

**AUSTRALIAN FORMULA JET SPRINT
ASSOCIATION, INC.
THE RULES AND CODE OF PRACTICE OF
AUSTRALIAN JET SPRINT RACING**

This Rulebook should be read in conjunction with the Constitution of the
Australian Formula Jet Sprint Association, Inc.
The Australian Formula Jet Sprint Board is the sole arbitrator of the Rules and Regulations set out in the 2023 Rulebook.
The board has the final say regarding the interpretation of the rulebook.



EFFECTIVE JULY 2023

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*NB Rules are subject to change, official notification will be given to all members of any and all rule changes implemented.

Please note this document is a live working document. Always check online at www.v8superboats.com.au/rules/ for the most up to date version.

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Definitions

Definition:	D.N.S.	Did not start.
	D.N.F.	Did not finish.
	W.W.	Wrong Way
	D.S.Q.	Disqualified

1. Sprint Classes

There are four(4) classes of Superboat permitted in the Australian competition; Junior Development Class, LS Class, International Group “A” and Unlimited Superboats. A crew may enter and compete in one class only at each race meeting.

1.1 Junior Development Class

The age range for the Junior Development Class is between 8-16, provided they can safely fit in the boat and cage. A responsible adult or parent must be present at all times whilst the Junior Driver is on the ramp / in the water and be available to assist if required.

1.2 Group A & LS Class

Two crew members must be carried in all competition events. The minimum age for the Group “A” and LS Class shall be 16 years for both Driver and Navigator: Proof of age required at time of registration. Dispensation can be requested for under 16 Navigators for Gp A and LS classes only. These dispensations will be assessed on an individual basis based on previous motorsport experience, including as to whether the application of a throttle restrictor is appropriate.

1.3 Unlimited Superboat

Aluminum or Fiberglass boat with any engine size are permitted, provided the boat is propelled solely by a water-jet unit, carries two crew persons and complies with all safety requirements as specified under Boat and Equipment rules including an approved Roll-cage. The use of fuels other than Petrol is permitted, provided the fuel type is notified to the Event Organiser prior to competition. The use of Nitrous oxide and Nitro methane is prohibited.

When entering for any event, all unlimited Superboat Drivers must be able to show proof of prior Jet Sprint experience. (6 meetings minimum as a Group A Driver) Jet Sprint experience may be

gained in Group “A” without restriction. Any new Driver or LS Class Driver that wishes to compete in Superboats must apply to the board, upon approval the boat **may** be fitted with a suitable restrictor, so that the horsepower of the engine can be limited, until the board sees fit to increase the allowable horsepower or de-restrict the Driver. The minimum age for unlimited Superboat competitors shall be 18 years for a Driver and 16 years for a Navigator. Proof of age required.

1.4 Group A & Unlimited Classes – Fuel Signage

The only Methanol (alcohol) fuel permitted is No. 5 (oil added). Boats using Methanol fuel shall display a red letter “**M**” on each side of the hull in bold lettering on a contrasting background. Minimum letter size shall be 7" or 17.5cm.

1.5 All Classes

1.5.1 Exhaust & Noise Emission

All boats must have effective mufflers or other noise reducing devices (i.e. turbo chargers) fitted. Noise emissions must comply with individual track rules as set out in the supplementary rules at given track sites but in no case shall exceed 100 dBA at 25m.

1.5.2 Weight Restrictions

Due to safety harness manufacturer recommendations a minimum weight limit of 40kg will apply for both drivers and navigators. The only exception is those racing in the Junior Development Class.

2. Junior Development Class Engine Rules

Engine: 215hp Seadoo RXP215 supercharged motor and jet unit
Stock Standard.
AFJSA reserve the right to swap computers.

Note: 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 AFJSA secretary asking for a clarification on the ruling or modification.

All factory replacement parts must be used

If in doubt you need to ask for clarification of the rules by the AFJSA.

Dispensation requests will be considered on a case by case basis.

3. LS Class Engine Rules

Engine:	<p>All Australian delivery style engine. Can be purchased from the USA or Australia, but must be the following LS series only;</p> <p>LS1, LS2, L77, L76, L98, LS3.</p> <p>No LS7 allowed.</p>
Starting:	<p>Engines must be able to self-start (can use assistance of a jump battery on boat ramp)</p>
Crankshaft:	<p>Standard cast crank. 3.622. +/- 002</p> <p>Crank weight with reluctor wheel and 1 keyway – no spigot bearing, no crank gear. LS1 – LS2 – L76 – 77 – 98 – LS3:</p> <p>Minimum crank weight 22.5kg</p>
Conrods:	<p>Standard LS1, LS2, L77, L76, L98, LS3 rods only - No titanium rod or alloy.</p> <p>Conrod minimum weight:</p> <p>LS1 Minimum weight 600 Grams.</p> <p>LS2 – L76 – 77 – 98 – LS3 Minimum weight 630 Grams.</p> <p>Balancing must have one rod untouched.</p>
Pistons:	<p>There must be a minimum piston to cylinder head clearance of 0.042' with head gasket fitted.</p> <p>Open, must be Flat top only, no valve reliefs.</p> <p>Standard Pin Size +/- .005".</p> <p>Refer to block section for maximum bore size.</p> <p>Min weight of piston, complete with pin, rings, oil rings & clips.</p>

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

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

Sump:

Sump Open.

Dry sump allowed.

Vacuum pump allowed on wet sumps only.

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 logo's, 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 valves only. No aftermarket.

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. No 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 trunnion 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:	<p>Any beehive single spring allowed if using Kelford SS108J Camshaft.</p> <p>If using GMM JS1 Camshaft you must use PSI 1511ML Beehive springs.</p> <p>Standard or steel retainer. No Titanium.</p> <p>Standard or steel locks . No Titanium.</p>
Computer:	<p>Open.</p> <p>Injectors Open.</p>
Exhaust:	<p>Open, must use mufflers.</p>
Harmonic Balancers:	<p>Must be fully encased performance balancer or standard with inner and outer circled together. Must have retaining bolt and washer fitted.</p> <p>Minimum weight 4.2kg.</p>
Inlet Manifold:	<p>Standard manifold, must remain completely standard.</p> <p>No porting, no extrude honing, no machining, no drilling, no tapping. Drilling and tapping allowed only to block of factory vacuum ports that are not used.</p> <p>LS1 = 12560894, 12573572 LS2 = 12589181 L76 – 77 – 98 – LS3 = 12590124, 12602477, 12603477</p> <p>If directed by the AFJSA or Chief Scrutineer, you must swap your manifold with one supplied by the AFJSA. The Manifold supplied will be an equivalent part number to your current Manifold. A Scrutineer is required to be present during the change over to cut and reseal the engine.</p> <p>Throttle Body; Open, maximum diameter 92mm. No Spacers between throttle body and manifold.</p>
Fuel:	<p>Control Fuel must be used when directed by the AFJSA.</p> <p>Ordinary pump unleaded fuel only, 98 octane max.</p> <p>The use of oxygenated fuels is prohibited.</p>

Seal Provisions: Each engine shall be provided with a means of fixing two engine seals.

This provision shall consist of a 3 mm hole drilled through the heads of two adjacent inlet manifold bolts and two adjacent from timing cover bolts.

Engines can be requested for testing at any race event

Must display GM Motorsport or Kelford Cams in NZ receipt for the Cam Shaft. Copy of Receipt to be emailed to info@v8superboats.com.au and copy placed/stapled in the logbook.

AFJSA reserves the right to seal an engine on the day, and check at the end of the round / season.

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 AFJSA 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 AFJSA.

4. Group A Engine Rules

Capacity: 413 cubic inches (6,767cc) maximum swept volume

Engine Block: Cast iron only

Configuration: Maximum of 8 cylinders, internal combustion only. 2 valves per cylinder, pushrod operated. The nominal section of each cylinder must be circular.

Starting: Engines must be able to self-start (can use assistance of a jump battery on boat ramp)

Exhaust:	No restriction on type. 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. Must meet AFJSA noise emission rules.
Con Rods:	Must be of ferrous alloy material. External inspection only e.g. inspection by arthroscope or magnet test.
Oiling System:	No restriction Dry Sump Systems; Vacuum pump not permitted. Wet Sump Systems; Vacuum pump permitted.
Induction:	<p>Any mass-produced one-piece cast aluminium 4150 intake manifold is permitted. Inlet manifold must use OEM bolt pattern and position to mount to cylinder heads without the use of adaptors, spacers or slotting of bolt holes. No tunnel ram type manifolds permitted. No sheet metal type manifolds permitted. No part of the inlet manifold gasket may protrude into the port area.</p> <p>The intake manifold must remain visually standard and unmodified from the outside.</p> <p>Naturally aspirated only via a single 4-barrel carburetor with a maximum of 4 venturis. Carburetor throttle body bored or the butterflies may not exceed 1 11/16 inch diameter. OR</p> <p>Naturally aspirated mechanical fuel injection via only a single 4" butterfly throttle body or a 4-barrel throttle body with a maximum of four 1.75" butterflies permitted. Must use 4150 flange mounting size, 4500 mounting flange sizes not permitted. Maximum number of nozzles permitted is one per cylinder. Nozzles must only be installed into the inlet runner, no cylinder head nozzles allowed (down nozzles). Angular discharge nozzles must be used, all other nozzle types not permitted.</p> <p>No additives may be discharged into the inlet tract. Any device that alters the configuration of the manifold / induction system, (e.g. moveable inlet rams) or exhaust while the engine is operating is prohibited.</p>
Cylinder Heads:	<p>Cast Iron heads or Cast Aluminium heads only.</p> <p>Must be O.E.M 23 degree valve angles +/- 0.5 degrees and port configuration etc.</p> <p>No High Port (raised runner) heads permitted (see Figure 1).</p>

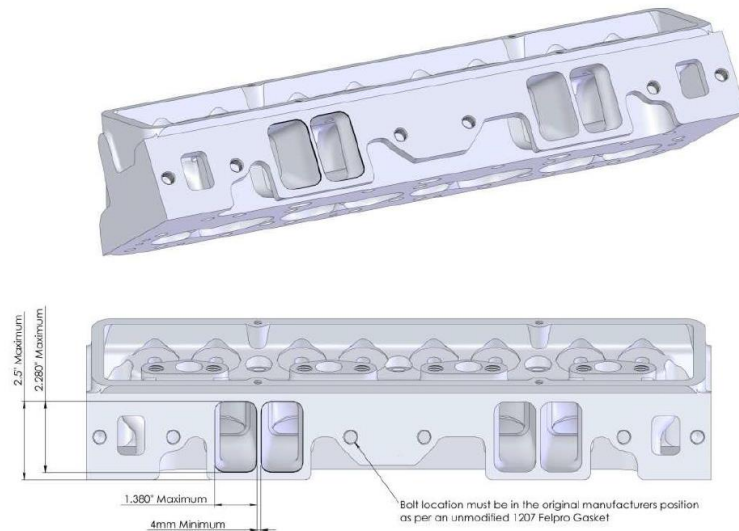


Figure 1

Maximum distance of 2.500" allowed from roof of port to block surface side of head as indicated by arrow. Use Felpro 1206 or 1207 intake gasket as height template but must not exceed height as shown in Figure 1

Porting is permitted but no material may be added to any part of the cylinder head casting and no part of the inlet or exhaust manifold gaskets may protrude into the ports.

No canted valve heads are permitted

Welding is permitted for crack repair purposes. Welding in the chamber area for crack repair only. Hardened Intake valve seat inserts may be fitted but valve centers and spacing must remain **either standard or 60/40 valve centreline, no other spacing is allowed.**

Replacement of valve guides and seals are not considered to be a repair.

Exhaust port layout must remain standard configuration, no spread port layouts allowed.

All machine work for valve guides, spring and valve seats must remain parallel & in original cylinder head manufacturers' position. No offsetting of valve guides is permitted.

Any machined surface must remain parallel to original surface.

Sleeves or tubes of any material may be fitted to either the head bolt or pushrod holes.

