

2018 CLASSIC TOURING CAR CHAMPIONSHIP
SPORTING & TECHNICAL REGULATIONS



Organised by the British Automobile Racing Club
Thruxton Circuit, Andover, Hampshire, SP11 8PN

Published Copy

Version 2 – 31st January 2018

1. SPORTING REGULATIONS - GENERAL

1.1 TITLE & JURISDICTION:

The Classic Touring Car Championship is organised and administered by the British Automobile Racing Club (BARC) and promoted by them, in accordance with the General Regulations of the Royal Automobile Club Motor Sports Association (incorporating the provisions of the International Sporting Code of the FIA) and these Championship Regulations.

MSA Championship Permit No.: CH2018 / R019

Race Status: Clubman

MSA Championship Grade: Grade C

1.2 OFFICIALS:

1.2.1 Co-ordinator: David Wheadon

1.2.2 Championship Eligibility Scrutineer: Rod Bennett

1.2.3 Championship Stewards: Pat Blakeney
Dennis Carter
Dale Wells
Guy Woodward

Any three of the Championship Stewards may sit to reach a decision. In accordance with (G) 2.7, Championship Stewards may only adjudicate on any disputes, irregularities or appeals arising from the approved Championship regulations. Under (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). Under (W) 2.2.1, the Championship Stewards can only adjudicate upon any disputes, irregularities or appeals arising from the approved Championship Regulations. They are also empowered to consider any request from the Championship Co-ordinator to penalise any Competitor for breach of Championship Regulations and after holding a formal hearing, to impose a penalty in accordance with C.2.1, subject to the rights of appeal to the MSC provided in Section C.

1.2.4 Championship Clerk of the Course: Not Applicable

1.2.5 Championship Drivers Representative: Colin Gibbons

1.3 COMPETITOR ELIGIBILITY:

1.3.1 Entrants must:

- (a) be current members of the BARC and
- (b) be Registered for the Championship and
- (c) be in possession of a valid MSA Entrants Licences.

1.3.2 Drivers and Entrant/Drivers must:

- (a) be current racing members of the BARC and the CTCRC and
- (b) be Registered for the Championship and
- (c) be in possession of valid Competition (Racing) National B Status Licence, as a minimum or
- (d) A professional driver, in possession of a valid Licence (featuring an E.U. flag) and medical, issued by the ASN of a member country of the European Union, or comparable country. ((H)26.2.1, applies)

- (e) If participation in the Championship requires absence from education a driver, in full time school education is required to have the approval of their head teacher and a letter stating such approval from their school in order to fulfil registration for the Championship. A driver shall not take time out of their education to participate in motor sport without the prior written approval of their education establishment.

- 1.3.3. All necessary documentation must be presented for checking at all rounds when signing-on. This will include both the competition licence and club membership card.

1.4 REGISTRATION:

- 1.4.1 All competitors must register for the Championship by returning the Registration Form with the Registration Fee to the Co-ordinator prior to the closing date for entries for the first round being entered.
- 1.4.2 There is no Registration Fee.
- 1.4.3. Registration numbers issued will be the permanent Competition numbers for the Championship season.

1.5 CHAMPIONSHIP EVENTS:

The Championship is scheduled to be contested over **eight (8)** Meetings as follows: -

<u>Events:</u>	<u>Date:</u>	<u>Circuit:</u>	<u>Organising Club</u>
1 & 2	March 24/25	Silverstone (Nat)	BARC
3 & 4	April 21/22	Croft	BARC
5 & 6	May 28	Mallory	BARC
7 & 8	June 16	Rockingham	BARC
9 & 10	July 8	Lydden Hill	CTCRC
11 & 12	Aug 4/5	Snetterton300	BARC
13 & 14	Sept 29	Donington	BARC
15 & 16	Oct 27/28	Brands Hatch	BARC

1.6 SCORING:

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

Four or more starters: 1st – 12, 2nd – 9, 3rd – 6, 4th – 4, 5th – 3, 6th – 2, 7th – 1,
 Three or less starters: 1st – 6, 2nd – 3, 3rd – 1,

In addition, one point will be awarded to every driver starting each race from the grid and one further point will be awarded to the driver setting the fastest race lap in each class except when there is only one starter in the class

- 1.6.2 The totals from all qualifying Events run will determine final Championship points and positions.
- 1.6.3 Ties shall be resolved using the formula in (W) 1.3.4, in the current MSA Yearbook.
- 1.6.4. Where the race distance has been reduced in accordance with article 2.6 below, it shall still count as a “full points” scoring round.
- 1.6.5. Competitors not registered for the Championship may be permitted on an individual round basis and:
- (a) will be deemed “Guest Competitors”
 - (b) will not score points and for the purpose of points scoring will be ignored

1.7 AWARDS:

1.7.1 All awards are to be provided by the CTCRC

1.7.2 Per Event: - A garland will be presented to the winner of each race

1.7.3 Championship: - A trophy will be awarded to the overall Championship winner

1.7.4 Presentations: -

Awards will be presented at the end of each Event and/or at the end of the Championship at the designated presentation ceremony. Attendance at any such ceremony is mandatory and failure to attend may result in the loss of all awards.

1.7.5 Entertainment Tax Liability: -

Prize money and Bonuses shall be posted to the Entrants within thirty days of the results being declared final after each Event. In accordance with current government legislation, the BARC 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. That is, those persons who do not have a normal permanent residence in the UK and the UK does not include the Isle of Man, Channel Islands or Eire. This means that, as the organiser, the BARC 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, Tel: 01514726488, Fax: 01514726483.

1.7.6 Title to all Trophies:

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 organisers in good condition within 7 days.

2. CHAMPIONSHIP EVENT MEETINGS & RACE PROCEDURES

2.1 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 before each Event.
- 2.1.2 Incorrect or incomplete entries (Including driver to be nominated entries) are to be held in abeyance until they are complete and correct and the date of receipt for acceptance of entry purposes shall be the date on which the Meeting Organiser receives the missing or corrected information or fee.
- 2.1.3 Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Meeting Organisers in writing. D 25.1.13 applies.
- 2.1.4 The Entry Fee for each event shall be specified in the SRs and on the entry form.
- 2.1.5 Reserves will be listed in the Final List of Entries published with Final Instructions or in a Bulletin.

2.2 BRIEFINGS:

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

2.3 QUALIFICATION PRACTICE:

- 2.3.1. Should any Practice session be disrupted the Clerk of the Course shall not be obliged to resume or re-run the session, the decision of the Clerk of the Course shall be final.
- 2.3.2. Each driver shall complete a minimum of 3 laps in the car to be raced and in the correct session, in order to qualify (MSA Regulations Q4.5).

2.4. RACES:

Should any race be disrupted the Clerk of the Course shall not be obliged to resume or re-run the race ((Q) 5.4) in addition article 1.6.4 above applies.

2.5 STARTS:

- 2.5.1 All cars will be released to form up on the grid prior to the start in formation as specified on the grid sheet.
- 2.5.2 The start will be via a Standing start. The countdown procedure and audible warning sequence prior to the start of the race shall be: -

Signal:

- I. 1 minute
- II. 30 Seconds
- III. Green Flag
- IV. 5 Seconds

Instruction:

- Start engines and clear the grid.
- Be prepared for start of Green Flag Lap
- Complete one lap of the circuit and reform into grid positions.
- The grid is complete
- V. The red lights will be switched on five seconds after the 5 second board is withdrawn and will be extinguished between 2 and 7 seconds later to indicate the start of the race.

- 2.5.3 Any car removed from the grid after the 1-minute stage or driven into the pits on the Green Flag lap shall be held in the pit lane and may start the race after the last car to take the start from the grid has passed the start-line or pit lane exit, whichever is later.
- 2.5.4 Any driver unable to start the Green Flag/Pace lap or start is required to indicate their situation as per MSA Regulation Q12.13.2. In addition, any driver unable to maintain their grid position on the Green Flag Lap, to the extent that all other cars are ahead of them, may complete the Green Flag lap but

must remain at the rear of the last row of the grid but ahead of any cars to be started with a time delay.

- 2.5.5. In the event of any starting lights failure the Starter will revert to use of the National Flag once all competitors have been advised of the fact

- 2.5.6 The Organisers reserve the right to amend this start procedure via a bulletin issued to all competitors. This may involve changing the method of starting and/or the countdown procedure leading up to the start signal being given.

2.6 SESSION RED FLAG

- 2.6.1 Should the need arise to stop any race or practice, red lights will be switched on at the Start line and red flags will be displayed at the Start line and at all Marshals Signalling Points around the Circuit.

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

- 2.6.2 Cars may not enter the Pits unless directed to do so or repairs are necessary. Work on cars already in the Pits must cease when a race is stopped and may only continue under the control of a Scrutineer. Cars in the Pits may not re-join the grid.

- 2.6.3 All Competitors who are able to take part in any restarted race may do so in accordance with Q5.4 and Q5.5

2.7 PITS, PADDOCK& PITLANE SAFETY:

- 2.7.1 Pits & Paddock: Competitors must ensure that the MSA, Circuit Management and Organising Club Safety Regulations are complied with at all times. In addition, any paddock plan issued by the Organisers must be complied with and the minimum amount of space should be used when setting up.

- 2.7.2 Pit lane: The outer lane or lanes are to be kept unobstructed to allow safe passage of cars at all times. The onus shall be on all Drivers to take all due care and respect the pit lane speed limits. No-one under the age of 16 is permitted access to the pit lane unless they are the holder of an MSA Junior Race licence

- 2.7.3 Refuelling: May only be carried out in accordance with the MSA General Regulations, the Organising Club Regulations, Circuit Management Regulations and the SRs or Final Instructions issued for each Circuit/Meeting.

- 2.7.4 Speed Limit Pit Lane Speed Limit will be 60 k.p.h.

2.8 RACE FINISHES:

After taking the Chequered Flag drivers are required to:

- I. progressively and safely slow down
- II. remain behind any competitors ahead of them,
- III. return to the Pit Lane Entrance/Paddock Entrance as instructed,
- IV. comply with any directions given by Marshals or Officials
- V. keep their helmets on and harnesses done up while on the circuit or in the pit lane
- VI. place their car into the Parc Fermé where it must remain until released by the Championship Eligibility Scrutineer or his deputy
- VII. Attend any podium presentation that may be required

2.9 RESULTS:

All Practice Timesheets, Grids, Race Results are to be deemed Provisional until all vehicles are released by Scrutineer's after Post Practice/Race Scrutineering and/or after completion of any Judicial or Technical Procedures. (MSA regulation D26.3)

2.10 TIMING MODULES:

It is the Competitors responsibility to ensure that a working transponder is fitted to the vehicle in accordance with (Q) 12.2.1. No electronic equipment may be placed within five metres of any official timing line and any breach of this may result in the confiscation of the equipment concerned.

2.11 QUALIFICATION RACES:

There is no provision for Qualification races to be run.

2.12 OPERATION OF SAFETY CAR:

The Safety Car will be brought into operation and run in accordance with Section Q, Appendix 2 of the MSA General Regulations.

2.13 ONBOARD CAMERAS:

Cameras may be fitted to vehicles provided that the camera fitment is approved by the Scrutineer and that any footage obtained is not for commercial use. The Clerk of the Course and the Stewards may make use of any such footage in reaching their decisions on any judicial matters.

3. SPECIFIC CHAMPIONSHIP REGULATIONS:

- 3.1.1 Where it is planned to hold two Championship races, there shall be only one qualifying session scheduled. The fastest time set in qualifying will set the grid for the first race and the result of the first race will set the grid for the second race. Any Competitors who did not finish the first race may start the second from the rear of the grid in reverse order of retirement
- 3.1.2 The standard minimum scheduled distance shall be 20 minutes where a single race is planned and where two races are planned they will be of 15 minutes each, whenever practicable. Should any race distance 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.
- 3.1.3 A driver may only race the car in which he/she set a Qualifying time no replacement cars are permitted.
- 3.1.4 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.
- 3.1.5 The Classic Touring Car Championship will be sub-divided into **seven** categories each with a separate class structure as follows:

1. Paul Inch Classic Race Engines Pre-66 Touring Cars	(Pre 66)
2. Group 1 Touring Car Championship	(Pre-83)
3. Envirotec Hygiene Services Pre-1993 Touring Cars	(Pre-93)
4. YourITman Pre-2003 Touring Car Championship	(Pre-03)
5. Pre 2003 Classic VW Cup	(VW)
6. Toyo Tyres Pre-2005 Production Touring Car Championship	(Pre-05)
7. Burton Power Blue Oval Saloon Series	(Blue Oval)
8. MRF Tyres Classic Thunder Saloons	(Thunder)
9. Toyo Tyres Honda VTEC Challenge	(VTEC)
10. Smart Cars 4Two Cup	(Smart Cars)

4. PENALTIES:

All penalties will be in accordance with Section C of the current MSA Yearbook and these Regulations.

4.1 Infringements of Technical Regulations:

4.1.1 Arising from post practice Scrutineering or Judicial Action:

Minimum Penalty: - The provisions of MSA Regulations: C3.3.

4.1.2 Arising from post-race Scrutineering or Judicial Action:

Minimum Penalty: - The provisions of MSA Regulations: C3.5.1(a) and (b).

For infringements deemed to be of a more serious nature the Clerk of the Course may invoke the provisions of Regulation C3.5.1(c). However, if the Clerk of the Course believes that there is some mitigation surrounding the infringement then C3.5.1 (c) need not be implemented.

4.2 All infringements of non-technical MSA Regulations and the Sporting Regulations will be dealt with in accordance with these Championship Regulations and the General Regulations of the MSA

4.3 Additional specific championship penalties:

4.3.1 Any Competitor adjudged to have made a false start or breached any part of the start procedure will be penalised by means of a ten second penalty being added to his total race time.

4.3.2 Breaches of 2.7.4 will usually be dealt with by a fine of up to £10 per k.p.h. above the limit in qualifying and by means of a “drive through” penalty during races,

4.3.3 Any Competitor excluded from the results of an Event will not be allowed to count the score as part of any dropped scores

4.3.4 Any competitor may be called before the Championship Stewards who at their discretion may take further action against the Competitor. This may include, but is not limited to, the loss of Championship points, a fine to a maximum of £10,000 or exclusion from part or all of the Championship.

4.3.5 The Clerk of the Course may impose a “Stop / Go” or “Drive through” penalty for a breach of regulations, in accordance with Q 12.6.

4.3.6 Any vehicle not carrying the mandatory Championship decals will be subject to a fine of £100 for the first infringement and then £500 for any subsequent infringement

BURTON POWER BLUE OVAL SALOONS

5 TECHNICAL

5.1 Introduction:

- a. The following technical regulations are set out in accordance with MSA specified format and it should be clearly understood that if the following texts do not clearly state that you can do it, you should adopt the principal that you cannot.
- b. Anything that is not explicitly authorised in writing by the Championship Technical Committee and anything that is not specified either in these regulations or in any Official Championship Bulletin is therefore strictly forbidden and thus will be regarded as a breach of these Technical Regulations and may be penalised as described in section 4. It should be clearly understood that technical regulations will be strictly enforced and any modification, addition, variation, tuning or removal other than specifically permitted in these regulations is prohibited.
- c. Regulations that have changed in substance from the 2017 BURTON POWER BLUE OVAL SALOON SERIES Technical Regulations are normally indicated by being highlighted.

~~5.1.1 Any matter affecting Technical Regulations must be put in writing to the Championship Eligibility Scrutineer, as any claim to have received clarifications or rulings on the Regulations must be substantiated by the production, on demand, of written confirmation of such rulings.~~

5.2 Description:

5.2.1 General:

The Blue Oval Saloon Series is for competitors participating in Saloon, Coupe, Hatchback or Estate cars manufactured by the Ford Motor Company that are designed to carry at least four people, based on the standard fibreglass or steel production shell and which were marketed before 1st January 2011. All cars are subject to approval of eligibility by the Championship Organisers but cars not complying with these regulations may be eligible subject to committee approval.

5.2.2 Eligibility:

- a. All cars are subject to approval of their eligibility by the Championship Organisers.
- b. Cars not complying with these regulations may be eligible subject to Championship Organisers approval as guests.
- c. The responsibility to prove eligibility is that of the Competitor at all times. For clarification of a Competitor refer to the MSA Yearbook 2018 section (B) Nomenclature & Definitions.
- d. Proof of a vehicles' eligibility may be substantiated by production of a Historic Technical Passport(HTP) or Homologation papers stamped by the ASN. These documents, where issued, for that vehicle and these must be available for inspection when required.
- e. Where no such paperwork is available, the Competitor must produce written confirmation from the CTCRC Committee as to the eligibility of the vehicle model in question.
- f. The Championship Organisers in conjunction with a Licensed Eligibility Scrutineer shall determine matters as to the eligibility and the implementation which may involve photographing any part of the vehicle and performing electrical diagnostics at the scrutineer's discretion.

5.2.3 Unless specifically permitted in these regulations all components must be to original specification.

5.2.4 Classes:

5.2.4.1 Cars will run in Five classes based on actual capacity plus equivalency factor and level of modification.

Class A2	Over 2150cc Turbo 2.300cc onwards N/A	Including ALL Cosworth models and ANY vehicle using Millington engines The Cosworth turbo unit except cars with four-wheel drive.
Class A4	All four-wheel drive cars	
Class B	1,701cc to 2300cc	Including Escort and Fiesta Turbo models Duratec Non Turbo and 3000cc v6 12v Non Turbo
Class C	1,299cc to 1,700cc	
Class D	1,299cc to 1,700cc	Cars Running to Group N specification in accordance with the technical regulations set out in the FIA Yearbook (Yellow Book). Cars must comply with all aspects of Group N except for modifications specifically allowed by these regulations.

5.2.4.2 Invitation Competitors

- Competitors with Vehicles not complying with these regulations may be invited to compete subject to Championship Organisers approval.
- Vehicles that, whilst not strictly adhering to the regulations, have been prepared sympathetically to the spirit of the championship and with Championship Organisers approval, may be invited to race under observation.
- Competitors wishing to race as **invitation** must submit a written specification of their vehicle, to the Co-ordinator. It must detail all areas where the vehicle does not comply with these regulations. This specification shall be made available to the eligibility scrutineers for pre and post event checks.
- Invitation** vehicles will be invited by the Championship Organisers on a race by race and individual vehicle basis. The vehicle must not deviate from the specification submitted, unless such changes are approved by the Championship Organisers. Any approval may be withdrawn at any time by the Championship Organisers.
- Invitation competitors will not be eligible for: -
 - Podium recognition
 - Championship award / trophies
 - Championship points.

~~5.2.4.3 The following rules will also be applied~~

- ~~Cars using forced induction with four valves per cylinder will be subject to an equivalency factor of 1.7:1.~~
- ~~Cars using forced induction with two valves per cylinder will be subject to an equivalency factor of 1.4:1.~~
- ~~Rotary engines are subject to an equivalency factor of 2.0: 1~~

5.2.5 Presentation:

- At the start of each free practice, qualifying session or race, the cars must be presented to a high standard and must be clean and in good order. The Championship Organisers reserve the right to forbid cars not meeting this requirement from taking part.
- Presentation of a vehicle for scrutineering is a declaration by the Competitor that the vehicle is eligible for that event.

5.2.6 Technical Checking:

- The Championship Eligibility Scrutineer / Championship Organisers reserve the right to inspect, test, measure, seal or impound any component fitted to or used in conjunction with any car registered in the Championship either personally or through a nominated

representative. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out. This will be the sole responsibility of the Competitor. Exceptions to this may include appeal / protest according to the MSA Yearbook 2018.

- b. Any vehicle inspected following qualification or race and found to be in breach of the 2016 Technical Regulations or a breach of the procedure surrounding the Technical Regulations will be the subject of a report to the Clerk of the Course.
- c. A car found to be ineligible for the championship must race only in the invitation class and no points will be scored until the vehicle conforms to the regulations.
- d. Any component sealed by an MSA Licensed Scrutineer must remain sealed and may not be tampered with in any way. In the event of a seal needing to be broken for repair or replacement, prior to doing so the Championship Eligibility Scrutineer must be informed in writing and approve the seal being broken. Re-sealing by an MSA Licenced Scrutineer will take place after technical checks have been made at the next race meeting.
- e. If a vehicle/component is sealed for subsequent technical examination the Championship Eligibility Scrutineer, within the applicable time limit, will state to the Competitor/Competitor that he will examine the vehicle/component on a stated date and time and at a specified location and the sealed items must be made available for his inspection. These arrangements are not negotiable. If a vehicle/component is not made available for an eligibility examination as required by the Championship Eligibility Scrutineer, it will be considered as ineligible and will be reported as such to the Clerk of the Course for the application of penalties laid down under MSA Regulations and these Championship Regulations.

~~5.2.7 Technical Passport~~

- ~~a. All Competitors are issued with a Technical Passport. This is used to record information relating to that car during the season.~~
- ~~b. The Competitor is responsible for the safe keeping of the passport, which shall be carried in the car at all times.~~
- ~~c. All cars are issued with a Technical Passport wallet.~~
- ~~d. No car is permitted to take part in an Event unless the Technical Passport is available for inspection and is a true reflection of the vehicle details.~~
- ~~e. The only person authorised to make changes to the details of the Technical Passport is the Championship Eligibility Scrutineer or his appointed representative.~~
- ~~f. Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~
- ~~g. Details contained within the Technical Passport must be submitted by the Competitor at the time of registration for the Championship. A Registration will not be accepted without submission of the relevant details.~~

5.3 Safety Requirements:

- 5.3.1 All MSA Yearbook 2018, Section K, Competitor Safety Criteria Regulations, apply as relevant unless stated herein.

5.3.2 Safety Roll-Over Structures: - (K 1 to K1.8) applies

- a. All vehicles must be fitted with a safety roll-over structure as defined in the MSA Yearbook 2018- Section K.
- b. Interior fittings, trim and bodywork may be locally modified to allow fitting of the safety roll-over structure roll cage and any door bars.
- c. Cars running non-steel doors must be fitted with double door bars on the driver's side, either crossed or parallel.

5.3.3 Fire Extinguisher: K (3 to 3.5 applies)

- a. All vehicles must be equipped with a fire extinguisher. MSA Yearbook 2018 Regulation Q 19.14.7 applies
- b. Vehicles of Periods A-F must be equipped with a fire extinguisher in accordance with MSA Yearbook Regulation K3.1.2(b)

- c. All other vehicles not detailed in Championship Regulation 5.3.3 b. must be equipped with a fire extinguisher in accordance with MSA Yearbook 2018 Regulation K3.1.2(a)
- d. The fire extinguisher must not be disarmed in any Parc Fermé area without the specific permission of the Championship Eligibility Scrutineer. Any Competitor that is found with a disarmed fire extinguisher in Parc Fermé for whatever reason will be penalised.
- e. The following information must be clearly displayed on each fire extinguisher:
 - i) Type of extinguishant
 - ii) Weight or volume of extinguishant
- f. It is recommended that the following information is clearly displayed on each fire extinguisher:
 - i) Capacity
 - ii) Service date of extinguisher, It is recommended that it must be less than 2 years since the filling date or the last service date
- g. During Events all extinguisher systems must be in the 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times while competing or practising, including post-Event scrutineering.
- h. The external triggering point must be positioned close to the circuit breaker (or combined with it) and must be marked by the letter "E" in red inside a white circle of at least 10cm diameter with a red edge in accordance with MSA Yearbook 2016 Regulation (K)3.2.2

5.3.4 Main External Circuit Breaker:

- a. A Main External Circuit Breaker in compliance with the 2018 MSA Yearbook Section (K) 8. is mandatory.
- b. The switch location must be identified by a Red Spark on a white edged blue triangle with a base of at least 12cm. and the 'On' and 'Off' positions clearly marked.
- c. The circuit breaker when 'operated' must isolate all electrical circuits, data loggers, transponders, etc.
- d. When the circuit breaker is 'operated' there must be no power source capable of keeping the engine running.
- e. The triggering system for the circuit breaker should be situated at the lower part of the windscreen mounting, preferably on the driver's side or below the rear window.

5.3.5.5 Lights:

Lights detailed in Championship Regulations 5.10.5 must be in working order throughout the entire Event.

5.3.6 Seat and Seat Mounting:(K 2.2. applies)

- a. The Seat and Seat Mounting shall comply with the MSA Yearbook 2018 Regulation (K) 2.2 and (K) 2.3
- b. It is recommended that the Driver's seat is a racing seat with a current FIA homologation.
- c. Additional seat padding is permitted to a maximum of 50mm. Any additional padding or covering placed on the seat must be fire retardant to FIA standard 8855-1999.
- d. The seat mountings shall be appropriate to the seat fitted (and complying with FIA Article 253.16) must be used.

5.3.7 Seat Belts: (K 2.1. applies)

- a. Mandatory use of seat belts. MSA Yearbook 2018 regulation Q19.14.2 applies.
- b. Where Vehicles constructed in Periods A to E have seat belts fitted, the seat belts must comply with Championship Regulation 5.3.7 c.to 5.3.7 f. inclusive.
- c. The Driver's seat belts must have a current FIA homologation.
- d. It is mandatory to use seat belts, with a minimum 'four point' configuration complying with the 2018 MSA Yearbook Regulation (K) 2.1.2.
- e. Seat belts must be correctly adjusted at all times during events: (Two shoulder straps and one lap strap, with four anchorage points on the chassis/body shell or roll over bar of the vehicle).

5.3.8 Race Clothing: (K9.1 and K9.3 applies)

- a. Competitors are strongly advised to wear flame resistant, socks, underwear and balaclava.

- b. Flame resistant gloves and shoes are mandatory. MSA Yearbook 2018 Regulation Q10.1(c) applies.

5.3.9 **Crash Helmet.**

Crash helmets must comply with the requirements of MSA Yearbook 2018 (K 10.1 to K10.4 applies).

5.3.10 **FHR.**

Mandatory for all forms of circuit racing with the exception of period defined vehicles (pre-1977), which will remain as a recommendation. MSA Yearbook 2018 (Q) 10.1.e. applies.

5.4 **General Technical Requirements and Exceptions:**

- a. All vehicles must comply with MSA General Technical Regulations and the relevant parts of **Sections J & Q** of the MSA Yearbook 2018 except where specified below.
- b. Vehicles may be brought up to any series production specification for that model prior to the final date of manufacture.
- c. For the avoidance of doubt, 'model' shall mean a vehicle of the same body shell shape, size, specification and silhouette.
- d. Any component listed on the MSA, FIA/FISA (or national equivalent for foreign cars) homologation papers for use in Group N, Group 1, Group A and Group 2 during the series production of that model may be substituted for the original component provided that the substitute part was in production or homologated prior to the final date of that particular models manufacture. The responsibility to prove eligibility is that of the Competitor at all times.
- e. Nuts, bolts, washers and locking devices are free.
- f. Where these regulations call for original components or pattern parts, these must be to the manufacturers original specifications for that model as catalogued by the manufacturer, or importer, prior to the final date of that models manufacture.
- g. Advertising on vehicles is subject to requirements set out in MSA Yearbook 2018 H29.1.2 & 3.
- h. Competitors registering do so in the full knowledge that CTCRC reserves the right to require the Eligibility Scrutineer to carry out, record and enforce eligibility checks which may include the sealing of component(s) for subsequent checking. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out

5.5 **Chassis:**

- a. The standard floor pan, sills, front bulkhead, doors and roof must remain exactly as produced by the manufacturer in construction, dimension and material except as allowed in Championship Regulations 5.5.8
- b. The rear bulkhead (driver compartment to boot in Saloon/Coupe cars) may be made from an alternative material and may be relocated from the original
- c. It is prohibited to remove or relocate front or rear inner wings. Inner wings may be modified to provide additional wheel/tyre clearance.
- d. Front bulkheads and inner wings may be modified for the purpose of mounting, or giving clearance to, suspension components and to permit the clearance of the induction system. Induction system shall be understood to include air induction ducting, manifolds, inlet trumpets, and ram pipes for engine carburetion or fuel injection system only. A maximum clearance dimension of 3" (75mm) is allowed.
- e. The boot floor between the chassis rails rearward of the rear axle may be modified to accept fuel and oil systems and may be made from an alternative material.
- f. Transmission tunnel and tunnel apertures may be enlarged to ease the fitment of larger transmissions.
- g. Strengthening of the chassis in the interest of safety, by the addition of material is permitted.
- h. Seam welding is permitted.

5.5.1 Towing eyes / straps

- a. Must be a contrasting colour to the surrounding area (usually either Day-Glo red or yellow) and must respect the requirements of MSA Yearbook 2018 (Q19.1.3).
- b. In addition to 5.5.6 a. it is strongly recommended that all cars must, wherever possible, be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre-line. They must be clearly visible, marked with an arrow and the word "tow" and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.

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

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

5.6 Bodywork:

5.6.1 General:

Where original materials are unobtainable, local repairs of adequate strength may be made using modern equivalents. It is only permitted to make holes for the passage of cables, fuel, water, oil, hydraulic, instrument or fire extinguisher lines or for the purposes of ducting and cooling.

5.6.2 Interior:

- a. Floor carpets, under felt, sound deadening, headlining, front and rear parcel shelves, centre consoles, the front passenger and rear seats and trim in the boot/luggage compartment may be removed.
- b. Door and rear quarter trims must be retained but may be made from an alternative material.
- c. It is permitted to carry out modifications on the window winders, instrument panel and all the driving controls.
- d. Additional instruments may be added.
- e. Driver's seat is free providing Championship Regulation 5.3.6 is respected. The driver must be located entirely to one side of the centre line of the car. Local modifications are permitted for the purposes of secure and safe mounting
- f. The removal of the heater, heater controls and audio systems is permitted.
- g. Vehicles must be fitted with an interior rear-view mirror. The fitment of a wide-angle mirror is recommended.
- h. All redundant holes in bulkheads must be covered with a non - flammable material.

5.6.3 Exterior: - General

- a. Windscreens must be laminated glass.
- b. Window material for side and rear windows is free but must comply with MSA regulations.
- c. Holes may be cut in the rear or side window for de-misting.
- d. Ducts may only be fitted to side window for cooling the driver and de-misting purposes so long as they do not impede the sight line between the competitor and the rear-view mirror and nor shall they impede the competitors vision of flag signals, etc.

5.6.3.1 Exterior: - CLASSES A2, A4, B & C

- a. Replacement of the front and rear wings and front body panels by lightweight material panels is permitted provided they exactly retain the standard silhouette in side elevation and don't extend the production (not homologated) wheel arch by more than 4". One-piece front end assemblies are prohibited. "Front" is defined as the point forward of the baseline of the windscreen. Standard wings, if retained, may be modified by working the original metal and/or fitting wing extensions which must be over the tyre in accordance with Vehicle Regulations.

- b. It is permitted to cut holes in the rear part of the front wings no bigger than 200mm high x 200mm wide for cooling purposes only and these must be filled with mesh or slats
- c. A horizontal front spoiler/splitter may be fitted to the bottom edge of the front bodywork but may not extend more than 50mm beyond the original plan view including bumper and may not exceed the width of the car across the front wheel arches. The splitter may be a separate item
- d. The removal of exterior trim is allowed with exception of the complete front grill. Front grilles are to remain as standard, but inner slats may be removed to aid cooling
- e. Headlights must be fitted in the original locations, but need not be the original headlight unit for the vehicle.
- f. Class A2& A4 cars may fit non-standard side skirts. Side skirts must not impede the opening of the door/s and must remain below the centre line of the wheels; they may be no wider than the wheel arches and must not extend underneath the car beyond the joint of the sills and floor plan.
- g. Front and rear bumpers, may be replaced with lightweight replicas of standard size and shape
- h. Bonnet and boot-lid/tailgate may be replaced by lightweight replicas and may include bonnet bulges, bonnet scoops and blending to the wheel arches. To relieve under bonnet heat, a maximum of two bonnet apertures are permitted. Louvres must be fitted in the aperture.
- i. Normally aspirated, front wheel drive, transverse engine cars in classes A, B & C may fit a bonnet scoop with an opening of 400mm wide x 50mm high to cover the air filter/inlet trumpets
- j. Fitment of aerofoils is allowed if fitted in production or available from Ford for the model.
- k. Class A2 & A4 cars may fit additional rear aerofoils (MSA Yearbook 2018 Regulation J 5.2.7 applies)
- l. Excluding the mounting pylons, rear aerofoils must be able to fit through a box 9" X 5" (230mm x 125mm).
 - ii. They must be contained within the original production plan view of the car. (excluding wing mirrors).
 - iii. Non-standard aerofoils may not extend above the roofline.
- m. Roof mounted air vents are permitted.

5.6.3.2 Exterior: – CLASS D

- a. The original bonnet and boot/tailgate hinges and fasteners may be removed or replaced. The bonnet and boot shut lines must remain as in production. No other modifications to the exterior bodywork are permitted
- b. Side skirts are permitted provided they are fitted as standard to the original vehicle or made available by Ford for that model.
- c. Fitment of aerofoils is prohibited unless fitted as standard to the original vehicle or made available by Ford for that model.

5.6.4 Silhouette:

- a. CLASSES A2, A4, B & C - The silhouette of the vehicle above the centre line of the wheels must remain as original for that model except for bonnet scoops, rear spoilers and roof mounted air vents.
- b. CLASS D - The silhouette of the vehicle must remain as standard for that model

5.6.5 Ground Clearance:

- a. CLASSES A2, A4, B & C - Ground clearance to the chassis, cross members or gearbox mounting shall be no less than 60mm.
- b. CLASS D - No part of the bodywork or the suspended part of the car may be below a horizontal plane passing 40mm above the ground.
- c. Will be measured with the Driver on board (wearing his complete racing apparel),
- d. Will be measured with the vehicle and driver, including minimum Weight Ballast where applicable in the condition in which they cross the finish Line or at any other time during an Event and without the removal of any solid or fluid matter including fuel.

- e. Ride height will be measured on any reasonably flat surface as deemed by the Championship Eligibility Scrutineer or his nominated representative. In the event of any discrepancy the circuit designated flat patch will be used to make any final judgement.
- 5.7 Engine:**
- 5.7.1** To allow for scrutineer's wire seals, every installed engine must have 1.6mm (1/16in) holes drilled in at least two adjacent sump bolts and two adjacent rocker/cam cover bolts. Engines may be sealed at any time by a Licensed Eligibility Scrutineer and only by written permission in advance from the Championship Organisers or a Licensed Eligibility Scrutineer may seals be broken.
- 5.7.2 Engine CLASSES A2, A4, B & C**
- a. The engine block and cylinder head must be manufactured by the Ford Motor Company or by another company to copy the original Ford unit. Material is free. The engine block must be externally identifiable as being one fitted to a Ford vehicle.
 - b. Cylinder head/s are free and the replacement or modification of all mechanical components is permitted.
 - c. All internal engine components are free.
 - d. Cars in Classes A2, A4, B& C may use the 16 valve Cosworth head in normally aspirated form.
 - e. The engine must remain on the original side of the front and rear bulkheads and be orientated as production for the car entered. Engine mountings and support members may be changed for alternative units and may be chassis mounted.
 - f. The engine must remain in its original position plus or minus 3" (75mm) in the vertical or horizontal plane.
- 5.7.3 Engine - CLASS D**
- a. It is permitted to re-bore the engine block up to maximum of plus 0.060inch(1.524mm).
 - b. Pistons must remain as standard except that the piston diameter maybe up to plus 0.060inch(1.524mm).
 - c. The cylinder head must remain as standard. Aftermarket pattern camshafts are permitted but must be to the original production specification including but not limited to lift and dwell. Standard valve lifters, (including hydraulic lifters) must be used
 - d. Porting, polishing or any other modifications to the cylinder head are prohibited. Vernier timing gears are prohibited.
 - e. The engine must remain on the original side of the front and rear bulkheads and be orientated as production for the car entered. Engine mountings and support members may be changed for alternative units and may be chassis mounted.
 - f. All other engine components must remain standard or to Group N rules.
- 5.7.4 Induction Systems**
- 5.7.4.1 Forced induction Systems:**
- a. The only permitted method of adjusting the boost pressure setting shall be manually from within the driver compartment.
 - b. It is permitted to adjust the boost pressure during a race
 - c. Boost pressure is free.
- 5.7.4.2 CLASSES A2, A4, B & C**
- a. Fuel injection is permitted and unrestricted whether fitted as standard or not
 - b. Carburettors and air filters are free.
 - c. Water injection is only permitted where it has been previously homologated for use on that particular vehicle.
 - d. When water injection is used the requirements of 5.2.2 d. must be respected.
 - e. Inlet manifolds are free but must be of a bolt on type unless cast by the manufacturer.
- 5.7.4.3 CLASS D**
- a. The original production type of induction system must be used.
 - b. No modifications are permitted to carburettors except that jetting is free.

