

## **Appendix D – 2010 Production Sports Cars NSW Championship**

### **D.0 OBJECTIVE**

The objective of the championship is to provide a competitive and exciting racing category for contemporary Production sports cars, at an amateur level, within NSW. The format comprises two day sprint meetings and one hour endurance races, with the grid comprising five Classes: three based on power to weight ratio and two 2F classes based on capacity.

### **D.1 ELIGIBILITY**

(i) An eligible Production Sports Car, for the purposes of these Rules, is a vehicle which conforms to the current CAMS Manual of Motorsport under Groups 2F, and 2B Class I and Class II or cars meeting the specific criteria listed in paragraph (iii) below but specifically excluding Clubman style vehicles.

(ii) For the purposes of these rules, a Clubman style vehicle is a vehicle that:

- a) Has a wheel or wheels that are not enclosed by the body work,
- b) Is an Amaroo, Ariel Atom, Bolwell Ikara, Elfin Clubman, Elfin Streamliner, Caterham, Birkin, Fraser, Leitch, Lotus 7, Lotus 340R, Lotus Circuit Car, Lotus 2-Eleven, Nota Fang, PRB, Westfield
- c) Is otherwise specified as a Clubman by the PSCRAA Committee.

(iii) Vehicles that meet the criteria contained in the CAMS 2B Class 1 Regulations with the exception of engine specifications which shall comply with the following:

- a) Vehicles within the same family may substitute engines from the same manufacturer that have been used in a different member of the same family, that is also eligible under the Group 2B Class 1 rules. A supercharged engine cannot replace a non-supercharged engine. All entries under this Rule are to be submitted in writing to the PSCRAA Committee for approval. Vehicles complying with this paragraph are recognised under the CAMS Group 2A regulations.
- b) If supercharging is recognised as standard production for the model, the production inlet manifold and supercharging device(s) and location must be retained as per manufacturer's design specification with the following exceptions:
  - (i) The original supercharging device(s) may be replaced by a ball bearing supercharging device having the equivalent specifications.
  - (ii) Twin sequential turbochargers may remove one of the supercharging devices. The remaining single device must remain in its original location.
  - (iii) The boost pressure may be altered including the fitting of electronic boost controllers or for mechanical superchargers by modification of the drive pulley.

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- (iv) The exhaust is free from the cylinder head exhaust port.
  - (v) Cars with supercharging are to be fitted with a data logging device that logs manifold pressure. These logs are to be provided to the technical commissioner if requested. Details of approved data loggers are available from the PSCRAA committee.
- c) Lotus Elises may use Honda K20A engines that meet the 2B Regulations.
- (iv) Competitors are reminded that possession of a CAMS Logbook does not constitute compliance with, or eligibility for, Championships conducted under these Regulations. The Association reserves the right to exclude any ineligible cars from the pointscore.
- (v) It is up to each competitor to ensure that his or her car meets the eligibility criteria for the class and category in which the car competes. Where members have any doubts about eligibility they are strongly advised to seek appropriate advice from the Technical Commissioner and CAMS.
- (vi) A vehicle considered to be ineligible by the Technical Commissioner or other appropriately qualified individual appointed by the Committee will be given a written report and a reasonable amount of time to remedy the problem. This time allocation will be at the sole discretion of the Technical Commissioner and may be as short as the next race or race meeting. The vehicle will not be eligible for points until rectified. Any dispute between a member and the Committee concerning eligibility shall be referred to CAMS for adjudication, whose decision shall be final and binding on the parties.
- (vii) In the event of an eligibility issue arising, concerning the vehicle of a Member who is also a relevant Office Bearer of the Association, then that Member shall stand aside from any relevant PSCRAA position for the duration of the section of the Committee meeting concerning said Member's vehicle.

### D.2 CLASS DEFINITION

(i) Classes for the Championship shall be five Power to Weight Ratio (PWR) Classes, namely A, B, C, D and E. The purpose of the PWR classes is to group together cars of broadly similar performance.

