

## 2023 SPORTING & TECHNICAL REGULATIONS

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#### 1 SPORTING REGULATIONS - GENERAL

#### 1.1 TITLE & JURISDICTION

1.1.1 The British Endurance Championship (BEC) is organised & managed by Britcar Endurance Limited as the Permit Holder and they are also the Commercial Rights Holder in accordance with the General Regulations of The Royal Automobile Club Motor Sports Association Ltd (Motorsport UK) (incorporating the provisions of the International Sporting Code of the Federation Internationale de I'Automobile (FIA) and these Championship Regulations.

Motorsport UK Championship Permit number: CH2023/R005

Race Status: National

Motorsport UK Championship Grade: Grade: A

#### 1.2 OFFICIALS

1.2.1 Championship Co-ordinator: Claire Hedley

1.2.2 Motorsport UK Championship Eligibility Scrutineer: John Harland

1.2.3 Championship Clerk of the Course: Andy Butler

1.2.4 Championship Technical Manager David Hornsey

1.2.5 Championship Stewards: Ian Watson

Richard Norbury Ray Sumner Adrianne Watson

1.2.5.1 Any three of the Championship Stewards will sit to make a decision. In accordance with the following provisions of the 2023 Motorsport UK General Regulations. 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 Motorsport UK General Regulations. W. 2.2.1: The Championship Stewards can only adjudicate upon any disputes, irregularities or appeals arising from the approved Championship Regulations and any subsequently issued bulletins.









They are also empowered to consider any request from the Championship Coordinator to penalise any Competitor for breach of Championship Regulations and after holding a formal hearing, to impose a penalty in accordance with General Regulation C.2.1 subject to the rights of appeal to the MSC National Court provided in Section C. If it is not possible to get three people from the above list due to lack of availability or any perception of a conflict of interest, then the Organisers reserve the right to include a steward not present on this list.

1.2.5.2 Pursuant to Motorsport UK General Regulation Section B nomenclature a Championship Organising Committee has been appointed by the Organisers and the Directors of Britcar to consider and advise on Championship & Technical matters where in their unfettered discretion additional counsel may be beneficial. The Committee may in its absolute discretion co-opt such expertise advice and assistance as it requires from time to time and such matters shall be considered within the Rights of the Organisers.

#### 1.3 **COMPETITOR ELIGIBILITY**

- 1.3.1 Entrants must comply with the following:
  - (a) be registered for the British Endurance Championship
  - (b) be in possession of a valid 2023 Motorsport UK Entrants Licence. (D7.1.12)
- 1.3.2 Drivers and Entrant Drivers must comply with the following:-
  - (a) be Registered for the Championship and
  - (b) be in possession of valid Competition (Racing) National status Licence, as a minimum
  - (c) Or be in possession of the highest grade of national Race licence or valid FIA International Licence, together with their ASN's written consent ((H)26.2. and FIA ISC Article 2.3.7.b applies)
  - (d) If participation in the Championship requires absence from full time education, a driver in full time school, academy or sixth form college education is required to have the approval of their head teacher or principal and possess a letter stating such approval from their school, academy, or college 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 their education establishment.
- 1.3.3 Each competitor (including all INVITATION cars) must make sure their vehicle has a valid BEPI (Britcar Endurance Performance Indicator) submitted before their and the vehicle's first race in the championship or have available to the scrutineer a homologation document detailing their car built to GT3, GT4 or TCR regulations for cars entered in Classes A, D and E. Competing vehicles will not be eligible for any championship points until this has been submitted and received by the Organiser. At the entire discretion of the Organisers an entry made where no BEPI has been submitted or homologation document is available may be suspended or rejected.









- 1.3.4 Entry into the British Endurance Championship requires 1 or 2 drivers for races of 90 120 minutes. For races over 120 mins there is a minimum requirement for 2 drivers.
- 1.3.5 No Professional driver may drive on his or her own and no vehicle can be "fully" driven by a professional driver. No more than one Professional driver can drive in any single vehicle in each event. No Professional driver may set a qualifying time.
- 1.3.6 Competitors must nominate themselves as either a Professional (PRO) or Amateur (AM) on their entry paperwork. Driver histories must be submitted to the Championship Organiser on request and their decision is final as to the grade of the driver. The Championship Organiser reserves the right to change a drivers grading at any time based on driver performance or results inside or outside of the British Endurance Championship. The Championship Organisers decision on the grading of a driver is final.

PROFESSIONAL (PRO) A "Professional" driver is one who earns money either as a racing driver, a driver coach, and/or who has been successful at a British or European Championship or has competed for a full season at an International Level and has achieved notable success.

AMATEUR (AM) An "Amateur' driver is a person who is driving purely for sport not commercial gain. A driver driving purely for sport and not commercial gain will be regarded as a PRO if their performance and or pace warrants it.

- 1.3.7 The appointed Championship Organising Committee will resolve any decisions regarding a driver's grade / rating subject to which the Championship Organisers decision will be final.
- 1.3.8 Drivers aged 60 or over at the start of the 2023 season may be exempt from the criteria set out in Art.1.3.7 above at the Championship Organisers sole discretion.

#### 1.4 CHAMPIONSHIP REGISTRATION

- 1.4.1 All Entrants must register for the Championship by completing the on-line Registration Form and paying the Registration Fee to the British Endurance Championship Co-ordinator (claire@britcar-endurance.com) prior to the Final Closing date for the first round being entered.
- 1.4.2 The Registration Fee for the 2023 British Endurance Championship is £1600.00 + VAT for the season per vehicle this includes membership for 2 drivers. Any additional drivers will need to pay a membership of £150 plus VAT. Entrants may enter the races without paying the Championship Registration fee. These entrants will be classed as Invitation or one-off entrants and will not be eligible to score championship points (1.6.4). An INVITATION ENTRY FEE and entry fee for "Guest"







Entry" race entries who are not registered for the championship will be £200 (plus VAT) more than the stated entry fee.

- 1.4.3 All payment details are available in Championship Regulation Art. 6.4
- 1.4.3.1 All Registration Payments are Non-Refundable.
- 1.4.4 An additional deposit will be required against all rounds in which entrants wish to reserve a place on the grid. This will be on a first come first served basis. A deposit of £500 +VAT per round is required. All payment details are available in Championship Regulation Art. 6.4. The first 10 teams who pay deposits for all Championship rounds will get the choice of garages on a first come first served basis.
- 1.4.4.1 All deposits are Non-Refundable.
- 1.4.5 Registrations & deposits will be accepted from 1<sup>st</sup> December 2022 until the closing date for each round. Any money paid is non-transferable between events, vehicles and/or teams. The Championship Organiser may, at its sole discretion, refuse the entry of any competitor who does not pay any and all outstanding balances by the date of the Permit for the race meeting.
- 1.4.6 Permanent Competition Vehicle Numbers will be competition numbers 2 to 999, issued by the Championship Organiser on a first come first serve basis. All championship decals will be supplied prior to the teams first race weekend. It is the Competitors responsibility to ensure the appropriate race numbers and correct decals are placed (where required by the Championship Organisers) prior to any BEC track sessions. Numbers over 99 will be allowed with permission from the Championship Organisers via the Championship Coordinator.
- 1.4.7 The Championship Organisers jointly and severally reserve the right to add more Championship decal stickers to the vehicles from their new sponsors during the season.
- 1.4.8 Championship decals car layout plans are stipulated in Championship Regulation Art. 6.1.6
- 1.4.9 All Competitors registered will receive upto one full set of decals for their vehicle and 6 team pit crew Identification bands (as described in 2.8.12) (maximum one set per car). Any replacements required will be available by contacting the British Endurance Championship Office. There will be a cost, plus postage for this replacement. £ 40 plus VAT plus postage for the decals and £ 10 plus VAT plus postage for each identification band.
- 1.4.10 Each Competitor will also receive the 'Championship Logo' & 'Goodyear' Cloth Overall badge which must be permanently affixed to their race overalls in accordance with Championship Regulation Art.6.2.







- 1.4.11 Applicable Registration fees must be paid before a Competitor participates in their first Event. Failure to pay may render the driver liable to a fine.
- 1.4.12 Outstanding Championship balance monies must be received as clear funds in the Britcar Endurance Limited nominated bank account and cleared by 5pm; no later than 14 calendar days prior to the start of the respective race weekend. Any outstanding balances paid within 14 days of the first date of the Permit of the race meeting will be subject to a £500 additional charge payable as cleared funds no later than 1400hrs on the banking day immediately preceding the first day of the Event. Any Competitor who has entered for an Event and not paid their balance within the specified timescale will not be allowed to participate in the Event and will be deducted 10 championship points regardless of whether this results in a minus score or not. Balance monies are non-refundable and non-transferable.
- 1.4.13 All payments made to the Championship Organisers must only be remitted from a fully traceable European clearing bank.
- 1.4.14 All Competitors, with the exception of cars entered in class E, are required to use a Race Technology RTSS datalogger registered with the Championship Organisers. The championship will use Race Technology RTSS data loggers in all classes, with the exception of Class E, to determine power and torque measurements whilst the vehicle is competing in any official session. The logger must be fitted and operative in the car used in the session and accurate weight and CdA figures must have been provided to the Championship organizers as part of their BEPI submission. Competitors must provide access to the CAN bus to connect the logger. In the event of there being no CAN bus in the vehicle the competitor must provide access to the RPM output of the engine. Loggers can be rented from the BEC at a cost of £1300+VAT for the 2023 season. If you already have a Race Technology RTSS datalogger system in your car please contact David Hornsey at the address below to determine compatibility with the current scrutineering system. Contact david@britcar-endurance.com to order your datalogger.

#### 1.5 CHAMPIONSHIP EVENTS

1.5.1 The British Endurance Championship will be contested over the following races:-

DATE	CIRCUIT	RACE LENGTH	CLUB
25 <sup>th</sup> March	Silverstone Grand Prix	3 Hours	BARC
22 <sup>nd</sup> April	Brands Hatch Indy	2 Hours	BARC
27 <sup>th</sup> May	Oulton Park International	3 Hours	BARC
24 <sup>th</sup> June	Silverstone Grand Prix	2 Hours	BARC
16 <sup>th</sup> September	Snetterton 300	2 Hours	BARC
14th October	Donington Grand Prix	2 Hours	BARC

1.5.2 6 Rounds with 6 to count towards the British Endurance Championship







- 1.5.3 If an event is cancelled due to unforeseen circumstances beyond Britcar Endurance's control (Force Majeure) then the Championship Organisers will endeavour to replace it with another event but if not the Championship points / rounds will be re-adjusted in accordance with the current Motorsports UK General Regulation D.11.2.
- 1.5.4 Testing is available at each circuit the day before each of the events (except Donington). Competitors can book testing direct with Britcar but any test fees not paid in full or part will render the booking void and competitors will not be able to sign on. Prices are to be confirmed and will vary at each track. Please contact Claire Hedley on 01428 288008 or claire@britcar-endurance.com.
- 1.5.5 There are no testing restrictions.

#### 1.6 CLASSES

- 1.6.1 The cars will be classified using the BEPI (Britcar Endurance Performance Indicator, an online tool for classifying vehicle performance) system or manufacturers homologation document in the case of GT3, GT4 and TCR cars. The Championship Organisers reserve the right to amend the BEPI result if actual vehicle performance justifies it.
- 1.6.1.2 The BEPI can be accessed at britcar-endurance.com/bepi/. Any technical queries about vehicles entered should be directed to the Technical Manager David Hornsey at david@britcar-endurance.com. The BEPI system and the class classification is explained in the Technical Regulations.
- 1.6.1.3 Entrants may request to view any competitors completed BEPI form. Forms may not be copied in any way. To request viewing of the form please contact the Technical Manager David Hornsey









1.6.2

Class A	Cars built to GT3 specification with a latest homologation date after 31 <sup>st</sup> December 2019 plus invited cars of similar performance and balanced using our own Balance of Performance (BoP)
Class B	Cars built to Modern GT2, Super Trofeo, 488 Challenge, Porsche 992 Cup specification, GT3 cars with a latest homologation of 31 <sup>st</sup> December 2019 or earlier and non-homologated cars with a BEPI score 155-195. Class B cars are subject to our own BoP in addition to the cars meeting the BEPI score.
Class C	Cars built to 458 Challenge and Porsche 991 Cup specification and non-homologated cars with a BEPI score 133.01-154.99. Class C cars are subject to our own BoP in addition to the cars meeting the BEPI score.
Class D	Cars built to GT4 specification with a latest homologation date after 31st December 2019 and balanced using our own BoP
Class E	TCR Endurance Class running to WSC and TCR 2023 Endurance regulations and BoP.
Class F	Cars of similar performance to classes 4 and 5 but not homologated to TCR regulations and GT4 cars with a latest homologation of 31 <sup>st</sup> December 2019 or earlier. Class F cars are subject to our own BoP in addition to the cars meeting the BEPI score.
Class G	Ginetta G55 Supercup class. Cars built to the technical specification detailed in Appendix C
Class H	Closed wheel, production based cars of any performance level that complies with the overall BEPI formula but which are not powered exclusively by Internal Combustion Engine (ICE). Class G cars are not eligible for the overall Championship but are eligible for their own class awards.

1.6.3 Classes will be identified by use of different colour Championship Number Decals and Class colour on the sun strip.

CLASS A	RED
CLASS B	GREEN
CLASS C	YELLOW
CLASS D	BLUE
CLASS E	BLACK
CLASS F	WHITE
CLASS G	ORANGE
CLASS H	PURPLE









1.6.4 Cars entered into any race as a "one off" event whilst not registering or competing for the championship, will be included in the class structure defined in 1.6.2, they are not eligible to score championship points but will get trophies relative to their race finishing position in their class. These entries will be defined as a "Guest Entry". "Guest Entries" will be invisible with regards to awarding of championship points to registered competitors. For example, if a "Guest Entry" finishes in 2<sup>nd</sup> position and a registered championship competitor finishes in 3<sup>rd</sup> position, the "Guest Entry" becomes invisible with regards to points so the registered competitor finishing in 3<sup>rd</sup> place receives points for 2<sup>nd</sup> place but the "Guest Entry" receives the trophy for 2<sup>nd</sup> place. Cars entered as a "Guest Entry" will be required to carry a Race Technology RTSS datalogger. As such provision must be made as per regulation 5.5.1.e for mounting the logger. Non-conformity with the request to mount a logger will render the entrant ineligible to receive trophies.

#### 1.7 SCORING

- 1.7.1 All entries must have registered for the Championship, submitted a Technical Declaration on the online BEPI (before the first round) or via official vehicle homologation and they must have paid a full season registration to gain championship points. Competitors in Class H are not counted towards the overall championship but may receive points towards their own class championship if they comply with 1.7.2 and 1.7.3.
- 1.7.2 The definition of an entry with regards to championship point allocation is a registered championship entry who's race entry has been accepted by the organisers and has signed on to the race meeting.
- 1.7.3 Points will be awarded in accordance with these Championship Regulations following the conclusion of all Judicial matters as per the Motorsport UK General Regulations.
- 1.7.4 Should an Event be cancelled prior to its commencement, no points will be awarded. However, if practice and qualifying sessions have been held but a race or races at that event cannot be run or are run wholly under Safety Car conditions, then half points will be awarded, based upon the grid positions for the race(s).
- 1.7.5 Championship Points for the 2023 season are accrued based on the finishing positions in class as defined in 1.7.5.2. To qualify to score points Competitors must have completed 75% of the number of laps of the class winner (or 75% of the time duration of the race in the event of only one car being entered in the class).
- 1.7.5.1 Competitors not complying with regulation 1.7.5 will be awarded 50% points of their relative finishing position in class if they are classified as a starter.









#### 1.7.5.2

Place	Points	Place	Points	Place	Points
<b>1</b> st	30	6 <sup>th</sup>	18	11 <sup>th</sup>	13
2 <sup>nd</sup>	27	7 <sup>th</sup>	17	12 <sup>th</sup>	12
3 <sup>rd</sup>	25	8 <sup>th</sup>	16	13 <sup>th</sup>	11
4 <sup>th</sup>	20	9 <sup>th</sup>	15	14 <sup>th</sup>	10
5 <sup>th</sup>	19	10 <sup>th</sup>	14	15 <sup>th</sup>	9

- 1.7.6 There must be minimum of three 2023 Registered Competitors in class at each round to receive Full Championship points as stated in 1.7.5
- 1.7.7 There must be minimum of two 2023 Registered Competitors in class at each round to receive the following points:-

1<sup>st</sup> Place 20 points 2<sup>nd</sup> Place 17 points

Championship Regulation Art. 1.7.3 still applies

- 1.7.8 If there is only 1 entry in a particular class in an individual race the finisher will only receive 50% points of their relative finishing position in class if they are classified as a starter. Championship Regulation Art.1.7.3—still applies
- 1.7.9 The presentation of a car for scrutineering will be deemed an implicit statement of conformity. If a vehicle is found to be ineligible (by the Championship Eligibility Scrutineer or an appointed Scrutineer in his absence) then no points will be awarded.
- 1.7.10 If a Competitor has to replace their vehicle from the vehicle registered to compete in the championship for ANY reason they may do this only once in the season. As long as the Championship Organiser and the Championship Eligibility Scrutineer gives their approval that the vehicle is also the same or lesser performance as the vehicle registered for the respective Championships, then the points already awarded from the previous races will be carried over to the new vehicle, also current Motorsport UK General Regulation (D) 25.1.12 applies. They may return to the originally entered car at any time.

If they make any subsequent change away from their originally registered car the new car will only be eligible for 75% Championship points for their respective finishing positions.

- 1.7.11 If a competitor decides to move their vehicle's class then no points will be transferred to the new class. From the next Event entered and completed, they will gain points in the new class.
- 1.7.12 Ties shall be resolved using the formula as per current Motorsport UK General Regulation W. Resolving Ties.







- 1.7.13 No team can register for the Championship to gain points at the last round of the Championship.
- 1.7.14 The car setting the fastest lap in each class in qualifying will be awarded 1 additional point. In addition, a further point will be awarded to each car setting the fastest lap in the race in each class.
- 1.7.15 In the event of cancellation of a championship round outside of the control of the Championship organisers, where the round cannot be relocated to the reserve round or the reserve round has already been used, the total number of rounds eligible towards the championship will be reduced accordingly. An accumulation of all the points eligible registered entrants scores will be used to determine the overall and class championships. Neither the Promoters nor the Organising club running the respective race meetings shall be liable for any consequential loss or damages.
- 1.17.16 In the event of dropped scores being implemented, any Competitor disqualified from the results of any race(round) cannot drop that round and will be counted towards their championship standings.

#### 1.8 AWARDS

- 1.8.1 All awards will be provided by the Championship Organiser and/or their partners and sponsors.
- 1.8.2 Per race:- The race winners will be presented trophies in Parc Ferme or on the venue podium (where possible). If the podium is not suitable or is unavailable then all trophies and interviews will be done in the British Endurance Championship Hospitality Race Centre. Drivers are reminded that the podium presentation is part of the event and the Championship asks all to attend. Entrants not attending prize giving ceremonies risk a forfeit of the respective trophies.
- 1.8.3 British Endurance Championship Trophies will be awarded for the races as follows:

  \*\* A trophy to drivers placed 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> overall (2 trophies to be supplied per position)
  - \*\* Sponsors caps to the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> overall (2 caps to be supplied per position)
  - \*\* A celebratory bottle to 1st overall
  - \*\* A trophy for the drivers coming  $1^{st}$ ,  $2^{nd}$  and  $3^{rd}$  in a class (2 trophies to be supplied per position)
- 1.8.4 British Endurance Championship Outstanding Achievement of the Weekend award Decided by the Championship Organiser.
- 1.8.5 Additional trophies and awards may be made and will be detailed within an official championship bulletin.







- 1.8.6 End of Season:- The British Endurance Championship awards will be issued at the awards presentation event at the End of the Season. The date and venue to be advised.
- 1.8.7 The following trophies will be awarded at the End of Season:
  - Trophies to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Driver Overall (maximum 2 trophies per car).
  - A celebratory bottle to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Driver Overall (maximum 2 bottles per car).
  - Trophies to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> Drivers in each Class (maximum 2 trophies per car)
  - Driver of the Year
  - Team of the Year
  - Rookie Driver of the Year
  - Sunoco Efficiency Award awarded to the team best fulfilling the criteria set out in 1.8.10
- 1.8.8 Additional Trophies:-
  - The Cowell Award Services to Britcar Endurance Ltd
  - The Brian Jones Trophy Media / Photographer of the Year Britcar Endurance Ltd
- 1.8.9 Drivers are reminded that the End of Year presentation is part of the Championship and it is requested that all teams attend. Trophies may be posted to teams but the postal charge may be passed on to the team at the absolute discretion of Britcar. Any teams requiring additional trophies can request these from the Championship Co-ordinator, there may be a charge for this.
- 1.8.10 Sunoco Efficiency Award is awarded to the most efficient entrant relative to their performance. It is open to any entrant who purchases fuel through Sunoco/Anglo American Oil and uses this fuel to race in the British Endurance Championship. The entrant must compete in a minimum of two rounds to be eligible but they do not have to be registered for the overall championship. If entrants satisfy the above criteria they will be automatically entered into this Award. The formula gives a score of efficiency per km with the best efficiency being awarded the prize.

#### 1.9 ENTERTAINMENT TAX LIABILITY

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







1.9.2 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 Islands or Eire. This means that Britcar is required to deduct tax at the current rate applicable from any such payments they may make to non-UK residents.

Under certain circumstances, it may be possible for competitors to enter into an agreement with the Inland Revenue to limit the tax withheld. Any application for such an arrangement must be made in writing and not later than 30 days before the payment is due. For further information contact:

HMRC Personal Tax International, Foreign Entertainers Unit, St John's House, Merton Road, Liverpool, L75 1BB - Telephone: 00 44 (0) 151 472 6488

#### 1.10 TITLE TO ALL TROPHIES

- 1.10.1 Overall Championship trophies are the property of Britcar and must be returned upon request to Britcar. Copies are available at an additional cost.
- 1.10.2 If Provisional Results or Championship Tables are revised after any presentations and these revisions affect the distribution of awards the Competitors concerned must return them to the Championship Organisers in good condition within 7 days.









