

# Crimond Big Banger Rules – 2020

## Any 2020 changes/clarifications in RED

1. Any car or car based van or truck is permitted. No convertibles or wooden frame estate cars. Van Banger only race may use Vans & pickups based on up to 3.5 ton max, twin or single wheeled. People carriers are permitted in the Van Bangers. “NO” engine transplants allowed in Van Bangers.

The vehicle and engine/transmission must remain unmodified and standard at all times. In the event of a driver using a classic or American car, the engine / transmission / suspension from an equally sized modern car may be installed to replace the original fitted. Any driver wishing to carry out this change must first inform committee for clearance / permission **BEFORE** carrying out any changes.

### 1A Engine transplants

General engine transplants are permitted within the following guidelines

- 1 – No Turbocharged engines allowed to be transplanted. No fuel injection allowed on Transplanted engines.
- 2 – Both RWD & FWD cars may transplant engine/gearbox. No converting of FWD To RWD or RWD to FWD allowed.
- 3 – Transplanted engines MUST be of equivalent engine “CC” capacity or smaller. In the case of Crimond Small Bangers, Big Banger type cars may NOT have smaller engines fitted to compete in the “Small Bangers”.
- 4 – Only complete original matching engine/gearbox transplants permitted. Drive Shafts&propshafts may be altered to allow transplant.
- 5 - On transplanted engines the position of the mounts on the engine/gearbox are free But must be within existing rules, (see rule #3). Only minimal additional metal is Allowed on the chassis/subframe to mount the transplanted engine/gearbox. The Purpose is to hold the engine/gearbox and not strengthen the car and also not to be Used for armouring. The Scrutineer’s decision on what is and what is not armouring Is Final.
- 6 – If in doubt about a possible transplant,” ASK” the Committee before carrying Out the Conversion.

2. **Cooling System:** - From 2020 all cooling systems **MUST** be positioned in engine compartment. **NO** radiators permitted inside the car. A Radiator may be used but **MUST** be located in engine compartment.

### **A Water/steam tank in the engine compartment to the following rules is allowed.**

Only rectangular or L shaped tanks are permitted, with no braces. An L shaped tank may extend towards the turret on Passenger (N/S) side of car only. An L extension to the OS/F is permitted only on FWD cars with engine located on N/S of car. (“Ie” Honda). No extension to the N/S would then be allowed. The tank must remain “L” Shaped only.

Any modifications must be within the original bonnet outline.

U shaped tanks are NOT permitted.

Tanks **MUST NOT** extend beyond the front of the engine block.

The front of the engine is classed as the block, not the pulleys or water pump etc.

Tanks must only be secured by four fixings and may not be welded into the car or connected to any door or floor plates in any way. The tank must **NOT** be bolted to or through any part of the chassis, bonnet bolts may go through the water tank but if you choose this option they must not be connected to the chassis in any way & only through the inner wing.

Only two outlets are allowed from the tank.

**Please note** that water tanks are for cooling purposes only and not for strengthening. **ALL parts of the tank MUST carry water.**

The water pump may be removed and blanked off.

Electric water pumps are allowed.

No cutting of bulkheads are allowed.

Tanks must be non-pressurised

An overflow pipe, minimum size 13mm (1/2") must go under the floor of the car and terminate at the back axle.

Water outlets on engine may be modified but not used for armouring.

3. Engines, subframes and differentials may be welded bolted or strapped into position utilising the original mounting points. New mounts when fabricated must be similar in size to the original and not manufactured to strengthen the car.
4. A Distributor guard is **Permitted.** For forward facing distributors or Ignition pack units which protrude past the front of engine. The maximum size of guard is 9"x 9" (225x225mm) with a maximum thickness of 1/4" (6mm). The plate may be bolted or braced using box iron, no bigger than 1"x 1" (25x25mm) and or welded **TO THE ENGINE ONLY, "IE"** you **CANNOT** fit the guard to the Sub-frame or gearbox
5. Batteries may be moved inside car but must be covered, (Recommended that they be placed on or under main roll cage). A master cut off switch must be fitted to R.N.S. corner of car. This must cut power 'as a minimum' to any electric fuel pump system.
6. Fuel tanks/ Fuel system:- Original petrol tank must be removed and replaced with a 2-3 gallon maximum metal tank fitted inside the car on or under the roll cage and must be fitted with a secure metal screw type cap. If however the original tank is an integral part of the body, you must remove as much as possible. The main fuel outlet must always draw fuel from top of any fuel tank and a suitable vent, which should not spill when rolled over, must also come from top of tank and must be terminated below the floor level of the car. A one-way valve in the vent line is compulsory with termination of vent pipe through floor of car. All fuel lines must be in good condition with all connections secure and all lines securely clamped, especially on Fuel injection systems. A fuel shut off valve / Tap must be fitted in main fuel line between tank and engine on non – fuel injection cars. Immersed type fuel pumps are allowed. The power to any electric fuel pump and or fuel injection pump must be cut by master cut off switch.
7. Fuel injection cars can remove the complete injection system and replace it with one carburettor and manifold. The carburettor must be from a similar sized capacity engine and the manifold can be home or factory manufactured. No twin carburettor fitment allowed, (other than what was available as standard for engine used), and no side / down draft performance Carburettors allowed. Injection

