

NZJBRRR RACE RULES, GUIDELINES & POLICIES

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Introduction/Membership

These rules and guidelines are intended to protect administrators, entrants, safety boats and crews from any adverse situation they are likely to encounter as a result of their participation in jet boat river racing. However, since no sets of rules are entirely comprehensive, decisions taken by Organisers and the Jury will be based on these rules tempered by a desire to ensure that success results from fair racing, superior speed and skill. Competitors are reminded that upon entering an event sanctioned by the New Zealand Jet Boat River Racing Assn (NZJBRRRA) and signing the indemnity form, that they are agreeing to abide by the NZJBRRRA rules governing the event.

Membership of the NZJBRRRA is open to any financial member of Jet Boating New Zealand and on application to the NZJBRRRA secretary, and payment of annual subscription. All current financial race licence holders are automatically members.

Events may vary in make up and duration, and whilst these rules form the basis on which they will be run, specific events such as “Marathons” may require some changes and additions to be made. At all times, any such changes are to be notified to the NZJBRRRA and only included if passed by that body.

New Zealand Marathon Winners

1970	Stan Fisher	1992	Ken MacDonald	2012	John Derry
1971	Peter Blunden	1993*	Ken MacDonald	2013*	John Derry
1972	John Butterfield	1994	John Watson	2014	Regan Williamson
1973	Cancelled Fuel Crisis	1995	Ross Bailey	2015	Regan Williamson
1975	Rod Coleman	1996	Neil Ross	2016	John Derry
1976	John Butterfield	1997*	Michael Hill	2017*	John Derry
1977*	John Heslop	1998	Jason Scott	2018	John Derry
1978	Reg Benton	1999	Russel Bezzant	2019	No Event
1980*	Mark Cromie	2000	Andrew Stuart	2020	John Derry
1981	John Heslop	2001	Ross Bailey		
1982	Doug Hill	2002	Jason Scott		
1983*	Mark Cromie	2003	Neil Ross		
1984	Bill Roberts	2004	Neil Ross		
1985	Michael Pooley	2005*	Andrew Stuart		
1986*	Ken MacDonald	2006	Neil Ross		
1987	Bill Roberts	2007	Daryl Hutton		
1988	No Event	2008	James Murdoch		
1989*	Bill Roberts	2009*	James Murdoch		
1990	Bill Roberts	2010	John Derry		
1991	Ken MacDonald	2011	John Derry		

* World Marathon

1) Racing Licences

- a) No person may take part in a race without holding and presenting a current approved Race Licence, current medical certificate (not less than 12 months old), First Aid Certificate.
- b) An approved Race Licence is a current JBNZ issued NZJBRRRA Race Licence, or overseas competitors UIM International Licence, or a valid Jet Boat Race Licence issued by their National Authority.
- c) Endorsements – All or any of the following steps can be taken by the Management Committee of the NZJBRRRA;
 - i) Reprimand (in writing) to be recorded in Licence/Logbook,
 - ii) Disqualification (in writing) to be recorded in Licence/Logbook,
 - iii) Licence suspension or Cancellation, in which case the licence holder may be required to appear before a disciplinary committee, and,
 - iv) All licence holders shall complete and sign the UIM Therapeutic use exemption form.
- d) To obtain a Race Licence a person shall;
 - i) Be eighteen [18] years of age or over,
 - ii) Be a current financial member of JBNZ,
 - iii) Answer an oral questionnaire based on the template of questions on the NZJBRRRA Race rules. Questionnaire template is available from the NZJBRRRA Secretary or NZJBRRRA Licencing Officer,
 - iv) Take the Licencing Officer for a test run in their boat,
 - v) Hold a current approved First Aid Certificate,
 - vi) Hold a NZJBRRRA approved medical certificate which shall be approved annually,
 - vii) All crew in race boats shall be members of JBNZ and NZJBRRRA (It is permissible for any person wishing to become a member to join on the day,
 - viii) All crew in race boats shall hold an approved first aid certificate, and,
 - ix) Once all criteria have been met, the applicant needs the approval of their JBNZ Branch committee. Upon approval, all documents along with \$250.00 application fee are to be submitted to the NZJBRRRA Secretary by email at riverracingnz@gmail.com who on approval of the medical certificate will issue a licence and log book. All licence queries in the first instance are to be directed to the NZJBRRRA Licencing Officer.
- e) Licence Fees. Annual Fee - \$250.00 payable with annual JBNZ membership subscription, navigator membership annual fee \$100.00. Whilst a medical examination is required annually, NZJBRRRA executive reserve the right to require any driver to undertake a medical at their discretion. It is the responsibility of the licence holder to report any change in their state of health to the NZJBRRRA Executive Officer.

2) Racing Classes

- a) The racing classes are;
 - i) Unlimited Class: 7701cc and above
 - ii) A Class: 0-7700cc
 - iii) CX Class: as per 2b
 - iv) FX Class: as per 2c
- b) CX Class Specifications;
 - i) Hull: Any type of hull design and material,
 - ii) Length of Hull: The minimum dimensions are 4.88m (16 ft),
 - iii) Safety Cage: As per rule 11.
 - iv) Engine Type: 8 Cylinder, naturally aspirated (no forced induction),

- v) Engine: Chevrolet LS3 (376ci) stock crate engine 480, 515 or CT525,
 - vi) Cylinder Bore: No overbore is allowed. No block can be sleeved in the bore,
 - vii) Cylinder Heads: Factory stock heads, no aftermarket parts or machining is allowed,
 - viii) No replacement valve seats, machining, milling head, polishing and/or port work of any kind is allowed,
 - ix) Long Block: There is to be NO polishing, porting, grinding, cutting, filing, sanding or change to the state or shape of any factory casting, forging or material used in the engine, honing of bores prior to installing new factory rings is permitted,
 - x) Oil Pump: No dry sump or vacuum pumps are allowed,
 - xi) Oil Pan: Valve Covers and Fluid Damper: Any type, the oil pan can be of a larger capacity,
 - xii) Ignition/Distributor: Any type,
 - xiii) Intake Manifold: No aftermarket intake manifolds are allowed. No port matching on the intake manifold is allowed,
 - xiv) Carburettor: Any type or the factory crate engine fuel injection system are allowed,
 - xv) Fuel Injection: Factory GM manifold with aftermarket throttle body,
 - xvi) Exhaust system: Any type, mufflers are recommended,
 - xvii) Fuel: AV gas is allowed to be used in this class,
 - xviii) Propulsion: Any type of jet drive, it can be modified,
 - xix) Engine Rebuilding: In situations where the integrity of the motor has been compromised a rebuild is allowed. This requires the use of factory parts with part numbers matching those of the crate motors parts list with the exception of those parts listed in para. 2.b. xx. All work is to be undertaken leaving all tolerances within normal factory guidelines. There is still NO machining allowed,
 - xx) The use of aftermarket valve springs is permitted. Only part number Pac 1215 can be used. The use of aftermarket oil pump is permitted, only Manley brand part number 71295 can be used (Both parts can be sourced from Cylinder Head Specialists in Christchurch). Proof of purchase must be provided if requested and any aftermarket parts fitted is to be recorded in the boat's logbook, and,
 - xxi) Random testing of engines will take place
- c) FX Class Specifications;
- i) Hull: Any type of hull design and material,
 - ii) Length of Hull: The minimum dimensions are 3.96m (13 ft),
 - iii) Safety Cage: As per rule 11.
 - iv) Engine Type: 8 Cylinder, naturally aspirated (no forced induction),
 - v) Engine: Chevrolet ZZ4 Crate Engine (part number 24502609) with a maximum displacement of 5740cc or the ZZ5 Crate engine (part number 19301294) with a maximum displacement of 5740cc or the CT350 Crate engine (part number 19258602) with a maximum displacement of 5740cc or the SP350 Crate engine (part number 19333157) with a maximum displacement of 5740cc or the ZZ6 Crate Engine (part number 19351533 or 19417576) maximum displacement of 5740cc or the CT400 Crate engine (part number 88869604) maximum displacement of 5740cc . NOTE – Factory upgrade kits are not allowed to be run,
 - vi) Cylinder Bore: No overbore is allowed. No block can be sleeved in the bore,
 - vii) Cylinder Heads: Stock GM ZZ4, SP350 cast aluminium or CT350 Voetec Iron, no aftermarket cylinder heads are allowed,
 - viii) No replacement valve seats, machining, milling head, polishing and/or port work of any kind is allowed,

