

2017 BARC CLUBMANS CHAMPIONSHIP
SPORTING & TECHNICAL REGULATIONS



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

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1. SPORTING REGULATIONS - GENERAL

1.1 TITLE & JURISDICTION:

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

MSA Championship Permit No.: CH2017 / R020

Race Status: Clubman

MSA Championship Grade: Grade C

1.2 OFFICIALS:

1.2.1 Championship Co-ordinator: David Wheadon

1.2.2 Championship Eligibility Scrutineer: Keith Auld

1.2.3 Championship Stewards: Bill Coombs
Dennis Carter
Dale Wells
Guy Woodward

Any three of the Championship Stewards may sit to make a decision. In accordance with (G) 2.7, Championship Stewards may only adjudicate on any disputes, irregularities or appeals arising from the approved Championship regulations. Under (G) 2.7.1, Championship Stewards are also empowered to consider any request from the Championship co-ordinator to penalise any Competitor for any breach of Championship regulations after holding a formal hearing to impose a penalty in accordance with C.2.1.1 (subject to the rights of appeal provided for in Section C). Under (W) 2.2.1, the Championship Stewards can only adjudicate upon any disputes, irregularities or appeals arising from the approved Championship Regulations. They are also empowered to consider any request from the Championship Co-ordinator to penalise any Competitor for breach of Championship Regulations and after holding a formal hearing, to impose a penalty in accordance with C.2.1, subject to the rights of appeal to the MSC provided in Section C.

1.2.4 Championship Clerk of the Course: N / A

1.2.5 Championship Drivers Representative: Mike Evans

1.2.6 Driving Standards Officer: Chris Hart

1.3 COMPETITOR ELIGIBILITY:

1.3.1 Entrants must:

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

1.3.2 Drivers and Entrant/Drivers must:

- (a) be current racing members of the BARC and the Clubmans Register and
- (b) be Registered for the Championship and
- (c) be in possession of valid Competition (Racing) National B status Licence, as a minimum, noting the requirements of Q9.1.2 or

(d) A professional driver, in possession of a valid Licence (featuring an E.U. flag) and medical, issued by the ASN of a member country of the European Union, or comparable country. ((H)26.2.1, applies)

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

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

1.4 REGISTRATION:

1.4.1 All competitors must register for the Championship by returning the Registration Form with the Registration Fee to the Co-ordinator prior to the closing date for entries for the first round being entered.

1.4.2 There is no Registration Fee.

1.4.3. Registration numbers issued will be the permanent Competition numbers for the Championship season.

1.5 CHAMPIONSHIP EVENTS:

The Championship is scheduled to be contested over six Meetings as follows:

<u>Events:</u>	<u>Date:</u>	<u>Circuit:</u>	<u>Organising Club (Centre):</u>
1, 2 & 3	29/30 April	Croft	BARC
4, 5 & 6	20/21 May	Pembrey	BARC
7, 8 & 9	24/25 June	Silverstone (GP)	BARC
10 & 11	8 July	Oulton Park	BARC (NW)
12, 13 & 14	2/3 September	Thruxton	BARC
15, 16 & 17	7/8 October	Silverstone (Int.)	BARC

The format for each weekend will usually be Qualifying and Race 1 on the first day with two races on the second day. The grid for race one will be set from the qualifying session, the grid for race two will be set from the lap times set in race one and the grid for race three will be set from the finishing positions in race two, in each case following the conclusion of all judicial matters.

1.6 SCORING:

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

1st – 15, 2nd – 11, 3rd – 9, 4th – 7, 5th – 6, 6th – 5, 7th – 4, 8th – 3, 9th – 2, 10th – 1

In addition one point will be awarded to the driver setting the fastest lap in qualifying and one further point awarded to the driver setting the fastest race lap. An additional point will be awarded for a race start and one more for a race finish irrespective of class or number of starters per class.

1.6.2 The totals from all qualifying Events run, minus one, will determine final Championship points and positions. Any dropped score can be from a DNF or DNS but not where a competitor has been excluded through the judicial system.