No cross matching of cylinder heads e.g. Ford heads to Chev blocks.

The following aftermarket cylinder heads are some of the heads that are

permitted in international group A class.

Dart Iron Eagle

#10120010, 10310010, 10410010, 10510020, 10610020, 10710050, 10810050

Any 23 degree Standard, 60/40 or 40/60 Centreline CAST Aluminium heads are allowed, examples of brands that are allowed include: Dart, AFR, GM, Aeroflow, Brodix, Promaxx, Edelbrock.

**Camshaft, Lifters
& Rockers:**

One camshaft only in OEM production location.

No restrictions to valve lift. No restriction on rocker ratio. Shaft mount rockers are permitted. Offset rockers will be permitted, only to relieve the problem of pushrod to cylinder head interference created by some aftermarket heads and are NOT to be used to enhance the repositioning of the inlet tract, port or valve. Maximum offset shall be 13.97mm (.450"). Maximum lifter OD shall be .937", with a maximum pushrod cup offset of .210", pushrod cup must remain inside the body diameter, no aluminium high top lifters allowed.

Devices that vary the valve timing whilst the engine is operating are prohibited.

Valves:

Maximum sizes – 2.125 inch intake, 1.625 inches exhaust. Valves may only be opened by mechanical action, and only closed by means of coil springs. Maximum distance of 2.500" allowed from roof of port to block surface side of head as indicated by arrow. Use Felpro 1206 or 1207 intake gasket as height template but must not exceed height as shown in fig. 1. 5/16" Valve stem size is minimum permitted.

Fuel:

Control Fuel must be used when directed by the AFJSA.

Ordinary pump unleaded fuel, Power Plus 105+, VP Racing C10 or Methanol (alcohol) No. 5 (oil added) fuel are permitted.

Boats using Methanol fuel shall display a red letter "M" on each side of the hull in bold lettering on a contrasting background. Minimum letter sizing shall be 7" or 17.5cm.

Only fuels approved by the AFJSA can be used, the use of unapproved fuels is strictly prohibited.

- Fuel samples may be requested at any time.

The use of Nitrous oxide and Nitro methane is prohibited.

Harmonic Balancer:

Must be fully encased performance balancer with inner and outer circlipped together.

Must have retaining bolt and washer fitted

Engine Mounts:

No Cast front engine mounts, must be fabricated steel or Aluminium. Engine plates are permitted.

Seal Provisions: Each engine shall be provided with a means of fixing an engine seal. This provision shall consist of a 3mm hole drilled through the heads of two adjacent inlet manifold bolts or through an easily accessible head stud.

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 AFJSA secretary asking for clarification on the ruling or modification.

5. Boat & Equipment Rules

5.1 A roll-cage must be fitted to all boats as specified in Appendix 2.

5.2 Safety harness shall be fitted for both crew and be securely attached to the roll-cage **and/or the seat base attachment frame**. They shall be of a Motorsport approved and minimum of 50mm web type, 6-point minimum and shall have a **quick release camlock type belt system, SFI, FIA & CAMS Approved and meet the new FIA 8853-2016 standard**. The FIA site has a technical notice that lists all the homologated belts under this standard. Therefore, members have the option of running any harness they wish, provided it meets this standard. The FIA 8853-2016 standard does not allow any latch type buckles, which also makes it easier for members purchasing new belts, as the rotating buckle system will be safer and less likely to jam. Push-button buckles are not permitted.

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 Appendix 1 Figure 3). Safety harness is to have date of manufacture clearly visible. The date is to be recorded in logbook. All harness webbing shall be replaced **five (5) years from date on the belts**. 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 as above. They shall be replaced if the safety belt harness hardware is bent, deformed, or rusted. In the event of a serious accident, harnesses shall be replaced, and the discarded harnesses cut in such a manner as to prevent further use.

The lap **and crotch straps may not pass over the sides or front of the seats but through the seat**, in order 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. **Belts above shoulders shall wrap around the horizontal cross bar as the only means of attachment**. (Refer to diagrams in Appendix 2). Lap belt anchors must be positioned in accordance with 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 using one (1) of three (3) styles. Style 1 and 2 shall be made with the use of 7/16 UNF certified eyebolts and approved fixing. This attachment to the roll cage shall be made using one (1) of two (2) styles.

Style 1 shall be made with the use of 7/16 UNF certified eyebolts and approved fixing into the roll cage using one (1) of two (2) methods:

Method 1 (*Appendix 2 – Detail A*): crush tube welded through the roll cage.

Method 2 (*Appendix 2 – Detail B*): approved external fixing bracket.

Style 2 (*Appendix 2 - Figure 1*) Approved external fixing bracket to mount belt manufacturer provided hardware.

The attachment points of the harness shall be engineered so that their strength is greater than the breaking strain of the webbing.

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

- 5.3 Several race harness brands come with a recommendation that people should be over 40kg to safely be protected by the harness. As a result there is a blanket rule that all drivers and navigators MUST be over the weight of 40kg, regardless what harness they run. No weight penalty will be applied as this rules intention is not to put a handicap in place for lighter team members, it is for safety only based on recommendations from harness manufacturers and ensuring that an individual is in the best position to overcome a serious incident should one arise. Weights will be taken during annual scrutineering and may also be taken during bretho's and will be recorded in both the scrutineering form and the log book.

Spot checked weights can be taken at any time and will also be recorded in the teams log book. Individuals are to be weighed in race attire (Race Suit & Boots), excluding Balaclava, Gloves, Helmet, Head and Wrist restraints & any oxygen attachment.

Penalty: People under 40kg at time of weighing in will receive a DNS (Navigators can be swapped out provided the new navigator is scrutineered with the boat.

Penalty: If you are selected for a spot check weigh in and are under 40kg you will no longer be permitted to race and all previously recorded times for the event will be disqualified.

Penalty: Refusing to be weighed in will result in not being permitted to race, or continue racing.

- 5.4 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 roll over. 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. It's recommended that the arm restraints be individuals not linked together.
- 5.5 **All boats shall have a suitable footrest/s for the navigator, positioned so that the legs cannot be in a fully extended "locked" position (ie knees need to be bent), 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. The bottom edge of the hull's dash must not have sharp edges e.g. cut off cable ties that could cut the occupants legs.**
- 5.6 **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.**
- 5.6.1 **All extension spacers must be well engineered to provide a stable platform for the steering wheel.**
- 5.7 Fuel tanks must be securely mounted and be fitted with a sealed cap and a breather line which must have a rollover valve within 100mm of the tank before being vented to the outside of the boat. It is recommended that the breather exit the boat as far from the occupants as possible.
- Fuel tanks must be mounted in such a way as to not be a stressed or load-bearing part of the boat structure, all fuel and vent lines must be rubber, synthetic rubber or higher standard and must be resistant to the type of fuel used. All fuel lines must be attached with proper fittings no hose clips or clamping of fuel lines is permitted. (With the exception of the fuel filler to the scrutineer's satisfaction) Plastic lines are not permitted. Fuel filters must be of all-metal construction, not plastic or glass.
- 5.8 All engine breather hoses must lead to a spill-proof catch tank or be vented below the bottom of the sump and firmly secured against movement.
- 5.9 The battery must be of a non-spill, (i.e. manifold-vented) type or enclosed in leak proof case and firmly secured to the hull. A non-spill type encased in a plastic case for insulation is strongly recommended.
- 5.10 Engines are to be solid mounted and bolted to the main engine bearers. Flexible mounts will only be permitted if they have security through bolting and it can be demonstrated to the scrutineer's satisfaction that the through-bolt is designed to restrain the engine should the flexible portion fail.

- 5.11 A bow towing-eye with D shackle must be fitted and any loose equipment must be removed for racing.
- 5.12 All shackles and turnbuckles in the steering system must be lock-wired. (Nylon tie-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. Cable steering systems must have cables replaced every 5 years.
- 5.13 All bolts in the steering systems and engine mounts, need to have at least 2 threads showing below or above the nyloc nut. All nyloc nuts should be replaced annually.
- 5.14 Two throttle return springs must be fitted; one of which may act upon the foot pedal. At least one spring must act directly upon the carburettor throttle arm in addition to the internal throttle return spring. Where fuel injection is fitted there will be at least one spring on the accelerator pedal in addition to the factory fitted springs on the throttle shafts. Where this is not possible the spring will be fitted to the main operational lever of the fuel injection where the throttle cable is attached.
- 5.15 If an electric fuel pump/s is used, electric cut-off switches must be fitted to each side-deck of the boat in the area of the roll-cage. They must be highly visible, clearly marked FUEL PUMP ON/OFF and easily accessible to the safety crew in the event of a rollover. By operating one or both switches the fuel pumps must turn off.
- 5.15.1 Electric fuel pump cut-off switches are not required for EFI boats where the ECU controls the fuel pump to only run when the engine is running.
- 5.16 All jet units must have an operational and effective reverse bucket at the commencement of racing. If a reverse bucket breaks during the meeting, the boat may be allowed to continue racing only if the Race Director/ Chief Steward and the Safety & Risk Manager are convinced that no safety hazard will be caused. Boat must be able to be started after being pushed off the trailer if it is allowed to continue without a working reverse bucket. The Race Director / Chief Steward and the Safety & Risk Managers decision will be final.
- 5.17 In order to pass scrutineering, all boats must display their race number on each side of the boat. The numbers are to be in an easily readable style, recommended height of 7" / 17.5 cm. high. A coloured number system is to be used. LS Class: Reflex Blue (Deep Blue-Violet hue) background with a white number. Group A: Black background with a white number. Unlimited: White background with a black number. Series leader is allowed to run a red plate (Red background, white number) for the season, with past winners from the previous season eligible to run #1, #2 and #3 with LS or GpA in small letters next to the number where applicable. The boat's trailer must also be clearly marked with its race number.
- 5.18 All competitors on the track, whether competing or practising, must wear a correct fitting **SNELL APPROVED Motorsport OPEN FACE** helmet. All helmets must comply with, and have

the appropriate certifying authorities label affixed demonstrating compliance with, one of the following standards;

- FIA 8860-2018-ABP
- FIA 8860-2018
- FIA 8859-2015
- FIA 8860-2010
- EA 2016 (Snell)
- SA 2015 (Snell)
- SA 2020 (Snell)

Any brand provided they meet the rating above. No “M” Helmets as these are for motorbikes only.

All helmets must be in excellent condition with no frayed chinstraps or rusted anchor points and must correctly fit the person wearing them. Full-face or types with removable face pieces are not acceptable.

In relation to Helmets the only dispensation that will be considered is that of a modification (such as oxygen mask mounts). Air breathing systems **ARE** acceptable. Full face helmets may only be used if fitted with an air breathing system. This is because the modification occurring in a section of the helmet that is not rated for crash impact. Should you require oxygen for your helmet, please reach out to the AFJSA for additional information.

- 5.19 All competitors whether they are competing, or practicing must wear a correct fitting approved helmet; motorsports type neck brace, Frontal Head Restraint (FHR) which satisfies SFI 38.1 or FIA 8858 standards, arm restraints and enclosed footwear and fire-retardant suit/socks. The FHR must utilise quick release tether fasteners. A fire-retardant suit must be worn. Cotton workman overalls will not be accepted. **All competitors MUST wear two (2) arm restraints**, race boots, fire retardant socks, balaclava (**over mouth and nose**) and gloves. No motorcycle neck supports or donuts, and no modifications at all to the neck restraints are allowed,
- 5.20 Seats to be fitted with wings to retain head within the confines of the seating position. Can be mounted to the roll cage if required.
- 5.21 All competitors, pit crew and any person within the pit area, must wear enclosed footwear at all times during racing. (No thongs, sandals, open footwear or bare feet permitted at any time during racing).
- 5.22 The standard race suits shall be a minimum SFI 3.2A/5 or equivalent (FIA8856-1986, FIA8856-2000). It is recommended that fire retardant underwear be worn regardless of number of suit layers. Rips or tears in the suit must be repaired prior to Competition. Race Boots, fire retardant socks, balaclavas, gloves are to be a minimum SFI3.3 or equivalent (FIA8856-1986, FIA8856-2000, FIA-ISO6940).

