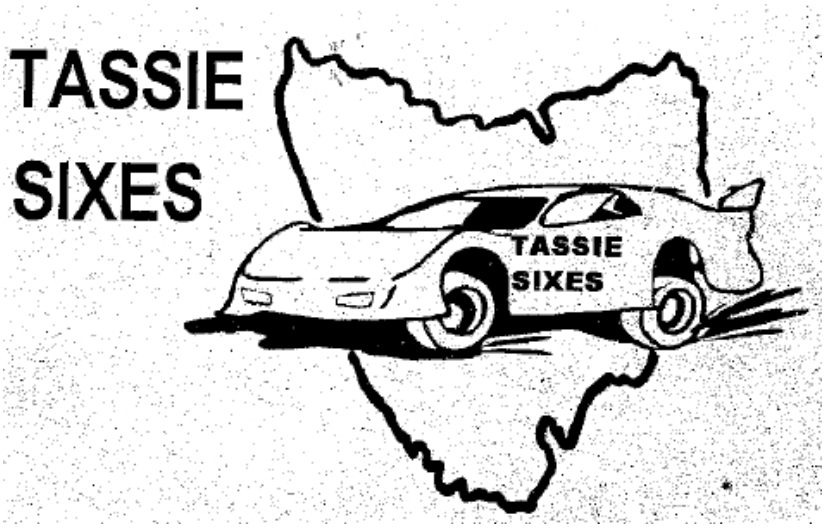
SPEEDWAY SEDANS TASMANIA INC

TASSIE SIX
SPECIFICATION MANUAL

Rules and Regulations



Speedway Sedans Tasmania Inc
Kim Abel - Secretary/Treasurer
Mobile 0405233838

Enquiry to State Technical Representative
Email- speedwaysedanstas@outlook.com

TABLE OF CONTENTS

SECTION 1 – Policy, Procedures and Definition

1. INTERPRETATION

Speedway Sedans Tasmania Inc. (SST Inc.) along with Speedway Sedans Australia Inc (SSA Inc.) shall be directly responsible for the enforcement of these specifications. It and its delegates shall be the sole authority for the interpretation of the specifications as contained in this book and with the class technical manual of SSA Inc. The SSA Inc Class Technical Manual is to be read in conjunction with the Tassie Six Specification Manual.
All Technical inquiries must be directed through you Club Scrutineer, State Technical Delegate and/ or SST Inc.
SST Inc vehicles must only compete with SST Inc. registered vehicles and with drivers who hold a Speedway Sedans Australia Inc (SSA Inc) Speedway Australia Licence and SSA Inc approved insurance and SST Inc. Infringement Card.

2. GENERAL

All new cars must comply with all specifications detailed below. If "IT" is not in the book, it will be considered illegal until written approval is issued by SST Inc.

3. DECLARATION OF COMPLIANCE

The owner of the car shall complete a SSA Inc. DECLARATION OF COMPLIANCE annually.
Compliance Declaration will include:

SAFETY- Compliance with all safety requirements
ELIGIBILITY- Compliance with all manufacturing specifications
ENGINE- Compliance with Tassie Six engine specifications.

Copies of the declarations of compliance are to be placed in the log book.

4. REGISTRATION

A SST/SSA Inc. Restricted registration can only be issued for a race car, provided that the car conforms to the SST Inc. specification manual for the class in which the car is to be registered.

Registration is not complete until pages 3 to 6 of the Log Book are completed and signed by both the Owner/Driver and the Scrutineer/Machine Examiner or Registrar.

The car must be re-examined as a minimum on an annual basis to confirm compliance and a new Declaration of Compliance produced.

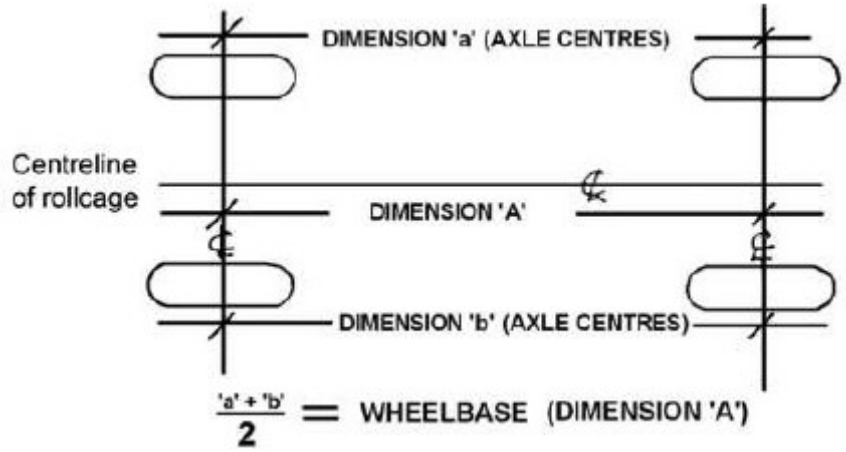
The OWNER is responsible for ensuring that the logbook and Declaration of Compliance are completed before participation in any official practice session or race meeting. The log book must be endorsed by the Machine Examiner at each meeting prior to competing.

5. MEASURING OF CARS

All cars are subject to engine checking and general measurement at any time by a duly accredited Scrutineer, State Technical Committee or at the direction of the Steward or Racing Disputes Committee.

The owners of the cars must deliver them immediately upon request and supply the necessary manpower and hand tools to accomplish the dismantling. Only persons actually involved in dismantling the car will be allowed in the immediate area of the vehicle being checked. Any persons not having cars in the impound area, and gaining entry without authorisation, will be ejected. If there are no facilities available to check any parts of the vehicle, sealing of parts under question can be carried out and vehicle taken to a mutually agreed venue for examination at another time, but within four (4) days.

Impounded cars will be stored at the owner's risk. Although every reasonable precaution will be taken, no responsibility for fire, theft or damage will be assumed by the SSA/SST Inc and/or affiliated clubs. Method of measuring wheelbase shall be: - With each front wheel pointing straight ahead, measure distance from front axle centre to rear axle centre on each side of the vehicle. Add the dimensions for the left and right, divide by 2. Resultant measurement to be within 1% of the normal wheelbase for that model.



6. PENALTIES

The Tassie Six specification manual must be read in conjunction with the Australia Speedway Racing Rules and Regulations and/or notices issued by SSA/SST Inc from time to time. Ignorance of these Regulations and Specifications and Notices shall be deemed as no defence in regard to breached and/or appeals.

7. AUTHORITY TO EXCLUDE or INCLUDE

If an SSA Inc Official, including a duly accredited scrutineer, the National Technical Committee, Steward, or the Racing Disputes Committee determines prior to the race that the Race Car does not meet the applicable specifications, the car will not be allowed to compete unless, at the discretion of the official, the deficiency:

a) Will not adversely affect the orderly conduct of the race
b) Will not provide the competitor with a significant competitive advantage over other competitors
c) Is so insubstantial as not to warrant a determination that the car is ineligible to race.

If the car is permitted to compete under these circumstances, the Official will advise the competitor in writing of the deficiency and the time frame for correction of the deficiency. If the deficiency has not been corrected within the allotted time frame, the car will be prohibited from competing in any future event.

8. SPECIFICATION BOOK TERM

This specification book will be for a term of 3-5 years.

SECTION 2 -Personal Safety Equipment

9. DRIVER SAFETY

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.
All race wear/equipment shall be inspected at each practice/race meeting.
Illegal parts or safety equipment will be confiscated and sorted by the State where the event is being held.

10. PROTECTIVE CLOTHING

All protective clothing shall comply with minimum standards for Safety Apparel as specified in the Australian Speedway Racing Rules and Regulations.

11. SEAT BELTS

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. Shoulder and hip belt width 50mm minimum, 75mm highly recommended. Only belts with over centre lever lock buckle to be used.
SEAT BELT LIFE IS A MAXIMUM OF TWO YEARS FROM THE DATE OF MANUFACTURE.

Shoulder belts are to have separate anchor points/adjusters.
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 no more than 300mm from that point, attached to 38 x 3 CHS. See Fig 1

Lower seat belt mounting brackets (anchor points) must mount to roll cage and chassis or substantial bar attachment tag shall be 3mm minimum mild steel.
Anchor bolts shall be 10mm steel minimum.

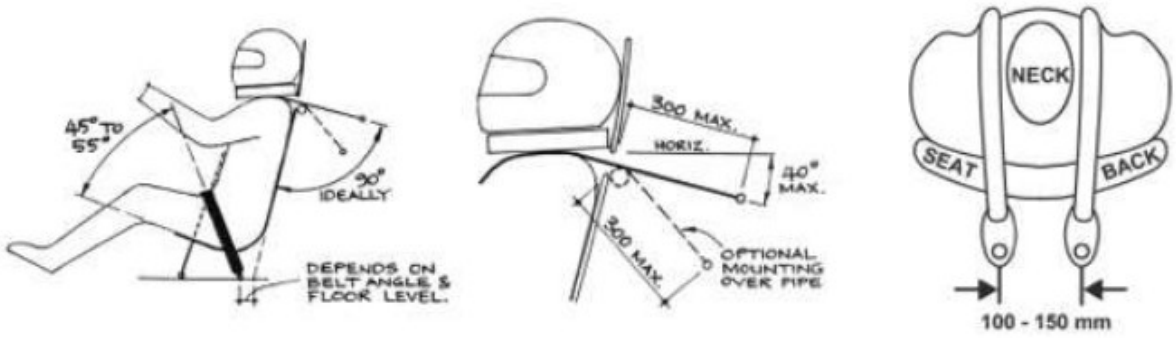


Fig 1

12.INSTALLATION OF DRIVER RESTRAINT SYSTEM

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 2 (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.
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 2 ii). For extra assurance a double strap anti-submarine belt can be used. (Fig 2iv
3. When the driver is seated in a semi-reclining position a six point system (two anti-submarine or crotch straps is preferable. Most drivers find the two anti-submarine strap system 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. (Fig2 (i))
4. 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.

