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2019 ST-XR Challenge Regulations

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Introduction

The original XR Challenge was born from the original Ford one make saloon car race championship which started in the very early eighties. When the next generation model superseded the MK2 Fiesta XR2, the series passed into a Club Championship format. The request to run the Escort XR3i and the Fiesta Si 1800 classes followed and the multi-class XR Challenge continued to be a successful one-make saloon car championships.

For the 2018 season a further class was introduced for the MK6 Fiesta ST. The championship also changed its name to the ST-XR Challenge.

The ST-XR Challenge is run to a strict Group N specification and is policed firmly to ensure that competitors comply with the regulations. The 2019 race season will see a continued alliance with the Yokohama control tyre.

Competitors are urged to very carefully read these regulations several times from cover to cover. If any aspect is unclear, then, please contact the championship co-ordinator. The ST-XR Challenge is considered to be one of the best and most cost effective ways for any budding or experienced driver to go out and enjoy hard but fair racing. The friendship within the paddock is very real and warm. The 2019 season will see new drivers, sponsors, features, trophies and cars.

Dave Fairclough

ST-XR Challenge – Championship Co-ordinator

Email: davidfairclough14@btinternet.com

Tele: 07889 912680



1. SPORTING REGULATIONS - GENERAL

1.1 Title & Jurisdiction

The 2019 ST-XR Challenge is organised by the British Racing & Sports Car Club [BRSCC] in accordance with the General Regulations of the Royal Automobile Club Motor Sports Association (incorporating the provisions of the International Sporting Code of the FIA) and these Championship Regulations.

Motorsport UK Championship Permit No: **CH2019/R031**

Race Status: **National B**

Motorsport UK Championship Grade: **C**

The BRSCC reserves the right to amend or vary the Sporting Regulations in accordance with Motorsport UK Regulation [D 11.1.3] at any time before or during the Championship and issue further additional statements concerning the Regulations from time to time, subject to Motorsport UK approval; all such statements will be issued by Championship Bulletin to the Motorsport UK and to all registered competitors by email or by post to the address detailed on the Registration Form, or by delivery to the competitor by hand. It is a condition of entry into the championship that all competitors, teams, team members and persons associated with any of them agree to be bound by the Regulations including any amendments, variations or statements relating thereto.

1.2 Officials

1.2.1 Championship Co-ordinator

David Fairclough
26 Calamanco Way
Irlam
Manchester
M44 6RH

Tele: 0161 775 8420
Mobile: 07889 912680
E-Mail: davidfairclough14@btinternet.com

1.2.2 Eligibility Scrutineer

Howard Corbally
2 Wilde Close, Harwarden,
Deeside, Clwyd CH5 3TR
Home 01244 538114 Mobile 07778 471387
Email - howardcorbally@btinternet.com

Assistant Scrutineer

Stuart Cant
Email: stuartcant@hotmail.co.uk
Mobile: 07592 554790

1.2.3 Championship Stewards

D Wells, T Parry, B Shewan & D Walton

Any three Championship Stewards will constitute a quorum. In the event of any of the Championship Stewards listed above being unavailable or being unable to consider any particular matter due to a perceived conflict of interest, the organisers reserve the right to appoint an alternative Championship Steward or, if deemed to be necessary, more than one alternative Championship Steward.

(G) 2.7 Championship Stewards may only adjudicate on any disputes, irregularities or appeals arising from the approved Championship regulations.

(G) 2.7.1 Championship Stewards are also empowered to consider any request from the Championship co-ordinator to penalise any Competitor for any breach of Championship regulations after holding a formal hearing to impose a penalty in accordance with C.2.1.1 (subject to the rights of appeal provided for in Section C).

(W) 2.2.1 The Championship Stewards can only adjudicate upon any disputes, irregularities or appeals arising from the approved Championship Regulations. They are also empowered to consider any request from the

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Championship Co-ordinator to penalise any Competitor for breach of Championship Regulations and, after holding a formal hearing, to impose a penalty in accordance with C.2.1, subject to the rights of appeal to the MSC provided in Section C.

1.3 Competitor Eligibility

1.3.1 Entrants must:

- (a) be fully paid up valid membership card holding members of the BRSCC and
- (b) be Registered for the Championship and
- (c) be in possession of a valid Motorsport UK Entrants Licence.

1.3.2 Drivers and Entrant/Drivers must:

- (a) be current Members of the BRSCC and
- (b) be Registered for the Championship and
- (c) be in possession of valid Competition (Racing) status Licence, National B as a *minimum*
- (d) or be a Professional driver, in possession of a valid Licence (featuring an E.U. flag) and medical, issued by the ASN of a member country of the European Union, or comparable country. Motorsport UK Regulation [H26.2.1 applies].
- (e) if participation in the Championship requires absence from education a driver, in full time school education is required to have the approval of their head teacher and a letter stating such approval from their school in order to fulfil registration for the Championship. A driver shall not take time out of their education to participate in motor sport without the prior written approval of the education establishment.

1.3.3 All necessary documentation must be presented for checking at all rounds when signing-on.

1.3.4 Competitors must ensure that their cars comply with the conditions of eligibility and safety throughout qualifying and racing.

1.4 Registration

1.4.1 All drivers must register as competitors for the Championship by returning the Registration Form with the Registration Fee to the co-ordinator prior to the Final Closing Date for the first round being entered.

1.4.2 The Registration Fee is £140.00 made payable to XR Challenge.

1.4.3 Registrations will be accepted from the 1st January 2019 until the closing date for the last round.

1.4.4 Registration numbers will be the permanent Competition numbers for the Championship.

1.4.5 Acceptance or rejection of registration is entirely at the discretion of the organisers.

1.5 Championship Rounds

1.5.1 The ST-XR Challenge will be contested at the following venues.

Round	Date	Venue	Licence Status	Club
1 & 2	13 April 2019	Oulton Park Island	Nat B	BRSCC
3, 4 & 5	4/5 May 2019	Croft	Nat B	BRSCC
6, 7 & 8	8/9 June 2019	Anglesey International	Nat B	BRSCC
9 & 10	3 August 2019	Oulton Park International	Nat B	BRSCC
11 & 12	14 September 2019	Mallory Park	Nat B	BRSCC
13 & 14	12 October 2019	Oulton Park Fosters	Nat B	BRSCC

1.6 Scoring

1.6.1 Points will be awarded to Competitors listed as classified finishers in the Final Results as follows:-

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Classes for the 2019 ST-XR Challenge are as defined in the Technical Regulations (see Art 5.2)

- Class A for eligible Ford Fiesta XR2 Mk2 Saloons.
- Class B for eligible Ford Escort XR3i Mk3/4 Saloons.
- Class C for eligible Fiesta Si 1800 saloons which comply with Class A in the 2019 Ford Fiesta Championship regulations and these regulations where stated.
- Class D for eligible Fiesta ST, Model Year 2004-2008,
- Class E for eligible Ford Fiesta XR2 Mk2 Saloons complying with Class A Regulations but having no LSD unit and running to the lower weight limit of 835 kilo's
- Class F Invitation Class for Gp N FWD Ford Vehicles, normally aspirated up to 1800cc, with Yokohama A048R tyres

Points will be awarded for each Class;

Class Winner: 18 points; Second: 14 points, Third 13 points, then pro-rata placings down to 1 point.

Pole position points will only be awarded in the first Qualifying session, only the top three will be awarded, **not** the top three in all class's.

Occupying pole position 3 points

Occupying Second fastest 2 points

Occupying Third Fastest 1 point

Fastest Race Lap in each class: 1 point.

Every competitor classified as a finisher after the first 14 places will receive 1 point.

In the event of there being less than 6 starters in any class, points will be awarded as follows:

Class Winner 12 points; Second: 10 points, Third 9. Competitors changing Class will not be permitted to 'carry over' any points scored in any previous Class.

Joker

Each competitor will be allowed one Joker card during the season which will earn double points scored for the stipulated race. The declaration must be made to the Championship Co-ordinator on the day of the event and before any qualifying session. The competitor must also nominate which race (i.e. Race 1 or Race 2 or Race 3 if a double/triple header) that the joker is to be used on.

Should any competitor in the Championship not participate in any of the first 12 rounds (or pro-rata reduction if the number of qualifying rounds is reduced) they will be eligible for any awards gained per race thereafter but any points scored will not count towards the final point's classification.

- 1.6.2 The totals from all qualifying rounds held, less two will determine the final Championship points and positions unless subject to the application of any Motorsport UK Regulation [C 3.5] penalties. Drivers **disqualified** from results for sporting **or technical** infringements may not use that (those) **round(s)** as discarded rounds for the purpose of overall championship placing. **Dropped scores must also include any points for fastest lap and/or pole position accrued in respect of dropped points.**
- 1.6.3 Ties will be resolved according to Motorsport UK Regulation [W 1.3.4] in the Motorsport UK Yearbook.
- 1.6.4 Where the race distance has been reduced (2.6) it shall still count as a full points scoring round.
- 1.6.5 Competitors not registered for the Chmpionship may be permitted on an individual round basis and will:
- (a) Be deemed "Guest Competitors"
 - (b) Not score points and for the purpose of points scoring be ignored
 - (c) Qualify for Event awards
 - (d) Comply with the eligibility criteria as prescribed in Article 1.3 above, with the exception of 1.3.1.(b) and 1.3.2.(b) as appropriate.