systems cannot be fitted to carburettor engined cars. Any proposed Injection / Carburettor changes must be submitted to the committee first for approval.

8. All glass and fire risk materials **MUST** be removed. Removal of the dashboard is **recommended. Removal of any Driver-side lower dashboard storage compartments & centre console is compulsory. ALL Airbags, Drivers & Passengers must be removed and or disabled.**
  9. Front and rear plastic bumpers must be removed but any associated metal retaining brackets may be retained.
  10. **Only road legal "E" marked tyres are permitted. Race/Rally/Track day compounds are NOT permitted. The Scrutineer's decision on what is and what is not "Legal" is final. For season 2016 onwards a list of Tyres that are NOT allowed has been adopted from the "National Banger" rules and is printed at the end of these Crimond Banger rules.**
  11. Differentials must remain standard and unlocked.
  12. Roll cage - minimum is a single hoop in support of door pillars, securely bolted to roof and floor with at least four 12mm (1/2") minimum size bolts, nuts and suitable washers. The hoop may be one piece comprising two uprights and a top cross bar, one additional cross bar between uprights half way between top cross rail and floor is advisable. The roll bar **MUST NOT** have any rear supports. The maximum size of roll bar is 75mm (3") box or tube, minimum size 40mm (1.5") box or tube.
  13. The minimum roll cage size for season 2013 onwards will be increased to 50mm (2.0") Any new roll cage must be built to this standard; any existing roll cage built to old minimum size must be changed out on Scrutineer's recommendation.  
In special circumstances a four-post roll cage is permitted, sizes as per single hoop and must be fully within passenger compartment.
- Van Banger only race roll cage
- Small vans roll cage must be a single hoop as per normal car rules. Large vans, Transit, Sprinter etc., a minimum of a single upright is required, sizes and secured as per car rules, fixed behind Driver's seat and bolted to roof and floor of Van. Where a Plastic or Fibreglass shelled Van is used, EG, (Ice cream Van), a minimum of single hoop roll cage as per car rules is required.
14. Driver's door protection - **COMPULSORY**, a single steel flat plate - 250mm to 330mm (10" to 15") deep, 10mm to 20mm (3/8" to 3/4") thick and must be bolted over the driver's door. No channel, angle, or corrugated steel allowed. The plate must extend between, minimum- 75mm (3") and maximum- 150mm (6") past both A and B pillars and be securely fixed with a minimum of four and a maximum of eight bolts. There must be at least one bolt through the A pillar and one through the B pillar or roll cage. These two bolts must be a minimum diameter of 12mm (1/2") with a 50mm (2") minimum diameter washer on the inside. Except for the two A & B pillar bolts 8mm (5/16") is the smallest diameter bolt allowed. For two door cars with no B pillar, doorplate must be bolted to the roll cage and be no more than half way along rear side panel (where rear door would normally be). Additional internal door bars are permitted but only if secured correctly and it is recommended that additional foam padding be fitted.
  15. A Driver's door quick release window net is recommended.

16. All panels, including wings, must be in place at start of meeting, doors can be bolted shut with maximum of 4 bolts in each door or 2 x 12” square spreader plates used with maximum 5 bolts. Drivers door must be fixed shut . Seam welding not permitted except for driver’s door. Bonnet corners can be fitted up to 300 x 300 x 425mm

