

## **INFORMATION**

### **Introduction**

This document is to be read in conjunction with the Australian Racing Rules & Regulations (ARRR). Where any contradiction exists, the ARRR will take precedence.

The Rockhampton Saloon Car Club Inc. (RSCC) Technical Committee shall be the sole authority for the interpretation of specifications as contained in this document. The decisions of the Management Committee shall be binding on all officials, owners and drivers in that area.

### **Definitions**

CHS – Circular Hollow Section

FMS – Flat Mild Steel

RHS – Rolled Hollow Section

WT – Wall Thickness

OD – Outside Diameter ID – Inside Diameter

#### **Executive Committee:**

President, Vice-Presidents, Secretary, Assistant Secretary, Treasurer and Assistant Treasurer.

#### **Management Committee:**

Executive Committee, Promoter, Club Chief Steward, Club Chief Scrutineer

#### **Technical Committee:**

Club Chief Steward, Club Chief Scrutineer, Assistant Scrutineers or individuals as allocated by The Executive.

Memberships of all committees and sub-committees may, from time to time, also include other individuals as determined by committee or club membership.

### **General**

It is a condition of the RSCC that:

Drivers and passengers must hold a valid license equivalent to the class of racing i.e. A License for Super Stockers.

Drivers and passengers must be a current member of a Speedway Australia affiliated club.

The car must hold a current RSCC registration and daylight.

Current RSCC Inc. fees: These fees to take effect in the 2019/2020 Season

Membership: \$50.00 per person per racing season

Race Car Number: \$50.00 per car per racing season

***All fees are subject to change at any time!***

The minimum age for a driver or passenger shall be 16 years of age. Seat belts must be adjusted to suit the body of the passenger.

***Before constructing a race car, read the specifications carefully!***

Before constructing/modifying cars of unusual or unconventional design, you must apply in writing with full details to the RSCC Technical Committee, before approval is given.

RSCC  
PO Box 385  
Rockhampton 4700 QLD

Once approval is given, it then can be applied.

***If it is not in the Specification Document - it cannot be used!***

### **Authority to Exclude**

Notwithstanding anything contained in these specifications, if the Club Chief Scrutineer determines prior to racing that the race car does not meet the applicable specifications, the race car may not be allowed to compete.

Currently registered vehicles whose registration remains constant, may be required to carry out alterations (minor tasks) as determined by the Club Chief Scrutineer or his/her representative. These minor tasks will be determined at a consistent level.

**One Way Communicators** are mandatory for all race meetings.

### **Transponders**

As of the 2013/2014 season the RSCC have made it compulsory that your car be fitted with a transponder before you are able to race. Transponders are to be fitted a maximum of 450mm forward of the front axle centre line.

Note: It is the responsibility of the driver/owner of the car to provide the transponder at their cost for each meeting.

### **Construction**

To be of professional standard using first grade materials - no downgrade material is allowed. All materials quoted are minimum sizes unless a maximum is specifically quoted.

### **Minimum Specification**

All tubing or pipe used in the main structure of the roll cage and supports must meet the specifications as listed in AS1163, Grade 300 minimum, whichever is relevant to steel being used. No galvanised or plated pipe is permitted.

### **Annual Registration**

Before a race car registration can be officially recognised:

A membership form is to be completed with all of the relevant details, and the prescribed fee is to be paid to the RSCC Treasurer, (Except if proof of membership of another Speedway Australia affiliated club is provided.)

The vehicle must be presented for a daylight inspection, carried out by the Club Scrutineers.

Cars must pass a pre-registration examination to receive endorsement. The Club Chief Scrutineer can revoke this endorsement any time if the vehicle is found to be defective. The vehicle may be withdrawn until the repair or adjustment has been made and approved.

The driver and/or the owner must be present at the time of inspection. Drivers are responsible for having their log book endorsed before an official practice session or race meeting.

A Driver participating in any Event must have the following items at the Race Track to be allowed to participate:

- a) a current Speedway Australia Licence and an Infringement Card (if required by relevant division);
- (b) a current registered Race Car;
- (c) a current Log Book for that Race Car;
- (d) safety apparel complying with the relevant Racing Division specifications;
- (e) a current Australian Speedway Racing Rule book; and
- (f) a current class specification book.

A passenger (as approved in some classes) must also have items (a), (d), and (e).

Structural or other specification changes made during the season must be officially notified and car re-inspected before competing.

### **Impound Area**

The Club Chief Steward or his/her representative may order race vehicles to a nominated impound area at any given time, either during or after the race meeting.

### **Challenge of Compliance**

Any club member may challenge any competitor about their compliance to the rules. This would require a written request and the payment of \$500. The competitor would then be required to present themselves, the vehicle and any tools required to disassemble components to a designated place, at a designated time, to prove or disprove the challenge.

In the case of the competitor being proved compliant, the \$500 fee will be refunded to the competitor towards the cost of having components reassembled.

In the case of the competitor being proved non-compliant, the expense of reassembly will be borne by them and they will face penalties as detailed below. The challenger will be refunded their payment.

### **Penalties**

A maximum of 12 months suspension and/or a maximum of \$1000 fine will be imposed for breaches of the following rules: to any person who is guilty of misrepresenting a race car or safety attire/equipment or having an illegal engine or using illegal fuel or making a false declaration and to any person who knowingly provides wrong information for the registration of a race car.

## **Protective Clothing: Helmet, Race suit, Underwear, Boots, Gloves, Balaclava, Socks, Horse Collar**

For Specification on items refer to current Speedway Australia Racing Rules and Regulations for the particular class of racing.

It is up to the driver /passenger/owner to be able to show to the Scrutineers where the dates and tags are on their safety gear.

All safety gear is to be tagged appropriately.

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

### **Seat Belts**

Five or six point restraints are mandatory. Shoulder and Hip Belt width 50mm minimum. 75mm highly recommended.

**SEAT BELT LIFE: *Seat belts can be no older than two years.***

Seatbelts must comply with current SFI 16.1 standards at all times. All racing divisions must be fitted with a safety harness/seat belts of the lever latch style, and must conform to all of their policies including fitment, care/maintenance and replacement period. See your division's specification documentation for any possible additional requirements to this standard.

Belts must be Stamped with date when purchased - *Seat belts can be no older than two years from stamped date. **New belts now display expiry date.***

Only belts with over centre lever lock buckle to be used.

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. Fig 1 (1)

Shoulder belt mounting points shall be positioned to the rear and below the point at which the shoulder belts come through the seat and be not more than 300mm from that point, attached to 38mm x 3mm tube. Fig 1 (2)

Lower seat belt mounting brackets (anchor points) must be on roll cage and chassis or substantial bar work using a minimum construction of 25x25x3mm RHS or 25mm OD CHS.

Seat belt attachment tag to be 3mm minimum mild steel.

