2017

TECHNICAL RULES FOR

Super Boat International Productions ®

1323 20th Terrace, Key West, FL 33040
Web site: www.superboat.com E-mail: superboatracing@gmail.com
Phone: 305-296-6166 Fax: 305-296-9770

TABLE OF CONTENTS

1. **GENERAL APPLICATION TO ALL REGISTERED RACE BOATS** **3**
2. **SUPERBOAT UNLIMITED** **11**
3. **SUPERBOAT** **17**
4. **SUPERBOAT EXTREME** **28**
5. **SUPERBOAT VEE** **38**
6. **SUPERBOAT STOCK** **49**
7. **MANUFACTURER PRODUCTION** **53**

1. GENERAL APPLICATION TO ALL REGISTERED RACE BOATS

1.1 **In General** - EXCEPT as otherwise specifically provided herein the following rules apply to all SBIP registered race boats and competitors.

1.2 **Braking Systems** – Braking Systems of any kind to reduce boat speed on boats in any class must be approved by SBIP on a case by case basis.

1.3 **Bolsters** – Racing bolsters or approved racing seats are required in all classes.

1.4 **Engine Compartment:**

1.4.1 Engine compartments must have ridged covers/hatches.

1.4.2 Engine and fuel compartments must be adequately ventilated.

1.4.3 Engine hatches – with or without scoops are allowed

1.4.4 Exclusivity – All boats as well as every part used in connection therewith, including but not limited to engines, outdrives, transmissions, crash boxes and propellers (and all parts and components related thereto) must be both manufactured and intended for sale to the public at commercially reasonable prices. Exclusivity agreements of every type are strictly prohibited. This rule applies to competitors only and shall not be construed in any manner whatsoever to limit or restrict SBIP from entering into exclusivity agreements such as official advertisers involving single source vendors, suppliers, manufacturers or producers.

1.4.5 Exhaust - Except where specifically noted, engine exhausts must be water cooled by water-jacketed manifolds from the engine outlet to the point of exit from the hull or deck. The point of exit from the hull or deck must be located in such a position whereby the exhaust fumes cannot affect the crew.

1.4.6 Inspection Expense – any out of the ordinary expenses incurred by SBIP in the inspection of any equipment or the verification or confirmation of any other technical matters, shall be the responsibility of the subject owner, racer, crew chief, or manufacturer.

1.5 Fuel Requirements for All Classes

1.5.1 Electric fuel pump shutoff - must be controlled by an emergency stop switch.

1.5.2 Through deck fuel fills - All fuel must be carried in tanks, which are secured and vented overboard. Boats may not transfer fuel during a race except by means of properly installed fuel lines. Fuel tanks and fills shall be grounded.

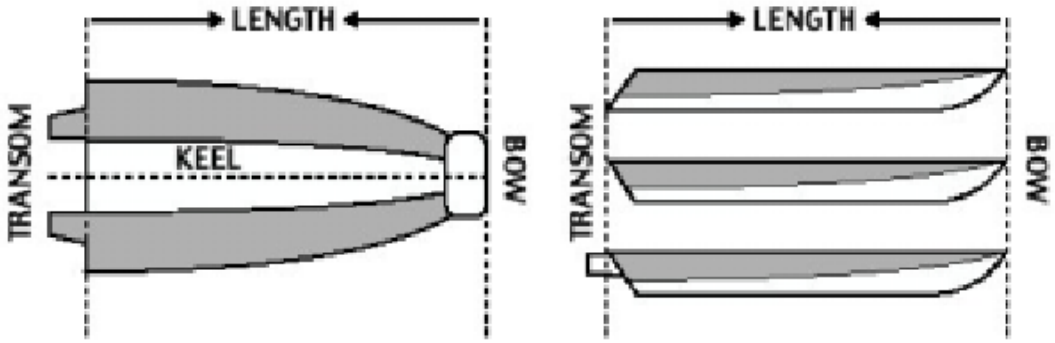
1.5.3 Handrails - Hand rails (max. height of 6"), or hand holds shall be fitted and extend fore and aft to enable crew to proceed from the cockpit to the towing eye on the bow of the hull. Cables and lifelines are not permitted.

1.6 **Serial Number** – Each hull shall have a unique and individual engraved serial number.

1.7 Hull and Deck Measurement Procedure

1.7.1 All race boats shall be measured to obtain a designated length on the centerline of the hull between the perpendiculars at the extreme bow and stern. All measurements will be taken while the boat is ashore. The keel line shall be level amidships. The stern shall be defined as the transom, joining the extremities of the hull on which the outboard motor or driveline is attached. Any extending parts, rub-rails, fenders, stabilizing and trim tabs, rudders or attached molded platforms are not to be included. Unless otherwise provided there is no length tolerance allowed in any class.

1.7.2 Diagram -



1.7.3 Hull Extensions - Any boat extensions added to the original structural hull and deck to meet minimum length rule are not allowed.

1.7.4 Lap belts - shall not be permitted in any offshore race boat.

1.7.5 Lifting Harnesses - A single point lifting harness is mandatory for all SBIP class boats that race at National Series race sites. They must lift the Race Boat in a level position. They cannot be nose down when being picked up by the crane. Manufacturer Production Classes are exempt from lifting harness requirements but must make their own arrangements for launch and retrieval.

1.7.6 Non-Skid - It is required that deck surfaces have a non-skid finish to the satisfaction of the Rescue Coordinator.

1.8 **Propulsion Systems**- Inboard engines (subject to specific class rules) may be used with any type of propulsion unit or drive. Mix matching is permitted.

1.8.1 Qualifications for Class - Boats that qualify in more than one offshore class must run the higher of the two classes. The Inspector and the Referee shall make determination of class eligibility.

1.8.2 Trim Tabs - Hulls utilizing adjustable planes, such as hydrofoils, shall not be allowed. Trim tabs, either fixed or adjustable, are legal for competition. All designs are subject to final acceptance and approval by the SBIP Chief Inspector.

1.9 **Weight Requirements** -

1.9.1 Classes Subject To - All classes, except for Manufacturer Production and Superboat Unlimited, are subject to minimum weight restrictions and weight verification after each race as set forth in the individual class rules below. No additional weight can be put on the Race Boat after being weighed in prior to the race. If you have to add weight, you must get permission from the Chief Referee and let him know the amount of weight and what type.

1.9.2 Post-Race - All boats required or directed to weigh by the Chief Referee or Inspector must report to the designated crane for Post-Race weighing. No private cranes or scales will be utilized for official weight compliance purposes.

1.9.3 Penalties - Any boat not meeting minimum weight requirements during Post-Race inspection shall be penalized 1 minute for each 100 pounds or part thereof that the boat is under weight. There shall be no scale tolerance. The "Scale of the Day Rule", meaning, whatever the scale on race day reads is what determines the weight of the boat, shall apply.

1.10 Air Conditioning

1.10.1 Air Conditioning Allowed - Air Conditioning is allowed in all SBIP Classes utilizing canopies or enclosed cockpits. Subject to all other existing rules

1.10.2 Cooling Not Allowed - Fuel, fuel hoses, engine compartments or fuel tanks may not be cooled in any manner.

1.10.3 Installation Approval - Final installation of all air conditioning systems must be approved by the Chief Inspector or his designee to determine compliance with all safety and technical rules before any boat may be considered a legal entry into any SBIP Class.

1.11 Exhaust System Specifications –

1.11.1 Exhaust Manifolds and Headers - must remain as originally produced by the manufacturer and may NOT be modified in any way without the written approval of SBIP.

1.11.2 HP 500 EFI engines - Only the Mercury style CMI header for the HP 500 EFI is permitted.

1.11.3 HP 525 EFI engines - Only the Mercury style CMI header or the CMI Straight Back Sweeper Header CMI part number 39335 or Innovation Marine Tractor style, is permitted for the HP 525 EFI.

1.11.4 Innovation Marine Vortec 8100 HP3 engines - Only the

Innovation Marine style CMI Sweeper or Tractor style header is permitted.

1.11.5 Tail pipes and Exhaust Tips - Any tail pipe or exhaust tip is allowed. Tail pipes may be of any length and can exit the boat through the gunnel, deck or transom. The engine exhaust headers and pipes from engine outlet to point of exit from hull or deck must be water-cooled by water jackets. The exhaust outlet/tip may not extend more than 8" beyond the transom of the boat. Dry Tail Pipes are allowed

1.11.6 Cooling Water - Neither the method nor volume of cooling water flow to the exhaust system may be altered from the production configuration. All engine cooling water must pass through the exhaust elbow/tail pipe and either into the exhaust, an onboard ballast tank fill or to a thru hull fitting. No water can be diverted for exit elsewhere.

