



2010
Offshore Super Series
Powerboat Racing
Association
TECHNICAL RULES

Version
V.05/15/2010
Board Approved
All changes for 2010 are in Red
Subsequent Changes are in Blue

Colors and headings are for convenience only and do not limit the content of these rules. OSS members must comply with the complete text of the rules.

2010

**OFFSHORE SUPER SERIES
POWERBOAT RACING ASSOCIATION**

The Offshore Super Series Powerboat Racing Association ® (OSS ®) is a not for profit organization dedicated to further the development and growth of offshore powerboat racing in North America.

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2010

**OFFSHORE SUPER SERIES
POWERBOAT RACING ASSOCIATION**

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**IF THIS RULEBOOK DOES NOT SPECIFICALLY ALLOW SOMETHING,
THEN YOU SHOULD ASSUME THAT IT IS ILLEGAL.
YOU HAVE BEEN WARNED.**

These rules are part of the OSS General Rules.



General Requirements – All Classes

All OSS Class boats must strictly adhere to the following specifications. They also must observe the rules specified under their specific class headings.

1. **Interpretation** - If there is a disagreement or dispute about the OSS Technical Rules, the interpretation of the OSS shall prevail. Decisions must be rendered in writing.

2. **Availability** - All boats as well as their parts must be (or must have been) for sale to the public at commercially reasonable prices.

3. **Enforcement** - To ensure competitive balance in all OSS Classes, OSS reserves the right to take whatever action necessary to enforce these rules. Boats and parts may be impounded for inspection purposes. OSS may prohibit the use of any part which can give a team an unfair advantage. Illegal parts become the property of OSS.

If the illegal part(s) are not surrendered as demanded by OSS, the boat, the boat owner and all riding crewmembers will be suspended until the illegal part(s) are under the control of OSS. It is the responsibility of the owner or his designated representative to take all actions necessary that only OSS legal parts are used.

4. **Competitive Balance (Parity)** - OSS reserves the right to make adjustments at any time to these rules, or offer reduced requirements to older or non-competitive boats, if necessary to maintain competitive balance.

- a. All parity issues shall be directed to the OSS Board of Directors and any adjustments shall be made by the Board.

5. **Minimum Weight Compliance** - to be determined at the end of the race with the official OSS scale. The weight includes engines, residual fuel, drives, propellers, solid ballast and safety equipment as stated in the racing rules. Hull drain plugs must be removed, Ballast tanks must be empty. The weight does not include crew, lifejackets, crash helmets and bilge water.

6. **Approved Boats** - All boats, and any modifications such as strakes, rails, etc. must be approved by the OSS in writing.

7. **Boats Eligible for Racing** – As a general rule, all boats that were legal for competition in the 2004 racing season at APBA Offshore in classes comparable to OSS classes shall be considered legal at OSS. Final determination must be made on an individual basis.

8. **Serial Number** - Each hull must have a unique engraved serial number as required by law.



9. **Canopies** – All boats, except Pro Vee 1 and PRO AM boats, competing in OSS events must be equipped with canopy safety systems, including canopy hatches (lids) fitted with positive open and positive close mechanisms, five point restraint harness systems and on-board air systems.

Compliance with Lavin Guidelines – It is strongly recommended that all canopied boats use structurally sound canopy safety systems that meet or exceed the latest Mark Lavin Foundation R.R.C. /E.R.C. Cockpit Guidelines. (“Lavin Guidelines”)

Effective beginning in 2005, all newly constructed boats must have a single canopy, seating two, side by side. The canopy must be located on the centerline of the boat

Contact Information - The Mark Lavin Foundation R.R.C. /E.R.C. Cockpit Guidelines are available for \$25.00 per copy from the Mark Lavin Memorial Safety Foundation; P.O. Box 116, Glen Arbor, Michigan 49636, Phone: 231-334-8184.

10. **Safety Hatch** – Effective 1/1/ 2005: a bottom escape hatch located in the tunnel of the boat will be mandatory for all newly constructed **OSS Cat (750) and Cat Light** boats. Existing boats do not have to be retrofitted.

Effective 1/1/2007: a bottom escape hatch located in the tunnel of the boat will be mandatory for all newly constructed **OSS Supercharged Cat (850)** boats. Existing boats do not have to be retrofitted.

Effective 1/1/ 2008: a bottom escape hatch located in the tunnel of the boat will be mandatory for all newly constructed **OSS Cat Outboard and Cat Extreme** boats. Existing boats do not have to be retrofitted.

Effective 1/1/ 2010: a bottom escape hatch located in the tunnel of the boat will be mandatory for all boats competing in OSS Pro Cat.

11. **Braking Systems** - Not allowed.

12. **Bolsters** - In all OSS classes racing bolsters or approved racing seats must be used.

13. **Engine Compartment** –

- a. Only engine compartments with ridged covers/hatches and a highly visible color underneath may be used.
- b. All engine and fuel compartments need to be properly ventilated and meet all United States Coast Guard safety regulations.



14. **Exclusivity** - Exclusivity agreements for boats or any component used in racing are not allowed.

15. **Exhaust** - Unless noted otherwise, engine exhausts must be water cooled. Water-jacketed manifolds must be employed from the engine outlet to the exit from the hull. "Cool Collar" exhaust designs are allowed. The exhaust exit from the hull must be located so that the exhaust fumes cannot affect the crew.

16. **Inspection Expense** - Any unusual expenses incurred by OSS shall be the responsibility of the boat owner or his designee.

17. **Fuel** – All boats entered in an OSS event must purchase a minimum quantity of fuel from the official OSS fuel supplier (fuel truck) on site at each event.

Minimum Fuel Purchase Requirements

OSS Pro Cat	80 Gallons
OSS Supercharged Cat (850)	80 Gallons
OSS Cat (750)	80 Gallons
OSS Cat Lite	50 Gallons
OSS Vee Lite	25 Gallons
OSS Cat Outboard	25 Gallons
OSS Pro Vee 1	40 Gallons
OSS Pro Vee 2	50 Gallons
OSS Super Vee Unlimited	50 Gallons
OSS Cat Extreme	100 Gallons
OSS Vee Extreme	100 Gallons
OSS Turbine Extreme	100 Gallons
OSS Pro-AM Classes PX & 1	50 Gallons
OSS Pro-Am Classes 2 & 3	40 Gallons
OSS Pro-Am Classes 4 & 5	30 Gallons

This rule shall not be enforced for boats using 87-89-91 or 93 octane fuel if the price of the on-site fuel exceeds one dollar (\$1.00) per gallon more than the average price charged for the same octane fuel available from local major oil company stations (Exxon, Mobil, Chevron, Texaco, etc.). Any boat not purchasing the minimum required amount of fuel at a race site shall be fined an amount equivalent to the purchase price of the on-site fuel.

ALL gasoline powered boats must install a "T" or other suitable fitting in the fuel system of each engine. The "T" or other suitable fitting shall easily facilitate fuel sampling before, during or after a race.

All classes are required to purchase the minimum quantity of fuel from the official OSS fuel supplier, but may purchase additional fuel (standard unleaded pump gasoline) from any retail public fueling stations or marinas. However, OSS reserves the right to specify



one or more “outside” fuel suppliers at each race site in an effort to minimize confusion surrounding fuel testing. Cat Extreme and Turbine Extreme boats may purchase race or turbine fuel from local suppliers. Competitors may not supplement¹ standard unleaded pump gasoline with any additives that will increase the oxygen content, octane rating or enhance the power output of the engine(s) in any way. Standard unleaded pump gasoline without additives is defined as unleaded fuel that meets the standards of petroleum based fuel as defined by American Society for Testing and Materials (ASTM), designation: D4814, with the following clarifications.

- a. Specific gravity must be $\geq .715$ and $\leq .765$ at 60 degrees F.
- b. Maximum oxygen content is limited to 4.0% by weight.
- c. The only allowable oxygenates are ether, alcohols or other current EPA allowed oxygenators, as listed and characterized for oxygen mass fraction in ASTM D4814.
- d. The ethanol content must be less than 25% by volume.
- e. Oxygen bearing compounds are not allowed.
- f. Epoxides (i.e. propylene oxide) will not be considered as ether.
- g. Nitrogen bearing compounds are not allowed.
- h. Lubrication additives are permitted, provided the resulting mixture meets all other requirements of these rules.
- i. Unleaded gasoline may not be mixed with any commercial race fuel regardless of the source.
- j. The following substances (including but not necessarily limited to) are limited in amount by law or not allowed in standard unleaded pump gasoline: Acrylonitrile, Aminodiphenyl, Aniline, Benzene, Benzidine, Beryllium compounds, Bromine compounds, Chloromethyl ether, Chlorine compounds, Ethylene oxide, Hydrazine compounds, Manganese compounds, Nitrobenzene, Nitrochlorobenzene, Nitrogen compounds, Nitrodiphenyl, Propylene oxide and Tert Butyl toluene. If concentrations of any of these substances greater than that allowed by the current EPA upper limits or any substances not listed as a part of commercial gasoline as defined by ASTM D4814 are found in a fuel sample, the competitor will be disqualified from the race and fined \$1,000.00. A second offense will result in a one year suspension. A third offense will result in a lifetime ban from OSS.
- k. The use of compressed nitrous oxide as an engine performance enhancing product is prohibited in any class.

Accepted Methods of Fuel Testing:

- a. Digitron Testing
- b. Cerium Nitrate Reagent Testing
- c. Water Solubility Test
- d. Gas Chromatography (performed by an independent outside laboratory)
- e. Any other method as recommended by independent outside laboratory or described in ASTM D4814



NOTE: Fuel contents are protestable. However, the loser in the protest shall be responsible for all outside laboratory expenses associated with the protest.

¹ “supplement” is defined as physically adding (pouring) any substance other than standard unleaded gasoline into the boat’s fuel tank or introducing any substance other than standard unleaded pump gasoline into the fuel system.

18. **Handrails** - Hand rails (max. height of 6"), or hand holes, extending fore and aft must be fitted. Cables and lifelines are not allowed.

19. **Approval of Equipment**

a. Boats and engines must be approved by the OSS Technical Committee. All hulls must be produced from a dedicated mold. One of a kind boats, are not allowed. All changes to the dedicated mold must be approved by OSS.

b. Engines must be based on a automotive block sold through normal distribution channels and available to the general public. Gasoline type engines only.

20. **Hull and Deck Measurement** - All race boats shall be measured from the top of the bow to the top of the transom on the centerline of the hull with the keel level to the ground. Swim platforms, rubrails and any parts attached to the transom are not to be included in the measurement.

21. **Hull Extensions** – No extensions to meet minimum length.

22. **Lap belts** - not allowed.

23. **Single Point Lifting Harness** - required for all boats.

24. **Non-Skid** – required on deck surfaces. – see OSS Safety Rules

25. **Aero-dynamic Devices** (such as wings or moveable deck surfaces) – not allowed.

26. **Trim Tabs, Tunnel Tabs** - a fixed or adjustable - legal. See individual class rules

27. **Weight.**

a. Post Race - All boats must report to the official OSS scale as required.

b. Penalties - 1 minute for each 100 pounds under weight. No scale tolerance.



