



AFPGP RACE RULES



Version 3 – Updated 12 November 2014

To be adopted in addition to (or in substitution of) the race rules contained in the Australian Power Boat Association (APBA) Rule Book

These rules should be read in conjunction with the APBA Rule Book.

Application

Where the same area is covered by both the APBA Rule Book and this document, this document will be the Authority that applies to Australian Formula Powerboat Grand Prix (AFPGP) events.

No AFPGP rule will override an APBA safety rule.

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1 EVENT ENTRY AND DRIVER RESTRICTIONS

1.1 ENTRIES

All entrants must comply with the following:

- a) Be a current financial member of the Australian Formula Powerboat Grand Prix's (AFPGP) as outlined in 1.2.
- b) Must hold a current APBA Racing Licence or Boat Owners Licence (as applicable) issued by a State Council.
- c) Complete the AFPGP specific entry form and standard APBA Indemnity form.
- d) Pay any entry fee and/or safety levy as required by the AFPGP for the event.
- e) Late fees will not be payable for boats that have been subject to repair following a racing incident (this does not include engine failure), or fitting out a replacement or new boat (having not raced it before).

1.2 MEMBERSHIP

- a) New drivers to the AFPGP may enter their first event (at any time in the year) without having to become a member, and will also not be subject to the late entry fee. Drivers racing for the first time as a senior (after having raced with the AFPGP as a junior) will be considered to be new drivers.
- b) New Drivers must be a current financial member of an Australian Power Boat Association (APBA) affiliated Club.
- c) If they decide to join the AFPGP, the applicable membership payable will be the same amount payable by a driver who has raced with the AFPGP before.
- d) Drivers who have raced with the AFPGP before (in any year) must pay a full membership before they can race. The exception to this, is for classes that are not considered a "series" class (e.g. they are an invitational class to any one event.)
- e) See "Levels of Membership" document for further details.

1.3 NEW OR INEXPERIENCED DRIVERS TO AFPGP FORMULA CLASSES

- a) **Definition:** A new driver is considered to be one of the following:
 - i. A driver that has not competed at any AFPGP meeting.
 - ii. A current driver moving up a class (i.e. from F3 to F2 or F2 to F1).

Drivers who have competed in F1 and move back to F2 or F3, or have competed in F2 and move back to F3 are not considered as new drivers to that class.
 - iii. A driver moving up from Formula Future.
- b) If a new driver does not meet the requirements of (1.3 ai.), the Race Director or Race Committee may at their/its discretion, allow the driver to compete, only after the driver has completed the first practice session to the satisfaction of the Race Director and the Race Committee.
- c) New drivers may be required to start from outside pole position on a delayed start during their first race event with the Club as directed by the Race Director and/or Race Committee.
- d) New drivers must keep their racing line to not impede other competitors.
- e) If at any time prior to or during a race, a new driver does not comply with the restrictions imposed, the Race Director may do any or all of the following:
 - Issue the driver with a warning or a Yellow Card.
 - Stop the race and order the driver to cease racing immediately and return to the bank
 - Stop the driver from participating in any further racing on that day or at that event.

- f) The Race Committee may reject the driver's entry, meaning that they will not be able to race. Any entry fee paid in this instance will be refunded as soon as possible.
- g) The Race Director and/or Race Committee will monitor the performance of restricted drivers and restrictions will be removed when officials are satisfied with the drivers' level of competency.

1.4 NEW DRIVERS TO SUPPORT CLASSES

- a) Drivers who are new to a support class may be subject to certain restriction as deemed necessary by the Race Director or Race Committee.
- b) The level of restriction applied will take into account:
 - a. Race experience in the class they wish to compete in
 - b. General experience in boat racing
 - c. Any other factor that the driver wishes to put forward or that the Race Committee deems as being relevant.
- c) If at any time prior to or during a race, the "restricted" driver does not comply with the restrictions imposed, the Race Director may do any or all of the following:
 - a. Issue the driver with a warning or a Yellow Card.
 - b. Order the driver to cease racing immediately and return to the bank
 - c. Stop the driver from participating in any further racing on that day or at that event.
- d) The Race Committee may reject the driver's entry, meaning that they will not be able to race. Any entry fee paid in this instance will be refunded as soon as possible.
- e) The Race Director and/or Race Committee will monitor the performance of restricted drivers and restrictions will be removed when officials are satisfied with the drivers' level of competency.

2 GENERAL RULES

2.1 RULE SUSPENSION, MODIFICATION OR ADDITION

- 2.1.1 These rules can be suspended, modified or added to only via the methods described in AFPGP Constitution.

2.2 DRESS CODE

- 2.2.1 All contestants and officials are required to dress appropriately for all official functions related to the event. Standard motor sport style team uniforms are required of all teams.

2.3 RACE NUMBERS

- 2.3.1 The race numbers to be used are those are assigned by the owners or drivers' State Council who issues the licence.

2.4 RADIO COMMUNICATION

- 2.4.1 It is recommended that all Formula 1, Optimax, 2, 3 & 4 racing teams possess and use two-way radio communications between a designated radio person and the driver.
- 2.4.2 All teams must note on their Scrutineering form whether or not they have radio communications prior to it being handed in for that event.
- 2.4.3 Team members with radio communications must comply with APBA rule 305. A designated standing area will be set-up and marked near the starting area.

2.5 WITHDRAWING FROM EVENTS

2.5.1 No competitor may withdraw from the event for the express purpose of allowing another competitor to use their boat.

2.6 PIT AREA

2.6.1 The Pit Area is defined as “the area enclosed or to be enclosed” with fencing by the AFPGP, in which the competitors park their boats, support vehicles and equipment.

2.7 SAFETY IN THE PITS

2.7.1 Once any boat or fuel is present in the pit area the following rules apply:

- **ABSOLUTELY NO SMOKING IN THE PIT AREA**
- **ENCLOSED SHOES** (i.e. no thongs) are to be worn by all people participating in the event in any way. This includes all officials, pit crew handling boats and/or the set up or pack up of any equipment associated with the event.
Once racing has commenced all Pit Crew must be wearing enclosed shoes.
- **ABSOLUTELY NO ALCOHOL TO BE CONSUMED IN THE PIT AREA** until after the Race Director has called a close to racing on any given day.
- **FIRE EXTINGUISHER** – All teams MUST have a suitable and working fire extinguisher (that has not reached its expiry date) at the front of their own team pit area at all times.
- Teams are also requested to have a suitable and working fire extinguisher attached to their trailer/dolly – however this is not mandatory.
- Any equipment that involves a naked flame (e.g. a BBQ) but is required in the pits must be positioned in a cordoned off area of the pits so that:
 - A sufficient distance (as determined by the AFPGP) is maintained from any fuel or boat or other flammable equipment/substances;
 - The area is clearly identifiable to all persons in the pit area so that flammable substances and equipment can be kept well clear of the area (e.g. use of bunting).
 - There will be no smoking in this cordoned off area.

2.8 PIT CREW

2.8.1 Pit Crew is defined as any person;

- Working on or handling a boat at any time;
- Assisting the driver while in the boat;
- Participating in any way, in relation to moving the boat to and from the water during a race or practice session.
- Where there is a dispute as to whether or not a person is a “pit crew” member, the Race Director will make a determination on the matter based on the information before them.

2.8.2 Pit Crew Age Restriction - Pit Crew members actively participating in the event (including but not limited to holding boats on the dock and assisting in the water as well as on the ramp) **MUST** be at least 16 years of age. An exemption to this rule is for non-operating formula future boats where pit crew members must be at least 14 years of age.

2.8.3 Crew Chief/Team Manager – This person is the only other person besides the Driver who is allowed to attend the Drivers Briefings, Class Meetings and discuss any racing or general incidents with the Race Director and Race Committee.

3 RESULTS

3.1 OFFICIAL RACE RESULTS

- 3.1.1 Qualifying or Races will only become official when all questions of legality or rule compliance have been satisfied.
- 3.1.2 The awarding of trophies, monies or other prizes or conducting of awards ceremonies may take place before the race becomes official.
- 3.1.3 Any prizes that have been awarded in error must be returned by contestants receiving them in error, before their entry will be accepted for future races.

