

BUXTON RACEWAY
BOMBER SPECIFICATIONS 2008

ALL CHANGES FROM THE 2007 "BOMBER" RULES WILL APPEAR IN BOLD PRINT

1. - INTRODUCTION.

Bombers are **strictly** a "limited contact, nudge and spin formula".

Whilst still essentially aimed at bringing newcomers into Banger racing, other drivers may still take part at the absolute discretion of the Promotion Team, **including experienced banger drivers, but 7 days clear notice is required.** ~~but dependant upon the level of experience, may be asked to start every race they enter behind the Novice Class (see 2 below). A gap of five cars lengths is required, as normal, and this starting position will be irrespective of grade or any points scored. For ease of reference they will be referred to as the "experienced class"~~

2. - THE RACING.

The Bombers will run the first one lap of each race with **NO CONTACT ALLOWED.** At the end of one lap, the UNION JACK will be shown by the Starter, and then **LIGHT CONTACT** will be permitted with drivers allowed to spin other cars, but not towards the fence, and also allowed is gentle forward contact going into the turns. Cars **MUST PASS** the Union Jack flag **BEFORE** contact is made with a competitor.

It is stressed it is a limited contact formula and drivers who engage in deliberate wrecking tactics will not be permitted to continue in Bombers. If you want to race in a full contact formula, then the National Banger formula is for you.

Drivers who have never raced before are able to begin the Bombers in the Novice Class, whereby they paint a large Black Cross on a White Background on the rear of their cars, and may start their first five race meetings from the **very back.** ~~five car lengths behind the Superstars and five car lengths ahead of any cars in the Experienced Class—see section 1 above.~~

Starting positions will be as follows, with five car lengths gap between the following sections, and until the random draw is complete, those in sections 2, 3 and 4 must wait on the centre.

- 1. All cars eligible for the random draw (ie – those NOT included in any of the following sections).**
- 2. The point's champion, irrespective of points scored, and the current top four drivers in the points chart. Should the current points champion be in the top four then the 5th placed driver will join this section.**
- 3. Experienced banger drivers at the absolute discretion of the Racing Manager/Steward.**
- 4. All eligible novice drivers.**

NO Contact at all is to be made with any car displaying a Black Cross on their car, and neither may a car displaying a Black Cross make contact with any other car.

Any of the following driving infringements will result in a suspension or a complete ban from Bombers.

- Spinning a car towards the fence or corner cutting to spin another car.
- Deliberate following of another vehicle into the fence.
- Driver retaliation (this will be looked at in the same light as the driver who committed the offence).
- Dangerous driving
- Attacking cars off the infield or chasing cars on to the infield.

NOTE: whilst any action not in the spirit of Bomber racing is carefully controlled by the Steward, in the case of a deliberate "follow-in", if proved, this leads to an automatic lifetime ban from the formula. **In the case of a track blockage, the excess hitting of stationery cars will be dealt with as any other driver infringement.**

3. – FITNESS.

Any driver who has suffered concussion as a result of an incident during a race will not be permitted to race again in that meeting. **Any driver who has to seek medical attention for any other reason may continue racing, strictly subject to agreement from the medical team.**

ANY driver, for whom a race has been stopped or suspended because he/she has given the Steward cause to BELIEVE that he/she may be injured, will be excluded from the rest of the meeting for medical reasons.

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4. - SCRUTINEERING.

Arrival at the raceway is required a minimum 1 hour before the advertised start time to allow scrutineering to be carried out. You need to present your car to the scrutineering area to be checked, as soon as possible after arriving at the raceway. The driver must accompany the car, complete with racing overalls, gloves, crash helmet, ~~balaclava~~, all as specified within these rules, and a valid race licence. If you choose to use a neck collar **and/or balaclava (also as specified within these rules, these this** must also be taken to scrutineering.

Drivers who continually arrive late will be penalised.

5. – IMPORTANT NOTE.

When referring to all engine/car construction specifications the principle will always be unless specific permission is made within these rules nothing may be altered or changed in any way to the standard parts, and therefore if it doesn't say you can, you CANNOT DO IT.

6. – CARS ELIGIBLE.

