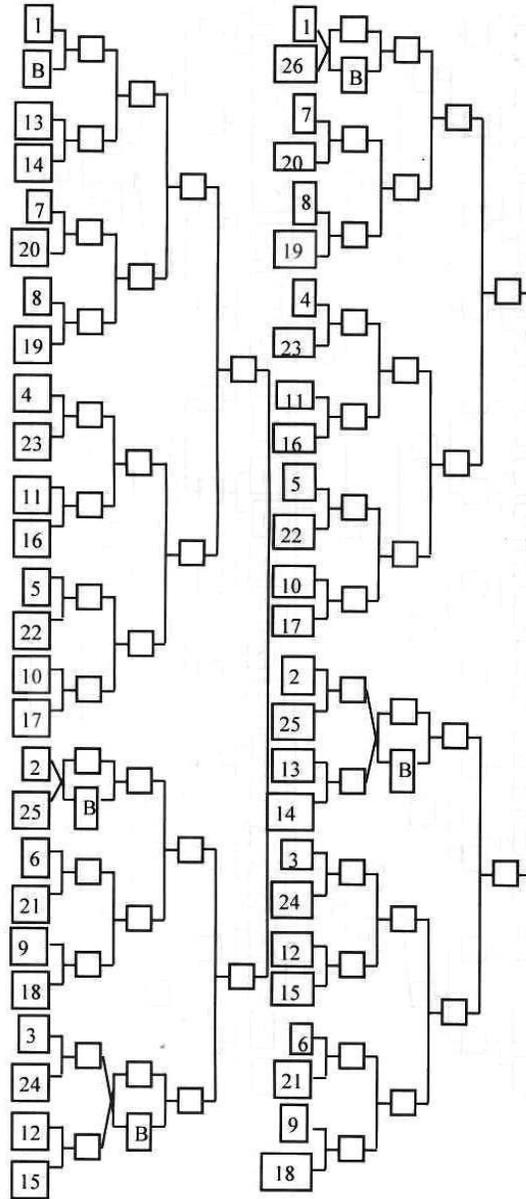
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***Pairing Ladders***

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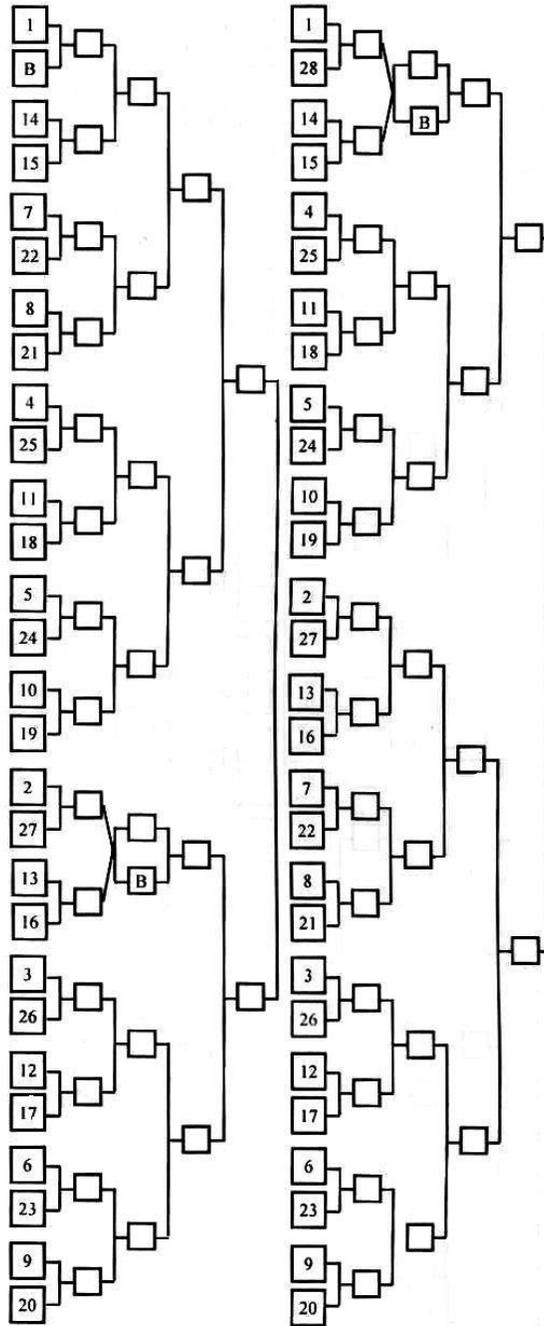
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**Pairing Ladders**

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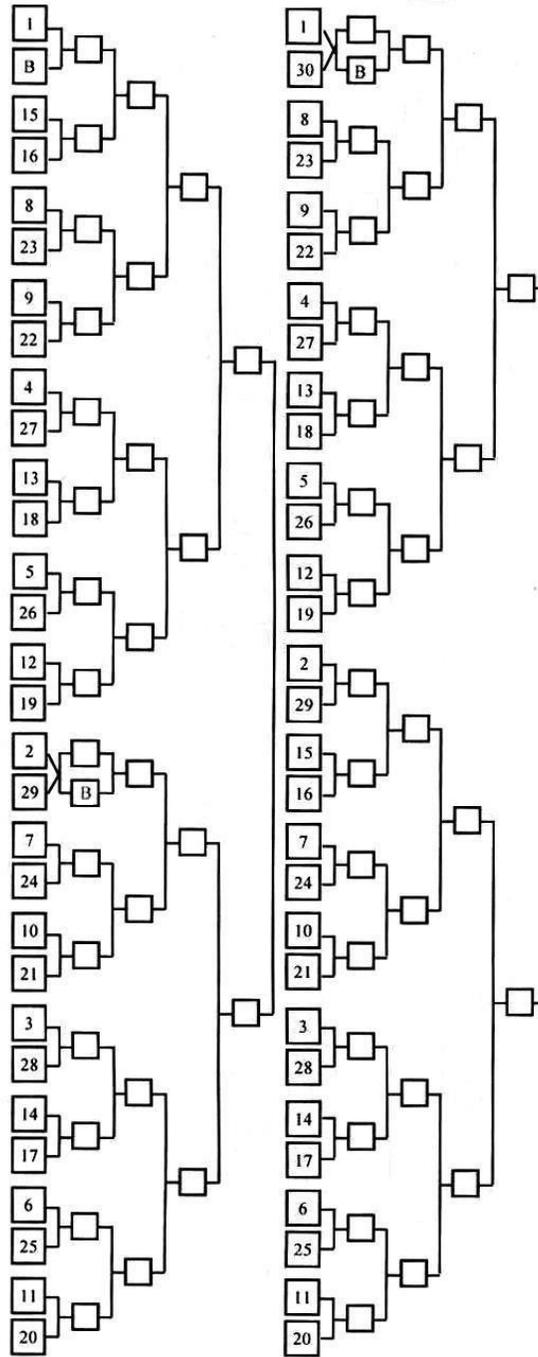
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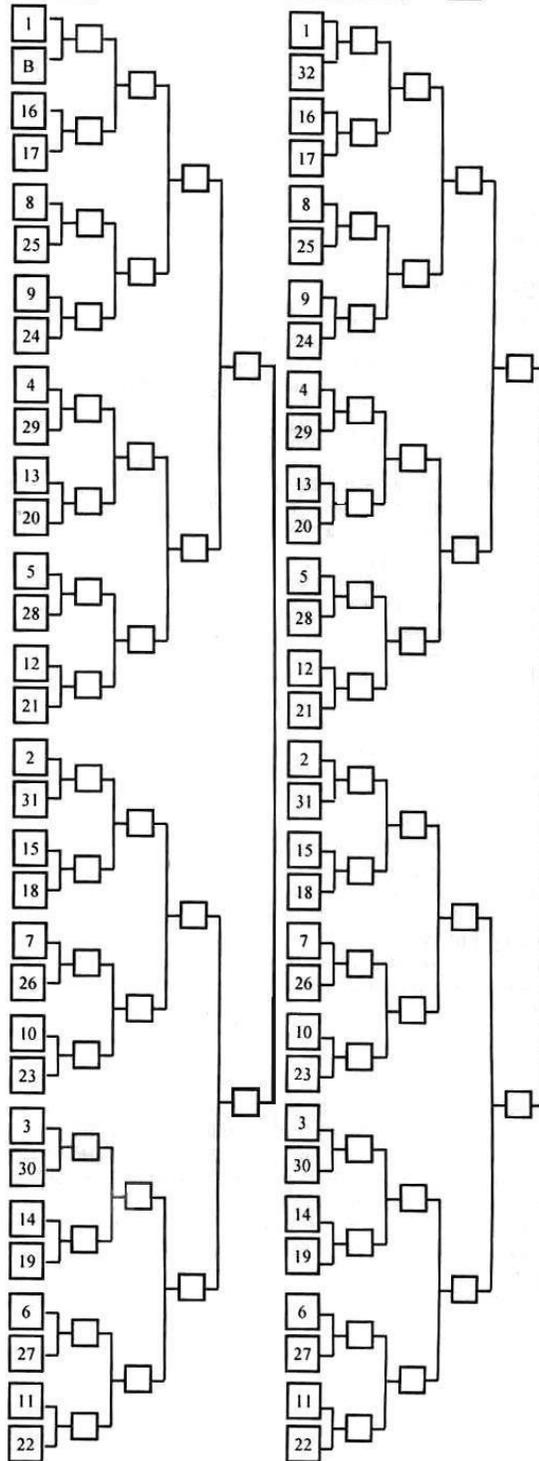
***Pairing Ladders***

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**30**



**31 Pairing Ladders 32**



**7.7.3 Driver Limitation.**

**7.7.3.a** Each driver who enters competition at a sanctioned event will be permitted to drive only one boat in the same class during eliminations, unless that boat is eliminated, declared broken, or voluntarily withdrawn from the racing program during eliminations. At that point, said driver will be eligible to drive one other boat, and one other boat only. If the driver is driving

a second boat pursuant to this rule, and the second boat is either eliminated, declared broken, or voluntarily withdrawn from the racing program, that driver would not be eligible to drive any other boat at that event.

**7.7.3.b** At the discretion of the Sanction Supervisor, a driver may be allowed to drive a second boat in another Class. Eliminations will not be held up at any point to accommodate a driver wishing to drive a second boat.

**7.7.4 Order of Eliminations/Pairings.** The order in which the classes will be called for competition as well as the pairings for the first round of eliminations shall be posted at the timing tower (or other designated location) prior to the commencement of eliminations.

**7.7.5 Lane Selection.** The slower boat in all classes shall be run in the inside (spectator) lane when practical. TFH, TAH, TAF, TFJ, PM, PO, PJ, PCF & BGF have lane choice every round, by previous round ET. Other classes: lane choice final round only.

**7.7.6 Warm-Up Time.** Time permitting, each class will be given one half-hour notice to warm engines prior to their ramp call for the first round of eliminations. Thereafter, as much notification will be given as the situation permits. All decisions regarding warm-up time will be made at the discretion of the Race Director.

**7.7.7 Ramp Call/Launch.** When a class is called to the launch ramp for the first round of eliminations, all boats in the class must report including the alternate boats (except the bye run boat if he chooses not to run). If any boat fails to launch when instructed, the alternate boat will be inserted into the slot by the ramp manager. No repair work requiring outside assistance will be allowed once the boat has been launched into the water.

If there are more boats than the allowed "number of qualifiers" (Rule 7.6.2) allowed in a class, then the alternate boat(s) shall be notified and report to the launch ramp when the class is called for the first round of eliminations. The alternate boat(s) will be the first next in line in the qualifying order for that class.

**7.7.8 Uneven Number of Boats.** If there is an uneven number of boats in a class, a Bye Run is awarded to the number one qualifier in each class.

Bye Run - is earned whether by qualify standing or round win. You Do not need to take a Bye Run but will still earn round points. As a courtesy, please inform ramp staff if not running bye. If Bye Run is not taken the boat will be paired for next round as slowest boat. If a boat's opponent fails to report at the launch ramp a Legal Single will be awarded.

Legal Single - you must run the pass. You must Cross the starting line and clear course to earn points.

**7.7.9 Foul Start (Red Light).** During Eliminations, a foul start occurs when a boat crosses the starting line prior to receiving a solid green light, activating the red light in that lane and eliminating that boat. If both boats red light – the boat with the greater red light is eliminated. A foul start on a bye run or legal single run has no effect on the run whatsoever.

**7.7.10 Breakout.** Breakouts apply to the Pro Modified class as well as all Sportsman and Bracket classes. A breakout occurs when a boat runs an E.T. that is quicker than the index for the class in which that boat is competing. A breakout on any side by side run during eliminations will eliminate the boat from further competition. If a double breakout should occur, the boat which breaks out of its E.T. bracket by the least amount shall be declared the winner of that round. A breakout on a bye run or legal single run has no effect on the run whatsoever.

