

***Tableland Competition
Car Club Inc.***



**Regulations / Guidelines
for
Car Construction
and
Equipment**

Amended - March 2026

INTRODUCTION

Specifications listed in this book are of a general nature only. If some detail is not in this document, ask for clarification or approval by asking a club official, via the club's Facebook page - "Tableland Competition Car Club - Herberton Speedway".

Information could also be gained at a pre-race scrutineering session or at a club meeting.

A copy of this document can be found on our website :- <https://tccc-duelsindirt.org.au>

CONSTRUCTION – The car you will race, must be safe for you and other competitors.

The Race car must originate from (be based on), a metal body, production type car.

Workmanship on race cars is to be of a professional standard. All materials used must be of good quality. Bolts are not to be used though structural tubing in roll cage cabin area unless a welded-in sleeve is provided.

No self tapping screws to be used in the construction of the car. (Use rivets or bolts)

All material sizes quoted are of minimum value unless a maximum is stated.

GLOSSARY OF ABBREVIATIONS and MEANINGS

- CHS - Circular Hollow Section
- RHS- Rectangular Hollow Section
- WT- Wall Thickness
- AS1163 GR300 - Australian Standard 1163 for structural steel tubing Grade 300
- FMS - Flat Mild Steel
- OD - Outer Diameter
- OEM - Original Equipment Manufacture; used to indicate parts used or the complete vehicle as it left the production line from the original manufacturer.

DRIVER SAFETY

When competing, testing, or practising, as part of TCCC, drivers and passengers must wear clothing and use equipment that complies with the standards set out in this document.

All race wear & equipment can be inspected at each practise or race meeting and if found to be misused, neglected or damaged, it may be rejected by officials and not used at TCCC events.

PROTECTIVE CLOTHING – When in a Race Car

All occupants of race cars are required to wear suitable clothing to protect them while competing or testing.

It is the driver's (and passenger's) responsibility to protect themselves in the car.

Minimum requirement is a long sleeved shirt, long trousers & closed in shoes.

Clothing materials should be flame resistant.

A purpose made race suit is recommended.

Clothing must offer complete coverage of torso and limbs (gloves optional).

Protective gloves are encouraged to minimize the effect of stone strikes.

CAR CONSTRUCTION / MODIFICATION – Body, Chassis, Roll Cage, Bar Work

1. The Race car is to use an original, metal body production type car.
Four-wheel drive, all-wheel-drive and four-wheel-steer systems are not permitted.
2. All fittings must be removed (door handles, visors, ornamental mouldings, body trim strips, wheel trims etc.)
3. All unnecessary flammable material must be removed, e.g. door trims, floor coverings: attached sound deadening material.
4. All window glass and lights must be removed - Instrument glass is permitted.
5. Replacement panels must be securely fastened (rivets, cup-head bolts).
6. Rear spoiler permitted. Spoiler not permitted to be above half rear window height, not wider than waistline of the car at that point nor further to the rear than the back of the original rear bumper.
7. Other aerodynamic systems not permitted (No Wings).
8. All vehicles must carry the identification number, as issued by their club.
This number must be displayed on both sides of a vertical roof plate (300 x 300mm min.) angled at approximately 45 degrees (front left to rear right) across the roof.
The number may also be displayed on each side of the car.
Number and background to use contrasting colours (eg white on black).
9. Fuel tap lever or switch to be marked, indicating FUEL and the positions ON / OFF.
10. Removable bonnet and boot lid to be securely fastened using four mounting points using pins and large washers. Hinged bonnet and boot lid permitted, using minimum of two pins. Skeletonising not permitted on hinged panels within 50mm of hinges. The hinged panel to be welded to the bonnet or boot skin.
11. Fuel tank area must be accessible for scrutineering. No floor under tank.

* If any car requires repair, such repairs must comply with construction rules.

NON ORIGINAL BODY FIREWALL

Driver must be protected and isolated from mechanical, fuel, and electrical components including the battery.