- 1.6.3 Ties shall be resolved using the formula in (W) 1.3.4, in the current MSA Yearbook.
- 1.6.4. Where the race distance has been reduced in accordance with article 2.6 below, it shall still count as a full points scoring round.
- 1.6.5. Competitors not registered for the Championship may be permitted on an individual round basis and:
- (a) will be deemed "Guest Competitors"
 - (b) will not score points and for the purpose of points scoring will be ignored
 - (c) will be allowed to take their place on the podium and qualify for any Event awards
 - (d) must comply with the eligibility criteria as prescribed in article 1.3 above, with the exception of 1.3.1 (a & b) and 1.3.2 (a & b) as appropriate.
- 1.6.6 There will be three classes;
- CSP1 – Clubmans Proto and Classic Class A;
 - CSP2 – Clubmans Sports 1600;
 - CSP3 – Classic Classes B, C and D

1.7 AWARDS:

- 1.7.1 All awards are to be provided by the Clubmans Register
- 1.7.2 Per Event: A garland will be presented by the BARC to the winner of each class
- 1.7.3 Championship: A trophy will be awarded to the overall Championship winner by the BARC
Hugh Chamberlain Cup to the best "Proto" in CSP1
Harvey Postlewhaite Trophy to the best 'A' Sports in CSP1
Oceanair Cup to the winner of the CSP2 Class
Tasman Trophy to the winner of the CSP3 Class
- 1.7.4 Presentations:
Awards will be presented at the end of each Event and/or at the end of the Championship at the designated presentation ceremony. Attendance at any such ceremony is mandatory and failure to attend may result in the loss of all awards.
- 1.7.5 Entertainment Tax Liability:
Prize money and Bonuses shall be posted to the Entrants within thirty days of the results being declared final after each Event. In accordance with current government legislation, the BARC is legally obliged to withhold tax at the basic rate on all payments to non-UK resident sportsmen/women and account to HMRC using form FEU1, the quarterly return of payments made to non-resident entertainers and sportsmen/women. That is, those persons who do not have a normal permanent residence in the UK and the UK does not include the Isle of Man, Channel Islands or Eire. This means that, as the organiser, the BARC is required to deduct tax at the current rate applicable from any such payments they may make to non-UK residents. Under certain circumstances, it may be possible for competitors to enter into an agreement with the Inland Revenue to limit the tax withheld. Any application for such an arrangement must be made in writing and not later than 30 days before the payment is due.
- For further information contact:
HMRC Personal Tax International, Foreign Entertainers Unit, St John's House, Merton Road, Liverpool L75 1BB, Tel: 01514 726488, Fax: 01514 726483.
- 1.7.6 Title to all Trophies:
If Provisional Results or Championship Tables are revised after any presentations and these revisions affect the distribution of awards the Competitors concerned must return them to the organisers in good condition within 7 days.

2. CHAMPIONSHIP EVENT MEETINGS & RACE PROCEDURES

2.1 ENTRIES:

- 2.1.1 Competitors are responsible for sending in correct and complete entries with the correct entry fee prior to the closing date for entries before each Event.
- 2.1.2 Incorrect or incomplete entries (Including driver to be nominated entries) are to be held in abeyance until they are complete and correct and the date of receipt for acceptance of entry purposes shall be the date on which the Meeting Organiser receives the missing or corrected information or fee.
- 2.1.3 Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Meeting Organisers in writing. D25.1.13 applies.
- 2.1.4 The Entry Fee for each event shall be specified in the SRs and on the entry form.
- 2.1.5 Reserves will be listed in the Final List of Entries published with Final Instructions or in a Bulletin.

2.2 BRIEFINGS:

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

2.3 QUALIFICATION PRACTICE:

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

2.4. RACES:

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

2.5 STARTS:

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

<u>Signal:</u>	<u>Instruction:</u>
I. 1 minute	Start engines and clear the grid.
II. 30 Seconds	Be prepared for start of Green Flag Lap
III. Green Flag	Complete one lap of the circuit and reform into grid positions
IV. 5 Seconds	The grid is complete
V. The red lights will be switched on five seconds after the 5 second board is withdrawn and will be extinguished between 2 and 7 seconds later to indicate the start of the race.	