- ix) Long Block: There is to be NO polishing, porting, grinding, cutting, filing, sanding or change to the state or shape of any factory casting, forging or material used in the engine, honing of bores prior to installing new factory rings is permitted,
 - x) Oil Pump: No dry sump or vacuum pumps are allowed,
 - xi) Oil Pan: Valve Covers and Fluid Damper: Any type, the oil pan can be of a larger capacity,
 - xii) Ignition/Distributor: Any type,
 - xiii) Intake Manifold: No aftermarket intake manifolds are allowed. No port matching on the intake manifold is allowed,
 - xiv) Carburettor: Any type not exceeding 750CFM,
 - xv) Exhaust system: Any type, mufflers are recommended,
 - xvi) Fuel: AV gas is allowed to be used in this class,
 - xvii) Propulsion: Any type of jet drive, it can be modified,
 - xviii) Engine Rebuilding: In situations where the integrity of the motor has been compromised a rebuild is allowed. This requires the use of factory parts with part numbers matching those of the crate motors parts list with the exception of those parts listed in para. 2.c.xix . All work is to be undertaken leaving all tolerances within normal factory guidelines. There is still NO machining allowed. No swapping of engine parts from one crate engine to another for example ZZ4 heads onto a CT350,
 - xix) The use of aftermarket valve springs is permitted. Only part number #6215-1. 1.290-.885 beehive spring can be used (Parts can be sourced from Cylinder Head Specialists in Christchurch) Proof of purchase must be provided if requested and any aftermarket parts fitted are to be recorded in the boats logbook, and,
 - xx) Random testing of engines will take place.
- d) Penalties for FX and CX engines
- i) Any FX or CX entrant may be asked to partially dismantle their engine, after any event, for the purpose of checking factory engine specifications. Failure to comply will result in disqualification from the event and all championship points deducted,
 - ii) RRA will provide head gaskets and cylinder head bolts (bolts CX only) to any team that is asked to dismantle their engine provided they are deemed to be compliant after inspection. All other costs incurred to disassemble/reassemble the engine are the sole responsibility of the race team,
 - iii) Non-performance enhancing modifications will incur the following penalties;
 - (1) Disqualification from the event,
 - (2) All championship points removed for that event,
 - (3) Engine or Heads stamped as non-compliant, and,
 - (4) Must be compliant by the next Marathon (can continue to use the non-compliant engine in that class until Marathon),
 - iv) Performance enhancing modifications will incur the following penalties;
 - (1) Disqualification from the event,
 - (2) All championship points for season removed,
 - (3) No further championship points for that season,
 - (4) Engine or Heads stamped as non-compliant, and,
 - (5) Banned from the class (FX or CX) for a period of 12 months from the date of the infringement, and,
 - v) It is the responsibility of the technical committee to decide if modifications are performance enhancing or not.
- e) Multiplication Factors;

- i) Forced induction engines (Turbo, Supercharger), (except two stroke engines) those using combustion supporting additives (Nitrous Oxide) will be required to multiply their CC rating by 1.8 to obtain their class rating,
- ii) Rotary engines will be required to multiply their CC rating by 1.8, and if forced induction is utilized, by a further 1.8 to obtain their class rating,
- iii) Diesel engines are not subject to any multiplication factors to obtain class rating irrespective of whether forced induction is utilized,
- iv) Turbine engines shall fall into unlimited class,
- f) Race events/legs based on handicap times are to be run under the Interprovincial Series handicap structure. Race time less handicap % as per class. Race times are based off handicapped time in accordance with published NZJBRRRA rules and regulations. The handicap percentages are as follows;
 - i) U Class – Actual time
 - ii) A Class – 3%
 - iii) CX Class – 5%
 - iv) FX Class – 10%

3) Entries

- a) Admission
 - i) The organisers have the right to decide whether an entry is acceptable,
 - ii) An entry is not valid unless it meets the advertised criteria.
 - iii) All entries shall be completed on the official NZJBRRRA entry form and the indemnity shall be confirmed, and competitor's checklist shall be signed at Tech Inspection. Official online entry form link, <http://www.nzjbrra.co.nz/race-entry-form/>
 - iv) The organisers reserve the right to limit the number of entries.
- b) Entry fee to be set by the event organisers. A higher fee may be imposed for late entries. An entry is only valid after the fee has been paid in full.
- c) Crew
 - i) All drivers shall be at least eighteen [18] years of age. Crew shall be at least [16] years of age.
 - ii) Any crew (which includes the driver) shall comprise of not less than two [2] nor more than three [3] members for the duration of the event.
 - iii) Any changes to crew in a race boat from that advised in an entry form shall be brought to the race controllers' attention prior to the start of the event.
 - iv) Crew changes during the event will only be accepted on medical or compassionate grounds and only with the explicit consent of the Race Controller.
 - v) Each entrant shall have the boat driver designated as Captain who is responsible for the boat and all the actions of its crew. All matters relating to the race shall be conducted through the Captain.
 - vi) All drivers and crew are obliged to know the rules of river racing, and in particular the passing rule.
 - vii) No class is to be included in any event unless there are a minimum of three entrants starting in that class.
 - viii) In any event where there are less than three entrants in a class, the race organiser may move or combine classes to enable a race, with the exception of moving any classes into CX or FX. The race organisers decision will be final.

4) Distinctive Marks

- a) Official sponsor's decals where supplied by the organisers, shall be fixed to the boat and legible as directed for the duration of the event.
- b) All rights to advertising for any part of an event remains the sole property of the organisers or their nominees. No crew members or other persons shall permit any other person or organisation to use any information without the permission of the organisers.
- c) JBNZ registration letters, a minimum of 70mm high, shall be affixed and legible.
- d) Race numbers shall be black at least 300mm in height with class letter three quarters of the number size on a white block background or reverse. Stylised numbers are acceptable but shall be legible and easy to read at a long distance. NO EXCEPTIONS. Final discretion will be with the Tech Inspectors and/or the Race Controller.
- e) Numbers are to be placed midships on each side of boat (and not obscured by water outlets or such like) plus on the foredeck (Foredeck numbers to be read from the front of the boat).
- f) Clear and legible boat race numbers shall be displayed on the side and rear of the boat trailer and also on the windscreen of the tow vehicle.

5) Safety Rules

- a) The first boat at an accident/incident scene shall take control of the accident/incident and stay at the scene until the accident/incident is safe and secure, or until suitable help arrives.
- b) Alcohol/Drugs
 - i) Competitors and officials shall not be under the influence of alcohol or other banned substances while participating in the event.
 - ii) Drug testing, when carried out, shall be by approved personal with appropriate equipment in accordance with procedures outlined in the relevant section of the Transport Act and UIM Handbook. Zero tolerance, any reading will result in disqualification.
 - iii) A competitor shall, if requested by an authorised official, submit to an alcohol/drug test. Refusal or failure to do so may be taken as if a positive test had been recorded and dealt with accordingly.
 - iv) Any boat crew observed consuming liquor or other banned substance during the allocated time of racing or practicing, or who, in the opinion of the organisers is under the influence of liquor or any banned substance will be disqualified and have their race licence endorsed accordingly.

6) Race Boat Logbooks

- a) Each race boat competing must have a NZJBRRR logbook issued to the boat.
- b) The logbook serial number must be engraved on both the inside of the transom and the underside of the dashboard of the boat.
- c) Should the boat be sold, then the logbook shall be passed on to the new owner of the boat.

7) Warrant of Fitness

- a) All race boats are to hold a current Warrant of Fitness prior to entry of any event.
- b) A Warrant of Fitness may only be issued but an authorised NZJBRRR inspector as authorised by the Management Committee.