4 DRIVERS AND OFFICIALS BRIEFINGS

- 4.1 It is compulsory that all entered drivers attend the scheduled drivers' briefing.
- 4.2 It is compulsory that all officials attend the scheduled officials' briefing.
- 4.2 Crew Chief/Team Managers are encouraged to attend Drivers Briefings. No other team members are allowed to attend.

5 FLAGS

WHITE	IN THE HANDS OF THE STARTER
WHITE FALLS	START OF RACE
GREEN	RACE IN PROGRESS
YELLOW	ONE LAP TO FINISH
BLACK and WHITE CHEQUERED	FINISH – ALL BOAT TO FINISH ON THIS FLAG
BLACK	RETURN TO PITS
RED	ALL BOATS STOP ON COURSE – IMINENT DANGER OR INCIDENT. RED smoke flares can be used.
WHITE with RED DIAGONAL CROSS	HAZARD ON COURSE – HAZARD ON THE COURSE THAT DOES NOT WARRANT IMMEDIATE STOPPING OF THE RACE.

6 SAFETY RULES AND REINFORCED COCKPIT RULES

- 6.1 All officials and competitors will comply with the APBA Group 800 rules.
- 6.2 In regards to Reinforced Cockpit rules, refer to the APBA Group 1000 rules.
- 6.3 Scrutineering Forms and Technical Inspection Log Books are to be current APBA issue.
- 6.4 Additional specific or technical forms may be used by the AFPGP.

7 POINTS

7.1 Points will be allocated in accordance with APBA Rule 908.

8 MANAGEMENT OF AFPGP EVENTS

8.1 The AFPGP will be responsible for effectively organising the event and is to provide the necessary personnel and adequate facilities for officials and participants to ensure a successful race meeting and compliance with all local ordinances and other laws and regulations.

8.2 The AFPGP will also be responsible for obtaining all necessary licences and permits required for the event.

8.3 The APBA will provide the Australian Referee necessary if the AFPGP is running an Australian Championship or Australian Championship Series

8.4 The AFPGP will appoint an official to have authority over all fire, rescue and medical personnel, equipment and course and tow boats.

8.5 **A Race Director will be appointed for each race event. The Race Director will have the control of:**

- All boats, including rigging, engine and fuel;
- Each boat's owner, driver and crew members;
- The race course and pits; and
- All other officially designated areas including, but not limited to hospitality and spectator areas.

8.6 **The Race Director will be responsible for:**

- Race course design and length (in conjunction with the Race Committee)
- Enforcing all rules and regulations of the AFPGP and of the Australian Power Boat Association.
- Postponing or cancelling any race or event for reasons of safety or forces beyond to control of the AFPGP.

8.7 The Race Director's authority will last during the time indicated in any program, or before race registration and after the finish of the days' racing.

The AFPGP Committee will have the authority to appoint a group of race officials and their assistants to manage and conduct the actual racing events and to administer the rules and regulations contained herein.

8.8 **Other suggested Race Officials:**

- **TIMER(S) / SCORER(S)**
 - Will have authority over all aspects of the timing and scoring of all races and the official compiling of race results and points.
- **STARTER**
 - Will have the responsibility of ensuring competitors are in the starting area, in proper order, before starting or restarting a race.
- **SCRUTINEER(S)**
 - Will have authority over pre-race (including post-incident re-scrutineering or re-scrutineering following change or modification) and all technical and safety equipment inspections to determine compliance with the APBA and AFPGP rules.
- **PIT AREA COORDINATOR & RAMP MARSHALL**
 - Will have authority over organisation of competitors and crew in the pit and ramp areas.

9 RACING FORMAT

9.1 The following is generally the format for AFPGP events.

Formula 1, Formula Optimax, Formula 2, Formula 3 and Formula 4 classes:

Saturday

Practice

Qualifying Session

Race 1 – Pole positions as per qualifying times.

Sunday

Race 2 - Reverse grid from finishing places of Race 1.

Race 3 - Reverse grid from points accrued from Races 1 & 2.

Race 4 - Pole positions from points accrued from Races 1, 2 & 3.

Note that for reverse grid starts, any boat that fails to start or finish the race prior will start from the rear of the grid.

Support Classes (per class)

Saturday	Sunday
Race 1	Race 4
Race 2	Race 5
Race 3	Race 6

9.2 When conditions necessitate deviation from this format, announcements of any changes will be made by the Race Director at the Driver's Briefing or throughout the day (as required).

9.3 Changes may include the number of boats that in the opinion of the Race Director would be a safe field on the racecourse, at the same time.

9.4 The Race Committee may also alter the standard race format to provide for other classes.

10 THE COURSE

10.1 The Race Director will be responsible for specifying the racecourse design and length after taking into account the following factors:

The layout of the waterway (sand banks, width of river, etc.).

Location of spectator viewing area/s.

Timing / timers location and in turn the location of the start finish buoy.

Location required for the dock/beach starts and subsequent straight line to first turn buoy.

Positioning of the first turn so that it can be filmed from both the safety boat and the land (perpendicular to the first turn buoy).

10.2 Refer to Group 600 rules of the APBA book for other rules that apply in relation to the course.

10.3 One right hand corner will be included where the course permits and it is deemed safe by the Race Director.

11 QUALIFYING, LAPS, STARTS AND RESTARTS

11.1 QUALIFYING

- 11.1.1 All boats must complete a minimum of two laps in each official qualifying session.
- 11.1.2 Boats not completing at least two laps in qualifying will be required to start at the rear of the grid or on a delayed start if the grid is already at its maximum capacity. This will be at the discretion of the Race Director.
- 11.1.3 Qualifying times will be taken from a timed qualifying session, where the fastest lap set by each boat will determine pole positions.
- 11.1.4 In the event that two or more boats have the same qualifying times, the start positions will be determined by their current Championship position (or previous year if 1st event of the season).
- 11.1.5 At the Race Directors discretion, should there be more than 10 boats competing in one class, the group may be split into two groups. Groups will be selected based on the current points from the last Round of the Championship (or previous year if 1st event of the season).

11.2 SPLIT FIELD RACES

- 11.2.1 If the number of qualified entrants exceeds what is to be considered by the Race Director to be the safe number of boats to be run on the course at one time, the field may be split at the discretion of the Race Director.
- 11.2.2 Points for the class will be awarded based on race times.
- 11.2.3 The field will be split on qualifying times for Race 1 of the event then race times for subsequent races at the event.

11.3 LAPS

- 11.3.1 The following laps will generally apply to each race:

Class	Laps
Formula 1	10 (12-15 Race 4)
Formula Optimax and Formula 2	10 (12-15 Race 4)
Formula 3 and Formula 4	8 (10-12 Race 4)
Support Classes	3-5

- 11.3.2 The Race Director may amend the number of laps the class will race if it is required for safety or race/event administration reasons.
- 11.3.3 Drivers will be advised of the number of laps applicable to each event at the drivers briefing.
- 11.3.4 Timing and Laps are counted only after the first time past the start finish line.

11.4 MINIMUM LAP REQUIREMENT – Formula 1, Formula Optimax, Formula 2, Formula 3 and Formula 4 classes only

- 11.4.1 In order for a driver to be eligible to receive race points, the driver must have completed at least 50% of the scheduled race distance and the boat must pass race control under chequered flag conditions, under its own power.
- 11.4.2 At the discretion of the Race Director, the black recall flag will only be shown once all boats have passed race control.
- 11.4.3 Drivers that have completed at least 50% of the scheduled race distance and that have stopped on the course and then restarted, but do not pass race control under chequered flag conditions will not be eligible to receive race points for that race. (E.g. the boat cuts across the course to return directly to the pits).

11.5 RACE STARTS

- 11.5.1 Formula 1, Formula Optimax, Formula 2, Formula 3 and Formula 4 races will be started using a dead engine dock start as described in these rules.
- 11.5.2 Formula 1, Formula Optimax, Formula 2, Formula 3 and Formula 4 restarts may be by dock start or pace boat restart.
- 11.5.3 Support races will be started using a pole boat start and in accordance with APBA rules.
- 11.5.4 Formula Futures will start a handicap clock start procedure and in accordance with APBA rules.

11.6 WARM UP

- 11.6.1 Under the direction of the Race Director, all senior boats will be permitted to enter the course and do one warm up lap prior to approaching the dock or start area.
- 11.6.2 All boats must start from the designated start area.

