2026-27 RULE BOOK

This rule book sets out class specifications, rules, race format and code of conduct for all meetings run under the jurisdiction of the New Zealand Jetsprint Association Incorporated.

Every endeavour has been made to ensure the information is correct. However, it is acknowledged that there may be rules that are open to other than the intended interpretation.

Members will be advised of any amendments to the rules of the Association as printed via a special bulletin(s) in the Association newsletter.

The New Zealand Jetsprint Association Incorporated is the final arbiter on all interpretations within this rule book.

AMENDMENTS

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1. JET SPRINT CLASSES

1.1 There are five (5) classes of jetsprint boats recognised by the New Zealand Jetsprint Association (NZJSA). These classes are the New Zealand Nextgen, New Zealand LS, New Zealand Group B, New Zealand Group A, and Superboats. Any boat will be permitted provided it is solely propelled by a water jet unit, carries two (2) crew members only (except Nextgen which only has one (1) crew member being the driver) and meets the rules specified in this book including those relating to its racing class.

1.2 Common class rules:

HULL	Mono-Vee design; the only non-aluminium alloy primary components are the roll cage and seats.
HULL SHAPE	Vee-Bottom mono-hull of monohedral or variable dead rise type.
MATERIAL	Hull plates shall have a minimum thickness of 5 mm. Sides, topsides, deck (see Note 1), and transom shall be a minimum thickness of 2 mm. Engine bearers shall be constructed from a minimum of 4 mm. The use of 5083-grade aluminium is recommended. There shall be no visual defects or deformation to the structure. Note 1: Boats constructed after September 2025 must comply with this rule. The NZJSA may at their discretion, upon application grant dispensation for boats constructed prior to this date with non-compliant material thickness, subject to assessment of their design, construction, and any strengthening modifications etc as required.
ENGINE BEARERS	Engine bearer shall be constructed from minimum of 4mm, the use of 5083 aluminium is recommended. Engine bearers cannot be notched to get seats lower and the engine bearers cannot be stepped down towards the bow. There shall be no visual defects or deformation to the structure. All fixings into the engine bearer for roll cage mounting or engine mounting, shall have either a nut and washer underneath or be fixed with a minimum of 1.5d aluminium thread. Lightening holes in engine bearers to be a minimum of 20mm from the bottom of the bearer and from the centerfold radius and be spaced no less than 20mm apart. Lighting holes to be no more than 90mm in length and have a minimum radius of 3mm. Effective from 1 January 2027. Boats built in line with the 2025/26 engine bearer rules and running by 31 December 2026 will be grandfathered in.
JET UNIT	Single unit direct drive only (no gearboxes). A fully operational reverse bucket is compulsory. The jet unit maximum sizes shown for each class refer to SDM-style units. Other makes of unit can be used at the discretion of the NZJSA.
COMPOSITE MATERIALS	The use of composite materials for primary hull construction is prohibited. Composite materials are permitted for (but not limited to) areas such as seats, headrests, valve covers, intake spacers, rear spoilers, front windscreen etc.

1.3 International Jetsprint Classes:

1.3.1 Refer to the UIM Rule Book or http://www.jetsprint.co.nz.

1.3.2 Superboats – New Zealand Rules

RACE IDENTIFICATION AND/OR NUMBER	A race identification number must be on both sides on the apex plate of the roll cage. The race number must be 150mm and race numbers must be white on a black background
ENGINES	All naturally aspirated engines must be a minimum of 6.5 litres displacement, and if any naturally- aspirated engine is under seven litres displacement it must use a methanol fuel and have multi-carburettors or a fuel-injected induction system. Forced induction engines must be a minimum of 2950cc (3 litres) displacement. Competitors may apply to the NZJSA to have boats that do not comply to the above specifications to be awarded Superboat status, if Superboat status is granted, the boat will only be eligible to compete in the Superboat class for that season.
FUEL	The use of fuels other than petrol is permitted provided the fuel type is notified to the promoter prior to competition. The only alcohol fuels permitted are methanol & E85. The use of nitrous oxide and nitro methane is prohibited. Boats must carry the letter 'M' to signify the use of methanol fuel, the letters must be red with a white outline, 150mm high and placed at the rear of the hull on each side.
JET UNIT	No restriction.
EXHAUST	No restriction on type. Engines must be effectively muffled. Noise emissions must conform to DBA levels set by the NZJSA and/or the DBA levels as specified in the Supplementary Regulations required at given track sites.
PRIMARY STARTER	Injected or supercharged engines that require external fuel priming for starting purposes shall have one (1) crewmember identified as the primary starter for that boat. This person shall be equipped with and always wear the following whilst attending to starting duties on the boat ramp (including warm up facilities): fireproof balaclava, minimum fireproof arm sleeves and eye protection. A single layer fire suit is deemed adequate arm protection and recommended. One (1) primary starter may act for several boats.

1.4 New Zealand Classes:

1.4.1 The NZJSA is required to maintain and manage the parity of the New Zealand Nextgen, New Zealand LS, New Zealand Group B, and New Zealand Group A categories.

1.4.2 All new technology and performance-enhancing components must be approved by the NZJSA prior to introduction.

1.4.3 Engine seals are required for New Zealand Nextgen, New Zealand LS, New Zealand Group B, and New Zealand Group A entrants. Engine seals shall be in place prior to the competitor's first event of the competition season and shall remain intact and unmodified for the duration of the season. Should the engine need to be disassembled for

maintenance or repair, the NZJSA Executive Committee shall be contacted via the Secretary for the correct procedure to follow. Refer to the NZJSA sealing procedure for correct seal placement, seal number recording, accessibility, and procedures.

1.4.4 Green sheet compliance/scrutineering tags will not be provided until the engine sealing process is completed: correct engine seals on and engine sealing paperwork is provided to and acknowledged by the NZJSA Secretary.

1.4.5 New Zealand Nextgen

a. In the event that certain rules are not achievable or relevant due to the scaled-down size of the Nextgen boat, the NZJSA will adhere to the following guideline: "If in doubt, you must ask for clarification of the rules or seek permission to deviate from the current rule by the NZJSA."

b. The intention of this class is to purchase a second hand Seadoo GTR 230 Jetski and use the engine, jet unit and wiring loom etc. The idea is that everyone is on a level playing field by using all factory components originally used. By doing this the NZJSA considers that it is the most cost-effective way of putting a boat on the water.

c. Roll Cage: Minimum Sizing must be 1.25" OD x .095" WT (1.1/4" OD x .095" wall). Material must be NZ Motorsport approved round chrome moly tube (as per section 2.4.1).

d. Hull Plate Thickness: Hull plate to be a minimum of 4mm, Grade 5083.

e. Hull Dimensions:
- Width to be a minimum of 1250mm to a maximum of 1450mm maximum.
- Length to be a minimum of 3000mm to a maximum of 3500mm.

f. Hull Shape: must align with a scaled-down version of a full-size modern competition racing jetsprint boat. All new hull designs must receive approval from the Nextgen Working Group/Sub-Committee of the NZJSA.

g. Jet Unit & Jet Unit Intakes:
- Use of the factory intake permittable.
- Aftermarket options: ASP intake/grill – 160mm universal intake.
- Factory jet unit from a Seadoo GTR 230 is to be used, not to be modified.

h. Steering: A steering wheel must be used; handlebars are not permitted.

i. Seating: A single seat must be centre-mounted.

j. Engine Specifications: The engine must be a Seadoo GTR 230 and must remain unmodified. Only factory parts may be used, unless otherwise approved. Any modifications or alterations to the engine must be submitted to the NZJSA Executive for clarification before implementation. If a modification is not explicitly permitted in the rules, it should not be assumed to be allowed.

k. Communication: Two-way radio systems for communication with the drivers are permitted.

l. ECUs: Factory Seadoo GTR 230 ECU to be used, not to be modified.

m. Crew Configuration: The Nextgen Class can have up to three drivers per boat, no navigators required. The boat will be single seat centre mounted.

n. Safety Requirements:
- The accelerator may be mounted on a slide rail with a locking pin to accommodate different driver heights. This mechanism will require safety committee approval on a case-by-case basis.
- Seat inserts, where necessary, must be used, and each driver will be assessed and checked by the safety committee as part of the scrutineering process. Drivers must display a visible name tag to indicate they have their seat insert in place, which will be verified by the ramp marshall during the pre-race check. Moulded foam seat inserts are recommended, though not mandatory.

o. Age: The age range for the Nextgen Class is between 8 and 16 years old (age as of race day). Drivers may compete until the age of 17 if they are still within the season. A responsible adult or parent must be present at all times while the driver is on the ramp and in the water, and be available to assist if required.

p. Event Rules: Drivers will run in three slots as follows:
- "A" drivers will run at the start of each round.
- "B" drivers will run between the New Zealand Group B and New Zealand LS class.
- "C" drivers will run between New Zealand LS class and New Zealand Group A class.

q. Nextgen boat entries will complete all available qualifying runs. They will then compete in a Top 3 final run which will be held prior to the Top 9 elimination rounds for all other classes. For clarity. there will be no Top 9 or Top 6 elimination runs for this class.

r. Rotation: The NZJSA reserves the right to modify the rotation from other classes depending on track conditions and other factors.

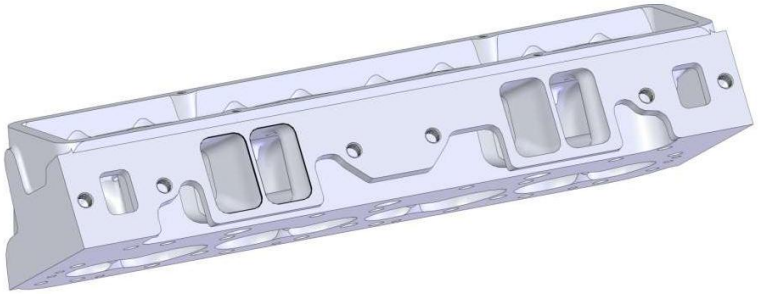
1.4.6 New Zealand Group A

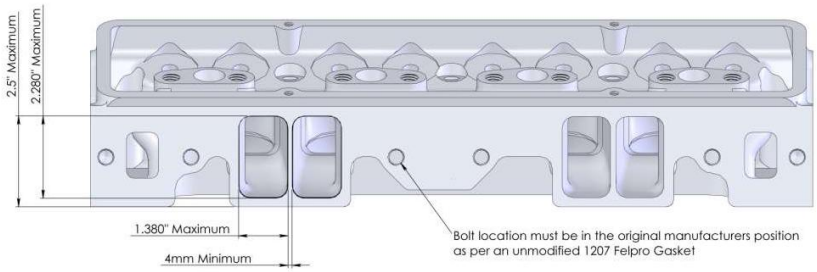
a. A race identification number must be on both sides on the apex plate of the roll cage. The race number must be 150mm and race numbers must be black on a red background.

b. Chevrolet Engine Specification:

CAPACITY	413 cubic inches (6,767cc) maximum swept volume.
MATERIAL	Cast iron only.
CONFIGURATION	Maximum of eight (8) cylinders, internal combustion only. Two (2) valves per cylinder, pushrod operated. The nominal section of each cylinder must be circular.
OILING SYSTEM	No restriction.

CAMSHAFT	Only one (1) permitted in OEM production location. The distance between the camshaft and crankshaft centre line must not exceed the OEM specification of 4.521". An .008" tolerance for machining is allowed. No restriction to valve lift or rocker ratio. Shaft mounted rockers are permitted. Offset rockers are permitted to relieve the problem of pushrod to cylinder head interference created by some aftermarket heads, maximum offset is 0.250". Offset rockers are permitted for OEM cylinder heads where pushrod tubes have been inserted to gain port width comparable with aftermarket castings, maximum offset is 0.250". Devices that vary the valve timing whilst the engine is operating are prohibited.
CONNECTING RODS	Must be of ferrous alloy material.
CYLINDER HEADS	Cast iron or aluminium only. OEM location and any aftermarket brands like Dart, Brodix, Profiler, AFR, Promax Standard valve spacing in relation to bore only. **No 60/40 or 40/60 valve spacing allowed.** The valves centreline dimensions must not exceed these dimensions as follows: Exhaust valve centreline to exhaust centreline minimum distance is 2.280" and maximum distance is 2.364". Intake valve centreline to intake valve centreline minimum distance is 2.664" and maximum is 2.710". Intake valve centreline to exhaust valve centreline minimum distance is 1.876" and maximum is 1.910". Valve angle 23 degrees to block face, original cylinder head manufacturers location only, no angle milling allowed. Maximum 0.50 degree (either way) valve angle testing tolerance measured from block deck surface. Block deck surface to be 90 degrees from bore centre line.
INTAKE PORTS	Cylinder head intake port dimensions at manifold flange as per drawing.





INTAKE PORTS	No high port or raised runner heads. OEM production location only.
BOLT LOCATION	Bolt location must be in the original manufacturers position as per an unmodified 1207 Felpro gasket. Maximum distance of 2.500" allowed from roof of port to block surface side of head, measurement is made along the plane of the intake flange face and not perpendicular to deck surface (Chevrolet specific rule only).
EXHAUST PORTS	OEM 6 bolt stud pattern, no spread ports. Exhaust port floor to be a minimum of 1.450" and maximum of 2.700" floor height measured from deck of head. Exhaust flange adaptors are permitted as long as no material from the manifold, the adaptor or any gaskets or seals protrude into the port past its original outside face.
VALVES	Maximum sizes = 2.125"intake, 1.625" exhaust. Valves may only be opened by mechanical action, and can only be closed by means of coil springs. There are many after-market manufacturers that produce complying cylinder heads (GM Bowtie, Dart etc.) There are also some cast iron heads produced as "23 degree" that don't meet the specified rules, some heads angle-milled from the factory are an example of this.
INDUCTION	Naturally aspirated only via a single 4-barrel carburettor with a maximum of four (4) venturis. Carburettor throttle body bores below the throttle shaft centreline shall not exceed 1-11/16" diameter. Butterflies or throttle blades shall not exceed 1-11/16" diameter. Compliance will be checked by measurement, or a "Go/No-Go" type gauge applied to the throttle body bore below the throttle shaft centreline.