- c) A Warrant of Fitness will be valid for one year from the date of issue and will be recorded in the race boats logbook on the appropriate page.

8) Scrutineering Procedures

- a) At all major events i.e. World, NZ National events, a full and thorough scrutineering is to be carried out by competent people prior to the event.
- b) At all other events racers will complete their own NZJBARRA printed competitors scrutineering checklist, which shall be signed by a member of the crew. Various spot checks will be carried out at other race event tech Inspections.
- c) Spot checks may be carried out by officials with time penalties and up to total disqualification for any major breach may be applied.
- d) Motors/Hulls and other equipment subject to these rules may be inspected prior to and during racing events to ensure compliance with these rules. It is the responsibility of the entrant to ensure his craft complies fully with the race rules/requirements.
- e) All equipment shall be made available for inspection as requested by the organisers. If any equipment is found to consistently fail to comply with these rules, or if the owner/driver/crew has failed to comply with the spirit or the letter of these rules, the race controller may:
 - i) Rescind the entry
 - ii) Apply a 5% penalty for each and every item deficient, accumulative for each stage of the race for which the deficiency(s) remains, provided that safety is not materially affected.
- f) The race controller has the authority, after the finish of the race to order contestant(s) to dismantle the motor for inspection/measurement and or cc test with a meter. If such action indicates the correct displacement for the class entered, the race organisers may pay up to \$250.00 inc GST to the boat owner toward the costs of gaskets and/or labour, otherwise all costs shall be incurred by the boat owner. Should a test determine a motor is outside the limits of the class entered, then that competitor will be disqualified from the event.
- g) Any boat that is involved in an accident shall be re-inspected by the Technical Inspector. It is the responsibility of the competitor to ensure that this is done.

9) Safety Equipment

- a) A NZ or Australian Standards Approved Personal Flotation Device, with appropriate labelling, shall be worn at all times the boat is on the water. Crotch straps are required while racing. Specialised type 406 PFD's are recommended. In recognition of the constraints of seat belting and exiting in some boats, the NZJBARRA on a case by case basis, may accept professionally manufactured buoyancy aids for racing, including capsule suits and torso suits. It is the sole responsibility of the wearer to ensure the efficiency and type of PFD worn is appropriate to its intended use.
- b) Helmet. Each person aboard a race boat shall wear an approved helmet suitable for boat racing that is either red, yellow, orange or white colour, which complies with an equivalent NZ standard. The wearer is entirely responsible for the efficiency of their helmet.
- c) Clothing;
 - i) Fire resistant overalls are compulsory for all crew in race boats
 - ii) Face/feet/hand protection is strongly recommended
 - iii) Plastic wet weather gear may only be worn over fire resistant clothing
- d) Personal Safety. Each crew of a race boat shall carry on their person;
 - i) Personal Locator Beacon to be attached to driver or navigator

- ii) Highly recommended all crew to carry on their person a resuscitation face shield.
- e) VHF Radios. Each boat competing in any race shall have working Marine VHF radio on board (min 3 watt).
- f) Each boat shall have an in date floating orange smoke canister on board.
- g) Helmet neck restraints are compulsory for all racers.

10) Equipment

- a) All boats involved in an event, whether racing or an official support boat shall have an equipment and safety inspection prior to the event. They shall have on board or comply with the following;
 - i) Comprehensive first aid kit in waterproof container including:
 - (1) St Johns or Red Cross first aid manual (highly recommended)
 - (2) Several bandages: crepe/cotton, 50mm, 75mm, 150mm & triangular
 - (3) Dressings: several Telfa dressings, small & large, assorted Elastoplast strips
 - (4) Safety pins, roll of adhesive plaster
 - (5) One super insulation sheet e.g. Soehngen
 - (6) Matches (30 waterproof or in waterproof container)
 - (7) Knife
 - ii) Orange distress flag - minimum size 600mm - 600mm attached to a handle.
 - iii) All safety boats shall carry a full set of race flags and be scrutineered for same along with all other kit as laid down in the JBNZ scrutineering list.
 - iv) Seat belts shall be securely fitted in all boats with roll bars;
 - (1) They shall be in suitable condition for the intended use and clearly show current SFI or FAI standards certification label, any label that cannot be read or belts in damaged condition will fail inspection,
 - (2) Belts will be of 75mm wide webbing, minimum 4-point harness. Depending on seat and boat design, belts are strongly recommended to be 5-point harness,
 - (3) The shoulder harness cannot run parallel or close to parallel to the back of the seat down to the floor.
 - (4) Damaged or expired belts during an event shall be replaced, quick release cords or finger loops are recommended for ease of operation to release the latch. The latch mechanism can be operator choice either lever or cam lock systems.
 - (5) It is recommended racers check expiry dates when purchasing and choose appropriate belts suitable for their own application. NZJBRRRA has adopted the MANZ standard of permitting the expiry of seatbelts to be twice the factory date as long as the condition is acceptable to the technical inspector.
 - v) Bow Rope Tow rope and attachment. All race boats shall be fitted with a 10m minimum bow rope and a 15m tow rope of minimum 12mm yacht braid or similar kevlar type rope. Any shackles in use shall be of a similar strength, minimum 10mm galv type.
 - vi) Fire extinguishers shall be carried in all boats.
 - (1) Permitted Types: Multi-purpose (A.B.C) dry powder of minimum capacity 2.0kg
 - (2) ATC/AFFF multi-purpose foam fire extinguisher capacity 1.75 litres.
 - (3) All race boats shall have the appropriate extinguishers fitted for the fuel being used. This is the race crew's responsibility to check they have the appropriate extinguishers fitted.
 - (4) Extinguishers shall be fitted in suitable mounting bracket capable of supporting the fire extinguisher in the event of an accident.

- (5) Extinguishers shall have a tag to say they have been checked/serviced within the past 12 months.
- (6) Aerosol type extinguishers are not permitted.
- vii) Two paddles/oars in good condition.
- viii) Bilge pump; electric of minimum capacity 4400 litre per hr in good working order. Venturi pump can be an optional extra.
- ix) Reasonable tool kit and spares.
- x) Seats (including back rests), tanks, battery, windscreens (where fitted), (etc.) to be securely fixed.
- xi) Battery isolating switch to be located between the two front seats and easily accessible by driver and crew even when strapped in their seats, shall be identified by a red triangle of at least 75mm sides, to enable any person rendering assistance to locate the isolating switch. (In boats of metal construction, it is recommended that the isolating switch be on the earth terminal).
- xii) The steering system shall be in good condition and all threaded fixings shall have effective locking devices. A chain guide shall be fitted to boats with sprocket and chain steering. All other systems shall comply with manufacturers specifications for their intended use.
- xiii) It is recommended all exposed moving mechanical parts, i.e. belts, pulleys etc., be enclosed by a secure cover – metal mesh acceptable.
- xiv) Fuel Tanks
 - (1) Tanks shall not leak. Tanks shall be securely fastened
 - (2) Fillers - fitted so no fuel can spill into the hull. (All spilt fuel is to be contained)
 - (3) Breathers - Adequate breathers fitted to each tank, venting overboard and a minimum of 300mm from any un-cooled part of the exhaust system.
 - (4) Balance Pipes may be used. It shall be well secured and be covered by at least a 6mm alloy or steel cover if it runs directly under the driveshaft.
- xv) Fuel Take Offs
 - (1) May be from the top or the bottom of the fuel tanks.
- xvi) The use of fuel filters is recommended.
- xvii) Petrol/Methanol resistant, NZ standard approved, fuel lines shall be fitted and be well secured and in good condition.
- xviii) Methanol fuelled (includes as an additive) boats shall be marked with a bold RED letter 'M' at least 200mm high on both sides of the boat immediately adjacent to the fuel tanks. (And appropriate fire extinguisher on board).
- xix) All boats shall have a minimum of two throttle return springs either one of which is capable of closing the throttles.
- xx) Ventilation - for totally enclosed engines the bilge shall contain a bilge blower. All other engine compartments shall be adequately ventilated.
- b) Scrutineering
 - i) All drivers should tech inspect their own boats prior to an event. At an event and after the boat has passed tech inspection the Race Committee may re-inspect it at random to ensure that all of its compulsory equipment is present and technical specifications are in compliance with the rules.
 - ii) All boats shall carry all listed equipment and shall maintain safety standards as directed under the rules for the duration of the event.

