



SCHEDULE OSCA

OSCA Race Series

TECHNICAL REGULATIONS

2020 - 2021

PREAMBLE

The philosophy of the OSCA Super Saloon Series is to provide a racing class where the competitors/constructors are free to modify a wide variety of vehicles. The Technical Regulations have been formulated to promote the “Kiwi Ingenuity” that has been the mainstay of New Zealand motorsport for decades and to provide a class where American and Australian V8s can compete head to head with high tech Japanese and European cars.

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 These regulations shall be read in conjunction with the National Sporting Code, the Standing Regulations as detailed in the current edition of the MotorSport Manual, and the Supplementary Regulations issued by the Organiser for each Round of the Series. Additionally, any subsequent amendments / bulletins as issued by MotorSport New Zealand from time to time shall be respected.
- 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 The regulations contained hereinafter define the specific restrictions placed on the development of a car for this series. Any parts or modifications not specified or restricted in this schedule are deemed to be free provided Schedule A compliance is maintained.
- 1.4 All cars competing in Events to which these regulations apply shall have a valid MotorSport NZ logbook.
- 1.6 **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 the Series Scrutineer, as detailed in the Series Articles.
- 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.

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:

Engine Capacity: Unless otherwise stated the engine capacities stated in this schedule refer to the unadjusted capacity (swept volume) before applying any equivalency factors.

Monocoque: means a metal structure, such as found in a series production car, in which the skin absorbs all or most of the stresses to which the vehicle is subjected.

Race weight: means the condition the vehicle competes in excluding driver but including all vehicle fluids and any ballast required to maintain weight compliance.

Spaceframe: means a tubular structure with a lightweight body where all the stresses are absorbed by the tubular chassis and none by the body.

Semi-monocoque: refers to the fabrication of a monocoque like structure within a spaceframe chassis.

Telemetry: means any device capable of recording or transmitting data relating to the performance of any components or combinations of components on the car.

Traction Control: means any device (not part of a differential) capable of automatically limiting the torque transmitted to a wheel in situations where traction is lost.

3 ELIGIBLE VEHICLES

3.1 The Series is open to any Saloon, Sports Car or Series Production vehicle, or replica thereof, where a minimum of 500 identical units have been produced.

Note: *This is designed to cover a wide range of 4 door cars plus volume sports cars the likes of Corvette, Camaro, Toyota Celica, Supra, MR2, Mazda RX 7, RX8, MX5, MX6, Porsche 911, 924, 944, 928, Nissan 200SX, 300Z, 350Z, Mitsubishi GTO, FTO, Ford Probe etc*

4.0 WEIGHT

4.1 Race Weights: The racing weight of the vehicle **excluding** the driver shall be determined by corrected engine capacity using the equivalency factors detailed in Appendix Two, Schedule A. The minimum racing weights are as follows:

- Up to 2000cc 650kg
- 2001 to 2500cc 700kg
- 2501 to 3000cc 750kg
- 3001 to 3500cc 800kg
- 3501 to 4000cc 850kg
- 4001 to 4500cc 900kg
- 4501 to 5000cc 950kg
- 5001 to 5500cc 1000kg
- 5501 and over 1050kg

4.2 The racing weight of the vehicle may be measured at any time during the competition, on the official scales of the meeting.

5.0 SAFETY EQUIPMENT REQUIREMENTS

5.1 All safety equipment shall comply with Appendix Two, Schedule A, except where specifically detailed within this Schedule otherwise.

5.2 Safety harness; for each seat fitted shall be installed in full compliance with Appendix Two, Schedule A.

5.3 Seats; all seats shall be Competition type seats as detailed in and in full compliance with Appendix Two, Schedule A.

5.4 A Safety Cage; shall be fitted as per Appendix Two, Schedule A requirements.

5.5 Fire extinguisher(s); shall be installed in full compliance with Appendix Two, Schedule A.

5.7 Windscreens; shall comply fully with the requirements of Appendix Two, Schedule A.

5.8 Rain light/s: A 'control' rain light shall be installed in compliance with Schedule A.

Note: A 'control' rain light, Hella light part number 95901140, will be required to be installed on all vehicles no later than 1 October 2015. Flash pattern six (6) shall be utilized when the light is operational.