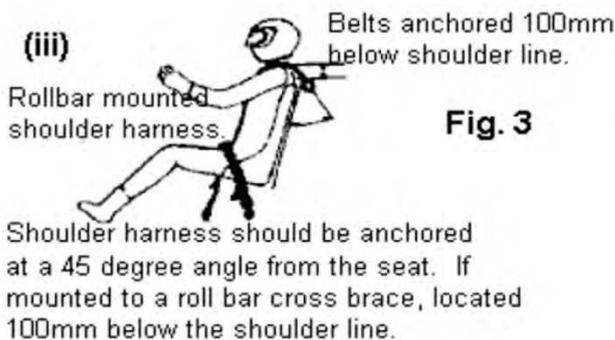
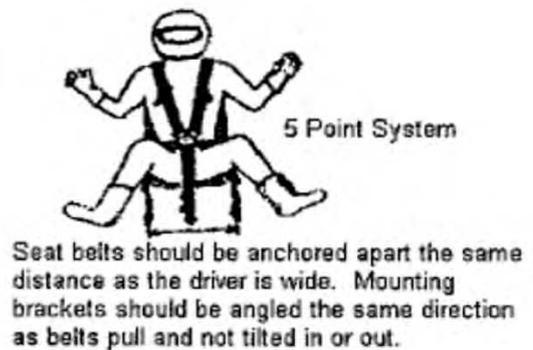
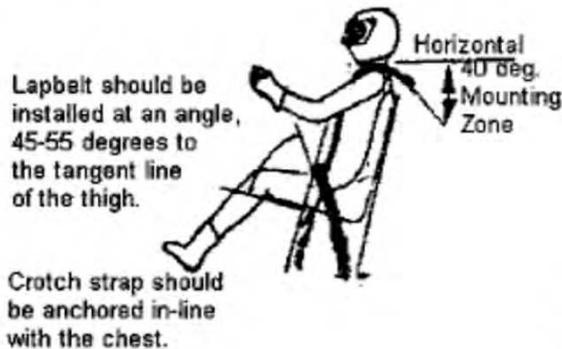
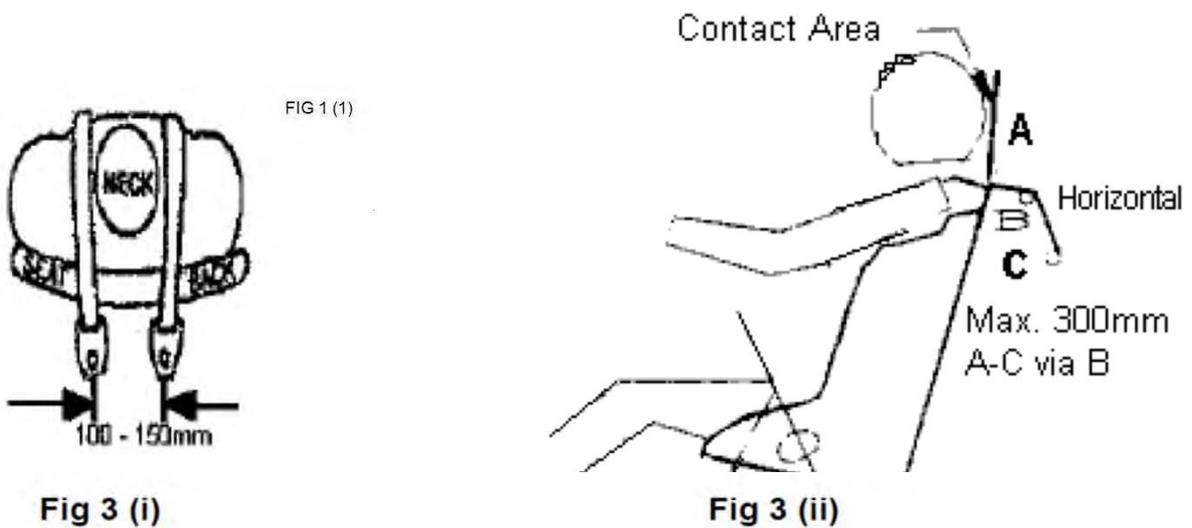
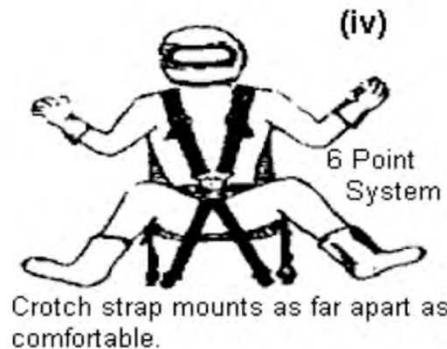


Fig. 3



**Fig 3 Simple Seat only shown for clarity.**

See "Installation of Restraint System". See "Adjustment of Driver Restraints".

**INSTALLATION OF DRIVER RESTRAINT SYSTEMS: Fig 3**

In order for the driver restraint system to be fully effective, considerable thought must be given to the location of mounting points, and to proper installation. With the seat, roll cage and belt anchors all part of the same structure, deformation of the remainder of the car does not put 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 (i) & (iii).

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

The required minimum 50mm from the top of the driver's helmet to the roll cage roof & head plate/hoop bar must be adhered to.

Anti-submarine 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 up 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 ii). For extra assurance a double strap anti-submarine belt can be used (Fig iv)

When the driver is seated in a semi-reclining position a six point system (two antisubmarine or crotch straps) is preferable. Most drivers find the two anti-submarine strap systems more comfortable.

In many instances, the anti-submarine straps are mounted much too far forward of the seat. This practice could cause unnecessary injury as the body can slide partially out of the seat before being restrained when the strap contacts the groin. It is much more practical to cut a slot in the seat bottom so the anti-submarine strap can be anchored in line with the chest. (Fig i)

Because of the differences (often vast) in competition vehicles, a 'standard' method of mounting is impractical. Good judgement and common sense in inspecting restraint system mounts is needed.

Safety equipment is often neglected in favour of performance equipment, but its proper operation when the need arises is essential to survival.

## **ADJUSTMENT OF DRIVER RESTRAINTS:**

With the driver is fully kitted out in 'long johns and driving suit', check that, with the driver seated, belt slots in the seat line up with natural line of the belt from anchor to buckle when just the lap belt is tensioned.

Ensure that the lap adjusters do not foul the seat and that they are readily accessible. Some belts adjust by pressure downward others by pull up.

Check that the driver can manipulate belt adjusters with gloves ON. Check also that anchor hardware is aligned and that it is not possible to have a hitch in the anchor area

without detection (sudden release of the belts to 50mm slack can put the driver off-line). Now check if the belt is holding the seat or the driver, it should be the latter.

Adjust the anti-submarine strap/s to ensure that the buckle is held flat and close to the body over the pelvis. When satisfied that the lap belt is OK, put on the helmet and check just how far the helmet (with visor) can reach, head plate clearance, helmet net etc.

Slacken the seat belt, engage the shoulder belts into the buckle and tension the seat belts again, checking position of the buckle and adjusters. Tension each shoulder belt, checking that the adjustment range is suitable to the driver, that the belts and hardware don't foul the seat and that the natural line of the belts holds the driver as with the lap belts. Note also any change in the buckle location and lay.

If there is too much variation with the buckle it would appear that lap anchors are not in optimum position.

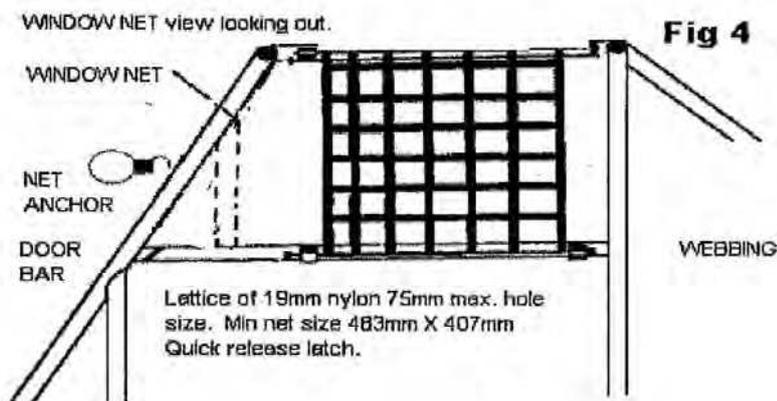
Before drivers release the buckle he should slacken shoulder belts with the adjusters, keeping the area of the adjuster supple, accessible for cleaning and making entry to the car a simple routine.

While lining up for restarts, it becomes a simple exercise to tug the adjusters to snug up the belts and stay in control of the car.