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1.7 Awards

1.7.1 All awards are provided by the organising club and the Championship sponsors.

1.7.2 Per Round

Trophies for 1st, 2nd, & 3rd in Class

Please note, if there are 6 or less entries in a class only 1st and 2nd are provided. If 3 entries or less in a class only 1st will be provided.

1.7.3 Championship

Classes A & B: - 1st, 2nd 3rd for each class - a trophy.

Class C, D, E and F Classes combined - 1st, 2nd 3rd - a trophy.

Overall Champion – The Championship Trophy

1.7.4 Presentations

Garlands and trophies are to be provided for presentation at the end of each race or at the end of the meeting presentation ceremony.

1.7.5 Entertainment Tax Liability

Any prize money and Bonuses, if applicable, shall be posted to the Entrants within 7 days of the results being declared final after each event.

In accordance with current Government Legislation, the BRSCC is legally obliged to withhold tax at the basic rate on all payments to non-UK resident sportsmen/sportswomen and account to HMRC using form FEU1, the quarterly return of payments made to non-resident entertainers and sportsmen/women.

That is, those persons who do not have a normal permanent residence in the UK. The UK does not include the Isle of Man, Channel Isles or Eire. This means that as the Organiser the BRSCC is required to deduct tax at the current rate applicable, from such payments they may make to non-UK residents.

Under certain circumstances, it is possible for competitors to enter into an agreement with HMRC to limit tax withheld. Any application for such an arrangement must be made in writing and not later than 30 days before their payment is due.

For further information contact: - HMRC Personal Tax International, Foreign Entertainers Unit, St Johns House, Merton Road, Liverpool L75 1BB. Tel: (0151) 472 6488 Fax: (0151) 472 6483

1.7.6 If Provisional Results or Championship Tables are revised after any presentations and these revisions affect the distribution of any awards the Competitors concerned must return such awards to the BRSCC in good condition within 7 days.

1.7.7 The organisers reserve the right to arrange and introduce additional awards/bonuses during the series.

2. SPORTING REGULATIONS CHAMPIONSHIP RACE MEETINGS & RACE PROCEDURES.

2.1 Entries

- 2.1.1 Competitors are responsible for sending in correct and complete entries with the correct entry fees prior to the entry closing date, which shall be 14 days before every round.
- 2.1.2 Incorrect or incomplete entries (including driver to be nominated entries) are to be held in abeyance until they are complete and correct. The date of receipt for acceptance of entry purposes shall be the date on which the Meeting Organiser receives the missing or corrected information or fee.
- 2.1.3 Any withdrawal of Entry or Driver/Car changes made after the acceptance of any entry must be notified to the Meeting Organiser in writing.
- 2.1.4 The entry fee for every round shall be as stipulated in the Supplementary Regulations plus any late entry surcharge imposed by the club.
- 2.1.5 Reserves will be listed in the Final List of Entries published with Final Instructions or in a Bulletin.

2.1.6 Media/Celebrity Car

It is proposed to run a Celebrity Car in the Championship in 2019. It is therefore part of the Championship Regulations, which Competitors accept when signing the registration document, that one place on the grid may be reserved for this Celebrity Car's participation. The car will be run exclusively to Championship Regulations and will undergo normal scrutineering and race control. If following practice the car in its own right qualifies for a grid position, this will be taken up as per its practice time and grid allocation. If however, the car would not normally qualify for the grid, the last position place on the grid is reserved for the Celebrity Car (subject to 2.3.2). All celebrity competitors will conform to all other requirements with regard to competition licences etc.

2.2 Briefings

Organisers will notify competitors of the times and locations for all briefings in the Final Instructions for all meetings. Competitors must attend all briefings.

2.3 Qualification Practice

- 2.3.1 Should any Practice Session be disrupted the Clerk of the Course shall not be obliged to resume or re-run the session; the decision of the Clerk of the Course shall be final.
- 2.3.2 Each driver should complete a minimum of 3 laps in the car to be raced and in the correct session in order to qualify Motorsport UK Regulations [Q 4.5].
- 2.3.3 The starting grid is determined as follows:
- Race 1 based on Qualifying.
 - Race 2 based on Race 1 results.
 - Race 3 based on Race 2 results.
- 2.3.4 If mechanical means are used by the marshals to remove the car to a safe position, the car concerned cannot re-join the session.
- 2.3.5 At the end of each session, all drivers must cross the Finish Line only once.

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2.4 Races

Should any race be disrupted the Clerk of the Course shall not be obliged to resume or rerun the race ((Q)5.4) (1.6.4. above applies). See 2.3.4 and 2.3.5 above.

2.5 Starts

2.5.1 All cars will be released to form up on the grid prior to the start in formation as specified on the grid sheet.

2.5.2 The start will be via a Standing start.

The minimum countdown procedures/audible warning sequence shall be:

- 1 minute to start of Green Flag/Pace Lap - Start Engines/Clear grid.
- 30 secs - Visible and audible warnings for the start of Green Flag/Pace Lap.
- A five second board will be used to indicate that the grid is complete after the Green Flag Lap.
- The red lights will be switched on five seconds after the board is withdrawn.

2.5.3 Any car removed from the grid after the 1 minute stage or driven into the pits on Green Flag Lap shall be held in the pitlane and may start the race after the last car to take the start from the grid has passed the startline or pitlane exit, whichever is the later.

2.5.4 Any driver unable to start the Green Flag/Pace Lap or start the race is required to indicate their situation as per Motorsport UK Regulation [Q 12.13.2] In addition any driver unable to maintain their grid position on the Green Flag Lap to the extent that ALL other cars are ahead of them, may complete the Green Flag Lap but MUST remain at the rear of the last row of the grid but ahead of any cars to be started with a time delay.

2.5.5 In the event that the starting lights fail the Starter will revert to using the National Flag.

2.6 Session Red Flag

2.6.1 Should the need arise to stop any race or practice, RED LIGHTS will be switched on at the Start Line and RED FLAGS will be displayed at the start line and at all Marshals Signalling Points around the circuit.

This is the signal for all drivers to cease circulating at racing speeds, to slow to a safe and reasonable pace and to return to the pit lane, during practice, and to the starting grid area, during a race, which will automatically become a parc ferme area, unless otherwise directed by officials.

Cars may not enter the pits unless directed to do so and all cars in the pit land during a red flag period must take any restart from the pit exit.

2.6.2 **Case A – Less than two race laps completed by the race leader.**

The race will be null and void. The race will restart from the original grid positions. Competitors unable to take the restart may be replaced by reserves who will start from the back of the grid in reserve order. Gaps on the grid should not be closed up. The length of the restarted race will be determined by the Clerk of the Course.

2.6.3 **Case B – More than two race laps completed by the race leader but less than 75% of the scheduled distance**

The race will restart from a grid set out by the finishing order of part one (as per Motorsport UK Regulation [Q 5.4.2]) The result of the race will be the finishing order of part two. The length of the restarted race will be determined by the Clerk of the Course.

2.6.4 **Case C - More than 75% of race completed**

If the leader has completed more than 75% of the race distance or duration it shall not be restarted and the results declared in accordance with Motorsport UK Regulation [Q 5.4.3], unless the Clerk of the Course, in consultation with the Stewards deems it appropriate to restart the race.

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2.7 Pit, Paddock & Pitlane Safety

2.7.1 Pits & Paddock

Competitors must ensure that the Motorsport UK, Circuit Management and Organising Club Safety Regulations are complied with at all times.

2.7.2 Pitlane

The outer lane or lanes are to be kept unobstructed to allow safe passage of cars at all times. The onus shall be on Drivers to take all due care and respect the pitlane speed limits.

2.7.3 Refuelling

May only be carried out in accordance with the Motorsport UK Regulations, Circuit Management Regulations and the SRs or Final Instructions issued for each Circuit /Meeting

2.7.4 Speed Limit

The pit lane speed limit will be as per the Final Instructions.

2.8 Race Finishes

After taking the Chequered Flag drivers are required to:

- I. Progressively and safely slow down,
- II. remain behind any competitors ahead of them,
- III. return to the pitlane/paddock entrance as instructed,
- IV. comply with any directions given by Marshals or Officials
- V. keep helmets on and harnesses done up while on the circuit or **moving** in the pitlane. The first 6 finishers in all races, plus any others instructed by an official to do so, must take their cars to scrutineering where post event eligibility checks may be carried out. Failure to comply will result in disqualification from the event.

2.9 Results

All Practice Timesheets, Grids, Race Results are to be deemed PROVISIONAL until all vehicles are released by Scrutineers after Post Practice/Race Scrutineering and/or after completion of any Judicial or Technical Procedures. (Motorsport UK regulation (D)26.3).

2.10 Timing Modules

2.10.1 All competitors will be required to fit Electronic Self Identification Modules to their cars for the purposes of accurate timing. Holders for these and detailed fitting instructions will be issued with the transponders and it will be the responsibility of the competitor to fit these in the car in the position and manner specified. The Modules must be in place and functioning correctly for all Championship qualifying practice sessions and races. The setting and servicing of these items must only be carried out by properly authorised Motorsport UK licensed Timekeepers. Competitors will be charged by the timing company for replacement of the Modules due to misuse or loss at any time during the season.

