



## **British Drift Championship Car Rules and Regulations 2012**

Cars must be built using these BDC 2012 Rules & Regulations, no other or previous Rules or Regulations are to be followed

Entrants of the BDC Championship must adhere to the rules and regulations of the Championship as defined below. These rules and regulations have been formulated to ensure that all entrants' equipment and their vehicles are maintained to a high standard and comply with basic motorsport safety requirements.

All points listed will be strictly policed and checked in scrutineering prior to each event. Any car or driver failing to comply with these regulations will be excluded from the event. These rules and regulations apply to all BDC exhibitions and point scoring rounds.

If you are unsure whether your vehicle meets these requirements then it is your responsibility to clarify the rules and regulations prior to an event. Please address all technical questions to BDC via email [bdc@live.co.uk](mailto:bdc@live.co.uk)

The BDC has the right to amend rules and regulations without prior notice at any time to improve safety.

User Notes:

1. Any vehicles not conforming will be excluded from all/any BDC events.
2. All written areas of the rules and regulations are the ownership of BDC and any copying or part copying of these, unless otherwise approved, will not be tolerated. If appropriate, parts of the regulations may be clarified or modified on the BDC website or by the scrutineer/technical officials ONLY. Any modifications to regs made in this way will be clearly marked and reported in the news section. If these regulations refer to the passenger compartment or driver compartment, this refers to the whole of the interior of the vehicle – including the rear passenger area.

1

### **Eligible Vehicles**

1-1. Vehicles must be constructed by a major vehicle manufacturer and currently/previously available as a homologated and factory available vehicle.

1.2 All vehicles must be rear wheel drive only.

1.3 Kit cars, one off special builds, pure racing cars and hybrid vehicles are prohibited.

1.4 Vehicles of any manufacturer are allowed as long as they meet the conditions 1-1 to 1-3.



1.5 Four wheel drive vehicles modified to rear wheel drive are permitted.

1.6 Front wheel drive cars or cars made originally as front wheel drive may not be used.

2

## **Vehicle Body Type**

2.1 All cars must retain the original chassis/body of the vehicle.

2.1.1 The vehicle chassis, frame and / or monocoque must remain unmodified between the vertical planes created by the original forward most and rear ward most strut or damper mounting points unless otherwise specified in these rules. Monocoque or chassis may be seam welded.

2.1.2 Exterior body panels may be replaced or modified between and on either side of the vertical planes described in 2.1.1 Exterior body panels consist of any panel that could be considered an exterior finished panel of the original OEM vehicle that is visible from the outside of the car. Any metal above the line formed by connecting the lowest point of all the windows may not be removed, including the pillars and the windshield frame. The exterior roof panel is able to be removed and replaced with a composite panel.

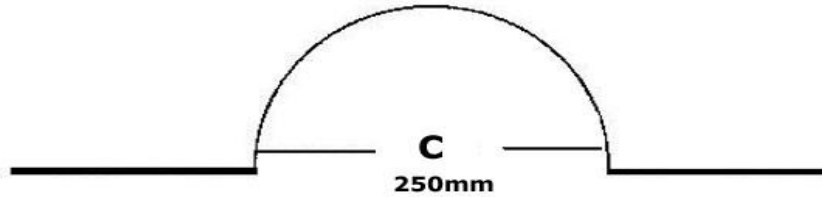
2.1.3 The original OEM floor pan must remain fully intact between the vertical planes described in 2.1.1, with exception of the transmission tunnel and firewall rule as described in 2.1.5 The gearstick hole location may be enlarged or relocated in the transmission tunnel when non original transmissions are used.

2.1.4 Other interior monocoque structures may be removed between and inside the vertical planes described in 2.1.1 that are not part of the original floorpan or outside perimeter or the monocoque. These items can include the original rear window parcel shelf, interior tabs & structures for interior trim panels, various tabs or mounts for unused OEM steering columns and pedal boxes, OEM battery boxes and mounts, and unused OEM windshield wiper motor mounts and dividers not part of the original firewall structure. Any other items, mounts, or structures intended for removal from the monocoque must receive prior approval in writing from the BDC scrutineer.

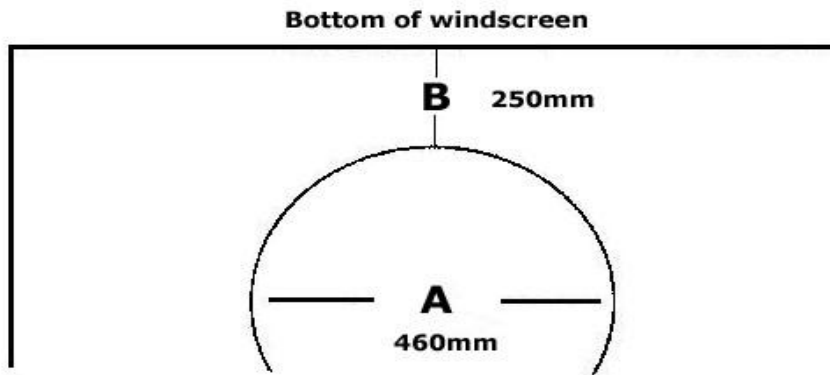
2.1.5 Transmission housing rules are as follows. These rules will be brought in to place at the start of the 2014 season.