- A For cars under 6.3 kg/kW
- B For cars 6.31 to 8.1 kg/kW
- C For cars over 8.1kg/kW
- D For 2F cars and Group S cars with engine capacity greater than 2500cc
- E For 2F cars and Group S cars with engine capacity less than or equal to 2500cc and Porsche 944 challenge cars complying with CAMS Bulletin 05/073,

(ii) PWR is defined in Section D.8 of these regulations.

### D.3 REGISTRATION

(i) To be eligible to participate in the Championship, competitors must register with the PSCRAA and competition fees must have been paid. Where competition fees are not paid prior to the close of entries of the first round or within one month of the member

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participating in a Championship round, participation in the Championship will only commence for rounds after the date of payment.

(ii) Competition fees for the 2010 Production Sports Car Championship are as detailed on the Production Sports Car Racing Association of Australia ("PSCRAA") website at [www.prodsports.com.au](http://www.prodsports.com.au).

(iii) Non-registered competitors may participate in Championship events (subject to available grid space) but will not be eligible for Championship points or trophies.

### D.4 CATEGORY ORGANISERS

(i) The organiser of the Championship shall be the PSCRAA, herein referred to as "the Organisers".

(ii) The names and contact details for the PSCRAA Competition Secretary, the Technical Commissioner for the Championship and the other office holders are included on the PSCRAA website at [www.prodsports.com.au](http://www.prodsports.com.au).

### D.5 POINTSCORE

(i) Points will be awarded for the first 10 place getters in each Class A, B, C, D & E, in each race, subject to there being more than one competitor in that class for that race.

(ii) For non endurance race rounds points will be awarded based on the results of each race in each round of the Championship.

(iii) For one hour events, points will be awarded based on the results of the driver's, co-driver's and one hour races with double points being allocated for each one hour race. For Vehicles with two drivers, points will be allocated in each of the driver's and co-driver's race and both drivers will be eligible for points from the one hour race.

(iv) The driver accumulating the highest points in Class A, B, C, D or E becomes the CAMS Champion. Trophies will also be awarded to 2nd and 3rd places outright.

(v) In the event of a tied result, a count back will be done to see which competitor scored the most first places, then the most second places, then the most third places. If the result is still tied, then joint winners or place getters will be declared.

(vi) Points allocation will be as follows for each class and for each race:

	<b>6 + CARS</b>	<b>4 – 5 CARS</b>	<b>1 – 3 CARS</b>
1 <sup>st</sup>	14 points	12 points	10 points
2 <sup>nd</sup>	12 points	10 points	8 points
3 <sup>rd</sup>	10 points	8 points	6points
4 <sup>th</sup>	8 points	6 points	
5 <sup>th</sup>	7 points	5 points	
6 <sup>th</sup>	6 points		
7 <sup>th</sup>	5 points		
8 <sup>th</sup>	4 points		
9 <sup>th</sup>	3 points		
10 <sup>th</sup>	2 points		

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(vii) All points will be credited by the PSCRAA Pointscore Registrar, whose decision will be final. To be eligible to win a Championship trophy, a competitor must have competed in at least 3 Championship Rounds.

(viii) Points for Members competing in grids containing non-member vehicles, or vehicles not officially classified, shall be calculated assuming such vehicles did not race.

(ix) Points are not transferable between Classes. Where a vehicle changes Class due to changes in the PWR:

- I. All points earned in the old Class shall remain unchanged, and
- II. Points earned in the new Class accrue in that Class from the date of change.

(x) A competitor may change cars during the race season and continue to accumulate points providing that the replacement vehicle is an eligible Production Sports Car.

(xi) If a competitor has a dynamometer test as part of Parc Fermé (See D9) then the points for the Round at which the Parc Fermé occurred will be forfeited if any of the following occur:

- The resultant PWR is outside the PWR limits for the class entered.
- The car was not presented within the specified timeframe.
- The seals appear to have been tampered with or broken.

(xii) If Members are unwilling to submit to Parc Fermé dynamometer procedure (See D9) they will forfeit any points from that Round and the vehicle will be considered ineligible until a new ODS is provided,.