2.10.2 Competitors may not place electronic timing equipment within five metres of the official Start, Finish or any other official timing lines at any event or test session/day. Any such equipment placed within these zones will be removed.

2.11 Qualification Races

If any event is oversubscribed the Organising Club may at their discretion run qualification races. **Details will be provided in the Final Instructions and drivers' briefings.**

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2.12 Operation of Safety Car

- 2.12.1 The Safety Car will be brought into operation and run in accordance with Section Q, Appendix 2 of the Motorsport UK year book.

2.13 Onboard Cameras

- 2.13.1 All cars **must** have fitted a GoPro Hero HD, an Exeros Full 1080P HD Camera or Race-Keeper SE multi camera video data system, or a camera capable of producing HD quality footage and fitted with an SDHC or micro SDHC memory card in a place and position which will provide a 'driver's eye' view that should include, where possible, the steering wheel, show the track ahead of the vehicle with a field vision of approx. 100 meters, and the dashboard and some of the nearside out of the nearside passenger window. The mounting must be of a mechanical means of attachment sufficiently robust to withstand anticipated stresses and vibration and must not present any sharp edges or projections in the vicinity of the driver's body or helmet. The mounting must be approved by the eligibility scrutineer. Motorsport UK Regulation (J)5.21 applies.

The unit must be operable at all times when the car is on track during any official free practice, qualification session and race. The onus is on the competitor to ensure that the unit battery is charged and camera switched on to record during the above mentioned sessions. The memory card/method of video storage belonging to the competitor may be removed by the organisers and marked with an appropriate seal and/or number and the recorded footage copied for use in broadcast or any other area deemed appropriate by the Championship Organiser. Failure to make the footage available when requested, will be deemed to be an obstruction and the facts reported to the Clerk of the Course.

- 2.13.2 Should a competitor fail to make available to the Clerk of the Course the memory card or video footage, the Clerk of the Course may impose a penalty as defined in Motorsport UK Regulation [C 2.1.1].
- 2.13.3 Cameras should be capable of producing full HD video format for television usage.
- 2.13.4 Memory cards of the SDHC type of not less than **32Gb** capacity **must** be used and each card clearly marked with the text – **STXRC** - followed by the allocated competitor number. This will aid identifying the relevant competitor for return of card.

2.14 Parc Fermé

At all events the showing of the Chequered Flag (for both Qualifying and Racing) will indicate the commencement of Parc Fermé Regulations. Any vehicle that is in the pit lane at this time will be under Parc Fermé rules.

It is prohibited to work on any vehicle after the chequered flag has been shown. This includes tyre pressure checking, wheel changes or changes of driver.

Any vehicle in the pit lane must be immediately taken to the designated Parc Fermé area. No team personnel may enter Parc Fermé unless authorised by the Eligibility Scrutineer or their Deputy.

No tools of any type may be passed by team members or mechanics to drivers whilst in Parc Fermé.

Competitors are reminded that the area designated as Parc Fermé area is a secure area and it is not permitted for any supporters to be in Parc Fermé unless at the behest of the eligibility scrutineer or their deputy.

3. SPECIFIC CHAMPIONSHIP REGULATIONS:

3.1 Re-Scrutiny

Any vehicle involved in a contact incident during any session or race must be re-presented to the scrutineers before taking part in any further session or race (Motorsport UK Regulation J3.1.2).

4. SPECIFIC CHAMPIONSHIP PENALTIES:

4.1 Infringements Of Technical Regulations

4.1.1 Arising from post practice Scrutineering or Judicial Action

Minimum Penalty: The provisions of Motorsport UK Regulation [C 3.3]

4.1.2 Arising from post race Scrutineering or Judicial Action

Minimum Penalty: The provisions of Motorsport UK Regulations [C 3.5.1 (a) & (b)].

For infringements deemed to be of a more serious nature the Clerk of the Course and/or Stewards of the Meeting are to invoke the provisions of Regulation [C 3.5.1 (c)].

4.2 Additional Specific Championship Penalties

4.2.1 The Clerk of the Course reserves the right to impose a 'Stop-Go Penalty/Drive Through Penalty' in accordance with Motorsport UK Regulation [Q 12.6].

4.2.2 For offences under Motorsport UK regulations [C 1.1.5], [C 1.1.6], [Q 14.4.2] and [Q 14.4.5], the Clerk of the Course, at his discretion, may impose a championship penalty in the form of the following:

- (i) For an offence in qualifying ;a grid penalty of up to ten places
- (ii) For an offence in a race; a time penalty of up to one minute
- (iii) For an offence in a race where the offending driver is not classified; a grid position penalty in the next race/event.

Where a championship penalty has previously been applied, the severity of subsequent penalties will be increased.

4.2.3 In order to maintain standards of conduct, the Championship Coordinator will monitor all Officials/Observers reports of adverse behaviour at race meetings. If any individual is included on such reports he will receive written warning from the Organisers that his driving/behaviour is to be specifically observed at future race meetings. Any adverse reports during this period of observation could result in a Championship Stewards' enquiry, with possible loss of Championship points and refusal of further race entries.

4.2.4 Any penalty points applied by the Clerk of the Course against a competitor during a championship round will be doubled and deducted from that competitor's Championship Points even if this results in a negative score. Any subsequent penalty points imposed will result in the same deduction plus an additional 4 championship points being deducted even if this results in a negative score.

4.3 Social Media

Social media, including, but not restricted to, facebook, Instagram, Twitter etc. is a powerful and wide reaching medium for the expression of views and opinions, and the sharing of photographs and video. As such, competitors should be aware that their conduct on social media regarding the Championship, the BRSCC and its drivers should reflect the impact social media has. If a competitor is considered to have brought the Championship and the BRSCC into disrepute in the opinion of the Championship Stewards they may be subject to a penalty or disqualification from the championship. Additionally, competitors are reminded that the Motorsport UK monitor social media and any remarks that are deemed to bring the sport into disrepute can lead to penalties. For clarity, it is accepted that crashes are an inevitable feature of motor-racing and the posting on social media of imagery containing a crash does not bring motorsport into disrepute, but competitors are reminded that careless associated comments may do.

5. TECHNICAL REGULATIONS

5.1 Introduction

The following Technical Regulations are set out in accordance with the Motorsport UK specified format and it should be clearly understood that if the following texts do not clearly specify that you can do it you should work on the principle that you cannot. Competitors are advised to read Motorsport UK Regulations Sections J4, J5, Section Q, [Motorsport UK Regulations Section B, Nomenclature & Definitions], Section K and Section L of the current Motorsport UK Yearbook.

5.2 General Description

The 2019 ST-XR Challenge is a Six class championship for competitors participating in Fiesta XR2, Escort XR3i, Fiesta Si and Fiesta ST or other normally aspirated Gp N FWD Ford vehicles modified in accordance with the following regulations

- Class A** Ford Fiesta XR2 - Fiesta 1.6 XR2 CVH pre lean-burn carburettor model. The later "lean-burn" engine may be used in place of the earlier unit but must comply with these regulations
- Class B** Ford Escort XR3i with mechanical fuel injection.
- Class C** Ford Fiesta Si 1800 (complying to 2019 Ford Fiesta Championship technical regulations) and as amended by these regulations.
- Class D** Ford Fiesta ST, Model Year 2004-2008
- Class E** Class E for eligible Ford Fiesta XR2 Mk2 Saloons. Complying to Class A Regulations, but have no LSD unit and can run to the lower weight limit of 835 kilo's
- Class F** Invitation Class for Gp N FWD Ford Vehicles, normally aspirated up to 1800cc, with Yokohama A048R tyres

5.2.2 Examination of Vehicles

The organisers (in addition to any other powers they may have under these Regulations) reserve the right before or after any race in the championship/series to designate any one or more of the competing cars for special eligibility scrutineering. Upon such election being made the competitor shall immediately place the car under the control of the organisers and be deemed to have permitted all such scrutineering, examination and testing as the organisers may responsibly require to undertake. The organisers have the right to:

- a Examine the car at the circuit for such period as they may reasonably require and take fuel and/or other samples and/or
- b Retain the car for detailed examination at premises chosen by the organisers. If the organisers elect to retain the car they shall make it available for collection by the competitor at least seven days prior to the qualification session for the next race in the championship/series unless the car is found to be in breach of these regulations and/or
- c Seal the car and its components in such a manner as they may choose and require the competitor at their own expense to present the car at any premises chosen by the organisers for detailed examination within a specified period and/or remove the car by transporter at no expense to the competitor to an appointed location. The competitor will be advised in writing of the time, date and location of the subsequent testing or eligibility examination.

The stripping of the engine or any required component will be undertaken by the competitor and/or mechanic/technician nominated by the competitor at the premises designated and overseen by an Motorsport UK licensed Scrutineer nominated by the organisers.

The organisers reserve the right to re-inspect vehicles at any time during the course of the season.

Competitors will be personally and solely responsible for ensuring that their cars comply with their registration details and with these regulations for each event at which they are entered. Failure to comply in either respect

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will be a breach of these regulations. Queries concerning eligibility should be referred in writing to the organisers/championship Eligibility Scrutineer at least seven days prior to an event entered, to permit a ruling in advance of any meeting at which it is intended to compete.