28. Air Conditioning

- a. Air Conditioning Allowed – Any air conditioning is allowed in all OSS Classes utilizing canopies or enclosed cockpits. An automotive type air conditioning compressor may be used if said compressor has passed a Certification Test for USCG Standards Title 33 CFR 183.410 / Anti Spark and Ignition Protection. Only the driver compartment may be cooled. In the event that engine seals are broken during installation, racers must get approval from the OSS Technical Committee.
- b. Fuel or engine compartments may NOT be cooled in any manner with the air conditioning system.
- c. Installation Approval - Installation of any air conditioning system must be approved by the OSS Chief Inspector or his designee.

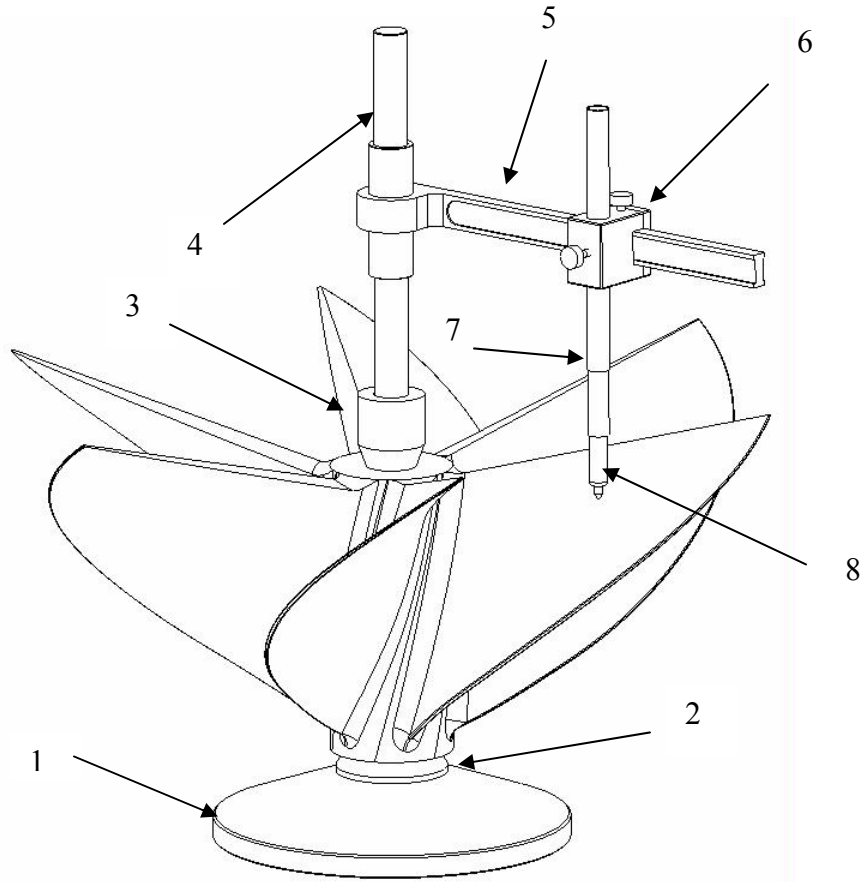
29. Anti Stuff Bow Planes - not allowed.

30. Propellers

- a. Propellers must be of the type approved by OSS.
- b. Manufacturers may apply to OSS for approval.
- c. Propellers must be manufactured from castings. No forged, billet, or other propeller types.
- d. Propellers may be modified. Blue printing, lab finishing, polishing, grinding, welding, machining etc. are allowed. All propellers are limited to a minimum thickness required for prop integrity. Propeller blade thickness shall conform to the criteria provided in the charts and diagrams in these rules.
- e. All propellers must pass OSS inspection standards for blade thickness. This rule will become effective for Cat Outboard for the 2009 season.
- f. There is no minimum thickness for CX, VX, and TX classes.
- g. Propellers must be intended for sale to the public at commercially reasonable prices.
- h. Propellers are further specified in individual class rules.
- i. Note: The Mercury CNC propellers shall be legal for competition in OSS as long as they meet the current OSS propeller thickness specifications.



PROPELLER INSPECTION PROCEDURE AND PROPELLER SPECIFICATIONS



ITEM	DESCRIPTION
1	Base
2	Lower support cone
3	Upper support cone
4	Post
5	Arm
6	Guide block
7	Pen holder tube
8	Marking pen (Sharpie with tip modified to mark at steep angles)

MERCURY BRAVO I LAB FINISHED PROPELLER MINIMUM THICKNESSES

Measure leading edge only

Radius (in)	3	4 ³ / ₄	6 ¹ / ₂
Distance from leading edge (in), measured along scribe line	1 ³ / ₈	1 ³ / ₈	1
Thickness (in)	0.170	0.110	0.065



MERCURY RACING VI SSM CLEAVER PROPELLER MINIMUM THICKNESSES

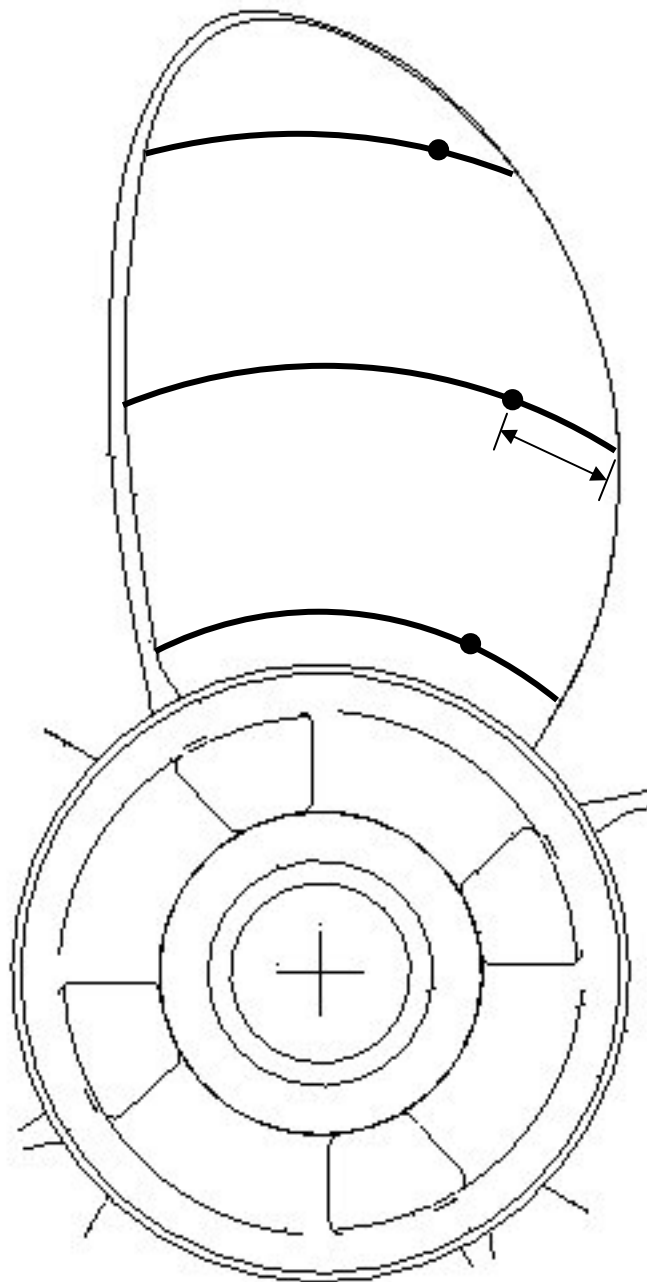


Table 1. Inspection Radii

Propeller Diameter (inches)	Inspection Radii (inches)		
	Root	Middle	Tip
15	2	4 1/4	6 1/2
15 1/4	2	4 5/16	6 5/8
15 1/2	2	4 3/8	6 3/4
15 3/4	2	4 7/16	6 7/8
16	2	4 1/2	7
16 1/4	2	4 9/16	7 1/8
16 1/2	2	4 5/8	7 1/4
16 3/4	2	4 11/16	7 3/8
17	2	4 3/4	7 1/2
17 1/4	2	4 13/16	7 5/8
17 1/2	2	4 7/8	7 3/4
17 3/4	2	4 15/16	7 7/8
18	2	5	8

Table 2. Cat and Supercharged Cat Lab Finished Propeller Blade Thicknesses

Inspection Radius	Leading Edge		Trailing Edge	
	Distance from Edge (in)	Minimum Thickness (in)	Distance from Edge (in)	Minimum Thickness (in)
Root	1 3/8	0.320	1 1/2	0.580
Middle	1 1/2	0.220	1 1/2	0.380
Tip	1 11/16	0.135	1	0.150

Table 3. CL / V (525HP) VI SSM Lab Finished Propeller Blade Thicknesses

Inspection Radius	Leading Edge		Trailing Edge	
	Distance from Edge (in)	Minimum Thickness (in)	Distance from Edge (in)	Minimum Thickness (in)
Root	1 3/8	0.295	1 1/2	0.495
Middle	1 1/2	0.190	1 1/2	0.315
Tip	1 11/16	0.120	1	0.135



31. **No Forced Air Induction:** The air duct running from an external opening to the flame arrestor may not be completely sealed. Likewise, sealing or pressurizing of the engine compartment or engine air intake is prohibited. Fresh air ducting is not allowed to be closer than 2” in any direction to the engine and/or flame arrestor.

32. **Ballast Tanks Allowed:** Ballast tanks are allowed in Turbine Extreme, Cat Extreme, Cat (750), Cat Outboard, Vee Extreme and Vee Lite. Any plumbing used in conjunction with the filling or emptying of ballast tanks is allowed. **Ballast tanks are not allowed in Cat Lite or Cat (850).** (See specific Class Rules)

33. **Engine Hatches:** May be with or without scoops. Competitors may not raise their engine hatches from the time they have completed the race until the boat is presented for inspection to an OSS Inspector. During the race, engine hatches can only be raised for emergency repairs. Violators shall be disqualified unless the OSS inspection team can verify the case of emergency.

34. **Non-Compliance** – Competitors may not vote to allow a boat to run in non-compliance within their class.

35. **Changes:** OSS Board of Directors may make any technical rule changes it deems necessary at any time without prior notice unless a class has voted to freeze the rules for that class. In that case, Board changes can only be made with the 100% concurrence of the current paid class members.



OSS Technical Rules – OSS Pro Cat Class

All OSS Pro Cat Class (OSSPC) boats must strictly adhere to the following specifications. Please also refer to the General Requirements pertaining to all OSS classes.

Effective 03/16/2010:

In a meeting on 03/15/2010 the following boat owners reached a mutual agreement.

Billy Mauff – WHM Motorsports

Jay Muller - JEM

Mike DeFrees - CRC

Vinny Rifice - Talkin' Trash

Paul Boudreaux – Persu Cat

These owners desire to compete together as one class for the 2010 season subject to the following provisions.

Everyone recognizes that the combination of different size and age of boats and engine configurations is a very difficult task. Everyone competing in this class agrees to work in a professional and positive manor to make this class a success for the future. Everyone agrees that until there is an absolute set of rules, there will be mistakes and corrections of those mistakes.

OSS shall not offer OSS Supercharged Cat (Cat 850) or OSS Cat (Cat 750) Classes individually at 2010 OSS race sites.

Until such time as all competitors agree that the class rules are correct for the class, rules (parity measures) for each upcoming race may be changed depending on the outcome of the previous race and the size, shape and overall length of the upcoming course.

