

NZ Sports Car Racing Inc - Racing Series

Rules and Regulations 2017 - 2018 Season

Document Owner

Name: NZ Sports Car Racing Inc

Title: NZSCRS 2017-2018 rules

Version: 6.0
Date: 5/12/2017
Status: Final

For more information

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Revision History

Version	Date	Author	Change Description
1.0	11/08/2011	Anton Aalders	Rules copied from 2011 NZSCRS rules
2.0	12/07/2011	Gerard Barker	<u>Committee members & Membership updated</u> <u>ClubSport Open Class exemptions for 1st season removed</u>
3.0	01/09/2014	Gerard Barker	Committee members updated. Turbo engines removed from ProSport class.
4.0	30/06/2015	Gerard Barker	Committee update. Competition points & rules added
5.0	23/06/2016	Gerard Barekr	Update as per the 2016 AGM
6.0	5/12/2017	Gerard Barker	Update as per the 2017 AGM

Approvals

This document has been approved by the following NZSCRS Committee Members.

Name	Function
Gerard Barker	Chairman
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1 Preamble - 'Spirit of the Regulations'

These regulations provide for the inclusion of professionally built Sports Prototype, Racing and Clubman Cars, as well as encouraging New Zealand constructed cars incorporating innovative designs. The aim of this schedule is to promote competition in Sports Cars of, or similar to, the types designed, built and raced by such designer/drivers as Bruce McLaren and George Begg.

Definitions:

Definitions that apply to these rules are as detailed in the New Zealand Motor Sport Manual or as detailed below.

Classification:

Cars constructed to the following specifications shall be eligible to compete in the New Zealand Sports Car Racing Series (NZSCRS). These rules are to be read in conjunction with Schedule A of the New Zealand Motorsport Manual.

In line with the spirit of these regulations, competitors are reminded that this class is a comparatively free formula for the construction of two seat Sports Prototype and Racing Cars. Any vehicle that appears to be in contravention of this aim may bring about revisions to these regulations, which could result in such a vehicle/s being excluded from competition. It is therefore strongly suggested, that it is in the interest when building a vehicle, or looking to import or buy an existing car that their intention is known to either a Technical Officer, or Committee member of the NZ Sports Car Racing Series, to enable any contentious details to be clarified and approved. This is to ensure the car complies and can be included to compete in the series.

Innovative design is encouraged.

Membership:

New Zealand Sports Car Racing Incorporated is a Motorsport NZ affiliated club.

Anyone looking to compete or race in this series must be a current financial member of NZ Sports Car Racing Incorporated.

2 Rules

(Applies to all classes unless specified)

2.1 Bodywork

2.1.1 General

The body shall cover all mechanical components except for the exhaust and induction systems. Suspension components do not need to be covered.

2.1.2 Cockpit Opening

The cockpit area is to be open (in top view, the driver is not obstructed by any bodywork/roof). Any vehicle that does not comply with the above (i.e. has an enclosed cockpit or roof) must apply to be admitted to the series and still comply with the remainder of the rules. Admission is by NZSCRS committee discretion¹

2.1.3 Open Wheels

In lieu of a fully enveloping body, all wheels must be covered for at least a total of 1/3 of their circumference where the leading edge must not be behind a vertical line drawn in side view from the wheel centre and the trailing edge must not be ahead of a horizontal line drawn in side view from the wheel centre

2.2 Wheels and Tyres

2.2.1 General

These are free, provided they comply with the requirements of Schedule A.

2.2.2 Spacers

A single spacer may be used between a wheel and a hub provided it is not more than 25mm thick and the wheel is positively located to the hub by means of spigots or dowels on both sides of the spacer. Wheel studs are to protrude through the wheel nuts when the wheel is fastened in place (ie: no domed nuts)

2.2.3 Tyre Width

Free for ProSport, SuperSport and ClubSport Open classes but limited to DOT rated tyres of 225mm tread width for ClubSport.

2.3 Aerodynamics

2.3.1 Permitted

Aerofoils are permitted as detailed in Schedule A.

2.3.2 Driver Adjustable

No cockpit driver-adjustable aerodynamic devices are allowed.

2.3.3 Active Elements

No active aerodynamic devices are permitted, this includes down force generating fan type systems.

2.3.4 Not Permitted

No aerodynamic devices are to be fitted to any un-sprung mass.

2.3.5 ClubSport Class

No aerodynamic aids allowed at all.

2.4 Lighting

2.4.1 Rain Light

At least one operational rearward facing rain light shall be fitted.

2.4.2 Stop Light

One rearward facing stop light to be fitted activated automatically on applied brake pressure, no closer than 100mm from the rain light. Light to be fitted at the highest practical point on the vehicle.