Tests to establish the power output of any car may be carried out by the organisers or their representatives. Such power testing will be carried out using rolling dynamometer equipment.

The organisers may review the performance of vehicles within the championship with particular regard to newly introduced vehicles/models, after every championship round. This may result in the minimum weight being altered for any registered model.

Any weighbridge or pad scales used by the organisers at a circuit, which may include that held by the championship organisers, will be considered definitive and the weight of a car established on such a weighbridge will be a finding of fact **subject to** Motorsport UK regulations [E 4.1].

A conversion factor of 0.454 kilos/pound rounded up to the nearest kilo or pound will be used. No other tolerance will be allowed.

- 5.2.3 It should be clearly understood that the regulations set out in the current Motorsport UK yearbook apply except where amended by the following texts.

It should also be understood that if it is not clearly specified that you can carry out a modification then you should work on the principle that you cannot.

5.3 Safety Requirements

- 5.3.1 All Motorsport UK Section K Safety Criteria Regulations apply as the current Motorsport UK Yearbook [K 1.2.1] to [K 1.2.4 (Drawing 5)] with optional bracing tubes as per Yearbook drawings only and compulsory diagonal strut with upper joint on drivers side, [K 2.1.2] – [K 2.1.3], [K 2.1.4], [K 3], [K 3.5], [K 8], [K 9], [K 10] and [K 13].

Class A, B, C, E, F Roll cages must conform to the minimum requirement of the above regulations and must go no further than the front and rear suspension top mounts.

Class D. Fiesta ST Roll cages must conform to the minimum requirement of the above regulations.

The roll cage can only be attached (Welded or Bolted) to the bodyshell via the Six mounting feet and on the Two “B” post upper seat belt mountings, this must be a bolt type fixing to the bodyshell.

It is not permitted for the roll cage to protrude through the bulkhead into the engine bay.

- 5.3.2 A full harness safety belt with a minimum of 4 straps (2 shoulders, 2 waists) must be installed to Motorsport UK Regulations. It is recommended that a 5 or 6 strap safety belt is used.

- 5.3.3 **Class D. Fiesta ST**, Seam welding of the bodyshell is **NOT** permitted

- 5.3.4 If fitted with a sunroof, this must be made of steel and securely fixed in the closed position by at least two additional fixings.

5.4 General Technical Requirements & Exceptions

Motorsport UK Yearbook references: [J 4], [J 5], Section Q, [Motorsport UK Regulations Section B, Nomenclature & Definitions], Section K & Section L.

5.4.1 Definitions

All references to standard parts and/or material in these regulations shall be interpreted as references to the manufacturer's original specification(s) as appearing on the Ford Escort XR3i, XR2 and Fiesta Si 1800 Production Car Specification Sheets as appropriate. Where a part number is specified in these regulations and that part is no longer available from the Ford Motor Company on a permanent basis then the Ford specified replacement part may be used providing that dimensionally the part complies in all respects with these regulations. Where

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the Ford service replacement part does not comply with the dimensions specified in these regulations it may not be used unless it use is authorised through the publication of a championship bulletin issued by the Championship Organisers.

5.4.2 All parts must remain as Standard except for the Modification **permitted** listed **within these regulations**.

5.4.3 Unless specifically authorised in these regulations, the use, substitution of, and/or addition of, any parts, material or processes is prohibited, other than welding or repairing material or the fitting of the manufacturers standard replacement parts, for the sole purpose in every respect of restoring the vehicle to the manufacturers Standard specification or to comply with Motorsport UK statutory safety requirements.

5.4.4 Capacity Classes

Class A and B, Maximum cylinder capacity of 1640.92 cc is permitted and a 1594 cc minimum volume.

5.4.5 There must be towing eyes with minimum internal diameter of 60mm securely fixed to the main structure of the vehicle, front and rear, within the confines of the body to enable the vehicle to be moved in accordance with Motorsport UK Regulation [Q 19.1.3 (a) or (b)]. In respect to front towing eye, this may not protrude beyond the vertical plane of the front bumper by more than 10mm. For the avoidance of doubt this precludes the use of the standard towing eye in its standard location, competitors must find an alternative.

Wherever possible, **cars should** be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre line. They **should** be clearly visible, marked with an arrow and the word "tow" and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.

The towing eyes must be made of at least 6mm diameter steel wire rope with a 6x19 wire core, each of which must have a breaking-strain of at least 2 tons. Each towing eye must allow the passage of a cylinder with a diameter of 60 mm, situated 25mm forward of the adjacent bodywork - 100 mm above and below this hole must retain clearance to enable the recovery crews to attach straps and shackles.

The towing eye must be fixed to a structural part of the chassis with a minimum of M12 fixings, the inner part must be flexible in order for the towing eye to be retracted inside the bodywork profile. A "pull-cord" must be attached to the towing eye to enable the marshals to access the wire loop. The end attached to the chassis may be either 'thimble' or 'open-loop' style.

Each complete towing eye must be certified as meeting this load requirement.

Webbing towing eyes are not permitted.

The intention is to allow an angled pull away in the event in the event of a crumpled or obscured vehicle corner e.g. +/- 45 degrees from straight ahead.

Examples of steel wire towing eyes that can be bolted to the chassis:



5.5 Chassis

Standard other than modifications allowed in 5.5.1

5.5.1 Modifications Permitted

All Class's Removal of any seam sealer and sound deadening.

Class A , B and C Seam welding of the bodyshell is permitted, but no additional material may be added.

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Class D. Fiesta ST, Seam welding of the bodyshell is **NOT** permitted

On XR2 only, it is permitted to seam weld the gap on the upper side of the front chassis legs between the leg and the inner wing visible at the rear of the engine bay. In doing so the gap **must** remain the same.

No other addition of material to the chassis legs is permitted.

5.6 Bodywork

GROUP N

5.6.1 Modifications Permitted

5.6.1.1 Removal of spare wheel and tools.

5.6.1.2 Alternative steering wheel.

5.6.1.3 Non-standard driver's seat.

5.6.1.4 **All Classes**, Removal of floor carpeting., sound deadening, roof lining and sealant

5.6.1.5 **All Classes**, Removal of passenger seats.

5.6.1.6 **Class A, B, C, E, F** Removal of passenger compartment heater.

5.6.1.7 Fuel and brake lines may be routed through the driver habitacle subject to provisions of Motorsport UK Regulation [K 13]. **Class A, B, C, E, F** All steel brake and fuel pipes may be replaced with flexible braided pipes (Aeroquipe, Goodridge etc)

5.6.1.8 **Class A, B, C**. Rear wiper motor and rear wiper may be removed and hole sealed with bung (XR2, XR3 and Si)

5.6.1.9 **Class D**. Rear wiper motor can be removed, but wiper arm and blade must remain

5.6.2 Modification Prohibited

5.6.2.1 Removal of standard bumpers and over-riders.

5.6.2.2 **Class B XR3i** Can use the Genuine Ford Escort RS Turbo MK2 rear spoiler

5.6.2.3 Interior Trim and instruments

Class A, B, C, E, F. The removal and replacement of standard gauges with alternative gauges is allowed, but must remain within the dash binnacle with no modification to the shape of the dashboard or dash binnacle sections. Any additional supplementary panels or gauges should be housed entirely within the standard dashboard.

All switches, air vents, steering controls, glove box lid, steering column cowl, etc. all side trim panels and doors, rear side and boot area and rear quarterlight panels must be fitted, however these may be of alternative materials but of the same shape, size and dimensions as original items. Supplementary instruments may be fitted provided they are fitted within the instrument surround or within the dashboard.

5.6.2.4 **Class D Fiesta ST**. Dash panel and instruments must be as fitted and **MUST** be complete with all switches, air vents, steering controls, steering column cowl, etc. However the radio may be removed, this area can then be used for any additional gauges or switches etc.

All door trim panels must be fitted, however these may be of alternative materials but of the same shape, size and dimensions as original items.

It is not permitted to modify or remove the heater motor and box.

5.6.2.5 **Class D**. Steering Lock must be removed.

Central locking and alarm system must be rendered inoperative by the removal of the fuse or that wiring

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element.

- 5.6.2.6 **Class D.** All Airbags to be removed. Steering wheel may be changed, Caution is required over the removal of any airbag device. If in doubt contact the Eligibility Scrutineer for the correct method of removal.
- 5.6.2.7 **Class D** All glass windows must remain and must be operational and the window mechanisms in full electrical working order
- 5.6.2.8 **Class B, C,** Front Windsreen must be of the Laminated type, all other glass may be replaced with a Perspex type material and which must allow anyone standing outside the vehicle a clear view of the interior. The original design window regulator mechanism must be retained where 'drop' glass is used, but may be removed where it is not.
- 5.6.2.9 **All Classes** Bonnet gaps must be as per the standard production car, no lifting of the bonnet front or rear to gain more airflow or cooling is strictly prohibited

5.7 Engine

5.7.1 Engine Sealing Class A, B, C

At the first round entered, all competitors will have their engine and gearbox sealed by the series Eligibility Scrutineer using an Motorsport UK numbered wire seal. There **must** be at least 2 cam cover bolts drilled with 1/16th holes to take the sealing wire, these bolts will be side by side on the front of the engine and identified with white paint, or as directed by the series Eligibility Scrutineer. All seals will remain in place for the entire season and **must not be** removed without the written permission of the series Eligibility Scrutineer. In the event of engine malfunction, that necessitates the removal of the seal to enable rectification, it is the responsibility of the competitor to make the engine available for inspection before removal of the seal. On completion of the defect rectification the engine will be resealed at the earliest opportunity.