For the OSS Biloxi, MS race on May 22, 2010, the following rules shall apply:

- 1. All 850 Class boats shall adhere to the OSS Supercharged Cat Class rules as set forth in the 2010 OSS Technical Rules.**
- 2. All 750 Class boats shall adhere to the OSS Cat Class rules as set forth in the 2010 OSS Technical Rules.**



3. The boat known as Persu Cat shall be allowed to seal their crankcase and replace the specified Demon carburetor with a single Holly Dominator 1050 cfm carburetor on each engine.

4. OSS may install data loggers on the 850 Class engines, furnish MSD 7600 RPM Rev Limiter Chips for the 750 Class engines or use any other means it deems necessary to control and monitor RPM on any boat.

5. Any 750/850 Class boats shall be allowed to race in the Pro Cat Class at Biloxi on 05/22/2010. All entries shall be subject to confirmation of class conformance by the OSS Technical Inspectors. Older equipment qualifying under the 750/850 rules may be eligible for additional parity measures as determined by the OSS Technical Chairman. Parity modifications to every boat shall be determined on a case by case basis. Technical information and parity measure information shall be available to all competitors within the class prior to the start of the race.

6. Any Extreme Class boat shall be allowed to race in the Pro Cat Class at Biloxi on 05/22/2010. Extreme Class boats shall be required to de-tune their engines in accordance with specific instructions from the OSS Technical Chairman. Due to the enormous differences in engine configuration, cubic inch displacement and horsepower, each Extreme Class boat shall race on a provisional basis for two (2) consecutive races. Extreme boats shall be eligible for prize money but not points during the first two (2) races. After the first two races, if the OSS Technical Chairman deems an Extreme boat to be competitive within the Pro Cat Class, he shall allow the boat to compete in future races for both prize money and points.

7. Immediately following the Biloxi race on 05/22/2010, there shall be a meeting of all competitors from said race and the rules (parity measures) for the next race shall be determined. It is agreed by all competitors that this will be the general format for the balance of the 2010 season or until such time as “hard” rules for the Pro Cat Class can be established.



OSS Technical Rules – OSS Supercharged Cat Class (850)

All OSS Supercharged Cat Class (OSSSC) boats must strictly adhere to the following specifications. Please also refer to the rules pertaining to all OSS classes.

1 - Dimensions:

Hull type:	Catamaran
Length minimum	37'-0"
Length maximum:	46'-0"
Beam maximum	12'
Tunnel width maximum: (measured at keel)	66"
Height minimum: (keel to deck)	48"
Weight minimum:	10,000 LBS

2 - OSSSC Approved Engine:

Mercury Racing 850 SCi - Race

- A. Engine Seals: All engines must be certified and sealed according to procedures established by OSS. Only Mercury Racing may certify and seal the engine. It is the racer's responsibility to have their engines inspected and sealed. If seals are broken, or the engines must be "freshened" or repaired, the engine must be re-certified at Mercury Racing. Broken or missing seals can result in disqualification and other penalties.
- B. General Repairs: Except for the routine maintenance defined below, all other engine repairs and overhauls must be performed by Mercury Racing. Parts replaced in engines must be original OEM parts.
- C. Modifications: No modifications or changes may be made to an engine or any components on that engine unless performed by Mercury Racing and approved, in writing, by OSS.
- D. PCMs: Pre-race, PCMs may be collected at each event. The Chief Inspector will then randomly assign PCMs from this pool to the teams, who must use the assigned PCMs in the race. Additionally, the Chief Inspector has the right to impound any PCM unit at any time. Mercury Racing will supply the Chief Inspector with at least two (2) freshly certified, fully functional PCMs at all times. The Chief Inspector or any competitor may replace a competitor's PCM(s) at any time with a freshly certified, fully functional, production unit.
- E. Data Logger: The OSS Chief Inspector may install an OSS-supplied data logger on any competitor's engine prior the race. The data logger will be used to assure that the competitor's engine complies with the engine rules by measuring engine



RPM and Boost. The Chief Inspector shall impound each data logger post race and may check compliance with manufacturer’s production specifications by comparing the data recorded by any data logger during the subject race.

- F. Routine Maintenance: All routine/owner maintenance is limited to: Engine Oil Change, Spark Plug Change, Spark Plug Cable Change, Drive Belt Replacement, Valve Lash Adjustment and Replacement of Valve Springs and Rockers. These services must be preformed with the procedures and original parts as outlined in the Mercury Racing 850 SCi engine service manual.

3. - Fuel- Fuel shall be 91/93 octane unleaded pump fuel only with no fuel additives. Fuel may NOT be transferred between tanks during a race.

4- Exhaust System:

Headers	“CMI Big Elbow Top” – CMI Part Number 13570 (or 13590 for polished version) (Specify 2.25” I.D. primaries)
Primaries	Primary Tube Diameter to be = 2.25” I.D.
Length	Maximum 15-1/2” individual primary runner length, measured at centers of any runner, cylinder head port to common collector. Adaptors or wedges from exhaust port to the common collector not allowed.
Exhaust pipes	Exhaust must exit through transom. “Y” and “H” pipes allowed.
Modifications	Not allowed.
Cooling	Exhaust system from engine outlet to point of exit from hull or deck must be water-cooled by water jackets. “Cool Collar” design water jacket exhaust cooling is allowed.
Grinding etc.	Of header flanges only, allowed only for port matching.

5 – Transmissions:

Single speed	Allowed. Must be OEM Mercury Racing or SCS
Multi speed	Not allowed
Power	Must be derived from main engines

6– Outdrive:



Approved type	Mercury Racing VI SSM
Dropdown box	Not allowed
Shaft drives	Not allowed
Drive modifications	No modifications to skegs or drives. Entire drive must remain as originally manufactured by Mercury Marine. Repairs shall be allowed as long as drive is restored to original Mercury Specifications. Altering the original finish or polishing is not allowed.
Approved ratio	1.353:1

7- Supercharged Cat Approved Propellers-Cast propellers manufactured by Mercury, Herring, Throttle Up, Five Axis Industries and Rolla are approved. Maximum five blades; maximum propeller pitch is 36”.

8- Tunnel tabs - May extend aft from the transom 32 inches maximum. Air dams or fences are allowed. The maximum width of the tunnel tab shall not exceed the width of the tunnel measured at the keel. Tunnel tabs shall be measured from the point of intersection of the tunnel tab and the transom to the furthest point aft of the tab. Measurement shall include all hinges or other forms of attachment.

9. – Minimum post race boat weight - 10,000 pounds total including a maximum of 500 pounds of moveable ballast. Note: At the end of the race, boats reporting to the scales must weigh a minimum of 10,000pounds. If the 500 lbs of movable ballast is removed from the boat, then the boat must weigh 9500 lbs without the movable ballast. The 9500 pound weight shall include engines, drives, propellers, rigging, fixed ballast and residual fuel left at the end of the race. Movable ballast, such as bags of lead shot, is defined as ballast that may be easily moved prior to each race to change the balance of the boat. Fixed ballast is defined as ballast that is bolted, fiberglassed or permanently affixed to the hull with the location remaining constant and may not be moved to change the balance of the boat.

10. – Ballast Tanks – Effective 01-01-09 Water Ballast Systems are NOT allowed in Supercharged Cat Class.

11. – Bonus points –For every race finished, an extra 5 bonus points per engine will be awarded to the regular points, if a competitor runs the same engine for (7) seven races before rebuilding or changing the engine. If an engine change or rebuild is performed at the Team Owner’s request before (7) seven races, there will be a total loss of all bonus points for that engine. However, if the engine failure/ rebuild is not the fault of the Owner, it must be verified in writing by Mercury Racing. Mercury Racing shall be the sole determinant of said failures. Upon verification, the Owner may keep the bonus points.



12. – The new Mercury Blower Belt Idler / Tensioner System approved for use on 06/21/08.



OSS Technical Rules – OSS Cat Class (750)

All OSS Cat Class boats must strictly adhere to the following specifications. Please also refer to the rules pertaining to all OSS classes.

1 - Dimensions:

Hull type:	Catamaran
Length minimum	38' 0"
Length maximum:	44' 0"
Beam maximum	12'
Tunnel width maximum: (measured at keel)	66"
Height minimum: (keel to deck)	48"
Weight minimum:	9,500 LBS

2 - Engine specs:

Displacement, maximum	510 CID
Displacement, minimum (per engine)	495 CID
Compression ratio	Maximum 12.0:1, no minimum – Measured by Whistler at race site – before or after race.



3 - Valve System:

Number of valves	Two valves per cylinder operated by pushrods. One camshaft located in the block, OEM location.
Intake valves, allowed:	Stainless steel, or titanium
Intake valves, not allowed	Pneumatic, hollow stem, ceramic valves
Exhaust valves, allowed	Stainless steel, or Inconel
Exhaust valves, not allowed	Titanium, any other
Valve stem diameter, minimum	11/32"
Variable cam timing	Not allowed
Maximum gross cam lift	0.720 inch, zero lash, measured at the valve
Camshaft	Must remain in OEM location
Lifter bores	May not be changed from OEM location
Sleeves	May be used. OEM lifter bore location may not be changed
Bushings	May be used. OEM lifter bore location may not be changed
Pushrods	Must remain in OEM location
Valve seats and guides	Must remain as manufactured and in OEM positions.
Valve guides	Not to be cut down, shortened, tapered, or reshaped
Valve angle	As manufactured
Valve head diameter, maximum	Intake 2.300", exhaust 1.900"
Valve spring cooling	Allowed with internal engine oil
Offset head guides	Not allowed
Spring Retainers	Except as stated above, any material and design may be used
Rocker Arms	Except as stated above, any type or design legal
Rocker stud girdle	Legal

4 - Engine Blocks:

Cast iron – painting block is allowed	Must be approved by OSS
GM	Blocks with 9.8" or 10.2" deck heights approved
GM	Blocks manufactured by General Motors, World Products (Merlin), Dart, approved.
GM part #, approved	10185049, 10134367, 24502502, 24502500, 12370834, 14044808, 12370833, 10051106, 10237292
Merlin part #, approved	080100, 080110, 081100, 081110, 081102, 081112 and 081120, 085010, 085110
Dart part numbers, approved	31263344, 31263354, 31263444, and 31263454.
Other blocks	Must be approved by OSS
Cylinder bore centers	Must remain in OEM location.



5 - Internal Components:

Materials allowed	Crankshaft, connecting rods, pushrods and wrist pins must be made of steel. Wrist pins may be hard coated
Materials, not allowed	Titanium or any other materials
Main and rod journals	Not to deviate more than .040" in diameter from OEM specifications
Connecting rods	Big end width may not be reduced from OEM specifications. Width of rod big end not to be less than .980"
Wrist pins	Minimum .990" inch diameter
Pistons, allowed	Aluminum
Pistons, not allowed	Titanium, any other
Piston Rings	1st and 2nd piston rings must be a minimum of 1/16" in width. Oil ring assembly must be a minimum of 3/16" in width.
Thermal barrier coatings	No thermal barrier coatings allowed on any engine parts
Single plane crankshafts	Not allowed. Crankshaft throws must be timed according to OEM specifications
Angle Milling	Not allowed

6 - Cylinder Heads:

Cylinder heads	Must remain in OEM location.
Approved heads	Big block Chevrolet Brodix # SP BB – 2 PLUS
CNC	Spec heads are supplied with CNC bowl blend, intake port matching, and CNC combustion chambers.
Blending	Grinding or blending of CNC valve work or CNC chamber work is allowed. Blending not to extend more than ½" inch from the base of the seat insert into the ports.
Grinding and Polishing	Except in the combustion chamber and the areas immediately adjacent to the valve seat, no grinding or polishing allowed anywhere.
Resizing of ports	No change or alteration of the shape or size of the ports or runners allowed.
Cylinder head repairs	All repairs must be performed by Brodix
Head bolts	Additional head bolts legal. Any type legal.