11.7 DOCK START PROCEDURE

- a. All drivers must come into the designated start area in their Pole order (Pole 1 comes in first; Pole 2 comes in second, etc.).
- b. Drivers who come in to the designated start area in the incorrect order will be sent to the end of the starting grid (or to a lower position in the start order if the Race Director determines, for safety reasons, they should not start at the rear of the pack).
- c. The exception to this rule is where a driver has been ordered to come into the dock before they are scheduled to do so (according to their pole order) by an official.
- d. A driver who has been held up in the pits or on the ramp and, through no fault of their own, and has (as a result) reached the starting area late (e.g. after the starting grid has formed or started to form) WILL be permitted by the Race Director to join the dock in their correct pole position.
- e. In such a situation it is up to the driver's team members to communicate the hold up to the pit marshal who can then communicate with the Race Director and Start Officials in time for allowances to be made.
- f. A driver who has been held up through their own equipment malfunction and is late to get to the starting grid MAY be permitted to join the line up in their pole position – however this is purely at the discretion of the Race Director.
- g. In making their decision the Race Director will need to consider how the event is running in relation to the program and whether or not the extra time to slot them in to their correct pole position can be permitted.
- h. Where time does not permit the driver must start at the back of the grid.
- i. In such a situation it is up to the driver's team members to communicate the hold up to the pit marshal who can then communicate with the Race Director and Start Officials in time for allowances (if any) to be made.
- j. All teams must hold their boats so that they are able to start and travel in their correct pole position on their way to the first turn.
- k. Teams must not hold their boat at an angle that causes (or is likely to cause) the competitors to the right to be pushed wide or off course at the start of the race.
- l. Teams are not permitted to "lift", "push" or "assist" in any manner that would provide a starting advantage for their boat.
- m. For the race start, teams must hold their boat at the stern. There is to be no holding of the boat from either side sponson.
- n. A one lap penalty will be applied to teams & drivers breaking any of the above start procedure rules.

11.8 STARTING FLAG PROCEDURE

- a. A green flag will be held up by the start boat indicating the one-minute signal.
- b. Following the green flag, the white flag will be raised for a maximum of fifteen seconds
- c. At any time after the white flag is displayed; the starter may drop the white flag, which will designate the start of the race.

11.8.1 No engine cranking (i.e. engaging of the starter motor) is permitted once the boat is being held on the dock; a one-lap penalty will be imposed.

11.9 LATE STARTERS

11.9.1 Any boat not starting must return to the designated start area by the driver's own initiative and must do so in a way that does not place them in the way of oncoming traffic.

11.9.2 No crew may enter the water to retrieve any boat or other article, or a one-lap penalty will be imposed.

11.9.3 A late starting boat will be allowed to join in at the back of the field (from the designated start area) after the last placed boat passes the designated start area (or earlier if ordered by the Race Director) and be judged to have crossed the start finish line and be on lap one.

11.10 FIRST TURN

11.10.1 All competitors **MUST** maintain their pole positions until they have completed the first turn and reached the straight immediately following the first turn.

This includes where a boat has failed to start off the dock or fallen behind at the first turn, effectively leaving a vacant lane at the first turn.

11.10.2 The competitor outside this vacant lane (in the next pole position) **IS NOT** permitted to move into the vacant lane until after they have completed the first turn and they have reached the straight immediately following the first turn.

11.10.3 The competitor inside this vacant lane is also not permitted to move to the right into the vacant lane.

11.10.4 All drivers to the right of the competitor next to them **MUST** maintain an awareness of the boat to their left (e.g. on their inside).

11.10.5 If the inside boat drifts out of their lane on the right side, the affected boat on the right **MUST** make room for them if it means the avoidance of a collision.

11.11 RESTARTS

11.11.1 Whenever possible, the restart line-up will reflect the actual running order of the Boats at the time the race was stopped.

11.11.2 When this is not possible, the restart line-up will be as the same as the initial start of the race that was stopped.

11.11.3 The Race Director will determine whether the restart will be a dock start or pace boat format.

11.11.4 Restart positions and instructions will be conveyed to the contestant's crew by the officials.

11.12 RACE STOPPAGES

- 11.12.1 Where a race has been stopped for any reason, teams are not permitted to alter the boat or motor in any way between the time it is stopped and the eventual restart without prior approval of the race director.
- 11.12.2 Any approved alterations must be carried out under the supervision of the Race Director or Official nominated by the Race Director.
- 11.12.3 **NO** fuel is to be added to any boat during any race or during a race stoppage.

12 TECHNICAL INSPECTION PROCEDURES

12.1 TECHNICAL INSPECTION AREA

- 12.1.1 Immediately after qualifying and each race, the relevant contestants (in accordance with their class rules) must report with their boats as raced to the nominated inspection area as designated by the Chief Inspector.

12.2 CUSTODY

- 12.2.1 The boat and motor will remain in the custody of the Chief Inspector until all inspection procedures are complete and the boat and motor is released.
- 12.2.2 For the purpose of enforcement of technical rules, the boat and motor will be assumed to have been raced in the same condition in which it was received in the inspection area.
- 12.2.3 Boats and/or motors found to be in violation of the technical rules will subject the driver to penalties as prescribed by the Race Director.

12.3 DISMANTLING

- 12.3.1 The Chief Inspector will have the power to order any contestant to dismantle his/her motor for inspection and measurement at any time during the event.
- 12.3.2 Any contestant who refuses to comply with the orders will be subject to instant disqualification from that event.

12.4 FAILURE TO ATTEND THE INSPECTION AREA

- 12.4.1 Failure of the driver to report to the nominated inspection area with his/her boat and motor on a timely basis in the condition in which it was raced will be considered a violation of the technical rules and will subject the driver to penalties as prescribed by the Race Director.

12.5 CHECKING WEIGHT

- 12.5.1 All drivers who are racing in classes with boat weight restrictions are encouraged to check the weight of their boat at the event prior to any racing commencing (e.g. Saturday morning when crane arrives) to ensure they are within weight according to the scales being used on the weekend.
- 12.5.2 It is the total responsibility of the driver to ensure their boat is the correct weight by the measure of the scales being used on the event weekend.
- 12.5.3 There will be no protest permitted of the scales being used.

12.6 FUEL TESTING

- 12.6.1 Fuel testing and fuel system inspection can be done at any time, before, during or after any heat of racing or qualifying session.

- 12.6.2 The entire fuel system can be disassembled, removed from the boat and inspected.
- 12.6.3 The presence of illegal fuel, at any time, in the onboard fuel system will be considered a violation of the fuel rules.
- 12.6.4 If results of fuel testing are irregular, the driver may elect to have a sample collected by an AFPGP official and sent to an independent laboratory for analysis at the driver's expense.

12.7 ENGINE SEALING AND SCRUTINEERING

- 12.7.1 An engine cannot be sealed by someone associated with that engine's team or driver.
- 12.7.2 A boat cannot be scrutineered by someone associated with that boat's team or driver.
- 12.7.3 A person will be considered "associated" with a team or driver if it is the opinion of the Race Director that there is a real or perceived conflict of interest.

12.8 ACCIDENT INVESTIGATIONS

- 12.8.1 After a racing accident, boats are not to be removed from the Pit Area. Removal will result in instant disqualification from the event.

13 RULE ENFORCEMENT & PENALTIES

13.1 INTERPRETATION OF RULES

- 13.1.1 Whenever a situation may arise in which a rule does not seem clear, it will be the responsibility of the Race Director and/or Race Committee to clarify and/or interpret the rule in question using the letter of the rule and the spirit and intent under which the rule was written and is to be enforced.
- 13.1.2 Any subsequent protest of the Race Director's interpretation will follow the protest and appeal procedures as outlined in the APBA Group 400 rules.

13.2 UNSPORTSMANLIKE CONDUCT

- 13.2.1 Any contestant, crewmember, official, sponsor or anyone else connected with the racing event, who in the judgment of the Race Director demonstrates any act of unsportsmanlike conduct may be subject to penalties as set out in the APBA Racing and Safety Rules.