Cars built with modified bulkheads that do not meet the following regulations will be eligible to compete in 2012/13 but must be logged with the BDC before the start of the 2012 season. A logging day will be held the day before round 1 at Teesside Autodrome.

No part of the engine block may cross the vertical threshold of the original firewall into the transmission tunnel



Modifications to the bulkhead and transmission tunnel are limited to the rules stated below.



Dimension A= Tunnel Width May be no wider than 460mm/18 inches

Dimension B= Minimum dimension of 250mm/10 inches between the bottom of the windscreen and the top of the transmission tunnel.

Taper Length from the firewall to the end of the transmission tunnel into the beginning of the drive shaft hump may be no longer than 920mm/36 inches

Dimension C = Modifications to drive shaft tunnels behind the engine firewall vertical plane should not exceed an overall width of 260mm/10 inches

2.2 No tube frame vehicles or tube frame chassis extensions are permissible unless part of the OEM structure as defined in points 1.1 to 1.5 Space frame chassis are not permitted, additional triangulation and bracing of suspension turret/mounting points is allowed so long as the car vehicle contains its original monocoque chassis (floor pan, bulkhead, roof and



pillars), and as long as the modifications do not prevent the vehicle complying with condition 2.7 or 2.1.5 Bulkhead rules. Chassis extensions/additional tubes will not be allowed outside the area as explained in rule 2.1.1 from the start of 2013.

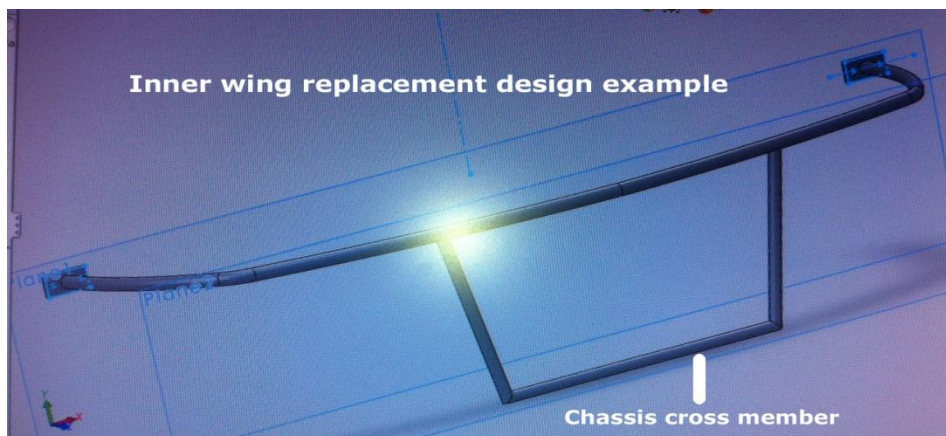
2.2.1 If inner flinch panels, slam panels or rear floor areas are modified or removed, replacement tubing maybe used for mounting only. This can be a maximum of 25mm box or tube with a maximum wall thickness of 1.5mm. A single 6mm hole must be drilled and clearly marked on a straight section of the tube. This must not be within 75mm of any bend and clearly visible for inspection.

2.2.2 Any additional bars will not be permitted from the start of the 2013 season. It would be preferred that any additional bars are removed for the 2012 season.

Fig 2.2a



Fig 2.2b





2.3 Vehicles must retain their original VIN (chassis number) in its OEM position as well as the OEM chassis plate where applicable.

2.4 VIN (chassis numbers) must not be altered or defaced and must be valid for the chassis they are attached to.

2.5 VIN (chassis numbers) must be clearly visible and readable.

2.6 Vehicles which have soft roofs, i.e. convertible, must have a hard top installed and a roll cage which will be effective in the event of a vehicle rolling onto its roof. The hard top must be securely fastened to the body. Glass sunroofs must be protected against breakage with tank/gaffer tape or replaced with fibreglass/metal.

2.7 The vehicle's appearance must be similar to that of the original vehicle.

3

### **Vehicle Modifications**

3.1 There are no maximum power/engine outputs – engine/transmissions are free.

3.2 Use of power enhancements such as Turbo/s, Superchargers, Nitrous Oxide or combinations thereof are unlimited. Any Nitrous Oxide cylinders and associated piping, valves and equipment must remain outside the driver's compartment.

3.3 All fuel, Nitrous and any other liquid filled lines must be securely fastened every 100mm throughout its length.

3.3a All pipes, lines and fittings must be designed and recommended for the purpose of carrying gas or fluids.

3.3b Any pipes/lines used for the movement of fluid through the drivers /passenger compartment must be a continuous length from the point it enters to the point it leaves.