### **Window Nets**

**Window Net/Nets are Mandatory. Window nets can be no older than two years from stamp date. New Window nets are stamped with an expiry date.**

Net to be a minimum 19mm woven webbing with 75mm max hole size. See appendix A. Window net to be hinged from the bottom.

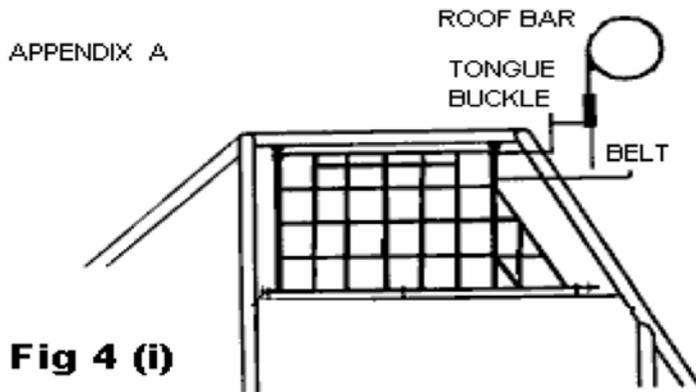


Window net must be mounted directly to the roll cage bar (top) and NASCAR bar (bottom) from the quarter window bar (if fitted) back.

Window net - A lattice of 19mm woven webbing.

Minimum rod size to be 6mm(1/4")

Minimum net size 483mm x 407mm.



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

### **PADDING:**

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

### **Seats**

The use of a full containment seat is recommended or at least the use of a seat with head and shoulder supports.

Minimum 50mm clearance from helmet to roll cage roof/hoop bar.

Seat to be mounted totally on the right hand side of the vehicle centre line measured at waist line of body.

**4 DOOR CARS:** No part of the seat may be more than 125mm behind the centre pillar. To be measured at windowsill height.

**2 DOOR CARS:** Must not be further back than rear of "B" pillar, to be measured at windowsill height

Seat base to be mounted to roll cage chassis at a minimum of two points using 8mm bolts and minimum of 40mm diameter body washers. Four points recommended.

Seat back to be braced to, and attached to, the roll cage approx. 75mm below shoulder height using a minimum of two 8mm bolts and 40mm body washers.

A "Purpose Built" one piece, solid (i.e. no lightening holes), steel or Aluminium bucket type seat incorporating a substantial headrest must be used. Approved proprietary line competition seats and mounts permitted. Eg Kirkey, Butler, Genesis, United Speedway Accessories, Bratpac and Racetech.

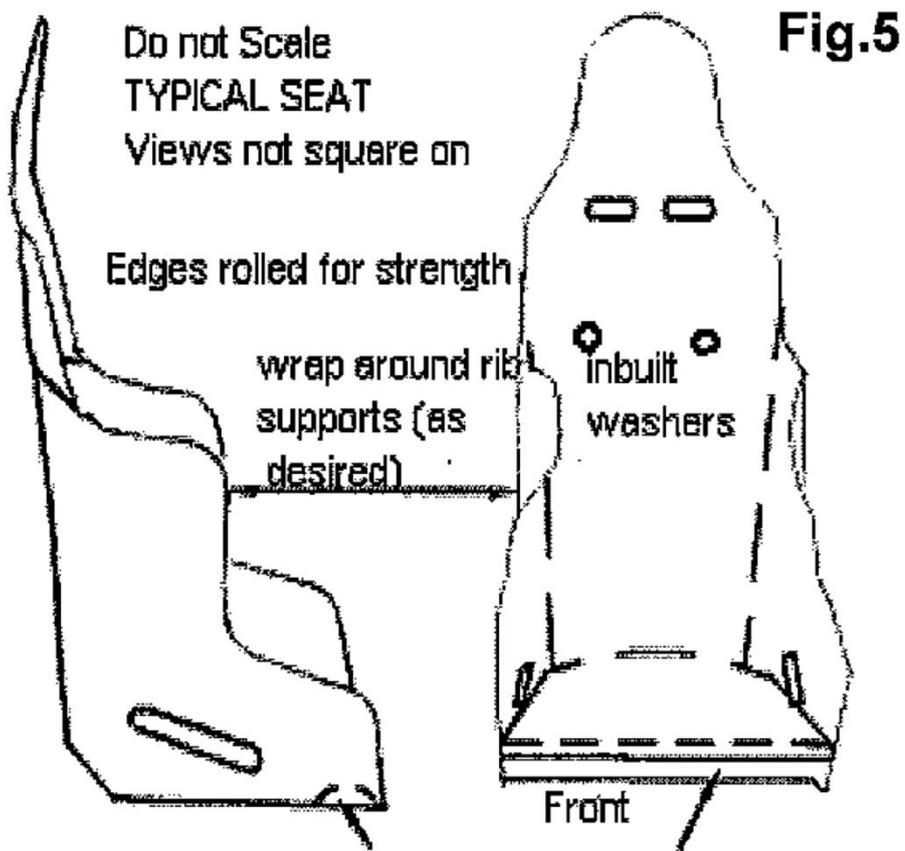
Fibreglass, spring upholstered, Plastic, or magnesium alloy seats not permitted. Lateral (sideways) support must be given to hips and above waist. Concave seat to support back to minimum of TOP of shoulder height and width.

Top of headrest to be at least 50mm above helmet contact point, headrest must be padded.

At the discretion of the Scrutineer the headrest will need a form of support if it is deemed too flexible and/or the area between seat and roll cage is too great. Upper support (mounting bolts) should not exceed 75mm below shoulder height.

Cut-outs for belts to be suitably fitted with grommets and have adequate clearance.

All seats may be padded and covered, the covering being securely attached. Maximum padding thickness of 50mm.



## **Super Stocker Specifications**

Only mono-constructed type vehicles of sedan or hatchback style, seating a minimum of four and catalogued for general sale in Australia are permitted.

### **ALL VEHICLES ARE TO BE KEPT IN GOOD REPAIR TO RETAIN A REASONABLE IMAGE FOR THE SPORT**

Note: Vehicles must comprise an original turret or roof, all pillars, floor pan and front firewall.

Replacement panels must be securely fastened; self-drilling (TEK) screws not to be used.

Panels are to be attached using rivets or bolts. No cable ties or race tape, unless race night repairs.

The only panels which may be removed: Radiator support panel front inner guard panels, (provided that they do not constitute suspension mounting points e.g. McPherson strut), rear quarter panels and all inner panels in boot area. In boot area, quarter panels may be cut off at rear window base line. Rear silhouette is to be maintained with plastic O.E.M. bumper over top of pipe bumper bar work.

Chassis cars, four-wheel drive, all-wheel drive and/or four-wheel steer vehicles are not permitted.

Original floor must be visible at all times. EG: No full sheeting allowed of cabin area or floors. Driver's and passenger's footplate allowed.

All panels are to be securely attached to the body.

Fibreglass or sheet metal may be used as replacements for steel panels. Panels that may be replaced are the bonnet, boot, doors, front panels, rear quarter-panels and nose cone. The roof must be retained and welded but may be covered by a fibreglass panel. Must be original A,B and C pillar. Double panelling with fibreglass or body steel (0.8mm thickness maximum) is permitted.

Bonnet and boot are to be securely attached to the body/roll cage at four (4) points (i.e. one in each corner). The four (4) pins are to be a minimum of 12mm in diameter and locking pins a minimum of 3mm diameter. Heavy duty large reinforcing washers (min 40mm OD) to be fitted to all bonnet pin holes.

Any holes in the bonnet must be covered by a bonnet scoop, but must have the rear face completely covered.

All external mirrors, brittle glass, die-cast and/or metal strip grills, door handles, ornamentations, bull bars, tow bars, original fuel tank and flammable materials must be removed.