#### 2.1 CHAMPIONSHIP EVENT MEETINGS & RACE PROCEDURES

#### 2.1 RACE ENTRIES

- 2.1.1 Competitors are responsible for sending in correct and complete entries with the correct entry fee prior to the closing date for entries which is 14 calendar days before the start of each event. Incorrect or incomplete entries (including "Driver to be nominated" entries) will be held in abeyance until they are correct and complete. Any teams not paying on time may, at the Championship Organisers' sole discretion. can be refused entry to the event, risk losing Championship Points or a £500 (plus VAT) Late Payment fine -
- 2.1.2 Driver and team information should be lodged with the Championship Organisers in writing by 12 noon, a minimum of 8 calendar days before an event at to enable the information to be included in the official program.
- 2.1.3 Withdrawal or alterations to an entry made after acceptance of any entry must be notified to the Championship Organisers in writing. Motorsport UK General Regulation D25.1.12 applies.
- 2.1.4 The deadline for any amendments is 6pm on the Thursday before each event and may be accepted or refused at the sole discretion of the Championship Organiser.
- 2.1.5 Reserves are to be nominated on the Final List of Entries published with the Final Instructions or Amendment Sheet Bulletins. All Reserves can practice and may replace withdrawn or retired entries. If Reserves are given grid places prior to issue of the first grid sheets for any round the times set in practice shall determine their grid positions. If reserves are given places after publication of the grid sheet and prior to vehicles being collected in the official "Assembly Area" they will be placed at the rear of the grid and be started without any time delay.
  - Otherwise, they will be held in the pit lane and be released to start the race after the last vehicle to take the start has passed the pit lane exit. Such approval to start must be obtained from the Clerk of the Course.
- 2.1.6 There will be no refund of the balance of entry fees, less deposits, if an entrant withdraws after 12pm on the Wednesday prior to the respective race meeting. The refund of the balance of entry fees, less deposits, is at the sole discretion of the Championship Organisers.
- 2.1.7 Late Final entries are accepted up to 12pm on the Thursday of an event, however such entries may be subject to a late entry charge.
- 2.1.8 The Championship Organisers, at their sole discretion, reserve the right to accept entries for cars which do not fit into the classification. Such cars may be restricted by the Championship Eligibility Scrutineer and may be placed on the RESERVE list as the Championship eligible cars will be given priority. If space permits they will race under an INVITATION title. No points will be gained.







2.1.9 An INVITATION ENTRY FEE and entry fee for "Guest Entry" race entries who are not registered for the championship will be £200 (plus VAT) more than the stated entry fee.

#### 2.2 BRIEFINGS

- 2.2.1 The Championship Organisers will notify Competitors and Team Managers of the times and locations of all Driver & Team Manager Briefings through email, the event Final Instructions and the Manager WhatsApp Group.
- 2.2.2 It is mandatory that all Drivers and Team Managers attend all briefings in accordance with current Motorsport UK General Regulation H32.1.3. Any Driver or Team Manager arriving late or failing to attend a mandatory briefing may be fined £250. Repeat offences during the season may result in increased penalties.
- 2.2.3 Any driver operating a mobile device (phone, tablet, etc) during the briefing will be deemed to be absent and may be fined.
- 2.2.4 A driver may not take part in a race event until he/she has attended the respective drivers' briefing or, where agreed by exception, received a personal briefing from the Championship Clerk of the Course or their deputy.
- 2.2.5 Should a Competitor or Team Manager be unable to attend they must notify the Clerk of the Course in writing beforehand. Failure to do so will be considered to be non-attendance (refer to article 2.2.2 above).

#### 2.3 DESIGNATION OF THE CIRCUIT & REQUIREMENTS

- 2.3.1 The events will take place at Motorsport UK Licensed Circuits in the UK.
- 2.3.2 The maximum number of vehicles permitted on the circuit will be in accordance with as per the respective Motorsport UK circuit license and will be subject to an additional percentage for qualifying as specified in Motorsport UK 2022 (Bluebook).

#### 2.4 FREE PRACTICE / QUALIFICATION

2.4.1 After the end of free practice the chequered flag will be shown at the start line to indicate that FREE PRACTICE has finished and QUALIFYING has begun. This will also be put on the TSL timing screen and for information only on the Team Managers WhatsApp Group.







- 2.4.2 In combined Free Practice/Warm Up and Qualifying each entered driver must complete a minimum of 3 laps in the vehicle to be raced and in the correct session, in order to qualify for selection and order of precedence as set out in current Motorsport UK General Regulations Q12.4.
- 2.4.3 The fastest lap in qualifying will determine the grid for the race. No Professional driver may set a time in the qualifying session. The qualifying time must be set by the nominated AM driver.
- 2.4.4 In a multi driver team all drivers must sign on for that entry with the relevant licence level for that class. They must all qualify the car in the appropriate session or at a time agreed with the Clerk of the Course.
- 2.4.5 The Clerk of the Course shall have the right to disqualify any driver whose practice times or driving are considered to be unsatisfactory as per current Motorsport UK General Regulation Q12.4.
- 2.4.6 The minimum period of qualifying will be 1 x 10 mins per round plus a minimum of 1 x 20min free practice/warmup which will count towards all drivers 3 eligibility laps (Art. 2.4.2 and General Regulation Q12.4) that feature purely day races and 1 x 10 mins day qualifying and 1 x 30mins night practice which will count towards all drivers 3 eligibility laps (Art. 2.4.2 and General Regulation Q12.4) for rounds that feature night races.
- 2.4.7 Should any qualifying session be disrupted the Clerk of the Course shall not be obliged to resume the session for all or part of its remaining duration or re-run sessions to achieve the championship criteria and the decision of the Clerk of the Course shall be final. If Qualification is not run the grid will be formed from the current Championship order per class.
- 2.4.8 After each session vehicles must go directly to the designated Parc Ferme area or where they are directed by Officials. Competitors are reminded that they are under Parc Ferme conditions from the moment they take the chequered flag and throughout their route to the designated Parc Ferme area.
- 2.4.9 Vehicles may be weighed or checked for eligibility at any time at the discretion of the designated Championship Eligibility Scrutineer.

#### 2.5 RACES

- 2.5.1 The minimum scheduled duration shall be set by the timetable, whenever practicable, but should any race be reduced at the discretion of the Clerk of the Course or Stewards of the Meeting it shall still count as a full-points scoring round.
- 2.5.2 The Organisers will make all reasonable efforts to return cars which stop out on the circuit during a race due to mechanical or incident damage to the team to enable them to effect repairs and return the car to the race after being checked by the Championship Eligibility Scrutineer or their assistant.









2.5.3 Teams need to advise a British Endurance Championship Official which driver is in the car at any point when requested.

#### 2.6 STARTS

- 2.6.1 No Professional driver may start the race. In an AM / AM team either driver may start the race (a Professional driver is described in 1.3.7)
- 2.6.2 Once the pit lane is opened, all cars will proceed to the grid. 3 minutes after the pit lane opens the pit lane will close, any car still in the pit lane after this time, will be a pit lane starter (the car will not join the green flag lap). The green flag lap will commence 7 minutes after the pit lane opens, any car not in its grid position at this time will remain at the rear of the grid or be a pit lane starter. Teams are allowed one team member per car on the grid, only to help/assist them to be in the correct grid position
- 2.6.3 All races will be Rolling Starts and the minimum countdown procedure/audible warnings sequence shall be:-
  - 1 min to start of pace lap start engines/clear grid.
  - 30 secs visible and audible warning for start of pace lap.
  - Starts will use a two by two grid and a Rolling Start.
- 2.6.4 Any vehicles removed from the grid after the 1 min signal or driven into pits on pace lap shall be held in the pit lane and may start the race after the last vehicle to take the start from the grid has passed the start line or pit lane exit, whichever is the later.
- 2.6.5 Any Competitors unable to start the pace lap or start are required to indicate their situation as per current Motorsport UK General Regulation Q12.11.2 and any Competitors unable to maintain grid positions on the pace lap to the extent that all other vehicles are ahead of them, may complete the lap but must remain at the rear of the last row of the grid but ahead of any vehicles to be started from the pit lane or from a timed delay.
- 2.6.6 The Safety Car will be used as the Pace Car for the start of the races.
- 2.6.7 The red lights will be switched on once the Pace Car has approached the pit entry and will be extinguished to signify the start of the race. In the event of any starting lights failure the starter will revert to use of the National Flag. Competitors must hold their grid position in a 2x2 formation until the start of the race signal is given. Once the Safety Car has left the circuit the pace must be maintained by the lead vehicle until the race starts. Failure by a team to maintain pace or grid position may delay the start and the team manager may be called to see the Clerk of the Course and the team may receive a penalty.









2.6.8 The Championship Organisers reserve the right to employ an alternative starting procedure.

#### 2.7 RACE STOP / RED FLAG

- 2.7.1 As per the current Motorsport UK General Regulations.
- 2.7.2 Should a Red Flag/Light be required to stop any race or practise, RED LIGHTS will be switched on at the start line and Red Flags will be shown at the Start line and all Marshal Signalling Points around the track. Where a marshalling light system is installed at a circuit, the light panels will also be illuminated. The light panels will have the same meaning as the marshals' flags.
- 2.7.3 All Competitors must cease racing immediately, and slow down to a safe and reasonable pace, continue around the track to the starting grid area and follow the directions of the marshals/officials
- 2.7.4 All vehicles involved in contact incidents during practice, qualifying or races must be re-presented to the Scrutineers before continuing in the session.
- 2.7.5 If there is a Red Flag / race suspension during a race, all vehicles are in Parc Ferme. Only the Championship Eligibility Scrutineer may authorise work on vehicles.

#### 2.8 GENERAL PITS & PITS LANE SAFETY

- 2.8.1 Each car will be allocated a dedicated space on the pit apron and any work carried out on the car, including the mandatory pitstop, may only be carried out in this dedicated space or in the team's pit garage or awning.
- 2.8.2 Cars must be parked at approximately 45 degrees to the prescribed direction of travel in the pit lane with the nose towards the garage side of the pit lane. Cars may only be worked on in the apron area of the pit lane and not the slow lane or the fast lane. Cars must be safely pushed back (NOT reversed under their own power) into the slow lane without impeding any other car and before being released by the car controller (see 2.8.11 and 2.8.13) into the fast lane of the pit lane. Cars may only use the slow lane of the pitlane to enter or exit their pit box. Cars using the slow lane to traverse an unreasonable proportion of the length of the pitlane will be subject to penalty.
- 2.8.3 Penalties up to and inclusive of Disqualification from the meeting, attracting mandatory points on entrant and/or competitor's licence and financial fines will be imposed for transgressing the regulations, the severity of the penalty is at the discretion of the Clerk of the Course.







- 2.8.4 Only team personnel wearing the British Endurance Championship supplied identification are allowed in the Pit Lane or on the pit wall during any session. Media personnel must sign on with the circuit media team for access and cannot use Britcar pitlane identification as access to the pitlane for media work.
- 2.8.5 Permitted vehicles allowed in the main paddock area include race vehicles, race transporters and hospitality vehicles.
- 2.8.6 Entrants must ensure that the Motorsport UK General Regulations and Circuit Management and Organising Club Safety and Supplementary Regulations including Final Instructions and all and any Published amendments are complied with at all times.
- 2.8.7 The outer lane or lanes of the pit lane are to be kept unobstructed to allow safe passage of vehicles at all times.
- 2.8.8 Pit lane speed limit will be 40 kph unless otherwise indicated in the relevant Final Instruction or Drivers Briefing.
- 2.8.9 Pit signalling on the pit wall is limited to a maximum of three team personnel. The pit wall is the only place where signalling to drivers is permitted. (Please note Championship Regulation Art. 1.4.7). Any team with more than three people on the pit wall may be liable to a fine of at least £250.
- 2.8.10 Harnesses cannot be removed by a driver until the vehicle has come to a full stop in the pit lane and vehicles may not move off until the driver has fully secured their harnesses.
- 2.8.11 Team members and all pitstop equipment, with the exception of 'Stop' sign and any part of the refuelling rig which cannot fit behind the 'Pit Lane' line or in the garage must remain in the pit garage/behind the 'Pit Lane' line or on the pit wall (see 2.8.7 above) until the car has come to a stop in its designated pit area, with the exception only of the Car Controller (see 2.8.14) who may stand in the designated pit area a maximum of 1 lap before the car enters the pitlane. The car may not be pushed back until all equipment has been returned behind the designated 'Pit Lane' line/into the garage. All team personnel must return to the garage/behind the 'Pit Lane' line or to the pit wall (See 2.8.7 above) immediately once the car has left the slow pitlane. 'Equipment' is defined as anything other than cars, personnel, 'Stop' sign or any part of the fuel rig that cannot fit behind the 'Pit Lane' line or in the garage and is including, but not limited to, tools, tyres, spare parts.









- 2.8.12 Teams will be issued with 6 arm bands which must be worn on the arm and visible at all times to pitlane staff. You may only access the pitlane if you are wearing an appropriate armband. Only one arm band may be worn at once. These arm bands are:
  - Red x 3 For Mechanics working on the car. Gives access to the pitlane apron only and not the pitwall and can only be used to work on the car in the pitlane.
  - Yellow x 2 For pitwall timing purposes. Gives access to the pitlane apron and the pitwall, may be used to work on the car in the pitlane.
  - White x 1 For the pitlane car controller. This gives access to the pitlane apron and the pitwall (see 2.8.14 for restrictions).
- 2.8.13 Arm bands not worn on the arm or personnel in the pitlane or on the pitwall without an armband (including drivers) will incur a penalty for the competing car at the discretion of the Clerk of the Course (See 2.8.1 above)
- 2.8.14 The Car Controller (White Arm Band) is solely responsible for managing the safety of the pitstop including the safe release of the car from the designated pit area and into the slow and fast lanes. At the end of the pitstop the car controller must stand in front of the car and face the oncoming traffic. The car controller may, during the pitstop, assist with any other aspects of the pitstop including pushing the car back from the designated pit apron into the slow lane. A 'safe release' must satisfy all of the following:
  - With the exception of the Car Controller (White Arm Band) all team members and equipment (2.8.11) must be back in the garage/behind the 'Pit Lane' line or on the pit wall with the exception of maximum of 2 people helping the car accelerate from standstill by pushing from the rear of the car.
  - Not interfering with any other competitors or equipment.
  - Not impeding any other competitors traversing the pitlane or cause another competitor to change speed or direction to avoid a collision.
- 2.8.15 Only 4 team members may work on the car during the pitstop at any time. All team personnel in the pitlane (not in the garage or behind the 'Pit Lane' line as appropriate) during a stop will be deemed to be working on the car. This number does not include the driver getting in or out of the car or the other driver / drivers assistant helping a driver get in or out of the car. The other driver / driver's assistant may ONLY assist the entering/exiting driver to enter/exit the car and must not carry out any other function. All team personel in the pitlane during their pitstop must be wearing an arm band, with the exception of the drivers entering and exiting the vehicle.
- 2.8.16 Engines must not be run at any time if the vehicle is off the ground and/or supported by portable jacks in the pit lane.









2.8.17 All garages must be vacated by the time specified in the Supplementary Regulations or Final Instructions for that event.

#### 2.9 PIT STOPS

2.9.1 All teams with the exception of cars in Class H will have mandatory Pit Stops as listed below in Art.2.9.2. Vehicles not completing this mandatory stop are subject to a penalty as detailed in Art.4.2.

#### 2.9.2 **Mandatory Pit Stops**

	Number of Pit Stops
Races UPTO 120 mins	2 STOPS
Races BETWEEN 120 mins and 180 mins	3 STOPS
Races OVER 180 mins	4 STOPS Plus 1 TECHNICAL STOP (see 2.9.3.1)

2.9.3 The Mandatory Pitstop Time will be the Pitlane Transit Time in addition to a stationary time of approximately 110 seconds. As such the total pitstop time will vary from circuit to circuit depending on the pitlane transit time. The Mandatory Pitstop Time will be as listed in the table below. Any amendment to the Standard Pit Stop time will be notified to the Competitors by Championship Bulletin and by the Managers WhatsApp Group at the earliest opportunity and no later than 1 hour before the start of a race.

The Mandatory Pitstop Times will be as follows at the following tracks. These Mandatory Pitstop Times do not include any success or BoP additional time.

Silverstone Heritage Pitlane	140 seconds
Brands Hatch Pitlane	135 seconds
Oulton Park Pit Lane	127 seconds
Snetterton Pit Lane	132 seconds
Donington Pit Lane	133 seconds

2.9.3.1 In races longer than 180 minutes there will be 1 mandatory TECHNICAL STOP. This stop may be taken at any time during the open pit window. The minimum pitstop time for the TECHNICAL STOP measured from the Pit-In timing loop to the Pit-Out timing loop will be 300 Seconds







- 2.9.5 The Pit Stop time is measured by the vehicle transponder activating the timing beams or loops in the track at the entrance and exit of the pit lane signalled by a Pit Speed Board. The total time taken by a competing vehicle between these two points in the pit lane will determine the length of the Pit Stops and will be monitored by the appointed Motorsport UK Official Timekeepers. The minimum total time from pit-in to pit-out including transit time and stationary time will be as above and advised in the final instructions or Championship Bulletins or via the Managers WhatsApp group.
- 2.9.6 There will be a Pit Window for all races during which all Mandatory Pit Stops must be completed.
- 2.9.7 The pit window will open 20 minutes after the race start and will be calculated to close 20 minutes before the scheduled end of the advertised race distance as shown on the official timetable. Time will be taken from the pit entry timing line.
- 2.9.8 In a multi driver team, no one driver may do more than 60% of the race length
- 2.9.9 For the avoidance of doubt the race start time or the pit exit timing loop will identify the start of respective stints and chequered flag time or pit entry loop time will signify the end of a respective driving stint.

#### 2.9.11 Additional Stops

- 2.9.11. Any additional stops that requires refueling is the same duration as a Mandatory Pit Stop. Any further pit stops that do not require refueling are not time limited.
- 2.9.12 It is the sole responsibility of the team to manage the Pit Stop time. Any team shortening their pit-stop from the regulated time will receive a penalty.
- 2.9.13 The pit stop in-loop to out-loop times will be issued in the Event Information Bulletin and available at Drivers Briefing or via the Team Managers WhatsApp Group.
- 2.9.14 Judges of fact will be monitoring pit stops and reporting any infringements to the Clerk of The Course.
- 2.9.15 Any Pit Stop must be under control of the Team Manager who must record who is in the car being driven on the circuit at any given time. Teams must advise the Pit Lane Marshal or a Britcar Pit Lane Team Member which driver is in the car once a driver change done.
- 2.9.16 Should the official classification be delayed such that it is not published 60 minutes prior to the time of opening of the assembly area or Pit Lane (whichever is relevant) for the following Race the most up to date provisional classification (that including any confirmed judicial action in respect of any Sporting or Technical issue) will be used to allocate Grid Positions.









- 2.9.17 No protest or appeal will be accepted as to the possible effects of the use of the provisional classification.
- 2.9.18 In races scheduled to last longer than 1 hour, teams may be required to provide onboard camera footage to the Clerk of the Course during a pitstop. The team will be notified prior to the stop that the SD card containing the footage is required and they must remove the card, replace it with a new card and hand the card to Britcar personnel after the stop. Competitors are reminded that they must still be able to comply with Championship Regulation 2.14.7, 2.16.5, 2.16.6 and 2.16.7 at all times during competition.

#### 2.10 FUEL STORAGE

- 2.10.1 Refuelling must be carried out in accordance with current Motorsport UK General Regulations for Circuit Racing Q12.25 (Pit and Paddock Regulations) and Art.5.18 of these technical regulations AND Circuit Management Regulations and the Supplementary Regulations and Final Instructions issued for each circuit/round.
- 2.10.2 No more than 3 sealed churns of fuel (3 x 25ltr) plus one spare 210ltr barrel per vehicle (sealed, containing no more than 200ltrs of fuel) may be stored in the pit garage at any one time.
- 2.10.3 A single 210ltr barrel in use for refilling the churns may be situated outside the garage per vehicle in the pit lane beside the door and It must be sealed when not in use.
- 2.10.4 A single empty, sealed 210ltr barrel may be stored outside the rear of the garage, beside the garage door.
- 2.10.5 The maximum size of fuel storage containers to be used by teams is 210ltrs per container containing no more than 200ltrs of fuel.
- 2.10.6 Pumps fitted to drain the fuel from the containers must be of a metal construction and approved for use with corrosive liquids.
- 2.10.7 The pit lane, garages, and fire lane are no smoking zones and everyone must adhere to circuits rules.
- 2.10.8 Entrants wishing to use non petrol/diesel/synthetic petrol fuels must confirm their requirements a minimum of 6 weeks prior to the event they wish to enter to enable appropriate storage and supply of fuels to be implemented.









#### 2.11 REFUELING AND RECHARGING REGULATIONS

- 2.11.1 Refueling/recharging must be carried out in accordance with current Motorsport UK General Regulations for Circuit Racing Q12.25 (Pit and Paddock Regulations) Art.5.18 of the Championship Technical regulations Circuit Management Regulations, the Event Supplementary Regulations or Final Instructions issued for each event.
- 2.11.2 In the event the vehicle is not fitted with refueling systems in compliance with Motorsport UK General Regulations for Circuit Racing Q12.25.2 fuel cans and funnels maybe used to refuel with petrol/diesel/synthetic petrol fuels only but must be fueled in the team garage under supervision of the team manger during the pit stop plus a Motorsport UK Event Scrutineer must be advised that this refueling will be taking place. The garage door, pit lane side, must be closed and the door at the rear must be open.
- 2.11.3 During refuelling the vehicle must have its engine switched off and must be on its wheels and not on jacks.
- 2.11.4 Exhaust pipes and/or hot brake material in the proximity of the refuelling or venting connectors must be covered with flame-resistant material.
- 2.11.5 In all lanes in the Pit Lane, where a vehicles may roll from its stopped position, a suitable wheel chock is required.
- 2.11.6 During any refuelling operation in the pit lane, the designated Refueller and Fire Extinguisher Operator must be dressed in approved flameproof overalls, gloves, and balaclava to the specification in Motorsport UK Blue Book regulation Q 12.25.2 and K 9. In addition they must wear flameproof socks, full length under trousers and undershirt to FIA regulations and goggles to K11.2
- 2.11.7 No other work may be carried out whilst refuelling is taking place. The driver may only get back in the vehicle when refuelling has finished.
- 2.11.8 No refuelling may take place during any official qualification session. Cars must be fuelled sufficiently before the session and may not refuel until all cars are released from Parc Ferme conditions after the session

#### 2.12 RE-FUELLING QUANTITY

- 2.12.1 Refuelling quantity in each pitstop is free
- 2.12.2 From the moment that the Safety Car is deployed and crosses the pit exit timing loop or enters the circuit to the time that the Safety Car re-enters the pits and crosses the pit entry timing loop, no car may enter the pits to refuel. Any car requiring to refuel during a safety car will receive a penalty as defined in 4.2-







- 2.12.3 This restriction does not apply to any car already in the pits at the time of the deployment of the Safety Car or any car that follows the Safety Car into the pit lane.
- 2.12.4 Failure to comply with above regulations will incur penalties as listed in section 4.2 of this document.

#### 2.13 RACE FINISHES

- 2.13.1 After taking the Chequered Flag drivers are required to:
  - Progressively and safely slow down.
  - Remain behind any competitors ahead of them.
  - Return to the pit lane entrance/paddock entrance as instructed.
  - Comply with any directions given by marshals or officials.
  - Keep helmets on and harnesses done up while on the circuit or in the pit lane.
- 2.13.2 All races are of timed duration. In these races the chequered flag will be shown to the leader the next time they pass the finish line after the duration of the race time. If for any reason the race has to be shortened the chequered flag will be shown. If the chequered flag is displayed incorrectly then Motorsport UK General Regulations apply.