Class D. The top engine cam cover and Rocker Cover mating plate, along with the R/H upper cam cover retaining bolt must be drilled.

Class D Fiesta ST The designated engine Electronic Control Unit (ECU) or any of its associated parts shall not be modified in any way. It is not permitted to change the strength or form of any of the sensor signals to or from the ECU or ignition amplifier unit. The organisers reserve the right to require any competitor to surrender the ECU fitted to the competition vehicle and fit a supplied alternative. Note: The exchange ECU available from Ford Motor Company may be fitted, but with recorded sealing of the unit by Ford Motor Company or Eligibility Scrutineer.

Class D Fiesta ST

Air conditioning pump complete with pipes and Radiator can be removed and then the Fitment of an optional air con pump internal/MSport jockey wheel and shorter drive belt can be fitted

Option, The air conditioning pump can be modified so that just the front half of the pump remain together with the pulley, the original belt can then remain.

All Class's It is not permitted to alter the original camshaft timing, this will be checked.

5.7.1. Permitted Modifications

5.7.1.1 All Class's Baffles in the sump

- 5.7.1.2 **All Class's** Fitment of additional **Engine oil cooler** within the confines of the bodywork provided this does not entail modification the bodywork or radiator grill, **and no further back than the engine bay**

5.7.1.3 Class's A, B,

A standard unmodified air cleaner must be fitted but paper element may be removed and fitted with a performance type filter (K&N, Pipercross etc).

XR2 Only

The fitment of the moulded air intake hose (standard Ford or similar pattern) is mandatory, and the end of the

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hose must not project outside the front panel.

Class C Pipercross kit part number **PK097** Must be used if the original air box is removed

Class D Fiesta ST

Mandatory Pipercross kit part number **PK308**

The throttle body has a maximum internal dimension of 55mm measured at the throttle butterfly spindle.

5.7.1.4 Make and type of spark plugs.

5.7.1.5 Class B XR3i rotor arm may be disabled or replaced with a non rev limiter rotor arm.

5.7.2 **Prohibited Modifications.**

5.7.2.1 Alteration of the standard quantity of fuel or air reaching the engine except for **5.7.1.3** above.

5.7.2.2 Polishing or reworking of any part(s) including the inlet and exhaust manifolds, the inlet and exhaust tracts and combustion chamber space in the cylinder head

5.7.2.3 **Class A, B, and E** Cylinder bore may not be greater than 81.04mm.

5.7.3 **Location**

Standard Position

5.7.4 **Oil/Water Cooling**

Class A B, E. Radiators are free providing the original mounting points are used and the radiator is fitted WITHOUT any body modifications. Radiator thickness is free. The standard fan and cowlings must be fitted. Alternative hoses may be fitted but must conform to original manufacturer size and dimension.

Class D, The standard fan and cowlings must be fitted with the standard Ford ST150 radiator. A standard Ford cowl that fits in front of the radiator may be removed but no replacement panels can be substituted to alter the airflow in the radiator.

All Class's. Thermostates may be removed or modified

All Class's A fan override switch may be fitted

5.7.5 **Induction Systems**

Class A and B Standard except **5.7.1.3** above - the updated XR2 engine Weber carburettor or Weber carburettor of similar specification may be used but must fit on the standard inlet manifold without any modification, the standard air filter housing must also fit without modification, whichever is fitted it is permissible to remove the choke butterfly. The water heated inlet manifold must remain connected, unrestricted and in working order.

5.7.6 **Exhaust Systems**

Class A and B

Free below the standard **cast** exhaust manifold. Both XR3i and XR2 cars must comply with Motorsport UK Regulation [J 5.17] and [J 5.18].

Class D. The Catalytic Converter may be removed and replaced with a de-cat pipe
The silencer units and tail pipe are free.

Class D. The final section of the exhaust must exit from the rear of the car, locating the outlet in the manufacturers cut-out of the rear skirt, and comply with Motorsport UK noise levels

Class D. The Exhaust manifold shield can be removed, But the standard manifold must remain.

5.7.7 **Ignition Systems**

Class A and B, Standard Except **5.7.1.4** and **5.7.1.5** The ignition vacuum advance/retard mechanisms must be

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retained and connected and be in full working order so that the system can give full mechanical and vacuum advance.

- 5.7.7.1 **For XR2 only**, an engine rev limiter may be fitted, setting is free. If fitted, the unit and all associated wiring must be in the engine compartment and easily identifiable.

Class B XR3i only, the rev limiter rotor arm may be disabled or a standard non centrifugal arm may be used.

5.7.8 **Fuel Delivery Systems**

Standard - except as 5.7.5 above.

Fiesta XR2 may use an electric fuel pump

- 5.7.9 **Class D Fiesta ST** The fuel supply system must remain as standard. It is not permitted to modify or interfere with any of the fuel supply pipes or fuel pressure.
Fuel Pressure must remain as standard. Only Standard Fuel Ford ST Injectors with part number 1S7G-9F5936A are permitted. The fuel pressure regulator and fuel pump must retain its original position and unmodified.

5.8 **Suspensions**

5.8.1 **Permitted Modifications.**

5.8.1.1 **Class A and B XR2, XR3i.**

Shock absorbers as manufactured by LEDA or GAZ are the preferred units, but not mandatory.

Class B XR3i only

Rear suspension trailing arms may be adjustable so rear wheel alignment (tracking) is adjustable.

Class A XR2 Minimum Ride height is 650mm measured to the lowest point on the top face of the horizontal seam across the engine compartment rear bulkhead. This seam may not be modified or distorted in any way.

- 5.8.1.2 **Class D Fiesta ST** Minimum Ride height. The car with driver aboard must at all times be able to pass over a block **95 mm high x 600 mm** wide situated on the car centre line without touching it. No exception will be made for low hanging exhaust systems or other items.

Class D Fiesta ST. The Front Anti roll bar must be a Ford Fiesta ST part number 2S61-5494-RB standard unit of 19mm diameter, of standard construction and must be mounted in the original location with the Ford ST standard anti roll bar links. No rear Anti Roll bar is permitted

Class A B, E. Front spring rate, diameter and length are free, subject to 5.8.1.1. The addition of a retaining Helper spring is permitted. The spring must become coil bound when the car is at its static ride height and not form part of a dual rate setup created using a Tender spring

Class A B, E. Rear spring rate and length are free, but the diameter must remain the same. The spring must be in its original position.

5.8.1.3 **Class A and B**

Adjustable platforms are permitted.

XR2 and XR3i front and rear camber is free. Camber may only be obtained by ONE not BOTH of the following methods:-

- Modification to the Mcpherson strut as done by LEDA/GAZ Shocks
- Alloy top mount, if this method is used it must be fitted in a way that NO additional Castor angle to standard is obtained.
- XR3i Rear camber may only be obtained by modifying the shock absorber unit lower mounting holes (**not the rear hub assembly**)
XR2. Rear camber may be obtained by spacing the rear stub axle with small thickness shims. (Care must be taken by not using too many shims to achieve the desired Camber/Tracking.
- Droop limiting of the suspension is permitted. This can **ONLY** be carried out by 'shortening' of the damper piston rod or by a cable connecting the upper and lower of the shock absorber. Droop limiting

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using any part of the suspension or bodywork other than the shock absorber is strictly prohibited.

- 5.8.1.4 **Class A and B.** A "strut brace" may be utilised in Escort XR3i and Fiesta XR2 and consist of a single steel/Alloy tube bolted-in strut brace between front suspension top mounting points only. A rear strut brace may be fitted between the rear shock absorber turrets.

Class D Fiesta ST. It is permitted to fit a bolt in Front Strut brace between the two suspension top mounts only. It is not permitted to have a fixed/welded strut brace fitted

- 5.8.1.5 Rear Beam XR2, this is now a mandatory item for safety reasons. The beam can be modified to use the later type Fiesta or KA four bolt rear stub axles together with the 180mm rear brake drum, back plate, shoes and wheel cylinder assembly, no other brake assembly can be used.

For Safety reasons its advisable to fit good quality rear brake disc's and wheel bearings, these should be checked and greased on a regular basis, any free play in the rear bearings should be attended to or replaced.

The modified axle must have the same rear track as per the standard rear axle.

No other modification will be allowed. Modification/information details are available from the Championship Co-Ordinator.

Class D

Only the GAZ Championship specified suspension units as supplied by GAZ and assembled in accordance with manufacturer's specifications may be used. The GAZ kit number is **GHA368/EC**, all parts supplied in the kit must be used, i.e. springs, top mounts etc. These must be fitted to an unmodified front stub axle assembly. A competitor may be asked to remove their suspension for it to be sent away to be checked for conformity to the regulations.