1.11.7 Non-Conforming - SBIP reserves the right to approve alternative - additional exhaust installation hardware when required for specific boat builder installations.

1.12 **Engine Installations** –

1.12.1 Rear engine mounts – See Class Specs

1.12.2 Staggered Engine Configurations – See Class Specs

1.13 **Enforcement of Rules -** The purpose of these rules is to insure a competitive balance between racing teams. SBIP thus reserves the right to take whatever actions it deems necessary to enforce these rules, including but not limited to impounding any boat and/or parts and components thereof for inspection purposes, and/or prohibiting the use of any part or component which it deems gives a team an unfair competitive advantage, in its sole and absolute discretion. All illegal parts or components become the property of SBIP. SBIP Race Officials are authorized to decide if an equipment change is an attempt to beat the rules. They can and will disqualify an entry in violation of the spirit and intent of these rules.

1.14 **Air Scoops -** It is illegal to completely seal the inlet air track running from external openings to the flame arrestor. Fresh air ducting must be no closer than

2” at its nearest points to the flame arrestor. Sealing or pressurizing the engine compartment is not allowed. The SBIP reserves the right during or in post-race inspection to install (place) an atmospheric pressure measuring device to certify that a positive pressure engine compartment has not been created. For purposes of enforcement any reading during a race or in post-race testing exceeding +1.1 atmospheres of pressure will constitute a violation of this rule with disqualification being the remedy.

1.15 **Ballast -** External plumbing, water pickups and other devices installed for the purpose of filling and/or emptying ballast tanks are allowed. Ballast tanks are allowed. All onboard ballast tanks must be empty during post-race all-up weight check. No water/liquid except residual fuel to be used to make weight. All Ballast tanks must have an access door large enough to provide complete inspection.

1.16 **Canopies –**

1.16.1 All Canopied boats are recommended to comply with the latest canopy design and technology. Contact the boat manufacturer for their canopy standards.

Any damage to canopies must have a notarized certified letter from a manufacturer of canopies authorizing the continued use in a race.

1.16.2 Non-compliance – SBIP has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems.

1.17 SBIP CLASSES

Class Name	Class Designation	Min. Length	Engine Type	Engines	Type
Superboat Unlimited	Numbers Only	40’ – 55’	Any	Any	Cat
Superboat	Numbers Only	36’ – 46’	SB 510	Twin	Cat
Superboat Extreme	Numbers Only	35’ – 46’	SBEXT	Twin	Vee
Superboat Vee	Numbers Only	26’ – 32’	SBV Tech	Single	Vee
Superboat Stock	S	28’ – 32’	Outboard	Twin	Cat
Manufacturer Production 3	P3	24’ – 40’	*	Twin	Cat/Vee
Manufacturer Production 4	P4	24’ – 30’	*	Single	Vee

* Classes P-3 and P-4 Naturally aspirated Engines Only.
Maximum Speed – Max allowable speeds listed under the Manufacturer Productions Specifications Fixed mounted GPS required for participation Contact the SBIP office for an approved list.

SUPERBOAT UNLIMITED

PAGES 11 - 14

2. SUPERBOAT UNLIMITED (Number designation)

2.1 **Eligibility for World Championship:** To be eligible to compete in the 2017 World Championship, in the Superboat Unlimited Class a boat must race in three (3) National races during the 2017 season, or at the discretion of the SBIP President.

2.2 **Eligibility for 2017 National Champion:** To be the National Champion, in the Superboat Unlimited Class a boat can miss one (1) National Race, and must compete in the Clearwater National Championship Race.

2.3 **Eligibility for 2017 Florida Champion:** To be the Florida Champion, in the Superboat Unlimited Class a boat can miss one (1) National Florida Race, and must compete in the Clearwater National Championship Race.

2.4 **Engine Criteria**

2.4.1 Technical committee approval of block and heads shall be the basis for competition.

2.4.2 Two (2) and four (4) cycle engines must be produced with a basic cylinder block and cylinder head (original or manufactured as spare parts) of an automotive, marine or industrial engine. Unit production, per annum, must be verifiable at 500 units and must be sold and obtainable, to the general public, through normal distribution channels. Marine engines are subject to the same technical criteria. Unit production is set at 50 units per annum.

2.4.3 The cylinder block and cylinder heads may be modified.

2.4.4 Any number of engines may be installed.

2.4.5 The engine exhausts must be water-cooled or insulated, from the engine outlet to the point of exit, this point must be located in such a position whereby the crew cannot be affected by exhaust fumes. The exhaust must be adequately cooled in such a manner to safely operate the boat without hazard to the crew or structure of the boat.

2.5 **<u>Dimensions</u>**

2.5.1 40 ft. minimum – 55 ft. maximum length Multi-Hull (Cat)

No engine CID limitation or restrictions

2.5.2 42 ft. minimum – 55 ft. maximum Mono-Hull (Vee-Hull)

No engine CID limitation or restrictions

2.6 All crafts must be capable of maneuvering ahead and astern, while also being able to demonstrate a neutral position on a least one (1) of the main propulsion engine drive lines, operated by controls at the helmsmen's position. Boats with more than one (1) shaft shall be capable of maintaining a straight course in a set direction on any one (1) propeller.

2.7 Fuels are limited to petroleum based fuels. Non-petroleum based fuels or additives such as nitrous oxide or oxygen, designed to increase horsepower are prohibited.

2.8 Any propulsion utilizing the thrust of water is allowed if it meets all the safety requirements.

2.9 Diesel engines shall be allowed (8) pounds of non-petroleum based fuel on board, per engine, which can only be used in the start-up procedure.

2.10 **Canopies –** Superboat Unlimited registered race boats are required to have canopies.

2.10.1 All Canopied boats are recommended to comply with the latest canopy design and technology. Contact the boat manufacturer for their canopy standards.

Any damage to canopies must have a notarized certified letter from a manufacturer of canopies authorizing the continued use in a race.

2.10.2 Non-compliance **–** SBIP has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems.

2.11 Hull and Deck –

2.11.1 All race boats shall have a minimum overall length of forty (40') feet and a maximum length of fifty-five (55') feet measured on the centerline of the hull between perpendiculars at the extreme bow and stern. All measurements are taken while the boat is ashore. The keel line shall be level amidships. The stern shall be defined as the transom, joining the extremities of the hull on which the outboard motor or driveline is attached. Any extending parts, rub-rails, fenders, stabilizing and trim tabs, rudders or attached molded platforms are not to be included. Overall hull lengths shall be rounded off within a six (6) inch tolerance.

2.11.2 Any underwater hull design shall be eligible if safe and manageable in open sea conditions. Three (3) point "Hydro-Design" is not an offshore design which is to be considered safe and manageable in an open sea condition

2.11.3 Through deck fuel fills are mandatory as specified by United States Coast Guard regulations.

2.11.4 Hulls utilizing adjustable planes, such as hydrofoils, are not legal for competition. All designs are subject to final approval by the technical committee. Tunnel Tabs are allowed.

2.11.5 Engine compartments must have rigid covers.

2.11.6 Engine and fuel compartments must be adequately ventilated and must meet United States Coast Guard regulations.

2.11.7 Fuel must be carried in tanks which are suitably secured and vented. Boats may not transfer fuel during the race, except by means of properly installed fuel lines. Manual transfer of fuel from one (1) tank to another, while the engines are shut down, will be permitted in boat installations where multiple tanks are utilized.

2.11.8 Rails (6" maximum height) or hand holds must be installed fore and aft and should enable the crew to proceed from the cockpit to the entire deck for the purpose of working the craft in adverse sea connections.

2.11.9 Navigational electronics, excluding auto-helm, are permitted.

2.11.10 Superboat Unlimited registered race boats are recommended to comply with the latest canopy design and technology. Contact the boat manufacturer for their canopy standards.

2.11.11 A single point lifting harness is mandatory to race teams utilizing the on-site promoter's crane. Non-conformers must make their own launching arrangements.

2.11.12 Wings: See wing specifications.

SUPERBOAT

PAGES 16 - 26

3. SUPERBOAT (Number designation) – Inboard Multi-Hull

3.1 Introduction:

3.1.1 In General –The SBIP rules which follow are safety and competition based. The formula endeavors to keep competition close and exciting, principally by monitoring technology changes and limiting the differences between racing equipment from team to team in order to ensure maximum excitement and enjoyment for racers and fans alike.

3.1.1 Performance Parameters / Intent of the Rules - These parameters are merely a guideline for SBIP officials in the creation and/or amendment of technical rules to maintain competitive balance and contain costs. Accordingly, SBIP reserves the right to take whatever actions are necessary, at any time, to ensure that boats competing in the class perform within these parameters in competition. No pretense is made of having designed a foolproof set of rules and regulations.