#### 2.14 PARC FERME

- 2.14.1 At the end of every practice session, qualifying session or race, all competing vehicles must be taken to the designated Parc Ferme area unless given special dispensation by the Championship Eligibility Scrutineer not to do so.
- 2.14.2 Any competitor who decides not to complete a session must still take their vehicle to the designated Parc Ferme area and may not return directly to the paddock or pit garage.
- 2.14.3 All vehicles are under Parc Ferme conditions from the moment the chequered flag is displayed to conclude a session until they are released from Parc Ferme by the Championship Eligibility Scrutineer. Admission to the Parc Ferme area is only allowed for the competing vehicle, its driver(s) and officials. No other person may enter the area unless invited to do so by the Championship Eligibility Scrutineer.
- 2.14.4 After all sessions, the garages are designated Parc Ferme area until cars are released by Championship Eligibility Scrutineer.







- 2.14.5 Until cars are released from Parc Ferme, the following applies:
  - No work on the car may take place of any kind
  - No computers or similar devices may be connected to view or extract data with the exception of Championship Appointed Data Engineers collecting and reviewing eligibility data.
  - No team personnel, except the driver(s), may enter the area, for vehicles in garages this includes a one metre area around the vehicle.
  - The Championship Eligibility Scrutineer may request a team contravene the above Parc Ferme Restrictions to enable checking of technical compliancy. Any team requested to contravene the above regulations may only do it under the direct observation of the Championship Eligibility Scrutineer or his assistants.
- 2.14.6 Failure to take a vehicle to the Parc Ferme area, breaches of the Parc Ferme conditions or non- authorised persons being found within the area may result in penalties being applied up to and including disqualification.
- 2.14.7 After qualifying and races the onboard camera SD card must be removed and handed to the BEC appointed Official in Parc Ferme. See 2.16.6

#### 2.15 RESULTS

- 2.15.1 All Official Timesheets, Grids, Race Results are deemed 'provisional' until all vehicles are released from Parc Ferme by the Championship Eligibility Scrutineer after post practice/race scrutineering and/or after completion of any judicial or technical procedures.
- 2.15.2 Competitors are reminded of Motorsport UK General Regulation W.2.1.8.

#### 2.16 TIMING MODULES, RADIO & CAMERAS

- 2.16.1 All competing vehicles must have fitted for all official test, practice, qualifying and race sessions, a working Electronic Self Identification Module (Transponder) of the following type:
  - MYLAPS X2
  - MYLAPS TR2

Or any other transponder approved by TSL Timing.

During the season the organisers may introduce mandatory driver identification procedures in line with the vehicle transponder, including but not limited to dedicated vehicle transponders, driver id systems and wearable devices. It will be a requirement to continue receiving awards and championship points that all competitors adhere to these driver identification procedures.

2.16.2 It is the responsibility of the Entrant to fit the module in a safe and appropriate position as recommended by the manufacturer.







- 2.16.3 Competitors or teams must not place any electronic timing equipment within 10m of the official timing line (Control Line) or any other official timing line at any event or test session. Any such equipment placed within these areas will be removed. Q11.3 (v)
- 2.16.4 Radio See Championship Regulation Art.6.5 Q11.3
- 2.16.5 It is mandatory that all teams run "In Car Cameras" See Championship Regulation Art.5.23
- 2.16.6 At the end of each session, each team must save the on-board camera footage on the SD card, then remove the card and hand it to the designated Britcar Official. This must be done under Parc Ferme conditions after the end of a session. Any team failing to preserve the recorded footage or deliver the SD card within the specified timescale (20 minutes after the chequered flag) will be reported to the Clerk of the Course and may be subject to a financial or sporting penalty as detailed in Section 4. These cards must clearly marked with the car number.
- 2.16.7 All video footage must show the information detailed in 5.23 clearly on screen.
- 2.16.8 The video cards will be returned to the teams once the Clerk of the Course has completed his investigations.
- 2.16.9 Cards may not be returned before the next on track session. As such teams must make sure there is a replacement card installed and fully operational for the next session.

#### 2.17 SAFETY CAR

- 2.17.1 Safety Car operation will be in accordance with current Motorsport UK Yearbook, Section Q, Appendix 3. By exception at night races, if the safety car is not deployed in front of the race leader, then once the incident has cleared, the Safety Car may not instruct any cars to pass in order to move the leader to the front.
- 2.17.2 Unless specified in the Event Drivers' Briefing notes, the Safety Car will be used during the races and, at the discretion of the Clerk of the Course, may be used in free practice, qualifying and night familiarisation.

#### 2.18 JUDICIAL PROCEDURE

- 2.18.1 Rounds: In accordance with the current Motorsport UK General Regulations Section C.
- 2.18.2 Championship: In accordance with the current Motorsport UK General Regulations Section C.







#### 3 DRIVING STANDARDS & COMPETITOR / TEAM MEMBER BEHAVIOUR

- 3.1 By registering for the Championship all competitors and their associates commit to positively promote and demonstrate the Motorsport UK's Respect Code which is appended to these regulations (Appendix A).
- 3.1.1. Where any reports of disrespectful conduct are judged to be well founded the Championship organisers may issue warnings or require remedial actions and/or report the matter to the Championship Stewards who may impose appropriate penalties which can include loss of Championship points and/or race bans through to Championship Expulsion and referral to Motorsport UK.
- 3.1.2. It is imperative that we promote the safety and well being of young people and adults at risk. In addition to this all participants must be aware of their behaviour and conduct at all times and abusive language and harmful behaviour will not be tolerated. Any such incidents must be reported to the Championship Coordinator and/or Safeguarding Officer who will also relay the report Motorsport UK. Details of the Motorsport UK Policies and Guidelines are available at <a href="https://www.motorsportuk.org/resource-centre">www.motorsportuk.org/resource-centre</a> by selecting Policies and Guidelines.
- 3.2 Driving Standards During each track session Driving Standards will be reviewed and reported to the Clerk of the Course who will take appropriate action as necessary.
- 3.3 Competitors who bring the Championship, the Championship Organisers, or any sponsors of the Championship into disrepute through either on or off-track behaviour including verbal or written statements (for example Social Media), may be refused entry to the following or any number of subsequent events at the Championship Stewards discretion.
- 3.4 If deemed serious the Championship Stewards may deduct Championship Points or disqualify the team and/or driver from the Championship until further notice.
- 3.5 No abusive language or actions will be tolerated towards any Championship Organisers' employee, Volunteer, Contractor or Guest in any form. All incidents of this nature will be reported to the clerk of the course.
- The Championship requires conformity with Motorsport UK General Regulation A.10 (all parts) at all times.
- 3.7 The Championship Organisers reserve the right to decline an entry on receipt of a complaint.







#### 4 SPECIFIC CHAMPIONSHIP PENALTIES

- 4.1.1 Penalties issued will be in accordance with Section C of the current Motorsport UK Yearbook
- 4.1.2 Infringements of Technical Regulations arising from post-practice Scrutineering or Judicial Action:
  - Minimum Penalty: Motorsport UK General Regulations Section C.3.3 (a) and (b)
- 4.1.3 Infringements of Technical Regulations a rising from post-race Scrutineering or Judicial Action:
  - Minimum Penalty: The provisions of current Motorsport UK General Regulations C.3.5.1 (a) and (b)
- 4.1.4 For infringements deemed to be of a more serious nature the Clerk of the Course and/or Stewards of the meeting will invoke current Motorsport UK General Regulations C.3.5.1 (c).
- 4.1.5 The following infringements are used as a guideline by the Clerk of the Course. The actual penalty received may differ at the Clerk of the Course's discretion, based on circumstance. A time penalty may be issued by the Clerk of the Course after the race if there is insufficient time during the race to advise of, or serve a penalty.









## 4.2 INFRINGEMENTS & PENALTIES

INFRINGEMENTS	DURING QUALIFYING	DURING RACE
A - Excess speed in pit lane 2.8.8	Black Flag	Stop-Go penalty for 2 seconds per km/h over the speed limit
B - False Start	n/a	Drive Through Penalty
C - Failure to respect starting position, restarting position after a safety car intervention or out of position on formation lap	n/a	Stop and Go up to 60 seconds
D - Wrong direction in pit lane	Disqualification	Disqualification
E - Working on the vehicle whilst refuelling 2.11.7	Black Flag	Drive Through penalty
F - Refuelling during Safety Car Period 2.12.2	n/a	Stop and Go for 60 seconds
G - More than 4 people working on the vehicles during refuelling or at a Mandatory Pit stop. 2.8.15	n/a	Drive Through Penalty
H - Not stopping for the correct amount of time for any pit stop 2.9.3	n/a	Stop and Go for 1 second every 1 second under the allotted pit stop.
I - Not stopping for the minimum number of mandatory pit stops during pit window 2.9.2		Stop and Go for 1 second every 1 second outside the allotted pit stop window.
J - Overtaking the Safety Car without authorisation	Disqualification	Stop and Go for 120 seconds
K – Failure to adhere to 6.1 or 6.2 at any point during the race meeting		Non awarding of Championship Points for that race and £500 fine.
L – Failure to provide video footage after a session 2.16	1	Non awarding of Championship Points for that race and £500 fine.
M – Infringement of Parc Ferme regulations 2.14	Removal of Qualifying Time and £500 fine	Disqualification
<ul><li>N – Driving in the slow lane of the pitlane (not including crossing or accelerating from your allocated pit area)</li></ul>	Qualifying Time and £500 fine	Drive Through Penalty
O – Track Limits	Qualifying Time for	On 3 <sup>rd</sup> offence Black and White warning flag. Every 3 <sup>rd</sup> offence after that a Drive Through penalty.
P - All other infringements	At the discretion of the Clerk of the Course	









#### 5 TECHNICAL REGULATIONS

#### 5.1 **INTRODUCTION**

- 5.1.1 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 must work on the principle that you cannot.
- 5.1.2 Where references are made to "original equipment", the term is defined as —
  "Is a part, the specification, features, location and method of operation of a part
  are as provided when new by the motor manufacturer for the model and date of
  car as shown on the technical form submitted via the Britcar Endurance website".
- 5.1.3 Technical regulations section 5 only for Class E are contained within Appendix B and supersede this section for Class E only. In addition, regulation 5.23 in these regulations applies to cars in class E
- 5.1.4 Technical regulations section 5 only for Class G are contained within Appendix C and supersede Section 5 for Class G only. In addition, regulation 5.23 in these regulations applies to cars in class G

#### 5.2 CLASSIFICATION AND BEPI

- 5.2.1 Cars are split into their respective classes by the BEPI system or by their vehicle homologation documents.
- 5.2.2 The BEPI figure is achieved by entering vehicle data into the BEPI calculator which can be found at britcar-endurance.com/bepi/
- 5.2.3 The Britcar Endurance Performance Indicator (BEPI) is used to position the car within the class structure and ensure that cars are raced against other cars of a similar speed round a lap not just based on the same engine power.
- 5.2.4 The Britcar Endurance Performance Indicator is a guideline to the cars classification and this is hosted on our website but the final BEPI figure will be determined by Britcar Endurance. If you wish to discuss your BEPI classification and how to maximise your car in your class please contact David Hornsey our Technical Manager (david@britcar-endurance.com)
- 5.2.5 Britcar Endurance reserves the right to alter and modify the BEPI as necessary.
- 5.2.6 Additional Bulletins will be issued to confirm particular cars BOP.







- 5.2.7 It is the competitor's responsibility to provide the promoters, on request, with recently measured (less than 6 months old) Power and Torque figures by means of a dyno graph or in the case of manufacturer built homologated cars with dynodefeat systems installed, a manufacturer supplied power and torque graph or figure from official manufacturer documentation
- 5.2.8 Each competitor will submit the information about their vehicle by closing date before their first race weekend via the championships BEPI (Britcar Endurance Performance Indicator) registration system available on line (contact claire@britcar-endurance.com for login details) once submitted and the Technical Declaration signed.
- 5.2.9 Any changes to the Technical Declaration must be reported to the organisers before being allowed to qualify and race. The specification detailed on the Technical Declaration will be used by the Championship Eligibility Scrutineer to confirm the eligibility of the vehicle against the class entered. An electronic copy of the Technical Passports will be held by the Britcar Endurance organisation and used as reference material.
- 5.2.10 Britcar Endurance reserves the right to add ballast, pit stop times and mandate intake restrictors or ride height at any point during the season.

#### **5.3 SAFETY REQUIREMENTS**

- 5.3.1 As per current Motorsport UK General Regulations Section K and appendices will apply to all vehicle and personnel equipment
- 5.3.2 As per current Motorsport UK General Regulations the Minimum General construction requirements of competition vehicles and racing vehicles will be applied as listed in sections J and Q respectively.

#### 5.4 ELIGIBILITY OF COMPETING CAR

- 5.4.1 The championship is open to any GT car or Production saloon car provided they meet the championship requirements. Open wheeled cars are prohibited.
- 5.4.2 All cars must have bodywork that encloses all suspension, drive shafts and exhaust system with the exception of cars which have these elements exposed as part of the original road car.
- 5.4.3 The car entered must be based upon, or derived from a car which has at some point in its homologated life been available as a road legal car from the original manufacturer.









5.4.4 Alternatively, the car may be deemed to be eligible if it is in the spirit of a road-based GT or Sportscar, for example a Ginetta G55. Decisions on the eligibility of a car model is to be determined by Britcar and their decision is final. Cars that do not meet these criteria, or do not fit into the BEPI classification limits may be accepted as an Invitation entry.

To discuss the opportunity for an invitation entry please contact Claire Hedley. Entry must be submitted to the Championship organisation via the Britcar Endurance Performance Indicator (BEPI). The data provided will form the Technical Passport for your car for the Championship and will be used for Classification and Scrutineering.

5.4.5 In the event of any dispute, the competitor may submit the manufacturer's official homologation documentation from the road-based car, an FIA or Motorsport UK Technical Passport as reference.

#### 5.5 EXAMINATION OF VEHICLES

5.5.1 Vehicles competing in the Championships will be classed by the following method:-

The Championship Organisers reserves the right before or after any race in the championship to designate any one or more of the competing vehicles for special eligibility scrutineering. Upon such selection being made the competitor shall immediately place the vehicle under the control of the Championship Eligibility Scrutineer and be deemed to have permitted all such scrutineering, examination and testing as the Organiser may reasonably require to be undertaken. The Organiser has the right to:-

- Examine the vehicle at the circuit for such period as they may reasonably require and take fuel samples and/or have the component removed by the competitor.
- b) Retain the vehicle for detailed examination at premises chosen by the Championship Eligibility Scrutineer in conjunction with the Organisers. If the Organiser selects to retain the vehicle 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 unless the vehicle is found to be in breach of these regulations and/or
- c) Seal the vehicle and its components in such a manner as they may choose and require the competitor at their own expense to present the vehicle at any other premises chosen by the Championship Eligibility Scrutineer for detailed examination within a specified period and/or remove the vehicle 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.









- d) The Organisers will use a variety of possible options to check the BHP & Torque declared is correct at their discretion. These will include data / power logging devices, an associated sensor which the competitor will be expected to provide an uninterrupted power supply to and a suitable mounting point by agreement with the Championship Eligibility Scrutineer or by testing the car on a designated fixed or mobile rolling road test equipment.
- e) The championship will use Race Technology RTSS data loggers in all classes, with the exception of Class E, to determine power and torque measurements whilst the vehicle is competing in any official session. The logger must be fitted and operative in the car used in the session and accurate weight and CdA figures must have been provided to the Championship organizers as part of their BEPI submission. Competitors must provide access to the CAN bus to connect the logger. In the event of there being no CAN bus in the vehicle the competitor must provide access to the RPM output of the engine. Please contact Technical Manager David Hornsey (david@britcar-endurance.com) for specifications of can bus connector or rpm feed.

Class E will use WSC certified TCR loggers to ensure compliance with WSC/TCR issued BoP.

- f) Competitors are required to provide a coefficient of drag (CdA) number for their car. This number will be used to calculate power based on data from the Race Technology data logger. If you do not know the CdA value for your car this may be obtained from the vehicle manufacturer, a coast down test or a CdA value can be supplied by the organisers. Once this number is entered onto your official paperwork it may only be changed following proof supplied by the competitor.
- 5.5.2 The Race Technology Dataloggers are available to rent from Britcar Endurance Limited. Please contact david@britcar-endurance.com to order your logger.
- 5.5.3 The Competitor will nominate a mechanic/technician to conduct any stripping of the engine or any required component requested by the Championship Eligibility Scrutineer as per Championship Regulation Art.5.5.1 (a).
- 5.5.4 The Organisers reserve the right to re-inspect vehicles at any time during the course of the season.
- 5.5.5 Competitors will be personally and solely responsible for ensuring that their vehicles comply with their registration details and with these regulations at all times for each round at which they are entered. Failure to comply in either respect will be a breach of these regulations. Queries concerning eligibility should be referred in writing to the 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.







5.5.6 In order to maximise equality of the performance, the Organisers will review the weight to power ratio coefficients after every round. Also, in order to balance performances in a fair way, the Championship Organisers reserves the right to introduce, for each of the individual entrants, any other technical restriction it may deem necessary.

# 5.6 **EQUALISATION**

- 5.6.1 The Championship organisers will endeavour to balance car performance in the classification performance of vehicles. If the car is found to be ineligible or unsuitable for its class the championship organisers have the right to reclassify accordingly. If a car moves class then points already received will NOT be allowed to be taken to the new class.
- 5.6.2 If a vehicle is found to be ineligible in some way then no points will be awarded but the Competitor must count the round as one of their points scoring rounds for the Championship.
- 5.6.3 The Championship reserves the right to use equipment to check a cars performance against their declared BEPI / Technical Passport.

# 5.7 CHASSIS

5.7.1 The original chassis is defined as the original road chassis, the originally supplied single make championship specification chassis or original FIA Homologated chassis, which ever applies to the relevant vehicle in question. (See Motorsport UK General Regulation J 5.2.1)

# 5.8 BODYWORK & AERODYNAMICS

5.8.1 Modifications Permitted.

### **5.8.2 GENERAL**

5.8.2.1 All modifications must not infringe on the general requirements for competition / racing cars as set out in Championship Regulation Art.5.3.2.

# 5.8.3 INTERNAL

- 5.8.3.1 Seats: General Regulation J 5.3 and K 2 applies. In addition, it is mandatory to use a current FIA homologated seat with head restraint.
- 5.8.3.2 The trimmings situated below the dashboard and which is not a part of it may be removed.









- 5.8.3.3 It is permitted to remove the soundproofing material from all the doors. The door at the driver's side must be equipped with door trim. This trim may be original or be made of a metal sheet with a minimum thickness of 0.5mm or of another non flammable material with a minimum thickness of 2mm. In the case of a two-door vehicle, the trim situated beneath the rear side windows is also subject to the above rule.
- 5.8.3.4 It is permitted to remove the interior trim from the door in order to install a side Protection panel, which is made from composite materials (lateral protection integrated in the side protection bar).
- 5.8.3.5 An alternative heating system other than provided by the vehicle manufacturer, and mentioned in his catalogue as supplied on demand, may replace the original heating equipment. It is permitted to blank off the water supply of the internal heating device, in order to prevent water spillage during an accident, providing an electric demist system or similar is available.
- 5.8.3.6 Air-conditioning may be added or removed. Driver cooling suits may be used with approval of the Championship Eligibility Scrutineer.
- 5.8.3.7 The steering wheel is free subject to compliance with current Motorsport UK General Regulations J. 5.7
- 5.8.3.8 Measuring instruments such as speedometers and the horn may be removed

# 5.8.4 EXTERIOR

- 5.8.4.1 Aerodynamics devices may be fitted front and/or rear but may not extend forward or rearward from the original bodywork by more than 100mm beyond the original 'bumper'. Aerodynamic devices fitted as original equipment by the manufacturer will be regarded as part of the original bodywork when calculating the BEPI. The mounting apparatus of such a device is deemed to be part of the aerodynamic device, for example, wing mounting struts which connect the aerofoil to the original bodywork of the car.
- 5.8.4.2 Extensions on the original bodywork on either side of the vehicle may be used in all classes. Any sections of the bodywork modified or attached must not have any exposed sharp edges.

### 5.8.5 AERODYNAMICS

5.8.5.1 No aerodynamic device or spoiler may extend wider than the width of the bodywork. The mounting apparatus of such a device is deemed to be part of the aerodynamic device in this regard, for example, wing mounting struts which connect the aerofoil to the original bodywork of the car.







5.8.5.2 With the exception of cars entered to compete and presented in conformity with the relevant FIA Homologation for the vehicle type (including all and any FIA permitted Extensions and / or Variations of Homologation), no (rear) aerodynamic device may be higher than a horizontal line drawn from the top of the main roof of the cab or roll hoop in the case of open top cars as per Motorsport UK yearbook. For cars conforming to the relevant FIA Homologation they must comply with their relevant maximum height of rear aerofoil. The mounting apparatus of such a device are not deemed to be part of the aerodynamic device in this regard, for example, wing mounting struts which connect the aerofoil to the original bodywork of the car.

# 5.9 RIDE HEIGHT

All vehicles must have a minimum ride height of 40mm throughout with the driver in the car as per Motorsport UK General Regulation J 5.20.11. The organisers / Championship Eligibility Scrutineer will designate the area within Parc Ferme or the paddock where checks will be conducted with the tyre pressure set at 1.5 bar +or – 0.1 bar. Ride heights for individual makes, models or classes may be adjusted at any time via bulletins issued.

# **5.10 ENGINE**

- 5.10.1 The engine orientation and location is free.
- 5.10.2 Induction system is free.
- 5.10.2.1 The manufacturer of the supercharger or turbocharger is free.
- 5.10.3 Intake manifold is free
- 5.10.4 Exhaust manifold is free.
- 5.10.5 Ignition System Free
- 5.10.6 Engines and vehicle management systems are free but competitors must declare systems type and permit championship officials to access hardware and software on request.
- 5.10.7 Hybrid electrical and pure BEV power output is free. Electrical storage and propulsion systems must comply with Blue Book regulations J Appendix 2

# 5.11 FUEL TANKS AND DELIVERY SYSTEMS

5.11.1 Fuel tanks may be replaced by a safety fuel cell homologated by the FIA as per general regulation K4. In this case, the number of cells are free and the cell must be placed inside the luggage compartment or in the original location. The construction of collector tanks with a capacity of less than 1 litre is free.







- 5.11.2 General regulations J 5.13 applies
- 5.11.3 The position of the original tank may only be modified in vehicles of which the manufacturer has placed the tank inside the cockpit or close to the occupants. In this case it is permissible either to install a protective device (fluid proof bulkhead) between the tank, and the occupants of the vehicle and, if need be, to modify its supplementary accessories (refuelling orifice, petrol pump, overflow pipe etc).

### 5.12 TRANSMISSION

- 5.12.1 Energy recovery systems are only permitted if it is fitted as original equipment in the model concerned.
- 5.12.2 Cars may only be driven by the front axle or the rear axle. Four wheel drive and all wheel drive is not permitted.
- **5.13 SUSPENSION -** free.

# 5.14 WHEELS/STEERING

- 5.14.1 General Regulation 5.2.6 applies
- 5.14.2 Wheel fixations by bolts may be changed to fixations by studs and nuts or viceversa. The stud/bolt diameter is free. A spare wheel and the fixation points may be removed.