A machined retaining 'washer' may be fitted to prevent front bearings from moving out of position and thereby allowing the wheel to become detached from the front transmission unit.



Class D. No modifications may be made directly to the rear axle beam to induce camber. No alterations may be made to the front wishbones and mountings for caster or camber. The standard front anti-roll bar must be fitted and operational. It is not permitted to modify the front suspension stub axle in any way. No modifications to component mountings permitted. All bolts and fastenings must be to OE specification, as are all mounting holes. Offset Bushes are not permitted, all bush dimensions must remain as OE specification.

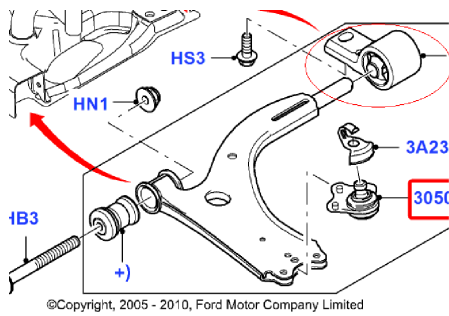
Class D. It is permitted to remove the **front and rear brake back plates**. A one piece shim located by all four bolts may be fitted up to a maximum total thickness of 5mm between the stub and the axle. All shims must be in contact with the majority of the surface area between axle beam and stub axle and retained in place by all four existing bolts. This is to allow the adjustment of the rear camber and tracking. **Rear tracking parallel plus or minus half of one degree. Camber one degree plus or minus one degree.**

Class D. An alternative media bush may replace the standard rubber bush (front inner rear bush as circled in diagram below) on the front lower A arm assembly (see diagram below). Front anti roll bar thickness bare metal is **19mm** +/- 1mm, Anti roll bar links are 284mm in length +/- 1mm or 240 +/- 1mm.

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5.8.2 Prohibited Modifications

- 5.8.2.1 XR2/XR3i vehicle dampers **must** be hydraulic.
- 5.8.2.2 Alterations to suspension mounting/attachments or type of operation are prohibited - but see 5.8.1.4.
- 5.8.2.3 XR2 and XR3i. Front & Rear suspension bush material is now free.

5.8.3 Wheelbase/Track Standard.

5.9 Transmissions

Standard.

5.9.1 Permitted Modifications

- 5.9.1.1 Classes A & B Material and method of fixing of clutch disc lining free.
- 5.9.1.1 Classes A & B Fitment of a non standard gearlever/quickshift kit may be utilised (similar to a B & M kit).
- 5.9.1.2 Classes A & B Standard Clutch Pressure Plate may be replaced by RS Pressure Plate 90949950. Clutch disc diameter 200 mm. or 220 mm. Or similar type unit.
Paddle type clutch plates are not allowed
- 5.9.1.3 Class A & B only The fitment of a limited slip differential, a viscous Escort RS Turbo unit or similar Quaife unit or Tran-ex unit.
- 5.9.1.4 Class A, B, C Gear lever and linkage is free.

5.9.2 Prohibited Modifications. N/A

5.9.3 Class A, B. Transmission & Drive Ratios

Gear	Ratio	Teeth
1st	3.154:1	41:13
2nd	1.913:1	44:23
3rd	1.274:1	37:29
4th	0.951:1	39:41
5th	0.756:1	34:45
Reverse	3.615:1	47:13
Or as above except 3rd. 1.281:1/41:32		
Final Drive:		
XR2	3.58:1/19:68 or: 3.82:1/17:65	
XR3i	4.29:1/17:73 or: 4.29: 15/64	

All Class's The gearbox mounts are free.

5.9.4 Class D. Transmission & Drive Ratios

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5.9.4.1 The only gearbox permitted is the STD 5 speed unit as fitted to the production Fiesta ST 150 2004-2008

1st – 3.583:1

2nd – 2.038:1

3rd – 1.414:1

4th – 1.108:1

5th – 0.878:1

Reverse – 3.615:1

DIFF RATIO 3.824:1

All gears must be standard profile and number of teeth.

5.9.4.2 The Differential must be standard with a ratio of 3.824.1 and no form of Limited Slip Differential is permitted. All Gearboxes will have a seal fitted to the end cover, bolt and end cover must have required holes drilled.

5.9.4.3 The plastic covers that cover the linkages on the gearbox may be removed.

5.10 Electrics

5.10.1. Permitted Modifications

5.10.1.1 Fitment of master cut-off switches in compliance with Motorsport UK Regulations [Q 19.11.1] and Section K.

5.10.1.2 Fitment of additional battery securing strap and non-metallic covers.

5.10.1.3 Classes A & B

The headlamp unit may be replaced by a dummy plastic panel provided the shape and location are identical to the original headlamp unit. It must be rigidly fixed and not capable of any excessive movement to allow air to flow over/through the aperture. All other lights must be retained and in full working order.

5.10.1.4 Rear fog lights

The rear fog light must work and the on/off switch is accessible to the driver when seated in the car and ready for competition. An additional rear (Rain Lamp) must be fitted as per Motorsport UK Regulation K5, unless the standard manufacturer fog lamp complies.

5.10.1.5 **All Class's** A 12 volt battery must be used and fitted securely. Dry cell or Gel type batteries are recommended. The battery top must be covered by an insulating cover to prevent short circuits in the case of an accident. Battery may be relocated to inside the cockpit but must comply to current Motorsport UK regulations.

5.10.2 Prohibited Modifications

Modifications which render components inoperative; lighting, alternator, and self starter must be standard and fully operational.

5.11 Brakes

5.11.1. Permitted Modifications

5.11.1.1 Class A & B

Disc pad and brake shoe friction material free.

Class D Fiesta ST

Brake ducting can be installed for the front brakes using the front fog light position in the front bumper as an entry point. Mounting of the ducting will be behind the bumper The standard bezels and mounting must be retained in the standard position.

Class D Fiesta ST It is permitted to replace the standard flexible brake hoses with Aeroquip/Goodridge etc braided replacement pipes. **All other brake pipes must remain as standard**
The ABS as fitted must remain and be in fully operational state'

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5.11.2 Prohibited Modifications

5.11.2.1 Increase of friction contact areas.

Reduction of friction material in rear brakes by cutting or removal of rear Shoes/Pads is strictly prohibited, or by filling the rear brake drum with grease and/or oil.

5.11.2.2 Class A and B. Brake cooling ducting not permitted.

5.12 Wheels / Steering

Be aware of Motorsport UK Regulation [J 5.7] regarding steering wheels.

5.12.1 Class A Fiesta XR2

Standard Ford Fiesta Alloy wheel or V82FB 1007 AA. Diameter: 13 inches. Rim: 6J inches. Offset ('Dim): 108 mm. from mounting face to inside rim. Any after market wheel available through the Ford dealer network providing with conformity to size dimension and offset as aforementioned.

Class B Escort XR3i

Standard XR3i: 6J steel or alloy wheel or 5.5J alloy wheel and after market wheel available through the Ford dealer network providing with conformity to size dimension and offset to the original.

Class D Fiesta ST

Construction and material alloy 7 x 15, Offset 35/40mm

Recommended wheel options.....

Rally Design Offset 35/40mm (WKC715FD)

Team Dynamics/Rimstock wheel 7 x 15 Pro Race-12 Offset 35/40 mm.

Option: Any Ford Manufactured road wheel can be used as long as it conforms to the above dimensions.

Class D Fiesta ST A standard, and unmodified Power Assist Steering (PAS) steering rack must be retained. The mounting bushes for the steering rack shall be either the standard bushes or the Ford Motor Company Limited specified bushes only. The power assist pump must remain unmodified and fully operational at all times. Only front upright assemblies for the power assist steering are allowed. Power steering pipes may be substituted.

A remote power steering reservoir may be fitted.

Option: An additional power assist pump oil cooler may be fitted.

5.12.2 Class D Fiesta ST Either the standard steering wheel, with the Safety Air bag fully disarmed or removed, or the alternative steering wheel (with 360° constant radius rim) and adaptor.

Class A – XR-2 and Class B – XR3i

Steering Rack lock to lock must be a minimum of 3 turns.

5.12.3 Permitted Modifications

None.

5.12.4 Prohibited Modifications

5.12.4.1 Wheels other than those specified in 5.12.1 above.

5.12.4.2 Wheel spacers of any type.

5.13 Tyres

5.13.1 Specifications

The organisers reserve the right to introduce a different control tyre in the following season year.

The use of tyre heating/heat retention devices is prohibited.

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Class A Fiesta XR2 : Yokohama A048R (M) Control Tyre Size 170/550 13

Class B Escort XR3i: Yokohama A048R (M) Control Tyre Size 170/580 14

Class C Fiesta Si 1800: Yokohama A048R (M) Control Tyre Size 180/560 14

Class D Fiesta ST150 Yokohama A048R (M) Control Tyre Size 190/580 15

Tyres must be fitted as intended by the manufacturer.

5.13.2 The use of alternative tyres, compounds or chemicals/materials to alter tyre characteristics are prohibited.

5.14 Vehicle Weight

5.14.1 Definition

As per Motorsport UK Regulation J5.15.

