

# 2018 BRISCA MICRO STOCK CARS

## Technical Information & Procedures



Brisca Micro Stock Cars are an introductory junior class of short oval motor racing. The aim of Brisca Micro Stock Cars is to offer a fun way for young drivers to start racing. Racing should be enjoyable fun; where there is little emphasis on intense competitiveness.

**FROM 1 MARCH 2017 CARS MANUFACTURED IN NORTHERN IRELAND ARE NOT PERMITTED FOR REGISTRATION/GENERAL USE IN ENGLAND/SCOTLAND.**

### **VIOLATIONS**

When referring to these technical specifications regarding any items such as engine, mechanical or construction, the principle will always be: unless permission is specifically granted to make modifications, or any variation, nothing may be done to alter or change in any way the standard Parts. Unless these rules state you can do it, you CANNOT DO IT.

**Violations or any refusal of a scrutineering check may result in an immediate suspension of all racing facilities.** Scrutineering checks, on any item such as fuel, engines, exhausts, air filters, can be carried out at any time. If parts are suspected of being illegal you must leave them with the promotion if you do not agree. If you refuse it will automatically make the parts illegal.

You are required to arrive at least one hour before the published start time of an event. Should you not be there in that time you may be precluded from taking part in your first race.

**It is the responsibility of the parent/guardian to prove to Brisca F2 that the part is legal by the way of written proof of where the part originated. This must be done within seven days, otherwise the part(s) in question will be deemed to be illegal and will result in immediate suspension from racing and referral for disciplinary action.**

***Failure to respond to a reasonable request from a Scrutineer will result in an immediate suspension of racing rights.***

### **1. DRIVER REQUIREMENTS**

- The minimum age to compete is 7 years old and all drivers will end on their 11th birthday.
- However, an application may be made to allow a driver to continue for up to **three** ~~six~~ months beyond their 11<sup>th</sup> birthday to enable them to gain more confidence before taking up a further junior formula. This application is not automatically granted and will be considered on an individual basis, and only if their height and weight is suitable for the cars, and that their level of competence does not exceed the general standard of other competitors. For this application to be successful the driver must have competed for at least 12 months in this formula prior to their 11<sup>th</sup> birthday.
- **New applicants are required to complete the ORCi Junior Competence Test, which includes a multiple choice written test and a basic driving skills test before a licence will be issued. This is chargeable at £50 and must be arranged with your nearest promotion.**
- New drivers will be deemed to be 'ROOKIE' drivers for up to their first THREE meetings and must start at the rear of the grid. It is advised that they display a black cross on a white background (minimum size 200mm square) on the rear of their car during this period. Depending on competence, a driver may be permitted by the staging promotion to move to the front of the grid after two meetings as a Rookie.

## 2. THE CAR

- All BriSCA Micro Stock Cars (here on in referred to as the car) must be manufactured by the BriSCA F2 official supplier ONLY.
- Cars are manufactured to strict specifications and all parts must remain as ex-factory condition.
- The chassis must not be altered in anyway, for example no twisting or realigning.
- The chassis must remain in its manufactured form. No ballast permitted. All RHS/SHS/CHS steel must remain hollow. **Removal of any steel work such as structural cross braces is not permitted.**
- All chassis are supplied with an official VIN plate which is located on the very front of the chassis facing the front bumper as circled in the photo. This remains on the chassis even if the car is sold to a new owner.
- **One car only is permitted to be registered to any given licenced driver in any one season. However, in exceptional circumstances, i.e. number of race meetings attended in a season or race damage, a driver may with the agreement of BriSCA F2 register a second car in their name.**
- If a car is purchased secondhand the chassis VIN plate needs to be re-registered to the new owner, via BriSCA F2, and a fee of £25 applies.
- The chassis VIN plate must be registered with BriSCA F2. Failure to do so will prevent that particular chassis from being used.
- The following maybe replaced or updated without requirement for BriSCA F2 to carry out the repair; panelling to include cab sides, steel cab floor (min 2mm thick), steel cab sides (min 1.2mm thick), wheel guards.
- The addition of flared sides or scoops to the bonnet are only permitted by prior agreement with BriSCA F2. If approval is granted the original bonnet must not be cut in any way to accommodate such items.
- **The original bonnet front steel hoop (as supplied by BriSCA F2) must be used and in place at all times.**
- Cars that need major repairs that involve repairs to mounting points, roll cages or main chassis must have these done by the authorised BriSCA F2 supplier.
- ~~The following items do not have to be sourced through BriSCA F2; rear axle mounting bearings, axle shaft pillow block bearings, 22 teeth taper centre pulleys, front hub bearings, throttle cables, steering wheel components, batteries, pedals and drive belts. However all of these items MUST be direct replacements to the original items.~~
- **All bolt on items must be supplied through BriSCA F2** to include; wheels and tyres, rear axle mounting bearings, axle shaft pillow block bearings, 22 teeth taper centre pulleys, front hub bearings, throttle cables, batteries, drive belts, front stub axles, front axle, front hubs, steering rack, exhaust, rear axle, rear wheel hubs, sprocket, fuel tank, clutch (max torque or Chinese copy), brake disc, brake calliper, master cylinder, **front bumper and rear bumper. All items must remain as supplied.**
- The cab floor must be constructed from a minimum of 2mm thick steel plate. It must extend rearwards **from the firewall** beyond the point at which it overlaps in a vertical plane (across the entire width of the car) with the transverse front edge of the driver's seat. The cab floor must cover the full width of the area between the chassis rails along the floor's entire length.
- The cab floor must be welded to the chassis on all sides but does not have to be seam welded.
- No drilling or lightening of any panels or the chassis is permitted.
- The nerf rails maybe closed in, particularly to protect the drive gear, and this is free.
- Bumpers must be constructed from RHS 50mm x 25mm with a maximum 2.5mm wall thickness.
- **A secondary hoop under the bumper is permitted, but this must be identical to the hoop on the top of the bumper (16mm sold bar). This hoop must be supplied by BriSCA F2.**
- Rear bumpers maybe bolt on, but must be securely attached with minimum M8 bolts.



