



## 2021 BTRDA CLUBMAN'S RALLYCROSS CHAMPIONSHIP

### Appendix 5

### Junior Rallycross Technical Regulations

**All cars must comply fully with the 2021 Motorsport UK Blue Book regulations sections J, K and N.6.1 to N.7.1.23.3 as appropriate.**

**It should be clearly understood that unless a modification or removal/change of an item is specifically permitted by these regulations, that any modification or removal/change or repositioning of an item is prohibited. The provision of evidence to determine eligibility is the responsibility of the entrant/driver.**

The term '**make**' refers to the manufacturer of the vehicle.

The term '**model**' refers to the product ONLY. It does not refer to the model variants, trim level or specification.

As per the Motorsport UK yearbook, the term **standard** implies that the specification, features, location and method of operation of a part are as supplied when new by the motor manufacturer for the model and date of car as shown on the entry form. Eligibility reference for any parts or assemblies is by reference to manufacturer's official publications, the relevant Haynes manuals, and Autodata Workshop Application ONLY.

**7.1.** The only category of vehicle permitted in Junior Rallycross events, are those complying with the following (as approved by the Motorsport UK):

**7.1.1.** Be a Series Production Car, front or rear wheel drive complying with the provisions of Sections J, K, and N.6.1 to N.6. 14. Production cars are 2-wheel drive four-seater hatchbacks that must meet the definition of a series production car. The Junior Rallycross Class is for hatchback cars that are or have been available on general sale to the public in the UK and are at least 3 years old. Competitors must be able to produce proof of date of registration and production upon request. Forced induction and turbo charging is prohibited.

**7.1.2.** Be specifically authorised by Motorsport UK by issue of a Junior Rallycross Competition Car Logbook. The vehicle may not be used in competition until the Junior Rallycross Competition Car Logbook has been validated by Motorsport UK and returned to the vehicle owner.

**7.1.3.** The engine must be naturally aspirated and must not have a capacity exceeding 1400cc. Suggested cars include: Ford KA, Rover Mini, Suzuki Swift, Nissan Micra, Renault Clio, Toyota Starlet.

**7.1.4.** The cylinder head and block must remain as originally supplied by the Manufacturer as a Standard Part for that model.

**7.1.5.** Where the car is fitted as standard with an ECU then that ECU must remain fitted and as specified by the Championship Regulations.

**7.1.6.** The engine cooling system must remain standard to the vehicle.

**7.1.7.** Induction systems, inlet manifolds and exhaust systems must remain standard to the vehicle.

Performance air filters and exhaust back boxes are permitted (J.5.18. applies).

**7.1.8.** At any time, Motorsport UK may impose further restrictions to limit engine performance.

**7.1.9.** The silhouette of the vehicle must not be altered.

**7.1.10.** The body shell must be of the vehicle manufacturers specifications and minimum thickness with the exception of rear wings/rear quarter panels and removable parts and panels, which may be of alternative materials. Seam welding, and localised gussets/reinforcement is permitted.

**7.1.11.** The dashboard is to remain as standard, in the original position and the standard instruments retained and operable.

**7.1.12.** All other interior trim must be removed including carpets, roof lining and passenger seats. Interior door panels may be replaced with an alternate nonflammable material.

**7.1.13.(a)** All window glass to be replaced with polycarbonate as per Motorsport UK yearbook 7.1.13. J.5.20.8 applies (thickness not less than 4mm).

**7.1.13(b)** Consideration must be given to driver's compartment ventilation and for this purpose it is permitted to cut a maximum of four, 50mm holes in each of the rear side and tailgate windows. A vent hole may be added to the driver's door window large enough to accept the driver's arm then window webbing must be fitted. An operative windscreen wiper/washer system is required.

**7.1.14.** Glass sunroofs are not permitted. Sunroofs may be of a non-shattering solid rigid material other than glass. Any sunroof must be firmly secured in the closed position. The sunroof aperture may be closed by solid metallic material permanently fitted in place.

**7.1.15.** An interior rear-view mirror must be fitted to the vehicle.

**7.1.16.** All vehicles must have substantial underbody protection covering any area of both the fuel tank and engine sump exposed to running damage.



**7.1.17.** The handbrake system is to remain as standard.

**7.1.18.** Mud flaps are to be fitted behind all 4 wheels, in accordance with N.6.9

**7.1.19.** Wheels must be of the standard production size and material applicable to the vehicle.

**7.1.20.** The steering column is to remain as standard (N.6.14.2 applies). The steering wheel and mounting hub are free.

**7.1.21.** Standard production gearbox and differential applicable to the vehicle must be used.

**7.1.22.** The original method of suspension operation must be retained and utilise the mounting points as provided by the manufacturer. Shock absorbers and coil springs may be uprated and adjustable.

## **7. Safety**

**7.1.23.** In addition to the requirements of section K, and N.6.11 to N.6.12.:

**7.1.23.1.** Double longitudinal door bars must be fitted to the driver's side of the roll cage in accordance with Section K Appendix 2 Drawing No 12(g) or 12(h).