Fig. 2(i)

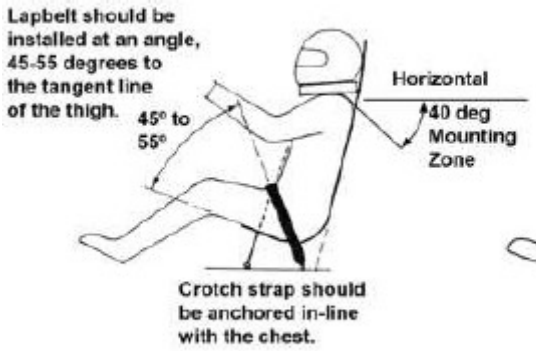
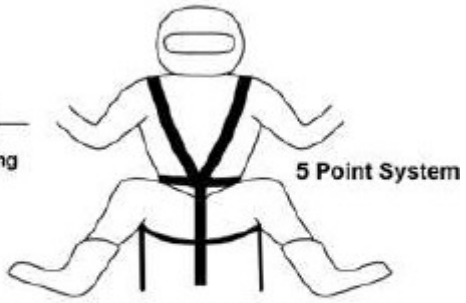


Fig. 2(ii)



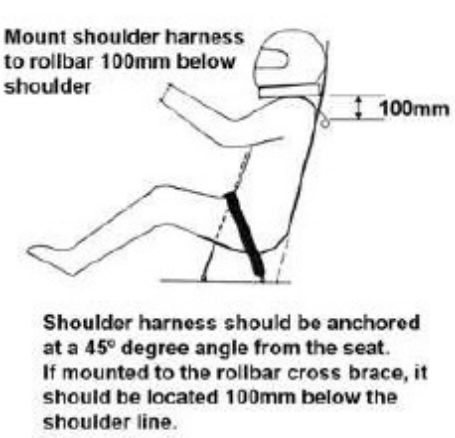


Fig. 2(iii)

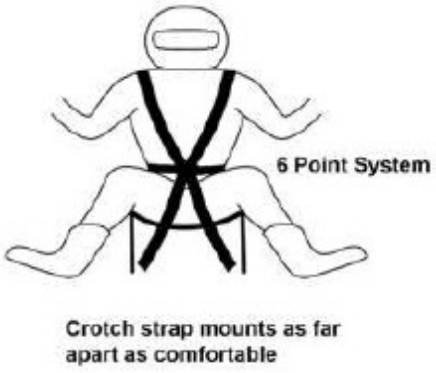


Fig. 2(iv)

13. ADJUSTMENT OF DRIVER RESTRAINTS

With the driver fully kitted out in “underwear 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 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.

Also check that anchor hardware is aligned and that it is not possible to have a hitch in the anchor area without detection (sudden release of belts to 50mm slack can put the driver off-line). Also check if the belt is holding the seat or the driver, it must 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/window 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 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 the driver releases the buckle, he should slacken both shoulder belts with the adjusters, in order to make re-entry to the car and refitting of the seat belts as simple as possible.

14. WINDOW NET

The use of an SFI approved window net is mandatory.
The window net shall be hinged from the bottom and shall be fixed at the top via a 6mm minimum 6mm rod threaded through the cavity provided. The rod shall be secured with lock pins or a central spring-loaded pin. Window net shall be secured to any combination of roof hoop bar, A pillar bar or the main hoop bar at the top. The window net shall be secured to the top NASCAR bar at the bottom. Quick release seat belt type attachments are also permitted.

15. PADDING

Padding SHALL BE USED TO PROTECT THE DRIVER FROM INJURY IN THE EVENT OF AN ACCIDENT. Cars shall be manufactured to minimize driver contact with sharp edges, projections of bar work in the cabin area.

16. FIRE EXTINGUISHER

An on board fire extinguisher is permitted. It must be securely mounted and be suitable for the fuel being used.

17. SEAT

A Competition Seat is used to secure the competitor within the vehicle with the objective of minimizing injury to the competitor during an accident and of supporting them safely during normal racing conditions. The following competition seats are permitted

NOTE – IF USING AN INTERMEDIATE STYLE SEAT WITHOUT CONTAINMENT BUILT IN, PROPRIETARY HEAD AND SHOULDER SUPPORTS MUST BE ATTACHED TO ACHIEVE FULL CONTAINMENT.

1. If using a non SFI/FIA approved proprietary manufactured full competition/containment style seat which is constructed of aluminium.

a) Homemade seats will be deemed non-compliant and are not permitted. (02/10/22)
b) The seat back is to be mounted approximately at shoulder height to the main hoop centre spreader bar or seat back/shoulder bar (Bar #5/6) at 2 (two) points. © Speedway Sedans Australia Inc. – SSA Super Sedan Specification – Online – October 2022 – v13 11
c) The seat base to be mounted with a minimum of 4 (four) points to the roll cage/chassis, spread evenly to distribute the load. (02/10/22)
d) Seat base is inclusive of the lower portion of seat that supports the hips, thighs and pelvic area. (02/10/22)
e) Hardware for mounting will be SAE grade 5 or better – 5/16" minimum bolts.
f) The use of 30mm minimum diameter metal body or aluminium tapered seat body washers (see picture below) to be used at all seat mounting points. (17/09/22)
g) The use of proprietary seat manufacturers mounting kits are permitted.

NOTE – IF USING AN INTERMEDIATE STYLE SEAT WITHOUT CONTAINMENT BUILT IN, PROPRIETARY HEAD AND SHOULDER SUPPORTS MUST BE ATTACHED TO ACHIEVE FULL CONTAINMENT.

2. If using an SFI/FIA approved full containment seat which is constructed of either aluminium or composite materials and provides for mounting the seat back to the shoulder bar of the vehicle roll cage.

a) The seat assembly pertaining to the construction of the seat, shall remain as constructed by the original manufacturer and shall not be modified by anyone else. i.e. no drilling of seat for mounting purposes
b) If the seat used cannot be mounted as per this SSA specification, then the seat is unable to be used and is not permitted.
c) The seat is always to be mounted as per the manufacturers fitting instructions.
d) Where possible the use of the manufacturer mounting kits and hardware is highly recommended.

3. General Requirements for all Seats

a) All support projections/wings are portions of the seat which are positioned opposite the head, shoulder and pelvic areas are extensions of a regular seat to provide extra support for those body locations and side crashes.
b) The seat design shall provide lateral (sideways) support to upper part of legs and hip area.
c) The seat shall support the drivers back to the top and full width of the shoulders.
d) The seat must utilise and provide head and shoulder protection on both sides of seat.
e) The seat base is to be mounted completely on the right-hand side of the vehicle centreline.
f) The driver shall have a minimum clearance between the helmet and the head plate/hoop bar when seated.

NOTE – IF USING AN INTERMEDIATE STYLE SEAT WITHOUT CONTAINMENT BUILT IN, PROPRIETARY HEAD AND SHOULDER SUPPORTS MUST BE ATTACHED TO ACHIEVE FULL CONTAINMENT

18. DEFINITIONS

TASSIE SIX

A Tassie six race car is built from a representative sedan, or full hard turret coupe bodied passenger car. Four-wheel drives and/or four-wheel steer models are not acceptable in that form; but are acceptable if FRONT steer and TWO-wheel rear drive only.

19. CONSTRUCTION

All New race cars must be of full chassis construction and weigh NO LESS THAN 1000KG= 2200Lbs including driver. Vehicles may be weighed at the completion of any event.

20. BODY

a) All Tassie Six **Rail** Cars will be of original body profile(silhouette) and shape. **NO MONO CAR**

b) Body panels must be complete including rear quarter panels below bumper and the rear panel down the bumper.

c) All paint work, sign writing and numbers to be a neat attractive finish.

d) Instrument Glass permitted

e) Replacement panels must be securely fastened

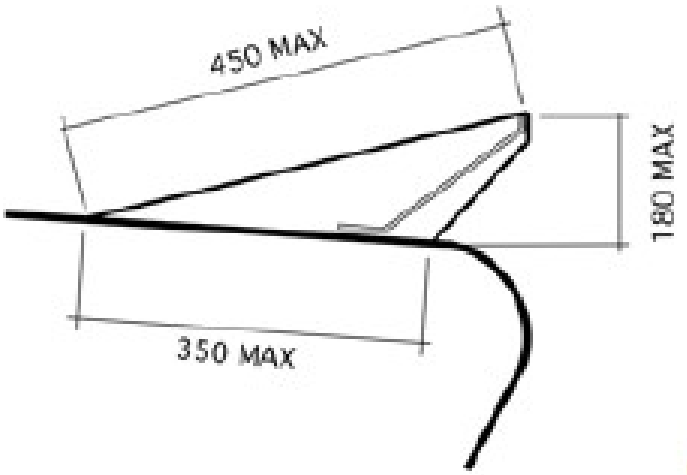
f) No drill holes in cage bar work.