3.3c Any pipes carrying hot fluids that are within the drivers compartment, (this includes the passenger side) must be covered completely and leak proof in the drivers/passenger areas.

\*NB It is highly recommended and preferred that all hot fluid lines are placed on the outside of the driver/passenger cabin area where ever possible.

3.4 Vehicles must retain an exhaust system, from 2013 the exhaust must exit the car behind the rear axle or in its original position, it should be complete with a silencer and must be able to pass a static 105db noise test at 2/3rd rpm or the noise level applicable for the track being used if this is lower.

3.5 Vehicles must have optional noise bungs which can be securely installed to comply with additional noise restrictions at each venue.



3.6 Tyres used must be readily available for road use in their country of origin/supply and readily available for sale over the counter as a 'walk-in' purchaser. Racing tyres including slicks semi slicks and cut slicks are not allowed. Tyres marked "competition use only", "for racing use only" or "not for highway use" are not permitted. All tyres must be E marked. Suspect tyres showing signs of removed sidewall markings may be assumed to be illegal.

3.6.1 From 2013 all tyres must have a tyre wear rating of 180 or more.

3.8 Rear tinted windows (on a coupe this applies to the rear quarters and rear screen and on a 4 door this applies to the rear passenger windows and rear screen) are allowed. Clear security film may be applied to the front driver and passenger windows, but not the windscreen. Glass sunroofs if fitted should use security or anti shatter film, Please ensure the film is fitted in a professional manner.

3.9 Headlights, indicators, brake and hazard lights, front wipers and horn must be in good working condition. Headlight glass must be protected against breakage by tape or security film.

Front brake lights are being looked in to for the 2013 season to assist with the judging procedure.

3.10 Ball joints, suspension bushes and wheel bearings must be in good condition.

3.11 Rear view and side mirrors must be fitted.

3.12 Vehicles must retain a passenger seat.

3.13 Cutting of the main chassis rails is prohibited.

3.14 All exterior performance parts, excluding wing mirrors but including rear spoilers and wings must not exceed the body width of the vehicle.

3.15 All wings must have rounded corners.

3.16 All windows can be exchanged for racing lexan materials where necessary except the front window screen, this must remain OEM (laminated) glass.

3.17 All bodywork modifications are allowed as is the use of FRP or carbon fibre materials but must comply with 2-7.

3.18 All bodywork must not be hazardous to other competitors in design.

3.19 The original dashboard should remain intact (apart from roll cage alterations) or can be replaced by a replacement unit built to similar or better standards/appearance to the OEM unit. Drivers have a free choice of instruments.

3.20 All steering, drive train, wheels and brakes are permitted.



3.21 Catch tanks for oil and water must be installed and securely fastened with their contents easily visible on inspection.

Catch tanks are not required if the original recalculating system is retained.

3.22 Any handbrake assembly is allowed however a handbrake must be present.

3.23 Throttle, brake and clutch systems must be in good serviceable condition.

3.24 Power steering units may be disconnected and/or removed.

3.25 Steering wheels are free to be changed.

3.26. No aluminium wheel studs are allowed.

3.27 Any additional equipment inside or outside the vehicle including electrical equipment must be securely mounted in place, including pit-car radio systems and be fitted before scrutineering.

3.28 Video, film and photographic, including performance related test equipment is prohibited from all vehicles unless expressly authorised by the BDC officials in advance and be fitted before scrutineering.

3.30 There must be a firewall between the engine bay and the passenger compartment capable of preventing the passage of fire or liquid. Larger holes should be covered by metal plates or fibreglass, smaller holes with bolts, rivets or fireproof mastic. If the standard bulkhead has no unfilled holes then it is classed as a satisfactory firewall.

3.31 If the boot contains any of the fuel system or nitrous tanks etc then the boot must be separated from the passenger compartment with a firewall.

3.4 Bumper supports maybe replaced with a single bar but alternatives must not extend beyond the centre of the wheel when looking from the front or rear of the vehicle.

3.4.1 Replacement bumper bar must use the original bumper mounting points in their original location. The bar can be hollow steel bar, hollow square tubing and must have a maximum diameter of 25mm/1inch with a maximum wall thickness of 3mm. Alternatively this can be 37.5mm/1.5inch with a wall thickness of 3mm hollow alloy box or tubing.

3.4.2 Additions may be added to the bumper support for the support of lower bumper sections. These must be smaller than 25mm/1inch tube or box with a max 1.5mm wall thickness.

3.4.3 Triangulation of the bumper support is not permitted.

3.5.4 The replacement of the original front cross member is allowed, but it must not extend



beyond the width of the original chassis legs.