2.1.3 Interpretation of Rules **-** If there is a disagreement or dispute regarding the meaning or application of the SUPERBOAT Technical Rules, the interpretation and application of the SBIP rules compliance process shall prevail.

2.2 Changes to Existing or Introduction of New Equipment –

3.2.1 Warning to racers – if this rulebook does not specifically say that you can do or use something, then you must consider that the action, change or component is illegal. No equipment or race boat in violation of these rules will be considered as having been approved by reason of having passed through pre-race inspection, or post-race inspection at a prior event, "unobserved".

3.2.2 Written Approval Required **-** Any questions about the legality of any change, or of any action, part, or component, must be submitted in writing and answered in writing by the SBIP prior to the change or use. SBIP is empowered to make any technical rule changes it deems necessary to maintain competitive balance and/or safety for the boats competing in the SUPERBOAT Class.

3.3 **Exclusivity Prohibited** - All boats as well as every part used in connection therewith, including but not limited to engines, outdrives, transmissions, crash boxes, and propellers (and all parts and components related thereto) must be both manufactured and intended for sale to the public at commercially reasonable prices. Exclusivity agreements of any type that have not been approved by SBIP are strictly prohibited. This rule applies to competitors only and shall not be construed in any manner whatsoever to limit or restrict SBIP from entering into exclusivity agreements such as official sponsorships involving single source vendors, suppliers, manufacturers or producers.

3.4 **Enforcement of Rules** - The purpose of these rules is to ensure competitive balance between SUPERBOAT racing teams. SBIP thus reserves the right to take whatever actions it deems necessary to enforce these rules, including but not limited to impounding any boat and/or parts and components thereof for inspection purposes, and/or prohibiting the use of any part or component which it deems gives a team an unfair competitive advantage, in its sole and absolute discretion. All illegal parts or components become the property of the SBIP. SBIP Race Officials are authorized to decide if an equipment change is an attempt to beat the rules. They can and will disqualify an entry in violation of the spirit and intent of these rules or take such other action as they deem necessary to maintain competitive balance in the class.

3.5 **Rule Changes to Maintain Competitive Balance** - SBIP recognizes that there are considerable differences in boat length, sponson design, tunnel width, angle, shape and other aspects of boat design. Accordingly, SBIP reserves the right to make adjustments at any time to boats, engines, drives, propellers, etc. individually or categorically, to maintain competitive balance based upon experience in race conditions.

3.6 **Boat Specifications:**

3.6.1 Dimensions –

3.6.1.1 Length: 36ft. minimum to 46ft. maximum.

3.6.1.2 Hull Type: Catamaran

3.6.1.3 Beam: 12’ Maximum

3.6.1.4 Tunnel width: Maximum 66” measured at keel.

3.6.1.5 Height: Class must measure at least 48" from the keel to the deck forward of the canopy (not including the canopy).

3.6.1.6 Weight Minimum: 9500lbs**.**

3.7 **Minimum Weight Measurement** - is determined at the end of the race. All boats required or directed to weigh by the Chief Referee or Inspector must report to the Crane of the Day, the same crane must be used for both entering and exiting the water. It will be the responsibility of the Owner, Driver, or designated Crew Member to present the boat for Post- Race Weighing with the boat in the lifting harness in a level position, with the hull drain plugs removed and the boat empty of water, with all ballast tanks empty, and all helmets and jackets removed. If the Inspector or Chief Referee finds otherwise the boat will be immediately assessed a two (2) minute penalty. No private cranes or scales will be utilized for Official Weighing compliance purposes. The weight will be an all-up weight including engines, residual fuel, drives, propellers, fixed ballast (i.e. that which is used from start through completion of race). No multiple weighing, one only, one in and one out.

3.8 **Canopies -** Superboat registered race boats are required to have canopies.

3.8.1 All Canopied boats are recommended to comply with the latest canopy design and technology. Contact the boat manufacturer for their canopy standards.

Any damage to canopies must have a notarized certified letter from a manufacturer of canopies authorizing the continued use in a race.

3.8.2 Non-compliance – SBIP has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems.

3.9 **Engine Specifications -**

The SUPERBOAT 510 CID Engine will be the only engine approved for the SUPERBOAT CLASS

3.9.1 Displacement: Maximum 510 CID, minimum 495 CID per engine, (1020 CID total) with a maximum 4" stroke crankshaft.

3.9.2 Compression Ratio: The maximum compression ratio allowed is

9.5:1 measured by whistler device calibrated at race site with master cylinder.

3.9.3 Valve System:

3.9.3.1 Number - Two valves per cylinder operated via pushrods.

3.9.3.2 Maximum gross cam lift - measured at the valve is .720 inch with zero lash.

3.9.3.3 Variable cam timing - is not allowed.

3.9.4 Block**:**

3.9.4.1 Cast iron - must be approved by SBIP.

3.9.4.2 Chevrolet - design blocks with 9.8" or 10.2" deck heights are approved.

3.9.4.3 Chevrolet - design blocks manufactured by General Motors, World Products (Merlin), and Dart Big M are approved. The following part numbers are approved.

3.9.4.4 GM part numbers - 10185049, 10134367, 24502502, 24502500, 12370834, 14044808, 12370833, 10051106, 10237292.

3.9.4.5 World Products (Merlin) part numbers: 080100, 080110, 081100, 081110, 081102, 081112 and 081120.

3.9.4.6 Dart Big M part numbers: 31263444, 31263454.

The use of any other block requires the approval of SBIP.

3.9.4.7 Sleeves - or bushings may be used providing the original OEM (GM) lifter bore location is not changed.

3.9.4.8 Pushrods - must ride in the center of the lifter. (no offset lifters)

3.9.5 Internal Components:

3.9.5.1 Materials - Crankshaft, connecting rods, pushrods and wrist pins must be made of steel. Titanium or other materials not allowed.

3.9.5.2 Single plane crankshafts - are not allowed. Crankshaft throws must be timed in accordance with OEM specifications. Crankshaft limited to a maximum 4" stroke.

3.9.6 Heads:

3.9.6.1 Approved cylinder head - is big block Chevrolet Brodix – BB2 PLUS Head. It is the only the approved aluminum cylinder heads allowed with the Stock OEM cast specifications. Not modifications to the Stock OEM castings are allowed.

3.9.7 Valve Work –

3.9.7.1 Spec cylinder head serial numbers - must remain on the head and may not be defaced or altered.

3.9.8 Modifications/Repairs –

3.9.8.1 Using offset head guides or altering the stock mounting location of the head on the cylinder block is not allowed.

3.9.8.2 No welding modifications are allowed to the original head castings. Heads must be returned to Brodix for repair. All repairs will be certified in writing to the SBIP.

3.10 <u>Intake Manifold:</u>

3.10.2 Carburetor spacers - or adapters are allowed, maximum of 2.5" between the bottom of the carburetor and the top of the manifold is allowed.

3.10.3 Any stock cast intake manifold. The manifold may be port matched up to 1 ½ inches to match cylinder heads. No fabricated or tunnel ram type manifolds may be used.

3.11 Induction System:

3.11.1 Approved Fuel – 91-93 Octane no fuel additives

3.11.1.1 Number - Only one carburetor is allowed per engine.

3.11.1.2 Approved Carburetors - Any Holley Dominator style carburetor is allowed.

3.11.1.3 Source - Carburetors may be purchased from any source.

3.11.1.4 Fuel injection - is not allowed.

3.12 Exhaust System:

3.12.1 Runner Length/Materials - Exhaust manifolds may be cast or fabricated with no more than 15-1/2" (inches) of individual primary runner length measured at the centerline of any runner from the cylinder head port to the common collector. The overall length includes any gaskets, adapters, or wedges from the exhaust ports to the common exhaust collector. No modifications to the exhaust that increases runner length or give the effect of longer individual runners are allowed. This includes but is not limited to merge collectors, divider plates or turbulence cones. The stock Mercury style 525 CMI header is permitted.

3.12.2 Shape - Any non-divided (common collector), round, square, rectangular or oval, elbow, riser or tail pipe is allowed. The engine exhaust manifolds and pipes from engine outlet to point of exit from hull or deck must be water-cooled by water jackets. The exit from the hull or deck must be located in such a position whereby exhaust fumes cannot affect the crew.

3.13 Transmissions:

3.13.1 General: All boats competing in the SUPERBOAT™ class must have propulsion systems capable of turning the propellers in either direction or maintaining a neutral (standstill) state while the engine is running.

