



SCHEDULE SF[©]

Being the

TECHNICAL REGULATIONS

for Series Space-frame vehicles

PREAMBLE

The objective of this Schedule is to present a place to race for purpose-built dedicated racecars that are predominately constructed around a 'space-frame' chassis design (tubular steel), having been built to specific regulations for a National NZ Race Series (such as the NZ TraNZam Championship) or an Overseas Race Series (such as a NASCAR Sanctioned Stock Car Racing Series) and specifically for circuit competitions which are now ostensibly redundant or have been superseded by other classes/categories.

Essentially, any 'space-frame' vehicle specifically built to compete in a known/recognised Race Series and to a set of dedicated technical regulations may be eligible (to compete under this Schedule) provided the vehicle remains compliant to the stated regulations and (all importantly) has previously competed in the stated series either here in NZ or Overseas - it will be the sole responsibility of the vehicle owner / Competitor to furnish substantive evidence of the vehicles history in order to become eligible to race under this Schedule.

The over-riding purpose of this Schedule is to ensure that vehicles, which have been specifically constructed to compete in sanctioned race series (both here and overseas) have a place to race safely today despite not fully complying with the current requirements of Schedule A. It is recognised that the areas of 'non-compliance' can be accommodated (all of which are detailed within this Schedule) if all such vehicles compete together in selected races where the anomalies (to Schedule A) are recognised by Organisers and the Officials of the Event.

COMPETITOR RECORD OF AMENDMENTS ISSUED TO THIS SCHEDULE

Use this table to keep a record of all official 'Amendments' issued relative to this Schedule;

Amendment Number	Issue/Effective date	Regulation reference	Subject / Notes

1.0 GENERAL CONDITIONS APPLICABLE TO THIS SCHEDULE

1.1 Schedule SF is open to all vehicles issued with a MotorSport NZ vehicle logbook detailing eligibility under Schedule SF. Logbooks detailing this Schedule will be issued to vehicles that meet the eligibility criteria as detailed under Article 3.0 of this Schedule.

Note: *Essentially, if a MSNZ vehicle logbook has been issued by the MotorSport NZ Technical Department (detailing this Schedule) then the eligibility criteria will have been met.*

1.2 This Schedule shall be read at all times in conjunction with the National Sporting Code, any applicable Standing Regulations and Appendix Two Schedule A as currently prescribed in the latest edition of the MotorSport Manual. Additionally, any subsequent amendments / bulletins as issued by MotorSport New Zealand from time to time shall be respected.

1.3 Schedule SF shall be read in its entirety and shall take precedence over Appendix Two, Schedule A where an alternative specification is specifically detailed.

1.4 Additionally, and all-importantly, all Meetings and/or Events utilising this eligibility Schedule must specifically detail Schedule SF in the Supplementary Regulations as issued by the Organiser.

1.5 All text changes from the previous issue of this Schedule will be **highlighted** such. Text changes for grammatical and/or formatting reasons will not be highlighted.

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 (preferable by email) to the:

MotorSport NZ Technical Department

E: technical@motorsport.org.nz

P: 04 815 8015

F: 04 472 9011

- 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 – specific to this Schedule

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:

'ARCA' means the **'Automobile Racing Club of America'** an organisation running a premier division American Stock Car Series.

'Closed vehicle' means a vehicle with a permanent rigid structure, other than a safety cage, that extends from the top of the vehicle's windscreen over the occupants to the rear of the vehicle.

'Integral safety cage' means a safety cage structure that is incorporated into the space-frame chassis.

'NASCAR' means the **'National Association for Stock Car Auto Racing'** in the USA and is the trade name and registered service mark of the same.

'Period' means the time frame in which the vehicle competed either here in NZ or Overseas (as proven by documented evidence provided in order to issue a vehicle logbook specific to this Schedule).

'Race trim' means the condition in which the car competes, and shall include all fluids, ballasts and the driver.

'Series' including 'National Series' and 'Overseas Series' means a 'series' of Events the results of which are aggregated to form a single result and award.

'Series Technical Regulations' means the build / eligibility specifications / procedures relative to the vehicle in question and being the official documentation issued by the sanctioning body regulating the Series

'SCCA Pro Racing' means the 'Sports Car Club of America' a 60,000 member organisation dedicated to the organisation, operation and sanctioning of numerous professional racing series in the USA.

'Space-frame' means a term used to describe a type of vehicle chassis being a tubular structure with a light weight body where all the stresses are absorbed by the tubular chassis and none by the body.