13.3 APBA PENALTIES

- 13.3.1 If the rule breach is in relation to a "racing" infringement the Race Director may also apply any other applicable penalty set out in the APBA rule book – e.g.: Yellow or Red card, etc.
- 13.3.2 Any decision made by the Race Director in this area can be protested in accordance with the APBA group 400 rules.

13.4 BREAKING OF CLUB RULES

13.4.1 Category

There will be the following 2 categories of activity to be considered by the relevant racing officials:

CATEGORY 1 - Breaking of Rules in relation to **the Boat, the Motor and Racing**

CATEGORY 2 - Breaking of other rules (incl. but not limited to "pit safety rules")

13.4.2 Referral

Instances of alleged breaking of the rules must be referred to the Race Director in the first instance for a ruling as soon as possible after the alleged incident.

13.4.3

Determination

The determination of the type of breach & resultant penalty will be made by Race Committee. In making their decision, the Race Committee will consider:

- i) The rules to which the AFPGP drivers and teams are subject to
- ii) The evidence before them (as provided by observations, video evidence, a scrutineer, a committee member or some other party)

In relation to racing activity, the Race Committee may also take into account:

- iii) The experience and knowledge of the driver, the drivers team, the driver's guardian (in the event of a junior driver) or the individual involved;
- iv) The history of the driver, their team, the driver's guardian (in the event of a junior driver) or individual in relation to breaches of the AFPGP club and racing rules since the AFPGP's inception in September 2009 (whether there has been previous breaches of any kind).
- v) The actual or potential impact/gain or advantage that resulted or could have resulted from the breach.

13.4.4

Penalty Guidelines

- a) The penalty for any determined **Category 1** breach in relation to the boat or the motor will be the loss of all points relevant to the affected driver for the race/s to which the identified breach relates (limited to the race meeting the breach was identified)
- b) The penalty for any determined **Category 1** breach in relation to racing will be the loss of all points relevant to the affected driver for the race/s to which the identified breach relates or a partial loss of points relevant to the affected driver for the race/s to which the identified breach relates or a formal warning at the discretion of the Race Committee.

(Note: if the breach is in relation to "racing" the Race Director/Committee may also apply any other penalty set out in the APBA rule book – e.g. yellow card etc)

- c) If the loss of points is to apply to a race or races prior to the race after which the breach was identified (at that event), then the Race Director must be satisfied that there is sufficient evidence that the breach did occur in these prior races.
- d) In relation to a CAT2 type breach, any committee member or race official who sees a breach may give a formal warning to a team member to give them the opportunity to rectify the situation before referring them to the Race Director, however only one warning is permitted. If a warning is given and the offender fails to rectify the situation or is caught breaching the rules a second time, they must be referred to the Race Director.

13.4.5

Records/Consistency & Appeal

- e) All breaches considered by the Race Director and the outcome of such considerations must be recorded in writing and given to the Club Secretary for future reference. The record will be known as the club's "Rules Breach" Record Book.
- f) In making a decision the Race Director must make reference to the club's Rules Breach Book (referenced above) to ensure consistency in decision making. If the Race Director deems it necessary to deviate from previous practice or severity of penalty, ample notes are required to document and justify this deviation.

Any decision made by the Race Director in this area can be appealed to and considered by the Race Committee in accordance with APBA appeal provisions.

14 PROTESTS AND APPEALS

14.1

Protests and Appeals will be submitted and dealt with using APBA Group 400 Rules.

15 GENERAL RULES FOR ALL FORMULA CLASSES

- 15.1 Fuels must be commercially available street-legal grade automotive or aviation pump fuel only with no additives other than oil for engine lubrication permitted. Formula 2 SST120 Class is exempt from this fuel rule; refer to Formula 2 Class Rules (Section 18).
- 15.1.1 No additives pre mixed in oil are acceptable.
- 15.2 Refuelling and/or the addition of any materials that affect the weight of the boat cannot be done during races/qualifying or before the inspection process which follows the completion of a race/qualifying session.
- 15.3 Minor and/or major repairs can be done at any time, before or during a qualifying session or race.
- 15.3.1 Parts that are subject to safety or technical inspection may only be changed with the permission of, and under the supervision of the Head Scrutineer.
- 15.3.2 Any part or component that has been used in any qualifying session or race will be subject to a technical inspection before the race results are declared official.
- 15.3.3 Although repairs can be made at any time as stated above, all contestants must obey all flag signals, rules, regulations and the directives of race officials.
- 15.4 Each boat and motor will be permitted only one system for the storage and/or delivery of fuel.
- 15.4.1 Secondary or alternative fuel storage and/or delivery devices are strictly illegal regardless of their fuel content or capability for use.
- 15.4.2 Surge tanks are permitted.
- 15.5 All boats will have adequate equipment so that they can be lifted in or out of the water for the purpose of launching or weighing.
- 15.5.1 Single point lifting slings/bridles will be constructed from a minimum ¼" steel cable or a minimum 1" nylon strap.
- 15.5.2 Attachment to the boat and motor will be by clevis pins or snap hooks to permanent points located on the boat /motor and designed for lifting purposes.

16 FORMULA 1 CLASS RULES

16.1 BOAT & MOTOR SPECIFICATIONS

16.1.1 Each boat must meet one of the following specifications, with weights to be taken at the completion of any qualifying session or race in “as finished” condition including the driver.

Class	Maximum Engine Capacity and Induction Method	Minimum Length	Minimum Weight
F1	2.0 Litre Carby	5.0 metres	477kg
F1	2.0 Litre EFI	5.0 metres	477kg
F1	2.4 Litre Carby	5.0 metres	497kg
F1	2.5 Litre Carby	5.0 metres	535kg
F1	2.5 Litre EFI	5.0 metres	550kg

16.1.2 Formula 1 Class hulls must comply with all safety requirements of the APBA Racing and Safety Rules relevant to the class (Group 800 and Group 1000).

16.1.3 Any boat that does not meet the capacities listed, but complies with all other APBA rules may apply to the AFPGP for a parity ruling specification and ‘special’ inclusion.

16.2 MACHINERY

16.2.1 A standard 4 gear/twin shaft gearbox must be used.

16.2.2 All gearboxes must be weighed and marked by scrutineer before participating in any practice session or race.

16.3 TECHNICAL INSPECTIONS

16.3.1 **QUALIFYING** – After timed qualifying sessions and each race, the boats that placed 1st, 2nd, 3rd and 4th must report to the inspection area for any or all of the following checks:

- Weight
- Rev limit of 10100rpm
- Standard A14 fuel curve
- Fuel
- Gearbox (Visual inspection that scrutineer mark is still on the gearbox)

16.3.2 **ALL RACES** – Immediately after the final race of the weekend, the boats that finished 1st, 2nd, 3rd and 4th for the weekend (i.e. overall places) must report to the inspection area for any or all of the following checks:

- Weight
- Rev limit of 10100 rpm
- Standard A14 fuel curve
- Fuel
- Gearbox (Visual inspection that scrutineer mark is still on the gearbox)

17 FORMULA OPTIMAX CLASS RULES

17.1 BOAT & MOTOR SPECIFICATIONS

17.1.1 Any boat that does not meet the capacities listed, but complies with all other club and APBA rules may apply to the conducting club for a parity ruling specification and 'special' inclusion.

Class	Engine	Minimum Length	Minimum Weight
FO	2.5 Litre DFI / SST200	5.0 metre	550 kg

17.1.2 Formula Optimax Class hulls must comply with all safety requirements of the APBA Racing and Safety Rules relevant to the class (Group 800 and Group 1000).

17.1.3 Only engines qualifying to the SST200 rules will be eligible for Formula Optimax.

17.1.4 Engines will be measured and checked against the SST200 data sheets as supplied by the engine manufacturer (UIM Homologation file numbers 00501b and 00501c).

17.2 FUEL

17.2.1 Fuels for all events will be commercially available pump fuel only 98 RON with no additives permitted. Results of fuel testing will be final.

17.2.2 Refuelling and/or the addition of any materials that affect the weight of the boat cannot be done during heats or before the inspection process, which follows the completion of a heat.

17.2.3 Each boat and motor will be permitted only one system for the storage and/or delivery of fuel. Secondary or alternative fuel storage and/or delivery devices are strictly illegal regardless of their fuel content or capability for use.