**7.1.23.2.** Fire Extinguisher in accordance with K3.1.2(a).

**7.1.23.3.** Seats must comply with N6.13.6 and N6.13.6.1 and K2.2 to K2.2.3 inclusively. As per the Motorsport UK Yearbook Section N6.13.6 it is mandatory for all seats to be FIA homologated from 2021. As per N6.13.6.1 FIA homologated seats manufactured to FIA Standard 8855-1999 may be used for up to two years beyond the expiration of the original homologation label validity. FIA homologated seats manufactured to FIA Standard 8862-2009 may be used until 31st December of the year stated on the label. The seat must be entirely mounted to one side of the vehicle's centreline.

**7.1.23.4.** A six-point FIA homologated harness in accordance with Section K 2.1.4. is mandatory.

**7.1.23.5.** An ignition cut-off switch having positive on / off positions clearly marked, must be fitted in a position to be operable by the driver when normally seated. It must also isolate the fuel pump. A spark proof master cut-off switch must be fitted externally wither at the rear of the car, or below windscreen and be readily accessible whatever the attitude of the vehicle following an accident. The switch must be clearly marked with a red spark on a white edged blue triangle and On / Off positions clearly marked. Refer to Section K 8.1 – K 8.5.

**7.1.24.** Both front and rear bulkheads **MUST** be effectively fire proofed, so as to seal off the driver's compartment from fire within the engine compartment and boot. Refer to Section J 5.2.2.

**7.1.25.** Vehicles must be equipped with a positive method of throttle closing in the event of a linkage failure, by means of an external spring to the throttle spindle. A secondary throttle return spring is strongly

recommended. (Providing this system was originally fitted by the manufacturer)

**7.1.26.** A crash helmet to Motorsport UK Requirements with appropriate approval stickers attached should be worn at all times during training, practice and racing. Refer to K 10.3.1.

**7.1.27.** Clothing whilst driving must cover the arms and be fastened at the neck. Clean fire-resistant overalls in accordance with Section K 9.1 – K 9.3. are required.

FOR JUNIOR DRIVERS: Flame resistant gloves, balaclavas and underwear are mandatory. (*Senior drivers minimum as per N5.9.3 - N5.9.4*)

Plastic shoes (such as trainers) are prohibited.

**7.1.28.** Where the driver's body or crash helmet could come into contact with the safety cage, FIA approved padding must be fitted for protection

**7.1.29.** Window nets must be fitted on the driver's side of the vehicle

## **8. Chassis and Bodywork**

**8.1** The body shell must be of the vehicle manufacturers specifications and minimum thickness with the exception of rear wings/rear quarter panels and removable parts and panels, which may be of alternative materials. Seam welding, and localised gussets/reinforcement is permitted.

**8.1.2** Head lamp blanks and sump guards are mandatory.

**8.1.3** Windscreen washers are free but must be in working order.

**8.1.4** Throttle, Brake and Clutch pedal pads are free.

**8.1.5** The exhaust manifold and system must be original.

All cars **MUST** adhere with a 100db limit. Failure to comply to this rule will mean an immediate black flag from any practice, heat or final and could result in exclusion from the meeting/event.

**8.1.6** Engine mountings may be uprated.

## **9. Electrical Equipment**

**9.1.** A 'poor visibility' light should be fitted according to Section K 5.1 – K 5.2. The light should be switchable from the driver's seated position.

**9.1.1.** The original lighting wiring loom must be retained. It may be removed from its original location providing it is neatly and securely attached to the body shell.

## **10. Weights**

**10.1** A minimum weight, including driver in full racing apparel, is 950kg.

**10.2** Any ballast required to achieve the minimum weight must be fitted in accordance with Section J 5.15.1, 5.15.2 and J 5.15.4.

**10.3** The BTRDA Rallycross committee reserve the right to equalise performance by altering specific vehicle weights. A maximum of 30kg may be added at any time. Where this regulation is enforced the



weight established will be published in a Championship Bulletin issued prior to the next event.

### **11 Tyres**

**11.1** Standard alloy or steel wheels must be used, with a standard offset.

**11.2** Tyres must be road legal and thread MUST not be scrubbed/machined in any way. 'Road legal' refers to the condition of the tyres, thus meaning that when on track the tyres must meet MOT standards regarding tread depth and condition.

**11.3** Mud and snow tyres are not permitted.

**11.4** Any tyre from Motorsport UK lists 1A, 1B or 1C can be used in rounds 1, 2 and 3 unless specified in Championship Regulations. 2021 will act as a transition year to allow competitors to make use of remaining tyre supplies. From round 4 onwards, the controlled tyre manufacturer will be Cooper Tires. The **only** permitted tyre for use is the Cooper branded RS3-R. This will continue in 2022 and 2023.

### **12. Fuel Tank/Fuel**

**12.1.** The standard fuel tank MUST be retained in the original position. It is not permitted to modify fuel tank in any way. Fuel lines are free, and consideration should be given to the route taken and materials used to minimize any likely damage and reduce the danger of fire. Fuel filter is free. Only Pump fuel can be used.

### **13. Telemetry / Voice communications**

**13.1** Any form of wireless data transmission between the vehicle and any person and/or equipment (other than that required by the timekeepers) is prohibited while the car is on the track. Pit to car radio by any means, including the use of mobile phones, whilst on track is not permitted.

**13.2** Data transmission through a temporary physical connection is allowed in the paddock only.