



Specifications

DIVISION 3

RSA 4-Cylinder Sedans

Season 20-21

Publication Date:

March 2021

Approved updates are entered in Green

TITLE / BLUE RIBBON EVENTS

The RSA wish to reconfirm that on a title event date for each division, no competitor can hand in a log book for a class whose title is on at another venue on the same date in order to compete at any other venue.

Only log books for classes who do not have a title on the same date can be handed in for, including but not limited to racing, practice, exhibitions, competitions etc at other venues.

This has become necessary in order to keep the integrity and prestige of a title event for the competitors and for the successful club who tendered for the title, so that as many cars as possible for the title.

RACE CAR SPECIFICATIONS

Notwithstanding anything contained in these specifications or any other Supplementary Regulations that have been approved by racing Sedans Australia, the Scrutineer shall have the right to exclude any vehicle if it is not track worthy, fails to meet specifications in relation to safety or performance advantage, or could become a danger to other competitors or the public or is not constructed in an acceptable manner.

The Scrutineer will make a full report in the Car's Log Book and all defects noted must be rectified before the car is presented for scrutineering again or vehicle may be excluded from event.

Any Part, Panel or Component not specifically mentioned to be modified must remain standard as per production base model.

These Specifications will remain in force until [September 2021](#) with no alterations except for safety items.

The Racing Sedans Australia (RSA) shall direct the enforcement of these specifications in every aspect. The RSA Executive Committee and Technical Advisor/s shall together be the authority for the interpretation of these specifications contained within and any further amendments or clarifications.

Any amendment or clarification will be sent to all clubs (electronic or post) who in turn will notify all their competitors/members.

This book supersedes all others and no reference to be taken from any previous books regardless of their contents.

DIVISION 3: 4 CYLINDER - NO CONTACT PERMITTED.

Direction of racing will be anti-clockwise only.

The contents of this book may not be copied or reproduced in any way without the written authority of the Racing Sedans Australia.

Contents

section	Description	page
1.	GENERAL	5
2.	DRIVERS RACING APPAREL	6
	RACE SUITS	6
	BOOTS//BALACLAVA/GLOVES/UNDERWEAR	7
	HELMETS	7
	NECK BRACE (HORSE COLLAR)/ HEAD & NECK RESTRAINT	7
3.	IDENTIFICATION NUMBERS	7
4.	SEATS	7
5.	SEAT BELTS	8
6.	SEAT BELT MOUNTING	8
7.	WINDOW NETS	9
8.	BATTERY	9
9.	ELECTRICAL WIRING	9
10.	MIRRORS	10
11.	STARTER MOTORS	10
12.	BODIES	10
13.	BODY PANELS	11
14.	RUB RAILS	11
15.	BUMPERS	12
16.	FIREWALL	12
17.	COOLING SYSTEM	13
18.	EXHAUST	14
19.	FUEL TANKS	14
20.	FUEL	15
21.	ROLL CAGE	15
	NASCAR DOOR BARS	16
	OPTIONAL EXTERNAL BARWORK	18
	SCATTERSHIELD	18

section	Description	page
22.	SUSPENSION	18
23.	WHEELS	19
24.	TYRES	19
25.	WHEEL ARCHES	20
26.	BRAKES	20
27.	STEERING	20
28.	TRANSMISSION	21
29.	DIFFERENTIAL	21
30.	CARBURETTOR ENGINES Up to 2 litre	22
31.	CARBURETTOR	23
32.	1600cc FUEL INJECTED	24
33.	FUEL INJECTION	25
34.	BODY KIT AND SPOILER	25
	ADDITIONAL SPECIFICATIONS FOR MODIFIED CLASS	
35.	GENERAL	26
36.	MODIFIED – Fuel	26
37.	MODIFIED – Brakes	26
38.	MODIFIED – Wheels	27
39.	MODIFIED – Steering	27
40.	MODIFIED – Suspension	27
41.	MODIFIED – Transmission	27
42.	MODIFIED – Engine	28
43.	MODIFIED - Fuel Tank Protection	29
44.	APPENDEX	30

1). GENERAL

Prime consideration must be given where any doubt exists, to the safety of Drivers, Crew, Officials and Spectators. All race cars are subject to engine and general measurement before and after any race at the discretion of the Chief Steward, Technical Officer or Disputes Committee. Any questions of legality of a race car, or eligibility of a race car driver, must be settled before the commencement of a race meeting.

It is recommended whenever possible, that all race cars under construction be inspected by the licensed Club Scrutineer before painting.

It is the responsibility of all drivers to ensure their cars have all the sharp protrusions removed when presenting them for any race. The scrutineer may, at any time, direct a driver to remove sharp protrusions and this must be carried out before entering the track.

Race cars must maintain a neat and presenting appearance so as not to bring disgrace to the sport of Speedway racing in particular the governing association.

All body panels, bumpers, exhaust systems, etc, must be securely mounted. Any driver who continually loses component on the track will be liable to a fine and/or suspension.

Any driver found with debris in cabins, boot or pockets, etc. e.g. Broken glass, bolts, tools etc. will be refused race clearance to enter the track until the offending items are removed.

Race cars, when presented for scrutineering, must be in full race condition, e.g.: tyres to be used for racing, battery secured, helmet and full race clothing.

Ignorance of Speedway Australia Rules and Regulations and this RSA Div. 3 Specification book and notices shall be deemed as no defence in regard to breaches and/or appeals of same.

2). DRIVERS RACING APPAREL

All protective clothing and safety equipment must be used and/or worn in the approved and accepted manner whilst competing or testing and/or practice as per the current Speedway Australia regulations.

All race wear/equipment shall be inspected at each practice/race meeting.

- **RACE SUIT**

Minimum standard of a 1 piece complying with either SFI 3.2A/1, FIA 8856-2000, FIA 8856-2018 or a higher standard of apparel.

- **BOOTS**

Comply with SFI 3.3, FIA 8856-2000 or FIA 8856-2018. Socks must comply with SFI 3.3, FIA 8856-2000 or FIA 8856-2018.

