

**CRASH N BASH®**  
**DRIVERS ASSOCIATION**

**RULES,  
REGULATIONS  
&  
VEHICLE SPECIFICATION**

VERSION	CHANGE	DATE	COMPLETED	APPROVED
2020/1	New style rule book	10/9/19	BL	Committee

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## **INTRODUCTION**

This form of motorsport is to allow the introduction of speedway racing to young enthusiasts and persons who do not want to spend big money on motorsport.

The Rules and Vehicle Specification is set by the CrashNBash® Drivers Association (CBDA) for your safety and the safety of others.

## **DISCLAIMER**

The rules and regulations set forth herein are designed to provide for the orderly and safe conduct of the CrashNBash® Drivers Association events and to establish minimum acceptable requirements for such events.

These rules shall govern the conduct of all events. All members or participants are deemed to have complied with these rules and regulation. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death to participants, spectators or others attending the events. It will be each member's own responsibility to keep themselves informed of changes to the rules and regulations. The CBDA shall make reasonable attempts to inform all members of any changes as they arise.

## **SUPPORTING MATERIAL**

Please refer to the current National Association of Speedway Racing Rules for clarification on anything not covered by this rule book. If an item is not listed in this book or any supporting material or there is any discrepancy, then clarification should be sought by contacting the CBDA.

## **ANNUAL MEMBERSHIP**

It is compulsory for all drivers to be a member of the CBDA to drive in this class.

## **RULES & REGULATIONS**

### **1. Interpretation**

It shall be the sole authority of the committee of the CrashNBash® Drivers Association to control and interpret these specifications as contained in this book and any circularized amendments. Officials of the CrashNBash® Drivers Association Inc. (CBDA) shall enforce these specifications in all aspects.

### **2. Authority to Exclude**

If a CBDA Official determines prior to the race that a race car does not meet the 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 advantage over other competitors.
- c. Is so insubstantial as not to warrant a determination that the car is ineligible to race.
- d. Does not affect the safety of driver/passenger or crew of that vehicle. If the Official permits the car to compete under these circumstances, the Official will advise the competitor by writing the deficiency in their Vehicle Scrutineering Book. (See section for rules and regulations on scrutineering vehicle books).

### **3. Special Conditions**

- 3.1. Whilst full contact is allowed it must be done in a racing manner. Any driver found waiting on or crossing infield to intentionally hit another car, deliberately walling or deliberately hitting a driver or front passenger door can be disqualified. The chief steward's decision will be final.
- 3.2. If a drivers' talk is held during a race meeting to address an issue. That meeting will be held between relevant track officials, committee members and nominated drivers only.
- 3.3. The CNBDA committee has the right to allow trial modifications that may be outside of this rule book. This is for research and gaining information on possible future modifications or rule changes.
- 3.4. A rule change meeting will be held every three years. The only exception will be in regard to safety items or if the CNBDA believes an immediate change is needed for the betterment of the class.

### **4. Drivers, Passengers and pit crew**

- 4.1. All safety apparel must be worn as stated in the National Association of Speedway racing Rules supplied by speedway Australia.

### **5. Vehicle Scrutineering**

- 5.1. Only a CBDA authorised scrutineer can perform daylight inspections.
- 5.2. Every car must pass a daylight examination/re-examination on an annual basis to confirm compliance. Once daylighted the driver will receive a logbook for the current season.
- 5.3. If your book is lost or stolen a replacement book will be issued at a cost of \$25.00 and can be purchased on the day.
- 5.4. The CBDA reserves the right to impound and inspect any race car at any time. Cars can be selected at random and ordered to a designated impound area for dismantling. The Owner/ Driver of the car must deliver them immediately upon request and supply the necessary manpower and hand tools to accomplish dismantling. Only persons actually involved in dismantling the car will be allowed in the immediate area of a vehicle being checked. Any persons not having cars in the impounded area, and gaining entry without authorisation, will be ejected.