7 - Intake Manifold:

Approved intake manifolds	Brodix part numbers HV 2001-A and HV 2005-A.
Modifications	Not allowed - The intake manifold's cylinder head mating surfaces may be milled (parallel to original surface only) to align the bolt and port holes with the in the cylinder head.
Welding	Not allowed
Porting	Allowed for 1" closest to the cylinder head
Carburetor spacers	Maximum 2.5"
Intake Manifold	The 90 degree angle between deck surface and intake manifold surface not to be altered.

8 - Induction System:

Number	Only one carburetor per engine
Approved type	King Demon RS 1095 CFM
Venturi sleeves	No modification
Venturi booster	No modification
Fuel injection	Not allowed
Air flow	Any increase of the carburetor's airflow beyond design levels not allowed
Blueprinting	Allowed

9 - Exhaust System:

Materials	Cast or fabricated allowed only
Length	Maximum 15-1/2" individual primary runner length, measured at centers of any runner, cylinder head port to common collector. Adaptors or wedges from exhaust port to the common collector not allowed.
Shape	Any common collector shape allowed
Exhaust pipes	"Y" and "H" allowed
Modifications	Merge collectors, divider plates, turbulence cones or any modifications that give the effect of longer runners not allowed
Cooling	Exhaust system from engine outlet to point of exit from hull or deck must be water-cooled by water jackets. "Cool Collar" design water jacket exhaust cooling is allowed.
Grinding etc.	Allowed for ports or runners of exhaust system



10 – Transmissions:

Single speed	Allowed. Must be capable of neutral, forward and reverse
Multi speed	Not allowed
Power	Must be derived from main engines

11 – Lubrication:

Wet sump	Wet sumping and internal oil pumps allowed
Dry Sump	External oil pumps / dry sumping allowed. Not more than three scavenging pump sections allowed. Not more than three hoses (maximum size –12AN) shall be connected from the oil pan to the scavenging sections of oil the pump. Oil may only be scavenged from the oil pan.
Crankcase vacuum	Not allowed. Engines must be vented to the atmosphere
Crankshaft oil seals	Conventional style only
Crankshaft breathers	A minimum two breather tubes that are a minimum inside diameter of 1.25 inches are required. The purpose of this rule is to prevent complete or partial vacuum in the crankcase. If baffles are used, an equivalent area of the 1.25 inches diameter tube (1.223”) of unobstructed passage must be maintained for each of the two required crankcase breathers. Any means used to reduce or restrict the opening or free flow of air is not allowed. Additional crankcase breathers are allowed.
Filter screens	Allowed. May not restrict the return of oil to the crankcase. Flush mounted only.
Intake valley	As cast only. No damming, no raised sections, no alterations whatsoever.

All OSS Cat engines shall be provided with a single –4AN fitting in a valve cover that is open to the crankcase atmosphere without obstruction and is readily accessible to OSS Inspectors. The –4AN fitting shall be JIC and be equipped with a –4AN cap that requires a 9/16” wrench for removal.



12 – Ignition:

Distributor	Must remain in OEM location.
Spark distribution	Distributor rotor / cap only
Electronic ignition	Allowed
Crank triggered ignition	Not allowed
Belt drive ignition	Not allowed
Coils	Limit one ignition coil per ignition system (primary and back up).
Back-up ignition	Are allowed. Illegal if any combination is capable to exceed specified rev limits.
Rev limiter	Mercury or MSD 7600 RPM limiter, fixed type only. The maximum RPM allowed is 7,600 RPM with no tolerance above 7,600 RPM. Engines which have ignition systems exceeding 7,600 RPM are illegal as determined by OSS test equipment,

13 – Drives:

Approved type	Mercury Racing VI SSM, Weisman, Arneson, BPM, Tri-Max, including combination fixed sterndrive and rudder.
Dropdown box	Not allowed
Shaft drives	Allowed
Drive modifications	Allowed – Drives must meet current skeg thickness, leading and trailing edge template. Blue printing is allowed.
Gear reduction, VI SSM	1.607:1 – Only ratio allowed
Approved ratios, VI SSM	1.607:1. (effective 06/12/05)
Gear reduction, shaft drive	Not to exceed 1.607.1



14 – Rudders: (Applies to shaft drive boats only)

Materials	Stainless steel or titanium only
Serial number	Unique stamped or engraved, required
Minimum thickness	0.350", any fore-aft chord
Edges, sharpening	Allowed
Rudder shape	Any
Dimensions	Rudder must extend at least 5" below keel
Depth	Fixed depth only
Trimable	Not allowed
Liftable	Not allowed
Integrity	Rudders must be checked by x-ray at least twice a year, before first race of the season, and not after 7/15
Documentation requirements	Complete x-ray certification documentation (serial # of rudder(s), test results on testing company's letterhead)
Missing documentation	Boat will be excluded from the race

15 – OSS Cat Approved Propellers:

Cast propellers manufactured by Mercury, Herring, Throttle Up, Five Axis Industries and Rolla are approved.

16 – Counter Rotated Engines - Not allowed. All engines must be common OEM rotation.

17 – Tunnel tabs - May extend into the tunnel 48 inches maximum and extend aft from the transom 32 inches maximum. Air dams or fences are allowed. The maximum width of the tunnel tab shall not exceed the width of the tunnel measured at the keel.

18. – Grandfathered Boats –

- a. **36’ Skaters with wet sump drives** - Must weigh at least 8800 LBS. with Demon 795 cfm carburetor and 9000 LBS with Demon 1095 cfm carburetor.
- b. **The Current Apache Hull** registered as “Warpaint” is grandfathered in the OSS Cat Class at an overall length of 37’-11 ½” and a 69” tunnel width.
- c. **Grandfathered boat owners must maintain continuous full annual membership and hull registration with OSS in order to qualify for competition under this rule** ([Single Event Membership does NOT satisfy this requirement](#)). Should a grandfathered boat owner fail to renew their annual hull registration and membership, then that boat is no longer eligible for competition in OSS. If no grandfathered boats are registered during a racing year (November 1 – October 31), then this rule shall expire at the end of that year and be removed from the OSS rulebook.



19. – Ballast tanks – Water ballast tanks must be fixed and only allow for filling and dumping of water overboard. Water may not be transferred to another tank.

20. – Sealing engines – The following items must be sealed. Oil pan and intake manifold (both sides). It is the responsibility of the engine builder to supply the engines with holes in the bolts so that inspectors can install seals.



OSS Technical Rules - OSS Cat Lite, OSS Vee Lite Classes

All OSS Cat Lite (CL) and OSS Vee Lite (VL) classes must strictly adhere to the following specifications along with the general rules pertaining to all OSS classes.

1. Weights and Dimensions:

	CL	VL
Hull type:	Catamaran	Monohull
Length minimum	35' 0"	26' 0"
Length maximum:	40' 0"	32' 0"
Beam maximum:	12'	8' 6"
Tunnel width maximum measured at keel:	66"	n/a
Number of engines:	2	1
Height minimum (keel to deck :)	48"	n/a
Weight minimum, Bravo, Imco drive	8000 lbs	4750 lbs
Weight minimum, VI SSM drive	8350 lbs	n/a

2. OSS Approved Inboard Production Race Engines:

Engines and outdrives are required to be standard production units.

A production unit is defined as one that is available to the general public for recreational use, and is produced in quantities of 100, or more units per year. Any engine or outdrive manufacturer meeting the minimum quantity production criteria may apply to the Technical Committee for approval of their product for competition. Approval is subject to production quantity verification and determination that no competitive advantage will be realized.

A. Cat Lite:

The Mercury Racing HP 525 EFI Sealed Engine is the only current production engine approved for use in CL.

B. Vee Lite:

The Mercury Racing 525 EFI Sealed Engine and the Innovation HP3 Sealed Engine are the only current production engines approved for use in VL.



C. Certification and Sealing:

1. In order to be eligible for competition in OSS, all approved inboard production race engines must be certified and sealed prior to competition by an approved sealing station. Engines must comply with all specifications as furnished by OSS. Once an engine has been certified, the approved sealing station will place a minimum of five (5) seals on each engine and furnish the engine serial number and seal numbers for that engine to OSS Inspectors.

2. Engine Seals Required are as follows:
 - a. Harmonic Balancer
 - b. Intake Manifold to Left Head
 - c. Intake Manifold to Right Head
 - d. Either Head to Block
 - e. Circulating Water Pump

D. Approved Sealing Stations and Service Centers:

- 1.. For Mercury Racing 525 EFI Engines only:

Mercury Racing
N 7480 County Rd UU
Fond du Lac, WI
920- 921-5330

2. For Innovation HP3 Engines only:

Innovation Marine
8011 15th Street East
Sarasota, Florida 34243
941-355-7852 Phone
941-355-6791 Fax

3. OSS Approved Exhaust System Specifications -

Engine	Allowed Exhaust Manifolds
525EFI	Mercury Style CMI Header, CMI Straight Back Sweeper Header (CMI Part # 39335) or Innovation Marine Tractor Style Header
Vortec HP3	Only the Innovation Marine style CMI Sweeper or Tractor style header is approved.



Exhaust tips	Any elbow top, tail pipe or exhaust tips
Tail pipes	Any length – Individual tail pipes required, H & Y tail pipes not allowed
Tail pipe exit	Through gunnel, deck, or transom, not to extend more than 8" beyond transom
Cooling	Water jacket
Dry Tail Pipes	Allowed

4. OSS Approved Engine Configurations:

Rear engine mounts	Allowed
Staggered Engines	Allowed
In-line Engines	Not allowed, except for boats built prior to 2004. To be approved on an individual basis.

5. Cooling Water

The cooling water flow to the exhaust system must remain in production configuration. Engine cooling water must travel from the exhaust elbow or tail pipe into the exhaust, or to a thru hull fitting. Water may not be diverted for exit elsewhere.

OSS may approve other exhaust installation hardware if required.

6. Engine Seals

All engines must be certified and sealed according to procedures established by OSS. It is the racer's responsibility to have their engines inspected and sealed. If seals are broken, or the engine must be "freshened" or repaired, the engine must be re-certified by **an approved sealing station**. Broken or missing seals can result in disqualification and other penalties.

7. General Repairs

Except for routine maintenance as defined below, all other engine repairs and overhauls must be performed by **an approved service center**.

Parts replaced in engines must be original OEM parts.

8. Modifications

No modifications or changes may be made to an engine or any components on that engine unless performed by the manufacturer and approved in writing by OSS.



9. Violations

A violation of these rules can result in disqualification and a fine. Fine not to exceed the amount of the cost of a full engine rebuild.

10. ECMs

The chief inspector has the right to impound any ECM unit at any time. The manufacturer of an OSS approved engine will supply the Chief Inspector with at least 1 new fully functional ECM at all times. The chief Inspector or any competitor may replace a competitor's ECM at any time with a new fully functional unit.