- *The under carriage below the rear axle mounting points maybe removed (as show in the diagram opposite) to allow easy axle removal. However, if this modification is made, then the piece of tube removed must be welded to a piece of flat steel minimum 2mm thick and 30mm wide and bolted to the chassis below the axle mounting points with minimum M8 bolts. Alternatively, a piece of flat steel minimum 5mm thick and 30mm wide can be bolted in the same manner. If both sides of the undercarriage have been cut in this manner, then both sides must have replacement plate bolted in as described.*



- *Two steel tube down bars, each side of the car, connecting the outer edge of the nerf rail to the lower chassis are mandatory and are made of 21.3mm tube with 3mm wall thickness.*

- *To increase protection to the driver's footwell it is required as a minimum to add a horizontal bar made of 20mm x 20mm (2mm wall thickness) to each side of the footwell to make an 'H' (as pictured). It is required to fit an extra vertical upright on one side to achieve this, which has a minimum specification of 25mm x 25mm (2mm wall thickness).*



- *Alternatively, a 2mm thick steel plate can be attached both sides, to the inside of the footwell. This must cover the entire aperture (shown in red opposite) and be bolted (for 2018 only) or welded in place. If the former, then it must be bolted on each side with a minimum M8 bolts.*

- *No aluminium rose joints.*

- *All cars (complete with race wing) must weight a minimum of 207kg at any time without the driver. The car must always achieve the minimum weight; the adding of fuel or any other liquids is not allowed to achieve this minimum weight.*

- *If a car is required to add additional steel to achieve the above, then this must be done by adding steel plate to the cab floor only. This must be securely welded in place (must not be removable) and must be mounted symmetrically in the car.*

### **3. ENGINE & DRIVE GEAR**

- The engine must be supplied direct from BriSCA F2. This is supplied fully sealed, dyno tested and de-governed. All engine seals must remain intact at all times.
- The only engine permitted for use is the electric start PD170 engine or the Launtop LT210 running either a ¾", 19mm or 20mm shaft and ***all self starters must be effective at all times.***
- If a seal is broken the engine must be re-dyno tested before it can race again at the owners expense. ***If you require a starter motor or coil pack to be changed you must inform BriSCA F2 and a replacement seal will be added at your expense. The engine maybe required to be re-dyno tested at your expense.***
- No modifications shall be permitted in any way whatsoever to any part of the engine or exhaust. ***This also prohibits the removal of the internal charging system.***
- Engines may be removed for stripping at any time. If the engine appears to have been tampered with in any way the owner will have to stand the expense of the strip down and will be subject to disciplinary measures. If the engine suffers a coil pack failure then this may be replaced by the owner but must be re-presented to have a new seal fitted before being allowed to race again. All owners may carry out a basic service such as changing plug, oils & filters, setting tappetts, other than that, nothing may be done to alter or modify the engine in any way whatsoever unless it is specifically stated within these regulations.
- The only spark plugs permitted are the NGK BPR6ES or NGK BPR5ES.
- The emulsion tube and Jet must remain as dyno tested.