**7.7.11 Identical E.T.'s – Brake Out the Least.** During eliminations, if two or more boats record identical E.T.'s, during a round, the boat registering the lowest R.T. will be considered the quickest for the purpose of lane selection in the next round. If there are identical E.T.'s and R.T.'s, the boat recording the E.T. first would be considered the quickest.

**7.7.12 Class Win – Single Boat.** In order to win a class when there is only one boat registered therein, the boat must make a qualifying attempt during qualifying. During eliminations, the boat must make a single run. One boat classes will be run at the discretion of the sanctioning division or chapter.

**7.7.13 Class Winners.** All final round class winners may have the appropriate official at the out ramp check their gasoline, alcohol, or nitro-methane mixture as soon as the boat comes out of the water. If water injection is used, a water sample will also be

taken. If requested, an engine oil sample may be taken. Cubic inch displacement is also subject to being checked. See also "Racing Fuels/Fuel Samples" for further information.

**7.7.14 Grounds for Elimination.** Elimination means that the boat is no longer in the competition program. Grounds for elimination are as follows:

**7.7.14.a** Failure to report to the launch ramp.

**7.7.14.b** Failure to launch or drive to the starting line holding rope.

**7.7.14.c** Failure to start, leave the starting line holding rope, or cross the starting line under the boats own power within five (5) seconds after the green light in his/her lane, said boat shall be eliminated. Reaction time will determine the five second rule. If both boats fail to cross the start line with in five (5) seconds of the green light, neither boat will advance.

**7.7.14.d** Safety, such as, but not limited to, hooking the holding rope, crossing the center line or outer boundaries of the racecourse, or hitting any course equipment while under acceleration or own power. Centerline and outside buoys may be touched, deflating or unmooring will result in elimination. **Any time a sensor or tower requires realignment after a run constitutes "hitting any race equipment" In the instance that where a competitor crosses the center line or outer boundary of the race course beyond his normal race course, said boat will advance to the next round (as long as he is the winner of that round) but will forfeit round win points for that round. Breakout of more than 3/10s in competition is immediate elimination.**

**7.7.14.e** Foul start.

**7.7.14.f** Breakout. In the event of a double breakout, the boat breaking out by the least amount will be the winner (Pro Modified, Sportsman, and Bracket classes only).

**7.7.14.g** Failure to cross finish line. If both boats fail to cross the finish line, and no other grounds for elimination are committed by either boat, the winner will be determined by reaction time.

**7.7.14.h** Losing a valid elimination round.

**7.7.15 Grounds for Disqualification.** Disqualification means that the boat is no longer in the competition program and may not be allowed back into competition for any reason whatsoever for the remainder of the event at which the infraction occurred. Grounds for possible disqualification are as follows:

**7.7.15.a** Violation of the Substance Abuse Policy as defined elsewhere in this rule book.

**7.7.15.b** Failure to comply with the rules and/or regulations which are contained in this rule book, or failure to follow proper directions of race working officials.

**7.7.15.c** Unsportsmanlike conduct, including, but not limited to, abusive language, gestures, threats, and physical assault.

**7.7.15.d** Running down the race course when the solid red lights are illuminated (indicating that the course is closed).

**7.7.15.e** Starting or attempting to start a boat's engine while under tow on the water.

**7.7.15.f** Approaching another boat or object at an unsafe speed or angle, or any other action or practice deemed unsafe by any official.

**7.7.15.g** Disconnecting, overriding, substituting, or attempting to defeat any safety related rule or item required to pass the pre-race safety inspection.

**7.7.15.h** Any open boat running 5.70 seconds on a 1000' course.

**7.7.15.i** Demonstrative or “show-boating” actions by a driver (such as removing hands from the steering wheel and waving or gesturing to the crowd) while under full throttle on the race course.

**7.7.15.j** Any action(s) which is disruptive or intended solely to impede the normal progress of the racing program, such as, but not limited to, blocking the tow vehicle traffic pattern, blocking the boat ramp(s), or any type of disruption at the timing tower, etc.

**7.7.15.k** Failure of the driver of a tow vehicle to remain with the tow vehicle while the boat is in the water and/or being towed to or from the boat ramps.

**7.7.15.l** Allowing an unlicensed driver to operate any motorized vehicle and/or mini-bike at the event site unless authorized by an official of the sanctioning division or chapter. Unlicensed vehicles may not be operated after dark unless equipped with lights. Check with each event site for rules regarding use of motorized pit vehicles. At no time shall these event site rules negate more stringent rules set in this book.

**7.7.15.m** Any boat that fails to pass a safety inspection after damage has occurred to the hull.

## **7.8** **First or Worst**

The primary objective of each race is to have one winner and one loser. Should a double rules infraction occur on the same run, the driver committing the major (or more serious) infraction shall be eliminated; the driver committing the lesser offense shall be reinstated as the winner of that round of eliminations. Items appearing above under “Grounds for Elimination” and “Grounds for Disqualification” are listed in the order of their seriousness, with the most serious listed first, and the least serious listed last. All items under “Grounds for Disqualification” are considered more serious than those found under “Grounds for Elimination.”

## **7.9** **Incomplete Race**

In any class that does not complete eliminations due to any circumstances, such as inclement weather, winners will be determined as follows

**7.9.1** **Canceled Before First Round.** If the race is canceled before the first round of eliminations is started, the winner of each class will be chosen using the lowest legitimate elapsed time (E.T.) recorded in qualifying. No purse will be paid.

**7.9.2** **Canceled During First Round.** If any class of boats is unable to complete the first round of eliminations (due to round scheduling) although other classes did, the winner of said class will be determined by the lowest legitimate elapsed time (E.T.) recorded in qualifying. If there are identical E.T.’s, the boat with the lowest R.T. would be the winner. If there are identical E.T.’s and R.T.’s, the boat recording the R.T. first would be the winner.

**7.9.3** **Canceled After First Round.** If the race is canceled before the final round but after the first round of eliminations of a particular class has been completed, the winner of said class will be determined by the lowest legitimate **live** elapsed time (E.T.) recorded during the most recent fully completed round of eliminations for the class. If identical E.T.’s: see above rule. If the first round is completed fifty (50) percent of promoter’s advertised purse will be paid. If semi-final round is completed one hundred (100) percent of the promoter’s advertised purse will be paid.

**7.9.4** **Starting/Timing System Malfunction.** If during eliminations, a serious malfunction of the starting and/or timing system were to occur, and it obviously could not be corrected or repaired in a timely fashion so as to complete the eliminations program, the following guidelines (subject to any deviations mandated by local conditions and approved by the Sanction Supervisor) will be used to conclude the racing program:

**7.9.5** If a failure of the starting system makes it impossible to electronically determine foul starts, officials will visually observe the starting line for foul starts. Open boats may not leave the starting line holding rope until the green light is illuminated; capsule boats may not close the capsule lid and subsequently leave the starting line holding rope until the green light is illuminated.

**7.9.6** If a failure of the timing system makes it impossible to electronically pick each race winner, officials will visually observe the finish line, and they will declare the winner of each run.

## 7.10 Problems & Protests

**7.10.1 Filing.** All problems as well as protests should first be presented to the class/hull rep, who in turn will present the problem or protest to the Sanction Supervisor. If the class/hull rep is unavailable or is a party to the problem or protest, the problem or protest should be presented directly to the Sanction Supervisor. All protests must be submitted in writing on an official Protest Form (available from the Sanction Supervisor). Protests may only be made by an owner or driver in the same class as the boat or driver being protested. Protests should be factual, specific, and as complete as possible. The protest must be submitted no later than fifteen (15) minutes following the incident which caused the protest, or fifteen (15) minutes following the last time that the boat or driver being protested comes out of the water, whichever occurs first. All protests must be accompanied by the required fee in cash (see Appendix C). Once a class elimination has been completed, only the winning boat or driver may be protested. If a protest is lodged against the winning boat, all fuel and fluid checks must also be obtained from the class runner-up. Should the protest against the winning boat be sustained, the boat that was last defeated by the violator shall be declared the winner, assuming that he is found to be legal.

**7.10.2 Equipment.** Protests for alleged illegal equipment must be filed as described above under "Filing" and accompanied by the required fee in cash (see Appendix C).

**7.10.3 Engine.** Protests for alleged illegal or oversized engines which will require an engine tear down must be filed as described above under "Filing" and accompanied by the required fee in cash (see Appendix C). The cash is to be deposited with the Sanction Supervisor. The owner of the boat being protested may designate the person(s) that he wishes to perform the physical tear down, which is to take place immediately following the completion of the class in which the alleged offender is competing. An engine tear down, as the result of a protest, shall include the removal of at least one (1) cylinder head and assembly. The Sanction Supervisor shall oversee or designate another official to oversee the engine tear down. The protester is strictly prohibited from being present during the tear down and from being allowed to inspect the engine once it is torn down. Upon its completion, the Sanction Supervisor, along with other officials or advisers (as needed), shall evaluate the protest. If the protest is sustained, the protest fee, less the compensation for engine tear down (see Appendix C), shall be returned to the protester. Should the protest be disallowed, the protest fee, less the compensation for engine tear down, shall be given to the party who was protested. The compensation for engine tear down will go to the sanctioning division or chapter for payment to the person(s) who performed the actual engine tear down.

### Formula for Engine Cubic Inch Displacement

$$\text{Bore} \times \text{Bore} \times \text{Stroke} \times .7854 \times 8$$

(assumes 8 cylinder engine)

**7.10.4 Fuel/Oil/Water.** Protests for suspected infractions concerning gasoline, alcohol, nitro-methane mixture, water used in water injection systems, or additives in engine lubricating oil must be filed as described above under "Filing" and accompanied by the required fee in cash (see Appendix C).

**7.10.5 Procedures.** Protests for alleged violations of race procedures by any officials must be filed as described above under "Filing." No fee is required.

**7.10.6 Refusal.** Refusal to allow any fuel or fluid samples to be taken has the same force and effect just as if the sample had been taken and found to be illegal, and the same fines and/or penalties apply. Refusal to allow an engine tear down, if protested, has the same force and effect just as if the engine had actually been torn down and found to be illegal or oversized, and the same fines and/or penalties apply (see Appendix C).

**7.10.7 Protest Disallowed.** Any protest which is disallowed or found to be invalid shall result in no fines and/or penalties being imposed. Fees for fuel/oil/water protests will be retained by the sanctioning division or chapter. Fees for engine and/or equipment protests will be disbursed as outlined above under "Engine."

**7.10.8 Protest Sustained.** Any protest which is sustained or found to be valid shall result in fines and/or penalties being assessed against the offending competitor(s). Penalties will be determined by the Board of Directors of the sanctioning division or chapter. They may range from a verbal warning or a written reprimand up to a suspension from racing at sanctioned events. Fees for fuel/oil/water protests will be retained by the sanctioning division or chapter. Fees for engine and/or equipment protests will be disbursed as outlined above under "Engine."

**7.10.9 Protest Reply.** The decision as to how any protest will be handled rests with the Sanction Supervisor. All formal written protests, filed in accordance with the regulations contained herein, will be reviewed by the entire Board of Directors of the sanctioning division or chapter, who shall be held directly accountable for a formal reply. Said reply shall be made as soon as possible.

#### **7.11 Retention of Boats & Parts**

By virtue of registering any boat at a sanctioned event, the participant thereby grants the IHRA OUTLAW DRAG BOAT RACING SERIES, the sanctioning division or chapter, and their assigns the full and unconditional permission to collect and retain boats and parts of boats owned by or in the possession of said participant, including such boats and parts of boats which have been involved in an accident when the IHRA OUTLAW DRAG BOAT RACING SERIES or the sanctioning division or chapter determines in its discretion that such actions are necessary incidental to the investigation of an accident, the inspection or testing of such boats or parts of boats, or for any other purpose. Upon conclusion of the testing and inspection, all boats and/or parts of boats will be returned to the owner(s). No sponsor, promoter, rescue personnel, diver, other participant, or spectator shall have any rights whatsoever to any boat, engine, equipment, or parts thereof which are recovered and retained pursuant to the foregoing.

### **Rule 8.0**

#### **BOAT SAFETY EQUIPMENT – GENERAL**

#### **8.1 General**

**8.1.1** All hulls must be in good, sound condition, fully capable of withstanding the rigors of drag boat racing. All air tanks, batteries, cables, fuel pumps, fuel tanks, impellers, mountings, paddles, propellers, propeller shafts, seats, steering assemblies, struts, rudders, etc. must be both firmly secured and in good operating condition. In addition, any boat participating in a sanctioned event must be presentable in appearance at all times. Those with objectionable or obscene names, graphics, or pictures will be rejected by the Safety Inspector. Likewise, the appearance of owners, drivers, and individual crew members is of equal importance, and is subject to the same considerations. In case of a disagreement, all members of the Board of Directors/Competition Committee present at the event will immediately meet and decide the issue. Their decision will be final.