- **BALACLAVAS**

Comply with SFI 3.3, FIA 8856-2000 or FIA 8856-2018 and must be worn

- **GLOVES**

Comply with SFI 3.3, FIA 8856-2000 or FIA 8856-2018. It is recommended they are the Gauntlet style glove and they must not be modified in any way.

- **UNDERWEAR**

Must be worn and comply with SFI 3.3, FIA 8856-2000 or FIA 8856-2018, must be long sleeved, long legged and must have a neck collar. Drivers must only wear cotton under-garments (e.g. no synthetic boxer shorts), and no under wires on bras. No synthetic attire and no jewellery to be worn by a competitor whilst competing.

- **HELMETS**

Full faced and comply with one of the following:-

- 1) Snell SA-2020
- 2) Snell SA-2015
- 3) Snell SA-2010 (Please note all Snell SA2010 Standard Helmets cannot be used after 1 July 2021)
- 4) BS 6658-85 Type A/FR, AS/NZS 1698:2006 or UN ECE 22.05 standard. (must be no older than 5 years from manufacturer date).
- 5) FIA 8858-2010
- 6) FIA 8859-2015
- 7) FIA 8860-2010 For JD (Junior Divisions) only, the following helmets are also approved for use.
- 8) SFI 24.1 9) CMR2016 10) CMS2016

- **HORSE COLLAR**

Is compulsory if Driver is not using a Head and Neck Restraint, except Vintage uncaged cars. Must comply with SFI 3.3.

- **HEAD AND NECK RESTRAINTS**

Are recommended but not mandatory. If worn a Head and Neck Restraint must conform with FIA or SFI 38.1. An AS/NZS 1698:2006 or UN ECE 22.05 helmet must not be modified in any way. Only a Snell or FIA helmet can be modified to wear a Head and Neck restraint device.

3). IDENTIFICATION NUMBERS

All race cars must carry the correct identification number as issued by their Club. The number must be displayed on both front doors, rear doors or quarter panels. Numbers are to be minimum size of 40cm high x 7cm wide strokes and easily read by officials.

Drivers will use upright roof numbers of no more than 16G material, 300mm x 300mm in size. Number must be white on black background. Visiting drivers will alter their numbers when it is required for lap scoring purposes. Failure to comply will be dealt with by the Chief Steward.

Drivers' name is to be placed above right-hand front door - minimum height 7cm.

Current registration decal must be affixed to the roll cage within easy view.

4). SEATS

Minimum of 50mm clearance between helmet and head plate.

A purpose built professionally constructed (for speedway usage) in steel or aluminium in good condition and head rest must be used. Seats must be support back to a minimum of shoulder height and width. Seat base and seat back must be mounted directly to the roll cage, using roll cage type material and/or 50mm X 50mm X 3mm angle iron or stronger.

Head rest must be at least 150mm wide with material and covered. Side supports to be a minimum of 50mm on all seats at thighs and torso areas. Seat is to be a correct fit for driver.

All cut outs for seat belts will be suitably grommeted. ALL bolts to be a cup head design minimum of two 8mm bolts in base and two 8mm bolts in seat back approx. 75mm below shoulder height.

No sharp protrusions allowed, seats must be suitably supported by a minimum of 50 mm backing plate or washers (to prevent bolts pulling through seat).

It is mandatory that side movement head supports be fitted to both sides of the seat not the roll cage.

The centre line of seat, steering column and pedals to remain as per O.E.M for make and model measured at waist line.

5). SEAT BELTS

Race cars must be fitted with 5- or 6-point mounting racing harness. Belts must be a minimum of 75mm (crotch strap may only be 50mm) and of Australian standards any worn, frayed, rotten, or weld spots are not acceptable and race cars will not enter the track until belts are replaced. All seat belts will be mounted in such manner to allow for their removal between race meetings or when working on car.

Seat belts with 2-inch shoulder straps (other wise 3 inch) are permitted when using a HANS device. HANS device must be used where seat belts have 2-inch shoulder strap.

6). SEAT BELT MOUNTING

Because of the difference (often vast) in competition vehicles and size of drivers, a standard method of mounting is impractical. Good judgement and common sense are needed. The lap belt should be positioned so as it rides across the solid pelvic area and not the soft stomach area or down the thighs. Mountings are to be manufactures specifications. Seat belts must be mounted to roll cage.

Mounting brackets must be welded to roll cage cross braces only. Mountings to be equivalent or stronger than roll cage material or 50mm x 50mm 3mm angle iron. Any race car with bolts through seat belt webbing will immediately give an order to replace seat belts. Rear anchorage must be mounted so as to prevent side movement of harness.

MINIMUM 10mm bolts to be used.

7). WINDOW NETS

All race cars must be fitted with a propriety type window net from a race wear manufacturer. NO STEEL OR HOMEMADE WINDOW NETS.

Window net should, as near as practical, cover the driver's side window opening. Triangularly window nets are NOT permitted. Ocky straps NOT permitted. Mounting points are to be to the Scrutineers satisfaction. Window net must be mounted to the roll cage using brackets, using minimum of 3mm steel plates and a minimum of 6mm steel rods; and mounted so that it cannot be pushed outwards. The purpose of a window net is to stop the head or arms coming outside the car in an accident or roll over. Window net must be easy to remove in a case of an accident or fire. Window net must be hinged from the bottom.

8). BATTERY

Battery must be securely fastened in a steel frame secured to the roll cage in the cabin area. No plastic bridges. Battery must have a rubber cover placed over the top to prevent acid spoiling in the event of a roll over. Rubber grommets must be fitted where battery cable passes through metal firewalls.

Blue triangle to be placed on body to show battery location.

9). ELECTRICAL WIRING

All switches to be grouped together. Ignition switch clearly marked ON\OFF. Within easy reach of the driver with seat belts fastened. If model comes with an electric fuel pump, it must be connected to the ignition switch ON\Off switch. A "KILL SWITCH" must be fitted outside the windscreen in the centre of the cowl panel or on the front of roll cage windscreen centre pipe to control all electrical circuits and must be clearly, marked ON\OFF in a contrasting and distinctive colour. Dipper switches may be used. No other lighting to be fixed to any other body panels or external of vehicle. Electrical wiring must be suitably grommeted where it passes through metal firewalls etc and taped to prevent chaffing.