21. CHASSIS CARS- BODY

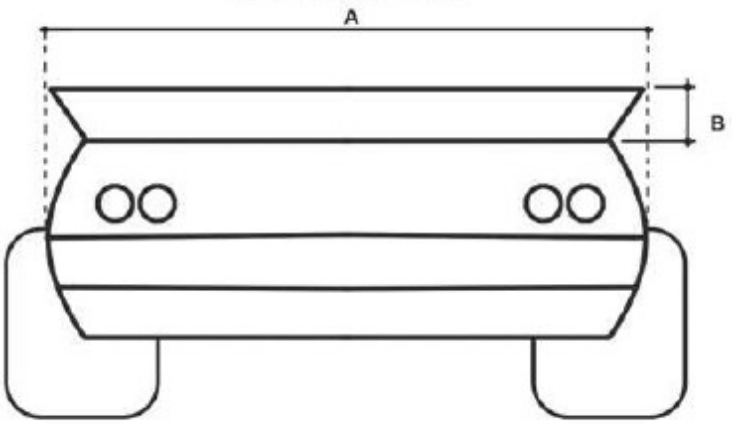
Body is to be complete outer shell and is REPRESENATIVE replica of the MODEL being used.
Turret/roof to be replica of the original panel.
Fitment of body;

1) The body is to be fitted in such a manner that it does not appear to be raked in any form and that the body runs parallel with the chassis.
2) Body is not to hang below the chassis rail.
3) Body is not to be higher than half the measurement of the chassis rail above the bottom of the chassis rail.

4) Metal floor (1.6mm) minimum must be securely mounted on top of chassis rails. Not below.
5) Power bulge/s permitted to max 100mm at any point above original bonnet, measured from a line across both front guards.
6) Air cleaner may protrude through a flat bonnet to a maximum height of 100mm and/or.
7) A bonnet with scoop will also be measured from flat section of bonnet.
8) Maximum clearance around filter- 20mm
9) A rear spoiler may be fitted. Spoiler height is to be a maximum 180mm high.
   A maximum of two supports permitted between the sides of the spoiler. Side support/s of rear spoiler must taper to zero not more than 350mm forward from the base of the spoiler. (Measurement taken from the rear top edge of the boot). Side support not to be above horizontal. Spoiler shall not overhang past rear bumper. Spoiler shall be no wider than the body at any point. (e.g. If body at waist line on the rear quarter is 1650mm wide then the maximum width of spoiler above that point is 1650mm also)

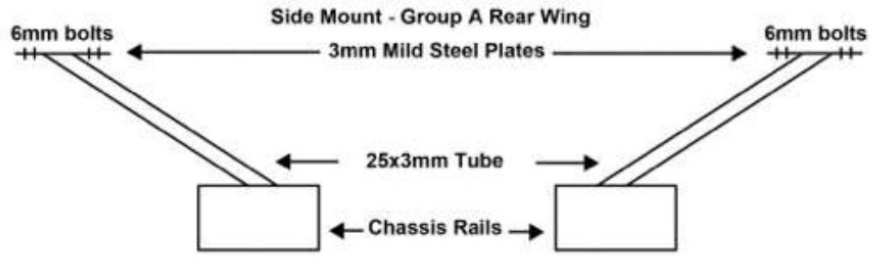


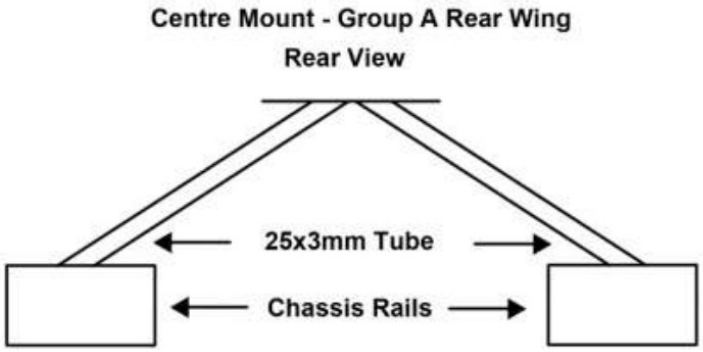
REAR SPOILER BLADE



Dimension A: No wider than body waistline at this point
Dimension B : Maximum 180 High including end support

(2) **DUAL PLANE** - V8 Super car rear wings are allowed on Falcon, Commodores, and VX/VY Monaro only. End plates must be a replica/representative of V8 Supercar end plates.





WING (AIR FOIL) WILL BE ATTACHED BY THE FOLLOWING MEANS:

i. The wing will be mounted on the rear of the race car, not further back than the rear bumper bar.
ii. The wing will not be wider than the body of the race car, where fitted.
iii. The wing will be attached with a minimum of two 6mm bolts per leg, making at least four bolts with substantial washers, at least 25mm in diameter.
iv. These bolts will attach through the boot lid or rear decking to 3mm plate. This 3m plate will be attached to the chassis by 25mm mild steel tube.
v. The 25mm tube will be welded to the rear chassis rails.

Hungry Boards are not permitted.

Partial fold on top edge supports of rear spoiler for strengthening are not permitted.

1. A front air dam may be fitted.
2. Paint-work and sign-writing: All paint-work, sign-writing and numbers to be neat, attractive and of a professional standard.
3. Fuel Tap – To be clearly marked, indicating FUEL and the positions ON/OFF.
4. Engine Kill Switch – to be clearly and suitably marked with a contrasting colour, and must be fitted in the centre of the cowl panel indicating DOWN/OFF.
5. Battery location to be indicated by BLUE Triangle (50mm x 50mm) on the body, near the battery.
6. Bonnet to be securely fastened. Four bonnet pegs (5 for fibre glass) to be 12mm minimum to 15mm maximum mild steel or approved equivalent.
7. Bonnet lock pins 3mm minimum to 6mm maximum. Heavy duty large reinforced washers (min 30mm OD) to be fitted to all bonnet and boot peg holes where necessary. Bonnet pins on side of body Not Permitted.
   Grille may be fabricated, Multi-piece sheet metal, brittle plastic or die cast grilles and/or fittings **Not Permitted.**
   Body may be flared on each wheel arch.

Wheel arch flares must resemble on eyebrow around the tyre and follow the contour of the wheel arch aperture and taper in within 100mm or opening.
Fig 4 (iv)

Flares not to be closer than 50mm inside of the outer edge of the tyre.
Flare edges are not to be reinforced and are not to detract from the original appearance of the model being used.

Flares to be of body material.

8. Headlight and tail light apertures to be covered with body material only.
9. Except for the bumper bar the bumper mountings, all bar work within 225mm of rear face of the bumper will be maximum of 25mm O.D. x 3.2mm w.t. CHS or 25mm x 25mm x 3.2 RHS. Fig. 4 (vi)
10. Bumpers – 100mm from body to pipe 25mm side.
11. REAR VISION MIRRORS NOT PERMITTED.

FIREWALLS:

Drivers must be protected and isolated from mechanical, fuel, electrical and exhaust components by metal firewall, seams welded. Minimum 1mm thick.

To protect driver in case of front universal breakage, firewall adjacent to driver may need to be increased to act as a scatter shield.

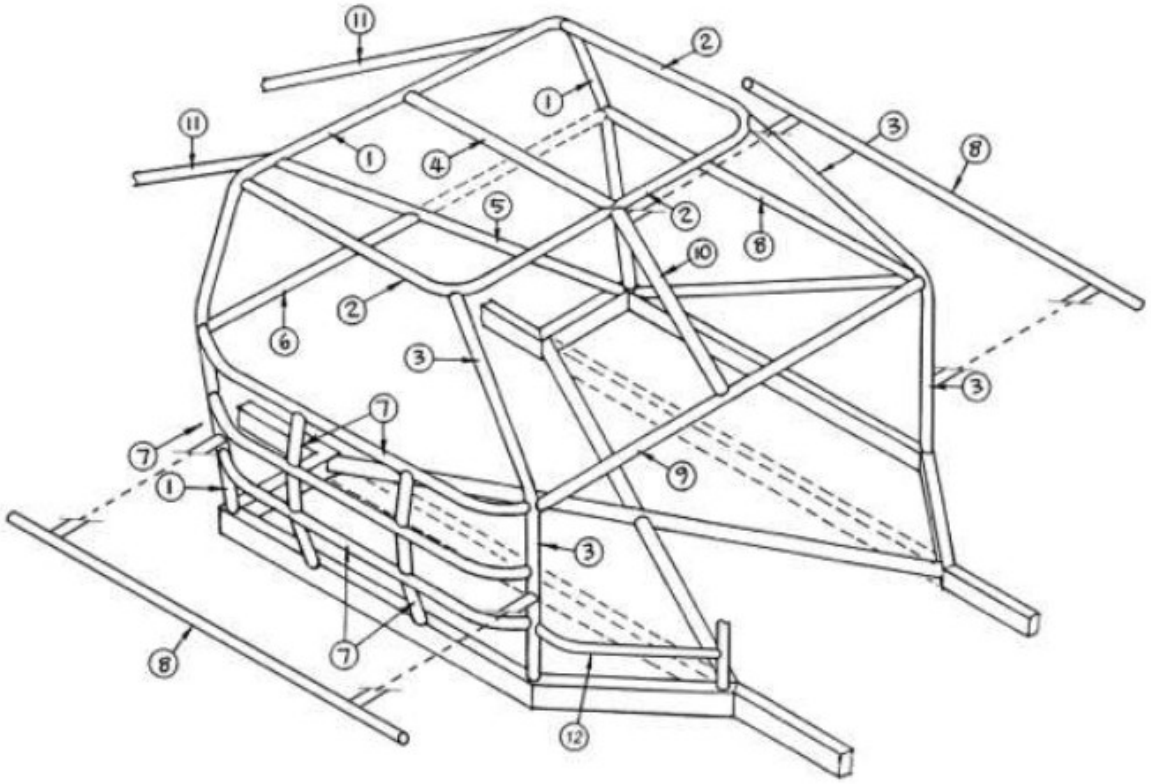
ROLL CAGE

The roll cage is required to provide a safe enclosed environment for the driver and is intended to prevent the collapse of the cabin area under impact. The roll cage is to fully enclose the driver. The roll bars are to constitute a cage type framework, braced fore and aft. The cage must extend from behind the driver's seat forward to the windscreen area and incorporate protection for the driver's feet.