- The only clutch permitted is a 10 tooth, ¾" shaft dry centrifugal clutch (**MaxTorue or Chinese copy**) as provided by BriSCA F2. **This must remain unaltered for example, no spring changes.**
- The only pulley permitted is a 22 tooth pulley on both the engine and clutch shaft.
- The 62 teeth steel rear sprocket is only available through BriSCA F2.
- No other ratio sprockets or clutches shall be permitted.
- A suitable steel or aluminium chain guard must be fitted. This must adequately cover the rear sprocket/chain. The scrutineers decision will be final in determining if the guard is sufficient.
- A 2000 8m drive belt is the only belt permitted for use and is supplied by BriSCA F2.
- Drive belt tensioners maybe fitted, however if they are, their fitment must be sufficient not to work loose under load.
- There will be an engine claimer rule. Any driver who feels that another driver has a superior engine may, through BriSCA F2, make a claim for the compulsory transfer of ownership of the engine in question. In return he/she will be required to purchase a matching type replacement engine to be given to the other driver together with a sum of £30. The engine exchange rule can only be applied after the final race of a meeting. This includes the complete engine with ancillaries, with the exception of the clutch and starter switches. The engine must be removed in front of a BriSCA F2 official.
- The plastic air filter cover box must remain in place and must not have any additional holes. All air filters and covers must remain as standard type.
- The rear axle must be solid steel as provided by BriSCA F2, and drive must be provided to both rear wheels at all times. **The rear axle bearings maybe mounted on either the inside face or the outside face of the chassis. Relocating, slotting or enlarging rear axle bearing mounting points is not permitted. The rear axle must sit centrally and level in the car.**

#### 4. ROLL CAGE

- The rollcage and all supports from the chassis up must remain as originally fitted.
- All cars are required to have a steel side plate fitted in both cab sides between the tubular connecting bars. SEE PICTURE FOR AREA CIRCLED. These must be constructed from steel plate no less than 1.2mm thick and **welded on both the vertical sides and the top** all sides.
- Furthermore a steel plate minimum of 1.2mm thick must be welded on all sides into the back of the lower half of the cab. This must occupy the full width between the two vertical roll cage pillars, the horizontal cross member and the chassis.
- Older cars are required to add either an additional centre roll cage pillar in the area behind the driver's seat (33mm tube x 3mm wall thickness) or two rollcage braces as pictured below (min 26.9mm tube x 2.5mm wall). It is also acceptable to mount a steel plate to the roll cage (minimum thickness 3mm) to prevent direct contact with driver's seat on a rear impact.



#### 5. Roof Wing

- All cars must run a top mounted roof wing supplied by **BriSCA F2. This includes a standard folded wing or an "F2" style wing.**
- This must be mounted over the cab and centrally on the car, so that it does not sit more over one side of the cab than the other.
- The wing must have no more than two side plates and one centre section.

- *If a standard folded wing it must have a centre section of: 750mm along the car, 765mm across the car. One side plate of 750mm long, by 190mm high and one of 750mm long by 315mm high.*
- *If an F2 style wing it must have a centre section of: 740mm along the car, 770mm across the car. One side plate of 800mm long, by 260mm high and one of 800mm long by 380mm high.*
- *The only Superstox style wings permitted are those manufactured and supplied by BriSCA F2.*

## 6. WHEELS & TYRES

- The only tyre permitted for use is the 18 x 8.50-8, 4ply PART NUMBER P509 as supplied by BriSCA F2. The following brands are permitted, WANDA and Kenda for 2018. **From 1 March 2019 only the Wanda brand are permitted.**
- The only rims permitted are the steel rims supplied by BriSCA F2.
- ***Balancing of wheels, and wheel weights are not permitted.***
- All identification marks must remain on tyres. No tyre flaps allowed. Buffing of tyres is not allowed. Tyre softener is not allowed.
- Tyres must only be filled with air and must not be re-grooved.
- The only wheel rim permitted is the steel rim supplied by BriSCA F2 and this MUST remain unmodified.
- All wheel nuts must be in place for racing.
- Steel wheel guards protecting both rear wheels, as fitted as standard are compulsory. Both rear wheel guards must be present at all times and ***securely fixed tight at all times.*** No aluminium wheel guards permitted.

## 7. SUSPENSION & STEERING

- Suspension/steering components must remain as supplied by BriSCA F2.
- Suspension/steering mounting points must not be altered in any way.
- No offsetting/tilting of suspension is permitted beyond that which is allowed via adjustment of the rose joints and mounting bolt. All suspension components must remain symmetrical on the car e.g. the rear axle must be mounted centrally in the car on a horizontal plane.
- The steering column only may be modified or repositioned to suit the driver, quick release steering wheels are permitted.

## 8. FUEL SYSTEM & FUEL

- Only the steel fuel tank supplied with the car from BriSCA F2 is permitted.
- ***If the petrol filler cap is not a screw in/threaded type, it is compulsory to use a filler cap fitted with a non-return valve as supplied by BriSCA F2 (see picture).***
- A full and complete firewall as supplied with the car, must be in place at all times.
- For the full fuel specification please see separate sheet. Note: no fuel additives of any type are permitted.