### **6. Open & Ladies Racing**

- 6.1. Timing & Lap scoring.
  - 6.1.1. If more than 15 cars have entered a race meet CBDA will make all attempts possible to use electronic lap timing. A lap scorer will also record results.
  - 6.1.2. If less than 15 cars have entered or electronic lap timing is unavailable, the elected lap scorer/s will record results.
  - 6.1.3. All laps are counted in heats and finals no matter what colour flag is being displayed.
- 6.2. A Driver can only nominate/compete in one class either ladies or opens at any event.
- 6.3. No final will finish under a yellow flag/light.
- 6.4. If a driver needs to use another car to race in the final, they will have to start rear of field unless they have completed at least one heat in the new car.
- 6.5. A driver must complete half the advertised number of laps in any race, final or title event and cross the chequered flag under their own power, to be eligible for a position, prize money or points.
- 6.6. Any car found repeatedly cutting the pole line, by one car width, will receive a 1 lap penalty.

- 6.7. Any Car causing severe damage to another Car; without causing extensively damaged to their own Car is to be is to be thoroughly re-scrutineered immediately.
- 6.8. If illegal strengthening is identified, a ban/suspension will be imposed effective immediately – 2 race meetings or up to 12 months as decided upon by the Executive Committee.
- 6.9. In a two-day meet, if the driver does not compete on the first day then they must start rear of field in the final and will be ineligible for any prize money.

## **7. State Title**

- 7.1. To qualify to complete in the state title meeting the driver must have competed in 1 race meet in the current season.
- 7.2. State title is to be held at a different track each year unless voted on by drivers.
- 7.3. Drivers are only allowed to compete in one state title per year.
- 7.4. In the event a driver attends a race meet and fails to qualify under rule 8.6 or is deemed to be acting outside the spirit of the class, The CBDA executive committee will have the final decision of that driver's qualification in the State Title.
- 7.5. The state title must be held at a track with a 'dog leg' configuration.
- 7.6. A rain out option (a later date at the same or different track) must be organised alongside the state title and be finalised alongside the title and put on the calendar.

## **8. Protests**

- 8.1. Any protest/enquiry must be made by the Driver only to the nominated Drivers Representative within 30 minutes of the completion of the heat or final.
- 8.2. A fee of \$30.00 is payable upon submission of your complaint/appeal, which will be refunded in full if your appeal is won. This will be conducted in line with the current Speedway Australia Rules.
- 8.3. The drivers' representative is to submit the protest/enquiry to the chief steward whose decision will be final.

## **9. Appeals**

- 9.1. Any driver who has had a race ban or penalty imposed for any reason has the right to an appeal.
- 9.2. A fee of \$30.00 is payable upon submission of your complaint/appeal, which will be refunded in full if your appeal is won.
- 9.3. All appeals must be lodged in writing to the club secretary within seven (7) days of receiving the race ban or penalty. This will be conducted in line with the current Speedway Australia Rules.
- 9.4. Appeals will be discussed and voted upon by the CBDA Executive Committee.
- 9.5. If the driver is unsatisfied with the result of the CBDA Executive Committee the appeal may be taken to the drivers meeting to be discussed and voted upon by the drivers.

## **10. Drivers Series Points System**

- 10.1. As per National Association of Speedway Racing Rules.
- 10.2. Points for each race meet are kept by the point's keeper and will not be disclosed until the Members presentation night.

- 10.3. Points will only be allocated to the driver nominated on the entry for that particular car number on the day.
- 10.4. No points will be awarded to drivers who swap cars, however they will still be permitted compete in the race.

## **VEHICLE SPECIFICATIONS**

### **11. General**

- 11.1. Any hard top Utility, Station wagon or Sedan as per Australian Design Rules is permitted.
- 11.2. Full Chassis, Four Wheel Drives or non-standard vehicle conversions are not permitted.
- 11.3. No additional weight or ballast to be added to vehicle.
- 11.4. All interior and exterior glass, trim, linings, door handles and ornaments are to be removed.
- 11.5. Rear vision mirrors are permitted but must not be made of glass.
- 11.6. All Vehicles to be presented in a neat & tidy appearance. No obscene writing or signage.
- 11.7. All holes in engine fire wall to be sealed off with panel steel.
- 11.8. Boot area to be sealed off from cabin area with panel steel.
- 11.9. All holes in floor on driver and passenger sides to be covered.
- 11.10. No strengthening, bar work or bracing rear of the back axle or forward of the fire wall, other than what is specified in the CBDA rule book.
- 11.11. An engine 'KILL' switch suitably marked with a contrasting colour for method of operation must be located centrally and forward of the windscreen mesh. This switch must isolate the battery, and any other electrical items.
- 11.12. Mufflers must be fitted to restrict noise output to a maximum of 95db.
- 11.13. No engine or transmission lines and coolers to be fitted inside cabin.
- 11.14. No air boxes or air intakes to be fitted inside the cabin.
- 11.15. No restriction on wheel & tyre size; however, no studs or foreign objects in tyres.