### **5.15 TYRES**

- 5.15.1 It is a requirement that all vehicles competing in the championships must qualify and race on Goodyear Tyres
- 5.15.2 The artificial heating of rims and/or tyres is **permitted** but chemical treatment is **prohibited.**
- 5.15.3 It is mandatory that all entries run on Goodyear branded tyres only, unless a comparable size is not available. Such instances must be declared to the organisers at the time of entry for the Organisers' written agreement prior to the event as to tyre brand and specifications including compound[s]. The Organisers' decision in this regard will be final and in their entire discretion.
- 5.15.4 HP Tyres are the mandatory tyre supplier for the British Endurance Championship and will be present at all rounds to provide free trackside fitting and support to competitors who purchase their tyres through HP Tyres.
- 5.15.5 HP Tyres may mark up tyres sold through them to enable tracking of tyre usage and monitor traceability of supply.









# **5.16 WEIGHT**

5.16.1 The minimum weight of the <u>vehicle only</u> will be determined by the cars declared BEPI form, or to comply with 5.16.2 by the latest BoP bulletin. The weight for all classes with the exception of class E is the vehicle weight <u>without the driver on</u> board and will be measured as soon as possible after crossing the finishing line.

The weight for Class E is the weight including the lightest of the drivers taking part in that entry. The scrutineer may request all drivers be weighed for any particular Class E car after any session to determine the lightest driver. No fluids or other materials may be added to the car between crossing the line and being weighed. The car weight will include all remaining fuel on board.

5.16.2 The Championship reserves the right to ask teams to add weight to equalize the performance.

# 5.17 ELECTRICAL

- 5.17.1 Lighting -
- 5.17.1.1 All competing vehicles may have working directional indicators front and rear (if fitted). Coloured lights solely for the purpose of identification may be fitted however the total lit area of these lights may not exceed 1200mm<sup>2</sup> on each vehicle.
- 5.17.1.2 Competition Numbers :- All competition numbers MUST be lit to the satisfaction of the timekeepers during night racing sessions.
- 5.17.2 Lighting Headlights: Vehicles competing in night races must be equipped with dipped beam, main beam and rear marker lights. The operating of any retractable headlights, including its energy source, may be modified. Freedom is granted with regard to the frontal glass, reflector and bulbs although glass must be protected to prevent any broken glass being dropped onto the circuit.
- 5.17.2.1 Vehicles may carry up to 6 forward facing lights and in a mixture of headlights and spot lights and provided that the total is an even number (to clarify this ratio a car with twin headlights may fit 2 spotlights while a car with single head lights may fit 4 spot lights). A single light is defined as a single enclosed light unit which may in itself contain multiple light sources.
- 5.17.3 Brake lights All vehicles must be fitted with working brake lights as per Motorsport UK General Regulation J 5.14.3.
- 5.17.4 Rear Fog Light Vehicles must be fitted with a high intensity rain light(s). As per current Motorsport UK General Regulation K. 5 Red Warning Light.









# 5.18 BATTERIES - ICE

- 5.18.1 The make and capacity of the batteries are free. Each battery must be securely fixed and covered to avoid any short-circuiting or leaks.
- 5.18.2 Should the battery be relocated from its original position, it must be attached to the body using a metal seat and two metal clamps with an insulating covering fixed to the floor by bolts with a minimum diameter of 10mm and a washer at least 3mm thick and with a surface of at least 200mm² beneath the metal of the bodywork. Any wet cell battery installed in the cab must be encapsulated to prevent leakage in accordance with Motorsport UK General Regulations.
- 5.18.3 Generator and Voltage Regulator A generator must be fitted and operational. Its position and driving system are free.

# 5.19 BRAKES

- 5.19.1 As per current Motorsport UK General Regulation J. 5.6 Brakes.
- 5.19.2 Cooling of brakes front and rear is permitted: Protection shields may be removed or modified.
- 5.19.3 Cooling ducts may be added provided the ducting does not interfere with the steering or suspension movement. Air intake points must not extend outside the bodywork.
- 5.19.4 Carbon brakes are prohibited unless fitted to the original car as standard Motorsport UK General Regulation J. 5.6.1. If a Car a is fitted with carbon brakes (as standard) it must be declared and will be included in the BEPI calculation.
- 5.19.5 ABS braking systems are permitted. If fitted it must be declared and be included in the BEPI calculation.

### 5.20 **FUEL**

- 5.20.1 Fuel Grade The Championship allows fuel to be used in accordance with the current Motorsport UK General Regulation B. Pump Fuel or FIA specification fuel in compliance with FIA Appendix J, Article 252, Article 9".
- 5.20.2 Although not mandatory, Anglo American Oil Company Ltd are our recommended supplier. Order must be placed in advanced see Art.7.1.5









# 5.21 SILENCING

- 5.21.1 All cars will be tested to meet the as per Motorsport UK General Regulation J. 5.17. The Limit is 105dB(A) in accordance with Motorsport UK General Regulations conducted at 0.5 metre distance at 45 degrees from the outlet with the engine running at 3/4 speed.
- 5.21.2 Other limits may be applied by various circuit owners

# **5.22 PNEUMATIC JACKS**

5.22.1 Pneumatic jacks may be fitted to suitable points within the chassis of the car and must retract automatically when the air is released from an external valve outside the reach of the driver while seated. No work under the car is permitted using the pneumatic only. i.e safety devices must be attached to prevent the car dropping.

# 5.23 MANDATORY ON BOARD CAMERAS

- 5.23.1 It is the team's responsibility alone to have a fitted forward facing in-car camera positioned to provide a 'driver's eye' view that must include the steering wheel, show the track ahead of the vehicle with a field of vision of approx. 100 meters, the driver and either the dashboard displaying the driver's race number and championship logo on the supplied dashboard sticker or a graphic overlay on the screen showing the driver's race number and championship logo.
- 5.23.2 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 Championship Eligibility Scrutineer. Motorsport UK General Regulation J. 5.21 applies.
- 5.23.2 The unit must be switched on and be recording at all times when the car is on track during any official free practice, qualification sessions and races. The onus is on the competitor to ensure that the unit's battery is charged, or its supply is operational, and the device remains operational during the above-mentioned sessions.
- 5.23.3 The memory card may be requested by the Organisers or by the Clerk of the Course or his representatives for any purpose including but not exclusively Judicial procedures under these Regulations and the recorded footage may be copied for use in broadcast or any other area deemed appropriate by the Organisers. Failure to provide the footage may lead to disciplinary measures by the Clerk of the Course and may prejudice their defence in the case of an incident.
- 5.23.4 Please also be aware of the intellectual property ownership rights referred to in Championship Regulation Art.6.3.







- 5.23.5 The use of this camera footage should not be used on Social Media to bring the Champio0nship into disrepute or to engage a personal vendetta.
- 5.23.6 See 2.16 for further regulations on Cameras and timing devices.

# 6 CHAMPIONSHIP INSIGNIA & VEHICLE DECALS

- 6.1.1 Presentation of all vehicles must be of a high standard. The acceptable standard is at the sole discretion of the Championship Organiser and/or Promoter.
- 6.1.2 The Entrant is responsible for acquiring the correct decals and badges and ensuring the correct placement.
- 6.1.3 The Championship Organisers reserve the right to add or delete Championship sponsors at any time; relevant new decals and/or overall badges will be supplied for no additional charge when this occurs. All championship decals are mandatory and must be placed as per layout sheets accompanying the decal packs issued by the Promoter.
- 6.1.4 Competition numbers must be positioned in accordance with current Motorsport UK General Regulation J. 4.1.2, with the following exception: Vehicles must position the foremost number on the windscreen.
- 6.1.5 Competition number panels on the sides of the vehicle must be illuminated / back lit for night races.
- 6.1.6 The Championship Organisers require the following areas to be provided on every car (refer to location map below):
  - Front and rear number plates.
  - Windscreen sun strip which may change at each race meeting.
  - Two competition number panels for the sides of the vehicle as per Motorsport UK General Regulation J 4.1
  - Windscreen sunstrip class identifiers.
  - Windscreen for car competition numbers as per Motorsport UK General Regulation O11.5 - O11.5.2
  - Below both Headlights and both front and above the rear wheel arches.
  - Dashboard area visible to onboard camera to display car number and championship sponsors decal. Competitors may substitute graphics overlays on their in car camera feed but these overlays must clearly show car number and championship logo.









See 2023 Sponsor Decal Location map below:-



- 6.1.7 One set of championship insignia decals will be supplied by the Championship Organiser free of charge. Decals can be collected on the first day of each event or can be posted prior to the event at a cost of £10.00 plus VAT. Additional sets can be purchased at £40.00 plus VAT per set. Individual stickers can be issued upon request but there will be a charge plus postage.
- 6.1.8 One dashboard sticker will be supplied per entry. This must be positioned so the car number and championship and sponsors logos are clearly visible by the onboard camera in the car. Competitors may substitute this with digital logos on their in car camera output. In this instance they must show the championship logo, Motorsport UK logo, Goodyear logo and vehicle number.











# 6.2 RACE SUIT BADGES & RACE SUPPORT VEHICLES

- 6.2.1 Race suit badges form part of the official championship insignia, therefore it is MANDATORY that all drivers have the required logos displayed on their overalls in the specified locations. The Championship Organiser can supply badges to affix to the overalls or can supply artwork for the competitor. In the event of badges being supplied, 2 Badges will be supplied: 1 British Endurance Championship badge (Left breast) and; 1 Goodyear (Right breast). More may be required with more sponsorship.
- 6.2.2 Championship badges must be clearly visible when interviewed by TV, Circuit Commentators and during any public pit walk/autograph or appearance session, and, when interviewed, request their overalls zipped up to display championship logos.
- 6.2.3 The Championship requires all competing teams to remove or obscure any other championship decals on both cars and drivers' overalls unless prior written permission has been given.

# Race Overall Badge Placement











- 6.2.4 Badges will be supplied by the Championship Organisers prior to the first event, to each driver free of charge. Additional badges will be invoiced to the Entrant at £5.00 (plus VAT) per badge.
- 6.2.5 It is requested that all teams have the Championship logo and website on their main support vehicles. This will be available in 2 sizes:
  - 500 mm x 220 mm
  - 1000 mm x 460 mm

Both sizes can be provided in white or black - please advise sizes required or at a size agreeable to with the Championship Organisers

# 6.3 INTELLECTUAL, COMMERCIAL, PROMOTIONAL, MERCHANDISING AND SPONSORSHIP RIGHTS

- 6.3.1 Britcar Endurance Limited have all ownership rights to the name Britcar, British Endurance Championship, BEC and the Britcar Endurance Performance Indicator (BEPI). Any use of media, video or still, must credit Britcar. Commercial use is prohibited without prior consent.
- 6.3.2 It is a condition precedent of entry to the Championship that the Entrant and all driver competitors grant to the Championship Organisers a non-exclusive royalty free worldwide licence including the broadcast footprint of any visual media satellite transmission for the use and reproduction and broadcast in any Organiser chosen media of all and any images and whether original or digitally enhanced altered howsoever or cropped whether still or motion images of the Entrant car(s) and of the Drivers and all team personnel and persons howsoever connected to the Entry.
- 6.3.3 All logos used by competitors must be in its original format and scale. Any adjusts to colour and size must be approved by the Championship Organisers
- 6.3.4 All entrants and competitors agree to only post or publish any moving images from a Championship race weekend with the prior written approval of the Championship Organisers. This includes live streaming or pre-recorded in car footage. Commercial use is prohibited without prior consent.









# 6.4 FINANCIAL RESPONSIBILITY: RACE ENTRY AND REFUND POLICY

- 6.4.1 Competitors must complete the online entry forms. Links located on our website www.british-endurance-championship.com (under ENTRY) or by emailing Claire Hedley for details.
- Payments must be made by BACS Payments. For details contact Claire Hedley on 01428 288008 or by email at Claire@britcar-endurance.com .
- 6.4.3 There are no refunds on deposits paid for individual rounds or events.
- 6.4.4 No refunds or transfer of monies will apply if a circuit or the event organisers do not refund Britcar Endurance Limited.
- Any team withdrawing a minimum of 7 calendar days prior to the start (first day) of an event will receive a full refund less their deposit. After this time, refunds will be provided at the sole discretion of the Championship Organiser, but no refunds will be given once an event has started.

# 6.5 RADIO COMMUNICATION

- 6.5.1 A Pits to driver radio system is mandatory.
- 6.5.2 The competitor must hold the relevant transmitting licence and ensure that the frequency does not interfere with the circuit or emergency services radio transmissions.
- 6.5.3 Vehicle to pits telemetry systems are permitted provided the competitor holds the relevant transmitting licence and the frequency does not interfere with the circuits or emergency services radio transmissions.

# 6.6 TELEVISION

- 6.6.1 The Championship promoter, Britcar Endurance, retain exclusive broadcasting, recording, cable, satellite, video, games, digital and internet rights to all footage.
- 6.6.2 All on board camera's must be approved by the Championship Eligibility Scrutineer prior to that car going on track. If asked by a Scrutineer to remove and relocate the camera this must be done with immediate effect.
- 6.6.3 The Championship Organisers will supply teams with in car dash decals to be displayed.









- 6.6.4 It's the responsibility of the drivers to display the Championship Cloth badges on the race suits whilst being interviewed on Television.
- 6.6.5 Any team or competitor in the championship not complying with Appendix A of these regulations and acting without respect towards another competitor / team or official whilst on TV will be reported to see the Clerk of the Course and the Championship Co-ordinator.
- 6.6.6 It is the responsibility of the teams to make sure all Championship decals that have been supplied on the cars and displayed in the locations requested.

# 6.7 PADDOCK ARRANGEMENTS

- 6.7.1 Teams are asked to follow instructions from the Championship Organisers and Circuit Officials regarding the parking arrangements and locations for Trucks, Support Vehicles and Private Cars. Certain events will have strict limitations on the number and size of support vehicles, awnings and transporters and the setup and breakdown of the paddock and garage area will be strictly controlled including arrival and departure times.
- 6.7.2 Teams not adhering to these controls will be fined by the circuit, event promotor or race organising body and the fines imposed by the circuit, promotor or organising body will be borne by the competing team directly and not to the Championship Organisers.
- 6.7.3 Teams testing the day before the event will be asked to move all private vehicles and Motorhomes (unless permission given by the Britcar Office) away from the back of the garages for all teams arriving for the next day's race meeting.
- 6.7.4 All teams will be provided with Working Vehicle and Private Car Passes (where applicable). Any vehicle not displaying one of these will be asked to move. When the transportation vehicle is in place a team's Motorhome is NOT considered to be the Working Vehicle.
- 6.7.5 If they refuse then the circuit can have it removed and the organisers can have points deducted from the team's championship entry.









# 7 CONTACTS

7.1 Britcar Endurance Limited
Claire Hedley
Managing Director
PO Box 140, Liphook
Hampshire, GU30 9BU

Tel:- 01428 288008 Mobile 07534 365894

Email: claire@britcar-endurance.com

Finance Dept: - accounts@britcarendurance.com

# 7.1.2 BARC

David Wheadon BARC, Thruxton Circuit Andover, Hampshire, SP11 8PN

Tel: - 01264 882209

Email:- dwheadon@barc.net

# 7.1.3 Championship Eligibility Scrutineer

John Harland C/O BARC, Thruxton Circuit, SP11 8PN

# 7.1.4 Technical Co-ordinator

David Hornsey C/O Britcar Endurance Ltd

PO Box 140, Liphook, Hampshire, GU30 9BU

Tel:-01428 288008

Email: david@britcar-endurance.com







### 7.1.5 RACE CIRCUITS

Brands Hatch Fawkham Longfield

Kent, DA3 8NG Tel: 01474 872331

Donington Park Castle Donington

Derby, DE74 2RP Tel: 01332 810048

Oulton Park Little Budworth, Tarporley

Cheshire, CW6 9BW Tel:- 01829 760301

Silverstone Northants, NN12 8TN Tel:- 08704 588200

Snetterton Circuit Norwich, Norfolk, NR16 2LU Tel:- 01953 887303

# 7.1.6 TYRE SUPPLIER

H. P. Tyres Ltd Units 5 & 6, Broad March Trade Park, Long March Ind Est, Daventry, NN11 4HE,

Telephone: +44 (0)1327 301887 Email: office@hptyres.com

### 7.1.7 FUEL SUPPLY

Anglo American Oil Company Ltd, 58 Holton Road, Holton Heath Trading Park, Poole, BH16 6LT

Telephone + 44 (1) 1929 555973 Email: shaun@aaoil.co.uk

# 7.2 COMMERCIAL UNDERTAKINGS

- 7.2.1 The following commercial undertakings are not subject to the judicial procedures of either the Championship Stewards and/or the Motorsport UK/MSC. but they are enforceable mandatory contractual provisions between Britcar and all competitor drivers and entrants and teams.
- 7.2.2 It is a condition precedent of entry to the championship that in the event of cancellation or suspension or schedule variation of the championship or of any event or part of an event comprising the championship then none of the venue owner or Organisers shall be liable for any consequential loss or damage including







- but not exclusively loss of income of profit or of wasted expenditure suffered by any Entrant or competitor as a consequence of such cancellation.
- 7.2.3 In view of Art.7.2.2 above the Championship Organisers recommend that cancellation insurance is taken out by the Entrant/Competitor
- 7.2.4 Because of the commercial importance to the Championship as well to the Organisers it is a material condition precedent of submission of entry to and participation in the Championship that without the express prior written consent of the Championship Organisers no race car or official support or other entry-connected vehicle placed in any Championship working paddock and no driver or team personnel or entrant apparel including but not exclusively race and mechanic suits including wet weather clothing shall be presented for any of the competition or any championship associated activity howsoever relating to the Championship bearing or placing any display logo or banner howsoever that in any way identifies presents promotes or represents any product or business that directly competes with any championship sponsor as notified to competitors from time to time.

# 7.3 HEALTH AND SAFETY AND ENVIRONMENTAL

7.3.1 By signing the registration document "The Competitor" hereby agrees to work within the Health Safety and Environmental requirements of the Promoter (and its associated Companies), the Motorsport UK and individual venues, (Copies of which can be obtained by contacting the Promoter) and for the Competitor, their employees and helpers to operate and adhere to these as well as any legal or statutory regulations as may be in force at the time. Failure to comply requires the Competitor to ensure no liability falls upon the Promoter and in any event to provide a full and effectual indemnity against all losses.









#### **APPENDIX A**



A socially-minded standard of behaviour is expected from everyone within the motorsport community.

By participating in a Motorsport UK event in any capacity you agree to follow the values of the Respect Code:

Motorsportuk.org/racewithrespect #RaceWithRespect

# **The Values**

- Respect
- Fair play
- Integrity
- Good Manners
- Self-Control

# I pledge to #RaceWithRespect and:

- Contribute to a welcoming and friendly environment that ensures the safety and welfare of all participants.
- Always behave with integrity and uphold fairness in the sport; play your part in keeping the sport safe through your action
- Treat everyone with respect, regardless of their gender, ethnic or social background, language, religious or other beliefs, disability, sexual identity or other status
- Recognise that we all represent the sport and therefore have a duty to be polite and respectful to all staff, officials, fellow competitors, volunteers, as well as fans and supporters
- Respect the rules, regulations and authority of the officials and Motorsport UK

Any breach of these obligations may result in disciplinary action.









# Appendix B - Technical regulations for Class E Only.

# ART.

#### **GENERAL REMARKS**

WSC has developed and is the owner and promoter of the present TCR Technical Regulations.

WSC is the owner of the TCR Trademark and of all related TCR Intellectual Properties. WSC is the exclusive holder of all TCR rights, including those relating to organisation, marketing television production and broadcast, merchandising and Simracing note being intended that list in any way exhaustive.

Unless otherwise defined in the present document, TCR Technical Regulations respect the following FIA rules:

- FIA App. J, Art. 251, 252, 253, 277
- FIA General Prescriptions applicable to International

Series The present regulations point also to the FIA App. J,

Art. 255 and 263.

Manufacturers, represented at least at the level of the Brand or Motorsport Director, may delegate to pre-authorized Engineering Company to develop a TCR car model and to represent the manufacturer's interests in relations with WSC. Manufacturers and/or authorized Engineering Company must fulfil the TCR Application form, accept the TCR Technical Regulations, hold a valid TCR Server Account and then request the start of certification (homologation) process for their car model via TCR Server account only. (Application form shall be requested to WSC directly.)

WSC is the only authority entitled to authorize any Manufacturer or authorized Engineering Company to build a TCR cars under the present Technical Regulations.

The TCR Certification process is defined by the solely WSC ltd.

The authorized Manufacturer and/or Engineering Company must be the only one authorized to sell that new TCR certified car model to any potential customer.

Once the Application form is sent to WSC, (document to be requested to WSC) and a TCR Server account is open, the certification process can start.

The authorized Manufacturer and/or the authorized Engineering Company shall complete the TCR Technical Form blank received from WSC according to the TCR Certification Manual.

The Technical Form has to be completed by the Manufacturer and/or the authorized Engineering Company with all the requested information and will be the same for all race cars of the model. Manufacturers or their representatives have to accept that the car of the make will be prepared according to TCR Regulations.

The Draft of the Technical Form must be presented to WSC at latest 90 days before the 1st entry in TCR Competitions, Series, Class or Championships. WSC will release the Technical Form of the new model only after verifying the conformity with the TCR Technical Regulations and having performed all Balance of Performance test sessions. Without a specific WSC authorization only one Technical Form per car model will be accepted.

Each TCR car model, identified through the chassis no., will receive individually an original Technical Form and the certificating manufacturer will be listed in the TCR Certified car List issued by WSC.

Each certified car must include in its car name the "TCR" wording in both TCR Technical Form and official car name.

WSC reserves the right to forbid the use of any part that is deemed outside of the TCR concept and to accept waivers to these regulations on request of Manufacturers.

Any action related to the employed parts not explicitly allowed by these regulations is forbidden. Everything not expressly permitted, is prohibited.

Any Manufacturer and/or Engineering Company interested to build and certificate a TCR car must contact the WSC, TCR Technical department. Contact: < technical@tcr-series.com >.

The generic concept of TCR Competitions defines events with sprint races using maximum 1 (one) engine and maximum 5 (five) turbos per car and season. This concept shall be included in each TCR Competition Sporting Regulations.

ART.	DEFINITION
2.1	Bodywork
	See App. J; Art. 251.2.5.2 Any air intake is considered to be part of the bodywork.
2.2	Chassis (Body shell)
	The main <u>body</u> of <u>the car</u> into which is fitted the engine, transmission, running gear, <u>electrical</u> systems, <u>seats,</u> controls, bodywork, etc.
2.3	Production (part)

As fitted to the basic mass production car; the proof rests with the competitors.









### 2.4 Original part

As fitted to the WSC -certified car and in compliance with the TCR Technical Form.

#### 2.5 Minimum Weight

is the weight of the race car without driver as defined in each Technical Form, with empty tanks of consumable fluids (fuel, wind screen wash & drinking water, etc.) and with all other tanks filled at the working level. The minimum weight doesn't include ballast or equipment that is not imposed by the regulation. (Certification)

#### 2.6 Minimum Racing Weight

is the minimum weight of the race car for every particular event and must be respected at any time during the competition. It is composed of the minimum weight of the car (Art. 2.5), the driver's weight with full compulsory equipment (Appendix L), the required ballast to reach the car's target racing weight (Art. 5.1) and all weight allocations for Balance of Performance (Art. 3.1 & 3.9), Compensation Weight (Art. 3.9), and the Success Ballast (if stipulated by the individual sporting regulations).