- c. No modifications are permitted to fuel injection systems except that injectors maybe replaced with uprated items.
- d. The original production air box must be used but the air filter is free provided it fits within the original air box.

5.7.5 Exhaust Systems:

5.7.5.1 CLASSES A2, A4, B & C

- a. Exhaust manifolds and systems are free if Championship Regulations 5.7.5.1 b. to 5.7.5.1 f. inclusive are respected.
- b. The exhaust manifold must be of a bolt on type unless cast by the manufacturer.
- c. Exhaust systems must exit at the periphery of the vehicle.
- d. Side exit exhausts are permitted but must exit behind the midpoint of the wheel base.
- e. It is prohibited to pass any part of the exhaust system through the driver compartment.
- f. All cars must conform to the current MSA requirements as detailed in the MSA Yearbook 2018 J5.16

5.7.5.2 Class D

- a. Exhaust manifolds and systems are free if Championship Regulations 5.7.5.2 b. to 5.7.5.2 f. inclusive are respected.
- b. The standard exhaust manifold must be used and may not be ported or polished.
- c. Exhaust systems must exit at the periphery of the vehicle.
- d. Side exit exhausts are permitted but must exit behind the midpoint of the wheel base.
- e. It is prohibited to pass any part of the exhaust system through the driver compartment.
- f. All cars must conform to the current MSA requirements as detailed in the MSA Yearbook 2018 J5.16

5.7.6 Ignition systems

5.7.6.1 CLASSES A2, A4, B & C

- a. Ignition systems are free

5.7.6.2 Class D

- a. Electronic engine management systems are free on those cars originally equipped with electronic engine management systems.

5.7.7 Fuel Delivery Systems

The fuel delivery pumps, regulators, filters and system are free subject to compliance with MSA Yearbook 2018 requirements.

5.7.8 Oil / Water Cooling:

5.7.8.1 CLASSES A2, A4, B & C

- a. Radiators are free providing they remain in the original location.
- b. Oil coolers and additional water radiators are permitted provided they are located within the periphery of the bodywork.
- c. Intercoolers are free provided they remain within the periphery of the vehicle
- d. 'Dry' sump oil systems are permitted

5.7.8.2 Class D

All oil / water Cooling components must remain standard or to Group N rules.

5.8 Suspensions:

5.8.1 CLASSES A2, A4, B & C

- a. Suspension springs are free. Spring platforms may be adjustable.
- b. Dampers are free and may be converted to adjustable coil-overs. Redundant coil springs may be removed.
- c. Adjustable front suspension top mounts are permitted. Strut top braces are permitted.
- d. Anti-roll bars, their mountings and links are free. Anti-tramp bars, panhard rods, watts linkages and their mountings may be added. Compression struts are permitted.
- e. Mk1 & 2 Escort may be fitted with 4/5/6 link rear suspension and the rear floor may be re-worked to accept the required linkage boxes.

- f. Suspension bushes are free
- g. Wheelbase must remain as per the original car within a tolerance of +/-2" (+/-50mm).

5.8.2 CLASS D:

- a. Springs and spring rates are free.
- b. Dampers are free providing the original operating principle (hydraulic, friction, lever or telescopic) is retained and no more than the original number are employed. These must be mounted on the original mounting points. Telescopic dampers may be converted to single-adjustable coil-overs but remote reservoirs are not permitted. Redundant coil springs may be removed.
- c. Anti-roll bars and their mountings and linkages must remain as in production and must fit directly on to the original body/chassis mounting points and the mobile suspension units.
- d. Suspension bushes may be replaced with uprated versions of a similar material. Rose joints or spherical bearings are permitted if fitted in production but must remain in the same location as in production.
- e. The original suspension mounting points are to be used without modification, but may be strengthened
- f. Adjustable strut top mounts, adjustable track control arms and adjustable spring platforms are not permitted
- g. Wheelbase must remain as per the original car within a tolerance of +/-2" (+/-50mm).

5.9 Transmission:

5.9.1 CLASSES A2, A4, B & C:

- a. Clutch and clutch operating system is free but electronic operation is prohibited unless fitted as standard.
- b. Gear levers and gear shift mechanisms are free but must employ the original method of operation and shift pattern
- c. Only gearbox casings produced by the Ford Motor Company, ZF, Borg Warner or Getrag are permitted. Gearbox internals are free but no more than six forward gears may be used.
- d. It is prohibited to replace a "live" rear axle with an alternative system or vice-versa.
- e. Gear ratios and type are free. The final drive ratio is free.
- f. Mechanical limited slip or torque biasing differentials are permitted.
- g. It is permitted to use a sequential gearbox on normally aspirated vehicles only. The use of a sequential gearbox will incur an additional weight penalty of 50kg.

5.9.2 CLASS D:

- a. Clutch plate material is free but must be of the same diameter as the original production part.
- b. The gearbox and final drive must remain as standard. Straight cut gears are prohibited.
- c. Fiesta MkI and MkII may use approved up-rated rear beam axle.
- d. Gear ratios and final drive ratio are to remain as in production.
- e. Mechanical limited slip or torque biasing differentials are permitted.

5.9.3 Traction Control:

Any form of traction control (other than as detailed in 5.9.1 f. and 5.9.2 e. is prohibited unless fitted "as standard" in production by the manufacturer.

5.10.1 Electrical:

Electrical equipment is free if Championship Regulation 5.10.2 to 5.10.5 inclusive are respected.

5.10.2 Vehicle Onboard Starter:

Engines are to be started at all times by the Vehicle Onboard Starter except that the use of an external portable slave battery is permitted to aid start up only in the paddock, assembly area, pit lane and on the grid

5.10.3 Battery:

- a. The battery and starter motor must be capable of performing a number of repetitive starts.
- b. The battery type and make is free providing MSA Yearbook 2018 Regulations are respected ((J) 5.14.1 to (J) 5.14.7 applies.
- c. The Battery position and orientation is free within MSA Yearbook 2018 Regulations, ((J) 5.14.1 to (J) 5.14.7) applies.

5.10.4 Charging Circuit:

- a. Use of the 12-volt (nominal) 'standard' generator or alternator is compulsory.
- b. The Charging Circuit must be connected and operational all times whilst the engine is running.

5.10.5 Lights:

- a. All cars must be fitted with the following: -
 - i) A minimum of two forward facing main headlights.
 - ii) A minimum of two rear facing red tail lights.
 - iii) A minimum of two rear facing red brake lights.
 - iv) A rear facing red high intensity fog light (or two where two are fitted as standard equipment by the vehicle manufacturer in question) MSA Yearbook 2018, Section (K) 5. applies.
- b. Lights detailed in Championship Regulation 5.10.5 a. iii) must be operated only by the brake pedal and without a delay.
- c. Lights detailed in Championship Regulation 5.10.5 a. iv) must not be operated by the brake pedal.
- d. It is not permitted to tint or paint the front or rear lighting units.
- e. Vehicles fitted with "twin" headlight systems must either be fitted with all four light units functioning, or have two completely blanked off.
- f. All lights detailed in Regulation 5.10.5 a. must be in working order throughout the entire Event and must be able to be switched on by the Driver when seated normally in the car.

5.11 Brakes:

5.11.1 CLASSES A2, A4, B & C

- a. Brake systems are free if Championship Regulation 5.11.1 b. to 5.11.1 e. Inclusive are respected.
- b. Carbon discs are prohibited.
- c. Ducting for cooling brakes or removing dust is permitted and holes may be made in inner wheel arches for the passage of brake ducts.
- d. Cars with single circuit braking must be fitted with an operational hand brake. Cars fitted with dual circuit braking are not required to have a handbrake fitted.
- e. Brake bias valves may be fitted. Brake servos may be fitted or removed

5.11.2 CLASS D

- a. Braking system must remain as standard.
- b. Brake pad and shoe friction material is free but the size and shape of the friction surface must remain as standard.

5.12 Wheels and Steering:

- a. Wheels may be made from steel or aluminium and may be of 'split rim' or one-piece construction. Wheel diameter and width may vary front to rear. Wheel width is free provided the wheel/tyre does not protrude beyond the wheel arches.
- b. Wheel stud/nut fixing may be replaced by wheel bolts and vice versa
- c. Hubs are free
- d. Maximum permitted wheel diameters are:

Classes A2	18"
Classes A4	18"
Class B	18"

- Class C 18"
- Class D Standard wheel as specified and supplied by manufacturer
- e. Magnesium wheels are prohibited.
- f. Steering wheel is free subject to MSA Yearbook 2018 Regulations, ((J) 5.7.1 and (J) 5.7.2).
- g. Steering wheel mounting hubs and steering columns are free.
- h. Power assisted steering may be fitted or removed.
- i. Steering ratio is free.

5.13 Tyres:

5.13.1 Maximum permitted tyre widths are:

Class A2	275
Class A4	255
Class B	265
Class C	245
Class D	Unrestricted

5.13.2 Permitted Tyres:

- a. It is only permitted to use tyres complying with Regulations 5.13.2 b. to 5.13.2 i. inclusive.
Racing Wets & cut slicks will be allowed for 2018 season
- b. Vehicles may only use tyres listed in MSA Yearbook 2018 Regulation (L)4 List 1A and (L5) List 1B and List 1C.
In addition to 5.13.b. the following tyres are permitted: - MRF ZTR
- c. Tyres must be listed by the tyre manufacturer as medium, or harder, for saloon car circuit applications. Soft compounds are not permitted.
- ~~d. No modification to tread pattern or tread depth by cutting is allowed.~~
- e. Tyre tread depth must be above the 1.6mm legal limit prior to commencement of qualifying sessions or races. The tyre specification when new must be as supplied by the manufacturer.
- f. Tyre buffing is prohibited.
- g. The use of any heating / heat retention devices, tyre treatments and compounds is prohibited.
- h. Pressure regulation valves are prohibited. MSA Yearbook 2016 Regulation, ((J) 5.9.4. applies)
- i. Slick racing tyres are not permitted to be used.

5.14 Weights:

5.14.1 Minimum weight.

- a. The minimum weight is "in the condition in which the vehicle and the Competitor (wearing his complete racing apparel, scrutineered Race Suit, boots, gloves and helmet) including minimum Weight Ballast where applicable, (see Championship Regulation 5.14.3.) crosses the finish line or at any other time during qualifying or race and without the addition or removal of any solid or fluid matter". For the purpose of the Regulation, qualifying or race is deemed to include any transfer to a place of post event scrutiny as directed by an official.
- b. All cars must comply with minimum weights as listed.
- c. Stickers (in 40mm white lettering) stating the cars minimum weight are to be displayed on the rear quarter windows. The minimum weight of the car should be as detailed in regulation 5.14.2
- d. The tabulated weights are true minimum weights by actual capacity plus equivalency with no tolerance and all cars must comply at all times.

Class	4WD	FWD	RWD
A2	---	1025kg	1050kg
A4	1185kg	---	---
B	---	880kg	945kg
C	---	835kg	835kg
D	Group N Homologated Weight but not less than Class C weights		

5.14.2 **Ballast:**

- a. Ballast required to achieve the minimum weight or success ballast as a performance equalisation measure must only be added inside the car on the front and/or rear passenger foot well.
- b. It is the competitor's responsibility to provide and fit their own ballast if it is required, and to ensure that ballast is fitted in a safe manner.
- c. Ballast must be attached to the shell/chassis via at least 4 mounting points using bolts with a minimum diameter of 8mm each with steel counter plates of at least 400 sq mm surface area and 3mm thickness. Ballast mountings must include provision for the fitting of Scrutineers wire seals.
- d. The total weight of "minimum weight" or "success ballast" carried must be declared, in writing to the Championship Eligibility Scrutineer and/or his appointed representative and be in position, at all times during practice and racing.

5.14.3 **Minimum weight ballast:**

- a. It is permitted to carry ballast to achieve minimum weight.
- b. The minimum weight ballast shall be carried in addition to and shall not form any part of Success Ballast weight as defined in Championship Regulation 5.14.1.

5.14.4 **Success Ballast:**

- a. Any vehicle may be required to carry success ballast as a performance equalisation measure. Such success ballast will be specified by the Technical Committee based upon the performance of the car in competition.
- b. The Technical Committee reserves the right to review the weight handicaps at any time during the Championship.
- c. The success ballast handicap is carried in addition to the 'Base' weight of the car as defined in Championship Regulation 5.14.1
- d. Competitors will be informed by official bulletin of the amount of weight they must carry.
- e. The maximum success ballast allocated shall be 150kg.
- f. Any vehicle which fails to carry the success ballast specified by the Technical Committee will automatically be deemed not to comply with the Technical Regulations.

5.14.5. Compliance with regulation 5.14.1 and 5.14.4 will be checked prior to removal of fuel samples.

5.15 **Fuel Tank/Fuel:**

5.15.1 **Types:**

- a. Fuel tank construction is "free" subject to compliance with MSA Yearbook 2018 Requirements.
- b. Racing type safety fuel cell may be used. MSA Yearbook 2018 Regulation (K)4 applies

5.15.2 **Location:**

Fuel tank/cell may be located anywhere to the rear of the driver's seat, subject to compliance with MSA Yearbook 2018 Requirements.

5.15.3 **Fuel:**

- a. Only 'Pump' fuel as defined in section (B) Nomenclature & Definitions of the MSA yearbook 2018 is allowed.
- b. An MSA approved additive is permitted.
- c. The introduction of any other media into the engine is prohibited.
- d. Refuelling is not permitted during qualifying, on the starting grid or during a race.

5.16 **Silencing:**



Silencers are free. Silencing must comply with MSA Yearbook 2018 Regulation J5.17 & J5.18.

5.17 **Numbers and Championship Decals:**

- a. Only competition numbers allocated by the CTCRC Registrar are to be displayed. They must

be displayed in accordance with MSA Yearbook 2018 Regulation J4 and remain as allocated until the end of the season.

- b. Competitors must display competition numbers on a CTCRC number background. CTCRC decals and those of the series sponsors, promoters and the BARC are required to be displayed in an un-obscured position in accordance with the following table.

Item		Placement
CTCRC Number Background (round or square)		One on each front door, one on the bonnet
CTCRC "classictouringcars.com" sun strip	TBC	Top of Rear windscreen
Series Sponsor Sun strip	TBC	Top of front windscreen
Series Sponsor logos (if required - TBC)	TBC	One on each side of the car (front wing, rear door or rear quarter)
BARC Logo		One on each side of the car (front wing, rear door or rear quarter)
Class Letter (40mm White lettering) Class Weight (40mm White Lettering)	e.g. A2 1150kg	One on each of the rear side windows

- c. Decals shall be fitted as issued. They may not be cut or otherwise defaced or deformed without prior approval from the Championship Organisers.
- d. Non CTCRC approved decals such as, but not restricted to, other clubs and other championship/series decals are not to be displayed on vehicles. These should be removed or covered up.
- e. Points will ONLY be awarded to competitors correctly displaying the required decals
- f. One set of Decals may be obtained from the CTCRC nominated supplier free of charge. A charge may be levied for any extra decals required.
- g. 5.17 e. & f. are only applicable to current fully paid up, Racing members of the CTCRC

Paul Inch - Classic Race Engines Pre '66 Touring Cars

5 TECHNICAL

5.1 Introduction:

- a. The following technical regulations are set out in accordance with MSA specified format and it should be clearly understood that if the following texts do not clearly state that you can do it; you should adopt the principle that you cannot.
- b. Anything that is not explicitly authorised in writing by the Championship Technical Committee and anything that is not specified either in these regulations or in any Official Championship Bulletin is therefore strictly forbidden and thus will be regarded as a breach of these Technical Regulations and may be penalised as described in section 4. It should be clearly understood that technical regulations will be strictly enforced and any modification, addition, variation, tuning or removal other than specifically permitted in these regulations is prohibited.
- c. Regulations that have changed in substance from the **2017 Paul Inch - Classic Race Engines Pre '66 Touring Cars** Technical Regulations are normally indicated by being highlighted in yellow.

~~5.1.1 Technical Queries~~

~~Any matter affecting Technical Regulations must be put in writing to the Championship Eligibility Scrutineer or Championship Organisers as any claim to have received clarifications or rulings on the Regulations must be substantiated by the production, on demand, of written confirmation of such rulings.~~

5.2 Description:

5.2.1 General:

The Classic Saloon and Historic Touring Car Championship is for competitors participating in four-seater saloon cars marketed before 1st January 1966.

5.2.2 Eligibility:

- a. Eligible cars are those complying with these regulations or any vehicle complying with the FIA Appendix K regulations for the current year and eligible for participation in the FIA Historic Touring Car Championship.
- b. The acceptance of a particular vehicle as being of saloon configuration and eligibility is subject to the approval of the Championship Organisers on an annual basis.
- c. Cars not complying with these regulations may be eligible subject to Championship Organisers approval.
- d. The responsibility to prove eligibility is that of the Competitor at all times. For clarification of a Competitor, refer to the MSA Yearbook **2018** Section B. Nomenclature & Definitions.
- e. Proof of a vehicles' eligibility may be substantiated by production of a Historic Technical Passport (HTP) or Homologation papers stamped by the ASN. These documents, where issued, for that vehicle and these must be available for inspection when required.
- f. Where no such paperwork is available, the Competitor must produce written confirmation from the Championship Organisers as to the eligibility of the vehicle model in question. The Championship Organisers in conjunction with a Licensed Eligibility Scrutineer shall determine matters as to the eligibility and the implementation which may involve photographing any part of the vehicle and performing electrical diagnostics at the Scrutineer's discretion.

5.2.3 Unless specifically permitted in these regulations, all components must be to original Manufacturers **Standard** Specification / Pattern.

- i. **STANDARD:** The word 'standard' used within these technical regulations as a description of components is to be interpreted as per 'Standard Part' defined in Section B – Nomenclature &

definitions in the MSA Blue Book. Checking will be by comparison to spare parts supplied by the manufacturer's official agent, comparison to standard parts or by any other means necessary to ensure compliance. Standard Part: 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 entry form.

- ii. **STANDARD PATTERN:** The phrase 'standard pattern' used within these technical regulations as a description of components is to be interpreted as per 'Standard Pattern Part' defined in Section B – Nomenclature & definitions in the MSA Blue Book. Checking will be by comparison to standard pattern part or any other means necessary to ensure compliance. **Standard Pattern Part:** A replacement part that has a similar form shape and features as the standard part and is made using similar materials and manufacturing processes e.g. a standard part, manufactured by a non-original equipment supplier that is fully interchangeable with the standard part.

5.2.4. Classes:

5.2.4.1 The Class Structure will be as follows, with classes based on the actual engine capacity, excluding the permitted overbore.

Class A	Over 2,700cc
Class B	1,601 up to 2,700cc
Class C	1,276 up to 1,600cc All Cooper derived Mini's Mini over 1270cc Mini - 970S Mini - 1071S
Class D	1001cc up to 1,275cc
Class E	0 to 1000cc
Class F	Lotus Cortina (see Technical Regulation 5.2.3 and 5.7.2)

5.2.4.2 **Invitation Competitors**

- Competitors with Vehicles not complying with these regulations may be invited to compete subject to Championship Organisers approval.
- Vehicles that, whilst not strictly adhering to the regulations, have been prepared sympathetically to the spirit of the championship and with Championship Organisers approval, may be invited to race under observation.
- Competitors wishing to race as guests must submit a written specification of their vehicle, to the Co-ordinator. It must detail all areas where the vehicle does not comply with these regulations. This specification shall be made available to the eligibility scrutineers for pre and post event checks.
- Invitation** vehicles will be invited by the Championship Organisers on a race by race and individual vehicle basis. The vehicle must not deviate from the specification submitted, unless such changes are approved by the Championship Organisers. Any approval may be withdrawn at any time by the Championship Organisers.
- Invitation** competitors will not eligible for: -
 - Podium recognition
 - Championship award / trophies
 - Championship points.

5.2.5. Presentation:

- At the start of each free practice, qualifying session or race, the cars must be presented to a high standard and must be clean and in good order. The Championship Organisers reserve the right to forbid cars not meeting this requirement from taking part.
- Presentation of a vehicle for scrutineering is a declaration by the Competitor that the vehicle is eligible for that event.

5.2.6. Technical Checking:

- The Championship Eligibility Scrutineer / Championship Organisers reserve the right to inspect, test, measure, seal or impound any component fitted to or used in conjunction with

any car registered in the Championship either personally or through a nominated representative. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out. This will be the sole responsibility of the Competitor. Exceptions to this may include appeal / protest according to the MSA Yearbook.

- b. Any breach of the Technical Regulations or a breach of the procedure surrounding the Technical Regulations will be the subject of a report to the Clerk of the Course.
- c. A car found to be ineligible for the championship must race only in the invitation class and no points will be scored until the vehicle conforms to the regulations.
- d. Any component sealed by an MSA Licensed Scrutineer must remain sealed and may not be tampered with in any way. In the event of a seal needing to be broken for repair or replacement, prior to doing so the Championship Eligibility Scrutineer must be informed in writing and approve the seal being broken. Re-sealing by an MSA Licenced Scrutineer will take place after technical checks have been made at the next race meeting.
- e. If a vehicle/component is sealed for subsequent technical examination the Championship Eligibility Scrutineer, within the applicable time limit, will state to the Competitor/Competitor that he will examine the vehicle/component on a stated date and time and at a specified location and the sealed items must be made available for his inspection. These arrangements are not negotiable. If a vehicle/component is not made available for an eligibility examination as required by the Championship Eligibility Scrutineer, it will be considered as ineligible and will be reported as such to the Clerk of the Course for the application of penalties laid down under MSA Regulations and these Championship Regulations.

~~5.2.7 — Technical Passport:~~

- ~~a. — All Competitors are issued with a Technical Passport. This is used to record information relating to that car during the season.~~
- ~~b. — The Competitor is responsible for the safe keeping of the passport, which shall be carried in the car at all times.~~
- ~~c. — All cars are issued with a Technical Passport wallet.~~
- ~~d. — No car is permitted to take part in an Event unless the Technical Passport is available for inspection and is a true reflection of the vehicle details.~~
- ~~e. — The only person authorised to make changes to the details of the Technical Passport is the Series Eligibility Scrutineer or his appointed representative.~~
- ~~f. — Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~
- ~~g. — Details contained within the Technical Passport must be submitted by the Competitor at the time of registration for the Championship. A Registration will not be accepted without submission of the relevant details.~~

5.3 Safety Requirements:

- 5.3.1. All MSA Yearbook, **Section K**, Competitor Safety Criteria Regulations, apply as relevant unless stated herein.

5.3.2 Safety Roll-Over Structures: - (K) 1 to (K)1.8) applies

- a. All vehicles must be fitted with a safety roll-over structure as defined in the MSA Yearbook **2018**, **Section K**.
- b. Interior fittings, trim and bodywork may be locally modified to allow fitting of the safety over structure roll- roll cage and any door bars.

5.3.3 Fire Extinguisher: (K)3 to (K)3.5) applies

- a. All vehicles must be equipped with a fire extinguisher. MSA Yearbook, **2018** Regulation **(Q) 19.14.7** applies.
- b. Vehicles of Periods A-F must be equipped with a fire extinguisher in accordance with MSA Yearbook **2018** Regulation **(K) 3.1.2(b)**
- c. All other vehicles not detailed in Championship Regulation 5.3.3 b. must be equipped with a fire extinguisher in accordance with MSA Yearbook **2018** Regulation **(K)3.1.2(a)**

- d. The fire extinguisher must not be disarmed in any Parc Fermé area without the specific permission of the Championship Eligibility Scrutineer. Any Competitor that is found with a disarmed fire extinguisher in Parc Fermé for whatever reason will be penalised.
- e. The following information must be clearly displayed on each fire extinguisher:
 - i) Type of extinguishant
 - ii) Weight or volume of extinguishant
- f. It is recommended that the following information is clearly displayed on each fire extinguisher:
 - i) Capacity
 - ii) Service date of extinguisher. It is recommended that it must be less than 2 years since the filling date or the last service date
- g. During Events, all extinguisher systems must be in the 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times while competing or practising, including post-Event scrutineering.
- d. The external triggering point must be positioned close to the circuit breaker (or combined with it) and must be marked by the letter "E" in red inside a white circle of at least 10cm diameter with a red edge in accordance with MSA Yearbook 2018 Regulation (K)3.2.2

5.3.4. Main External Circuit Breaker

- a. All vehicles must be equipped with an external circuit breaker. MSA Yearbook, 2018 Regulation (K) 8.1 to (K) 8.5 applies.
- b. Technical Regulation 5.3.4a. is not mandatory for cars of pre 01/01/66 construction but is recommended.
- c. The switch location must be identified by a Red Spark on a white edged blue triangle with a base of at least 12cm. and the 'On' and 'Off' positions clearly marked.
- d. The circuit breaker when 'operated' must isolate all electrical circuits, data loggers, transponders, etc.
- e. When the circuit breaker is 'operated' there must be no power source capable of keeping the engine running.
- f. The triggering system for the circuit breaker should be situated at the lower part of the windscreen mounting, preferably on the driver's side or below the rear window.
- g. On cars of Periods A to F (pre-1977) the triggering system may be mounted approximately vertically below the line of the scuttle on the driver's side.

5.3.5 Lights:

Lights detailed in Championship Regulations 5.10.5 must be in working order throughout the entire Event.

5.3.6 Seat and Seat Mounting: (K) 2.2. applies)

- a. The Seat and Seat Mounting shall comply with the MSA Yearbook 2018 Regulation (K) 2.2 and (K) 2.3
- b. It is recommended that the Driver's seat is a racing seat with a current FIA homologation.
- c. Additional seat padding is permitted to a maximum of 50mm. Any additional padding or covering placed on the seat must be fire retardant to FIA standard 8855-1999.
- d. The seat mountings shall be appropriate to the seat fitted (and complying with FIA Article 253.16) must be used.

5.3.7 Seat Belts (K) 2.1. applies)

- a. Mandatory use of seat belts. MSA Yearbook 2018 regulation Q19.14.2 applies.
- b. Where Vehicles constructed in Periods A to E have seat belts fitted, the seat belts must comply with Championship Regulation 5.3.7 c. to 5.3.6 f. inclusive.
- c. The Driver's seat belts must have a current FIA homologation.
- d. It is mandatory to use seat belts, with a minimum 'four point' configuration complying with the MSA Yearbook 2018 Regulation (K) 2.1.2.
- e. Seat belts must be worn and be correctly adjusted at all times during events: (Two shoulder straps and one lap strap, with four anchorage points on the chassis/body shell or roll over bar of the vehicle).

5.3.8 **Race Clothing: (K9.1 and K9.3 applies)**

- a. Competitors are strongly advised to wear flame resistant, socks, underwear and balaclava.
- b. Flame resistant gloves and shoes are mandatory. MSA Yearbook 2018 Regulation (Q)10.1. (c) applies.

5.3.9 **Crash Helmet.**

Crash helmets must comply with the requirements of MSA Yearbook 2018 ((K)10.1 to (K)10.4 applies).

5.3.10 **FHR.**

Mandatory for all forms of circuit racing with the exception of period defined vehicles (pre-1977), which will remain as a recommendation. MSA Yearbook 2018 (Q) 10.1.e. applies.

5.4 **General Technical Requirements and Exceptions:**

- a. All vehicles must comply with MSA General Technical Regulations and the relevant parts of **Sections J & Q** of the MSA Yearbook 2018 except where specified below
- b. Vehicles may be brought up to any series production specification for that model prior to 1st January 1966. For the avoidance of doubt, 'model' shall mean a vehicle of the same body shell shape, size, specification and silhouette.
- c. Any component listed on the MSA, FIA/FISA (or National equivalent for foreign cars) homologation papers for use in Group One during the series production of that model may be substituted for the original component provided that the substitute part was in production or homologated prior to 1st January 1966.
- d. No component may be substituted which serves to alter the shape or size of the body shell and/or panels themselves or increase the capacity of the engine unless specifically allowed by these regulations.
Full details of optional equipment must be submitted to the CTCRC for possible inclusion on a vehicle by vehicle basis prior to that item of equipment being fitted.
- e. Fixing components such as nuts, screws, washers, lock washers; spring washers, etc. are free and may be upgraded.
- f. It is permitted to repair faulty threads by the use of Keen Inserts/ Helicoils. Where thread inserts are utilised the original thread diameter and pitch must be respected
- g. Where these regulations call for original components or pattern parts these must be to the manufacturer's original specifications for that model as catalogued by the manufacturer, or importer, prior to 1st January 1966.
- h. Advertising on vehicles is subject to the requirements set out in MSA Yearbook 2018. Regulation (H)29.1.2 & (H)29.1.3.
- i. Competitors registering do so in the full knowledge that CTCRC reserves the right to require the Eligibility Scrutineer to carry out, record and enforce eligibility checks which may include the sealing of component(s) for subsequent checking. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out.
- j. No modifications are permitted beyond the repair or adjustment processes specified by the factory or the manufacturer". Eligibility checking will be by comparison to spare parts supplied by the manufacturer's official agent.
- k. "Free" as referred to in these Technical Regulations shall mean be interpreted as "within the limitations imposed by the MSA Yearbook 2018 Regulations".

5.5 **Chassis:**

- a. The chassis as produced by the manufacturer with the original material must be retained in all aspects in respect of material, thickness & contour except as allowed in Championship Regulations 5.5 b. and 5.5 d.
- b. Strengthening of the chassis in the interest of safety, by the addition of material is permitted.
- c. Lightening or reducing of chassis, or chassis member strength, is prohibited.
- d. Seam welding is permitted.

5.5.1 Towing eyes / straps

Must be a contrasting colour to the surrounding area (usually either Day-Glo red or yellow) and must respect the requirements of MSA Yearbook 2018 (Q) 19.1.3).

- b. In addition to 5.5.1 a. it is strongly recommended that all cars must, wherever possible, be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre-line. They must be clearly visible, marked with an arrow and the word "tow" and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.

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

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

5.6 Bodywork and dimensions:

5.6.1 General:

- a. Bodywork must be complete and standard in shape and silhouette, material and thickness on all exterior surfaces.
- b. Where original materials are unobtainable, local repairs of adequate strength may be made using modern equivalents.
- c. Replacement of panels with non-original material is prohibited
- d. It is only permitted to make holes in bulkhead for the passage of cables, fuel, water, oil, hydraulic, instrument or fire extinguisher lines.
- e. All redundant holes must be covered with a non-flammable material.

5.6.2 Interior:

- a. Floor carpets, under felt, sound deadening, headlining, front and rear parcel shelves, centre consoles, the front passenger seat, rear seats and trim in the boot/luggage compartment may be removed.
- b. All internal panels and subassemblies must remain as originally manufactured. Strengthening is permitted
- c. Battery trays and their supports may be removed.
- e. The dashboard must be retained.
- f. Instrumentation is free.
- g. All interior door and rear quarter trim forward of the rearmost part of the production seating area is to be retained in either original, equivalent material of the period or other non-flammable material
- h. All window winder mechanisms must be fully operational and function as production. It is permissible to alter electrically operated windows to manual winding operation. Material for side and rear windows is free subject to prevailing MSA requirements.

5.6.2.1 The original mirrors may be removed but vehicles must be fitted with at least one externally mounted rear-view mirror in accordance with MSA Yearbook 2018 section (Q)19.15.1) and at least one interior mirror. The fitment of a wide-angle interior rear-view mirror is recommended.

5.6.2.2 The driver must be located entirely to one side of the centre line of the car. Local modifications are permitted for the purposes of secure and safe mounting

5.6.2.3 Heaters and interior ventilation systems may be removed. It is recommended to retain a heating and de-misting system.

5.6.2.4 Foot controls and their linkages are free except that the foot operated surface of the brake pedal must be located no more than 4" (100mm) forward or rearward of the original production position.

5.6.3 Exterior:

- a. Removal of Mini bumpers is prohibited. They must be retained, "as produced and fitted" by the manufacturer.
- b. Except for Championship Regulation 5.6.3 a. removal of bumpers is permitted providing Championship Regulation 5.6.3 c. is respected.
- c. When bumpers are removed all supporting devices and brackets as would otherwise protrude beyond the bodywork must also be removed.
- d. Reworking or modification to exterior bodywork is prohibited except for items detailed in Championship Regulation 5.6.3 e.
- e. Any part of the arch/wing pressing folded into the wheel arch may be deformed, but not removed, to give clearance to the tyres.
- f. Bonnet and boot shut lines must be as in production.
- g. The original boot and bonnet fasteners may be removed.
- h. Boot and bonnet hinges are free
- i. Radiator grill slats must not be removed unless they are less than 1" apart and if so alternate slats may be removed.
- j. Vehicle registration marks (number plates) must be displayed front and rear. They must be able to satisfy the requirements of a Ministry of Transport Test (MoT)
- k. Jaguar Mk 1 & 2 may use accurate replica louvered bonnets as per original "John Coombs" cars.
- l. Any item below the centreline of the wheel must not project beyond a line drawn at 45 degrees to the horizontal and tangential to the bodywork (not including over-riders).
- m. It is permitted to remove bonnet outer skin support frame / stiffening metalwork.
- n. It is permitted to remove boot outer skin support frame / stiffening metalwork.

5.6.4 Ground clearance:

- a. Minimum ground clearance is 4" (100mm) excluding exhausts and silencers.
- b. Will be measured without the Driver on board
- c. Will be measured with the vehicle in the condition in which it crosses the finish line or at any other time during an event and without the removal of any solid or fluid matter including fuel.
- d. Ride height will be measured on any reasonably flat surface as deemed by the Championship Eligibility Scrutineer or his nominated representative. In the event of any discrepancy the circuit designated flat patch will be used to make any final judgement

5.7 Engine:

5.7.1 General:

- a. Engine components are free providing the requirements of Championship Regulation Section 5.7 are respected
- b. To allow for Scrutineers wire seals, every installed engine must have 1.6mm (1/16") holes drilled in readily accessible locations as follows: -
 - i) Sump: - Cross drilled through two adjacent retaining screws or studs.
 - ii) Rocker/cam cover or cylinder head bolts: - Cross drilled through two adjacent retaining screws, studs or bolts.
- c. Engines may be sealed at any time by a Licensed Eligibility Scrutineer and only by written permission in advance from the Championship Organisers or a Licensed Eligibility Scrutineer may seals be broken.