10). MIRRORS

NO Mirrors allowed.

11). STARTER MOTORS

At the commencement of race meeting, car must be capable of starting with the starter motor.

12). BODIES

A body change is using the same model shell. Car must be re- green sheeted and log book marked "body change".

Sedans and Hatchbacks only permitted. No mid mount or rear mount motors permitted. No full chassis Cars, Convertibles, Utilities or Panel Vans. Body of vehicle must be in sound condition. All glass external mirrors, grills door handles, ornaments, bull bars, tow bar, helper springs and all inflammable material to be completely removed together with manufacturer's fuel tank. Lights and body apertures must be filled with 1.6mm sheet steel aluminium (maximum) body material or polyethylene. Doors must be securely bolted or welded. Boot to be pinned. Bonnets if hinged, to be pinned on two (2) front corners, if not hinged to be pinned on all four (4) corners. No Bolts or Nuts or chains. All inner panels and radiator supports are to remain intact.

A protective mesh must be fitted to the driver's side of the windscreen. Mesh size 50mm x 75mm (Maximum), Minimum 5mm thick to 7.5mm steel. There must be a clear vision area in front of the driver of at least 200mm in vertical height.

Passengers side of front windscreen to be fully open.

Name plate may be full width of windscreen. Dash may be removed, providing it does not weaken the body. No skeletonising is permitted with the exception of all doors, bonnets and boots. If door has been skeletonised to run NASCAR type bar work, must have window welded in at least three (3) places 25mm long (minimum) or may be removed. A steel mesh grill may be used; maximum thickness 5mm steel x 50 mm x 50mm or 50 mm x 75mm.

No TEK screws or self-tappers to be used in construction.

13). BODY PANELS

The only panels which may be replaced with fiberglass/ aluminium replica panels are bonnet, boot, front guards and doors. Replacement panels must be securely fastened; No TEK or self-tapping screws permitted.

To assist with appearance of car, the rear quarter panels may be covered with fiberglass replica panels, securely attached to steel panels. Presentation of vehicle must be of a high standard.

Open bonnet scoops not permitted. No part of the floor pan can be removed, including the wheel arches. The boot floor must remain, except, for a hole 150mm under the fuel tank. All other panels such as rear parcel shelf and fire walls must remain.

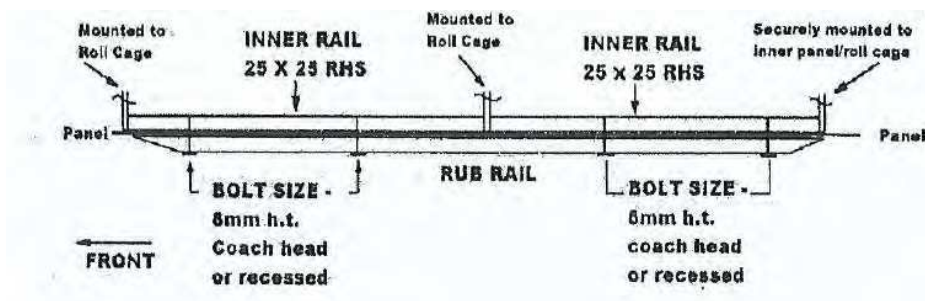
Modification to front and rear firewalls, rear parcel shelf floor and engine tunnel not permitted.

14). RUB RAILS

Rub rails may be fitted between wheel arches on the widest point of the car. Mild steel 25 x 25 x 3mm MS RHS or alternately a nylon (urethane, nolathane) 50mm x 12mm thick. To be securely mounted against body, at a minimum of 4 (four) points.

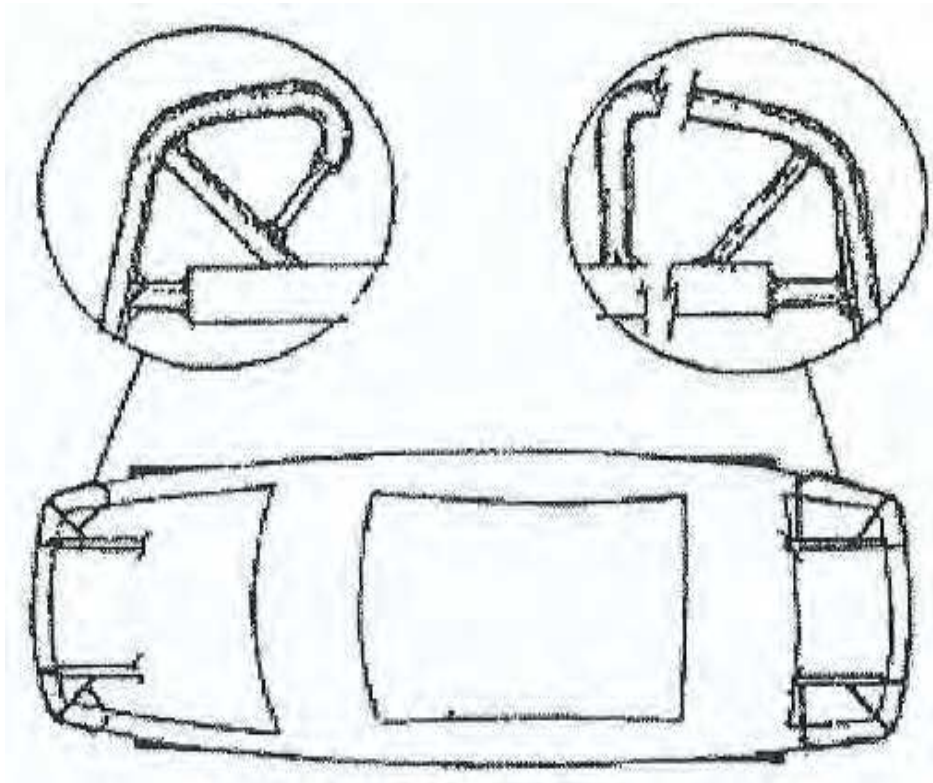
Both ends must be tapered down 50mm from ends or 45 degrees and ends be filled in. Bolts at each end must be no more than 50mm from the end of rub rail. Brackets from bar work and body may be used or inner mounting bar to be returned to the chassis or roll cage at each end, 5/16" or 8mm Cup head bolts are to be used to mount bar to brackets of roll cage or inner rail.