**8.1.2** All boats which are to be registered to compete at a sanctioned event in any class must have the following items inspected by the Safety Inspector (or his assistant). All determinations as to whether or not any piece of equipment, including both the driver's as well as the boat's, complies with these safety requirements shall be at the discretion of the Safety Inspector. Any boat which has passed safety inspection at any event is still subject to re-inspection or random inspection at the discretion of the Safety Inspector at that event. Likewise, the boat remains subject to inspection at any subsequent event(s).

**8.1.3 Clutch and Bell Housing.** (Refer to Rule 10.22)

#### **8.2 Bilge Pump**

**8.2.1** All open boats must have an electric bilge pump.

**8.2.2** Capsule boats must have a solid state water detection switch (manual type not allowed) which may or may not activate the pump but must turn on a warning light in the capsule in plain view of the driver. Switch must have an external checking device and be placed to turn on at approximately two (2) inches of water level. (Johnson Pump Model 36303 Ultima switch, meets this criteria).

**8.2.3** All automatic pumps must have a manual over ride switch.

#### **8.3 Blower (Supercharged)**

**8.3.1** Top Fuel Hydro: Supercharger: Required: Roots-type, Hi-Helix or Helix. Manifold burst panel meeting SFI Spec 23.1, plus restraint system meeting SFI Spec 14.2 mandatory. Supercharger restraint straps must be covered. Screw-type superchargers prohibited. Remote-mounted supercharger prohibited. Variable multi-speed supercharger device prohibited.

**8.3.2 Roots Type** – Maximum size 14-71; maximum rotor case length 19 inches; maximum case width 11.250 inches; maximum rotor cavity diameter 5.840 inches; minimum front plate thickness .250 inches; minimum rear plate thickness .300 inches. Rotor helix angle may not exceed four (4) degrees per inch. Maximum overdrive allowed is seventy percent (70%).

**8.3.3 Roots Type High Helix.** Must adhere to same minimum/maximum case dimensions as well as maximum rotor cavity diameter allowed for standard Roots type supercharger. Rotor helix angle may not exceed six and one half (6.5) degrees per inch. Maximum overdrive allowed is seventy percent (70%).

**8.3.4 Screw Type.** Allowed only on gasoline or alcohol motors in all classes **except TAF, TFJ and TFH.** Maximum case length 16 inches; maximum case width 16 inches; minimum case and front plate thickness .250 inches; minimum rear plate thickness .300 inches. Screw superchargers with a rotor diameter in excess of eight and one half (8.5) inches will be limited to a maximum overdrive of sixty percent (60%); those with a rotor diameter of eight and one half (8.5) inches or. Under no circumstances may a screw type supercharger overdrive exceed the manufacturer’s SFI test maximum. A supercharger burst panel is required in addition to a manifold burst panel. Overdrive limits, as determined appropriate by the IHRA OUTLAW DRAG BOAT RACING SERIES (based upon performance criteria) are subject to adjustment at any time.

**8.3.5** Aluminum manifold mount studs are required with all superchargers.

**8.3.6** Variable multi-speed supercharger devices are prohibited regardless of supercharger type, in all Pro Classes. In addition, remote mounted superchargers as well as mechanical overdrive devices will not be permitted.

**8.3.7 TAH, Supercharger**

PSI “C-Case” 1.9299999 Single Propeller

PSI “C-Case”/”D-Case” 2.25 DualPropeller

PSI “D-Case” 2.06 Single Propeller

Whipple 1.60 Single/Dual Propeller

**8.4 Blower Burst Panel (Supercharger Burst Panel)**

A manifold burst panel meeting “SFI 23.1” specification is required on all supercharged engines using nitro-methane as fuel.

**8.5 Blower Restraints (Supercharger Restraints)**

All blown (supercharged) engines must use SFI approved blower restraining devices as indicated below:

<u>Engine Fuel</u>	<u>Supercharger</u>	<u>SFI Device</u>
Top Fuel	Roots/High Helix	14.2 Bag
Blown Alcohol	Roots/High Helix	14.1 Straps
Blown Alcohol	Screw	14.21 Bag
Blown Gas (Pro)	Roots/High Helix	14.1 Straps
Blown Gas (Pro)	Screw	14.21 Bag
Blown Gas (SP)	Screw	14.21 Bag
Blown Gas (SP)	Roots/High Helix	Not Req’d

(Pro = Pro Classes SP= Sportsman Classes)

All restraining devices must be secured and in place at all times when the motor is running. Blower restraining devices are required to be returned to the manufacturer every four (4) years from date of manufacture for recertification/dating. It is the responsibility of the owner or driver to ensure that the new date tag was sewn into the device after recertification. TFH, TAH, TFJ and TAF blower restraints must be re-certified every two (2) years.

#### **8.6 Blast Plate/Cavitation Plate Attachment**

In Top Fuel Hydro, Top Alcohol Hydro, Blown Alcohol Flat, Pro Modified and Pro Outlaw classes, bolts must be attached no closer to the leading edge of the plate than the diameter of the bolt used. (i.e.) (3/8 bolt 3/8 inch, 5/16 bolt 5/16 inch. etc.) Measurement will be taken from the leading edge of plate. When flat head bolts are used, the measurement will be taken from the leading edge of the countersunk taper to the leading edge of the plate. Bolts may be attached no further than 1 inch from the leading edge of the plate. Measurement to be taken from leading edge of plate to leading edge of hole. Maximum spacing of bolts is three (3) inches on center.

#### **8.7 Bolts**

All bolts on critical installations such as, but not limited to, drive train, engine mounts, steering, rudders, etc. must have a minimum of one thread showing through the nut or nylon locking device. Bolts shall be of sufficient grade to provide adequate strength for the application. Ungraded bolts are not permitted.

#### **8.8 Bow Eyes**

All boats shall be equipped with a bow eye located at the bow (front) of the boat. All pickle fork type boats shall also have installed an additional towing eye on the inside front tip of the left sponsor or the extreme forward center point of the boat.

#### **8.9 Boat Number/Class Designator**

All boats must have two (2) sets of racing numbers on each side of the boat that are contrasting in color to the color of the boat. Only numbers are allowed; alpha/numeric combinations are not permitted. One set must be a minimum of three (3) inches high and located above the level of the engine's valve covers. The other set of numbers must be on the sides of the boat itself and must be a minimum of six (6) inches high. However, only one set of numbers is required on a boat if the numbers are at least four (4) inches high and located above the level of the engine's valve covers on the sides of the capsule, the cowling behind the capsule, or the carburetor scoop, etc. Each boat number will also include a letter assigned to each member's home association. The letter will be placed after the number and will be a minimum of one and one half (1 ½) inches tall and be of the same color as the boat number.

ADBA-A

CBDA-C

KDBA-K

IHRA-I

ONE TIME-X

Any boat displaying a number which is already assigned to another boat, or displaying a number which has been retired, must obtain a new number at registration, and change said number on the boat prior to entering the water. Failure to do so will result in the boat forfeiting any qualifying points which it would normally have earned. Failure to change the number prior to eliminations will result in the boat being disqualified at the ramp when the first round of eliminations is called. When a racer attends a race outside his home division, if requested by the sanctioning division, he must change his number. The class designator (i.e., TFH, TAH, PM, etc.) must also be displayed on both sides of the boat. It should be in close proximity and proportionate in size to the boat number which is located above the level of the engine's valve covers.

#### **8.10 Tow Vehicle – Trailer Number**

The boat number and class designator (minimum three [3] inches high) must be displayed in white on the passenger side of both the front and rear glass of all tow vehicles.

#### **8.11 Battery Disconnect Switch**

An electrical power cut off switch (one only) must be installed near the drivers seat and be easily accessible from outside the boat. This cut off switch must be connected to the positive side of the electrical system and must stop all electrical functions. The “off” position must be clearly indicated with the word “OFF”. If the switch is a push/pull type, “push” must be the action for shutting off the electrical system. (Pull to turn it on.) Any rods or cables used to activate the switch must be a minimum of 1/8th diameter. Plastic or key switches prohibited. The power cut off switch must be placed in a location so if there’s a fire in the engine, driver’s area or compartment, rescue crew or track officials can reach it. Location must be clearly marked by decal furnished by IHRA.

#### **8.12 Chrome Plating**

Chrome plating or coating that will not allow the ability to crack check any of the roll cage or underwater hardware is not permitted on any boat in any class whatsoever.

#### **8.13 Crankcases Catch System**

All boats must have some type of catch can or vacuum recovery system to reserve any blow- by fluids that may vent out of the engine crankcase and prevent any oil/fuel from entering the water. If the system goes to the headers, it must employ an oil separating device.

#### **8.14 Decals**

IHRA and supporting sanction body logo decal shall be affixed to the exterior surface on each side of all boats. Said decal shall be mounted in close proximity to the cockpit area and located in such a position that it is clearly visible when viewed approximately fifteen (15) feet from the boat. As required by Rescue, decals indicating location of battery cutoff switch and external capsule release shall be displayed. (available from Safety and Tech).

#### **8.15 Drive Line Cover**

**8.15.1** All open inboard V-drive boats must utilize a 360 degree driveline cover. A driveline is described as a drive shaft of any length which has u-joints attached, or a splined coupler. The cover must be constructed from one quarter (1/4”) minimum thickness aluminum, or one eighth (1/8”) minimum steel. No perforations are allowed, and must be designed, constructed and installed in such a manner that it will maintain total structural integrity in the event of failure of the drive shaft or attached u-joints.

**8.15.2** No cover is required with a splined coupler, if installed on a capsule or jetboat.

**8.15.3** Jet boats may use a 360 or 180 degree cover, a loop as described in the following section, or a device that will deter the drive line from exiting the boat in case of failure. No cover is required if the drive line is covered by the hull or transom.

**8.15.4** Cast iron flywheels will not be allowed unless SFI certified or has a SFI approved bell housing.

#### **8.16 Drive Line Loop**

Jet boats utilizing a drive shaft with one or two U-joints may use a drive line loop instead of a drive line cover. The loop can be made of the following materials:

1. 7/8 inch x .065 wall welded steel tubing
2. 1/4 inch x 2 inch wide flat steel
3. 1/4 inch wall steel tube x 2 inch wide

All of the above must be three hundred sixty (360) degrees around the shaft, located and mounted within six (6) inches of the U-joints. For shafts longer than fourteen (14) inches, two (2) loops must be used. All loops must be mounted securely through the stringers to support the shaft in the event of a U-joint failure. A round loop must be used so as to minimize the load on the loop. Maximum clearance around the shaft is to be one inch.

#### **8.17 Engagement and Disengagement Device**

All inboard propeller driven boats shall have installed a device making possible the engagement and disengagement at will of the propulsion device while the engine is running.

#### **8.18 Fire Extinguisher**

A fire extinguisher which is quickly and easily accessible, is required to be in the rear of all tow vehicles used during any sanctioned event. Said fire extinguisher must have a minimum five (5) pound capacity with a 10 B.C. (U.L.) rating and must be fully charged as indicated by a visual gauge on the fire extinguisher. Although not required, it is permissible to have another fire extinguisher (securely mounted) in the boat itself. The size of this second fire extinguisher will be per the owner's discretion.

#### **8.19 Flywheel Cover**

All inboard powered boats must have a three hundred sixty (360) degree flywheel cover made of production cast aluminum (or the equivalent).

#### **8.20 Fuel Shut-Off Valve**

All fuel injected boats must have a quick action push/pull fuel shut-off valve, the valve control must be in front of and within easy reach of the driver. If the valve control is installed within a capsule, see Capsules/Breakaways for restrictions on the control mechanism. The valve itself must be installed in the fuel line between the main fuel pump and the fuel injectors.

#### **8.21 Harmonic Balancer**

Two-piece cast iron (stock type) harmonic balancers must be enclosed within a shield made of either one quarter (1/4) inch minimum thickness aluminum or one eighth (1/8) minimum thickness steel. The design, construction, and installation of the shield must be such that it will afford three hundred sixty (360) degrees of protection while maintaining total structural integrity should the balancer inadvertently explode. SFI approved aftermarket balancers do not require a shield.