3.0 ELIGIBLE VEHICLES

- 3.1** Only vehicles issued with a MotorSport NZ vehicle logbook detailing Schedule SF are eligible under this Schedule (see Article 3.8 below).
- 3.2** This Schedule is only open to space-frame (chassis) design vehicles which have been built / complied to a set of recognised technical regulations / specifications as issued by a sanctioning body such as MotorSport NZ or a recognised Overseas Sporting Authority.
- 3.3** Eligible vehicles will be constructed around a full-space frame chassis incorporating an integral safety cage structure with a steel or composite full bodyshell of 'Closed' two or four door configuration.
- 3.4** Eligible vehicles shall have competed in at least one round of the specified series to which the vehicle claims recognition.
- 3.5** Space-frame vehicles constructed in New Zealand to any of the following series regulations should be eligible to obtain a MSNZ vehicle logbook detailing this Schedule;
- Schedule TZ (from 1994 – 2003) covering Category One NZ TraNZam and space-frame OSCA vehicles with a MSNZ vehicle logbook detailing this Schedule,
 - GTRNZ covering space-frame vehicles which have competed in this Series.
- 3.6** Space-frame vehicles constructed overseas to any of the following [example] series regulations should be eligible to obtain a MSNZ vehicle logbook detailing this Schedule provided a copy of the applicable series technical regulations and either a series logbook specific to the vehicle or proof of the vehicles competition history can be provided;
- NASCAR Cup Series vehicles (including the 'Grand National Series', the 'Winston Cup Series' and the 'Craftsman Truck Series'),
 - SCCA Pro Racing TRANS-AM Series vehicles,
 - ARCA Racing Series vehicles,
 - ASA Race Series vehicles, and
 - Other Sanctioned Series upon application to the MSNZ Technical Department.

- 3.7 Vehicles shall essentially remain compliant with their original technical specifications (as detailed in the Technical Regulations) of the 'period' in which the vehicle competed. The only variances authorised to these technical specifications will be clearly detailed in this Schedule hereinafter.
- 3.8 To establish whether a logbook can be issued under this Schedule the following criteria shall be used to assess the eligible status of the vehicle being presented;
- Provision of (a copy of) the Series / Championship Articles in which the vehicle previously competed
 - Provision of (a copy of) the Series / Championship Technical Regulations as applicable at the time the vehicle previously competed.
 - Provision of (a copy of) substantive evidence of the vehicles competition history
 - Provision of (a copy of) the certification for the safety cage structure or other form of quantifiable identification/evidence of the structures material and design.
 - Provision of the vehicles actual weight in race trim.

4.0 SAFETY EQUIPMENT REQUIREMENTS

- 4.1 **All safety equipment shall comply with Schedule A, except where specifically detailed otherwise in this Article.**
- 4.2 A **Safety harness**; compliant to either FIA Standard 8853/98 or SFI Specification 16.1 (being a minimum five strap design) shall be installed in full compliance with Schedule A.
- 4.3 A **Competition Seat**; shall be installed as detailed in and in full compliance with Schedule A. Alternatively, a moulded seat (of poured foam construction) may be used provided approval has been granted by the appointed Scrutineer and detailed in the vehicles MSNZ logbook.
- 4.4 A **Safety Cage**; shall be incorporated (fitted) in full compliance with Schedule A Article 4.6 or for overseas sourced vehicles in full compliance with the requirements of Article 5.0 of this Schedule.
- 4.5 A hand-held **Fire extinguisher**; shall be fitted in compliance with Schedule A, Article 4.8. Additionally, and highly recommended is an on-board (plumbed-in) fire extinguisher system homologated by the FIA as detailed on Technical List 16 [ref: www.fia.com]
- 4.6 **Window nets**; are highly recommended for all vehicles with opening doors and mandatory for all vehicles with non-opening doors. Installation shall respect Schedule A Article 4.5.
- 4.7 **Windscreens and windows**; shall be either laminated glass or an approved / polycarbonate material and shall comply with the requirements of Schedule A Article 5.11. Vehicles with non-opening doors shall not be fitted with any type of door glass or fixed window (refer Article 6.4 of this Schedule).
- 4.8 **Rear / Rain light**; shall be fitted in compliance with Schedule A Article 5.6(2).
- 4.9 **Engine enclosure / covers**; shall comply with Schedule A Article 5.9 or as specifically detailed in the technical regulations the vehicle has been accepted under.
- 4.10 All **engine breather tanks** shall be vented rearwards of the cockpit.
- 4.11 A **manually operated engine / fuel pump stop**; shall be fitted that cuts all circuits that enable the engine to run and all electrical fuel pumps to operate.
- 4.12 An **automatic engine / fuel pump stop**; is highly recommended that automatically cuts all electrical circuits that enable the engine to run and the fuel pump/s to operate when the engines oil pressure drops below a pre-determined level.

4.13 Fuel tanks and fillers; shall comply with the specific requirements of Schedule A Article 4.12, particularly regard the placement/isolation from the cockpit (drivers compartment) and where fillers are located internally of the bodyshell, shall incorporate a functional spill collar that drains (spilt fuel) externally to the vehicle.