Rub rails not to be fitted to quarter panel behind rear wheels.



15). BUMPERS

Must be original front and rear, or very similar in appearance. To be attached only to sub frame using original brackets or fitted over the top of optional bar work. No reinforcing whatsoever permitted. Fibreglass, Plastic or Polycarbonate Bumper Bars as per model must be replaced over optional bar work, if optional bar work is used, Steel bumpers do not have to be refitted over optional bar work. Ends of front and rear bumpers are to be attached to front guards and rear quarter panels to stop getting hooked. Maximum material permitted- 1.6mm x 50mm width of bar, using cup head bolts. The purpose of this is for securing Bumper Bar only.



16). FIREWALL

Driver must be isolated from mechanical, fuel, electrical and exhaust components by firewalls of a minimum of 1.6mm thick or body metal. Holes in firewalls and front section must be filled with 1.6mm thick sheet, secured with bolts, pop rivets or welded.

17). COOLING SYSTEM

Cooling system may be modified.

Maximum of two (2) radiators permitted.

Radiators may be mounted inside cabin provided that they are mounted as low as possible in the rear of the vehicle rearward of the roll cage main hoop. The upper half of rear window opening MUST NOT be obscured by the rear radiator. Radiator ducting shroud must not be more than half the rear window height.

Cabin mounted radiators must have BOTH tanks and cap covered to protect the driver (and passenger if applicable) in the event of the rad cap blowing off or tank splitting.

All internal pipes to be ducted or lagged with suitable material.

All radiator hoses to be of fabric reinforced material, no plain rubber hoses permitted. Hoses to be as short as possible and fitted to radiator from rear side. Exposed hoses or joints not permitted in cabin area.

Radiator in engine bay must be in its original position. No cutting out of bodywork to make it fit. Radiator support panel bracing is permitted only if running a radiator in the front - maximum material 25mm x 25mm x 3mm RHS Tubing or Angle. Bracing permitted back to the edge of the sub frame. Bracing must not protrude more than 50mm in front of radiator. No removal of radiator support panelling or inner guards is permitted.

Cooling system to have a manual pressure relief tap/cap fitted. Lever vent type may be used.

Radiator cap overflow to be fitted with a hose to direct steam to the ground. The use of radiator expansion tanks is limited. MAXIMUM 2ltrs.

Cabin mounted fans to have shroud or suitable guard.

Electric water pumps allowed. Standard class and modified.

Cabin mounted water pumps must be lagged or covered by suitable guard.

Radiator water spray systems are not allowed.

18). EXHAUST

Exhaust must be within noise level requirements of each track.

Must not exceed 95dba. Muffler must be fitted to the engine pipe, which must be securely mounted and bracketed. Original exhaust manifold or extractors may be used (2 litres only). Floor may be shaped to lift muffler. Outlet to be behind driver seat exhaust system must not pass through cabin. All exhaust gases must be directed away from drivers, tyres and fuel tank.

19). FUEL TANKS

Vehicle's manufactured fuel tank not permitted and must be completely removed. Fuel tank to be either approved racing tank or suitably manufacturers tank of minimum 16-gauge steel, stainless steel or 3mm aluminium.

Maximum capacity- 40 litres.

Fuel tanks must be mounted in an upright position. Contact area must be a minimum 300mm from rear and sided of boot area. Tanks must be isolated from the driver by a steel firewall. Tank must be securely fastened. Boot must be able to be opened for scrutineering and inspection of fuel tank area. Filler neck of tank must be inside the boot area or rear parcel tray. Area beneath fuel tank must have adequate ventilation in the event of a spillage during refuelling.

A breather pipe is to be fitted to fuel tank and fitted with a suitable valve to seal in the event of a roll over. Alternatively, a pig tail is to be fitted and the breather pipe wrapped around fuel tank or the breather pipe is to be wrapped around the fuel tank on all sides before passing through the floor and directed away from the exhaust system. Pick-Up and breather pipes to be silver soldered or braised into top off the tank. Fuel lines must be first grade fuel line or original EFI system, for EFI engine cars, fuel lines must be EFI grade High Pressure lines, securely fastened. A clearly marked ON/OFF fuel tap must be used (within easy reach of the driver). Tap not required for EFI engines. If fuel line running under car tap not required. All fuel lines and electrical wiring must be separated and not taped together, must be fitted with grommets when passing through metal firewalls etc. and must be taped and secured where chafing can occur.

Must have rubber under fuel tank mounting areas and straps.

20). FUEL

ULP only.

No additives, maximum specific gravity 0.780, maximum 98 octane. Must be supplied by a commercial outlet through a multi-volume network via bowser pump. Fuel may be tested by any means.

Use of cooling systems for fuel is not allowed.

21). ROLL CAGE

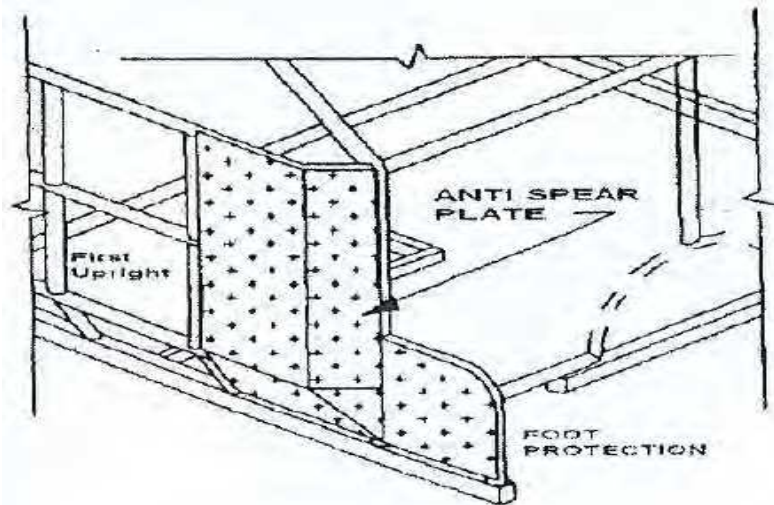
Definition of Materials

CHS	Circular Hollow Section
RHS	Rectangular Hollow Section
WT	Wall Thickness
ID	Inside Diameter
OD	Outside Diameter

Body Metal 16G (1.6 mm)

Vehicles must be fitted with a full cabin roll cage. Material must be a minimum of 38mm OD x 3mm WT Black pipe. Gussets, plate and angle iron must be mild black steel. No galvanised or non-ferrous materials are permitted anywhere in the construction of roll cage. All roll cage bars marked "A" in diagrams must be forms of one continuous pipe, using pipe bender not heat. Pipes should be notched.