### **12. Bonnet & Boot**

- 12.1. Bonnets and Boots must be able to be opened quickly and secured using pins or straps.
- 12.2. Maximum of 2 pins/bolts on each.
- 12.3. Maximum cover plate size 100mm x 100mm x 3mm.
- 12.4. Boots/Bonnets must not be welded shut.
- 12.5. A strap can be used to secure rear of bonnet. Max 50mm x 3mm x 200mm.
- 12.6. All bonnet scoops to be fully sealed.

### **13. Panel Repairs**

- 13.1. Panel Repair patches are to be of 1.6mm maximum sheet metal (black steel –no stainless steel) and are in total not to cover any more than 25% of each panel.
- 13.2. A panel is defined as a panel that is produced as per manufacturers' specifications

- 13.3. If more than 25% of panel needs repairs, replace the panel as per manufacturers' specifications.
- 13.4. Double skinning of panels is not permitted.
- 13.5. Tec screws are not to be used to secure any panels to the car.

#### **14. Headlight Plates**

- 14.1. Headlight plates are to be made from a maximum 1.6mm sheet metal, single layer only.
- 14.2. Headlight Plates are to cover the immediate headlight area only, they are not to be boxed in (must be open from top and bottom).
- 14.3. Headlight Plates can be attached to the body/radiator protection bar and guard only. Not to the bumper.

#### **15. Fuel System**

- 15.1. Original fuel tank must be removed.
- 15.2. Standard Unleaded or Premium Unleaded fuel only permitted. (i.e., pump fuel as supplied to the general public only.) No Avgas, Methanol, Aero start or additive's permitted. Any car found in breach of this will be suspended from the race immediately and the following race.
- 15.3. Fuel tank is to be race purpose built (no boat tanks or jerry cans) from minimum 1mm mild steel or 3mm Aluminium Alloy. Race competition type plastic fuel cells allowed, metal filler rings must be appropriately earthed to body or barwork. Fuel tank capacity shall not exceed 60L. Fuel tank shall be mounted as close as possible to the centre of the vehicle between the rear wheel arches. No part of the fuel cell can be past where the rear wheel arch end.
- 15.4. Immediate fuel cell area to be barred. No further than 200mm from fuel cell. Must be of solid construction and not directly connected to the rear wheel arches or outer car body.
- 15.5. Fuel cell shall not be mounted using tabs welded to fuel cell.
- 15.6. Fuel tank is to be isolated from the driver by a minimum 0.9mm metal firewall.
- 15.7. Fuel tanks to be covered on sides and top where exposed by using a metal or tin lid. Lids must be able to be opened quickly and be secure.
- 15.8. Barbed fitting of the correct size must be used in conjunction with screw type clamps when connecting flexible fuel line. (Genuine SAE R6 fittings and hose exempt)
- 15.9. Neoprene, reinforced plastic or 'black fuel line' may be used. OEM type bundy steel tubing may be used through the car.
- 15.10. Flexible fuel line can pass through the cabin area, must be one piece.
- 15.11. High pressure lines are to use high pressure hose and fittings.
- 15.12. A flexible fuel line section must be fitted within 75mm of fuel tank and all fuel lines to be securely fixed in position.
- 15.13. Fuel line to be secured to the vehicle floor though the cabin area. Fuel line must run separate to any electrical wiring.
- 15.14. A no-spill vent with a one-way valve or minimum of 2 coils is to extend through the floor well clear of the exhaust.
- 15.15. If a return line is used, it must be fitted with a one-way valve, at the fuel tank, the fuel pressure regulator is the only restriction permitted.
- 15.16. One external swirl pot allowed to a maximum of 5L.