The Minimum Racing Weight will not include non-compulsory items like driver cooling, team camera, radio, etc.

For endurance events the Minimum Racing Weight is similarly defined as above however without driver's weight.

#### 2.7 Cockpi

The interior volume of the main structure which is reserved for the occupants. Its limits are defined by the roof, the floor, the doors, the lateral parts, the glazed parts and the front and rear bulkheads (or the back plane of the rear seats).

#### 2.8 Turbo Charging

Increasing the mass of the charge of the fuel/air mixture in the combustion chamber (over the weight induced by normal atmospheric pressure, ram effect and dynamic effects in the intake and/or exhaust system) using a turbo charger.

#### 2.9 Location

A site defined relative to the production: centre line of the car, axles centre (middle of the wheelbase on the centre line), cockpit, luggage compartment, engine compartment, wheel arches or any other area of the car.

#### 2.10 Position

The site defined by dimensions from the production car data, e.g., axles centre and centre line of the car. For position evaluation will be used a tolerance of ±5mm.

#### 2.11 Telemetry

The wireless data transmission between a car and the pit or to anyone connected with the entry of that car.

# 2.12 Mass Production

The Minimum Production requested for eligibility of car models and parts coming from other cars like engine, turbocharger, water cooler, intercooler, etc. is 5000 pieces / 12 consecutive months.

#### 2.13 Model of car

All the identical cars belonging to a family (see below) and to a production series distinguishable by an identical conception and identical external general lines of the bodywork, and by an identical mechanical conception of the engine and the transmission to the wheels.

#### 2.14 Family of car

Different series models belonging to one and the same production series of the same manufacturer.

#### 2.15 Certification

The TCR Technical Form is the only official documentation of TCR Cars certified by WSC.

The TCR Technical Form is the compulsory document to take part in each licensed TCR series and/or Championship or class.

The TCR Technical Form must be presented for the entry and during scrutineering as individual and original document for each TCR Race Car. The TCR Technical Form is delivered by WSC in original, signed and stamped on each page, or in a different way if defined so by WSC via TCR Technical Bulletins. TCR Technical Form can be requested by entitled persons at < <a href="mailto:form@tcr-series.com">form@tcr-series.com</a>>.

Reproduction of the TCR Technical form in a whole or in part is prohibited. WSC reserves the right to withdraw the TCR Technical Forms, if any version of reproduction is found, and apply, if necessary, any fines or other penalties.

The Technical Form may have Extensions: Variant Option (VO), Supply Variant (VF), Erratum (ER), Facelift (EV: minor mid-life amendments) and Addendum (AD: additional information for previously certified parts), issued by WSC only.









The full list of official documents requested per each TCR car model "TCR CERTIFIED CAR LIST" is always updated by WSC and available in the TCR web area.

Any later extension document (VO, VF, ER, EV or AD) per each TCR car model can be downloaded by Competitors directly in the TCR web area "TECHNICAL AREA", once registered and allowed by WSC ltd

Each TCR car model Extension document must be printed by Competitor and attached to the original TCR Technical Form. This full set of documents is required during each Competition Scrutineering.

During the 1<sup>st</sup> season of a new car model development, it will be possible for manufacturers to apply for a Temporary Technical Form. Cars certified with Temporary Technical Form may be accepted on the grid by each TCR Promoter with WSC authorisation.

All WSC information regarding the certification process will be communicated by means of TCR Certifications documents (available on the TCR Server area).

TCR Technical Form is valid 7 Years after the stop of the series production of the basic model for the TCR race car. WSC may decide for prolongation per each car model.

TCR Promoter shall secure that these rules are respected by their Sporting Regulations.

#### 2.16 OEM (Original Equipment Manufacturer)

OEM is a manufacturer of the mass-produced cars and the supplier of the original spare parts.

# 2.17 Reference Part, Component or Unit

Certificated part, electronic control unit or aggregate listed by WSC, which are deposited with the technical delegate and can be installed in the race cars on his decision at any time of the competition.

#### 2.18 OEM Part

Component coming from any OEM mass produced car and in normal sale.

### 2.19 WSC ltd.

WSC Ltd is the exclusive owner of the TCR concept, TCR Technical Regulations and all IP rights related to TCR

# 2.20 Catalogue Parts

Parts offered for sale as specified in the company's published commercial catalogues.

#### 2.21 Endurance Race

Races longer than 2h, permitting / imposing driver's change or permitting refuelling are considered as Endurance Races.

#### 2.22 Target Racing Weight

is the basic weight of any TCR racing car with the pilot on board and represents the Minimum Racing Weight (Art. 2.6) without any weight corrections provided by the regulation.

The current value is defined in Art. 5.1 of this regulation and by TCR Technical Bulletins.

The use of ballast to achieve the target racing weight is permitted in accordance with Article 5.2 of these regulations.

# ART. REGULATIONS

#### 3.1 Role of the WSC









The present Technical Regulations is reserved to any TCR authorized Series, Cup-, Classes or Championships and is issued only by WSC ltd.

The basic principles of the TCR Competitions, Series, Cup-, Classes or Championships are customer-oriented category with respect of a Weight/Power Ratio and of Balance of Performance (BoP).

#### WSC will:

- Certificate TCR cars
- Develop with specialised companies and offer to interested manufacturers different TCR Racing Components like Engine, Turbo, Limited Slip Differential, Brake Parts, etc. to be used in the condition of present regulations.
- Ensure the BoP at the start of the any TCR Competitions, Series, Cup, Classes or Championships and take all necessary decision to keep it through the racing seasons.

All WSC decisions regarding the regulations will be communicated by means of TCR Technical Bulletins and TCR Notifications.

#### 3.2 Eligible cars

Eligibility criteria for TCR Car:

- Only front-wheel drive cars are eligible.
  - The cars correspond to FIA Homologation Criteria for Touring Cars (FIA Group A).
  - The model of car is produced by an OEM and belongs to a mass-produced family.
  - 4/5 doors
  - Minimum length 4.2m
  - Mono turbo charged 4-stroke petrol mass production Engines with cylinder capacity from 1750cm³ to maximum 2000cm³.
  - Hybrid propulsion is not allowed.

WSC reserves the right to accept other cars, when the general characteristics match with the TCR concept. WSC reserves also the right to approve or to refuse applications which might not be in compliance with the above criteria.

The Technical Form Number, the year of issuing and the certificating manufacturer will be documented on the WSC List, accordingly to the TCR Certification Manual.

Following definitions and procedures set out in Art.1 of the present regulations, in order to certify a new TCR car model, a Manufacturer and/or an authorized Engineering Company must produce a minimum of ten (10) racing cars in the 12 consecutive months starting with the date of the Application.

Each selling order for new models of TCR racing cars must be processed within 3 months from the date of release of the TCR Technical Form by WSC and any sold cars must be delivered within 90 (ninety) days.

Manufacturer and/or authorized Engineering Company must provide WSC within 3 months from the TCR car model certification with their TCR Car model brochure and spare part list, detailed with costs and delivery time. All these documents must be approved by WSC before publication. If the information received and ordering – selling time as per above are not satisfactory and not received on time, WSC has the right to withdraw the certification of that TCR car model without any further notice and the car model will be removed from the TCR Certified car list.

The price cap for the complete, ready-to-use TCR race car is € 137,500 including all mandatory sensors for the Scrutineering Data Logging System (see Art. 3.6 of the present regulation).

In the event that a Manufacturer and/or an authorized Engineering Company with a new or an already certified car model shall not respect:

- The minimum production,
- The order delivery time,
- The price cap,

WSC reserves the rights to impose sanctions depending on the real situation like:

- Fines
- suspension of further Technical Form Extensions
- temporary suspension of the Technical Form until the imposed conditions are met
- revocation of the Technical Form.









#### 3.3 Compliance with the regulations

All TCR cars must be conformed to these regulations, TCR Technical Form, TCR Technical Passport (whenever applicable) and TCR Notifications and Technical Bulletins.

All parts not mentioned in these regulations have to remain those from the basic production car or another production model of the same manufacturer and correspond to the Manufacturer's Parts Catalogue for the produced model and may not be modified in any way.

In case of doubt about the conformity of any part the Technical Delegate may ask the opinion of the car's manufacturer or request the replacement with a reference part without any further explanation. All cost of such operations will be covered by the Competitor.

Teams will deliver on request to the TCR technical staff following information regarding TCR cars:

- Data from team's data logger
- Video footage from team's camera
- Any other technical documentation

Upon request, manufacturers will deliver to the TCR technical staff any technical information regarding

TCR cars. WSC has the right to collect and archive all information regarding any TCR cars.

It is the duty of each competitor to assure the Scrutineers and the Stewards of the competition that his car complies with these regulations in their entirety at all times during a competition.

All costs of the technical checks will be supported by competitors.

A car, the construction of which is deemed to be dangerous, may be excluded by the Stewards.

#### 3.4 Measurements

All cars' measurements must be taken while the car is stationary on a flat horizontal surface in the location stated in the Sporting or in the Supplementary Regulations.

#### 3.5 Materia

Titanium or magnesium alloys, ceramic or exotic materials and sophisticated coatings are not permitted unless used for the production part or explicitly authorised by these regulations.

All flexible supports (engine, transmission, sub frames, etc.) may be replaced by stiffer brackets with same functional dimensions. If not otherwise defined by the present regulations the aggregate's position may not be modified. (Certification)

External bodywork parts may be repaired by adding material respecting the certified properties (minimum weight, functional shape, etc.). Such operation needs the approval of the technical delegate.

Any mechanical elements specified by mass catalogues for threaded fixations (e.g., bolts, studs, nuts, washers) may be freely used in respect of these regulations, maintaining the material, to assemble and correctly adjust different parts.

#### 3.6 Data logging

The car must be fitted with the scrutineering data logging system providing following data (Certification):

- Speed of the 4 wheels
- Engine revs & timing
- Longitudinal acceleration
- Lateral acceleration
- Throttle pedal position
- Throttle valve position and of any other control element
- Engine load target & delivered Engine load (if the Throttle Valve doesn't follow the Throttle Pedal Position)
- Engine Water Temperature
- Team Inlet air temperature in the manifold
- 2<sup>nd</sup> Inlet air temperature in the manifold (monitored by an additional sensor, used only on request of Series Promoter)
- Boost pressure (monitored by an additional sensor)
- Front & Rear Brake Calliper pressure
- Lap trigger
- Lambda-signal
- Ignition angle timing
- Injection duration, start & end
- injection fuel pressure
- camshafts timing & positions









- GPS (TV or radio antennas must be at least 30cm away from the official GPS antennas. If necessary, antennas will be moved to guarantee correct GPS signal.
- Steering wheel angle
- Launch-control button
- Gear position

WSC will decide and communicate the list of stand-alone sensors or of other independent monitoring systems for each model. (Certification)

# For cars not using the TCR ECU:

The certified Scrutineering Data Logger system consisting of an "memotec" evo4 or evo5 box and a TCR kit (specific bracket, sensors and loom) must be installed corresponding to the instructions.

Manufacturers must offer for sale race cars equipped with scrutineering data logging

system. The collected data remains property of WSC.

The scrutineering data logger may not be used as Team Data Logger and may not be accessed by the team. On request, competitors receive recorded data of their own scrutineering data logger, to verify own sensor values.

<u>For cars certified with TCR ECU</u> the Scrutineering Data Logger is integrated in Engine TCR ECU and may be used as Team Data Logger.

Fitting instructions for scrutineering data logger and basic configuration file for the integrated logger containing all official channels is provided by WSC Technical Department. Manufacturers are not allowed to remove or modified scrutineering channels, but they may use logged data and add their own channels to the configuration.

Only cars using the Engine TCR ECU may use the official air temperature sensor from the Scrutineering Data Logging System for the engine management.

The use of Team Data Logger is allowed for all cars. The Team will allow access to the TCR Technical Delegate to the data of Team Data Logger at any time.

Team Data Logger with removable memory devices are

allowed. The use of following sensors is not allowed:

- Pitot tube
- Tire pressure
- Tire internal and external temperature including the running surface
- Non-contact ground distance sensors (Suspension travel potentiometers are allowed)
- Inertial platform
- Turbine speed
- Combustion pressure
- Sensors using wireless data transmission
- Engine torque sensors
- Load cell on power train, running gear and suspension mounting points.
- non-contact sensors (temperature, distance, optical car speed sensors, dedicated yaw sensors, etc.)

#### Allowed Sensor Technologies:

- Electric-resistor-based sensors with direct contact to the measured item
- MEMS (micro electromechanical systems) sensors
- GPS up to 10Hz
- Magnetic field sensor
- Pressure sensors based on membrane technology
- Mass Production Sensor Cluster

#### Not Allowed Sensor Technologies:

- contactless distance and temperature sensors
- DGPS (Differential Global Positioning System)
- Piezo technology (exception: engine knock sensor)

#### 3.7 Telemetry

The use of telemetry is forbidden.

For Endurance Events only it is allowed to use the Catalogue Telemetry Systems working on public mobile phone network specified in the TCR Notifications. Technical Delegates will have access to the telemetry systems and data.









#### 3.8 Driving aids

Driving aids are not permitted.

If the race car using mass production engine management cannot be operated without the Driving Aids, the mass production systems including mechanical parts and Electronic Control Units [Anti-lock Braking System (ABS), Electronic Stability Program (ESP) & Traction Control System (TCS) not included] may be used on condition that the original hardware and software are maintained (only changes to the wiring are permitted). It is not allowed to the driver sitting in the car to change settings. The systems may be also switched off or removed (Certification).

The pit speed limiter and the launch control (as described below) are permitted. For the launch control 1 (one) additional engine rev-limiter is allowed. The rev-limiter is activated and stopped by the driver and is constant during the launch control phase. There is no closed loop control considering engine revs, wheel speed and clutch actuation allowed

Other constant rev-limiter(s) is (are) permitted for imposed speed limits (pit speed, virtual safety car, circuit sections with speed limit, etc.). (Certification)

ABS as Endurance Option is permitted. (VO Certification at any time)

#### 3.9 Balance of Performance (BoP)

All Manufacturers must communicate the requested specific numbers for the definition of the numeric model for the BoP evaluation.

Manufacturers will present certified TCR cars at all BoP tests sessions at TCR

invitations. Parameters which may be modified for BoP at any time of the

#### season:

- Minimum Racing Weight; max. penalty 70kg; max. weight reduction 10kg
- Engine performance level implemented by monitored electronic components (90%, 92.5%, 95%, 97.5%, 100% and 102.5% named level "1" to "6")
- Smaller boost pressure steps implemented between the aforementioned engine performance levels
- Minimum Ride Height (set-up range 80mm ±20mm)
- Compensation Weight (CW) calculated with automatic formula communicated by Technical Bulletin.
- The Minimum Racing Weight's upper limit is 1,365 kg.

All engine performance relevant parameters will be monitored related to engine speed according to methods defined by Technical Bulletins and TCR Technical Notifications.

WSC reserves the right to take further measures in order to guarantee proper BOP and to release different BOP for Endurance Competition.

#### 3.10 Period of Certification

WSC will release 1 (one) Technical Form per model frozen for 3 (three) years starting from the date of the final

certification. Each Competitor must have at the scrutineering the original stamped and signed TCR Technical Form

for each car.

Face lifts are not considered as new cars. It will be possible to change only the modified body shell parts on the production car.

Technical Form's modification will be allowed during the season only for following reasons:

- Safety
- Reliability
- Obvious lack of performance
- Allowed Variant Options









# ART. BODYWORK

#### 4.1 Chassis (Certification)

The chassis cannot be modified unless permitted by the present regulations.

All chassis modifications including the removal of unused supports have to be certified in the Technical Form.

Following condition must be respected:

- Width of bodywork: Maximum 1950mm
- All chassis modifications have to be approved by WSC.
- If not otherwise defined by the present regulations any non-movable element must be attached with the use of tools

-

- Wheel arch modifications allowed, for the sole purpose to accommodate race tyres.
- Front bulkhead may not be modified except for a modified passage of the gearshift control, electrical loom(s), brake lines, fuel lines and extinguisher lines.
- No modification of McPherson turrets except of local reinforcement following the original shape and through metal ribs or fins as connection between turrets and front bulkhead for strengthening of strut mounting area.
   Production reinforcements and openings may be locally reworked without weakening the structure to allow access to the strut.
- Seam welding replacing or reinforcing production part spot welding is authorized.
- Local modifications of the chassis or sub frames are permitted to provide clearance to the exhaust system, transmission and suspension.
- Temporarily removal of the roof outer skin is permitted only to allow the safety cage's correct installation.

Sub frames may not be modified for the fixation on the body shell or for the attachment of suspension elements. All sub frame modifications have to be approved by WSC. Reinforcements and the removal of unused supports are permitted. (Certification)

Strengthening of the suspended parts of the chassis / body shell through the addition of parts and/or material is allowed under the following conditions:

The shape of the reinforcing part/material must follow the surface of the part to be reinforced, having a shape similar to it and the following maximum thickness, measured from the surface of the original part:

- 4 mm for steel parts.
- 12 mm for aluminium alloy parts.

Stiffening ribs are allowed but the making of hollow sections is forbidden.

The reinforcing part/material must not have any other function than that of

reinforcement. Passage for the gearshift control: Local modifications are

authorised.

Mountings and bearings of antiroll bars: The main rails may be modified to integrate the anti-roll bar bearings. The new mountings of the anti-roll bars must not have any other function.

Mounting of pedal box and master cylinders: Modifications are authorised provided they have no other function than to allow the fixing of the master cylinders and/or the pedal box.

Central tunnel and/or floor on the driver's side to allow Driver's seat installation for correct driver's position: Local modifications to the central tunnel and/or the floor on the driver's side are authorised with no other purpose than correctly installing the compulsory racing seat according to this regulation.

Panel on top of fuel tank area for Fuel tank ancillaries' installation: Local modifications of the area situated on top of the fuel tank are authorised with no other purpose than creating a flat surface to install fuel tank ancillaries.

Holes or openings on the production body-shell placed in areas not licked by the airstream may be permanently or temporarily closed (plugs, welded or glued covers, tapes or similar).

#### 4.1.1 Bonnet and boot lids

It must be possible to open them without use of tools.

The retaining springs (not the hinges) may be removed, but the car must have supports to hold the bonnet and the boot lid in open position. (Certification)

Openings in the engine bay bonnet are allowed up to a maximum total surface of 1050cm<sup>2</sup>, including any original opening(s) but must be covered by wire netting with maximum mesh surface of 500mm<sup>2</sup> (Certification). Trims on the openings can be added to the bonnet provided that they do not protrude from the outer surface more than 15mm outwards and 50mm inwards (Certification). Cut-outs in the original production bonnet for the trims are allowed up to a total surface of maximum 2350cm<sup>2</sup> including any original cut outs. The production internal reinforcements may be removed in the opening zone. (Certification)









#### 4.1.2 Doors

The production door locks, door-hinges, anti-intrusion bars, external door handles, and the driver side window lifters stay as original and in operation.

It must be possible to open all doors from outside (original handles) and the front doors also from the inside. Controls for opening the rear doors from the inside may be removed.

The other side window lifters may be removed, but the side windows must be locked in place and secured from all

movement. The removal of door soundproofing material and decorative strips is allowed.

Original inner trim panels must be replaced and be made from plastics (including composite materials) at least 1mm thick. The panels must totally cover the door, its handles, locks and window winding mechanisms.

Air inlets for driver cooling in the area of the external mirrors are accepted. (Certification)

#### 4.1.3 Engine & Luggage Compartments

The soundproofing, decorative, insulating material and parts may be removed. (Certification)

#### 4.2 Windscreen and windows

The use of the mass production windscreen is permitted.

The use of electric heated glass windscreen of artisanal production is allowed. (Certification)

Plastic windscreen (polycarbonate or PMMA ensuring the same transparency as the original glass) with the same shape of the reference part, with or without heating with minimum thickness 5.85mm is allowed. (Certification). Anti-intrusion arm(s) or support(s) for Plastic Windscreen may be used. (Certification)

The addition of a maximum of 4 protective transparent films on its external face is permitted.

The original heating system may be removed but a demister system must be installed.

(Certification) Plastic rear window min. 3.85mm is allowed. (Certification)

The internal face of side and rear glass windows as well as the glass rear-view mirrors must be covered with a transparent and colourless plastic safety film with a maximum thickness of 0.1mm in order to avoid the shattering and spraying of glass in the event of an accident. It must be fitted in a manner that facilitates checking.

### 4.3 Exterior

Bodywork - General

A maximum of 3 holes (maximum diameter of 12.5 mm) are permitted for the team in order to use supplementary measuring devices (radio, temperature, pressure, and similar). Other up to 4 similar holes are allowed for promoter use.

If a device is not used during a competition, the corresponding hole must be sealed off and the exterior of the bodywork must retain its original appearance.

The only body parts that can be replaced and changed in shape are:

- Front bumper; Shape resembles the original without bolted license plate support(s), must be approved by WSC prior to production; no dive planes allowed.
- Front fenders' lower edge behind the wheel may not be higher than front door's bottom border.
   Shape must be approved by WSC prior to production (no louvres allowed.
- Side sills (these may be added if not present in the production car)
- Rear wheel arch extensions; Shape must be approved by WSC prior to production.
- Rear door bulge compatible with the rear arch extensions
- Rear bumper; Shape resembles the original must be approved by WSC prior to production.
- Wheel arch liners

No flat floor behind the vertical plane tangent to the back side of the front wheels and the foremost point of the rear bumper. Engine bay protection panel between the frame rails is permitted. (Certification)

It is not allowed to tape the joints or use self-made gaskets (foam, rubber, etc.) between bodywork panels or parts. The hood's and boot lid's original position may not be changed.

Door and bonnet seals may

be removed. Installation of air

jacks

The bodywork may be modified over a maximum area of 100 cm2 to create housing for the air jack connector. The connector for the feeding of compressed air must be situated rearward of the rear axle centreline and must not protrude beyond the surface of the bodywork.

Roof Hatch installation without structural parts' modification for access to the cockpit is permitted. (Certification)

The use of mesh in air inlets without changing car's external appearance is permitted. For Endurance Events only, the mesh installation in front of air inlets is allowed.









#### 4.4 Aerodynamic devices

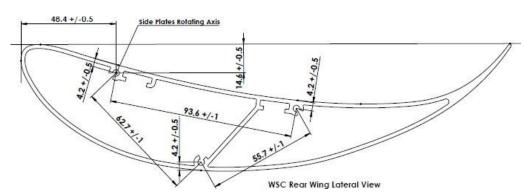
Rear wing with brackets (Certification)

The original car's devices must be removed and must be replaced with one compulsory rear wing made up of:

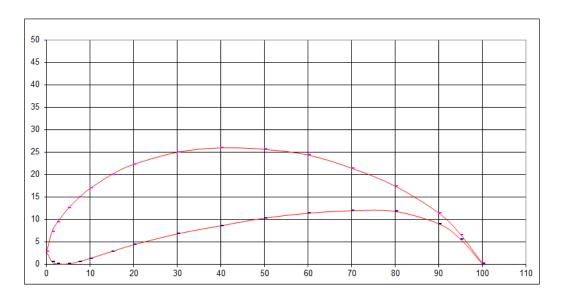
- One aluminium extruded wing profile (WSC delivery corresponding to the profile defined below)
- Specific part produced following exactly the WSC rear wing dimensions and functions
  - Material: aluminium or fibre reinforced plastic
  - Production drawings corresponding to the WSC 3D model will be delivered for certification.
  - The angle adjustment will use 1 (one) axis of rotation. (For cars certified after 2019)
  - Scrutineering jigs will be delivered on request to the manufacturers.

