



PART 2

SCHEDULE SS2000[®]

SS2000 Race Series

TECHNICAL REGULATIONS

2017 - 2018

PREAMBLE

The SS2000 Register was formed in 1990 and is an evolution of the Shell Sport and Sports Sedan classes of the 1980's hence the 'SS' designation. SS2000 is a racing class for modified saloon cars of up to 2 litre engine capacity.

COMPETITOR RECORD OF AMENDMENTS ISSUED TO THIS SCHEDULE

Use this table to keep a record of all official 'Manual / Series Amendments' issued during the season relative to this Schedule;

Amendment Number	Issue/Effective date	Regulation reference	Subject / Notes

1.0 GENERAL INFORMATION RELATIVE TO THIS SCHEDULE

- 1.1 This Schedule shall be read in its entirety and shall take precedence over Appendix Two Schedule A of the 'National Sporting Code' except where an item is not specifically covered within Schedule SS2000, in which case Appendix Two Schedule A will apply.
- 1.2 All text changes from the previous issue of this Schedule are highlighted such. Text changes for grammatical and/or formatting reasons are not highlighted.
- 1.3 Only vehicles approved by the NZ SS2000 Register as being compliant to the technical regulations as detailed hereinafter are eligible to compete in the Series. However non-technically compliant vehicles may be invited to compete at any Round, without series points, provided a two-thirds majority of the Executive Committee approve, and vehicle types and lap times of such vehicles are compatible with SS2000 vehicles.
- 1.4 All vehicles competing in Events to which these regulations apply shall have a valid MotorSport NZ logbook.
- 1.5 **TECHNICAL ELIGIBILITY AND SAFETY EQUIPMENT ENQUIRY:** Where any doubt may exist in understanding any regulation contained within this Schedule it will be understood that it is the Competitors obligation to enquire as to the correct interpretation. All technical eligibility and/or safety equipment enquiry shall be submitted in writing to:
- (1) The Series Scrutineer, as detailed in the Series Articles, then to
 - (2) The MotorSport NZ Technical Department
 - All enquiries should detail the Article in question and the specific subject matter.
 - A written reply will always be given to a written enquiry.
 - On matters of technical eligibility and/or safety compliance, a verbal statement will have no validity.
- 1.6 The SS2000 Register's appointed Series Scrutineer shall inspect all competing vehicles during the Series at any Round, and a notation shall be made in the vehicle's MotorSport NZ logbook confirming the inspection has been performed.

2.0 DEFINITIONS

- 2.1 Definition of terms used within this Schedule shall be referenced from the National Sporting Code, Appendix Two Schedule A and as detailed below:
- 'Competing weight'** means the minimum weight of the competing car in Race trim. It may be measured at any time during the qualifying sessions and/or races, on the official scales of the meeting.
- 'Non standard'** means those components which are not "standard".
- 'Race trim'** means the condition in which the car competes, and shall include all fluids, ballasts and the driver.
- 'Space-frame'** means a tubular structure with a light weight body where all the stresses are absorbed by the tubular chassis and none by the body.
- 'Standard'** means the component/s as originally optioned or fitted to the make, model and type of car by the original manufacturer at the time of the initial sale.



'**Stock unibody**' means the vehicle manufacturer's assembly or structure to which all suspension subframes and mechanical components attach.

"**Wheel arch flares**" are defined as any body work extension or modification that increase's the overall width on the vehicle body work allowing for a wider track.

Note: For clarification of this definition, "wide body kits" are recognised as flares and stretching the original steel wheel arch's outwards is recognised as flares.

3.0 ELIGIBLE VEHICLES

3.1 All vehicles shall be a 'Series Production vehicle' of 'closed vehicle' unitary construction.

3.2 **Eligible vehicles:** Authorised to take part in competition under these regulations shall be as follows:

(1) **0-1600cc Class, 1601-2000cc Class:** Any vehicle with a normally aspirated reciprocating engine up to a maximum capacity of 2000cc.

4.0 RACE WEIGHTS

4.1 Competing vehicles shall respect their minimum racing weight at all times during the competition. The racing weight is the complete weight of the vehicle in 'race trim'. This may be measured at any time, upon the directive of the Series Scrutineer or his designated assistant, during the Meeting, on the official weigh scales of the Meeting.

4.2 The minimum race weights are as follows:

(1) Normally Aspirated Four-Stroke reciprocating Engines:

- 2 valve per cylinder engines = engine capacity x 0.40
e.g. 2v 1300cc = 520kg; 2v 1600cc = 640kg; 2v 2000cc = 800kg
- 3+ valves per cylinder engines = engine capacity x 0.45
e.g. 4v 1300cc = 585kg; 4v 1600cc = 720kg; 4v 2000cc = 900kg

5.0 SAFETY EQUIPMENT REQUIREMENTS

5.1 The following safety equipment **shall** be fitted to the competing vehicle in full compliance with Schedule A requirements;

5.1.1 A safety cage (rollcage), and

5.1.2 A competition seat offset from the centre-line of the vehicle, and

5.1.3 A safety harness, and

5.1.4 A fire extinguisher.

6.0 BODYSHELL, VEHICLE EXTERIOR and SUB-FRAMES

6.1 Bodywork may be manufactured from lightweight materials.

6.2 The vehicles side profile shall remain Standard with the exception of the front spoiler, rear spoiler, side skirts and wing.