11) Safety Cages

- a) RRA Safety Cage Design Specifications
 - i) The intention of these minimum specifications is to provide the best possible protection to drivers and navigators, taking into consideration the accidents which have occurred within the sport over all nations that compete. NO guarantee is implied or stated, nor is any responsibility taken regarding the degree of protection or safety afforded by any safety cage construction to these specifications. Owners are encouraged to seek the advice of a structural engineer qualified in safety cage design.
- b) Roll Cage Materials
 - i) The 2 main hoops shall be made out of 44.5mm diameter, either round chrome moly tube (SAE 4130), minimum wall thickness 2.1mm or NZ Tube Mills - Roll cage Tube (NZTM-Q29/C350/ERW) or ITM - Roll cage Tube (MSNZ-Q29/C350/ERW), minimum wall thickness 2.6mm or DOM tubing (1018 to 1026) with a minimum wall thickness 2.6mm. All other braces & struts can be made out of 38.1mm diameter of the same tube type and minimum thickness. Aluminium is NOT permitted.
 - ii) For existing steel safety cages (prior to June 2018) with main hoops of 38.1mm diameter, these may be acceptable providing proof of the material type can be confirmed and the configuration is acceptable to the NZJBRRRA Technical Committee.
 - iii) Attaching plates shall be a minimum of 5mm thick steel.
 - iv) No equipment inside the boat may be attached to the cage structure if it compromises the safety cage integrity.
- c) Welding and forming
 - i) All joints shall be fully welded by a competent welder and remain unground using the correct welding process for the material and TIG (Tungsten Inert Gas) or MIG (Wire Feed) welds shall employ a steel filler metal which is compatible with the base material.
 - ii) Chrome Moly joints shall be preheated and welded in 90-degree increments to avoid brittleness.
 - iii) Tubes shall be contoured and shaped for a close fit prior to welding.
 - iv) Tubes cannot be flattened in order to make a joint.
 - v) The manufacturer shall fill out the declaration on the appropriate Endorsement form.
 - vi) The main hoops of the cage may not be repaired by splicing, patching, cam-shelling, etc. All other components may be repaired by splicing, patching, clam-shelling, etc. according to generally accepted aircraft repair procedures. Each splice joint shall have an insert of 6" (152mm) minimum 3" (76mm) on each side of the joint centreline with rosette welds visible.
- d) Configuration & crew protection
 - i) The recommended configuration of the cage is either a "A" frame or half "A" frame with additional rear bracing struts and shall have a minimum of 2 main hoops. Rear bracing struts may be removable with a bolted splice (Fig. 1). Other configurations are acceptable providing they provide the same level of protection as set out below and are approved by the NZJBRRRA Technical Committee.
 - ii) The main hoops shall be one-piece continuous tubing. No welds permitted other than at attachment points.
 - iii) The top corners of the main hoops shall be formed with one bend formed on a bender suitable for bending the material size used, ovality distortion to be no more than the wall thickness of the tube.

- iv) The 2 main hoops shall be spaced apart at the head so that the helmet side elevation is fully protected from the front hoop and shall have a minimum of 3 tube spacers. (Fig. 1) Additional side intrusion bars may be added to provide this protection.
- v) The mounting points for the cage shoulder straps behind each crew member shall be between a line horizontal to the shoulders and a line drawn downwards from the shoulders at an angle of 25 degrees to the horizontal. (Fig.2)
- vi) On the side of the 2 main hoops there shall be a brace between approximately halfway up to form an A section. Each hoop at this point should be attached to the side panel (deck coaming) with 1x M8 bolt (Fig. 8). It is recommended that this brace extend around the inside of the top of the screen and be secured by 4x M8 bolts to the screen to provide support under impact loads from water or obstacle (Fig.7).
- vii) For new boats constructed after June 2018, Helmet clearance shall be 150mm from the main hoops for the tallest crew member and 100mm from the X brace or rear obstruction (Fig. 1). For older cages 100mm top clearance is acceptable providing there is sufficient inverted side escape area.
- viii) An X-styled brace going from the corner of the rear main hoop to either:
 - (1) The back cross bar then down to the engine bearers or outer chine area,
 - (2) Goes directly to the engine bearers or chine area and joined where they intersect (If the lower part of the X-brace goes to the outer chine, it shall have suitable load distributing plates on attachment points (Fig. 7), or,
 - (3) Bracing from the engine bearer to the deck coaming then to the centre of the hoop for turbines.
- ix) At the base of the side of the 2 main hoops, there shall be a brace between parallel above the chine for the seat rails to connect to. It is recommended that this brace extend around to the front screen support member then around to other side brace (Front impact struts) (Fig.5). This brace shall be clear of the crew's feet and is not required if there is a front bulkhead.
- x) The base connection to the hull of the main hoops shall be a 5mm minimum thick steel plate or angle, welded centrally to the hoop. This will be connected to the chine by a 10mm thick aluminium plate welded to the chine and bolted together with 2x M10 bolts or 4x M8 bolts or 6x M6 bolts (Fig. 8). There shall be a stiffening plate across the sponson at the fixing location.
- xi) The front hoop or side intrusion bars shall be in front of equal to the front of the crew's helmet when viewed from the side (Fig. 6). This is to provide protection to the crew from over hanging obstacles. It is important that this hoop position does not compromise the inverted side escape zone (Fig.2).
- xii) The top of the screen shall be of a height equal to the bottom of the crew's helmet (ie. No more than the crew's helmet may extend above the screen) and shall be of an angle that will deflect water and front on obstacles over the helmet. It is recommended that the top of the screen be supported from the centre deflection bar and screen support brace of the cage. This will then either be supported by a bulkhead or deck support struts to the base of the hull (Fig. 5).
- xiii) The top deck shall be supported to the base of the boat by support a bulkhead or vertical struts. This is to prevent the deck from collapsing under impact loads.
- xiv) A mid deflection bar from the centre of the front hoop to the top deck of the boat shall be installed to help deflect over hanging obstacles over the cage (Fig. 5).
- xv) Inverted side escape zone – There shall be sufficient space for the crew to escape and inverted or overturned boat (Fig. 2).

- xvi) Seat mounts shall be mounted to the cage. The seat base assembly shall either be constructed using the same welding & fabrication procedures as for forming the roll cage structure or constructed from Aluminium bolted to the A frame base brace (Fig. 9). Seats shall have side head support.
 - xvii) Seat belt harness points shall be secured to the safety cage and be constructed to withstand the same force as the harness is designed for. Harness anchoring bolts shall be a minimum size of a 7/16, 20UNF- threaded eye bolt and have suitable back up washer. Shoulder straps may be laced to the X frame as above.
 - xviii) Safety cage padding with a minimum 20mm thickness shall extend a minimum of 180 degrees around the safety cage tubing and be of high density foam padding. Padding shall be placed where in the event of an accident the expected trajectory of the occupant's body parts may make contact.
- e) Method of Securing
- i) Attachment plates or load-spreading flanges shall be welded to the tube ends to secure the cage to the boat and shall be at least 5mm minimum thickness.
 - ii) For rectangular plates:
 - (1) Minimum width of the plate = tube diameter.
 - (2) Minimum length of the plate + tube diameter x 2.
 - iii) For circular attaching plates: minimum diameter of round flanges should be tube outside diameter x 2.
 - iv) The safety cage may only be bolted to the boat as above.
- f) Safety Cage Endorsement
- i) Endorsement is the term applied to the process which ensures that a safety structure has been constructed to the RRA roll cage design specification. The purpose of this section is to provide guidelines relative to the application requirements and processing of safety cage endorsement by the NZJBRRRA Technical Committee.
 - ii) As a general rule, safety structures may be fabricated by anyone who has the required knowledge, skills and ability although it is highly recommended that this work is entrusted to a qualified professional.
- g) Endorsement Process
- i) This is the general standard for safety cage/roll bar compliance (acceptance) and is required for all boats competing in events associated with NZJBRRRA. The structure shall be endorsed by NZJBRRRA and a copy of the compliance shall be contained in the boats NZJBRRRA race boat logbook.
 - ii) All applications for Endorsement shall be submitted on the current Safety Cage Endorsement Application – Technical Form T1.
 - (1) Material Specification Unknown: Where the material specification is unknown the owner of the boat will be required to provide evidence to the RRA Technical Committee of the materials suitability.
 - (2) Material Dimensions Unknown: Where the material dimensions (specifically wall thickness) are unknown, these dimensions shall be determined physical measurement or UT thickness testing. This applies to all members used in the principal structure. Measurements shall be performed by a member of the NZJBRRRA Technical Committee. Where the material dimensions differ from the stated minimums the structure will be subject to approval by the NZJBRRRA Technical Committee and (dependent upon approval) may be endorsed under Alternative Design.