Any saloon car/estate car or van up to 1600cc, front or rear wheel drive. Minimum size must be NO smaller than Escort/Mk3 Fiesta/Sunny and a maximum size of Cavalier/Montego/Sierra. **With effect from 1st May 2008, the Vauxhall Corsa may be used.**

16 valve engines may be used but only if fitted with the original single carburettor as manufactured to that engine.

8 valve twin cam single carburettor engines may also be used. No twin cam/twin carb engines (eg Alfa Romeo/Fiat/Lancia) are allowed.

Single cam twin carb engines may also be used but only if available as standard within the model range.

For fuel injection/carburettor details please refer to section 9.

NOTE the following are EXCLUDED:

Mondeos, Cortinas, Capris, Bluebirds, Stellars, Primeras and A60's.

Also excluded are 4 wheel drive vehicles and diesels.

If you are in any doubt if a car can be used or not you should always check with the construction representative noted in section 29 before starting to prepare it.

~~As an exception, for the Different Tin Meeting only, cars up to 1800cc may be used. However to maintain the theme of Different Tin, drivers must book in the type of car they are using when they book in to race. The car must be acceptable to the Promoter.~~

As an exception for the Different Tin Meeting only, cars up to 2000cc may be used although the maximum kerbweight permitted is limited to 1100kgs. If you are unsure about the proposed cars kerbweight, this can be checked at www.carfolio.com or by contacting your Board of Control Representative. However to maintain the theme of "Different Tin" drivers must book in the type of car they are using when they book in to race. The car must be acceptable to the Promotion Team. You should note that the Triumph Herald is an exclusion.

Please also see section 7 below regarding the filling in of headlamp and rear lamp apertures.

7. – PREPARATION.

Remove all exterior mouldings/headlamps/rearlamps/door handles/bumpers overriders and exterior mirrors.

Remove all glass, interior trim, head linings, floor coverings, and passenger seats.

It is recommended that all obsolete wiring be removed.

Remove spare wheel carriers and tow bars if fitted.

You should NOT FILL HEADLAMP OR REARLAMP APERTURES, except in the case of the Different Tin Meeting, where it is permitted to enhance the overall appearance of these older cars, and is at the Scrutineers discretion. Car grade tin is to be used (Max 1mm thick) and should be secured with M6 screws.

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7. – PREPARATION Contd

Dashboards must be removed, **if possible. You may be required to make an additional brace to secure the steering column.**

The heater unit must be completely removed but the matrix may be retained, although if the is matrix is retained it must be relocated within the confines of the engine bay and must be secured to the absolute satisfaction of the scrutineer.

All WINDOW MECHANISMS MUST be removed from the driver's door.

PLASTIC BUMPERS MUST BE REMOVED, BEFORE ARRIVING AT THE STADIUM.

If this is the only protection for the radiator, the front one only may be replaced by bolting on an Escort/Cortina type bumper (at Scrutineers discretion). No homemade front bumpers. Bumpers may not be welded. **ORIGINAL bumpers may be secured with an additional 3 bolts, maximum M12. These bolts must be fitted vertically to prevent bumper spread.**

8. – BODYWORK.

The front wings may be trimmed below the front bumper level, but no folding.

All doors must be either bolted, chained **or strapped, but must be secured to the satisfaction of the scrutineer.** If bolted, there should be a maximum of **2 4** bolts per door. At least one bolt through pillars is recommended.

9. - ENGINES.

This section is to be read in conjunction with section 6 (Cars eligible) above.

Carburettor/Fuel Injection

1..Fuel injected engines may be converted to carburettors if the engine is manufactured in both forms as standard.

2..Alternatively, if the engine was available with fuel injection only (eg Rover K Series), the inlet manifold may be modified to accept the same manufacturers standard carburettor from an equivalent or smaller sized engine.

3..Vehicles fitted with a single point injection can be used providing they are fitted using the standard Bomber fuel system (section 21) and the fuel pump is replaced with a standard High Pressure Facet type electric pump, which must be fitted inside the car near to the fuel tank.

Please note also note the following considerations

Air filter may be removed.

Everything must remain as manufactured, except for the carburettor/fuel injection details in the section above.

