

**2018 CLASSIC TOURING CAR CHAMPIONSHIP**

**TECHNICAL REGULATIONS**

**BURTON POWER BLUE OVAL SALOONS**



**Organised by the British Automobile Racing Club**

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

**Draft Copy**

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# 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 Including ALL Cosworth models and ANY vehicle using

	2.300cc onwards N/A	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

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

#### 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 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 **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 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	<del>Top of</del> Rear windscreen
Series Sponsor Sun strip	TBC	Top of front windscreen
	TBC	One on each side of the car (front

Series Sponsor logos (if required - TBC)		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



## 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 6.1.1.2 of the Championship Regulations clearly states the position and anyone found in breach of 6.1.1.2 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

#### 6.1.1.1

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](mailto:dwheadon@barc.net)

Drivers Representative:

Contact: Andy Johnson

Tel: 07814 052142

Email: [andy.johnson@classictouringcars.com](mailto:andy.johnson@classictouringcars.com)

Championship Eligibility Scrutineer:

Contact: John Wardle

Tel: (mob) (0044)7581859085

Email: [johnwardlescrutineer@outlook.com](mailto:johnwardlescrutineer@outlook.com)