- (3) Welding Details Unknown: Where the welding details are unknown, and the appearance of the welds clearly show a professional standard of workmanship this information may be omitted. Should the appearance be questionable, in any way, then confirmation of weld integrity must be proven by the manufacturer/boat owner. All member joins of the Principle Structure shall be welded through 360°.
 - (4) Declaration by Manufacturer / Constructor: When, for whatever reason, the declaration is not completed by the original manufacturer / constructor then a signed Letter of Compliance shall be submitted by the applicant. This shall state that the applicant has unsuccessfully attempted to obtain the required signoff by the original manufacturer / constructor and the reasons why, the material description / dimensions have been established and a hardness test performed (for indicative strength), and that to the best of the applicant's knowledge the structure meets the minimum requirements of these rules.
 - (5) Painted Structure: When, for whatever reason, the applicant elects to submit photographs of a painted structure with an initial Endorsement application, then a physical inspection of the structure will be required by a member of the NZJBARRA Technical Committee. A report may be produced detailing any specific features / necessary work required prior to Endorsement / approval being granted.
- iii) Repairs to a damaged Safety Cage
 - (1) Where damage is sustained to an approved Safety Cage, repairs may be authorised by the NZJBARRA Technical Committee.
 - (2) In all cases the following applies;
 - (a) Initially contact the NZJBARRA Technical Committee for approval/guidance prior to any repair work commencing.
 - (b) Repairs may only be performed by a competent welder and remain unground using the correct welding process for the material.
 - (c) Any damaged tube members (in the principle structure) shall be replaced in their entirety.
 - (d) All material used shall respect the original specification and dimensions of the originally endorsed structure or as approved in writing by the NZJBARRA Technical Committee.
 - (e) If there are any changes made during the repair to the original specification and dimensions of the originally endorsed structure, then approval shall be authorised by the NZJBARRA Technical Committee prior to the repair commencing.
 - iv) Figures 1-4
 - v) Figures 5-8
 - vi) Figures 9-10
- h) The NZJBARRA Technical Committee;
 - i) Shall be appointed by the NZJBARRA Management committee,
 - ii) The role of the committee is to provide the NZJBARRA with a pool of suitably qualified individuals who together can make technically sound decisions around safety cage design and manufacture,
 - iii) The committee need not be members of the NZJBARRA, more importantly they should have the technical/trade background to support their inclusion,
 - iv) The committee shall consist of not less than 3 members.

12) Steering

- a) Steering Wheel & Fixing- Manufactured Approved steering wheel with a minimum of six M5 or 3/16" fixing bolts and/or an approved quick release steering hub if fitted.
- b) Steering Shaft – Minimum of 16mm or 5/8" round shaft with splined or keyway drive connection. Must be steel or stainless-steel material (NO ALLOY). Steering wheel flange connection to be a minimum of 5mm material fully welded both sides or an approved quick release hub connection.
- c) Steering Housing/Column – Minimum of 3mm wall thickness with minimum of 5mm flange connection.
- d) Steering housing bearing/bushes – Personal preference with a minimum of 10mm seating on steering column and steering shaft.
- e) Drive section to cable - Cotton reel approved design with minimum diameter of 75mm (3 inch) or North American approved cable steering. Chain and sprocket steering is not approved.
- f) Cotton Reel - Connection to shaft must be either keyway/splined connected with locking device and correctly lock wired. Steering cable to be one continuous section to the stern of the boat with a locking device to cotton reel with a minimum of 4 complete wraps around the reel.
- g) Power Steering - Approved for use and must be able to operate without power.
- h) Steering Cable - Minimum of 4mm or 5/32" rated 7X19 strand Galvanised or S/S wire. No replacement service life inspected condition. Approved North American push pull cable.
- i) Steering pulleys - Connected to hull by minimum of two M6 or ¼ inch fixings with nyloc nuts & 5mm or larger thickness backing plate. Pivot point bolt must have nyloc nut with a minimum of 3 threads exposed.
- j) Transom – Minimum requirement for WOF.
- k) Turnbuckles - Minimum of 6mm rated turnbuckles. Must have locking nuts. All fittings must be correctly lock wired.
- l) Wire Rope Thimbles - Must be used for wire termination and be correct to wire size.
- m) Wire Rope Fixing - Copper crimp ferrules to be used and installed only with correct tooling for crimp size. D-shackles to be a minimum of 6mm diameter rated, with extended pin/bolt with nyloc nut fitted. All fittings must be correctly lock wired. 'Bull Dog' wire clamps are not approved as primary method of fixing and may only be used as a secondary method as long as they do not create any risk of fouling.
- n) Pivot Point Steering - Approved supplier steering systems or OEM (e.g. SSS Keelowcraft). Transom box must be twin arm type. All fittings must be Correctly lock wired.
- o) Twin Steering Arms - Approved S/S tube steering arms will comply provided they meet strict guidelines (min 1.6mm wall thickness, plug welded and seem welded solid plugs at each end with min 25mm shank inside the tube). Rose joints to be 3/8 UNF or 10mm Metric fine threads with lock nuts. Minimum of 16mm solid material for non-tube arms. Drilled and tapped with min of 10mm or 3/8" thread for rose joint. Minimum of 10mm approved rose joint with locking nuts. Fixing to pivot steering and nozzle with minimum of 3/8" or 10mm fastenings with nyloc nuts. All fittings must be correctly lock wired. Aluminium is not approved for steering arms.
- p) Nozzle - Fit for purpose snoot. Minimum of 3/8" or 10mm pivot points fastenings. All fittings must be Correctly lock wired.
- q) Lock wiring - Completed to NZJBRRRA Spec and procedure.

- r) Swaged Fittings - All Swage fittings must be completed by certified supplier with endorsement paperwork to be provided. Load testing certificates. (Bridon, Cookes or similar). **Terminology:** Swage fittings are the inserted wire type with crimp connections.
- s) D-Shackle Use Clarification - D shackles can be used PROVIDED they are min 6mm, with a 6mm S/S cap screw (to replace D shackle pin). The cap screw to be drilled through the head to allow for lock wire, and the tread to be long enough to allow for a nyloc nut to be used as a lock nut. NOTE: the cap screw must thread into the D Shackle. It may NOT be a smaller thread that just passes through the D shackle. The recommendation for a Cap Screw and not a standard bolt is that the head is much deeper making drilling a hole in it for lockwire easier.
- t) For any clarification on specifications, procedures, approvals or interpretation of these rules, contact a member of the NZJBRA Technical Committee.

13) Testing Boats

- a) Areas for testing/practice may be made available prior to and during any event. Whilst it is the responsibility of event Organisers to inform competitors of when and where testing may be done, it is stressed that all local bylaws relating to the use of waterways are to be abided by at all times, unless specific exemptions are notified by the Event Organisers. It is the competitor's responsibility to be aware of such requirements. This includes compliance with local bylaws relating to speed and noise.
- b) Failure to abide by Race or local bylaw rules or regulations may result in a penalty up to DNS for the next leg of the event.