	Any mass produced cast intake manifold is permitted.
INLET MANIFOLD	Must use OEM bolt pattern and position to mount to cylinder heads without the use of adaptors or spacers. No sheet metal or tunnel ram style inlet manifolds are permitted. The intake manifold must remain largely visually standard and unmodified from the outside. Sectioning the plenum for porting access and re-welding is a permitted exception. No additives may be discharged into the inlet tract. Any device which alters the configuration of the manifold/induction systems (e.g., movable inlet rams) or exhaust while the engine is operating is prohibited.
EXHAUST	No restriction on type. Noise emissions must be effectively muffled and conform to DBA levels set by the NZJSA and/or the DBA levels as specified in the Supplementary Regulations at given track sites.
FUEL	Avgas and 100 race fuel only, no additives allowed. The protest fee for illegal race fuel or suspected additives is $200 non-refundable. The penalty for this offence would be disqualification from the event.

c. Ford Engine Specification: Same common rules as Chevrolet engine except –

CYLINDER HEADS	Valve angle only 20 degrees to block face (OEM specification), original cylinder head manufacturers location only.
INTAKE PORTS	Template Felpro gasket 1262r max size (published dimensions 1.40"x 2.25"). Offset rockers are permitted as per Chevrolet (max 0.250"). Intake ports and Felpro 1262r max size gasket template must be in original cylinder head.
BOLT LOCATION	Manufacturers position and orientation in relation to bolt holes. Maximum distance of 2.500" allowed from roof of port to block surface side of flange face and not perpendicular to deck face production location only.
VALVES	Maximum sizes = 2.125" intake, 1.625" exhaust.
INTAKE MANIFOLD	Any mass-produced cast intake manifold is permitted. Inlet manifold must use OEM bolt pattern and may not use spacers or adaptors to bolt up to heads to allow for differing deck heights in Ford production blocks. Manifold must be designed for deck height block used.

d. Applications for engine consideration must be made to the NZJSA Executive Committee, supported by full technical specifications. Any engine under consideration will be subject to supervised trials before approval for competition is granted.

e. Combined Rules and Limits on Modification (All Makes):

- No angle milling of heads allowed.
- Maximum 0.50 degree (either way) valve angle testing tolerance applies to factory valve angle.
- Porting is permitted but no material may be added to any part of the cylinder head casting (unless specified in that engine family specific rules). Includes but not limited to aluminium ramps, epoxy, brazing, furnace cement etc.
- Welding is permitted for crack-repair purposes only but is limited in the port, intake and exhaust runner area to a maximum of two (2) repairs per cylinder head.
- Welding in the chamber area for crack-repair only is limited to two (2) chambers per head but must not alter the shape or size of the combustion chamber.
- Replacement of valve guides are not considered to be a repair (see below).
- All machine work for valve guides, spring and valve seats must remain parallel and in original cylinder head manufacturers position.
- No offsetting of valve guides is permitted.
- Any machined surface must remain parallel to original surface.
- Repair sleeves or tubes of any material may be fitted to either the head bolt or pushrod holes:
  - ⇒ Head bolt = one (1) repair maximum per cylinder head.
  - ⇒ Pushrod hole/slot = two (2) repairs maximum per cylinder head for aftermarket cylinder heads.
  - ⇒ Pushrod hole/slot = four (4) sleeves or tubes permitted per head for OEM heads to gain port width comparable with aftermarket castings.
- Max rocker offset is 0.250".
- No restriction on exhaust valve seat inserts.

f. Jet Unit:

- One water jet unit only. Direct drive only (no gearboxes). Jet unit impeller/s diameter must not exceed 216.40mm (8.5” plus 20 thou).
- Impellers must be constructed from ferrous material and can be CNC machined from billet stock. Stainless steel impellers are acceptable. Titanium, aluminum, and composite impellers are prohibited.
- The jet unit housings (intake/mainshaft/grill/stator/wearband/tailpipe/ nozzle sections) must be made of aluminium, stainless steel, brass, bronze or ferrous materials.
- No Titanium or Composite jet unit housings (intake/mainshaft/grill/stator/ wearband /tailpipe/nozzle sections) are not allowed. Titanium studs/fasteners, composite reverse bucket, splash guard and steering rod are allowed.

g. Exhaust: No Titanium headers allowed.

1.4.7 New Zealand Group B

a. A race identification number must be on both sides on the apex plate of the roll cage.

b. The race number must be 150mm and race numbers must be black on a white background.

c. As per New Zealand Group A Specification 1.4.6 with the following additional engine specification restrictions:

CAMSHAFT	Valve lift restricted to a maximum of 500 thousandths of an inch (1% testing tolerance), flat tappet only. The distance between the camshaft and crankshaft centre line must not exceed the OEM specification of 4.521". An .008" machining tolerance is allowed.
INDUCTION	The only allowable carburettor is a stock Holley part number 4779. The only permitted modifications are as follows: ⇒ Removal of the choke flap. ⇒ Fuel floats. ⇒ Jets (including extensions) and power valves. ⇒ Needles and seats. ⇒ Float bowl venting and baffling (incl. whistles etc.) ⇒ Accelerator pump discharge nozzles and cams.
OILING SYSTEM	Wet sump only. No form of external oil pump permitted. Oil accumulators are allowed. Vacuum pumps are permitted.
JET UNIT	Up to 8½ inch jet unit impellors will now include a 20 thou tolerance. Impellors must be constructed from a ferrous material and can be CNC machined from billet stock. The jet unit intake housing, stators, tail pipe, steering nozzle, wear ring housings, and grill must be made of either cast aluminium, bronze, or ferrous materials. No titanium or composite components.

1.4.8 New Zealand LS

a. A race identification number must be on both sides on the apex plate of the roll cage. The race number must be 150mm and race numbers must be white on a Reflex Blue (deep blue-violet hue) background.

b. Engine Specification:

ENGINE	All Australian delivery style engine. Can be purchased from NZ, USA, or Australia, but must be the following LS series only: LS1, LS2, L77, L76, L98, LS3
EXHAUST	No Titanium headers allowed.
CRANKSHAFT	Standard cast crank. 3.622. +/-002 Crank weight with reluctor wheel and 1 keyway – no spigot bearing, no crank gear. LS1-LS2-L76-77-98-LS3: Minimum crank weight 22.5kg
CONRODS	Standard LS1, LS2,L77,L76,L98,LS3 rods only – no titanium rod or alloy. Conrod minimum weight: LS1 Minimum weight 600 grams

	LS2-L76-L77-L98-LS3 Minimum weight 630 grams Balancing must have one rod untouched.
PISTONS	There must be a minimum piston to cylinder head clearance of 0.042’ with head gasket fitted. Open, must be flat top only, no valve reliefs. Standard pin size +/1 .005”. Refer to block section for maximum bore size. Min weight of piston, complete with pin, rings, oil rings & clips. Minimum Weight LS1 620 Grams. Minimum Weight L76 – 77 – 98 – LS2 640 Grams. Minimum Weight LS3 660 Grams. One piston must remain untouched when balancing.
Block	Alloy factory block 5.7 - 6.0 - 6.2, no aftermarket blocks Block bore Size LS1 = 3.900" - 3.920" LS2 – L76 – 77 – 98 = 4.00" - 4.020" LS3 = 4.065" - 4.075" No lightening of block other than machine faces or honing process for normal engine building practises. 5.7L and 6.0L blocks may be sleeved to LS3 specification. LS3 blocks may also be sleeved. New sleeves must be in LS3 OEM position and 4.065" - 4.075" bore size. Blocks sleeved to LS3 specification must run piston and rods that match the LS3 specifications in this rule book. Engine main bearings, Rod and Cam bearings = Open.
Cam & Lifters	Hydraulic LS GM Lifters only. No tie bar lifters allowed. 5/16 pushrod 7.350 to 7.425 only. 080 wall thickness. Standard can be used. Cam must be one of the following: GM Motorsport GMM JS1 229-235-110.5 max valve lift .615 inlet, exhaust 0.620 Kelford SS108J 226-232-110 max valve lift inlet, exhaust 0.600 Kelford SS108-JSA 230-235 max valve lift .615 inlet, exhaust 0.621
Timing Chain	Any standard GM or aftermarket IWIS LS Single row chain. No variable cam timing. No double row chains. Cloyes timing set can be used Part Number. TGK364RCL
Heads	Following GM Head castings only. No lightening of heads other than machine faces for normal engine building practises. Ends of heads may be engraved with company logos, but no excess material removal. Min head CC 64cc for LS1 (casting 241-243-853 only) when used on 5.7-6.0L. If used on 6.2L Min Head CC 66cc. Min head CC 64cc for LS2 (casting 243 only) when used on 5.7-6.0L. If used on 6.2L Min Head CC 66cc.

	Min head CC 66cc for L76, L77, L98, LS3 (casting 0821-823-5364). These heads can only be used on 6.0-6.2L.
All Heads	No welding of heads, even for repairs. No material may be added to any part of the cylinder head casting. Standard GM factory valves, or Manley stainless steel exhaust valves Part # 11661-8/inlet valves Part # 11686-8. These are the only valve options permissible. LS1 – LS2 Valve sizes 2.00" inlet 1.55" exhaust. L76 – L77 – L98 – LS3 Valve sizes 2.165" inlet 1.59" exhaust. Standard valve location. Valve Angle 15 degree +/- 0.5 degrees. Standard or Standard replacement head bolts allowed. ARP head bolts allowed. ARP head bolts or ARP steel head studs allowed. No spring pocket modification. Porting allowed. No changing of valve angles to deck face.
Rockers	Standard GM LS1, LS2, L77, L76, L98, LS3 rocker gear with a bearing trunion upgrade allowed. Must be 1.7 ratio only. This will be checked with a tool at the race track regularly, as instructed by The Safety and Risk Manager or Scrutineer.
Valve Springs	Any beehive single spring allowed if using Kelford SS108J Camshaft. If using GMM JS1 Camshaft you must use PSI 1511ML Beehive springs. Standard or steel retainer. No Titanium. Standard or steel locks. No Titanium.
Computer	Open. Injectors Open.
Harmonic Balancers	Must be fully encased performance balancer or standard with inner and outer circled together. Must have retaining bolt and washer fitted. Minimum weight 4.2kg.
Inlet Manifold	Standard manifold must remain completely standard. No porting, no extrude honing, no machining, no drilling, no tapping. Drilling and tapping allowed only to block off factory vacuum ports that are not used. LS1 = 12560894, 12573572 LS2 = 12589181 L76 – 77 – 98 – LS3 = 12590124, 12602477, 12603477, 12686561 If directed by the NZJSA, you must swap your manifold with one supplied by the NZJSA. The Manifold supplied will be an equivalent part number to your current Manifold. A Scrutineer is required to be present during the changeover to cut and reseal the engine.

	Throttle Body; Open, maximum diameter 92mm. No Spacers between throttle body and manifold.
Jet Unit	One water jet unit only. Direct drive only (no gearboxes). Jet unit impeller/s diameter must not exceed 216.40mm (8.5" plus 20 thou). Impellers must be constructed from ferrous material and can be CNC machined from billet stock. Stainless steel impellers are acceptable. Titanium, aluminium, and composite impellers are prohibited. The jet unit housings (intake/mainshaft/grill/ stator/wearband/tailpipe/nozzle sections) must be made of aluminium, stainless steel, brass, bronze or ferrous materials. No Titanium or Composite jet unit housings (intake/mainshaft/grill/stator/ wearband/tailpipe/nozzle sections) are not allowed. Titanium studs/fasteners, composite reverse bucket, splash guard and steering rod are allowed.
Fuel	Control Fuel must be used when directed by the NZJSA. Ordinary pump unleaded fuel only, 98 octane max. The use of oxygenated fuels is prohibited.
Note	"Minimum and maximum limits are set on certain items. THIS DOES NOT MEAN your engine will work if you go to all the minimums or maximums. Please work with the parts you purchase, and your engine builder to machine and configure what works with your engine, provided they are within the given tolerances." If you intend to make a modification to your engine, and you are unsure if that modification is permitted within this class, you should always send an email to the NZJSA secretary asking for a clarification on the ruling or modification. If it does not say you can use a part, you must not be in belief that you could use an alternative part. Standard replacement parts only if not stated. All factory GM/Holden parts must be used unless it states open in the rule section. If in doubt you need to ask for clarification of the rules by the NZJSA. Dispensation requests will be considered on a case by case basis.

c. Alternate Engine/Boat Options: Written submissions with supporting evidence may be made to the NZJSA Executive Committee to include other engine and/or hull combinations that meet the safety and performance parameters of the class.

1.4.9 All Race Classes

EXHAUST	Engines must be effectively muffled.

	Noise emissions must conform to DBA levels set by the NZJSA and/or the DBA levels as specified in the Supplementary Regulations at given track sites.

2. BOAT AND SAFETY EQUIPMENT

2.1 Competitors must ensure that their boats comply with the conditions of eligibility and safety throughout practice and racing.