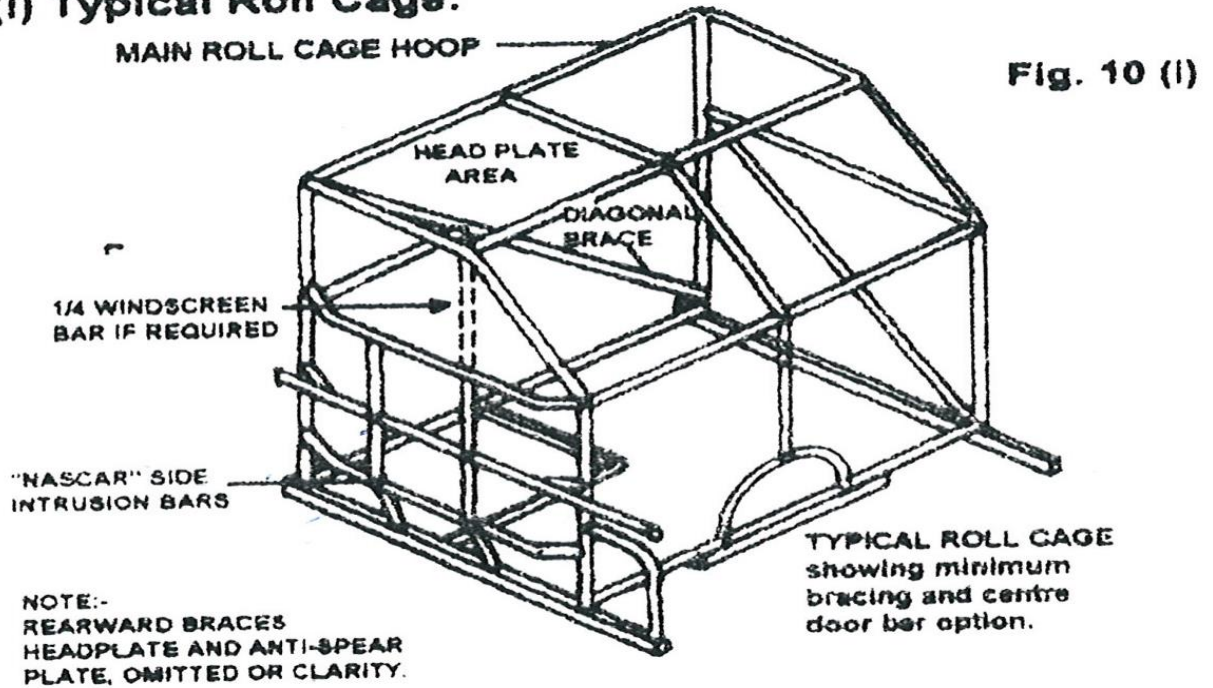
Marine type plastic or similar boxes are accepted for battery isolation, while exhaust components must have metal firewalls.

ROLL CAGE

- a) The roll cage is to prevent the collapse of cabin area under impact. Roll cage, to enclose driver, to be full width and full height of the cabin area. The roll bars are to constitute a cage type framework, braced fore and aft. The cage must extend from behind driver's seat forward to the windscreen area and incorporate protection for the driver's feet.
- b) All roll bar material must be of good quality mild steel - AS 1163. MINIMUM 38mm OD x 3.0mm WT
Aluminium based materials are not permitted.
All bends to be made using a pipe bender or weldable bends with the correct size former. Galvanised tubing or welding over threaded tubing is not permitted in any structural bar work.
Water pipe fittings or malleable fittings are not permitted.

- Roll cages must be metal welded.
- c) The rear main hoop and main roll cage bars will each be made of one continuous length of tubing, with smooth continuous bends and no evidence of crimping, wall failure or significant weakening. See Fig. 10 (i)
- d) Bars are to be inside body, as close as practical to body panels.

Fig 10(i) Typical Roll Cage.



Angle of roll cage "A" pillar bar to be of not less than 45 degrees down from roof bar. See Fig. 10 (i) and (ii). If "A" pillar bar does not follow "A" pillar line and is 45 degrees, additional sub-frame cross brace from front of foot protection to left hand side may be required. Roll cage legs shall be welded to the top of a sub-frame of tubular or angle section running fore and aft. Sub-frame to be securely welded or bolted to the floor pan/sills using at least four 12mm steel bolts through the sub-frame and using 100mm x 100mm plates under the floor pan.

Sub Frame Material Sizes

- A. Tubular 38mm x 3.0mm WT CHS or 50mm x 50mm x 3mm WT RHS
- B. Angle minimum 50mm x 50mm x 5mm

A one piece diagonal brace 38mm O.D. x 3.0mm WT CHS will be fitted in the main roll cage hoop behind driver's head, (within 250mm of the bend), top right to bottom left, See Fig. 10 (iii). A second brace may be fitted in cruciform. The diagonal brace, top right to bottom left, must be one piece.