Fig 3.4a

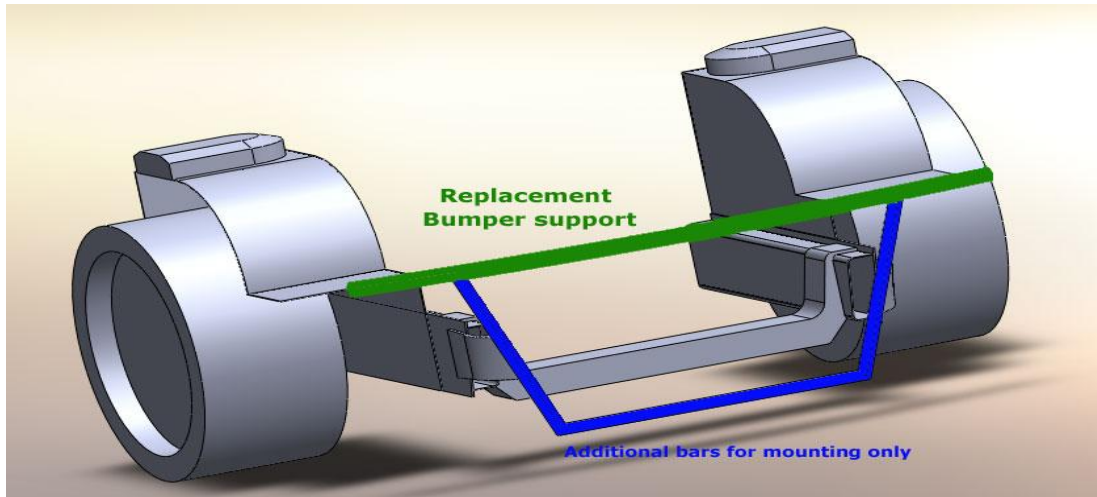
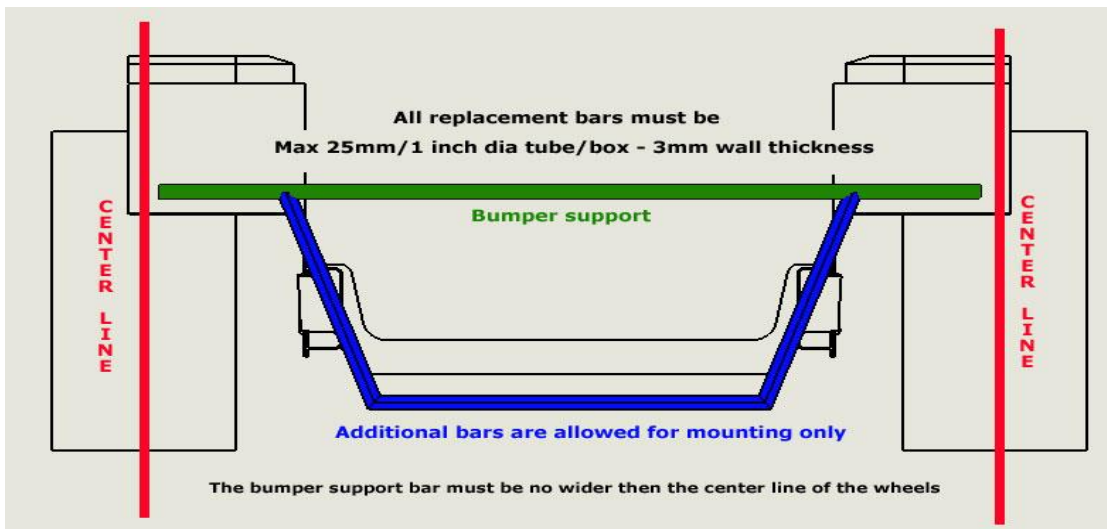


Fig 3.4b



4

#### Vehicle and Driver safety

4.1 A minimum six point roll cage is mandatory. Bolt-in or fully welded cages must be manufactured from seamless T45 or cold drawn steel tubing.



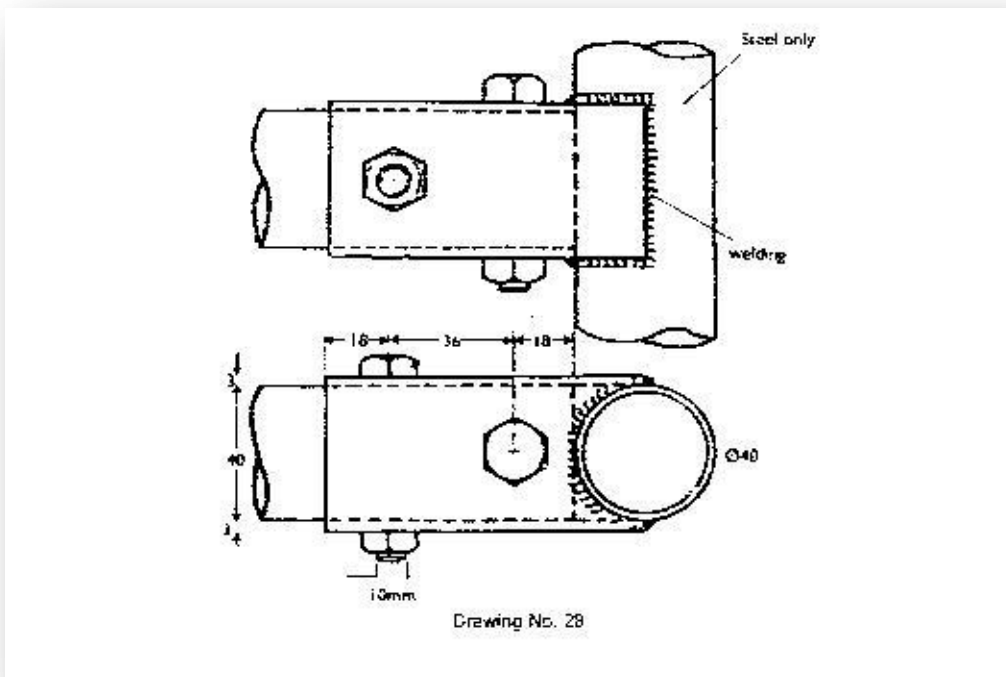
4.2 All cages regardless of material must have a main hoop from 45x2.5mm or 50x2mm tube. 38x2.5mm or 42x2mm is permissible for all other parts of the cage's construction. A 1mm manufacturing tolerance in tube sizes will be allowed.