2.2 Presentation of a boat at the secretariat will be deemed an implicit statement of conformity, and the driver/owner will be required to present the completed and signed NZJSA audit form.

2.3 Boat Non-Compliance:
PENALTY: Loss of qualifying round/s or disqualification from meeting.

2.3.1 Safety harness shall be fitted for both crew and be securely attached to the roll cage and the seat base attachment frame.

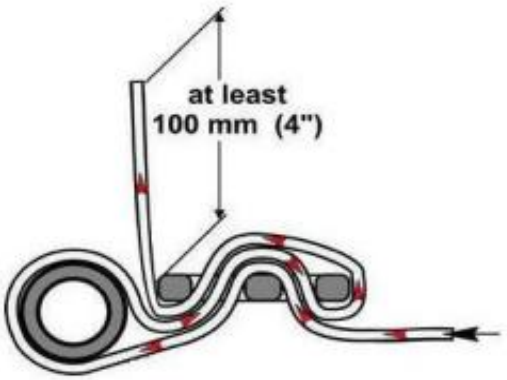
a. They shall be either:
- SFI 16.1 approved, 5-point minimum, lever-action type release mechanism including a finger loop aid to aid easy location and unlocking of the release mechanism; or
- FIA 8853-2016 approved, 5-point minimum, camlock type release mechanism.

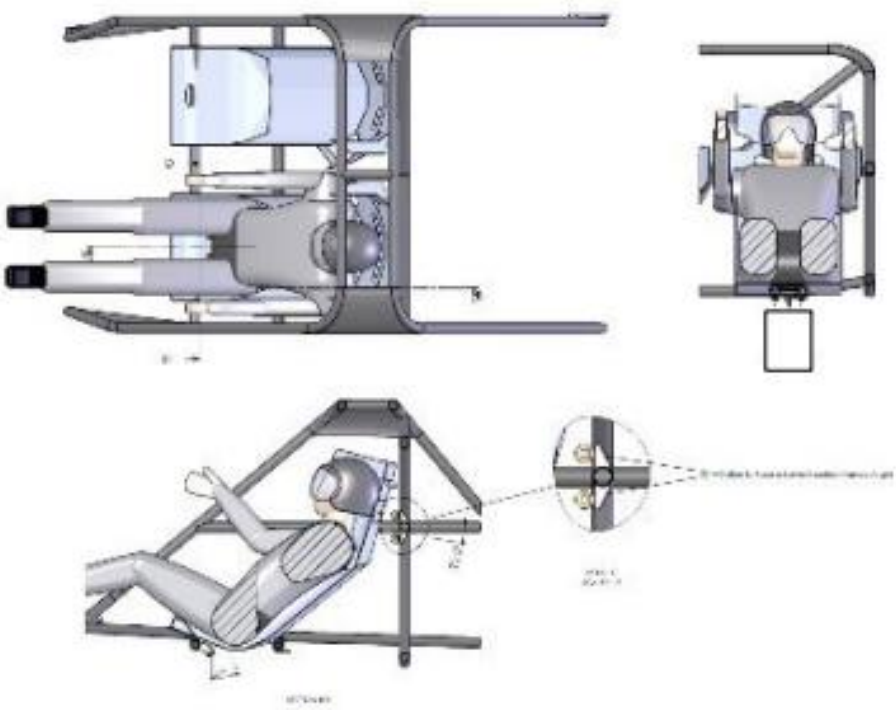
b. The mounting point for the shoulder straps behind each crew member shall be between a line horizontal to the shoulder, and a line drawn downward from the shoulders at an angle of 0-20 degrees to the horizontal. *(Refer to diagrams below)*. Safety harness is to have date of manufacture clearly visible. The date is to be recorded in logbook. Harness meeting SFI 16.1 specifications shall be replaced after two (2) years from date of manufacture or by their expiry date. Harnesses meeting FIA 8853-2016 specifications shall be replaced after five (5) years from date of manufacture or by their expiry date. Safety harness webbing, mounting points and harnesses shall be replaced whenever webbing is cut, frayed, or weakened due to actions of chemicals or sunlight etc. They shall be replaced if the safety belt harness hardware is bent, deformed, or rusted. If the harnesses have been in a serious accident and their post-accident integrity is considered to be compromised by the NZJSA Safety Committee, they shall be replaced, and the discarded harnesses cut in such a manner to prevent further use. The lap and crotch straps may not pass over the sides of the seats but through the seat unobstructed, to wrap and hold the pelvis region over the greatest possible surface. Care shall be taken that the webbing of the harness is protected against chafing against sharp edges. Crotch straps for 5 and 6 point harnesses are to be mounted as per recommended harness mounting diagrams at 0-20 degrees, and in accordance with harness manufacturers mounting instructions.

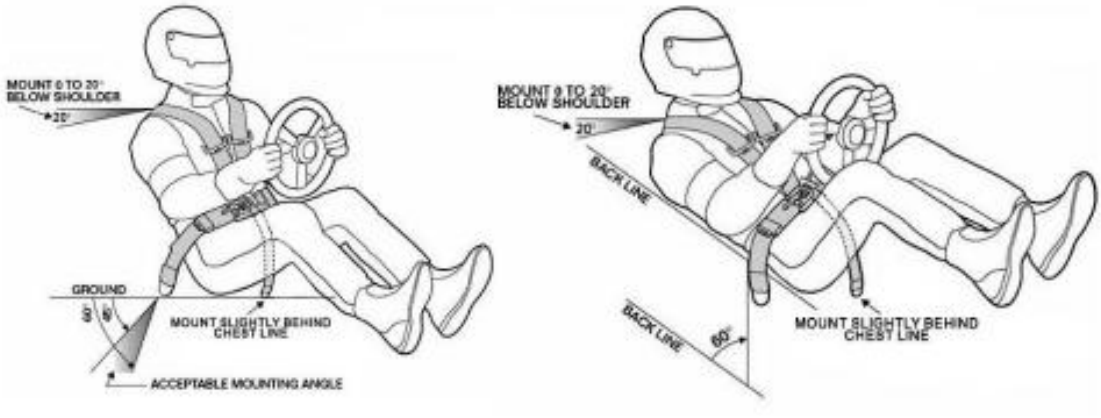
c. Belts above shoulders shall wrap around the horizontal cross bar or additional harness bar; or by using certified 7/16 UNF eyebolts and approved fixing to the horizontal cross bar as per diagrams. *(Refer to diagrams below)*. Lap belt anchors shall be positioned in accordance to the lap belt guide diagram and mounted to the roll cage as close to the hip as possible. This attachment to the roll cage shall be

made with the use of 7/16 UNF certified eyebolts and approved fixing into the roll cage tube using one (1) of two (2) methods. Method 1 *(fig. 9 – Detail A)*: crush tube welded through the roll cage. Method 2 *(fig. 9 – Detail B)*: approved external fixing bracket. The attachment points of the harness shall be engineered so that their strength is greater than the breaking strain of the webbing.

Correct method of threading and locking off wrap-around webbing.







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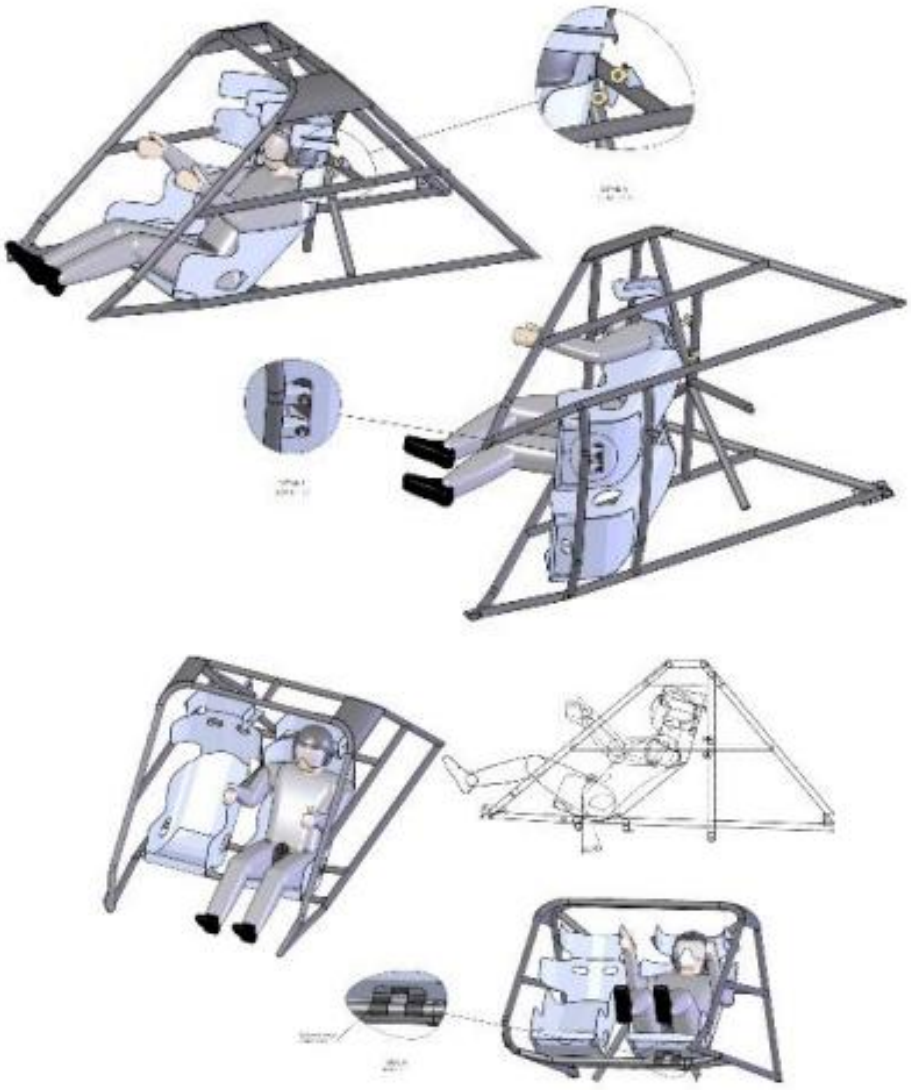


2.3.2 Drivers and navigators must check their safety equipment for correct size as part of the Safety Audit as per manufacturer's specification.

2.3.3 Arm restraints shall be worn on both wrists of each crew member and be of a length that will prevent the arm from protruding from the boat in the event of a rollover. They shall be attached to the safety harness in such a way as to release freely when the harness is released. Care shall be taken that the restraint will not interfere with belt release mechanism.

2.3.4 Head restraints for both the driver and navigator are compulsory.

a. These must be:

- Motor sports-approved mounted from the shoulders to the helmet, fitted correctly as per section 2.3.19; and
- The fixed type from the seat back that protrude each side of the helmet in a line drawn forward past half the forward length of the helmet when the head is rested to the back of the seat in the sitting position and must have the ability to absorb the side impact of the head under racing conditions.

2.3.5 All boats shall have a suitable footrest/s for the navigator, positioned so that the legs cannot be in a “locked” position, and not interfere with the driver’s ability to control the boat. It is recommended that some form of foot/leg restraints are used. These shall not interfere with the occupant’s ability to self-extricate from the boat.

2.3.6 Fuel tanks must be securely mounted and be fitted with a non-spill sealing cap that is secured by either a screw in thread, or an approved motorsport type fuel cap. The tank must not be mounted in such a way as to be a stressed or a load bearing part of the boat structure. Adequate breathers are to be fitted to the fuel tank, venting overboard a minimum of 300mm from any uncoiled part of the exhaust system. The fuel breather tube must be fitted with a correctly installed (orientation and angle for type) non-return or rollover c=valve (recommended) that will shut off in the event of a rollover.

2.3.7 A fuel filler must be used in such a manner that no fuel can spill into the hull during refuelling on tank mounted fuel caps. If the fuel cap is mounted on the side of the hull it is strongly recommended that a breakaway style cap system is used so the filler remains intact in an accident. All fuel system components, hoses and lines must be compatible with the type of fuel used and coupled using either AN type fittings, T-Bolt, or high torque type clamps on barb fittings and adequately secured. A fuel shut off tap or control fitted on the suction side of the fuel pump located between the seats or on the dash and able to be operated by either crew when harnessed in their seats is recommended. If the tap is not directly mounted on the tank, the fuel line to the tap must be a stainless braid type with AN style fittings with sufficient slack in the line to prevent separation in the event of an

accident (Superboats may have the fuel shut off fitted to the pressure side of the fuel pump).

2.3.8 The battery should be of a non-spill (i.e. Manifold-vented) type or enclosed in a leak proof case and firmly secured to the hull or bearers. A non-spill type encased in a plastic case for insulation is strongly recommended. In LS Class, New Zealand Group B and Group A the battery must be capable of starting the engine without the assistance of a slave battery or other external source.

2.3.9 An operating battery isolating kill switch must be installed and located between the seats and able to be operated by either crew when harnessed in their seats. It is recommended that on metal constructed boats that the isolating switch be located on the earth terminal.

2.3.10 Engines are to be solid mounted to the main engine bearers. Flexible mounts will only be permitted if they have security through bolting and it can be demonstrated that the through bolt is designed to restrain the engine should the flexible portion fail.

2.3.11 A minimum 2 kg Dry Powder BE type fire extinguisher (sodium/potassium/bicarbonate-based) Minimum rating 5B:E to AS/NZS 1850 must be fitted to the boat trailer and easily accessible. An on-board fire extinguisher is optional.

2.3.12 Any loose equipment must be removed for racing.

2.3.13 Steering shafts shall not protrude the steering wheel end of the steering column bearing/bush by more than 200mm. Steering spacers made of extended threaded rods/tube type spacers are not permitted.