Any holes in the front firewall must be covered to seal the cabin area from the engine bay.

Wheel arches may be cut out to allow tyre clearance. Mudguards and/or rear quarter-panels may be cut out to a maximum of 50mm but must not exceed the top point of original inner guard. If rear wheel arches need to be enlarged for tyre clearance, the

original wheel arch may be cut and the inner guard re welded to the outer guard, rolled or covered so no sharp edges are exposed what so ever so as not to cut tyres.

Headlight and tail-light apertures are to be covered.  
A substitute grill may be fitted.

The original dash must be removed and replaced with a fabricated one.

Panels in the cabin area may have minor modifications to allow for fitting of the roll cage.

**A front and rear metal firewall must be retained to isolate both the driver and/or passenger from the boot and engine areas. The firewall is to be mounted as close as possible to the original position and must be a minimum of 1mm in thickness. All objects passing through both firewalls i.e. fuel lines wiring etc must be fully sealed and include rubber grommets on all objects.**

Self-tapping devices are not permitted. (NO TEK SCREWS)

Front rails may be removed but only up to a level as to ensure that the original front "K" frame can and will be bolted in its original position to the original sub- frame.  
Minimal Relieving of B pillar only, for cage tube. No skinning

The floor area of the boot may be removed to the centre-line of the rear axle or no closer than 50mm to the rear suspension mounting points.

### **Identification Numbers**

All vehicles will carry identification numbers on both sides of the vehicle and on the roof and the inside top-left-hand side of the wing. A number is also to be positioned at rear, r/h side.

Roof and wing numbers are to be contrast with white numbers on black background and be no smaller than 300mm x 300mm in height and width.

### **Roll Bar Specifications**

The roll cage is to prevent the collapse of cabin area under impact.

Roll cage, to enclose the 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.

All roll bar material must be of good quality mild steel, AS 1163, minimum Gr300.  
MINIMUM 38mm O.D. x 3.0mm w.t. CHS. (Sonic test at no less than 2.70mm ABSOLUTE).

Aluminium based materials not permitted.

All bends to be made using a pipe bender 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 built using other than fusion-welding techniques will not be accepted. Gussets on welded joints may be required at daylight inspection of weld quality.

The rear main hoop & 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.

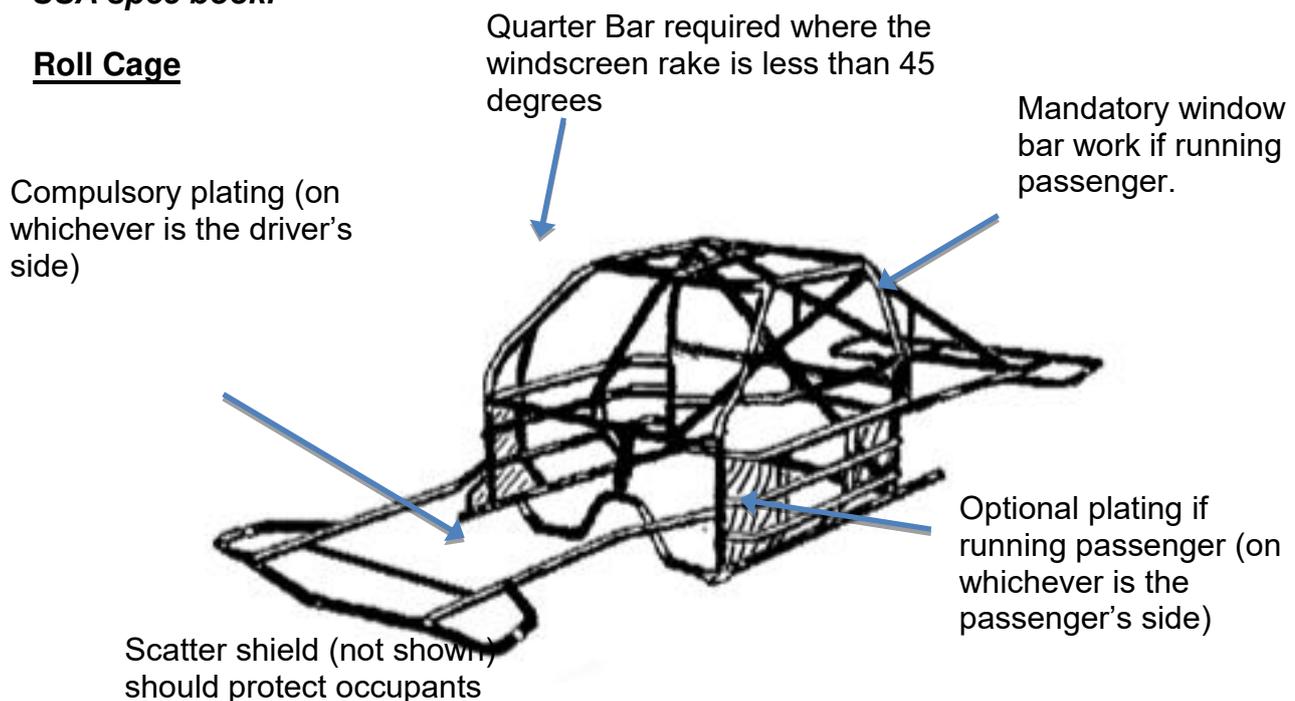
Main roll cage hoop is to be within 50mm of sides of roof at narrowest point. Bars are to be inside body. The base of the main roll cage hoop is to be fitted square in the car.

Top windscreen bar to be as near as practical to windscreen at front roll cage leg on side elevation.

Front roll cage leg is to follow the "A" pillar line; exception being cars with severe rake of the windscreen. The roll cage will be of NASCAR-type construction, as per Diagram **Or other approved**

**cage specs as per SSA specs (street - production and modified sepcs) refer to SSA spec book.**

### Roll Cage



Angle of roll cage "A" pillar bar, to be of not less than 45 degrees down from the roof bar. If "A" Pillar bar does not follow "A" Pillar line and is 45°, 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 a minimum of four 12mm steel bolts through the sub-frame and using 100mm x 100mm plates under the floor.

### Sub-frame Material Sizes

A. Tubular 38mm x 3.0mm w.t. CHS or 50mm x 50mm x 3mm w.t. RHS.

B. Angle minimum 50mm x 50mm x 5mm.

A one piece diagonal brace, 38mm O.D. x 3.0mm w.t. CHS., will be fitted in the main roll cage hoop behind the driver's head, (within 250mm. of the bend), top right to bottom left. A second brace must be fitted in crucifix if running a passenger. The diagonal brace, top right to bottom left, must be one piece.

### ADDITIONAL MINIMUM BARWORK:

38mm O.D. x 3.0mm w.t. CHS.

Top windscreen bar, lower windscreen/dash bar, seat back support/shoulder belt mounting bar.

On driver's (Right) side: 3 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.

On the driver's side NASCAR bars, one of the 3 horizontal door bars may run straight through. E.g. from front wheel arch to rear wheel arch and then have 2 separate pieces of 38mm x 3mm turning at 90 deg. to the NASCAR bar connecting onto the roll cage "A" and "B" roll cage pillar bars.

Door pillar to be notched only, to accommodate bar work. It CAN NOT be removed as there will be no strength.

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.

That the top NASCAR bar, lower windscreen bar and passengers top NASCAR bar, may be formed in one continuous bar. This entails the "A" pillar bar to be formed in 2 pieces. One from the roll cage base to this hoop with the upper section from this hoop upwards to the hoop.

(Left) side: Two bars between front and rear roll cage legs. One must be horizontal at windowsill height. (If running a passenger, refer to roll cage diagram.)

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

200mm is the maximum distance forward or back from the "A" leg of roll cage leg for fitment of a sub-frame cross brace/spreader bar before a brace is required.