4.3 Where used, all fasteners must be high tensile – ISO 8.8 or better and a minimum bolt size of 8mm.

4.31 All joints must be welded or must be made by a 2 bolt fixing.

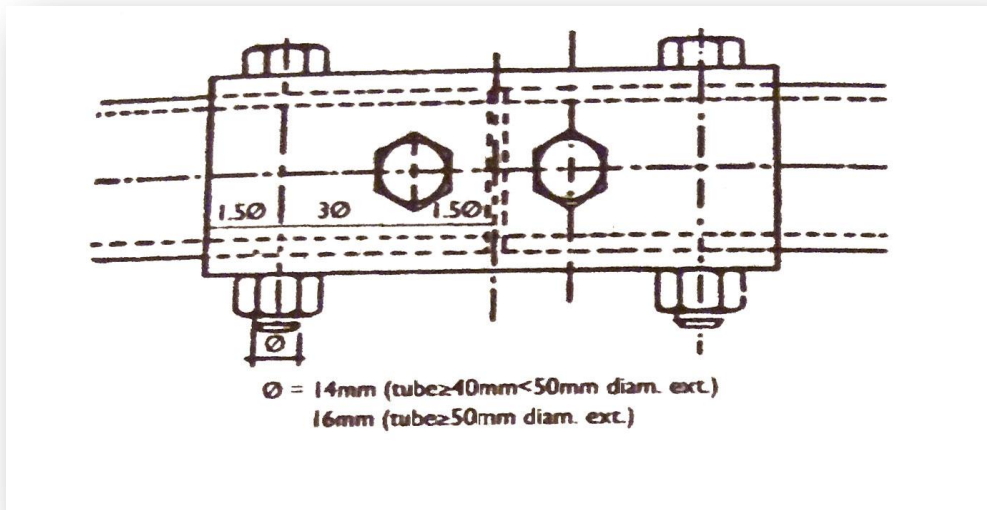
Removable Members. Should removable members be used in the construction of a rollcage, the demountable joints used must comply with an approved type (see drawings J1 to J3). The screws and bolts must be of adequate diameter and of IS Standard 8.8 or better.

J2



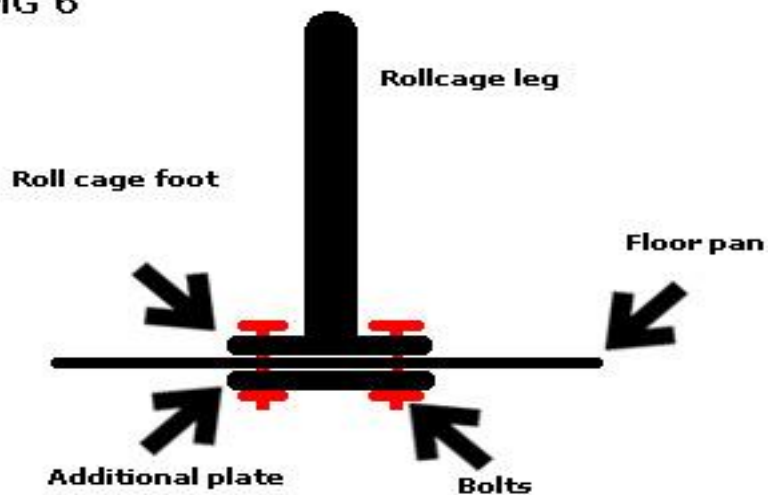


J3



4-4. All roll cages must be either welded or bolted to the vehicle body using plates that measure 5 square inches with a minimum 3mm thickness. For bolt-in cages a plate on the underside of the vehicle body is also required. A minimum 3 bolts is required for the main hoop and 2 bolts for all other fixing points.

IMG 6



4.4.1 At least one diagonal member must be fitted. Their location must be in accordance with Fig A1 or A2 and they must be straight. They maybe go to the left or the right.