5.14.2 Minimum Weights

The all up weight including the driver at any time during practice or an event is

Class A - Fiesta XR2	885 kgs
Class B - Escort XR3i	920 kgs
Class C - Fiesta Si 1800	955 kgs
Class D – Fiesta ST150	1110 kgs
Class E – Fiesta XR2	835kgs

For the purpose of the regulation an event is deemed to include any transfer to a place of post event scrutiny as directed by an official. If ballast is carried it must be identified to the scrutineer at pre-event inspection and be capable of being sealed in position if required.

Class D Fiesta ST. Any additional ballast must be placed in the Nearside (left hand) front and rear footwells on the horizontal flat sections

5.15 Fuel Tank/Fuel

5.15.1 Class A & B

Fuel tank material and size is free.

5.15.2 Classes A & B

It is permitted to relocate the fuel tank in the 'boot area' only.

5.15.3 Class D Fiesta ST

Standard production fuel tank must be retained. Additionally, an approved protective plate or tank guard must be fitted below the tank.

5.16 Silencing

Specification

Vehicles must be silenced in accordance with Motorsport UK Regulation [J 5.17] and [J 5.18].

5.17 Numbers/Decals

5.17.1 Positions

Standard Motorsport UK specifications on bonnets and doors.

5.17.1.1 Points will only be awarded to competitors displaying Championship Decals in accordance with Motorsport UK Regulation (Q)11.4 on either side of the vehicle in an unobscured position.

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- 5.17.1.2 In addition decals of the Championship sponsors, partner sponsors, the promoters, and the BRSCC will be required to be displayed.
- 5.17.1.3 All decals shall be fitted as issued. They may not be cut or otherwise defaced or deformed unless the Series Co-ordinator has given written permission to do so. Such written permission must be available for inspection during any race meeting.

Competition numbers must be displayed in accordance with Motorsport UK Regulation [Q 11.4].

The numbers for each rear side window, shall be:

- (1) a minimum of 200mm high
- (2) with a stroke width of at least 20mm
- (3) coloured reflective yellow

Please Note: Race numbers must be above the drivers name on each side window

In addition, the windscreen of all cars must display the competition number positioned on the upper side area of the passenger's side of the windscreen, as follows

- (4) the numerals must be at least 150mm high
- (5) be in the same colour and font as those displayed on the rear side windows
- (6) be placed no closer than 50mm from the lower edge of the windscreen "sun strip" and 50mm from the side edge of the windscreen

5.17.2 **Suppliers**

Dave Fairclough, Championship Co-ordinator

Please note: To keep conformity Competitors must use the race numbers as supplied by the championship Co-ordinator Dave Fairclough.

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6. APPENDICES

6.1 Race Organisers

BRSCC HQ

Homesdale Business Centre
Platt Industrial Estate
Maidstone Road
Borough Green
Kent
TN15 8JL
Telephone: 01732 780100
Email: www.brscc.co.uk

Other useful numbers.

Circuits	Telephone	Fax	Circuits	Telephone	Fax
Anglesey	01407 840253	01407 840197	Knockhill	01383 723337	01383 620167
Brands Hatch	01474 872331	01474 874766	Lydden Hill	01304 830557	01304 831715
Cadwell Park	01507 343248	01507 343519	Mallory Park	01455 842931	01455 848289
Castle Combe	01249 782417	01249 782392	Oulton Park	01829 760301	01829760378
Croft	01325 721815	01325 721815	Silverstone	01327 857271	01327 857663
Donington Park	01332 810048	01332 850422	Thruxton	01264 772696	01264 773794

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6.2 Appendix Specification Sheet - Engine: In compliance with the Ford Motor Company Specification Sheets and as follows

Pre lean-burn version XR2/XR3i ENGINE SPECIFICATION SHEETS : O.H.C. ONLY

(a) Carburettor:

Make	:Weber
Type	:Twinchoke
Number on engine	:One
Number of main venturi	:Two
Maximum dia. main venturi	:25 (p) 26 (s)
Maximum dia. of throttle barrels	:32 (p) 34 (s)
Maximum dia. at inlet manifold	:34

Carburettor may not be modified except for parts controlling quantity of fuel, and the removal or disability of the choke mechanism.

(b) Inlet Manifold:

Part number	: 81SF 9425 JF or (V84FB9425AA) or (V84FB9425BA)
Material	: Cast aluminium alloy
Internal finish	: As cast

(d) Cylinder Block XR2/XR3i

Part number	: 81SM 6015 CMA or 86SM 6015 BA
Number of cylinders	: 4
Material	: Cast Iron
Bore	: 80.00/80.04 standard bore + 1mm overbore
Stroke	: 79.50
Swept volume	: 399.66 - 410.23cc per cylinder
Total volume	: 1598.64 -1640.92c.c.

It is permitted to reclaim engine blocks by fitting liners or by boring by 1.0mm. i.e. to a maximum dimension for the cylinder bore of

(e) Crankshaft:

Part number	: 81SM 6303 CH or 86SM 6303 BAA
Material	: Cast iron (Nodular)
Finish	: As cast/machined

(f) Connecting rod:

Part number	: 81SM 6200 CB
Material	: Forged steel
Finish	: As forged
Weight	: 584.5 +/- 6.5 gms

Alternative big end bolts may be used but no modification may be carried out on the con rod

(g) Flywheel:

Part number	: 81SM 6375 KE or 86SM 6375 AA
Material	: Cast iron

No lightening /machining allowed. Minimum weight 6.5 kgs.

(h) Cylinder Head:

Cylinder head bolts may be changed for studs and nuts (**like ARP type studs**) but must be done without any modifications to the cylinder head.

Part number	: 81SM/88SM 6090 ARH,
Material	: Die cast aluminium

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Tract finish : As cast

Combustion chamber volume: 52..8- 56.0 c.c. Combustion chamber finish : Fully machined

The Later EFi CVH 1600 head with adapter plate can be used, but no modifications to the Cylinder are permitted

(i) Camshaft: Degrees

Part number: LD	81SM 6251	or	0	= 6.1 mm.	+75	= 0.1 mm
LE88SM6251CA			- 5	= 6.0 mm.	- 90	= 0
Or Kent Cam marked BRSCC which conform to the dimensions of above			+ 5	= 6.0 mm.	+90	= 0
			- 10	= 5.9 mm.	- 105	= 0
			+10	= 5.9 mm.	+105	= 0
Material : Cast iron			- 15	= 5.6 mm.	- 120	= 0
Inlet Exhaust			+15	= 5.6 mm.	+120	= 0
s = 22.35 : 21.842			- 30	= 4.2 mm.	- 130	= 0
t = 16.256 +.04: 15.748 + .04			+30	= 4.2 mm.	+130	= 0
u = 32.512 : 31.496			- 45	= 2.0 mm.	- 150	= 0
Duration (In & Ex) = 208 degrees			+45	= 2.0 mm.	+150	= 0
Angle between major axis = 134 degrees			- 60	= 0.3 mm.	Standard timing pulleys MUST be used. It is not permitted to use vernier timing pulleys.	
Cam profile is defined by determination of lift at various angles.			+60	= 0.3 mm.		
Cam lift in millimetres (dismounted camshaft)			- 75	= 0		

Inlet and exhaust profiles identical

(j) Valves:

Inlet valve head diameter	: 42.0	Inlet valve maximum lift (checked with solid lifter)	: 10.1
Exhaust valve head diameter	: 37.0	Exhaust valve maximum lift (checked with a solid lifter)	: 10.1

(k) Valve Actuation:

Valve lifters - part number	: 81SM 6500 D2E	Valve lifters - type	: Hydraulic
Rockers - part number	: 81SM 6564 EE	Valve springs - part number	: 81SM 6513 AE
Number of coils	: 6	Wire diameter	: 4.5 +0.3mm
Maximum free length	: 47.2		

(l) Piston:

Part number	: 81SM 6102 DA
Material	: Cast aluminium
Number of rings	: 3
Weight - Piston, pin and 3 rings	: 506 gms minimum

Due to the shortage of quality 1mm oversize pistons a forged piston will be allowed, this will be identical to the standard item and will have a championship Part No and will be Supplied/Manufactured and appointed by the championship. Contact championship Co-Ordinator for more details.

Where engine block has been reclaimed by re-boring as specified the appropriate oversize pistons and rings may be fitted.

(m) Compression Ratio – Maximum :

Head gasket - compressed thickness	: 1.64 mm min
Head gasket - volume allowance	: Vg=8.7cc min
Combustion chamber volume in head	: Vh=52.8cc min
Piston volume above block face (including allowance down to top ring) : Vb = 20cc max	
Compression Ratio = $\frac{V_h + V_g}{V_b + 1} = \frac{52.8 + 8.7}{20 + 1} = 10.88$ to 1 maximum	: Vh+Vg-Vb 52.8 + 8.7 – 20

(n) Exhaust manifold heat shield part number - 81SF 95596AA must be fitted.