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 25x3mm CHS (38mm x 3mm CHS recommended).

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

Centre windscreen bar, 25mm O.D. X 3.0mm w.t. CHS.

Rearward brace bars from the top rear of main hoop down onto rear sub frame (approx. 45 degrees). May be crucifix.

Must attach to the rearward side of the hoop within 100mm of the centre of the top radius.  
To be of 34mm MIN CHS.

### **WINDSCREEN MESH:**

Mesh screen to cover entire area from "A" pillar to centre bar and from dash to roof bar.  
Maximum effective mesh size 75mm x 50mm, (50mm x 50mm Recommended). Mesh  
gauge 3mm minimum. (For passenger, windscreen mesh must run fully from left to right.)

Windscreen mesh to be welded or clamped with metal clamps to the roll cage "A" pillar  
and centre windscreen bar, or welded to the windscreen opening. Minimum of four clamps.

### **ANTI-SPEAR PLATE**

3mm steel or 5mm alloy, (NOT to be lightened by drilling).

The anti-spear plate is to be fitted on the outside of the NASCAR bars.

Recommended 1/3 length between roll cage legs, to be fitted on driver's side, (If running a  
passenger, it must be 1/3 of length extending rearward to centre hoop on passenger  
side.) From floor-line to window sill bar, forward of the first vertical door bar to the front leg  
of the roll cage.

If not welded, one piece external door plate to be bolted on, using a minimum of six 50mm  
x 50mm x 3mm MS tags and bolted to either 8mm or 5/16th high tensile bolts with no  
protrusions. If individual pieces are used then a minimum of four 50mm x 50mm x 3mm  
MS tags and bolted to either 8mm or 5/16th high tensile bolts to each piece with no  
protrusions.

### **Foot protection Bar**

Foot protection bar and brace bar is mandatory if drivers feet are past the  
"A" pillar bar whilst the driver is seated in the car in race position. Minimum requirement for  
foot protection be a minimum of roll cage material.

A bar minimum 25mm x 3mm support from foot protection bar must be attached to the foot protector bar at one end and the other end to bar work to the left.  
 A plate may also be required.

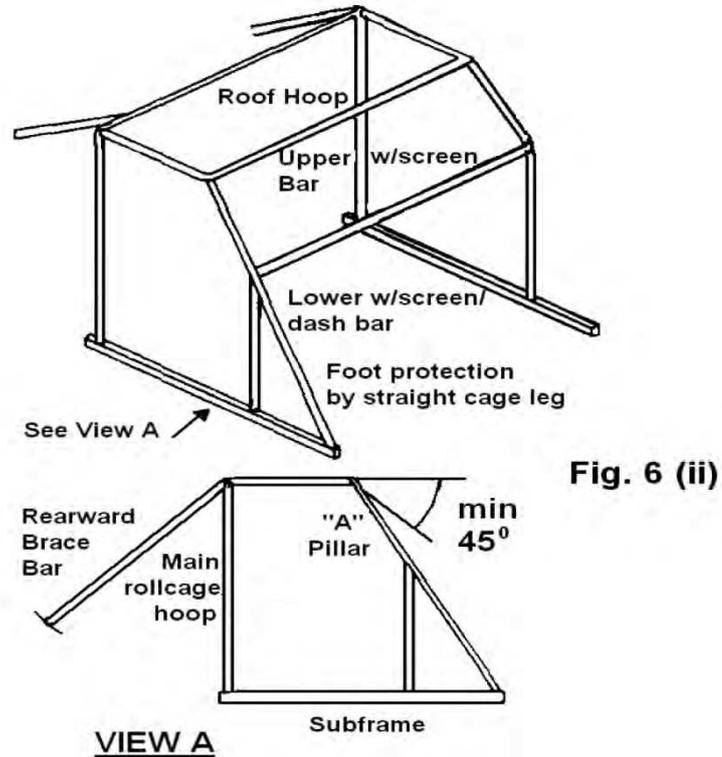


Fig. 6 (ii)

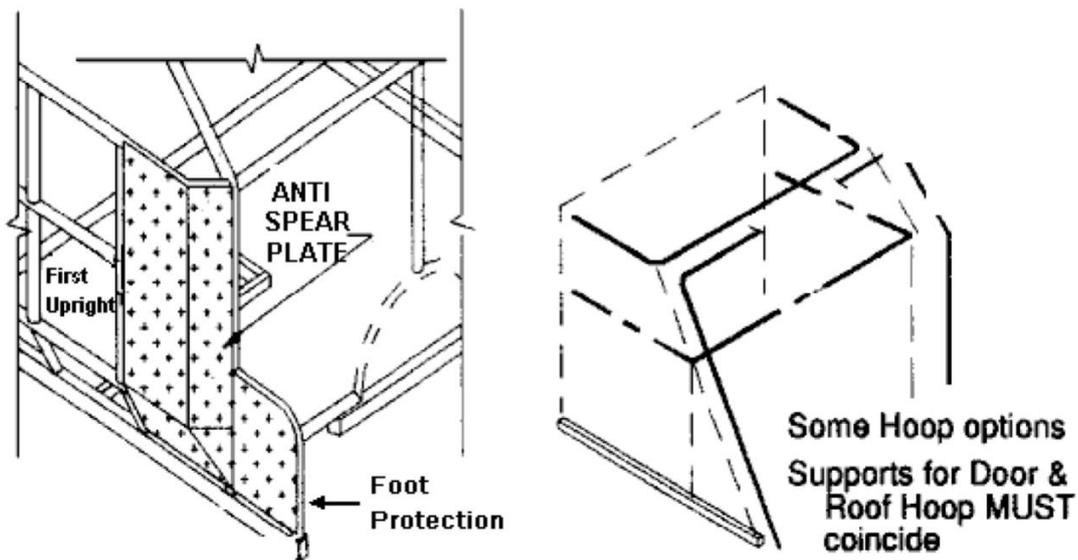


Fig. 10 (iv)

**HEAD PLATE:**

To simplify the removal of an injured driver 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 (Mild Steel) tags acceptable.

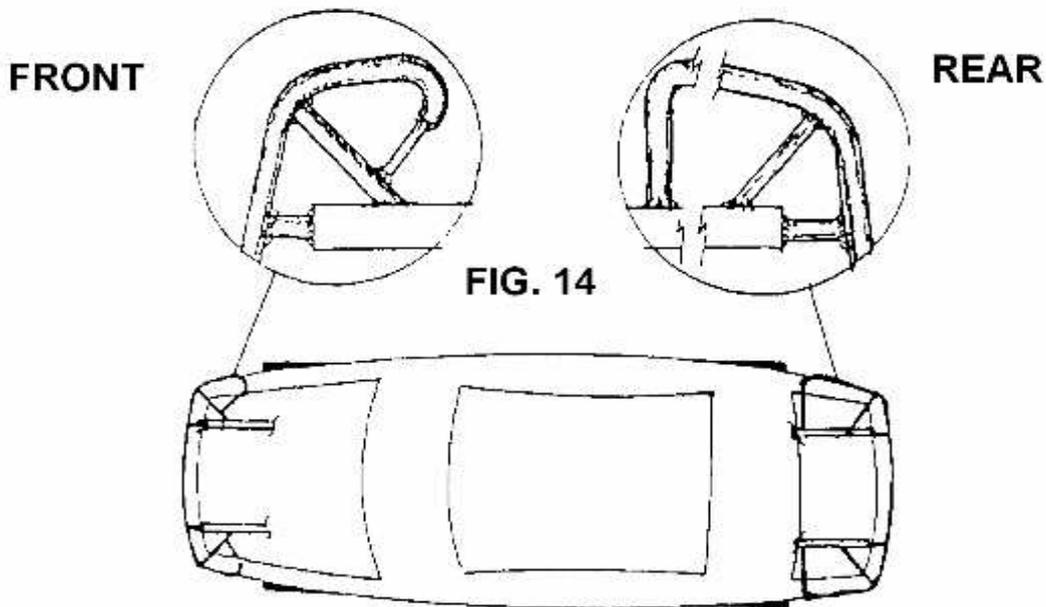
Plate to be mounted, from above, with 10 x 8mm dia. High Tensile bolts, 3 each side, 2 front, 2 rear. Heads of bolts to be downwards, i.e. no projections.