The attachment points of the diagonal members must be so located that they cannot cause injuries. They may be made removable but must be in place during events. The lower end of the diagonal must join the main rollbar or back-stay not further than 100mm from the mounting foot. The upper end must join the main rollbar not further than 100mm from the junction of the backstay joint, or the backstay not more than 100mm from its junction with the main rollbar.

Fig A1

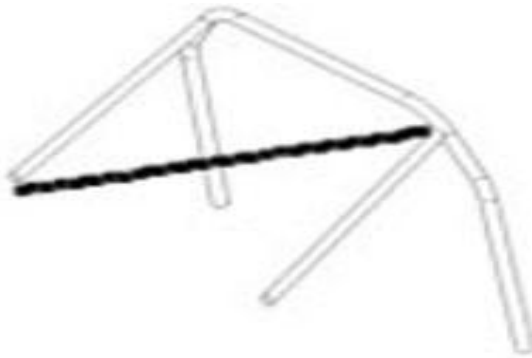


Fig A2



4.5 The front cage uprights may not be bent in towards the driver (as some do to avoid the dashboard, see Fig 1.) as each bend is a stress riser.

Fig 2. below, all cages should be constructed to this design or better. The design shown in Fig 1. is no longer allowed.



Fig 1. NO LONGER ALLOWED

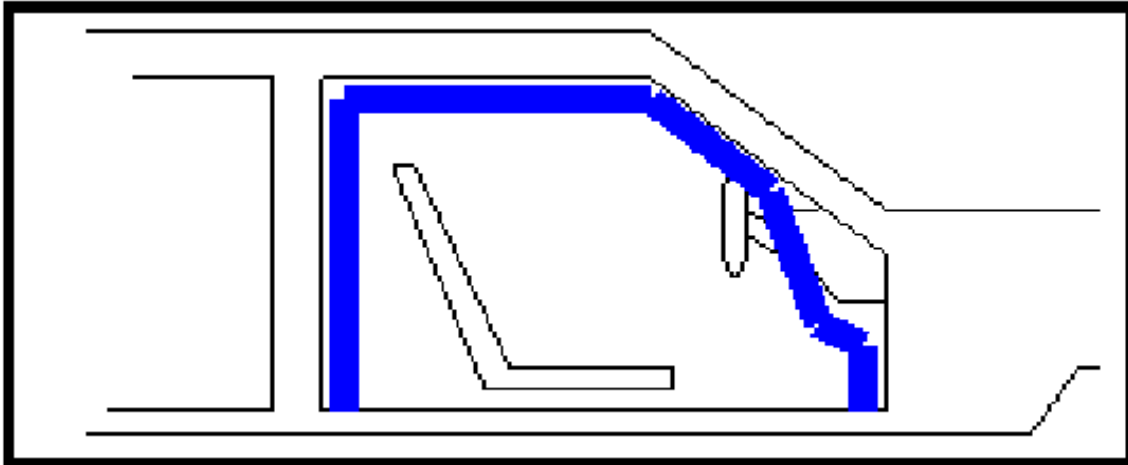
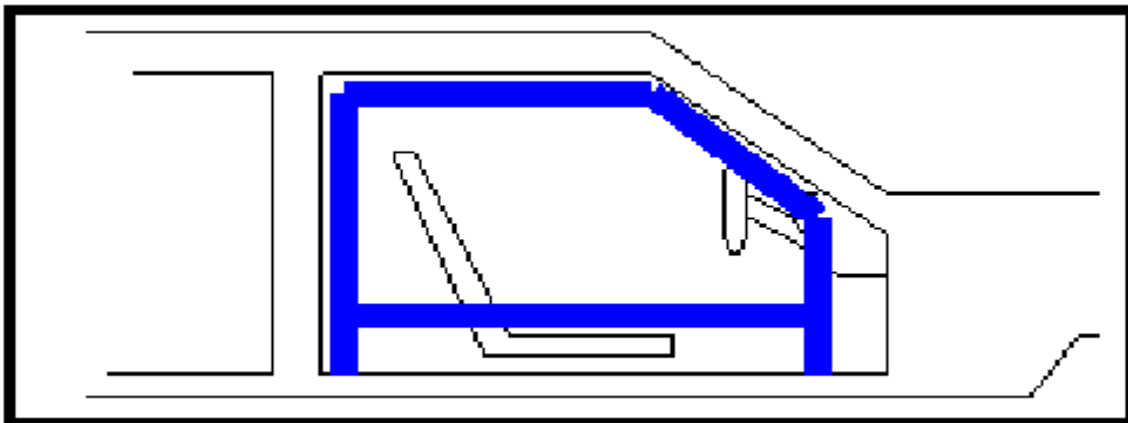


Fig 2. MUST BE CONSTRUCTED TO THIS DESIGN OR BETTER



Please note: The above drawings are for illustration purposes only and are not to scale and must be not be construed as the correct angles. The driver of any vehicle that requires cage modifications should speak with the Technical Officer of BDC in advance of any modifications. Parts of roll cage within 150mm of occupant's helmets must be fitted with fire



resistant padding.