All the above equipment must be properly and securely fitted to crew prior to the boat lining up at the start line and all must be in place when the boat crosses the finish line. None of the above items of safety equipment may be removed at any time during a competition run, nor on the trip back to the boat ramp. Harnesses may be removed once at idle speed in the pit pool. Once engine is turned off, safety equipment may be removed. No other item of clothing may be worn over the top of the race suit whilst racing. **If required by the Ramp Marshall, both driver and navigator will need to raise both hands so it can be checked your restraints are correctly secured.**

Penalty: Loss of any item of safety equipment during a run: D.N.F.

Penalty: Incorrect safety equipment: Start denied

- 5.23 It is strongly recommended that proper race seats be installed and, in all instances, high density closed-cell foam be used as a cushioning effect. This may be part of the seat lining or as a separate cushion.
- 5.24 A Timing Transponder (AMBit / MYLAPS TranX260 / MYLAPS Motorsport) must be fitted to each boat whilst competing. Each individual competitor must have their own unit. These must be purchased directly from MYLAPS and are not the responsibility of the AFJSA. The Transponder shall be mounted in the vertical plain on the back bar of the roll cage or top of rear vertical side bar. The Transponder MUST NOT be mounted horizontal. Ideal location is the top, rear of the roll cage in the centre with the transponder mounted vertical. All new roll cages shall be fitted with a bracket to allow for this mounting location.
- 5.25 The front of each boat trailer shall be fitted with a fire extinguisher which is easily accessible by the crew whilst the boat is on the trailer, and at the ramp, and in the water warming up. The fire extinguisher must have a current service tag. The fire extinguisher shall not be of the Aerosol Type and should be fitted with a nozzle hose.
- 5.26 Minimum clothing requirements must be met by all persons working on a boat while it is running (on the ramp, testing on the lake, displays etc). A minimum of long sleeve cotton shirt, short sleeve cotton shirt with slip on heat sleeves or race suit, enclosed foot wear and balaclava is compulsory. This applies to all classes of boat, and applies from the time pit gates open, until the close of event. This includes morning warm up & meal breaks.

Penalty: Any member of the team working on a boat running not in appropriate attire; First offense = warning in logbook, Secondary Offense = Disqualification for the next qualification round or elimination round

- 5.27 Minimum clothing requirements must be met by all persons sitting/standing in a boat (i.e. Engine warm up). Race suit balaclava must be worn.

6. Promotional Demonstrations & Lake Testing Rules

- 6.1 This rule only applies to promotional on water demonstrations and testing of an AFJSA registered boat on open waters **during an AFJSA sanctioned event.** (Including: Lakes/Rivers/Waterways)
- 6.2 Teams involved must first gain permission from the AFJSA and supply details of the event and or test session.
- 6.3 Teams must have adequate fire protection for the boat being demonstrated / tested. This will consist of a powder fire extinguisher for Group A & LS and a foam fire extinguisher and or bucket for water for the Unlimited Superboat class.
- *NB* – Fire extinguishers can be mounted to the team trailer.
- 6.4 Driver and Navigator must wear an approved racing helmet and race suit.
- 6.5 Seatbelts and arm restraints should not be used, due to depth of water, and risk of drowning.
- 6.6 It is essential all teams testing and participating in an open water demonstration understand the risks to themselves, navigator and spectators/public. Therefore, the expectation is for teams to be sensible, and only drive to ones limits. The AFJSA reserves the rights to revoke/cancel an AFJSA licence as a result of reckless and unsafe driving, or anything that could be deemed putting our sport in disrepute.

7. Event Entry Conditions:

- 7.1 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 for the one boat, then there must be two Navigators. Exception: In the LS class Drivers may navigate for each other in the same boat as A and B teams. Both need only purchase a full Driver membership in order to also navigate in that class. Exception: In the Junior Development Class boats can have up to three (3) teams nominated, with no Navigators.

Penalty of using a Navigator who is entered/racing for another team OR

Penalty for changing Navigator without permission from Race Director and without advising timing: DSQ for the rounds that Navigator was used for.

- 7.2 Each team may be provided decals of the event and series sponsors, as well as affiliate sponsors. These decals of no more than approx. 300 x 100mm are required to be applied to both sides of the competitors' boat for the duration of the events. Non-compliance will result

in disciplinary action including loss of points or disqualification. All boats must display track and prize sponsor decals when supplied, for the duration of the event. **AFJSA sponsors supersede individual team sponsors and no discussion will be entered into regardless of any conflict in sponsorship.**

Penalty: Disqualification for the day or remaining rounds.

The series sponsorship sticker is to be placed forward of the front bar of the roll cage, and immediately below the deck line on the first section of the hull below the 'deck. Minor variation of placement is acceptable based on existing artwork, and it is the expectation of the Association that any future/new artwork designs, paint jobs and wraps account for this space to be set aside for series sponsorship decals. These decal stickers are part of the scrutineering process and boats without the provided stickers in this location or as approved by the Scrutineer on race day will be imposed the Penalty: Race Day Disqualification.

Teams should anticipate two decals to be placed on their hull (each side). The current series sticker of 300mm x 100mm and the naming right Sponsor sticker at 200mm x 100mm. The AFJSA provide these stickers at annual scrutineering. In the event the stickers are removed it is the teams responsibility to arrange new stickers from the association at their own cost.



- 7.3 Crews will be scrutineered with their nominated boat only.
- 7.4 The pit area is a declared Alcohol free zone during racing. A declared alcohol-free zone refers only to the consumption of alcohol or prescribed drugs by any person in that area and does not presume to enforce civil law relating to the possession or presence of same in a vehicle which may be parked in that area. However, any member who willfully 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 in the Constitution and General Rules.
- 7.5 No Driver or Navigator may compete in more than one boat or class on Race Day. However, (and notwithstanding the ruling in Section 1, paragraph 1," Classes"), if a boat is rendered unable to continue racing, the Race Director/Chief Steward may permit the crew to continue racing in another boat, provided they can record a qualifying time in the replacement boat before the Elimination rounds commence. Times previously recorded in the disabled boat will be disregarded. Only two crews maximum may compete per boat per event with the exception

of the Junior Development Class that can have up to three crews. **Only one boat change per crew per meeting is allowed.** Once the decision is made to change boats, all previously recorded times will be wiped out and only runs in the new boat will count. There is no ability to change back (even in a two day event) so teams must be positive prior to changing boat that there is no chance of fixing their boat.

Penalty: Boat substitution or change without approval: Disqualification for the day or remaining rounds.

- 7.6 All safety items named in Boat and Equipment Rules, shall be available for inspection at the time and place nominated for scrutineering.

Penalty: Race-day non-starter.

- 7.7 Scrutineering shall be at a time and place organised by the association and must be attended by all boats, Drivers and Navigators unless prior arrangements are made with The Safety and Risk Manager. The Scrutineering area is declared an alcohol and smoke free zone. The Safety and Risk Manager (Daryl Hutton) will attend all Scrutineering functions and may request help from assistant Scrutineer Daniel de Voigt or designate. **The Race Director or designate will assist with safety equipment inspections.** Please note all new boats should arrange a pre-event scrutineering review so any items identified can be rectified prior to the race event. Please contact info@v8superboats.com.au to be put in touch with an authorised person to review your boat. **All teams must present to Scrutineering with a completed self scrutineering checklist.** If teams are found to be completing the self scrutineering checklist without actually checking items it could result in the Penalty listed below. All navigators (Annual Licence holder, Day Licence holder, Temporary Navigator) **MUST** be re-scrutineered with the boat they are to race in. This applies at each event, mid race event if a navigator is swapped and also if a pre-scrutineered navigator is swapped into a different hull. Every driver and navigator **MUST** be scrutineered in the boat they are to race in, no exceptions. This is to ensure that the harness's and seating position is safe, and the below penalties will apply.

Penalty: Not attending Scrutineering without prior approval, or incorrectly completing self scrutineering checklist. Race day non-starter.

Penalty: Consuming alcohol or smoking in any alcohol/smoke-free zone: Race day non-starter.

Penalty: Driver or Navigator not scrutineered with current boat – Disqualification of the event / race day non-starter.

- 7.8 All competition boats must be registered with the AFJSA or an affiliated club and allocated a racing number by the Association Secretary. Race numbers will only be issued when full details

of the boat and engine/s are submitted. The AFJSA reserves the right to refuse to issue a race number to any boat which it deems unsuitable for Competition. False declaration of boat details will incur immediate withdrawal of the race number. Boats will retain their race-number until such time as the Owner or the nominated person ceases to be a financial member of the Association. Then the race number will be allocated to the next new boat application. Upon the sale of a boat, the race-number may be transferred with the boat or may be retained by the previous Owner if that person remains a financial member of the AFJSA. Race numbers may only be changed or exchanged by direct application to the Secretary. Boats from other countries may retain their existing numbers for a period of six months but must add a prefix to their number denoting their country of origin. A boat logbook will be issued to each new boat upon registration application. It will remain the property of the AFJSA and must remain with the boat if it is sold during the logbook season. No boat may compete without an AFJSA (or recognised Club/Association) logbook and an AFJSA issued race number.

- 7.9 Entry forms submitted without payment will be deemed invalid and disregarded. All payments **MUST** be accompanied by either a registration form if it's the first event of a season, or an emailed remittance advice including navigator details and any pit location requirements to info@v8superboats.com.au.

Late entries will not be accepted unless prior approval is granted and a late entry fee is paid.

Penalty for Registration Form not completed by entry due date = race day non starter.

If a competitor wishes to withdraw an entry prior to the event, refund of the entry fee is at the discretion of the AFJSA and may be held over until the next event or competitor will remain in credit, however the AFJSA **MUST** be notified prior to Scrutineering.

- 7.10 All Drivers must be full financial members of the Australian Formula Jetsprint Association Inc. Financial crew members from affiliated Clubs and Associations and licenced International crew members are deemed to meet this requirement for one race only. Please refer Current Fee Structure;

- 7.10.1 A Navigators Day Licence is available per event.
There is no limit on the number of Navigator Day Licences.
There are no membership rights.
Can be credited towards a full season licence, additional fees apply

- 7.10.2 A Drivers Day Licence is available per event.
Normal race entry will also need to be paid.
Only two day licences can be purchased by a driver per year.
There are no membership rights.
Can be credited towards a full season licence, additional fees apply.
No points will be earned under a Day licence, and upon upgrading to a full season licence, no points will be back calculated. Cannot be used for the Australian Finals.

- 7.11 The boat logbook must be produced at Scrutineering and bretho's. Any items marked for attention at the last meeting must have been rectified. **A boat with a non-hazardous or non-performance enhancing defect may be allowed to compete at the discretion of the Safety & Risk Manager / Scrutineer. The decision will be final and no correspondence will be entered into. Any alterations to the logbook must be authorised by the Safety and Risk Manager, Scrutineer or a nominated delegate.**

Penalty: No log-book at Scrutineering: Nonstarter on Race Day. =

Penalty: Unauthorised alteration to log-book: Disqualification for one race meeting, effective immediately.

Penalty: Not rectifying a notified problem: Non Starter on Race Day.

Penalty: Not completing or accurately completing the self scrutineering checklist: Non-Starter on Race Day

- 7.12 Points accrued in any International, National, State or Local series will be deemed to have been earned by a Driver, not a particular boat or crew combination.
- 7.13 No Driver shall compete with any injury or disability which in the opinion of the Race Director or Chief Steward could adversely affect his/her ability to safely and effectively control a race boat. Likewise, no Navigator shall compete with any injury or disability which could distract the Driver. This includes the ability of either crew member to safely and quickly exit the boat following an accident. Medical clearance in writing may be required before a Driver or Navigator is allowed to race.