- 15.17. Two separate accelerator return springs must be fitted, one on the butterfly shaft.
- 15.18. All electric fuel pumps to be controlled by an engine monitoring relay, to stop fuel pump running when engine stops.
- 15.19. FUEL TAPS NOT PERMITTED (for EFI vehicles)
- 15.20. **Carburettor configuration only**
  - 15.20.1. Fuel line must have a 'shut off' tap within reach of the driver and be contrasting (RED) in colour and be marked On and Off. Fuel lines, clamps and taps must meet or exceed the pressure that you are running.
  - 15.20.2. A return spring MUST be fitted to each throttle shaft of the carburettor. (In-built springs acceptable).

## 16. Tow Bars

- 16.1. One tow bar without tongue may be fitted to the rear of vehicle only and must be originally mounted.
- 16.2. Tongue mounts are to be removed up until the cross brace.
- 16.3. No reinforcing & must not protrude past bodyline.

## 17. Doors

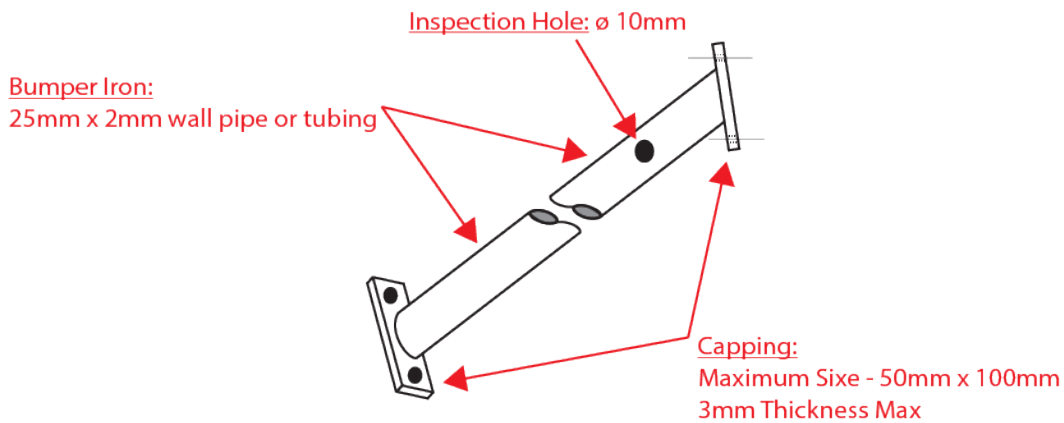
- 17.1. All doors must be secured using methods such as welding or bolted (min. M8 bolts and washers).
- 17.2. Front doors may be cut down a maximum of 75mm.

## 18. Bumpers

- 18.1. If original bumper is plastic, a steel bumper for that brand of car may be used but must be front bumper on front and rear bumper on rear. (Non-standard bumpers or aftermarket bumpers are not permitted).
- 18.2. 6mm chain may be fitted to the bumper for lifting purposes.
- 18.3. Bumpers must be Ford to Ford and Holden to Holden etc...
- 18.4. No commercial vehicle bumper to be used.
- 18.5. Original Bar irons are to be used.
- 18.6. Front bumper can be tagged to the front guard with 1.6mm panel steel with a max of 100mm width. Cannot overlap bumper and guard by more than 50mm. only one tag per side permitted.
- 18.7. Replacement Bumper Irons [out-riggers] (see figure 1 below)
- 18.8. Replacement Bumper Iron outriggers are only to be used on cars that came out with bumper iron outriggers on that original model. (Not Bumper)
- 18.9. Material to be used is pipe or tube (25mm x 2mm) or imperial equivalent.
- 18.10. Bumper iron outriggers must have a Ø10mm hole along the pipe or tube to inspect for thickness of wall.
- 18.11. Bumper iron outriggers must be capped at both ends and capping must not exceed a size of 50mm x 100mm and thickness must be 3mm max.
- 18.12. Replacement bumper iron outrigger is to be attached as original to the body and the bumper.