5.7.2 Class A: (except Ford Mustang and Ford Falcon) and Class F.

- a. The original standard production cylinder block may be used
- b. It is permitted to use an alternative cylinder block, manufactured to the same original production specification, including, but not limited to material, bore, number of main bearings and number of main bearing fasteners

- c. It is permitted to re-bore the standard size cylinder block up to a maximum of plus 0.065"(1.651mm)
 - d. The crankshaft is free if the requirements of Championship Regulations 5.7.2 e. and 5.7.2 f. are respected.
 - e. The original stroke of the crankshaft must be retained.
 - f. The original number of crankshaft bearings must be retained.
- 5.7.3 Ford Mustang and Ford Falcon:
- a. Permitted Cylinder Block
 - b. Standard production cylinder block.
 - c. Pre-1985 standard production (2 bolt mains) 302 cubic inch cast iron cylinder block.
 - d. Cylinder block available as part number M6010-A50.
 - e. It is permitted to re-bore the standard size cylinder block in use up to a maximum of plus 0.065" (1.651mm).
- 5.7.4 Cylinder block: Class B, C, D, & E:
- a. Free, if the requirements of Championship Regulations 5.7.4 b. to 5.7.4 h. inclusive are respected.
 - b. It shall be of the "same family", manufactured by the same manufacturer in the original material and approved by the Championship Organisers.
 - c. It is permissible to remove metal from the cylinder block.
 - d. It is permitted to re-bore the standard size cylinder block in use up to a maximum of plus 0.065" (1.651mm)
 - e. Ford Anglia may use a pre- cross flow production 1,498cc cylinder block.
 - f. Mini may only use a "British home market" engine block.
 - g. The original production bore (excluding permitted overbore) and stroke for the block in use must be retained.
 - h. Within these Technical Regulations the word "Same family" means that all removable engine components originally fitted in production to the original standard production block for that car will reassemble directly onto the replacement cylinder block except for the pistons and the crankshaft which may have a different number of main bearings and different stroke
- 5.7.5 **Cylinder Head:**
- a. The cylinder head is free provided that the requirements of Championship Regulations 5.7.5 b. to 5.7.5 i. inclusive are respected.
 - b. The cylinder head must be manufactured to the same original production specification as the original standard production cylinder head.
 - c. The cylinder head shall be manufactured from the same material as the original standard production cylinder head configuration and operating type as the original standard production cylinder head.
 - d. The cylinder head shall fix directly onto the original standard production cylinder block without any modification.
 - e. It is permitted to remove metal from cylinder head.
 - f. The Ford "Kent" crossflow cylinder head is not permitted.
 - g. Jaguars may use a straight port head.
 - h. Camshafts, camshaft bearings and drive systems are free, provided that they remain in their original positions and remain the sole means of operating the valves
 - i. Vehicles fitted with side valve engine may employ a proprietary OHV conversion (cylinder heads, manifolds and carburettors) marketed for that engine before 1st January 1966.
 - j. The engine must be located in the original position.
- 5.7.6 **Oil/Water Cooling:**
- a. The main radiator is free but must remain in its original location and be of the original type. (Complete with header and pressure cap etc.)
 - b. The fitting of additional water radiators is permitted provided they are located within the periphery of the bodywork.

- c. The fitting of additional oil coolers is permitted provided they are located within the periphery of the bodywork.
- d. Modification of the cooling system is permitted to facilitate the installation of items detailed in Championship Regulation 5.7.6 a. to 5.7.6 c. inclusive.
- e. Dry sump oil systems are prohibited.
- f. The Hilman Imp is permitted to use a front mounted radiator system providing: -
 - i. The radiator matrix must be located within the spare wheel area.
 - ii. The radiator matrix must be confined within the front bonnet area.
 - iii. ~~The radiator matrix must not be visible from the exterior of the vehicle.~~

5.7.7 Induction Systems:

5.7.7.1 Class A

- a. The production or homologated carburetion must be fitted.
- b. Carburetion may be "gas-flowed" by polishing.
- c. Internal removal of metal is permitted provided that the requirements of Championship Regulation 5.7.7.1d. is respected.
- d. The intake and outlet flange dimensions must remain as original.

5.7.7.2 Classes B, C, D & E

- a. Carburetion must be that used in the period or equivalent but is otherwise free.
- b. Alfa Romeo Giulia Sprint GT may use twin 45DCOE Weber carburettor as fitted to the Ti Super model.
- c. Ford Mustang/Falcon may use any Holley 4150 or 4160 (1.6875" Flange dimension) carburettor.
- d. Jaguar Mk 1, 2 & S Type may use twin 2" SU carburettors.

5.7.7.3 Class F

- a. Ford Lotus Cortina must use twin 40DCOE unless entered to Appendix K in which case must use twin 45 DCOE.

5.7.7.4 Forced induction or fuel injection is only permitted if fitted as original equipment.

5.7.7.5 Supercharged or turbocharged engines shall be subject to a capacity equivalent of 1.4:1.

5.7.7.6 Inlet manifolds are free.

5.7.7.7 Rear engine cars may have additional air intakes in the rear Plexiglas but must not produce a ram air effect.

5.7.8 Exhaust Systems:

- a. The exhaust system is free subject to compliance with the MSA Yearbook 2018 Regulation (J)5.16.

5.7.9 Ignition Systems:

- a. The ignition system is free if the requirements of Championship Regulations 5.7.9 b. to 5.7.9 h. inclusive are respected.
- b. The distributor may be fitted with an after-market spark-triggering device.
- c. The distributor must remain in its original position.
- d. The distributor must maintain its original function.
- e. Any additional system which processes information acquired from the ambient conditions and/or the engine is prohibited.
- f. The distributor must be the only means of determining ignition advance and retard.
- g. The distributor must be the only means of distributing the high-tension spark.
- h. The original firing order must not be changed.

5.7.10 Fuel Delivery Systems:

- a. Fuel pumps are free subject to compliance with MSA Yearbook 2018 requirements.
 - b. Vehicles entered to Appendix K specification must respect the requirements of Championship Regulation 5.7.10 a.
- 5.8 Suspensions:**
- 5.8.1. General:**
- a. Suspension type as fitted by the manufacturer must remain unaltered.
 - b. It is permitted to use pattern parts to the manufacturer's original specification
- 5.8.2. Suspension mounting points:**
- a. The original suspension mounting points shall be used without modification.
 - b. It is not permitted to modify the original location / dimensions of suspension mounting points.
- 5.8.3 Track Control Arms:**
- a. Track control arms may be modified locally for the sole purpose of adjusting the track control arm length.
 - b. It is permitted to strengthen track control arms.
- 5.8.4 Springs:**
- a. Spring type as fitted by the manufacturer, shall be employed.
 - b. Spring rate and thickness of material is free.
 - c. Leaf springs are free; it is permitted to upgrade to single or multi either way.
 - d. No more than the original number of springs as fitted by the manufacturer are permitted.
- 5.8.5 Shock Absorbers:**
- a. Shock Absorbers are free providing that Championship Regulation 5.8.5 is respected.
 - b. No more than the original number of functioning shock absorbers, as fitted by the manufacturer are permitted.
 - c. Lever arm dampers may be changed to telescopic dampers and use new mounting points, providing the requirements of 5.8.1 and 5.8.2 are respected
 - d. Cars with hydrostatic suspension may run additional telescopic shock absorbers.
 - e. A Macpherson strut may be converted to a coil over damper.
 - f. Anti-roll bars, anti-tramp bars, Panhard rods, Watts linkages, lowering blocks and their mountings may be added, and these components only may incorporate spherical bearings or joints.
- 5.8.7 Suspension Bushes:**
- a. Suspension bushes are free providing the original production bush can be replaced in its original position without modification to the bush housing.
- 5.8.8 Lotus Cortina suspension must meet the following measurement criteria:**
- a. Distance between the front strut top mounting bolts (furthest forward measured across engine bay) = 1010mm +/- 5mm.
 - b. Distance between track control arm inner mountings across front cross member = 437mm +/- 1.5 mm
- 5.8.9** Anti-roll bars, anti-tramp bars, Panhard rods, Watts linkages, lowering blocks and their mountings may be added, and these components only may incorporate spherical bearings or joints.
- 5.8.10** Spherical bearings, track rod ends or rose joints are prohibited unless fitted as standard or in conjunction with Championship Regulation 5.8.9
- 5.8.11** It is not permitted to fit any additional suspension components, other than those permitted in Championship Regulation Section 5.8
- 5.9 Transmissions:**

- a. The gearbox is free provided that it is from the same manufacturer and type as originally fitted by the manufacturer and that Championship Regulation 5.9 b. to 5.9 i. inclusive are respected.
- b. Gear levers and gear shift mechanisms are free but must employ the original method of operation, shift pattern local modification of the tunnel is permitted to allow for gear shift extensions.
- c. Quick shift gear levers are permitted. These may be fitted with reverse blocks to prevent the inadvertent engaging of reverse gear.
- d. The gearbox must remain in the original position.
- e. Gearbox mounts are free.
- f. No more than four forward ratios are permitted unless supplied as original equipment.
- g. An additional overdrive gearbox may be fitted.
- h. Gearboxes and transaxles with rapidly interchangeable ratios, or proprietary racing gearboxes, are prohibited.
- i. Sequential gearboxes and/or traction control devices are prohibited.
- j. The final drive ratio is free.
- k. The rear axle must remain in its original position.
- l. The rear axle casing must be the original standard production component.
- m. It is permitted to locally modify the rear axle for no other function than strengthening purposes.
- n. Where a differential casing is removable from an axle casing the differential casing must be regarded as part of the original axle casing and is covered by the Championship regulations 5.9 i. to 5.9 l. Inclusive.
- o. Drive shafts and prop shafts must be made of metallic material but otherwise are free.
- p. Mechanical limited slip or torque biasing differentials are permitted.

5.10 **Electrical:**

5.10.1 Electrical equipment is free provided that Championship Regulation 5.10.2 to 5.10.5 inclusive are respected.

5.10.2 **Vehicle On-board Starter:**

Engines are to be started at all times by the Vehicle on-board Starter except that the use of an external portable slave battery is permitted to aid start up only in the paddock, assembly area, pit lane and on the grid

5.10.3 **Battery:**

- a. The battery and starter motor must be capable of performing a number of repetitive starts.
- b. The battery type and make is free providing MSA Yearbook 2018 Regulations ((J) 5.14.1 to (J) 5.14.7) are respected.
- c. The Battery position and orientation is free within MSA Yearbook 2018 Regulations, ((J) 5.14.1 to (J) 5.14.7) applies.

5.10.4 **Charging Circuit:**

- a. Use of the 12-volt (nominal) 'standard' generator or alternator is compulsory.
- b. The Charging Circuit must be connected and operational all times whilst the engine is running.

5.10.5 **Lights:**

- a. All cars must be fitted with the following: -
 - i) A minimum of two forward facing main headlights.
 - ii) A minimum of two rear facing red tail lights.
 - iii) A minimum of two rear facing red brake lights.
 - iv) A rear facing red high intensity fog light (or two where two are fitted as standard equipment by the vehicle manufacturer in question) MSA Yearbook 2018, Section (K) 5. applies.
- b. Lights detailed in Championship Regulation 5.10.5 a. iii) must be operated only by the brake pedal and without a delay.

- c. Lights detailed in Championship Regulation 5.10.5 a. iv) must not be operated by the brake pedal.
 - d. It is not permitted to tint or paint the front or rear lighting units.
 - e. All lights detailed in Regulation 5.10.5 a. must be in working order throughout the entire Event and must be able to be switched on by the Driver when seated normally in the car.
 - f. All light lenses must be complete and standard in shape, material and thickness.
- 5.11 **Brakes:**
- a. Brake systems are free providing Championship Regulation 5.11 b. to 5.11 f. inclusive is respected.
 - b. Carbon disks are prohibited.
 - c. ABS systems are prohibited.
 - d. Cars must be fitted with an operational handbrake.
 - e. Modification or removal of brake back plates is permitted.
 - f. Ducting for the purpose of cooling brakes or removing dust is permitted provided it serves no other purpose and if beneath the car respects the requirements of Championship Regulation 5.6.4
- 5.12 **Wheels / Steering:**
- 5.12.1 **Steering:**
- Steering wheels and steering columns are free providing MSA Yearbook 2018 Regulations (J) 5.7.1, 5.7.2 are respected.
- 5.12.2 **Wheels:**
- a. Road wheels must be fastened by the original number of studs/bolts.
 - b. Split rims are prohibited.
 - c. Road wheel material is free.
 - d. Wheels must be within 1" diameter of original equipment.
 - e. All four wheels must be of the same diameter.
 - f. Maximum permitted rim widths are:
Class A 7.0"
Class B 6.0"
Class C, D, E, F, G 5.5"
 - g. Hub material is free.
- 5.13 **Tyres:**
- a. The only permitted tyres are from the MSA Yearbook 2018 (L)4 list 1A
 - b. The Dunlop CR65. 204 compound is allowed.
 - c. No modification to tread pattern or depth is allowed.
 - d. All tyres must have an aspect ratio (profile) of 70% or greater.
- 5.14 **Weights:**
- a. There are no minimum weights applicable.
- 5.15 **Fuel Tank / Fuel:**
- 5.15.1 **Fuel Tank:**
- a. Fuel tanks are free subject to compliance with MSA Yearbook 2018 Regulations.
 - b. Vehicles entered to Appendix K specification must respect the requirements of Championship Regulation 5.15.1 a.
- 5.15.2 **Fuel:**
- a. Only 'Pump' fuel as defined in section (B) Nomenclature & Definitions of the MSA Yearbook 2018 is allowed.
 - b. An MSA approved additive is permitted.
 - c. Fuel solely for the purpose of lead replacement is allowed.



- d. Refuelling is not permitted during qualifying, on the starting grid or during a race.

5.16 Silencing:

- a. All cars must conform to the current MSA noise requirements as detailed in the MSA Yearbook 2018 regulations (J)5.17 & (J)5.18.
- b. Silencers are free subject to compliance with 5.16 a.

5.17 Numbers and Championship Decals:

- a. Only competition numbers allocated by the CTCRC Registrar are to be displayed. They must be displayed in accordance with MSA Yearbook 2018 regulation J4 and remain as allocated until the end of the season.
- b. Competitors must display competition numbers on a CTCRC number background. CTCRC decals and those of the series sponsors, promoters and the BARC are required to be displayed in an un-obscured position in accordance with the following table.

Item		Placement
CTCRC Number Background (round or square)		One on each front door, one on the bonnet
CTCRC "classictouringcars.com" sun strip	"classictouringcars.com"	Top of Rear windscreen
Series Sponsor Sun strip	Paul Inch - Classic Race Engines Pre '66 Touring Cars	Top of front windscreen
Series Sponsor logos (if required - TBC)	TBC	One on each side of the car (front wing, rear door or rear quarter)
BARC Logo		One on each side of the car (front wing, rear door or rear quarter)
Class Letter (50mm Black lettering)	e.g. 88 A	One on each CTCRC number background, adjacent to race numbers

- c. Decals shall be fitted as issued. They may not be cut or otherwise defaced or deformed without prior approval from the Championship Organisers.
- d. Non CTCRC approved decals such as, but not restricted to, other clubs and other championship/series decals are not to be displayed on vehicles. These should be removed or covered up.
- e. A Touring Car, Touring Car re-creation or a car running in period livery is only required to display the CTCRC "classictouringcars.com" sun strip
- f. Points will ONLY be awarded to competitors correctly displaying the required decals
- g. One set of Decals may be obtained from the CTCRC nominated supplier free of charge. A charge may be levied for any extra decals required.
- h. 5.17 f. & g. are only applicable to current fully paid up, Racing members of the CTCRC

Group 1 Touring Car Championship

5 TECHNICAL

5.1. Introduction:

- a. The following technical regulations are set out in accordance with MSA specified format and it should be clearly understood that if the following texts do not clearly state that you can do it, you should adopt the principal that you cannot.
- b. Anything that is not explicitly authorised in writing by the Championship Technical Committee and anything that is not specified either in these regulations or in any Official Championship Bulletin is therefore strictly forbidden and thus will be regarded as a breach of these Technical Regulations and may be penalised as described in section 4. It should be clearly understood that technical regulations will be strictly enforced and any modification, addition, variation, tuning or removal other than specifically permitted in these regulations is prohibited.
- c. Regulations that have changed in substance from the 2017 CTCRC Group 1 Touring Car Championship Technical Regulations are normally indicated by being underlined or highlighted.

~~5.1.1 Technical Queries:~~

~~Any matter affecting Technical Regulations must be put in writing to the Championship Eligibility Scrutineer, as any claim to have received clarifications or rulings on the Regulations must be substantiated by the production, on demand, of written confirmation of such rulings.~~

5.2 Description:

5.2.1 CTCRC Group 1 Touring Car Championship is for competitors participating in saloon cars marketed before 1st January 1983 of which more than 5000 examples were manufactured in any 12-month period during the overall production run and/or were homologated by the FIA for competition in Group One category for production cars prior to that date

5.2.2 Eligibility:

- a. All cars are subject to approval of their eligibility by the Championship Organisers.
- b. Cars not complying with these regulations may be eligible subject to Championship Organisers approval
- c. The following cars are eligible for this championship.
 - i) Cars complying with BARC/CTCRC Classic and Historic Touring Car regulations.
 - ii) Jaguar XJ12 four door.
- d. Cars complying with BARC/CTCRC Classic and Historic Touring Car regulations will have their class determined by actual capacity.
- e. The responsibility to prove eligibility is that of the Competitor at all times. For clarification of a Competitor refer to the MSA Yearbook 2018 section (B) Nomenclature & Definitions.
- f. Proof of a vehicles' eligibility may be substantiated by production of a Historic Technical Passport (HTP) or Homologation papers stamped by the ASN. These documents, where issued, for that vehicle and these must be available for inspection when required.
- g. Where no such paperwork is available, the Competitor must produce written confirmation from the CTCRC Committee as to the eligibility of the vehicle model in question.
- h. The Championship Organisers in conjunction with a Licensed Eligibility Scrutineer shall determine matters as to the eligibility and the implementation which may involve photographing any part of the vehicle and performing electrical diagnostics at the scrutineer's discretion.

5.2.3 Unless specifically permitted in these regulations all components must be to original Manufacturers specification.

5.2.4 **Class Structure:**

5.2.4.1 Cars will run in six classes based on production capacity excluding permitted overbore:

- Class A Over 3551cc
- Class B 2501 – 3550cc
- Class C 1601 – 2500cc
- Class D 1301 – 1600cc
- Class E 0 – 1300cc

5.2.4.2 **Invitation Competitors**

- a. Competitors with Vehicles not complying with these regulations may be invited to compete subject to Championship Organisers approval.
- b. Vehicles that, whilst not strictly adhering to the regulations, have been prepared sympathetically to the spirit of the championship and with Championship Organisers approval, may be invited to race under observation.
- c. Competitors wishing to race as **Invitation** must submit a written specification of their vehicle, to the Co-ordinator. It must detail all areas where the vehicle does not comply with these regulations. This specification shall be made available to the eligibility scrutineers for pre and post event checks.
- d. **Invitation** vehicles will be invited by the Championship Organisers on a race by race and individual vehicle basis. The vehicle must not deviate from the specification submitted, unless such changes are approved by the Championship Organisers. Any approval may be withdrawn at any time by the Championship Organisers.
- e. **Invitation** competitors will not be eligible for: -
 - i. Podium recognition
 - ii. Championship award / trophies
 - ii. Championship points.

5.2.5. **Presentation:**

- a. At the start of each free practice, qualifying session or race, the cars must be presented to a high standard and must be clean and in good order. The Championship Organisers reserve the right to forbid cars not meeting this requirement from taking part.
- b. Presentation of a vehicle for scrutineering is a declaration by the Competitor that the vehicle is eligible for that event.

5.2.6. **Technical Checking:**

- a. The Championship Eligibility Scrutineer / Championship Organisers reserve the right to inspect, test, measure, seal or impound any component fitted to or used in conjunction with any car registered in the Championship either personally or through a nominated representative. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out. This will be the sole responsibility of the Competitor. Exceptions to this may include appeal / protest according to the MSA Yearbook **2018**.
- b. Any vehicle inspected following qualification or race and found to be in breach of the 2016 Technical Regulations or a breach of the procedure surrounding the Technical Regulations will be the subject of a report to the Clerk of the Course.
- c. A car found to be ineligible for the championship must race only in the invitation class and no points will be scored until the vehicle conforms to the regulations.
- d. Any component sealed by an MSA Licensed Scrutineer must remain sealed and may not be tampered with in any way. In the event of a seal needing to be broken for repair or replacement, prior to doing so the Championship Eligibility Scrutineer must be informed in writing and approve the seal being broken. Re-sealing by an MSA Licenced Scrutineer will take place after technical checks have been made at the next race meeting.
- e. If a vehicle/component is sealed for subsequent technical examination the Championship Eligibility Scrutineer, within the applicable time limit, will state to the

Competitor/Competitor that he will examine the vehicle/component on a stated date and time and at a specified location and the sealed items must be made available for his inspection. These arrangements are not negotiable. If a vehicle/component is not made available for an eligibility examination as required by the Championship Eligibility Scrutineer, it will be considered as ineligible and will be reported as such to the Clerk of the Course for the application of penalties laid down under MSA Regulations and these Championship Regulations.

~~5.2.7 Technical Passport:~~

- ~~a. All Competitors are issued with a Technical Passport. This is used to record information relating to that car during the season.~~
- ~~b. The Competitor is responsible for the safe keeping of the passport, which shall be carried in the car at all times.~~
- ~~c. All cars are issued with a Technical Passport wallet.~~
- ~~d. No car is permitted to take part in an Event unless the Technical Passport is available for inspection and is a true reflection of the vehicle details.~~
- ~~e. The only person authorised to make changes to the details of the Technical Passport is the Championship Eligibility Scrutineer or his appointed representative. Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~
- ~~f. Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~
- ~~g. Details contained within the Technical Passport must be submitted by the Competitor at the time of CTCRC Membership Registration. A Registration will not be accepted without submission of the relevant details.~~

5.3 Safety Requirements:

5.3.1. All MSA Yearbook **2018**, Section K, Competitor Safety Criteria Regulations, apply as relevant unless stated herein.

5.3.2 Safety Roll-Over Structures: - (K 1 to K1.8) applies

- a. All vehicles must be fitted with a safety roll-over bar complying with MSA requirements as specified in Section K except for vehicles of Periods A - E inclusive. MSA Yearbook **2018**, Regulation (Q)19.14.1 applies.
- b. Interior fittings, trim and bodywork may be locally modified to allow fitting of the safety roll-over structure and any door bars.

5.3.3 Fire Extinguisher: (K3 to K3.5 applies)

- a. All vehicles must be equipped with a fire extinguisher. MSA Yearbook **2018** Regulation, Q 19.14.7 applies
- b. The fire extinguisher must not be disarmed in any Parc Fermé area without the specific permission of the Championship Eligibility Scrutineer. Any Competitor that is found with a disarmed fire extinguisher in Parc Fermé for whatever reason will be penalised.
- c. The following information must be clearly displayed on each fire extinguisher:
 - i) Type of extinguishant
 - ii) Weight or volume of extinguishant
- d. It is recommended that the following information is clearly displayed on each fire extinguisher:
 - i) Capacity
 - ii) Service date of extinguisher, it is recommended that it should be less than 2 years since the filling date or the last service date.
- e. During Events all extinguisher systems must be in the 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times while competing or practising, including post-Event scrutineering.
- f. The external triggering point must be positioned close to the circuit breaker (or combined with it) and must be marked by the letter "E" in red inside a white circle of at least 10cm diameter with a red edge in accordance with MSA Yearbook **2018**, Regulation (K)**3.2.2**

5.3.4. Main External Circuit Breaker:

- a. An external circuit breaker is mandatory, MSA Yearbook 2018 Regulation K 8.1 to K8.5 applies.
- b. Technical Regulation 5.3.4 a. is not mandatory for cars of pre 01/01/66 construction but is recommended
- c. The switch location must be identified by a Red Spark on a white edged blue triangle with a base of at least 12cm. and the 'On' and 'Off' positions clearly marked.
- d. The circuit breaker when 'operated' must isolate all electrical circuits, data loggers, transponders, etc.
- e. When the circuit breaker is 'operated' there must be no power source capable of keeping the engine running.
- f. The switch location must be identified by a Red Spark on a white edged blue triangle with a base of at least 12cm.
- g. The triggering system for the circuit breaker should be situated at the lower part of the windscreen mounting, preferably on the driver's side or below the rear window.
- h. On cars of Periods A to F (pre-1977) the triggering system may be mounted approximately vertically below the line of the scuttle on the driver's side.

5.3.5 Lights:

Lights detailed in Championship Regulations 5.10.5 must be in working order throughout the entire Event.

5.3.6 Seat and Seat Mounting:(K 2.2. applies)

- a. The Driver's Seat and Seat Mounting shall comply with the MSA Yearbook 2018 Regulation (K) 2.2 and (K) 2.3
- b. It is recommended that the Driver's seat is a racing seat with a current FIA homologation.
- c. Additional seat padding is permitted to a maximum of 50mm. Any additional padding or covering placed on the seat must be fire retardant to FIA standard 8855-1999.
- d. The seat mountings shall be appropriate to the seat fitted (and complying with FIA Article 253.16) must be used.

5.3.7 Seat Belts: (K 2.1. applies)

- a. Mandatory use of seat belts, except for Vehicles constructed in Periods A to E. MSA Yearbook 2018 regulation Q19.14.2 applies.
- b. Where Vehicles constructed in Periods A to E have seat belts fitted, the seat belts must comply with Championship Regulation 5.3.7 c. to 5.3.6 f. inclusive.
- c. The Driver's seat belts must have a current FIA homologation.
- d. It is mandatory to use seat belts, with a minimum 'four point' configuration. Complying with the MSA Yearbook 2018, Regulation (K) 2.1.2.
- e. Seat belts must be correctly adjusted at all times during events: (Two shoulder straps and one lap strap, with four anchorage points on the chassis/body shell or roll over bar of the vehicle)

5.3.8 Race Clothing: (K9.1 and K9.3 applies)

- a. Competitors are strongly advised to wear flame resistant, socks, underwear and balaclava.
- b. Flame resistant gloves and shoes are mandatory. MSA Yearbook 2018 Regulation Q10.1. (c) applies.

5.3.9 Crash Helmet.

Crash helmets must comply with the requirements of MSA Yearbook 2018 (K 10.1 to K10.4 applies).

5.3.10 FHR.

Mandatory for all forms of circuit racing with the exception of period defined vehicles (pre-1977), which will remain as a recommendation. MSA Yearbook 2018 (Q) 10.1.e. applies.

5.4 General Technical Requirements and Exceptions:

- a. All vehicles must comply with MSA General Technical Regulations and the relevant parts of Sections J & Q of the MSA Yearbook 2018 except where specified below.
- b. Vehicles may be brought up to any series production specifications for that model prior to 1st January 1983. For the avoidance of doubt, 'model' shall mean a vehicle of the same body shell shape, size, specification and silhouette.
- c. Any component listed on the MSA, FIA/FISA (or national equivalent for foreign cars) homologation papers for use in Group One during the series production of that model may be substituted for the original production component provided that the substitute part was in production or homologated prior to 1st January 1983. The responsibility to prove eligibility is that of the Competitor at all times
- d. No component may be substituted which serves to alter the shape or size of the body shell and/or panels themselves or increases the capacity of the engine beyond that which was in production or homologated prior to 1st January 1983. Full details of optional equipment must be submitted to the CTCRC for possible inclusion on a vehicle by vehicle basis prior to that item of equipment being fitted.
- e. Fixing components such as nuts, screws, washers, lock washers; spring washers, etc. are free and may be upgraded.
- f. It is permitted to repair faulty threads by the use of Keen Inserts/ Helicoils. Where thread inserts are utilised the original thread diameter and pitch must be respected.
- g. Within these Technical Regulations the word "standard", "original" or "pattern Part" used as a description of components is to be interpreted as: "The specified component from the factory or the manufacturers or importers parts list, prior to 1st January 1983.for the model or engine shown on the entry form or registration form.
- h. Advertising on vehicles is subject to requirements set out in MSA Yearbook 2018 Regulation H29.1.2 & H29.1.3.
- i. Competitors registering do so in the full knowledge that CTCRC reserves the right to require the Eligibility Scrutineer to carry out, record and enforce eligibility checks which may include the sealing of component(s) for subsequent checking. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out.
- J. No modifications are permitted beyond the repair or adjustment processes specified by the factory or the manufacturer". Eligibility checking will be by comparison to spare parts supplied by the manufacturer's official agent.
- k. "Free" as referred to in these Technical Regulations shall mean be interpreted as "within the limitations imposed by the MSA Yearbook 2018 Regulations".

5.5. Chassis:

- a. The chassis as produced by the manufacturer with the original material must be retained in all aspects in respect of material, thickness & contour except as allowed in Championship Regulations 5.5 b and 5.5 d.
- b. Strengthening of the chassis in the interest of safety, by the addition of material is permitted.
- c. Lightening or reducing of chassis, or chassis member strength, is prohibited.
- d. Seam welding is permitted

5.5.1 Towing eyes / straps

- a. Must be a contrasting colour to the surrounding area (usually either Day-Glo red or yellow) and must respect the requirements of MSA Yearbook 2018 (Q19.1.3).
- b. In addition to 5.5.6 a. it is strongly recommended that all cars must, wherever possible, be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre-line. They must be clearly visible, marked with an arrow and the word "tow" and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.
The towing eyes must be made of at least 6mm diameter steel wire rope with a 6x19 wire core, each which must have a breaking-strain of at least 2 tons. Each towing eye must allow the passage of a cylinder with a diameter of 60 mm, situated 25mm forward of the adjacent

bodywork - 100 mm above and below this hole must retain clearance to enable the recovery crews to attach straps and shackles.

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

5.6 Bodywork and dimensions:

5.6.1 General:

- a. Bodywork must be complete and standard in shape, material and thickness on all exterior surfaces unless detailed otherwise in Championship Regulations 5.6.1 b. to 5.6.1 d. inclusive.
- b. Where original materials are unobtainable, local repairs of adequate strength may be made using modern equivalents.
- c. Replacement of panels with non-original material is prohibited except as detailed in Championship Regulation 5.6.1 d.
- d. The bonnet, front wings, bumpers, nosecone, boot lid and boot spoilers may be replaced with fibreglass replicas of standard shape.
- e. The fibreglass replicas detailed in Championship Regulation 5.6.1d. must be fitted such that the original part could be refitted without modification.
- f. It is only permitted to make holes in **bulkheads** for the passage of cables, fuel, water, oil, hydraulic, instrument or fire extinguisher lines.
- g. All redundant holes must be covered with a non- flammable material.

5.6.2 Interior:

- a. Floor carpets, under felt, sound deadening, headlining, front and rear parcel shelves, centre consoles, the front passenger seat, rear seats and trim in the boot/luggage compartment may be removed.
- b. All internal panels and subassemblies must remain as originally manufactured. Strengthening is permitted
- c. Battery trays and their supports may be removed.
- d. The dashboard must be retained as originally manufactured in original material.
- e. Instrumentation is free.
- f. The interior door trim must be retained in original or other non-flammable material.
- g. Window operating controls may be removed. If window operating controls are retained it is permissible to change electrically operated windows to manual winding operation.
- h. Vehicles must be fitted with at least one interior rear – view mirror. The fitment of a wide angle interior rear view mirror is recommended.
- i. Driver’s seat is free providing Championship Regulation 5.3.6 is respected. The driver must be located entirely to one side of the centre line of the car. Local modifications are permitted for the purposes of secure and safe mounting
- j. Heaters and interior ventilation systems may be removed.
- k. Foot controls and their linkages are free except that the foot operated surface of the brake pedal must be located no more than 4” (100mm) forward or rearward of the original production position.

5.6.3 Exterior:

- a. Reworking or modification to exterior bodywork is prohibited but any part of the arch/wing pressing folded into the wheel arch may be deformed, but not removed, to give clearance to the tyres.
- b. The original boot and bonnet fasteners may be removed.
- c. The original bonnet and boot shut lines must be as in production.
- d. External decorative trim may be removed. Bumpers may be removed provided that in the event of their removal, all supporting devices and brackets as would otherwise protrude beyond the bodywork, are also removed
- e. Radiator grill slats must not be removed unless they are less than 1” apart, if so alternate slats may be removed.

- f. Window material for side and rear windows is free subject to prevailing MSA regulations. All original window mounting hardware (i.e. mounting rubbers, sliders, guides, quarter-lights and other externally visible features) must be retained.
- g. The original mirrors may be removed but vehicles must be fitted with at least one externally mounted rear view mirror in accordance with MSA Yearbook 2018 section Q19.15.1
- h. Forward facing fog lights mounted in, or under, the front bumper may be removed. Internal bodywork or trim behind the original fog light locations may be modified solely to allow the fitment of ducting from the original fog light locations to the front brake discs. The cross-sectional area of the ducting to each front brake disc must not exceed 50cm².
- i. Rover P6 may use the export model Federal bonnet.
- j. Vauxhall Firenza may use Droop snoot front.
- k. Jaguar XJS may use later style body kit

5.6.4 **Silhouette:**

Bodywork must be complete and standard in shape and silhouette. Any item below the centreline of the wheel must not project beyond a line drawn at 45 degrees to the horizontal and tangential to the bodywork (not including over-riders).

5.6.5 **Ground clearance:**

- a. Minimum ground clearance is 100mm (4") excluding exhausts and silencers.
- b. Jaguar XJ series and Lotus Cortina Mk2 do not have to achieve the required ground clearance at the outer ends of the lower front suspension arms.
- c. Will be measured with the Driver on board (wearing his complete racing apparel),
- d. Will be measured with the car and Driver in the condition in which they cross the Finish Line or at any other time during an Event and without the removal of any solid or fluid matter including fuel.
- e. Ride height will be measured on any reasonably flat surface as deemed by the Championship Eligibility Scrutineer or his nominated representative. In the event of any discrepancy the circuit designated flat patch will be used to make any final judgement

5.7 **Engine:**

5.7.1 All engine components are free providing the requirements of Championship Regulation Section 5.7 are respected

5.7.2 **Cylinder Block:**

- a. The original standard production cylinder block may be used.
- b. It is permitted to use an alternative cylinder block, manufactured to the same original production specification, including but not limited to material, bore, number of main bearings and number of main bearing fasteners.
- c. It is permitted to remove metal from the cylinder block.
- d. It is permitted to re-bore the standard size cylinder block up to a maximum of plus 0.065". (1.651mm)
- e. Rover SD1 may use a cross-bolted block.

5.7.3 **Crankshaft:**

- a. The crankshaft is free, provided that Championship Regulation 5.7.3 b., 5.7.3 c. are respected.
- b. The original stroke of the crankshaft must be retained.
- c. The original number of crankshaft bearings must be retained.

5.7.4 **Cylinder head(s):**

- a. The original standard production cylinder head(s) may be used.
- b. It is permitted to use an alternative cylinder head(s) manufactured to the same original production specification.

- c. The alternative cylinder head(s) shall be manufactured from the same material, have the same number of valves, ports and plugs, same plug angle, valve angle/port configuration and operating type as the original standard production cylinder head(s).
 - d. The alternative cylinder head(s) shall fix directly onto the original standard production cylinder block without any modification.
 - e. It is permitted to remove metal from cylinder head(s).
- 5.7.5 Camshafts:**
Camshafts, camshaft bearings and drive systems are free, provided that they remain in their original positions and remain the sole means of operating the valves.
- 5.7.6 Location:**
The engine location, and locating points, must remain as specified and supplied by the manufacturer for the particular model entered in the championship.
- 5.7.7 Radiators:**
- a. Radiators are free but must remain in their original location.
 - b. The fitting of additional water radiators is permitted provided they are located within the periphery of the bodywork.
 - c. The fitting of additional oil coolers is permitted provided they are located within the periphery of the bodywork.
 - d. Modification of the cooling system is permitted to facilitate the installation of items detailed in Championship Regulation 5.7.7 b. to 5.7.7 c. inclusive.
- 5.7.8 Induction Systems:**
- a. The manufacturers' standard fitted induction system must be retained unless modifications are permitted within the Championship Regulations
 - b. Carburettors
 - i. Carburettors and their linkages are free within the limitation that the total number of chokes must not exceed the maximum number of chokes fitted in production or homologated for Appendix 'J' Group One. Except as detailed in 5.7.7.c. ii to iv inclusive.
 - ii. Period carburation is permitted with approval from the Championship Organisers.
 - iii. Where period carburation is fitted to a vehicle the class allocation and minimum permitted weight for that vehicle will be determined by the Championship Organisers.
 - iv. The Championship Organisers reserve the right to withdraw permission to use period carburation or to modify either class allocation or minimum weight at any time.
 - c. Motorcycle carburettors are not permitted.
 - d. Inlet trumpets are not permitted to have automatically controlled adjustment.
 - e. It is permitted to remove air filter and air filter boxes.
 - f. Air ducting/ trunking is free provided it does not extend beyond the periphery of the bodywork and compliance with Championship Regulation 5.7.8 g. Is respected
 - g. A single round hole with the diameter no greater than 102mm or two round holes with diameters no greater than 77mm may be made in the radiator support panel for induction air ducting/trunking to pass through.
 - h. Anti-surge pipes are permitted.
 - i. Return pipes from the carburettor/injection system are permitted.
 - j. Inlet and exhaust manifolds are free. The exhaust system is free subject to MSA requirements.
- 5.7.9 Fuel injection:**
- a. Is only permitted if fitted in production or homologated in Appendix 'J' Group one prior to 1st January 1983.
 - b. Must employ the original, production method of triggering and operation.
 - c. The original plenum chamber must be retained intact but the entry duct and/or flange may be modified as detailed in Championship Regulation 5.7.9 c. i) to 5.7.9 c. iii) inclusive.
 - i) Enlarged in cross section area, associated throttle valve(s) being free except for the original number being maintained,

- ii) Extended upstream by the addition of metal and/or separate trunking not extending beyond the periphery of the bodywork,
- iii) Reduced in length by removal metal upstream (not downstream) of the original entry to the main plenum chamber or entry to the first branch pipe, whichever is the further upstream.