All extension spacers must be well engineered to provide a stable platform for steering wheel.

All shackles and turnbuckles in the steering system must be lock wired (nylon TY wraps are acceptable). Chain guards/guides must be fitted to each side of the steering chain sprocket or the drum of a cable steering system. All open pulleys must be fitted with keepers.

2.3.14 Two (2) throttle return springs, either of which is capable of closing the throttle, must be fitted in addition to any internal carburettor throttle shaft springs. Fuel injector intake manifolds may use two (2) internal springs and one (1) on the throttle pedal provided that either system will close the throttle blades. It is highly recommended that an effective stop is fitted under the throttle pedal.

2.3.15 All front harmonic balancers need to be retained by a bolt. OEM style balancers (i.e. non-aftermarket types) need to have a 5mm alloy plate bolted to the front pulley to retain the outer ring if the rubber bolting fails.

2.3.16 All competitors on the track, whether they are competing or practising, must wear a correct fitting, approved helmet, motorsports type neck brace, arm restraint, fire retardant race boots, fire retardant suit, motorsport-approved flame-retardant balaclavas and gloves. Balaclavas of the peephole type are not permitted.

All the above equipment must be properly and securely fitted to the crew prior to the boat lining up at the start line and all equipment must be in place when the boat crosses the finish line.

All of the above fire/flame retardant must remain on until the boat is back on the launch ramp and trailer, whether the boat is running or being towed. This includes completing a victory lap.

No other items of clothing should be worn over the fire-retardant suit.

The competitors shall be responsible for checking that his or her crew is wearing the required safety equipment and that it is correctly adjusted before proceeding to the start line.

The starter or safety officer will visually check safety equipment prior to allowing any boat to cross the start line but will not be responsible for any item not being in place during competition.

Time penalties apply if this delays a boat from starting when required.

The table below outlines the minimum requirement for double layer fire suits or single layer suits worn with fire retardant underwear:

Single Layer Suit	SFI 3.2A/1 ASCF RA01
plus Fire Retardant Underwear	FIA8856-1986 FIA8856-2000 SFI 3.3
plus Balaclava, Gloves & Boots	FIA8856-1986 FIA8856-2000 SFI 3.3

Two Plus Layer Suit	FIA8856-1986 FIA8856-2000 SFI 3.2A/5
plus Balaclava, Gloves & Boots	FIA8856-1986 FIA8856-2000 SFI 3.3

2.3.17 Fitting of a bilge pump is optional.

2.3.18 All competitors on track, whether competing or practicing, shall wear a correct fitting Snell approved SA2010 (or higher) Motorsport open face helmet. Any brand of crash helmet is allowed provided it meets the Snell, FIA standards specified on the UIM website. All helmets shall be in excellent condition with no frayed chinstraps or rusted anchor points and shall correctly fit the person wearing them. Full face or types with removable face pieces are not acceptable. Air breathing system are acceptable. Exception: full face helmets may only be used if fitted with an air breathing system.

2.3.19 A frontal head restraint (FHR) that satisfies SFI 38.1 or FIA 8858 standards shall be worn by both crew.

2.3.20 Any items that in the opinion of the Race Controller are unsafe must be replaced.

2.3.21 In the event of any defect being noted an official infringement notice will be issued and recorded in the logbook, one (1) copy for the driver/boat owner, one (1) for the NZJSA Safety Officer or his appointee and one (1) retained by the NZJSA. The boat may not be able to compete until such time as the defect/s is rectified in the time frame specified on the Infringement Notice.

2.3.22 Seats must be constructed in such a way as to meet a minimum standard that in the opinion of the NZJSA safety committee, provide sufficient support to the occupants.

Seats structural integrity must not be compromised by mounting methods, harness slots, lightening holes or damage. Damaged seats must be repaired or replaced.

Occupants should fit seats correctly in such a way that they cannot move within the seat.

Seats by way of design or by the addition of restraints, should be full containment type and prevent any lateral movement of the occupant's body.

The use of custom motorsports seat inserts of high-density foam padding in seats is highly recommended.

2.4 Roll Cage Specifications:

Fig. 1

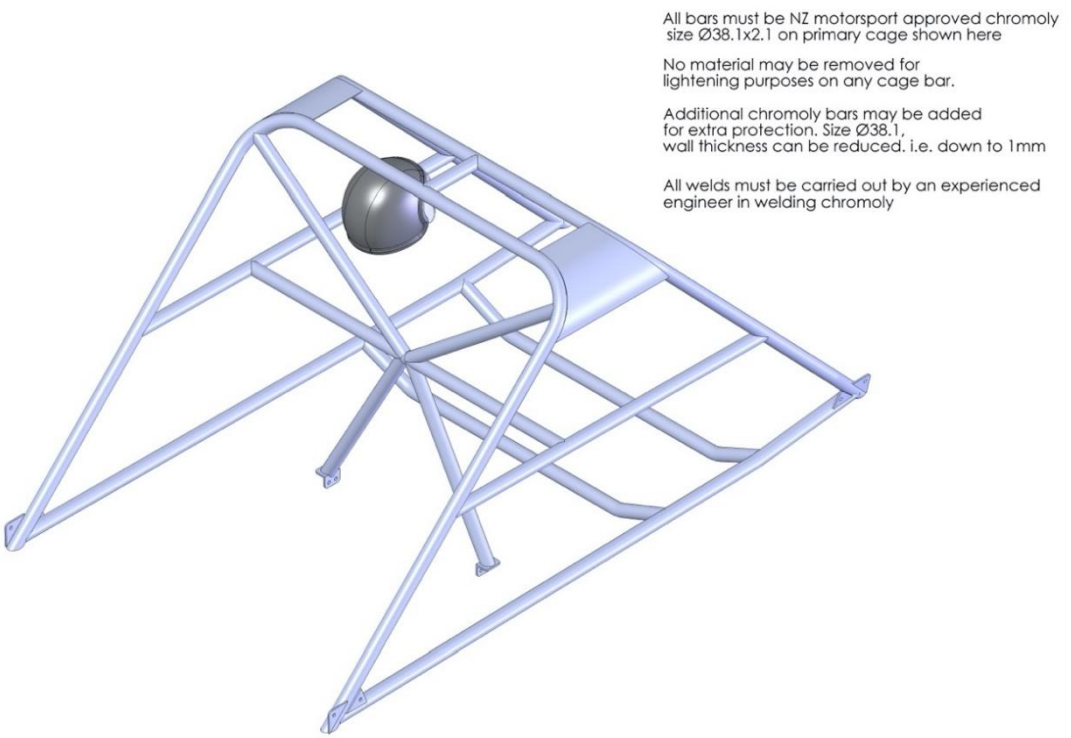


Fig. 2

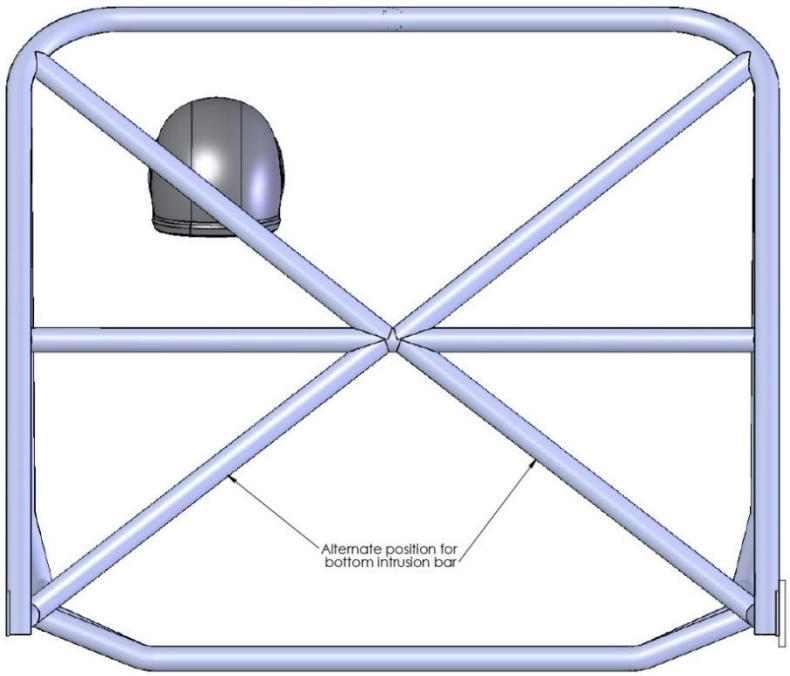


Fig. 3

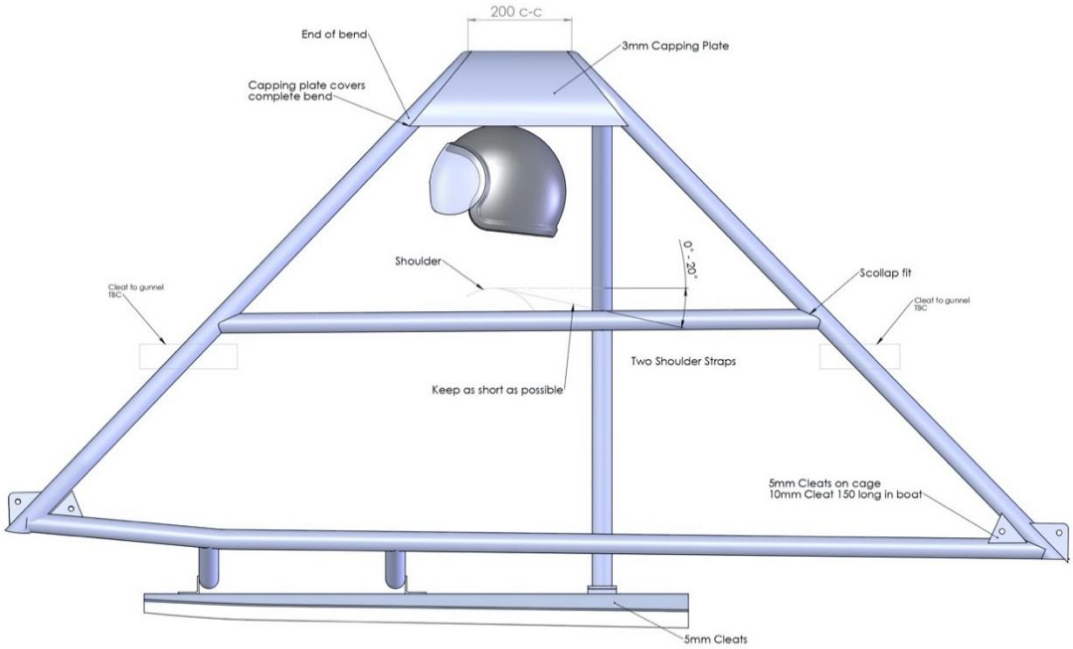

200 c-c
End of bend
3mm Capping Plate
Capping plate covers complete bend
Shoulder
0° - 20°
Scallop fit
Cleat to gunnel TBC
Cleat to gunnel TBC
Two Shoulder Straps
Keep as short as possible
5mm Cleats on cage
10mm Cleat 150 long in boat
5mm Cleats

Fig. 4

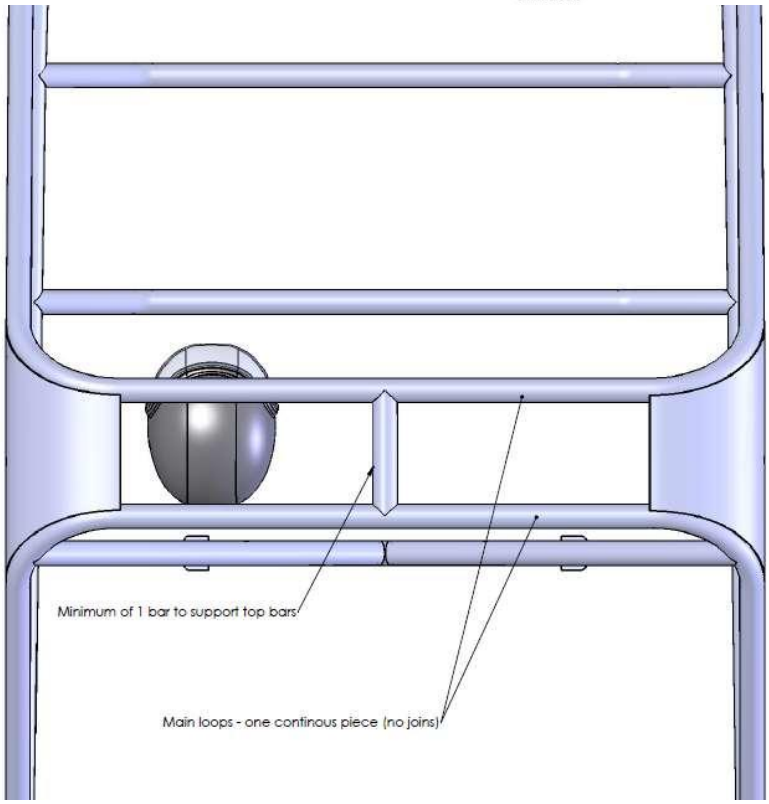

Minimum of 1 bar to support top bars
Main loops - one continous piece (no joins)