Roll cage is to be symmetrical about a common centre line through the front chassis rails and cabin chassis area and be full height of the cabin chassis area. Rear rail lateral location shall be placed at manufacturers discretion. The minimum distance between the rails shall be 736mm (29 inches). All roll bar material must be mild steel, minimum 38x3mm CHS.
All bends to be made using a bender with the correct size former. All bar work shall be inside the body. Roof area of the cage shall be a minimum 765mm long and 1065mm wide as measured to outside of roof hoop bar. Floor area shall be minimum 900mm x 1445mm.

The following drawing details the minimum structural requirements. Each item number is referred to in the text below.

The following drawing details the minimum structural requirements. Each item number is referred to in the text below.
Fig 6.



Note: Drawing for display purposes only. Refer to text for Clarification on all drawings.

(1) **Main Hoop-** The rear main hoop shall be formed from one continuous length of 38x3 mm minimum tubing with smooth continuous bends and no evidence of crimping, wall failure or significant weakening. Rear main hoop to be welded to the top of chassis outriggers. The rear main hoop may slope back away from vertical a maximum of 15 degrees.

(2) **Roof hoop-** The roof hoop shall be formed from one continuous length of 38 x 3 mm tubing and be welded to the main hoop to form a halo around the driver's head. Alternatively, the roof hoop may be replaced by using one continuous piece of tube to form the front leg and A pillar which then continues back to the main hoop. The alternate roof hoop shall be completed by the installation of a spreader bar across the top of the windscreen.

(3) **Front Legs-** Two front legs are to be formed each from a continuous length of 38 x 3 mm minimum tubing and be welded to the chassis outriggers at the bottom and front corners of the roof hoop at the top. The 'door pillar' part of the front legs must not be flatter than 45 degrees. The minimum distance between the front leg and the rear main hoop where they connect to the chassis outrigger shall be 900mm. This is measured outside to outside of the front leg and the rear main hoop bars.

OPTION: Rather than using a main roof hoop and two front legs, one continuous roof hoop and one continuous shoulder hoop can be used. The shoulder hoop shall

incorporate the top NASCAR bar, lower windscreen bar and passenger top NASCAR bar. This means that the A pillar bar to be formed in two pieces; one joining the chassis outrigger to the shoulder hoop and one joining the shoulder hoop to the roof hoop.

(4) **Centre Roof Bar** – Centre roof bar shall be minimum 32x3mm mild steel and shall be welded between the main hoop and the roof hoop.

(5) **Rear Diagonal** – A one-piece diagonal brace, minimum 38x3CHS will be fitted in the main roll cage hoop behind the driver's head, within 250mm of the corner and the down onto the left side chassis rail or roll cage leg. (Top right to Bottom left)

(6) **Seat back support/shoulder belt mounting bar** – The anchor point mounting bar, minimum 38x3mm CHS, for the shoulder belts shall be positioned so that belts are anchored a maximum of 300mm from the rear of the shoulder belt opening of the seat.

(7) **NASCAR Bars** – NASCAR bars shall be fitted to the driver's side between the down leg of the main hoop and the front leg. The NASCAR bars shall consist of three horizonal side bars, curved out towards the door skin. One of the three bars may run straight through from the front wheel arch to the rear wheel arch and shall have two separate pieces 38x3mm turning at 90 degrees to connect onto the front leg and the rear main hoop. There shall be a minimum of two bars evenly spaced between the front leg and the main hoop bar for each of the openings created by the horizontal NASCAR bars making a minimum of six bars to be fitted. Eg. Minimum of 2 vertical bars between the top NASCAR bar and the NASCAR bar and the middle NASCAR bar, minimum 2 vertical bars between the middle NASCAR bar and the bottom NASCAR bar and a minimum of 2 vertical bars between the bottom NASCAR bar and the outrigger.

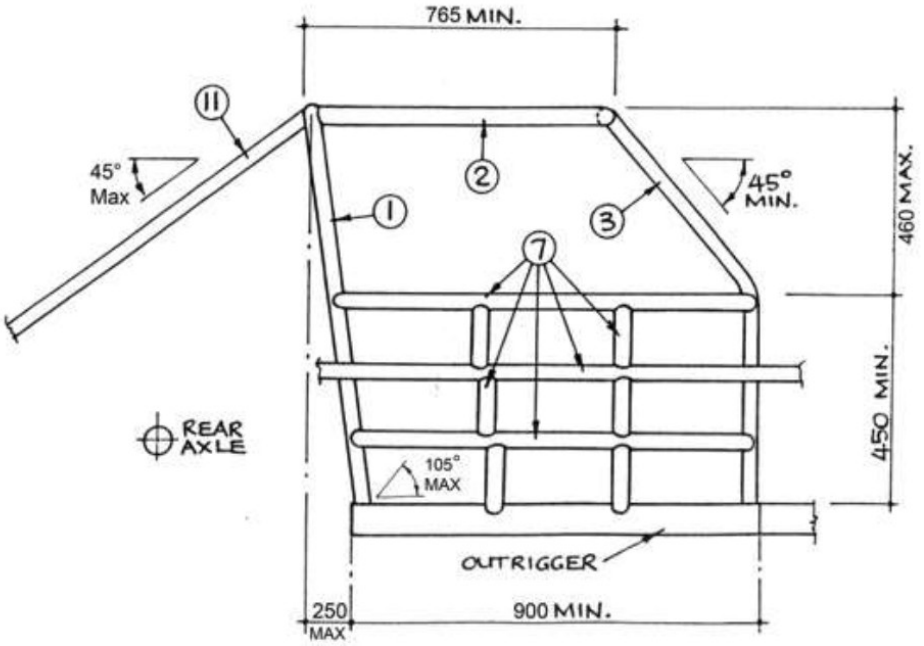
(8) **Door Bars** – Passenger side shall have a minimum of two bars between front and rear roll cage legs. The top one must be horizontal and be the same height as top drivers side NASCAR bar. The second one must be waist height. Diagonal bracing in the passenger door area is optional. The driver's side door bar must be waist height. Door bars shall be maximum 38x3mm CHS.

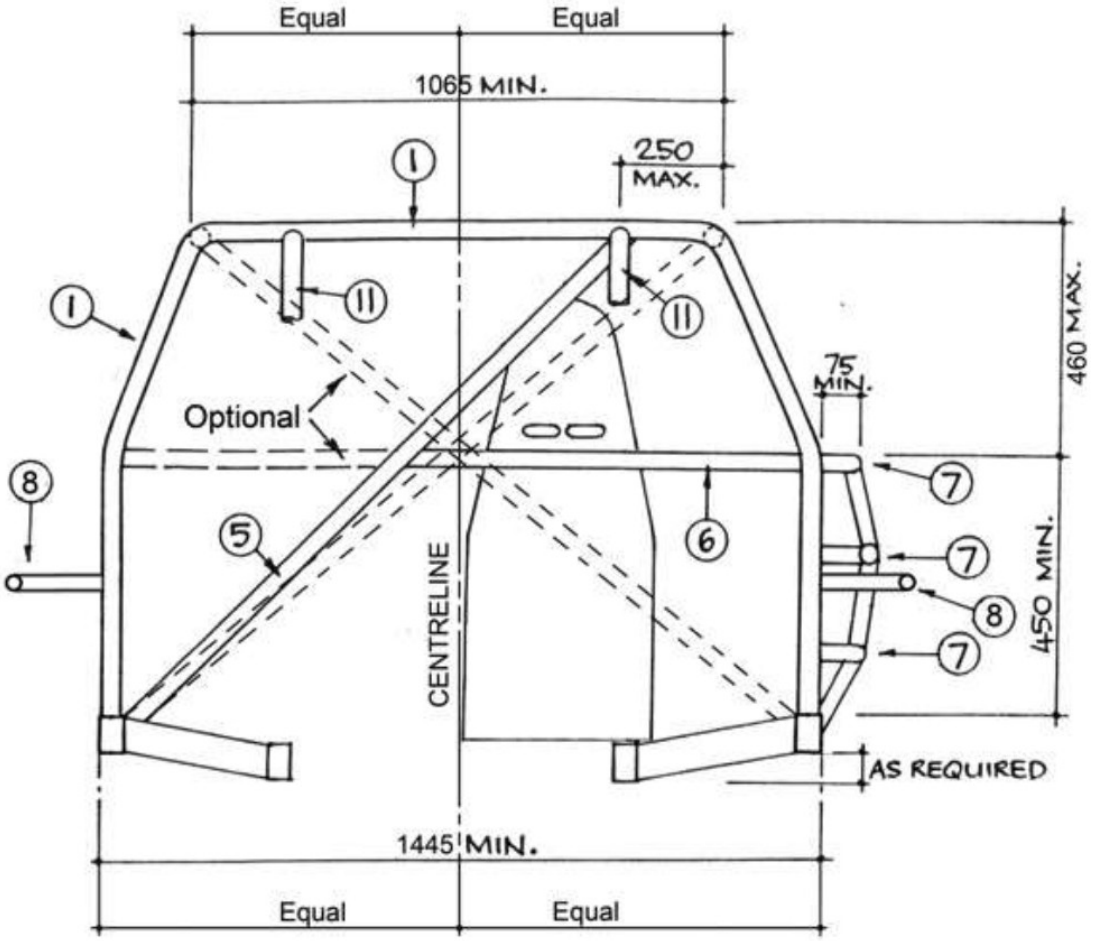
(9) **Lower windscreen and dash bar** – Lower windscreen and dash bar shall be a horizontal bar joining the front cage legs at top door bar and top NASCAR bar height. As an option, the lower windscreen bar can be extended in one continuous length to incorporate the top NASCAR bar, lower windscreen bar and passenger top NASCAR bar.