**Figure 1 – Bumper Iron outriggers**



**Capping:** Max. 50mm x 100mm, 3mm Max Thickness

**Inspection Hole:** ø 10mm

**Tubing:** 25mm x 2mm wall pipe or tubing for replacement iron

## 19. Radiators/Cooling

- 19.1. Radiators to bolt to or as near to the original mounting point.
- 19.2. No additional radiators, heater cores or holding tanks permitted.
- 19.3. Radiator must use pressure relief valve/tap or lever vent cap.
- 19.4. Fully sealed radiators with expansion bottle are allowed and long as it has a pressure relief point.
- 19.5. No additional cooling devices permitted: i.e.: water spraying over radiator etc.
- 19.6. Engine fan is not compulsory and thermo fans may be fitted.

## 20. Battery

- 20.1. Battery to be securely mounted to roll cage behind main hoop.
- 20.2. No plastic brackets.
- 20.3. Battery must be suitably covered to prevent spillage.

## 21. Windscreens, Windows and Window nets

- 21.1. Windscreen Mesh - Minimum 25mm x 25mm x 3mm to a maximum of 50mm x 50mm x 3mm wire mesh to cover the complete windscreen area.
- 21.2. Window nets are compulsory.
- 21.3. Window nets to be secured to roll cage (not the body).
- 21.4. Window Net minimum rod thickness ¼" (6mm).
- 21.5. Window Net should be able to be quickly released from top and bottom.
- 21.6. Nets to be a minimum of SFI 27.1 or to be made of minimum 19mm seat belt type webbing or equivalent, with a maximum hole size 75mm. Minimum net size to be 500mm x 400mm.

## Figure 2 – Window Net

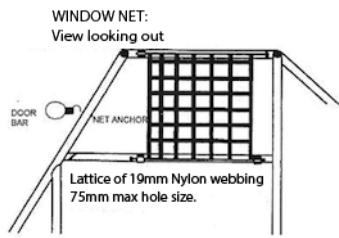


Figure 2a

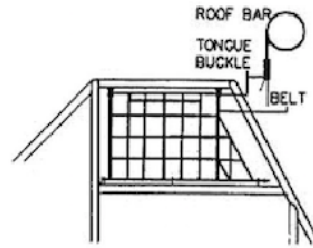


Figure 2b

*In this design example, it uses two push button seat belt buckles and the seat belt buckles are welded to side of roof bar.*

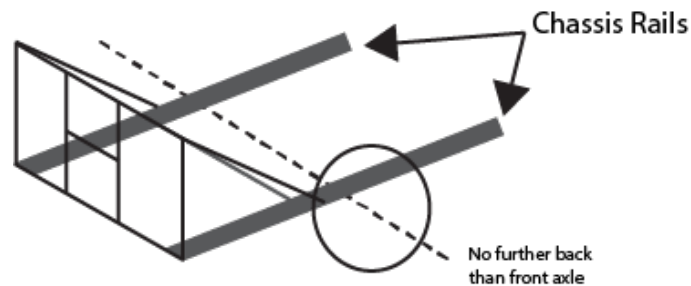
## 22. Car Numbers

- 22.1. Car number to be displayed on:
  - 22.1.1. both front doors, 450mm high x 75mm thick,
  - 22.1.2. both sides of a roof upright 300mm x 300mm, and
  - 22.1.3. both sides of the windscreen.
- 22.2. Car numbers must be contrasting colours (i.e., white on black etc.)

## 23. Radiator Protection Bar

- 23.1. Maximum construction material 25mm x 25mm x 3.2mm RHS.
- 23.2. Lower support brace to be secured to lower sub-frame rail. Top support to be secured by brace of same dimension RHS to lower sub-frame.
- 23.3. Must be mounted forward of the radiator and inside the original body line.
- 23.4. The bar work is to be located behind the Front Bumper Bar, no wider than the chassis rail and forward of the front axle line. (see below Figure 3a)
- 23.5. Radiator & Protection bar may only be covered by shade cloth or fly wire.
- 23.6. No panel steel or steel mesh may be used over or on the protection bar and/or radiator.

## Figure 3 – Radiator Protection Bar



Radiator Support Bar Work

## 24. Brakes & Steering

- 24.1. Brakes must operate safely.
- 24.2. Steering Wheel centres & spokes to be padded.
- 24.3. Steering locks to be inactive.

- 24.4. Steering column must still be able to collapse.
- 24.5. Steering Column must have a supporting loop or be adequately attached to the roll cage.
- 24.6. Where the vehicle is fitted with a Strut type front suspension, a removable Strut brace is permitted. Either Aftermarket type or handmade (Maximum 25mm Round or Square Diameter Tube, 3mm thickness) mounted diagonally opposite the original strut mounting Position.
- 24.7. A Removeable type steering wheel is recommended.