6.0 FUEL

- 6.1 Fuel:** The only fuels authorised for use in competing vehicles at any Round of this Series is as detailed in Appendix Two, Schedule A, Article 3.9 Fuel.

7.0 BODYSHELL & VEHICLE EXTERIOR

- 7.1** The body silhouette shall represent a Saloon Car, Sports Car or Series Production vehicle as detailed in Article 3.1, however the side profile must remain standard to the production model with the exception of front spoilers, wheel arches, rear spoilers and wings.
- 7.2** All or part of the body may be constructed from lightweight materials. The fitment of side skirt panels is authorised.
- 7.3 Wheel Arch Flares:** Wheel arch flares of width not exceeding 125mm per side may be fitted with the measurement being taken from the outermost part of the original mudguard. Wheel arch flares may be continued into the door panels.
- 7.4 Aerodynamic devices:** where fitted shall be in full compliance with Appendix Two, Schedule A. Front spoilers ground clearance height must be such that the spoiler does not contact the ground when one or both tyres on one side of the car are deflated.
- 7.5 Doors:** Opening doors are strongly recommended, however those vehicles without opening doors shall have side window openings on both sides of the vehicle. The occupant must be able to exit the vehicle in less than seven(7) seconds at any time during an event in order to be eligible to compete. Compliance with this shall be demonstrated on request. Access from the non-driver side of the vehicle must not obstruct or unduly restrict safety rescue crew.
- 7.5.1** A window net may be fitted in compliance with Appendix Two Schedule A and is strongly recommended for vehicles without window panels.
- 7.6 External Rear Vision Mirrors:** Must be fitted to both sides of the vehicle in compliance with Appendix Two, Schedule A.
- 7.7 Engine enclosure / covers:** A bulge incorporating an air opening may be fitted to the engine cover provided it, or any part of the intake system, extends no higher than 100mm above the original engine cover panel contour within the area that is directly above the engine intake system.
- 7.7.1 Bonnet/engine cover vents:** the location and size are free, providing compliance with Schedule A is maintained.
- 7.8 Ducting:** 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.

8.0 VEHICLE INTERIOR

- 8.1** The interior of the vehicle is free, respecting the provisions of Appendix Two, Schedule A.

- 8.2 Seats:** The driver's seat position must be offset from the longitudinal centre line of the vehicle with no part of the seat crossing that centre line.
- 8.2.1** A passenger seat where fitted shall be in full compliance with Appendix Two Schedule A. Rear seat(s) are specifically prohibited.
- 8.3 Rear Vision Mirror:** An internal rear vision mirror must be fitted in compliance with Appendix Two, Schedule A.

9.0 CHASSIS

- 9.1** The chassis shall consist of the original monocoque bodyshell, a spaceframe or a combination of both.
- 9.2** The wheelbase may be altered by up to 4% of the standard wheelbase of the original vehicle represented.
- 9.3** The use of titanium, Kevlar, carbon fibre or exotic composite materials is prohibited in the construction of the chassis.
- 9.4 Engine position:** The engine may be moved forward or backward from its original position in the car provided one of the following criteria is satisfied:
- (a)** The firewall may be altered up to 305mm from its original position with the engine remaining on the same side of the firewall as original, **Or**
 - (b)** The engine may be set back so that the forward most spark plug is up to 5% of the overall wheelbase behind a line drawn through the front wheel spindles.

Note: *Engines must remain at the original end of the car but may be rotated.*

10.0 ENGINE SPECIFICATIONS

- 10.1** Engine type is free, providing that the engine is manufactured by a vehicle manufacturer and is in its original configuration. Eligible engines are as follows:
- Any cast iron block, non-turbo, 2 valve per cylinder engine up to 6000cc
 - Any non-turbo multi-valve engine up to 4500cc.
 - Any single or twin turbo engine up to 3600cc.
 - Any non-turbo Rotary engine up 3300cc.
 - Any single or twin turbo Rotary engine up to 2000cc.
 - Any alloy or cast-iron block, in a non-spaceframe car, non-turbo, 2 valves per cylinder engine up to 6000cc.