#### **8.22 Holding Rope Deflector**

A holding rope deflector is required on all boats in order to deflect the holding rope over the highest point of the boat and provide clearance from the widest point from the driver's seat rearward. The design of the deflector should be such that a driver may simply drop the holding rope behind his helmet as he proceeds away from the rope, and the rope should not subsequently snag, hang, pull, or catch any part whatsoever of the boat, engine, carburetor scoop, injector hat or tubes, flat bottom wing, miscellaneous hardware, and so forth. On open boats, the holding rope deflector must be solidly attached at both ends as well as attached or supported at the highest point behind the driver with no protruding points to catch the holding rope or to injure the driver in the event of an accident. The deflector must extend rearward at approximately a forty-five (45) degree angle, which should be sufficient to deflect or guide the holding rope up, over, and around whatever is located behind the driver.

Construction is to be of 3/4 inch O.D. (outside diameter) x .049 inch wall thickness tubing or any material or combination of materials having the same structural strength and integrity. Capsule boats utilizing a holding rope deflector between the capsule and the engine must employ a slip joint at one end so the capsule and engine are not bolted together by means of the deflector. Vinyl plastic encased wire rope may be used between the engine and wing on flat bottoms equipped with a wing. Said wire rope must be a minimum of one eighth (1/8) inch in diameter, excluding the vinyl plastic covering.

#### **8.23 Impeller**

All Professional and Sportsman class jet boats must use either stainless steel or bronze impellers only. In addition to stainless steel or bronze, Bracket E.T. classes will also be permitted to utilize aluminum impellers. However, all classes are prohibited from using any impeller which is

designed and manufactured using either two piece or multiple piece construction. Only impellers which are manufactured as a solid one-piece unit will be accepted.

#### **8.24 Impeller Release Device/Pressure Release System**

T.E., P.E., and QE class jet boats are required to use either a ratchet type release device or a pressure relief valve. The pressure relief valve is required on jet boats that run 6.99 sec. or quicker. Both mechanisms may be used. The pressure relief valve must be designed to open automatically case of engine or jet drive failure. Once activated, the valve must remain open until such time as the boat has come to a complete stop, and the engine shut down. Valves that reset pneumatically or electronically, may do so with the boat at rest and the engine shut down. Manual resetting must be done when the boat is back on the trailer. The valve piston size must be a minimum of four (4) inches in diameter, resulting in a minimum of thirteen (13) square inches of unrestricted exhaust opening. The pressure relief valve, if used, must be installed on the intake side of the jet pump bowl. A 'tattletale' pressure gauge (0-200 psi) must be installed on the suction pressure tap used to sense high pressure to automatically open the valve and shall be mounted as close to the packing nut as practical. In lieu of a pressure gauge a data collection system that records pressure during automatic activation may be used. A manual override button must be installed on the steering wheel of the boat. If only a pressure relief is used, it must function properly on each pass.

#### **8.25 Kill Switch**

All open boats must have an electrical ignition kill switch device which will immediately and automatically shut off the engine in the event the driver is thrown from the driver's seat. All open fuel injected blown boats utilizing nitro-methane for fuel shall be equipped with two automatic kill switches - an electrical ignition kill switch as well as a fuel shut-off device. The electrical kill switch shall be mounted directly alongside of or in front of the driver's seat, and within an arm's length of the driver. The automatic fuel shut-off device shall be installed in the main fuel supply line between the fuel pump and the injectors. Both the electrical kill switch and the fuel shut-off device should be mounted and the release cords routed so as to disconnect should the driver's posterior move more than eighteen (18) inches in any direction from the driver's seat. Any kill switch device that is attached to the driver must have a maximum breaking point of fifty (50) pounds within a maximum distance of six (6) inches from the driver. If boat is equipped with an electric fuel pump, the kill switch lanyard must also turn off power to the pump.

#### **8.26 Paddle**

All open boats, at the option of the driver, may have a paddle, securely mounted, within easy reach.

#### **8.27 Propeller**

No chrome plated, brass, or aluminum propellers will be allowed on any flat bottom, hydro, or outboard boat. The propeller must fit on the propeller shaft in such a manner that the propeller hub is within three quarters (3/4) of an inch of the strut barrel. Propeller retention must include a cotter pin, one eighth (1/8) inch minimum diameter, through the shaft, with a lock nut or double nut in front of the cotter pin, or a castle nut indexed by the cotter pin.

#### **8.28 Propeller Shaft**

The minimum diameter for the propeller shafts (prop shafts) for all inboard powered hydro's and flat bottoms shall be as follows:

<b><u>Class</u></b>	<b><u>Primary Shaft</u></b>	<b><u>Secondary Shaft</u></b>
TFH	1-1/4 inch	1-1/4 inch
TAH	1-1/8 inch	1-1/4 inch
TAF	1-1/8 inch	1-1/8 inch
PM	1-1/8 inch	1-1/8 inch
PO	1-1/8 inch	1-1/8 inch
BGF	1-1/8 inch	1-1/8 inch
All Others	1 inch	1 inch

**8.28.1** If a two-piece prop shaft is utilized, the coupler used to connect the two pieces together must meet the following criteria (depending on the type of coupler used):

**8.28.1.a** Through Bolt Coupler – Bolt must be indexed into propeller shaft. The bolt must be the same size as the hole in the coupler

**8.28.1.b** Split Coupler with set screw retainer. Propeller shaft must be dimpled with a drill bit that will fit into the set screw hole in the coupler the full depth of the drill bit point. The set screw must be secured in the hole.

**8.29**    **Propeller Shaft Release (Whirlaway)**

All inboard powered flat bottoms and hydro's must be equipped with a propeller shaft (prop shaft) release mechanism installed in the boat's drive line.

**8.30**    **Pump Leader**

All jet boats are required to have the pump loader secured with a minimum of four (4) size five sixteenths (5/16) inch grade 8 steel bolts. A minimum of two (2) of the bolts must be drilled completely through and secured with nuts. Flathead stainless steel bolts are not allowed.

**8.31**    **Radio Receiver**

All drivers must have 'a listen only' radio receiver that tunes into the rescue, starter, and tower race control frequency.

**8.32**    **Rudder**

Rudders are not required on jet boats. No chrome plating or coating that prohibits the ability to crack check rudders will be permitted on any boat. Steel rudders for TFH (and dual prop boats) shall be a minimum of three quarters. 3/4" inch thick at the clamshell All other Pro Class (except PM) boats shall have a minimum five eights 5/8" inch steel rudder. Pro Mod and Sportsman class boats shall have a minimum half 1/2" inch steel rudder. All rudders must extend to at least the bottom tip of the propeller when said propeller is installed on the boat and positioned in a vertical manner. Rudders on any outboard running in a class with an index of 8.99 or quicker shall be a minimum of three eighths (3/8) inch thick at the clamshell, and the clamshell itself shall be a minimum of three eighths (3/8) inch thick on each side of the rudder. The rudder must extend a minimum of one (1) inch below the bottom tip of the propeller when said propeller is installed on the motor and positioned in a vertical manner. All boats using a through-the-hull rudder are required to utilize a safety collar which will prevent the rudder from disengaging itself from the boat.

**8.33**    **Rudder Clamshell**

Boat rudder clamshells shall meet the minimum dimensions as listed in Appendix G. (No "lightened" steering hardware in TAH).

**8.34**    **Safety Collar**

All inboard powered flat bottoms and hydro's must utilize a safety collar on the propeller shaft (normally directly in front of the prop shaft log) which will prevent the propeller shaft from moving backward. In addition to the aforementioned safety collar, all hydro's must also utilize a two-piece split steel safety collar on the prop shaft under the boat. This second collar shall be located at a maximum distance of one half (1/2) inch directly forward of the main strut.

**8.35**    **Safety Chain**

All trailers must have and use a safety chain.

**8.36**    **Steering**

**8.36.1** All boats using open cable steering must use a minimum three (3/16) inch cable with cable ends at turnbuckles double clamped and taped.

**8.36.2** Jet boats may use one eighth (1/8) inch cable if the cable is exposed only from the transom outward.

**8.36.3** Any sportsman outboard with an ET index of 8.99 (1320') or 6.99 (1000') or quicker, utilizing a hydroplane hull may not use the motor to steer. The motor must be locked in a straight ahead position and steering accomplished by a separate rudder assembly.

**8.36.4** On capsule boats the steering box must be mounted free of the capsule utilizing a bracket to prevent rotation of the assembly. A slip joint must be employed to connect the steering shaft to the steering box. A minimum of two safety collars must be installed to prevent the steering shaft moving aft.

**8.36.5** ADVISORY. On all capsule boats. A plate of three eighths (3/8) inch thick, plus three (3) inch H x four (4) inch W shall be installed on the front of the cage or on front of the capsule shell (either inside or outside), around the steering hole to prevent the steering rod from damaging the front of the capsule.

### **8.37** Throttle

Throttle butterflies (carburetor, injector, throttle body, etc.) must be manually operated by the driver's foot (or hand in an approved handicapped application) via direct cable connection. No electronic, pneumatic, hydraulic, OR ANY OTHER MECHANISM, may be installed that can influence or regulate the flow of air into the engine.

In addition, no devices may be used to alter the application rate of the throttle pedal. Butterflies are defined as: any device that changes the flow of air into the engine. Nothing will be installed on the pedal assembly that will prevent the butterflies or pedal from returning to idle when pedal is released.

### **8.371**

#### **Throttle Return Spring**

All boats utilizing carburetors or fuel injectors must have one quick action return spring attached to that part of the throttle plate lever which is connected to the butterfly shaft arm per carburetor. Two quick action springs are **required** on single carburetor/injector systems. All boats using the "bug catcher" type injector hats must have a spring on both sides of the hat. Throttle spring ends must be looped and attach between a solid point and the throttle plate lever, avoiding the cable attach point.

### **8.38** Throttle Stop

All boats which are equipped with a foot operated accelerator pedal must incorporate a functional mechanical stop in the pedal mechanism which will limit the forward motion of the pedal. The stop must be positioned so as to prevent the throttle linkage from passing over center and thus sticking or locking in a full open throttle position.

## **Rule 9.0**

### **DRIVERS SAFETY EQUIPMENT – GENERAL**

#### **9.1** Ballistic Shorts

All open boats and PWC's running over 70 mph will be required to wear ballistic shorts.

#### **9.2** Helmets

All crash helmets must be proper fitting and meet as a minimum either the "SNELL specification, "SFI 31.1" specification (open face), or "SFI 31.2" specification (full face). All helmets will be within twelve (12) years of the SFI/Snell rating. A label indicating the rating must be permanently attached to the inside of the helmet, or the rating must be stamped into the helmet itself. All helmets must fully cover the head, neck, and **ears**. With the exception of the driver's boat being under tow, helmets must be worn by drivers at all times while on the water.

#### **Helmet Expiration Date**

\*Snell 2025 expires 12/31/35

\*Snell 2020 expires 12/31/30

**No 2005 "Snell" helmets allowed under any circumstances.**

**9.2.1 PWC and SE.** DOT helmets allowed.

**9.2.2 Capsule Helmets.** Full face helmets are mandatory in all capsule boats, meeting Snell 2020 or newer dates listed, utilizing either a neoprene neck sock/sealed face shield or a or a full-face helmet utilizing a fighter style mask with an ambient. /on demand system. A standard open face helmet used with a Fighter style mask is acceptable, normal SCUBA mouthpiece will not be permitted.

### **9.3 Helmet Head and Acceptable Restraints/Hans Type Device**

**9.3.1** Helmets must be held on with approved straps, commercially manufactured straps for the purpose of restraining the helmet and preventing its inadvertent removal. Helmet restraint straps must attach to a body harness. They must attach to helmet on the right side, left side and back for open face helmets full face helmets requires the same with front strap added.

**9.3.2** A Hans type style helmet restraint is acceptable in lieu of straps. If SFI rated, must comply with recertification dates.

**9.3.3** Restraints are required in Stock Eliminator class or PWC's that run over 70 mph.

**9.3.4** Use of Air Bag Neck restraint system is allowed.

### **9.4 Neck Collar/Hanes Type Device**

Capsule boat drivers must wear, while on the water, a commercially manufactured foam neck collar and/or Hans type device designed for racing. Said collar must meet "SFI3.3" specification. Either a 360 degree donut type or a horseshoe type may be used. Modification according to the manufacturer's recommendations to fit a driver's helmet and neck/shoulder spacing is permitted. The collar must be worn in accordance with the manufacturer's recommendations. Hans type device may substitute for a neck collar. PWC will be required to wear a neck collar or helmet restraints, unless the driver is wearing a racing type life jacket, helmet restraints will then be required.

### **9.5 Eye Protection**

All drivers, while on the water, must wear approved eye protection made with safety glass or a flexible, shatterproof material which is commercially manufactured for use in racing. Either goggles or full-face shields are acceptable. No sunglasses will be permitted.

### **9.6 Visual Aid**

At the time of the driver's equipment inspection, the driver must produce either his state driver's license or Competition Driver's License in order to verify whether or not visual aid is needed to drive. If visual aid is necessary, the driver's Competition Driver's License as well as his medical tag should so indicate. The driver must wear his proper visual aid at all times while on the water.