Fig 10 (ii) – (iv) Cage Details

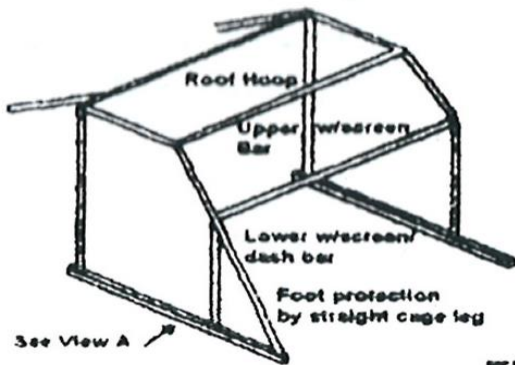
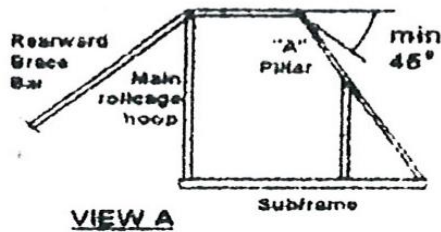


Fig. 10 (ii)



VIEW A

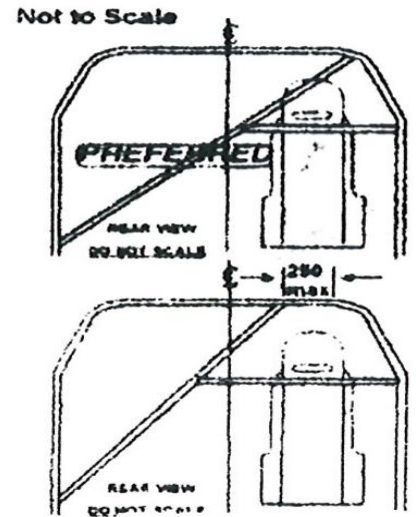


Fig. 10 (iii)

ADDITIONAL MINIMUM BARWORK: 38mm OD x 3.0mm WT CHS

Top windscreen bar. Lower windscreen/dash bar.

Seat back support/shoulder belt mounting bar.

On driver's (right) side: three horizontal side bars, curved out to the door skin, are to be placed between front and rear cage legs, evenly spaced between window sill and cage sub-frame.

Door pillar to be notched or removed, to accommodate bar work.

A minimum of two vertical spacer bars, evenly spaced between front and rear roll cage legs, are to be fitted between the cage sub-frame and top horizontal bar. See Fig.10 (i)

Passenger's (left) side: Three bars between front and rear roll cage legs. One must be horizontal at window sill height.

Minimum of two sub-frame cross braces at roll cage legs, either 38mm OD x 3.0mm WT CHS or 35mm x 35mm x 3mm WT RHS. Centre roof bar 32mm O.D. x 3.0mm WT CHS.

A quarter window bar, if required because of excessive rake or a long roll cage, be fitted to both sides and installed from the top NASCAR bar to top half of pillar bar using minimum 25x 3mm CHS (38mm x 3mm CHS recommended).

Alternately, a 38 x 3mm OD bar may be fitted from top of "A" pillar bar to top of NASCAR bar at 45 degrees of the top bar on both sides.

Centre windscreen bar, 25mm OD x 3.0mm WT CHS.

Rearward brace bars from the top rear of main hoop down onto rear sub-frame (approximately 45 degrees). These can be a crucifix design, and must be attached to the rearward side of the hoop within 100mm of the centre of the top radius.

INSTALLATION OF DRIVER RESTRAINT SYSTEMS: Fig 3

The driver / passenger restraint system, is the primary safety system in the car. It needs to be fully effective.

It must be fabricated and installed so that it complies with the standards set out in this document.