### **D.6 AWARDS**

(i) Track Trophies for each Round are awarded by the Promoters to the winners in each Class based on the Trophy race results.

(ii) Prize money will be dependent on a Championship sponsor.

(iii) Additional awards may be included.

### **D.7 COMPETITION NUMBERS**

(i) Competitors may request a competition number from the PSCRAA, which shall be allocated for their use at each round of the Championship.

(ii) Any request for a change in competition number shall be made with the PSCRAA, which maintains the register of competition numbers.

(iii) The number 1 is allocated to the prior year champion.

(iv) All race vehicles must display their Class in 100mm high letters next to each of their vehicle numbers.

**D.8 POWER TO WEIGHT RATIO (PWR) RULES**

(i) Power shall be measured as Kilowatts of power at the rear wheels as determined by the official dyno check. For the purpose of establishing the official vehicle PWR, the racing weight shall be determined as per CAMS Regulations, which state “the weight of the car during any practice or race, including the driver wearing all normal racing apparel including helmet. No fuel may be added after the conclusion of any race or practice before the car is weighed”. The PWR is calculated by dividing the racing weight by the driven wheels' Kilowatt power.

(ii) Rotary powered vehicles are to apply a PWR multiplication factor of 1.2 to the raw PWR calculated above to obtain the final PWR.

(iii) PWR example:

Car weight = 1050kg  
Driver weight = 85 kg  
Dyno at rear wheels = 151 kW

PWR = (car weight + driver weight) / (driven wheels KW)  
= (1050 + 85) / 151  
= 1135/151  
= 7.52 therefore class B

If applicable apply the rotary factor of 1.2

Rotary PWR = Raw PWR x Rotary Factor  
= 7.52 X 1.2  
= 9.02 therefore class C

(iv) The onus is on the driver of the vehicle to describe the vehicle correctly and to provide an accurate PWR and maximum boost values on the Vehicle Classification Form (VCF). The vehicle will initially be classified based on the owner's VCF declaration with respect to power and weight for Class A, B and C or capacity for class D and E.

(v) Supercharged vehicles are to have their maximum boost that will be attained noted on the VCF. This maximum boost figure is to be used as the maximum boost usable by that competitor in qualifying or races or during an official dyno check until a revised VCF is provided. If the data logger files indicate a higher boost was used during races then all points gained in those races will be forfeited or if during qualifying the car will be required to start from rear of grid.

(vi) During the season, the PSCRAA reserves the right to request a power and weight check. This check may be conducted under the supervision of the Technical Commissioner. After a race, Parc Fermé conditions may be invoked by the Technical Commissioner, if deemed necessary. The entrant of the vehicle must in all circumstances comply with the Technical Commissioner's directions, noting his rights of appeal under the CAMS judicial processes. See section D.9 for Parc Fermé Dynamometer Test Procedure.

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(vii) The scales used during Parc Fermé will be taken as a judge of fact. Competitors should note that scales may vary by up to 2% and that the competitors should ensure that their vehicles comply with the PWR for their class and factor in any differences between scales.

(viii) If the vehicle is found to be in breach of its Class allocation or CAMS Regulations, then the cost associated with transport to the dyno and the dyno costs will be for the Entrant's account. If the vehicle conforms, then the costs will be borne by the PSCRAA. See Appendix A for Parc Fermé Dynamometer Test Procedure.

(ix) The Technical Commissioner may reclassify the Class of a car at any time due to a change in the PWR of the vehicle.

(xiii) For the 2010 season the Association's official dyno will be any Dyno Dynamics Certified Shoot Out workshop. Any Parc Ferme dynamometer test procedure is to be conducted by a certified Shoot Out Scrutineer and the resultant dyno sheets are to be stamped and signed by the Shoot Out Scrutineer.