(10) **Centre windscreen bar** – Centre windscreen bar, 25x3mm CHS mild steel.

(11) **Rearward brace bars** – Rearward brace bars minimum 38x1.6mm CHS to extend from the top rear of the main hoop down onto rear chassis rails (maximum 45 degrees down from vertical). They may form a crucifix and must be attached to the rearward side of the main hoop within 250mm of the centre of the bend.

(12) **Foot protection bar** – Foot protection bar minimum 38x3mm mild steel CHS to extend from drivers side front leg around to engine support bar or front chassis rail. The foot protection bar shall provide maximum protection to the driver's feet and legs in front of the foot well.





Note. Drawing for display purposes only. Refer to text for clarification on all drawings

Bolts shall not be used through structure tubing in the roll cage cabin area unless a welded sleeve is provided. No pop rivets, tech screws or self-tapping screws shall be inserted into roll cage tubing.

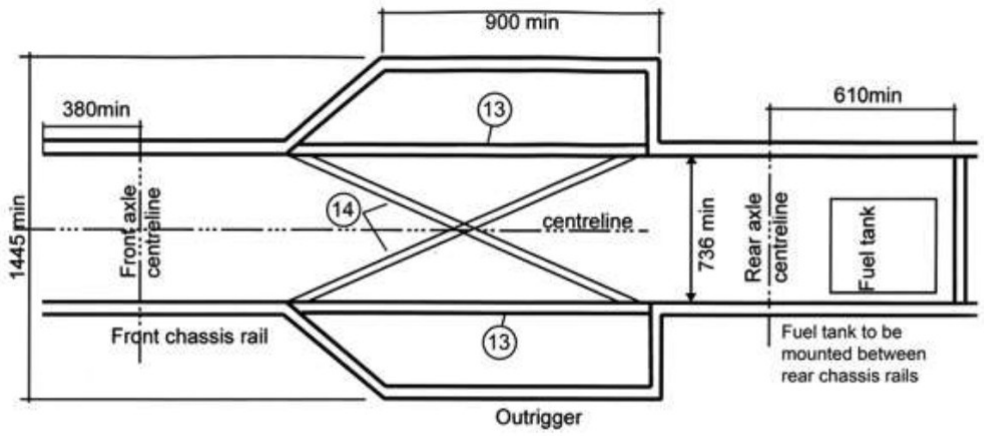
Chassis Cabin Width
Material: Mild steel 75x50x3mm RHS minimum. The chassis outriggers shall be full width of the cabin area and be symmetrical along cabin area centre line.

Front Chassis Rails
Material: Mild steel 75x50x3mm RHS minimum. Front chassis rails must extend forward of the front axle centre line minimum 380mm and shall be symmetrical to the cabin chassis area.

Rear Chassis Rails
Material: Mild steel 75x50x3mm RHS minimum. Rear Chassis rails must extend from the centre line of the rear axle rearward a minimum of 610mm and have the fuel tank mounted in this area. IE. Chassis rails must extend past the rear face of the fuel cell to protect the fuel cell in the event of an accident. The minimum distance between the inside face of the rear chassis rails as measured directly above the centre line of the rear axle shall be 736mm. (29 inches) Rear chassis rail location is not required to be symmetrical to the cabin chassis area. All material in fabricated chassis, chassis outriggers and/or sub-frames shall be minimum 75x50x3mm mild steel. Both chassis rails, fore and aft of the cabin area, must be stepped a minimum of 75mm when viewed in side elevation to create a crush zone. Lightening of chassis material is not permitted.

Chassis Design Options
Chassis shall be manufactured to comply with either design shown below.

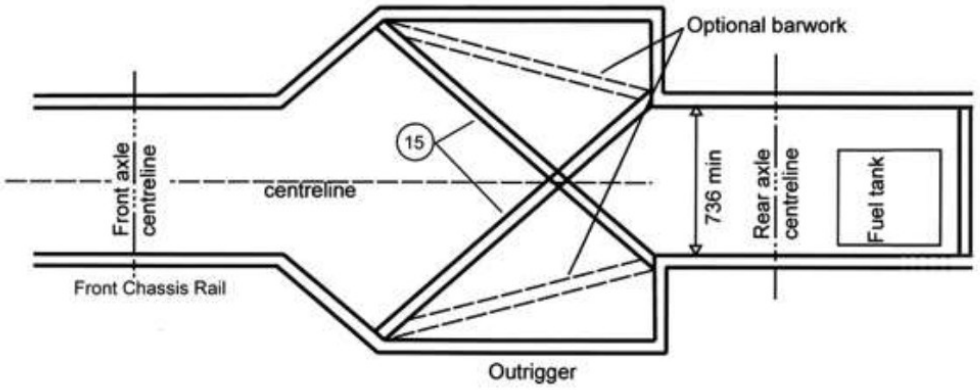
Note. Drawing for display purposes only. Refer to text for clarification on all drawings.



(13) Through Rails – The through rails shall be 38x3mm CHS minimum, 40x40x3mm RHS minimum or 50x50x1.6mm RHS minimum.

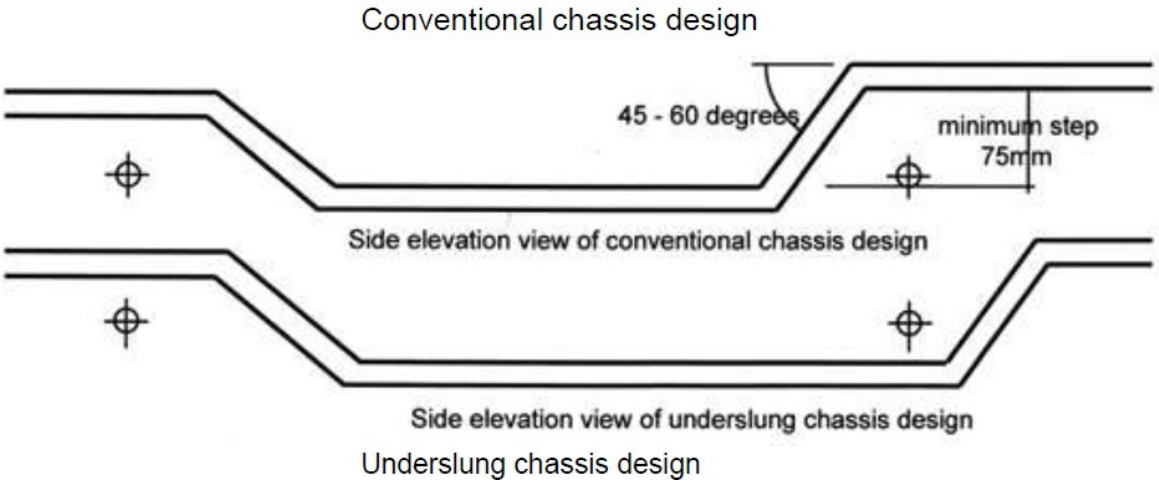
(14) Crucifix - The crucifix shall be 38x3mm CHS or 50x50x1.6mm RHS minimum. The crucifix shall terminate within 125mm of the outrigger.

Front chassis rails and outriggers shall be symmetrical to common centreline.



(15) Crucifix – The crucifix members in the chassis design above shall be 50x50x3mm RHS minimum.

The chassis may be constructed as either the conventional design or the underslung design as shown below. Both styles must incorporate the minimum 75mm step in the chassis to create a crush zone.



21 ANCILLARY BARWORK, PLATES AND BALLAST

Ballast

a) A typical piece of ballast will be no greater than 610mm long, 100mm wide, and 50mm high.

b) Each individual piece of Ballast MUST be PAINTED white ONLY and be permanently marked with registered car number and prefix of the car the ballast is attached to.

c) ATTACHMENT OF BALLAST IS TO BE BOLT ON ONLY

(i) Ballast is to be attached to roll cage or chassis ONLY

(ii) Ballast permanently attached to roll cage, bar work, or body via welding, clamping, or any other permanent attachment method is NOT permitted. This includes the welding of attachment hardware (Bolts)

(iii) Ballast attached to substantial bar work that is RHS is to use one of the below attachment methods ONLY

Sleeves inserted in Chassis with a minimum of two ½" or 12mm high tensile bolts, washers and nyloc nuts with a minimum of two threads protruding. ⎫ A 5mm plate minimum of 100mm x 50mm to a maximum of 200mm x 75mm fully welded to Chassis with a minimum of two ½" or 12mm high tensile bolts, washers and nyloc nuts with a minimum of two threads protruding. (16/09/18)

(iv) Ballast attached to roll cage or roll cage material that is 38x3mm CHS is to be attached using a minimum of two proprietary ballast type clamps ONLY. i.e. Allstar, AFCO, Bicknell etc. Accessory type clamps are NOT permitted.