Roll cage legs must be welded to continuous 50mm angle iron or 42mm OD pipe or RHS on both sides of the car. Must be bolted and welded in at least four (4) places. If bolted, 12mm steel bolts through the floor. Roll cage gussets where required minimum 50mm x 50mm x 3mm. Roof bar work to be within 50mm of turret, rest of roll cage to fit as close as possible to inner sides of cabin. No more than 75mm distance permitted. Roll cage brace must run from top of behind driver's seat to bottom of opposite cage. A deflector plate of 3mm steel must be fitted to bar work on driver's side to protect driver's feet and legs.



All material sizes are a nominal unless a Maximum stated. All welds to be of a professional standard, free from slag. All material must be of good quality, bolts are not to be used through structural tubing, but a suitable mounting bracket shall be provided. Butt welds in continuous pipe not permitted.

NASCAR DOOR BARS

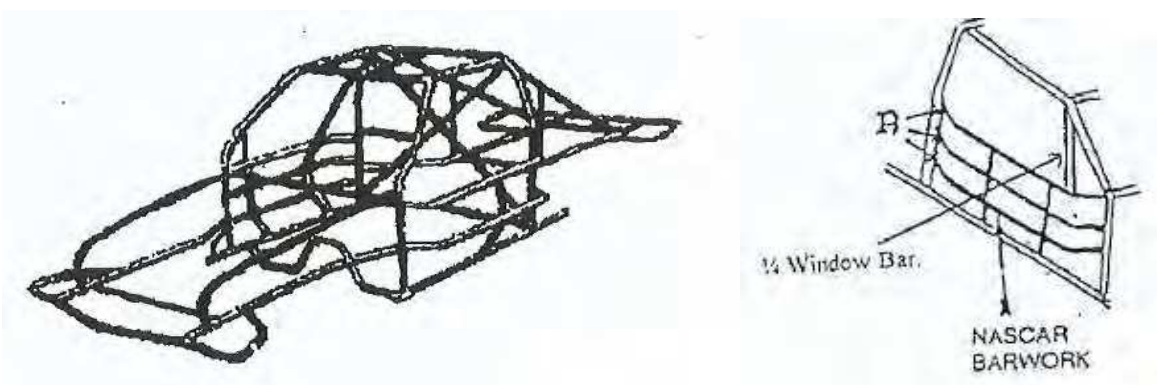
Three (3) horizontal side bars between front and rear roll cage legs, evenly spaced between windowsills and sub frame, and may be curved out towards the door skin. A minimum of two (2) vertical bars are to be placed between sub frame and top door bar. These must be in line. Driver's side must be fitted with NASCAR door bars and optional on left side. Top bar to be no lower than 100mm from window sill.

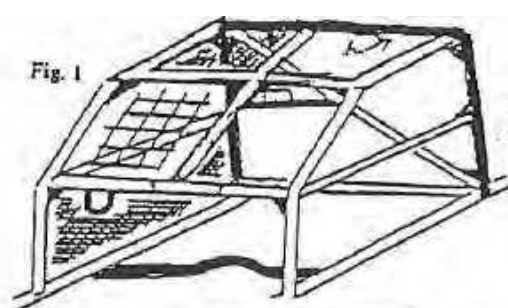
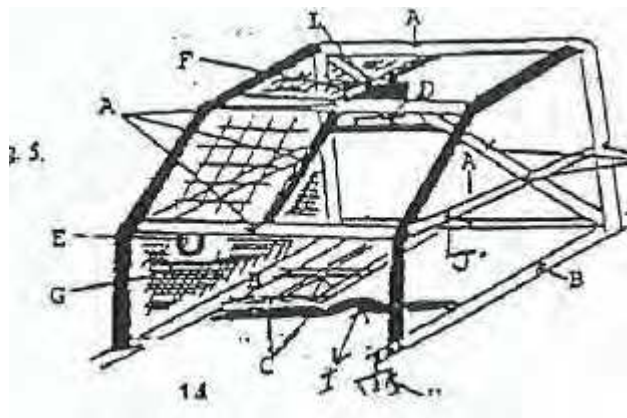
A minimum of two (2) left door bar-maximum of three (3) permitted, top bar no lower than 100mm from window sill, NASCAR bars optional.

A full head protection plate of 3mm (minimum) thick steel plate must extend from rear roll bar to top of windscreen bar and from driver's side outer roof bar to brackets as per diagram. When sitting and belted in seat, there must be a minimum of 50mm clearance between helmet and head plate.

Optional roll cage support bars and any other optional bar work must be of roll cage type material.

Quarter bar must be fitted if B pillar angle is more than 45 degrees.





N.B. ALL CAGES MUST
HAVE A CONTINUOUS HOOD
BEHIND DRIVER.

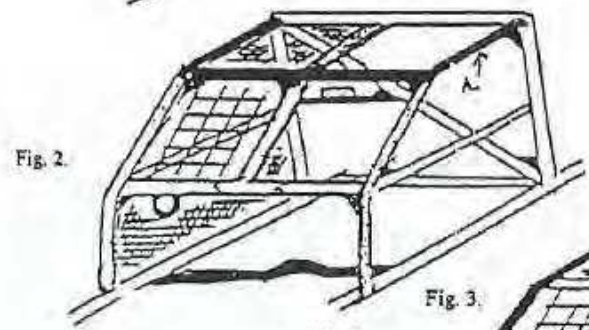
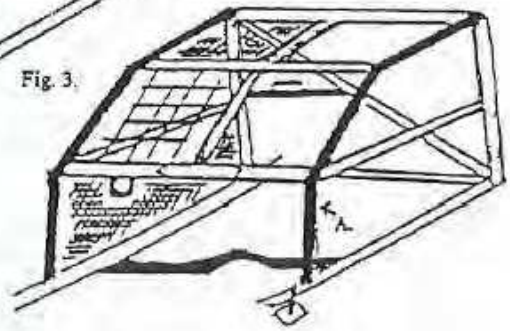


Fig. 4.