Note: Door bar(s) are only required on the drivers side. Door bars may be of the removable type but must be fixed securely with an approved bracketing system. If the door bar(s) are adjustable then any adjustable area must be seam welded and not spot welded. If in any doubt please contact the BDC Scrutineer.

4.5.1 No roll cage extensions are allowed beyond the centre line of the wheels (forward of the front turrets or behind the rear suspension turrets) when looking from the side of the vehicle.

4-6. Vehicles with doors modified/lightened or exchanged for FRP or carbon fibre must have an X bar or two door bars installed as part of their roll cage layout - see Fig 3. and Fig 4. below.

Fig 3.

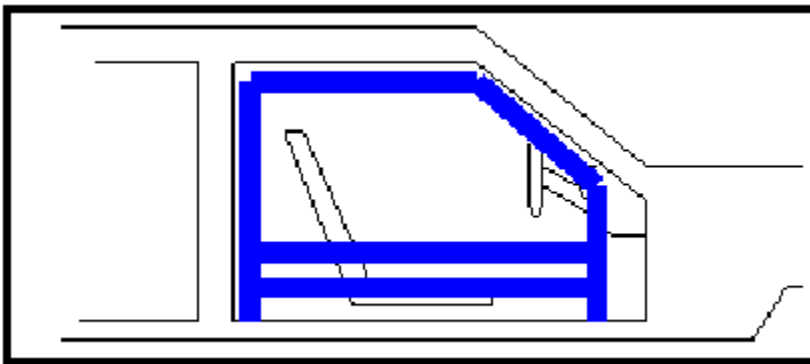
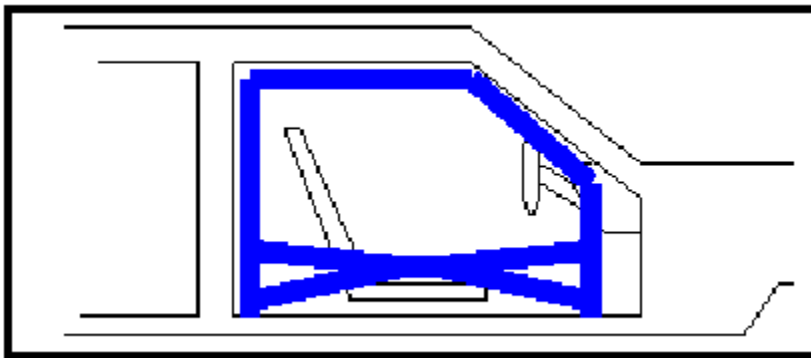


Fig 4.



Please note: The above drawings are for illustration purposes only and are not to scale and



must be not be construed as the correct angles. The driver of any vehicle that requires cage modifications should speak with the Technical Officer of BDC in advance of any modifications.

4.7 Vehicles which retain the original door with OEM side impact protection require only one side impact protection bar as part of the cage - see Fig 2. Vehicles which DO NOT retain the original door with OEM side impact protection require TWO side impact protection bars as part of the cage - see Fig 3. and Fig 4.

4.7.1 Where ever possible door bars should not be bent towards the driver along its length.

4.8 No fluid leaks of any kind from the vehicle are permitted. Any leaks will render the car void for the competition and all catch tanks must be empty at the start of each run.

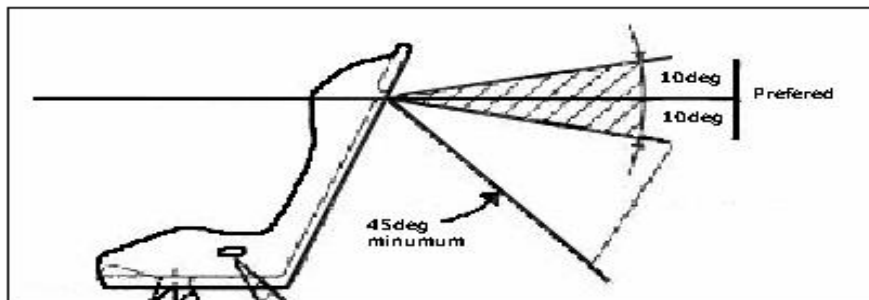
4.9 All doors and bonnets must be serviceable from the outside and all door handles and locking systems must be accessible from the exterior.

4.10 If fuel, oil or a battery is enclosed within the vehicle boot, this must be serviceable from the exterior.

4.11 Vehicles must have a FIA approved racing seat for the driver. This does not have to be in date but must be in good condition (i.e. not showing any signs of stress, cracks or damage to the structure of the seat) and fixed using a minimum of four 8mm bolts (ISO 8.8) and 5 square inch spreader plates. Vehicles that are not also fitted with a passenger FIA racing seat and four point harness are not permitted to take passengers on the track.