5.7.10 **Forced induction:**

- a. Forced induction is not permitted unless either fitted in production or homologated in F.I.A. Appendix 'J' Group One before 1st January 1983.
- b. Cars using forced induction will be subject to an equivalency factor of 1.4:1.
- c. It is not permitted to have any method of adjusting the boost pressure setting manually from within the driver compartment.
- d. It is not permitted to adjust the boost pressure during a race.
- e. The boost pressure setting is free.
- f. When fitting of a turbocharger is permitted by these regulations it shall be the standard production or homologated component and must not be modified.

5.7.11 **Rotary engine cars:**

- a. The induction timing is free and therefore the dimension of the induction port which controls its opening and closing point may be modified by removal and addition of material. In all other respects the port must remain as homologated.
- b. The engine capacity will be determined by using an equivalency factor of 2:1.
- c. Rotary engine cars fitted with injection in production may use a carburettor with no more than two chokes.

5.7.12 **Ignition:**

- a. The ignition system is free, provided that Championship Regulation 5.7.12 b. to 5.7.12 h. Inclusive are respected.
- b. the original firing order must not be changed.
- c. The distributor may be fitted with an after-market spark triggering device.
- d. The distributor must remain in its original position.
- e. The distributor must maintain its original function.
- f. Any additional system which processes information acquired from the ambient conditions and/or the engine is not permitted.
- g. The distributor must be the only means of determining ignition advance and retard and must continue to distribute the high tension spark.
- ~~h. Rover SD1 may use a DTA spark control device triggered using a hall effect trigger in the distributor but over 3,000 rpm there must be no advance curve i.e. the amount of advance must be constant at all times over 3,000rpm. For scrutineering purposes, a connection lead suitable for connection to a laptop computer must be fitted at all times.~~

5.7.13 **Lubrication:**

Dry sump oil lubrication systems are **not** permitted.

- 5.7.14 To allow for scrutineer's wire seals, every installed engine must have 1.6mm (1/16in) holes drilled in at least two adjacent sump bolts and two adjacent rocker/cam cover bolts. Engines may be sealed at any time by a Licensed Eligibility Scrutineer and only by written permission in advance from the Championship Organisers or a Licensed Eligibility Scrutineer may seals be broken.

5.8 **Suspension:**

5.8.1 **General:**

Suspension type as fitted by the manufacturer must remain unaltered.

5.8.2 Suspension Components:

- a. With the exception of springs, Championship Regulation 5.8.5, shock absorbers, Championship Regulation 5.8.6, anti-roll bars, Championship Regulation 5.8.7 and suspension bushes, Championship Regulation 5.8.8 the original suspension components (or pattern parts to the manufacturer's original specification) must be employed in their original positions.
- b. It is not permitted to fit any additional suspension components, only the number originally fitted by the manufacturer is permitted.
- c. It is permitted to strengthen Suspension components (Refer to Championship Regulation 5.8.2.)

5.8.3 Suspension mounting points:

- a. The original suspension mounting points shall be used.
- b. It is not permitted to modify the original location / dimensions of suspension mounting points.
- c. It is permitted to strengthen suspension mounting points providing that Championship Regulation 5.8.3.b. is respected.

5.8.4 Track Control Arms:

- a. Track control arms may only be modified locally for the sole purpose of adjusting the track control arm length.
- b. The use of a track rod end joint, at one end only, of the Track Control Arm to achieve length adjustment is permitted.

5.8.5 Springs:

- a. Suspension springs are free providing that Championship Regulations 5.8.5.b. and 5.8.5.e. are respected.
- b. The original operating principle as fitted by the manufacturer, (coil, leaf, torsion) shall be employed.
- c. No more than the original number of springs as fitted by the manufacturer are permitted.
- d. Spring caps are free.
- e. spring platforms may be adjustable.

5.8.6 Shock Absorbers:

- a. Shock Absorbers are free providing that Championship Regulation 5.8.6.b.to 5.8.6.f. inclusive are respected.
- b. The original operating principle, as fitted by the manufacturer, (hydraulic, friction, lever or telescopic) must be employed.
- c. No more than the original number of shock absorbers, as fitted by the manufacturer are permitted.
- d. Shock absorbers must be mounted on the original mounting / fixing points.
- e. A telescopic damper may be converted to a coil-over damper and the redundant coil spring removed.
- f. The top mounting on a Macpherson Strut top is free but Championship Regulation 5.8.6.d. must be respected.

5.8.7 Anti roll bars:

- a. Anti-roll bars, are free providing they fit directly on to the original body/chassis mounting points and the mobile suspension units.
- b. Additional anti roll bars, anti-tramp bars, panhard rods, watts linkages, lowering blocks and their mountings may be added.

5.8.8 Suspension bushes:

- a. Suspension bushes are free providing the original production bush can be replaced in its original position without modification to the bush housing.
- b. It is permitted to machine circlip retaining grooves to locate replacement suspension bushes.
- c. It is permitted to replace Suspension bushes with spherical bearings.

5.9 **Transmission:**

- a. Vehicles must use either the original production type of gearbox or the homologated alternative.
- b. The gearbox must remain in the original position.
- c. Gear levers and gear shift mechanisms are free but must employ the original method of operation, shift pattern and body shell aperture.
- d. Cars originally produced with no manual gearbox option may use any four speed gearbox from the period.
- e. Gearboxes and transaxles with rapidly interchangeable ratios or proprietary racing gearboxes are prohibited.
- f. Sequential gearboxes and/or traction control devices are prohibited.
- g. The maximum number of forward gear ratios is four unless supplied as original equipment.
- h. It is permitted to fit an additional overdrive gearbox
- i. Gear ratios and final drive ratios are free.
- j. Drive shafts and prop shafts must be made of metallic material but otherwise are free.
- k. Mechanical limited slip or torque biasing differentials are permitted.
- l. The rear axle must remain in its original position.
- m. The rear axle casing must be the original standard production component.
- n. It is permitted to locally modify the rear axle.
- o. Where a differential casing is removable from an axle casing the differential casing must be regarded as part of the original axle casing and is covered by the Championship regulations. 5.9.m. and 5.9.n.
- p. 3rd Generation Chevrolet Camaro may use an aftermarket Torque Arm on the rear axle instead of the original standard production item.
- q. Vauxhall Firenza, Vauxhall Magnum and Hillman Avenger may use a Ford English axle but the axle casing must be modified to pick up the recipient vehicle's standard suspension location mounts.
- r. Mazda RX3, RX4 and RX7 may use a Ford type 9 Gearbox with iron case.
- s. Jaguar XJ12 may use a Getrag 5 speed manual gearbox from the period with only 4 gears operational or a 4 speed manual gearbox from any other production Jaguar, of, or prior to the period.
- t. Rover P6B may use a Rover SDI 4 speed gearbox.
- u. Avenger may use a Ford Type E "Rocket" gearbox with iron case

5.9.1 **Traction Control:**

Any form of traction control (other than as detailed in 5.9 k.) is prohibited unless fitted "as standard" in production by the manufacturer.

5.10. **Electrical:**

5.10.1 Electrical equipment is free provided that Championship Regulation 5.10.2 to 5.10.5 inclusive are respected.

5.10.2 **Vehicle Onboard Starter:**

Engines are to be started at all times by the Vehicle Onboard Starter except that the use of an external portable slave battery is permitted to aid start up only in the paddock, assembly area, pit lane and on the grid.

5.10.3 **Battery:**

- a. The battery and starter motor must be capable of performing a number of repetitive starts.
- b. The battery make is free.
- c. The Battery position and orientation is free within MSA Yearbook 2018 Regulations, (J) 5.14.1 to (J) 5.14.7 applies.

5.10.4 **Charging Circuit:**

- a. Use of the 12-volt (nominal) 'standard' generator, is compulsory.

- b. The Charging Circuit must be connected and operational all times whilst the Engine is running or the wheels are driven

5.10.5 **Lights:**

- a. All cars must be fitted with the following: -
 - i) A minimum of two forward facing main headlights.
 - ii) A minimum of two rear facing red tail lights.
 - iii) A minimum of two rear facing red brake lights.
 - iv) A rear facing red high intensity fog light (or two where two are fitted as standard equipment by the vehicle manufacturer in question) MSA Yearbook 2018, Section (K) 5. applies.
- b. Lights detailed in Championship Regulation 5.10.5 a. iii) must be operated only by the brake pedal and without a delay.
- c. Lights detailed in Championship Regulation 5.10.5 a. iv) must not be operated by the brake pedal.
- d. It is not permitted to tint or paint the front or rear lighting units.
- e. All lights detailed in Regulation 5.10.5 a. must be in working order throughout the entire Event and must be able to be switched on by the Driver when seated normally in the car.
- f. All light lenses must be complete and standard in shape, material and thickness.
- g. It is permitted to add clear protective headlight covers.

- 5.10.6 An operative front windscreen wiper must be fitted and in full working order throughout the entire Event. MSA Yearbook 2018, Regulation (Q) 19.15.3. applies.

5.11 **Brakes:**

- a. Brake systems are free provided that Championship Regulation 5.11 b. to 5.11 f. inclusive are respected.
- b. Carbon disks are prohibited, unless fitted in production in which case they must be to production specification.
- c. ABS systems are prohibited, unless fitted in production in which case they must be to production specification.
- d. Cars with single circuit braking must be fitted with an operational hand brake.
- e. Cars fitted with dual circuit braking are not required to have a handbrake fitted.
- f. Modification or removal of brake back plates is permitted.
- g. Ducting for the purpose of cooling brakes or removing dust is permitted provided it is not visible outside the car and serves no other purpose and if beneath the car does not project beyond a line drawn at 45 degrees to the horizontal and tangential to the bodywork (not including over riders).

5.12 **Wheels / Steering:**

5.12.1 **Wheels:**

- a. Road wheel material is free.
- b. Split rims are not permitted.
- c. Road wheels must be fastened to their hubs by the original number of studs/bolts.
- d. Road wheels must be the original diameter as supplied for that particular vehicle except for 5.12.4

5.12.2 **Wheel width:**

Maximum permitted wheel rim widths are: -

Class A	8.0"
Class B	7.0"
Class C	6.5"
Class D	6.0"
Class E	5.5"
Class F	5.0"

- 5.12.3 BMW CSL and Rover P6 may use 15" diameter wheels.
- 5.12.4 Jaguar Wheels:
- Jaguar XJ6/12 may use 16" wheels but there must be no brake disc or calliper size increase beyond which a 15" wheel cannot be fitted.
 - It is the responsibility of the competitor to ensure a 15" wheel is available at all events for eligibility testing.
- 5.12.5 Chevrolet Camaro Wheels:
- Chevrolet Camaro may use 16" wheels but there must be no brake disc or calliper size increase beyond which a 15" wheel cannot be fitted.
 - It is the responsibility of the competitor to ensure a 15" wheel is available at all events for eligibility testing.
- 5.12.6 **Hubs:**
Wheel hubs are free.
- 5.12.7 **Steering:**
- Steering wheel type is free providing MSA Yearbook 2018 Regulation (J) 5.7.1 and 5.7.2 is respected.
 - Steering columns are free.
- 5.13 **Tyres:**
- It is only permitted to use tyres complying with Regulations 5.13 b. to 5.13h. inclusive.
 - Tyres must be listed by the tyre manufacturer as medium, or harder, for saloon car circuit applications. Soft compounds are not permitted.
 - No modification to tread pattern or tread depth by cutting is allowed.
 - It is permitted to use any Tyre from MSA Yearbook 2018 (L)4 List 1A. List 1B. List 1C
 - ~~The only permitted tyres from MSA Yearbook 2018 (L)4 List 1B are;—~~
~~Dunlop Direzza DZ03G~~
~~Toyo Proxes R888~~
~~Toyo Proxes R888R~~
~~Toyo Proxes R1R~~
~~Yokohama A048-R~~
~~Yokohama A032-R~~
~~Dunlop D84J~~
~~Dunlop D83J~~
~~Kumho ECSTA V700~~
 In addition to 5.13.d. the following tyres are permitted: -
 Dunlop CR65
 Dunlop Direzza 02G
~~Dunlop Direzza 03G~~
~~Dunlop D93J (in 10" diameter only).~~
 - For clarification the tyres detailed in Regulation 5.13 d. are MSA (L)4 List 1B and therefore MSA List (L)4 1A regulations relating to wear bars and tread depth do not apply.
 - All tyres must have an aspect ratio (profile) of 50% or greater.
- 5.14. **Weights:**
- 5.14.1 **General:**
- The principle is to equalise the performance of the car and Driver combination. The minimum car/Driver weights excluding any success ballast, at the completion of every qualifying session and race must be in accordance with Championship Regulation 5.14.2 regardless of laps completed.
 - It is forbidden to add any liquid(s) or other material(s) to the car, or to substitute any part(s) for a heavier one during qualifying session or race.

- c. If a Car loses a part during qualifying or a race, the weight of that part may be taken into account during eligibility checks. Following consultation, the Championship Eligibility Scrutineer will determine whether any lost part should be taken into account.
- d. The re-distribution of weight in the car, by reducing the gauge or section of material in any component and by adding ballast or increasing material elsewhere, is not permitted. Weight may only be removed within the limits of the modifications detailed within these regulations

5.14.2 Minimum weight:

- a. The minimum weight is “in the condition in which the vehicle and the Competitor (wearing his complete racing apparel, scrutineered Race Suit, boots, gloves and helmet) including minimum Weight Ballast where applicable, (see Championship Regulation 5.14.4 crosses the finish line or at any other time during qualifying or race and without the addition or removal of any solid or fluid matter”. For the purpose of the Regulation, qualifying or race is deemed to include any transfer to a place of post event scrutiny as directed by an official.
- b. All cars must comply with minimum weights as listed excluding any success ballast

5.14.2.1 Minimum weights are by production capacity (not homologated capacity) after applying equivalency factor.

0 -1000cc	745kg	2601 - 2700cc	1074kg	4301 - 4400cc	1341kg
1001 - 1100cc	765kg	2701 - 2800cc	1091kg	4401 - 4500cc	1355kg
1101 - 1200cc	785kg	2801 - 2900cc	1108kg	4501 - 4600cc	1369kg
1201 - 1300cc	805kg	2901 - 3000cc	1125kg	4601 - 4700cc	1383kg
1301 - 1400cc	825kg	3001 - 3100cc	1141kg	4701 - 4800cc	1397kg
1401 - 1500cc	845kg	3101 - 3200cc	1157kg	4801 - 4900cc	1411kg
1501 - 1600cc	865kg	3201 - 3300cc	1173kg	4901 - 5000cc	1425kg
1601 - 1700cc	885kg	3301 - 3400cc	1189kg	5001 - 5100cc	1439kg
1701 - 1800cc	905kg	3401 - 3500cc	1205kg	5101 - 5200cc	1449kg
1801 -1900cc	925kg	3501 - 3600cc	1221kg	5201 - 5300cc	1461kg
1901 - 2000cc	945kg	3601 - 3700cc	1237kg	5301 - 5400cc	1473kg
2001 - 2100cc	964kg	3701 - 3800cc	1253kg	5401 - 5500cc	1485kg
2101 - 2200cc	983kg	3801 - 3900cc	1269kg	5501 - 5600cc	1497kg
2201 - 2300cc	1002kg	3901 - 4000cc	1285kg	5601 - 5700cc	1509kg
2301 - 2400cc	1021kg	4001 - 4100cc	1299kg	5701 - 5800cc	1521kg
2401 - 2500cc	1040kg	4101 - 4200cc	1313kg	5801 - 5900cc	1533kg
2501 - 2600cc	1057kg	4201 - 4300cc	1327kg	5901 - 6000cc	1545kg

5.14.2.2 Engine capacities exceeding 6000cc: - add 10kg per 100cc. Therefore, 7000cc minimum weight = 1645kg



5.14.2.3 All cars must comply with these championship weight limits irrespective of the year of manufacture and any other championship regulations or waivers.

5.14.2.4 1275cc British Leyland Mini's are to run at or above the minimum homologated weight of the Mini 1275GT

5.14.3 Ballast:

- a. Ballast required to achieve the minimum weight or success ballast as a performance equalisation measure must only be added inside the car on the front and/or rear passenger foot well.
- b. It is the competitor's responsibility to provide and fit their own ballast if it is required, and to ensure that ballast is fitted in a safe manner.
- c. Ballast must be attached to the shell/chassis via at least 4 mounting points using bolts with a minimum diameter of 8mm each with steel counter plates of at least 400 sq mm surface area and 3mm thickness. Ballast mountings must include provision for the fitting of scrutineer's wire seals.

- d. The total weight of “minimum weight” or “success ballast” carried must be declared, in writing to the Championship Eligibility Scrutineer and/or his appointed representative and be in position, at all times during practice and racing.
- 5.14.4 **Minimum weight ballast:**
- a. It is permitted to carry ballast to achieve minimum weight.
 - b. The minimum weight ballast shall be carried in addition to and shall not form any part of Success Ballast weight as defined in Championship Regulation 5.14.2
- 5.14.5 **Success Ballast:**
- a. Any vehicle may be required to carry success ballast as a performance equalisation measure. Such success ballast will be specified by the Technical Committee based upon the performance of the car in competition.
 - b. The Technical Committee reserves the right to review the weight handicaps at any time during the Championship.
 - c. The success ballast handicap is carried in addition to the ‘Base’ weight of the car as defined in Championship Regulation 5.14.2.
 - d. Competitors will be informed by official bulletin of the amount of weight they must carry.
 - e. The maximum success ballast allocated shall be 150kg.
 - f. Any vehicle which fails to carry the success ballast specified by the Technical Committee will automatically be deemed not to comply with the Technical Regulations.
- 5.14.6 Compliance with Championship Regulation 5.14.2 and 5.14.5 will be checked prior to removal of fuel samples.
- 5.15 **Fuel Tank / Fuel:**
- 5.15.1 **Fuel Tank:**
- a. Fuel tanks are free subject to compliance with MSA Yearbook 2018 requirements.
 - b. Hatchback cars with an under-floor spare wheel well may remove the spare wheel well for the sole purpose of the fitting of a fuel tank under the boot floor. A steel plate of at least the thickness of the metal removed must cover the aperture remaining.
- 5.15.2 **Fuel:**
- a. Only ‘Pump’ fuel as defined in Section (B) Nomenclature & Definitions of the MSA yearbook 2018 is allowed.
 - b. An MSA approved additive is permitted.
 - c. Refuelling is not permitted during qualifying, on the starting grid or during a race.
- 5.15.3 Fuel pumps are free subject to compliance with MSA Yearbook 2018 requirements.
- 5.16 **Silencing / Exhaust:**
- a. All cars must conform to the current MSA noise requirements as detailed in the MSA Yearbook 2018 regulations J5.17 & J5.18.
 - b. Silencers are free subject to compliance with Championship Regulation 5.16 a.
 - c. The exhaust system is free subject to compliance with the MSA Yearbook 2018 Regulation J5.16.
- 5.17 **Numbers and Championship Decals:**
- a. Only competition numbers allocated by the CTCRC Registrar are to be displayed. They must be displayed in accordance with MSA Yearbook 2018 regulation J4 and remain as allocated until the end of the season.
 - b. Competitors must display competition numbers on a CTCRC number background. CTCRC decals and those of the series sponsors, promoters and the BARC are required to be displayed in an un-obscured position in accordance with the following table.

Item		Placement
CTCRC Number Background (round or square)		One on each front door, one on the bonnet
CTCRC "classictouringcars.com" sunstrip	TBC	Top of Rear windscreen
Series Sponsor Sunstrip	TBC	Top of front windscreen
Series Sponsor logos (if required - TBC)	TBC	One on each side of the car (front wing, rear door or rear quarter)
BARC Logo		One on each side of the car (front wing, rear door or rear quarter)
Class Weight and Class Letter (40mm White lettering)	e.g. 950kg A	One on each of the rear side windows

- c. Decals shall be fitted as issued. They may not be cut or otherwise defaced or deformed without prior approval from the Championship Organisers.
- d. Non CTCRC approved decals such as, but not restricted to, other clubs and other championship/series decals are not to be displayed on vehicles. These should be removed or covered up.
- e. A Touring Car, Touring Car re-creation or a car running in period livery is only required to display the CTCRC "classictouringcars.com" sun strip.
- f. Points will ONLY be awarded to competitors correctly displaying the required decals
- g. One set of Decals may be obtained from the CTCRC nominated supplier free of charge. A charge may be levied for any extra decals required.
- h. 5.17 f. & g. are only applicable to current fully paid up, Racing members of the CTCRC

Envirotec Hygiene Services Pre-93 Touring Cars

5 TECHNICAL

5.1 Introduction:

- a. The following technical regulations are set out in accordance with MSA specified format and it should be clearly understood that if the following texts do not clearly state that you can do it, you should adopt the principal that you cannot.
- b. Anything that is not explicitly authorised in writing by the Championship Technical Committee and anything that is not specified either in these regulations or in any Official Championship Bulletin is therefore strictly forbidden and thus will be regarded as a breach of these Technical Regulations and may be penalised as described in section 4. It should be clearly understood that technical regulations will be strictly enforced and any modification, addition, variation, tuning or removal other than specifically permitted in these regulations is prohibited.
- c. Regulations that have changed in substance from the 2017 ENVIROTEC HYGIENE SERVICES PRE-93 TOURING CARS Technical Regulations are normally indicated by being underlined or highlighted.

~~5.1.1 Technical Queries:~~

~~Any matter affecting Technical Regulations must be put in writing to the Championship Eligibility Scrutineer, as any claim to have received clarifications or rulings on the Regulations must be substantiated by the production, on demand, of written confirmation of such rulings.~~

5.2 Description:

5.2.1 General:

The Pre-93 Touring Car Championship is for two-wheel drive, four-seater saloon cars marketed before 1st January 1993, Of which more than 5000 examples were manufactured in any 12-month period during the overall production run and/or were homologated by FIA for competition in Group N category for production cars prior to that date.

5.2.2 Eligibility:

- a. All cars are subject to approval of their eligibility by the Championship Organisers.
- b. Cars not complying with these regulations may be eligible subject to Championship Organisers approval.
- c. Cars complying with BARC/CTCRC Pre-83 Touring Car regulations are also eligible.
- d. The table contained in 5.14.2 is not a definitive list of cars eligible for the Pre 93 Touring Car Championship. Any car not listed and complying with 5.2.1 and 5.2.2 c. may be submitted to the Championship Organisers for approval.
- e. The following cars are not eligible for any Class in this championship.
 - i) BMW E36 M3 EVO,
 - ii) Nissan Skyline,
 - iii) Ford Sierra Cosworth RS500
 - iv) Ford Escort Cosworth
 - v) Cars where the number of injectors (excluding secondary idle injectors) are in excess of the number of cylinders.
- f. The responsibility to prove eligibility is that of the Competitor at all times. For clarification of a Competitor refer to the MSA Yearbook 2018 section (B) Nomenclature & Definitions. Proof of a vehicles' eligibility may be substantiated by production of a Historic Technical Passport (HTP) or Homologation papers stamped by the ASN. These documents, where issued, for that vehicle and these must be available for inspection when required.
- g. Where no such paperwork is available, the Competitor must produce written confirmation from the Championship Organisers as to the eligibility of the vehicle model in question.

- h. The Championship Organisers in conjunction with a Licensed Eligibility Scrutineer shall determine matters as to the eligibility and the implementation which may involve photographing any part of the vehicle and performing electrical diagnostics at the scrutineer's discretion.

5.2.3 Unless specifically permitted in these regulations, all components must be to original Manufacturers **Standard** Specification / Pattern.

i. **STANDARD:** The word 'standard' used within these technical regulations as a description of components is to be interpreted as per 'Standard Part' defined in Section B – Nomenclature & definitions in the MSA Blue Book. Checking will be by comparison to spare parts supplied by the manufacturer's official agent, comparison to standard parts or by any other means necessary to ensure compliance. **Standard Part:** 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 entry form.

ii. **STANDARD PATTERN:** The phrase 'standard pattern' used within these technical regulations as a description of components is to be interpreted as per 'Standard Pattern Part' defined in Section B – Nomenclature & definitions in the MSA Blue Book. Checking will be by comparison to standard pattern part or any other means necessary to ensure compliance. **Standard Pattern Part:** A replacement part that has a similar form shape and features as the standard part and is made using similar materials and manufacturing processes e.g. a standard part, manufactured by a non-original equipment supplier that is fully interchangeable with the standard part.

5.2.4 Classes:

5.2.4.1 Cars will run in eight classes based on production capacity excluding permitted overbore:

Class A	Over 3900cc
Class B	2501cc to 3900cc
Class C	2001cc to 2500cc
Class D	1601cc to 2000cc
Class E	1401cc to 1600cc
Class F	0000cc to 1400cc

5.2.4.2 **Invitation** Competitors

- a. Competitors with Vehicles not complying with these regulations may be invited to compete subject to Championship Organisers approval.
- b. Vehicles that, whilst not strictly adhering to the regulations, have been prepared sympathetically to the spirit of the championship and with Championship Organisers approval, may be invited to race under observation.
- c. Competitors wishing to race as **Invitation** must submit a written specification of their vehicle, to the Co-ordinator. It must detail all areas where the vehicle does not comply with these regulations. This specification shall be made available to the eligibility scrutineers for pre and post event checks.
- d. **Invitation** vehicles will be invited by the Championship Organisers on a race by race and individual vehicle basis. The vehicle must not deviate from the specification submitted, unless such changes are approved by the Championship Organisers. Any approval may be withdrawn at any time by the Championship Organisers.
- e. **Invitation** competitors will not eligible for: -
 - i. Podium recognition
 - ii. Championship award / trophies
 - ii. Championship points.

5.2.4.3 The following rules will also be applied:

- a. Forced induction engines with 4 valves per cylinder are subject to an equivalency factor of 1.7:1
- b. Forced induction engines with 2 valves per cylinder are subject to an equivalency factor of 1.4:1
- c. Rotary engines are subject to an equivalency factor of 2:1

- d. Naturally aspirated cars 2000cc and over, with 2 valves per cylinder are subject to an equivalency factor of 0.8:1
- e. Naturally aspirated cars fitted with period carburation are subject to an equivalency factor of 1.25:1
- f. Naturally aspirated cars fitted with Non-standard induction systems / Throttle Bodies are subject to an equivalency factor of 1.4:1

5.2.5 **Presentation:**

- a. At the start of each free practice, qualifying session or race, the cars must be presented to a high standard and must be clean and in good order. The Championship Organisers reserve the right to forbid cars not meeting this requirement from taking part.
- b. Presentation of a vehicle for scrutineering is a declaration by the Competitor that the vehicle is eligible for that event.

5.2.6 **Technical Checking:**

- a. The Championship Eligibility Scrutineer / Championship Organisers reserve the right to inspect, test, measure, seal or impound any component fitted to or used in conjunction with any car registered in the Championship either personally or through a nominated representative.
The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out. This will be the sole responsibility of the Competitor. Exceptions to this may include appeal / protest according to the MSA Yearbook 2018.
- b. Any Vehicle inspected following qualification or race and found to be in breach of the Technical Regulations or a breach of the procedure surrounding the Technical Regulations will be the subject of a report to the Clerk of the Course.
- c. A car found to be ineligible for the championship must race only in the invitation class and no points will be scored until the vehicle conforms to the regulations.
- d. Any component sealed by an MSA Licensed Scrutineer must remain sealed and may not be tampered with in any way. In the event of a seal needing to be broken for repair or replacement, prior to doing so the Championship Eligibility Scrutineer must be informed in writing and approve the seal being broken. Re-sealing by an MSA Licenced Scrutineer will take place after technical checks have been made at the next race meeting.
- e. If a vehicle/component is sealed for subsequent technical examination the Championship Eligibility Scrutineer, within the applicable time limit, will state to the Competitor/Competitor that he will examine the vehicle/component on a stated date and time and at a specified location and the sealed items must be made available for his inspection. These arrangements are not negotiable. If a vehicle/component is not made available for an eligibility examination as required by the Championship Eligibility Scrutineer, it will be considered as ineligible and will be reported as such to the Clerk of the Course for the application of penalties laid down under MSA Regulations and these Championship Regulations.

~~5.2.7 **Technical Passport**~~

- ~~a. All Competitors are issued with a Technical Passport. This is used to record information relating to that car during the season.~~
- ~~b. The Competitor is responsible for the safe keeping of the passport, which shall be carried in the car at all times.~~
- ~~c. All cars are issued with a Technical Passport wallet.~~
- ~~d. No car is permitted to take part in an Event unless the Technical Passport is available for inspection and is a true reflection of the vehicle details.~~
- ~~e. The only person authorised to make changes to the details of the Technical Passport is the Championship Eligibility Scrutineer or his appointed representative. Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~
- ~~f. Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~

~~g. Details contained within the Technical Passport must be submitted by the Competitor at the time of registration for the Championship. A Registration will not be accepted without submission of the relevant details.~~

5.3 Safety Requirements:

5.3.1 All MSA Yearbook 2018, Section K, Competitor Safety Criteria Regulations, apply as relevant unless stated herein.

5.3.2 Safety Roll-Over Structures: - (K 1to K1.8) applies:

- a. All vehicles must be fitted with a safety roll-over structure as defined in the MSA Yearbook 2018, Section (K).
- b. Interior fittings, trim and bodywork may be locally modified to allow fitting of the safety roll-over structure roll cage and any door bars.

5.3.3 Fire Extinguisher: (K3 to K3.5 applies):

- a. All vehicles must be equipped with a fire extinguisher. MSA Yearbook 2018 Regulation (Q) 19.14.7 applies
- b. The fire extinguisher must not be disarmed in any Parc Fermé area without the specific permission of the Championship Eligibility Scrutineer. Any Competitor that is found with a disarmed fire extinguisher in Parc Fermé for whatever reason will be penalised.
- c. The following information must be clearly displayed on each fire extinguisher:
 - i) Type of extinguishant
 - ii) Weight or volume of extinguishant
- d. It is recommended that the following information is clearly displayed on each fire extinguisher:
 - i) Capacity
 - ii) Service date of extinguisher. It is recommended that it should be less than 2 years since the filling date or the last service date
- e. During Events all extinguisher systems must be in the 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times while competing or practising, including post-Event scrutineering.
- c. The external triggering point must be positioned close to the circuit breaker (or combined with it) and must be marked by the letter "E" in red inside a white circle of at least 10cm diameter with a red edge in accordance with MSA Yearbook 2018 Regulation (K)3.2.2

5.3.4 Main External Circuit Breaker:

- a. A Main External Circuit Breaker in compliance with the 2018 MSA Yearbook Section (K) 8. is mandatory.
- b. The switch location must be identified by a Red Spark on a white edged blue triangle with a base of at least 12cm. and the 'On' and 'Off' positions clearly marked.
- c. The circuit breaker when 'operated' must isolate all electrical circuits, data loggers, transponders, etc.
- d. When the circuit breaker is 'operated' there must be no power source capable of keeping the engine running.
- e. The triggering system for the circuit breaker should be situated at the lower part of the windscreen mounting, preferably on the driver's side or below the rear window.

5.3.5 Lights:

Lights detailed in Championship Regulations 5.10.5. must be in working order throughout the entire Event.

5.3.6 Seat and Seat Mounting:(K 2.2. applies)

- a. The Seat and Seat Mounting shall comply with the MSA Yearbook 2018 Regulation (K) 2.2and (K) 2.3
- b. It is recommended that the Driver's seat is a racing seat with a current FIA homologation.
- c. Additional seat padding is permitted to a maximum of 50mm. Any additional padding or covering placed on the seat must be fire retardant to FIA standard 8855-1999.

- d. The seat mountings shall be appropriate to the seat fitted (and complying with FIA Article 253.16) must be used.

5.3.7 Seat Belts:(K 2.1. applies)

- a. Mandatory use of seat belts. MSA Yearbook 2018 Regulation Q19.14.2 applies.
- b. Where Vehicles constructed in Periods A to E have seat belts fitted, the seat belts must comply with Championship Regulation 5.3.7 c. to 5.3.7 f. inclusive.
- c. The Driver's seat belts must have a current FIA homologation.
- d. It is mandatory to use seat belts, with a minimum 'four point' configuration. Complying with the MSA Yearbook 2018 Regulation (K) 2.1.2.
- e. Seat belts must be worn and be correctly adjusted at all times during events: (Two shoulder straps and one lap strap, with four anchorage points on the chassis/body shell or roll over bar of the vehicle).

5.3.8 Race Clothing: (K9.1 and K9.3 applies)

- a. Competitors are strongly advised to wear flame resistant, socks, underwear and balaclava.
- b. Flame resistant gloves and shoes are mandatory. MSA Yearbook 2016 Regulation Q10.1. (c) applies.

5.3.9 Crash Helmet.

Crash helmets must comply with the requirements of MSA Yearbook 2018 (K 10.1 to K10.4 applies).

5.3.10 FHR.

Mandatory for all forms of circuit racing with the exception of period defined vehicles (pre-1977), which will remain as a recommendation. MSA Yearbook 2018 (Q) 10.1.e. applies.

5.4 General Technical Requirements and Exceptions:

- a. All vehicles must comply with MSA general Technical Regulations and the relevant parts of the MSA Yearbook 2018 (Sections J & Q) unless otherwise stated herein.
- b. Vehicles may be brought up to any series production specifications for that model prior to 1st January 1993. For the avoidance of doubt, 'model' shall mean a vehicle of the same body shell shape, size, specification and silhouette.
- c. Any component listed on the MSA or FIA (or national equivalent for foreign cars) homologation papers for use in Group 'N' during the series production of that model may be substituted for the original production component provided that the substitute part was in production or homologated prior to 1st January 1993. The responsibility to prove eligibility is that of the Competitor at all times.
- d. No component may be substituted which serves to alter the shape or size of the body shell and/or panels themselves or increases the capacity of the engine beyond that which was in production or homologated prior to 1st January 1993. Optional equipment is to be submitted to the Championship Organisers for possible inclusion on a vehicle by vehicle basis.
- e. Components homologated for the BMW E36 M3 EVO, Nissan Skyline and Ford Escort Cosworth are prohibited.
- f. BMW E30 M3 may use parts fitted to Sporting Evolutions of the E30 M3
- g. BMW E36 M3 may only use a standard BMW E36 M3 bumper. No EVO or STW units are permitted.
- h. Ford Sierra Cosworth may use the RS500 front bumper and RS500 two-element "tea-tray" rear spoiler. All other components homologated solely for the RS500 are prohibited.
- j. Fixing components such as nuts, screws, washers, lock washers; spring washers, etc. are free and may be upgraded.
- k. It is permitted to repair faulty threads using Keen Inserts / Helicoils. Where thread inserts are utilised the original thread diameter and pitch must be respected.
- l. Within these Technical Regulations the word "standard", "original" or "pattern Part" used as a description of components is to be interpreted as: "The specified component from the

- factory or the manufacturers or importers parts list, prior to 1st January 1993.for the model or engine shown on the entry form or registration form .
- m. No modifications are permitted beyond the repair or adjustment processes specified by the factory or the manufacturer". Eligibility checking will be by comparison to spare parts supplied by the manufacturer's official agent.
 - n. "Free" as referred to in these Technical Regulations shall mean be interpreted as "within the limitations imposed by the MSA Yearbook 2018 Regulations".
 - o. Advertising on vehicles is subject to requirements set out in MSA Yearbook 2018 H29.1.2 &H29.1.3.
 - p. Competitors registering do so in the full knowledge that CTCRC reserves the right to require the Eligibility Scrutineer to carry out, record and enforce eligibility checks which may include the sealing of component(s) for subsequent checking. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out.