OPTIONAL EXTERNAL BARWORK

All external bar work to be Max 38mm OD x 3mm wt CHS or 30mm x 3.2 RHS or 50mm x 25mm x 3.2RHS only. Gussets are not permitted.

Bar work can be attached to roll cage.

Vehicles with plastic bumpers must have the bar work behind the bumpers. Front bar work maximum return 300mm, minimum 100mm. Corners and ends of front and rear bumpers to be radius formed, 100mm minimum.

Maximum of four mounting points on each bumper bar. Returns and bumpers to be flush fitting with the body rear only. Returns of rear bumper may be extended as a skid rail against outside of the body between the bumper and wheel arch, and then extend inward to the bar work.

SCATTERSHIELD

All front engine cars must fit a scatter shield. To be a minimum 3mm x 250mm wide and must cover the upper 180 degrees of bell housing and be securely attached to the bell housing or fire wall in engine bay, or front fire wall in cabin area. Scatter shield to be a minimum 3mm steel or 5mm alloy and must protect the driver's feet and legs from clutch explosion. (East-west cars included).

22). SUSPENSION

Suspension must remain the same suspension that came out fitted to the vehicle. Standard coils may be swapped for aftermarket models provided original mounting points are used and not modified. Gas, Decarbon shock absorbers permitted. No lowering or jacking permitted by use of weight jackers or adjusters. Random check after scrutineering will happen to help police this matter and a severe penalty will be given if found guilty. A spreader bar is permitted for struts between shock towers (maximum material permitted 25mm x 25mm x 3mm RHS), bars may be fitted from the top rear of strut towers to the centre of lower windscreen bar (roll cage material). No coil over permitted. No air shock absorbers. Cutting or welding of suspension components not permitted. Limiting suspension travel by use of chains not permitted.

Camber may be adjusted by slotting of top mounting holes or after-market camber caster kits (max 5 degree).

23). WHEELS

Composite type wheels NOT acceptable. Composite wheel means wheels made of different materials e.g. 3-piece alloy wheels are not classed as composite wheels.

Rim size optional. All wheels to be max 165mm wide x 15" diameter. All four wheels to remain same diameter on vehicle at any one time.

Wheels must be in good condition and free from cracks. Rim edges to be rolled or rounded off if rim protrudes past tyre walls. Standard manufactured steel or alloy wheels, including aftermarket steel or alloy permitted. No wire or dual wheels permitted.

Tyre/rim combination must not protrude beyond original body line. There will be no flaring of guards. All wheel studs and nuts must be in good condition and used. Wheel nuts taper and wheel chamfer must match. Wheel studs not to protrude further than ½ inch (12mm) past the outer face of the wheel nut.

Wheel studs minimum 11mm. Wheel weights not permitted.

Wheel spacers permitted MAXIMUM 10MM

24). TYRES

Tyres not to sit outside body

Tyre dimensions maximum of 235 wall marking. Tyres to be Australian road legal radial rated tyre, re-treads permitted. Tyre casings to have speed, size and load ratings indicated. Re-tread tyres must have the correct re moulders speed rating etc. and be legible as per AS 1973– 1985.

No rally, snow, mud, racing or racing re-tread tyres permitted. No performance tyres permitted – e.g. Hoosier, American Racer, McCreary semi slicks etc.

All tyres must meet a minimum 50 durometer reading.

All tyres tread wear indicator must read more than 200. Safety inner air tube is allowed.

Tyres will be reviewed annually.

25). WHEEL ARCHES

To remain standard- No modifications.

26). BRAKES

Must be OEM for model being used.

Race cars must be fitted with effective brakes on all four (4) wheels, handbrakes highly recommended. No taps permitted. Not necessary to lock up.

ABS brake systems may be used for any model produced with ABS as an OEM option.

27). STEERING

Left hand drive not permitted. Modifications are not permitted to steering which must remain standard and in sound condition.

Power Steering optional provided it is as per production line, for model. Original or sports type steering wheels permitted.

Wire spoke, or wood rim steering wheels are not permitted.

Steering column must pass through a steel loop 12mm thick, bolted or welded to the dash bar. No chain or exhaust clamps permitted. Centre of steering wheel must be padded. No cutting or welding of steering components allowed. Quick release steering wheels - optional.

Steering wheel quick release mandatory. Hub to be professionally manufactured. To be made of aluminium or steel. No Plastic. Recommended that retaining pin be an integral part of the hub. Steering position to remain standard. Rose joint permitted at top mounting if no modification to original column.

28). TRANSMISSION

ELECTRONIC TRACTION CONTROL NOT PERMITTED.

Ratios are optional but must be from same make or optional model.

Standard factory gearbox must be used as per model.

Three (3), Four (4), or Five (5) speed gearboxes can be interchanged but must be from the same parent manufacturer. Straight or split tail shafts may be used to suit gearboxes and diffs.

A steel strap or chain is to be under the front of the tail shaft 150mm to the rear of the front universal joint. Loop is to have a maximum clearance of 50mm below the tail shaft. If split tail shaft, must have a loop on each universal. Material to be a minimum 5mm chain or 40mm x 5mm flat bar or equal.

Race vehicles must have a minimum of two (2) forward and one (1) reverse gear. Gear lever shall be rendered harmless by the use of suitable knobs, handles etc. Any floor shift lever shall be fitted with a suitable boot to cover the gear shift hole in the floor pan. There will be no multiple gear shift levers. Neutral/inhibitor safety switch or brake switches to be installed and working on all AUTOMATIC models.

29). DIFFERENTIAL

Ratios may be altered if crown wheel and pinion only are changed. Must fit housing. There will be no quick-change diffs permitted.