Fig. 5

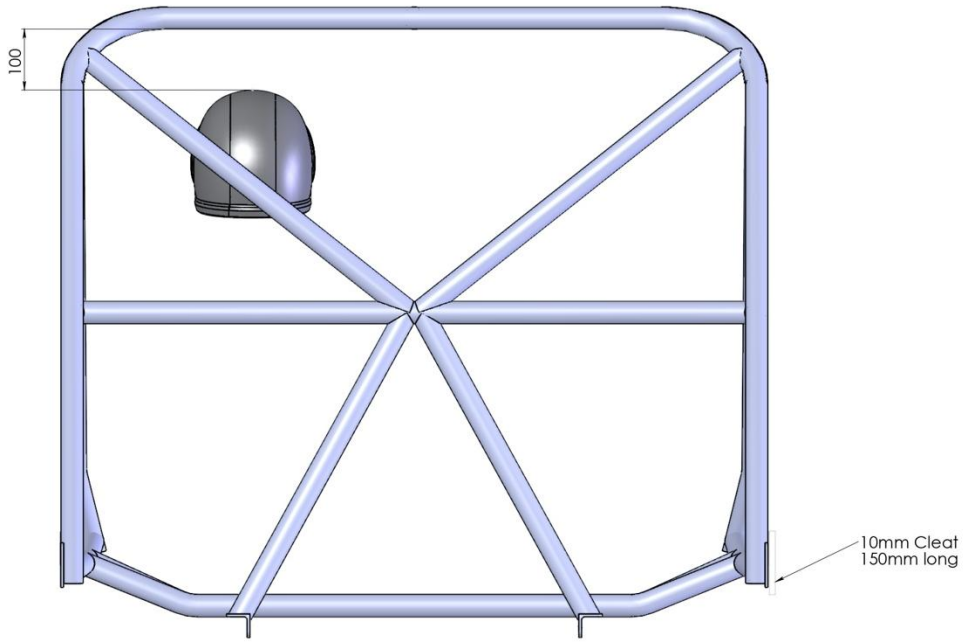

100
10mm Cleat
150mm long

Fig. 6

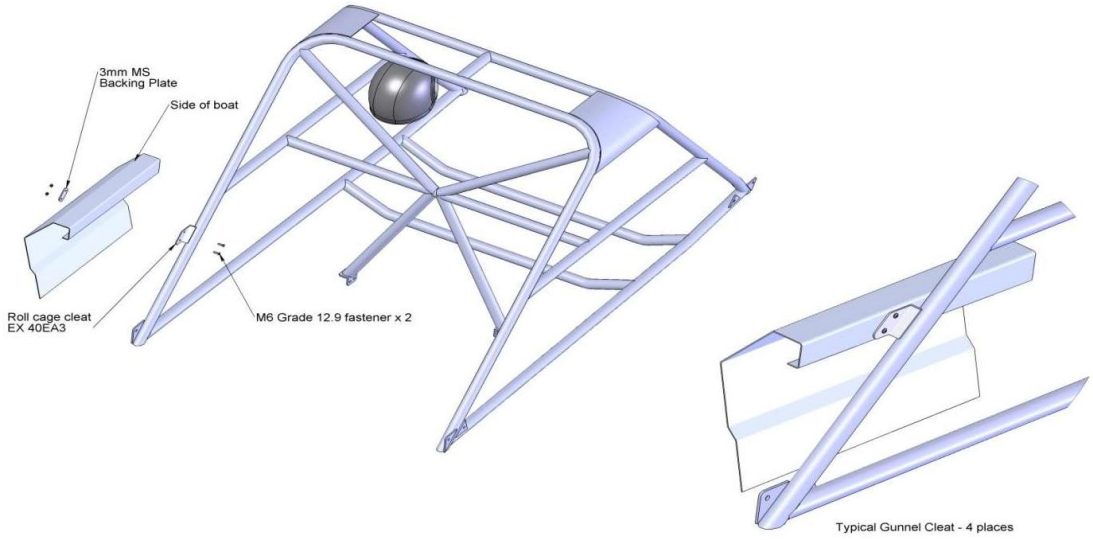

3mm MS
Backing Plate
Side of boat
Roll cage cleat
EX 40EA3
M6 Grade 12.9 fastener x 2
Typical Gunnel Cleat - 4 places

Fig. 7

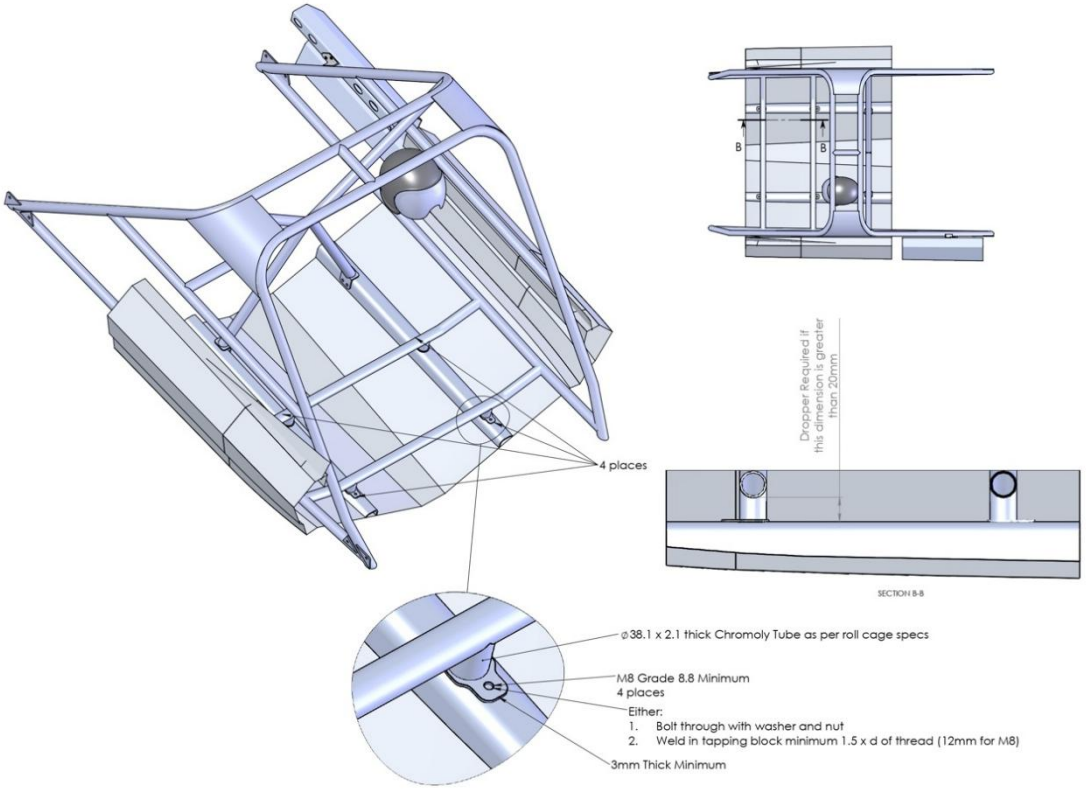

B
B
Dropper Required if this dimension is greater than 20mm
4 places
SECTION B-B
ø38.1 x 2.1 thick Chromoly Tube as per roll cage specs
M8 Grade 8.8 Minimum
4 places
Either:
1. Bolt through with washer and nut
2. Weld in tapping block minimum 1.5 x d of thread (12mm for M8)
3mm Thick Minimum

Fig. 8

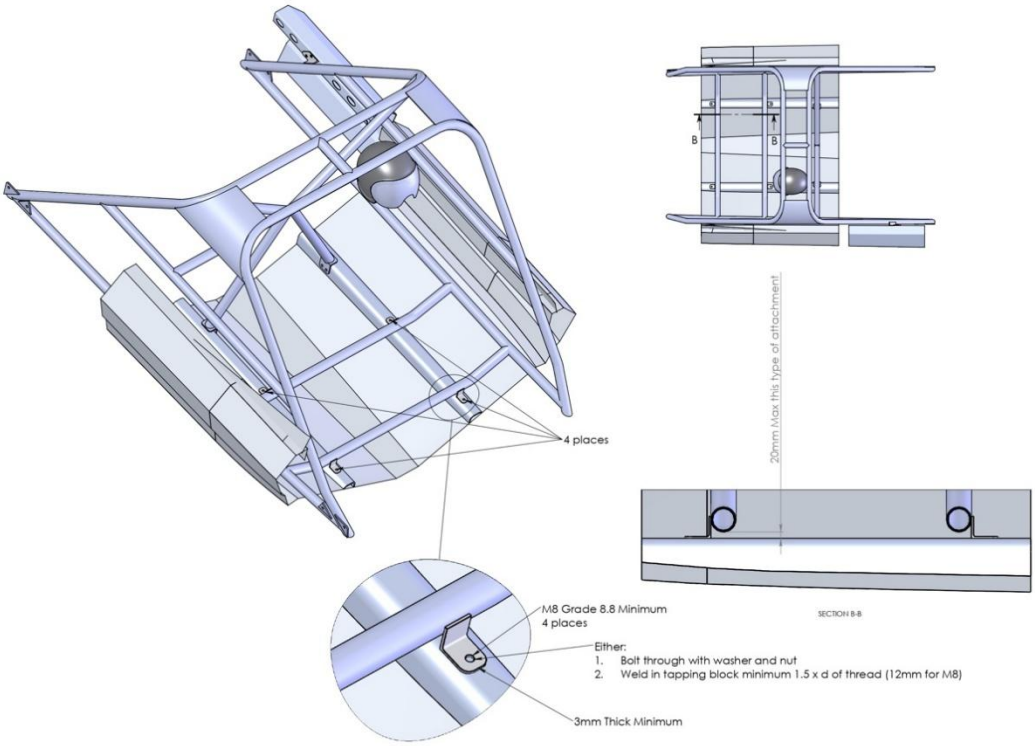
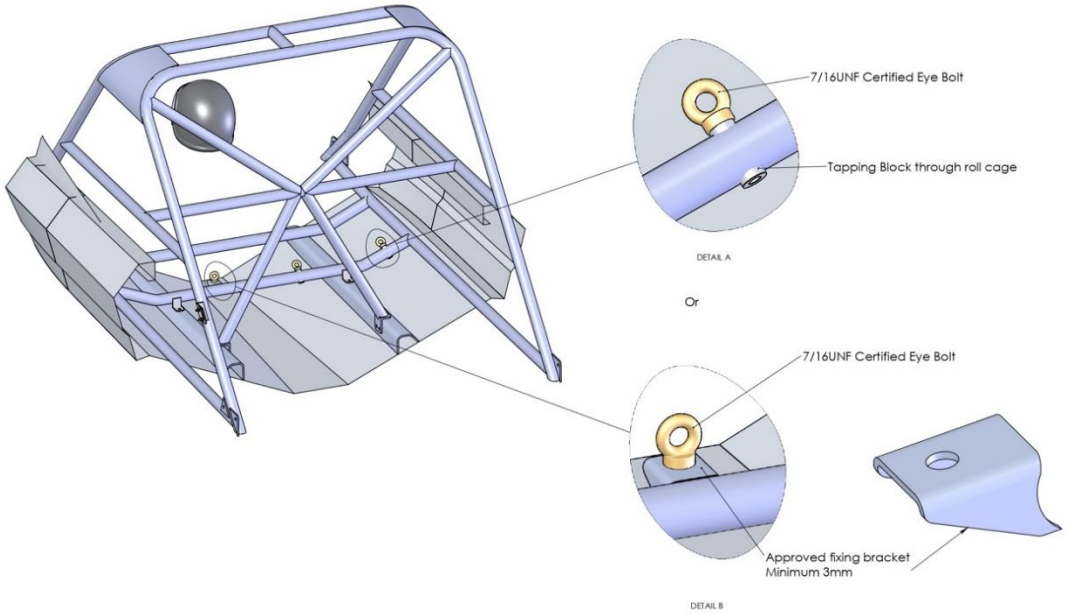

B
B
20mm Max this type of attachment
4 places
SECTION B-B
M8 Grade 8.8 Minimum
4 places
Either:
1. Bolt through with washer and nut
2. Weld in tapping block minimum 1.5 x d of thread (12mm for M8)
3mm Thick Minimum

Fig. 9



a. A roll cage that meets or exceeds these specifications must be fitted to all boats.

b. Boats that do not comply with these minimum standards will not be permitted to race at any NZJSA sanctioned event.

c. 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, the analysis done by engineers qualified in cage design and the best practice in other similar sports. No guarantee is implied or stated, nor is any responsibility taken, regarding the degree of protection or safety afforded by any roll cage constructed to these specifications. Owners are encouraged to seek the advice of a structural engineer qualified in roll cage design.

2.4.1 Roll Cage Construction Materials

a. Only round chrome moly tube is acceptable, minimum diameter 38.1mm, wall thickness 2.1mm for the primary cage *(fig. 1)*. Additional bracing attached to primary cage must be a minimum diameter of 38.1mm, wall thickness is unrestricted.

b. Capping plates minimum 3mm steel or chrome moly. Roll bar capping must not be drilled or have welds ground back for appearances. Attaching plates minimum 5mm steel or chrome moly. Only NZ motorsport approved chrome moly tube can be used in roll cage manufacture.

c. Seat frame shall be fixed to the engine bearers using one (1) of two (2) approved methods. Method 1 *(fig. 7)*: vertical dropper (38mm chrome moly) from horizontal bar, down to engine bearers with 3mm or greater foot plate, fastened by 1x 8mm bolt fixed into either nut with washer or 1.5d of aluminum thread. Method 2 *(fig. 8)*: if the horizontal bar is less than 20mm from the engine bearers, it shall be

attached with 3mm or greater steel angle and fastened to the engine bearers with the same method as method 1.

d. If the total roll cage spread exceeds 2200mm, a third mount fixing the lower roll cage bar to the hull plate shall be used. This will be measured from the extreme point of the tube front to back.