14) Racing Rules and Penalties

- a) Definitions
 - i) Leg - that segment of the racecourse between the starting line and finish line as designated for any particular part of the race.
 - ii) Starting Line - the imaginary line as drawn from the starting flag person to a point across the water as described by the Race Controller at the daily drivers' meeting and shall be physically marked on both sides of the river;
 - (1) To be ahead of the starting line implies being on the leg between the starting and finish lines so designated for that leg.
 - (2) To be behind the starting line implies being out of the leg designated for that day.
 - iii) Start Zone - that segment of the water immediately behind the start line and continuing away from the start line for a distance of approximately 50M or as flagged.
 - iv) Holding area - that area behind the start zone and continuing for a reasonable distance away from the start zone.
 - v) Finish Line - the imaginary line drawn from the finish flag indicator (flag/light etc), to a point across and approximately perpendicular to the riverbank. The finish line will be described at the drivers briefing prior to the beginning of each leg.
 - vi) Course Closure - the course is deemed to be open until the race controller has closed it.
 - vii) Under its own power - the boat is in motion and not assisted by any other powered vehicle or craft.
 - viii) Under the control of its own crew - the crew is deemed to be able to control the destiny of its own boat.
 - ix) Wilfully - a boat is under its own power and under the control of its crew.

- x) Being in tow - (taking a tow) the boat is put in motion or shifted with the assistance in any way of another powered vehicle or craft.
 - xi) Allowed starting period - that period of time between a boat's designated starting time plus 15 minutes and thereafter at the discretion of the Chief Starter.
 - xii) Refuelling Area - all boats shall be removed from the river to an area designated by the race organisers for the refuelling only of boats and support vehicles. Smoking or naked flames are totally prohibited in the refuelling area.
 - xiii) Disqualification - a boat which has been disqualified is no longer permitted to compete in the event.
- b) Flag Signals
- i) Red Flag - raised/displayed by a safety boat implies danger or emergency. All approaching boats shall stop and await instructions, which shall be complied with. Failure to stop and/or comply with instructions will result in a DNS penalty for that leg.
 - ii) Yellow Flag - raised and displayed by a safety boat implies problems on the racecourse. Slow down and proceed with caution until past problem area.
 - iii) Orange Flag - A race boat crew may raise its orange emergency flag only when a crew member requires immediate assistance, or the boat prevents or endangers the safe passage of oncoming boats or endangers the life of any or all crew members. The improper use of an emergency flag will result in a DNS penalty for the offending boat for that leg. A race boat is required to stop and render assistance upon seeing another boat's emergency flag. Failure to stop will result in a DNS penalty for that leg.
 - iv) Orange buoyant smoke signals are to be used in place of the orange flag in situations where immediate assistance is required and where the visibility of the orange flag may be restricted.
 - v) White Flag - raised at the starting line one [1] minute before start and lowered ten [10] seconds before the start.
 - vi) Green Flag - raised at the starting line ten [10] seconds before each racers or mass start and lowered at the start.
 - vii) Black and White Chequered Flag - mounted or raised at the finish line.
- c) Starting Rules
- i) The starting order, for other than mass starts may be determined by seeding. Subsequent starting orders for other than mass starts will be determined from the cumulative elapsed times for previous legs. The starting order will progress from the fastest time to the slowest time. The starting line officials, in conjunction with Race Control, may at their discretion, alter the order of the start if conditions so warrant especially in the interests of safety. The interval between boats for starting will be one minute. (this rule replaces and prohibits intervals being less than one minute)
 - ii) A leg is deemed to be open to racing at the start of briefing. Thereafter, and until the leg is officially closed, the leg is deemed to be open to racing.
 - iii) All boats shall be behind the starting line when a leg opens to racing. Any boat, which is in the water and ahead of the starting line at this time, will be deemed to be wrongfully on the leg and may be assessed a penalty of three [3] minutes. The only exception will be if briefing is above or below the start line and competitors are required to boat back across the line to start.
 - iv) While the leg is open to racing, if, for reasons beyond the control of the crew, a boat crosses the starting line from the start zone prior to its designated starting position, it may boat back beyond the start line except if another boats ten [10] second flag is raised.

- v) Boats shall be in the start zone when the green flag is raised for their designated start.
 - vi) A boat will be assessed a penalty of one [1] minute per second if it wilfully crosses the starting line from the starting zone prior to its designated starting positions green flag being lowered. For the avoidance of doubt, the green flag being lowered is the official indication of a boats start time. This rule is only to be applied to a racer who deliberately crosses the line ahead of the flag drop. It is not intended to penalise a boat who may have crossed the early due to breakdown or blocked grill etc. penalty will be awarded at the sole discretion of the Race Controller.
 - vii) A boat is deemed to have started a leg if it wilfully crosses the starting line from the start zone at any time after the ten [10] second flag (for its designated start) is raised.
 - viii) Regardless of when a boat starts a leg, it will begin to accumulate a running time for that leg from the time that it was designated to start.
 - ix) A boat that is unable to start at its designated starting position may remain in the starting zone provided that it does not wilfully obstruct or impede any other boat that is rightfully in the starting zone. Failure to abide by this rule may result in assessment of a penalty of 15 minutes up to a DNS penalty for that leg. No boat shall enter the start zone while the green ten [10] second flag is raised for another boat. Penalty - plus five [5] minutes.
 - x) The boat that is unable to start at its designated starting position may cross the starting line from the staging area at any time within the allowed starting period provided that the ten [10] second flag is not raised for another boat, and that it enters the Start Zone at displacement. Failure to abide by this rule will result in the assessment of a penalty of 15 minutes.
 - xi) A boat, which is unable to start a leg, may continue to compete in subsequent legs. It shall be given a DNS time for that leg.
 - xii) To officially start a leg and record a start time, boats shall travel approximately two kilometres under their own power. The motor is the only means of power to achieve this and utilising the current of the water to drift, other assistance or the rowing action of the crew to travel the two kilometres is not permitted.
 - xiii) Race organisers shall ensure that video footage of all race starts is captured for use in any later disputes.
- d) Race in Progress Rules
- i) Safety Equipment - Bow Riding. Whilst racing, racers shall be fully kitted with safety equipment, this includes life jackets, helmets and seatbelts. At all other times it is highly recommended where practical racers comply with this rule as well. Violation of this rule may result in assessment of a penalty of from, ten minutes up to total disqualification from the event for any blatant breach of the rule.
 - ii) Any boat which is towed from aground, or along any portion of a leg, and subsequently finishes the leg under its own power, will be penalised a DNF for that leg. Help from aground, by way of pushing by fellow competitors, patrol boats as listed in operational safety plan or spectators (using "manpower" only) acting in a sportsmanlike manner, is acceptable.
 - iii) Obstructing a faster boat is not permitted and may incur a penalty of 15 minutes or up to a DNS penalty for that leg.
 - iv) Any boat having run aground or requiring to travel in the reverse direction of the race shall do everything possible not to impede the progress of any other competitor. Right of way shall be given to boats travelling in the direction of the race. Penalty - plus 30 minutes.