5.5 Chassis:

- a. The chassis as produced by the manufacturer with the original material must be retained in all aspects in respect of material, thickness & contour except as allowed in Championship Regulations 5.5b. and5.5 d.
- b. Strengthening of the chassis in the interest of safety, by the addition of material is permitted.
- c. Lightening or reducing of chassis, or chassis member strength, is prohibited.
- d. Seam welding is permitted

5.5.1 Towing eyes / straps

- a. Must be a contrasting colour to the surrounding area (usually either Day-Glo red or yellow) and must respect the requirements of MSA Yearbook 2018 (Q19.1.3).
- b. In addition to 5.5.6 a. it is strongly recommended that all cars must, wherever possible, be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre-line. They must be clearly visible, marked with an arrow and the word "tow" and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.
The towing eyes must be made of at least 6mm diameter steel wire rope with a 6x19 wire core, each which must have a breaking-strain of at least 2 tons. Each towing eye must allow the passage of a cylinder with a diameter of 60 mm, situated 25mm forward of the adjacent bodywork - 100 mm above and below this hole must retain clearance to enable the recovery crews to attach straps and shackles.
The towing eye must be fixed to a structural part of the chassis with a minimum of M12 fixings, the inner part must be flexible in order for the towing eye to be retracted inside the bodywork profile. A "pull-cord" must be attached to the towing eye to enable the marshals to access the wire loop. The end attached to the chassis may be either 'thimble' or 'open-loop' style.

5.6 Bodywork and dimensions:

5.6.1 General:

- a. Bodywork must be complete and standard in shape, material and thickness on all exterior surfaces except as allowed in Championship Regulations.
- b. Where original materials are unobtainable, local repairs of adequate strength may be made using modern equivalents.
- c. It is only permitted to make holes for the passage of cables, fuel, water, oil, hydraulic, instrument or fire extinguisher lines.
- d. All redundant holes in bulkheads must be covered with a non-flammable material.

5.6.2 Interior:

- a. Floor carpets, under felt, sound deadening, headlining, front and rear parcel shelves, centre consoles, the front passenger seat, rear seats and trim in the boot/luggage compartment may be removed.
- b. All internal panels and subassemblies must remain as originally manufactured. Strengthening is permitted
- c. Battery trays and their supports may be removed.
- d. The dashboard must be retained in original material.
- e. Instrumentation is free.
- f. The interior door trim must be retained in original or another non-flammable material.
- g. Window operating controls may be removed. If window operating controls are retained it is permissible to change electrically operated windows to manual winding operation.
- h. The original mirrors may be removed but vehicles must be fitted with at least one externally mounted rear-view mirror in accordance with MSA Yearbook 2018 section (Q)19.15.1 and at least one interior mirror. The fitment of a wide-angle interior rear-view mirror is recommended.
- i. Driver's seat is free providing Championship Regulation 5.3.6 is respected. The driver must be located entirely to one side of the centre line of the car. Local modifications are permitted for the purposes of secure and safe mounting
- j. Heaters and interior ventilation systems may be removed.
- k. Foot controls and their linkages are free except that the foot operated surface of the brake pedal must be located no more than 4" (100mm) forward or rearward of the original production position.

5.6.3 Exterior:

- a. Reworking or modification to exterior bodywork is prohibited but any part of the arch/wing pressing folded into the wheel arch may be deformed, but not removed, to give clearance to the tyres.
- b. The removal of exterior decorative strips and bumper over riders is permitted.
- c. Window material for side and rear windows is free subject to prevailing MSA regulations. All original window mounting hardware (ie mounting rubbers, sliders, guides, quarter-lights and other externally visible features) must be retained.
- d. The original steel bonnet or boot may be modified to reduce its weight if the visible exterior surface remains as manufactured.
- e. Replacement of panels with non-original material is permitted.
- f. The original bonnet and boot shut lines must be as in production.
- g. Forward facing fog lights mounted in, or under, the front bumper may be removed. Internal bodywork or trim behind the original fog light locations may be modified solely to allow the fitment of ducting from the original fog light locations to the front brake discs. The cross-sectional area of the ducting to each front brake disc must not exceed 50cm².

5.6.4 Silhouette:

Bodywork must be complete and standard in shape and silhouette. Any item below the centreline of the wheel must not project beyond a line drawn at 45 degrees to the horizontal and tangential to the bodywork (not including over-riders).

5.6.5 Ground Clearance:

- a. Minimum ground clearance is 60mm excluding exhausts and silencers.
- b. Will be measured with the Driver on board (wearing his complete racing apparel),
- c. Will be measured with the car and Driver in the condition in which they cross the Finish Line or at any other time during an Event and without the removal of any solid or fluid matter including fuel.

- d. Ride height will be measured on any reasonably flat surface as deemed by the Championship Eligibility Scrutineer or his nominated representative. In the event of any discrepancy the circuit designated flat patch will be used to make any final judgement
- 5.7 Engine:**
All engine components are free providing the requirements of Championship Regulation Section 5.7 are respected
- 5.7.1 Cylinder Block:**
- a. The original standard production cylinder block may be used.
 - b. It is permitted to use an alternative cylinder block, manufactured to the same original production specification, including but not limited to material.
 - c. It is permitted to remove metal from the cylinder block.
 - d. It is permitted to re-bore the standard size cylinder block up to a maximum of plus 0.065". (1.651mm).
- 5.7.2 Crankshaft:**
- a. The crankshaft is free, provided that Championship Regulation 5.7.2 b., 5.7.2 c. are respected.
 - b. The original stroke of the crankshaft must be retained.
 - c. The original number of crankshaft bearings must be retained.
- 5.7.3 Cylinder Head(s)**
- a. The original standard production cylinder head(s) may be used.
 - b. It is permitted to use an alternative cylinder head(s) manufactured to the same original production specification.
 - c. The alternative cylinder head(s) shall be manufactured from the same material, have the same number of valves, ports and plugs, same plug angle, valve angle/port configuration and operating type as the original standard production cylinder head(s).
 - d. The alternative cylinder head(s) shall fix directly onto the original standard production cylinder block without any modification.
 - e. With the exception of Championship Regulation 5.7.3 f. it is permitted to remove metal from cylinder head(s).
 - f. The BMW E36 M3 may use the standard production 3.2 Litre cylinder head with no modifications permitted.
- 5.7.4 Camshafts:**
Camshafts, camshaft bearings and drive systems are free, provided that they remain in their original positions and remain the sole means of operating the valves.
- 5.7.5 Location:**
The engine location, and locating points, must remain as specified and supplied by the manufacturer for the particular model entered in the championship.
- 5.7.6 Radiators:**
- a. Radiators are free but must remain in their original location.
 - b. The fitting of additional water radiators is permitted provided they are located within the periphery of the bodywork.
 - c. The fitting of additional oil coolers is permitted provided they are located within the periphery of the bodywork.
 - d. Modification of the cooling system is permitted to facilitate the installation of items detailed in Championship Regulation 5.7.6 a. to 5.7.6 c. inclusive.
- 5.7.7 Induction Systems**
- a. The manufacturers' standard fitted induction system must be retained unless modifications are permitted within the Championship Regulations.
 - b. Carburettors

- i. Carburettors, their linkages and inlet manifolds are free, if Championship Regulation 5.7.7.to 5.7.10 inclusive are respected.
 - ii. The total number of chokes must not exceed the maximum number of chokes homologated for Appendix 'J' Group N. Except as detailed in 5.7.7.b. iii to 5.7.7 v inclusive.
 - iii. Period carburation is permitted with approval from the Championship Organisers.
 - vi. Where period carburation is fitted to a vehicle it shall be subject to an equivalency factor of 1.25 and 50kg added to permitted vehicle weight
- v. The Championship Organisers reserve the right to withdraw permission to use period carburation or to modify either class allocation or minimum weight at any time.
 - c. Motorcycle carburettors are not permitted.
 - d. Inlet trumpets are not permitted to have automatically controlled adjustment.
 - e. It is permitted to remove air filter and air filter boxes.
 - f. Air ducting/trunking is free provided it does not extend beyond the periphery of the bodywork and does not produce a "Ram Effect".
 - g. Anti-surge pipes are permitted as also are return pipes from the carburettor/injection system.
 - h. Inlet and exhaust manifolds are free.
 - i. Fuel injection is only permitted if fitted in production or homologated prior to 1st January 1993 and must employ the original production method of triggering and operation. The plenum chamber is free but the number of throttles must not exceed the number fitted in production or homologated before 1st January 1993. The fuel injector nozzles must be in the original location and must not exceed the original number fitted in production or homologated before 1st January 1993.
 - j. Cars with fuel injection and four or more throttles must use the standard or homologated size throttles and these must use a butterfly type mechanism.
 - k. Slide or barrel throttles are not permitted.
 - l. BMW E30 M3 cars may use a throttle body with a maximum internal diameter of 48mm.
 - m. After market ECU's are allowed

5.7.8 Forced induction:

- a. When fitting of a turbocharger is permitted by these regulations it shall be the standard production or homologated component and must not be modified save for the fitting of a 360 degree thrust bearing to improve reliability.
- b. The boost pressure setting is free.
- c. It is not permitted to have any method of adjusting the boost pressure setting manually from within the driver compartment.
- d. It is not permitted to adjust the boost pressure during a race.
- e. Intercoolers may only be fitted if used in production, must be in the original location and must be the standard production unit or an alternative unit with the maximum core dimensions of 600mm wide x 400mm high x 50mm deep with maximum 60mm diameter pipes for both inlet and outlet. If the original intercooler is replaced by an alternative the radiator support panel maybe trimmed or deformed solely to allow fitment of the intercooler. Any other devices intended to cool the intake charge, including, but not limited to, water injection, intercooler water spray or charge coolers are not permitted.
- f. Cars using forced induction with four valves per cylinder will be subject to an equivalency factor of 1.7:1.
- g. Cars using forced induction with two valves per cylinder will be subject to an equivalency factor of 1.4:1.
- ~~h. Ford Sierra Cosworth, mandatory use of a Garrett T3 turbocharger.~~
- i. Ford Sierra Cosworth, mandatory use of an air flow restrictor respecting Championship regulations 5.7.8 i.to 5.7.8 v.**
 - i. For the sole purpose of attaching the restrictor onto the compressor, it is permitted to remove material from the compressor housing.
 - ii. The restrictor must be fixed to the compressor housing.
 - iii. The maximum internal diameter of the restrictor is 40 mm.

- iv. All the air necessary for feeding the engine must pass through this restrictor.
- v. The maximum internal diameter of the restrictor must be no more than 100mm upstream of the turbine blade upstream extremities.
- j. **Mitsubishi Starion Turbo** may use a Garrett T3 turbocharger in lieu of the original component.
- k. **Renault 5 GT turbo** must be fitted with the "standard" Garrett turbocharger which must have a maximum air inlet bore diameter of 34.85mm and a maximum exhaust outlet diameter of 37mm.

5.7.9 Non-Standard Induction Systems:

- a. Non-standard induction systems / Throttle Bodies are permitted with approval from the Championship Organisers.
- b. Where Non-standard induction systems / Throttle Bodies are fitted to a vehicle it shall be subject to an equivalency factor of 1.4 plus 50 kg added to permitted vehicle weight.
- c. The Championship Organisers reserve the right to withdraw permission to use Non-standard induction systems / Throttle Bodies or to modify either class allocation or minimum weight at any time.
- d. If the vehicle is fitted with throttle bodies as a manufacturers standard induction this should remain as standard and the above modifications are prohibited (E.g BMW E30 M3 AND BMW E36 M3)

5.7.10 Rotary engine cars:

- a. The induction timing is free and therefore the dimension of the induction port which controls its opening and closing point may be modified by removal and addition of material. In all other respects, the port must remain as homologated.
- b. The engine capacity will be determined by using an equivalency factor of 2:1.
- c. Rotary engine cars fitted with injection in production may use a carburettor with no more than two chokes.

5.7.11 Ignition:

5.7.11.1 The ignition system is free however the original firing order must not be changed.

5.7.12 Exhaust System:

- a. Exhaust manifolds are free
- b. The exhaust system, downstream of the manifold is free if MSA Yearbook 2018, Regulations are respected.

5.7.13 Dry sump oil systems are prohibited.

5.7.14 Sealing

- a. To allow for scrutineer's wire seals, every installed engine must have 1.6mm (1/16") holes drilled in readily accessible locations as follows: -
 - i) Sump: Cross drilled through two adjacent retaining screws or studs.
 - ii) Rocker/cam cover: Cross drilled through two adjacent retaining screws or studs.
- b. Engines may be sealed at any time by a Licensed Eligibility Scrutineer and only by written permission in advance from the Championship Organisers or a Licensed Eligibility Scrutineer may seals be broken.

5.8 Suspension:

5.8.1 General:

Suspension type as fitted by the manufacturer must remain unaltered.

5.8.2 Suspension Components:

- a. Except for: -
 - i. springs - Championship Regulation 5.8.6.

- ii. shock absorbers - Championship Regulation 5.8.7.
 - ii. anti-roll bars - Championship Regulation 5.8.9.
 - iv. suspension bushes - Championship Regulation 5.8.10.
the original suspension components (or pattern parts to the manufacturer's original specification) must be employed in their original positions.
 - b. It is not permitted to fit any additional suspension components, only the number originally fitted by the manufacturer is permitted.
 - c. It is permitted to strengthen Suspension components (Refer to Championship Regulation 5.8.2.)
- 5.8.3 Suspension Mounting Points:**
- a. The original suspension mounting points shall be used.
 - b. It is not permitted to modify the original location / dimensions of suspension mounting points.
 - c. It is permitted to strengthen suspension mounting points if Championship Regulation 5.8.3 b. is respected.
- 5.8.4 Track Control Arms:**
- a. Track control arms may only be modified locally for the sole purpose of adjusting the track control arm length.
 - b. The use of a track rod end joint, at one end only, of the Track Control Arm to achieve length adjustment is permitted.
- 5.8.5 Springs:**
- a. Suspension springs are free if Championship Regulations 5.8.5 b. and 5.8.5 c. are respected.
 - b. The original operating principle as fitted by the manufacturer, (coil, leaf, torsion) shall be employed.
 - c. No more than the original number of springs as fitted by the manufacturer are permitted.
 - d. Spring caps are free.
 - e. Spring platforms may be adjustable.
- 5.8.6 Shock Absorbers:**
- a. Shock Absorbers are free if Championship Regulation 5.8.6 b.to 5.8.6 d. inclusive are respected.
 - b. The original operating principle, as fitted by the manufacturer, (hydraulic, friction, lever or telescopic) must be employed.
 - c. No more than the original number of shock absorbers, as fitted by the manufacturer are permitted.
 - d. Shock absorbers must be mounted on the original mounting / fixing points.
 - e. A telescopic damper may be converted to a coil over damper and the redundant coil spring removed.
 - f. The top mounting on a Macpherson Strut top is free but Championship Regulation 5.8.6 d. must be respected.
- 5.8.7 Anti-Roll Bars:**
- Anti-roll bars, are free providing they fit directly on to the original body/chassis mounting points and the mobile suspension units.
- 5.8.8 Suspension Bushes:**
- a. Suspension bushes are free providing the original production bush can be replaced in its original position without modification to the bush housing.
 - b. It is permitted to machine circlip retaining grooves to locate replacement suspension bushes.
- 5.9 Transmission:**
- a. Vehicles must use either the original production type of gearbox or the homologated alternative.
 - b. The gearbox must remain in the original position.

- c. Gear levers and gear shift mechanisms are free but must employ the original method of operation, shift pattern and bodyshell aperture.
- d. Chevrolet Camaro IROC-Z may use a 4 or 5 speed manual gearbox from any other production Chevrolet Camaro, of, or prior to the period.
- e. Gearboxes and transaxles with rapidly interchangeable ratios or proprietary racing gearboxes are prohibited.
- f. Sequential gearboxes and/or traction control devices are prohibited.
- g. Only the original number of gear ratios and overdrives may be used
- h. Gear ratios and final drive ratios are free.
- i. Drive shafts and prop shafts must be made of metallic material but otherwise are free.
- j. Mechanical limited slip or torque biasing differentials are permitted.
- k. The rear axle must remain in its original position and must be the original standard production component.
- l. It is permitted to locally modify the rear axle for no other function than strengthening purposes.
- m. Where a differential casing is removable from an axle casing the differential casing must be regarded as part of the original axle casing and is covered by the Championship regulations. 5.9 k. and 5.9 l.
- n. 3rd Generation Chevrolet Camaro may use an aftermarket Torque Arm on the rear axle instead of the original standard production item.

5.9.1 **Traction Control:**

Any form of traction control (other than as detailed in 5.9 j. is prohibited unless fitted "as standard" in production by the manufacturer.

5.10 **Electrical:**

5.10.1 Electrical equipment is free if Championship Regulation 5.10.2 to 5.10.5 inclusive are respected.

5.10.2 **Vehicle Onboard Starter:**

Engines are to be started at all times by the Vehicle Onboard Starter except that the use of an external portable slave battery is permitted to aid start up only in the paddock, assembly area, pit lane and on the grid.

5.10.3 **Battery:**

- a. The battery and starter motor must be capable of performing a number of repetitive starts.
- b. The battery make is free.
- c. The Battery position and orientation is free within MSA Yearbook 2018, Regulations, (J) 5.14.1 to (J) 5.14.7 applies.

5.10.4 **Charging Circuit:**

- a. Use of the 12-volt (nominal) 'standard' generator, is compulsory.
- b. The Charging Circuit must be connected and operational all times whilst the Engine is running.

5.10.5 **Lights**

- a. All cars must be fitted with the following: -
 - i) A minimum of two forward facing main headlights.
 - ii) A minimum of two rear facing red tail lights.
 - iii) A minimum of two rear facing red brake lights.
 - iv) A rear facing red high intensity fog light (or two where two are fitted as standard equipment by the vehicle manufacturer in question) MSA Yearbook 2018, Section (K) 5 applies.
- b. Lights detailed in Championship Regulation 5.10.5 a. iii) must be operated only by the brake pedal and without a delay.
- c. Lights detailed in Championship Regulation 5.10.5 a. iv) must not be operated by the brake pedal.

- d. It is not permitted to tint or paint the front or rear lighting units.
 - e. All lights detailed in Regulation 5.10.5 a. must be in working order throughout the entire Event and must be able to be switched on by the Driver when seated normally in the car.
 - f. All light lenses must be complete and standard in shape, material and thickness.
- 5.10.6 An operative windscreen wiper must be fitted and in full working order throughout the entire Event. MSA Yearbook 2018, Regulation (Q) 19.15.3. Applies.
- 5.11 **Brakes:**
- a. Brake systems are free, if Championship Regulation 5.11 b. to 5.11 f. inclusive are respected.
 - b. Carbon disks are prohibited, unless fitted in production in which case they must be to production specification.
 - c. ABS systems are prohibited, unless fitted in production in which case they must be to production specification.
 - d. Cars with single circuit braking must be fitted with an operational hand brake.
 - e. Cars fitted with dual circuit braking are not required to have a handbrake fitted.
 - f. Modification or removal of brake back plates is permitted.
 - g. Ducting for the purpose of cooling brakes or removing dust is permitted provided it is not visible outside the car and serves no other purpose and if beneath the car does not project beyond a line drawn at 45 degrees to the horizontal and tangential to the bodywork (not including overriders).
- 5.12 **Wheels / Steering:**
- 5.12.1 **Wheels:**
- a. Road wheel material is free.
 - b. Road wheels must be no greater diameter than the original diameter plus 2" to a maximum of 18"
 - c. Road wheels must be fastened to their hubs by the original number of studs/bolts.
 - d. Centre locking wheels are prohibited.
 - e. Competitors must be able to demonstrate, at any time during an Event, that an original road wheel with plus 1" diameter is able to be fitted and fastened to the hub.
 - f. It is the competitor's responsibility to supply the original road wheel with plus 1" diameter referred to in Championship Regulation 5.12.1 e.
- 5.12.2 **Wheel width:**
- Maximum permitted wheel rim widths are: -
- Class A 9.0"
 - Class B 9.0"
 - Class C 8.0"
 - Class D 7.0"
 - Class E 7.0"
 - Class F 7.0"
- 5.12.3 **Hubs:**
- a. Hub material is free.
 - b. Centre locking hubs are prohibited.
- 5.12.2 **Steering**
- a. Steering wheel type is free providing MSA Yearbook 2018 Regulation (J) 5.7.1., 5.7.2. is respected.
 - b. Steering columns are free.
- 5.13 **Tyres:**
- a. It is only permitted to use tyres complying with Regulations 5.13 b. to 5.13f. inclusive.
 - b. Tyres must be listed by the tyre manufacturer as medium, or harder, for saloon car circuit applications. Soft compounds are **not** permitted.
 - c. No modification to tread pattern or tread depth by cutting is allowed.

- d. Vehicles may only use tyres listed in MSA Yearbook 2018 Regulation **(L)** 4 List 1A and **(L5)** List 1B and List 1C.
- e. Tyre tread depth must be above the 1.6mm legal limit prior to commencement of qualifying sessions or races.
- f. All tyres must have an aspect ratio (profile) of 45% or greater.

5.14 Weights:

5.14.1 General:

- a. The principle is to equalise the performance of the car and Driver combination. The minimum car/Driver weights excluding any success ballast, at the completion of every qualifying session and race must be in accordance with Championship Regulation 5.14.2 regardless of laps completed.
- b. It is forbidden to add any liquid(s) or other material(s) to the car, or to substitute any part(s) for a heavier one during qualifying session or race.
- c. If a Car loses a part during qualifying or a race, the weight of that part may be taken into account during eligibility checks. Following consultation, the Championship Eligibility Scrutineer will determine whether any lost part should be taken into account.

5.14.2 Minimum weight:

- a. The minimum weight is “in the condition in which the vehicle and the Competitor (wearing his complete racing apparel, scrutineered Race Suit, boots, gloves and helmet) including minimum Weight Ballast where applicable, (see Championship Regulation 5.14.4 crosses the finish line or at any other time during qualifying or race and without the addition or removal of any solid or fluid matter”. For the purpose of the Regulation, qualifying or race is deemed to include any transfer to a place of post event scrutiny as directed by an official.
- b. Any car not listed and complying with 5.2.1 and 5.2.2 c. may be submitted to the Championship Organisers for approval.
- c. Kerb weights will be determined by the Championship Technical committee using sourced reference material and as detailed in the following table.
 - i. Cars marketed on 1st January 1983 and after will be subject to the published Kerb weight minus 10%.
 - ii. Cars marketed on 31st December 1982 and before will be subject to the published Kerb weight minus 10%.
 - iii. Cars complying with BARC/CTCRC Group 1 Touring Car Championship Regulations or Group 1 will be subject to CTCRC Group 1 Touring Car Championship tabulated weights.
 - iv. BMW E30 318is minimum weight shall be 1013kg
 - v. BMW E30 325i minimum weight shall be 1040kg
- d. Stickers (in 40mm white lettering) stating the cars minimum weight are to be displayed on the rear quarter windows. The minimum weight of the car should be as detailed in regulation 5.14.2
- e. The minimum Car/Driver weights, except as detailed in 5.14.2. c. for each class, excluding any success ballast, at the completion of every qualifying session and race must be in accordance with the following: -

Car	Year from	Year to	Engine Capacity	Equivalency Factor	Capacity inc E.F.	Class	Kerb Weight (kg)	Minimum Weight With Driver
Alfa Romeo 155 1.8 TS	1992	1994	1773	1	1773	D	1205	1084
Alfa Romeo 155 2.0 TS	1992	1994	1995	1	1995	D	1214	1093
Alfa Romeo 155 2.5 V6	1992	1994	2492	0.8	1994	D	1370	1233
Alfa Romeo 33 1.5	1983	1995	1490	1	1490	E	890	801
Alfa Romeo 33 1.5 ie	1989	1995	1490	1	1490	E	940	846
Alfa Romeo 33 1.7	1986	1989	1712	1	1712	D	910	819
Alfa Romeo 33 1.7 ie	1989	1995	1712	1	1712	D	1130	1017
Alfa Romeo 33 1.7 ie 16v	1990	1995	1712	1	1712	D	1000	900
Alfa Romeo 75 1.8 Turbo	1986	1992	1779	1.4	2491	C	1240	1116
Alfa Romeo 75 Twinspark	1987	1992	1962	1	1962	D	1118	1006
Alfa Romeo 75 V6 3.0	1987	1992	2959	0.8	2367	C	1210	1089
Audi Coupe 2.8E	1992	1995	2771	0.8	2217	C	1305	1175
Audi Coupe 20V	1988	1991	2309	1	2309	C	1320	1188
BMW 2002	1968	1976	1991	1	1991	D	940	846
BMW 2002 Tii	1971	1976	1991	1	1991	D	1026	923
BMW E21 323i	1979	1981	2316	0.8	1853	D	1135	1021
BMW E24 M635	1984	1989	3453	1	3453	B	1505	1354
BMW E30 318is	1989	1990	1796	1	1796	D	1200	1080
BMW E30 318i (M40 engine)	1987	1991	1796	1	1796	D	1065	958
BMW E30 320i	1990		1991	1	1991	D	1125	1013
BMW E30 325e	1985	1988	2693	0.8	2154	C	1160	1044
BMW E30 325i	1985	1992	2494	0.8	1995	D	1209	1088
BMW E30 M3	1986	1992	2302	1	2302	C	1200	1080
BMW E30 M3 325	1990	1992	2467	1	2467	C	1200	1100
BMW E34 M5	1992	1995	3795	1	3795	B	1650	1485
BMW E36 M3 (2 door & 4 door)	1992	1995	2990	1	2990	B	1460	1314
Chevrolet Camaro IROC Z	1987	1993	5733	0.8	4577	A	1525	1373
Citroen AX Gti	1991	1997	1360	1	1360	F	795	716
Citroen BX Gti 16v	1987	1994	1905	1	1905	D	1073	966
Fiat Ritmo Abarth 130TC	1984	1987	1995	1	1995	D	950	855
Fiat Uno 70SX	1985	1992	1301	1	1301	F	806	725
Fiat Uno 70SX i.e.	1989	1993	1372	1	1995	F	845	761
Fiat Uno Turbo i.e.	1985	1989	1301	1.4	1821	D	845	761
Fiat Uno Turbo i.e.	1989	1994	1372	1.4	1921	D	925	833
Ford Capri 3.0S	1978	1986	2994	0.8	2395	B	1116	1004
Ford Escort RS Turbo	1985	1990	1597	1.4	2236	C	1080	972
Ford Escort RS 2000	1975	1980	1993	1	1993	D	923	831

Car	Year from	Year to	Engine Capacity	Equivalency Factor	Capacity inc E.F.	Class	Kerb Weight (kg)	Minimum Weight With Driver
Ford Escort RS 2000	1992		1998	1 (16v)	1998	D	1124	1012
Ford Fiesta RS 1800	1992	1994	1796	1	1796	D	954	859
Ford Fiesta RS Turbo (mk3)	1990	1992	1597	1.4	2236	C	910	819
Ford Fiesta XR2 (mk2)	1984	1989	1598	1	1598	E	800	720
Ford Fiesta XR2i (mk3)	1989	1992	1597	1	1597	E	918	826
Ford Granada Scorpio Cosworth	1990	1993	2935	1	2935	B	1420	1278
Ford Sierra Cosworth (3 & 4 d)	1986	1992	1993	1.7	3390	B	1220	1098
Ford Sierra Cosworth (Saphire)	1986	1992	1993	1.7	3388	B	1250	1125
Honda Civic 1.6 VTi 1992	1992	1995	1595	1	1595	E	1080	972
Honda Civic 1.6i VT 1991	1987	1991	1595	1	1595	E	1038	934
Honda CRX VTEC	1990	1991	1595	1	1595	E	1025	923
Mazda MX6	1992	1997	2497	1	2497	C	1195	1075
Mercedes-Benz 190E 2.3 E	1985	1987	2299	1	2299	C	1230	1107
Mercedes-Benz 190E 2.5 E	1988	1993	2464	1	2464	C	1300	1170
Mercedes-Benz 560 SEC	1985	1991	5547	0.8	4438	A	1750	1575
Mitsubishi Starion Turbo	1985	1990	1997	1.4	2796	B	1230	1107
Mitsubishi Colt Starion Turbo	1982	1989	1997	1.4	2796	B	wide 1340 /1260 narrow	1206 / 1134
Mitsubishi Starion 2.6 Turbo	1989	1990	2555	1.4	3577	B	1125	1013
Peugeot 106 Xsi	1991	1995	1360	1	1360	E	894	804
Peugeot 205 GTi 1.6	1986	1992	1580	1	1580	E	900	810
Peugeot 205 GTi 1.9	1986	1992	1905	1	1905	D	875	787
Peugeot 205 Rally	1988	1992	1294	1	1294	F	790	711
Peugeot 309 GTi 1.9 16v	1990	1993	1905	1	1905	D	975	878
Renault 21 Turbo	1987	1994	1995	1.4	2793	B	1345	1211
Renault 5 GT Turbo	1985	1991	1397	1.4	1956	D	855	770
Renault Clio 16v	1991	1997	1764	1	1764	D	980	882
Rover 216 Gti	1991	1994	1590	1	1590	E	1090	981
Rover 220 Turbo	1992	1996	1994	1.7	3390	B	1185	1067
Rover Metro GTi	1990	1994	1396	1	1396	F	885	796
Saab 900 Turbo 16V	1984	1989	1985	1.7	3375	B	1340	1130
Saab 900 Turbo 16V	1990	1992	1985	1.7	3375	B	1280	1152
Saab 9000 Carlsson	1988	1990	1985	1.7	3375	B	1316	1184
Saab 9000 Carlsson	1991	1991	2290	1.7	3893	B	1400	1260
Saab 9000 CS Carlsson	1992	1992	2290	1.7	3893	B	1460	1314
Suzuki Swift GTi	1989	1991	1298	1	1298	F	750	675
Toyota Corolla GT Coupe	1983	1987	1587	1	1587	E	970	873

Car	Year from	Year to	Engine Capacity	Equivalency Factor	Capacity inc E.F.	Class	Kerb Weight (kg)	Minimum Weight With Driver
Toyota Supra Turbo	1986	1993	2954	1.7	5022	A	1603	1443
Vauxhall Astra GSI	1991	1998	1998	1	1998	D	1100	990
Vauxhall Astra GTE	1988	1991	1998	1	1998	D	1007	906
Vauxhall Nova GTE	1988	1990	1598	1	1598	E	820	738
Vauxhall Nova GSI	1990	1993	1598	1	1598	E	865	778
Volkswagen Corrado 2.0 16V	1991	1995	1984	1	1984	D	1141	1027
Volkswagen Corrado G60	1988	1993	1781	1.4	2493	C	1115	1004
Volkswagen Corrado VR6	1992	1995	2861	0.8	2289	C	1240	1116
Volkswagen Golf VR6	1992	1999	2792	0.8	2234	C	1155	1040
Volkswagen Golf Mk2 Gti 16V	1986	1992	1781	1	1781	D	960	864
Volkswagen Golf Mk2 Gti 8V	1983	1992	1781	1	1781	D	860	774
Volkswagen Golf Mk3 Gti 16V	1992	1998	1984	1	1984	D	1100	990
Volkswagen Golf Mk3 Gti 8V	1992	1997	1984	1	1984	D	1140	1026
Volkswagen Polo G40	1991	1994	1272	1.4	1781	D	830	747
Volkswagen Scirocco (16v)	1986	1992	1781	1	1781	D	970	873
Volkswagen Scirocco (Gti) (8v)	1981	1992	1781	1	1781	D	927	834
Volkswagen Vento Mk3 VR6	1992	1999	2792	0.8	2234	C	1210	1089

f. It is permitted to carry ballast to achieve minimum weight.

g. The minimum weight ballast shall be carried in addition to and shall not form any part of Success Ballast / Parity weight as defined in Championship Regulations 5.14.4

5.14.3 Ballast: MSA Yearbook 2018 Regulation (section (j) 5.15 applies)

- Ballast, required to achieve the minimum weight and/ or success / parity ballast as a performance equalisation measure must only be added inside the car on the front and/or rear passenger foot well.
- It is the competitor's responsibility to provide and fit their own ballast if it is required, and to ensure that ballast is fitted in a safe manner.
- Ballast must be attached to the shell/chassis via at least 4 mounting points using bolts with a minimum diameter of 8mm each with steel counter plates of at least 400 sq mm surface area and 3mm thickness. Ballast mountings must include provision for the fitting of scrutineer's wire seals.
- It is permitted to locate ballast within a touring car specification ballast box. The ballast box attachment to the shell/chassis must respect MSA Yearbook 2018 requirements and must include provision for the fitting of scrutineer's wire seals.
- The total weight of "minimum weight" or "success ballast" carried must be declared, in writing to the Championship Eligibility Scrutineer and/or his appointed representative and be in position, at all times during practice and racing.

5.14.4 Minimum weight ballast:

- It is permitted to carry ballast to achieve minimum weight.
- The minimum weight ballast shall be carried in addition to and shall not form any part of Success Ballast / Parity weight as defined in Championship Regulations 5.14.5

5.14.4 **Success Ballast:**

- a. Any vehicle may be required to carry success ballast as a performance equalisation measure. Such success ballast will be specified by the Technical Committee based upon the performance of the car in competition.
- b. The Technical Committee reserves the right to review the weight handicaps at any time during the Championship.
- c. The success ballast handicap is carried in addition to the 'Base' weight of the car as defined in Championship Regulation 5.14.2.
- d. Competitors will be informed by official bulletin of the amount of weight they must carry.
- e. The maximum success ballast allocated shall be 150kg.
- f. Any vehicle which fails to carry the success ballast specified by the Technical Committee will automatically be deemed not to comply with the Technical Regulations.

5.14.6 Compliance with Championship Regulation 5.14.2 and 5.14.4 will be checked prior to removal of fuel samples.

5.15 **Fuel Tank / Fuel:**

5.15.1 **Fuel Tank:**

- a. Fuel tanks are free subject to compliance with MSA Yearbook 2018 requirements.
- b. Hatchback cars with an under-floor spare wheel well may remove the spare wheel well for the sole purpose of the fitting of a fuel tank under the boot floor. A steel plate of at least the thickness of the metal removed must cover the aperture remaining.

5.15.2 **Fuel**

- a. Only 'Pump' fuel as defined in **Section (B)** Nomenclature & Definitions of the MSA yearbook 2018 is allowed.
- b. An MSA approved additive is permitted.
- c. Refuelling is not permitted during qualifying, on the starting grid or during a race.

5.15.3 **Fuel Pump**



- a. fuel pumps are free.
- ~~b. Where period carburation is fitted, with approval from the Championship Organisers, to a vehicle under Regulation 5.7.7, a non-original type of fuel pump applicable to the type of carburation utilised may be used providing the installation and location requirements as detailed in the MSA Yearbook 2018 are respected.~~
- ~~c. Where non-standard induction / throttle bodies are fitted, with approval from the Championship Organisers, to a vehicle under Regulation 5.7.9, a non-original type of fuel pump applicable to the type of non-standard induction / throttle bodies utilised may be used providing the installation and location requirements as detailed in the MSA Yearbook 2018 are respected.~~

5.16. **Silencing / Exhaust:**

- a. All cars must conform to the current MSA noise requirements as detailed in the MSA Yearbook 2018, Regulations **J5.17 & J5.18**.
- b. Silencers are free subject to compliance with Championship Regulation 5.16 a.

5.17. **Numbers and Championship Decals:**

- a. Only competition numbers allocated by the CTCRC Registrar are to be displayed. They must be displayed in accordance with MSA Yearbook 2018, regulation J4 and remain as allocated until the end of the season.
- b. Competitors must display competition numbers on a CTCRC number background. CTCRC decals and those of the series sponsors, promoters and the BARC are required to be displayed in an un-obscured position in accordance with the following table.