17.3 ENGINE SEALING & TECHNICAL INSPECTIONS

17.3.1 **QUALIFYING** – After timed qualifying sessions and each race, the boats that placed 1st, 2nd, 3rd and 4th must report to the inspection area for any or all of the following checks:

- Weight
- Fuel

17.3.2 **ALL RACES** – Immediately after the final race of the weekend, the boats that finished 1st, 2nd, 3rd, and 4th for the weekend (i.e. overall places) must report to the inspection area for any or all of the following checks:

- Weight
- Fuel

17.3.3 All engines must be checked by a person nominated by the AFPGP to ensure compliance with the SST200 rules.

17.3.4 Engines may be sealed with a "holding" seal prior to racing by the appointed engine sealer (or deputy). The holding seal will be checked by the appointed engine sealer (or deputy) as soon as possible after the event in question and prior to any further racing with the series being permitted.

17.3.5 All points for the race meeting (raced under the holding seal) will be stripped if, when the engine is checked, it is found to be not compliant with the SST200 rules.

17.3.6 For technical inspection guidelines refer to **Appendix 1**.

17.3.7 Formula Optimax class boats will be subject to random compliance checking in relation to SST200 specifications at the completion of racing.

18 FORMULA 2 (SST120) CLASS RULES

18.1 BOAT & MOTOR SPECIFICATIONS

18.1.1 Each boat must meet the following specifications, with weights to be taken at the completion of any qualifying session or race in “as finished” condition including the driver.

Class	Engine	Minimum Length	Minimum Weight
F2	Mercury SST120	4.8 metres	500 kg

18.1.2 Formula 2 Class hulls must comply with all safety requirements of the APBA Racing and Safety Rules relevant to the class (Group 800 and Group 1000).

18.1.3 For specification / modification details refer to Appendix 1 “AFPGP Formula 2 SST120 Specification Sheet”.

18.2 FUEL

18.2.1 Only service station pump fuel or avgas is permitted. E85 or street legal 98 fuels (e.g. “VP” race fuel or “ELF” etc) are not permitted to be used.

18.3 ENGINE SEALING & TECHNICAL INSPECTIONS

18.3.1 **QUALIFYING** – After timed qualifying sessions and each race, the boats that placed 1st, 2nd, 3rd and 4th must report to the inspection area for any or all of the following checks:

- Weight
- Fuel

18.3.2 **ALL RACES** – Immediately after the final race of the weekend, the boats that finished 1st, 2nd, 3rd, and 4th for the weekend (i.e. overall places) must report to the inspection area for any or all of the following checks:

- Weight
- Fuel

18.3.3 All engines must be checked by a person nominated by the AFPGP to ensure compliance with the SST120 rules.

18.3.4 Engines may be sealed with a “holding” seal prior to racing by the appointed engine sealer (or deputy). The holding seal will be checked by the appointed engine sealer (or deputy) as soon as possible after the event in question and prior to any further racing with the series being permitted.

18.3.5 All points for the race meeting (raced under the holding seal) will be stripped if, when the engine is checked, it is found to be not compliant with the SST120 rules.

18.3.6 For technical inspection guidelines refer to **Appendix 2**.

18.3.7 Formula 2 class boats will be subject to random compliance checking in relation to SST120 specifications at the completion of racing.

19 FORMULA 3 CLASS RULES

19.1 BOAT & MOTOR SPECIFICATIONS

19.1.1 Each boat must meet the following specifications, with weights to be taken at the completion of any qualifying session or race in “as finished” condition including the driver.

Class	Maximum Engine Capacity and Induction Methods	Minimum Length	Minimum Weight
F3	1.25 Litre Carby or EFI	3.5 metre	350 kg

19.1.2 Formula 3 Class hulls must comply with all safety requirements of the APBA Racing and Safety Rules relevant to the class (Group 800 and Group 1000).

19.1.3 Formula 3 class rules are as per the APBA 1250 Super Sports class rules with the exception of the rules listed in these rules in relation to weight, fuel, cockpits and event particulars

19.1.4 Any boat that does not meet the class specifications is not eligible for points.

19.1.5 Boats that do not meet the class specifications can however nominate to enter the event, but must start at the back of the field and the driver must not interfere with racing of bona-fide class competitors.

19.2 TECHNICAL INSPECTIONS

19.2.1 **QUALIFYING** – After timed qualifying sessions and each race, the boats that placed 1st, 2nd, 3rd and 4th must report to the inspection area for any or all of the following checks:

- Weight
- Fuel

19.2.2 **ALL RACES** – Immediately after the final race of the weekend, the boats that finished 1st, 2nd, 3rd, and 4th for the weekend (i.e. overall places) must report to the inspection area for any or all of the following checks:

- Weight
- Fuel

20 FORMULA 4 CLASS RULES

20.1 BOAT & MOTOR SPECIFICATIONS

20.1.1 Each boat must meet the following specifications, with weights to be taken at the completion of any qualifying session or race in “as finished” condition including the driver.

Class	Maximum Engine Capacity and Induction Methods	Minimum Length	Minimum Weight
F4	60hp Mercury 15” UIM Homologated engine	3.9 metres	350 kg

20.1.2 Formula 4 class rules are as per the APBA class rules (**Appendix 3**).

20.1.3 Formula 4 Class hulls must comply with all safety requirements of the APBA Racing and Safety Rules relevant to the class (Group 800 and Group 1000).

20.1.4 Any boat that does not meet the class specifications is not eligible for points.

20.1.5 Boats that do not meet the class specifications can however nominate to enter the event, but must start at the back of the field and the driver must not interfere with racing of bona-fide class competitors.

20.2 MACHINERY

20.2.1 As per the APBA Rules (**Appendix 3**)

20.3 TECHNICAL INSPECTIONS

20.3.1 **QUALIFYING** – After timed qualifying sessions and each race, the boats that placed 1st, 2nd, 3rd and 4th must report to the inspection area for any or all of the following checks:

- Weight
- Fuel

20.3.2 **ALL RACES** – Immediately after the final race of the weekend, the boats that finished 1st, 2nd, 3rd, and 4th for the weekend (i.e. overall places) must report to the inspection area for any or all of the following checks:

- Weight
- Fuel

20 FORMULA FUTURE J1, J2 and J3 CLASS RULES

20.1 CLASS SPECIFICATIONS

20.1.1 Formula Future class boats and drivers must meet minimum specifications as set out in the APBA Formula Future class rules with the exception of any rules listed in these supplemental rules in relation to event particulars.

APPENDIX 1 - AFPGP FORMULA OPTIMAX (SST200) SPECIFICATION SHEET

AP1.1 FO BOAT AND MOTOR SPECIFICATIONS

AP1.1.1 Minor and/or major repairs can be done at any time, before or during a heat. Parts that are subject to safety or technical inspection may only be changed with the permission of, and under the supervision of the Chief Inspector. Any part or component that has been used in any heat of racing or time trials will be subject to a technical inspection before the race results are declared official. Although repairs can be made at any time as stated above, all contestants must obey all flag signals, rules, regulations and the directives of race officials.

AP1.1.2 All boats will have adequate equipment so that they can be lifted in or out of the water for the purpose of launching or weighing. Single point lifting slings/bridles will be constructed from a minimum ¼" steel cable or a minimum 1" nylon strap. Attachment to the boat and motor will be by clevis pins or snap hooks to permanent points located on the boat /motor and designed for lifting purposes.

AP1.2 MACHINERY

AP1.2.1 FO.1.2 Maximum engine displacement 2526cc.

AP1.2.2 All cowling and engine graphics and colours will be as OEM, with updating to later models allowed only as a complete OEM design. Replacements to fibreglass cowlings are allowed as long as weights are equal to or greater than OEM models.

AP1.2.3 Engine wiring cannot be changed to a 24-volt starting system. Trim will remain under a 12 volt system.

AP1.2.4 Gear cases may have their outside surfaces re-profiled however; they must meet the minimum dimensional requirements of the Engine Specification sheets. The outside surfaces of the gear cases can be either painted or unpainted. If they are painted, the colour of the paint must be the same as the original factory motor colour. If the gear cases are unpainted, any surface finish is acceptable.

AP1.2.5 A maximum of three damaged cylinders can be re-sleeved using sleeves from any manufacturer. Sleeve material and the machined port opening's shape and dimensions must all be as original equipment.