No distributor guards.

Standard exhaust manifold and downpipe, but the middle and back box are free, but must be suitably silenced, to the satisfaction of the Steward.

Alternator may be removed, - but if not the charging wires **MUST** be removed.

Transplants are not allowed.

Engine numbers must be visible as manufactured. Numbers **MUST NOT** be ground off or defaced in any way.

If there is any doubt about the size of an engine it is the drivers responsibility to prove its validity to the Scrutineer.

The ignition switch **MUST** be used – NO bare wires.

Vulnerable standard engine mountings may be replaced with a steel fabricated item.

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10. - BATTERY.

Batteries must be bolted or clamped in position and completely covered with rot-proof material to prevent acid leakage. Batteries should be fitted on, under, or behind the roll bar, NOT in the **front** footwell. They CANNOT be left under the bonnet. Battery cut-off switch is COMPULSORY and SHOULD be fitted in the earth lead. This must be fitted to the rear nearside corner of the car and suitably marked on/off.

11. - RADIATORS.

~~As a general rule radiators are free, but may NOT be removed from original position.~~

~~However in the case of "USED CARS ONLY", and at the absolute discretion of the scrutineer, the radiator may be moved, but it must stay within the confines of the bonnet. Steam Tanks are NOT allowed.~~

Radiators are free but ALL cars must start every meeting with the chosen radiator fitted in the original position.

Should front-end damage occur during the course of racing, which should only be in a few isolated cases in view of the nature of the racing, it is permissible to move the radiator for later races on the same day, but it must stay within the confines of the bonnet compartment, and must be at the absolute discretion of the scrutineer to agree that it is safe and secure. Steam tanks are NOT allowed.

12. - DRIVER'S SEAT

A sturdy driver's seat with a head restraint must be fitted.

As an option to the standard manufacturers seat, bucket / competition type seats may be used.

These may be steel framed, reinforced glassfibre or Kevlar and be professionally manufactured (eg, Recaro, Sparco, OMP, etc) NOT home made. Other EXCLUSIONS are seats containing plywood or hardboard and "Kirkey" type alloy ones.

In all cases, the seat must be securely mounted at shoulder height to the crossbar / rollcage and bolted securely to the floor.

Suitable padding should be placed around the driver's head area as well as sharp edges on the steering column to avoid knee/leg injury.

13. - ROLL BARS.

The Roll Bar must be one complete frame, and constructed from steel. All frames must be welded. Roll bars to be securely bolted to the floor and roof, with four minimum 12mm bolts and suitable washers to the floor and two similar size bolts and washers to the roof.

The frame may be two uprights with crossbar welded. Uprights must have 4" square steel plates welded to the base to stop pushing them through the floor. The minimum thickness of the plates to be 5mm.

Similar size plates may also be used to the roof for fixing purposes.

At least one, maximum two, crossbars must be used to reach to doors or pillars and must have 4" plates welded to both ends to stop them punching through doors. At least one of the crossbars must be at roof level.

Scaffolding poles, Acrows, and related clamps CAN NO LONGER BE USED.

Roll bar materials: Minimum 1 1/2" maximum 3" round or box section tube. Wall thickness to be minimum 3mm.

14. - DOORPLATES & FLOOR PLATES.

A steel plate 10" to 15" deep 3/8 - 3/4" thick must be bolted over the drivers door. This must be fitted with a minimum of 3" and a maximum of 6" past the A & B pillars **at each end** securely bolted with a minimum of 4 bolts. There must be at least 1 bolt through the A pillar and one must be through the B pillar or through the roll cage. The bolt size must be at least 16mm studding or bolt (Only flat plate is allowed, no channel, angle or corrugated steel allowed). 8mm is the smallest size bolt allowed on all other bolts except A & B pillar.

As an alternative to conventional metric nuts & bolts, Spin Bar (aka "DIG DAG") with spinner nuts and suitable washers may be used to secure the doorplate to the car. HOWEVER, spinner nuts may only be used INSIDE the car NOT on the outside. To form a bolt, spin bar may be chamfered and fillet welded into an appropriate sized hole drilled in a piece of minimum 5mm thick steel

plate measuring minimum 75mm x 75mm. This effectively forms a large flat headed bolt which can be passed through the door plate and door pillars from the outside and secured on the inside with spinner nuts and large washers. **These spinner nuts shall be taped to prevent them from coming loose.**

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14. – DOORPLATES & FLOOR PLATES Contd.