## 9. BATTERIES & ELECTRICAL

- An electrical cut off switch must be located within reach of the driver on the dash and must be marked on/off with an ***ORCi Isolator Sticker.*** This must be in full working order and all times
- Batteries must be securely clamped in place under the bonnet and need to be covered with an isolated material i.e. rubber. Should the battery be located in the driver footwell it must be completely enclosed.
- Gel type batteries are permitted.

## 10. BRAKES

- The braking system must remain as fitted, in full working order with NO modifications whatsoever permitted. Single steel disc on the rear only is permitted – these may be solid or drilled but no vented discs allowed. ***No floating discs permitted, they must remain fixed at all times. The application of any liquid on the disc is not permitted.***
- You may alter the brake pedal to suit the driver, however all pedals must be on the right hand side. **No left foot braking.**

## 11. SEATS

- A high back full containment type seat must be fitted. It is highly recommended that the seat is fitted as per manufacturer's recommendations and that the seat mountings adequately hold the seat. Consideration should also be given to head clearance.
- The seat at shoulder level must be bolted and fully supported by a tubular steel hoop/bar or bars to prevent any rearward collapse of the upper part of the seat, otherwise this restraint must be an integral part of the roll cage.
- ***It is also advised to bolt the very top of the seat to the rollcage.***

## 12. SAFETY EQUIPMENT

- All safety equipment must be of a minimum standard as directed by the Oval Racing Council – see separate document.
- ***Roll offs/tear offs for shale are mandatory.***
- ***Raceceivers must be worn at all times, including up to one hour before start time. Communication with a driver is only permitted via the Steward or Race Organiser. Units will be available for hire at £10 per meeting.***

## 13. TRANSPONDERS

- ***An AMB transponder for lap scoring is mandatory and must be working at all times. The following are permitted: Tranx 260 direct powered or rechargeable (red), Tranx 160 rechargeable (yellow) or X2 rechargeable or direct powered.***
- ***It must be fitted on the front mesh under the chassis.***

## 14. NUMBERS

- Numbers must be displayed on the outside of both roof wing side panels.
- Minimum size for numbers: 175mm high, in 40mm stokes.
- ***For 2018 all numbers must be of professional appearance, painted black on a white background or white on a black background and be clearly visible. Scrutineer's decision will be final.***

## 15. EXHAUSTS

- Exhaust must be constructed from 26.9mm diameter (2.5mm wall thickness) steel tube, ~~a maximum of~~ ***The tube must be 480mm in length.*** This may run as standard inside the chassis rails, or return out under the chassis rail, and sit under the nerf rail. However if the exhaust is positioned outside the chassis rail it must be suitably covered to prevent contact being made with a hot exhaust and the scrutineers decision will be final in determining if the guard is sufficient. ***No additional tube is permitted after the silencer.***
- The exhaust muffler/silencer must be as standard/supplied with the engine. ***Should the silencer break away from the tube or split apart, it is not permitted to weld this. A new system must be purchased from BriSCA F2.***

- The exhaust must be securely and tightly bolted to the engine at all times.
- You are permitted to run a fake exhaust outside the chassis rails which is not connected to any part of the original exhaust system. This must be secured sufficiently to prevent it from becoming detached during racing.

## **16. GENERAL RULES OF RACING**

- Each driver is only permitted one car per meeting, and each car is only permitted one driver per meeting. A responsible adult must be present at each race meeting with the driver.
- The formula is strictly non-contact.
- ***Should a driver be passed by cars either on their inside or outside, the driver being passed must hold the line they are on.***
- Please note that all of the above rules are subject to change in respect of Health & Safety requirements.
- No points, no roof grades and no championships. ***No flashing lights permitted.***
- Grid groups will be determined by average position finished over the course of the season and ability.
- ***Some events will have the starting positions within each grid group pre-drawn. Should these be drawn on the day, it is the parent/driver's responsibility to ensure that they attend the draw, otherwise the driver will be drawn at the rear of their group. In all cases race winners must start at the rear of their grid group for the remainder of the race meeting.***
- ***Each grid group requires cars to be lined up two abreast, with cars lined up directly behind the car in front, either on the inside grid or outside grid.***
- ***Should a parent or mechanic be invited onto the racing arena, they must be wearing overalls to the same specification as the ORCi Safety Specifications.***

### **REVISED RULES FOR 2018 IN RED/BOLD/ITALIC PRINT**

### **ITEMS MARKED STRIKETHROUGH ARE NO LONGER ALLOWED**

### **2018 BriSCA Micro Stock Cars**

### **Technical Specifications, Issue v1\_18 - Dated 3 December 2017**

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