(v) All ballast is to be attached separately using one of the permitted methods per piece of ballast ONLY. Ie stacking or using the inverted side of clamps is not permitted,

(vi) Ballast is to be attached below deck height

(vii) Ballast attached to fuel tank protection bar and/or supports is NOT permitted

(viii)Ballast attached to bumper bars mounts and/or supports is NOT permitted.

(ix) MAXIMUM singular ballast pieces to be no more than 11.5 kg ABSOLUTE

(x) MAXIMUM total ballast to be no more than 46kg ABSOLUTE

d) Ballast that is non-compliant in weight or attachment may incur an Infringement and penalty notice.

Quarter window bar
A quarter window bar, if required because of excessive rake or a long roll cage, may be fitted to both sides and installed from the top NASCAR bar to top half of pillar bar using minimum 25x3mm CHS. Alternatively, a 38x3mm CHS bar may be fitted from top of "A" pillar bar at 45deg of the top bar on both sides.

Anti-spear plate
An "anti-spear" plate of 3mm steel or 5mm alloy, shall be fitted on the outside of driver's side NASCAR bars, from floor-line to the top NASCAR bar, forward of the first vertical door bar to the front leg of the roll cage. If not welded, a one piece external door plate shall be bolted on using 8mm high tensile bolts through a minimum of 6 – 50x50x3mm MS tags welded to the NASCAR bars.
If individual pieces are used, each piece shall be bolted with 8mm high tensile bolts through 4 – 25x25x3mm MS tags welded to the NASCAR bars.

Head plate
The head plate shall fully extend from the main roll bar forward to the front roof hoop bar and from the side roof hoop bar across to the centre roof bar.
The head plate shall be 5mm ALUMINIUM ALLOY or 3mm STEEL and shall be securely bolted using a minimum of 10x8mm diameter, high tensile bolts, 3 each side, 2 front, 2 rear, bolted through 50x50x3mm MS tags. Plate shall be mounted from above. Fig 4 (i)
A minimum 50mm clearance is required between the helmet and any part of the roll cage and head plate when the driver is seated.

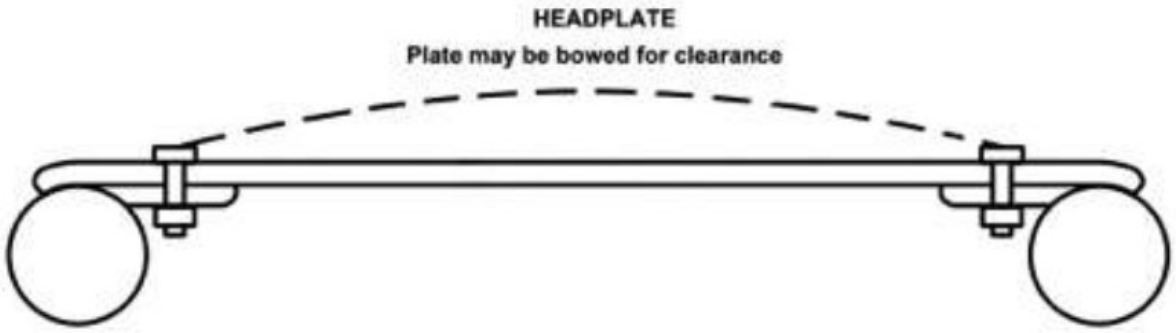


Fig. 4(i)

Alternatively, the head plate may be fabricated to provide head clearance as per Fig. 4(ii) below.

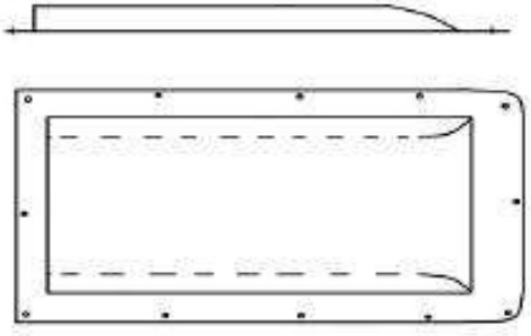
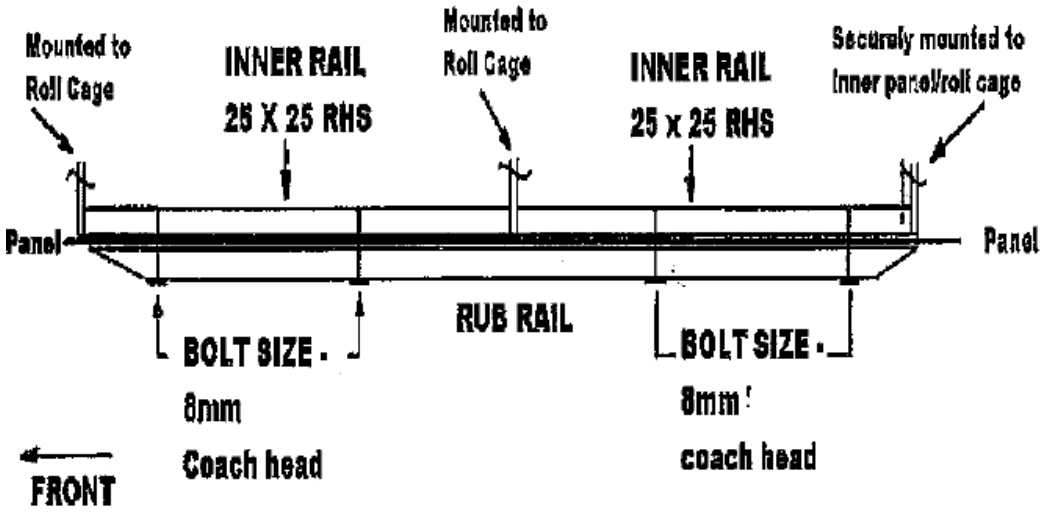


Fig. 4(ii)

Bumper bars
Cars shall be fitted with a single tube style bumper bar front and rear. Bumper bars shall be manufactured using 38.1x3.2mm CHS maximum. Bumpers are to remain hallow. Corners and ends of bumpers shall form a 100mm minimum radius.
Front bumper return shall be 300mm maximum, minimum 100mm. Rear bumper returns may be extended as a skid rail along the inside of body between bumper and wheel arch, and then extended inward to the chassis rails.
Bumper mountings to be of maximum 30x3mm CHS, 40x40x3mm RHS or 50x25x3mm, gussets shall not be used.
Maximum of four bumper to chassis mounting points for each bumper bar.
The rear of the bumper bar facing the chassis shall have 100mm minimum offset from the chassis rail. Fig 5. Front and rear bumper must be inside of moulded panels. Front bumper bar overall width shall be 1960mm maximum.
Bumper mounts and supports shall be measured from the rear edge bumper.
Front bumper returns must be extended into the stay bars using maximum 25x25x3mm RHS or 25x3mm CHS.

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.
Mounting of four (4) mounting points on each bumper bar.
Anti-hook up bars: Returns of front bumpers to be extended into the stay bars using 25mm x 25mm RHS or 25mm O.D. CHS. Corner plates on top edge of front &/or rear bumper bar as head/tail light plates not permitted. Override bars are an option to reduce panel damage.

Rubbing strip between wheel arches 25 x 25 3mm RHS to be securely mounted against body, at a minimum of four (4) points, especially within 50mm of the ends, using coach-head or recessed bolts through onto bar work. Ends of strip to be closed and strip not to become a "SPEAR".



Typical Right Rear bumper bar

Typical Front bumper bar assembly.

Fig. 5

The bumper assembly shall be designed to provide a crush zone. No bar work shall be within 100mm of the rear face of either front or rear bumper bar.

Fuel tank protection
Bar work must be constructed of minimum 38x3mm CHS or 40x40x3mm RHS and have 25mm clearance around tank and filter. Protection bar is to prevent entry to tank by nose of another vehicle. Fuel tank protection bars must have radius formed corners as per diagram. No straight side pipes for jacking to extend below bottom member. Protector must be 25mm lower than an underslung tank and mounted as per Fig 6.
Brace bars to tank protector do not constitute bumper mounts.