3.13.2 Single speed – transmissions / crash boxes capable of forward, neutral and reverse are allowed.

3.13.3 Multi speed - transmissions are not allowed.

3.14 <u>Lubrication (Engine)</u>:

3.14.1 Wet sump - and internal oil pumps are allowed.

3.14.2 Dry Sump - External oil pumps or dry sump systems are allowed, however, a maximum of three scavenging pump sections allowed on dry sump systems.

3.14.3 Intake valley – must remain as cast with NO alterations to prevent oil flow from the valley to the crankcase. No raised sections may be attached or formed with any material around oil drain openings in the intake valley. No "damming" or collecting of oil by any means is allowed in the intake valley.

3.15 <u>Ignition</u>:

3.15.1 Distributor - must remain in factory delivered location.

3.15.2 Electronic ignitions – Engines are required to use the MSD Digital or Analog ignition system LIMITED TO 7000 RPM's, A G2X DATA LOGGER MUST BE INSTALLED and maintained to monitor the RPM level during the race. The RPM LEVEL during the entire race must be verifiable on the Data Logger by the SBIP Inspector upon the completion of the race, during the Post-Race Inspection. Ignitions with an internal dial up RPM Limiter will be set at 7000 RPM's and sealed by the SBIP Inspector. The wiring harness of the system must be accessible and provide the ability for an SBIP Inspector to examine it.

Any boat competing in the Superboat Class that exceeds the above listed MAXIMUM RPM LIMIT, as determined by the SBIP Inspector "WILL BE" awarded last place points and will not be eligible for trophies, flags or prize money.

3.15.3 Crank triggered and belt drive ignitions - are not allowed.

3.15.4 Coils - Ignition systems are limited to one (1) ignition coil. Individual ignition coils per cylinder are not allowed.

3.15.5 Back up ignition systems – Are Allowed.

3.15.6 Spark - must be distributed via distributor rotor and cap.

3.16 **<u>Engine Supplier -</u>**

3.16.1 SBIP also will allow multiple engine builders to supply engines that meet the SUPERBOAT engine specification.

3.16.2 The goals of the SUPERBOAT spec engine program are to:

3.16.2.1 Increase competitive balance throughout the fleet

3.16.2.2 Develop a "5 race engine"

3.16.2.3 Reduce maintenance and operating costs for the majority of the teams during an entire season

3.16.2.4 Increase reliability and durability

3.16.2.5 Increase performance and acceleration so the SUPERBOAT can negotiate the tighter multi-turn SBIP courses more effectively and safely.

3.16.2.6 Increase the number of teams that can afford to field competitive SUPERBOAT entries

3.16.2.7 "Recession" proof its racing product by decreasing reliance on outside third party suppliers for the propulsion systems used in the race boats

3.16.2.8 Lower the cost to purchase and maintain the engines in order to lower the barrier to entry especially for international race teams wishing to participate in the U.S.

3.17 **<u>Outdrive Specifications –</u>**

3.17.1 Approved Drive Systems - SSM VI Drive Type. Drives must

retain their OEM configuration and specification. No internal or external modifications are allowed.

3.17.2 Gear Reduction – #6 Drive with 1:61 gear ratio, at the prop only. Surface Drives not allowed.

3.18 Propeller Specifications -

3.18.1 Approved Propellers -

3.18.1.1 Propellers must be approved by SBIP.

3.18.1.2 Maximum 5 blade propellers, Cast Stainless Steel, no forged units of any type. No titanium. Manufacturers, Mercury, Throttle-Up, Hering and Rolla are approved.

3.18.1.3 Other manufactures of cast propellers may apply to SBIP for approval.

3.18.2 Modifications - Propellers may be modified from the original factory casting. Polishing, grinding, bead blasting, media blasting, welding and machining are allowed.

3.18.3 Availability – Propellers must be intended for sale to the public at commercially reasonable prices and available to all racers.

3.18.4 Thickness - All propellers will be measured and limited to a minimum thickness. The standard blade thickness will be the normal SBIP Lab Finish. (See Chart)

3.19 Propeller Inspection Specifications for SUPERBOAT CLASS

SSM VI DRIVE TYPE PROPELLER DEMENSIONS

Propeller Diameter			Strike Radius at:	
15	Inch	2"	4 ¼ "	6 ½"
15 ¼	Inch	2"	4 5/16"	6 ⅝"
15 ½	Inch	2"	4 3/8"	6 ¾ "
15 ¾	Inch	2"	4 7/16 "	6 7/8 "
16	Inch	2"	4 ½ "	7"
16 ¼	Inch	2"	4 9/16 "	7 1/8"
16 ½	Inch	2"	4 5/8 "	7 ¼ "
16 ¾	Inch	2"	4 11/16 "	7 3/8 "
17	Inch	2"	4 3/4"	7 ½"
17 ¼	Inch	2"	4 13/16"	7 5/8 "
17 ½	Inch	2"	4 7/8"	7 ¾ "
17 ¾	Inch	2"	4 15/16 "	7 7/8"
18	Inch	2"	5"	8"

INTERSECT RADIUS LINES AT:

Radius	Distance from Leading Edge	Thickness
2"	1 ⅜"	.283"
4 ¼" to 5"	1½"	.182"
6 ½" to 8"	1 11/16"	.115"

INTERSECT RADIUS LINES AT:

Radius	Distance from leading Edge	Thickness
2"	1 ½ "	.475"
4 ¼" to 5"	1 ½ "	.302"
6 ½ " to 8"	1"	.130"

3.20 Other –

3.20.1 Air Scoops - It is illegal to completely seal the inlet air track running from external openings to the flame arrestor. Fresh air ducting must be no closer than 2”at its nearest points to the engine

and/or flame arrestor. Sealing or pressurizing the engine compartment is not allowed. The SBIP reserves the right during or in post-race inspection to install (place) an atmospheric pressure measuring device to certify that a positive pressure engine compartment has not been created. For purposes of enforcement any reading during a race or in post- race testing exceeding +1.1 atmospheres of pressure will constitute a violation of this rule with disqualification being the remedy.

3.20.2 Ballast - No ballast tanks or devices to support ballast tanks are allowed. Any Race Boat which presently has ballast tanks built into the integral support of the boat must remove all supporting plumbing and electrical devices and provide a permanently open inspection port through which the interior of the tank can be thoroughly inspected. No transferable closed liquid systems are allowed.

3.20.3 Engine Hatches - with or without scoops are allowed.

3.20.4 Illegal Parts - Use of illegal or unauthorized parts on a SUPERBOAT Class race boat will result in the confiscation of the said parts. Failure to surrender the illegal part(s) will lead to a mandatory suspension for the boat, the boat owner and all riding crewmembers until the illegal part(s) are surrendered to SBIP. It shall be the responsibility of the owner or his designated representative to take whatever actions are necessary to ensure the correct components are present.

SUPERBOAT EXTREME

PAGES 28 - 36

4. SUPERBOAT EXTREME (Number designation) – Mono-Hull (Vee)

4.1 Introduction:

4.1.1 In General - All rules and requirements listed in the Technical and General Competition rulebooks will govern the class. The SBIP rules which follow are safety and competition based. The formula endeavors to keep competition close and exciting, principally by monitoring technology changes and limiting the differences between racing equipment from team to team in order to ensure maximum excitement and enjoyment for racers and fans alike.

4.1.2 Performance Parameters / Intent of the Rules - These parameters are merely a guideline for SBIP officials in the creation and/or amendment of technical rules to maintain competitive balance and contain costs. Accordingly, SBIP reserves the right to take whatever actions are necessary, at any time, to ensure that boats competing in the class perform within these parameters in competition. No pretense is made of having designed a foolproof set of rules and regulations.

4.1.3 Interpretation of the Rules - If there is a disagreement or dispute regarding the meaning or application of the SUPERBOAT EXTREME, Technical Rules, the interpretation and application of the SBIP rules compliance process shall prevail.

4.2 Changes to Existing or Introduction of New Equipment –

4.2.1 Warning to Racers – If this rulebook does not specifically say that you can do or use something, then you must consider that the action, change or component is illegal. No equipment or race boat in violation of these rules will be considered as having been approved by reason of having passed through pre-race inspection or post-race inspection at a prior event, “unobserved”.

4.2.2 Written approval required - Any questions about the legality of any change, or of any action, part, or component, must be submitted in writing and answered in writing by the SBIP prior to the change or use. SBIP is empowered to make any technical rule changes it deems

necessary to maintain competitive balance and/or safety for the boats competing in the SUPERBOAT EXTREME Class.

4.3 **Exclusivity Prohibited** - All boats as well as every part used in connection therewith, including but not limited to engines, outdrives, transmissions, crash boxes, and propellers (and all parts and components related thereto) must be both manufactured and intended for sale to the public at commercially reasonable prices. Exclusivity agreements of any type that have not been approved by SBIP are strictly prohibited. This rule applies to competitors only and shall not be construed in any manner whatsoever to limit or restrict SBIP from entering into exclusivity agreements such as official sponsorships involving single source vendors, suppliers, manufacturers or producers.