- e) Overtaking
 - i) Any boat that is overtaking another boat shall do so in a safe and courteous manner or it will be assessed a penalty of 15 minutes up to disqualification from the event. There are times when the channel is not wide enough for passing and safety shall prevail.
 - ii) Any boat wishing to overtake shall adhere to the Official Passing Rule, which is - the navigator in the boat wishing to overtake is to raise his arm and keep it raised until acknowledged by a crew member in the other boat. This does not mean that the driver has to delay his passing manoeuvre.
 - iii) It is the responsibility of the boat being overtaken to watch for passing craft and to make every effort to give these boats a clear passage by slowing down and moving to one side of the race line. Strict adherence to the passing rule will be followed. Any boat being overtaken shall give way, slow down, and let the passing boat through.
 - iv) All boats shall be capable of maintaining at least 65km/hr in race conditions (approximately 40mph).
- f) Fuelling of race boats may only be carried out in designated areas. A race boat is not permitted to refuel on a leg, which is open to racing. Fuel can only be carried in a race boat in approved fixed tanks or containers.
- g) Alcohol and Drugs. No alcohol / banned substances to be carried within the boat. Penalty - disqualification from event.
- h) Finishing Rules
 - i) A boat shall cross the finish line under its own power to receive an elapsed time for that leg. The motor is the only means of power to achieve this and utilizing the current of the water to drift, other assistance or the rowing action of the crew is not permitted.
 - ii) Once a boat has crossed the finish line it may not wilfully cross back and re-enter that leg until the finish line is officially closed. Wilfully re-entering an open leg may result in assessment of a penalty of 15 minutes up to a DNS penalty for that leg.
 - iii) A boat shall finish a leg within the allowed time for the class. The allowed times for each class in each leg will be notified to all competitors prior to the event, or at the pre - race briefing. This time will be based on average fastest time for each class in previous racing on each and every river run plus a set time to be the same for every class on every leg of the event. Failure to finish within this time will result in a DNF time for the leg.
 - iv) A boat, which fails to finish a leg, may continue in subsequent legs but will incur a DNF time for that leg.
 - v) When racing two consecutive legs on one river - ie down then up or vice versa, the competitors may continue boating toward the finish line even if outside their "allowed" time, until five [5] minutes before the advertised time of briefing for the return leg, unless informed otherwise by the officials. If they have not reached the finish line by that time, then they shall stop and ensure their boat is clear of the racing line and await further instructions from support boats.
 - vi) If, within any one class, there are no finishers, then any DNF/DNS penalties for that class will be based on the slowest time of the class below.
- i) Race Stoppages. If a race/leg is cancelled for any reason due to the actions of a racer the offending racer will receive a 30 minute penalty and will not be eligible for an overall placing.
- j) Failure to replace any equipment required in these rules, which may be lost or damaged during a race, and which materially affects the safety of the boat/crew, will result in up to total disqualification from the event. Any loss, which does not materially affect safety of

boat/crew, may receive a penalty of five per cent (5%) to be added to his/her actual time for each and every item deficient for each and every stage the deficiency(s) remain.

15) Sanctioning

- a) All River Racing events not being run and administered by the NZJBRRRA Management Committee shall have sanction forms and full operational safety plans submitted by the Race organiser/organising committee to NZJBRRRA for approval to cover the race event under NZJBRRRA Indemnity insurance

16) GPS

- a) The use of GPS or any electronic navigation tracking or data logging device for any reason whilst racing is prohibited. GPS use is for speed and distance measuring only, if used for anything else while racing this will result in disqualification. Using 'waypoints' on/up the river on a GPS is also prohibited.
- b) Any GPS screen must be no greater than 5" or 12.5cm on the diagonal across the screen. The GPS must be located on the Navigators side of the boat and not in view of the driver. The GPS unit must be in view of the onboard camera at all times.

17) Drivers Briefing

- a) A driver briefing shall be held at least 20 minutes prior to each leg of a race. It is compulsory that driver and crew of each boat entered in that leg attend the drivers briefing. A roll call will be held and a penalty of up to DNS for that leg may be assessed for crew late or absent.
- b) Dispensation may be granted by the Race Controller ONLY.
- c) Evening briefings - when held these are compulsory for drivers and crew. In special circumstances dispensation may be given by Race Control and only then if the team Captain can attend in their place.

18) Noise

- a) All boats shall be silenced to 95dBa as per JBNZ Inc. testing procedure. All boats may be tested at random during an event. Penalties: 98.1 - 99.9dBa: + 15% leg time; 100dBa + :up to DNS penalty for that leg. Any further failure to comply will result in disqualification from the event. (Consideration may be given in the case of mechanical failure).

19) Behaviour

- a) All competitors, their support teams, and officials involved in jet boat river racing are expected to conduct themselves in a professional and acceptable manner whilst taking part in any NZJBRRRA sanctioned event.
- b) The use of offensive language by a crew member towards any other person or crew member will not be tolerated. Violation of this rule will result in assessment of a minimum ten minute penalty.
- c) Intentionally causing damage to another boat or intentionally causing bodily harm to a race official or crew member of another boat will not be tolerated. Anyone failing to comply with this rule will be totally disqualified from the event.
- d) All crew shall obey the instructions of any official associated with the event. Failure to do so will result in a penalty of 15 minutes - or up to disqualification from the event for blatant breaches of this rule.

20) Firearms

- a) The carrying of firearms at any time by any crew member during the event is strictly prohibited. Violation of this rule will result in disqualification.

21) Navigational Assistance

- a) No person shall provide or receive outside assistance while racing, from the air, or by radio during the race. Except for GPS in the case of an emergency for the purpose of sharing location and as permitted in para. 16. Failure to observe this rule may result in the contestant being given a penalty up to DNS for the leg.

22) Hull/Engine

- a) The hull shall not be replaced during an event. Failure to abide by this rule will result in total disqualification from the event.
- b) Engine changes - unless specified by the event organisers, there will be no engine changes during an event. Penalty for not abiding by the rules of any particular event - total disqualification from that event.

23) Indemnity

- a) The official NZJBRRRA entry & indemnity forms shall be completed and competitors scrutineering checklist signed by the boat crew. Penalty for non-compliance - will not start the event until signed.

24) Accident/Incident

- a) In the event of an accident/incident the official JBNZ/NZJBRRRA accident/incident form shall be completed by Race Control with the assistance of the race crew involved and returned the NZJBRRRA Safety Officer within seven [7] days of receipt from race organisers. Penalty - DNS next race.
- b) Maritime New Zealand requires that you notify them as soon as practical of any accident involving injury.

25) Smoking

- a) No smoking in or adjacent to boats, or in the vicinity of any containerised fuel. Penalty - plus 30 minutes.

26) Race Control

- a) All entrants in the event are under race control, whilst at the venue, for the duration of the event. For the avoidance of doubt all racers and crew will be under the jurisdiction of the event race control from first briefing until the completion of Prizegiving.
- b) Competitors shall advise Race Control if they:
 - i) Withdraw from the race or any leg thereof
 - ii) Have an accident/mishap involving boat damage
 - iii) Have an accident/mishap involving personal injury
- c) Race Control have the right to credit time to a competitor where the competitor has been involved in a significant event, such as stopping to assist in an incident/accident, an impassable obstruction in the river, or where safety shall prevail above racing.

- i) An impassable obstruction includes another competitor not adhering to the overtaking rule (14 (e) (ii & iii)).
- ii) To be given passing obstruction time credit, the obstructing competitor shall have received the minimum time penalty for the passing rule infringement - Overtaking rule (14 (e) (i)).
- iii) The competitor requesting time credit shall provide specific video footage evidence of the time delay.
- iv) A time credit for a passing obstruction shall be no less than 1.00 minute and no greater than 15.00 minutes, time credit value will be decided by the protest committee and posted in the results before the commencement of the leg on the next day's racing.
- v) The time awarded cannot be protested by any other competitor.
- d) In the event that a race event leg needs to be delayed/cancelled due to adverse weather conditions, this decision shall be discussed and agreement made by the events committee including Race Controller, Assistant Race Controller, Safety Patrol Boat Captain and Starters/Finishers if required.

27) Jurisdiction

- a) THE JURY (Protest Committee)
 - i) Shall compose of;
 - (1) Chairman appointed by organizers.
 - (2) Any UIM Commissioner or NZJBRRRA Management Committee member appointed to the event.
 - (3) Minimum of three members including the chairman. It is preferable that jury members are not race officials or competitors, however this may not be possible in some events. It is strongly advised that jury members should be well versed in these rules with some experience in the running and organisation of jet boat racing.
 - ii) Authority/Duties
 - (1) The Jury sits for the duration of the event and has the authority to enforce all applicable rules/regulations and to decide on any matter relevant to the conduct of the event, including penalties.
 - (2) The Jury shall decide as soon as practicable on all disputes, protests and claims presented to it during the event.
 - (3) The Jury shall determine whether a Protest or Claim presented to it has been lodged in accordance with the rules. If found invalid, the reasons shall be given to the claimant and fee if paid, refunded.