Data Logger: The OSS Chief Inspector may install an OSS-supplied data logger on any competitor's engine prior the race. The data logger will be used to assure that the competitor's engine complies with the engine rules by measuring engine RPM and/or engine spark timing. The Chief Inspector shall impound each data logger post race and may check compliance with manufacturer's production specifications by comparing the data recorded by any data logger during the subject race.

11. Routine Maintenance –

All routine/owner maintenance is limited to: engine oil change, spark plug change, spark plug cable change, power valve replacement, engine timing setting, valve lash adjustment and replacement of valve springs and rockers. These services must be performed with the procedures and the original parts as outlined in the approved engine service manuals.

12. Approved Outdrives

Outdrives are required to be standard production units. A production unit is defined as one that is available to the general public for recreational use, and is produced in quantities of 100, or more units per year. Any engine or outdrive manufacturer meeting the minimum quantity production criteria may apply to the Technical Committee for approval of their product for competition. Approval is subject to production quantity verification and determination that no competitive advantage will be realized.

Outdrives	Approved for	Remarks
Mercruiser Bravo One	VL, CL	Must comply with applicable rules
Mercruiser Bravo X, XZ	VL, CL	Must comply with applicable rules
Mercruiser Bravo XR	VL, CL	Must comply with applicable rules
Mercruiser Bravo XR Sportmaster	VL, CL	Must comply with applicable rules
Mercruiser Bravo XR Short Sportmaster	VL, CL	Must comply with applicable rules
Mercury Racing VI SSM	CL	Crash box allowed
IMCO SC and SCX	VL, CL	Must comply with applicable rules
Konrad and B-Max	CL	Must comply with applicable rules



13. Approved Drive Ratios:

A. OSS Cat Lite SSM VI:

1. Cat Lites using the Mercury Racing Dry Sump SSM VI shall be allowed to use either the 1.50:1 or the 1.57:1 (split) ratios.

B. OSS Cat Lite Bravo:

1. Bravo Based – Final gear ratio shall be ≥ 1.3457 and ≤ 1.6521
2. Upper and lower gears must be original OEM parts readily available to the general public. However, gears may be mixed and matched to achieve custom gear ratios falling within final gear ratio requirements.

Cat Lites using the Bravo based drives may do so with a raised X dimension. However, the centerline of the propshaft may be no more than 1.50” above the aft most running surface excluding any notches or strakes. The propshaft height is measured from the aft running surface directly in front of the drive with the drive trimmed to a neutral position.

C. OSS Vee Lite:

1. All Vee Lite boats shall be restricted to 1.50:1 final drive ratio.

14. Transom Assembly - Cat Lite and Vee Lite

Transom Assembly	
All Bravo Style Outdrives	MerCruiser Bravo, Bravo HP, IMCO or MerCruiser ITS
VI SSM	VI SSM

15. Drive modifications

Allowed only to increase reliability. Examples: One-piece propeller shafts, heavy-duty bearing carriers, etc. Parts must be available to all racers at reasonable commercial prices. If excessive water pressure needs to be corrected or if a hull mounted water pickup is used, water intake slots on the gearcase can be closed by any means. The original shape of the gearcase is not to be altered. Other modifications to the outdrive(s) or its components require written OSS in approval. Changes to VI SSM drives **other than vent tubes to facilitate planning** are not allowed.

16. Transmissions

Transmissions may not be used, except in CL boats using MerCruiser VI SSM Sterndrives or IMCO 4x4 drives. Transmissions used with these drives must be OEM Mercury or SCS transmissions.



17. Standoff boxes

Permitted to a maximum of 15”, and each standoff boxes must be type approved by OSS.

18. Drive Case Housings

Upper and lower drive case housings need to remain as manufactured. Housings may not be modified. An approved spacer between the upper and lower drive housing can be utilized. Spacer may not exceed 3”.

19. Power Steering Pumps

Stock power steering pumps can be replaced. Pumps must be located in the original OEM location on the engine.

20. CL, VL Approved Propellers

A. For boats using Mercury Bravo and IMCO Drives

1. Any pitch or diameter four, five or six blade cast propeller manufactured by Mercury, Hydromotive, Throttle Up or Hering is legal.

B. For boats using Mercury VI SSM Drives

1. Any pitch or diameter four or five blade cast propeller manufactured by Mercury, Throttle Up, Five Axis Industries or Hering is legal.

OSS reserves the right to specify and change the number of blades at any time.

21. Documentation

All CL and VL racers are required to provide the OSS Technical Inspectors with documentation of engine work that resulted in the replacement of any engine seals. The documentation must include all invoices, repair orders with detailed descriptions of all work performed and/or parts installed in the engine.

22. Steering - External - Hydraulic steering is required. The original power steering pump or after market pump must be used on all boats.

23. OSS Cat Lite Tunnel tabs – Must be attached to the transom and may not extend into the tunnel of the boat. Air dams or devises to entrap air on the tab sides are not allowed. Maximum tab dimensions: Width 66” – length from transom 32”

24. OSS Cat Lite Grandfathered Boat - The 36’ Skater known as “IN THE RED” is grandfathered for competition with Weisman SSM VI drives with 5 quarts of oil in the



lower unit. It is universally understood that skeg thickness dimensions do not conform to current OSS templates (specifications). The skegs may not be modified from their existing condition and thickness as verified by POPRA inspectors using the OSS template and measuring equipment at the Salton Sea Kilo Event 12/08. Minimum boat weight is 8000 pounds with the non-standard Weisman SSM 6 drives.

26. OSS Cat Lite – No liquid ballast tanks of any type are allowed.

27. OSS Cat Lite Fuel- Fuel shall be 87/89 octane unleaded pump fuel only with no fuel additives. (Class Approved 1/9/07)

28. Fuel Sampling – All Cat Lite boats will be subject to fuel sampling before each race. Owners/Crew Chiefs must accompany boats to the cranes and be prepared to assist the inspectors in obtaining fuel samples.

29. Vee Lite – Effective 1/1/2009: The 27' Activator known as “Adrenaline Rush” is approved for competition at 4550 pounds for 2010.

30. Vee Lite – Effective 1/1/09: All movable ballast must be fixed in place at the beginning of a race. No movable ballast weight may be transferred or relocated while the boat is under way.

31. Vee Lite – Effective 1/01/2010: There shall be a minus 3/16” tolerance on skeg length.



OSS Technical Rules – OSS Super Vee Unlimited Class

All OSS Super Vee Unlimited (SVU) Class boats must strictly adhere to the following specifications. Please also refer to the General Technical rules pertaining to all OSS classes.

1 - Dimensions:

Hull type:	Mono – (Vee-Hull)
Length minimum	38' 0" +/- 6"
Length maximum:	45' 0" +/- 6"
Beam maximum	No Restrictions
Cockpit Safety Canopy	Required
Height minimum:	No Restrictions
Weight minimum:	No Restrictions

2 - Engine specs:

Gasoline Engines Only	Diesel Engines Not Allowed
Number of Engines	Any
Displacement, maximum	No Restrictions
Displacement, minimum	No Restrictions
Cylinder Block	May Be Modified
Cylinder Heads	May Be Modified
Turbo /Super Chargers	Allowed Provided Total Displacement Does Not Exceed 1020 cu. in. – Over 1020 cu. in. Total Displacement – Not Allowed - Naturally Aspirated Engines Only – No Forced Induction

3 – Propulsion:

Any propulsion system utilizing the thrust of water is allowed. Must meet all safety requirements

4 - Exhaust System:

Materials	Cast or fabricated allowed
Exhaust pipes	"Y" and "H" allowed
Cooling	Exhaust system from engine outlet to point of exit from hull or deck must be water-cooled by water jackets or method that is pre-approved by OSS Technical Committee



5 – Transmissions:

Single speed	Allowed. Must be capable of neutral, forward and reverse
Multi speed	Not Allowed.
Power	Must be derived from main engines

5 – Rudders:

Materials	Stainless steel or titanium only
Serial number	Unique stamped or engraved, required
Minimum thickness	0.350", any fore-aft chord
Edges, sharpening	Allowed
Rudder shape	Any
Dimensions	Rudder must extend at least 5" below keel
Depth	Fixed depth only
Trimable	Not allowed
Liftable	Not allowed
Integrity	Rudders must be checked by x-ray at least twice a year, before first race of the season, and not after 7/15
Documentation requirements	Complete x-ray certification documentation (serial # of rudder(s), test results on testing company's letterhead)
Missing documentation	Boat will be excluded from the race



OSS Technical Rules - OSS Cat Outboard Class

All OSS Cat Outboard (CO) Class boats must strictly adhere to the following specifications. Please also refer to the rules pertaining to all OSS classes.

1 - Dimensions:

Hull type:	Catamaran
Length minimum	28' 0"
Length maximum:	32' 0"
Beam maximum	10' 6"
Tunnel width maximum (measured at keel)	60"
Weight minimum 28 feet:	3,800lb
Weight minimum 29 feet:	3,925lb
Weight minimum 30 feet:	4,050lb
Weight minimum 31 feet:	4,175lb
Weight minimum 32 feet:	4,300lb

2 - Engine specs: (Twin engines)

Displacement, maximum	n/a
Displacement, minimum	n/a
Approved engine:	Any stock outboard advertised to the public as 300HP or less.
Compression ratio	May not be altered

3 – Engine Specifics:

Engine modifications:	Not allowed. Entire engine, including powerhead, center section, lower unit, and exhaust system must remain stock as produced by the manufacturer. Media blasting and bead blasting not allowed.
Powerhead year:	Must be declared prior to the race.
Use of special or interchange parts:	Not allowed. Except as noted: Mahle and Pro-Marine parts nos. W25S and W25P pistons are approved.
Balancing and Blueprinting:	Allowed – Note: Beginning January 1, 2009 Balancing and Blueprinting will not be allowed. There will be NO GRANDFATHERING of powerheads that have been balanced and blueprinted. Balancing and Blueprinting includes (but not limited to) “cleaned-up”, “brought to spec”, any metal added or removed to balance any reciprocating parts.
Cowlings:	May be a light weight facsimile of the production cowling. Air flow may not be altered. Original production decals



	must be on cowling.
Lower gear case ratio:	Any OEM gear ratio is allowed.
Nose Cones:	Allowed as cast and produced by the original gearcase manufacturer.
Remote water pick ups:	Not Allowed.
Reeds:	Any reeds are allowed. Stock reed cages must be used.
Flywheels:	No modifications or lightening is allowed. 1997 and older engines may use aluminum flywheels.
ECU boxes:	May not be modified or reprogrammed. Maximum RPM allowed 8200.
Updating of equipment:	Allowed.
Backdating of equipment:	Not Allowed.
Turbochargers/superchargers:	Engines must be naturally aspirated. No forced induction of any type is allowed.
Fuel:	Only petroleum based fuels are allowed. Octane enhancing additives are not allowed. Oxygen enhancing additives are not allowed.

4. Propellers: ANY cast 3, 4 or 5 blade propeller is legal. (Mercury, Hering, Throttle Up, Hydromotive, Mazco, etc). Six blade propellers are not allowed.