- 6.3** An air opening that is directly above the engine intake system (carburettor/s, or injection etc) may be fitted to the engine cover provided it is no more than 100mm above the Standard panel.
- 6.4** Front and rear spoilers/wings are permitted. Front spoilers may include the front bumper. Front spoiler under trays are authorised and may extend back to the front suspension crossmember (in line with the front axle centre-line). This is the only form of under tray authorised.
- 6.4.1** **Rear undertrays** are permitted, providing it does not extend further forward than the rear axle centre line and no more than 50mm beyond the vehicles rearmost body panel. This undertray may not extend laterally past the maximum bodyshell width measured on the rear axle centre-line
- 6.5** Wheel arch flares not exceeding 125mm width per side overall may be fitted. The measurement is to be taken from the outermost point of the Standard mudguard. These wheel arch flares may be flared into doors provided they do not cover more than 50% of the door skin.
- 6.6** Side skirt panels may be fitted but must not extend higher than the bottom of the door openings or lower than the bottom of the doorsills. This does not include chassis rails if they extend lower than the doorsills. The use of under trays, except as allowed in Article 6.4 and Article 6.4.1, fairings or other aids to aerodynamic form are not permitted.
- 6.7** All Non Standard parts able to be easily removed from the front and rear of the vehicle, excepting glass, must have the same dimensions as Standard.
- 6.8** Vehicles with a Standard transverse engine orientation may be changed to longitudinal or visa versa.
- 6.9** Ducting for the purpose of the flow of cooling air for brakes and radiators is free, provided that such ducting does not alter the profile of the vehicle and further providing that such ducting does not directly or indirectly assist or improve aerodynamic or ground effects. Ducting of radiator air through an opening/hole in the bonnet is permitted
- 6.10** Windows are free provided Schedule A compliance is maintained.

7.0 VEHICLE INTERIOR

- 7.1** All interior fittings are free provided compliance with Schedule A is maintained.

8.0 CHASSIS

- 8.1** SS2000 vehicles must use an approved Stock Unibody chassis, which may be modified provided that no Space Frame is used in its construction, other than a rollcage complying with Schedule A. This assembly / structure consists of at least the following sheet steel pressings welded together in their Standard position;
- door pillars,
 - sills,
 - front and rear inner guards.
- 8.1.1** Inner Guards may only be altered to cater for permitted suspension modifications and to provide wheel and tyre clearance.

- 8.1.2 Chassis rails and floor pan must remain in sheet steel but can be modified or moved a maximum of 100mm.
- 8.2 The floor pan rearward of the front of the rear seat can be removed and/or replaced with a different material.
- 8.3 The chassis rails rearward of the rear axle centre line may be removed.
- 8.4 The gearbox tunnel/cover may be modified.
- 8.5 Front firewall may be moved provided one of the following criteria is satisfied:
 - (1) The firewall may be moved up to 305mm from its Standard position with the engine remaining on the same side of the firewall as Standard, or
 - (2) The engine may be set back so that the forward most engine spark plug is up to 5% of the overall wheelbase behind a line drawn through the front axle line.

Note: *In the case of rear engine cars, the opposite applies.*

9.0 ENGINE SPECIFICATIONS

9.1 Engine - Four-Stroke Engines:

- 9.1.1 **Type and Manufacturer:** The engine type and manufacturer are free, provided that the engine is of a reciprocating type and must have been available in a 'Series Production Vehicle'. Ancillary engine components are free.
- 9.1.2 **Cylinder Block:** The block is free, provided that it remains a Standard unit. The block may be re-bored to a maximum of 4% over the vehicle category capacity.
- 9.1.3 **Cylinder Head:** The head/s are free provided they remain a Standard unit/s.
- 9.1.4 The engine placement shall remain, as per Standard, either forward of the Vehicles wheelbase centre line or rearward of the vehicles wheelbase centre line.
- 9.1.5 **Exhaust System:** The Exhaust system is free.

10.0 FUEL SYSTEM

10.1 Four-Stroke Engines:

- 10.1.1 **Fuel and air systems for four stroke engines:** all modifications are free, providing compliance with Schedule A is maintained.

11.0 TRANSMISSION

- 11.1 The transmission is free, provided that a working clutch and gearbox assembly, having a minimum of two forward and one reverse gear, is maintained. The placement shall remain, as per Standard manufacture, either forward of the vehicles wheelbase centre line or rearward of the vehicles wheelbase centre line.
- 11.2 Changes to the final drive are not permitted via the cockpit.

12.0 ELECTRICAL SYSTEM

- 12.1** Free, provided that two(2) operational rear brake lights are installed in their Standard locations and compliance with Schedule A is maintained.
- 12.1.1** Additionally, all competing vehicles shall be fitted with a fully operational additional rear LED high stop brake light. This shall be centre mounted at the top of the rear window or in such a position so as to be clearly visible from the rear.
- 12.2** **Rain Light:** A control rain light shall be installed in compliance with Schedule A, excepting the requirement for constant illumination. The control rain light shall be the Hella light, part number 95901140. Flash pattern six(6) shall be utilised when the light is operational.

13.0 SUSPENSION

- 13.1** Free in compliance with Schedule A and providing the overall wheelbase may not be increased by more than 4% from the Standard vehicle specification.

14.0 BRAKING SYSTEM

- 14.1** Free provided compliance with Schedule A is maintained.

15.0 STEERING

- 15.1** Free provided compliance with Schedule A is maintained.

16.0 ROAD WHEELS

16.1 All Classes:

- (1) Road Wheels:** The maximum wheel rim (bead) diameter size is free, with a maximum wheel rim width of 292mm (11.5 inches).

17.0 TYRES

17.1 All Classes:

- (1)** Road tyres, treaded tyres or slick tyres may be used.
- (2)** The maximum tyre width shall be 295, (as stamped on the tyre), or stated by the tyre manufacturer.
- (3)** All treaded / wet tyres shall have a minimum tread groove depth of 1.5mm as defined by the manufacturer's tread depth indicators within all grooves around the entire circumference of the tyres road contact surface.