Item		Placement
CTCRC Number Background (round or square)		One on each front door, one on the bonnet
CTCRC "classictouringcars.com" sunstrip	TBC	Rear windscreen
Series Sponsor Sunstrip	TBC	Top of front windscreen
Series Sponsor logos (if required - TBC)	TBC	One on each side of the car (front wing, rear door or rear quarter)
BARC Logo		One on each side of the car (front wing, rear door or rear quarter)
Class Weight and Class Letter (40mm White lettering)	e.g. 950kg A	One on each of the rear side windows

- c. Decals shall be fitted as issued. They may not be cut or otherwise defaced or deformed without prior approval from the Championship Organisers.
- d. Non CTCRC approved decals such as, but not restricted to, other clubs and other championship/series decals are not to be displayed on vehicles. These should be removed or covered up.
- e. A Touring Car, Touring Car re-creation or a car running in period livery is only required to display the CTCRC "classictouringcars.com" sun strip
- f. Points will ONLY be awarded to competitors correctly displaying the required decals
- g. One set of Decals may be obtained from the CTCRC nominated supplier free of charge. A charge may be levied for any extra decals required.
- h. 5.17 f. & g. are only applicable to current fully paid up, Racing members of the CTCRC

YourITMan Pre-03 Touring Cars

5 TECHNICAL

5.1. Introduction:

- a. The following technical regulations are set out in accordance with MSA specified format and it should be clearly understood that if the following texts do not clearly state that you can do it, you should adopt the principal that you cannot.
- b. Anything that is not explicitly authorised in writing by the Championship ~~Technical~~ Committee and anything that is not specified either in these regulations or in any Official Championship Bulletin is therefore strictly forbidden and thus will be regarded as a breach of these Technical Regulations and may be penalised as described in section 4. It should be clearly understood that technical regulations will be strictly enforced and any modification, addition, variation, tuning or removal other than specifically permitted in these regulations is prohibited.
- c. Regulations that have changed in substance from the 2017 Pre-2003 Production Touring Car Championship Technical Regulations are normally indicated by being highlighted in yellow.

~~5.1.1 Technical Queries:~~

~~Any matter affecting Technical Regulations must be put in writing to the Championship Eligibility Scrutineer, as any claim to have received clarifications or rulings on the Regulations must be substantiated by the production, on demand, of written confirmation of such rulings.~~

5.2 General Description:

- a. The CTCRC YourITMan Pr-03 Touring Cars Series is for competitors participating in two-wheel drive, four-seat saloon/hatchback or coupé cars marketed between 1st January 1993 and 31st December 2002 of which more than 5000 examples were manufactured in any 12-month period during the overall production run between these dates.
- b. All cars are subject to approval of eligibility by the Championship Organisers.
- c. Engines with more than FOUR cylinders are permitted.
- d. Engine capacity except as detailed in Championship Regulation 5.2 e. shall not to exceed 2,000cc (plus permitted overbore).
- e. The Honda 2.2litre engine is only allowed to be installed in the Honda Accord and Prelude model of vehicle. (See Regulation 5.7.1 g.)
- f. The Honda Accord and Prelude are not limited to the engine as detailed in Regulation 5.2 e. but are also permitted to utilise an engine as detailed in 5.2 d.

5.2.1 Unless specifically permitted in these regulations, all components must be to original specification.

5.2.2 Eligibility:

- a. All cars are subject to approval of their eligibility by the Championship Organisers.
- b. The responsibility to prove eligibility is that of the Competitor at all times. For clarification of a Competitor refer to the MSA Yearbook 2018 Section (B) Nomenclature & Definitions.
- c. Proof of a vehicles' eligibility may be required to be substantiated by production of documents, where issued, for the vehicle and these must be available for inspection when required.
- d. Where no such paperwork is available, the Competitor must produce written confirmation from the CTCRC Committee as to the eligibility of the vehicle model in question.
- e. The Championship Organisers in conjunction with a Licensed Eligibility Scrutineer shall determine matters as to the eligibility and the implementation which may involve photographing any part of the vehicle and performing electrical diagnostics at the scrutineer's discretion.

5.2.3 Class Structure:

5.2.3.1 The Class Structure will be as follows: -

Class A 0 to 2,000cc (Using a sequential gearbox & using slick tyres).

Class B 0 to 2,000cc (Using a non-sequential gearbox & using slick tyres).
Honda 2,200cc (subject to compliance with Regulation 5.2 e. and 5.7.1 d.)

Class C 0 to 2,000cc (Using a non-sequential gearbox).

Honda 2,200cc (subject to compliance with Regulation 5.2 e. and 5.7.1 d.)

Using any tyre listed in MSA Yearbook 2018 Regulation (L)4 List 1A and (L5) List 1B and List 1C.

5.2.3.2 Invitation Class

- a. Competitors with Vehicles not complying with these regulations may be invited to compete subject to Championship Organisers approval.
- b. Vehicles that, whilst not strictly adhering to the regulations, have been prepared sympathetically to the spirit of the championship and with Championship Organisers approval, may be invited to race under observation.
- c. Competitors wishing to race as invitation must submit a written specification of their vehicle, to the Co-ordinator. It must detail all areas where the vehicle does not comply with these regulations. This specification shall be made available to the eligibility scrutineers for pre and post event checks.
- d. Invitation vehicles will be invited by the Championship Organisers on a race by race and individual vehicle basis. The vehicle must not deviate from the specification submitted, unless such changes are approved by the Championship Organisers. Any approval may be withdrawn at any time by the Championship Organisers.
- e. Invitation competitors will not be eligible for:
 - i. Podium recognition
 - ii. Championship award / trophies
 - ii. Championship points.

5.2.4 Presentation:

- a. At the start of each free practice, qualifying session or race, the cars must be presented to a high standard and must be clean and in good order. The Championship Organisers reserve the right to forbid cars not meeting this requirement from taking part.
- b. Presentation of a vehicle for scrutineering is a declaration by the Competitor that the vehicle is eligible for that event.

5.2.5 Technical Checking:

- a. The Championship Eligibility Scrutineer / Championship Organisers reserve the right to inspect, test, measure, seal or impound any component fitted to or used in conjunction with any car registered in the Championship either personally or through a nominated representative. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out. This will be the sole responsibility of the Competitor. Exceptions to this may include appeal / protest according to the MSA Yearbook 2018.
- b. Any breach of the Technical Regulations or a breach of the procedure surrounding the Technical Regulations will be the subject of a report to the Clerk of the Course.
- c. A car found to be ineligible for the championship must race only in the invitation class and no points will be scored until the vehicle conforms to the regulations.
- d. Any component sealed by an MSA Licensed Scrutineer must remain sealed and may not be tampered with in any way. In the event of a seal needing to be broken for repair or replacement, prior to doing so the Championship Eligibility Scrutineer must be informed in

writing and approve the seal being broken. Re-sealing by an MSA Licenced Scrutineer will take place after technical checks have been made at the next race meeting.

- e. If a vehicle/component is sealed for subsequent technical examination the Championship Eligibility Scrutineer, within the applicable time limit, will state to the Competitor/Competitor that he will examine the vehicle/component on a stated date and time and at a specified location and the sealed items must be made available for his inspection. These arrangements are not negotiable. If a vehicle/component is not made available for an eligibility examination as required by the Championship Eligibility Scrutineer, it will be considered as ineligible and will be reported as such to the Clerk of the Course for the application of penalties laid down under MSA Regulations and these Championship Regulations.

~~5.2.6~~ **Technical Passport:**

- ~~a. All Competitors are issued with a Technical Passport. This is used to record information relating to that car during the season.~~
- ~~b. The Competitor is responsible for the safe keeping of the passport, which shall be carried in the car at all times.~~
- ~~c. All cars are issued with a Technical Passport wallet.~~
- ~~d. No car is permitted to take part in an Event unless the Technical Passport is available for inspection and is a true reflection of the vehicle details.~~
- ~~e. The only person authorised to make changes to the details of the Technical Passport is the Series Eligibility Scrutineer or his appointed representative.~~
- ~~f. Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~
- ~~g. Details contained within the Technical Passport must be submitted by the Competitor at the time of registration for the Championship. A Registration will not be accepted without submission of the relevant details.~~

5.3 Safety Requirements:

- 5.3.1 All MSA Yearbook **2018**, **Section K**, Competitor Safety Criteria Regulations, apply as relevant unless stated herein.

5.3.2 Safety Roll-Over Structures: - (K 1 to K1.8) applies

- a. All vehicles must be fitted with a safety roll-over structure as defined in the MSA Yearbook **2018** - **Section K**
- b. Interior fittings, trim and bodywork may be locally modified to allow fitting of the safety roll-over structure and any door bars.
- c. Cars running non-steel doors must be fitted with double door bars on the driver's side, either crossed or parallel.

5.3.3 Fire Extinguisher: (K3 to K3.5 applies):

- a. All vehicles must be equipped with a fire extinguisher. MSA Yearbook **2018** Regulation **Q 19.14.7** applies
- b. The fire extinguisher must not be disarmed in any Parc Fermé area without the specific permission of the Championship Eligibility Scrutineer. Any Competitor that is found with a disarmed fire extinguisher in Parc Fermé for whatever reason will be penalised.
- c. The following information must be clearly displayed on each fire extinguisher:
 - i) Type of extinguishant
 - ii) Weight or volume of extinguishant
- d. It is recommended that the following information is clearly displayed on each fire extinguisher:
 - i) Capacity
 - ii) Service date of extinguisher. It is recommended that it should be less than 2 years since the filling date or the last service date
- e. During Events all extinguisher systems must be in the 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times while competing or practising, including post-Event scrutineering.

- f. The external triggering point must be positioned close to the circuit breaker (or combined with it) and must be marked by the letter “E” in red inside a white circle of at least 10cm diameter with a red edge in accordance with MSA Yearbook 2018 Regulation (K)3.2.2
- 5.3.4 **Main External Circuit Breaker:**
- a. A Main External Circuit Breaker in compliance with the 2018 MSA Yearbook Section (K) 8. is mandatory.
 - b. The switch location must be identified by a Red Spark on a white edged blue triangle with a base of at least 12cm. and the ‘On’ and ‘Off’ positions clearly marked.
 - c. The circuit breaker when ‘operated’ must isolate all electrical circuits, data loggers, transponders, etc.
 - d. When the circuit breaker is ‘operated’ there must be no power source capable of keeping the engine running.
 - e. The triggering system for the circuit breaker should be situated at the lower part of the windscreen mounting, preferably on the driver’s side or below the rear window.
- 5.3.5 **Lights:**
Lights detailed in Championship Regulations 5.10.5 must be in working order throughout the entire Event.
- 5.3.6 **Seat and Seat Mounting:** (K 2.2. applies)
- a. The Seat and Seat Mounting shall comply with the MSA Yearbook 2018 Regulation (K) 2.2 and (K) 2.3
 - b. It is recommended that the Driver’s seat is a racing seat with a current FIA homologation.
 - c. Additional seat padding is permitted to a maximum of 50mm. Any additional padding or covering placed on the seat must be fire retardant to FIA standard 8855-1999.
 - d. The seat mountings shall be appropriate to the seat fitted (and complying with FIA Article 253.16) must be used.
- 5.3.7 **Seat Belts:** - (K 2.1. applies)
- a. Mandatory use of seat belts. MSA Yearbook 2018 Regulation Q19.14.2 applies.
 - b. Seat belts fitted, the seat belts must comply with Championship Regulation 5.3.7 c. to 5.3.7 f. inclusive.
 - c. The Driver’s seat belts must have a current FIA homologation.
 - d. It is mandatory to use seat belts, with a minimum ‘four point’ configuration. Complying with the 2014 MSA Yearbook Regulation 2016 (K) 2.1.2.
 - e. Seat belts must be correctly adjusted at all times during events: (Two shoulder straps and one lap strap, with four anchorage points on the chassis/body shell or roll over bar of the vehicle).
- 5.3.8 **Race Clothing:** (K9.1 and K9.3 applies)
- a. Competitors are strongly advised to wear flame resistant, socks, underwear and balaclava.
 - b. Flame resistant gloves and shoes are mandatory. MSA Yearbook 2018 Regulation Q10.1.(c) applies.
- 5.3.9 **Crash Helmet.**
Crash helmets must comply with the requirements of MSA Yearbook 2018 (K 10.1 to K10.4 applies).
- 5.3.10 **FHR.**
Mandatory for all forms of circuit racing with the exception of period defined vehicles (pre 1977), which will remain as a recommendation. MSA Yearbook 2018 (Q) 10.1.e. applies.
- 5.4 **General Technical Requirements and Exceptions:**
- a. All vehicles must comply with MSA General Technical Regulations and the relevant parts of Sections J & Q of the MSA Yearbook 2018 except where specified below.
 - b. No component may be substituted which serves to alter the shape or size of the body shell and/or panels themselves or increases the capacity of the engine beyond that which is

permitted within these Technical Regulations. Full details of optional equipment must be submitted to the CTCRC for possible inclusion on a vehicle by vehicle basis prior to that item of equipment being fitted.

- c. Fixing components such as nuts, screws, washers, lock washers; spring washers, etc. are free and may be upgraded.
- d. It is permitted to repair faulty threads using Keen Inserts/ Helicoils. Where thread inserts are utilised the original thread diameter and pitch must be respected.
- e. Within these Technical Regulations the word “standard”, “original” or “pattern Part” used as a description of components is to be interpreted as: “The specified component from the factory or the manufacturers or importers parts list for the model or engine shown on the entry form or registration form.
- f. No modifications are permitted beyond the repair or adjustment processes specified by the factory or the manufacturer”. Eligibility checking will be by comparison to spare parts supplied by the manufacturer’s official agent.
- g. “Free” as referred to in these Technical Regulations shall mean be interpreted as “within the limitations imposed by the MSA Yearbook 2018 Regulations”.
- h. Advertising on vehicles is subject to requirements set out in MSA Yearbook 2018 Regulation **H29.1.2 & H29.1.3**.

5.5 Chassis:

- a. The chassis must be based on production model and recognisable as such. The standard floor pan, sills, bulkheads, doors and roof must remain as produced by the manufacturer in construction, except as allowed in Championship Regulations 5.5 b. to 5.5 i.
- b. The rear bulkhead (driver compartment to boot, Saloon/Coupe cars) may be made from an alternative material and may be relocated from the original.
- c. The addition of chassis material or strengthening of chassis, or chassis members, is permitted.
- d. Lightening or reducing of chassis, or chassis member strength, is prohibited.
- e. Seam welding is permitted.
- f. Space frame chassis are prohibited
- g. The floor pan, bulkheads, front and rear inner wings may be locally modified for mounting, or giving clearance to, suspension components. Inner wings may be modified to provide additional wheel/tyre clearance.
- h. The boot floor between the chassis rails rearward of the rear axle may be modified to accept fuel and oil systems and may be made from an alternative material.
- i. Transmission tunnel and tunnel apertures may be enlarged to ease the fitment of larger transmissions.
- j. Towing eyes / straps must be a contrasting colour to the surrounding area (usually either Day-Glo red or yellow) and must respect the requirements of MSA Yearbook 2018 Regulation **(Q19.1.3)**.

5.5.1 Towing eyes / straps

- a. Must be a contrasting colour to the surrounding area (usually either Day-Glo red or yellow) and must respect the requirements of MSA Yearbook 2018 (Q19.1.3).
- b. In addition to 5.5.6 a. it is strongly recommended that all cars must, wherever possible, be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre-line. They must be clearly visible, marked with an arrow and the word “tow” and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.

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

The towing eye must be fixed to a structural part of the chassis with a minimum of M12 fixings, the inner part must be flexible in order for the towing eye to be retracted inside the bodywork profile. A “pull-cord” must be attached to the towing eye to enable the marshals

to access the wire loop. The end attached to the chassis may be either 'thimble' or 'open-loop' style.

5.6 Bodywork and dimensions:

5.6.1 General:

- a. Bodywork must be complete and standard in shape and silhouette, material and thickness on all exterior surfaces, unless detailed otherwise in Championship Regulations 5.6.3
- b. Replacement of body panels with non-original material is prohibited.
- c. It is only permitted to make holes in **bulkhead** for the passage of cables, fuel, water, oil, hydraulic, instrument or fire extinguisher lines.
- d. All redundant holes must be covered with a non - flammable material.

5.6.2 Interior:

- a. Floor carpets, under felt, sound deadening, headlining, front and rear parcel shelves, centre consoles, the front passenger seat, rear seats and trim in the boot/luggage compartment may be removed.
- d. The dashboard must be retained, modifications, sympathetic to the original dashboard are permitted.
- e. Instrumentation is free.
- f. The front door trim must be retained in original or other non-flammable material.
- g. Vehicles must be fitted with at least one interior rear – view mirror. The fitment of a wide angle interior rear view mirror is recommended.
- h. The driver must be located entirely to one side of the centre line of the car. Local modifications are permitted for the purposes of secure and safe mounting
- i. Heaters and interior ventilation systems may be removed.
- j. Air conditioning / climate control systems and their related hardware may be removed
- k. A strut brace between the front strut towers may be fitted.
- l. A strut brace between the rear strut towers may be fitted.
- m. It is permitted to carry out modifications to the centre tunnel for the re-routing of exhaust system. (MSA Yearbook **2018** Regulation J 5.16.1. applies)

5.6.3 Exterior:

- a. Reworking or modification to exterior bodywork is prohibited unless detailed otherwise in Championship Regulations 5.6.3 b. to 5.6.3 j. inclusive
- b. Any part of the arch/wing pressing folded into the wheel arch may be deformed, but not removed, to give clearance to the tyres.
- c. Bonnet lid, boot lid and door panels may be replaced by alternative material providing they exactly retain the original standard shape and outline.
- d. Body Kits
 - i. Cars may be fitted with BTCC / WTCC type body kits subject to compliance with Championship Regulation 5.6.3 d ii. to 5.6.3 d iv.
 - ii. Competitors wishing to run a BTCC / WTCC type body kit must submit a written specification of the kit to the Championship Organisers for approval/ rejection.
 - iii. The specification must include all homologation paperwork where applicable.
 - iv. The body kit will only be allowed, provided it has been validated in writing by the CTCRC committee.
- e. Horizontal front splitter
 - i. May be fitted to the bottom edge of the front bodywork.
 - ii. May not extend forward more than 100mm beyond the original lower lip.
 - iii. Is not permitted to exceed the width of the car across the front wheel arches.
 - iv. The splitter may be a separate item but must form a continuous part of the bodywork.
- f. Rear aerofoils (MSA Yearbook **2018** Regulation J 5.2.7 applies)

- i. They must not extend beyond the maximum width of the coachwork (excluding wing mirrors).
 - ii. They must not extend beyond the rear of the rear bumper more than 100mm.
 - iii. They must not extend above the maximum height of the roof.
 - iv. Competitors wishing to run a rear aerofoil that does not adhere to any of Championship Regulations 5.6.3 f.i. to 5.6.3 f.ii inclusive must submit a written specification of the aerofoil to the Championship Organisers for approval/ rejection. The Championship Organisers reserves the right to withdrawn approval at any time.
- g. Headlights must be fitted in the original locations. They need not be the original headlight unit for the vehicle but must respect the requirements of Technical Regulation 5.10.5.a.i.
- h. The removal of exterior trim is allowed
- i. Side and rear window
 - i. Material is free but must comply with current MSA regulations.
 - ii. Holes may be cut in the rear or side window for de-misting.
 - lii Ducts may only be fitted to side window for cooling the driver and de-misting purposes so long as they do not impede the sight line between the competitor and the rear view mirror and nor shall they impede the competitors vision of flag signals, etc.
- j. The original mirrors may be removed but vehicles must be fitted with at least one externally mounted rear view mirror in accordance with MSA Yearbook 2018 section (Q)19.15.1
- k. Roof mounted air vents are permitted.
- l. Front underbody under tray
- m. The fitting of a front underbody tray is permitted.
 - i. The under tray must: -
 - 1. respect the ground clearance,
 - 2. Be removable.
 - 3. Be flat and create no aerodynamic influences.
 - ii. Front underbody tray may extend the whole width of the underside part of the font bumper only in front of the front wheel axis.

5.6.4 Silhouette:

The silhouette of the vehicle above the centre line of the wheels must remain as original for that model except for rear spoilers and roof mounted air vents.

5.6.5 Ground clearance:

- a. Under no circumstance can any part of the bodywork of the suspended part of the car or exhausts and silencers be below a horizontal plane passing 40mm above the ground.
- b. Will be measured with the Driver on board (wearing his complete racing apparel),
- c. Will be measured with the vehicle and driver, including minimum Weight Ballast where applicable in the condition in which they cross the Finish Line or at any other time during an Event and without the removal of any solid or fluid matter including fuel.
- d. Ride height will be measured on any reasonably flat surface as deemed by the Championship Eligibility Scrutineer or his nominated representative. In the event of any discrepancy the circuit designated flat patch will be used to make any final judgement.

5.7 Engine:

5.7.1 General:

- a. All internal engine components are free.
- b. Engines from later models may be used to meet the 2.0 litre (plus overbore) limit, but only if previously used in the same mark/ type of vehicle.
- c. An 8-valve engine may be replaced in its entirety with a 16-valve engine providing that engine was manufactured between 1st Jan 93 and 31st Dec 2003 and is of the same mark/type.
- d. The Honda 2,200cc engine referred to in Regulation 5.2 e.: -
 - i. Shall be the "H" series engine.

- ii. Is not permitted to exceed 2,200cc.
 - iii. Is not permitted to be over bored. (this engine must remain "Standard dimensions")
 - iv. May be from any model of that specific mark of vehicle. (Only engines used in the Honda Accord model of vehicle may be used in a Honda Accord. Only engines used in the Honda Prelude model of vehicle may be used in a Honda Prelude).
 - e. It is prohibited to over bore any engine with more than 4 cylinders. ("Standard size" pistons must be used).
 - f. Dry sump systems are permitted
- 5.7.2 Cylinder Block:**
- a. The engine block casting must be based on a standard production block from a model eligible for the championship.
 - b. It is permitted to remove metal from the cylinder block.
 - c. It is permitted to overbore any "standard" 2,000cc., four cylinder, cylinder block up to a maximum of plus 0.065" (1.651mm).
 - d. It is permitted to change the bore and stroke of any engine with a "standard production cc" of less than 2,000cc to meet 2,000cc. limit. (Example: - Alfa 1700cc boxer engine can be re-bored and stroked to give 2000cc)
- 5.7.3 Cylinder head(s):**
- a. Cylinder head/s are free if Championship Regulation 5.7.3 c. and Regulation 5.7.3 d. are respected.
 - b. The replacement or modification of all mechanical components is permitted
 - c. The cylinder head must be based on a production head from a model eligible for the championship.
 - d. Reverse orientation of the cylinder head is not permitted. It must be fitted in the same orientation as in original production.
- 5.7.4 Location:**
- a. The engine must remain on the original side of the front or rear bulkhead as specified and supplied by the manufacturer for the specific model entered in the championship.
 - b. The engine must be orientated as fitted in the specific model entered in the championship.
- 5.7.5** Engine mountings and support members may be changed for alternative units and may be chassis mounted.
- 5.7.6 Oil / Water Cooling:**
- a. The oil/water cooling systems are free if Championship Regulation 5.7.6 b. to 5.7.6 d. inclusive are respected.
 - b. Radiators are free but must remain in their original location.
 - c. The fitting of additional water radiators is permitted provided they are located within the periphery of the bodywork.
 - d. The fitting of additional oil coolers is permitted provided they are located within the periphery of the bodywork.
 - e. Modification of the cooling system is permitted to facilitate the installation of items detailed in Championship Regulation 5.7.6 b. to 5.7.6 d. inclusive.
- 5.7.8 Induction Systems:**
- a. Induction systems are free if Championship Regulation 5.7.8 b. to 5.7.6 g. inclusive are respected.
 - b. Forced induction systems are prohibited.
 - c. The number and size of throttle bodies in all classes are free.
 - d. Inlet manifolds in all classes are free.
 - e. Air Filters are free.
 - f. It is permitted to remove air filter and air filter boxes.
 - g. Air ducting/ trunking is free provided it does not extend beyond the periphery of the bodywork ~~and does not produce a "Ram Effect"~~.

- 5.7.9 **Ignition:**
- a. The ignition systems are free.
- 5.7.10 **Exhaust Systems:**
- a. Exhaust manifolds and systems are free if Championship Regulations 5.7.10 b. to 5.7.10 d. inclusive is respected.
 - b. Side exit exhausts are permitted but must exit behind the midpoint of the wheel base.
 - c. It is prohibited to pass any part of the exhaust system through the driver compartment.
 - d. Catalytic converters must be fitted directly after exhaust manifold on cars manufactured after 31/12/1999
 - e. All cars must conform to the current MSA requirements as detailed in the MSA Yearbook 2016 J5.16
- 5.7.11 **Seals:**
- a. To allow for scrutineer's wire seals, every installed engine must have 1.6mm (1/16") holes drilled in readily accessible locations as follows: -
 - i) Sump: Cross drilled through two adjacent retaining screws or studs.
 - ii) Rocker/cam cover or head bolt: Cross drilled through two adjacent retaining screws or studs.
 - b. Engines may be sealed at any time by a Licensed Eligibility Scrutineer and only by written permission in advance from the Championship Organisers or a Licensed Eligibility Scrutineer may seals be broken.
- 5.8 **Suspensions:**
- a. Suspension is free if Championship Regulation 5.8 b. is respected.
 - b. The original suspension operating principle must remain unaltered.
- 5.8.1 **Springs:**
- a. Suspension springs are free if Championship Regulation 5.8.1 b. is respected.
 - b. The original operating principle as fitted by the manufacturer, (coil, leaf, torsion) shall be employed.
- 5.8.2 **Shock Absorbers**
- a. Shock Absorbers are free if Championship Regulation 5.8.2 b. is respected.
 - b. The original operating principle, as fitted by the manufacturer, (hydraulic, friction, lever or telescopic) must be employed.
- 5.8.3 **Anti roll bars**
- Anti-roll bars including their mountings are free.
- 5.9. **Transmissions:**
- a. Clutch and clutch operating system is free.
 - b. Gearbox is free if Championship Regulation 5.9 c. is respected.
 - c. If a sequential gearbox is used the following shall apply: -
 - i. The vehicle must run in Class A irrespective of the engine size.
 - ii. The minimum weight, before the addition of any success ballast, will be 1150kg.
 - d. Gear ratios and type are free.
 - e. The final drive ratio is free.
 - f. Mechanical limited slip or torque biasing differentials are permitted.
- 5.9.1 **Traction / Launch Control**
- Any form of traction / launch control is prohibited.
- 5.10 **Electrics:**
- 5.10.1 Electrical equipment is free if Championship Regulation 5.10.2. to 5.10.5. inclusive are respected.

5.10.2 Vehicle Onboard Starter:

Engines are to be started at all times by the Vehicle Onboard Starter except that the use of an external portable slave battery is permitted to aid start up only in the paddock, assembly area, pit lane and on the grid.

5.10.3 Battery:

- a. The battery and starter motor must be capable of performing a number of repetitive starts.
- b. The battery makes and type is free within MSA Yearbook 2018 Regulations, (J) 5.14.1 to (J) 5.14.7 applies.
- c. The Battery position and orientation is free within MSA Yearbook 2018 Regulations, (J) 5.14.1 to (J) 5.14.7 applies.

5.10.4 Charging Circuit:

The Charging Circuit must be connected and operational all times whilst the Engine is running.

5.10.5 Lights:

- a. All cars must be fitted with the following: -
 - i) A minimum of two forward facing main headlights.
 - ii) A minimum of two rear facing red tail lights.
 - iii) A minimum of two rear facing red brake lights.
 - iv) A rear facing red high intensity fog light (or two where two are fitted as standard equipment by the vehicle manufacturer in question) MSA Yearbook 2018, Section (K) 5. applies.
- b. Lights detailed in Championship Regulation 5.10.5 a. iii) must be operated only by the brake pedal and without a delay.
- c. Lights detailed in Championship Regulation 5.10.5a. iv) must not be operated by the brake pedal.
- d. It is not permitted to tint or paint the front or rear lighting units.
- e. All lights detailed in Regulation 5.10.5 a. must be in working order throughout the entire Event and must be able to be switched on by the Driver when seated normally in the car.

5.10.6 An operative front windscreen wiper must be fitted and in full working order throughout the entire Event. MSA Yearbook 2018, Regulation (Q) 19.15.3. Applies.

5.11 Brakes:

- a. Brake systems are free if Championship Regulations 5.11 b. to 5.11 e. are respected.
- b. Carbon discs are prohibited.
- c. Forward facing fog lights mounted in, or under, the front bumper may be removed. Internal bodywork or trim behind the original fog light locations may be modified solely to allow the fitment of ducting from the original fog light locations to the front brake discs.
- d. Cars with single circuit braking must be fitted with an operational hand brake. Cars fitted with dual circuit braking are not required to have a handbrake fitted.
- e. ABS systems are prohibited, unless fitted in production in which case they must be to production specification.

5.12 Wheels / Steering:

- a. Wheel sizes and widths and construction are free if Championship Regulation 5.12 b. is respected.
- b. Wheels must fit within the confines of the bodywork in accordance with MSA regulations.
- c. Steering wheel is free subject to MSA Yearbook 2018 Regulations, ((J) 5.7.1 and (J) 5.7.2).
- d. Steering wheel mounting hubs and steering columns are free.

5.13 Tyres:

- a. Tyres are free if Championship Regulations 5.13 b. to 5.13 l. are respected.
- b. Tyres listed by the tyre manufacturer as "soft compound" tyres are not permitted.
- c. Vehicles in Class A and Class B may use any slick or wet weather tyre.

- d. Vehicles in Class C may only use tyres listed in MSA Yearbook 2016 Regulation (L)4 List 1A and (L5) List 1B and List 1C. In addition to 5.13.d the following tyres are permitted: - MRF ZTR
- e. Tyre tread depth must be above the 1.6mm legal limit prior to commencement of qualifying sessions or races.
- f. Tyres must fit within the confines of the bodywork in accordance with MSA regulations.
- g. The use of tyre heating / heat retention devices, tyre treatments and compounds are prohibited.
- h. Pressure regulation valves are prohibited. MSA Yearbook 2018 Regulation, ((J) 5.9.4. applies)
- i. During a Meeting, checks will be made by the Championship Eligibility / Safety Scrutineer or his appointed representative to ensure compliance with the Championship tyre regulations. Non-compliance at any time during the Event may be the subject of a report to the Clerk of the Course.
- j. It shall be the sole responsibility of the Drivers/Entrants in Class A and Class B to judge whether the track is wet enough to justify the use of wet weather tyres.
- k. The Clerk of the Course will not judge whether the track is wet enough to justify the use of wet weather tyres.
- l. Wet tyres may not be used in conjunction with dry tyres.

5.14 **Weights:**

5.14.1 **General:**

- a. The principle is to equalise the performance of the car and Driver combination. The minimum car/Driver weights excluding any success ballast, at the completion of every qualifying session and race must be in accordance with Championship Regulation 5.14.2 regardless of laps completed.
- b. It is forbidden to add any liquid(s) or other material(s) to the car, or to substitute any part(s) for a heavier one during qualifying session or race.
- c. If a Car loses a part during qualifying or a race, the weight of that part may be taken into account during eligibility checks. Following consultation, the Championship Eligibility Scrutineer will determine whether any lost part should be considered.

5.14.2 **Minimum weight:**

- a. The minimum weight is "in the condition in which the vehicle and the Competitor (wearing his complete racing apparel, scrutineered Race Suit, boots, gloves and helmet) including minimum Weight Ballast where applicable, (see Championship Regulation 5.14.4) crosses the finish line or at any other time during qualifying or race and without the addition or removal of any solid or fluid matter". For the purpose of the Regulation, qualifying or race is deemed to include any transfer to a place of post event scrutiny as directed by an official.
- b. Stickers (in 40mm white lettering) stating the cars minimum weight are to be displayed on the rear quarter windows. The minimum weight of the car should be as detailed in regulation 5.14.2
- c. The minimum Car/Driver weights for each class, excluding any success ballast, at the completion of every qualifying session and race must be in accordance with the following: -

cc	Min Weight kg
0 - 1600	1000
1601 - 1700	1025
1701 – 1800	1050
1801 – 1900	1075
1901 -2000	1100
2200 (Honda)	1150
Any vehicle using a sequential gearbox.	1150

5.14.3 **Ballast:** MSA Yearbook 2018 Regulation (section (j) 5.15 applies)

- a. Ballast, required to achieve the minimum weight and/ or success ballast as a performance equalisation measure must only be added inside the car on the front and/or rear passenger foot well.

- b. It is the competitor's responsibility to provide and fit their own ballast if it is required, and to ensure that ballast is fitted in a safe manner.
- c. Ballast must be attached to the shell/chassis via at least 4 mounting points using bolts with a minimum diameter of 8mm each with steel counter plates of at least 400 sq mm surface area and 3mm thickness. Ballast mountings must include provision for the fitting of scrutineer's wire seals.
- d. It is permitted to locate ballast within a touring car specification ballast box. The ballast box attachment to the shell/chassis must respect MSA Yearbook 2018 requirements and must include provision for the fitting of scrutineer's wire seals.
- e. The total weight of "minimum weight" or "success ballast" carried must be declared, in writing to the Championship Eligibility Scrutineer and/or his appointed representative and be in position, at all times during practice and racing.

5.14.4 Minimum weight ballast:

- a. It is permitted to carry ballast to achieve minimum weight.
- b. The minimum weight ballast shall be carried in addition to and shall not form any part of Success Ballast as defined in Championship Regulations 5.14.5

5.14.5 Success Ballast:

- a. Any vehicle may be required to carry success ballast as a performance equalisation measure. Such success ballast will be specified by the Technical Committee based upon the performance of the car in competition.
- b. The Technical Committee reserves the right to review the weight handicaps at any time during the Championship.
- c. The success ballast handicap is carried in addition to the 'Base' weight of the car as defined in Championship Regulation 5.14.2.
- d. Competitors will be informed by official bulletin of the amount of weight they must carry.
- e. The maximum success ballast allocated shall be 150kg.
- f. Any vehicle which fails to carry the success ballast specified by the Technical Committee will automatically be deemed not to comply with the Technical Regulations.

5.15 Fuel Tank/Fuel:

5.15.1 Types:

- a. Fuel tank construction is "free" subject to compliance with MSA Yearbook 2018 Requirements.
- b. Racing type safety fuel cell may be used. MSA Yearbook 2018 Regulation (K)4 applies.

5.15.2 Location:

Fuel tank/cell may be located anywhere to the rear of the driver's seat, subject to compliance with MSA Yearbook 2018 Requirements.

5.15.3 Fuel:

- a. Only 'Pump' fuel as defined in section (B) Nomenclature & Definitions of the MSA yearbook 2018 is allowed.
- b. An MSA approved additive is permitted.
- c. The introduction of any other media into the engine is prohibited.
- d. Refuelling is not permitted during qualifying, on the starting grid or during a race.

5.15.4 The fuel pump construction and positioning is "free" subject to compliance with MSA Yearbook 2016 Requirements.


5.16. Silencing:

- a. All cars must conform to the current MSA noise requirements as detailed in the MSA Yearbook 2018 Regulations J5.17 & J5.18.
- b. Silencers are free subject to compliance with 5.16 a.