### Rear wing definition & Dimensions:

- -Straight, adjustable, single piece with no flap -Type BE 183-176 +/- 0.5mm
- Chord = 250 +/-1 mm
- Width = 1380 + 0/-1 mm
- Trailing edge thickness = 2mm +/-0.5 mm



Be 183-176   Ro = 2.69   Xo = 2.69   -Yo = 2.79															= 2.79		
x %	0	1.25	2.5	5	7.5	10	15	20	30	40	50	60	70	80	90	95	100
-Yv	2.79	0.53	0.07	0.1	0.62	1.32	2.86	4.35	6.79	8.8	10.02	11.4	11.95	11.8	9.03	5.58	0.1
-Yo	2.79	7.31	9.4	12.52	14.95	16.94	20.05	22.3	25.01	25.98	25.65	24.39	21.44	17.43	11.43	6.63	0.2





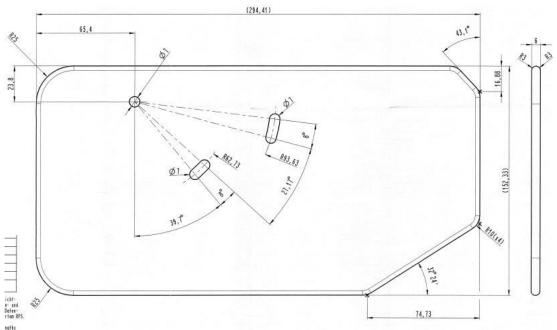






#### - 2 Brackets

Dismountable, flat, plane surface perpendicular to wing profile surface. Mounted on the boot lid or on the rear window and to the lower or to the upper wing profile surface. Min. transversal distance between both supports and between supports and side plates = 100mm. The leading edge must be rounded with a constant radius. The trailing edge may be chamfered to a max. of 20 mm (min. thickness at the trailing edge = 2 mm).



- 2 side plates (WSC delivery or Specific parts); All edges will be rounded with at least R3mm (Safety)
  - Dismountable, flat, continuous surface perpendicular to profile centreline.
  - Side plates may rotate with respect to the wing profile.
  - This device must be rigid and offer no possibility for the penetration of air (groove, hole, opening, etc.).
  - Material: aluminium, plastic

No element of the rear wing including side plates and brackets may be located beyond the following limits: X = 1050 mm from rear axle centreline.

Z = Highest point of roof.

### The front splitter (Certification):

- WSC delivered and adapted to each car; It will also be possible to reduce the front splitter's protrusion into the wheel arch in case of collision with the front tire's enveloping curve.
- Specific part following exactly the WSC CAD model front splitter's dimensions (length, width and angles, front overhang, vertical projection, sections of areas touched by the airstream) (see Drawings)
  - lateral prolongation in "x" for cars with bigger front overhang is allowed (max. width in "y" 50mm)
  - The distance between splitter's contour vertical projection and bumper contact area on the front splitter is limited as follows:
    - In the middle area  $(y = \pm 400 \text{ mm})$  will be between 35 and 85mm.
    - Outside y = ± 400 mm is limited to max. 210mm.
    - In the transition area to the wheel arches is limited to max. 45 mm.
  - The layout of the areas covered by the bumper is free.
  - The areas next to wheel arches (Detail D) may remain flat.
  - production drawings will be delivered for certification
  - material: fibre reinforced plastic
  - Scrutineering shape jigs for external contour, leading edge and lower face will be delivered on WSC request.
  - WSC may approve justified waiver.
  - Note: in case of doubts, the WSC CAD 3D model overrides the drawings.
  - 2 embedded skid pads, Steel, 1.2±0.1mm; max. Area: 600cm2 each (shape and fixations are free,

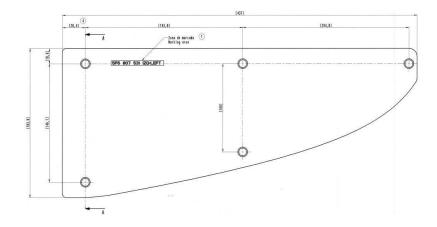
Certification on Technical Form or VO)



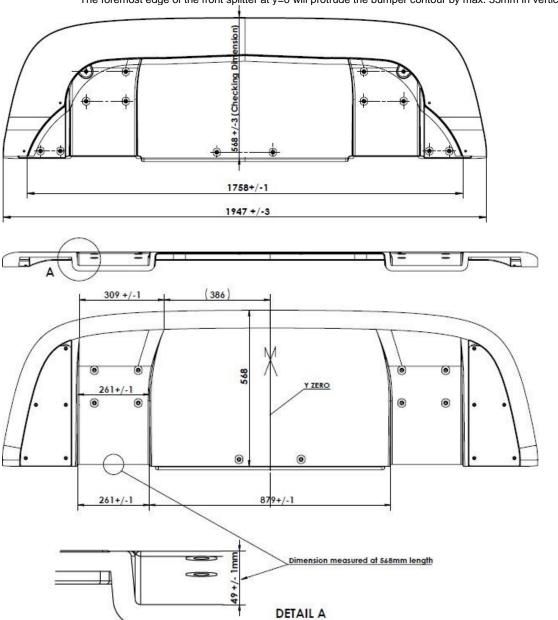








The foremost edge of the front splitter at y=0 will protrude the bumper contour by max. 35mm in vertical projection.

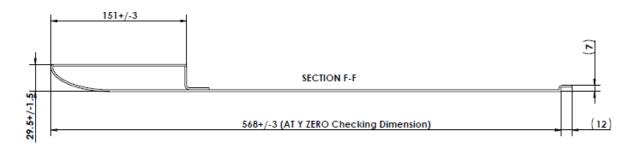


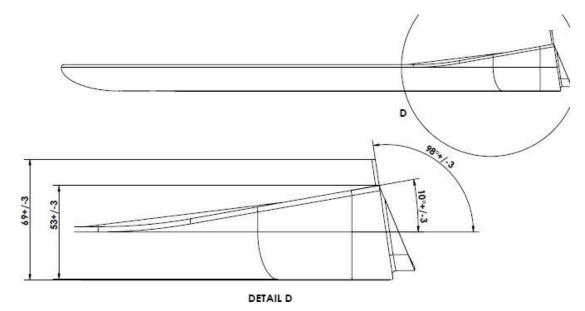












Front Splitter Brackets' design is free however the front splitter must be rigidly fixed the car's body at least in the area between the vertical projection of the front side members. Outside this area flexible front splitter mountings are allowed. (Certification)

Rear diffuser included in the rear bumper: (Certification)

- One single plane between a vertical plan minimum 380mm behind the rear axle centre line and the bumper's vertical projection
- Open downwards hollow area for the exhaust end pipe(s) allowed
- Maximal width: 1650mm
- Max inclination to the doors' lower edge: 25°
- No air circulation over the diffuser
- Fins or other air guiding surface are not allowed.

Mass production flexible skirts reducing the ground clearance may be removed. (Certification) The ground clearance check will consider these parts as bodywork









#### 4.5 Interior

Dashboard trims; Centre console

Trims situated below the dashboard and which are not parts of it may be removed. It is permitted to remove the part of the centre console. (Certification)

### Dash board (Certification)

- General shape, appearance, mounting points and position must remain similar to production part.
- Thermoplastic or Fibre Glass plastic materials are free.
- Minimum weight: 2kg including ducting and fixation elements.

#### Instruments (Certification)

Display and indicators can be freely fixed on the dash board or to the steering column. The installation shall not interfere with the driver's vision or safety.

#### Switches (Certification)

Standard switches may be replaced by other control elements and may be fitted at different locations on the dashboard or on the centre console. Any opening resulting from this must be covered.

Allowed switchable functionalities affecting engine ECU on the steering wheel or switch panel(s) while engine running (allowed positions are on/off): Full Course Yellow, Pit Speed Limiter, Launch Control, GBX neutral and reverse gear. If switches (e.g., rotary, flip, button) for all other functionalities are placed in driver's reach, these may be activated and parameters of the engine ECU functionalities may be changed between certified parameter sets or within allowed software variants only when the engine is not running. It must be verifiable by checking engine ECU calibration and from logged scrutineering data, that switch actuation for these purposes does not take effect while engine is running.

Production Pedal Box: metallic pedals may replace the production plastic parts. New master cylinders and new arrangement in the engine bay may be used. (Certification)

Racing pedal box from shelf (hanging or floor mounted) and master cylinders in the cockpit: Modifications are authorised provided they have no other function than to allow the fixing of the master cylinders and/or the pedal box (Certification).

The original heating & air condition systems may be removed. Bulk head openings must be closed respecting "fire-wall" conditions. (Certification)

The wind screen demisting system is mandatory. Mass production AC & Heating Systems may be removed. (Certification)

# ART.

#### WEIGHT

#### 5.1 Target Racing Weight

The target racing weight for cars using racing gearbox is 1,265 kg.

The target racing weight for cars using mass production gearbox is 1,230kg.

The minimum front axle load proportion is 59% to be respected in any conditions during the event. (Not applicable for Endurance Events)

### 5.2 Ballast, Success Ballast

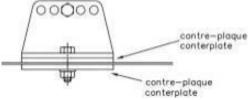
Ballast, including success ballast, must be made from metallic plates or blocks and must be fixed in the cockpit and/or in the boot.

It is permitted to complete the weight of the car with ballast.

The metallic blocks or plates must be fixed by means of tools, with the possibility of affixing seals.

The ballast must be attached to the body shell/chassis with bolts of at least 8.8-class with a minimum diameter of 8 mm, with counter plates, according to the principle of the following Drawing.

The minimum area of contact between body shell /chassis and counter plate is  $40 \text{cm}^2$  for each fixing point. Any movable ballast system is forbidden.



The ballast and success ballast will be declared as such at the scrutineering. The success ballast must be marked and it must be possible to remove separately.

The ballast fixing system must allow to the Technical Delegate to seal the bolts. The ballast must be designed such, that tools are required for its removal.









#### 5.3 Liquids

The race car's weight may be checked at any time during the competition, including Qualifying and Races, with the existing quantity of liquids in the tanks. At any other technical check, outside the time defined before, the technical delegate may verify the race car's weight with emptied consumable liquid tanks.

# ART.

#### **ENGINE**

#### 6.1 Engine generals

Turbo charged mass production engines without modifications.

- The make and type of the spark plugs are free.
  - It is allowed to change the injectors with OEM parts similar dimensions. (Certification)
  - The mass production high pressure fuel pump from the TCR certified engine cannot be modified. (Certification) The electric loom and connection(s) may be modified to improve durability. (Certification)
  - Cylinder head gasket may be changed with another one with identical dimensions. (Certification)
  - All crankshaft bearings may be changed with another one with identical dimensions.

(Certification) Engine position: Production; The crankshaft's axis within a cylinder with R=20mm

The use of a different standard engine coming from another mass production car of the same group or of the TCR Race Engine is allowed. (Certification)

Position of the replacement engine in engine bay (Certification):

- The crankshaft's axis will be within a cylinder with R=20mm relative to the position of the original engine in the production car of the TCR model.
- The inclination (defined by the cylinder sleeve axis) corresponds to the inclination of the replacement engine in its original car.
- The y-position is free for TCR models with transversal engine.

Only sealed engines by the manufacturers are eligible for TCR Events. (Certification)

Additionally, the engine must be prepared in such a way that the technical delegate is given the possibility to seal the oil sump and the cylinder head cover. (Certification)

It is not allowed to put ice or any other cooling system in the intake pipes or in front of the

intercooler. Indicative Engine Performance (ECE-R 85-5 Norm):

- Maximum Torque around 410Nm
- Maximum Power around 340HP

#### 6.2 Engine Cooling

### <u>Intercooler</u>

Mass production intercooler from another OEM (maximum core volume 8 litres) may be used

(Certification). Air Ducts: free between air inlet and intercooler core (Certification)

The position and brackets are free without any modification of the bodywork. Air hoses and water pipes are free (Certification)

#### Water Cooling

Radiator: mass production part free provided that the radiator is fitted in the production location without any modification to the bodywork (see exception below), brackets, water hoses and water pipes are free (Certification) Thermostat: free (Certification). The use is optional.

Electric & mechanic fans for radiator cooling: free (Certification on Technical

Form or as VO) Air Ducts: free between air inlet and cooler core (Certification)

In justified cases, Manufacturers may apply for removal or modifications of the upper radiator cross members without negative effects for rigidity of the chassis structure (WSC approval and Certification).

# Engine oil cooling

The type of the used oil cooler (air/oil radiators or water/oil heat exchanger) and their connections are free. No modifications to the bodywork are allowed. The parts have to be situated within the perimeter of the bodywork in safe position. (Certification)

It is allowed to put tape in the grilles of the front bumper to regulate the engine cooler temperature (in

car colour). Only ambient air may be used for heat dissipation.









#### 6.3 Lubrication

Following is allowed:

- Pressure accumulator (Certification)
- Bafflers and deflectors in production oil wet sump; The distance between the planes of the oil sump gasket on the engine block and on the oil-sump may not be increased by more than 6mm. (Certification)

If the lubrication system includes an open type sump breather, it must be equipped in such a way that the oil flows into a catch tank. (App. J, Art. 255. 5.1.14)

#### 6.4 Engine control unit

If the car's Power Box communicates to the engine, its software must be certified on the programming code level, identifiable and frozen. (Certifications)

Anti-Lag System is allowed. The system may be switched on manually when engine is not running and switched off manually at any time. Unless the system has previously been switched off manually, the system may be switched on/off automatically by Full Course Yellow, Speed Limiters or when race car is driven at part throttle (steady throttle pedal position under 60% for out / in lap, safety car, etc.) In case of automatic switching a delay of at least 5s between initiating switching and applying has to be guaranteed. Automatic switching has to be signalled to the scrutineering data logger. Each realization of an Anti-Lag functionality may only have two levels: on/off. (Certification)

Every manufacturer will have to provide 6 (six) engine mappings with differing power outputs: 90%, 92.5%, 95%, 97.5%, 100%

and 102.5% named level "1" to "6" (Certification).

For cars certified until end 2019:

The choice of the engine Electronic Control Unit (ECU), engine control software, sensors and engine loom are free. (Certification)

The software and all data sets are frozen and cannot be overwritten. ECU box will be sealed by the Manufacturer and the access to modify software and parameters will be closed to prevent manipulation.

Manufacturers will deposit on request by the technical delegate free of charge for the duration of participation of their cars to TCR Competitions, Series, Class or Championships Engine Electronic Control Unit(s) (ECU) for all registered engine performance level(s) defined for BoP purposes.

The WSC Technical Delegate may at any time oblige the competitor to use the reference unit registered with the WSC by the Manufacturer.

Any manipulation, modification or disconnection of any certified sensor is forbidden. The Competitor is responsible for the quality of the sensor signals.

The software and the map(s) for the all certified engine performance level(s) are frozen and cannot be modified without WSC agreement. (Certification)

Every manufacturer has to provide software tools (free of charge and without limitations concerning the required number of copies and licenses) to allow to the TCR Technical Delegate to monitor the engine control software. The interface cable, that is needed to access the engine control unit while it is installed in the car, has to be provided for the

TCR Technical Delegate by all participating competitors free of charge. The engine control software and the datasets have to be provided in a binary format to the TCR Technical Delegate by the manufacturer The software tools have a minimum functionality of:

- Upload/Download program software and data sets
- · Calculate Checksum of program software and datasets after uploading them

Car certified from 2020 onward

The TCR ECU (Marelli, model: SRG-141) must be ordered from manufacturer and used as is, i.e., no modifications to the base software of the ECU are allowed. The TCR ECU must be mounted as specified in the "TCR-Certification\_TCR-ECU- Installation-Manual", available on the TCR Server.

Detailed specification of requirements for the 6 mappings can be found in WSC BoP documentation (Document "TCR-Certification\_Engine-Dyno-Test-Guidelines). Power levels will be selected via the TCR Power Level Rotary Switch delivered on order by Marelli and will be sealed by the technical delegate following BoP Table.

The ECU will act as a scrutineering data logger for the TCR Technical Delegate. Software licenses are provided by Marelli. Hardware interface, i.e., connector with correct pinout to connect a laptop via Ethernet (RJ-45) must be provided by each manufacturer using the "TCR-Certification\_Engine-Dyno-Test-Guidelines" Document. from Marelli.









### 6.5 Intake system

One (1) supplementary opening in the front bumper without protrusion above bumper's exterior surface can be made. (Certification)

The maximum boost pressure will be defined during BoP test and will be communicated per Technical Bulletin. The boost monitoring procedure is described in the latest version of the document "TCR-Notification\_Boost-Monitoring-Method".

The air filter housing and the air filter element may be replaced with a catalogue part (Certification). The air feed pipes to the air filter housing and from the filter housing to the turbo are free. (Certification)

1 (one) different mass production Mono Turbo Charger coming from engines with cylinder capacity smaller than 2000cm³ may be used. (Certification)

It is allowed to change the impeller in case the Turbo Charger is integrated in the exhaust manifold. (Certification)

The turbo charger must be sealed by the manufacturers and must have the possibility to be sealed by Technical Delegates. (Certification)

No fresh air connection pipes between inlet and exhaust manifolds are allowed. Antipollution air circulation parts have to be removed and the connection ports must be closed. (Certification)

#### 6.6 Exhaust

The exhaust system is free downwards the turbo charger and its regulating system. It will fit FIA homologated catalytic converter(s) (FIA List no. 8), will have nominal wall thickness minimum 1.2mm and will have the exit(s) at the car's rear end below the rear bumper. (Certification)

If a different turbo charger is certified an adapter between this and exhaust manifold may be used, (Certification).

The sound level must not exceed 110 dB(A) at  $\frac{3}{4}$  of maximum revs, measured in conformity with the FIA noise-measuring method (see Article 252-3.6 of FIA Appendix J).

Manufacturers may apply for option (VO) for exhaust muffler system for low noise circuits. (Certification) Certified parts may be used following events specific noise limit.

### 6.7 Fly-wheel assembly (Certification)

Flywheel: production part or modified respecting following conditions:

- Fly wheel can be re-manufactured solely to allow for a replacement clutch.
- Minimum weight 6kg (without fasteners)
- Machined from a single block of steel (no weight reduction bores, pockets or cut-outs)
- The starter gear must have same or bigger dimensions.

# ART. FUEL SYSTEM

7 7.1

#### Fuel tanks

The fuel cell(s), the filling and ventilation systems must be separated from the cockpit by a fireproof and liquid-proof protective device and must comply with FIA App. J, Art. 253. (Certification)

The total fuel volume in the car is max. 100 litres

(Certification). Designs have to be WSC approved

before implementation.

Technical and design conditions:

- The fuel tank must be conformed or exceed the specifications of FIA/FT3 1999, FT3.5 or FT5 and comply with the prescriptions of FIA App. J, Art. 253.14
- The fuel tank must be contained in a close-fitting flameproof and liquid-proof lower (external) housing that has no other mechanical function including a crushable structure on all surfaces except the one in contact with the body shell.





a)

b)





- The crushable structure must be a honeycomb sandwich construction based on a fire-resistant core of a minimum crushing strength of 18N/cm2. The sandwich construction must include two skins of 1.5 mm thickness having a tensile strength of minimum 225N/mm2 and must have minimum thickness of 10 mm.
- Located within the safety cage, forward of the centre line of the rear wheels, no more than 65cm from the vertical plane through the longitudinal axis of the car
- Floor pan cut above the original fuel cell compartment exclusive for the installation of the supplementary fuel cell volume in the cockpit is permitted. Structural panels cannot be cut or modified.
- The upper (internal) housing may be of mild steel or aluminium both 1.5mm minimum nominal thickness bolted or welded to the body shell or be crushable structure with similar properties as the lower housing.
- An add-on fuel cell (FT3 1999, FT3.5 or FT5) on the top of the main fuel cell and installed in a housing corresponding to this regulation may be used up to the total maximal fuel volume. (Certification)
- External refuelling can be used (Art. 253). (Certification). Several refuelling systems for different sporting regulations can be certificated (VO at any time).
- For fuel tanks with one filler neck FIA homologated non-return valve is mandatory (App. J. Art. 253.14). (Certification)
- For endurance races the filler hole(s) must be situated outside the cockpit. All bodywork joints in the vicinity of the refuelling connections must be designed in such a way as to prevent any leakage of fuel into cockpit and/or boot during refuelling. For refuelling systems with FIA or ASN authorized leak-proof couplings FIA or ASN authorized fuel cell safety valves must be used. (Certification)
- In-board fuel tank filler must be protected by a fireproof and liquid-proof fire-wall. (Certification)

FIA Safety Fuel Cells will satisfy the following conditions (Certification):

- Fuel cell cover's lowest surface should have similar area and position in the car as the production fuel cell. (WSC approval)
- The rest of the fuel cell including its cover has to be higher than 40mm in respect to production fuel cell's lowest surface.
- Simple tunnel (no closed opening through fuel cell) for exhaust tube is allowed.
- Fuel cell housing fixation to the body shell will be made using at least 6 (six) fixing points with M8 grade 8.8 bolts installed according to the FIA Drawing 253-65. WSC approved fixing systems with equivalents solidity may be used. (Certification)
- An add-on fuel cell (FT3 1999, FT3.5 or FT5) on the top of the main fuel cell and installed in a housing corresponding to this regulation may be used up to the total maximal fuel volume.

It is also possible to use a catalogue rectangular shaped FIA Safety Fuel Cell coming from an FIA-approved manufacturer (FIA FT3 1999 minimum specifications). (Certification).

The Fuel Cell must be fitted as follows:

- located within the safety cage
- forward of the centre line of the rear wheels
- behind the vertical plane tangent to the most rear point of the driver's seat back
- no more than 65cm from the vertical plane through the longitudinal axis of the car
- The fuel tank must be contained in a close-fitting flameproof and liquid-proof lower (external) housing that has no other mechanical function including a crushable structure on all surfaces except the one in contact with the
- The crushable structure must be a honeycomb sandwich construction based on a fire-resistant core of a minimum crushing strength of 18N/cm2. The sandwich construction must include two skins of 1.5 mm thickness having a tensile strength of minimum 225N/mm2 and must have minimum thickness of 10 mm.
- Cut-out of the floor pan is permitted.
- Lower surface of the tank housing at least 100mm above road (measured by ride hide of 80mm).
- mild steel or aluminium 1.5mm minimum nominal thickness fuel cell cover bolted or welded to the body shell (fire wall) (Certification)
- An add-on fuel cell (FT3 1999, FT3.5 or FT5) on the top of the main fuel cell and installed in a housing corresponding to this regulation may be used up to the total maximal fuel volume. (Certification)
- In case of bolting (fuel cell housing or cover) minimum M6 8.8 bolts spaced at max. 200mm must be used. Different designs have to be WSC approved before implementation.