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

- 2.5.4. Any driver unable to start the Green Flag/Pace lap or start is required to indicate their situation as per MSA Regulation Q12.13.2. In addition any driver unable to maintain their grid position on the Green Flag Lap, to the extent that all other cars are ahead of them, may complete the Green Flag lap but must remain at the rear of the last row of the grid but ahead of any cars to be started with a time delay.
- 2.5.5. In the event of any starting lights failure the Starter will revert to use of the National Flag once all competitors have been advised of the fact
- 2.5.6. The Organisers reserve the right to amend this start procedure via a bulletin issued to all competitors. This may involve changing the method of starting and/or the countdown procedure leading up to the start signal being given.

2.6 SESSION RED FLAG

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

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

- 2.6.2. Cars may not enter the Pits unless directed to do so or repairs are necessary. Work on cars already in the Pits must cease when a race is stopped and may only continue under the control of a Scrutineer. Cars in the Pits may not re-join the grid.
- 2.6.3. All Competitors who are able to take part in any restarted race may do so in accordance with Q5.4 and Q5.5

2.7 PITS, PADDOCK & PITLANE SAFETY:

- 2.7.1. Pits & Paddock: Competitors must ensure that the MSA, Circuit Management and Organising Club Safety Regulations are complied with at all times. In addition any paddock plan issued by the Organisers must be complied with and the minimum amount of space should be used when setting up.
- 2.7.3. Pit lane: The outer lane or lanes are to be kept unobstructed to allow safe passage of cars at all times. The onus shall be on all Drivers to take all due care and respect the pit lane speed limits. No-one under the age of 16 is permitted access to the pit lane unless they are the holder of an MSA Junior Race licence
- 2.7.4. Refuelling: May only be carried out in accordance with the MSA General Regulations, the Organising Club Regulations, Circuit Management Regulations and the SRs or Final Instructions issued for each Circuit/Meeting.
- 2.7.5. Speed Limit Pit Lane Speed Limit will be 60 k.p.h.

2.8 RACE FINISHES:

After taking the Chequered Flag drivers are required to:

- I. progressively and safely slow down
- II. remain behind any competitors ahead of them,
- III. return to the Pit Lane Entrance/Paddock Entrance as instructed,
- IV. comply with any directions given by Marshals or Officials
- V. keep their helmets on and harnesses done up while on the circuit or in the pit lane

- VI. Place their car into the Parc Fermé where it must remain until released by the Championship Eligibility Scrutineer or his deputy
- VII. Attend any podium presentation that may be required

2.9 RESULTS:

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

2.10 TIMING MODULES:

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

2.11 QUALIFICATION RACES:

There is no provision for Qualification races and reserves will be nominated where entries are greater than the permitted grid size.

2.12 OPERATION OF SAFETY CAR:

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

2.13 ONBOARD CAMERAS:

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

3. SPECIFIC CHAMPIONSHIP REGULATIONS:

- 3.1.1 The standard minimum scheduled distance shall be 15 minutes plus 1 lap whenever practicable but should any race distance be reduced at the discretion of the Clerk of the Course or Stewards of the Meeting, it shall still count as a full points scoring round. Wherever possible a "last lap" board will be shown
- 3.1.2 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.

4. PENALTIES:

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

4.1 Infringements of Technical Regulations:

4.1.1 Arising from post practice Scrutineering or Judicial Action:
Minimum Penalty: The provisions of MSA Regulations: C3.3.

4.1.2 Arising from post race Scrutineering or Judicial Action:
Minimum Penalty: The provisions of MSA Regulations: C3.5.1 (a) and (b).