A steel plate may be fitted to the drivers floor pan. It must be no thicker than 6mm, and must be bolted and/or welded in. This may be modified to rise to the maximum height of the sill of the door side only.

A 4” steel plate no thicker than 6mm bolted through the A pillar to the doorplate can be welded or bolted to the floor plate.

It is not permitted to cut slots in the driver’s doorplate, holes for bolts only.

15. – SUNROOFS.

All steel sunroofs must be securely shut.

Glass sunroofs should be removed and replaced with a steel sheet 1 ½ mm thick, securely fixed.

16. - GEARBOX AND AXLE.

Gearbox must be as manufactured.

Axle and ratio must be as manufactured.

No locked differentials or limited slips.

17. - BONNETS.

The bonnet must be as originally fitted to the vehicle, and remain in its original position-ie: - it cannot be moved forward. If removable they must be securely fixed. This must be achieved by using either four bolts 3/8th thick or four dig-dag bolts or any combination. **A maximum of two washers may be used on each bolt but must be separate from the crush tube.**

Alternatively triangular corner plates may be fitted to secure the rear of the bonnet by bolting or welding. Plates to be 1/8th inch thick. Plates must be placed no further than 12 inches across or down from the back edge and side of the bonnet. If corner plates are used, the front should be secured by either two bolts 3/8th inch thick or two dig-dag bolts.

The exposed height above the surface for all normal bolts to be 1” maximum. Dig-dag bolts are to be taped so they do not come loose. NO added metal to the bonnets is allowed.

A hole must be cut in the bonnet, near the carburettor, and should be minimum 4” square and maximum 6” square.

Rear Crush Tubes may not be used, but front ones may be up to a maximum of 2” (50mm) outside diameter or 2” (50mm) box, maximum 5mm wall thickness. They cannot be secured by either bolting or welding.

18. - BRAKES.

~~Must remain as manufactured and working on all four wheels.~~ **Brakes must be effective.**

19. - SUSPENSION.

This must remain as standard. **Suspension may not be lowered.**

20. – WHEELS AND TYRES.

Any standard steel or alloy wheel up 6 ½ J, which fits safely, may be used.

Wheel trims and balance weights must be removed.

Tyres are to be of a maximum size of 195 x 60 x 13 or 195 x 60 x 14. No Low profiles below 60 series are allowed.

No Competition tyres, Yokohamas, Avons etc. To stay within the spirit of the formula no NEW tyres may be used.

Tyre gaiters are ~~NOT~~ permitted.

The Promotion reserves the right to review the tyre rule at any time.

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21. – FUEL SYSTEM.

The original fuel tank must be removed and replaced with a fuel tank with a fuel outlet at the top of the tank, with a secure screw-on metal cap, with breather pipe, which must terminate below the tank to be fitted, to a maximum capacity of 2 gallons.

It must be fitted on, under or behind the roll bar, NOT behind the driver and must be securely bolted.

A mechanical shut off tap must be fitted within easy reach of the driver when belted in.

All fuel lines must be routed away from the electrical wiring.

Fuel pipes must be metal or metal covered (braided).

Flexible non-metallic fuel lines may be used to connect metal fuel pipes to the carburettor and the fuel tank to a maximum length of 6”.

In all cases, fuel lines shall be securely clipped to prevent damage (or being tripped over etc).

Please see section 9 (Engines) relating the use of cars fitted with single point injection.

Only standard pump fuel up to and including 100 octane rating is permitted - (Unleaded, 4 star or LRP). No Avgas (aviation fuel). No special mixes or Methanol blends, Nitrous Oxide or octane boosters are permitted.

22. – SEAT BELTS.

Overall the acceptance of the harness for racing, both the condition and fixing, remains at the absolute discretion of the scrutineer.