#### 7.2 **Fuel circuit**

#### Fuel lines:

Mass Production Fuel Lines may be used outside the cockpit. The protection will correspond to Appendix J, Art. 253.3.1. Other fuel lines must correspond to the prescriptions of Article 253-3 of Appendix J. The installation is free provided that the prescriptions of Article 253-3 of Appendix J are respected

#### Fuel sampling connector

The car must be fitted inside the engine compartment with a FIA approved self-sealing connector for fuel sampling (Technical list n°5) on the fuel feed line directly before the fuel high pressure pump.

The competitors will provide to the Technical Delegate on his request a connection hose to this connector.

#### 7.3 **Electric Fuel Pumps (Certification)**

All Electric Fuel Pumps must stop by stalling engine.









ART. 8	ELECTRICAL EQUIPMENT
8.1	Windscreen wiper
	Any mass production wiper motor system may be used with original number of working wiper blades (Certification)
	The windscreen washer tank may be modified (free position) or removed.
8.2	Complete rear window wiper and washer system may be removed. (Certification)  Engine Starter
	The production starter must be fitted and must be in working order at all times of the
	competition. The driver must be able to operate the starter when seated normally.
	Manufacturers may apply for alternative OEM Starter. (Certification)
8.3	Lighting equipment
8.3.1	The exterior lighting equipment must at least ensure the following functions: headlights, front and rear direction indicators, stop lights, rain light (see 8.3.2) and rear tail lights and must be in working order at all times of the competition.
	The exterior surface and appearance of the mass production lights cannot be modified but the interior elements may be removed. (Certification). Exception for the fender indicators which are free.
	Endurance spot lights are free however body work modifications have to be certified (VO at any time).
	Cars must be prepared to activate at promoter decision Low Beam Lights Flashing at 2Hz - 4Hz at any speed limiter mode.
8.3.2	Rain lights: Rain Light is compulsory. (Certification)
	Following arrangement may be used:  One FIA approved unit (Technical List n°19) located in the tail gate, boot lid or replacing the 3 <sup>rd</sup> brake light placed on the car's centre line.  Production 3rd brake light in combination with the production rear fog light(s).
8.4	Starter Battery
	Only 1 (one) dry starter battery is allowed.  Type: certified (Li-lon or other exotic types will not be accepted). Capacity: free (certified)  Make: free as far as the certified capacity, location, protection and fixation are used.  Location: In the production location, boot or in the cockpit. If in the cockpit, it must be situated behind a vertical and transversal tangent plane to the rearmost point of driver's seat or in the rear passengers' foot well. (Certification)  Fixation: Should the battery be moved from its production position App. J, Art.255.5.8.3  applies. Insulating cover: The terminals must be electrically protected with an insulating cover.  It must be possible at all times to start the engine with the energy of the battery transported on board the vehicle.
8.5	Electric loom (engine, car & data logger)
	Production or racing loom (Certification).
8.6	Belt drive, alternator
	The belt drive may be modified by removing not used belt driven aggregates and by repositioning the alternator. (Certification).
	The alternator may be replaced with another mass production one. The alternator pulley, belt and the bracket are free. (Certification).
	The alternator must be operational at any time.
ART. 9	TRANSMISSION
9.1	Transmission system
	For cars fitted with a paddle shift and/or a power-driven clutch with electronic or pneumatic control, the Technical Delegate may at any time oblige the competitor to use in competition the reference unit(s) registered with the WSC by the Manufacturer.









#### 9.2 Clutch

The clutch has to be the mass production one or certified under following conditions:

- Racing Catalogue pressed-type multi-discs sinter-cerametallic; cushion clutches are not allowed.
- Minimum Discs Dia. 183mm (71/4")
- Clutch Control System hydraulic or mechanic actuated by the driver's foot
- Clutch release bearing is free (catalogue parts).

#### 9.3 Gearbox

Mass production gearbox coming from the production model or from another car of the same group may be used (Certification). In the latter case a gear box adapter to the engine and gearbox brackets may be used. (Certification)

The mass production gearbox will be certified and used under following conditions:

- Mass production ratios
- 1 (one) reverse gear, selectable at any moment by the driver while the engine is running and the car is stopped
- Every gear must be able to be engaged and in working order.
- Gear changes must be made mechanically or using Paddle Shift (after-market or catalogue part).
- Interference to Engine Control for shifting allowed (Ignition cut or power reduction)
- Each individual gear change must be separately and solely initiated and commanded by the driver.

The use of paddle shift on mass production gearbox using catalogue (after-market) parts may be certified. The gear box control unit will be sealed and may be at any time be replaced by the technical delegate with the reference part. It is not allowed to alter the certified operating data. Manufacturers will provide to the technical delegate free of charge for the duration of participation of their cars to TCR Competitions, Series, Class or Championships Transmission Electronic Control Unit(s) (ECU).

One catalogue racing sequential gearbox with one set of ratios may be certified under following conditions:

- A maximum of 6 (six) forward gears
- 1 (one) reverse gear, selectable at any moment by the driver while the engine is running and the car is stopped
- Every gear must be able to be engaged and in working order.
- Gear changes must be made mechanically or using Paddle Shift (catalogue part).
- Interference to Engine Control for shifting allowed (Ignition cut or power reduction)
- Each individual gear change must be separately and solely initiated and commanded by the driver.
- Any system that permits more than one gear pair to be engaged to the drive train at any time is prohibited.
- Instantaneous gearshifts are forbidden.
- Gearshifts have to be distinct sequential actions where the extraction of the current dog gear is subsequently followed by the insertion of the target dog gear.
- The dog gear is considered extracted when its position is not able to transmit any torque.
- Catalogue limited slip differential

A 2<sup>nd</sup> catalogue racing sequential gearbox can be certified at any time as option VO using similar technical parameters:

- Interchangeability (same clutch, starter, etc.)
- Similar lubrication principle
- Total ratios in each gear (deviation ±3%)
- Weight (deviation ±2kg)
- Catalogue limited slip differential

Car models using mass production gearbox and/or sequential gearbox(es) will certify only 1 (one) GBX type per car (Chassis no.) and are not allowed to change back and forth between different certified variants. GBX changes may be requested by Certification Extension (Erratum) of the Technical Form.

A new gearbox cooling using catalogue parts (pump, filter, cooler, lines, thermostat, etc.) may be certified. Mass Production Gearbox Cooling may be used without modification. Modified mass production gearbox cooling must be also certified.

Each car will have to keep declared transmission.

### 9.4 Final Drive

The final drive may be production or new (Certification).

For each certified gear box one new final drive ratio or one new final drive ratio pair (for transmission using two final gear pairs for gearboxes with 2 lay shafts) in the certified housing may be certified.

Final drive cooling using catalogue parts (pump, filter, cooler, lines, thermostat, etc.) may be certified.









### 9.5 Limited Slip Differential

Any mass production limited slip differential may be used in mass production gearbox with production parameters but the settings cannot be modified during driving. (Certification)

The mass production differential fitted in the mass production gearbox may be replaced by a catalogue mechanical limited slip differential inside the drive unit housing (Certification).

It is permitted to remove material from the inside of the production housing. It must at all times be possible to clearly recognize the housing as the certified standard housing. (Certification)

Only one (1) catalogue mechanical limited slip differential may be offered for each racing sequential gearbox. (Certification).

For each mechanical limited slip differentials 4 (four) pairs of pressure angles machined on one or several pressure rings pairs may be certified. Control jigs for the pressure angles will be made available on WSC request.

The use of metallic friction plates & disks is mandatory (no carbon friction plates / disks or CFRP platted parts allowed).

#### 9.6 Drive shaft

For each certified gear box different drive shafts may be certified. Principle of the joint on the wheel side joint must be original.

Drive shaft's length is free.

#### ART. 10

### **AXLES, SUSPENSION AND STEERING**

#### 10.1 Generals

Wheelbase: Nominal wheelbase of the race car must not exceed the nominal wheelbase of the original car + 60 mm with the following constraints:

- The wheels can only be moved towards their end (i.e., front wheels towards the front) by 30 mm maximum.
- This measurement must be taken from a datum-point on the body shell. (Certification)
- Tolerance on race car wheelbase ± 10 mm.

### Front and Rear overhangs

- Front: Defined by front bumper & Front splitter position.
- Rear: Defined by rear bumper position.
- These measurements must be taken from a datum-point on the body shell. (Certification)

No modifications of the chassis for new suspension pick up points

- The position of the new pick-up points is free; max ±20mm adjustment in all directions (Certification)
- Bolted brackets for suspension elements are free (Certification)

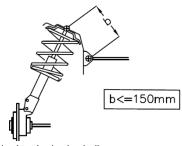
Position of the front and rear overhangs correspond to the production car.

(Certification) Reinforcement bars (Certification)

Reinforcement bars may be fitted on the McPherson top mounting points to the body shell of the same axle, each side of the

car's longitudinal centreline.

The distance between the McPherson top mounting and the anchorage point of the bar cannot be more than 150 mm (Drawing 255-4), unless the bar is a transverse strut homologated with the safety cage. Reinforcement bars must be removable.



The mounting bracket may be welded or bolted to the body shell.

If bolted, a maximum of three (3) holes (maximum diameter of 10.5 mm) are authorised on each side. The reinforcement bar must not be mounted elsewhere on the body shell or any mechanical part.

### 10.2 Wheel Hubs and Bearings

The wheel hubs may be re-machined using similar wheel fixation (number of fixation points, same bolt PCD and thread), to allow the use of a stronger mass production wheel bearing. Mass production wheel hubs may be used. The rim centring on the hub may be modified. (Certification)









### 10.3 Bearings, Silent blocks, Rubber bearing

Production bearing on suspension arms may be replaced by uniballs or bush bearings (Certification). No rolling contact bearings accepted.

Any elastokinematic elements (rubber, metallic spring, etc.) allowing defined modification of suspension parameters (toe, camber, etc.) under lateral or longitudinal forces are forbidden.

### 10.4 Front wishbones/upright/struts

The working principle and the number of pivot points on the wishbones/upright/struts and on the chassis/subframe have to be maintained. The parts are free. (Certification)

Double-wishbone axle may be changed to triangular control arm axle. (Certification)

### 10.5 Rear suspension

Production suspension parts may be reinforced or modified. Suspension arms may be replaced by new parts (Certification)

Twist beam may be changed into double trailing arm, keeping the same external pivot points and adding two additional points on chassis. (Certification)

#### 10.6 Anti-roll bars

Anti-roll bars made from ferrous material, their bearings and their actuation are free. Adjustable lever arms (no turning blades) may be used without adjustment from the cockpit. (Certification, maximum 3 sets for front and rear axle)

If the production axle is not fitting anti-roll bar, it may be added.

(Certification) The anti-roll bars may be disconnected but must

remain in the car.

### 10.7 Springs

Cylindrical, linear steel springs are free; the combination of one helper with one suspension spring is allowed.

The spring seats are free. (Certification)

Rubber bump stops and packers are free.

### 10.8 Minimum Ride height

The minimum ride height has to be respected at any time during the event.

For the checking of the minimum ride height, the pressure of the tyres must not be less than

1.5bars. Reference Minimum Ride Height: 80mm.

### 10.9 Shock absorbers

Only commercial hydraulic 2-way adjustable shock absorbers (one per wheel) fitted in the same location and similar position like in the basic mass production car are allowed. (Certification)

All original internal parts offered by the manufacturer of the certified shock absorber in its commercial catalogues and free available on the market are allowed.

The use of following technical solutions is forbidden:

- Rolling contact bearings
- Inertial shock absorbers (J-Damper)
- Floating-piston for amplitude/frequency depending damping
- Hydraulic bump-stops
- Connection between shock absorbers (hydraulic, electroic, electronic or mechanic, other than antiroll bars)
- Set-up modification from cockpit
- Set-up modification by moving car by computer control (active damping)
- Motion sensing valves (G-valves)
- Electro valves
- Solid-materially additives to the damper-oil

Manufacturers may apply for different shock absorber brands and /or commercial designations at any time (VO Certification)









#### 10.10 Steering

The steering lock must be dismounted and the column adjusting system must be locked with tools. Steering column brackets may be replaced. The new brackets may be connected to the chassis or to the safety cage (Certification) The production locking system of the steering column adjustment may be used for endurance events. (Certification)

A catalogue closed steering wheel can be used together with catalogue adapter and spacers. (Certification) The fitting of displays, switches and control lights on the steering wheel is allowed if offered by the steering wheel supplier. (Certification)

It is possible to certificate a new steering rack. All components of the new one must be of OEM mass production origin with minimal modifications for race usage and parts matching. (Origin has to be proved). Chassis firewall could be locally modified to adapt new routing for steering column. Steering column could be modified to be adapted to new steering rack spline. (Certification)

The steering wheel must be fitted with a quick release system. (Certification)

### 10.11 Power steering

For cars fitted with an automatically variable power steering the Technical Delegate may at any time oblige the competitor to use the reference unit WSC registered by the Manufacturer.

In case of using different steering rack the correspondent assistance principle can be used with parts of OEM mass production origin. (Certification)

### ART.1 BRAKES

#### 11.1 Generals

Master cylinder(s) dimensions are free; The type and make will be certified. Max brake diameter 382mm (width free); certified brand, diameter and bells Steel brake discs (no ceramic coating allowed) Max 6 pistons front calliper (one calliper / wheel, Certification) Max 2 pistons rear calliper (one calliper / wheel, Certification) Brake pads are free (2 pads /

The brake callipers must be made from aluminium materials with a modulus of elasticity no greater than 80Gpa. (Certification) Simple brake effort repartition system(s) (hydraulic or/and mechanic) is (are) allowed. (Certification)

### 11.2 Brake fluid tanks

The brake and clutch fluid tanks will be fixed in the engine bay. The brake fluid hoses may pass through the cockpit. (Certification)

### 11.3 Brake cooling

Ducts may be metallic (steel or aluminium sheet), flexible hoses or be made in composite material. (Certification) Original apertures in the mass production bodywork may be used to bring the cooling air to the brakes. (Certification) The connection of the air ducts to the certified apertures in the bodywork is free. (Certification)

Two supplementary openings in the front bumper may be done with no other function (Certification):

- The connection parts to the bumper will have an internal diameter of maximum 110mm, or the correspondent area for non-circular sections, will not protrude more than 15mm above bumper's outer surface having transition radius to the bumper shape max 10mm.
- Flexible or firm air ducts with maximal inside dimensions of nominal 115mm diameter for circular versions or the corresponding inside area for non-circular versions may be used.

### Brake disc cooling:

Ducts must channel air towards the inner face of the brake disc and brake disc bell only and must not be bigger than the disc diameter.

### Brake calliper cooling:

Ducts may wrap the calliper up to a maximum of 20mm around it.

Tape on the external air inlets to regulate the brake temperature is allowed (in car colour).

### 11.4 Parking brake

The parking brake working on the brake system (not on the transmission) is mandatory and must be operative at any time.

The production parking brake may be removed or replaced by a hydraulic valve or master cylinder operated manually by the driver without any intermediate system. (Certification)









ART.	WHEELS AND TYRES
12.1	Generals
	The tyre types will be decided by WSC.  Any system allowing the car to be driven without pressure in the tyres is forbidden. Pressure and temperature sensors are forbidden.
12.2	Dimensions
	Wheels: (Certification)  Dimensions of the 4 wheels: identical Rim's maximum dimensions: 10"x18" (width x diameter) Complete wheel: Maximum width at 2bars: 280mm The diameters at inner and outer rim edges must be identical with a tolerance of ±2.0mm. Wheel's minimum weight: 11kg Wheel's material: Cast aluminium alloy Wheel's Construction: Single unit Metal inserts are allowed for the passage of the drive to the wheel. Air extractors are forbidden. Dry and wet weather tyres will have similar dimensions.
	Manufacturers may apply for different interchangeable wheels at any time (VO Certification)
12.3	Wheel visibility
	The upper part of the complete wheel (flange + rim + tire) in straight ahead position and above the wheel's centre must be vertically covered by the bodywork.
12.4	Wheel attachment
	Wheel fixations by bolts may be changed to stud fixations respectively knurled-head screws and steel nuts, provided that the number of fixation points, as mentioned above, remains unchanged. (Certification)
	Certified wheel spacers are allowed.
	Manufacturers may apply for endurance wheel attachment studs and nuts. (Certification)
12.5	Pressure control valves
12.5	Pressure control valves  Pressure control valves on the wheels are forbidden.
12.5 ART. 13	
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ART. 13	Pressure control valves on the wheels are forbidden.  COCKPIT  Equipment permitted in the cockpit  The only components which can be added in the cockpit are: - Safety equipment and structures - Seat, instruments and any other controls necessary for driving including the brake balance adjuster - Electronic and electrical equipment; it is permitted to channel air towards the electronic equipment on condition that
ART. 13	Pressure control valves on the wheels are forbidden.  COCKPIT  Equipment permitted in the cockpit  The only components which can be added in the cockpit are: - Safety equipment and structures - Seat, instruments and any other controls necessary for driving including the brake balance adjuster - Electronic and electrical equipment; it is permitted to channel air towards the electronic equipment on condition that the ventilation devices comply with the present regulations team communication radio - Driver cooling and ventilation equipment
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ART. 13 13.1	Pressure control valves on the wheels are forbidden.  COCKPIT  Equipment permitted in the cockpit  The only components which can be added in the cockpit are: - Safety equipment and structures - Seat, instruments and any other controls necessary for driving including the brake balance adjuster - Electronic and electrical equipment; it is permitted to channel air towards the electronic equipment on condition that the ventilation devices comply with the present regulations team communication radio - Driver cooling and ventilation equipment - Ballasts - Braking and clutch system hydraulic lines with properly secured connectors - Pneumatic jacks and their pipes - Battery - Fuel, hydraulic lines with properly secured connectors (App. J. Art.  253.3.2) None of the above items may hinder cockpit exit or the driver's visibility.  The above components must be covered where necessary by a rigid protective material to minimise injury, and their mountings must be able to withstand 25g deceleration.  One air duct for driver's cooling from one of the engine cooling air boxes through the bulkhead max dia. 51mm in fire



fastened, the steering wheel must be in place, and the doors must be closed.







### 13.3 Test for helmet removal

With the driver seated in his normal driving position in the car with which he is entered, wearing a frontal head restraint system according to FIA Standard 8858-2010 (FIA List No. 29) appropriate to his size and with the seat harness tightened, it must be possible, that the helmet which the driver will wear in the race can be gently removed from his head without bending his neck or spinal column.

# ART. SAFETY EQUIPMENT

#### 14.1 Fire extinguishers

All cars must be equipped with an extinguishing system homologated by the FIA in accordance with Article 253.7.2. (FIA Technical List nos. 16 and 52). The Technical List no. 52 (FIA Standard 8865-2015) is mandatory for cars certified from 2020 on. (Certification)

Manufacturers may apply for alternative fire extinguishers system using the same fixing points on the car. (Certification)

In case of supply problems TCR promoters may ask for WSC waivers for different FIA homologated extinguisher with similar qualities under the responsibility of own Technical Delegate.

#### 14.2 Safety belts

The safety belts must comply with FIA Standard N°8853/98 (FIA Technical List 24) or FIA Standard N°8853/2016 (FIA Technical List no. 57) and have to use the certified fixing points. FIA Standard N°8853/2016 is mandatory for cars certified after 2020.

#### 14.3 Rear view mirrors

The car must be fitted with 2 (two) production external rear view mirrors.

The use of one internal rear view mirror is permitted.

#### 14.4 Driver Seat

The driver's seat must be FIA homologated and not modified:

- FIA Standard 8855-1999 (FIA Technical List 12) using exclusively WSC certificated seat brackets. (Certification) Several homologated seizes of the certified seat model may be used with certificated seat brackets (Certification)
- FIA Standard 8862-2009 (FIA Technical List 40)
- FIA Standards 8855-2021 (FIA Technical List 91)

Dimensions of cushions and foam inserts used between driver and seats must comply with App. J, Art. 253.16.

If the original seat attachment points on the body shell are changed, the new attachment points for seat or seat supports must comply with the provisions of App. J, Art. 253.16. (Certification)

The seat must be mounted by means of at least four (4) M8 bolts of at least

10.9 quality. Seat position

- Transversally: Seat centreline must not be less than 270mm from the car's centreline.
- Longitudinally limit: No part of the seat may be situated beyond the vertical and transverse plane defined by the front edge of the original back seat. The most rear seat position will be documented in the Technical Form related to the chassis. (Certification)

### 14.5 General Circuit Breaker

The driver, when seated normally at the steering wheel with the safety belts fastened, must be able to cut off all the electrical circuits and switch off the engine by means of a spark-proof breaker switch.

The switch must be positioned on the dashboard or in any other place easily accessible and must be able to be handled from inside the car by the driver seated and secured by his safety belts.

An exterior General Circuit Breaker must be installed and clearly identified by a symbol showing a red spark in a white-edged blue triangle in conformity with FIA App. J, Art 253.13.

- Recommended location: at the lower part of the driver's side windscreen pillar.
- Location following FIA Art 253.13 will be also accepted.









#### 14.6 Protection Nets

A protective window net is compulsory. (Certification)

It must meet the following specifications:

- the net must be made up of woven strips at least 19mm (3/4") wide;
- the meshes must be a minimum of 25 x 25mm and a maximum of 60 x 60mm. The woven strips must be non-flammable and sewn together at each point of crossing. The net must not be of a temporary nature.
- viewed from the side, it must reach from the centre of the steering wheel to the B-pillar.

#### Fixation:

The net must be attached either to the safety cage or to the chassis, above the driver's window, by means of a rapid release system that will function even if the car turns over.

The net must open from the top downwards when car is on

wheels. The use of "Velcro" lock is not permitted.

It must be possible to detach the net with one hand. To this end, the handle or lever must have coloured markings ("dayglo" orange).

A push-button release system is authorised provided that it respects the prescriptions of this article. The push-buttons must be visible from the outside, be of a contrasting colour and be marked "press".

Racing nets according to FIA 8863-2013 standard (Technical list n°48) may be certified as VO. Fixation: Racing nets must be attached to the certified mounting points following FIA specifications.

#### 14.7 Towing devices

All cars will be equipped with certified rear and front towing devices. It will be clearly visible and coloured in yellow, red or orange.

The towing devices must be within the perimeter of the bodywork as viewed

from above. It must allow the passage of a cylinder with a diameter of 60mm.

It must allow moving the car with blocked wheels using the cars braking system on a dry surface (concrete or asphalt) by applying traction on a plane parallel to the ground, with an angle of ±15° to the longitudinal centreline of the car. The car must be fitted with the control dry weather tyres.

Flexible towing devices must be always in good condition without abrasions or kinks.

### 14.8 Fuel system

Fuel lines

Flexibles lines inside the cockpit must be of aviation quality (App. J, Art. 253.3.2).

The installation is free provided that the prescriptions of App. J, Art. 253.3 are respected.

Manufacturers may apply for alternative fuel cell ventilation valve with similar connections. (Certification)

### 14.9 Hydraulic pressure lines

App. J, Art. 253.3.2 applies.

### 14.10 Side Protection Panel

A side protection panel, made of composite material, fixed to the body shell or the safety cage may be optionally used. (Certification).