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

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

4.3 Additional specific championship penalties:

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

4.3.2 Breaches of 2.7.5 will usually be dealt with by a fine of up to £10 per k.p.h. above the limit in qualifying and by means of a "drive through" penalty during races

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

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

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

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

4.4 Driving and Conduct Standards

In the event of a Registered Competitor's driving or conduct standards falling below the standards considered by the Driving Standards Officer to be appropriate to the Championship the Championship Representative shall be entitled in his / her discretion to:

4.4.1 Require the Organiser through the Championship Co-ordinator to forthwith suspend the Championship Registration of the relevant competitor in order that the relevant competitor's driving standards be referred by the Championship Co-ordinator to the Championship Stewards for consideration of termination of Championship Registration and/or

- 4.4.2 In the case of driving standards issue a 'yellow card' warning to the relevant competitor and in conjunction with the Organiser place the relevant competitor under observation of the officials of the meeting in any one or more races prior to referring the matter under CR4.2.1 above.
- 4.4.3 The decision of the Driving Standards Officer shall be definitive subject only to any Protest by a competitor or other Judicial action in accordance with the MSA General Regulations. Judicial action shall take precedence over any action commenced by the Driving Standards Officer but such Judicial action shall not preclude the subsequent application of any of Regulations CR4.2.1 and/or CR4.2.2.

5. TECHNICAL REGULATIONS – CLUBMANS DIVISION

5.1 Introduction:

The following Technical Regulations are set out in accordance with the MSA specified format.

5.2. General Description

5.2.1 The BARC CLUBMANS CHAMPIONSHIP (CLUBMANS DIVISION) is for competitors participating in open two-seater front engine non-standard Clubmans sports racing cars complying with these regulations and powered by 1600cc engines in Cup class and maximum 2000cc production based 4 cylinder naturally aspirated car or maximum 1600cc production based maximum 4 cylinder naturally aspirated motorcycle engines in Proto class. Each class must comply with Section 5.7 of these Regulations.

5.2.2 Championship eligible cars are divided into 2 classes:

- Proto in accordance with these Regulations
- Sports 1600 in accordance with these Regulations

5.2.2 The vehicles must have all wheels covered by either cycle type mudguards or bodywork, in either case complying with these regulations. All enveloping bodywork is permitted only in conformity with sections 5.5.7 to 5.5.9 inclusive and 5.6.9 to 5.6.18 of these regulations.

5.3. Safety Requirements

The following Articles of MSA Safety Criteria Regulations [K] will apply:

Safety roll-over structures [K 1.5.1, 1.5.2, 1.6.4 (b), 1.6.5, 1.6.6 and 1.7].
Seat belts [K 2.1 all paragraphs] (Minimum requirement: Four Point, Six Point advisory).
Fire extinguishers [K 3 all paragraphs apply]. NOTE: 'Large plumbed-in is mandatory),
Red warning light [K 5.1 and 5.2].
Tank fillers vents and caps [K 6].
Crushable structures [K 7.1, 7.3 and 7.4].
External circuit breaker [K 8.1 and 8.3 and 8.5].
Drive shaft restraint [K 12].
Head restraint [K 13].
General safety recommendations [K 14].

5.3.1 In addition, all competitors are reminded that their personal equipment must comply with the provisions of K9 and K14.3 in respect of Overalls, K10 in respect of Crash helmets and K11 of Goggles / visors

5.3.2 Providing all safety regulations are complied with, the petrol tank, oil tank, battery and fire extinguisher may be located in the notional passenger space.

5.3.3 Competitors should respect the possibility of side-impact during competition. Accordingly competitors in the Championship should make provision for adequate driver's side-impact protection on the driver's side of the chassis in the area that stretches between the rear of the driver's torso and the leading edge of the pedals at maximum depression ("the zone"). The material is free provided that it conforms with these Regulations. Any side-impact structure fitted to the zone as an addition to the chassis and/or chassis panelling of the vehicle must be securely affixed by means of rivets, bolts or bonding to the chassis members/chassis panelling. Consideration should be given to the potential desirability of side-impact protection being afforded by a progressively deformable non-inflammable and/or non-toxic structure throughout the zone.