AP1.2.6 Reed valves as per homologation file number 00501b.

AP1.2.7 A manufacturer of outboard motors for Formula Optimax racing is the one who filed specifications and is responsible for the original design and manufacture of the following: crankshaft, connecting rod, cylinder head, cylinder, crankcase, gears and valving arrangement, and who complied with such other requirements as provided by these rules.

AP1.2.8 Motors must be the product of a recognised manufacturer engaged in the production of outboard motors offered for sale to the general public.

AP1.2.9 The intention is to race the engine exactly as manufactured and without special performance boosting accessories.

AP1.2.10 No special parts or interchange of parts will be permitted, unless approved by the conducting club or National Vice President Outboards.

AP1.2.11 Electronic engine RPM limiting devices cannot be over-ridden.

AP1.2.12 Engines (Outboard) as referred to in these rules will be defined as outboard models which:

- Are manufactured in annual or model year quantities of more than 25 units
- Are not necessarily intended for sale and to be used by the general non-racing public
- Are not necessarily advertised through the same media, in the same publications and given the same prominence as the manufacturer's other engines
- Are not necessarily distributed through the manufacturer's normal channels

Accessory gear case, as submitted by the manufacturer, can be used in these engines provided that they are built in a total quantity of no less than 25.

AP1.2.13 Standard exhaust tuners used must be as supplied by the manufacturer. Exhaust stacks not contained in the drive shaft housing will not be permitted. As per homologation papers 00501c part number 8m0053611.

AP1.2.14 Engines may only be run in the configuration that they were homologated by the UIM and as set out in the homologation papers supplied by the manufacturer.

AP1.3 REPLACEMENT PARTS

AP1.3.01 Only such parts will be permitted as are standard production OEM parts used on the motor as the purchaser may obtain it from the dealer as a stock item or electrical or electronic products as approved by the conducting club or APBA, and published and available to the general public through dealers. These products cannot provide any performance advantage over original OEM parts.

AP1.3.02 No replacement part for current production motors will be considered standard production until this part appears on current production motors that can be purchased from the dealers.

AP1.3.03 Any replacement part for motors no longer in production will be approved only after the part being replaced is no longer available for the motor model from the manufacturer or is specifically approved by the conducting club or APBA.

AP1.3.04 Final approval of non-OEM electrical or electronic parts for use in Formula Optimax racing will not be given until all provisions of the rule have been complied with, and until such time as the manufacturers have built at least 250 units of the part submitted for homologation.

AP1.3.05 For non-OEM electrical or electronic parts, the manufacturer must follow the same process as followed for motor manufacturer registration with respect to submission of specifications to the conducting club and APBA.

AP1.3.06 Older style 12 inch mid sections will be allowed.

AP1.4 MOTOR MODIFICATIONS

AP1.4.01 There will be no blueprinting or modifications whatsoever to the motor as furnished by the manufacturer.

AP1.4.02 Only such parts will be permitted for use as are used by the motor manufacturer on the particular model as built on the production line. Modifications covered by a manufacturer's service or engineering bulletins are legal seven days after the date of any such bulletin and approval by the conducting club or APBA, provided all direct purchasers of affected engines are notified by mail as well as all inspectors. In the event the manufacturer is unwilling or unable to meet these criteria, modifications covered in such bulletins will be legal after notification by the conducting Club or APBA.

AP1.4.03 Oversize pistons furnished by the manufacturer of an outboard motor can be used in the model for which they are furnished.

- The bore of the engine can be enlarged by the amount that the oversize pistons differ from the standard size pistons.
- An additional total 0.005-inch enlargement of the bore will be permitted for bore enlargement due to wear or re-matching errors, or measuring tolerance.
- Under no circumstances may the bore be enlarged more than 0.035 inches over the original dimension.
- It is not permissible to chromium plate cylinder walls unless the motor manufacturer uses chrome plating of cylinder walls as standard production procedure on that particular model.

AP1.4.04 Tachometer, fuel and water pressure, and temperature (including EGT) gauges can be installed if desired.

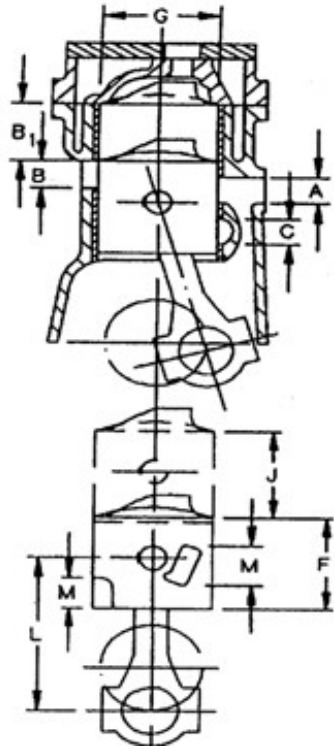
- AP1.4.05 The attachment of a steering bar or its equivalent can be accomplished at any point or points on an engine. Any cowlings or plates removed can be cut and, must be replaced. Any openings created by this operation must be sealed to prevent the engines from pulling in air. Studs or bolts can be exchanged to secure steering bar.
- AP1.4.06 Throttle return springs will be permitted on engines, however no modifications to the engine will be permitted to install same; no drilling of holes, etc. Mounting links can be attached with present fasteners.
- AP1.4.06 Isolation Mounts: Only those supplied by the engine manufacturer as original equipment or through the service group are acceptable.
- AP1.4.07 Any adjustments of throttle and shift linkage will be permitted.
- AP1.4.08 No mechanical adjustments of spark advance will be permitted provided no modifications are made either to the spark advance system or to the engine as manufactured.
- AP1.4.09 Safety tilt switches and safety starting switches can be disconnected or by-passed.
- AP1.4.10 Fuel pumps, heat exchangers, swirl pots or auxiliary tanks cannot be installed. Only inline filters will be allowed.

AP1.5 UIM 00501B & UIM 00501C RULES

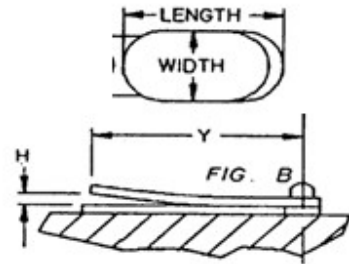
- AP1.5.01 UIM documents will be provided to Drivers within the class.
- AP1.5.02 The UIM rules will be adhered to for AFPGP events.

APPENDIX 2 - AFPGP FORMULA 2 (SST120) SPECIFICATION SHEET

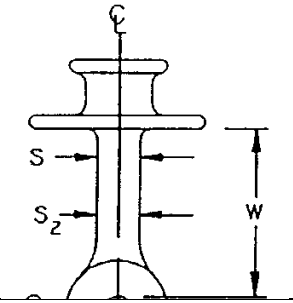
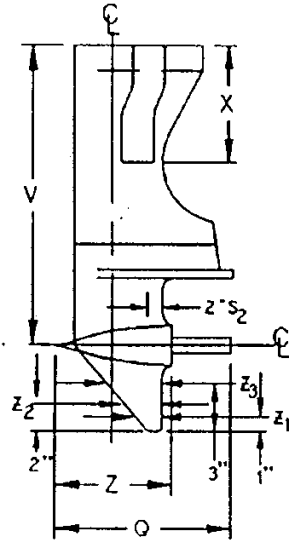
AP 2.1 SPECIFICATIONS SHEET