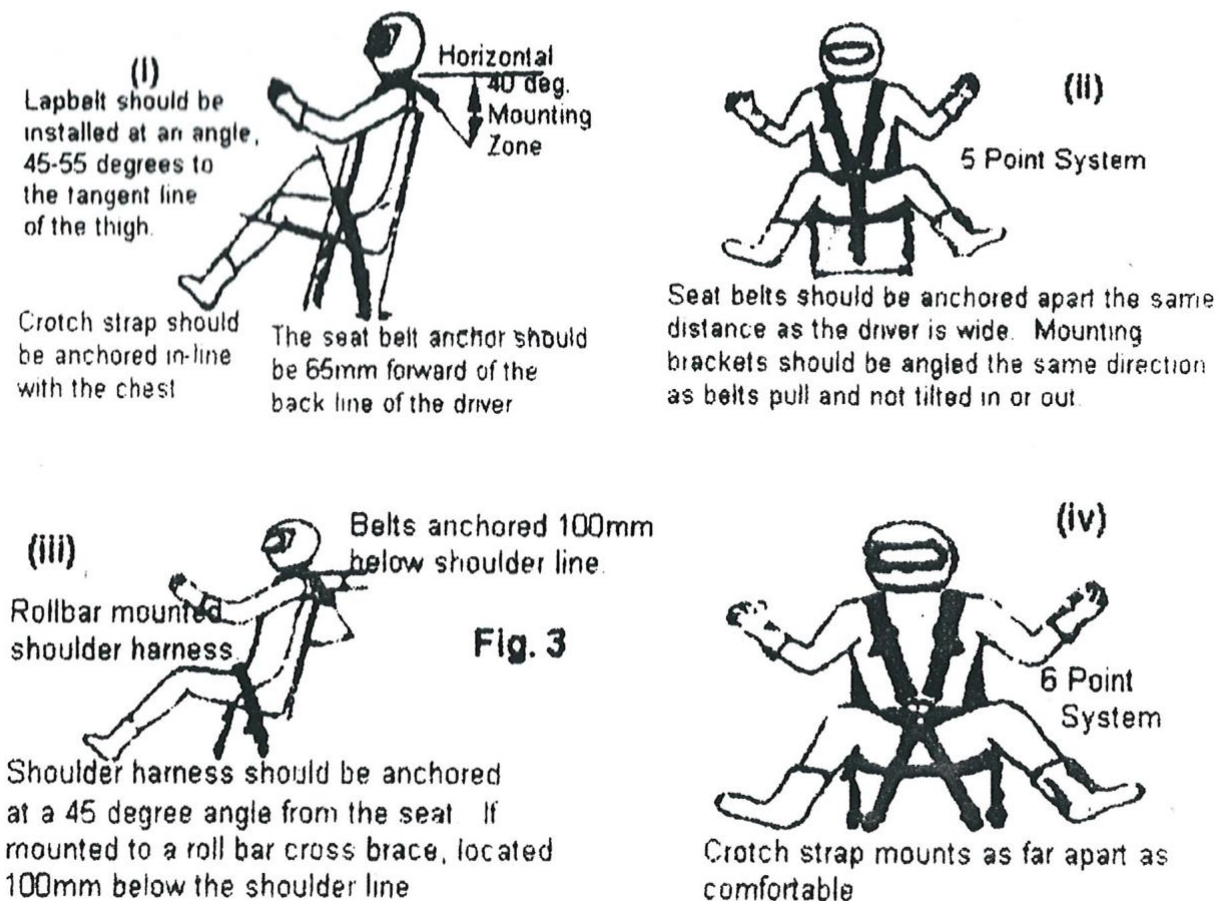
With the seat, roll cage and belt anchors all part of the same structure, damage to the remainder of the car, cannot put the driver at serious risk.

The mounting points must be solid and should remain so, even if the vehicle is deformed due to an accident.

The mounting points should also not put undue strain or twist on the belt system hardware.

The lap belt should be positioned so it rides across the solid pelvic area and not the soft stomach area or down on the thighs. The shock absorbing ability of the pelvic area and its ability to protect internal organs make it the preferred location for the lap belt. See Fig 3 (i) & (iii).

Fig 3



The shoulder harness should be mounted to prevent driver's shoulders from moving forwards (upward if semi-reclining), out of the seat, in the event of a rollover.

A minimum gap of 50mm from the top of the driver's helmet to the roll cage roof and head plate/hoop bar is required.

Crotch straps serve two purposes.

1. To secure the lap strap down across the driver's hips, so in the event of an accident, it is not pulled across the stomach by the shoulder straps.
2. To prevent the driver from sliding forward and out of the harness. When the driver is seated in an upright position, as in most sedans, a five point system (a single anti-submarine or crotch strap) is considered adequate. (Fig 3 ii). For extra assurance a double anti-submarine belt can be used (Fig 3 iv).

**Seat belt: Five or Six mounting point restraints are mandatory.
75mm wide straps are highly recommended.**

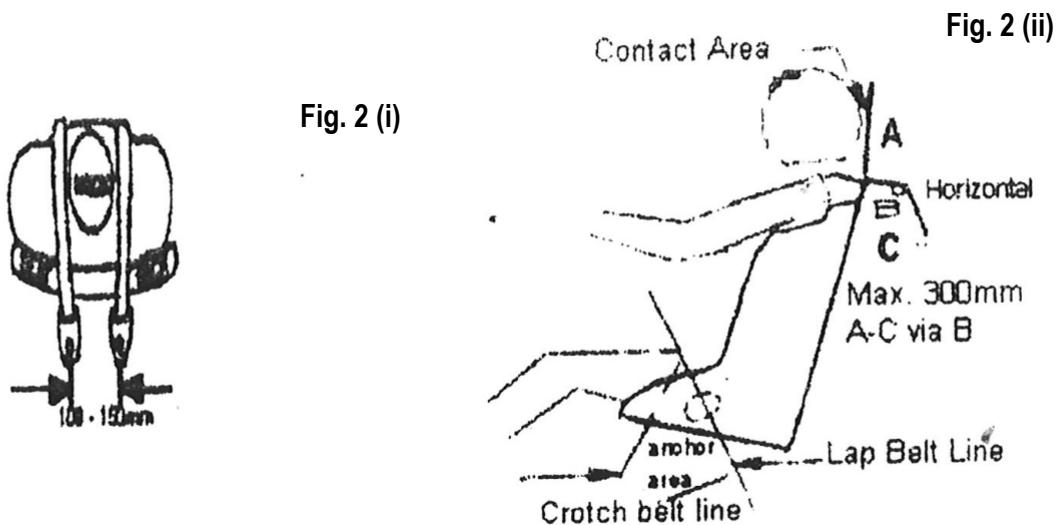
An approved type racing harness must be fitted, using a minimum of four major belts and four mounting points plus one or two anti-submarine/crotch straps.