All rear wheel drive Diffs must be locked, front wheel drive optional. Four (4) wheel drives not permitted.

Rear axles bearing retaining collar rings to be tack welded to axle. Maximum two (2) tacks 5mm long, using a small diameter, low hydrogen rod on low amperage. If axle is lost and it is found that this has not been done, driver will be penalised.

For rear wheel drive cars, the left and right-side wheel base length must not change during racing. (No linked or walking diffs allowed)

30). CARBURETTOR ENGINES Up to 2 litre

Four cylinders maximum.

Engine capacity 2070 cc absolute maximum. Engines to be standard stroke. Standard models only No Sports model, rear engine or fuel injected engines allowed. Engine to remain stock standard, with allowed exceptions. 16 valve carburettor engines must remain completely standard as per manufacturer's specs with the exception of carby change rule. Camshafts to remain standard, Cam followers to remain as per model. Exhaust manifold standard. Standard con rods, standard type pistons (up to 60 thou) can be used. Crankshaft to remain standard for the block used. MAXIMUM OVERBORE PERMITTED 0.060". HEAD FACING PERMITTED maximum 0.030". Engine block not to be machined more than 10 thou from standard. Base model valves and port sizes to be retained. NO PORTING or POLISHING or port matching - Engine to remain visually standard per model with everything operational, with the exception of fan blades (not required), chokes and pollution equipment including alternator wired and working and water pump. Electric water pumps not permitted. Manufacturer's markings to remain on engine block castings. Engine position to remain standard as per model. Cross member may be changed to suit motor, but no cutting or welding permitted.

Up to four (4) cylinders only. Rotary, Turbocharged, Motorcycle, Supercharged or Special Race Rally packs not permitted. Motor interchanges are permitted in some make of car eg: Ford to Ford, Holden to Holden. Camshafts open. Cam followers to remain as per model. Standard con rods, standard type pistons (up to 60 thou) can be used. Crankshaft to remain standard for the block used. Maximum overbore permitted 0.060". Head facing permitted. Engine block not to be machined more than 10 thou from standard. Base model valves and port sizes to be retained. No porting or polishing or port matching.

Standard flywheel and clutch to be used. No Lightening.

Oil coolers permitted in Autos. Engine oil coolers permitted if factory fitted on production model. No aftermarket auxiliary oil coolers permitted.

No performance enhancing types of Ignition permitted. Electronic ignition OK.

Crankshaft and Alternator Pump Pulleys must remain standard as per model.

31). CARBURETTOR

Any standard factory single or dual throat Carburettor. Manifold may be modified to accept adaptor plate. No adaptor plate to be more than 25mm thick. An extra return spring must be fitted to main throttle shaft. Manifold and/or Carburettor may be fitted to injected motor with minor modifications.

32).1600cc FUEL INJECTED

- a) Restrictor Plates may be fitted to all fuel injected cars during the life of this specification book.
- b) Engine capacity 1600 cc. Engines up to factory rating 100-kilowatt absolute maximum. If in doubt, seek advice from State Technical Officers BEFORE building/fitting your engine.
- c) Engine to remain stock standard including air cleaner housing & exhaust manifold as per engine model.
- d) Engine to remain visually standard per model with everything operational, with the exception of fan blades (not required). Including Alternator wired and working & water pump. Manufacturer's markings to remain on engine block castings.
- e) Engine position to remain standard as per car model. Cross member may be changed to suit motor, but no cutting or welding permitted.
- f) UP TO FOUR (4) cylinders only. Rotary, Turbocharged, Supercharged, or Special Race Rally packs NOT permitted. Motors interchangeable are permitted in same make of car e.g.: Toyota to Toyota, Nissan to Nissan, Honda to Honda.
- g) Standard CAMSHAFTS and CAM FOLLOWERS to remain standard as per engine model.
- h) Engines to be standard stroke.
- i) Standard con rods and standard type pistons as per the engine model. (up to 60 thou) can be used.
- j) MAXIMUM OVERBORE PERMITTED 0.060". MAXIMUM HEAD FACING 0.030.
- k) Crankshaft to remain STOCK standard.
- l) Engine block deck height not to be machined more than 10 thou from standard.
- m) Standard valves as per engine model and port sizes to be retained.
- n) -NO PORTING or POLISHING or port matching.
- o) Standard flywheel, clutch and pressure plate as per engine to be used. NO LIGHTENING OR MACHINING.
- p) Factory manifolds acceptable for engine model.
- q) Oil coolers permitted in Autos. Engine oil coolers permitted if factory fitted on production model. No aftermarket auxiliary oil coolers permitted.
- r) No performance enhancing types of Ignition permitted.
- s) Distributor as per production model of motor must be original.
- t) Crankshaft, Alternator and Water Pump Pulleys must remain standard as per engine model.
- u) Electric water pump may be fitted BUT original water pump must still work.

33). FUEL INJECTION

Standard electronic ignition, injection and computer to be used as per engine model. Computer can be interchanged at any event at the direction of the scrutineer. Failure to comply will result in exclusion from the meeting for car and driver. Further penalties may apply. At any time, the RSA has the right to enforce a control computer to this division.

34). BODY KIT AND SPOILER

Sports model body kits may be fitted.

Open bonnet scoops not permitted.

There are many makes and models of spoilers, so any final interpretation of fitment will be up to the RSA Executive/Tech officer.

Rear spoilers are allowed but must be polycarbonate, fibreglass or plastic only and of a mass-produced store-bought item. No steel, aluminium or homemade will be allowed. Maximum height must not to exceed 150mm from top of boot lid to uppermost point of spoiler.

Spoiler to not extend past the line of the rear quarter panels and must be firmly fixed. Hatchback spoiler not to exceed 150mm in height from lowest point of hatch.

ADDITIONAL SPECIFICATIONS FOR MODIFIED CLASS

35). GENERAL

Additional specifications for Modified Class follow. All specifications for Standard Class apply to Modified Class except for the following:

- Fuel
- Brakes
- Wheels
- Steering
- Suspension
- Transmission
- Engine
- Fuel Tank Protection

36). MODIFIED – Fuel

- A. Unleaded, E85, avgas, or methanol only permitted.
- B. Use of cooling system for fuel is not permitted.
- C. Multi fuel pumps allowed.