2.4.2 Welding and Forming (See Appendix A – Chrome Moly Weld Procedure Specification)

a. All joints must be fully welded by a competent welder and remain unground using the correct welding process for chrome moly and TIG welds must use 4130 filler wire.

b. Joints must be preheated and welded in 90-degree increments to avoid brittleness.

c. Tubes must be contoured and shaped for a close fit prior to welding.

d. Tubes cannot be flattened in order to make a joint.

2.4.3 Configuration

a. All bracing and the rear A frame must be straight between attachment points *(fig. 2 & 5)*.

b. The main A frame roll cage structure and brace bars must be of one-piece continuous tubing. No welds permitted other than at attachment points and capping plates.

c. The top corners of the overhead framework must be formed with one (1) 90-degree bend formed on a bender suitable for bending the chrome moly size used. The two (2) A frames must be spaced apart a minimum of 100mm between centres *(fig. 3)*. Cages manufactured after 2015 must have frames spaced a minimum of 200mm. A capping plate (3mm) must be welded to each corner of the A frame covering the entire bend.

d. A minimum of one (1) (3mm) plate or tube must be welded in between the capped A frame corners between the top bars *(fig. 3)*.

e. The mounting points on the cage for the shoulder straps behind each crew member must be between a line horizontal to the shoulders and a line drawn downward from the shoulders at an angle of 0-20 degrees to the horizontal *(refer to Section 2, clause (1) – seatbelt diagram)*.

f. The two (2) A frames must have a brace on the side so as to form an A section on the side of the cage *(fig. 6)* and should be attached to the side panel (gunnel) as well as the chine.

g. Helmet clearance shall be a minimum of 100mm vertically from the top of the helmet to a line between the underside of the cage top bars. Must be maintained for both crew (*fig. 5*).

h. An X-styled brace going from the upper outer A frame to either:
- The back crossbar and then down to the engine bearers or outer chine area (the bottom part of the X brace can be removable in this configuration provided suitable hardware is used).
- 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 chine, it must have suitable load distributing plates on attachment points).

2.4.4 Method of Securing

a. A certificate from the hull manufacturer may be required to certify that all modifications and re-engineered bearers are satisfactory.

b. Attachment plates or load-spreading flanges must be welded to the tube ends to secure the cage to the boat and must be of at least 5mm minimum thickness.

c. For mounts attaching to engine bearers
- Rectangle mounting plates:
  ⇒ Minimum width of attaching plate = tube diameter
  ⇒ Minimum length of the plate = tube outside diameter x 2
- Circular attaching plates:
  ⇒ Minimum diameter of round flanges should be tube outside diameter x2. Where the brace/intrusion bar is attached to an angle style engine bearer, a plate of 5mm x 150mm long must be welded to the bearer and hull at 90 degrees to stabilise mounting area.

d. For mounts at the chines:
- Bracket plate style mounts for cage that attach face down to the hull should be glued with suitable adhesive, attached with 4 x 8mm or 2x 10mm with washers and nuts fasteners with a min of 2 threads past the end of the nuts. And have a minimum plate size of 135x70mm and 5mm thickness.
- A mounting plate minimum size of 10mm thickness x 150mm long is required for all mounts welded longitudinally along chine area of hull.

2.4.5 Additional Notes

a. The main roll bar structure should be attached to the foredeck or gunnel provided that a brace bar of the same type and size material as the roll bar continues the load path through to the bottom of the boat. Provided that the primary elements of the roll cage structure attach to the boat bottom as stated above, then braces may be attached to the roll cage in order to stiffen the boat sides or deck structure.

b. Anchor points for the seat belt harness must be attached directly to the roll cage and the seat base attachment bars. Harnesses cannot share a common mounting point, apart from the shoulder straps. A split pin must lock the seatbelt hook to the lap anchorage.

c. Anchor points that are not acceptable include any part of the engine, any part of the hull sides or unsupported deck.

d. There shall be four (4) attachments at the base of the seat, two (2) at the shoulder suitably spaced to stabilise the upper part of the seat and use a minimum bolt size of 8mm bolts or imperial equivalent. The use of spreader washers is compulsory with a minimum diameter of 30mm.

e. Restraint systems anchorage points must be constructed in such a manner that they shall be capable of withstanding the same forces that the harnesses are designed to withstand.

f. Harness anchoring bolts must be a minimum size of a 7/16, 20 UNF-threaded bolt/eye bolt, and have suitable backup washer.

2.4.6 Bolting

a. Minimum number and size of fasteners required per attachment point: 2x bolts = 10mm, 4x bolts = 8mm, 6x bolts = 6mm.

2.4.7 Crew Protection

a. The driver and navigator must be able to exit an inverted boat through the front area of the roll cage with no frame members in such a position as to impede their exit or rescue.

b. The frame of the cage must protect the crew from any frontal or inverted impact to their head and torso and must be able to restrain the engine from moving forward far enough to cause injury by having suitable cross-members in place. *It is recommended that the steering wheel is also protected by the A frame to prevent injury to hands if boat goes into a wire safety barrier.*

c. The frame must have a minimum material thickness the same size as the roll cage structure. This seat base assembly shall be constructed using the same welding and fabrication procedures as for forming the roll cage structure.

d. Roll cage padding is to be placed where in the event of an accident the expected trajectory of the occupant's head and limbs is likely to make contact. It is not advisable to place this roll cage padding above the helmet area if it reduces the helmet clearance specifications. *(Refer to Section 2.4.3e)*.

3. DISQUALIFICATIONS

3.1 All boats must display NZJSA national sponsors decals when and where directed for the duration of any specified event.

3.2.1 Non-compliance:
PENALTY: Disqualification for the day or remaining rounds.

3.2 Not complying with any rule in code of conduct:
PENALTY: Disqualification of a round or from the race at discretion of Race Controller.

3.3 Each race event will commence with a role call and crew briefing, the time of which will be advised to all drivers entered. All competitors, both drivers and navigators, having completed a track inspection, must attend the pre-race briefing, and sign the liability waiver form before racing. Competitors must be in attendance at roll call and briefing. Competitors who suffer an incident outside their control, and who in the opinion of the Race Controller were making every reasonable effort to attend the event on time, may be allowed to compete. In such cases the competitors will be given a full and separate briefing prior to competing. Before the conclusion of briefing, any crewmember can raise concerns over course safety that in the opinion of the crew/s requires to be addressed before competition commences.

3.2.2 Late to or failure to attend roll call and briefing on practice or race-day:
PENALTY: Loss of qualifying round/s or disqualification for the day at the discretion of the Race Controller.

3.4 At secretariat, each driver and navigator will be required to pass a breath test before being cleared to race. The breath tester device shall be an Australian Standards AS3547 Certified breath tester that has been calibrated each season, as used by the NZ Police department. The tolerance is zero. If a positive test is recorded, a second test will be allowed, 15 minutes after the first test, providing the person does not leave secretariat. Wipes will be provided so that the person can wipe their face and neck area, if they believe the result was caused by perfume/aftershave. Likewise, water will be provided for the person to be able to rinse their mouth if mouth wash is thought to be the cause.

3.4.1 Failed breath tests:
PENALTY: Disqualification for that day's racing.

3.5 The pits and start chute speed is limited to a maximum of 10kph.
Where a spinout pool is provided, each finishing boat must use this facility to reduce speed to idle, prior to entering the pit pool zone. If there is no spinout pool, an alternative procedure will be advised either at the crew briefing, or in the track Supplementary Regulations.

3.5.1 Reckless or dangerous driving in pit pool:
PENALTY: Disqualification for the remainder of the day at the discretion of the Race Controller.

3.6 No person other than licensed entrants and towboat driver shall drive or compete on the track on race day without the consent of the Race Controller.

3.6.1 Non-compliance:
PENALTY: Disqualification for a period of one (1) year for the crew involved.

3.7 A boat may not start until the flag, light, or hand signal is given by the Starter. The Starter must be satisfied that the previous boat is back in the pit pool clear of the spin-out pool, the rescue boat is in a safe position and the safety crew/s are in position and displaying green flags. The Starter shall be the sole judge of boat speed in the start zone.

3.7.1 For jumping the start signal or being out of position:
PENALTY: 10 seconds added to the time for that run.

3.7.2 If a dangerous situation is created:
PENALTY: DNF or total disqualification will occur at the discretion of the Race Controller.

3.8 All safety and fire/flame retardant gear must remain on until the boat is back on the launch ramp and trailer, whether the boat is running or being towed. This includes completing a victory lap. Safety gear is designed to prevent occupants from fire in most cases and fire can happen when the motor is running so safety gear needs to be worn.

3.8.1 **Removing safety or fire/flame retardant gear prior to the boat being back on the launch ramp/trailer, whether the boat is running or being towed:**
PENALTY: Loss of competition points for the day at discretion of Race Controller.

3.9 If the Race Controller determines that a crew member is unable to continue racing due to illness/injury a substitute person may be used, provided that the substitute licensed navigator has completed all pre-competition formalities.

3.9.1 **Role changes or unauthorised substitutions or crew:**
PENALTY: Disqualification for the remaining rounds of that event.

3.10 Where the use of control fuel is specified, competitors will be informed on the entry form and the fuel will be supplied to all crews. Competitors' fuel containers must be removed from the pit area and only those supplied by the promoters may be used to refuel boats. Seals on tanks fillers must not be tampered with.

3.10.1 **Non-compliance:**
PENALTY: Disqualification from event.

3.11 No competitor may abuse a race official. Any competitor who has a dispute with an official during a meeting must present the full details in person to the Race Controller for resolution. A competitor who has a complaint concerning the running of the meeting must also present the details, in person, to the Race Controller. No official may abuse a competitor. If there is a perceived problem with the behaviour of a competitor or his/her crew, the matter must be brought to the attention of the Race Controller.

3.11.1 **Abuse of an official:**
PENALTY: Disqualification from the meeting. NZJSA may impose further penalties.

3.12 No competitor or crew shall be involved in dangerous behaviour or conduct that could cause disruption to a race meeting, they may not take any action, verbal or otherwise which may be deemed to bring the sport into disrepute.

3.12.1 **Non-compliance:**
PENALTY: Disqualification for the meeting. NZJSA may impose further penalties.

3.13 The timekeeper's decision is final and not subject to appeal. The event control/race control area is out of bounds to all competitors and crews at all times. This includes a 30-minute period immediately following completion of racing, unless authorised by the Race Controller.

3.13.1 **Unauthorised entry to event/race control and timekeepers' area:**
PENALTY: Disqualification at the discretion of the Race Controller. NZJSA may impose further penalties.

3.14 **Did not finish (DNF):**

3.14.1 Incorrect fitting or missing safety equipment during run:
PENALTY: DNF.

3.14.2 If a boat becomes grounded during a run, the crew may attempt to re-float their boat only by manipulation of the engine and the jet unit. They may not receive any outside assistance and no item of safety equipment, including safety harness, may be removed during this attempt. Timing will continue until the crew is successful or the driver turns off the engine and calls for assistance by raising an arm. If the attempt is successful, they may continue racing and can record a time (there will be a 20-second time limit of re-floating your boat in this manner).

a. For removal of safety equipment or receiving outside assistance:
PENALTY: DNF.

3.14.3 When a boat is grounded and the assistance of the safety crew is required, the following procedure must be adhered to:
The driver must shut off the engine and raise one (1) arm to signify that assistance is required.
The crew must assist the safety crew to re-float the boat by getting out if requested.
Once back in the water, the driver must ensure that the safety crew are clear of the jet unit before restarting the engine.
Once restarted, the driver must drive back to the pit pool by the shortest route perceivable to the finish line at a speed only fast enough to prevent further grounding in shallow channels; boats may not return to the pit pool via the start line channel unless indicated by the Starter.
If the tow-craft is called for, but then not required, the boat may not proceed to the pit pool until the tow-craft has been turned around and returned to the pit pool; if a dangerous situation is created a penalty will be imposed.
Once restarted, a crew may not continue to drive the rest of the course as practice.
Driver/navigator must ensure rescue crew are well clear before using the area of the racetrack where the rescue crew are returning to their posts to reach pit pool.

a. Non-compliance or dangerous situation created:
PENALTY: DNF next round; total disqualification from event if rescue crew are endangered by boat exiting track.

3.14.4 Unless it is part of the rotation to return to the pit pool, once a boat crosses the finish line it has completed the run.

a. Continuing to race after crossing finish line:
PENALTY: DNF.

3.14.5 If debris in the track creates a problem on initial acceleration the driver may request a restart immediately by reducing power and raising an arm. The boat must return to the pit pool via the spinout pool at reduced speed before rectifying the problem, e.g., weed intake (note that time limits may apply).

a. Repeated flouting of the intention of this provision:
PENALTY: DNF.

3.14.6 During a run, if a crew notice any dangerous circumstances, distraction, or an unusual object in the track, e.g., a floating tyre, they can abort their run by slowing down, raising

an arm and immediately return to the finish line via the quickest and safest route. If the rescue crew can verify that there is an obstacle, they will remove it and the crew will be allowed to re-start. The Race Controller is to decide on circumstance or unfair distraction. The allowance may not be misused to compensate for a bad run.

a. If no obstacle, circumstance, or unfair distraction found:
PENALTY: DNF.

3.14.7 A sufficiently charged transponder is necessary for a competitor to race a boat (information on charging and power level in your transponder is on the instructions supplied with the unit).

a. If a competitor's time is not recorded on the transponder registered to their name due to an undercharged, poorly placed, or missing transponder:
PENALTY: DNF.