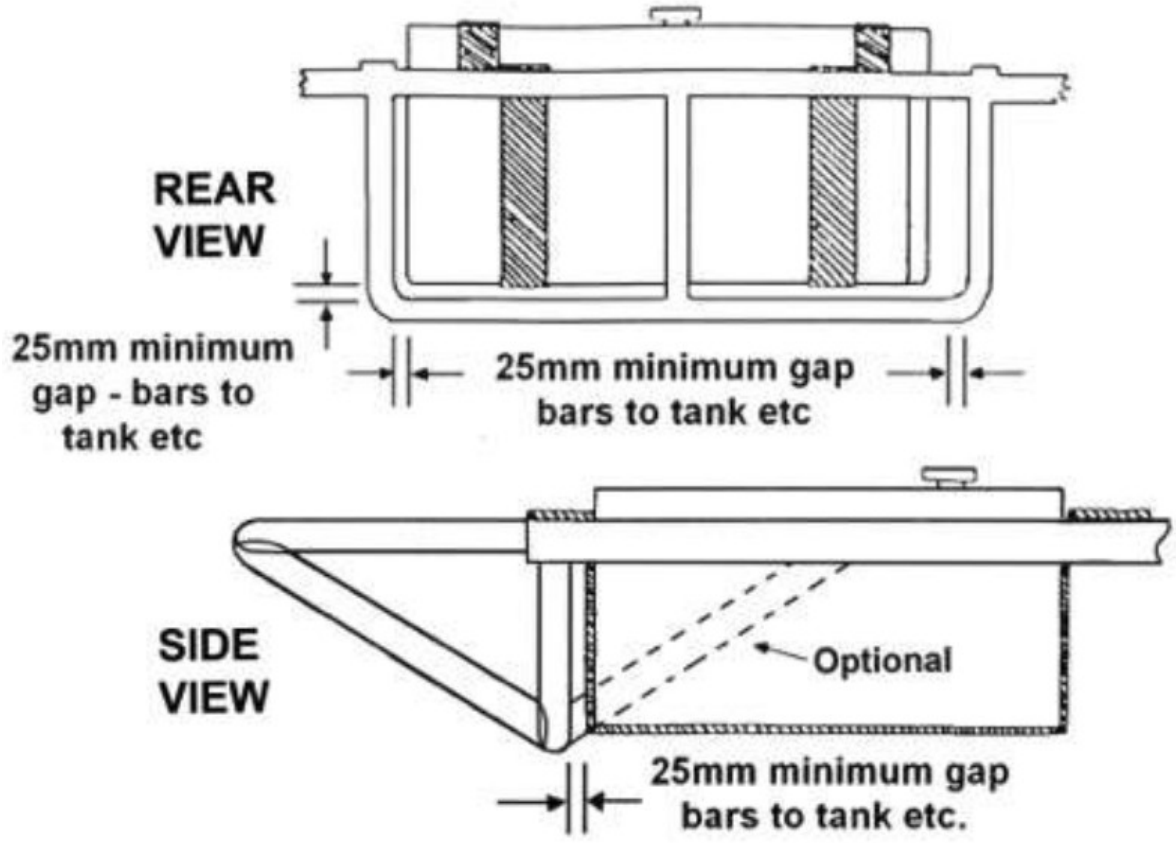


Fig. 6.

22. BODY SHAPE, DIMENSIONS AND BODY FITMENT

General body fitment
Body is to be a complete outer shell and comply with the Super Sedan body measurements detailed below.
It must be fitted so that the centreline of the body is within 25mm of the centreline of the chassis.
The roof panel shall have a 50mm fall in all directions from the middle point.
A straight edge placed across the roof panel from front to rear or left to right shall have a minimum of 50mm curvature on both sides.
No laying back or flattening down of the plastic style nose cones.
If using a MD3 nose cone, it must be of stock appearance and must not be wedged in any form and must have a convex shape when viewed from either side.
Decals indicating make and/or model may be fixed to the vehicle in prominent positions.

STEERING:

a) Steering components must be in sound condition. Steering joints to be split pinned as required.
b) Wire spoke or wood rim steering wheels not permitted.
c) Steering column must be securely mounted to the roll cage dash bar.
d) Hub of steering wheel must be padded with dense resilient foam and covered.
e) To reduce thumb and wrist injuries, the use of "PAW SAVER" type disc steering wheel is HIGHLY RECOMMENDED.

23

Suspension

Front suspension shall consist of a top A arm and a lower control arm as a minimum.
Lower control arms of front suspension shall not cross the centreline of the car.
Front mountings of forward facing rear trailing arms and leaf springs are to be boxed in on
the right hand side to protect the driver.
Adequate side support shall be provided on 5th Arm assembly to alleviate sideways movement of the arm. A 40x5mm FMS or equivalent CHS tube shall be installed beside the seat to protect driver from 5th arm if diff is dislodged. Fig. 10(i) & 10(ii) Arm and Coil unit are to be behind firewall.

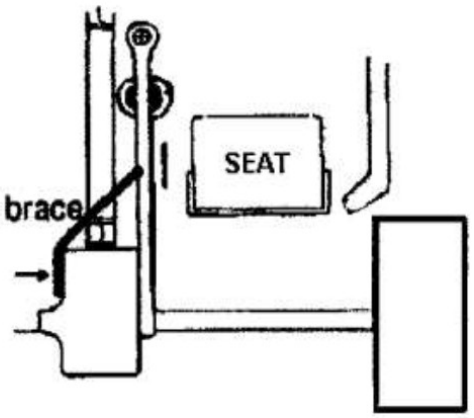


Fig 10(i)

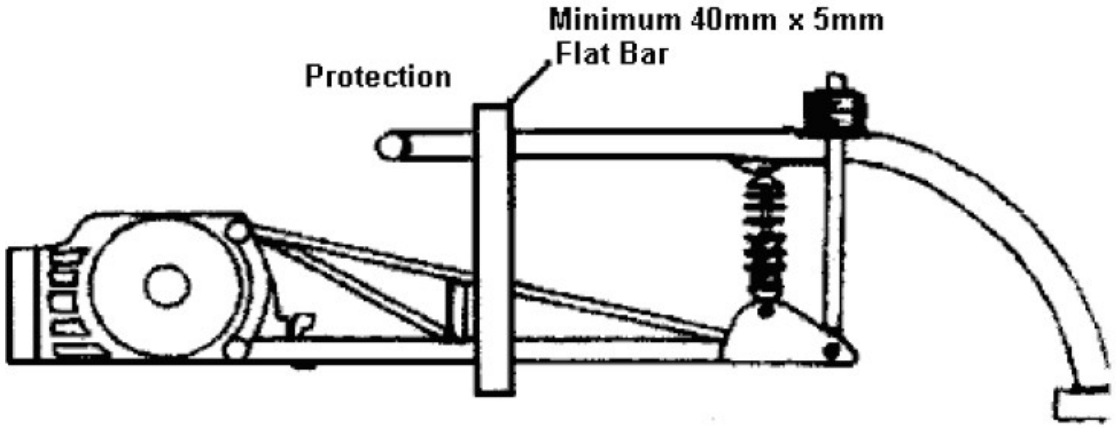


Fig 10(ii)

Panhard Bar
Any adjustment of the Panhard bar shall be by mechanical means only whilst the car is stationary prior to the event. Provision for Panhard bar adjustment whilst the car is in motion or from the driver whilst seated in the cockpit or by any other means whatsoever shall not be permitted.

Shock Absorbers
Shock absorbers are limited to a maximum of one external compression adjuster and one external rebound adjuster and shall not have any form of remote canister attached in any manner whatsoever. No mechanisms are permitted to allow adjustments to be carried out from the cabin or drivers seat. The adjustment of shock absorbers is not permitted once car is formed up on the dummy grid.

WHEELS:
a) 255mm (10") maximum width, including bead lock attachment. Fig 11.
b) Wheels must be in good condition and free from cracks.
Dual bolt pattern drillings are not permitted on other than WIDE 5.
Balance weights to be securely fastened or taped.
Rim edges to be rolled or rounded if the rim protrudes past the tyre sidewall.
Covering not to be welded to outer section of rim.
Wire wheels and/or dual wheels not permitted.
Wheels may be reinforced provided they meet with the approval of the State Technical Committee or the Chief Scrutineer.
c) "Mag Wheels:"
Correct matching nuts and washers must be used. Mag wheels and nuts require longer studs (mag studs) to suit.
d) Steel Centre Wheels

Wheel Spacers.
a) A maximum of 2 (two) wheel spacers up to a maximum of 3 (three) inches wide may be used on any wheel provided that all specified body and chassis dimensions are complied with.
b) Heavy Duty "Off Road" type centres preferred to flat plate.
c) Wheel centre hole is to be chamfered.
d) Stud holes to be chamfered to suit the nut used, and to be chamfered on inner edge also to relieve guillotine action on studs.
e) Right hand front wheel, if of flat steel plate, to be of not less that 10mm thickness if dished centre, ABSOLUTE minimum thickness 5mm.
f) Stepping is permitted.
g) Wheel studs no less than ½" (inch).

TYRES:

Tyres may protrude maximum 100mm outside of original waistline.
Tyres must be in good condition.
10" (inch) rim grooved road radials.

Tyres to be 265 Maximum or 10.5 tyres, and original markings are to be on the tyre for clarification. No markings no racing, Tyres Must be from mass produced passenger vehicles.

No racing compound tyres or winter tread tyres to be used i.e. Hoosiers, American Racers etc. Tyres must be available for purchase from a normal retail outlet in Australia.