		MANUFACTURER			MERCURY	
		ADVERTISED SALES NAME			SST-120	
		CLASS-DISPLACEMENT MAX		in ³	121.9	
		NUMBER OF CYLINDERS			6	
		MIN. VOLUME OF COMBUSTION CHAMBER (INC'L SPARK PLUG HOLE)		cm ³	32.0	
CARBURETOR		VENTURI	Ø.015	in	1.31 2	
		BORE	Ø.015	in	1.56 2	
		QUANTITY PER ENGINE			3 DUPLEX	
POWERHEAD SPECIFICATIONS	G	CYLINDER BORE	Ø.003	in	3.12 5	
	J	PISTON STROKE	Ø.011	in	2.65 0	
	L	ROD LENGTH	Ø.006	in	5.50 0	
	K	DECK HEIGHT	Ø.012	in	8.31 0	
	F	PISTON LENGTH	Ø.030	in	2.80	
	M	PORT HEIGHT	Ø.030	in	2@1.03;1@0.844	
	NUMBER OF PORTS PER CYLINDER	A	TRANSFER			3
		B	EXHAUST			1
		C	PISTON			-
	PORT HEIGHT	A	TRANSFER	Ø.035	in	1@1.860 2@0.640
		B	EXHAUST	Ø.035	in	1.02 5
		B ₁	EXHAUST	Ø.035	in	1.54 5
		C	PISTON	Ø.035	in	-
	PORT TIMING	A	TRANSFER	Ø2Ø	ATC	118 Ø
		B	EXHAUST	Ø2Ø	ATC	92.7 Ø
C		PISTON	Ø2Ø	ATC	--	
REED BLOCK (ONE CYLINDER)	# OF PORTS			8		
	LENGTH x WIDTH SIZE OF PORTS		MAX	in	8 Port = 1.05x0.63 10 Port = 1.10x0.56	



REED MATERIAL				ANY
REED THICKNESS		0.001	in	ANY
H	REED STOP HGT.	MAX	in	None
Y	CHECKING DIS.	0.030	in	None
FLYWHEEL		MIN	lbs	6.6
WEIGHT (ONE SET)		PISTONS, RINGS, ROD, WRIST PIN, SPACERS, BEARINGS		MIN lbs 1.7

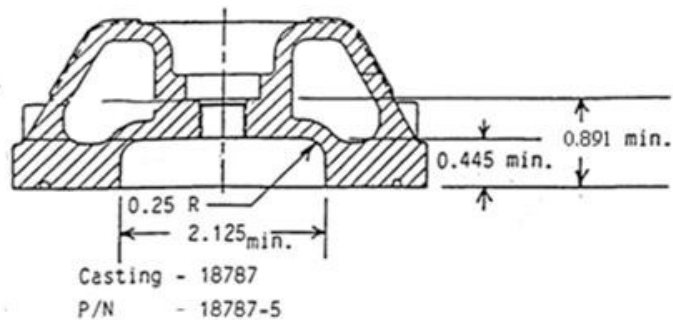


MANUFACTURER				MERCURY	MERCURY	
GEARCASE MODEL IDENTIFICATION				SST-120	SST-120	
ADVERTISED SALES NAME				VI SSM	IVSSM	
GEAR RATIO				14:15	15:17	
X	EXHAUST TUBE LENGTH – POWERHEAD BASE TO PRIMARY TUBE END	0.25	in	9.6/10.6 SEE NOTE # 12,13	9.6/10.6 SEE NOTE # 12,13	
Q	TORPEDO LENGTH (W/ PROPSHAFT)	MAX	in	20.25	22.65	
R	TORPEDO WIDTH	MIN	in	2.25	2.54	
S	STRUT WIDTH	MIN	in	1.17	1.57	
S ₂	STRUT WIDTH (2" FORWARD OF TRAILING EDGE)	MIN	in			
W	DIS. FROM PROPSHAFT TO CAVITATION PLATE	0.2	in	7.37	7.37	
Y	LENGTH OF SKEG FROM PROPSHAFT	0.2	in	6.44	6.90	
Z	TORPEDO LENGTH	0.2	in	14.88	17.28	
V	PROPSHAFT CENTRELINE TO POWERHEAD BASE	LONG SHAFT	0.2	in	--	--
		SHORT SHAFT	0.2	in	21.84	21.84
Y ₁	SKEG THICKNESS	MIN	in	0.20	0.20	
Y ₂	SKEG THICKNESS	MIN	in	-		

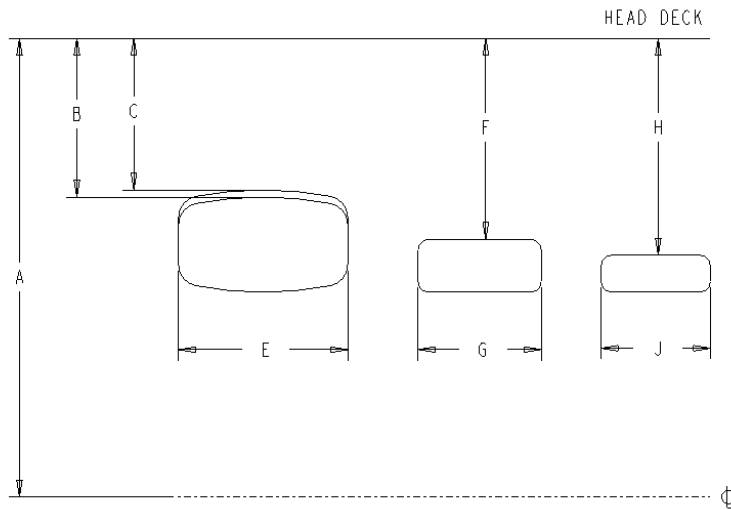
	Y ₃	SKEG THICKNESS	MIN	in	0.25	0.26
	Z ₁	SKEG CORD LENGTH	±.2	in	4.00	4.20
	Z ₂	SKEG CORD LENGTH	±.2	in	-	
	Z ₃	SKEG CORD LENGTH	±.2	in	5.60	5.90
	DIA	PROPSHAFT DIA	±.1	in	1.06	1.06

Each boat must meet the following specifications, with weights to be taken at the completion of any qualifying session or race in "as finished" condition including the driver.

1. Head:



- 2.
- 3.
4. Any drive shaft housing legal for SST-140 is legal for SST-120.
5. SST-120 must run either a 0.125 or 0.435 inch restrictor washer in both cylinder head thermostat covers.
6. All V-6 crankshafts may have a chamfer at the seal ring diameter.
7. The V-6 crankshaft centerline to crankcase/intake manifold surface to be 4.42±0.01 inches.
8. Intake Manifold thickness 2.000 ± .015. (Between carburetors and reed blocks)
9. Port timing tolerance on boost port is ±3°.
10. Exhaust Port Shape Template, part number 91-843116, is to be used as a gauge of the exhaust port shape. The radius at the top of the port and the corner Radii must be visible at all edges of the template when the template is placed even (line-to-line) with the top center of the exhaust port. No part of the exhaust port may extend beyond the template
11. SST-120 exhaust port passages to the exhaust chest dimensions are as follows: 1.03 inches (width) 2.40 inches (height) max.
12. SST-120 exhaust tubes must each have one 0.50±0.01 inch diameter hole.
13. SST 120 exhaust tube plate water dump holes: 2 holes @ 0.50+/-0.01 diameter
14. SST 120 cylinder head combustion chamber pockets may have surface refinished. The cylinder head measurements must be within specified dimensions. Welding and repairs in the combustion chamber surfaces will be permitted. The combustion chamber must remain central to the cylinder.
15. The Only Approved Aftermarket Ignition Parts are: CDI Electronics (RaPair) only parts made by CDI to replace the OEM part number may be used.
16. SST-120 Ports:



Port Measurements from Block Top Deck down to Top of Port

SST120		Minimum	Maximum
		Inches	Inches
A	Deck Height	8.298	8.322
B	Exhaust Port	1.530	as cast
C	Exhaust Port Chamfer	1.510	1.565
E	Exhaust Width		as cast
F	Transfer Port	2.04	
G	Transfer Port Width		as cast
H	Boost Port	2.02	
J	Boost Port Width		as cast

17. All engines must fall between the specified dimensions listed on this sheet.
18. The APBA modifications allowable to STANDARD FACTORY MOTORS do not apply.
19. The AFPGP does not run under the APBA rules for FORMULA 2 SST120 (1818).
20. Cowling and engine graphics may be of any design
21. Engine wiring can be changed to allow for 24-volt starting system
22. Gear cases may have their surfaces refinished.
23. The engine primer system may be removed or rendered inoperable.
24. Reed valves can be substituted for any material or design.
25. No specially made or interchange parts will be permitted.
26. SST-120 cylinders bored to +0.030 inches oversize must have boost and exhaust port heights that measure .015 inches lower than a standard bore engine.
27. Only Mercury SST120 engines are eligible for Formula 2.
28. Maximum engine displacement 2050cc.
29. Exhaust tuners used must be standard, as supplied by the manufacturer.
30. Gear cases may have their outside surfaces re-profiled however; they must meet the minimum dimensional requirements of the Specification Sheet.
31. Tachometer, fuel and water pressure, and temperature (including EGT) gauges can be installed if desired.
32. Any propeller may be used. Providing the gear case is not modified to accommodate a propeller.
33. Replacement products cannot provide any performance advantage over original OEM parts.
34. In the event of any part becoming no longer available from the engine manufacturer aftermarket parts should be approved by the committee prior to the event and being used.
35. The bore of the engine can be enlarged by the amount that the oversize pistons differ from the standard size pistons.
36. An additional total 0.005-inch enlargement of the bore will be permitted for bore enlargement due to wear or re-matching errors, or measuring tolerance.
37. Under no circumstances may the bore be enlarged more than 0.035 inches over the original dimension.
38. It is not permissible to chromium plate cylinder walls.
39. The attachment of a power trim system can be accomplished at any point or points on an engine.