8. Event Rules

- 8.1 Competitors, race officials and all pit crew members must be at the racetrack for Drivers briefing prior to racing.
- 8.2 The Driver, Navigator, and officials must be breathalysed; pit crew may be breathalysed at random. All Drivers, Navigators, hotlaps, sponsor rides and officials must sign a waiver. No Driver will allow anyone into their competing boat without having signed the waiver. No Driver will allow anyone into their pit tent without a pre purchased pit pass, unless during the open pit break.

Any Driver or Navigator, who registers a breathalyser reading higher than 0.00 when breathalysed during the prescribed period prior to racing, shall not be permitted to compete for the entire day. Only one opportunity to breathalyse is given, should you blow over you are not permitted an additional attempt later in the prescribed period. A substitute Navigator **MAY NOT** be used.

Penalty: Late to track on Race Day without prior approval = Disqualification for the day.

Failing to sign waivers or allowing someone without a signed waiver into your boat will result in disqualification for the day and further penalties as set down by the Board.

Penalty: Higher than 0.00 reading – Disqualification for the day's racing or the remainder thereof for the entire team.

- 8.3 While racing is in progress, each boat is to have one crew member at the boat or close by in the pit area, in case of a change to the running order.
- 8.4 There is a speed limit of 5 kph or minimum idle in the pit pool and the entrance there to. Where a spin-out pool is provided each finishing boat must use this facility to reduce speed to idle, prior to entering the channel approaching the pits, if there is no spinout pool, an alternate procedure will be advised either at the Crew briefing or in the track Supplementary Regulations.

Penalty: Speeding in the pits and / or creating a wash hazard or other danger: Disqualification for the remainder of the Race day.

- 8.5 All competitors, both Drivers and Navigators, must attend the pre-race briefing, the track-walk safety inspection and sign the waiver form and be breathalysed within the prescribed allocated time on the time schedule. Event, track or boat sponsors who compete as guest Navigators must sign the waiver form, be breathalysed and obtain a Day Licence prior to their run and wear all specified safety equipment.

Penalty: Disqualification for the day's racing or the remainder thereof.

- 8.6 No person other than official, licenced entrants and tow-boat Driver shall drive or compete on the track on Race Day without the consent of the Race Director or Chief Steward. The exception being a genuinely interested purchaser of a boat, they can purchase a Drivers Day Licence. This is a once only Licence and they cannot have been a previous competitor in any Jetsprint Code.

Penalty: Disqualification for a period of one year for the crew involved.

8.7 Starts will normally be initiated by lights, flag or hand signals. A boat may not start until the appropriate signal is given by the starter. This is a safety requirement and the starter must be satisfied that;

8.7.1 The previous boat is back in the pit area and clear of the spin-out pool.

8.7.2 The towboat is back in the pit pool and safety crew groups are in position and displaying green flags.

8.8 The timing is triggered by transponder some distance after the start signal is given. Boats will start from idle power in the forward thrust and may not accelerate until given the start signal by the starter. The start signal will be given when the starter is satisfied with the position and speed of the boat. The Race Director and Starter have final say if they deem the approach is not at an acceptable speed. The start gate will normally be marked by two overhead wires. A cone will indicate the 10m aborted start limit. If upon initial acceleration, cavitation of the jet unit is experienced due to a weed or similar blockage to the intake grate, the Driver may request a re-start by immediately reducing power and raising an arm. The boat must return via the shortest route to the spin-out pool at reduced speed and proceed directly back to its trailer. Once back at the trailer, the crew will have a maximum of two minutes to remove debris from the jet unit grill, after which time, the boat must be ready to go when requested by the pit marshal.

NOTE: Only one re-start will be permitted per crew, per round and the abort signal must be made within 10 meters of the start or by the first corner depending on the track. (A cone will be positioned to mark this limit). The boat must return to the pit-pool via the shortest possible route at reduced speed before rectifying the problem. Note that time limits may apply. Only the grate to clear weed may be touched on the boat (i.e. no tools or people are to touch the engine, fuel system or steering) and then the boat is to re-approach the start line as directed by the pit marshal and starter.

Penalty: If no start signal is given crews will be given one opportunity to re-approach the starter per event.

Penalty: For jumping the start signal – a disqualification will occur.

Penalty: If a dangerous situation is caused, a disqualification will occur.

Penalty: Aborting the run more than 10m from the start: Disqualified. (See also Event Rule 8.11).

8.9 If a boat becomes grounded during a run, the crew may attempt to re-float their boat only by manipulation of the engine and 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.

8.9.1 If the attempt is successful they may continue racing and can record a time.

Penalty: For removal of safety equipment or receiving outside assistance: - DNF

8.10 When a boat is grounded and the assistance of the safety crew is required, the following procedure must be adhered to:

8.10.1 The Driver must shut off the engine and raise one arm to signify that assistance is required.

8.10.2 On request of the Safety Crew, Driver and Navigator are to assist the safety crew to re-float the boat by getting out.

8.10.3 Once back in the water, ensure that the safety crew are clear of the jet unit before re-starting the engine.

8.10.4 Once re-started, drive back to the pit pool by the shortest route 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.

Penalty: If a dangerous situation is caused, a disqualification will occur.

8.10.5 If the tow-craft is called for, but then not required the boat may not proceed to the pits until the tow-craft has been turned around and returned to the pit pool. If a dangerous incident is created a penalty will be imposed.

Penalty: Dangerous Practice:-DNS for the next round.

8.10.6 Once re-started, a crew may not continue to drive the rest of the course as practice.

Penalty: DNS for the next round.

8.11 If a crew goes the wrong way during a run, they may return to the point of the wrong way and then complete the course via the correct rotation to record a time. If they do not return to the point of the wrong way before proceeding a WW shall be recorded. To correct a wrong way, you must re-approach the corner of which the wrong way occurred from the last correct corner. So in theory you need to go back to the previous correct corner/channel and approach the corner in which the error occurred from the correct direction, and continue the corrected rotation. You cannot re-enter the start shoot to correct a wrong way.

Penalty: WW.

8.12 During a run, if a crew notice any dangerous or unusual object in the track. e.g. A floating tyre, they may abort the run by slowing down and raising an arm. If the safety crew can verify

that there is an obstacle, they will remove it and the crew will be allowed a re-start. This allowance may not be misused to compensate for a bad run. In the event of heavy rain during a run the Driver must raise their hand to signal that it is dangerous to continue and reduce speed. The hand must be raised first and then decrease power. A re-run will then be granted at the race director's discretion. Racing will not cease due to rain, the Race Director will confer with BOM and conduct a Drivers meeting with a vote taken as to whether racing continues, however the Race Director has the final say. If the race is called the points will be decided on the rounds that have been completed.

Penalty: If no obstacle is found: - No re-run and DNF.

- 8.13 To claim a time in a run, a boat must cross the finish line afloat and within the finish channel. A cross-country or airborne style finish is not permitted. The boat must be travelling in a forward direction.

Penalty: DNF.

- 8.14 In the event of no Transponder time being recorded by the Timekeepers for a particular run, that crew will be allowed a second run, which should be made as soon as possible. If a boat is unable to make a re-run due to mechanical problems, then its previous best time at that meeting and on that track direction, will be recorded. In the event of mass timing failure to the transponder system, stop watches will be administered. Three stop watch times will be recorded with the outlier being removed, and the remaining two times averaged. **If the Transponder system fails mid round and is unable to be fixed, stop watch times for the remaining round will be used. (Stop watch times not taken until instructed to move to manual times). It is essential to compare like with like to ensure no disadvantage. Therefore if in eliminations all teams will need to rerun under stop watch times, however if during qualifications it is ok to have half and half, however discretion maybe used by the Race Director to run a top 13, top 7 etc.**

- 8.15 Once a crew has made their first run of the day, they may not change their roles. That is Driver cannot change places with the Navigator. In the event of a Navigator being unable to continue racing due to illness or injury and at the discretion of the Race Director or Chief Steward, a substitute crew member may be used provided:

The Substitute Navigator is able to complete at least one Qualifying round before commencing the Elimination rounds. Once Eliminations have commenced, a substitute Navigator may be used, but only from a previously eliminated crew. Either way the substitute Navigator MUST be scrutineered with the new boat.

Penalty: Role change or unauthorised substitution of crew: Disqualification for the remaining rounds.

- 8.16 A crew must be ready to start in the correct running order in each round, per the entry list, based on **the original boat number**. (i.e. Boats running #1, #2, #3 will be placed in race order per their **original registered boat number**.) If there is a problem, the Pit Marshall or Race Director **MUST be** notified in advance. If sufficient notification is given the crew **maybe** allowed a start **out of order** in that round, provided they are ready to leave prior to the completion of that round.

In case of a “B” crew in the Superboat Class only there will be a 5 minute time limit upon repairs for both Qualification and Elimination rounds. For LS & Group A “B” Crews during qualifying rounds will have a 2 minute time limit increasing to 5 minutes in the Elimination rounds. This time limit will commence from when the last boat in that particular round lands on its trailer at the conclusion of its run. The time count ceases when the subject boat is moving toward the start line, under its own power, with both crew on board and all safety equipment in place.

From the Top 12 down inclusive, **the time limit for B teams shall be 5 minutes**. At all times, the Pit Marshall or Starter must be kept informed as to the status of the boat. A time-out is declared if the Scrutineer is required to inspect the boat and he/she must be completely satisfied that the boat is safe and fit for racing. No further work may be carried out during a Scrutineering “Time Out”.

Penalty: Not notifying Marshall of a problem or an inability to start in order: - D.N.S.

Penalty: Exceeding the 2 or 5 minute time limit as applicable; D.N.S.

Penalty: If the 2 or 5 minutes is used for time wasting, not repairs – D.N.S.

Penalty: If instructed at drivers briefing, you are expected to be off the trailer before the previous boat returns, and you continuously don't follow this rule – D.N.S

- 8.17 Any boat, which suffers a heavy impact or obvious damage in a racing accident, must be re-scrutineered before further competition. An entry may be made in the boat logbook with details of the incident and damage incurred.

The re-Scrutineering process will take place after any work to repair damage to the boat has been completed and shall have no time constraints. The boat may not be returned to the water until the Scrutineer has declared it safe for competition. Likewise, the crew must be checked by the Ambulance or First Aid crew and declared fit to resume racing.

- 8.18 On Race Day, there will normally be four(4) to five (5) rounds of qualifying, from which the “Top 12” will be selected for the Elimination rounds. It will normally be Top 12, Top 6, and Top 3 in each class. **The cut progression will remain in this format except if time or weather does not permit. In that case rounds may need to be cut or varied. Please note it is not always possible to give advanced notice of cut rounds, and at times different classes may complete a different number of qualifiers, or shootouts, depending on weather/timing etc. Two rounds constitute a race event, this can be one qualifier and a top 12/6/3 or 2 qualifying rounds.**

NOTE 1: Due to a number of variables such as weather, accidents, crew and boat numbers, the Race Director retains the right to vary the progression of the Elimination cuts.

NOTE 2: Regardless of the number of crews available or boats unable to run, no crew may be included in the Elimination Rounds without first qualifying. If a boat cannot run it will record a DNS for that elimination round and no other teams will take their place.

8.19 Running Order of Eliminations

Top 3 Junior Development Class

Top 12 LS Class

Top 12 Group 'A'

Top 12 Superboats

Top 6 LS Class

Top 6 Group 'A'

Top 6 Superboats

Top 3 LS Class

Top 3 Group 'A'

Top 3 Superboats

Please note this may be changed to suit the particular track and is at the Race Directors discretion and **where possible should** be brought to a Drivers Brief.

Please note in the event that 6 boats or less qualify, no top 12 will be run. If 3 boats or less qualify no top 12 or top 6 will be run. In contrast if 7 or more qualify a top 12 (top 7) will be run, this is regardless of the original schedule that has been released, and does not need to be brought to a Drivers Briefing.

8.20 During the Elimination's, if two crews record equal times in a particular round and that time qualifies for the last spot in a particular round they shall both be included in that next round, even though it adds an extra boat to that round. The following cut, however, will be as previously established. If 6 boats or less qualify, no top 12 will be run. If 3 boats or less qualify no top 12 or top 6 will be run. In contrast if 7 or more qualify a top 12 (top 7) will be run. As an example if 7 boats qualify, and due to engine failure one boat is unable to run, the top 7 will still be run as an elimination round, and that boat will receive a DNS.