FORD FIESTA XR2 CARS WHICH HAVE THE LATER LEAN-BURN ENGINES FITTED MUST UTILISE STANDARD FORD PARTS AS AVAILABLE FROM A FORD MAIN DEALER. ALL REFERENCES ASTO ENGINE CAPACITY WILL APPLY. THIS REGULATION ACKNOWLEDGES THE DIFFICULTY WHICH MAY OCCUR FOR SOURCING ENGINE PARTS FOR THE OLDER PRE LEAN-BURN ENGINE AND IS DESIGNED TO ACCOMMODATE COMPETITORS CONCERNS. IF THERE IS ANY DOUBT ABOUT THE CORRECT NATURE OF UNIT OR COMPONENTS, WHICH MAY BE ALLOWED, THEN ASK THE CHAMPIONSHIP ELIGIBILITY SCRUTINEER. On lean burn engines the maximum compression ratio must not exceed that of a Pre-lean burn engine as shown in these regulations, i.e: 10.88 to 1 Maximum

XR3i - See Homologation Paper 5026N (obtainable from Motorsport UK)

Escort XR3i Engine data as defined in Homologation papers A5026N

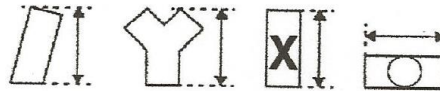
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Fiesta ST Class D Engine Specifications/Dimensions

Number of Supports	3
Total minimum volume of a combustion chamber	48.5cm³
Minimum volume of a combustion chamber in the cylinder head	41.3cm³
Maximum compression ratio (in relation with the unit)	11.3:1
Minimum height of the cylinder block	302mm (according to the drawing below)



Pistons

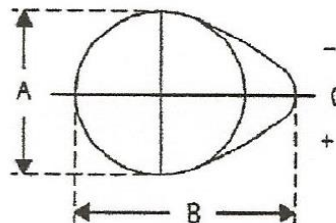
(a) Sleeves Material	Ferrous Alloy
(b) Number of rings	3
(c) Minimum weight 420g with pin and rings	
(d) Distance from gudgeon pin center line to highest point of piston crown	28.5 +/- 0.1mm
(e) Distance (+/-) between the top of the piston at TDC and the gasket plane of the cylinder block	0.65 +/- 0.15mm
(f) Piston groove volume	0.8 +/- 0.5cm³



Crankshaft – maximum diameter of crank pins	47.0mm
Cylinderhead – minimum height (block face to top of head)	123mm
Thickness of tightened cylinderhead gasket	0.5 +/- 0.2mm

Camshaft

(a) Diameter of bearings	25.0mm
(b) Cam dimensions	Admission A = 33.0 +/- 0.1mm
	Intake B = 42.1 +/- 0.1mm
	Echappement A = 33.0 +/- 0.1mm
	Exhaust B = 41.1 +/- 0.1mm



The tolerances must be used with the same sign for A and B

Distribution/Timing

(a) Theoretical clearance for valve timing	Admission Intake	0.25mm
	Echappement Exhaust	0.30mm

(b) Cam lift in mm (dismounted camshaft)

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ADMISSION / INTAKE				
Ford/Mazda drawing, INLET Cam P/n 1S7G-6A271 BH & RF 1S7G-6A271-BG Fitted from 15/11/2004 to 05/02/2007				
Rotation angle in degrees	Lift in mm (+/- 0.1mm)		Rotation Angle in Degrees	Lift in mm (+/- 0.1mm)
0	9.13			9.13
-5	9.04		+5	9.04
-10	8.78		+10	8.78
-15	8.36		+15	8.35
-30	6.11		+30	6.08
-45	2.64		+45	2.68
-60	0.30		+60	0.37
-75	0.03		+75	0.10
-90	0.00		+90	0.00
-105			+105	
-120			+120	
-135			+135	
-150			+150	

ECHAPPEMENT / EXHAUST				
Ford/Mazda drawing, EXHAUST Cam P/n 1S7G-6A272-EA & RF 1S7G-6A272-BG				
Rotation angle in degrees	Lift in mm (+/- 0.1mm)		Rotation angle in degrees	Lift in mm (+/- 0.1mm)
0	8.07			8.07
-5	7.98		+5	7.98
-10	7.73		+10	7.73
-15	7.31		+15	7.32
-30	5.09		+30	5.11
-45	7.19		+45	1.84
-60	0.27		+60	0.34
-75	0.01		+75	0.07
-90	0.00		+90	0.00
-105			+105	
-120			+120	
-135			+135	
-150			+150	

A shift of +/- 2 degrees of the whole measurement is accepted

Cam timing

Piston No.1 at TDC camshaft locking tool must be able to locate into timing slots of camshaft. Use of profile tool can be permitted for scrutineers observation of camshafts.

(c) Maximum valve lift

	Maximum valve lift
Admission / Intake	8.9 +/- 0.2mm
Echappement / Exhaust	7.8 +/- 0.2mm

with clearance according to (a) above

Admission / Intake

Number of springs per valve	1
Under a load of 34kg the max length of the spring is 31.5mm	
External diameter of the springs	24.75 +/- 0.2mm
Number of spring coils	8.5
Diameter of spring wire	3.23 +/- 0.1mm
Max free length of the springs	48.1mm

Echappement / Exhaust

Number of springs per valve	1
Under a load of 34kg the max length of the spring is 31.5mm	
External diameter of the springs	24.75 +/- 0.2mm
Number of spring coils	8.5
Diameter of spring wire	3.23 +/- 0.1mm
Max free length of the springs	48.00mm

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6.3 Appendix A

The BRSCC decal **must** be placed on the front edge of front wing. The competitor numbers must be fitted into the rear side windows where it can be clearly seen by the timekeepers from either side. The windscreen and upper part of the rear screen area is reserved for Championship use - unless notified to the contrary in a Championship Bulletin. Decals not fitted (unless unavailable at that event) will automatically cause the offending driver to forfeit any points gained at that event. The onus is on the competitor to collect any required decals from the championship co-ordinator. They will be normally always available at every event.



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6.4 Commercial Undertakings

The Following Commercial Undertakings are not subject to the Judicial Procedures of either the Championship Stewards and/or the Motorsport UK/MSK.

6.4.1 Trade Support – N/A

6.4.2 Advertising/Glass

- a All glass areas must remain clear and unobstructed by decals/advertising or any other obstruction unless these regulations specify different or approved by the BRSCC/Championship Co-ordinator.
- b The only exception being the rear side windows that should have the drivers' surname, competitor's number and championship class (if any), clearly displayed in simple bold type, unless these championship regulations specify a different option.
- c All surfaces, which have not been claimed for stickers by the Championship, its sponsors or used for the application of starting numbers, are free for use. The Championship Co-ordinator must approve conflicting sponsor's stickers in advance and the position, size and colours (if approved) will be at the discretion of the Championship Co-ordinator.

6.4.3 Vehicle Presentation

The presentation of the car is fundamental to the profile of the championship/series its sponsors and its audience. Therefore in considering whether to permit any car to race, at any point during the season, the Co-Ordinator/Organisers will regard as paramount the presentation of the car. In taking into account its appearance inherent in which is the standard of its presentation (including interior) they may exclude any car which they consider may prejudice the reputation of the championship/series or is otherwise unacceptable. This will include where the car is presented at a race event bearing accident damage sustained at a previous event and which has not been subject to the completion of a full and proper repair. Note: A double or Triple header can be regarded as one event for the purposes of this regulation.

6.4.4 Vehicle Decals and Overall patches.

Competitor's overalls are clean and maintained to a reasonable standard, patches should be affixed in instructed locations and cars deemed to be of an unacceptable standard of presentation may not be permitted to race.

6.4.5 Promotional activities:

Competitors may be asked and will be expected to participate in championship promotion activities at the circuits, as requested by the organisers.

- 6.4.6 In signing the Series Registration Form each entrant agrees that the organisers/championship sponsors of the series may make use of his/her activities and successes in motorsport for advertising, publicity and public relations purposes. The entrant also agrees that in any advertising or promotion with which he/she is associated, the full title of the series will be used at all times.

ST-XR Challenge

REGISTRATION FORM FOR 2019

PLEASE USE BLOCK CAPITALS TO COMPLETE ALL SECTIONS

FULL NAME AS SHOWN IN YOUR COMPETITION (RACE) LICENCE

SURNAME			FORENAME(S)		
DATE OF BIRTH			OCCUPATION		
Your E-mail Address					
Your Home Address					
Post Code					
TELEPHONE - HOME		DAYTIME		MOBILE	
Timing Transponder Number				BRSCC Membership Number	
Class Entered : Please circle A B C D E F					
Competitor Number Choice for 2019					
I wish to register for the XR Challenge. I agree to be bound by the rules and regulations of the Motorsport UK, the BRSCC, and the championship regulations and commercial conditions and bulletins as subsequently issued. I acknowledge that I will have been deemed to have read the current Motorsport UK Yearbook (Bluebook) and the relevant championship regulations. I enclose the registration fee £140.00 –Made payable to: “<u>XR Challenge</u>” Post to: - Dave Fairclough, 26 Calamanco Way, Irlam, Manchester, M44 6RH By signing the 2019 Registration Form, I hereby agree to rounds of the Championship being substituted in the event of a cancellation.					
SIGNED				DATE	
As a registered competitor you will receive regular championship releases/bulletins. These will contain reports and information together with any regulation amendment. All championship bulletins are to be treated as official communications for the Championship and are to be read in conjunction with the championship regulations and the Motorsport UK Yearbook for the season year. Such releases will be emailed and/or sent to your address above.					