Anchor bolts to be 10mm steel min.

Shoulder belts to have separate anchor points/adjusters. See Fig. 2 (i)

Shoulder belt mounting point shall be positioned to the rear and below the point where the belt comes through the seat and be not more than 300mm from that point, attached to 38mm x 3mm tube. See Fig 2 (ii)

Fig 2



Lower seat belt mounting brackets (anchor points) must be on a roll cage and chassis or substantial bar work using a minimum construction of 25 x 25 x 3mm RHS or 25mm ODCHS
Seat belt attachment tag to be 3mm minimum mild steel.

The bar providing the anchor points for the belts is to be positioned so that the belts are anchored a maximum of 300mm from the point at which the belts pass through the back of the seat.

WINDOW NET

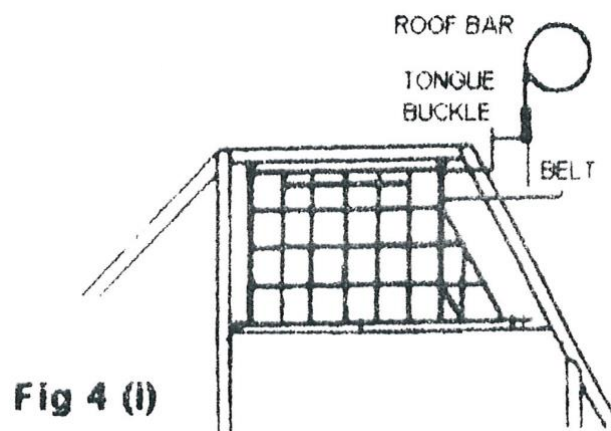
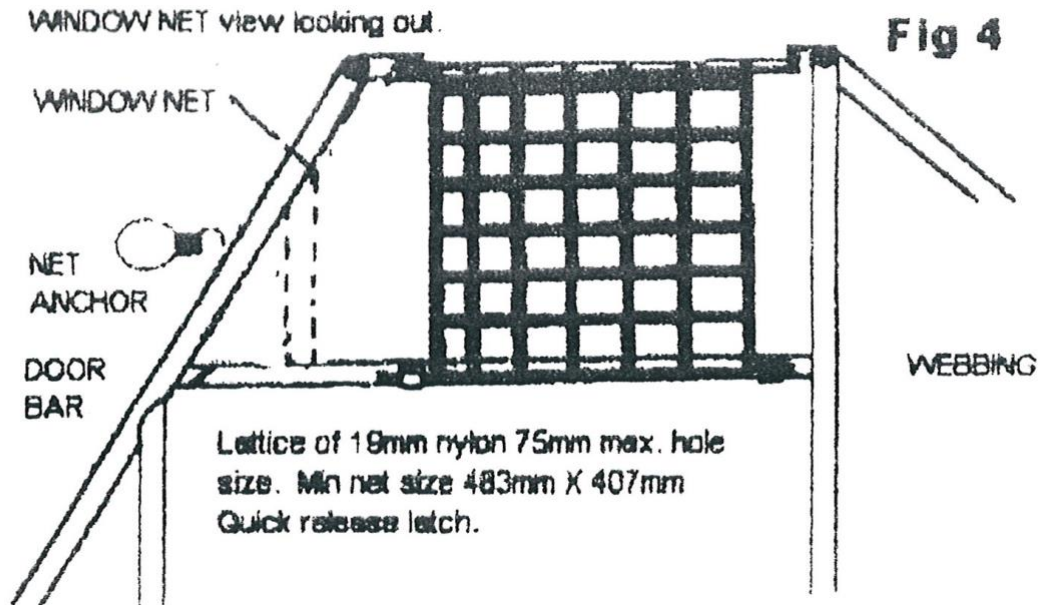
Window net is mandatory for driver and passenger.

Net to be a minimum 19mm woven webbing with 75mm max hole size.

It is recommended that the window net be hinged from the bottom.