4.14 Fuel lines; shall all incorporate industry quality threaded connectors.

5.0 SAFETY CAGE – specific requirements for overseas sourced vehicles

5.1 All vehicles competing under this Schedule shall have certification (a homologation certificate issued by MSNZ) for the safety cage / roll protection structure. This certification process is accomplished at the time of initial application for a vehicle logbook.

5.2 Original Certification documentation; should be procured from the vender when purchasing a competition vehicle from overseas although this is not always achieved hence an alternative (more involved) process is provided for that accomplishes the same end result – assurance of the safety structures compliance relative to function, design and performance, refer Article 6.3 below.

5.3 If, for whatever reason, there is no certification documentation available for the safety cage structure then the following procedures must be followed to enable a homologation certificate to be issued by MSNZ;

- (1)** Contact the MotorSport NZ Technical Department in the first instance to establish whether some or all of the following requirements will be necessary in order to gain certification of the safety structure.
- (2)** All variances to Schedule A design prescriptions; must be identified (and assessed) such as additional reinforcement members encroaching into the drivers space, higher placed side intrusion and/or members extending forwards / rearwards of the axle centre-lines.
- (3)** Material specification unknown; where the material specification cannot be proven a test report for material hardness giving indicative material strength may be accepted (SGS Laboratories for example). This applies to all tube members used in the principal structure. Where the material strength differs from the stated minimums the structure will be subject to an engineer's report and homologated under Alternative Design.
- (4)** Material dimensions unknown; where the material dimensions (specifically wall thickness) cannot be proven then these dimensions shall be determined by drilling a pilot hole and physically measuring. This applies to all members used in the principal structure. Measurements shall be performed by either a member of the MSNZ Technical Department or a licensed Technical Officer / Advisor. Where the material dimensions differ from the stated minimums the structure will be subject to an engineer's report and homologated under Alternative Design.
- (5)** Welding details unknown; where the welding details are unknown and the appearance of the welds clearly show a professional standard of workmanship this information may be omitted from the application. Should the appearance be questionable, in any way, then an ultrasonic inspection for penetration and inclusions must be performed. All member joins of the Principle Structure must be welded through 360°.
- (6)** Declaration by Manufacturer / Constructor; when, for whatever reason, the original constructor of the safety cage is unknown/unable to complete the manufacturer / constructor declaration section of the application form then a signed Affidavit of Compliance must be submitted by the owner of the vehicle. This must state that the applicant has unsuccessfully attempted to obtain the required signoff by the original manufacturer / constructor and the reasons why, the material description / dimensions have been established and a hardness test performed (for indicative strength), and that to the best of the applicants knowledge the structure meets the minimum requirements of Schedule A.

- (7) Painted structures; will require a physical inspection to be performed by either a member of the MSNZ Technical Department or a licensed Technical Officer / Advisor.

6.0 BODYSHELL & VEHICLE EXTERIOR

- 6.1 **Bodyshell design / type;** shall comply with the technical regulations that the vehicle has been accepted under hence may be fabricated from metal and/or fibre composite material.
- 6.2 **Body appearance;** shall represent the make/model the vehicle has been accepted under as detailed in the MSNZ vehicle logbook. Essentially, the vehicle shall represent a Series Production vehicle of the Period it represents, however some remodelling of the appearance is authorised provided that the origin may still be easily recognised.
- 6.3 **Doors;** shall be in compliance with Schedule A Article 5.10 (1) or where the vehicle was originally designed and competed (in Period) without opening doors then the requirements of the following Article (Article 6.4) apply.

Reference Schedule A Article 5.10 (1) – “All Closed vehicles shall have a door on each side, with hinges and latches arranged for easy opening from inside and out except where specifically authorised by MotorSport NZ as detailed in the vehicles MSNZ vehicle logbook.”

- 6.4 **Vehicles without opening doors;** shall comply with the following;
- (i) Have no window (glass or plastic) fitted,
 - (ii) Have an aperture adjacent to the driver on both sides of the vehicle of minimum height 350mm maintained for at least 500mm in width,
 - (iii) Access from the passenger-side of the vehicle must not be obstructed or unduly restrict access for safety crew access,
 - (iv) A window net is mandatory and shall be installed on the driver-side of the vehicle in compliance with Schedule A Article 4.5(1),
 - (v) Side intrusion bars may be fitted higher than prescribed in Schedule A but must not encroach into the aperture space as described in (ii) above.

7.0 VEHICLE INTERIOR

- 7.1 The **cockpit / driver compartment** shall be isolated from the engine, transmission and fuel tank/s.
- 7.2 The **driver’s seat position;** shall be offset from the centre-line of the vehicle.

8.0 CHASSIS

- 8.1 Shall be of **space-frame design** as defined in Article 2.0 of this Schedule.

END