### **9.7 Driving Suit**

**9.7.1 PWC.** Full cover shoes, shorts/swim trunks that reach mid-thigh, and short sleeve tee-shirt/jersey.

**9.7.2 Stock and Modified Eliminator.** All drivers, while on the water, must wear long sleeved shirts, full legged pants, full cover shoes and socks. If using Alcohol, Nitro, E85 or nitrous oxide, a fire-resistant driver suit, and gloves are mandatory.

**9.7.3 Professional, PE and TE.** While engine is running on the water must wear approved driving suits which have been commercially manufactured specifically for racing. Said suits must be fire resistant, long sleeved, and have closed cuffs (either elastic or Velcro). All Professional and Sportsman drivers must have the IHRA patch sewn on the upper left or right portion of their driver's suit. If divisional sanctioning patches are available, they should be sewn opposite from the IHRA patch. Full cover shoes and socks must be worn.

## 9.8 Gloves

All open boats running alcohol, E85, nitro, or nitrous oxide must wear fire retardant full fingered gloves, with fire retardant labeling. (Note: outdated labels acceptable as SFI has amended recertification rule).

## 9.9 Life Jacket/Non-Capsule

**9.9.1** All drivers in non-capsule boats must wear, while on the water, an approved life jacket. Capsule type life jacket suits are not allowed in open boats.

**9.9.2** PWC, Stock Eliminator, drivers in boats that run 100 mph or slower - minimum of Coast Guard approved impact type jacket.

**9.9.3** Drivers, except PWC and Stock Eliminator, in open boats must wear an approved torso type life jacket which is commercially manufactured with a harness specifically designed for drag boat racing. Life Jackets must be worn at all times while the boat is on the water. All life jackets must be returned to an approved life jacket manufacturer for safety inspection and recertification/dating every two (2) years from date of manufacture for a parachute jacket and every three (3) years for a non-parachute jacket. *The driver is responsible for ensuring that a new date tag was sewn into the jacket after recertification.*

## 9.10 Life Jacket/Capsule

Minimum floatation, that will make the driver buoyant, must be worn. Note: a neck sock/sealed visor helmet is acceptable.

## 9.11 Knee and Shin Protectors

All capsule boat drivers are required to wear knee and shin protectors. These must be worn externally. The safety inspector may approve the removal of the knee protector if found that it interferes with the driver's ability to operate the boat.

# **Rule 10.0** **CAPSULE BOAT SAFETY EQUIPMENT**

## 10.1 Capsule Boats

**Equipment – General.** In addition to the items listed in Rule 8.0, Boat Safety, all capsule boats must have the following items and standards that are the minimum acceptable for each capsule and must be inspected by the Safety Inspector. All capsule boats must be towed to the holding rope, unless otherwise instructed to drive there by the Race director.

**10.1.1 MANDATORY CAPSULE INSPECTION.** All capsules must be removed and visually inspected every three (3) years by race team adhering to the IHRA Checklist. Team Owner/Driver to provide proof of inspection by signing checklist and submitting to IHRA along with photos of inspection.

## 10.2 Capsules

Breakaway capsules, manufactured by SFI 36.1 (shell material), 36.2 (canopy material), and 36.3 (roll cage material advisory) approved manufacturers are required *in* all Professional classes. Capsules are also permitted in any Sportsman or Bracket class (if used, they must comply with the requirements noted herein). All capsules, regardless of manufacturer or type, must be fully enclosed, and designed using state-of-the-art technology in an effort to minimize serious injuries to the driver in the event of an accident. It shall be the responsibility of the boat owner to select the designer and/or manufacturer that best meets his standards for a high quality, crash worthy capsule. Any capsule that is involved in an accident must be recertified by a SFI certified Manufacturer or a SFI certified Capsule Inspector, before being allowed to participate.

**10.2.1 ADVISORY.** All capsules with a flat surface behind the driver are required to add a rounded addition, minimum one quarter (1/4) inch of thickness, fiberglass, Kevlar, carbon fiber or a combination thereof. The center extending a minimum of three (3) inches from back of the capsule.

### **10.3 Air Supply**

A minimum 30 cu. ft. high pressure (3,000 P.S.I. system) or 50 cu. ft. low pressure (2,000 P.S.I. system) air tank is required for the driver. All air tanks must have current VIP/Hydro to pass tech. Boat number must be on bottle.

A quick release coupler must be installed in all air supply hoses between the first stage regulator and the second stage regulator, no less than twelve (12) inches, nor more than fifteen (15) inches from the driver's mask or helmet. The quick release coupler used must be one of the following Parker fluid connectors:

<b><u>Male/Female</u></b>	<b><u>Description</u></b>
SH1-63/SH1-62	Stainless steel non-locking
BH1-61/BH1-60	Brass non-locking

The male half of the coupling is to be installed in the air hose attached to the driver's regulator; the female half is to be installed in the air supply hose coming from the air tank itself. All fittings and connections installed within the driver's air supply system must be mechanically crimped. No push-locks or hose clamps will be allowed. The SCUBA regulator must be permanently fixed to the driver's helmet with a maximum of three (3) inches of hose between the mask and regulator.

**10.3.1** It is the driver's responsibility to ensure that his air tank has been refilled to 2,500 - 3,000 PSI for the high-pressure system, 1,850 - 2,000 PSI for the low-pressure system, or the equivalent thereof, prior to each run (qualifying as well as eliminations). Random checks to determine if air tanks have been filled accordingly will be performed at the launch ramp prior to a boat being allowed to enter the water. Checks may also be performed at the out ramp to determine if acceptable amounts of air remain in a system after a run. See "Qualifying/Qualifying Attempt" as well as "Eliminations/Ramp Call/Launch" elsewhere in this book.

### **10.4 Air Bottle Mounting**

Quick release brackets (either one quarter (1/4) inch minimum thickness aluminum or one eighth (1/8) inch minimum thickness steel, which will allow the air tank to be quickly and easily removed, must be permanently attached to the frame rails of the capsule. The quick release brackets must contain a three hundred sixty (360) degree cup type receiver at the base (or bottom) end of the air tank. This cup type receiver may be formed with a minimum one (1) inch wide strap, however it must be positioned and constructed in such manner that the upper edge of the strap is a minimum of one and one half (1-1/2) inches from the base of the air tank (measured lengthwise from the base of the tank) when the air tank is installed in the receiver. The neck of the air tank is to be held in position with a U-shaped bracket with a minimum one-quarter (1/4) inch diameter push only type quick release pin at the top which will prevent the air tank from moving in any direction when the tank is secured in the receiver. The upper bracket as well as the quick release pin must hold the air tank around the upper neck of the tank itself, not around the valve assembly which is screwed into the tank. Nylon straps with Velcro, hose clamps, and/or nylon cable ties are not acceptable.

### **10.5 Alignment Pins**

All capsule roll cage lids shall have a minimum of four (4) alignment pins (2 per side), as indicated in Appendix L (Kasse capsules excepted). On older capsules in lieu of forward pins, 4130 steel rods, 1/2" minimum dia., or 4130 steel plates, minimum 1" wide X 3/16" thick, with a length that equals the outside diameter measurement of the cage upper rail bar plus the outside diameter of the lower lid tube. The rod/plate should be mounted on or near the forward cluster on the cage. A reinforcement bar, going from the lid rialto the hinge assembly is also accepted, as long as the design will inhibit the lower lid rail from "springing inwards" during a barrel roll/side impact.

### **10.6 Breakaways**

No one piece cables or hoses may be used between the capsule and the boat. One-piece throttle cables will be allowed if you use RBR type one-piece cable holder. All cables must utilize a breakaway device, with the break point positioned outside of the capsule. If a fuel shut-off valve is installed in the boat and said valve is controlled by an air system in lieu of a cable, the valve must be designed so that it will automatically close upon loss of air pressure. No plastic hoses or lines may be located in the engine area to activate the parachute or fire system.

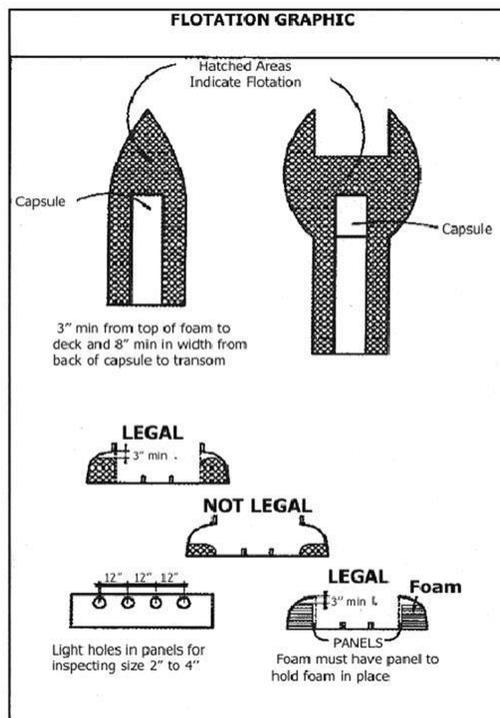
### **10.7 Fire Control**

“Cold Fire”, Halon, CO2, Dry Chem, NAFS-111, or Fire X system with a ten (10) pound minimum bottle and visual gauge is mandatory on any boat utilizing nitro methane as a fuel. It is recommended in all other classes.

### 10.8 Floatation

All capsules must have sufficient floatation to keep the capsule floating even when completely filled with water. In addition, any boat in which a capsule is installed must have the maximum practical amount of floatation installed between the underside of the boat’s deck and the inside of the hull. Said floatation must extend from the bow of the boat to the back of the capsule, and then within each gunnel to the rear of the boat. Floatation is not required across the transom area. The floatation used must be of a type specifically designed and manufactured to provide buoyancy in water. All floatation must be attached, bonded, or installed in such a 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 foam or block foam will be allowed. If cosmetic or protective panels are installed over the foam, they must either be removable or have inspection holes in them in order to visually verify the presence of the foam.

SEE DIAGRAM



### 10.9 Interior

All brackets and levers should be mounted so as to prevent injury or interference to the driver in the event of a crash or emergency exit from the capsule. All interior items, such as the seat, must be securely attached to the capsule frame rails. Reinforcements should be used where needed to prevent excessive flexing which could result in the separation of components within the capsule. Foam padding which has a minimum one quarter (1/4) inch compression and meets SFI specification 45.1 must be installed around the head hoop as well as all head hoop supports in the roll cage assembly. At the driver’s option, additional padding/guards may be installed to protect the shin, knee and foot areas. No tinting is permitted on the windshield (canopy) in order that divers may see into the capsule if it is submerged.

### 10.10 Latches Latch Pins – SEE APPENDIX E

J latches or Door bolt action type or inverted over center type systems may be used.

Latch pins must be one-half (1/2) inch minimum diameter push only type with a spring load of at least five (5) pounds. The ring should be attached to the body of the pin assembly rather than to the end of the release button. If necessary, a spacer must be used so as to position the release head of the pin no deeper than one (1) inch from the outside of the capsule.

### **10.11 Lift Rings**

Each capsule must be equipped with a minimum of four (4) lift rings (or hook eyes), minimum of 1 ½" inside diameter, located on opposite sides or ends of the capsule. One lift ring must be installed on the top or the very top of the front of the capsule. It must be in sight or visible through an inspection cover. One lift ring must be installed on the top or the very top of the back of the capsule. This top lift ring must have a forty-five (45) degree rope deflector installed on the leading edge of the lift ring. Two lift rings must be installed on each side of the capsule above the boat deck. All lift rings must be attached to the frame rails.

### **10.12 Locating Device**

Pinger is no longer required. IHRA will utilize Live Scope for locating equipment.

### **10.13 Mounting**

Breakaway capsules must be mounted to the top third (1/3) of the boat's stringers, using a maximum of four (4) grade 2 five sixteenths (5/16) inch bolts and nuts without any washers.

### **10.14 Paint**

The bottom and two (2) inches up the sides and back of the capsule must be yellow. The paint is PPG "Bright Iridescent Yellow" #DAU83034. The Gel coat is Erskin - John Co. "High Hide Yellow" #YG30047YY33 (item #48300474). If you have a yellow capsule and/or boat, you must still conform to the above, and in addition, add a bright red four (4) inch wide cross (+) or X on the bottom of the capsule.

### **10.15 Pour In Seats**

Pour in seats in capsule boats mandatory.

### **10.16 Rear Doors**

All capsules that have a removable rear door must have the door sealed in accordance with the capsule manufacturer's directions and/or specifications.