4.12 Safety harnesses must be used with a minimum of four fixing points (although we recommend a harness with five fixing points) and comply to SFI or FIA regulations or above. These do not have to be in date but must be in good and serviceable condition (i.e. without any rips or tears and with no loose threads or stitching). Harnesses must be securely attached to the vehicles body or roll cage for both driver and passenger seats and four point harnesses must have four fixing points (and not three). The straps from the shoulders should be mounted as near to horizontal as possible, not using a single fixing point and not on the floor immediately behind the seat. See Fig 8. below:

Fig 8





4.13 All vehicles must be equipped with towing eyes (one at the front and one at the rear) and installed prior to any competition event. These must be clearly visible or an arrow with the word 'tow' painted on the car pointing to the eye if located under the vehicle or out of clear sight. Both the word 'tow' and the actual eye itself must be painted in a contrasting colour and clearly visible.

4.14 All bodywork must be secure and attached to the vehicle. All bonnets and boot lids irrespective of being OEM, Carbon Fibre, FRP etc., must be secured by a minimum of two bonnet pins. OEM locks/latches on the bonnets and boots must be disabled whilst the vehicle is competing and if not removed from the vehicle they must be secured safely.

4.15 All lexan windows must be screwed or bolted in place. The drivers window can be lowered but by no more than 2". The passenger window can be lowered provided there are no passengers travelling in the vehicle.

4.16 All exterior parts must not include any sharp or dangerous objects.

4.17 Vehicles must have battery isolators installed with activation buttons located in a position accessible by the driver when normally seated and an additional button located on the front window splash panel, nearside (UK) and clearly marked with an official sticker. Operation of the cut-out should be tested before every meeting.

4.18 Vehicles must have a serviceable plumbed-in fire extinguisher system of 2.25 litre minimum. Contents permissible: AFFF or Zero 2000 / Zero 360. The system must be able to be activated from outside the vehicle and the activation button should be located on the front window splash panel and clearly marked with an official sticker. An activation button must also be mounted in the driver's compartment, accessible from the driver's position. Fire heads must be a minimum of one inside the driver's compartment and one in the engine bay, directed at the engine – at the area most likely to cause fire.

The fire extinguisher must be serviced and the servicing must be in date.

4.18.1 Hand held fire extinguishers.

All cars must be fitted with a hand held fire extinguisher with a minimum of capacity of 1kg. Contents permissible: AFFF or Zero 2000 / Zero 360. This must be within reach of the driver when seated.

\*\*This rule is now mandatory for the 2012 season. \*\*

4.19 There should be no fuel swirl pots, fuel systems, tanks and pumps installed in the driver's compartment. Any such items must have a firewall between the driver and equipment with no exceptions. The firewall must be sealed to prevent passage of fluids and fire. The fuel-line can be run through the car but it must be a continuous (unbroken) metal pipe or braided and must be fitted on the passenger side of the vehicle.

4.20 All fuel lines and filling devices must be clean and sealed after vehicles are fuelled to



ensure no fuel can escape. Dry break fuel and bobble breathing systems are allowed from recognised manufacturers.

4.21 Original OEM fuel tanks are permitted; racing fuel tanks are also permitted. If the tank filler is contained in the boot, the boot floor should have drainage holes or the filler neck should have a spillage collector that is draining to the outside of the boot.

4.22 Batteries must be securely mounted and all connections in a serviceable and clean condition. Negative leads should be braided or have yellow identifying marking. Batteries housed in the driver compartment must be securely mounted in a sealed and insulated box.

4.23 General vehicle appearance and roadworthiness must be in a good serviceable condition, BDC organisers reserve the right to refuse any vehicle competition entry if this is in question.

4.24 Drivers must wear approved fire protective apparel and safety device/s with a minimum equipment level of: Crash helmet (open face helmets are allowed although we recommend full face), racing overalls, racing boots, gloves and a balaclava must be worn with an open face helmet. Optional equipment recommendation: Fire proof undergarments and HANS device.

4.25 Crash helmets must bear one of the following standards: FIA 8860-2004. SNELL SA2010. SNELL SA2005. SNELL SA2000. SNELL SAH2010. SFI Foundation 31.1A, 31.2A. BS 6658 Type A/FR

As a competitor you are reminded to ensure that your crash helmet is correct fitment and of a usable standard and condition.

\*NB Motorcross helmets will NOT be permitted for use.\*

4.26 Clean Flame-Resistant overalls, must be worn. Flame resistant overalls may be manufactured from

Nomex III, Proban or equivalent materials. These should bear one of the following standards.

FIA 8856-2000, FIA 1986 Standard, BS6249 part 1 Index A or B (but not part C), BSEN533,

EN533:1995 Index 3, ISO 14116, FIA 8856-2000, FIA 1986 Standard.

4.27 Shoes/boots are to cover the whole foot and ankle. Materials tested to ISO 6940 and fastenings and laces to be of non-fusible material. Soles to be manufacturer certified as resistant to hydrocarbons and to flames. Thread used to be flame resistant.