40. Bead blasting will be permitted at the block and crankcase interface only.
41. No other internal parts will be permitted to be bead blasted.
42. No boat is to leave the pit area after the race meeting has commenced, until the completion of the tech inspection following the final race of the meeting.

Boat-

1. Minimum weight at the completion of any race or qualifying session must be 500kg.
2. The minimum boat length shall be 4.8m as per APBA Rule 1202.02
3. Boats must meet the minimum safety requirements set out by the ABPA

Technical inspections may take place at any time over the course of the event.

Boats placing 1st, 2nd, 3rd and 4th for the round must be taken directly to a designated location in the pit area, under the supervision of the technical inspector(s). The only other people permitted into the technical inspection area are club officials and two members from each of these four teams.

The teams being inspected must be capable and suitably equipped to present boat/engine in the form required by the technical inspector(s).

If it doesn't specify that it can't be done, does not mean that it can.

APPENDIX 3 - AFIGP FORMULA 4 – APBA SPECIFICATION SHEET

The NSW Council of the Australian Power Boat Association (APBA) will administer the Formula 4 class in NSW. (Herein referred to as F4)

AP3.1 GENERAL

1. Competitors in the class must be a minimum age of 14 years old.
2. Competitors under the age of 16 years old must hold a Roads and Maritime Services (RMS) issued General Young Adults Licence (or interstate equivalent).
3. Competitors over the age of 16 years must hold a RMS General Licence (or interstate equivalent)
4. Competitors under the age of 16 years must have competed in the APBA J3 Formula Future class for a minimum of 2 seasons.
5. Competitors must be a member of an APBA affiliated Club.
6. Competitors must hold an APBA Competition Licence.
7. Competitors under the age of 16 years will have their APBA Competition Licence endorsed for the F4 class only.
8. Competitors must have a full APBA Medical.
9. Competitors must complete the APBA Reinforced Cockpit Orientation course as outlined in the APBA Racing & Safety Rules (**Rule 1008**).
10. It is highly recommended that competitors use an APBA approved on-board air system.
11. Competitors must wear the applicable driver apparel and personal safety equipment as outlined in APBA **Group 800 Rules** – this includes Helmet, Personal Floatation Device, Clothing and footwear.

AP3.2 HULL

1. The hull must be a catamaran or tunnel hull fitted with a minimum 2000 Newton rated Reinforced Cockpit as outlined in the APBA Racing and Safety Rules (**Group 1000**).
2. The pickle-forks must be deformable.
3. The minimum hull length is 3.9 metres.
 - a. Measurements are to be taken while the boat is ashore. The length must be measured as the overall length of the hull between perpendiculars at the foremost and aft most rigid part of the hull including deformable pickle-forks. Any extending parts, fenders, stabilising and trim tabs and rudder are not to be included.
4. The minimum hull weight is 350 kg.
 - a. The weight is measured as a complete rig, weighed directly after the race including driver, personal safety equipment, and residual fuel but without residual water.
5. The hull must be registered with the RMS (or interstate equivalent)
6. Race numbers must comply with the requirements as set out in the APBA Racing and Safety Rules – **Rule 204 – Race Numbers**.
7. F4 class hulls must comply with all safety requirements of the APBA Racing and Safety Rules relevant to the class (**Group 800 and Group 1000**).

AP3.3 ENGINE

1. The Mercury 60 EFI FormulaRace engine with 15" midsection is the only UIM homologated engine to be used in the class. This engine must conform to the 2006 EPA regulations.
2. The engine, electrical and fuel systems must be standard as supplied by the manufacturer.

3. 24-volt electrical systems are not permitted.
4. When the motor is in the water, the cooling must be effected by the homologated water circulation pump.
5. An efficient gear changing system giving forward, neutral and reverse movement is compulsory. The control handle for reverse gear, ready for use, must be within easy hand-reach of the driver when he/she is in the normal driving position. Manoeuvring of the boat astern must be possible by selecting reverse gear.
6. The casing of the underwater unit (gear case) is free. All internal parts referred to on the homologation file must be maintained.
7. The exhaust will be a propeller exhaust.
8. All lower unit exhaust openings must remain standard within the homologated size.
9. An electric starter must assure a quick and easy start without external aids. It must be used as it was supplied by the manufacturer with no adjustment or alteration being permitted.
10. Engines are required to have the computer control system checked by an APBA Engine Measurer.
11. The Manufacturers standard water pick-up is permitted.
12. Only the following modifications are permitted.
 - a. All studs, screws, nuts, bolts and their washers are free as well as the method of locking them;
 - b. The original propeller may be replaced by another. Gear cases with a propeller exhaust must use propellers equipped with an exhaust tube of a diameter at least that of the machined recess into which the standard propeller boss fits at the rear of the gear case. The length of this tube must be at least $1/2(Q-P)$, where Q and P are the dimensions shown on the sketch of the underwater unit on the homologation file;
 - c. The trim tab may be altered or removed to accommodate a propeller;
 - d. The cooling must be provided by the water pump;
 - e. Thermostats and pressure valves of the cooling system may be removed;
 - f. The steering mechanism may be altered. If the original steering bar is removed or new ones are installed, any openings created must be sealed to prevent the motor from pulling in additional air;
 - g. The swivel bracket may be altered for the purpose of installing a power trim and the dampers (shock absorbers) may be altered or removed;
 - h. The rubber mounts of the motor may be altered, removed or replaced;
 - i. Revolution counters, water temperature gauges, water pressure gauges and similar instruments, can be installed;
 - j. The gear interlock device on the starter may be removed;
 - k. Spark plugs are free;
 - l. Original carburettor jets may be replaced for another size;
 - m. Springs may be added to the throttle lever of the carburettors;
 - n. Reboring is allowed, but only piston assemblies supplied by the manufacturer of the motor may be used within the cc limit of the class. When ports in cylinders are adjusted to the dimensions specified in the homologation sheet, material may only be removed in the specified opening to a depth of 10 mm, to match the shape of the original adjacent connecting passage (channel) outside the adjusted port opening. This also applies to other openings in the motor for which the dimensions are specified in the homologation sheet;

- o. A part which is dimensioned in the homologation sheet may be machined for the purpose of reaching that specific measure;
 - p. A part maybe machined to attain the weight quoted in the homologation sheet without altering other criteria given for the part in question. It is not allowed to change the flywheel but balancing machining is allowed if the dimensions and weights provided for on the homologation sheet are respected;
 - q. Measurements not quoted in the homologation sheet shall only be checked by visual comparison with standard parts. As the actual manufacturing tolerances are not published, small differences between the inspected part and the reference part must be accepted;
 - r. The fuel connector in the lower cover may be removed and the fuel hose from the fuel tank connected directly to the fuel pump. If this is done the opening left after the connector and around the fuel hose must be sealed to prevent extra air entering inside of cover;
 - s. Electric fuel pumps may be added provided the fuel still runs through the original fuel system and no parts are removed or blocked off;
 - t. No parts may be added to the motor unless specified in this rule
13. Blueprinting of the power head is not permitted.
14. Alteration or removal of any power head components is not permitted.
15. Electrical components and control system performance must remain standard.

AP3.4 FUEL

1. The fuel must be commercially available and as recommended by the manufacturer.

The use of additives aimed at increasing the performance of the engine or boosting the octane rating of the fuel are not permitted.