4.4 **Enforcement of Rules** - The purpose of these rules is to ensure competitive balance between SUPERBOAT EXTREME racing teams. SBIP thus reserves the right to take whatever actions it deems necessary to enforce these rules, including but not limited to impounding any boat and/or parts and components thereof for inspection purposes, and/or prohibiting the use of any part or component which it deems gives a team an unfair competitive advantage, in its sole and absolute discretion. All illegal parts or components become the property of the SBIP. SBIP Race Officials are authorized to decide if an equipment change is an attempt to beat the rules. They can and will disqualify an entry in violation of the spirit and intent of these rules or take such other action as they deem necessary to maintain competitive balance in the class.

4.5 **Rule Changes to Maintain Competitive Balance -** SBIP recognizes that there are considerable differences in boat length, sponson design, tunnel width, angle, shape and other aspects of boat design. Accordingly, SBIP reserves the right to make adjustments at any time to boats, engines, drives, propellers, etc. Individually or categorically, to maintain competitive balance based upon experience in race conditions.

4.6 **Boat specifications:**

4.6.1 Dimensions –

4.6.1.1 Hull Type: Mono-Hull

4.6.1.2 Length: 35ft. minimum to 46ft. maximum

4.6.1.3 Beam: 9’ 3’’ Maximum (Mono-Hull)

4.6.1.4 Height: All boats for SUPERBOAT EXTREME Class must measure at least 48” from the keel to the deck forward of the canopy (not including the canopy).

4.6.1.5 Weight Minimums: Mono-Hull 9000 pounds

4.7 **Minimum Weight Measurement** - is determined at the end of the race. All boats required or directed to weigh by the Chief Referee or Inspector must report to the Crane of the Day, the same crane must be used for both entering and exiting the water. It will be the responsibility of the Owner, Driver, or designated Crew Member to present the boat for Post-Race weighing with the boat in the lifting harness in a level position, with the hull drain plugs removed and the boat empty of water, with all ballast tanks empty, and all helmets and jackets removed. If the Inspector or Chief Referee finds otherwise the boat will be immediately assessed a two (2) minute penalty. No private cranes or scales will be utilized for Official weighing compliance purposes. The weight will be an all-up weight including engines, residual fuel, drives, propellers, fixed ballast (i.e. that which is used from start through completion of race). No multiple weighing, one only (one in and one out).

4.8 **Canopies –** Superboat Extreme registered race boats are required to have canopies.

4.8.1 All Canopied boats are recommended to comply with the latest canopy design and technology. Contact the boat manufacturer for their canopy standards.

Any damage to canopies must have a notarized certified letter from a manufacturer of canopies authorizing the continued use in a race.

4.8.2 Non-compliance – SBIP has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems.

4.9 **Engine Specifications:** The SUPERBOAT EXTREME CLASS TECH ENGINE will be the only engine approved for the SUPERBOAT EXTREME CLASS.

4.9.1 Displacement: Maximum 572 Cu In., any bore and stroke combination.

4.9.2 Compression Ratio: The maximum compression ratio allowed is 9.5:1 measured by whistler device calibrated at race site with master cylinder.

4.10 Valve System:

4.10.1 Number – Two (2) valves per cylinder operated via pushrods.

4.10.2 Maximum Gross Cam Lift - measured at the valve is .740 inch with zero lash.

4.10.3 Variable Cam Timing - is not allowed.

4.11 Block:

4.11.1 Cast Iron - General Motors, World Products, (Merlin), and Dart blocks in there stock OEM configuration and must be approved by SBIP.

4.11.2 Chevrolet - design blocks with 9.8" or 10.2" deck heights are approved.

4.11.3 Sleeves - or bushings may be used providing the original OEM (GM) lifter bore location is not changed.

4.11.4 Pushrods - must ride in the center of the lifter. (no offset lifters)

4.12 Internal Components:

4.12.1 Materials - Crankshaft, connecting rods, pushrods and wrist pins must be made of steel. Titanium or other materials are not allowed.

4.12.2 Single Plane Crankshafts - are not allowed. Crankshaft throws must be timed in accordance with OEM specifications.

4.13 Heads:

4.13.1 Approved Cylinder Head - is the DART PRO I, CNC Ported Aluminum Cylinder. Head Part #19574030. No other heads are allowed. No modifications to the original head castings are allowed.

4.13.2 Spec Cylinder Head Serial Number - must remain on the head and may not be defaced or altered.

4.14 Intake Manifold:

4.14.1 Carburetor Spacers - or adapters are allowed, maximum of 2.5" between the bottom of the carburetor and the top of the manifold is allowed.

4.14.2 Any stock cast intake manifold. The manifold may be port matched up to 1½ inches to match cylinder heads no other modifications allowed. No fabricated or tunnel ram type manifolds may be used.

4.15 Induction System:

4.15.1 Naturally Aspirated Engines Only - No forced induction engines are allowed.

4.15.2 Approved Fuel - 91 - 93 Octane, no fuel additives or Oxygenated fuel is allowed.

4.15.3 Number - Only one carburetor is allowed per engine.

4.15.4 Approval Carburetors - Any Holley Dominator style carburetor is allowed.

4.15.5 Fuel Injection – is not allowed.

4.16 Exhaust System:

4.16.1 Any Exhaust System may be used with the following requirements: The engine exhaust manifolds and pipes from engine outlet to point of exit from hull or deck must be water-cooled by water jackets. The exit from the hull or deck must be located in such a position whereby exhaust fumes cannot affect the crew.

4.17 Transmissions:

4.17.1 General - All boats competing in the SUPERBOAT EXTREME CLASS must have propulsion systems capable of turning the

propellers in either direction or maintaining a neutral (standstill) state while the engine is running.

4.17.2 Single Speed - transmissions / crash boxes capable of forward, neutral and reverse are allowed.

4.17.3 Multi Speed – transmissions are not allowed.

4.18 <u>Lubrication (Engine):</u>

4.18.1 Wet Sump - and internal oil pumps are allowed.

4.18.2 Dry Sump - External oil pumps or dry sump systems are allowed, however, a maximum of three scavenging pump sections allowed on dry sump systems.

4.18.3 Intake Valley - must remain as cast with NO alterations to prevent oil flow from the valley to the crankcase. No raised sections may be attached or formed with any material around oil drain openings in the intake valley. No "damming" or collecting of oil by any means is allowed in the intake valley.

4.19 <u>Ignition System:</u>

4.19.1 Distributor - must remain in factory delivered location.

4.19.2 Electronic Ignitions - All Superboat Extreme Class Engines are required to use the MSD Digital or Analog ignition system, limited to 6600 RPMS. A G2X Data Logger must be installed and maintained to monitor the RPM Level during the race. The RPM level during the entire race must be verifiable on the Data Logger by the SBIP Inspector, upon completion of the Race, during the Post-Race Inspection. The Ignitions with an internal dial up RPM Limiter will be set and sealed by the SBIP Inspector. The wiring harness of the system must be accessible and provide the ability for an SBIP Inspector to examine it. No Dual Systems or Ignition Components are allowed. Any boat competing in the Superboat Extreme Class that exceeds the above listed MAXIMUM RPM LIMIT, as determined by the SBIP Inspector will be awarded last place points and will not be eligible for trophies, flags, or prize money.

4.19.3 Crank Trigger and Belt Driven Ignitions – are not allowed.

4.19.4 Coils - Ignition systems are limited to one (1) ignition coil. Individual ignition coils per cylinder are not allowed.

4.19.5 Back Up Ignition Systems – are not allowed.

4.19.6 Spark - must be distributed via distributor rotor and cap.

4.20 Engine Supplier:

4.20.1 SBIP also will allow multiple engine builders to supply engines that meet the SUPERBOAT EXTREME CLASS engine specification.

4.20.2 The Goals of Superboat Extreme Class - spec engine program are to:

4.20.2.1 Increase competitive balance throughout the fleet.

4.20.2.2 Develop an "8 race engine".

4.20.2.3 Reduce the maintenance and operating costs for the majority of the teams during an entire season.

4.20.2.4 Increase reliability and durability.

4.20.2.5 Increase performance and acceleration so the SUPERBOAT EXTREME CLASS boats can negotiate the tighter multi-turn SBIP courses more effectively.