## **25. Engine & Drive Line**

- 25.1. Any 4, 6 or 8 cylinder & standard rotary engines permitted.
- 25.2. Engine must be per original model Holden to Holden, Ford to Ford, etc.
- 25.3. In standard format: i.e., 4cyl to 4cyl cars, 6cyl to 6cyl cars, etc.
- 25.4. Differential may be locked if preferred.
- 25.5. Axle shrink rings must be welded to the axle in 3 places (Loctite not accepted).
- 25.6. Inhibitor switch on all Automatic Transmission Vehicle's must be operational.
- 25.7. Tail Shaft Hoops are Mandatory – Steel Strap minimum 40x5 FMS or 6mm Chain or 6mm Wire rope to be securely fitted around the front and rear of the tail-shaft within 150mm of universal joints to prevent the tail-shaft and or shafts from dropping in an event of breakage. If there is a universal joint in the middle of the tail-shaft a third safety chain is required.
- 25.8. Conversion of two-piece tail-shaft to a one piece and vice versa is permitted.

## **26. Roll cage**

- 26.1. All workmanship on roll cages is to be of a professional standard.
- 26.2. If your roll cage is not up to standard you won't be racing.
- 26.3. All materials used must meet Australian Standards (AS).
- 26.4. Bolts are not to be used through structural tubing unless a welded sleeve is provided.
- 26.5. All material sizes quoted are minimum unless a maximum is stated.
- 26.6. All roll cage joints to be completely welded and done to a professional standard.
- 26.7. No Galvanized or corroded pipe permitted.
- 26.8. No heat bending of pipe permitted.
- 26.9. Pipe to be a minimum of 38 mm OD with 3mm wall thickness. Must be AS200.
- 26.10. All pipes to be one piece including the main hoop.
- 26.11. No flattening of pipe permitted.
- 26.12. Roll cage to be bolted to the floor in four (4) places with a minimum of 3mm x 100mm square plate under the floor. Bolts must be 3/8" high tensile.
- 26.13. Roll cage must have a full crucifix bar work in the main hoop.
- 26.14. 50mm x 5mm thick angle iron or RHS box section may be used as roll cage base.
- 26.15. A 3mm Full Head Plate is compulsory and must be welded on all four (4) sides of the roll cage. Head plate must cover the full roof of the roll cage.
- 26.16. A panic grab rail must be fitted on all vehicles that carry passengers.

- 26.17. A quarter vent window bars is compulsory on both sides of the vehicle.
- 26.18. Floor plate recommended for all cars but compulsory for cars with rusty floors.
- 26.19. Anti - Spear Door and Ankle plates to be fitted using minimum 3mm plate. (See figure 4d)
- 26.20. A mandatory foot protection brace bar of a minimum 25mm x 3mm CHS fitted between the front top half of the foot protection bar and bar work to the left on the driver`s side (preferably the dash bar) and between the front top half of the foot protection bar and dash bar at approximately 45 degrees on the passenger side if passenger seat fitted. (See Figure 4d)
- 26.21. NASCAR bars compulsory for both driver & passenger sides of roll cage. (Regardless of if you carry a passenger or not).
- 26.22. NASCAR bars are permitted to extend to all four doors – this is not compulsory.
- 26.23. NASCAR door bars must have external bends only, no reverse bends
- 26.24. To protect the driver`s feet and legs from a clutch explosion, all vehicles are to be fitted with a minimum 3mm steel or 5mm Alloy Scatter Shield and shall be designed to cover the bell housing area of Floor.

**Figure 4 – Roll Cgae**

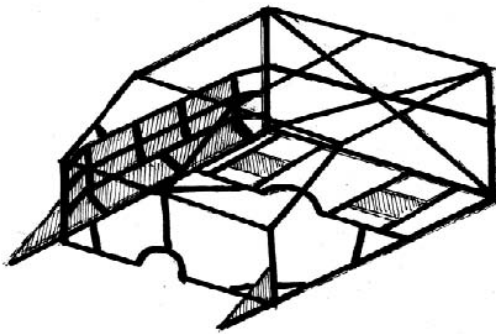


Figure 4a (Front view) – Typical Roll Cage.