Window net must be mounted directly to be roll cage bar (top) and NASCAR bar (bottom) from the quarter window bar (if fitted) back

When installed net must be firm not floppy loose.



This design uses two push button seat belt buckles and belts. Tongues are welded to the side of roof bar. 25x3mm FMS welded to rear of buckles. Tubing at base of net fixed with bonnet lock pins.

PADDING

The driver and passenger must be protected, in the race car, from all sharp edges and projections or bar work, which could cause injury in an accident.

FIRE EXTINGUISHER

An onboard fire extinguisher (Class ABE - minimum capacity 1kg) is required, and it must be securely mounted in its steel bracket.

SEAT

A "Purpose Built" one piece, steel (1.6 mm) or aluminium (3 mm), or plastic bucket type seat, incorporating a substantial head rest must be used.

Approved proprietary line competition seats and mounts are permitted e.g. Kirkey, Butler, Genesis.

Lateral (sideways) support must be given to hips and above waist.

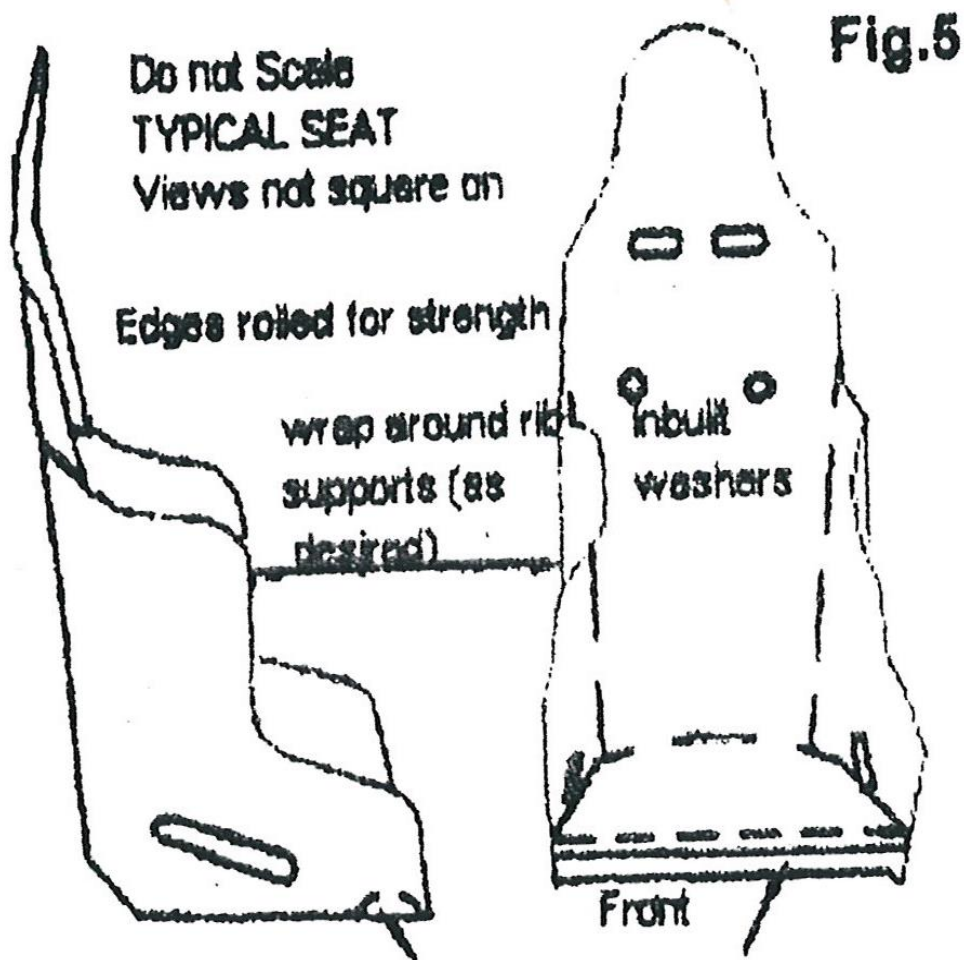
Concave seat to support back to minimum of TOP of shoulder height and width.

The seat is to be mounted completely on the right hand side of the vehicle centreline.

The seat base is to be mounted to roll cage at a minimum of two points using 8mm bolts and minimum of 40mm diameter body washers. (Four points are recommended).

Seat back is to be braced and attached to the roll cage approx 75mm below shoulder height using a minimum of two 8mm bolts and 40mm body washers. There is to be a minimum of 50mm clearance between the helmet and the head plate/hoop bar.

Seats may be padded and covered, with the covering being securely attached. Maximum padding thickness is 50mm.