Note: *Capacity ratings stated above relate to the swept volume of the engine without equivalency factors applied (uncorrected).*

- 10.1.1** Twin engine vehicles are specifically prohibited.
- 10.1.2** Twin turbos where fitted must not be staged in series.

10.2 Engine Block:

- (a) Only a standard production engine block or a commercially available aftermarket replacement is permissible.
- (b) Blocks may be bored, sleeved and generally machined. Crankshaft main bearing caps may be substituted, additional main bearing caps and/or bolts may be used.
- (c) Internal engine components are free.

10.3 Cylinder Head(s): Cylinder head(s) are free, except for engines of 4501cc capacity or greater where the cylinder head(s) must be a standard production head for the manufacturer's production street model or a commercially available aftermarket replacement of the cylinder head. In this case modifications are free so long as the origin of the cylinder head can be clearly established and there are only 2 valves per cylinder.

10.4 Induction System: The Intake manifold is free.

Engines of 4501cc capacity and above in a space frame chassis shall be fitted with one Holley type carburettor of up to four bores with a maximum throttle bore size of 44.45mm.

For all other engine types the carburettors or fuel injection are free.

10.5 Engine Equivalency: Equivalence factors shall be determined in accordance with Appendix Two, Schedule A Article 3.5.

10.6 A Chevrolet LS3 engine may be used in any vehicle that complies with this Schedule OSCA provided that it remains standard as manufactured by GM apart from:

- Sump and oil system are free.
- Camshaft, valve springs and valve spring seats are free.
- Conrod bolts are free.
- Throttle body may be changed but must be a single throttle body or single carburettor.
- Inlet manifold and injectors may only be changed if a carburettor is used.
- Exhaust is free from the exit of the head.
- Connecting rods and pistons may be changed to an after-market version providing that bore and stroke remain standard.
- Pulleys are free.
- Belts are free.
- Alternator is free.
- Timing chain is free.
- Water pump is free.

11.0 TRANSMISSION

11.1 For spaceframe vehicles fitted with engines of 4501cc or greater capacity, the gearbox shall have a maximum of five forward working gears. Sequential gearboxes are specifically prohibited but shifters are free. For all other vehicles – transmission is free.

Front wheel drive and four-wheel drive cars may be modified to rear wheel drive.

12.0 DIFFERENTIAL / REAR AXLE

- 12.1 Differential:** The differential is free. Quick change differentials are permitted provided they are not capable of being operated from the cockpit.
- 12.2 Rear Axle:** Free, except that spaceframe vehicles fitted with an engine of 4501cc or greater a solid live rear axle shall be used. (Refer Article 13.1 also).
- 12.3 Four Wheel Drive:** The original vehicle manufacturer's four-wheel drive system only is permissible providing it retains the original external componentry. Limited slip differentials are permitted.

13.0 SUSPENSION and STEERING

- 13.1 Suspension:** Free, provided Appendix Two, Schedule A compliance is maintained at all times. Spaceframe vehicles fitted with an engine of 4501cc or greater are required to comply with the provisions of Article 12.2 above.
- 13.2 Shock Absorbers:** In no case may shock absorbers be remotely adjustable from the cockpit whilst competing.
- 13.3 Steering:** Shall be by the front wheels only.

14.0 BRAKING SYSTEM

- 14.1** The braking system is free, and shall comply with Appendix Two, Schedule A and the following additional requirements:
- (a) Dual circuit braking systems are mandatory.
 - (b) Brake discs are free but must be of ferrous material.
 - (c) Only one(1) caliper per wheel is permissible.

15.0 ROAD WHEELS

- 15.1 Road wheels:** Road wheels are free, provided compliance with Article 16 below and Appendix Two Schedule A is maintained at all times.

16.0 TYRES

- 16.1 Tyres:** Tyre construction and size are free, except that spaceframe cars fitted with an engine of 4501cc or greater may not use tyres with a bead diameter greater than 18 inches or a tyre width greater than 393mm measured with the wheel and tyre mounted on the car on the ground at the widest point.
- 16.2** Only slick tyres or suitably speed rated treaded tyres are permitted.