8.21 In the elimination rounds, if more than one crew records a D.N.F, in any round, their respective positions in that round will be determined by count back to their recorded times in the previous round. If neither crew recorded a time in the previous round, then the count back will be taken from the next earlier round when at least one crew recorded a time, in all

instances, a D.N.F will score higher than a D.N.S. If the count back has to go back to the qualifying rounds, the count back will be based on the best qualification time.

WW beats a DNF and a DNF beats a DNS & a DNS beats a DSQ.

- 8.22 In the Top 3, if two crews record equal times, they shall have a run-off, in the same order as before, to determine the Winner. If necessary, this process shall be repeated until a result is achieved.

9. Signals

Due to the noisy environment, signals will be utilised by the Starter and the Safety Crew.

The Starter has control of the start lights or flags, which will be;

- RED** You may not start or pass this point under any circumstances.
- AMBER** A start is imminent: you should be idling toward the start line and are under the control of the Starter.
- GREEN** You are cleared to start. (Note that the timing has not yet commenced and will not do so until the boat has moved forward out of the start gate and crossed the transponder trigger.)
- FLAG SIGNALS** Each group of Safety 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.
- RED/YELLOW** In the event of a red and yellow striped flag being used, it means the boat is on fire. Safety Crew to advance with fire extinguishers, foam or buckets as applicable, and crew to safely stop and vacate vessel.

10. Control Fuel

- 10.1 The Control Fuel process may only be initiated by the Race Director acting under instructions from the AFJSA Board. Teams running normal pump fuel can opt for either fuel at the start of the event, or before each round. All fuel dispensed must be paid for by competitors unless they are advised otherwise on the day.
- 10.2 On the day where its use is specified, competitors will only be informed at the pre-race briefing and the fuel will be supplied to all crews from whichever round is advised.
- 10.3 Competitor's fuel containers must be removed from the pits prior to this and only those supplied by the Organisers may be used to refuel boats. Any competitor found with their own fuel containers in the pits will be disqualified.
- 10.4 The control fuel will be dispensed either-from a central point to which each boat must come, or by smaller containers refilled from the main source. The Scrutineer or designate will be in charge of and oversee all re-fueling operations. If fuel tanks are sealed by the Scrutineer or designate in charge of overseeing and re-fueling operations, then teams will be required to refill from the main source at each fill-up, and the tamper proof seals will be checked and

removed by those in charge of the refilling process. Fuel tanks are not required to be drained prior to the addition of control fuel.

11. Engine Capacity Testing

11.1 Engine Capacity Testing Overview

- 11.1.1 The AFJSA reserves the right to test at random, any Group “A” or LS class boat’s engine capacity for compliance at any meeting without notice. The decision to conduct testing shall be made by the AFJSA Board prior to the commencement of that meeting. When testing occurs, it shall be at the completion of a Points Series meeting, State, National or International round. Boats may be tested, time permitting as the Safety & Risk Manager or appointed Deputy sees fit. Capacity testing will only take place after a crew has been eliminated for that day.
- 11.1.2 The crew of any boat found over-size by the approved testing method, will be disqualified and will lose all points and placing’s gained since that boat’s last capacity test. The crews holding lower placing’s will move up in the finishing order one or more positions as required.
- 11.1.3 Testing will be conducted by the Safety & Risk Manager or appointed Deputy and in the continual presence of the boat Owner or designated representative. Refusal to allow an engine to be tested will be taken as evidence of overcapacity and the stated penalty applied immediately.
- 11.1.4 The boat owner or designated representative must be available to remove any required items for the purpose of testing.
- 11.1.5 The results of the capacity testing as detailed will be final and not subject to appeal and no protest will be entered into.
- 11.1.6 When an engine is dismantled under the instructions of the AFJSA 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 AFJSA; legal action over false documentation.

11.2 Capacity Testing Procedures of Group “A” & LS

- 11.2.1 All testing methods must be approved by the AFJSA. Methods submitted to the AFJSA technical committee for approval must meet the criteria of accuracy. All LS and Group A class boats engines are to be sealed by an AFJSA nominated engine sealer. The engine builder/sealer must complete appropriate AFJSA form and send to the AFJSA. Engines are to be pre-drilled prior to the first round of the Australian Championship or other sanctioned championship events. Any seals tampered with, missing or unreadable will result in loss of all points and results from time of sealing.
- 11.2.2 When breaking any engine seal, there needs to be an approved engine sealer from the AFJSA or nominee, to recheck engine and reseal it and complete AFJSA appropriate form.
- 11.2.3 In the Australian Championship, the top three (3) boats in the LS, and Group A class may have a cylinder head removed for capacity testing, valve measurements and port size etc. Any unsealed engines will need to be checked. The tests need to be verified before final results can be confirmed. Seal numbers shall be recorded in logbooks.

NOTE: Competitors suffering a total engine failure such that the engine cannot be tested will be treated as having an under-capacity engine for the day.

Penalty: If the engine is proved to be oversize, or as otherwise indicated above: All Competition points gained by all Drivers in that boat, since its last Capacity test, will be forfeit.

11.3 Engine Seals

- 11.3.1 No Group A or LS class boat is allowed to race without either a single or double engine seal. (LS Class has one on the manifold and a second on the timing cover)
- 11.3.2 Group A and LS Engines are to be pre-drilled prior to the first round of the Australian Championships or other sanctioned championship event ready to be sealed.

Penalty: Loss of all points collected since the last time the engine was inspected.

- 11.3.3 All seal numbers will be logged in both a register and in the boat Log Book at the beginning of the Race Season. The AFJSA will create a current data base of all seals so boats can be checked at any stage for correct seals on the engine in the race boat. All seal numbers will be checked regularly if not at each meeting and if the seals are incorrect / do not match, the teams will not be racing for points. If you feel a team or individual is cheating notify the AFJSA Secretary per the Rulebook, under Disputes and Protest Procedures.

- 11.3.4 Seals need to be photographed and sent to info@v8superboats.com.au. Each seal photograph must be labeled with class, boat no, seal number, month and year. E.g. GroupA-97-seal457965-Nov-16. If an engine is rebuilt the new process must be followed and it is the responsibility of the boat owner to send new photos, so the database can be maintained.
- 11.3.5 Any seals tampered with, missing or unreadable will result in loss of all points and results from time of sealing.
- 11.3.6 In the Australian Championship, the top three (3) LS & Group A Class boats may have a cylinder head removed for capacity testing, valve measurements and port size etc checked.
- 11.3.7 Any unsealed engines or engines that were not checked by an engine builder with forms completed prior to being sealed will need to be checked.
- 11.3.8 These tests need to be verified prior to final results being confirmed.

11.4 Removal of Engine Seals

- 11.4.1 If an engine seal needs to be removed from a LS or Group A class engine, the AFJSA Secretary and The Safety & Risk Manager must be notified. The removal of the seal must be supervised by an AFJSA approved person and the engine must be inspected when the seal is removed.
- 11.4.2 **Engine Seal Removal Procedure to be followed:**
 - 11.4.2.1 Email Secretary requesting removal of engine seal;
 - 11.4.2.2 Secretary gains permission from Safety & Risk Manager and advises the AFJSA Board
 - 11.4.2.3 Once approved Secretary assigns AFJSA approved person in general proximity to the engine
 - 11.4.2.4 AFJSA Approved Person cuts seal and tests engine (completes photo's, testing form and Statutory Declaration)
 - 11.4.2.5 If boat owner wishes engine assembly can be supervised and engine tested by the AFJSA Approved Person who can test and seals the Engine and provide photos and testing documents to the Secretary)

11.5 Approved AFJSA Personnel

- 11.5.1 The list of approved AFJSA Personnel is held by the Secretary. Please email info@v8superboats.com.au and an approved AFJSA Personnel in your location will be given authority to remove the seal.

- 11.5.2 Ideally the engine should be inspected before it is put back together and resealed. This may prevent the Safety and Risk Manager from requesting that the engine is inspected at the end of the season. No Group A or LS class boat is allowed to race without an engine seal.

Penalty: Loss of all points collected since the last time the engine was inspected.

12. General Rules

- 12.1 The pits are a controlled-access area and an alcohol-free, mobile phone and smoking-free zone. Entry is confined to Competitors, Pit Crew, Officials and those holding Pit Passes. Non-competing, financial Association members may obtain a pit pass arm band, but not an Event entry pass, Event entry passes must be purchased from the track promoter.

Children may enter the pits (subject to local track rules) but must stay within their team pit area and not roam unsupervised.

Children may not enter the launch ramp area. Any team that allows their children to roam unsupervised will lose the privilege and the children will no longer be allowed within the pit area.

Penalty: Abuse of Licence: - Cancellation of Licence for six months.

Penalty: Children roaming unsupervised: - Lose of child's pit pass & pit access

- 12.2 There is a total ban on the consumption of alcohol by all boat crews and all event officials, including Safety Crews, for the duration of the meeting, or until they have completed their racing activities for the day. Crews are required to have a zero zero (.00) blood alcohol content prior to racing and to comply with the AFJSA rules, breathalyser testing of crews will occur, prior to commencement of Racing. This ban applies to prescribed drugs and other performance-affecting substances. No alcohol may be consumed in the pit area by any person. Random alcohol testing can be requested of any pit pass holder whilst in the pits and if found with a blood alcohol over .00 it could result in team disqualification.

Penalty: Competitors & Crew members registering blood alcohol content over .00 during prescribed testing period: - Start denied for entire day's racing.

Penalty: Competitors & Crews registering blood alcohol content over .00 during race event whilst in the pits: - Team Disqualification.

Penalty: Consumption of alcohol during meeting: - Minimum one meeting ban

- 12.3 Smoking is prohibited in the pit area and allowed only in areas designated as smoking areas at Drivers brief. A crew smoking area is established adjacent to the pit area at each track. Phone use is only allowed in team pit tents while not refueling or in smoking areas.

Penalty: Smoking in the pits or use of mobile phones outside pit tent: - Exclusion from the pits for the remainder of the meeting.

Competitors or Officials will be suspended for one meeting.

Repeat offence: - 12 months suspension.

- 12.4 No competitor may abuse a Race Official. Any competitor who has a dispute with any Official on Race Day must present the details of the problem to either the Chief Steward or Race Director for resolution. Likewise, any Competitor who has any complaint concerning the

running of the Race day must firstly present the details, to the Chief Steward or Race Director. No Official may abuse a Competitor. If there is a perceived problem with the behaviour of a Competitor, the matter must be brought to the attention of the Chief Steward or Race Director, who (where applicable) will meet with the AFJSA Board.

**Penalty: Abuse of an Official: - Disqualification for the remainder of the day.
Further disqualification possible at the discretion of the Race Organisers.**

- 12.5 No Competitor or Crew shall be involved in any instance of dangerous behaviour, or conduct, which causes or could cause disruption to a Race Meeting, nor may they take any action, verbal or otherwise which may be deemed to bring the Sport into disrepute.

Penalty: Minimum disqualification for the day. Further disqualification possible at the discretion of the AFJSA Board.

- 12.6 The Timekeepers word is final and no protests will be considered.

The Timekeepers van/area is out-of-bounds to all competitors and their crew at all times except by the direct invitation of the Race Director. This also applies to the Race Control Tower.

Penalty: Unauthorised entry to Race Control Tower and Timekeepers van/area or contact with the Timekeeper: - Disqualification for the remainder of the days racing. Further disqualification possible at the discretion of the Race Organisers.

- 12.7 No drones to be used during the race event by teams. Only media approved drone usage allowed, media personnel must check in with Race Director and Media Manager onsite.

