

2018 CLASSIC TOURING CAR CHAMPIONSHIP

TECHNICAL REGULATIONS

**TOYO TIRES PRE-2005 PRODUCTION TOURING CARS
CHAMPIONSHIP**



Organised by the British Automobile Racing Club

Thruxton Circuit, Andover, Hampshire, SP11 8PN

Draft Copy

Version 1 – 19 January 2018

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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 make 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-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)
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.

~~6 APPENDICES~~

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

~~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 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 6.1.1 and 6.1.2 of the Championship Regulations clearly states the position and anyone found in breach of Regulation 6.1.1 or 6.1.2 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~~

~~6.1.2~~

~~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: 07849547868~~

~~Email: colingibbons141@gmail.com~~

~~Championship Eligibility Scrutineer:~~

~~Contact: John Wardle~~

~~Tel: (mob)(0044)7581859085~~

~~Email: johnwardlescrutineer@outlook.com~~