37). MODIFIED – Brakes

Any car model produced where ABS brake system is available then that option may be used.

- A. Foot operated hydraulic brakes to be fitted and be effective at race speeds.
- B. Brakes to be fitted to a minimum of three (3) wheels C. Only right front brake may be removed
- D. Adjustable braking allowed.
- E. Disc rotors may not be altered by drilling of rotor surface (Note: some discs are supplied from the factory as drilled i.e. DBA, Willwood.)

38). MODIFIED – Wheels

- A. Wheel rims free to be up to a maximum of 8 inches.
- B. Bead locks allowed.
- C. No mud Snow or rally tyres.

39). MODIFIED – Steering

- A. Modifications are permitted.
- B. Quick release wheels mandatory.
- C. Wheel centre pad must be fitted.
- D. Steering quickener permitted.

40) . MODIFIED – Suspension

- A. Open. To be built to a professional and safe standard. No beam axle assembly to be fitted to the front of the car!

41) . MODIFIED – Transmission

ELECTRONIC TRACTION CONTROL NOT PERMITTED.

Every race car must be able to be started and then the vehicle can be put into gear and moved off in a forward or reverse direction as required.

Every race car must be able to be started and then the vehicle can be put into gear and moved off in a forward or reverse direction as required.

- A. Gearbox must have a minimum of two forward gears and a reverse gear.
- B. Aluminium banjo centre allowed.
- C. Ratios are free
- D. No quick-change differentials permitted
- E. Gearbox and differential changes permitted
- F. Tail shaft may be of one piece or two-piece types, conversion is optional.
- G. No carbon fibre tail shafts allowed.
- H. Tail shaft/s must be fitted with 360-degree hoops at front and rear.
- I. Tail Shaft Loops - Steel strap minimum. 40mm x 5mm or 6mm chain or 6mm wire rope to be SECURELY fitted around the front and the rear of the tail shaft within 150mm of universal joints to prevent the tail-shaft and/or shafts from dropping in an event of breakage.
- J. Tailshaft/s must have fully operational constant velocity/universal joints, be suitable for the application and be correctly phased.

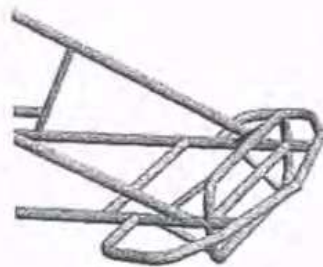
42). MODIFIED – Engine

- No forced induction permitted
 - No rotary engines permitted
 - Four cylinders maximum
 - No motor cycle engines permitted
- A. Engine capacity open four cylinder. Engine and components directly associated with its function are free. Engine block must come from an eligible vehicle and be of the same manufacturer as the vehicle used for racing (eg Nissan to Nissan, Ford to Ford, Honda to Honda etc).
- B. Multiple carburettors allowed.
- C. Radio telemetry TO or FROM a car or cars will not be permitted.
- D. Ignition open.
- E. Race engine to be based on car engine only. Verification will be required.
- F. Manufacturer's markings to remain on engine block castings.
- G. Engine to be mounted in original position, Mid and rear engine cars by submission only.
- H. If resilient engine mountings are used, a wire cable or chain restraint must be fitted.
- I. Remote filters coolers, etc. to be isolated from driver by a 1mm firewall, mounted securely below door height, as to not impair vision through cabin.
- J. All connecting hoses, couplings etc. to be correct class of fittings for that purpose.
- K. Remote oil pump permitted. External oil feeds to bearings permitted.
- L. Return springs must be fitted to each butterfly shaft (inbuilt springs accepted), and one spring to accelerator pedal linkage. Protective wire gauge or air cleaner to be fitted over air intake to prevent entry of foreign objects to the throttle body and also to act as a flame trap.
- After market computers allowed.
 - Engine capacity open four cylinder.
 - Multiple throttle bodies allowed.
 - Inlet manifold open.
 - One injector per cylinder only.

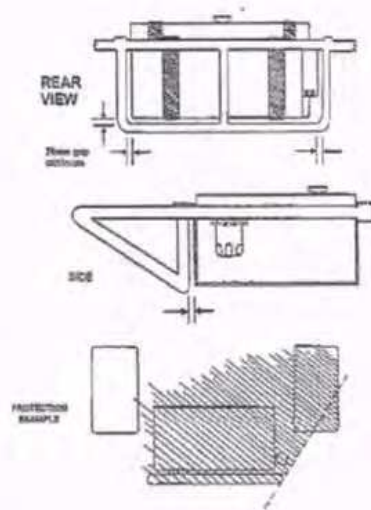
43). MODIFIED - Fuel Tank Protection

Fuel tank protector bar must attach to the rear chassis bars and be constructed of 38mm x 3 mm CHS to be braced forward with 25mm x 25mm RHS or 20mm NB with 25mm clearance all around the tank and filter. Bar is to prevent side entry to tank. This bar must be 50mm wider than both sides of the tank and min. height of 150mm or 75% of the height of the tank, whichever is greatest.

(See diagram)



1. Under slung fuel tank is a fuel tank that has some portion below the bumper tube or chassis rails and therefore is to have a fuel tank protector bar fitted.
2. Protector bar must be 25mm lower than an under slung tank. (see diagram below)
3. Fuel tank protector bar must have radius formed corners.



43). APPENDIX

- **UPDATES AS A RESULT OF**
 - COVER PAGE STYLE UPDATE FOR PRESENTATION AND PARITY
 - FOOTER CHANGE FOR PRESENTATION AND PARITY
 - BOOK IN FORCE DATE CHANGED FROM “2015” TO “SEPTEMBER 2021”
 - SAFETY APARREL SECTION UPDATED TO MATCH SPEEDWAY AUST RULE BOOK DATED “*SEPTEMBER 2020*”
 - SECTION 40 – MODIFIED-SUSPENSION MISSING CONTENT
 - SECTION 41 – HEADING ADDED “MODIFIED TRANSMISSION” AS IT WAS MISSING
Entered – 18-03-2021 – *Updates are marked in “green”*