### **10.17 Seat Belts**

Seat belt must be a "SFI 16.1" specification approved five, six, or seven-point harness commercially manufactured by a recognized safety equipment manufacturer. The shoulder belts must be securely mounted to the roll cage frame rails in accordance with the manufacturer's instructions. Absent specific instructions from the manufacturer, the belts should be secured to the roll cage frame rails approximately four (4) inches below the level of the driver's shoulders, but in no case should they be mounted higher than level with the tops of the driver's shoulders. The crotch strap must go through the seat and anchor to the roll cage frame rails behind the driver's chest line. "PUSH TO RELEASE" latches will not be permitted on any harness. The safety harness must be recertified/dated by the manufacturer **every two (2) years** following date of manufacture. The owner or driver is responsible for ensuring that a new date tag was sewn into the belt after recertification. **If boat is involved in an accident, re-cert or replacement required before tech approval at next event.**

### **10.18 Side Load Pins – SEE APPENDIX E**

Side load pins, designed to prevent the capsule canopy (or windshield) from shifting to either side in the event of a crash, must be located on each side of the canopy at the latching end. The pins must be a minimum five eighths (5/8) inch chromemoly.

### **10.19 Exterior Capsule Release – SEE APPENDIX E**

A cable or direct linkage shall be installed securely, one end to be attached to the inside latch release of the capsule lid, the other routed to either the toe, rear, or in the case of direct linkage, the manufacturer's specified location on the outside of the capsule. The end to the outside will have a loop, lever, way to grasp the end of the mechanism that will enable rescue personnel to pull and it will release the capsule lid. The exposed end

must be recessed or secured to prohibit the cable from snagging or accidentally releasing, in case of an accident. The exterior location shall be indicated by a "Rescue" decal supplied by IHRA.

**Advisory.** A tether should be attached from the exterior capsule release bracket to the capsule cage frame.

#### **10.20 Capsule Orientation**

Each driver of a capsule equipped boat must, prior to entering his first sanctioned event, demonstrate the ability to use his breathing apparatus. Each driver's equipment will be checked to ensure that it functions properly and that the driver is familiar with its operation. The test requires that a driver go underwater in a swimming pool or at the local race site (subject to approval by the Lead Rescue Diver) with his air tank, regulator, and helmet while under the direct supervision of said diver. The Lead Rescue Diver will also have the authority to determine if the driver demonstrates the ability to properly use his equipment underwater. The Lead Rescue Diver's decision shall be final with regard to all matters relating to underwater safety. Any adverse decision by the Lead Rescue Diver is subject to review by the Board of Directors of IHRA OUTLAW DRAG BOAT RACING SERIES or the sanctioning division or chapter.

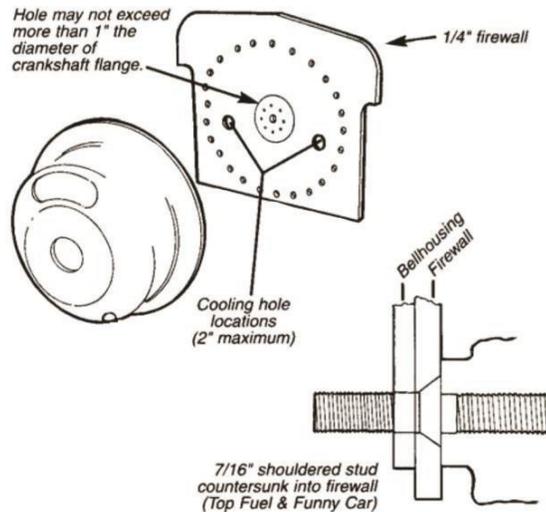
#### **10.21 Capsule Driver Recertification**

A driver will be required to have a recertification class with the breathing system no longer than four years on the anniversary of the expiration of their competition driver's license and when changing style of system **or the helmet itself**. The lead rescue diver may choose to recertify the driver by taking the driver to the water either in a pool, or at the race site, and have the driver submerge himself under water, to adequately check the proper operation of the breathing system.

#### **10.22 Clutch and Bell Housing**

All boats utilizing a clutch that is bolted to the flywheel must have a SFI approved, aluminum, steel hydro formed or titanium bell housing *and has an SFI sticker*. Boats employing supercharged engines must have a 4130-steel liner, .090 minimum thickness, welded to form a circle the depth of the flat parallel part of the housing. The liner must have the ability to rotate in order to absorb energy in the bell housing. A clutch adjustment slot is acceptable if made to the specification outlined for the slot and 1/4 inch steel cover and attachment. A motor plate must be installed between the engine and bell housing. The plate must be at least 1/4 inch at least 1/8 inch thick steel or 7075T-6 aluminum and cover the entire flanged face of the bell housing, attached on the top 180 degrees to the engine block with at least seven (7) three eighths (3/8) inch high strength steel alloy shouldered studs or 3/8"-24x1-1/8" high strength steel alloy screws (AN 507 - C624 - R18), countersunk one hundred (100) degrees and threaded into the motor plate in six (6) places (between each bolt and/or dowel pin on the upper 180 degrees of the motor plate and five (5) studs. The bottom 180 degrees of the housing must be fastened to the motor plate by means of eight 3/8 inch grade 5 or better bolts, washers, and nuts equally spaced below the crankshaft centerline. One inch diameter steel washers must be used on the front side of the motor plate to prevent the nut from pulling through. No more than seven (7) inches will be allowed between the holes. A clutch inspection and maintenance hole may be cut on the back angle of the bell housing. The opening may not exceed eight and one half (8-1/2) inches in length, measured in a straight line, and may not extend forward of the clutch cross shaft. Its end must be fully radius to produce an oval shaped opening. A cover for the inspection hole must be at least one quarter (1/4) inch thick steel and be fastened with at least twelve (12) 3/8 inch grade 8 cap screws. A one quarter (1/4) inch steel fillet must be attached to the inspection cover that fills the hole in the bell housing so that it is flush on the inside of the housing. Welding to repair a bell housing not conforming to this specification is not allowed.

SEE DIAGRAM



### 10.23 Parachutes

All Professional class hydros must have parachutes; TFH will be required to have three (3) and TAH are required to have dual (2) parachutes. TFH will require the 3rd parachute on a separate release lever for third chute deployment. If any chutes are operated by air, in TAH or Pro-Mod, then one mechanical lever will be installed, to operate all chutes at once. Sportsman hydro's are not required to have a parachute, but it is recommended. On any boat using nitro-methane as fuel, it is mandatory that the parachute pack and unpack shroud lines be protected with fire-resistant material. Parachutes are subject to deployment during safety inspection. In all classes, each parachute must be mounted with minimum 3/8" grade eight hardware and have a minimum 1" diameter bushing at the shroud attach points.

### 10.24 Parachutes Release Mechanism

The parachute release mechanism shall be located in such a position as to be readily accessible to the driver. In addition, it is recommended the release mechanism must have the capability of being activated without the driver having to remove either hand from the steering wheel (i.e., a foot operated release pedal or a release activating button on the steering wheel, etc.) Any system that is activated either electrically or by air pressure must have a mechanical override or backup release, either of which must be readily and easily accessible to the driver. If equipped with dual parachutes, the primary release mechanism must release one parachute, and the backup release mechanism must release the second parachute.

### 10.25 Roll Cage

A capsule roll cage, meeting the advisory requirements listed in SFI spec. 36.3, must have the manufacturer's name, serial number and date of manufacture. Plating is prohibited, painting and powder coating allowed. Cages must be sonic tested by a qualified sonic testing inspector (IHRA, NHRA, SFI, or Sanctioning Association), every three years and have dated stickers issued by that inspecting authority.

### 10.26 Windshield

The windshield shall be attached and sealed (between edges) to the canopy shell with adhesive/sealant that is designed to seal windshield to canopy. Mount screws must be at the apex of all corners. See *Appendix H* for details. Note: try to plan the reattaching of the windshield and replacement of the "J" type capsule latches at the same time.

## APPENDIX A DEFINITIONS & TERMS

**Alternate Boat** – The boat(s) with the lowest legitimate E.T. which failed to qualify into a class field. This boat(s) is eligible for insertion into the eliminations program as described in “Eliminations/Ramp Call/Launch.”

**ADBA** – Arizona Drag Boat Association.

**Blown** – Supercharged.

**Breakout** – A term indicating that a bracket format class boat has run an E.T. that is quicker than is allowed in its particular class.

**CDBA** – Columbia Drag Boat Association.

**Crew Member** – Any person, or persons, who attend a sanctioned event to directly or indirectly support, help with, or work on a race boat which has been registered for competition at said event.

**DOT** – U.S. Department of Transportation.

**Driver** – Any person, or persons, who registers at a sanctioned event to drive, as well as have full operational control of the race boat while in competition at said event. Although driver is singular in context, when used within this rule book, the term driver shall be considered to mean each driver individually when more than one driver is registered to drive a single boat.

**E.T.** – Elapsed time (the length of time that it requires a boat to travel from the starting line to the finish line as measured in thousandths of a second).

**Eliminated (elimination)** – The boat is prohibited from further competition, unless reinstated into the racing program pursuant to the break rule.

**Eliminations** – A single elimination tournament wherein competitors are matched up in competing brackets. Each winner goes out to the next bracket on the tournament chart, and runs the winner of the pairing below him, unless a bye run is awarded. This continues until one winner remains.

**Event** – The time between the commencement of track set up at the event site until the event site is closed and secured following the conclusion of eliminations.

**FAA** – U.S. Federal Aviation Administration.

**Failure to Prove Capability** – A term indicating that an E.T. format class boat has run an E.T. which is slower than the minimum for the class.

**Flat (flat bottom)** – A type of boat hull, the bottom of which is relatively flat with a minimum length of sixteen feet, with no horizontal breaks.

**Foul (foul start)** – The boat has broken the beam of the starting line light sensor prior to receiving a solid green light.

**Hydro (hydroplane)** – A conventional type of boat hull designed with a tunnel between the front sponsors for the purpose of trapping air and lifting the bottom of the hull to ride all or in part above the surface of the water.

**IHRA** – Cuttell Motorsports, LLC d/b/a International Hot Rod Association

**IHRA OUTLAW DRAG BOAT RACING SERIES** – drag boat racing series operated by IHRA

**Jet (jet boat)** – A type of boat hull, which in lieu of a propeller, uses a propulsion system which pumps water under extreme pressure and expels it through a nozzle at the rear of the boat.

**KDBA** – Kentucky Drag Boat Association.

**M.P.H.** – Miles per hour (the speed attained by the boat in the quarter mile course) as measured in the speed traps at the end of the race course.

**Med I Tag** – Medical ID Tag containing driver’s personal and medical information, including but not limited to: allergies, blood type, medications, and emergency contact.

**Member Division/Chapter** – Any drag boat racing association which has formally adopted and agreed to adhere to the rules, regulations, conditions, and other provisions contained herein this RACING RULES AND SAFETY REQUIREMENTS booklet and uses same to sanction and conduct drag boat races accordingly.

**NJBA** – National Jet Boat Association.

**Own Power** – When used to define forward motion of a boat, own power shall mean movement powered only by the boat’s internal combustion engine. It specifically excludes, but is not limited to, battery powered starting motor, paddling or other means of propulsion by the driver, or wind and water currents. It does not, however, exclude the coasting which results from the original motion that had been generated by the internal combustion engine of the boat.

**Owner** – Any individual, person, group, club, corporation, association, partnership, or other entity which actually owns or holds title to a race boat which is registered for competition at any sanctioned event. Although owner is singular in context, when used within this rulebook, the term owner shall be considered to include any or all of the individuals, persons, groups, clubs, corporations, associations, partnerships, or other entities, either individually or collectively, which own said boat.

**Outboard** – any boat that has its engine mounted on the transom.

**Participant** – Any person who (i) participates in a racing event (as aowner, driver, individual crew member, or other on-track participant) or (ii) attends a racing event as a spectator, fan, visitor, or otherwise.

**Pro Racer** – A racer who participates in any Professional category and races the entire circuit in pursuit of the Championship Series Points.

**Promoter (event promoter; race promoter)** – Any individual, person, group, club, corporation, association, partnership, or other entity with whom the IHRA OUTLAW DRAG BOAT RACING SERIES has executed either a verbal or written race agreement.

**Propeller** – A device used to propel flat and hydro hulls through the water.

**Race Director** – The individual responsible for the overall flow and operation of the race; calls classes as needed;

**Red Light** – Course is closed for safety reasons. Boats must come to an immediate stop.

**Releasees** – IHRA and each of its respective affiliates and employees, officers, directors, direct and indirect owners, sub-contractors, sponsors, business partners and agents, and all other participants, operators, vendors, agencies, sponsors, advertisers, and owners and lessees of premises used in connection with or related to any boat racing related event or activity

**Releasers** – Participant and Participant’s family, estate, heirs, and assigns

**Rudder** – A mechanical device extending into the water (to at least the bottom tip of the propeller) which is used to steer the boat.