4.20.2.6 Increase the number of teams that can afford to field competitive SUPERBOAT EXTREME CLASS entries.

4.20.2.7 "Recession" proof its racing product by decreasing reliance on outside third party suppliers for the propulsion systems used in the race boats

4.21 Outdrive Specifications:

4.21.1 Approved Drive Systems - All Mercury, Arneson and Arneson type Drive systems are allowed, but must retain their original OEM

configuration and specifications. The Mercury #6 drive is limited to a 1.57:1 gear ratio at the prop and the Arneson drives are limited to a 1.56:1 gear ratio at the prop. No internal or external modifications are allowed. Any other type drive system must be approved in writing by SBIP.

4.22 <u>Propeller specifications:</u>

4.22.1 Approved Propellers - Mercury, Hering and Rolla are approved.

4.22.2 Propellers must be approved by SBIP.

4.22.3 Propellers must be Cast Stainless Steel, no forged units of any type or titanium propellers are allowed.

4.22.4 Other manufactures of cast propellers may apply to SBIP for approval.

4.22.5 Propellers must be intended for sale to the public at commercially reasonable prices and available to all racers.

4.22.6 Thickness - All propellers will be measured and limited to a minimum thickness. The standard blade thickness will be the normal SBIP Lab Finish. (See Chart)

4.23 <u>Other:</u>

4.23.1 Air Scoops - Engine hatches with or without scoops are allowed. It is illegal to completely seal the inlet air track running from external openings to the flame arrestor. Fresh air ducting must be no closer than 2” at its nearest points to the engine and/or flame arrestor. Sealing or pressurizing the engine compartment is not allowed.

4.23.2 Ballast Tanks - ballast tanks are allowed. No transferable closed liquid systems are allowed.

4.23.3 Illegal Parts - Use of illegal or unauthorized parts on a SUPERBOAT EXTREME CLASS race boat will result in the confiscation of the said parts. Failure to surrender the illegal part(s) will lead to a mandatory suspension for the boat, the boat owner and all riding crewmembers until the illegal part(s) are surrendered to SBIP. It shall be the responsibility of the owner or his designated representative to take

whatever actions are necessary to ensure the correct components are present.

4.24 Propeller Inspection Specifications for SUPERBOAT EXTREME CLASS SSM VI DRIVE TYPE PROPELLER DEMENSIONS

Propeller Diameter			Strike Radius at:	
15	Inch	2"	4 ¼ "	6 ½"
15 ¼	Inch	2"	4 5/16"	6 ⅝"
15 ½	Inch	2"	4 3/8"	6 ¾ "
15 ¾	Inch	2"	4 7/16 "	6 7/8 "
16	Inch	2"	4 ½ "	7"
16 ¼	Inch	2"	4 9/16 "	7 1/8"
16 ½	Inch	2"	4 5/8 "	7 ¼ "
16 ¾	Inch	2"	4 11/16 "	7 3/8 "
17	Inch	2"	4 3/4"	7 ½"
17 ¼	Inch	2"	4 13/16"	7 5/8 "
17 ½	Inch	2"	4 7/8"	7 ¾ "
17 ¾	Inch	2"	4 15/16 "	7 7/8"
18	Inch	2"	5"	8"

INTERSECT RADIUS LINES AT:

Radius	Distance from Leading Edge	Thickness
2"	1 ⅜"	.283"
4 ¼" to 5"	1½"	.182"
6 ½" to 8"	1 11/16"	.115"

INTERSECT RADIUS LINES AT:

Radius	Distance from leading Edge	Thickness
2"	1 ½ "	.475"
4 ¼" to 5"	1 ½ "	.302"
6 ½ " to 8"	1"	.130"

SUPERBOAT VEE

PAGES 38 - 47

5 SUPERBOAT VEE (Number designation) – Inboard Mono-Hulls

5.1 Introduction -

5.1.1 In General - SUPERBOAT VEE Class is an integral part of the SBIP. The SBIP rules which follow are safety and competition based. The formula endeavors to keep competition close and exciting, principally by restricting technology changes and limiting the differences between racing equipment from team to team in order to ensure maximum excitement and enjoyment for racers and fans alike.

5.1.2 Performance Parameters / Intent of the Rules - These parameters are merely a guideline for SBIP officials in the creation and/or amendment of technical rules to maintain competitive balance and contain costs. Accordingly, SBIP reserves the right to take whatever actions are necessary, at any time, to ensure that boats competing in the class perform within these parameters in competition. No pretense is made of having designed a foolproof set of rules and regulations.

5.1.3 Interpretation of Rules - If there is a disagreement or dispute regarding the meaning or application of these rules, the interpretation and application of the SBIP shall prevail.

5.2 Changes to Existing or Introduction of New Equipment –

5.2.1 Warning to Racers – If this rulebook does not specifically say that you can do or use something, then you must consider that the action, change or component is illegal. No equipment or race boat in violation of these rules will be considered as having been approved by reason of having passed through pre-race inspection, or post-race inspection at a prior event, “Unobserved”.

5.2.2 Rule Changes to Maintain Competitive Balance - SBIP recognizes that there are considerable differences in boat design; accordingly, SBIP reserves the right to make adjustments to boats, engines, drives or propellers, etc., individually or categorically, to maintain competitive balance based upon experience in race conditions.

5.3 **Boat Specifications:**

5.3.1 Dimensions –

5.3.1.1 Hull Type: Mono-Hull

5.3.1.2 Length: 26 ft. minimum to 32 ft. maximum

5.3.1.3 Beam Maximum: 8'6"

5.3.1.4 Number of Engines: One (1)

5.3.1.5 Weight Minimum: 4750 pounds

5.3.1.6 Engine Type: SBIP Superboat Vee Specifications (see 5.8 Engine Specifications)

5.4 **Minimum Weight Measurement** - will be determined at the end of the race. The weight will be an all-up weight including engines, residual fuel, drives, propellers, fixed ballast (i.e. that which is used from start through completion of race), all hull drain plugs removed, and safety equipment as stated in the racing rules. The following is not included in the all-up weight: crew, lifejackets, crash helmets, bilge water and lifting harness. A single point lifting harness is mandatory for all boats. It shall be the responsibility of the crew to insure that the single point lifting system harness positions the race boat such as to drain all onboard ballast tanks per the rule.

5.5 **Maximum Beam Measurement** - The maximum beam shall be no more than 2' wider than the beam measured at the transom chine to chine.

5.6 **Canopies –** Superboat Vee registered race boats are required to have canopies.

5.6.1 All Canopied boats are recommended to comply with the latest canopy design and technology. Contact the boat manufacturer for their canopy standards.

Any damage to canopies must have a notarized certified letter from a manufacturer of canopies authorizing the continued use in a race.

5.6.2 Non-compliance **–** SBIP has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems.

5.7 Other –

5.7.1 Hull steps - are allowed and must be vented to the atmosphere either internally or externally.

5.7.2 Bow anti-dive planes – are not allowed

5.7.3 Ballast Tanks **–** are allowed

5.7.4 No Forced Air Induction **–** The air track running from an external opening to the flame arrestor may not be sealed. The air duct cannot be closer than 2" in any direction to the engine and/or flame arrestor. The engine compartment must be vented, sealing or pressurizing of the compartment or flame arrestor is prohibited.

5.8 ENGINE SPECIFICATIONS -

5.8.1 Approved Inboard Engines –

5.8.1.1 Mercury Racing 525 EFI Motor, with its OEM Stock Specifications, with the following exceptions a maximum cubic inch limitation of 510 Cubic Inches and a maximum RPM limitation of 5800 RPMS.

5.8.1.2 The Innovation Marine 8100 HP3 Vortec Motor with similar specifications will be approved on a case by case basis.

5.8.1.3 The Superboat Vee Class 510 CID Motor with the following specifications:

5.8.1.3.1 Displacement: Maximum 510 CID, with a 4" stroke crankshaft only. Crankshaft throws must be in accordance with OEM specifications.

5.8.1.3.2 Compression Ratio: Maximum compression ratio of 9.0:1.

5.8.1.3.3 CAM: Any hydraulic roller cam with a maximum intake lift of .610 inch and exhaust lift of .632 inch measured at the valve with zero lash is the only cam allowed, with an OEM stock gear timing chain, no belt driven timing chain systems are allowed. Variable cam timing not allowed.

5.8.1.3.4 Block: Chevrolet designed blocks, with their OEM specifications, NO MODIFICATIONS, manufactured by General Motors, World Products and Dart must be approved by SBIP.

5.8.1.3.5 Materials: Crankshaft, Flywheel, connecting rods, pushrods, and wrist pins must be made of steel. Titanium or other materials are not allowed.

5.8.1.3.6 Heads: The approved cylinder head is the Dart Pro I Head, Part Number 19100010M (bare head) or 19100112M (complete head with valves and springs) with their stock OEM specifications, no modifications allowed. 1.7 ratio rocker arms on stud mounted rocker arm shafts only. The head serial numbers must remain on the head and may not be defaced or altered. The Stock Mercury 525 OEM Head with its OEM specifications and no modifications may be used.