**Penalty: Exclusion from the pits for the remainder of the meeting.
Competitors or Officials will be suspended for one meeting. Repeat offence: - 12 months suspension.**

13. Sportsmanship & Competitor Code of Conduct

13.1 Sportsmanship & Competitor Code of Conduct Overview

13.1.1 The AFJSA has a total commitment to promote and foster good sportsmanship within the Jet Sprinting movement. This is to assist in the reaction of a strong, positive public image of a group of competitors with a professional attitude, providing exciting spectacular entertainment.

13.1.2 All Competitors, their Crew and Race Officials are expected to understand and display in public all those qualities, which define good sportsmanship.

13.1.3 Obvious public displays of bad sportsmanship by any member will be considered a breach of the Code of Conduct and be subject to disciplinary action by the AFJSA.

- 13.1.4 The Code of Conduct requires not only a public display of good sportsmanship, but compliance with the Rules of Racing and the Constitution of the AFJSA.
- 13.1.5 All personnel involved with an event, Competitors, their Crews and Officials are required to function within the Code of Conduct.

13.2 Penalties

- 13.2.1 For any offence occurring on Race Day or as a result of Scrutineering, the maximum penalty, which can be imposed by the Race Director or the Chief Steward, shall be disqualification for that day.
- 13.2.2 Additional penalties can only be imposed by the Board following Race Day and after consultation with all parties concerned with the incident.
- 13.2.3 A penalty for a breach of the Rules may at the discretion of the Board, be in the form of a suspended penalty and shall remain current for a period of one year from the time of the offence.
- 13.2.4 Any further breach of the Rules within that time shall cause the suspended penalty to be immediately applied.
- 13.2.5 Suspension penalties for one or more meetings shall apply from the next listed Open meeting and if more than one shall be consecutive.

13.3 Disputes & Protests Overview

- 13.3.1 The Chief Steward and Race Director shall have certain discretionary powers to deal with disputes and they may make a ruling concerning a dispute.
- 13.3.2 The ruling will be given after due and careful consideration of the issues involved and will be final. It will not be open to further discussion on the day.
- 13.3.3 Any ruling which affects the results of the day may not be challenged on that day, but can be subject to appeal by the affected competitors as per the Appeals Rules.
- 13.3.4 Affected persons will be formally advised by the Chief Steward or the Disputes Committee that they have been reported for a breach of the Rules or the Code of Conduct.

13.4 Procedures

- 13.4.1 Whenever possible and practical, the Chief Steward or Race Director will consult with the Disputes Committee when considering disciplinary action.

- 13.4.2 The Disputes Committee will be comprised of a **board member**, a Crew Representative or uninvolved competitor, an Event Marshall or the Race Director.
- 13.4.3 AFJSA, in conjunction with the Chief Steward. May request a competitor 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.
- 13.4.4 Failure to attend such a meeting will result in the immediate imposition of the appropriate penalty without right of appeal.
- 13.4.5 Notwithstanding the listed penalties, the AFJSA policy is to apply penalties progressively. That is, a warning will normally be issued followed by the prescribed penalty for a repeat offence.
- 13.4.6 The Chief Steward will inform the Race Director of all warnings and any repeat offences and shall keep a written log of events.
- 13.4.7 Prior to lodging a protest, all complaints are to be raised with the drivers representatives first. The driver's representatives will try and resolve the issue prior to it escalating. In the event you are not satisfied with the outcome or explanation from the drivers representative a protest can be lodged. The 2023 Drivers Representative will be announced by the Race Director at the start of each season and/or round.
- 13.4.8 Protests must be submitted in writing by a competing crew member and accompanied by a \$500 protest fee. It may be lodged immediately or at latest within 15 minutes of the end of that Race meeting and handed to the Race Director or Secretary/Treasurer. The protest will be heard as soon as possible by the AFJSA Board / Disputes Committee and if upheld, the fee would be refunded.
- 13.4.9 Protests that are deemed to be petty and frivolous, that do not display the AFJSA sportsman code of conduct, may result in a loss of both the protest fee and ten points. This is at the discretion of the AFJSA Board / Disputes Committee. If in doubt always consult with the drivers representatives, race director, Chief Steward or Board Members first for guidance.
- 13.4.10 Any Competitor, who protests the eligibility of an engine of a Competitor, shall be liable for a \$1,000 protest fee and all costs associated with the testing of that engine, including parts and labour if necessary should it be proved to be legal. If the protest is upheld, the Owner shall bear the associated costs and lose all associated points.

13.4.11 Members seeking information on the Rule interpretations are to consult with a Crew Committee person, but if none are available, then any Race Official may be approached.

13.5 Appeals

13.5.1 Any member subjected to disciplinary action may lodge a formal appeal with the AFJSA within 7 days of a penalty being imposed.

13.5.2 Appeals for disciplinary action must be lodged in writing with the AFJSA Secretary and accompanied by a \$100 fee, refundable if the appeal is upheld.

14. Appendix 1.

14.1 Boat Roll-Cage Specifications

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

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

14.1.3 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.

14.2 Roll Cage Construction Materials

14.2.1 Only round chrome moly tube is acceptable, minimum diameter 38.1mm, wall thickness 2.1mm for the primary cage (fig. 1).

14.2.2 Additional bracing attached to primary cage must be a minimum diameter of 38.1mm, wall thickness is unrestricted.

14.2.3 Capping plates minimum 3mm steel or chrome moly. Roll bar capping must not be drilled or have welds ground back for appearances.

14.2.4 Attaching plates minimum 5mm steel or chrome moly.

14.2.5 Only Australian motorsport approved chrome moly tube can be used in roll cage manufacture.

14.2.6 Seat frame shall be fixed to the hull 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 or 5/16 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.

14.2.7 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.

14.3 Welding & Forming

See Appendix 3 – Chrome Moly Weld Procedure Specification.

14.3.1 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.

14.3.2 Joints should be preheated and welded in 90-degree increments to avoid brittleness.

14.3.3 Tube must be contoured and shaped for a close fit prior to welding.

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

14.4 Configuration

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

14.4.2 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.

14.4.3 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.

- 14.4.4 The two (2) A frames must be spaced apart a minimum of 100mm between centres (fig. 3). Cages manufactured after 2015 must have the frames spaced a minimum of 200mm.
- 14.4.5 A capping plate (3 mm) must be welded to each corner of the A frame covering the entire bend.
- 14.4.6 A minimum of one (1) (3 mm) plate or tube must be welded in between the capped A frame corners between the top bars (fig. 3).
- 14.4.7 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 Appendix 4 – seatbelt diagram).
- 14.4.8 The two 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.
- 14.4.9 Helmet Clearance shall be a minimum clearance of 100 mm from the top of the helmet to the underside of the cage top bar. Must be maintained for both crew.
- 14.4.10 An X-styled brace going from the upper outer A frame to either:
 - 14.4.10.1 The back cross bar 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).
 - 14.4.10.2 Goes directly to the engine bearers or chine 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).
- 14.4.11 The two (2) lower bars of the X may be separated at the top by 100mm to allow for different engine configurations.

14.5 Method of Securing

- 14.5.1 Attachment plates or load-spreading flanges must be welded to the tube ends to secure the cage to the boat and must be at least 5 mm minimum thickness.
- 14.5.2 For rectangle attaching plates:
- 14.5.3 Minimum width of attaching plate = tube diameter.
- 14.5.4 Minimum length of attaching plate = tube outside diameter x 2.

14.5.5 For circular attaching plates:

14.5.6 Minimum diameter of round flanges should be tube outside diameter x 2.

14.6 **Anchor Points**

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

14.6.2 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 stabilize mounting area.

14.6.3 Bracket plate style mounts for cage that attach face down to the hull should be glued with suitable adhesive, attached with 4 x 8mm fasteners have a minimum of size 140 x 80mm.

14.6.4 A mounting plate minimum size of 10mm diameter x 150mm long is required for all mounts welded longitudinally along chine area of hull.

14.6.5 In addition to the above, the main roll bar structure may 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.

14.6.6 Anchor points for the seat belt harness must be attached directly to the roll cage, seat base attachment bars and some approved seats for the sub belts. Harnesses cannot share a common mounting point, apart from the sub belts, that can share the same eyelet as the lap belt anchor if the correct sized eyelet is used. A split pin must lock the seatbelt hook to the lap anchorage.

14.6.7 Anchor points that are not acceptable include any part of the engine, any part of the hull sides or unsupported deck. Lap belts cannot be wrapped around the cage or seat mounts.

14.6.8 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 and not cause them to bend around the holes in the seats.

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

14.6.10 There shall be four (4) attachments at the base of the seat, two (2) at the shoulder suitably spaced to stabilize 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.

14.7 Bolting

14.7.1 Minimum number and size of fasteners required per attachment point: 2 x bolts = 1mm, 4 x bolts = 8mm, 6 x bolts = 6mm.

14.8 Crew Protection

14.8.1 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.

14.8.2 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.**

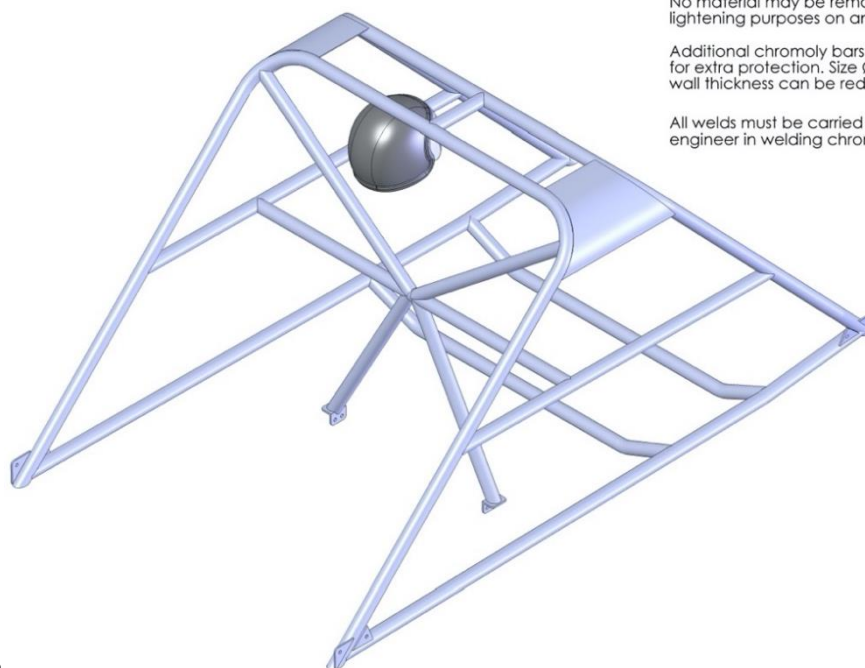
14.8.3 The frame must have a minimum material thickness the same size as the roll cage structure.

14.8.4 This seat base assembly shall be constructed using the same welding and fabrication procedures as for forming the roll cage structure.

14.8.5 **Seats must be the correct size for the occupant so they cannot move within the seat and the belts meet the required angles.**

15. Drawings

Fig. 1



No material may be removed for lightening purposes on any cage bar.