3.14.8 Unable to complete course from beginning of start zone in correct sequence and cross finish line:
PENALTY: DNF.

3.15 Did not start (DNS):

3.15.1 If a problem with a boat occurs in a qualifying round, the crew must notify the Launch Master or Race Controller. The Race Controller and Launch Master will endeavour to reposition the boat in the running order. There is a five (5) minute time limit upon repairs. The time limit starts from when the next boat out crosses the start line. From commencement of the elimination rounds, the time limit shall be Ten (10) minutes from when the next boat crosses the start line. A time-out is declared if the boat requires re-inspection to be safe and fit for racing. No further work may be carried out during a time-out. The Starter or Launch Master may also call for a time- out in case of an event delay, which could give an unfair advantage. This will be limited to one (1) restart per crew in each round.

a. Unable to get boat ready to race under its own motive power into start zone when required by race officials:
PENALTY: DNS.
(Time penalty does not include fitting and checking of crew safety equipment.)

3.15.2 Not notifying Launch Master or Starter of a problem or an inability to start in order:
PENALTY: DNS.

3.15.3 Missing safety equipment for primary starter whilst externally priming the fuel system (applies to qualifying and elimination rounds):
PENALTY: DNS in the offending round.

4. CODE OF CONDUCT

4.1 All drivers and navigators must have a current NZPBF License and Medical. A disabled driver or navigator must provide an appropriate medical clearance and apply for dispensation from the NZJSA Executive Committee.

4.2 For New Zealand LS, New Zealand Group B, and New Zealand Group A classes the minimum age is 16 years for drivers and navigators. For Superboats the minimum age is 18 years for drivers and ~~16 years for~~ navigators. The ages for the Nextgen class are specified in section 1.4.5o. For all classes, navigators can apply to the NZJSA Executive Committee race, if under the specified age for each class, for dispensation.

4.3 All boats must carry the designated number of crewmembers for their class.

4.4 No driver may compete in more than one (1) boat or class on race day. However, (and notwithstanding the ruling in section 1. Sprint Classes), if a boat is rendered unable to continue racing, the crew may continue racing in another boat, providing they can record a qualifying time in that replacement boat before elimination rounds commence. Qualifying times previously recorded in the disabled boat will be disregarded. The original boat must be surrendered for the day and the team will incur a 5-point penalty, if racing in the NZ Championship.

4.5 Maximum of two (2) crews per boat.

4.6 Each driver, in the classes that require a navigator, is to have his or her own navigator for elimination rounds.

4.7 Navigators can only compete in one (1) boat in elimination rounds.

4.8 Any boat may have two crews. However, as no driver may navigate for the event, non-driving Navigators must be nominated. If two drivers are nominated to drive for the one boat, then there must be two navigators.

4.9 A declared alcohol-free zone refers only to the consumption of alcohol and/or prescribed drugs by any person in that area. However, any crewmember that willingly breaks a civil law concerning prescribed substances in a manner which brings the sport into disrepute, may be deemed to be in breach of the Code of Practice and can be penalised as provided for in the Constitution and the general rules of the NZJSA.

4.10 All items named in Boat and Safety Equipment (Section 2.3.16) shall be available for inspection at the time and place nominated for checking.

4.11 The Secretariat shall be at a time and place nominated by the promoter and must be attended by all crews unless prior arrangements are made with the promoter.

4.12 All crews must enter the race before the closing date.

4.13 All drivers and navigators must be licensed financial members of the NZJSA. Financial crewmembers from affiliated clubs and Associations and licensed international crewmembers are deemed to meet the requirement. A day license may be granted at the discretion of the NZJSA, provided that the application can be processed in time, and the applicant's name/s can be included in the insurance schedule.

4.14 Membership forms will specify the class a team is competing in for the season for points (New Zealand Group B, New Zealand LS, New Zealand Group A, Nextgen or Superboat). If a team changes class during the season, the team can only compete as an extra, and will not accrue points. This applies to both drivers and navigators. Points accrued in any International, National,

Island or local series will be deemed to have been accrued by a team (boat plus driver), driver and navigator will not accrue points separately. Navigators can change but drivers can't. A substitute driver may be used in a series if approval is granted by the NZJSA for unseen personal situations.

4.15 No driver shall compete with an injury or disability, which in the opinion of the Race Controller could adversely affect his/her ability to control the boat safely and effectively. This includes the ability of the crewmembers to exit the boat safely and quickly.

4.16 If a driver/navigator is injured and a medical clearance relating to that injury is requested by the Race Controller, they may not continue to compete if a clearance is not given. A report of the accident must be given to the medical practitioner who will be providing the medical clearance.

4.17 Event Rules:

4.17.1 Definitions:

PIT POOL	Channel or mark nominated by race officials in channel from spin out pool to launch area to start zone mark.
START ZONE	Mark in start channel nominated by race officials to timing start line.
START GATE	Mark in start zone to timing start line where the Starter will signal start.
START	Is defined by a boat entering the start zone under its own power.
FINISH	Is defined by a boat triggering the timing system at the end of the rotation.
DNF (Did not finish)	A boat incorrectly negotiating the event rotation or unable to complete the course under its own power.
DNS (Did not start)	A boat unable to enter start zone under its own power when required by race officials.
RACE CLASS	A minimum number of three (3) boats and four (4) drivers constitute a class. A boat cannot compete in more than one (1) class.

4.17.2 While racing is in progress, each boat should have one (1) crewmember at the boat, in case of a change in the running order.

4.17.3 Boats may not accelerate above 10kph until given the start signal which will be when the boat is wholly within the start gate as indicated by the Starter. The start gate will normally be marked by two (2) cones/buoys adjacent to the start channel. A third cone/buoy may indicate the aborted start limit.

4.17.4 In the event of no primary or back-up time being recorded during qualifying, the competitor will be given a re-run as soon as practical, either prior to the completion of that qualifying stage, or at the start of the next stage of the event, as an extra run to be considered to be a part of the qualifying run from which the missed time occurred, unless already qualified.

4.17.5 In the event of no primary or back up time being recorded during an elimination run, the competitor will be included in the next elimination round as an extra and run first.

4.17.6 A crew must be ready to start in the correct running order in each round. If unable to start where allocated, the Starter, Launch Master or Race Controller must be notified immediately. The crew will be allowed to start later in that round in accordance with rule stated under heading DNS (*Refer Rule 3.15*).

4.17.7 In elimination rounds if the B driver of a double driven boat at the end of the running order cannot effect repairs under the 5 minute rule, they will be allowed a start in the following round. Their time will count for the previous and also current round if they eliminate the slowest competitor from the previous round.

4.17.8 They must start on time in next elimination round and have no other repair time available, If boat does not start, a DNS will be recorded for the previous round.

4.17.9 They must nominate either 5 minute rule or section 4.17.6 when due to start and mechanical problem explained/shown to the Race Controller in order to apply section 4.17.6

4.17.10 Any boat that suffers a heavy impact or obvious damage in a racing accident must be rechecked before further competition. The rechecking process will take place after the repair work has been completed and must be approved by the Race Controller or his nominee before the boat can resume racing.

4.17.11 On race day, there will be a minimum of three (3) qualifying rounds, with the aim to complete five (5) determined by the Race Controller in consultation with the CRO (Competitor Race Officer) on the day. Formation of the elimination rounds will be advised on the event programme, or at the drivers briefing. The cut progression will be advised prior to the running of that segment but will normally be 9-6-3.

4.17.12 The running order from the Top 9 down is slowest to fastest time. Due to the number of variables such as weather, accidents, competitor numbers, etc. the Race Controller retains the right to vary the progression of the elimination cuts.

4.17.13 Crews will be informed of the variations at the earliest opportunity. Regardless of the number of crews available, no crew may be included in the elimination rounds without recording a qualifying time, except where the time needs to be allowed between two (2) drivers. The NZJSA reserves the right to change event formats, such changes shall be advised with the entry form.

4.17.14 During the elimination rounds, if crews record equal times in the same round and that time qualifies for the last spot in the next round, both will be included in that round.

4.17.15 If more than one (1) crew record a DNF during the same elimination stage of an event, the times recorded during the previous elimination will be considered, and the higher placing will be awarded to the driver who scored the faster time during the previous elimination. Where only qualifying times have been recorded, the higher place will be awarded to the driver with the best qualifying time from all the qualifying runs. Where three (3) or more drivers DNF at the same stage of elimination, the driver with the next best results using this formula will be awarded the next highest result and so forth. The same (above) formula can be applied to rank the results of two (2) or more competitors

who DNS at the same stage of an event. In all instances, a DNF will score higher than a DNS.

4.17.16 In a final, if crews record equal times or DNF, they will have a run-off, in the same order as before to determine the winner. If necessary, this process will be repeated until a result is achieved.

4.17.17 To be eligible for points in a series, a competitor must enter and compete in a minimum of rounds as decided by NZJSA. To score points in New Zealand Championship events, a competitor must enter the championship by completing the appropriate application form and paying any applicable fee by the closing date that will be advised in the championship documentation.

4.17.18 DNF overrides missed times. Where a competitor records a DNF in any round of the competition a DNF will be recorded in all cases except where a red flag has been shown to the competitor PRIOR TO their DNF occurring.

4.17.19 Method of correcting rotational errors. The error must be corrected from the direction the approach is indicated in the rotation.

4.17.20 All double driven boats will have an A and B driver with the A drivers seeded first in running order and B drivers last. This will apply in all qualifying rounds and elimination rounds.

4.17.21 If an event is determined unable to continue due to weather or force majeure and your class has completed an elimination cut in full, your times for the full elimination round will determine your final place positions. If the event is unable to continue during qualifiers the total points available will be allocated evenly to each team that has completed a qualifying run and posted a time. E.g. if there is nine (9) boats qualified they share the Top 9 points, if two (2) boats didn't qualify they share the 10th and 11th place points. Racer safety needs to be considered also and all racers in the elimination need to race in the same conditions. Racers shouldn't be put in a position to race where conditions are not safe just to have a race result. Decision to be made by Race Controller in consultation with the CRO.

4.17.22 Signals:

a. The starter has control of the start lights.

RED	You may not start or pass this point under any circumstances.
WHITE	A start is imminent, you should be idling towards the start line and are under the control of the Starter.
GREEN	You are cleared to start.

b. Flag signals: Each group of rescue crew have a red flag. Unless the track is clear of boats, crew or unplanned obstacles, a red flag will be displayed and a start is not permitted.

4.17.23 Control Fuel:

a. The control fuel process will be administered by the Race Controller and the NZJSA.

b. Where the control fuel is required, it shall be No. 1 race fuel with a minimum octane of 100 (RON). All filtered fuel dispensed must be paid for by competitors if required by the NZJSA.

c. The control fuel may be dispensed either from a central point to which each boat must come, or by smaller containers refilled from the main source. An official will oversee all refuelling operations. Fuel tanks must be drained prior to the additions of control fuel at the discretion of the NZJSA or Race Controller.

4.17.24 Engine Specification Testing:

a. The NZJSA reserves the right to test at random any engine for compliance without notice. In the event of disqualification, lower placed crews will move up in the finishing order. Testing will be conducted by a NZJSA appointed official and/or appointed deputy. The boat owner or designated representative must be available to remove any required items for the purpose of testing. Refusal to allow an engine to be tested will be taken as evidence of non-compliance and the penalty applied immediately. The result of the engine capacity testing detailed in Section 4.2 will be final and not subject to appeal. Where an engine is dismantled under the instructions of the NZJSA or representatives for inspection, the cost of reinstating will be borne by the competitor regardless of compliance.

- Non-compliance engine or refusal of testing:
  PENALTY: Loss of all series points and results accrued from time of engine sealing; engine builder/sealer banned from any future involvement with the NZJSA; legal action over false documentation.

4.18 Engine Testing and Sealing Procedures:

4.18.1 Workshop Capacity Testing:

a. All testing methods must be approved by the NZJSA. Methods submitted to the NZJSA technical committee for approval must meet the criteria of accuracy. All New Zealand LS, Group A and New Zealand Group B class boats engines are to be sealed by the NZJSA list of approved engine sealers. The engine builder/sealer must complete appropriate NZJSA form and send to the NZJSA. Engines are to be pre-drilled prior to the first round of the New Zealand Championship or other sanctioned championship events.

b. Any seals tampered with, missing or unreadable will result in loss of all points and results from time of sealing.

c. When breaking any engine seal, there needs to be an approved engine sealer from the NZJSA list to recheck the engine, reseal it, and complete the NZJSA appropriate form.

d. In the New Zealand Championship, the top three (3) boats in the New Zealand LS, New Zealand Group B and New Zealand Group A class may be inspected for compliance including cam specs, and having a cylinder head removed for capacity

testing, valve measurements and port size etc. The tests need to be verified before final results can be confirmed.

e. Green sheeting seal numbers shall be recorded in logbooks.

4.18.2 Testing Method for Valve Lift: This shall be carried out by an NZJSA approved person using a DTI gauge. These measurements will be considered final and not subject to appeal.

4.18.3 Testing Method for Carburettor: An NZJSA approved person using a Vernier scale device or purpose build tool shall carry this out. These measurements will be considered final and not subject to appeal. Only one (1) head of a "V"-configuration engine need to be removed to enable access to the cylinder bore for the purpose of accurately measuring the bore and stroke of that engine. The resultant calculated swept volume shall not exceed 413 cubic inches or 3,752cc or 365 cubic inches or 5982cc for New Zealand Group A and New Zealand Group B classes. There shall be zero tolerance allowed when the capacity is measured in this manner.