ALTERNATIVELY - A head plate min. 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. The head plate may be raised to gain 50mm clearance from helmet to head plate. (No bending or bowing of head plate allowed.) Mounting procedure for raising of head plate. 10stubs 38mm x 3mm tube – stub length is determined by height required to gain 50mm clearance. Stubs to be end capped and threaded.



**BUMPER BARS & OPTIONAL EXTERNAL BARWORK:**

OEM type Steel bumper bars NOT permitted but may be replaced with max. 42mm O.D. x 3.2mm CHS.



Front and Rear Pipe Bumper Bars may be covered with a plastic road car bumper or fibreglass copy.

Bumper/s to be securely mounted in original position using supports of a minimum of 100mm from rear of bumper tube. Maximum support size, CHS 42mm x 3.2mm, 40mm x 40mm x 3.2mm RHS, or 50mm x 25mm x 3.2mm RHS only, i.e. gussets are not to be used. Bumpers are not to tie to under guard bar work.

Front &/or Rear: Original plastic bumper bar can be reinforced  
Front bumper Maximum returns 300mm, Minimum 100mm by max. 42mm O.D. x 3.2mm w.t. CHS.

Bumpers are to remain hollow.

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

Maximum of four mounting points can be used on each bumper bar.

Returns and bumpers are to be flush fitting with the body, within 25mm or within reason.

Anti-hook-up bars from returns of Front and Rear bumpers to be extended onto the stay bars.

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 not permitted.

Plastic bumpers must be fitted with round head bolts. Aluminium rubbing strips optional. 40mm x 3mm max aluminium strip may be fitted between bolts to support bumper cover.

### **RUB RAILS (Optional)**

Mild steel rubbing rail between wheel arches to be 25x25x3mm MS RHS or alternately, nylon (urethane, nolathane) 50mm x 12mm thick. Be securely mounted against body at a minimum of four points.

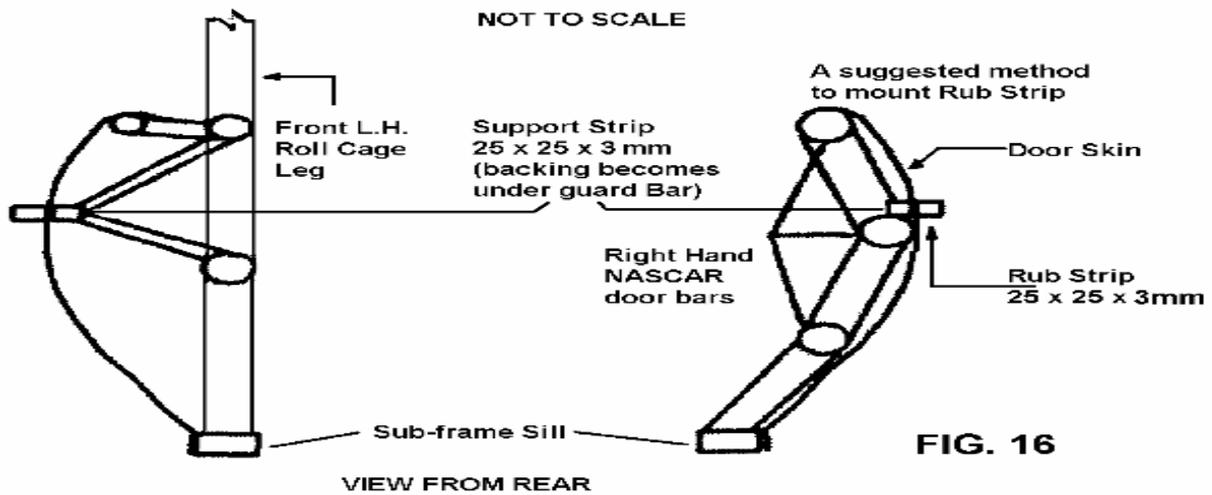
Bolts must be minimum of 8mm coach-head (cup head) bolts and be bolted horizontally to bar work.

Bolts at each end must be no more than 50mm from the end of rub rail.

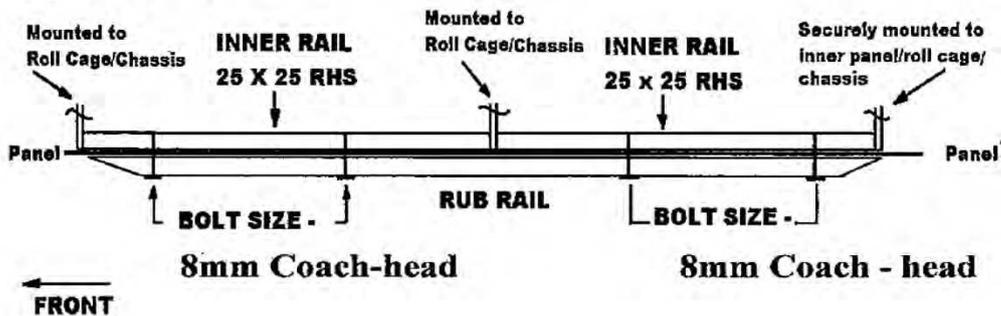
Inner mounting bar, 25 x 25 x 3mm, to be returned to chassis or roll cage at each end. Rubbing rail ends to be closed and taper to 45 degrees as not to become a "spear". Fig 13

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

Rub rail mounting bolts to be evenly spaced with a minimum of 4 bolts.



**Fig 13 Rub Rails**



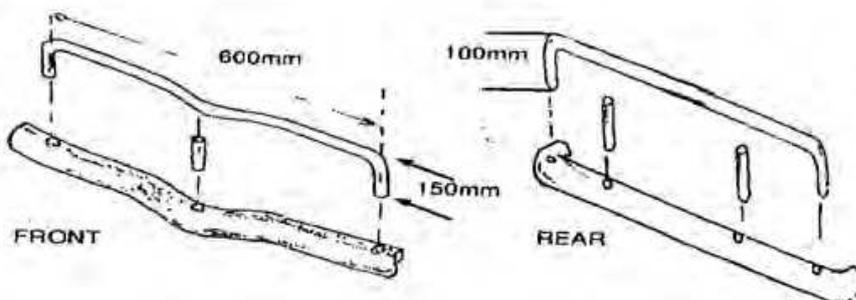
**REAR OVERRIDE BAR**

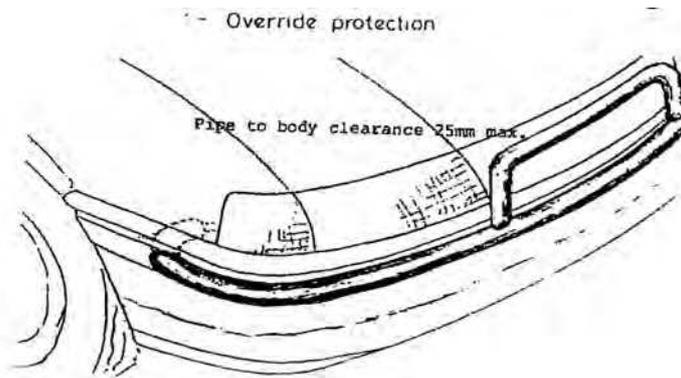
An override bar may be used. To be constructed of maximum 25mm OD x 3.2mm w.t. It shall be no wider than the boot panel and shall be mounted centrally on the bumper bar at no more than four points, be VERTICAL and be max 100mm high. Brace bars are not to be used.