Additional chromoly bars may be added for extra protection. Size Ø38.1, wall thickness can be reduced, i.e. down to 1mm

All welds must be carried out by an experienced engineer in welding chromoly

Fig. 2

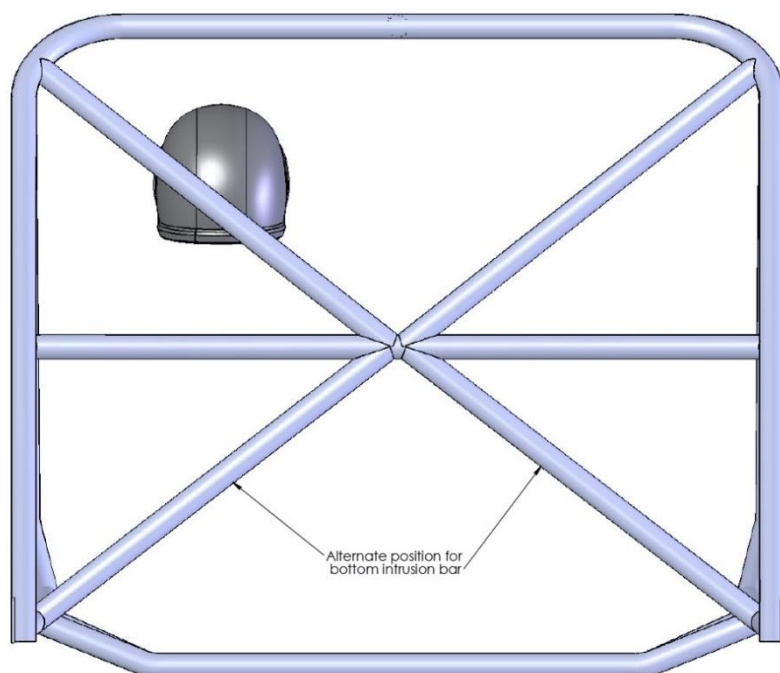


Fig. 3

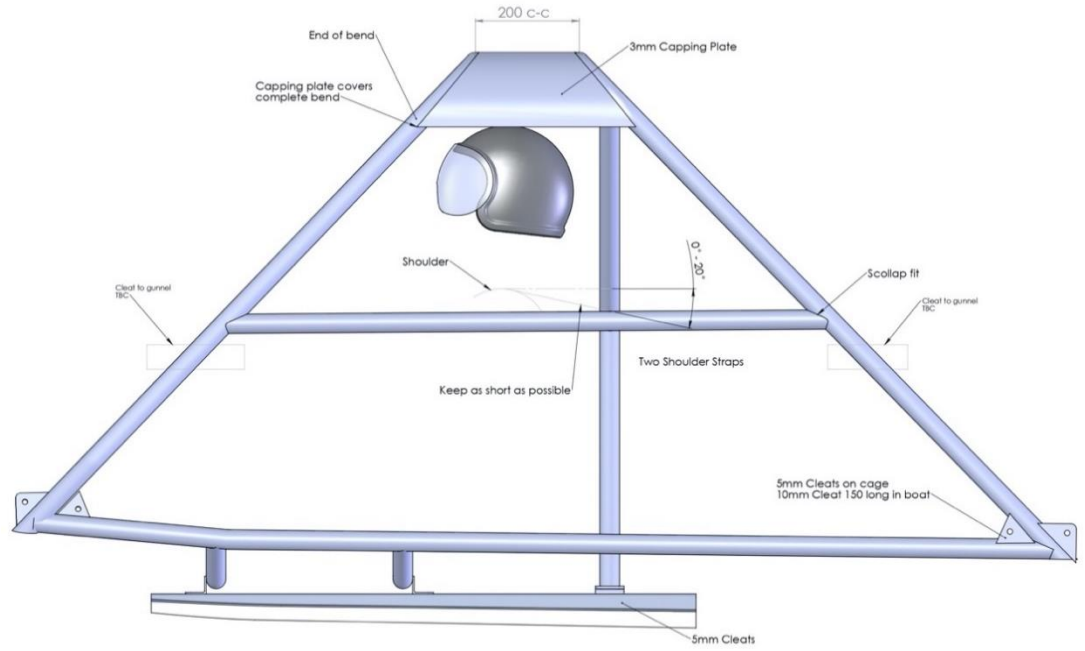


Fig. 4

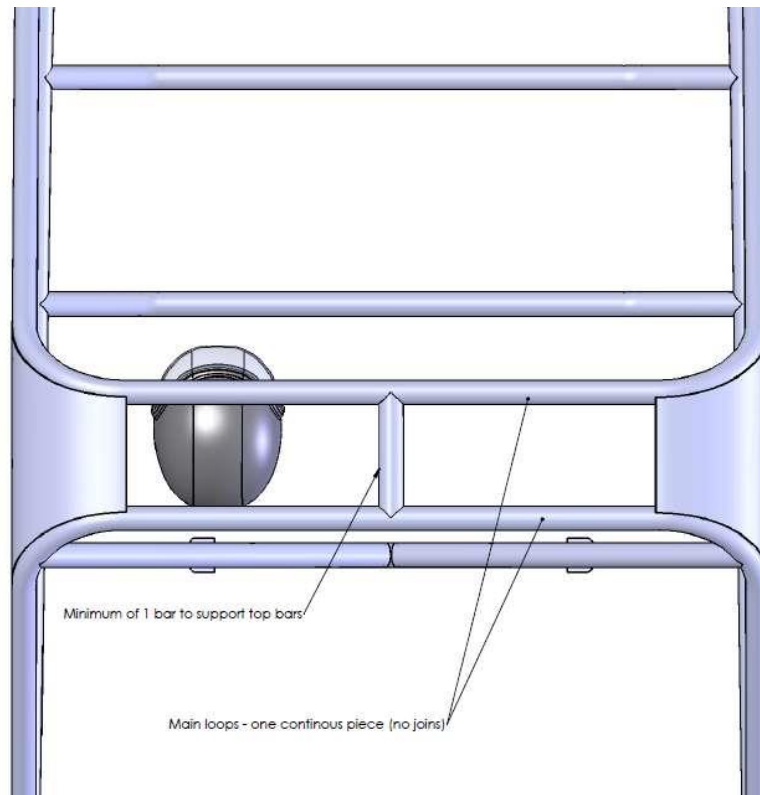


Fig. 5

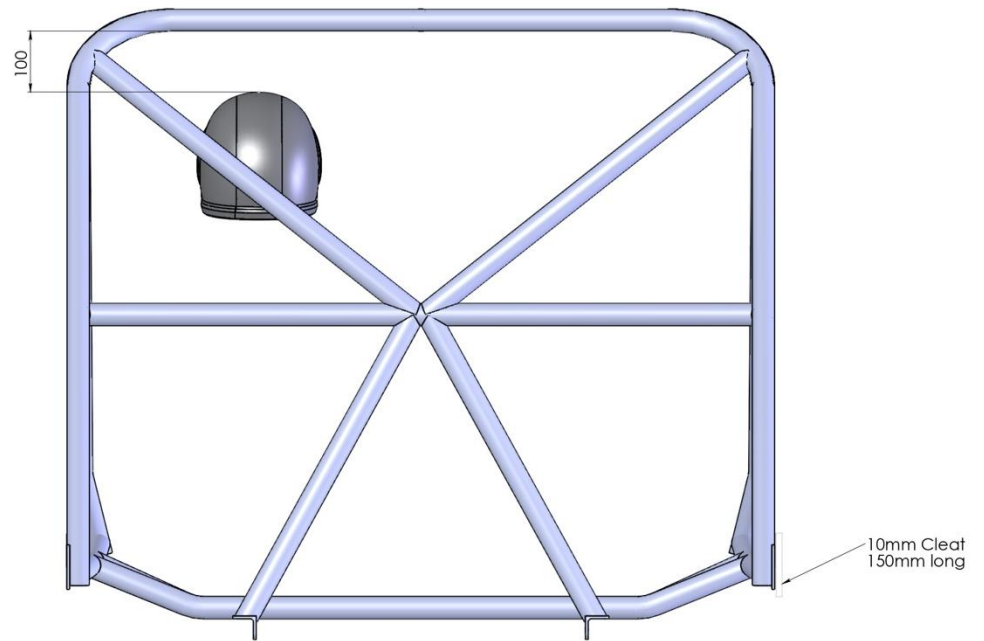


Fig. 6

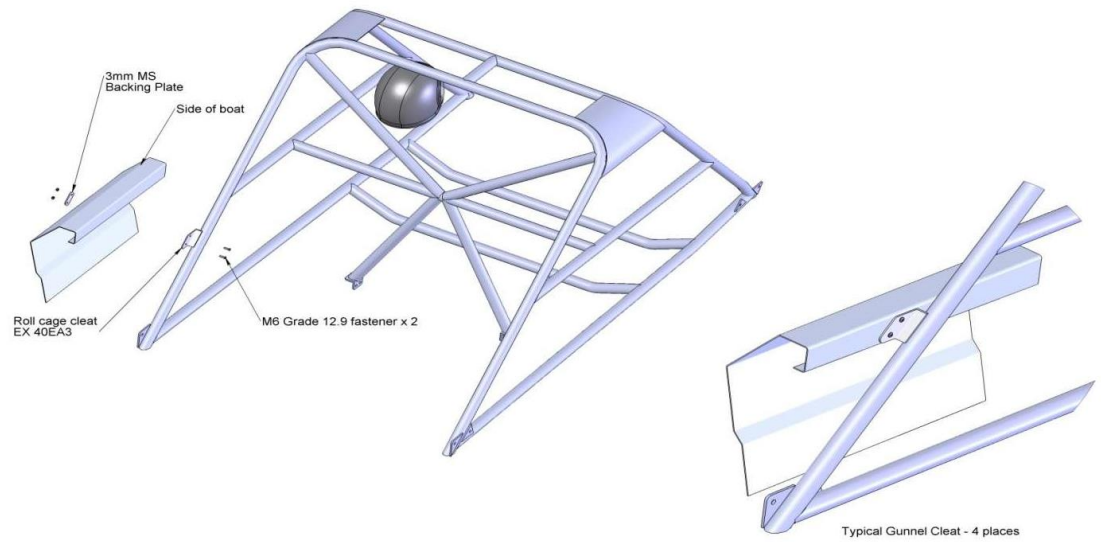


Fig. 7

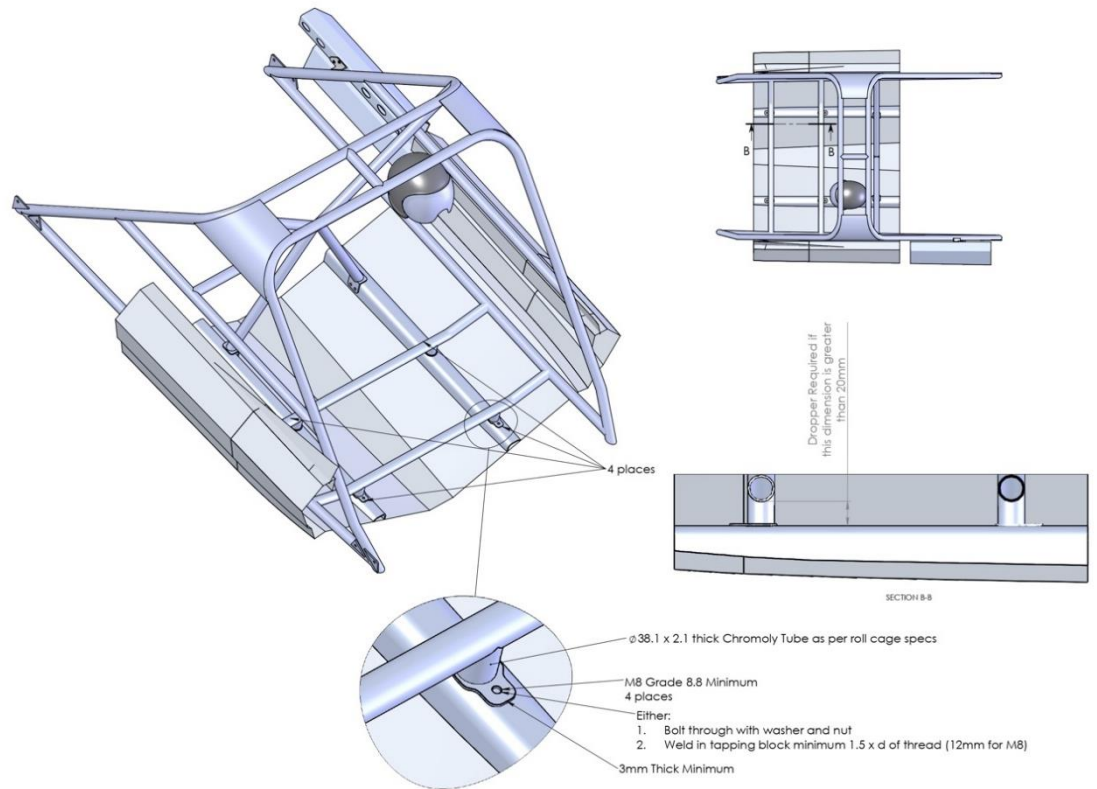
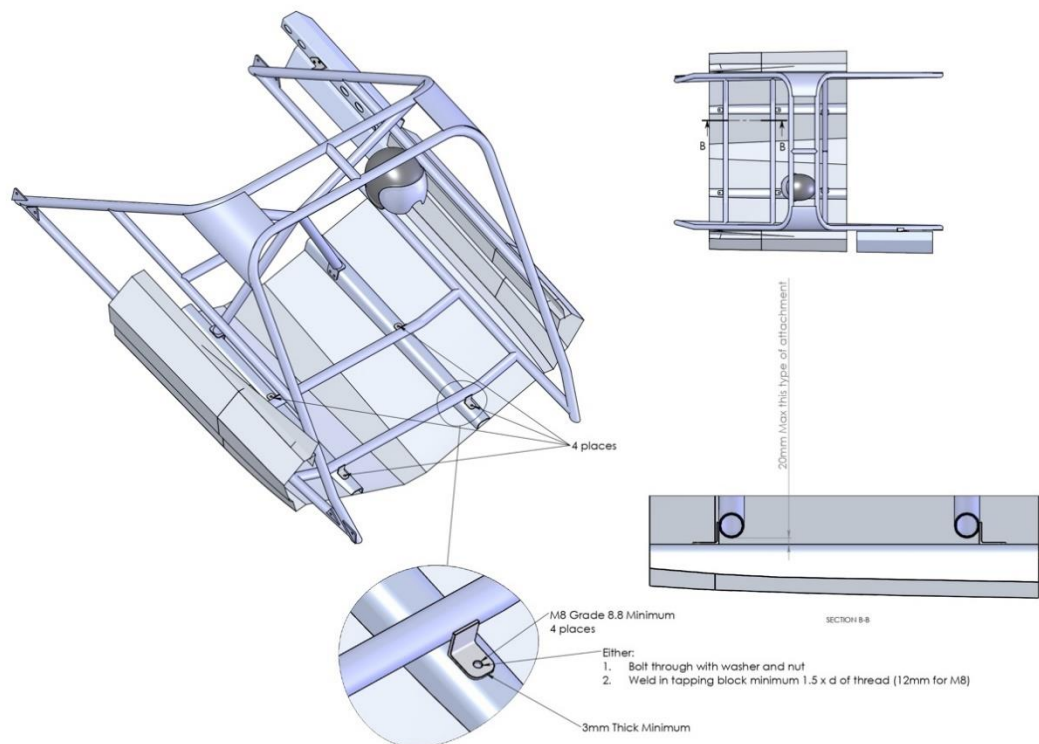