5.8.1.3.7 Intake Manifold: **A**ny stock cast intake manifold with a Holly Carburetor 4150 style (size) base may be used. No fabricated or tunnel ram type manifolds may be used. Intakes may be port matched up to 1 ½ inches to match cylinder heads. Carburetor spacers or adapters are NOT ALLOWED.

5.8.1.3.8 Induction System: One Holley carburetor 4150 style (size) only is allowed. Naturally aspirated

only, no forced induction allowed.

5.8.1.3.9 Lubrication (Engine): External oil pumps or dry sump systems are not allowed.

5.8.1.3.10 Ignition System: Engines are required to use the MSD Digital or Analog Ignition system limited to 5800 RPMs. Crank triggers and belt drive ignitions are not allowed.

5.9 All Superboat Vee Class engines are required to have the ignition system limited to 5800 RPMS and have a G2X Data Logger installed and maintained to monitor the RPM level during the race. The RPM level during the entire race must be verifiable on the Data Logger by the SBIP Inspector upon the completion of the race, during the Post-Race inspection. No dual systems or ignition components are allowed.

5.10 Any boat competing in the Superboat Vee Class that exceeds the above listed MAXIMUM RPM LIMIT, as determined by the SBIP Inspector "WILL BE" awarded last place points and will not be eligible for trophies, flags, or prize money.

5.11 **Engine maintenance and rebuilds** – The respective motors can be maintained and rebuilt, utilizing stock OEM parts and specifications, with a maximum cubic inch limitation of 510 cu in and a maximum compression ratio of 9.0:1, all other engine specifications and tolerances must be as per the Original Engine Manufacturer or have approval from SBIP in writing. Note: Aftermarket 502 cubic inch GM blocks may be used.

5.12 **Penalties -** Any violations of the above rules may result in the immediate disqualification of the subject competitor and a fine.

5.13 **EXHAUT SYSTEM SPECIFICATIONS –**

5.13.1 Exhaust Manifolds and Headers - Must remain as originally produced by the manufacturer and may not be modified in any way without the written approval of SBIP.

5.13.2 HP 525 EFI Engines & the Superboat Vee Class 510 CID Motor - Only CMI Gen X Style Header, the HP 525 EFI Style Header, the CMI Straight Back Sweeper Header, or the Innovation Marine Tractor Style Header is permitted.

5.13.3 Innovation Marine Vortec 8100 HP3 Engines - Only the Innovation Marine Style CMI Sweeper or Tractor Style Header is permitted.

5.13.4 Tail Pipes and Exhaust Tips - Any tail pipe or exhaust tip is allowed. Tail pipes may be of any length and can exit the boat through the gunnel, deck or transom. The engine exhaust headers and pipes from the engine outlet to point of exit from the hull or deck must be water-cooled by water jackets. The exhaust outlet/tip may not exceed more than 12 inches beyond the transom of the boat. Dry tail pipes are allowed but must be water jacketed.

5.13.5 Cooling Water - Neither the method, nor the volume of cooling water flow to the exhaust system may be altered from the production configuration. All engine cooling water must pass through the exhaust elbow/tail pipe and either into the exhaust, an onboard ballast tank fill or to a thru hull fitting. No water can be diverted for exit elsewhere.

5.13.6 Non-Conforming - SBIP reserves the right to approve alternative additional exhaust installation hardware when required for specific boat builder installations.

5.13.7 Rear Engine Mounts - are allowed

5.14 <u>Outdrive Specifications:</u>

5.14.1 Approved Models – The Mercruiser Bravo One, XZ, XR, Sportmaster , Short Sportmaster XR, BMAX, and Imco SC and SCX Drives are approved for competition.

5.14.2 The Volvo DPX Duo Prop is approved for competition.

5.14.3 Nose Cones - Approved Nose cones are allowed. Check with

SBIP prior to using a particular nosecone to ensure it is approved for competition.

5.14.4 Crash Boxes - are not allowed.

5.14.5 Gear Ratios - the only gear ratio allowed is 1.50.1 at the prop shaft.

5.14.6 Dry sumping - of drives is not allowed.

5.14.7 Shifting - Drives must be capable of shifting forward, neutral and reverse with the engines running.

5.14.8 Modifications - Drive modifications (i.e. one-piece propeller shafts, heavy-duty bearing carriers, etc.) only to increase reliability are allowed. Parts must be available to all racers at reasonable commercial prices. Any other modifications to the outdrive (s) or any related components must first be approved by SBIP in writing prior to being used in competition.

5.14.9 Transmissions - transmissions are not permitted in the Superboat Vee classes.

5.14.10 Standoff boxes - are permitted. Standoff boxes must be of a design, size and length that have been approved in writing by SBIP. Check with SBIP prior to using a particular standoff box to ensure it is approved for competition. Standoff boxes are limited to a maximum of 12”.

5.14.11 Jackshafts - are allowed.

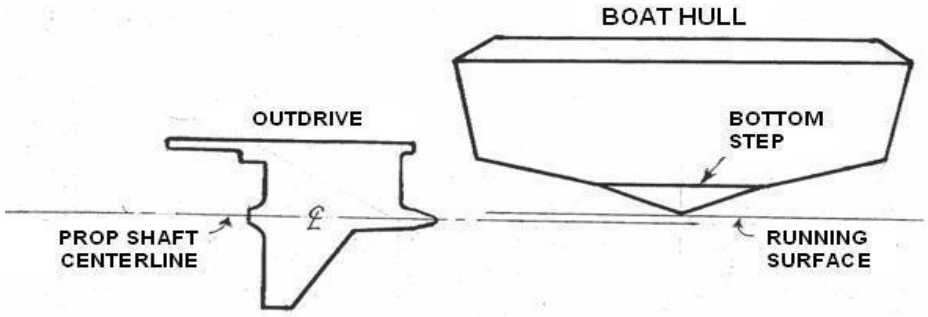
5.14.12 X-Dimension – Weight Modification - In an effort to create parity between boats the maximum drive height for Superboat Vee boats shall be limited to the centerline of the prop shaft being a minimum of one half inch (1/2”) below the bottom of the boat, as measured with a straight edge (laser) off the aft running surface, directly in front of the drive, with the prop shaft trimmed parallel with the aft running surface. Notches, strakes and steps will be excluded. In addition to the X-Dimension the Minimum Weight Requirement may also be modified to create parity.

5.14.13 Parity – In an effort to create parity within the Superboat Vee Class, after two consecutive wins, SBI will implement one or any of the following. It will be at SBI's discretion to what degree and which of the following will be implemented.

5.14.13.1 X-Dimension: Adjust the X-Dimension on an individual basis. (see diagram)

5.14.13.2 Weight Modification: Control the weight of any individual boat, in an effort to maintain the competitive balance of the class. (see diagram)

5.14.13.3 In addition to the minimum weight adjustment, SBI reserves the right at their discretion to also modify the drive height of any boat at any time either in conjunction with the weight adjustment or separately in an effort to maintain a competitive balance in the class.



Dimension Diagram:

5.14.14 Casings - The upper and lower drive case housing must remain in its original production configuration. The drive case housing may not be shortened or modified. Blue printing is allowed however the casings must meet the specifications of the SBIP Template.

5.14.15 Propeller Rotation - Inboard or Outboard Rotation of propellers is allowed.

5.14.16 Water Pickups - No thru hull water pickups will be allowed. Engine cooling water must be supplied through the stock outdrive water pickup.

5.15 <u>Propeller Specifications:</u>

5.15.1 Castings - Propellers must be manufactured from castings.

5.15.2 Modifications - Propellers may be modified from the original factory casting with grinding and machining.

5.15.3 Forged, billet - or other types of propellers are not allowed.

5.15.4 Availability - Propellers must be available to all racers within a reasonable delivery time.

5.15.5 Approved Propellers – Cast propellers must be approved by SBIP.

5.15.5.1 Three, four, and five blade cast propellers manufactured by Hering, Hydromotive, Throttle-Up, and Mercury are approved.

5.15.5.2 Six blade cast propellers manufactured by Hering, Throttle-Up, and Hydromotive are approved.

5.15.5.3 Other manufacturers of cast propellers may apply to SBIP for approval based on the following criteria:

5.15.5.4 Reasonable prices and available to all racers.

5.15.5.5 Manufacturer maintains national availability through a national dealer network.

5.15.5.6 Units are available to, and generally recognized by, approved boat manufacturers as OEM Equipment.

SUPERBOAT STOCK

PAGES 49 - 51

6. SUPERBOAT STOCK (S - designation) – Outboard Multi-Hull

6.1 Introduction

6.1.1 In General –All rules and requirements listed in the Technical and General Competition rulebooks will govern the class. The SBIP rules which follow are safety and competition based. The formula endeavors to keep competition close and exciting, principally by monitoring technology changes and limiting the differences between racing equipment from team to team in order to ensure maximum excitement and enjoyment for racers and fans alike.