5.17 Numbers and Championship Decals:

5.17.1 Positions:

- a. Race numbers must be displayed in accordance with MSA Yearbook 2018 Regulation J4 or Q11.4. When using J4 option, Competitors must display competition numbers on a CTCRC number background.
- b. Race numbers shall be a three-digit number. The first digit of the three-digit number will always be 1. For example, 101, 126.
- ~~c. The numbers for each rear side window, which shall be;~~
 - ~~(i) A minimum of 200mm high~~
 - ~~(ii) With a stroke width of at least 20mm~~
 - ~~(iii) Coloured reflective yellow.~~
- ~~d. The windscreen of all cars must display the competition number accordance with MSA Yearbook 2018 Regulation Q.11.4.2. positioned on the upper area of the passenger's side of the windscreen, as follows;~~
 - ~~(i) The numerals must be at least 150mm high~~
 - ~~(ii) Be in the same colour and font as those displayed on the rear side windows~~
 - ~~(iii) Be placed no closer than 50mm from the lower edge of the windscreen "sun-strip" and 50mm from the side edge of the windscreen.~~
- e. Only competition numbers allocated by the CTCRC Registrar are to be displayed. ~~They must be displayed in accordance with MSA regulation J4 and remain as allocated until the end of the season.~~
- f. ~~Competitors must display competition numbers on a CTCRC number background.~~ CTCRC decals and those of the series sponsors, promoters and the BARC are required to be displayed in an un-obscured position in accordance with the following table.

Item		Placement
CTCRC "classictouringcars.com" sun strip	TBC	Top of Rear windscreen
Series Sponsor Sun strip	TBC	Top of front windscreen
Series Sponsor logos (if required - TBC)	TBC	One on each side of the car (front wing, rear door or rear quarter)
Classic Touring Car Club logo	TBC	One on each side of the car (front or rear door),
BARC Logo		One on each side of the car (front wing, rear door or rear quarter)
Class Letter (50mm White lettering)	e.g. 123 A	One on each of the rear side windows, adjacent to race numbers
Class Weight (40mm White Lettering)	e.g. 950kg	One on each of the rear side windows

- g. Decals shall be fitted as issued. They may not be cut or otherwise defaced or deformed without prior approval from the Championship Organisers.
- h. Non CTCRC approved decals such as, but not restricted to, other clubs and other championship/series decals are not to be displayed on vehicles. These should be removed or covered up.
- i. Points will ONLY be awarded to competitors correctly displaying the required decals
- j. One set of Decals may be obtained from the CTCRC nominated supplier free of charge.
- k. A charge may be levied for any extra decals required to those issued in 5.17.1 j.
- l. 5.17.1 i. & 5.17.1 j. are only applicable to current fully paid up, Racing members of the CTCRC.

TOYO TIRES PRE-2005 PRODUCTION TOURING CARS CHAMPIONSHIP

5 TECHNICAL

5.1 Introduction:

- a. The following technical regulations are set out in accordance with MSA specified format and it should be clearly understood that if the following texts do not clearly state that you can do it, you should adopt the principal that you cannot.
- b. Anything that is not explicitly authorised in writing by the Championship Technical Committee and anything that is not specified either in these regulations or in any Official Championship Bulletin is therefore strictly forbidden and as a result will be regarded as a breach of these Technical Regulations and may be penalised as described in section 4. It should be clearly understood that technical regulations will be strictly enforced and any modification, addition, variation, tuning or removal other than specifically permitted in these regulations is prohibited.
- c. Regulations that have changed in substance from the 2017 CTCRC TOYO TIRES PRE-2005 TOURING CAR CHAMPIONSHIP Technical Regulations are normally indicated by being highlighted.

~~5.1.1 Technical Queries:~~

~~Any matter affecting Technical Regulations must be put in writing to the Championship Eligibility Scrutineer, as any claim to have received clarifications or rulings on the Regulations must be substantiated by the production, on demand, of written confirmation of such rulings.~~

5.2 Description:

5.2.1 General

- a. The CTCRC Pre-2005 Production Touring Car Series is for competitors participating in two-wheel drive, four-seat saloon/hatchback or coupé cars marketed in the UK between 1st January 1993 and 31st December 2004 of which more than 5000 examples were manufactured in any 12-month period during the overall production run and/or were homologated by FIA for competition in Group N category for production cars between these dates.
- b. All cars are subject to approval of eligibility by the Championship Organisers.
- c. Engines must not exceed FOUR cylinders
- d. Engine capacity not to exceed 2000cc (plus permitted overbore).
- e. Turbo-charged or super-charged vehicles are not eligible.
- f. Honda type r models are not eligible

5.2.2 Eligibility:

- a. All cars are subject to approval of their eligibility by the Championship Organisers.
- b. The responsibility to prove eligibility is that of the Competitor at all times. For clarification of a Competitor refer to the MSA Yearbook 2018 Section (B) Nomenclature & Definitions.
- c. Proof of a vehicles' eligibility may be substantiated by production of a Historic Technical Passport (HTP) or Homologation papers stamped by the ASN. These documents, where issued, for that vehicle and these must be available for inspection when required.
- d. Where no such paperwork is available, the Competitor must produce written confirmation from the Championship Organisers as to the eligibility of the vehicle model in question.
- e. The Championship Organisers in conjunction with a Licensed Eligibility Scrutineer shall determine matters as to the eligibility and the implementation which may involve photographing any part of the vehicle and performing electrical diagnostics at the scrutineer's discretion.

5.2.3 Unless specifically permitted in these regulations, all components must be to original Manufacturers **Standard** Specification / Pattern.

i. **STANDARD:** The word 'standard' used within these technical regulations as a description of components is to be interpreted as per 'Standard Part' defined in Section B – Nomenclature & definitions in the MSA Blue Book. Checking will be by comparison to spare parts supplied by the manufacturer's official agent, comparison to standard parts or by any other means necessary to ensure compliance. Standard Part: 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 entry form.

ii. **STANDARD PATTERN:** The phrase 'standard pattern' used within these technical regulations as a description of components is to be interpreted as per 'Standard Pattern Part' defined in Section B – Nomenclature & definitions in the MSA Blue Book. Checking will be by comparison to standard pattern part or any other means necessary to ensure compliance. **Standard Pattern Part:** A replacement part that has a similar form shape and features as the standard part and is made using similar materials and manufacturing processes e.g. a standard part, manufactured by a non-original equipment supplier that is fully interchangeable with the standard part.

5.2.4 Class Structure:

5.2.4.1 The Class Structure will be based on the original Manufacturers specified production horse power for the vehicle.

The following will be used: -

- Class A Above 160 BHP
- Class B 140BHP to 159BHP
- Class C 0 to 139BHP

5.2.4.2 **Invitation** Competitors

- a. Competitors with Vehicles not complying with these regulations may be invited to compete subject to Championship Organisers approval.
- b. Vehicles that, whilst not strictly adhering to the regulations, have been prepared sympathetically to the spirit of the championship and with Championship Organisers approval, may be invited to race under observation.
- c. Competitors wishing to race as **Invitation** must submit a written specification of their vehicle, to the Co-ordinator. It must detail all areas where the vehicle does not comply with these regulations. This specification shall be made available to the eligibility scrutineers for pre and post event checks.
- d. **Invitation** vehicles will be invited by the Championship Organisers on a race by race and individual vehicle basis. The vehicle must not deviate from the specification submitted, unless such changes are approved by the Championship Organisers. Any approval may be withdrawn at any time by the Championship Organisers.
- e. Invitation competitors will not eligible for: -
 - i. Podium recognition
 - ii. Championship award / trophies
 - ii. Championship points.

5.2.5 **Presentation:**

- a. At the start of each free practice, qualifying session or race, the cars must be presented to a high standard and must be clean and in good order. The Championship Organisers reserve the right to forbid cars not meeting this requirement from taking part.
- b. Presentation of a vehicle for scrutineering is a declaration by the Competitor that the vehicle is eligible for that event.

5.2.6 **Technical Checking:**

- a. The Championship Eligibility Scrutineer / Championship Organisers reserve the right to inspect, test, measure, seal or impound any component fitted to or used in conjunction with any car registered in the Championship either personally or through a nominated representative. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been

- carried out. This will be the sole responsibility of the Competitor. Exceptions to this may include appeal / protest according to the MSA Yearbook 2018.
- b. Any breach of the Technical Regulations or a breach of the procedure surrounding the Technical Regulations will be the subject of a report to the Clerk of the Course.
 - c. A car found to be ineligible for the championship must race only in the invitation class and no points will be scored until the vehicle conforms to the regulations.
 - d. Any component sealed by an MSA Licensed Scrutineer must remain sealed and may not be tampered with in any way. In the event of a seal needing to be broken for repair or replacement, prior to doing so the Championship Eligibility Scrutineer must be informed in writing and approve the seal being broken. Re-sealing by an MSA Championship Scrutineer will take place after technical checks have been made at the next race meeting.
 - e. If a vehicle/component is sealed for subsequent technical examination the Championship Eligibility Scrutineer, within the applicable time limit, will state to the Competitor/Competitor that he will examine the vehicle/component on a stated date and time and at a specified location and the sealed items must be made available for his inspection. These arrangements are not negotiable. If a vehicle/component is not made available for an eligibility examination as required by the Championship Eligibility Scrutineer, it will be considered as ineligible and will be reported as such to the Clerk of the Course for the application of penalties laid down under MSA Regulations and these Championship Regulations.

~~5.2.6 — Technical Passport:~~

- ~~a. All Competitors/Drivers are issued with a Technical Passport. This is used to record information relating to that car during the season.~~
- ~~b. The Competitor/Driver is responsible for the safe keeping of the passport, which shall be carried in the car at all times.~~
- ~~c. All cars are issued with a Technical Passport wallet.~~
- ~~d. No car is permitted to take part in an Event unless the Technical Passport is available for inspection and is a true reflection of the vehicle details.~~
- ~~e. The only person authorised to make changes to the details of the Technical Passport is the Championship Eligibility Scrutineer or his appointed representative.~~
- ~~f. Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~
- ~~g. Details contained within the Technical Passport must be submitted by the Competitor at the time of registration for the Championship. A Registration will not be accepted without submission of the relevant details.~~

5.3 Safety Requirements:

- 5.3.1 All MSA Yearbook 2018, Section (K), Competitor Safety Criteria Regulations, apply as relevant unless stated herein.

5.3.2 Safety Roll-Over Structures: - (K) 1 to (K)1.8) applies

- a. All vehicles must be fitted with a safety roll-over structure as defined in the MSA Yearbook 2018 - Section K
- b. Interior fittings, trim and bodywork may be locally modified to allow fitting of the safety roll-over structure and any door bars.
- ~~c. Cars running non-steel doors must be fitted with double door bars on the driver's side, either crossed or parallel.~~
- c. It is permitted to attach the safety roll-over structure to the body shell at additional points in excess to the mandatory mounting points as detailed in the MSA Yearbook 2018 - Section K.

5.3.3 Fire Extinguisher: (K3 to K3.5 applies)

- a. All vehicles must be equipped with a fire extinguisher. MSA Yearbook 2018 Regulation Q 19.14.7 applies
- b. The fire extinguisher must not be disarmed in any Parc Fermé area without the specific permission of the Championship Eligibility Scrutineer. Any Competitor that is found with a disarmed fire extinguisher in Parc Fermé for whatever reason will be penalised.

- c. The following information must be clearly displayed on each fire extinguisher:
 - i) Type of extinguishant
 - iii) Weight or volume of extinguishant
- d. It is recommended that the following information is clearly displayed on each fire extinguisher:
 - i) Capacity
 - ii) Service date of extinguisher. It is recommended that it must be less than 2 years since the filling date or the last service date.
- e. During Events all extinguisher systems must be in the 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times while competing or practising, including post-Event scrutineering.
- f. The external triggering point must be positioned close to the circuit breaker (or combined with it) and must be marked by the letter "E" in red inside a white circle of at least 10cm diameter with a red edge in accordance with MSA Yearbook 2016 Regulation (K)3.2.2

5.3.4 Main External Circuit Breaker:

- a. A Main External Circuit Breaker in compliance with the 2018 MSA Yearbook Section (K) 8. is mandatory.
- b. The switch location must be identified by a Red Spark on a white edged blue triangle with a base of at least 12cm. and the 'On' and 'Off' positions clearly marked.
- c. The circuit breaker when 'operated' must isolate all electrical circuits, data loggers, transponders, etc.
- d. When the circuit breaker is 'operated' there must be no power source capable of keeping the engine running.
- e. The triggering system for the circuit breaker should be situated at the lower part of the windscreen mounting, preferably on the driver's side or below the rear window.

5.3.5 Lights:

Lights detailed in Championship Regulations 5.10.5 must be in working order throughout the entire Event.

5.3.6 Seat and Seat Mounting: ~~(K 2.2. applies)~~

- a. The Seat and Seat Mounting shall comply with the MSA Yearbook 2018 Regulation (K) 2.2 and (K) 2.3
- b. It is recommended that the Driver's seat is a racing seat with a current FIA homologation.
- c. Additional seat padding is permitted to a maximum of 50mm. Any additional padding or covering placed on the seat must be fire retardant to FIA standard 8855-1999.
- d. The seat mountings shall be appropriate to the seat fitted (and complying with FIA Article 253.16) must be used.

5.3.7 Seat Belts: - (K 2.1. applies)

- a. Mandatory use of seat belts. MSA Yearbook 2018 Regulation (Q) 19.14.2 applies.
- b. Seat belts fitted, the seat belts must comply with Championship Regulation 5.3.7 c. to 5.3.7 e. inclusive.
- c. The Driver's seat belts must have a current FIA homologation.
- d. It is mandatory to use seat belts, with a minimum 'four point' configuration. Complying with the MSA Yearbook Regulation 2018 (K) 2.1.2
- e. Seat belts must be worn and be correctly adjusted at all times during events: (Two shoulder straps and one lap strap, with four anchorage points on the chassis/body shell or roll over bar of the vehicle).

5.3.8 Race Clothing: (K9.1 and K9.3 applies)

- a. Competitors are strongly advised to wear flame resistant, socks, underwear and balaclava.
- b. Flame resistant gloves and shoes are mandatory. MSA Yearbook 2018 Regulation (Q) 10.1(c) applies.

5.3.9 **Crash Helmet.**

Crash helmets must comply with the requirements of MSA Yearbook 2018 (K) 10.1 to (K) 10.4 applies).

5.3.10 **FHR.**

Mandatory for all forms of circuit racing with the exception of period defined vehicles (pre-1977), which will remain as a recommendation. MSA Yearbook 2018 (Q) 10.1.e. applies.

5.4 **General Technical Requirements and Exceptions:**

- a. All vehicles must comply with MSA General Technical Regulations and the relevant parts of Sections J & Q of the MSA Yearbook 2018 except where specified below.
- b. Vehicles may be brought up to any series production specifications for that model prior to 1st January 2005. For the avoidance of doubt, 'model' shall mean a vehicle of the same body shell shape, size, specification and silhouette.
- c. Any component listed on the MSA, FIA/FISA (or national equivalent for foreign cars) homologation papers for use in Group One during the series production of that model may be substituted for the original production component provided that the substitute part was in production or homologated prior to 1st January 2005. The responsibility to prove eligibility is that of the Competitor at all times.
- d. No component may be substituted which serves to alter the shape or size of the body shell and/or panels themselves or increases the capacity of the engine beyond that which was in production or homologated prior to 1st January 2005. Full details of optional equipment must be submitted to the CTCRC for possible inclusion on a vehicle by vehicle basis prior to that item of equipment being fitted.
- e. Fixing components such as nuts, screws, washers, lock washers; spring washers, etc. are free and may be upgraded.
- f. It is permitted to repair faulty threads by the use of Keen Inserts/ Helicoils. Where thread inserts are utilised the original thread diameter and pitch must be respected.
- g. Within these Technical Regulations the word "standard", "original" or "pattern Part" used as a description of components is to be interpreted as: "The specified component from the factory or the manufacturers or importers parts list, prior to 1st January 2005. for the model or engine shown on the entry form or registration form .
- h. No modifications are permitted beyond the repair or adjustment processes specified by the factory or the manufacturer". Eligibility checking will be by comparison to spare parts supplied by the manufacturer's official agent.
- j. "Free" as referred to in these Technical Regulations shall mean be interpreted as "within the limitations imposed by the MSA Yearbook 2018 Regulations".
- j. Advertising on vehicles is subject to requirements set out in MSA Yearbook 2018 Regulation (H)29.1.2 & (H)29.1.3.
- k. Competitors registering do so in the full knowledge that CTCRC reserves the right to require the Eligibility Scrutineer to carry out, record and enforce eligibility checks which may include the sealing of component(s) for subsequent checking. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out

5.5 **Chassis:**

- a. The chassis as produced by the manufacturer with the original material must be retained in all aspects in respect of material, thickness & contour.
- b. The addition of chassis material or strengthening of chassis, or chassis members, is prohibited.
- c. Lightening or reducing of chassis, or chassis member strength, is prohibited.
- d. Seam welding is not permitted.

5.5.1 **Towing eyes / straps**

- a. Must be a contrasting colour to the surrounding area (usually either Day-Glo red or yellow) and must respect the requirements of MSA Yearbook 2018 (Q) 19.1.3).

- b. In addition to 5.5.6 a. it is strongly recommended that all cars must, wherever possible, be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre-line. They must be clearly visible, marked with an arrow and the word “tow” and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.

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

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

5.6 Bodywork and dimensions:

5.6.1 General:

- a. Bodywork must be complete and standard in shape and silhouette, material and thickness on all exterior surfaces, unless detailed otherwise in Championship Regulations 5.6.3
- b. Replacement of panels with non-original material is prohibited.
- c. It is only permitted to make holes in **bulkheads** for the passage of cables, fuel, water, oil, hydraulic, instrument or fire extinguisher lines.
- d. All redundant holes must be covered with a non-flammable material.

5.6.2 Interior:

- a. Floor carpets, under felt, sound deadening, headlining, front and rear parcel shelves, centre consoles, the front passenger seat, rear seats and trim in the boot/luggage compartment may be removed.
- b. All internal panels and subassemblies must remain as originally manufactured. Strengthening is not permitted.
- c. Battery trays and their supports may be removed.
- d. The dashboard must be retained as originally manufactured in original material. No modifications are permitted.
- e. Instrumentation is free provided it is fitted within the existing cut out areas in the standard dash panel (i.e. the speedometer binnacle or the apertures created by the removal of heater controls / audio equipment)
- f. Instrument pods other than those supplied as standard are not permitted.
- g. The interior door trim must be retained in original or other non-flammable material.
- h. Window mechanisms must remain as production and must be operational
- i. Vehicles must be fitted with at least one interior rear – view mirror. The fitment of a wide-angle interior rear view mirror is recommended.
- j. Driver’s seat is free providing Championship Regulation 5.3.5 is respected. The driver must be located entirely to one side of the centre line of the car. Local modifications are permitted for the purposes of secure and safe mounting
- k. Heaters and interior ventilation systems may be removed. **It is recommended to retain a heating and de-misting system.**
- l. Air conditioning / climate control systems and their related hardware may be removed
- m. A strut brace between the front strut towers may be fitted.
- n. A strut brace between the rear strut towers may be fitted.

5.6.3 Exterior:

- a. Reworking or modification to exterior bodywork is prohibited but any part of the arch/wing pressing folded into the wheel arch may be deformed, but not removed, to give clearance to the tyres.
- b. The original boot and bonnet hinges and fasteners must be retained.
- c. The original bonnet and boot shut lines must be as in production.

- d. All external trim must be retained except for external decorative strips which may be removed.
 - e. Radiator grill slats must not be removed unless they are less than 1" apart, if so alternate slats may be removed.
 - f. Original glass windows shall be retained as per production. All original window mounting hardware (i.e. mounting rubbers, sliders, guides, quarter-lights and other externally visible features) must be retained.
- 5.6.4 **Silhouette:**
Bodywork must be complete and standard in shape and silhouette. Any item below the centreline of the wheel must not project beyond a line drawn at 45 degrees to the horizontal and tangential to the bodywork (not including over-riders).
- 5.6.5 **Ground clearance:**
- a. Minimum ground clearance is 100mm excluding exhausts and silencers.
 - b. Will be measured with the Driver on board (wearing his complete racing apparel),
 - c. Will be measured with the car and Driver in the condition in which they cross the Finish Line or at any other time during an Event and without the removal of any solid or fluid matter including fuel.
 - d. Ride height will be measured on any reasonably flat surface as deemed by the Championship Eligibility Scrutineer or his nominated representative. In the event of any discrepancy the circuit designated flat patch will be used to make any final judgement
- 5.7 **Engine:**
- 5.7.1 **General:**
- a. All engine components must be the standard production components **for the make and model registered and entered** unless stated otherwise in Championship Regulation Section 5.7
 - ~~b. — that model. The organisers may require vehicles to be tested for power output. Such testing Vehicles must not exceed 110% of the manufacturers published standard power output for will be done at an approved testing facility or vehicles may be tested at the circuit.~~
 - b.** The original sump must be retained but may be baffled.
 - c.** "Accusump" systems are permitted.
- 5.7.2 Dry sump systems are prohibited.
- 5.7.3 **Cylinder Block:**
- a. It is permitted to re-bore the standard size cylinder block up to a maximum of plus 0.065". (1.651mm)
 - b. Only original manufacturers over-size pistons are permitted.
- 5.7.4 **Cylinder head:**
- a. Cleaning and de-coking of cylinder heads is permitted but NO METAL MAY BE REMOVED FROM ANY PORT OR COMBUSTION CHAMBER.
 - b. Polishing and porting is prohibited.
- 5.7.5 **Camshafts:** - Vernier or adjustable timing gears are not permitted unless fitted as standard.
- 5.7.6 **Location:** - The engine must be located in the original position.
- 5.7.7 **Radiators:**
- a. Only original production radiators are permitted and must remain in their original location.
 - b. The fitting of additional water radiators is permitted provided they are located within the periphery of the bodywork.
 - c. The fitting of additional oil coolers is permitted provided they are located within the periphery of the bodywork.

- d. Modification of the cooling and oil systems are permitted to facilitate the installation of items detailed in Championship Regulation 5.7.7 b. to 5.7.7 c. inclusive.

5.7.8 Induction Systems

- a. Only the original production induction system is permitted unless modifications are permitted within the Championship Regulations
- b. Air Filters are free.
- c. It is permitted to remove air filter and air filter boxes.
- d. Air ducting/ trunking is free provided it does not extend beyond the periphery of the bodywork and does not produce a "Ram Effect".
- e. Anti-surge pipes are permitted.
- f. Return pipes from the injection system are permitted.

5.7.9 Ignition

- a. The ignition system must be of original type and system.
- b. The original method of firing must be retained'
- c. The original firing order must not be changed.
- d. Engine management Electronic Control Units must be standard factory units for make and model registered and entered, remaps are permitted

5.7.10 Exhaust System:

- a. Only original production exhaust manifolds for make and model registered and entered are permitted.

Only the original production exhaust manifold is permitted unless modifications are permitted within the Championship Regulations.

- b. All cars manufactured after 31 December 1999 must be fitted with a catalytic converter. MSA Yearbook 2018 Regulation (J) 5.16.7. applies.
- c. The catalytic converter must be fitted in the "original" position in the exhaust system as originally supplied by the manufacturer.
- d. The catalytic converter must be fully functioning and may be inspected for compliance during the season.
- e. The exhaust system, downstream of the manifold is free if MSA Yearbook 2018 Regulations and Championship Regulation 5.7.10 b. c & d are respected.
- f. The exhaust system, downstream of the catalytic converter is free if MSA Yearbook 2018 Regulations and Championship Regulation 5.7.10 b. c & d are respected.

5.7.11 Seals:

- a. To allow for scrutineer's wire seals, every installed engine must have 1.6mm (1/16") holes drilled in readily accessible locations as follows: -
 - i) Sump: Cross drilled through two adjacent retaining screws or studs.
 - ii) Rocker/cam cover or head bolt: Cross drilled through two adjacent retaining screws or studs.
- b. Engines may be sealed at any time by a Licensed Eligibility Scrutineer and only by written permission in advance from the Championship Organisers or a Licensed Eligibility Scrutineer may seals be broken.

5.8 Suspensions:

5.8.1 Suspension type must remain unaltered from production specification

5.8.2 Original suspension components (or pattern parts to the manufacturer's original specification) must be employed in their original positions but may be strengthened.

5.8.3 Springs:

- a. Suspension springs are free if Championship Regulations 5.8.3 b. and 5.8.3c. are respected.
- b. The original operating principle as fitted by the manufacturer, (coil, leaf, torsion) shall be employed.

- c. No more than the original number of springs as fitted by the manufacturer are permitted.
- d. Spring caps are free.
- e. Spring platforms may be adjustable.

5.8.4 Shock Absorbers

- a. Shock Absorbers are free if Championship Regulation 5.8.4 b. to 5.8.4f. inclusive are respected.
- b. The original operating principle, as fitted by the manufacturer, (hydraulic, friction, lever or telescopic) must be employed.
- c. No more than the original number of shock absorbers, as fitted by the manufacturer are permitted.
- d. Front shock absorbers are permitted to have adjustable, rose jointed top mounts providing they are mounted on the original mounting / fixing points.
- ~~e. It is permitted to reposition the front shock absorber top mounting / fixing points by repositioning the mounting / fixing points. Once repositioned the mounting / fixing points will be non-adjustable~~
- e. Shock absorbers not covered by Championship Regulation 5.8.4 d. and 5.8.4 e. must be mounted on the original mounting / fixing points.
- f. A telescopic damper may be converted to a single adjustable coil-over damper and the redundant coil spring removed.
- g. Remote reservoirs are not permitted

5.8.5 Anti roll bars:

Anti-roll bars and their mountings must remain as in production.

5.8.6 Suspension bushes:

- a. Suspension bushes are free providing the original production bush can be replaced in its original position without modification to the bush housing.
- b. Spherical bearings, track rod ends or rose joints are prohibited unless fitted as standard or in conjunction with Championship Regulation 5.8.4 d.

5.9 Transmission:

- a. Only the original production gearbox may be used.
- b. The gearbox must remain in the original position.
- c. The gearbox must use gear ratios as per the standard production unit.
- d. Gear levers and gearshift mechanisms are free but must employ the original method of operation, shift pattern and body shell aperture.
- e. Locked, limited-slip, torque-biasing, and/or viscous-coupled differentials are not permitted
- f. The rear axle must remain in its original position.
- g. Where a differential casing is removable from an axle casing the differential casing must be regarded as part of the original axle casing and is covered by the same technical regulations.
- h. Only the original production drive shafts and prop shafts may be used.
- i. heavy duty clutches are permitted. Paddle and multi plate clutches are not permitted

5.10 Electrical:

5.10.1 Electrical equipment is free if Championship Regulation 5.10.2. to 5.10.5. inclusive are respected.

5.10.2 Vehicle Onboard Starter:

Engines are to be started at all times by the Vehicle Onboard Starter except that the use of an external portable slave battery is permitted to aid start up only in the paddock, assembly area, pit lane and on the grid.

5.10.3 Battery:

- a. The battery and starter motor must be capable of performing a number of repetitive starts.

- b. The battery makes and type is free within MSA Yearbook 2018 Regulations, (J) 5.14.1 to (J) 5.14.7 applies.
- c. The Battery position and orientation is free within MSA Yearbook 2018 Regulations, (J) 5.14.1 to (J) 5.14.7 applies.

5.10.4 **Charging Circuit:**

The Charging Circuit must be connected and operational all times whilst the Engine is running.

5.10.5 **Lights:**

- a. All cars must be fitted with the following: -
 - i) A minimum of two forward facing main headlights.
 - ii) A minimum of two rear facing red tail lights.
 - iii) A minimum of two rear facing red brake lights.
 - iv) A rear facing red high intensity fog light (or two where two are fitted as standard equipment by the vehicle manufacturer in question) MSA Yearbook 2018, Section (K) 5. applies.
- b. Lights detailed in Championship Regulation 5.10.5 a. iii) must be operated only by the brake pedal and without a delay.
- c. Lights detailed in Championship Regulation 5.10.5 a.iv) must not be operated by the brake pedal.
- d. It is not permitted to tint or paint the front or rear lighting units.
- e. All lights detailed in Regulation 5.10.5 a. must be in working order throughout the entire Event and must be able to be switched on by the Driver when seated normally in the car.
- f. All light lenses must be complete and standard in shape, material and thickness.
- g. It is permitted to add clear protective headlight covers.

- 5.10.6. An operative front windscreen wiper must be fitted and in full working order throughout the entire Event. MSA Yearbook 2018, Regulation (Q) 19.15.3. Applies.

5.11. **Brakes:**

- a. Standard brake callipers must be retained.
- b. ABS braking systems may be removed, disabled or added
- c. Brake discs may be aftermarket items but must be of one-piece construction of the original size and material.
- d. Rear drum brakes may be replaced with discs and callipers providing these components have come from the same manufacturer and were fitted to that model of vehicle.
- e. Brake pad/shoe material is free.
- f. Adjustable bias brake pedal boxes are prohibited.
- g. A brake bias valve may be fitted.
- h. High quality braided brake hoses may be fitted and run through the driver's compartment as required.
- i. Forward facing fog lights mounted in, or under, the front bumper may be removed. Internal bodywork or trim behind the original fog light locations may be modified solely to allow the fitment of ducting from the original fog light locations to the front brake discs. The cross-sectional area of the ducting to each front brake disc must not exceed 45cm².
- j. The original hand brake must be retained and must be fully operational

5.12 **Wheels and Steering:**

- a. For all classes, the wheel diameter and width must comply with the maker's original specification for wheels fitted to the vehicle in question
- b. Wheels may be manufactured from steel or aluminium but must be of one-piece construction.
- c. Magnesium wheels are prohibited.
- d. Front and rear wheels must be of the same size.
- e. Power assisted steering may be fitted/removed.
- f. Steering wheels are free providing MSA Yearbook 2018 Regulation (J) 5.7.1. and (J) 5.7.2. is respected

- g. Where the original steering wheel is retained the SRS Airbag MUST be removed/disabled.
- h. Quick release steering bosses may be fitted.

5.13 Tyres:

- a. The control tyre for the Championship is manufactured by Toyo tyres.
- b. Use of the Toyo Tyres Proxes R888 or Toyo Tyres Proxes R888R tyre is MANDATORY.
- c. 'New' tyres may only be purchased from the approved supplier, Mike Stokes Motorsport.
- d. No modification to tread pattern or tread depth by cutting is allowed.
- e. Tyres must be listed by the tyre manufacturer as medium, or harder, for saloon car circuit applications. Soft compounds are not permitted.
- f. Tyres will not be subject to a limiting Regulation.
- g. During a Meeting, checks will be made by the Championship Eligibility / Safety Scrutineer or his appointed representative to ensure compliance with the Championship tyre regulations. Non-compliance at any time during the Event may be the subject of a report to the Clerk of the Course.
- h. Tyres must only be used in the standard condition as supplied by the manufacturer. The application of any material (liquid, solid or gas) to any part(s) of a tyre during free practice, qualifying session or race is forbidden. The only exceptions are the use of a mixture of pure domestic water and the lubricant applied to the tyre bead for fitting purposes.
- i. Pressure regulation valves are prohibited. MSA Yearbook 2018 Regulation, ((J) 5.9.4. applies)

5.14 Weights:

5.14.1 General:

- a. The principle is to equalise the performance of the car and Driver combination. The minimum car/Driver weights excluding any success ballast, at the completion of every qualifying session and race must be in accordance with Championship Regulation 5.14.2 regardless of laps completed.
- b. It is forbidden to add any liquid(s) or other material(s) to the car, or to substitute any part(s) for a heavier one during qualifying session or race.
- c. If a Car loses a part during qualifying or a race, the weight of that part may be taken into account during eligibility checks. Following consultation, the Championship Eligibility Scrutineer will determine whether any lost part should be taken into account.
- d. The re-distribution of weight in the car, by reducing the gauge or section of material in any component and by adding ballast or increasing material elsewhere, is not permitted. Weight may only be removed within the limits of the modifications detailed within these regulations.

5.14.2 Minimum weight:

- a. The minimum weight is "in the condition in which the vehicle and the Competitor (wearing his complete racing apparel, scrutineered Race Suit, boots, gloves and helmet) including minimum Weight Ballast where applicable, (see Championship Regulation 5.14.4 crosses the finish line or at any other time during qualifying or race and without the addition or removal of any solid or fluid matter". For the purpose of the Regulation, qualifying or race is deemed to include any transfer to a place of post event scrutiny as directed by an official.
- b. Stickers (in 40mm white lettering) stating the cars minimum weight are to be displayed on the rear quarter windows. The minimum weight of the car should be as detailed in regulation 5.14.2
- c. The minimum Car/Driver weights for each class, excluding any success ballast, at the completion of every qualifying session and race must be in accordance with the following: -

Class A	1050Kg.
Class B	1000Kg.
Class C	950kg.

- d. It is permitted to carry ballast to achieve minimum weight.
- e. The minimum weight ballast shall be carried in addition to and shall not form any part of Success Ballast weight as defined in Championship Regulation 5.14.4

5.14.3 **Ballast**

- a. Ballast required to achieve the minimum weight or success ballast as a performance equalisation measure must only be added inside the car on the front and/or rear passenger foot well.
- b. It is the competitor's responsibility to provide and fit their own ballast if it is required, and to ensure that ballast is fitted in a safe manner.
- c. Ballast must be attached to the shell/chassis via at least 4 mounting points using bolts with a minimum diameter of 8mm each with steel counter plates of at least 400 sq mm surface area and 3mm thickness. Ballast mountings must include provision for the fitting of scrutineer's wire seals.
- d. The total weight of "minimum weight" or "success ballast" carried must be declared, in writing to the Championship Eligibility Scrutineer and/or his appointed representative and be in position, at all times during practice and racing.

5.14.4 **Minimum weight ballast:**

- a. It is permitted to carry ballast to achieve minimum weight.
- b. The minimum weight ballast shall be carried in addition to and shall not form any part of Success Ballast weight as defined in Championship Regulation 5.14.2

5.14.4 **Success Ballast:**

- a. Any vehicle may be required to carry success ballast as a performance equalisation measure. Such success ballast will be specified by the ~~Technical~~ Committee based upon the performance of the car in competition.
- b. The ~~Technical~~ Committee reserves the right to review the weight handicaps at any time during the Championship.
- c. The success ballast handicap is carried in addition to the 'Base' weight of the car as defined in Championship Regulation 5.14.2
- d. Competitors will be informed by official bulletin of the amount of weight they must carry.
- e. The maximum success ballast allocated shall be 150kg.
- f. Any vehicle which fails to carry the success ballast specified by the ~~Technical~~ Committee will automatically be deemed not to comply with the Technical Regulations.

5.14.6 Compliance with Regulation 5.14.2 and 5.14.5 will be checked prior to removal of fuel samples.

5.15. **Fuel Tank / Fuel:**

5.15.1 **Fuel Tank:**

- a. The original fuel tank must be retained in its original position.
- b. It is permitted to fit a fuel tank protection guard; its sole function must be the protection of the fuel tank. The design of the guard must be agreed with the Eligibility Scrutineer in writing, before being fitted to the car.

5.15.2 **Fuel:**

- a. Only 'Pump' fuel as defined in Section (B) Nomenclature & Definitions of the MSA Yearbook **2018** is allowed.
- b. An MSA approved additive is permitted.
- c. Refuelling is not permitted during qualifying, on the starting grid or during a race.

5.15.3 The original fuel pump must be retained and be fitted in its original position.


5.16 **Silencing:**

- a. All cars must conform to the current MSA noise requirements. MSA Yearbook **2018** Regulations **(J)** 5.18. applies.
- b. Silencers are free subject to compliance with MSA Yearbook **2018** Regulations **(J)** 5.17.

5.17 **Numbers and Championship Decals:**

5.17.1 Positions:

- a. Only competition numbers allocated by the CTCRC Registrar are to be displayed. They must be displayed in accordance with MSA regulation J4 and remain as allocated until the end of the season.
- b. Race numbers shall be a three-digit number. The first digit of the three-digit number will always be 2. For example, 201, 226.
- c. Competitors must display competition numbers on a CTCRC number background. CTCRC decals and those of the series sponsors, promoters and the BARC are required to be displayed in an un-obsured position in accordance with the following table.