ENGINES:

a) Engine block to be of original type and material not aftermarket alloy or iron replacements.
b) All engines to be based on passenger car engines only.
c) Manufacturer's markings to remain on engine black castings.
d) Maximum capacity after all modifications to be 258cu.in. ABSOLUTE.
e) All Engines to be Lead Sealed Top & Bottom.
f) Cylinder heads to be of original material, type, make and configuration.
g) Dry sump lubrication not permitted.
h) The use of a 350, Holly Carburettor is optional; a standard butterfly size of 38mm,
   (a) Single throat carburettors can still be used so long as they remain Visually standard and function as a carburettor.
   (b) No Replica Carburettors allowed i.e. Barry Grant, Willy's.
   (c) OEM Manifold only no aftermarket manifolds.
   (d) Spacer/Adapter on inlet manifold to be bolted on. If an adapter is used it is to be no more than 25mm.
   (e) Venturi must be standard, and comply to go/no-go gauge size restrictions.
   (f) Restrictor plate may be introduced during the life of this manual.

i) No foreign crankshafts. No stroking, exception Holden 202 cranks into 186 blocks.
j) Engine position (setback); - Rear face of engine block to be not less than 70% of the wheelbase from the centre line of the rear axle.
k) Cars must be front or back, two – (2) wheel drive.
l) If resilient engine mountings are used, a wire cable or chain restraint must be fitted.
m) Oil reservoirs, remote oil filters, coolers etc., must be: Securely mounted, isolated from driver, and not impair vision through cabin area.

   All connection hoses, couplings etc., to be correct class of fittings for the purpose.

   Leak proof caps to be fitted to each butterfly shaft (in built throttle spring acceptable), and one spring to accelerator pedal linkage.

   Protective wire gauze or air cleaner to be fitted over air intake to prevent entry of foreign objects to throttle butterfly and also act as a flame trap.

COOLING SYSTEMS:

a) Cooling system may be modified.
b) All radiator hoses to be of fabrics reinforced material. Plain moulded rubber hoses are not permitted.
c) Cooling systems to have a manual pressure release cap fitted to top of tank of radiator to relieve pressure before loosening or removing radiator cap. Tap to be fitted with hose to direct steam to ground. Lower "radiator" caps to be lock wired for safety.
d) Radiators may be mounted inside cabin provided that they are mounted as low as possible in rear of the vehicle and suitably isolated from driver. The upper; half of rear window opening MUST NOT be obscured by rear radiator.

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

Cabin mounted radiators must have BOTH tanks and cap shielded to protect driver in the event of a cap or tank blowing.
Pipes leading to the radiator to be of steel, aluminium or copper tubes.
Pipes to be securely mounted on inside of roll cage.
All internal pipes to be ducted or lagged with suitable material.
Hoses to be as short as possible and fitted to radiator from rear side.
Exposed hoses or joints not permitted in cabin area.
Cabin mounted fans to have shroud or suitable guard.

TRANSMISSION:

a) Gearbox must have a minimum of two forward gears and one reverse gear. No competition gearboxes, **OEM gearboxes only including transmissions.**
Automatic transmission may be used.
Every race car is to be fitted with a clutch so that the engine may be started, and then the vehicle can be put into gear and move off in forward or reverse as required.

b) SCATTERSHIELD: Front engine cars, not using competition type enclosed clutch or competition bell housing must fit a scatter-shield to cover the upper half of the bell housing to protect the driver's feet and legs. Scatter-shield to be a minimum 3mm steel or 6mm alloy, and must be securely mounted.

c) Tail shaft must be fitted with 360 degrees hoops at front and rear, or two (2) chains no more than 150mm from universal joint.

d) Front hoop to be a minimum of 40mm x 5mm MS or equivalent, be round, no larger than twice the diameter of the Tail shaft, and be securely mounted 150mm from universal joint.

e) Rear hoop to be as above except that it may be elongated vertically to permit suspension movement.

f) Tail shaft and universal joints to be correctly phased and be suitable for the application.

g) All cars must use differential centre and axle housing and gearboxes derived from mass produced passenger cars and light trucks. **Quick – change differentials are Permitted.**

h) **REAR AXLE BEARING RETAINING RINGS:** If using a rear axle 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 to the axle using MIG or small diameter hydrogen rod on low amperage.

Failure to observe this procedure will incur a penalty, especially if an axle is dislodged.

BRAKES:

Foot operated, hydraulic brakes are to be fitted and be effective at race speeds.
Brakes are to be fitted to a minimum of three (3) wheels.
Adjustable brake systems are permitted.
Disconnect RH front only.

CARBON FIBRE/TITANIUM BRAKES AND COMPONENTS NOT ALLOWED.

FUEL TANK AND FUEL SYSTEM:

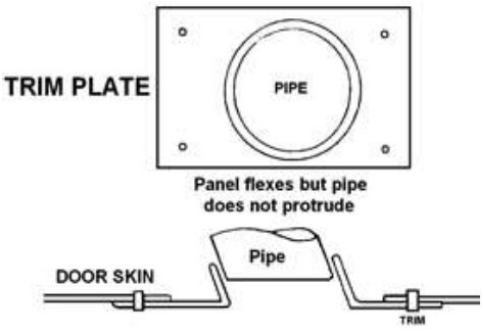
Maximum fuel cell capacity shall be 72 litres for petrol or 140 litres for methanol,
Use of cooling systems for fuel is NOT permitted.
The area beneath cell must be open. Pressurized fuel cells are NOT permitted.
Fuel tap is to be marked indicating FUEL and the positions ON/OFF.
Filler cap shall provide a positive seal and be inside the body and behind the firewall. Levers of cam lock caps to be clipped closed. Proprietary aluminium and/or steel fuel cells are permitted but MUST include a bladder. Fuel cell is to be securely mounted entirely between the chassis rails behind the rear axle centre line in a suitable steel cradle attached to the chassis or cage bracing, with a minimum clearance of 150mm forward of the rear bumper and 300mm from the side of the vehicle.
The Fuel cell shall be isolated from the driver by a metal firewall.
The lower half or load bearing section of the cradle shall be constructed from a minimum 40x3FMS or 19x19x1.6mm RHS,SHS or CHS. The straps over the top shall be 32x3mmFMS minimum, Fuel cell vents shall be fitted with an anti spill device.
A flexible fuel line section must be fitted within 75mm of fuel cell 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, exception being genuine SAE R6 lines and fittings. Neoprene reinforced plastic or "black fuel line" may be used.
The fuel line to the Engine must be fitted with a quick action NON-LEAK fuel tap, in working order, securely mounted within easy reach of driver and crash crew, clearly marked FUEL ON-OFF positions.
Return lines to the tank are to be fitted with a "one way" valve.
Electrical fuel pump must be isolated from the driver by a firewall, be fitted with an independent earth to case, and be switched off by the KILL switch and by an engine monitoring relay.
An earth strap must be fitted from the plastic fuel cell cell filler neck to roll cage or chassis as an earth to prevent buildup of static electricity.
Fuel lines shall be isolated from electrical wiring.

a) **Petroleum fuel: or Methanol may be used.**
   NO AV GAS. (100%)
b) **Maximum specific gravity of fuel 0.820 Methanol; 0.750 Petrol.**
   Gaseous fuels not permitted.

"Nitro": The introduction into the combustion chamber/s of nitro fuels and/or additives, either in solid, liquid or gaseous form, (e.g., nitrous oxide) by any means whatsoever, **is expressly forbidden.**

Exhaust system

Exhausts must comply with local noise level requirements. Maximum 95 dBA.
All exhaust gases to be directed away from all drivers, fuel tanks and tyres.
Internally ducted exhaust system may vent through the body, maximum 150mm above chassis.
Exhaust system to have maximum of two outlet pipes, and not protrude beyond bodyline. Fig. 11 Trim plate material shall be maximum 1.6mm aluminium.



Pipes and mufflers must be securely attached to the vehicle. Any car exhausting excessive unburnt Methanol fumes while on dummy grid, or being formed up on the track may be excluded as this constitutes a health hazard

Fig. 11

Driver to be suitably insulated from exhaust system.
If exhaust system is under floor, safety chains to be fitted to front and rear of pipes and secured to floor pan or subframe.
Pipes and mufflers must be securely attached to vehicle.

a) Any car exhausting excessive unburnt Methanol fumes while on dummy grid, or being formed up on the track, may be excluded, as this constitutes health hazard.

BATTERY AND ELECTRICAL SYSTEM:

a) Battery must be securely mounted in a box or steel frame secured to the roll cage or bar work. Location to be indicated by BLUE triangle on body.
   It is **Mandatory** that rubber covering be placed over the battery and the exposed metal of the cable terminals;
   1) To reduce acid spillage.
   2) To reduce chance of arcing if metal contacts battery in an incident.
b) Battery Boxes to be located rear of the front firewall on the passenger side, welded to the roll cage.
   No plastic battery boxes to be used.
c) Suitable grommets must be fitted where battery cable passes through metal fiewalls.
d) At the commencement of a meeting, car must be capable of starting with starter motor.
e) Switches: Ignition switch and electric fuel pump switch, if fitted, must be grouped together and be clearly marked.

f) An engine “KILL” switch, suitably marked, must be fitted in the centre of cowling panel no further than 50mm from lower windscreen bar inside- this switch must also isolate the battery and any other electrical item.
g) Kill switch to be of leaver/twist type only. (No button type)
h) Electrical switches NOT to be mounted through the floor.

PRESENTATION AND SIGNWRITING

a) All paintwork, sign writing and numbers are to be neat, attractive and of a professional standard.
b) All vehicles must carry the correct identification number as issued by their club and must be a minimum of 300mm high. (05/10/14). This number shall be displayed on each side of car and on the roof. In addition, a 150mm high number and prefix shall be placed on the tail of the car to help drivers line up when one-way communicators are used.
c) The name of the driver shall be displayed on the roof over RH door or on visor strip, in letters of a minimum of 75mm high.
d) Headlight and tail light apertures may be highlighted by decal or silhouetted to help identify make and model. Decals indicating make and/or model may be fixed to the vehicle in prominent positions.