6.2 Canopies – Superboat Stock registered race boats are required to have canopies.

6.2.1 All Canopied boats are recommended to comply with the latest canopy design and technology. Contact the boat manufacturer for their canopy standards.

Any damage to canopies must have a notarized certified letter from a manufacturer of canopies authorizing the continued use in a race.

6.2.2 Non-compliance – SBIP has the authority to deny entry to any race boat subject to these rules that has non-compliant cockpit safety systems.

6.3 Engine Criteria –

6.3.1 Super Stock Class is limited to the 1998 and up Mercury (2.5 liter) 280 HP, 153 C.I.D. offshore race engine and the 2006 and up Mercury (3.2 liter) 300 XS, 300 HP, 193 C.I.D. engine.

6.3.2 All Superboat Stock Class Mercury 2.5 liter engines are required to have the stock ignition system limited to 8200 RPMS and the Mercury 300 XS engines are required to have the stock ignition system limited to 6400 RPMS and both must have a G2X Data Logger installed and maintained to monitor the RPM level during the race. The RPM Level during the entire race must be verifiable on the Data Logger by the SBIP Inspector upon the completion of the race, during Post-Race inspection. Any boat competing in the Superboat Stock Class that exceeds the above maximum RPM

Limit, as determined by the SBIP Inspector will be awarded last place points and will not be eligible for trophies, flags or prize money.

6.3.3 All outboard motor power heads and lower Units must comply fully with all specifications, as provided by the manufacturer (i.e. stock as produced). The center section maybe modified upon approval by the SBIP Chief Referee in conjunction with the SBIP President, in order to pass a Post-Race inspection. The year of the power heads must be declared.

6.3.4 Balancing and blueprinting are not allowed.

6.3.5 A lightweight facsimile of the production cowling may be used, however the production of identification decals must be used Lower units – all OEM gear ratios are allowed.

6.3.6 Any reeds are allowed as long as stock reed cages are used.

6.3.7 Updating of equipment is permitted, backdating is not allowed.

6.3.8 Petroleum based fuels only, octane inducing additives are not permitted.

6.4 **Length -** Minimum overall length of 28’ with a maximum of 32’.

6.5 **Weight / Tunnel Width –**

6.5.1 Tunnel Width no more than 63”. Any boat having less than 63” in the tunnel may reduce its overall weight by twenty-five (25) pounds per inch of tunnel, from their base weight.

Example: Base Boat
Doug Wright - 32’ with the 63” tunnel weight is 4,300 pounds
Doug Wright - 32’ with the 61” tunnel weight is 4,275 pounds
Doug Wright - 32’ with the 60” tunnel weight is 4,250 pounds

Example: Bottom Line
Doug Wright - 32’(older models)57” tunnel weight is 4,150 pounds
a total reduction of 150 lbs.

6.5.2 Minimum weight:

28' … 3,800lb

29' … 3,925lb

30' … 4,050lb

31' … 4,175lb

32' …4,300lb

6.5.3 Minimum weight will be determined at the end of the race. Included in the weight: engines, residual fuel, drives propellers, fixed ballast, all hull drain plugs removed, and safety equipment as stated in the racing rules. What is not included in the weight, crew, life jackets, helmets, bilge water, and ballast water.

6.6 **Boat Change -** A race team is not permitted to change a boat during the racing season, except if it is damaged, sold, stolen, or physically unable to race. Boat must meet class rule specification.

6.7 **Propellers -** All propellers must be approved by SBIP prior to and after the use during an official race. They must be cast Stainless Steel, no forged or titanium propellers are allowed. The criteria for propeller approval are that a lab finished propeller must be inspected with the receipt of the amount paid. Showing the manufacturer's suggested retail price. Each lab finished propeller may not exceed $2,000.00 dollars and must be made available to any racer within a 30 day time frame. If at any time the availability goes behind the 30 day time frame any existing propeller will be disallowed for the rest of the season or until such time as the manufacturer can meet the 30 day time frame.

6.7.1 Current list of approved propellers, all other propellers must be approved by the SBI Official prior to use.

Mercury
Hydromotive
Throttle Up
Mazco
Dewald
Hering

MANUFACTURER PRODUCTION

PAGES 53 - 55

7. MANUFACTURER PRODUCTION (P- designation)

7.1 Preface to the Rules

7.1.1 The Manufacture Production Class serves as a showcase for some of the most exotic equipment available in the sport boat industry today. The purpose, among other things is to provide boat, engine and accessory manufacturers an opportunity to test, display and sell their products in the most demanding environment possible while at the same time giving experienced professional racers and entry level racers a place to compete.

7.2 Introduction –

7.2.1 The Manufacture Classes shall serve as a place where racers can begin their racing career and work on racing skills. Manufacture classes also give the racers and manufacturers with high performance boats and parts a place to compete. Naturally there is not one boat that does it all and different water conditions will cater to different boat configurations and boat size. A boat that competes in the Manufacture Classes will be assigned a class by SBIP based on the top speed and acceleration ability of that boat in perfect water conditions by an SBIP Inspector. If a Manufacture Class boat is found to be in the wrong class during Pre-Race inspection, an SBIP Inspector or the SBIP President will move the boat into the correct class. SBIP Inspectors will use a mathematical formula to determine a boat's top speed based on perfect water conditions. Also the SBIP Inspectors and SBIP Presidents vast knowledge of race boats and how to determine top speed and acceleration ability will be considered in class placement. If there is a disagreement of a boats top speed or the meaning of application of the Performance class rules the interpretation of the officials at the race site will prevail. The idea in Manufacture Class racing is to race and get the most out of you and your boat. Remember - Manufacture Class is a place to race almost any boat, test your skill, start your racing career and test your products and equipment. Welcome to the SBIP racing family.

7.3 <u>Manufacture Production CLASSES –</u>

7.3.1 Speeds will be Governed and controlled by onboard GPS systems on each boat. It is the responsibility of the Racer to maintain and provide a working GPS with downloading capabilities to the Chief Inspector. The Inspector must be able to download the entire race with all points recorded to include the total distance, time and speed of each leg. A secondary / back up fixed mounted GPS is approved and encouraged.

7.3.2 The following is the **SBIP APPROVED LIST OF GARMIN GPS'S**

172, 172C, 178, 178C, 182, 182C, 188, 188C, 192, 192C, 198, and 198C

7.3.3 Maximum Speed in Manufacturer Class

7.3.3.1 P4 - 80 MPH (Single Engine, Maximum 30 ft. in length Mono-Hull)

7.3.3.2 P3 - 95 MPH (Multi-Hull or Mono-Hull)

7.3.3.3 Classes P3 and P4 Naturally Aspirated Engine Only

7.3.4 Any boat competing in the Manufacturer Production class that exceeds the above listed Max Speed will be scored at the previous scoring point (Finish Line) and will be considered out of the race. They will be eligible for trophies, flags and prize money.

7.4 <u>Race mileage for Manufacture Classes -</u> races shall be no less than 40 miles and no more than 80 miles.

7.5 <u>Boat Length –</u>

7.5.1 P3 Class Boats shall be a minimum length of 24 ft and a maximum length of 45 ft.

7.5.2 P4 Class Boats shall be a minimum length of 24 ft and a maximum length of 30 ft.

7.6 <u>Boat Numbers -</u> Manufacture class race boats will be identified with the prefix

letter (P) in front of their assigned number.

7.7 **<u>The Manufacture Class</u> -** that you will be racing in will be determined by calculating the estimated speed of your boat. The Chief Referee or Chief Inspector of SBIP will be using the inspection of your equipment, experience, and the following formula as tools to determine your class, Pitch X RPM X .01 divided by Gear Ratio divided by 12. Only natural aspirated engines in class P3, and P4 are allowed.

7.8 **<u>Official Race Entry</u> -** Once a Manufacture Production boat enters a race site during a scheduled race event, it becomes a "Race Boat", and is no longer a "pleasure boat". Therefore it must conform to ALL the rules in the official SBIP Rule Book.

7.9 **<u>Life Vest</u> -** The minimum requirement for the Manufacture Production Class P-3 and P-4 Life Vest is nylon over closed-cell foam. A competition 4 buckle vest, USCG approved type III. Top of vest must be 80% yellow or red, all others. See General Racing Rules.