4.19 General Rules:

4.19.1 The pits are a controlled access area and are an alcohol and smoking-free zone until completion of racing and children must be always under the control of a responsible adult.

a. Smoking or drinking alcohol in the designated pit area while race is in progress:
PENALTY: Exclusion from the pit area for the remainder of the meeting. Competitors and their crew will be suspended for one (1) NZJSA sanctioned meeting. Repeat offence up to 12 months suspension at the discretion of the NZJSA.

4.19.2 Prior to the commencement of racing and for the duration of the meeting, or until they have concluded their activities for the day, no crewmember or support crewmember shall consume alcohol. Competitors may be required to undergo random testing before and during an event. The test reading must be under the level specified by the NZJSA and as evidenced by their test equipment. The event is deemed to have started at the commencement of the competitor briefing and deemed to have finished when the last boat has completed its run.

a. Consumption of alcohol during a meeting:
PENALTY: NZJSA to determine penalty.
The NZJSA endorses and adopts the UIM Anti-doping Rules.

~~4.19.3 When a series is tied for points, the winner and/or place getters will be decided on a count back of best previous placings. If that result is the same, a tie is declared.~~

4.20 Sportmanship and Competitor Code of Conduct:

4.20.1 The NZJSA has a total commitment to promote and foster good sportsmanship within the jetsprinting movement. This is to assist in the creation of a strong, positive public image of a group of competitors with a professional attitude, providing exciting, spectacular entertainment in a safe environment. All competitors, their crew and race officials are expected to understand and display, in public, all those qualities which define

good sportsmanship. Any public displays of bad sportsmanship by any member will be considered a breach of the code of conduct and subject to disciplinary action by the NZJSA. The code of conduct requires not only public display of good sportsmanship, but compliance with the rules of racing and the Constitution of the NZJSA. All personnel involved with an event, competitors, their crew and officials, are required to function within the code of conduct.

4.21 Penalties:

4.21.1 For any offence occurring on race day or as a result of technical/safety checking, the maximum penalty, which can be imposed by the Race Controller, shall be disqualification for the meeting.

4.21.2 Additional penalties can only be imposed by the Disputes Committee and/or NZJSA following the meeting and after consultation with all parties concerned with the incident.

4.21.3 A penalty for a breach of the rules may, at the discretion of the committee, be in the form of a suspended penalty and will remain current for a period of up to one (1) year from the time of the offence.

4.21.4 Any further breach of the rules within that time will cause the suspended penalty to be immediately applied.

4.21.5 Suspension penalties for one (1) or more meetings shall apply from the nest scheduled NZJSA sanctioned meeting and of more than one (1), shall be consecutive.

4.22 Disputes and Protests:

4.22.1 The NZJSA appointed Race Controller shall deal with disputes and may make necessary ruling concerning a dispute. The ruling will be given after due and careful consideration of the issue involved and will be final. It will not be open to further discussion during the meeting. Any ruling, which affects the results of the meeting, may not be challenged during the meeting, but is subject to appeal by affected competitors only as allowed under the appeals rule. The Race Controller will formally advise affected persons that they have been reported for breach of the rules or code of conduct.

4.22.2 <u>Procedures:</u>

a. Whenever possible and practical, the Race Controller will consult with the Disputes Committee when considering disciplinary action.
   - The Disputes Committee will be comprised of the two (2) NZJSA appointed members from different classes.
   - Competitors will be advised of the Disputes Committee members at the competitor briefing.

b. NZJSA may request a competitor, crew member or official to attend a meeting of the Disputes Committee, either during the event or at some other suitable time, to provide good reason why they should not have disciplinary action taken against them for a breach of the rules or code of conduct, which, in the opinion of the Disputes Committee, could bring the sport into disrepute.

c. Failure to attend such a meeting will result in the immediate imposition of the appropriate penalty without the right of appeal.

d. The Race Controller shall forward a report on all matters relating to disciplinary matters to the NZJSA Secretary no later than 48 hours after the event conclusion.

4.22.3 Protest procedure during a race meeting:

a. A protest must be lodged by the driver to the Race Controller within 15 minutes of incident occurring.

b. The Race Controller will consider the protest and arrange any changes to the race order to allow "add on runs for affected boat/s" (a race result can then be found depending on outcome of protest.)

c. The driver must complete a protest form provided by the NZJSA Secretary and hand this to the Race controller before the conclusion of the meeting with all relevant details for Disputes Committee/NZJSA Executive Committee to consider.

d. The current protest fee is $100, subject to clause 4.22.3e below. ~~If a person specifically protests an engine and it is deemed legal, the protester must reimburse the engine owner for the cost of the tear down and rebuild up to a maximum of $2,000. If the engine is deemed illegal the protester is reimbursed their $100 and the cost of tear down and rebuild is on the owner of the engine.~~

e. A competitor can protest the eligibility of an engine. The protestor is responsible for the cost of tear down, re-assembly and freight payable upfront to the NZJSA based on a quote obtained by the NZJSA from an independent engine builder. Any additional costs above the quote are payable by the protestor. If the motor is found to be illegal, the owner and/or the driver of the boat is to cover all costs and reimburse the protester.

f. The NZJSA Executive Committee will advise members the outcome of rulings of protests and rule interpretations following a protest at an event.

g. Members seeking information on rule interpretations are to consult with the NZJSA for a definition/s.

4.22.4 Appeals:

a. Any member subjected to disciplinary action may lodge a formal appeal with the NZJSA within seven (7) days of the penalty being imposed.

b. Appeals must be lodged in writing with the NZJSA Secretary and accompanied by a $50 fee. Refundable if the appeal is upheld.

4.23 Event Administration:

4.23.1 A suitably qualified and competent Race Controller shall be appointed to control each event.

4.23.2 The Race Controller is the final arbiter for any disputes during the meeting other than official protests.

4.23.3 Technical/Safety Audits will be carried out by a suitably qualified person(s) approved by the NZJSA. Any questions that cannot be satisfactorily resolved by this person(s) will be referred to the Race Controller and/or NZJSA Safety Officer. The Race Controller will be the final arbiter.

4.23.4 Incident report: A full report on any incident involving injury requiring first aid/medical attention must be forwarded by the Race Controller to the Secretary of the NZJSA within five (5) days of the conclusion of the meeting.

4.24 Safety Precautions:

4.24.1 Any new tracks that are set to host a round of the New Zealand Jetsprint Championship are to hold a shakedown/club day event prior to a New Zealand Jetsprint Championship event and have the track/venue signed off by the NZJSA Executive Committee and Safety Committee.

4.24.2 The promoters of all events sanctioned by the NZJSA must provide adequate first aid equipment for any likely emergency for the duration of the meeting.

4.24.3 An ambulance service or event medical provider that meets the New Zealand Standard NZS 8156:2019 must be in attendance. The ambulance must be double crewed with at least one (1) of the officers holding a minimum qualification of Paramedic. The medical crew should be properly attired in flame-retardant apparel.

4.24.4 The promoters of all events sanctioned by the NZJSA must provide adequate fire extinguishing equipment for any likely emergency (petrol and methanol).

4.24.5 There will be a minimum of six (6) 4.5kg Dry Powder BE-Type extinguishers and six (6) 9-litre Alcohol Resistance AFFF (Foam) extinguishers available, sited at the launch ramp and with each rescue crew group.

4.24.6 The promoters of events sanctioned by NZJSA must provide a minimum of twelve (12) able bodied persons to act as safety crew.

4.24.7 All safety crew members must be suitably attired and attend a compulsory briefing with the Race Controller or the NZJSA appointed Safety Coordinator prior to the scheduled competitor briefing.

4.25 Timing System:

4.25.1 If there is a failure of the electronic timing, subject to section 4.25.2, racing will continue under manual timing. A minimum of two (2) stopwatches must be used and timing will be recorded in this manner by the Race Controller(s) or appointed person(s). The average time will be taken from the two (2) times recorded. Competitors cannot protest times recorded under the manual timing system.

4.25.2 If electronic timing fails during an elimination run, the competitor does not DNF and completes their run, they will automatically proceed to next elimination round as an extra in the field.

5. NEW ZEALAND CHAMPIONSHIP REGULATIONS

5.1 The following outlines the rules for the New Zealand Jetsprint Championship, including points allocation to decide the winners and place getters.

5.1.1 It is compulsory to register for the championship to score points towards the championship. Registration must be completed before any event competed in, for points to be allocated to an entrant.

5.1.2 Points will be allocated per round in each class as follows:

1st	30 points
2nd	29 points
3rd	28 points
4th	26 points
5th	25 points
6th	24 points
7th	22 points
8th	21 points
9th	20 points
10th	18 points
11th	17 points
12th	16 points
13th	15 points
14th	14 points
15th	13 points
16th	12 points
17th onwards	10 points

5.1.3 Every championship registered competitor who starts any event will receive points using the scale above. Starting an event is defined as having your boat leave the launch ramp under its own power at least once during practise or qualifying.

5.1.4 Competitors who are not registered for the New Zealand Jetsprint Championship will be deemed to not exist when points are allocated. Each participant is allowed up to three (3) day licenses per year. Continued participation requires full membership and eligibility for the NZ Champs. Points towards the championship are accrued only from the time of full membership.

5.1.5 The day license fee will be pro-rated to align with the equivalent of what a full member pays.

5.1.6 Non-championship competitors times will be deemed to not exist when considering which championship competitors qualify to advance to the next elimination round.

a. Where up to two (2) non-championship competitors in the same class qualify for any elimination stage of any New Zealand Championship event, they will be included in the elimination rounds as additional competitor(s). For clarity, the full number of championship competitors will advance to the next elimination stage (i.e., 9-6-3 place competitors plus up to two (2) additional non-registered competitors who have qualified).

b. Where three (3) or four (4) non-championship competitors enter any championship event in the same class, provided they qualify, they will be included as additional competitors up to inclusion in the Top 6 elimination. Following the Top 6 elimination, they will be excluded from the remaining championship elimination rounds and will form their own final round of non-championship competitors to find a Top 3. For clarity, championship competitors would continue with their own final run separate to the non-championship competitors.

c. Where five (5) or more non-championship competitors enter any championship event in the same class, provided they qualify for the Top 9 elimination, they will be included as additional competitors up to inclusion in that Top 9 elimination. Following the Top 9 elimination, they will be excluded from the remaining championship elimination rounds and will form their own elimination round of non-championship competitors to find a Top 3. For clarity, championship competitors would continue with their own Top 3 elimination and final runs separate to the non-championship competitors.

5.1.7 Tie break: if any of the Top 3 places in the final championship result in any class provides a tie of points, the following tie break formula will be used:
When a series is tied for points the winner and / or Top 3 place getters will be decided on a count back of the best previous placings. The greatest number of first placings will be the first determining factor. If that is the same, then the greatest number of second placings will be considered. If that is also the same, the greatest number of third placings will be considered. In all such cases, the entrant with the greatest number of placings at the highest level, will be declared the winner. Where a winner cannot be determined by highest number of placings and a tie still exists the winner will be determined by the fastest winning time margin for the last run of each team at each round totalled up becomes the ultimate winner. In the event that the last run for a team at any round is a DNS or DNF, then a time of 90 seconds is used in lieu of the DNS or DNF.

5.1.8 To be eligible to enter the New Zealand Jetsprint Championship you must be a current member of the NZJSA.

5.1.9 Classes catered for in the New Zealand Jetsprint Championship are as follows: New Zealand Nextgen, New Zealand LS, New Zealand Group B, New Zealand Group A and Superboat.

~~5.1.10New Zealand Group B may not be promoted on TV.~~

5.1.11 The crew will carry on-board TV cameras as directed by the NZJSA.

5.1.12 The crew and crew members will always act in a manner that is in the best interests of the sport of jetsprinting.

5.1.13 The crew will present their team and equipment in a clean, tidy, and professional manner.

5.1.14 The crew will NOT bring the sport into disrepute.

APPENDIX A

CHROME MOLY WELD PROCEDURE SPECIFICATION

Base Metal:	Material: 4130 chrome moly tubing normalised
Thickness Range:	2.1mm wall thickness
Diameter:	Ø38.1
Welding Process:	GTAW

Filler Material		
Specification No (SFA):	5.18	5.28
AWS No (Class):	ER70S-2	ER80S-D2
Size of Filler Material:	2.4mm	1.6mm or 2.4mm

Gas	
Shielding Gas:	Argon
Mixture:	99.99%
Flowrate:	8-12 LPM
Pre flow:	0.5 seconds
Post flow:	10 seconds

Preheat	
Preheat Temperature:	20°C

Electrical Characteristics	
Current:	DC
Polarity:	Electrode negative
AMPS:	75-85
Volts:	10-11
Tungsten:	1.6 or 2.4mm Dia 2% Thoriated or Lanthanated

Preheat only required if steel temperature is below 20°C.

General notes and requirements:

1. All joints must be fully welded by a competent and experienced chrome moly welder.
2. All tubing to be cleaned to bright metal and free of oils and other contamination before welding.
3. High frequency start is preferred to prevent arc strike.
4. Taper amperage off is preferred to finish weld to crater crack.
5. All arc strikes need to be removed after welding.
6. All welds to be left as welding, no indications of defects or arc strikes are acceptable.
7. Weld size should be at least the same thickness as the tubing.
8. Tacks should be applied at 90-degree increments and should be smaller than final weld size so they can be welded over.

9. Tubes must be contoured and shaped for a close fit prior to welding with a maximum gap of 0.25mm.
10. Tubes cannot be flattened in order to make a joint.
11. No butting welding tubes.