Anti-Spear Plate

An anti-spear plate, 3mm steel or 5 mm alloy (NOT to be lightened by drilling) to be fitted to outside of "NASCAR" side intrusion bars, between roll cage legs, from floor-line to window sill bar (driver's and passenger's side).

Head Plate

To simplify the removal of an injured driver or passenger it is highly recommended that a removable full size head plate be used.

Head plate to be of 5mm ALUMINIUM ALLOY or 3mm STEEL. 25mm x 3mm FMS strip to be welded to main hoop, top windscreen bar, centre roof bar and side roof bar. 10 of 50mm x 50mm x 3mm MS tag acceptable. Plate to be mounted, from above, with 10 x 8mm dia. high tensile bolts, 3 each side, 2 front and 2 rear. Heads of bolts to be downwards, i.e. no projections.

ALTERNATIVELY.

A head plate minimum 3mm steel must extend from rear roll bar to top windscreen bar and from driver's side outer roof bar to centre roof bar. This plate must be securely welded to these bars with intermittent welding procedure.

Helmet clearance between roll cage roof/hoop bars for existing vehicles, may raise head plate as per drawing below, to obtain 50mm clearance. A minimum of 50mm clearance is required between the helmet and any part of the rollcage and headplate when driver is seated.

WINDSCREEN MESH

Mesh screen to cover entire area from "A" pillar to centre bar and from dash to roof bar. Also on passenger side if carrying passenger. Minimum effective mesh size 50mm x 50mm.

3mm mesh gauge to be welded, or clamped with metal clamps to the roll cage "A" pillar and centre windscreen bar. Minimum of four clamps. Mono cars may be welded to body.

BUMPER BARS & OPTIONAL EXTERNAL BARWORK

OEM type steel bumper bars are **NOT** permitted but may be replaced with maximum 42mm OD x 3.2 CHS.

Bumpers are to remain hollow.

Corners and ends of front and rear bumpers to be radius formed, 100mm minimum.

REAR only: Returns of rear bumper may be extended as a skid rail against outside of body between bumper and wheel arch, and then extend inward to the "chassis rails." Corner plates on top edges of either bumper are not permitted.

RUB STRIP MOUNTING

Mild steel rubbing strip between wheel arches to be up to 50x25x3mm MS RHS. Be securely mounted against body at a minimum of four points.

Bolts must be a minimum of 8mm (cuphead) bolts and be bolted horizontally to bar work, Bolts at each end must be no more than 50mm from the end of rub rail.

Running rail ends to be closed and taper to 45 degrees as not to become a "spear".

Rub strips not to be used on quarter panel behind rear wheel.

REAR OVERRIDE BAR

An override bar may be used. Constructed of maximum 25mm OD x 3.2mm WT, be VERTICAL and be maximum 100mm high. Brace bars are not to be used. Rear override bar may go around corners of car and protect side panels behind rear wheel arch. Maximum of six uprights.

FRONT OVERRIDE BAR

An override bar may be used. Constructed of CHS maximum 25mm OD x 3.2mm WT150mm high and mounted centrally on top of bumper. Front override bar may go around covers of car. Maximum of six uprights allowed.

ENGINE

- a) No performance additives to be used to increase engine power.
- b) Only pump fuel is permitted. The use of exotic fuels (eg Methanol) not permitted.
- c) If resilient engine mountings are used, steel chain restraint must be fitted (welded or bolted).
- d) Solid engine mounts are permitted.
- e) Return spring must be fitted to each carburettor butterfly shaft (in-built springs accepted) and one spring to accelerator pedal linkage.
- f) Protective wire gauze or air cleaner to be fitted over air intake to prevent entry of foreign objects to throttle body and also to act as a flame trap.

BATTERY AND ELECTRICAL SYSTEMS

- a) Battery to be securely mounted in box or metal frame secured to roll cage or bar work.
- b) Suitable grommets must be fitted where battery cables pass through metal firewalls.
- c) At the commencement of a meeting, a car must be capable of starting with its own starter motor.
- d) Switches: Ignition switch and electric fuel pump switch, if fitted, must be grouped together and clearly marked.
- e) An engine "kill" (isolation) switch, suitably marked with contrasting colours, must be fitted in the centre of "cowl panel" (Where bottom of windscreen mesh meets the rear of engine bonnet).
- f) Electrical switches NOT to be mounted through floor.

EXHAUST SYSTEM

- a) All exhaust gases are to be directed away from the driver, passenger, fuel tank and tyres.
- b) Driver is to be suitably insulated from exhaust systems.
- c) Exhaust system is not to protrude beyond body line.
- d) If an exhaust is judged as being too loud, extra sound reduction may be required.