(xiv) The Dyno Dynamics website lists the locations of "Shoot Out" authorised dynos.  
<http://www.dyno.com.au/near.htm>

### D.9 PARC FERMÉ

(i) After a race, Parc Fermé conditions may be invoked by the Technical Commissioner if deemed necessary for a weight check or a dynamometer test. The entrant of the vehicle must in all circumstances comply with the Technical Commissioner's directions, noting his rights of appeal under the CAMS judicial processes. If the vehicle is found to be in breach of its Class allocation or CAMS Regulations, then the cost associated with transport to the dyno and the dyno costs will be for the Entrant's account. If the vehicle conforms, then the costs will be borne by the PSCRAA.

(ii) If a vehicle is placed in Parc Fermé conditions for the purposes of Dynamometer (Dyno) testing one of the following two procedures should be applied. The Entrant and/or Driver will be informed of which procedure is to be used.

(iii) Procedure A – Transport arranged for immediate dynamometer testing

- The PSCRAA will arrange for the selected vehicle to be transported by truck to a designated dyno centre, which is near to the track.
- The Technical Commissioner or his representative as well as the entrant or his representative will accompany the vehicle to the dyno centre. On arrival the vehicle is to be unloaded and the entrant or his representative may at that time be allowed to check the vehicle's fluid levels under the observation of the Technical Commissioner or his representative. The entrant or his representative is not to be left alone with the vehicle at any time during the test.
- **Entrants should ensure their cars are prepared for this eventuality and no responsibility will be accepted by the PSCRAA for any "Incidents" on the dyno!**

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- The vehicle is then to be dyno tested using “Shoot Out” mode in accordance with the Dyno Dynamics published procedures and the “Shoot Out” code of practice.
- On completion of the dyno test the vehicle will be transported by truck back to the track.
- On completion of the dyno test the resultant ODS, showing for supercharged vehicles the maximum boost achieved, is to be given to the Race Secretary. The Race Secretary is to calculate the PWR resultant from that dyno test combined with the last official weight and confer with the Technical Commissioner regarding the results.

### (iv) Procedure B – Entrant to arrange dynamometer testing

- Sealing of cars prior to Dyno testing. - The selected cars will fall under the custody of the Technical Commissioner or his representative, who will arrange for the sealing of the car. The car is to be sealed with breakable wafer seals. The Entrant or his/her representative is to be present whilst the car is sealed.
- The following items are to be sealed:
  - Engine Bay/Compartment,
  - ECU ports (if a controller is attached then the owner will be asked to remove the controller and the ports will then be sealed),
  - ECU to loom connection,
  - Throttle stops in the cockpit,
  - Mark fitted wheels and tyres, and
  - Boost limiting devices.
- Having completed the sealing of the vehicle, the Technical Commissioner is to:
  - Record the seals used and pass this information to the dyno test venue.
  - Instruct the Entrant or his representative to present the vehicle, within the next 7 days, to the PSCRAA's nominated dyno (Dyno Dynamics Certified Shoot Out workshop) for a dyno run to establish peak power.
  - Give the Entrant or his representative a copy of this procedure.
- Post-sealing procedure - The Entrant is responsible for presenting the vehicle to the PSCRAA's nominated dyno within 7 days of the completion of the race meeting. The Entrant is to arrange a suitable time with the nominated dyno operator. If difficulty is experienced they are to inform the PSCRAA Competition Secretary.
- Dyno testing procedure - Check all seals are intact. If any of the seals appear to have been tampered with, abort the dyno run. The entrant or his representative may at that time be allowed to check the vehicle's fluid levels under the observation of the dyno operator. Seals may be broken if necessary to perform this task. The entrant or his representative is not to be left alone with the vehicle if any seals are broken.

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- **Entrants should ensure their cars are prepared for this eventuality and no responsibility will be accepted by the PSCRAA for any "Incidents" on the dyno!** The vehicle is then to be dyno tested using "Shoot Out" mode in accordance with the Dyno Dynamics published procedures and the "Shoot Out" code of practice.
- Post Dyno testing procedure - The dyno operator is to fax the resultant dyno sheet , showing for supercharged vehicles the maximum boost achieved, and the results of the seal inspection to the Race Secretary. The Race Secretary is to calculate the PWR resultant from that dyno test combined with the last official weight and confer with the Technical Commissioner regarding the results.