*Note: Diagram has no left hand side NASCAR bars or head plates as not to complicate picture.*

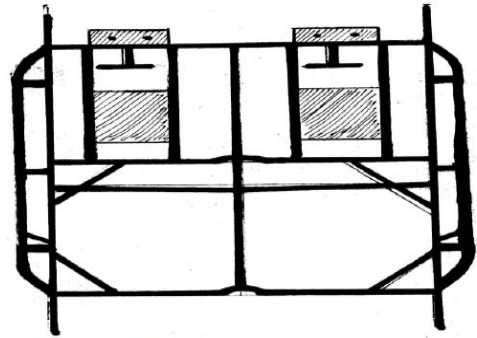


Figure 4b (Top View) – Typical Roll Cage

*Note: Diagram has no head plates as not to complicate picture.*

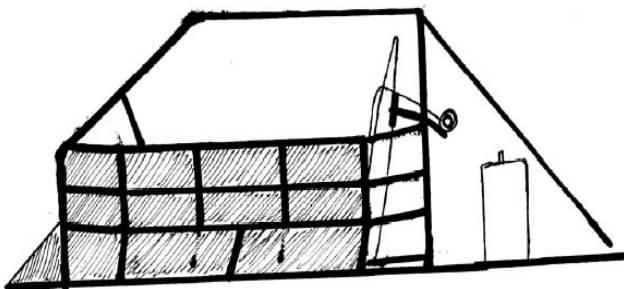


Figure 4c (Side View) - Fuel protection area.

Where the driver or passenger is exposed, this needs to be fully plated

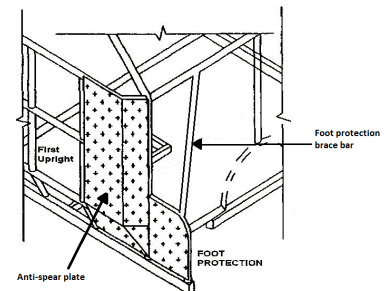


Figure 4d (Side view) – Typical roll cage. Anti spear plate and foot protection brace.

## 27. Seats & Racing Harness

- 27.1. An approved type Seat Belt Racing Harness must be fitted, using a minimum of four major belts and four mounting points, plus one or two anti-submarine (crotch) straps.
- 27.2. The Racing Harnesses must be a minimum 3" (inch) 5 – point.
- 27.3. Seat Belt Racing Harness life span is a maximum of 2 years from date of manufacture.
- 27.4. Seat Belt Racing Harness to go through the seat at shoulder height where possible or to have brackets to stop harness slipping off shoulders.
- 27.5. Shoulder Harness to be 100mm to 150mm apart and anchored at a 45 degree angle from the seat to the roll cage. See Figure 5a (i)
- 27.6. The point where the Shoulder Harness anchors to the roll cage is to be 100mm below shoulder level and be not more than 300mm from that point See Figure 5a(ii).
- 27.7. Seat Belt Racing Harness must be secured to the roll cage using a minimum of 4mm plate and 11 mm (7/16) bolts.
- 27.8. Any Seat Belt Racing Harness inserted through the seat must have grommets.
- 27.9. Seat Belt Racing Harness must not be frayed, joined, burned or contain paint.
- 27.10. Two front seats only per car.
- 27.11. Seats must be high back and in good condition and made of fiberglass, plastic, aluminium or Steel. Base and back of seat to be secured to the roll-cage.
- 27.12. Sprung seats are not permitted.

### Figure 5 – Racing Harness Mounting

Note: Shoulder harness to be 100mm – 150mm apart.