COOLING SYSTEMS

- a) Cooling systems may be modified.
- b) Use approved radiator hoses.
- c) Radiators may be mounted inside cabin provided that they are mounted as low as possible in the rear of the vehicle and suitably isolated from the driver.
- d) Cabin mounted radiators must have BOTH tanks covered to protect driver in the event of a cap, hose, or tank, blowing.
- e) Pipes leading to the radiator to be of steel, aluminium or copper tube.
- f) All internal pipes to be ducted or lagged with suitable material.
- g) Hoses to be as short as possible and fitted to the rear side of the radiator.
- h) Exposed hoses or joints are not permitted in cabin area.
- i) Cabin mounted fans to have a shroud or suitable guard.

TRANSMISSION

- a) Electronic Traction Control systems are not permitted.
- b) All cars must have a Scattershield fitted. To be minimum 3mm x 150mm 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 cabin area, to protect the drivers feet and legs from clutch and flywheel failure.
- e) Cars fitted with automatic transmission and a torque converter must be fitted with a Scattershield.
- d) Tail shaft may be of one piece or two piece types.
Tail shaft/s must be fitted with 360 degrees hoops at front and rear. Tail shaft loop can be Steel strap minimum 40mm x 5mm or 6mm wire rope to be SECURELY fitted around the front and rear of the tail shaft within 150mm of universal joints to prevent the tail shaft and or shafts from dropping in the event of breakage.
- f) All drive line components must be derived from mass produced passenger cars.
No quick change differentials. No racing gearboxes - eg Bert Box.

REAR AXLE BEARING RETAINING RINGS

- a) If using an assembly not fitted with floating axles, a new retaining ring must be fitted at replacement of bearing or axle. Ring must be an interference fit with axle. When in place the retaining ring is to be tack welded using MIG or small diameter, low hydrogen rod or low amperage (to prevent weakening or distortion of axel metal).
- b) Wheel studs: Grade 8, 12mm minimum on all vehicles or manufacture size.

SUSPENSION

Modifications are permitted.

Modifications must not interfere with the driver's ability to control the car's movements on the race track.

WHEELS AND TYRES

- a) Wheels must be in good conditions and free from cracks.
- b) Dual studs pattern drilling is NOT permitted.
- c) Wire wheels and/or dual wheels not permitted.
- d) When using "Mag" wheels, correct matching nuts and washers must be used.
- e) New passenger car tyres and retreads are permitted.
- f) When purchasing tyres, price is to be kept to a minimum. TCCC may specify what brand/make of tyre is to be purchased – Check before buying if unsure.
- g) Tyre re-grooving is permitted.
- h) Highway rated tyres only. Maximum tyre width is 235mm.
- i) Maximum roll out must not exceed 2160mm or 85 inches, when fitted on rim and inflated to race pressure.
- j) Bead lockers are permitted in a class, **if** all the participants in that class agree to use them.
- k) No race rubber permitted :-
Diamond backs, race tyres, mud and snow tyres, rally tyres and off-road tyres are Not Permitted.

BRAKES

- a) All 4 wheels must lock when brakes applied at scrutineering.
- b) Foot operated hydraulic brakes to be fitted and be effective a race speeds.
- c) Brakes to be fitted to all four wheels.

FUEL TANK and FUEL SYSTEMS

- a) Original fuel tank must be removed and replaced.
- b) The use of an approved type fuel cell and receptacle is recommended. Competition type "plastic" tanks are permitted.
- c) Fuel tank to be securely mounted in the boot area of the car, in a suitable metal cradle attached to the bar work.
- d) Area beneath tank to be cut out, giving adequate ventilation and ensuring that spillage cannot remain in the vehicle.
- e) Filler cap to be a positive seal, behind a firewall and inside body. Leavers on cam locked caps to be clipped. All joints to be welded to a professional standard. Fuel tanks to be constructed of minimum 1.0mm steel or 3.0mm aluminium alloy.
- f) All fuel lines to be securely fixed in position. Barbed fittings of the correct size must be used in conjunction with screw type clamps when connecting flexible fuel line. Neoprene, reinforced plastic or "Black Fuel Line" may be used. OEM type Bundy Steel tubing may be used though the car or under the car. Flexible fuel lines can pass through the cabin area. High pressure lines are to use high pressure hose and fittings. The fuel line to the engine must be fitted with a quick action non-leak fuel tap, or valve, in working order.
- g) Fuel lines **MUST BE ISOLATED** from electrical wiring.
- h) Tank vents to be fitted with an anti-spill device.

This document has been collated by Tableland Competition Car Club Inc. as a set of minimum requirements and guidelines, to help set up a car to compete in our racing events.

If there is any aspect of these guidelines that you don't understand, contact an official from Tableland Competition Car Club for clarification.

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