**FRONT OVERRIDE BAR**

A front override bar may be used. Constructed of CHS maximum 25mm OD x 3.2mm w.t. Maximum 600mm long, 150mm high and mounted centrally on top of bumper at three points only, i.e. it may have a centre support.

**Fig. 14**





### **TOWING ATTACHMENT:**

Will be via the override bars or a hole cut in the panel under the bumper, to allow the bumper to be used to pick up the car.

### **Front and Rear Hubs and Tail shaft**

The front and rear hubs may be changed from four-stud to five-stud designs with the approval of the Club Chief Scrutineer.

The studs will have a minimum size of 12mm.

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.

Conversion of two piece tail-shaft to one piece and vice versa is permitted. (Additional tail-shaft hoops required for two pieces.)

REAR AXLE BEARING RETAINING RINGS. If using 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 the axle, when in place the retaining ring is to be tack welded using MIG or a small diameter low hydrogen rod on low amperage. FAILURE TO OBSERVE THIS PROCEDURE WILL INCUR A PENALTY ESPECIALLY IF AN AXLE IS DISLODGED. (SAFETY DECLARATION)

(RANDOM INSPECTIONS MAY BE CARRIED OUT)

### **BALLAST**

If ballast is dislodged from a race car during an event a penalty could apply.

Ballast should be no greater than 610mm long x 100mm wide x 50mm high.

Each piece of ballast is to be painted white with registered car number (for identification).

Ballast must be attached to either roll cage (NO DRILLING THROUGH ROLL CAGE) or chassis and mounted below door height.

If attached to chassis, must be attached directly to chassis by utilizing half inch high tensile bolts and Nylock nuts. Bolts are to go through chassis rail using proper engineering practice. (Sleeves)

If attached to roll cage tubing, correct mounting brackets to be used, e.g. AFCCO.

Ballast up to 305mm requires minimum one mounting bolt.  
Ballast up to 610mm requires minimum two mounting bolts.

Bolts must pass through ballasts.

Ballast should be mounted no higher than top NASCAR bar.  
Maximum, Bolt On ballast allowed, 40kg  
Each single piece maximum, 10kg

### **Fuel Tank and Fuel System**

Original fuel tank must be removed and replaced by a tank/s of up to 72 litres for petrol or 120 litres for Methanol. (Where Methanol is used a RED TRIANGLE WITH A WHITE "M" 75mmx75mmx75mm is to be placed on the top half of driver's side door. If car is painted red, the triangle is to have a white border). Fuel tanks are not to be mounted using brackets welded to the tank or cell.

Area beneath tank to be cut out, giving adequate ventilation and ensuring that spillage cannot remain in vehicle.

Pressurised fuel tank/s NOT permitted.  
The use of an approved type fuel cell and receptacle is recommended.

Filler cap to be a positive seal, behind a firewall and inside body. Levers on cam locked caps to be clipped.  
All joints to be welded to a professional standard.

Fuel tanks to be constructed of min. 1.0mm steel or 3.0mm aluminium alloy.  
Competition type "plastic" tank permitted.  
All fuel tanks to be constructed with pick-up fittings etc. coming from top, bottom or side of tank.

A flexible fuel line section must be fitted within 75mm of fuel tank and 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. (Genuine SAE R6 fittings and hose exempted).  
Approved flexible fuel line only may be used through the car. OEM type Bundy steel tubing must not be used through the cabin but maybe used under the car.

Flexible fuel lines purpose made must 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 – **Carburettor cars only.**  
The actuator or switch is to be mounted within easy reach of driver and crash crew, and clearly marked "FUEL" ON/OFF.

Solenoid valves or remote mounted fuel taps are permitted.

If a return line is used, it must be fitted with a one-way valve.

Electric fuel pumps must be wired with an independent earth. The pump MUST be controlled by the 'KILL' switch AND if using PETROL, by an engine monitoring relay. This device is highly recommended for Methanol. (This means when engine stalls with ignition still on, fuel pump will shut down).

Fuel lines **MUST BE ISOLATED** from electrical wiring.

Tank/s to be securely mounted in the boot area of the car, in a suitable metal cradle attached to the bar work, with a minimum clearance of 150mm forward of the lower rear end of the boot panel and 300mm minimum from side of vehicle, and isolated from driver by a firewall.

Fuel tank not to be mounted using brackets welded to tank or cell.

Tank to be protected by substantial bar work on all sides.

(No glass or plastic fuel filters allowed).

### **Fuel tank protection:**

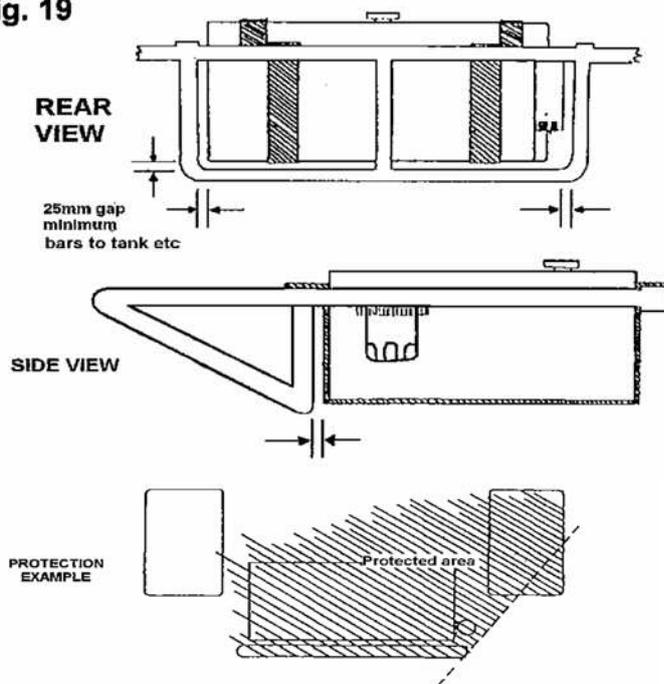
Bar must be constructed of minimum 38mm x 3mm CHS or 40x40x3mm RHS and be 25mm clear all around tank and filter, projecting a line from the rear wheel centre to the bar. Bar is to prevent side entry to tank by nose of another vehicle. Protector must be 25mm lower than an underslung tank and mounted as per Fig 19. (Brace bars do not constitute Bumper mountings.)

"Minimum fuel tank mounting strap size must be 25mm x 3mm FMS." X 2.

For tanks mounted with top of the tank higher than the rear bar work the fuel tank protection bar should be no higher than the tanks top and no lower than  $\frac{3}{4}$  of the tanks height. Brace bar should be mounted in centre of the fuel protection bar to prevent the entry of the nose of another vehicle. (as shown in fig. 19 )

(Brace bars do not constitute Bumper mountings.)

**Fig. 19**



The corners of the fuel tank protection bar are to be radius corners.  
No straight side pipes for jacking to extend.

Tank vents to be fitted with an anti-spill device.

Underslung fuel tank is a fuel tank that is below bumper or chassis rails, and therefore must have a fuel tank protector bar fitted.

A static strap must be mounted from the metal retaining ring on top of the tank to the roll cage. (The piece that the fuel cap fits into, i.e. fuel filler opening on non-metallic tanks to roll the cage.)

## **Brakes**

Effective foot-operated brakes are required on a minimum of three wheels (both rear and left-hand-side front).

Adjustable brake bias systems are permitted.

Rear brakes may be altered to disc.

## **Cooling System**

Cooling system may be modified.

All radiator hoses to be of fabric reinforced material, plain rubber hoses not permitted.