5. Steering - External - Hydraulic steering is required.

6. Tunnel tabs – May extend into the tunnel 40 inches maximum and extend aft from the transom 30 inches maximum. Air dams or fences are allowed. The maximum width of the tunnel tab shall not exceed the width of the tunnel measured at the keel.

7. Safety – All Cat Outboard boats are required to have ½ inch or thicker canopy glass and compression strut or adequate reinforcement for structure safety.

8. Movable Ballast – A closed system movable water ballast shall be allowed in the Cat Outboard Class. The closed ballast system must be constructed so that no water may be added or drained during the race. Water tanks shall be securely fastened and subject to approval by the Technical Safety Inspectors. Water may be transferred fore to aft and visa versa during the race. Any plumbing and transfer pump system shall be allowed as long as no water may be added to or removed from the closed system. The water ballast shall be included in the post race weight. Technical Inspectors shall confirm that the ballast system is sealed and note the amount or level of water in the tank(s) prior to each race. (Note: Technical Rules General Requirements –All Classes, paragraph 5 (ballast tanks must be empty for post race weight) does NOT apply to this rule)

9. Grandfathered Boat- The S-12 LA Marine “Deep V Cat” serial #LAV26006D000 shall be legal for competition in the OSS Cat Class with 8600 RPM ECU boxes, tunnel width not meeting class specs and no Mercury cowling decals. (effective 03/19/2010)

OSS Technical Rules –

OSS Pro Vee 1, OSS Pro Vee 2 Classes

(European Power to Weight Ratio Classes)

It is the intention of these Rules is to create a broad and fair competitive balance within each racing class. All boats racing in the Power to Weight Ratio Classes shall be bound by all OSS General Racing and OSS Safety Rules. In the event of a conflict between the Power to Weight Ratio Class Rules and the OSS Safety Rules, the OSS Safety Rules shall prevail. Any Team that is currently qualified under the UIM P1 Class Rules is automatically qualified to run in any OSS event as long as they meet all OSS Safety requirements.

Section I.

General Rules – Pro Vee 1 and Pro Vee 2 Classes

- 1. Hull** - All race boats shall be monohull (vee bottom) craft.
- 2. Engines** - All race boats shall be limited to the use of two identical engines while racing. Teams are limited to the use of a maximum of three engine blocks per race weekend; in other words, teams may only change one engine during the course of the race weekend, and any engine changes must be approved by the OSS Chief Referee before being carried out.
- 3. Crew** - Each team may carry a minimum of 2 and a maximum of 3 crew members in the boat during the race. The driving of the boat and the throttling of the boat shall be considered to be two separate functions and must be performed by two persons.
- 4. Mirrors** - All boats in the Pro Vee 2 Category shall be fitted with at least two rear-view mirrors, giving driver and throttleman maximum possible rear vision, or other rear-view imaging equipment, mounted so as to give the crew a view of boats approaching from behind. It is recommended that mirrors be shrouded to minimize the possibility of breakage.
- 5. Propellers** - Propellers shall be cast, readily available to the general public at commercially reasonable prices. Specialized high performance propellers (e.g., forged steel, fabricated, welded or propellers which have been CNC machined from solid billet) are prohibited. CNC finished cast propellers are legal. Propellers must meet all thickness standards as set forth in the OSS propeller standards.
- 6. Outside Assistance** - There shall be no outside assistance during the race. Teams are allowed any assistance that the team in the boat may provide using only materials and tools carried in the boat. The use of post race boat-to-land telemetry is permitted, but the use of telemetry during races is prohibited.



7. Foot Throttles - The use of foot throttles is prohibited. It is the intention of this Rule that the steering and throttling functions of the boat shall be carried out by separate individual crew members, in the interest of safety.

8. Fuel - Boats are required to purchase a minimum of 50 gallons of fuel from the OSS furnished fuel truck. Boats may use "standard" pump fuels after the minimum fuel purchase is satisfied. "Standard" means fuels that are widely available and on sale at public gas stations throughout the United States. The use of performance enhancing compounds is strictly prohibited, and fuel used must not exceed 96 posted octane $(R+M)/2$ where $R=102$ RON and $M=90$ MON. The addition of lubricating oil to a maximum of 2% is permitted for 4 stroke gas engines only. Diesel engines must use Diesel fuel complying with the DIN-EN 590 norm. Boats fitted with 2 stroke engines may use oil-injection systems, but must also use "standard" pump fuels and 2 stroke oils which are widely available to the general public at public filling stations.

9. Fuel Supplier - OSS reserves the right to mandate an official fuel supplier. In this case, Teams will be permitted to use only the fuel provided by that supplier.

10. Fuel Cells - The use of flexible, "self-sealing" "safety" type fuel cells and "dry break" refueling couplings is strongly recommended for all boats.

11. Fuel Transfer - Fuel may only be transferred between tanks using permanently installed fuel lines connected to fixed, permanently installed tanks. All fuel tanks must have an earth or ground wire to enable the discharge of static electricity.

12. Race Communications - All boats must be fitted with a professional VHF radio communication system of at least 25 watts to enable clear communication between the boat crew and Race Control. All crew must have an "in-helmet" communication system capable of transmitting and receiving VHF voice communications between the boat and Race Control. All crew members should be trained in the use of this equipment and must be able to converse in basic English.

13. Race Technical Controls - Teams may be required to install on their boats a supplementary GPS system, or other electronic data-logging device/s, for race and technical control purposes. OSS will supply the necessary equipment, and Teams are required to fit the equipment in line with the instructions supplied. Any Team which is deemed to have tampered with this equipment in any way will be subject to disqualification.

15. Air Intakes/Aerodynamic Devices - The use of additional air intakes for engine induction and cooling purposes is allowed, but air intakes must not be directly connected to carburetors, fuel injection flange or turbo inlets. Intakes must be a minimum of 2" in any direction from the engine air inlet. The use or addition of any device which has an aerodynamic function as its primary function is strictly forbidden. This includes both vertical, horizontal, anhedral or dihedral devices.



16. Engine Seals - All engines must be equipped with pre-drilled studs or bolts, to allow the attachment of wire seals by the OSS engine certification station or OSS technical inspectors. Any seals which are tampered with, or broken, without the prior notification to, and agreement of, the OSS Inspectors, will result in loss of points or disqualification from that event.

17. Engine Cradle - All Teams must have available at all times at events a cradle or casing capable of safely containing an engine of the type fitted to the boat, to allow for the removal and shipment of an engine for testing purposes.

18. Kill Switches – In open cockpit boats, all crew members must be attached via lanyard to a kill switch which stops both engines in the event of a crew member being ejected from normal race position. In canopied race boats, the kill switches must be immediately accessible to the crew in the cockpit.

19. Helmets - All crash helmets worn by competitors must conform to current OSS helmet standards.

20. Life Jackets – All life jackets worn by competitors must conform to current OSS life jacket standards.

21. Race Uniform - All crew are required to have appropriate matching race driving suits.

22. Turtle (Dunker) Training - All crews using restraint systems will be required to undergo and successfully complete an observed immersion or "dunker training session" prior to the season by the OSS Medical and Safety Staff

23. Physical Examinations - All competitors participating in any OSS event must have a current FAA Class II or CDL physical.

24. Strobe light - A strobe light shall be fitted to the tallest point of each race boat for the purpose of signaling race officials and other boats that it is experiencing mechanical or other issues and it is off plane and not racing.

25. Lifting Straps - Teams shall ensure that their boat has fixed lifting points. Teams must supply their own certified and valid (i.e., within the time period covered by the certificate) lifting straps. Lifting must comply with all current OSS lifting strap requirements.

26. Mandatory Weighing - Boat weights shall be verified by mandatory weighing of at least the top 4 finishing boats after each race.



Section II.

Pro Vee 1 Category (Evolution Class)

The Super Vee Category is a racing class for modified production and/or prototype craft. Eligible boats shall comply with the following regulations:

1. Boats shall have a minimum length of 36ft and a maximum length of 43 ft. No tolerance.
2. Boats shall have a minimum weight of 8818 lbs. (4000 kg) post race.
3. Boats may have full or partial canopies. The use of full canopies, with integral safety cell structures consistent with the cockpit safety requirements of the Lavin Foundation or UIM Offshore 508 Rules is strongly recommended.
4. Crews in boats equipped with full or partial canopies must be seated and must use safety harnesses having a minimum of 5 mounting points. All harnesses must bear homologation labels showing the date of manufacture. Harnesses older than 5 years may not be used. Harness mounting points and mounting angles should comply with the requirements of the Lavin Foundation or UIM Offshore Rule 508.
5. Boats equipped with full canopies, must have both an internal and external method of releasing and removing the escape hatch clearly and visibly marked in day glow orange. All crew members, whether in full or partial canopy boats, must be equipped with a personal breathing apparatus, with a capacity sufficient to provide for normal breathing for a period of not less than 30 minutes. Said apparatus must comply with all current OSS rules concerning on-board air systems. In addition, each crew member must also carry on their person a safety knife or cutting implement capable of cutting harnesses.
6. Engines shall be inboard only.
7. Supercharging or turbo charging is allowed.
8. Aftermarket parts are allowed.
9. Multispeed gear boxes are prohibited;
10. Engine capacities; the maximum engine capacities shall be;
 - Naturally Aspirated Gas – 671 Cu. In. (11.0 L)
 - Supercharged / Turbocharged Gas – 557 Cu. In. (9.13 L)
 - Supercharged / Turbocharged Diesel – 793 Cu. In. (13.0 L)
11. Have a maximum power to weight ratio of one (1) hp per 7.72 lbs. (3.5 kg) (no tolerance).
12. Water Ballast - Only solid ballast is permitted for purposes of achieving the power to weight ratio. The use of water ballast is permitted to assist with the boats' trim, provided drawings showing the installation of water ballast tanks are provided to the OSS Technical Committee along with the boat's technical logbook prior to the initial technical verification. The drawings must clearly show



the position of water inlets, outlets and associated piping, and tanks must be fitted with a visible sight gauge to show the level of water in the tank. All boats using water ballast tanks will be initially weighed with the tanks empty and disconnected. All ballast tanks shall be emptied after the race and before being craned out to enable accurate post race weighing. Failure to comply with this ruling will result in disqualification.

Section III.

Pro Vee 2 Category (Super Sport Class)

Vee is the OSS classification for cruising or pleasure monohull (vee bottom) craft in a racing series. Eligible boats shall comply with the following regulations:

The class should reflect models in standard production from pleasure boat manufacturers. The use of the term "standard" in these rules is generally meant to describe components or parts that are both manufactured and intended for sale to the public at commercially reasonable prices under a manufacturer brand name. Entries must meet the requirements of standard production as set forth in these regulations in addition to the power to weight ratio for the class. Eligible boats shall comply with the following regulations:

- 1.** Be cruising or pleasure boats with USCG or CE certification and clearly displaying a USCG or CE Certification plate (or national equivalent) Boats must be a minimum length of 33 ft and a maximum length of 42 ft. No tolerance.
- 2.** The hull must be a standard model from a production mold, demonstrably in series production and be fitted with standard production model engines offered in the manufacturer's catalogue and having common & typical "pleasure navigation" characteristics throughout.
- 3.** Be "open-cockpit" models, configured as per the production model from which it is derived. Canopies or partial canopies are specifically prohibited. The use of windscreens or water deflectors is permitted if these are a feature of the production model. Windscreens and/or water deflectors may be accepted for safety reasons by the OSS Technical Committee upon written application by the Team.
- 4.** Crews may be seated or standing as per the production model, however, "tandem" style cockpit arrangements are specifically prohibited. Crews in Pro Vee 1 boats may not use safety harnesses.
- 5.** Boats shall have no major modifications to standard production model hulls and decks. Minor modifications to hulls or decks will be considered upon prior individual application to the OSS Technical Committee. Permission to make said minor modifications to hulls and decks must be granted in writing by the Technical Committee Chairman. Blueprinting is allowed and repairs, including changes to materials, may be undertaken provided they are consistent with the production mold. Flat or cut down decks for racing purposes are specifically prohibited.
- 6.** Hulls shall be of a model with a minimum commercial production of 10 units that have been sold and titled to pleasure boat owners. The OSS Technical Committee may grant exceptions for craft where the intent to manufacture for commercial production can be demonstrated. The first example produced of a particular model will be deemed to be a "prototype" and will not be considered eligible for an exception. Existing boats in OSS races that do not meet this rule may be



approved by the OSS Technical Committee upon written application provided there is no pronounced competitive advantage.