28) Protests

- a) Lodging of a Protest
 - i) A protest shall be handed to the Race Controller who shall in the presence of the Protester record the time of receipt.
 - ii) The protest shall be accompanied by the stipulated fee.
 - iii) Any justification, explanation or supporting evidence once lodged shall be confidential and not revealed and shall not be amended or added to before the hearing.
- b) Format of Protest - A protest shall be in writing, legible, and signed by the protester. It shall give clear indication of what matter the protest concerns, the reason for the protest, any competitors/officials involved, and any rules that he/she considers relevant. Any evidence the protester considers useful can accompany it.

- c) Time Limit for Lodging a Protest;
 - i) For “race in progress” matters - one hour after the protestor having completed the leg,
 - ii) For matters arising from the provisional daily results - Racers shall lodge their initial protest before the next day’s first briefing verbally or written with the Race Controller once protest is accepted,
 - iii) If the protest is against the legality of a competitor’s equipment or against the validity of an entry or any regulation by the organisers, the protest shall be lodged before the protester starts in the race, unless he can prove to the Jury that he was not given access to the facts before the start. Starting the race is taken as acceptance of the conditions of the event and the eligibility of other competitors.
- d) The Hearing Procedure
 - i) The following procedure shall be followed in all hearings unless stated otherwise elsewhere in these rules:
 - (1) Written minutes shall be taken and kept for twelve months from the conclusion of the event.
 - (2) All parties to the case are entitled to be present throughout the hearing and question all evidence.
 - (3) The protest, claim, or charge shall be read out to the parties.
 - (4) The parties shall be invited to state their cases. The parties may call witnesses. All witnesses shall be excluded from the hearing except when giving evidence. Each witness, after having given his account of the case, may be questioned by all parties and by the members of the judicial body. The witnesses then withdraw.
 - (5) Any member of the judicial body who is familiar with the case may give his evidence.
 - (6) The parties shall be entitled to question each other and any member of the judicial body who may have given evidence.
 - (7) The parties shall be invited to make a final statement of their cases. The judicial body may recall any party, previous witness or new witness and call on other evidence. The parties shall be present during the whole of the recall and shall be given the opportunity to question any new evidence after which they may re-make their final statements.
- e) Hearing of the Parties
 - i) Any person or body being party to a Protest, Claim or Dispute or being charged for an offence against the rules shall have the right to be heard before the judicial body in question in order to defend himself.
 - ii) The judicial body shall satisfy itself that notice has been given to the parties of where and when the Hearing will take place.
 - iii) If any party duly convened fails to appear without giving an acceptable reason, judgment can be rendered by default.
- f) Witnesses
 - i) Each party may bring witnesses to the Hearing. They shall only testify to the facts and may not express opinions, unless asked to do so by the judicial body.
 - ii) Any costs incurred by the appearance of witnesses shall be borne by the respective parties unless decided otherwise by the judicial body.
 - (1)
- g) Judgement
 - i) Decisions by judicial bodies shall be reached by simple majority of votes. In case of equal votes, the Chairman’s vote will be the casting one.

- ii) Any judgement pronounced by a judicial body takes immediate effect and cannot be altered except after appeal to the NZJBRRRA Management Committee.
- h) Interested Parties - No member of a judicial body may adjudicate on a matter if they know themselves to have directly or indirectly an interest in one of the parties involved. However this does not exclude a member from participating if one or more of the parties are from the same country.
- i) Notification of Decision - All decisions by any judicial body shall be notified to the Race Controller in writing as soon as practicable. The Race Controller is to then pass on decision to the concerned parties in writing as soon as is practicable.
- j) Availability of Documents - All documents relevant to any decision by a judicial body shall be filed and held available for a higher authority.
- k) Return of Fees - If a protest is upheld by a judicial body, the respective fee may, at the discretion of the jury, be returned to the protester.
- l) Right of Protest
 - i) Only a competitor or race official taking part in the event, has the right to lodge a protest. Joint protests, severally signed, will not be considered.
 - ii) A protest can be lodged against the posted provisional results or against any decision made by the Race Committee or an Official, or against one or several competitors.
 - iii) A protest can only be lodged in a matter, which involves the protester himself.
 - iv) A protest, which complies with these rules, shall not be refused by the organisers.
 - v) The Protest Fee to be advised by the event organisers in any advanced programme or at the latest the pre-race briefing (one-day event).

26) Penalties

- a) General
 - i) Any proven breach of the rules of the NZJBRRRA or of any duly published race regulations may be penalised.
 - ii) The race controller will be responsible for issuing penalties resulting in time penalties or reprimands and shall issue then immediately he is made aware of the breach.
 - iii) In order to protect the interests of the sporting community, the following actions may be penalised:
 - (1) Any deliberate act taken to gain unfair advantage.
 - (2) Any false act made or statement given with the intention of suppressing facts required for the proper conduct of the race.
 - (3) Any attempt to bribe or the taking of a bribe.
 - (4) Any abusive or unsportsmanlike behaviour.
- b) Reprimand
 - i) A reprimand is a notice of disapproval of an unacceptable action. The Race Controller shall record it. A reprimand shall be given in writing and recorded in the competitor's Logbook. A reprimand automatically constitutes a warning that if the offence recurs, a heavier penalty will be given.
 - ii) A reprimand can be given by the Race Controller or the Jury.
- c) Disqualification
 - i) Disqualification deletes a competitor from the results of the event.
 - ii) Disqualification is made by either/or the Jury, Race Control, NZJBRRRA Management Committee.
- d) Did Not Start (DNS) / Did Not Finish (DNF)

- i) The penalty for a DNS will be the slowest time in class plus 30%.
 - ii) The penalty for a DNF will be the slowest time in class plus 10%.
 - iii) Event organisers shall inform the competitors of the system to be used prior to the event and no later than the prerace briefing.
 - iv) DNS - A boat which is unable to start a leg may continue to compete in subsequent legs; it shall be given a DNS penalty time for the leg not started.
 - v) DNF - Means a boat starts a leg and travels 2 kilometres under its own power but fails to finish within the allowed time.
- e) Suspension
- i) Suspension means an immediate loss of all rights to participate in any activities falling under the jurisdiction of, or sanctioned by, NZJBRRRA.
 - ii) Suspension can be imposed on a competitor, official, or organization.
 - iii) Temporary suspension can be imposed by Race Control, but the NZJBRRRA Inc. Management Committee only may impose any prolonged suspension. A suspended licence holder shall hand his licence/logbook to the issuing authority who will return it only after the suspension has been reviewed and terminated by NZJBRRRA.

27) Appeals

- a) Right of Appeal - A decision by a jury may be appealed only by the parties involved in the protest, when they consider an injustice has been made against them and/or fresh evidence has been made available that may alter the decision of the jury.
- b) Parties eligible to Appeal - The only parties able to lodge an appeal against the decision of the protest committee are those who lodged the original protest or who were the party protested in the original protest.
- c) Time frame for lodging of Appeals - An appeal against the decision of the protest committee shall be lodged with the Race Controller within 12 hours of the handing down of the protest committee's decision.
- d) Appeal Committee Members - Members of the appeal committee shall be appointed by NZJBRRRA Management Committee (RRAMC) prior to any event and can include any person in whom RRAMC have confidence.
- e) Presiding over Appeal - The appeal committee is to gather all relevant information and preside as soon as is practicable over the appeal.
- f) Fee for lodging an Appeal - A non-refundable fee of \$500 shall support any appeal lodged.
- g) Notification of Appeal Decision - The decision of the Appeal Committee is final and may not be challenged. Such decision shall be conveyed as soon as practicable to all parties involved and with a vested interest.

28) Unforeseen Circumstances

- a) The race organisers and/or the NZJBRRRA Management Committee reserve the right to invoke any rule on any issue not foreseen by these rules.