Item		Placement
CTCRC "classictouringcars.com" sun strip	TBC	Top of rear windscreen
Series Sponsor Sun strip	TBC	Top of front windscreen
Series Sponsor logos (if required - TBC)	TBC	One on each side of the car (front wing, rear door or rear quarter)
BARC Logo		One on each side of the car (front wing, rear door or rear quarter)
Class Letter (40mm White lettering)	e.g. 223 A	adjacent to race numbers
Class Weight (40mm White Lettering)	e.g. 950kg	One on each of the rear side windows

- d. Decals shall be fitted as issued. They may not be cut or otherwise defaced or deformed without prior approval from the Championship Organisers.
- e. Non CTCRC approved decals such as, but not restricted to, other clubs and other championship/series decals are not to be displayed on vehicles. These should be removed or covered up.
- f. A Touring Car, Touring Car re-creation or a car running in period livery is only required to display the CTCRC "classictouringcars.com" sun strip
- g. Points will ONLY be awarded to competitors correctly displaying the required decals
- h. One set of Decals may be obtained from the CTCRC nominated supplier free of charge.
- i. A charge may be levied for any extra decals required to those issued in 5.17.1 g.
- j. 5.17.1 g. & 5.17.1 h. are only applicable to current fully paid up, Racing members of the CTCRC.

MRF TYRES CLASSIC THUNDER SALOONS

5 TECHNICAL

5.1 Introduction:

- a. The following technical regulations are set out in accordance with MSA specified format and it should be clearly understood that if the following texts do not clearly state that you can do it, you should adopt the principal that you cannot.
- b. Anything that is not explicitly authorised in writing by the Championship Technical Committee and anything that is not specified either in these regulations or in any Official Championship Bulletin is therefore strictly forbidden and thus will be regarded as a breach of these Technical Regulations and may be penalised as described in section 4. It should be clearly understood that technical regulations will be strictly enforced and any modification, addition, variation, tuning or removal other than specifically permitted in these regulations is prohibited.
- c. Regulations that have changed in substance from the 2017 HAMMERITE CLASSIC THUNDER SALOONS Technical Regulations are normally indicated by being highlighted.

- 5.1.1 Any matter affecting Technical Regulations must be put in writing to the Championship Eligibility Scrutineer, as any claim to have received clarifications or rulings on the Regulations must be substantiated by the production, on demand, of written confirmation of such rulings.

5.2 Description:

5.2.1 General

The Thunder Saloon Championship is for competitors participating in Saloon, Coupe, Hatchback and Estate cars based on the standard fibreglass or steel production shell and designed to carry at least four people which were marketed before 1st January 2011 and Historic Thunder Saloon Cars marketed before 1st January 1983. Sportscars built prior to 1983 may be eligible for class H1 or H2 and will be approved each season on an individual vehicle basis by the Championship Organisers, the car must not deviate from the submitted specification unless such changes are approved by the Championship Organisers.

5.2.2 Eligibility:

- a. All cars are subject to approval of their eligibility by the Championship Organisers.
- b. Cars marketed after 1st January 2011 may be eligible subject to Championship Organisers approval.
- c. Cars not complying with these regulations may be eligible subject to Championship Organisers approval.
- d. The following cars are NOT eligible for this championship.
 - i. The Nissan Skyline four-wheel drive
 - ii. Sports cars.
 - iii. Silhouettes
- e. **Space frame cars**
 - i. "Fully" space frame cars may be eligible for the series, subject to the requirements of Technical Regulations 5.2.2 e. ii. and 5.2.2 e. iii.
 - ii. "Partial" space frame cars may be eligible for Classes H1 & H2, subject to the requirements of Technical Regulations 5.2.2 f. ii. and 5.2.2 f. iii.
 - iii. Competitors wishing to run either a Fully, or Part space frame car must submit a written specification of the car to the Championship Organisers. This specification will be made available to the eligibility scrutineers for pre-and post-event checks. The specification must be submitted by the Competitor at the time of registration for the Championship. A Registration will not be accepted without submission of the relevant details.
 - iv. Space frame cars will be approved each season on an individual vehicle basis by the Championship Organisers and the car must not deviate from the submitted specification unless such changes are approved by the Championship Organisers.

- v. The committee reserve the right to amend this specification over the course of the season for the purposes of performance equalisation. Such specification will include but is not limited to; turbo and ancillaries, turbo restrictors (if required), injection systems, wheel sizes, tyres and minimum weights.
 - vi. Any approval may be withdrawn at any time by the Championship Organisers.
 - vii. Space frame cars will not eligible for: -
 - i. Championship award / trophies
 - ii. Championship points.
 - viii. Space frame cars may be eligible for a club award at the end of the season.
- f. **Four Wheel Drive Cars**
- i. Forced Induction, four-wheel drive cars up to a maximum engine capacity of 2200cc may be eligible for the series subject to the requirements of Technical Regulations 5.2.2 f. iii. to 5.2.2 f. vii inclusive.
 - ii. Normally aspirated, four-wheel drive cars of any engine capacity, may be eligible for the series subject to the requirements of Technical Regulations 5.2.2 f. iii. to 5.2.2 f. vii inclusive
 - iii. Competitors wishing to run a four-wheel drive car must submit a written specification of the car to the Championship Organisers. This specification will be made available to the eligibility scrutineers for pre-and post event checks. The specification must be submitted by the Competitor at the time of registration for the Championship. A Registration will not be accepted without submission of the relevant details.
 - iv. Cars will be approved each season on an individual vehicle basis by the Championship Organisers and the car must not deviate from the submitted specification unless such changes are approved by the Championship Organisers.
 - v. The committee reserve the right to amend this specification over the course of the season for the purposes of performance equalisation. Such specification will include but is not limited to; turbo and ancillaries, turbo restrictors (if required), injection systems, wheel sizes, tyres and minimum weights.
 - vi. Any approval may be withdrawn at any time by the Championship Organisers.
 - vii. Four-wheel drive cars will not be subject to the equivalency factor detailed in 5.2.4.3 a. when calculating engine capacity for the purposes of class eligibility.
- g. **Historic Cars**
- i. Forced Induction Historic cars are eligible for the series subject to the requirements of Technical Regulations.
 - ii. Normally aspirated, Historic cars are eligible for the series subject to the requirements of Technical Regulations.
 - h. The responsibility to prove eligibility is that of the Competitor at all times. For clarification of a Competitor refer to the MSA Yearbook 2018 section (B) Nomenclature & Definitions.
 - i. Proof of a vehicles' eligibility may be substantiated by production of a Historic Technical Passport (HTP) or Homologation papers stamped by the ASN. These documents, where issued, for that vehicle and these must be available for inspection when required.
 - j. Where no such paperwork is available, the Competitor must produce written confirmation from the Championship Organisers as to the eligibility of the vehicle model in question.
 - k. The Championship Organisers in conjunction with a Licensed Eligibility Scrutineer shall determine matters as to the eligibility and the implementation which may involve photographing any part of the vehicle and performing electrical diagnostics at the scrutineer's discretion.
- 5.2.3 Unless specifically permitted in these regulations, all components must be to original Manufacturers specification.
- 5.2.4 **Classes:**
- 5.2.4.1 Cars will run in five classes based on actual capacity plus equivalency factor, plus various modification based penalties and bonuses where applicable.
- Class A4 All four-wheel drive cars, inc forced induction, max 2200cc normally aspirated induction system cars. (No upper cc. limit)

~~Class A4T~~ All four-wheel drive forced induction system cars. (up to a maximum limit of 2200cc).

Class A2 All two-wheel drive cars 4000cc and above

Class B All two-wheel drive cars 3000cc to 3999cc

Class C All two-wheel drive cars 0000cc to 2999cc

Class S Space frame cars

~~Class D All vehicles eligible for classes A4. and A2 with a power rating of less than 300 BHP at the flywheel.~~

Class H1 Historic cars 3,300cc and over

Class H2 Historic cars up to a maximum of 3299cc

5.2.4.2 Invitation Competitors

- a. Competitors with Vehicles not complying with these regulations may be invited to compete subject to Championship Organisers approval.
- b. Vehicles that, whilst not strictly adhering to the regulations, have been prepared sympathetically to the spirit of the championship and with Championship Organisers approval, may be invited to race under observation.
- c. Competitors wishing to race as invitation must submit a written specification of their vehicle, to the Co-ordinator. It must detail all areas where the vehicle does not comply with these regulations. This specification shall be made available to the eligibility scrutineers for pre-and post-event checks.
- d. Invitation vehicles will be invited by the Championship Organisers on a race by race and individual vehicle basis. The vehicle must not deviate from the specification submitted, unless such changes are approved by the Championship Organisers. Any approval may be withdrawn at any time by the Championship Organisers.
- e. Invitation competitors will not be eligible for:
 - i. Podium recognition
 - ii. Championship award / trophies
 - ii. Championship points.

5.2.4.3 The following rules will also be applied;

- a. Forced induction engines are subject to an equivalency factor of 1.7 except as detailed in 5.2.2 f. vii.
- b. Rotary engines are subject to an equivalency factor of 2.0

5.2.5 Presentation:

- a. At the start of each free practice, qualifying session or race, the cars must be presented to a high standard and must be clean and in good order. The Championship Organisers reserve the right to forbid cars not meeting this requirement from taking part.
- b. Presentation of a vehicle for scrutineering is a declaration by the Competitor that the vehicle is eligible for that event.

5.2.6 Technical Checking:

- a. The Championship Eligibility Scrutineer / Championship Organisers reserve the right to inspect, test, measure, seal or impound any component fitted to or used in conjunction with any car registered in the Championship either personally or through a nominated representative.
The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out. This will be the sole responsibility of the Competitor. Exceptions to this may include appeal / protest according to the MSA Yearbook 2018.
- b. Any vehicle inspected following qualification or race and found to be in breach of the 2018 Technical Regulations or a breach of the procedure surrounding the Technical Regulations will be the subject of a report to the Clerk of the Course.
- c. A car found to be ineligible for the championship must race only in the invitation class and no points will be scored until the vehicle conforms to the regulations.

- d. Any component sealed by an MSA Licensed Scrutineer must remain sealed and may not be tampered with in any way. In the event of a seal needing to be broken for repair or replacement, prior to doing so the Championship Eligibility Scrutineer must be informed in writing and approve the seal being broken. Re-sealing by an MSA licenced Scrutineer will take place after technical checks have been made at the next race meeting.
- e. If a vehicle/component is sealed for subsequent technical examination the Championship Eligibility Scrutineer, within the applicable time limit, will state to the Competitor/Competitor that he will examine the vehicle/component on a stated date and time and at a specified location and the sealed items must be made available for his inspection. These arrangements are not negotiable. If a vehicle/component is not made available for an eligibility examination as required by the Championship Eligibility Scrutineer, it will be considered as ineligible and will be reported as such to the Clerk of the Course for the application of penalties laid down under MSA Regulations and these Championship Regulations.

~~5.2.7 Technical Passport:~~

- ~~a. All Competitors/Drivers are issued with a Technical Passport. This is used to record information relating to that car during the season.~~
- ~~b. The Competitor/Driver is responsible for the safe keeping of the passport, which shall be carried in the car at all times.~~
- ~~c. All cars are issued with a Technical Passport wallet.~~
- ~~d. No car is permitted to take part in an Event unless the Technical Passport is available for inspection and is a true reflection of the vehicle details.~~
- ~~e. The only person authorised to make changes to the details of the Technical Passport is the Championship Eligibility Scrutineer or his appointed representative.~~
- ~~f. Missing Technical Passports will be the subject of a report to the Clerk of the Course.~~
- ~~g. Details contained within the Technical Passport must be submitted by the Competitor at the time of registration for the Championship. A Registration will not be accepted without submission of the relevant details.~~

5.3 Safety Requirements:

5.3.1 All MSA Yearbook **2018**, Section K, Competitor Safety Criteria Regulations, apply as relevant unless stated herein.

5.3.2 Safety Roll-Over Structures: - (K 1 to K1.8) applies

- a. All vehicles must be fitted with a safety roll-over structure as defined in the MSA Yearbook **2018**- Section K.
- b. Interior fittings, trim and bodywork may be locally modified to allow fitting of the safety roll-over structure roll cage and any door bars.
- c. Cars running non-steel doors must be fitted with double door bars on the driver's side, either crossed or parallel.

5.3.3 Fire Extinguisher: K (3 to 3.5 applies)

- a. All vehicles must be equipped with a fire extinguisher. MSA Yearbook **2018** Regulation Q 19.14.7 applies
- b. Vehicles of Periods A-F must be equipped with a fire extinguisher in accordance with MSA Yearbook Regulation K3.1.2(b)
- c. All other vehicles not detailed in Championship Regulation 5.3.3 b. must be equipped with a fire extinguisher in accordance with MSA Yearbook **2018** Regulation K3.1.2(a)
- d. The fire extinguisher must not be disarmed in any Parc Fermé area without the specific permission of the Championship Eligibility Scrutineer. Any Competitor that is found with a disarmed fire extinguisher in Parc Fermé for whatever reason will be penalised.
- e. The following information must be clearly displayed on each fire extinguisher:
 - i) Type of extinguishant
 - ii) Weight or volume of extinguishant

- f. It is recommended that the following information is clearly displayed on each fire extinguisher:
 - i) Capacity
 - ii) Service date of extinguisher, It is recommended that it must be less than 2 years since the filling date or the last service date
- g. During Events, all extinguisher systems must be in the 'ARMED' condition (i.e. be capable of being operated without the removal of any safety device) at all times while competing or practising, including post-event scrutineering.
- h. The external triggering point must be positioned close to the circuit breaker (or combined with it) and must be marked by the letter "E" in red inside a white circle of at least 10cm diameter with a red edge in accordance with MSA Yearbook 2016 Regulation (K)3.2.2

5.3.4 Main External Circuit Breaker:

- a. A Main External Circuit Breaker in compliance with the 2018 MSA Yearbook Section (K) 8. is mandatory.
- b. The switch location must be identified by a Red Spark on a white edged blue triangle with a base of at least 12cm. and the 'On' and 'Off' positions clearly marked.
- c. The circuit breaker when 'operated' must isolate all electrical circuits, data loggers, transponders, etc.
- d. When the circuit breaker is 'operated' there must be no power source capable of keeping the engine running.
- e. The triggering system for the circuit breaker should be situated at the lower part of the windscreen mounting, preferably on the driver's side or below the rear window.
- f. On cars of Periods A to F (pre-1977) the triggering system may be mounted approximately vertically below the line of the scuttle on the driver's side.

5.3.5.5 Lights:

Lights detailed in Championship Regulations 5.10.5 must be in working order throughout the entire Event.

5.3.6 Seat and Seat Mounting:(K 2.2. applies)

- a. The Seat and Seat Mounting shall comply with the MSA Yearbook 2018 Regulation (K) 2.2 and (K) 2.3
- b. It is recommended that the Driver's seat is a racing seat with a current FIA homologation.
- c. Additional seat padding is permitted to a maximum of 50mm. Any additional padding or covering placed on the seat must be fire retardant to FIA standard 8855-1999.
- d. The seat mountings shall be appropriate to the seat fitted (and complying with FIA Article 253.16) must be used.

5.3.7 Seat Belts: (K 2.1. applies)

- a. Mandatory use of seat belts. MSA Yearbook 2018 regulation Q19.14.2 applies.
- b. Where Vehicles constructed in Periods A to E have seat belts fitted, the seat belts must comply with Championship Regulation 5.3.7 c.to 5.3.7 f. inclusive.
- c. The Driver's seat belts must have a current FIA homologation.
- d. It is mandatory to use seat belts, with a minimum 'four point' configuration complying with the 2018 MSA Yearbook Regulation (K) 2.1.2.
- e. Seat belts must be correctly adjusted at all times during events: (Two shoulder straps and one lap strap, with four anchorage points on the chassis/body shell or roll over bar of the vehicle).

5.3.8 Race Clothing: (K9.1 and K9.3 applies)

- a. Competitors are strongly advised to wear flame resistant, socks, underwear and balaclava.
- b. Flame resistant gloves and shoes are mandatory. MSA Yearbook 2018 Regulation Q10.1. (c) applies.

5.3.9 Crash Helmet.

Crash helmets must comply with the requirements of MSA Yearbook 2018 (K 10.1 to K10.4 applies).

5.3.10 **FHR.**

Mandatory for all forms of circuit racing with the exception of period defined vehicles (pre-1977), which will remain as a recommendation. MSA Yearbook 2018 (Q) 10.1.e. applies.

5.4 **General Technical Requirements and Exceptions:**

- a. All vehicles must comply with MSA General Technical Regulations and the relevant parts of sections J & Q of the MSA Yearbook 2018 except where specified below.
- b. Fixing components such as nuts, screws, washers, lock washers; spring washers, etc. are free and may be upgraded.
- c. "Free" as referred to in these Technical Regulations shall mean be interpreted as "within the limitations imposed by the MSA Yearbook 2018 Regulations".
- d. Advertising on vehicles is subject to requirements set out in MSA Yearbook 2018 H29.1.2 & H29.1.3.

5.4.5 Competitors registering do so in the full knowledge that CTCRC reserves the right to require the Eligibility Scrutineer to carry out, record and enforce eligibility checks which may include the sealing of component(s) for subsequent checking. The costs of such checking shall be borne by the CTCRC but the CTCRC shall not be liable for the costs of stripping or reassembly of vehicles after the checks have been carried out.

5.5 **Chassis:**

5.5.1 The standard floor pan, sills, front bulkhead, doors and roof must remain exactly as produced by the manufacturer in construction, dimension and material except as allowed in Championship Regulations 5.5.8

5.5.2 The rear bulkhead (driver compartment to boot, Saloon/Coupe cars) may be made from an alternative material and may be relocated from the original

5.5.3 The floor pan, bulkheads, front and rear inner wings may be locally modified for the purpose of mounting, or giving clearance to, suspension components. Inner wings may be modified to provide additional wheel/tyre clearance.

5.5.4 Front bulkheads and inner wings may be modified to permit the clearance of the induction system. Induction system shall be understood to include air induction ducting, manifolds, inlet trumpets, and ram pipes for engine carburetion or fuel injection system only. A maximum clearance dimension of 3" (75mm) is allowed.

5.5.5 The boot floor between the chassis rails rearward of the rear axle may be modified to accept fuel and oil systems and may be made from an alternative material.

5.5.6 Transmission tunnel and tunnel apertures may be enlarged to ease the fitment of larger transmissions.

5.5.7 Strengthening of the chassis in the interest of safety, by the addition of material is permitted.

5.5.8 Seam welding is permitted.

5.5.9 **Towing eyes / straps**

a. Must be a contrasting colour to the surrounding area (usually either Day-Glo red or yellow) and must respect the requirements of MSA Yearbook 2018 (Q19.1.3).

b. In addition to 5.5.9 a. it is strongly recommended that all cars must, wherever possible, be equipped with two front and two rear towing eyes positioned equally either side of the longitudinal centre-line. They must be clearly visible, marked with an arrow and the word "tow" and the wire painted in yellow, red or orange to contrast with the vehicle colour scheme.

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

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

5.6 **Bodywork and Dimensions:**

5.6.1 **General:**

- a. Where original materials are unobtainable, local repairs of adequate strength may be made using modern equivalents.
- b. It is only permitted to make holes **in bulkhead** for the passage of cables, fuel, water, oil, hydraulic, instrument or fire extinguisher lines.
- c. All redundant holes must be covered with a non - flammable material.

5.6.2 **Interior:**

- a. Floor carpets, under felt, sound deadening, headlining, front and rear parcel shelves, centre consoles, the front passenger and rear seats and trim in the boot/luggage compartment may be removed.
- b. It is permitted to carry out modifications on the window winders, instrument panel and all the driving controls. Additional instruments may be added.
- c. Driver's seat is free subject to MSA requirements. The driver must be located entirely to one side of the centre line of the car. Local modifications are permitted for the purposes of secure and safe mounting.
- d. The removal of the heater, heater controls and audio systems is permitted.
- e. Vehicles must be fitted with an interior rear-view mirror. The fitment of a wide angle mirror is recommended.

5.6.3 **Exterior:**

- a. Front and rear wings and front body panels may be replaced by replicas made from alternative material provided they exactly retain the standard silhouette in side elevation.
- b. "Front" is defined as the point forward of the baseline of the windscreen.
- c. "Rear wing" is defined as being in the area below the baseline of the windows and rearward of the line of the rearmost side door opening.
- d. Standard wings, if retained, may be modified by working the original metal and/or fitting wing extensions.
- e. In all cases wings, shall respect the requirements of MSA Yearbook **2018** Regulation (J)5.2.6.
- f. Bonnet lid, boot lid and door panels may be replaced by lightweight material providing they exactly retain the original standard shape and outline except for bonnet bulges, bonnet scoops and blending to wheel arches. To aid cooling the engine bonnet may be raised at the rear by a maximum of 20mm.
- g. It is permitted to cut holes in the bonnet and front wings to aid ventilation / heat dissipation. The vents/grills covering the holes should retain the standard shape and outline of original panels.
- h. Spoilers of standard dimensions and air dams are permitted below the level of the road wheel centres providing they do not protrude beyond the coachwork at the widest point in plan view including bumper, grill, etc.
- i. A horizontal front spoiler/splitter may be fitted to the bottom edge of the front bodywork but may not extend more than 100mm beyond the original plan view and may not exceed the width of the car across the front wheel arches and must form a continuous part of the bodywork.
- j. Headlights must be fitted in the original locations. They need not be the original headlight unit for the vehicle but must respect the requirements of Technical Regulation 5.10.5 a.i.
- k. Aftermarket body kits not meeting the above criteria may be allowed provided they are validated in writing by the Championship Organisers
- l. It is permissible to cut holes in the rear wing extensions of 6" square maximum to accommodate oil coolers. The holes must be parallel and vertical. Wheels and tyres must not be visible through the apertures.
- m. Rear aerofoils (MSA Yearbook **2018** Regulation J 5.2.7 applies)

- i. Excluding mounting pylons, rear aerofoils must be able to fit through a box 310mm x 200mm.
 - ii. Rear aerofoils must not extend beyond the maximum width of the coachwork (excluding wing mirrors).
 - iii. Rear aerofoils must not extend beyond the rear of the rear bumper more than 100mm.
 - iv. Rear aerofoils must not extend above the maximum height of the roof.
 - v. Competitors wishing to run a rear aerofoil that does not adhere to Championship Regulation 5.6.3m. must submit a written specification of the aerofoil to the Championship Organisers for approval/ rejection. The Championship Organisers reserves the right to withdrawn approval at any time.
 - n. The removal of exterior trim is allowed
 - o. Window material is free but must comply with current MSA regulations. Holes may be cut in the rear or side window for de-misting. Ducts may only be fitted to side window for cooling the driver and de-misting purposes so long as they do not impede the sight line between the competitor and the rear-view mirror and nor shall they impede the competitors vision of flag signals, etc.
 - p. The original mirrors may be removed but vehicles must be fitted with at least one externally mounted rear view mirror in accordance with MSA Yearbook 2018 section (Q)19.15.1
 - q. Roof mounted air vents are permitted.
 - r. Rear diffusers are permitted.
- 5.6.5 **Ground clearance:**
- a. Under no circumstance can any part of the bodywork or of the suspended part of the car be below a horizontal plane passing 40mm above the ground.
 - b. Will be measured with the Driver on board (wearing his complete racing apparel),
 - c. Will be measured with the vehicle and driver, including minimum Weight Ballast where applicable in the condition in which they cross the finish Line or at any other time during an Event and without the removal of any solid or fluid matter including fuel.
 - d. Ride height will be measured on any reasonably flat surface as deemed by the Championship Eligibility Scrutineer or his nominated representative. In the event of any discrepancy the circuit designated flat patch will be used to make any final judgement.
- 5.7 **Engine:**
- 5.7.1 **General:**
- a. All internal engine components are free.
- 5.7.2 **Cylinder Block:**
- a. The engine block must be based on a production block from a model eligible for the championship, except as detailed in Championship Regulations 5.7.2 b.
 - b. Class H1 & Class H2 may utilise any production engine block providing Regulation 5.7.4 is respected.
- 5.7.3 **Cylinder head(s):**
- a. Cylinder head/s are free.
 - b. The replacement or modification of all mechanical components is permitted
- 5.7.4 **Location:**
- a. The engine must remain on the original side of the front or rear bulkhead as specified and supplied by the manufacturer for the particular model entered in the Championship.
 - b. The engine must be orientated as fitted in the particular model entered in the Championship.
- 5.7.5 Engine mountings and support members may be changed for alternative units and may be chassis mounted.
- 5.7.6 **Oil / Water Cooling:**
- a. Radiators are free but must remain in their original location.

- b. The fitting of additional water radiators is permitted provided they are located within the periphery of the bodywork.
- c. The fitting of additional oil coolers is permitted provided they are located within the periphery of the bodywork.
- d. Modification of the cooling system is permitted to facilitate the installation of items detailed in Championship Regulation 5.7.6 a. to 5.7.6 c. inclusive.

5.7.7 Induction Systems:

5.7.7.1 Forced induction systems:

- a. Forced induction systems are permitted and unrestricted whether fitted as standard or not, except as detailed in Championship Regulations 5.7.7.1 i and 5.7.7.1 j.
- b. Intercoolers are free provided they remain within the periphery of the vehicle.
- c. Boost pressure is free.
- d. Water injection is permitted.
- e. Fuel injection is permitted and unrestricted whether fitted as standard or not.
- f. Fuel injection systems may be replaced with carburettors.
- g. Competitors wishing to replace the fuel injection systems with carburettors must submit a written specification of the engine to the Championship Organisers, detailing all changes carried out. The CTCRC Committee will then re-classify the engine.
- h. Inlet manifolds and systems are free.
- i. Class H1 and Class H2 are not permitted to use Turbochargers.
- j. Class H1 and Class H2 are not permitted to use Superchargers.

5.7.8 Exhaust Systems:

- a. All cars must conform to the current MSA requirements as detailed in the MSA Yearbook 2018 J5.16
- b. Side exit exhausts are permitted but must exit behind the midpoint of the wheel base. It is prohibited to pass any part of the exhaust system through the driver compartment.
- c. Exhaust manifolds and systems are free.

5.7.9 Ignition Systems:

- a. Ignition systems are free

5.7.10 Fuel Delivery Systems:

- a. Fuel pumps, regulators, filters, type, position and system are free, subject to compliance with MSA Yearbook 2018 requirements.

5.7.11 'Dry' sump oil systems are permitted

5.7.12 Sealing:

- a. To allow for Scrutineers wire seals, every installed engine must have 1.6mm (1/16") holes drilled in readily accessible locations as follows: -
 - i) Sump: Cross drilled through two adjacent retaining screws or studs.
 - ii) Rocker/cam cover: Cross drilled through two adjacent retaining screws or studs.
 - iii) Turbo: Cross drilled through one retaining screw or stud fastening the compressor housing to the centre housing and the nearest retaining screw or stud to it fastening the turbine housing to the centre housing.
- b. Engines may be sealed at any time by a Licensed Eligibility Scrutineer and only by written permission in advance from the Championship Organisers or a Licensed Eligibility Scrutineer may seals be broken.

5.8 Suspensions:

- a. Suspension is free if Championship Regulation 5.8 b. is respected.
- b. Wheelbase must remain as per the original car within a tolerance of +/-2" (50mm).

- 5.9 **Transmission:**
- Clutch and clutch operating system is free but electronic operation is prohibited unless fitted as standard.
 - Gearbox is free. Sequential gearboxes are permitted
 - The fitting of automatic gear changing mechanisms to manual gearboxes is prohibited. Transaxles are prohibited unless fitted as standard.
 - Gear ratios and type are free. The final drive ratio is free.
 - Mechanical limited slip or torque biasing differentials are permitted.
- 5.10. **Electrical:**
- 5.10.1 Electrical equipment is free if Championship Regulation 5.10.2 to 5.10.5 inclusive are respected.
- 5.10.2 **Vehicle on board Starter:**
- Engines are to be started always by the Vehicle on board Starter except that the use of an external portable slave battery is permitted to aid start up only in the paddock, assembly area, pit lane and on the grid.
- 5.10.3 **Battery:**
- The battery and starter motor must be capable of performing a number of repetitive starts.
 - The battery make is free.
 - The Battery position and orientation is free within MSA Yearbook 2018 Regulations, ((J) 5.14.1 to (J) 5.14.7) applies.
- 5.10.4 **Charging Circuit:**
- Use of the 12-volt (nominal) 'standard' generator, is compulsory.
 - The Charging Circuit must be connected and operational all times whilst the Engine is running.
- 5.10.5 **Lights:**
- All cars must be fitted with the following: -
 - A minimum of two forward facing high intensity, white, main headlights.
 - A minimum of two rear facing red tail lights.
 - A minimum of two rear facing red brake lights.
 - A rear facing red high intensity fog light (or two where two are fitted as standard equipment by the vehicle manufacturer in question) MSA Yearbook 2018, Section (K) 5. Applies.
 - Lights detailed in Championship Regulation 5.10.5 a. iii. must be operated only by the brake pedal and without a delay.
 - Lights detailed in Championship Regulation 5.10.5 a. iv. must not be operated by the brake pedal.
 - It is not permitted to tint or paint the front or rear lighting units.
 - All lights detailed in Regulation 5.10.5.a. must be in working order throughout the entire Event and must be able to be switched on by the Driver when seated normally in the car.
- 5.10.6 A fully operating windscreen wiper must be fitted and in full working order throughout the entire Event. MSA Yearbook 2018 Regulation (Q) 19.15.3. Applies.
- 5.11 **Brakes:**
- Brake systems are free if Championship Regulation 5.11 b.is respected.
 - Carbon disks are prohibited, unless fitted in production in which case they must be to production specification.
 - Ducting for cooling brakes or removing dust is permitted and holes may be made in inner wheel arches for the passage of brake ducts.
- 5.12 **Wheels & Steering:**
- Wheels are free
 - Wheels must fit within the confines of the bodywork in accordance with MSA regulations.



- 5.13 **Tyres:**
- Tyres must fit within the confines of the bodywork in accordance with MSA regulations.
 - Tyres are unrestricted subject to the following: -
 - For list 1b tyres and slicks the compound of the tyre must be listed by the tyre manufacturer as medium, or harder, for saloon car circuit applications.
 - For wet (non-list 1b) tyres the compound of the tyre must be listed by the tyre manufacture as medium, or harder, for saloon circuit wet applications.
 - The use of tyre heating / heat retention devices, tyre treatments and compounds is prohibited.
 - Pressure regulation valves are prohibited. MSA Yearbook 2016 Regulation, ((J) 5.9.4. applies)
- 5.14 **Weights:**
- 5.14.1 **Minimum Weight:** There are no minimum weights applicable.
- 5.14.2 **Ballast:**
- Ballast required as success ballast or as a performance equalisation measure must only be added inside the car on the front and/or rear passenger foot well.
 - It is the competitor's responsibility to provide and fit their own ballast if it is required, and to ensure that ballast is fitted in a safe manner.
 - Ballast must be attached to the shell/chassis via at least 4 mounting points using bolts with a minimum diameter of 8mm each with steel counter plates of at least 400 sq. mm surface area and 3mm thickness. Ballast mountings must include provision for the fitting of Scrutineers wire seals.
 - The total weight of "success ballast" carried must be declared, in writing to the Championship Eligibility Scrutineer and/or his appointed representative and be in position, at all times during practice and racing.
- 5.14.3 **Success Ballast:**
- Any vehicle may be required to carry success ballast as a performance equalisation measure. Such success ballast will be specified by the Technical Committee based upon the performance of the car in competition.
 - The Technical Committee reserves the right to review the weight handicaps at any time during the Championship.
 - Competitors will be informed by official bulletin of the amount of weight they must carry.
 - The maximum success ballast allocated shall be 150kg.
 - Any vehicle which fails to carry the success ballast specified by the Technical Committee will automatically be deemed not to comply with the Technical Regulations.
- 5.14.4 Compliance with regulation 5.14.2 and 5.14.3 will be checked prior to removal of fuel samples.
- 5.15 **Fuel Tank/Fuel:**
- 5.15.1 **Types:**
- Fuel tank construction is "free" subject to compliance with MSA Yearbook 2018 Requirements.
 - Racing type safety fuel cell may be used. MSA Yearbook 2018 Regulation (K)4 applies
- 5.15.2 **Location:**
- Fuel tank/cell may be located anywhere to the rear of the driver's seat, subject to compliance with MSA Yearbook 2018 Requirements.
- 5.15.3 **Fuel:**
- Only 'Pump' fuel as defined in section (B) Nomenclature & Definitions of the MSA yearbook 2018 is allowed.
 - An MSA approved additive is permitted.
 - Refuelling is not permitted during qualifying, on the starting grid or during a race.

5.16 Silencing:

Silencers are free. Silencing must comply with MSA Yearbook 2018 Regulation J5.17 & J5.18.

5.17 Numbers and Championship Decals:

- a. Only competition numbers allocated by the CTCRC Registrar are to be displayed. They must be displayed in accordance with MSA regulation J4 and remain as allocated until the end of the season.
- b. Competitors must display competition numbers on a CTCRC number background. CTCRC decals and those of the series sponsors, promoters and the BARC are required to be displayed in an un-obscured position in accordance with the following table.

Item		Placement
CTCRC Number Background (round or square)		One on each front door, one on the bonnet
CTCRC "classictouringcars.com" sun strip	TBC	Top of rear windscreen
Series Sponsor Sun strip	TBC	Top of front windscreen
Series Sponsor logos (if required - TBC)	TBC	One on each side of the car (front wing, rear door or rear quarter)
BARC Logo		One on each side of the car (front wing, rear door or rear quarter)
Class Letter (40mm Black lettering)	e.g. 88A	One on each CTCRC number background, adjacent to race numbers

- c. Decals shall be fitted as issued. They may not be cut or otherwise defaced or deformed without prior approval from the Championship Organisers.
- d. Non CTCRC approved decals such as, but not restricted to, other clubs and other championship/series decals are not to be displayed on vehicles. These should be removed or covered up.
- e. Points will ONLY be awarded to competitors correctly displaying the required decals
- f. One set of Decals may be obtained from the CTCRC nominated supplier free of charge. A charge may be levied for any extra decals required.
- g. 5.17 e. & f. are only applicable to current fully paid up, Racing members of the CTCRC

6: APPENDICES

The following Commercial Undertakings are not subject to the Judicial procedures of either the Championship Stewards and/or the MSA/MSD.

- 6.1 The Classic Touring Car Championship is aimed at providing close racing for a wide variety of cars and it must remain a non-contact sport at all times. The Organisers acknowledge that racing incidents do happen, however there will be no acceptance of any aggressive driving of any kind. In accordance with the MSA regulations penalties will be applied to drivers who do not comply with this principle. Competitors are reminded that the majority of these cars are getting rare, to that extent parts are getting to be harder to find and most of these cars are not run on big budgets. Therefore, you are requested to race accordingly, remembering this is club racing and it should be an enjoyable experience for everyone involved.

6.1.1 Social Media

Drivers and their supporters are reminded about the use of social media. Regulation 6.1.4.2 of the Championship Regulations clearly states the position and anyone found in breach of 6.1.4.2 will be dealt with accordingly. A negative or derisory comment on social media can be seen instantly by a large number of people. This may include one or more of our sponsors, hence the need for restraint. There can be, and have been, serious consequences caused by the misuse of social media. Therefore, if a driver considers that they have a genuine issue that needs resolution they should use the appropriate channel either the Championship Co-ordinator or Championship Committee

6.1.1.1

Anyone posting anything derogatory, defamatory, insulting, unfavourable or disrespectful in relation to the Championship or Series – including any of its participants, officials, partners or supporters – in any form of Social Media, would be dealt with in the same manner as if he comments had been published in the traditional print/broadcast media. In the worst instance this could mean exclusion from the championship/series, in the least it will be a deduction of points.

NB: for the avoidance of doubt the MSA may of course take any action as it considers appropriate, in addition to any action taken by the Championship Stewards.

6.2 Race Organisers and Contacts:

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

Contact: David Wheadon
Tel: 01264 882209
Email: dwheadon@barc.net

Drivers Representative:

Contact: Colin Gibbons
Tel: 07814 052142
Email: colin.gibbons@classictouringcars.com

Championship Eligibility Scrutineer:

Contact: Rod Bennett
Tel: 07710 427563
Email: rbennett@v-i-c.co.uk