**Safety Inspector** – The individual(s) who performs safety/technical inspections of each boat prior to its being allowed to register; resolves technical questions; performs fuel checks as needed or requested.

**Safety Pass** – A single lane pass which is intended to determine the safety of the boat and/or driver for further participation. E.T.s and M.P.H. are not provided to any participant on a safety pass.

**Sanction Supervisor** – The ultimate authority at a sanctioned event; interprets rules; oversees safety inspections and fuel checks; receives, evaluates, and responds to any protests.

**Sanctioning Division/Chapter** – The individual member division or chapter which sanctions a specific event and assumes full responsibility for the conduct of said event as well as the enforcement at said event of all rules, regulations, conditions, and provisions contained herein.

**SFI** – SFI Foundation, Inc.

**Sponsor (event sponsor; race sponsor)** – Any individual, person, group, club, corporation, association, partnership, or other entity who has contractually or otherwise agreed with IHRA OUTLAW DRAG BOAT RACING SERIES or one of its sanctioning divisions or chapters, or the event promoter to contribute financially to the production of a sanctioned event. The sponsor may or may not be the same individual person, group, etc. as the promoter.

**Starter** – The official responsible for starting all of the boats; ensures that no boat violates any safety rules or procedural rules while in the area of the starting line.

**Tech Director** – The official responsible for ensuring all boats meet safety requirements as per rulebook.

**Timing Official** – The official responsible for the proper operation of the timing equipment; observes and records all elapsed times and speeds; furnishes E.T. and M.P.H.

**Unblown** – Naturally aspirated; either carbureted or fuel.

**APPENDIX B  
IHRA OUTLAW DRAG BOAT RACING SERIES**

**8415 Firebird drive**

**Suite 500**

**Fairfield, OH 45011**

**855-646-4472**

**Other Boat Racing Associations**

**ADBA**

Arizona Drag Boat Association

[www.adbaracing.com](http://www.adbaracing.com)

Jeremy Denny, President

**CDBA**

Columbia Drag Boat Association

[www.cdbaracing.com](http://www.cdbaracing.com)

Cole Billings, Commodore

**KDBA**

Kentucky Drag Boat Association

[www.kydragboat.com](http://www.kydragboat.com)

Barry Salsman, President

**NJBA**

National Jet Boat Association

[www.njbaracing.com](http://www.njbaracing.com)

Mike DeClark, President

**APPENDIX C  
FEES AND FINES**

The following fees are standard among all the IHRA OUTLAW DRAG BOAT RACING SERIES divisions or chapters. The fines are the maximum amounts which may be assessed against any competitor by the Board of Directors. If any fees and/or fines have been levied against any participant by any one of the IHRA OUTLAW DRAG BOAT RACING SERIES divisions or chapters, said participant will not be allowed to compete at any other the IHRA OUTLAW DRAG BOAT RACING SERIES division or chapter event until such time as all fees and/or fines have been satisfied. All fees and fines shown herein must be paid by cash in U.S. funds (NO CHECKS ACCEPTED).

**Protest Fees**

Protest Fee for Illegal Equipment .....	\$ 50.00
Protest Fee for Engine Tear Down .....	\$ 350.00
Protest Fee for Fuel Check (with meter).....	\$ 50.00
Protest Fee for Fuel Check (chemical analysis).....	\$ 150.00
Protest Fee for Water Check.....	\$ 25.00
Compensation for Engine Tear Down .....	\$ 50.00

**Returned Check Fees**

Handling Fee for Returned Check (per check) .....	\$ 50.00
Handling Fee for Stop Payment (per check) .....	\$ 100.00
Handling Fee for Account Closed (per check).....	\$ 150.00
Refusal to Allow Engine Tear Down .....	\$ 2,000.00
Refusal to Give Fuel or Fluid Samples.....	\$ 2,000.00
(Gasoline, Alcohol, Nitro-methane, Water, or Oil)	
Failure to clear course max 100 pts max .....	\$250.00
Illegal or Oversized Engine .....	\$ 2,000.00
Illegal Fuel or Fluids .....	\$ 2,000.00
Violation of Substance Abuse Policy .....	\$ 3,000.00
Submission of Fraudulent Physical .....	\$ 500.00
Damage to Association Equipment.....	Cost
Unsportsmanlike Conduct .....	\$ 2,000.00
Abusive Language .....	\$ 2,000.00
Obscene Gestures .....	\$ 2,000.00

Physical Assault ..... \$ 3,000.00

Willful Disruption of Racing Program ..... \$ 2,000.00

Any action which could result in disqualification  
(as defined under Grounds for Disqualification) ..... \$ 2,000.00

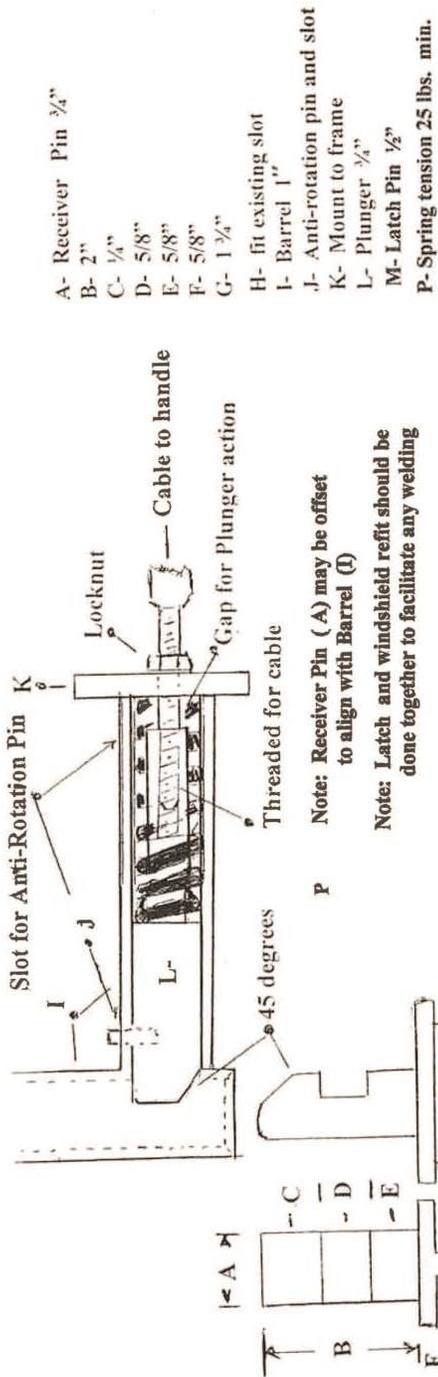
Any actions, expressions, or displays detrimental  
to drag boat racing which are not  
specified above ..... \$ 3,000.00

## APPENDIX D UNLIMITED OUTBOARDS

Unlimited Outboards must comply with all rules, regulations, and safety requirements for Professional class boats unless a specific item is superseded as noted below: If boat has a canopy, seat belts or air supply, all three must be used (Canopy, seat belts and air supply).

- **Capsules** – Capsules in Unlimited Outboards shall be of an APBA type design, having a one half (1/2) inch minimum thickness capsule wall constructed of balsa, carbon fiber, and Kevlar materials. A three-sixteenths (3/16) inch minimum thickness poly-carbonate canopy shall be attached to a five-eighths (5/8) inch O.D. (outside diameter) X .058 inch minimum wall thickness chrome moly tube frame. The canopy frame is to be attached to the capsule by means of hinges and two latch assemblies. All capsules, regardless of manufacturer or type, must be fully enclosed, and be designed using state-of-the-art technology in an effort to minimize serious injuries to the driver in the event of an accident. It shall be the responsibility of the boat owner to select the designer and/or manufacturer that best meets his standards for a high quality, crash worthy capsule.
  - **Air Supply** – All rules pertaining to the driver's air supply system must be followed unless physical limitations prevent the air tank from being located inside the capsule. The tank may then be mounted securely on the back of the capsule. In that case, the tank, regulator, and all airlines must be totally enclosed in such a manner that water cannot contact and pull them loose in the event of a crash.
  - **Latch Pins** – Latch pins (latch assembly pins) must be three eighths (3/8) inch minimum diameter push only type with a spring load of at least five (5) pounds. The ring should be attached to the body of the pin assembly rather than to the end of the release button. If necessary, a spacer must be used so as to position the release head of the pin no deeper than one (1) inch from the outside of the capsule.
  - **Side Load Pins** – Side load pins, designed to prevent the capsule canopy (or windshield) from shifting to either side in the event of a crash, must be installed in the immediate vicinity of each latch assembly (similar to SFI 36.1/.2/.3 capsules). The pins must be a minimum one half (1/2) inch chrome moly.
- **Parachute** – Parachutes are not required in the UO class.
- **Rudder** – Rudders shall be optional but if used shall be a minimum of three eighths (3/8) inch thick at the clamshell, and the clamshell itself shall be a minimum of three eighths (3/8) inch thick on each side of the rudder. The rudder must extend a minimum of one (1) inch below the bottom tip of the propeller when said propeller is installed on the motor and positioned in a vertical manner.
- **Steering** – Open cable steering must have said cable a minimum of three sixteenths (3/16) inch in diameter and the cable ends must be double clamped and taped. Motors on Unlimited Outboards utilizing hydroplane hulls must be locked in a straight-ahead position and the steering accomplished by a separate rudder assembly.

APPENDIX E  
CAPSULE LATCH SPECS



**APPENDIX F  
RUDDER CLAMSHELL SPECS**

**Clamshell Minimum Specifications**

**Notes:**

- All measurements are **minimum** requirements.
- Only left side of Clamshell shown - need to duplicate right side.

**Hardware:**

Grade 8

**Clam Pin:**

Aquamet 21 with bronze oil light bushing.

**Materials:**

Aluminum - 6061-T6

Stainless - 316

**Measurements: (Minimum)**

	Twin Prop		Single Prop	
	Aluminum	Stainless	Pro	Sportsman Aluminum
A -	1 1/2"	1"	1"	3/4"
B -	8 1/2"	7 1/2"	6"	6"
C -	5 3/4"	5 1/4"	5"	5"
D -	1 1/2"	1"	3/4"	5/8"
E -	3/4"	3/4"	3/4"	5/8"
F -	4 1/2"	4 1/2"	4 1/2"	4 1/2"
G -	3/4"	1/4"	5/8"	1/2"
H -	equal distance to centerline of clam pin (Min 3/4")			
I -	Center line between end of rudder cavity and edge of clam shell			
J -	1 1/4"	1 1/4"	1"	3/4"

**Upper and Lower Mounts:**

K - Mfg's Specs

L - Mfg's Specs

M - 1 1/4"    1 1/4"    1"    3/4"

N - Same as diameter of J (clam pin)

**Tiller:**

Length and width- per mfg's specs

O - 1"    3/4"    3/4"    5/8"

P - 1 1/4"    3/4"    1"    3/4"

**Support Rod(s):**

Two required for twin prop.

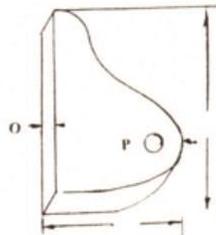
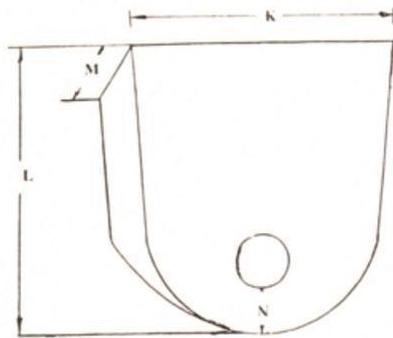
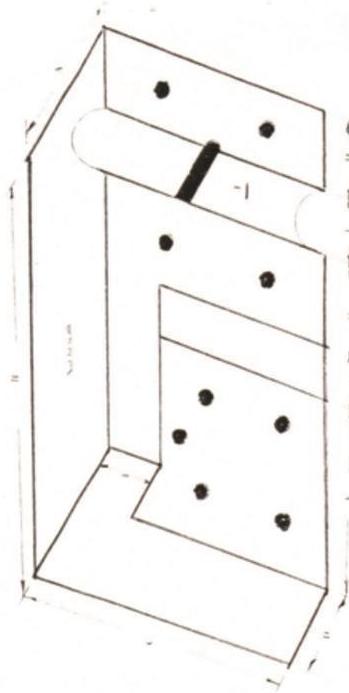
Note: Lighting holes not allowed on twin props.