## **SAFETY EQUIPMENT**

- Flame retardant racing suits are compulsory. Neck braces & Frontal Head Restraint Systems may be used. Fireproof Balaclavas are MANDATORY. Fireproof gloves are MANDATORY and must be marked appropriately.
- A full shoulder-type safety harness as approved by ORCi for Bangers with lap-straps must be fitted and bolted to the floor.
- A minimum of a four-point buckle fixing must be used with a minimum of 3 floor fixings. A secure part of the floor or cage (including the seat bar), are recommended anchor points.
- A suitable head restraint must be fitted to the roll cage or seat. It is compulsory to pad roll cages by the drivers head including the B pillar and steering columns must also be padded with foam.
- A 1Kg Dry Powder Gauge Fire Extinguisher may be fitted, this should be in a tube with a spring top and should be within easy reach of the driver. Old type BCF (green) type extinguishers are not allowed. All tow vehicles, must carry a minimum of a 2kg fire extinguisher dry powder or gas, which must be within easy reach of the driver and mechanics at all times, especially when refuelling.
- Helmets MUST meet or exceed the MINIMUM standard as directed by BORSE. The current approved standards are:
  - FIA8860-2004, FIA 8860-2010, FIA 8859-2015
  - Snell SA2005, Snell SA2010, Snell SAH2010, Snell SA2015, Snell EA2016
  - SFI Foundation 31.1A, SFI Foundation 31.2A, SFI 31.1
  - ECE R22.05 (in Fibreglass, Carbon or Tri-Composite form ONLY)
- The use of polycarbonate helmets is NOT permitted.
- It is important that the helmet fits the driver correctly. Shatterproof goggles/visors must be worn although tinted visors are not advisable. Your helmet must display the current ORCi (ORC15) sticker.
- On wet meetings waterproofs may be worn as over garments.

17. Securing Bolts – a maximum of 4 bolts allowed to secure bonnet and / or boot, but must not protrude to present danger or injury to driver or fellow competitors. Crush tubes over bolts permitted but welding of bolts or crush tubes to chassis or spread plates prohibited.

18. Tow bars must be removed and no additional bars allowed.

19. 1400CC & Micro Banger meetings will use the National Banger rules for these formulas. (See separate rules)

20. **Ladies Bangers:** - Cars will be built to the same construction rules as listed in these rules. Cars up to a maximum capacity of 2000cc only, **NO** Turbo or Supercharged Petrol engines allowed. Original Diesel Turbo engines are allowed. This formula is a minimum contact formula, **“IE”** Nudge & Spin.

21. **Contact is permitted only on track, which includes corner areas, attacking from or hiding in the infield will result in disqualification and will incur a penalty. A car that drives or ends up in the safe areas of the track may not re-join the race unless they were pushed/spun into safe area by a fellow competitor. If re-joining they must re-join track, (As close as possible), at the point they were pushed/spun into safe area.**
22. **NO turning around or doing a “U” turn to go the wrong way around the track. (Unless to recover from spin etc)**

**NO head on car to car Permitted.**

**A follow in IS permitted, BUT NO full length of the straight follow in is Allowed.**

**A“T” bone is permitted, but not when car or cars are against safety barriers.**

**If the meeting Steward and or officials deem a “T” bone to be to excessive the driver will be punished.**

**The “ONE” lap National rule for hitting a stationary car will be applied. (i.e. if you are about to pass a stationary car for the second time, you may NOT hit it)**

**If a red flag is shown during a race, drivers MUST slow down and come to a stop as soon as it safe to do so. Do not move once stopped until instructed to move by a track official.**

**Drivers are reminded that they Must stay in their cars during a race unless it is for their own safety, (car on fire etc).**

**Any driver who vacates their car during a race suspension/stoppage must leave the track via the pit gate and return to their car once the race has finished.**

23. **Driver grading: - For 2020 onwards driver grading will be done by roof colours, RED, BLUE, YELLOW & WHITE. Complete roof to be painted in correct colour or a minimum square of 900 X 900 mm. Final 2019 track championship points will be used to grade Crimond drivers for the start of the 2020 season. Drivers MUST have their correct roof colour on their car for start of meeting. NO roof colour or incorrect roof colour and driver will not be allowed to race.**
24. **Race starts: - From March 22<sup>nd</sup> 2020 onwards Crimond Banger races will have a rolling start. Lady Banger races will re-tain a standing start.**

**Raceivers. From 2021 onwards a driver Raceiver MUST be used by all Banger drivers when competing on track. These allow the race officials to speak to the Banger drivers during a race. The system will be live from the first race meeting of 2021 and ALL Banger drivers must have one. No Raceiver and the driver will NOT be allowed to race.**

25.

Welding to steering and suspension components is permitted where it has been damaged during racing.

Cars presented at scrutineering with welding which is considered excessive or illegal may be given the opportunity to remove the offending parts. If this is not completed on race day the DRIVER AND CAR will be banned for up to one year. Deliberate concealing of welding / fabrication work with under seal /paint or “boxing in” WILL result in a DRIVER AND CAR ban.