### D.10 RACE FORMAT

- (i) The normal race format for two day sprint meetings will be:
  - Qualifying (15 Minutes)
  - Three sprint races spread over two days
- (ii) The normal race format for any one day sprint meetings will be:
  - Qualifying (15 Minutes)
  - Two sprint races
- (ii) The normal race format for Endurance meetings is covered by section D11.

### D.11 ENDURO RACES

- (i) The normal Enduro Race is a one-hour format endurance race for teams, comprising a team of two drivers. The format of the event will be a qualifying period for both drivers, a sprint race for each of the drivers plus a one-hour duration race with change of driver required. Single drivers without a 2nd Driver will be able to enter but not be able to run in the 2nd driver event.
- (ii) The format of an Enduro Race activity will be based on the following events:
  - Driver qualifying (15 Minutes)
  - Co-Driver qualifying (15 Minutes)
  - Driver Sprint Race (5 Laps)
  - A minimum of 30 minutes between Driver race and Co Driver races
  - Co-Driver Sprint Race (5 laps)
  - Warm up Sunday (10 minutes)
  - One Hour race (60 minutes duration)
- (iii) The one-hour race requires a compulsory driver change during a window from minute 20 to minute 40 into the race.
- (iv) Single driver teams cannot participate in the Co-Driver Qualifying or Co-Driver Sprint Race.
- (v) During Scrutiny, Each driver within the team will be provided with stickers identifying the 1st drivers, and Co-Driver to be applied to their respective helmets.
- (vi) There will be no refueling permitted during the one-hour race.

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(vi) A safety car will be utilised if required during all races, in compliance with Race Meeting Standing Regulations in the CAMS Manual of Motorsport.

### **D.12 CONDUCT OF ENDURO RACES**

- (i) The Enduro Races shall comprise a number of races from a massed start
- a) The Driver's qualifying and Driver's race is for the competitor nominated as the driver on the entry form and the Co-Driver's qualifying and 2nd Driver's race is for the competitor nominated as the 2nd Driver on the entry form. If the wrong competitor qualifies in the other session then their qualifying time will be forfeited however the correct competitor can start from rear of grid.
  - b) Grid positions for the Drivers sprint race shall be determined from qualifying times respective to Drivers qualifying
  - c) Grid positions for the Co-Drivers sprint race shall be determined from qualifying times respective to Co-Drivers qualifying
  - d) Grid positions for the one hour race races shall be determined by the best qualifying time for the nominated Start Driver from the appropriate drivers or Co-drivers qualifying session.
- (ii) The driver who will start the One Hour race is to be nominated on the Starting Driver form to be lodged with the Race Administration Office by the time specified in the Race Meeting Supplementary Regulations. If no form is received by the nominated time, the first listed Driver must start the one hour race. The form will be provided with the Further Supplementary Regulations. A further sticker will be provided to be placed on the nominated start driver's helmet. The nominated driver is to ensure they have placed the starting driver sticker on their helmet.

### **D.13 ENDURO RACE PIT STOP**

- (i) The one-hour race requires a compulsory driver change during a window from minute 20 to minute 40 into the race. Teams that change drivers outside of the window will be disqualified.
- (ii) Single driver teams will have to make the compulsory stop and the driver must exit fully from the car and close the door before reentering the vehicle. With a vehicle that is not fitted with doors the Single driver is to exit from the car and is to ensure that they are completely clear of the vehicle before re-entering the vehicle.
- (iii) Pit stops for other reasons are allowed at any time. Entrants will be provided with a nominated garage at which pit stops are to take place.
- (iv) Teams must provide a car controller during the pit stop. This person must be dedicated to this task. Two more people can assist in the driver change. There may be a total of five people in pit lane during the pit stop (Driver, Co-Driver, Car controller and two helpers); for single drivers a total of four people can be in pit lane during the stop.
- (vi) All personnel except the car controller must remain behind the pit lane line until the vehicle has come to a complete stop.