A full shoulder-type safety harness as approved by ORCi for Bombers with lap-straps must be fitted and bolted to the floor, **behind the drivers seat, or to the roll cage.**

~~From 2nd January 2006~~, a minimum of a four point buckle fixing must be used with a minimum of 3 floor fixings. A secure part of the floor, **behind the drivers seat, or roll cage** (including the seat bar) are recommended anchor points.

Single point buckle fixing harnesses **are not permitted.** ~~Will not be allowed from 2nd January 2006.~~ IE---ALL FOUR STRAPS MUST GO DIRECTLY TO THE BUCKLE

Shoulder pads are strongly recommended.

23. – FIRE EXTINGUISHERS.

A fire extinguisher is highly recommended. If fitted, this should be securely mounted (not taped) within easy reach of the driver. Specification of extinguisher is minimum 1Kg (2.2lbs) either dry powder or CO2 gas, and fitted with a sight gauge. Old type BCF (green) fire extinguishers are not allowed. **It is a requirement that all transporters must carry a fully operational 5kg dry powder gauge fire extinguisher, and this must be adjacent to the car when refuelling is taking place.**

24. – HELMETS and SAFETY EQUIPMENT.

Helmets must be of a minimum standard as directed by British Oval Racing Safety Executive (B.O.R.S.E.). These are BS6658/85 Type A, BS6658/85 Type A/FR, FIA 8860-2004, Snell SA2000, Snell SA2005, SFI Foundation 31.1, SFI Foundation 31.2. The E2205 European standard helmet may be used. Helmets should be made of Fibreglass or Kevlar with no thermoplastic or polycarbonate helmets allowed. NOTE: Snell SA95 is no longer acceptable. **Helmets must fit a drivers head correctly.**

Tinted visors ARE NOT ALLOWED.

Neck braces are recommended, and if used must be marked appropriately.

Fireproof Balaclavas are highly recommended and if used must be marked appropriately.

Fireproof gloves are MANDATORY and must be marked appropriately.

Protective goggles or visors must be worn at all times during racing and practice.

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24. – HELMETS and SAFETY EQUIPMENT – Contd.

A clean pair of fire retardant brightly coloured overalls, minimum Proban, MUST BE WORN. On wet meetings waterproofs may be worn as overgarments.

25. - PAINTWORK.

Bright colours are recommended and a good overall appearance is required. Cars may be neatly signwritten – but NO childish scrawl, or derogatory remarks of any nature, either easily recognisable or intended.

No unpainted cars. The word “Bomber” MUST appear on the rear nearside panel of the car.

~~The whole of a car roof must be painted in that drivers correct grade colour. Drivers not respecting this rule will be penalised.~~

26. - MIRRORS.

May be fitted inside the car ONLY.

27. - NUMBERING.

Your ~~name and~~ racing number MUST be on both sides of the car. Numbers are to be a MINIMUM 16” HIGH x 2” WIDE in contrasting colours. A ROOF FIN IS MANDATORY IN THE CENTRE OF THE ROOF—BLACK ON WHITE. Each number on the Fin must be MINIMUM 9” HIGH x 2” WIDE. The racing number on your bonnet is also strongly recommended to avoid any confusion to Lap Scorers in Race Control, also black on white.

If your number cannot be read, you will NOT be lapscored.

The Points Champion has the option to use racing number “1” during his/her reign. The car roof MUST be painted SILVER.

28. – BEHAVIOUR.

A driver will be held responsible for the behaviour of his or her mechanics or helpers at all times. Drivers will be bound by the decision of the officials in all matters (these two items are a condition of booking).

Mechanics MUST wear clean bright overalls. Their driver’s number on the back is recommended.

29. – DO YOU REQUIRE FURTHER ASSISTANCE?

All queries connected with car construction should be directed to Phil Morris on 07760 117265, who will be happy to assist you. All we ask is that you contact Phil at reasonable hours.

For all other queries you should contact your own Raceway appointed Board of Control representative who is Marc Hampson. Contact Marc on mobile 07737 972828. Again you should only ring at reasonable hours. You can also e-mail Marc at marchampson@buxtonraceway.com

The Promoter can be contacted on 01663 741353 during business hours