**Rudder(min. thickness):**

TFH and Twin Prop    3/4"

Single Prop Pro Class    5/8"

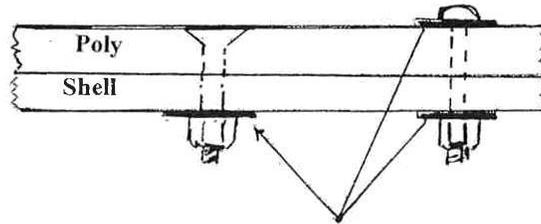
Sportsman Class    1/2"



APPENDIX G  
WINDSHIELD ATTACHMENT SPECS

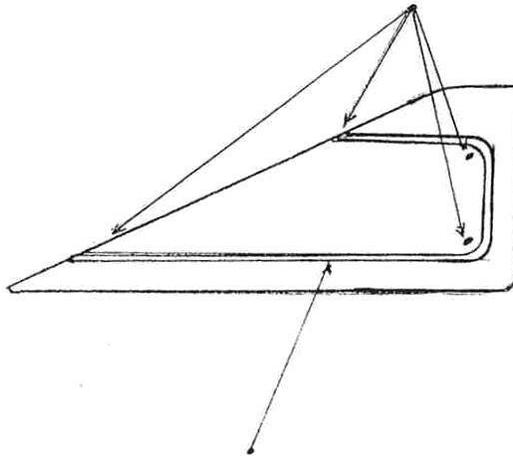
*Windshield Attach Specs*

Note: Windshield and latch refit should be done together to facilitate any welding



Stainless steel fender washers  
used to spread load

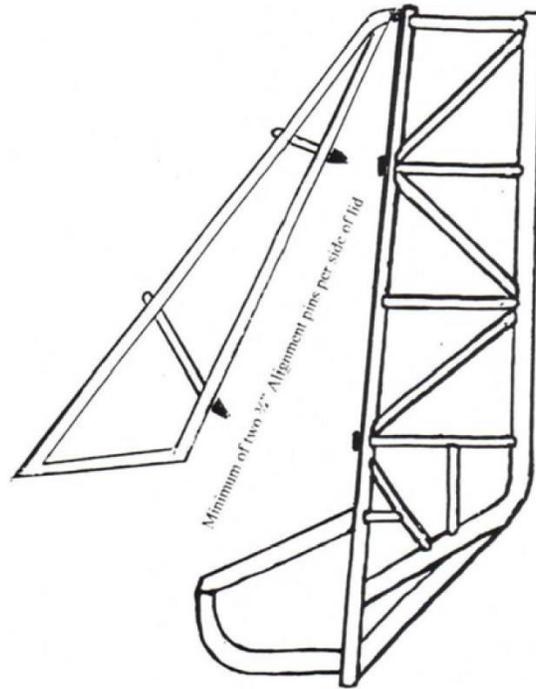
Add mount screws at  
the apex of all corners



Mount and seal windshield  
using 3M 4200 adhesive or  
equivalent

**(CAUTION:** some adhesives  
contain chemicals harmful to  
acrylic and poly plastics)

APPENDIX H  
CAPSULE ALIGNMENT PINS



**APPENDIX I  
SFI SPECS & RECERT. REPORTS**

**SFI Specs and Other Recertification Periods**

**APPENDIX I**

**SFI SPECS & RECERT. REPORTS**

**SFI Specs and Other Recertification Periods**

<b><u>SFI Spec Number</u></b>	<b><u>Recert Period</u></b>	
3.1	Gloves	N/A
3.3	Neck Collar	N/A
6.2/6.3	Clutch Cans	2 yrs
14.1 .2 .3 .21	Blower Restraint Pro:	2yrs (except PM/PO/BGF)
	All others:	4 yrs
16.1	Seat Belts	2 yrs
23.1	Blower Burst Panels	N/A
31.1	Flame Resistant Helmets	12 yrs
36.1	Capsule Shells	3 yrs
36.2	Capsule Windshields	3 yrs
36.3	Capsule Roll Cages (sonic test)	3 yrs
38.1	Head/Neck Restraints (Hans Type)	N/A
41.1	Helmets	12 yrs
45.1	Roll Cage Padding	N/A
Capsule Air Systems:		Tanks: VIP                      Annually
	DOT	5 yrs
	Stage 1 & 2 Regulator	2 yrs
Driver's License		2 yrs
Life Jackets:		

Chute Type	2 yrs
Non Chute	3 yrs
DOT	N/A

**INDEX**

**A**

Accidents .....18

Accident Report .....18

Advertising on Boats .....6

Age Requirements.....24

Air Bottle Mounting .....68

Air Supply – Capsule.....67

Alignment Pins.....68

Assumption of Risk.....4

**B**

Ballistic Shorts .....64

Battery Disconnect Switch .....56

Bell Housing – Clutch .....73

Bilge Pump .....53

Blast Plate.....55

Blower .....13, 14, 53

Blower Burst Panel.....54

Blower Restraints.....55

Boat Number.....21, 56

Bow Eye.....55

Breakaways – Capsule .....69

Breakout – Qualifying .....30

Breakout – Eliminations .....47

**C**

Capsules .....67

Capsule Boat Starting in Gear.....20

Capsule Driver Recertification .....	72
Capsule Orientation .....	72
Cavitation Plate .....	55
Championship Series Points.....	21
Chrome Plating.....	57
Class Capability .....	27
Class Changes .....	31
Class Structure - Professional .....	13
Class Structure - Sportsman.....	13
Class Win - Single Boat .....	47
Class Winners .....	47
Compliance of Rules.....	5
Conduct and Action of Participants .....	8
Correspondence.....	11

**D**

Decals, (On Boat) .....	57
Definitions .....	76
Disclaimer .....	2
Disqualification, Grounds For .....	48
Drive Line Cover .....	57
Drive Line Loop .....	57
Driving to the Holding Rope.....	18
Driver's License – Class Requirement .....	24
Age Requirement .....	24
Class Restriction .....	25
Duration of License .....	25
Physical.....	25

Renewal.....	25
Suspension/Revocation .....	26
Test.....	26
Upgrade.....	25
Visual Aid.....	25
Driver’s Meeting .....	24
Driver’s Suit.....	65

## E

Elimination of Classes .....	15
Eliminations.....	32
Breakout.....	47
Class Win – Single Boat .....	47
Class Winners .....	47
Driver Limitation – One Boat .....	46
First or Worst .....	49
Foul Start.....	47
Grounds for Disqualification .....	48
Grounds for Elimination.....	32, 47
Identical E.T.s .....	47
Ladder System.....	34
Lane Selection .....	46
Order of Eliminations.....	46
Ramp Call/Launch .....	46
Removal of Rudders and Drain Plugs.....	19
Starting Motors on Launch Ramp .....	19
Stopping on Course.....	19
Engagement Device .....	58

Entry Fees.....	28
Ethanol as Fuel .....	16
Excessive ET – Open Boats.....	18
Exterior Capsule Release.....	72
Exhibition Pass .....	28
Eye Protection.....	65

## F

Failure to Drive Off Course .....	19
Fines .....	81
Fire Control - Capsule.....	69
Fire Extinguisher.....	58
First or Worst .....	49
Flotation Capsule .....	69
Flywheel Cover .....	58
Foreword.....	2
Foul Start.....	47
Foul Start – Record Runs.....	9
Fuel Injection.....	14
Fuel, Racing .....	16
Fuel Samples .....	16
Fuel Shut-off Valve .....	58

## G

Gasoline as Fuel .....	16
General Provisions .....	3
General Safety Requirements.....	53
Goggles.....	65
Gloves.....	65

Grounds for Disqualification .....	48
Grounds for Elimination .....	47

**H**

Hans Type Device .....	64
Harmonic Balancer .....	58
Helmet .....	64
Helmet Restraints .....	64
Holding Rope .....	28
Holding Rope Deflector .....	58

**I**

Impeller .....	59
Impeller Release Mechanism .....	59
Incomplete Qualifying .....	31
Incomplete Race .....	49
Installation of Rudders and Drain Plugs .....	19
Interior – Capsule .....	70

**K**

Kill Switch .....	60
Knee and Shin Protectors .....	66

**L**

Ladders – Pairing .....	34
Lane Selection .....	46
Latches – Capsules .....	70
Latch Pins – Capsule .....	70
Life Jacket .....	65
Lift Rings –Capsule .....	70
Locating Device – Capsule .....	71

## M

Med I Tag .....	24
Membership.....	10
Annual Racing.....	10
Associate .....	10
Renewals .....	10
Single Event.....	11
Merchandise, Sale of.....	7
Methanol as Fuel.....	16
Mounting of Capsules .....	71
Multiple Drivers/One Boat.....	27

## N

Neck Collar – Capsule.....	64
New Boats .....	19
Nitromethane as Fuel .....	16
Nitrous Oxide .....	13
Number- Boat.....	21, 55
Number- Tow Vehicle, Boat Trailer.....	56

## O

Official Error – Points.....	22
Official Error – Qualifying.....	31
Oil Additives .....	16
Optional Classes .....	14
Ownership at an Event.....	28

## P

Paddle .....	60
Paint - Capsule Bottom .....	71

Pairing for Eliminations .....32

Pairing Ladders.....34

Parachute .....74

Parachute Release Mechanism.....74

Patch, (Driving Suit).....65

Payments.....11

Physical.....25

Pinger - Capsule .....71

Pit Spaces .....15

Points - Championship Series.....21

    Boat Number.....21

    Duration of Series .....21

    Eligibility .....10

    Membership Requirement.....10

    Participation – 51% Rule .....21

    Points, Incomplete Race .....23

    Points, Official Record.....22

    Points, Qualifying .....22

    Points, Qualifying Position .....22

    Points, Registration.....22

    Points, Retention of .....23

    Points, Round Winner .....22

    Series Winners .....23

    Tie Breaking.....23

Pour In Seats – Capsules .....71

Pressure Relief Valve.....61

Problems .....50

Propeller.....	60
Propeller Shaft .....	60
Propeller Shaft Release .....	61
Propylene Oxide.....	13
Protest.....	50
Protest Fees .....	81
Publicity.....	7
Pump Loader .....	61

## Q

Qualifying .....	30
660'/1000' .....	32
Qualifying Attempt.....	30
Qualifying Attempt Voided .....	30
Qualifying Incomplete.....	31
Qualifying Canceled .....	31
Breakout.....	30
Class Changes .....	31
Failure to Prove Capability.....	30
Foul Start.....	30
Identical E.T.s .....	30
Number of Qualifiers .....	30

## R

Race Director.....	78
Racing Classes .....	13
Bracket Class Structure .....	14
Professional Class Structure.....	13
Sportsman Class Structure.....	14

Elimination of Classes .....	15
Optional Classes .....	14
Radio Receivers .....	61
Ramp Call/Launch .....	49
Reaction Timers .....	28
Records.....	8
Approval .....	9
Cubic Inch Check .....	9
Disqualified Boat .....	9
Establishing .....	8
Foul Start.....	8
Fuel Samples .....	9
Membership Requirement.....	8
Multiple Records .....	8
Registration .....	26
Class Capability .....	27
Competition License .....	24
Membership Requirement.....	10
Multiple Drivers .....	27
One Boat/One Class .....	27
Safety Inspection.....	24
Suspensions.....	28
Registration Closed .....	28
Removal of Rudders and Drain Plugs.....	19
Retention of Boats and Parts .....	52
Returned Checks .....	11, 81
Roll Cage – Capsule .....	74

Roll Cage Padding (Interior) .....	70
Rope Deflector .....	58
Rudders .....	61
Rudder Clamshell .....	61
Rudders, Installation and Removal .....	19

**S**

Safety Chain – Trailer .....	62
Safety Collar .....	62
Safety Equipment – Capsule .....	67
Safety Inspector .....	78
Safety Pass .....	28
Sale of Merchandise.....	7
Samples, Fuel .....	16
Sanction Revocation .....	9
Seat Belt – Capsule.....	71
Side Pin – Capsule .....	72
Single Run.....	46
Smoking in Boats.....	19
Starter .....	78
Starting Clock .....	29
Starting Clock Light Definitions .....	29
Starting of Motors.....	19
Starting Procedures.....	28
Starting Sequence .....	29
Steering .....	62
Stop Payment on Checks.....	81
Stopping on Course.....	19

Substance Abuse Policy.....6

Supercharger.....53

Supercharger Burst Panel .....54

Supercharger Restraints.....54

Suspensions.....28

**T**

Table of Contents.....1

Terms .....76

Throttle .....62

Throttle Return Spring .....63

Throttle Stop.....63

Time slips.....28

Tow Vehicle Boat Numbers.....56

**V**

Visual Aid.....65

Visual Aid on Competition Driver’s License .....65

**W**

Waiver of Compliance .....6

Water Injection .....14

Water Safety .....18

Whirl-a-Ways .....61

Windshield – Capsule.....75

NOTES