2.4.3 Headlights

ClubSport class only required to be fitted in OEM position and still function. If lenses are glass, must be fully taped for racing otherwise covered with shatterproof plastic.

2.5 Chassis

2.5.1 Width

The overall measurement to the widest part of the vehicle shall fall within the range of 1500mm – 2000mm inclusive.

2.5.2 Weight

ProSport & SuperSport – the vehicle in ready to race trim² with no fuel or driver shall fall within the range of 400kg – 900kg. Cars that fall between 900-1000kg may be admitted by NZSCRS committee discretion. Existing cars that have competed since the start of the 2006/2007 seasons are exempt.

All car weights are to be verified by a NZSCRS committee member.

ClubSport and ClubSport Open - the vehicle in ready to race trim² with no fuel or driver shall not be less than 560kg for a car powered vehicle and 480kg for a motorcycle powered vehicle. In both cases maximum weight is not to exceed 900kg.

2.5.3 Seating

The driver shall be seated within the vehicle in such a manner that the whole of their head with helmet fitted in a normal driving position does not infringe the cars longitudinal centre line and still complies with all other rules.

2.5.4 Chassis Structure

The chassis structure³ is to be only constructed from the following materials:

- i) Steel
- ii) Aluminium
- iii) Stainless steel.
- iv) Carbon composite

2.5.5 Chassis Panelling

The chassis structure may be sheathed in any material providing the car still complies with footnote³ below.

2.5.6 Roll Over Protection

All vehicles must be fitted with roll protection in accordance with Schedule A.

Recommended Protection:⁴ one forward facing tube from the main roll hoop to provide rollover protection from fences.

Side impact protection such as aluminium box/s that will deform before the chassis is compromised with self absorbing expanded foam in a containing skin.

It is also recommended that the drivers' helmet when seated in normal race position does not protrude above a line drawn between the main roll over hoop and the primary front structural hoop. Drivers are encouraged to have a HANS device or similar as well as arm restraints.

2.6 Engines

2.6.1 Motive Power

For all classes regardless of induction type, motive power is restricted solely to gasoline fuelled internal combustion based engines. Any proposed exception to this must be approved by the NZSCRS committee.

2.6.2 Maximum engine capacity

ClubSport class: Maximum engine capacity for a naturally aspirated piston engine shall not exceed 2000cc⁵ for a car or bike derived engine.

Forced induction is allowed in the form of a Super Charger only as per the rules governing the ClubSport class. For forced induction cars only, no cockpit adjustable mechanism that allows the adjustment of boost pressure whilst racing is allowable.

ClubSport Open Class: Maximum engine capacity for a naturally aspirated piston engine shall not exceed 2000cc⁵ for a car or bike⁶ derived engine. Only normally aspirated carburettor or fuel injection engines allowed (no forced induction).

ProSport class: Maximum engine capacity for a naturally aspirated piston engine shall not exceed 2000cc⁵ for a car or bike⁶ derived engine.

Forced induction (Turbo or Supercharger) is not permitted.

SuperSport class: No maximum capacity on naturally aspirated or forced induction engines. Must still be OEM based as per footnote⁵ below.

2.6.3 Over Boring

A 'nominal' 2 litre engine may be over bored by 40 thou (1mm) for rebuild purposes. Any capacities below 2000cc are free for modification in terms of bore and stroke alterations.

2.6.4 Forced Induction

Forced induction is allowed as per the rules governing the ClubSport and SuperSport classes. For forced induction cars only, no cockpit adjustable mechanism that allows the adjustment of boost level whilst racing is allowable.

2.6.5 Rotary Engines

ProSport: Maximum 13B type rotary engines that are not peripheral port and are naturally aspirated.

ClubSport and ClubSport Open: No rotary engines allowed.

SuperSport: Any rotary engine that does not comply with the points above or forced induction rotaries.

2.6.6 Engine Quantity

Maximum of one engine per car.

2.6.7 Self Starting

The engine must be able to be started by the driver when seated in the normal driving position, by means of an on-board starter and power source. This source of energy must be capable of providing three consecutive starts within two minutes if required.

2.7 Mufflers

Mufflers are to be fitted, in order to comply with the requirements of Schedule A, Article 3.8 or to achieve such other lesser noise levels as may be required by individual circuit owners or local authorities.

2.8 Transmissions

2.8.1 General

Gearbox and final drive are free.

2.8.2 Reverse Gear

Provision of a reverse gear is mandatory and activated by the driver when seated in the normal driving position.

2.9 Brakes

2.9.1 Materials

Only ferrous based rotors are allowed.

2.9.2 Braking System

A dual braking system is mandatory, as per MSNZ Schedule A.
A separate hand brake is not required.