**22:- Transponder** A Identisports in-car transponder will be compulsory in the Crimond Bangers. These can be purchased from the track office.

These transponders must be mounted in the car in the passenger compartment, not forward of the windscreen aperture and above the top of the door level with the red LED light facing towards the outside of the track and be able to be seen from outside the car.

At the 2012 AGM the Banger drivers voted for the ORCI National Banger car construction rules to be allowed at Crimond raceway to run alongside the current Crimond Banger rules.

**The National rules are permitted with two exceptions: - NO deliberate lowering of cars & Engines to remain as standard & unmodified.**

Drivers can build their cars to either rules, but NO crossover of the rules allowed, “IE” cars must be either Crimond rules built or National rules built.

The Current Crimond Banger general rules will still apply to Big Banger & Lady Banger car construction rules.

Tyres **“THAT are not allowed”** are listed below:-

<p><b>AVON</b></p> <ul style="list-style-type: none"> <li>• ACB 10 Sport</li> <li>• CR6ZZ (Including Sport)</li> <li>• Turbospeed CR28 Sport</li> <li>• CR500</li> <li>• ZZR</li> </ul> <p><b>BRIDGESTONE</b></p> <ul style="list-style-type: none"> <li>• Potenza S007 RFT</li> </ul> <p><b>CONTINENTAL</b></p> <ul style="list-style-type: none"> <li>• ContiForce Contact</li> </ul> <p><b>DMACK</b></p> <ul style="list-style-type: none"> <li>• Trackday</li> </ul> <p><b>DUNLOP</b></p> <ul style="list-style-type: none"> <li>• Formula R D83J</li> <li>• Formula R D84J</li> <li>• Formula R D93J</li> <li>• Direzza 02G</li> <li>• Direzza 03G</li> <li>• CR 311</li> <li>• Sport Maxx Race</li> <li>• SP Sport R7</li> </ul> <p><b>FEDERAL</b></p> <ul style="list-style-type: none"> <li>• 595 EVO</li> <li>• 595 RSR</li> <li>• FZ 201</li> </ul>	<p><b>GOODYEAR</b></p> <ul style="list-style-type: none"> <li>• EAGLE F1</li> </ul> <p><b>HANKOOK</b></p> <ul style="list-style-type: none"> <li>• Z209</li> <li>• Z210</li> </ul> <p><b>KUMHO</b></p> <ul style="list-style-type: none"> <li>• Ecsta V700 (inc V78)</li> <li>• Ecsta V70A</li> <li>• Ecsta TW01</li> <li>• Ecsta TW02</li> <li>• Ecsta C03</li> </ul> <p><b>MARANGONI</b></p> <ul style="list-style-type: none"> <li>• Zeta Linea Sport</li> </ul> <p><b>MAXXIS</b></p> <ul style="list-style-type: none"> <li>• Maz1 Drift</li> </ul> <p><b>MAXSPORT</b></p> <ul style="list-style-type: none"> <li>• RB4 Intermediate</li> <li>• RB5</li> </ul> <p><b>MICHELIN</b></p> <ul style="list-style-type: none"> <li>• Pilot Sport Cup</li> <li>• Pilot Sport Cup 2</li> <li>• TB 15</li> <li>• TB 15 (f &amp; r)</li> </ul>	<p><b>NANGKANG</b></p> <ul style="list-style-type: none"> <li>• NS-2R</li> </ul> <p><b>PIRELLI</b></p> <ul style="list-style-type: none"> <li>• P Zero Trofeo</li> <li>• P Zero C</li> <li>• CA67</li> <li>• CF67</li> <li>• P Zero Corsa</li> <li>• P7 Corsa Classic</li> <li>• P Zeri Torfeo R12</li> </ul> <p><b>SILVERSTONE</b></p> <ul style="list-style-type: none"> <li>• FTZ Sport RR</li> <li>• FTZ Wet Tyre</li> <li>• S575</li> <li>• S585</li> <li>•</li> </ul> <p><b>SYRON</b> ALL SIZES &amp; Types</p> <p><b>TOYO</b></p> <ul style="list-style-type: none"> <li>• R888</li> <li>• R1-R</li> </ul> <p><b>YOKOHAMA</b></p> <ul style="list-style-type: none"> <li>• All AO type Tyres, “IE”= AO21/48 etc.</li> </ul>
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*In addition to the above table No “run flat” tyres, no 1B rated ‘Track-day’ tyres, no Rally tyres or competition type or cut tyres.*

**Decisions on which tyres are permitted will be at Scrutineer’s discretion.**

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