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. The upper half of rear window opening MUST NOT be obscured by the rear radiator. (This means measurement vertically from Parcel tray to where rear window meets the roof at top)

Radiator ducting shroud if used can be a maximum of 600mm forward of the radiator and must not be more than half the rear window height.

Cabin mounted radiators must have BOTH tanks totally covered to protect driver in event of a cap or tank blowing.

Pipes leading to the radiator are to be of steel, aluminium or copper tube. All internal pipes and hoses are to be ducted or lagged with suitable material. Eg: lay flat fire hose, air con insulation.

Hoses are to be as short as possible and fitted to radiator from rear side.

Exposed hoses or joins not permitted in cabin area.

Cabin mounted fans to have shroud or suitable guard.

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

Cooling system to have a manual pressure relief/cap fitted. Lever vent radiator type caps may be used with a covered flap. Cabin mounted radiators must have the tanks and cap totally covered to protect the driver/passenger.

Overflow Hose is to be fitted to direct steam to the ground and securely mounted, or an overflow bottle can be mounted in the boot area.

Irrigation systems are not permitted.

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. All connecting hoses, couplings etc., to be correct class of fittings for the purpose. (If running a passenger, no remote filter, coolers etc, in the cabin area at all.

### **Battery and Electrical Systems**

The battery must be securely fastened in a cradle, attached to the roll cage and covered to prevent spillage. I.e: Must be in an enclosed box if in cabin area.

All wiring is to be securely mounted and kept clear of fuel lines. Wiring running through panel work must be protected by the use of a grommet.

An effective "KILL" switch is to be mounted to the centre of the cowl panel and clearly marked "ON / OFF" and also mark the directions of operation i.e. Push or Turn. The switch must be accessible without putting hand through the windscreen mesh

The vehicle must be capable of starting, utilising the starter motor prior to each meeting.

The battery position is to be marked by a blue coloured triangle on the exterior of the car, with each side of the triangle measuring 75mm in length. If cars are blue triangle to have white border

### **Engines**

*6 Cylinders interchange motors are permitted but must be of the same make. Vehicle must be a 6 cylinder chassis. Some examples.*

*Holden Ecotec - Torana - permitted*

*Holden Ecotec - Gemini - Not permitted*

*Ford Barra - Cortina - permitted*

*Ford Barra - Escort - Not permitted*

*Converted car engines must be mounted central in the engine bay. No offsetting permitted.*

Holden's that were manufactured with Chevrolet engines may use Chevrolet engines.

Fords that were manufactured with Windsor engines may use Cleveland engines.

Must use OEM Material blocks.

Older engines may be used in later model cars. Eg: 202 Straight Engine VE Commodore -- permitted.

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. All connecting hoses, couplings etc., to be correct class of fittings for the purpose. (If running a passenger, no remote filter, coolers etc, in the cabin area at all.

Sumps may be altered or enlarged.

Ignition systems are open.

V8 engines are restricted to a maximum of one four-barrel carburettor or four venturis, i.e. 2 by 2-barrel carburettors. **Allowable limit to a maximum of 850 cfm.** No blowers, turbo chargers, super chargers or fuel injection permitted on V8's (i.e. must be naturally aspirated).

Rotary, four-cylinder and six-cylinder engines are unrestricted.

Fuel may be petrol, aviation fuel (avgas) or methanol. No nitrous or similar additives are permitted.

Two external return springs, acting in opposite directions mounted separately, on all induction systems are required. EFI engines must have original spring, plus one external spring.

Any holes in the bonnet must be covered by a bonnet scoop, but must have the rear face completely covered.

### **Exhaust Systems**

Exhaust systems may be modified with a maximum of two outlets allowed.

Exhaust noise must be in the confines of the local government requirements.

Exhaust must be secured to the body of the car with a minimum of 4mm diameter chain or 1" x 1/8" flat bar.

### **Gear Boxes and Differential**

Both may be changed to allow for better reliability.

The gear box must have two forward gears and one reverse gear as a minimum.

Quick-change diffs are not permitted.

Transmission cooler hoses in cabin area must be lagged or suitably covered with no joins.

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. All connecting hoses, couplings etc., to be correct class of fittings for the purpose. (If running a passenger, no remote filter, coolers etc, in the cabin area at all.

## **Suspension and Steering**

The original type of suspension must be retained and the original mounting points must be used. Suspension mounting points are defined as: - Mounting points of suspension arm, either end; shock absorber, either end; strut, either end.

Shock absorber either end may have a tolerance of + or – 25mm maximum overall for mounting purpose.

No adjustment can be carried out from cabin or from drivers seat or whilst on the dummy grid or race track.

That Coil Over Units be allowed as an option, and be mounted in original shock absorber position.

The use of Torsion Bars, unless original equipment, is illegal.

Additional stabiliser bars, shock absorbers, Panard bars and Watts's linkages are allowed. Additional shock absorbers are limited to one front and one rear on the driver's side only.

Weight jackers are allowed but are not to be adjustable whilst the car is in motion.

Coil-overs are optional but must be mounted in the original shock absorber position. Fifth arms are not permitted.

Steering modifications are allowed to change the steering ratio. The workmanship is to be of professional standard.

Power steering and steering quickners are permitted.

Power steering cooler hoses in cabin area must be lagged or suitably covered with no joins.

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. All connecting hoses, couplings etc., to be correct class of fittings for the purpose. (If running a passenger, no remote filter, coolers etc, in the cabin area at all.

## **Rims and Tyres**

Wheels are to be in a good condition, free of cracks and suitable for competition.

Wheel studs not to protrude further than 12mm past the outer face of the wheel nut.

Rims are to be 8 inch maximum and correct wheel nuts must be used. It is recommended that Alloy Rims be purpose built racing rims or steel rims and/or Factory OEM.

Wide Five style wheels, hubs and adaptors NOT permitted.

"Mag" Rims:-

Correct matching nuts and washers must be used.

Composite type Rims NOT acceptable. Composite rim means rims made of different materials. E.g. 3 piece alloy rims are not classed as composite rims.

Complete inners must be welded in a professional manner to a complete outer.

Strapping is optional.

Dual stud pattern drilling is NOT permitted.

Wire wheels and/or dual wheels not permitted.

Balance weights to be securely fastened or taped.

Rim edges to be rolled or rounded off if rim protrudes past the tyre side wall.

Covering not to be welded to outer section of rim.

Multi fit/drilled wheels and rims **are not ALLOWABLE** at all

Welding up of holes is not permitted.

Original rims may be upgraded in size and width provided that tyres or rims do not protrude more than 50mm outside the (OEM) bodyline.

Racing tyres and/or racing re-treads are not permitted.

Tyres are to be an Street-legal radial type at the time of purchase.

Maximum tyre size in "15" to be no more than 275/60/15

"16" to be no more than 265/60/16

"17" to be no more than 265/60/17.

Grooving of tyres is permitted.

It is recommended that bead locks be fitted to all wheels and it is strongly recommended that a bead lock be fitted at all times to the RHR wheel.

Spacers are allowed

### **Aerodynamic Aids**

The roof-wing is optional.

The wing is to be securely attached to the roll cage with a minimum of four mounting points. Safety chains/wires at two points.

The side panels must not cover any window openings.

The wing must not protrude past the line of the body on the front, rear or sides.

The maximum allowable length of the wing is 2400mm.

The distance between the highest point of the turret and the lowest point of the wing base is not to exceed 500mm.

The distance between the lowest point of the wing base and the highest point of the wing is not to exceed 1200mm.

A boot spoiler is permitted, but must not extend higher than halfway up the rear window opening.

No other aerodynamic aids are permitted unless otherwise referred to in these specifications.

# **AMMENDMENTS**

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