2.9.3 Pedal Box Position

Brake pedals when fully depressed must not protrude forward of the centre line of the front axle unless a suitable crash structure is fitted that has been certified by an appropriate authority.⁷

2.10 Safety Harness

As per MSNZ Schedule A.

2.11 Log Books

As per MSNZ Schedule A.

3 Classes

The regulations are designed to be as free as possible whilst still encouraging close racing. To be eligible the car must comply with one of the following three classes constituting the NZSCRS.

3.1 ClubSport Class:

3.1.1 General

For cars that run on DOT approved road tyres and are in road going trim.
Must comply with all other rules including those not specific to this class and subject to the performance index.

3.1.2 Induction

Forced induction (supercharged only) cars limited to 1600cc only and existing cars.

3.2 ClubSport Open Class:

This class is predominantly to cater for "ClubSport" cars, which have been modified beyond the ClubSport rules and no longer meet the requirements of the ClubSport class (i.e.: an evolution of a ClubSport car)

The cars in this class must meet the requirements of the ClubSport rules and the following:

1. Only normally aspirated carburettor or fuel injection 2 Litre engines allowed (no forced induction)
- 2.
3. The car must be presented to the Series Technical officer prior to racing (eligibility criteria to be checked at this time by the Technical officer)
4. All cars must have a current log book issued by Motorsport NZ
5. All cars must comply with Motorsport NZ book 1 schedule A
6. If a floor is fitted below the chassis this must be flat from the centreline of the front axle to the leading edge of the rear wheels
7. No requirement to have been registered in the previous 12 months
8. May remove the passenger seat
9. May run a hard cover over the passenger seat area
10. May relocate ancillary components (battery, oil tank etc) into the passenger seat and foot well area
11. May fit front air dam, splitter, rear wing or diffuser etc but no tunnels or skirts are allowed
12. May race on slick tyres and full wets
13. Fuel is free as per MSNZ fuel rules
14. If a driver/car changes class during a race season, points accrued in this class may not be transferred to the other class
15. Must comply with all other rules for ClubSport Cars

3.2.1 Cars outside Open Criteria

Owners of cars which do not meet the requirements of the ClubSport or ClubSport Open class through engine size, turbo, other etc but are, or were, road registered two seat style sports cars **must apply in writing** to the committee of NZ Sports Car Racing Inc for permission to enter this class.

Should you be refused permission to enter the desired class you **may** be offered the alternative of another class within NZ Sports Car Racing Inc.

3.3 ProSport Class

3.3.1 General

Engines are limited to 2000cc piston or 13B non peripheral port rotary (both car derived) or 2000cc bike derived naturally aspirated engines.

3.4 SuperSport Class

3.4.1 General

For cars which do not comply with the first three categories for any reason, but are still within the spirit of the regulations, comply with all other rules.

3.4.2 Induction

For all forced induction engine cars.

3.5 Acceptance

The NZSCRS committee also reserve the right to exclude a car from the NZSCRS for failure to comply with any of these clauses.

3.6 Changing Classes

Changing classes during a season will result in points from the class departed being removed and points in the new class will start from scratch.

3.7 Eligibility

If a person wishes to compete and their car falls outside of any of these rules, an application can be made to the Committee for dispensation.

5 Competition Points and Series

5.1 Series

A series will be contested for each of Clubsport, Clubsport Open, ProSport and SuperSport classes and the overall winner.

In addition to the above series, a further series called the Sports Car Cup, will be contested for by the mid field cars. Eligibility will be determined by the committee.

A series for Formula Libre cars will be offered subject to sufficient number of vehicles participating.

5.2 Trophies

A trophy shall be awarded to the winner of each of the above series.

5.3 Points

Each series shall have points awarded for each race. Starting from the first car, points will be awarded as follows: 100, 92, 86, 80, 74, 68, 63, 58, 53, 48, 43, 39, 35, 31, 27, 24, 21, 18, 15, 13, 11, 9, 7, 6, 5, 4, 3, 2, 1, 1. Points shall be accrued for each race less the two worst race results. Where a competitor does not enter and attend a meeting, these races do not count as worst results.

5.4 Races

All races shall be a rolling start. However, the committee and drivers may elect to change the start format on the day of the race.

Footnotes:

¹

Once admitted, no further application required unless body shape alters

²

Fully presented car on dummy grid with all fluids onboard to enable car to run except fuel

³

Defined as the primary structure that the car must be able to be raced with, without any further structural support or stiffening needed

⁴

This is only recommended, not compulsory

⁵

OEM engine as originally fitted to a road going vehicle where production volumes exceeded 1000 units

⁶

OEM engine as originally fitted to a road going motorbike where production volumes exceeded 1000 units

⁷

Such as FIA certification, or crash test results available, or suitable computer based analysis available that is satisfactory to the Technical Officer of NZSCRS