### 14.11 FIA Car Lifting Device

Manufacturers may apply for options (VO). (Certification)

### 14.12 Battery fuse

Battery protection against accidental short-circuiting between the battery plus pole or the power supply cable and ground (vehicle body) fitted closest possible to the battery on the ground cable or on both battery cables is mandatory. (Certification after testing according to WSC test method)

- Reaction time in the TCR car: less than 3 sec.

### 14.13 Medical Lights

Cars using TCR Engine ECU will be prepared to activate Medical Lights at promoter's decision. Manufacturers may apply for VO certification.









ART. 15	SAFETY STRUCTURES
	Safety cage
	The safety cage must be homologated or certified by an ASN (App. J, Art. 253.8.1.b). For Static Load Tests or for Arithmetical Proofs the weight of the car will be the Target Racing Weight.
	Regarding the protective paddings on safety cage tubes which may come in contact with the driver Art. 253.8.4 of the App. J applies.
ART. 16	FUEL
16.1	Fuel specification
	The organiser will specify the fuel provider(s). The fuels correspond to FIA App. J, Art. 252.9 in guaranteed Super Plus Quality (98 RON, 88 MON) with maximum 9.5% ethanol content (EN228).
	The fuel must comply with the official samples at any time of the competition. Additives of any kind are
	forbidden. The fuel temperature may not be more than 20°C lower than the ambient temperature.
16.2	Air
	Only air may be mixed with the fuel as an oxidant.
ART.	FINAL TEXT
	The binding text of these regulations is the English version.







## **Appendix C**

## **Technical regulations for Class G Only.**

## AppC .2 CLASSIFICATION AND BEPI

- AppC.2.1 Cars are limited solely to the Ginetta G55 Supercup running in original Ginetta Championship specification.
- AppC.2.2 All entrants must fill in the BEPI form to confirm the registration of the vehicle to the championship. The BEPI form can be found at britcar-endurance.com/bepi/
- AppC.2.7 It is the competitor's responsibility to provide the promoters, on request, with recently measured (less than 6 months old) Power and Torque figures by means of a dyno graph or in the case of manufacturer built homologated cars with dyno-defeat systems installed, a manufacturer supplied power and torque graph or figure from official manufacturer documentation
- AppC.2.8 Each competitor will submit the information about their vehicle by closing date before their first race weekend via the championships BEPI (Britcar Endurance Performance Indicator) registration system available on line.
- AppC.2.9 Any changes to the Technical Declaration must be reported to the organisers before being allowed to qualify and race. The specification detailed on the Technical Declaration will be used by the Championship Eligibility Scrutineer to confirm the eligibility of the vehicle against the class entered. An electronic copy of the Technical Passports will be held by the Britcar Endurance organisation and used as reference material.
- AppC.2.10 Britcar Endurance reserves the right to add ballast, pit stop times and mandate intake restrictors or ride height during the season.

## **AppC.3 SAFETY REQUIREMENTS**

- AppC.3.1 As per current Motorsport UK General Regulations Section K and appendices will apply to all vehicle and personnel equipment
- AppC.3.2 As per current Motorsport UK General Regulations the Minimum General construction requirements of competition vehicles and racing vehicles will be applied as listed in sections J and Q respectively.

## AppC.4 ELIGIBILITY OF COMPETING CAR

AppC.4.1 The class is open to an G55 Supercup car or GT4 converted to Supercup specification. Cars must be presented to race in the specification of the G55 Supercup as supplied by Ginetta Cars Ltd.









- AppC.4.2 All parts and body panels fitted to the car must conform to the specification and dimensions of the original Ginetta part. Some parts, as detailed in the following regulations, must be purchased from Ginetta and carry the appropriate Ginetta part number.
- AppC.4.3 In the event of any dispute, the competitor may submit the manufacturer's official homologation documentation/workshop manual as reference.

## **AppC.5 EXAMINATION OF VEHICLES**

AppC.5.1 Vehicles competing in the Championships will be classed by the following method:-

The Championship Organisers reserves the right before or after any race in the championship to designate any one or more of the competing vehicles for special eligibility scrutineering. Upon such selection being made the competitor shall immediately place the vehicle under the control of the Championship Eligibility Scrutineer and be deemed to have permitted all such scrutineering, examination and testing as the Organiser may reasonably require to be undertaken. The Organiser has the right to:-

- a) Examine the vehicle at the circuit for such period as they may reasonably require and take fuel samples and/or have the component removed by the competitor.
- b) Retain the vehicle for detailed examination at premises chosen by the Championship Eligibility Scrutineer in conjunction with the Organisers. If the Organiser selects to retain the vehicle 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 unless the vehicle is found to be in breach of these regulations and/or
- c) Seal the vehicle and its components in such a manner as they may choose and require the competitor at their own expense to present the vehicle at any other premises chosen by the Championship Eligibility Scrutineer for detailed examination within a specified period and/or remove the vehicle 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.
- d) The Organisers will use a variety of possible options to check the BHP & Torque declared is correct at their discretion. These will include data / power logging devices, an associated sensor which the competitor will be expected to provide an uninterrupted power supply to and a suitable mounting point by agreement with the Championship Eligibility Scrutineer or by testing the car on a designated fixed or mobile rolling road test equipment.









- e) The championship will use Race Technology RTSS data loggers in all classes, with the exception of Class E, to determine power and torque measurements whilst the vehicle is competing in any official session. The logger must be fitted and operative in the car used in the session and accurate weight and CdA figures must have been provided to the Championship organizers as part of their BEPI submission. Competitors must provide access to the CAN bus to connect the logger. In the event of there being no CAN bus in the vehicle the competitor must provide access to the RPM output of the engine. Please contact Technical Manager David Hornsey (david@britcar-endurance.com) for specifications of can bus connector or rpm feed.
  - Class E will use WSC certified TCR loggers developed by AIM/Magnetti Marelli to ensure compliance with WSC/TCR issued BoP.
- f) Competitors are required to provide a coefficient of drag (CdA) number for their car. This number will be used to calculate power based on data from the Race Technology data logger. If you do not know the CdA value for your car this may be obtained from the vehicle manufacturer, a coast down test or we can supply a CdA number. Once this number is entered onto your official paperwork it may only be changed following proof supplied by the competitor.
- AppC.5.2 The Race Technology Dataloggers are available to rent from Britcar Endurance Limited. Please contact david@britcar-endurance.com to order your logger.
- AppC.5.3 The Competitor will nominate a mechanic/technician to conduct any stripping of the engine or any required component requested by the Championship Eligibility Scrutineer as per Championship Regulation Art.5.5.1 (a).
- AppC.5.4 The Organisers reserve the right to re-inspect vehicles at any time during the course of the season.
- AppC.5.5 Competitors will be personally and solely responsible for ensuring that their vehicles comply with their registration details and with these regulations at all times for each round at which they are entered. Failure to comply in either respect will be a breach of these regulations. Queries concerning eligibility should be referred in writing to the 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.
- AppC.5.6 In order to maximise equality of the performance, the Organisers will review the weight to power ratio coefficients after every round. Also, in order to balance performances in a fair way, the Championship Organisers reserves the right to introduce, for each of the individual entrants, any other technical restriction it may deem necessary.









## AppC.6 EQUALISATION

- AppC.6.1 The Championship organisers will endeavour to balance car performance in the classification performance of vehicles. If the car is found to be ineligible or unsuitable for its class the championship organisers have the right to reclassify accordingly. If a car moves class then points already received will NOT be allowed to be taken to the new class.
- AppC.6.2 If a vehicle is found to be ineligible in some way then no points will be awarded but the Competitor must count the round as one of their points scoring rounds for the Championship.
- AppC.6.3 The Championship reserves the right to use equipment to check a cars performance against their declared BEPI / Technical Passport.

## AppC.7 CHASSIS

AppC.7.1 The Ginetta G55 car and chassis is manufactured to a standard specification and may not be altered. All chassis repair work must be undertaken under the approval of Ginetta Cars Ltd. (See Motorsport UK General Regulation J 5.2.1)

## AppC.8 BODYWORK & AERODYNAMICS

AppC.8.1 Modifications Permitted are detailed in the following regulations.

## AppC.8.2 GENERAL

AppC.8.2.1 All modifications must not infringe on the general requirements for competition / racing cars as set out in Championship Regulation Art.5.3.2.

### AppC.8.3 INTERNAL

- AppC.8.3.1 Seats: General Regulation J 5.3 and K 2 applies. In addition, it is mandatory to use a current FIA homologated seat with head restraint.
- AppC.8.3.2 The dashboard as supplied by Ginetta Cars ltd must be retained.
- AppC.8.3.3 The door cards in the specification and dimensions as supplied by Ginetta Cars must be retained
- AppC.8.3.4 It is permitted to remove the interior trim from the door in order to install a side Protection panel, which is made from composite materials (lateral protection integrated in the side protection bar).









- AppC.8.3.5 An alternative heating system other than provided by the vehicle manufacturer, and mentioned in his catalogue as supplied on demand, may replace the original heating equipment. It is permitted to blank off the water supply of the internal heating device, in order to prevent water spillage during an accident, providing an electric demist system or similar is available.
- AppC.8.3.6 Air-conditioning may be added or removed. Driver cooling suits may be used with approval of the Championship Eligibility Scrutineer.
- AppC.8.3.7 The steering wheel is free subject to compliance with current Motorsport UK General Regulations J. 5.7
- AppC.8.3.8 Measuring instruments such as speedometers and the horn may be removed

## AppC.8.4 EXTERIOR

- AppC.8.4.1 The Ginetta G55 race car body is manufactured to a standard specification. All body parts must be to the specification and dimensions as the original Ginetta parts. Fibreglass repairs may be undertaken by the competitor provided that the body profile is not altered in any way. However the organsiers reserve the right to reject any such repairs whether in the interests of safety, technical conformity or Championship aesthetic and to require the Entrant to substitute the damaged repaired panel with a new panel sourced in accordance with these regulations.
- AppC.8.4.2 Additional ventilation holes may not be cut into the bodywork unless written consent has been given by the Licensed Eligibility Scrutineer.
- AppC.8.4.3 A bodywork template/profile tool may be used by the organisers at any time to ensure the original shape and car profile is retained. No extra panelling under the floor or around the wheel arch is permitted.
- AppC.8.4.4 It is not permitted to cover bodywork apertures and joint lines with adhesive tpe unless authorised by the Licensed Eligibility as a short term repair. The only exception to this is the application of adhesive tape to cover a portion of the radiator aperture mesh.
- AppC.8.4.5 The fitment of mesh sill front end covers must be fitted to both left and right hand sides of the vehicle. Rear covers must also be fitted.

## **AppC.8.5 AERODYNAMICS**

AppC.8.5.1 The front splitter must remain positioned in the same plane as the flat floor of the vehicle i.e. cannot be angled up or down in relation to the floor. These two items must be within 0.3 degrees of each other. The front bumper should be fixed directly to the crash box.









- AppC.8.5.2 It is permissible to fit a spacer between the crash box and the chassis to enable the splitter to be adjusted to the correct angle. It may be necessary to refit the front bumper to ensure that the space to the bonnet is acceptable.
- AppC.8.5.3 All cars must be fitted with door impact foam on the drivers side using the standard kit as supplied by Ginetta Cars Ltd.
- AppC.8.5.4 The Ginetta G55 race car must only use a rear wing aero kit as supplied by Ginetta Cars Ltd. All components of the rear wing kit must remain as standard and as supplied by Ginetta Cars Ltd. and may not be altered in any way. No additional structures other than those permitted or mandated by Ginetta Cars Ltd are allowed.
- AppC.8.5.5 The position, angle and height of the rear wing may only be adjusted within standard limits of the rear wing aero kit using the pre-drilled holes and standard components. A template may be used to certify that no modifications have been made to any part of the rear wing kit.
- AppC.8.5.6 The fitment of the rear wing gurney (Ginetta part number G55B0124) metallic or carbon fibre may be fitted and must be only that supplied through Ginetta Cars Ltd. and not modified in any way.

## AppC.9 RIDE HEIGHT

AppC.9 All vehicles must have a minimum ride height of 40mm throughout with the driver in the car as per Motorsport UK General Regulation J 5.20.11. The organisers / Championship Eligibility Scrutineer will designate the area within Parc Ferme or the paddock where checks will be conducted with the tyre pressure set at 1.5 bar +or - 0.1 bar. Ride heights for individual makes, models or classes may be adjusted at any time via bulletins issued.

## AppC.10 ENGINE

- AppC.10.1 The Ginetta G55 race car is supplied with a current Ginetta Cars Ltd. specification Ford 3.7 litre V6 engine and ancillaries built to the specification and dimensions of Ginetta Cars Ltd.
- AppC.10.2 Rebuilds or repairs to the engine must be to the specification and dimensions of the original Ford 3.7 litre V6 engine supplied by Ginetta Cars Ltd.
- AppC.10.3 The cars must be fitted with either a MOTEC M800 or MOTEC M150 ECU. These are fitted with bespoke fuel and ignition maps and engine run data which are password protected. The ECU must not be tampered with in any way. The ECU can be interrogated at any time during a race meeting by the Licensed Eligibility Scrutineer or his appointed Data Engineers.







- AppC.10.4 The inlet and exhaust manifold must be as that supplied by Ginetta Cars Ltd for the G55 Supercup, may not be modified in any way and must carry official Ginetta identification stamps.
- AppC.10.5 The air filter must be fitted at all times and remain in the specification and dimensions of the Ginetta Cars Ltd. part.
- AppC.10.6 The standard induction system as supplied by Ginetta Cars Ltd. is the only official induction system permitted. No modification to the system, air box, throttle body connectors, throttle linkage, throttle return spring, fly by wire control unit or mounting may be made and no parts can be added or removed.

## AppC.11 FUEL TANKS AND DELIVERY SYSTEMS

- AppC.11.1 The standard fuel tank as supplied by Ginetta Cars Ltd. must be retained in its original position. The fuel delivery system must remain as original specification.
- AppC.11.2 General regulations J 5.13 applies

## **AppC.12 TRANSMISSION**

- AppC.12.1 The Ginetta G55 race car must retain the Hewland 6 speed sequential gearbox as supplied through Ginetta Cars Ltd. It is the competitors responsibility to ensure that the following prescribed gear ratios are retained at all times during competition: 1st 15:30; 2nd 15:23; 3rd 17:21, 4th 20:21, 5th 25:23; 6th 24:20
- AppC.12.2 A Ginetta Cars Ltd supplied CWP limited slip differential with a final drive ratio of 3:73 must be used and must be fitted with the uprated Drexler internal unit supplied by Ginetta Cars Ltd.
- AppC.12.3 The gearbox and sealed differential may only be rebuilt to the specification and dimensions of Ginetta Cars Ltd.
- AppC.12.4 The clutch to the specification as supplied by Ginetta Cars Ltd must be retained in its original form.
- AppC.12.5 The flywheel must remain as the specification and dimensions supplied by Ginetta Cars Ltd. The weight of the flywheel must be no less than 3.6kg.
- AppC.12.6 The Ginetta Cars Ltd paddle shift system part number G50-G0222 must be fitted.

## **AppC.13 SUSPENSION**

AppC.13.1 The suspension components in their entirety must be to the specification and dimensions of that supplied by Ginetta Cars Ltd.







- AppC.13.2 Only the following anti roll bars may be fitted:
  - Front anti roll bar Ginetta part number G50-C0115
  - Rear anti roll bar Ginetta part number G50-D0039
- AppC.13.3 The lower damper bolt fitted to the car must be part number G50-C0054.
- AppC.13.4 Geometry is free providing no component has material added or removed.
- AppC.13.5 The only permissible spring rate and part numbers are as below:
  - Front 800lbs Ginetta part number G50-800X10X46
  - Rear 750lbs Ginetta part number G50-750X10X46
  - Rear helper spring (may only be fitted to the rear) G50-D0062
- AppC.13.6 Shock absorbers must be standard Ginetta Cars Ltd supplied dampers fitted to the G55 Supercup and may be either single or double adjustable format.
- AppC.13.7 Poly bushes may be replaced with rose joints.
- AppC.13.8 The standard track and wheelbase must be retained.

## AppC.14 WHEELS/STEERING

- AppC.14.1 The standard wheels of size 9" x 18" as supplied by Ginetta Cars Ltd. (Ginetta part number G50-J0001 must be used un-modified on the front axle.
- AppC.14.2 The standard wheels of size 10" x 18" as supplied by Ginetta Cars Ltd. (Ginetta part number G50-J0004 must be used un-modified on the rear axle.
- AppC.14.3 The use of wheel spacers or other wheel spacing mechanisms is not permitted.

### AppC.15 TYRES

- AppC.15.1 It is a requirement that all vehicles competing in the championships must qualify and race on Goodyear Tyres
- AppC.15.2 The artificial heating of rims and/or tyres is permitted but chemical treatment is prohibited.
- AppC.15.3 It is mandatory that all entries run on Goodyear branded tyres only, unless a comparable size is not available. Such instances must be declared to the organisers at the time of entry for the Organisers' written agreement prior to the event as to tyre brand and specifications including compound[s]. The Organisers' decision in this regard will be final and in their entire discretion.
- AppC.15.4 HP Tyres are the mandatory tyre supplier for the British Endurance Championship and will be present at all rounds to provide free trackside fitting and support to competitors who purchase their tyres through HP Tyres.





AppC.15.5 HP Tyres may mark up tyres sold through them to enable tracking of tyre usage and monitor traceability of supply.

## AppC.16 WEIGHT

- AppC.16.1 The minimum weight of the <u>vehicle only</u> is 1085kgs. This minimum weight is the vehicle weight <u>without the driver on board</u> and will be measured as soon as possible after crossing the finishing line. No fluids or other materials may be added to the car between crossing the line and being weighed. The car weight will include all remaining fuel on board.
- AppC.16.2 The Championship reserves the right to ask teams to add weight to equalize the performance. Ballast must be affixed using the Ginetta Ballast Plate (part number G50-R0056).

## AppC.17 ELECTRICAL

- AppC.17.1 Lighting All cars must carry at least two forward facing headlights covered by clear lenses.
- AppC.17.1.1 All competing vehicles may have working directional indicators at the rear.

  Coloured lights solely for the purpose of identification may be fitted however the total lit area of these lights may not exceed 1200mm<sup>2</sup> on each vehicle.
- AppC.17.1.2 Competition Numbers :- All competition numbers MUST be lit **to the satisfaction of the timekeepers** during night racing sessions.
- AppC.17.2 Lighting Headlights: Vehicles competing in night races must be equipped with dipped beam, main beam and rear marker lights. The operating of any retractable headlights, including its energy source, may be modified. Freedom is granted with regard to the frontal glass, reflector and bulbs although glass must be protected to prevent any broken glass being dropped onto the circuit.
- AppC.17.2.1 Vehicles may carry up to 6 forward facing lights and in a mixture of headlights and spot lights and provided that the total is an even number (to clarify this ratio a car with twin headlights may fit 2 spotlights while a car with single head lights may fit 4 spot lights). A single light is defined as a single enclosed light unit which may in itself contain multiple light sources.
- AppC.17.3 Brake lights All vehicles must be fitted with working brake lights as per Motorsport UK General Regulation J 5.14.3.
- AppC.17.4 Rear Fog Light Vehicles must be fitted with a high intensity rain light(s). As per current Motorsport UK General Regulation K. 5 Red Warning Light.
- AppC.17.5 The coil on plug units must remain standard and in their original location. The dual-triple channel ignition modules must remain standard.









## **AppC.18 BATTERIES**

- AppC.18.1 The make and capacity of the batteries are free. Each battery must be securely fixed and covered to avoid any short-circuiting or leaks.
- AppC.18.2 The original location of the battery must be retained utilising the standard mountings.

## AppC.19 BRAKES

- AppC.19.1 As per current Motorsport UK General Regulation J. 5.6 Brakes.
- AppC.19.2 Cooling of brakes front and rear is permitted: Protection shields may be removed or modified.
- AppC.19.3 Cooling ducts may be added provided the ducting does not interfere with the steering or suspension movement. Air intake points must not extend outside the bodywork.
- AppC.19.4 The brake rotor discs must meet the following specifications:
  - Front: Ferrous vented discs 378mm o/dia x 32mm thick
  - Rear: Ferrous vented discs 330mm o/dia x 32mm thick
- AppC.19.5 Only the following brake calipers are permitted:
  - Front: Ginetta part numbers: Left G50-I0063; Right G55-I0068
  - Rear: Ginetta part numbers: Left G123I-0051LP.00; Right G123I-0052RP.00
- AppC.19.5 ABS braking systems are not permitted.
- AppC.19.6 Brake master cylinders can be any mixture of the following sizes:
  - 0.70 inch bore
  - 0.75 inch bore
  - 0.812 inch bore

## AppC.20 FUEL

- AppC.20.1 Fuel Grade The Championship allows fuel to be used in accordance with the current Motorsport UK General Regulation B. Pump Fuel or FIA specification fuel in compliance with FIA Appendix J, Article 252, Article 9".
- AppC.20.2 Although not mandatory, Anglo American Oil Company Ltd are our recommended supplier. Order must be placed in advanced see Art.7.1.5









## AppC.21 SILENCING

- AppC.21.1 All cars will be tested to meet the as per Motorsport UK General Regulation J. 5.17. The Limit is 105dB(A) in accordance with Motorsport UK General Regulations conducted at 0.5 metre distance at 45 degrees from the outlet with the engine running at 3/4 speed.
- AppC.21.2 Other limits may be applied by various circuit owners

## **AppC.22 PNEUMATIC JACKS**

AppC.22.1 Pneumatic jacks may be fitted to suitable points within the chassis of the car and must retract automatically when the air is released from an external valve outside the reach of the driver while seated. No work under the car is permitted using the pneumatic only. i.e safety devices must be attached to prevent the car dropping.

## **AppC.23 MANDATORY ON BOARD CAMERAS**

- AppC.23.1 It is the team's responsibility alone to have a fitted forward facing in-car camera positioned to provide a 'driver's eye' view that should **must** include, where possible, the steering wheel, show the track ahead of the vehicle with a field of vision of approx. 100 meters, the driver and either the dashboard displaying the driver's race number and championship logo on the supplied dashboard sticker or a graphic overlay on the screen showing the driver's race number and championship logo.
- AppC.23.2 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 Championship Eligibility Scrutineer. Motorsport UK General Regulation J. 5.21 applies.
- AppC.23.2 The unit must be switched on and be recording at all times when the car is on track during any official free practice, qualification sessions and races. The onus is on the competitor to ensure that the unit's battery is charged, or its supply is operational, and the device remains operational during the above-mentioned sessions.
- AppC.23.3 The memory card may be requested by the Organisers or by the Clerk of the Course or his representatives for any purpose including but not exclusively Judicial procedures under these Regulations and the recorded footage may be copied for use in broadcast or any other area deemed appropriate by the Organisers. Failure to provide the footage may lead to disciplinary measures by the Clerk of the Course and may prejudice their defence in the case of an incident.







- AppC.23.4 Please also be aware of the intellectual property ownership rights referred to in Championship Regulation Art.6.3.
- AppC.23.5 The use of this camera footage should not be used on Social Media to bring the Championship into disrepute or to engage a personal vendetta.
- AppC.23.6 See 2.16 for further regulations on Cameras and timing devices.