7. The use of water ballast is prohibited. Only solid ballast is permitted.

8. Boats must be fitted with manufacturer's standard specification engines which have a commercial production of 100 units. The OSS Technical Committee may grant an exception to this rule where the manufacturer can demonstrate an acceptable production schedule which will achieve this figure within 12 months. The standard production requirements specifically exclude engines prepared by "tuning" companies or specialists with no formal relationship to the manufacturer. However, engine blocks (basic cylinder block and cylinder head of automobile or industrial engines - e.g., GM) that are prepared for commercial sale under a brand name and sold through regular marine distribution channels (resellers) may be considered standard if approved by the OSS Technical Committee.

9. Engines may be inboard or outboard; however, outboard engines will only be admitted for a transitional period, to be reviewed at the end of the 2009 season.

10. After market parts for engines that are supplied from a manufacturer other than the original manufacturer are permitted provided the new parts are of the same (i.e., equal characteristics) type and configuration as those replaced and do not confer a performance advantage;

11. After market parts or special accessories available to the public shall be permitted for the drive system, including extension boxes, steering system, trim tabs, and power trim, provided such parts are the same (i.e., equal characteristics) as the standard parts provided by the manufacturer (if in doubt, Team must refer to OSS Technical Committee for a decision before purchasing or installing equipment or systems).

12. Multi-speed gear boxes are permitted only if they are standard and included in the manufacturers' production package for the model and engine; it must be possible to select forward, reverse and neutral with the engines running;

13. Supercharging and/or turbo charging for gas inboard engines is prohibited.

14. Maximum engine capacity per engine shall not exceed:

- Naturally Aspirated Gas Engines – 506 Cu. In. (8.3 L)
- Naturally Aspirated Diesel Engines – 512 Cu. In. (8.4 L)
- Supercharged / Turbocharged Diesel Engines – 458 Cu. In. (7.5 L)

15. Have a maximum power to weight ratio of one (1) hp per 9.92 lbs. (4.5kg) (no tolerance)

16. There will be a maximum top speed of 85 mph/ 136.79 kph/ 73.865 knots (as determined by the OSS Chief Scorer) for safety reasons. The maximum speed of boats MAY be checked using Radar, GPS or any other electronic speed measuring devices as determined by the OSS. Any boat found to have exceeded the maximum top speed shall be subject to a time penalty of not less than 10 seconds nor more than 180 seconds. Any boat with a race average exceeding 85 mph / 136.79 kph / 73.865 knots shall be disqualified. The Chief Referee's decision in all speed related penalties shall be final and not eligible for appeal.



Section IV.

Technical Verification and Control

1. **OSS Technical Committee** - To ensure conformity with these rules, the OSS Technical Committee shall verify the technical information supplied by the Teams, to compile information on the performance of participating boats, and to monitor compliance with these rules during the season. The OSS Technical Committee shall be comprised of appointed representatives of OSS and any outside experts that may from time to time be asked to assist. It shall be the duty of the OSS Technical Committee to certify a Team's entry into any OSS event (hull, engines, parts and other equipment) as complying with these rules. Only when a Team's boat and engines have been certified by the OSS Technical Committee shall it be eligible to compete in an OSS event.

2. **Certification Requirements** - It is generally assumed that all certifications will take place prior to the beginning of each new racing season or when new boats are completed and ready to compete in OSS. Certification by the OSS Technical Committee shall only be required one (1) time per season unless any changes are made to the certified hull, engines, parts, other equipment or re-verification of the DPO (Designated Power Output) or a protest of the DPO is made.

3. **Technical Requirements for Certification** - As a part of its certification for entry into OSS events, the Team shall provide OSS with a fully completed Technical Logbook, containing full details of the boat and all relevant equipment, with the signature of the Team Owner signifying the accuracy of the information contained therein. This Logbook should be submitted to OSS no later than March 1st of each year.

4. **Technical Verification by OSS Technical Committee** - Upon receipt of the Technical Logbook, and no later than 45 days prior to the first OSS event, each team shall make an appointment for the OSS Technical Committee (or its representative) to inspect the boat in order to verify the information submitted to OSS concerning the Team's entry. The OSS Technical Committee shall not be obliged to carry out verification visits that do not comply with this deadline, and it will not guarantee late verifications with a delay shorter than this deadline. Teams will be required to pay a sum of \$1,500.00 U.S. to cover the cost of this visit or the actual costs of the visit, whichever is greater. If the hull, deck, engine, drive system, gearbox, propellers and other equipment conform to these requirements, the OSS Technical Committee will award the entry a Certificate of Conformity signifying that these elements have been accepted to start in the OSS Series. Barring any alterations to the entry or new information that could affect the original certification, this Certificate of Conformity shall have the effect of providing a legal presumption that the entry is within the rules and any protest thereafter must demonstrate non-conformity with these rules. During Technical Verification, the OSS Technical Committee shall verify the Team's engines and mark them for purposes of verifying performance points. Engines must be declared to and verified by the Technical Committee. The team must declare all engines to the OSS Technical Committee. Engines that have not been declared and verified shall not be eligible for competition in OSS. Any alterations to the entry subsequent to the OSS Technical Committee technical verification must be reported to the OSS Technical Committee and may require a new verification for conformity. Competitors must always verify the acceptability of any modifications to boats with the OSS Technical Committee prior to the modifications being carried out. Any changes to specifications made after initial verification must have the prior approval of the OSS Technical Committee in writing. Failure to abide by this regulation may result in disqualification. In addition, the OSS Technical Committee may require that the boat be returned to its' original specification to certify conformity.



5. Pre-Season Dynamometer Tests - Each Entry to an OSS event will be required to supply one engine for an observed pre-race/pre-season dynamometer test at a time and place to be arranged by the OSS Tech Committee. The engine tested must be one of the engines declared to the OSS Technical Committee and installed in the boat for racing in an OSS event. It shall not be the spare engine. The costs arising from this dynamometer test and transportation shall be the responsibility of the boat owner. At this test, the Team must declare to the OSS Technical Committee its power output under racing conditions, with the following information:

1. Maximum revolutions per minute;
2. Maximum fuel pressure and volume;
3. Maximum turbo- or super-charge boost.

Entries will not be certified for conformity by the OSS Technical Committee without this pre-season dynamometer test.

6. Determination of the DPO for Competition in OSS Events and the OSS Ratio Table - Based upon the pre-season dynamometer test, the OSS Technical Committee shall assign a horsepower rating to each engine and a total combined engine horsepower for purposes of measuring the power to weight ratio. The total engine horsepower will be known as the Designated Power Output or "DPO". The OSS Technical Committee shall create and maintain an OSS Ratio Table for the engines of all entries competing in OSS events. The OSS Ratio Table will use the DPO and the actual weight of the boat to calculate the power to weight ratio for each entry. This power to weight ratio must comply with the rules for the racing class for the entry to be eligible for the Championship.

7. Verification of DPO during the Season – The OSS Technical Committee reserves the right to alter its determination of the DPO at any time during the Championship season if factors indicate a change in power or capacity. Once the Championship season is underway, the OSS Technical Committee will continually assess the factors used to calculate the ratios to ensure ongoing conformity with the rules. The OSS Technical Committee may use any and all information available to it (including but not limited to, the Team's Technical Logbook, manufacturer service manuals, GPS results, radar guns, performance reviews, dyno tests, etc.) for such purposes. Additionally, the Technical Committee may require teams to install on their engines sensors to monitor each of the factors listed in paragraph 5. These sensors will be connected to a data-logging device supplied by the Technical Committee and will be used to determine the power potential / output of each engine. The device will be used to produce a graph. In the event that two engines are replaced, one of the replacement engines must be subjected to an independent dynamometer test at a testing facility determined by the OSS Technical Committee at the expense of the boat owner. In cases of non-conformity, the OSS Technical Committee shall provide the information to the Chief Referee and the entry may be required to make alterations or it may be disqualified from the OSS event.

8. Objection to DPO - If during the course of the season a Team objects to the change of its DPO by the Technical Committee, it shall have the right to request a new dynamometer test according to the following procedure:

- The OSS Technical Committee shall select one of the engines from the Team's entry, seal it, and arrange for the dynamometer test as soon as practicable. (normally within two weeks)
- The dynamometer test shall be run at a testing facility determined by OSS Technical Committee. (the Team shall have a right to attend the test);



- The engine must have the same set up and calibration as under race conditions;
- The Team shall cover all costs and risks associated with the dynamometer test;
- The Team shall be bound by the results of the dynamometer test;
- OSS Technical Committee shall accept the results of this dynamometer test for purposes of updating the DPO.

9. Protest of DPO - If a Team protests another Team for being outside the power to weight ratio and challenges that team's DPO, then the dynamometer procedure set forth in paragraph 8 shall be followed in addition to the conditions set forth below.

- The OSS Technical Committee shall fix the date and time for the dyno test.
- Each Team shall have a right to attend and witness the test.
- If the DPO is incorrect such that the Team is outside the power to weight ratio for its category then the losing Team must pay the costs of the dynamometer test.
- If the DPO (whether different or not) remains within the power to weight ratio for the class, then the protesting Team must pay all costs.
- At all times, each Team remains responsible for any risks to its engines.

Section V.

Engine Dynamometer Test Procedure

1. In accordance with the requirements of Section IV., Paragraph 5. of the 2010 OSS Technical Rules governing Power to Weight Ratio Classes, every Team entering an OSS event will be required to submit one (1) engine for dynamometer testing, to determine the Designated Power Output (DPO).

2. Each Team will be responsible for installing any sensors that may be supplied by OSS, in accordance with the wiring diagram provided. The Team will also be responsible for presenting the engine prepared to accept wire seals. The following items will be sealed. OSS reserves the right to refuse to test any engine that has not been prepared for sealing.

Cylinder Head to Cylinder Block
Front Cover (Timing Chain) to Cylinder Block
Oil Sump/Pan to Cylinder Block
Camshaft or Rocker Cover to Cylinder Head (both)

3. Each Team will be responsible for delivery the engine, technician and any necessary associated equipment to the designated test facility on the agreed day at the appointed time. (Team to be notified by OSS Technical Committee of date, time and location a minimum of fourteen (14) days prior to the test.)