Fig. 8



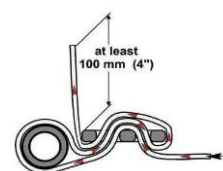
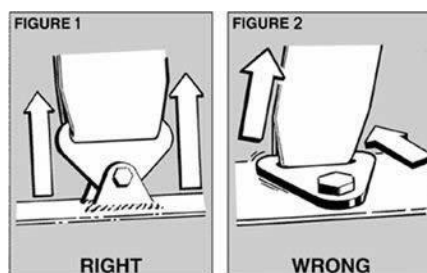
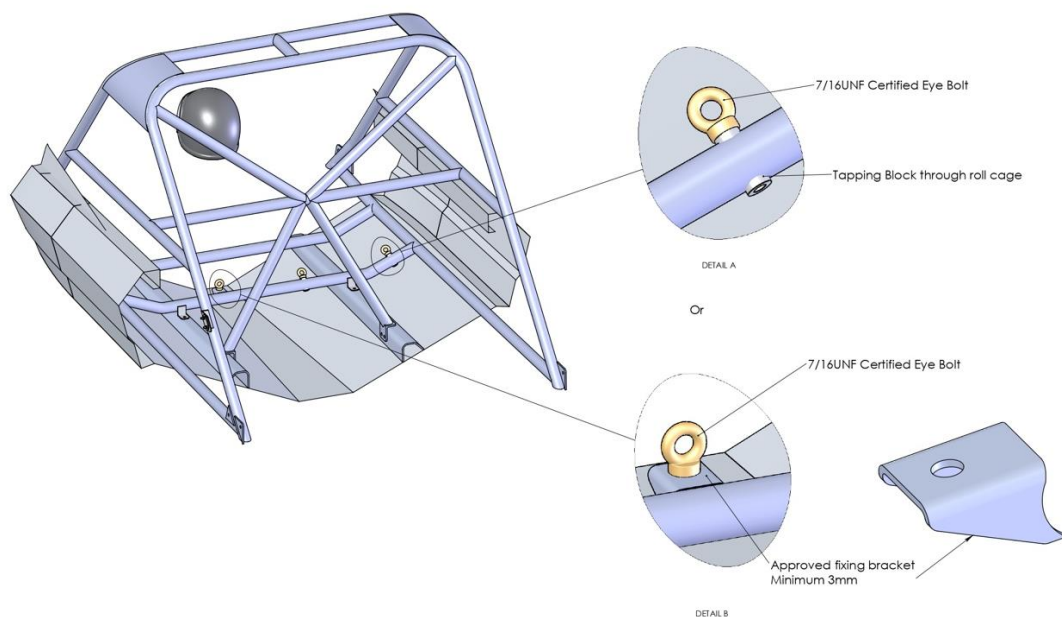


Another approved roll cage mounting type to chine area

16. Appendix 2.

16.1 Mounting Point for Shoulder Straps and Belts

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



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

17. Appendix 3.

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:	11-Oct
Tungsten:	1.6 or 2.4mm Dia 2% Thoriated or Lanthanated

Preheat only required if steel temperature is below 20 °C

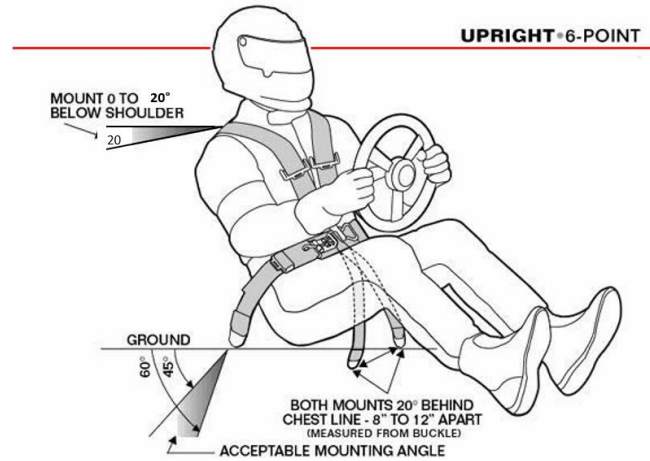
General notes and requirements:

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.

18. Appendix 4

Fitting of Seat Belts Inside Sprint Boat Depending on Seating Position

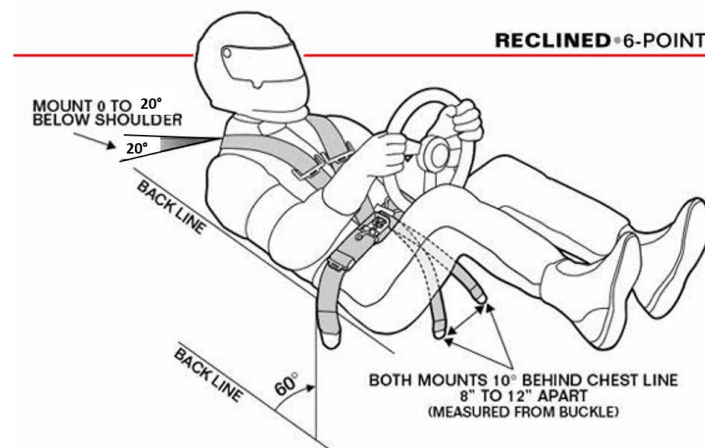
Upright Seating Position



Lap Belt must be anchored to the seat mounting bars or roll cage as close to the hip as possible at an angle of 45 degrees, but no greater than 60 degrees to the delta.

6-Point Anti Sub Belt should be anchored at an angle of 20 degrees behind the Chest Line as measured from the intersection of the Chest Line and the lap belt buckle. Mounts should be approximately 20 to 30 centimetres apart (approximately located under each hip and as close to the body as possible). Two routing holes in the seat or a special seat mount may be required. Using the 5-Point hole detracts from the effectiveness of this system.

Reclined Seating Positions



Centre Shoulder to Centre Hip angles between 30 to 50 degrees to the delta. Lap Belt anchors must be positioned at an angle of 60 degrees in relation to the Back Line² and mounted to the frame rail or roll cage as close to the hip as possible.

6-Point Anti-Submarine Belt should be anchored at an angle of 10 degrees behind the Chest Line as measured from the intersection of the Chest Line and the lap belt buckle. Mounts should be approximately 20 to 30 centimetres apart (approximately located under each leg, even with the pelvis).

Footnote for reference.

At the high speed and with the high g-forces of a [Formula One car](#) during cornering and acceleration and braking, they must be very, very tight. The driver is incapable of making them tight enough and that is why it requires a mechanic to tighten them appropriately.

The idea of comfort is always relative. In Formula 1, if the belts don't hurt, then they are not tightened hard enough.

Why F1 drivers can't fasten their own seat belts? That has to do firstly with the sitting position of the driver. He sits in the cockpit with his legs raised high, his body low, and above all, there's very little space beside his arms to allow him to manipulate the complicated seat belts. He has no elbow room in the narrow cockpit. The six-point belts meet in a buckle, straddling each shoulder, and up through the crotch and around the waist.

On the one hand, the belts must be strong enough to protect the driver from an impact. On the other hand, they also have to give enough to make sure that the driver is not injured by the belts themselves in an emergency.

Seat belt recommendations.

Because of limited room in a sprint boat, it is recommended you think about what type of harness suits you, your navigator and your boat. Lap belts with length adjuster buckles in the wrong place can get caught in the seat holes making them difficult to adjust and get tight. Lap belts that have the tension adjusters 75mm from the buckle are hard to get tight because your hand hits the seat before getting them tensioned. It has been noted that these are reasons people choose to run with their belts loose.



Rule Change Amendments Register

Date	Submitted	Approved	Reason	Change
15/2/18	Jody Ely	Grant Bourke	Rulebook aligned with NZ	Allow sleeves or tubes on cylinder heads
1/04/19	Kaleena de Voigt	Grant Bourke	Rulebook aligned with UIM and additional rules clarified Update to Protest Procedure	Safety Equipment Timing Wrong Way Time Limits Remove 350 Rules Payments Decals Demonstration and Lake Testing
25/08/19	Daniel de Voigt	Grant Bourke	Address issues with available LS parts	Allow Smaller Engines to have a larger bore size. Remove reference to V8 Ute Pistons
6/01/20	Kaleena de Voigt	Justin Roylance	Corrected Spelling Errors, Updated to 2020, added LS Rules and Group A Fuel Changes	Remove AvGas and replace with three alternatives. Updated Checklists and Racing Overview with 2020 information. Updated LS rules based on feedback that some areas were unclear, or parts no longer available.
1/03/21	Daniel de Voigt	AFJSA Board	Clarification of LS Engine Rules	Updated Engine Rule information to ensure class affordability is maintained, whilst also ensuring parts are available off the shelf. Also clarify some grey areas.
10/03/21	Kaleena de Voigt	AFJSA Board	Addition of Junior Development Class	Add Junior Development Class to Rule Book as a starting point to be developed over the 2021 season.
18/07/22	Kaleena de Voigt	AFJSA Board	Changes to Helmet Rules, Harness Rules, Clarification of shortened round rules, Clarification on Administration requirements	Change to helmet rules per UIM Guidelines, Harness Rules, Shortened Event Rules, Administration Rules

30/06/23	Kaleena de Voigt	AFJSA Board	Addition of Cage & Seat Safety Rules. Updates made for 2023 release	Change to Cage and Seat Safety Rules, plus general updates for 2023.
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