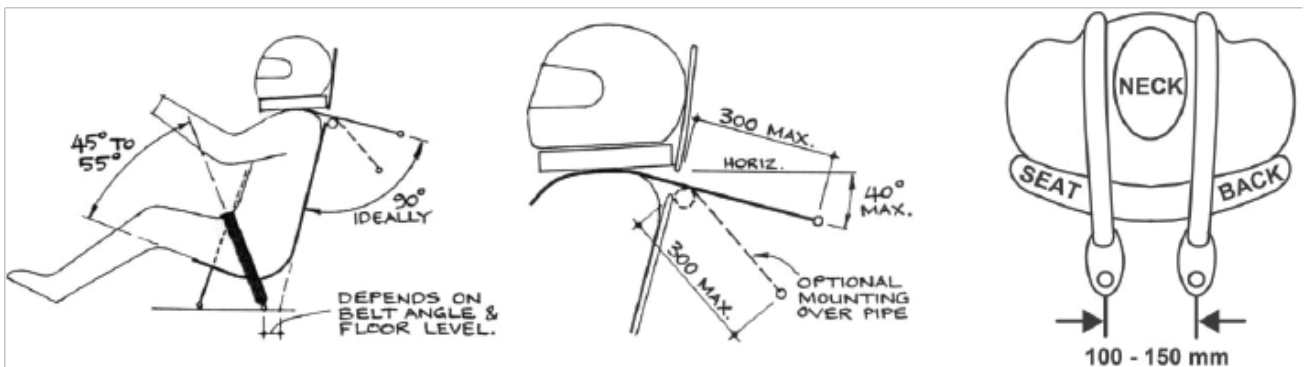


Fig. 5a

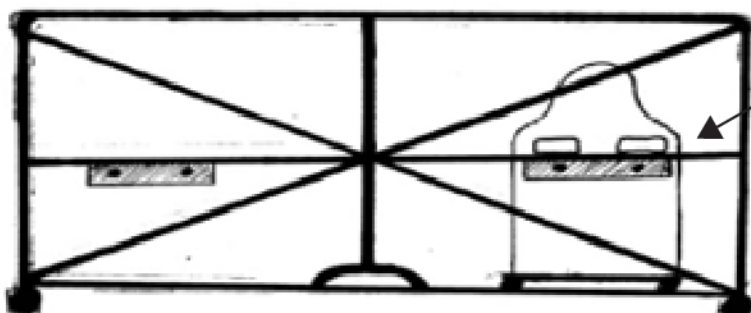


Figure 5b (Rear View) – Typical Roll Cage & Harness Mounting

## **28. Installation of an Approved Racing Harness / Drivers Restraint System.**

In order for any Seat Belt Racing Harness / 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.

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:

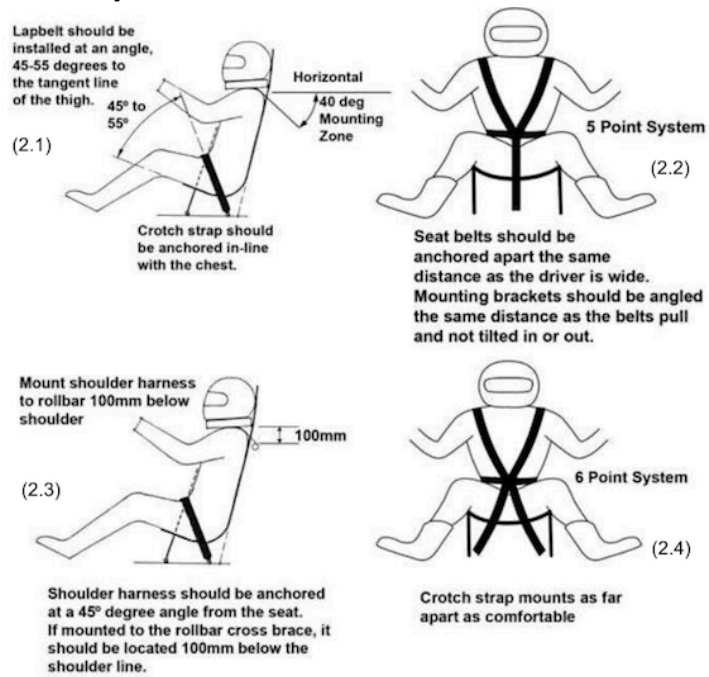
- a. To secure the lap strap down across the driver's hips, so in the event of an accident, it is not pulled up across the stomach by the shoulder straps.
- b. To prevent the driver from sliding forward and out of the harness. When the driver is seated in an upright position, as in most sedans, a five-point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

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 antisubmarine strap systems more comfortable. In many instances, the antisubmarine 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.

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

**Figure 6 – Driver Restraint System**



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