4. The engine will be installed on the dynamometer under the guidance of the Team technician.



5. The engine will then be tested by the OSS Technical Committee representative in accordance with accepted industry practices to determine the maximum horsepower of the engine. During the test procedure, the engine rpm will be allowed to stabilize at the individual speed sites, at which time the following parameters will be recorded, to allow on-going monitoring of the engine performance;

Engine speed & load readings (RPM & Ft. Lbs. Torque)

Fuel pressure & flow at maximum load (gasoline engines – P.S.I. & Gallons per Hour)

Fuel flow at maximum load (diesel engines – Gallons per Hour)

Maximum turbo- or super-charger boost (P.S.I.)

6. In addition, an official OSS electronic data logger may be used to record an initial "fingerprint" for any future performance verification procedure.

7. In the case of supercharged engines, the drive ratio - supercharger to engine - may be measured and recorded. Turbocharger turbine and compressor internal diameters (at the choke point) may also be measured and recorded.

8. Immediately after the test has been completed, the dynamometer calibration will be checked and certified using the manufacturers' calibration arm and weights.

9. The engine and sensor wiring loom will be sealed. The performance parameters will be corrected to SAE J1349 and the resulting data recorded in an "Engine Log Book". The Team will be given a copy of this book, and a second copy will be retained by the OSS Technical Committee for future reference. The Engine Log Book must be available for inspection by the OSS Technical Committee or Inspectors at all OSS events.

10. For all OSS race events, an OSS electronic data-logger may be attached to the engine via the wiring loom, and this will be used by the Technical Committee to monitor the performance of the engine throughout the championship race season.

11. The Technical Committee may inspect the engine at any time during an event and may download information from the data-logger for comparison with the figures recorded during the dynamometer test.

Section VI.

Interpretation of Rules / Changes to Rules

In cases not covered by these rules, decisions may be made by the OSS Chief Referee, Technical Committee and/or OSS Board of Directors, as appropriate, bearing in mind the spirit of the Rules. For purposes of competitive balance, the OSS Technical Committee is entitled to



determine into which OSS class a particular boat qualifies. It may require adjustments to boats, engines, drives, propellers, etc..., or require that additional weight be added to the boat to ensure a competitive balance within category,

Section VII.

Enforcement

Consistent with the purpose and intent of the rules, the OSS Technical Committee is entitled to take whatever action it deems necessary to enforce these rules. Any parts or components which give a boat or team an unfair competitive advantage may be deemed illegal and result in disqualification. The OSS Technical Committee, in its sole and absolute discretion, may decide if any part, component, or equipment change is in an effort to circumvent or beat the rules, and it may disqualify an entry in violation of the spirit and intent of these rules.

In the interests of safety, the OSS Technical Committee and/or Board of Directors reserves the right to make any changes to these rules regarding safety matters or equipment and such changes may be made with immediate effect.



OSS Technical Rules – OSS Cat Extreme Class

All OSS Cat Extreme (CX) Class boats must strictly adhere to the following specifications. Please also refer to the rules pertaining to all OSS classes.

1 - Dimensions:

Hull type:	Catamaran
Length minimum	40' 0"
Length maximum:	50' 0"
Beam maximum	No Restrictions
Tunnel width maximum	No Restrictions
Height minimum:	No Restrictions
Weight minimum:	No Restrictions

2 - Engine specs:

Displacement, maximum	No Restrictions
Displacement, minimum	No Restrictions

3 - Exhaust System:

Materials	Cast or fabricated allowed
Exhaust pipes	"Y" and "H" allowed
Cooling	Exhaust system from engine outlet to point of exit from hull or deck must be water-cooled by water jackets or method that is pre-approved by OSS Technical Committee

4 – Transmissions:

Single speed	Allowed. Must be capable of neutral, forward and reverse
Multi speed	Allowed. Must be capable of neutral, forward and reverse
Power	Must be derived from main engines



5 – Rudders:

Materials	Stainless steel or titanium only
Serial number	Unique stamped or engraved, required
Minimum thickness	0.350", any fore-aft chord
Edges, sharpening	Allowed
Rudder shape	Any
Dimensions	Rudder must extend at least 5" below keel
Depth	Fixed depth only
Trimable	Not allowed
Liftable	Not allowed
Integrity	Rudders must be checked by x-ray at least twice a year, before first race of the season, and not after 7/15
Documentation requirements	Complete x-ray certification documentation (serial # of rudder(s), test results on testing company's letterhead)
Missing documentation	Boat will be excluded from the race



OSS Technical Rules – OSS Vee Extreme Class

All OSS Vee Extreme (VX) Class boats must strictly adhere to the following specifications. Please also refer to the rules pertaining to all OSS classes.

1 - Dimensions:

Hull type:	Mono
Length minimum	40' 0"
Length maximum:	50' 0"
Beam maximum	No Restrictions
Height minimum:	No Restrictions
Weight minimum:	No Restrictions

2 - Engine specs:

Displacement, maximum	Gasoline - No Restrictions / Diesel 2000 CID
Displacement, minimum	No Restrictions

3 - Exhaust System:

Materials	Cast or fabricated allowed
Exhaust pipes	"Y" and "H" allowed
Cooling	Exhaust system from engine outlet to point of exit from hull or deck must be water-cooled by water jackets or method that is pre-approved by OSS Technical Committee

4 – Transmissions:

Single speed	Allowed. Must be capable of neutral, forward and reverse
Multi speed	Allowed. Must be capable of neutral, forward and reverse
Power	Must be derived from main engines



5 – Rudders:

Materials	Stainless steel or titanium only
Serial number	Unique stamped or engraved, required
Minimum thickness	0.350", any fore-aft chord
Edges, sharpening	Allowed
Rudder shape	Any
Dimensions	Rudder must extend at least 5" below keel
Depth	Fixed depth only
Trimable	Not allowed
Liftable	Not allowed
Integrity	Rudders must be checked by x-ray at least twice a year, before first race of the season, and not after 7/15
Documentation requirements	Complete x-ray certification documentation (serial # of rudder(s), test results on testing company's letterhead)
Missing documentation	Boat will be excluded from the race



OSS Technical Rules – OSS Turbine Extreme Class

All OSS Turbine Extreme Class boats must strictly adhere to the following specifications. Please also refer to the rules pertaining to all OSS classes.

1 - Dimensions:

Hull type:	Any *
Length minimum	40' 0"
Length maximum:	No Maximum
Beam maximum	No Restrictions
Tunnel width maximum	No Restrictions
Height minimum:	No Restrictions
Weight minimum:	No Restrictions

* - No 3 or 4 point hydroplanes allowed

2 - Engine specs:

Allowed Turbine Engines	Lycoming T-53, T-55, Pratt & Whitney PT, GE T-58
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3 – Transmissions:

Single / Multi Speed	No Restrictions

4 – Rudders:

Materials	Stainless steel or titanium only
Serial number	Unique stamped or engraved, required
Minimum thickness	0.350", any fore-aft chord
Edges, sharpening	Allowed
Rudder shape	No Restrictions
Dimensions	No Restrictions
Depth	Rudder must extend at least 5" below keel @ max lift
Trimable	Allowed
Liftable	Allowed
Integrity	Rudders must be checked by x-ray at least twice a year, before first race of the season, and not after 7/15
Documentation requirements	Complete x-ray certification documentation (serial # of rudder(s), test results on testing company's letterhead)
Missing documentation	Boat will be excluded from the race



- 5.** –Engine Specs – Any modifications are allowed to enhance operation in a marine racing environment.
- 6.** - No flame show or after burners allowed.
- 7.** - An electric or manual emergency fuel shut off or bypass must be in place on each turbine engine.
- 8.** - A minimum of one Coast Guard certified fire extinguisher per engine compartment. Extinguisher must be sized according to Coast Guard regulations.
- 9.** – Fuels – Turbines - Jet A, kerosene and/ or diesel only.
- 10.** - A Kevlar containment blanket must be used on the hot section of every engine to contain any GP or PT rotor failure.
- 11.** - Any number of engines may be installed as long as safety requirements per engine are met.
- 12.** - Any drive or propulsion configuration utilizing the thrust of water. Any drive ratio may be used.
- 13.** – Exhaust – Turbines - entire exhaust systems must be water cooled, insulated or coated.



OSS Technical Rules - PRO AM Bracket Classes

Mission Statement

The Pro Am Series is designed for the high performance boat owner to compete in professional offshore racing in a large variety of boat configurations. The competition rules will be based on the boats top speed on perfect water conditions. This format will serve as a showcase for new racers and seasoned professionals to compete on an equal playing field. Welcome to OSS PRO-AM Offshore Racing.

1. All PRO AM boats are required to comply with all OSS General Membership & Racing Rules and OSS Safety Rules.
2. OSS inspectors will place all boats in a class using a mathematical formula to determine the boat's top speed on perfect water conditions. Class placement may also be determined by an OSS inspector and a racing crew member of the boat by making a speed run with the boat in question.
3. Compliance with PRO AM top speeds shall be governed by GPS. If at any time any top speed reading is in excess of the class maximum, that boat shall be awarded last place points and be ineligible for prize money, flags or trophies. If there is a disagreement of boat's top speed or the application of the Pro Am rules, the decision of the Chief Referee shall be final.
4. OSS, at its sole discretion, may at any time use radar or require the purchase and installation of specific GPS units or any other electronic speed measuring devices to further regulate maximum top speeds within the Pro-Am Classes.

For 2010 OSS shall require each Pro-Am boat owner to purchase and install a GPS:

The following Garmin GPS models are the only GPS units allowed:

172,172c,182,182c,192,192c,398 and 498.

Note: The GPS's listed are available with internal and external antennas. We advise using the external antenna models with canopy boats.

These models are not available in the marine stores and they will advise you that they are no longer made. However they are available new and refurbished with a 1-year warranty from Garmin on Ebay in several Ebay stores.



5. PRO AM CLASSES

CLASS 5 Single inboard engine or single outboard boats only, 21 ft. minimum to 30 ft. maximum (+/- 6" Tolerance)
Maximum Top Speed = 75 MPH

CLASS 4 Maximum Top Speed = 85 MPH

CLASS 3 Maximum Top Speed = 95 MPH

CLASS 2 Maximum Top Speed = 105 MPH

CLASS 1 Maximum Top Speed = 117 MPH

CLASS PX Maximum Top Speed = 125 MPH

6. Pro Am class boats will be identified with PRO AM class number – in front of their assigned racing number. Such as a Class 3 boat would be 311 or 3-11 for Class 3, assigned race number 11.

7. In order to maintain parity and a competitive balance OSS Board of Directors may change or modify these class guidelines at any time as deemed necessary. Technical rule changes shall be governed by OSS general racing rule 34: OSS RULE CHANGE



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Addendum(s) to OSS Technical Rules

1. 03/16/2010 – Add: Pro- Cat Class
2. 03/19/2010 – Deep V Cat grandfathered into OSS Cat Outboard Class
3. 05/15/2010- Revised “grandfathering” rules in OSS Cat Class.

Any questions, concerns or challenges must be formally directed to:

**Offshore Super Series
Powerboat Racing Association**

**IF THIS RULEBOOK DOES NOT SPECIFICALLY ALLOW SOMETHING,
THEN YOU SHOULD ASSUME THAT IT IS ILLEGAL.
YOU HAVE BEEN WARNED.**