5.3.4 No fluids may pass through any chassis tubes in space-frame cars.

5.4. General Technical Requirements & Exceptions:

5.4.1 All vehicles must comply with MSA General Technical Regulations and the relevant parts of Sections [J] and [K] of the MSA Yearbook except where specified below

5.4.2 The use of titanium is prohibited.

5.5 Chassis:

5.5.1 The engine and gearbox must be located in front of the rear axle line, and the centre of the rearmost engine spark plug hole must not be less than 91cm (35.8in) in front of the rear axle line.

5.5.2 Chassis tubes may encroach upon the minimum internal cockpit width of 81cm (31.9 in) providing they only extend diagonally from the body sides and/or the mandatory safety roll-over bar, or if tubes are longitudinally placed for the purpose of creating a division between driver and notional passenger space and also for the purpose of supporting a tonneau cover. The minimum internal cockpit width must be respected in both horizontal and vertical planes between the leading edge of the feet of the roll-over hoop and the trailing edge of the rim of the steering wheel. NOTE: the width of the roll-over bar must respect [K 1.6.4 (b)] that is to say that the roll-over bar does not have to (but is permitted to) extend across the width of the notional passenger space contained within the mandatory minimum cockpit dimension BUT IT MUST extend across the entire width of that part of the cockpit occupied by the driver.

5.5.3 The vertical centre line through the steering wheel must be a minimum of 7.65cm (3.0in) behind the centre of the rearmost sparkplug hole.

5.5.4.1 Chassis only to be constructed from steel or aluminium alloy. NOTE: Aluminium alloy roll-over bars are prohibited.

5.5.4.2. It is permitted to fix to the chassis, composite materials including but not exclusively carbon fibre and Kevlar, provided that the chassis is in conformity with regulation 5.5.4.1 and that the chassis is able to function as a rolling chassis with engine and gearbox installed but without any permitted composites fixed to it.

5.5.5 Have a protective bulkhead of no-flammable material between the engine and the driver/passenger compartment capable of preventing the passage of fluid or flame. Gaps must be sealed with GRP or intumescent putty. Magnesium is prohibited for Bulkheads.

5.5.6 Have bulkhead between any fuel tank and filler and the driver/passenger compartment sufficient to prevent the passage of flame or liquid. Where a fuel tank constitutes part of the bulkhead between the passenger and luggage compartments, an additional bulkhead must be fitted.

5.5.7 It is permissible to affix to the chassis a floor respecting at all times 5.5.4.2.

5.5.8 It is permissible to affix to the chassis, floors extending horizontally from the chassis in order to bridge the gap between front and rear wheels subject to and at all times respecting 5.5.9. Material is free but at all times respecting 5.5.4.2.

5.5.9 Any floor affixed pursuant to 5.5.8 shall not at any point extend in the horizontal plane beyond the outer dimensions proscribed by the notional lines drawn between:

- a) such point on the ground as shall be represented by the point of contact with the ground of a vertical plumb line dropped from the widest point of the car as measured at the centre-line of the rear axle and
- b) such point on the ground as shall be represented by the point of contact with the ground of a vertical plumb line dropped from the widest point of the car as measured at the centre-line of the front axle.

5.6. Bodywork:

- 5.6.1 Unless fitted with all enveloping bodywork in accordance with Regulations 5.6.9 - 5.6.18, the vehicles must be fitted with cycle-type front mudguards which must be distinctly separate components from the rest of the bodywork. There must be a gap between these mudguards and the rest of the body of not less than 5cm (2in) when the steering is central and be equipped on all wheels with mudguards which present no sharp edges and cover the width of the tyre in contact with the road surface around a minimum arc of 120 degrees. This minimum covering must:
- Be achieved with a continuous surface of rigid material uninterrupted by any gaps, holes, slot, or vents.
 - Extend forward ahead of the axle line.
 - Extend downward behind the wheel to at least 7.5cm (3.0 in) above the axle line.
- 5.6.2 The front and rear mudguards may be mounted on unsprung parts of the car.
- 5.6.3 Maximum height of the bodywork, with driver aboard, including Aerofoils but excluding safety roll-over bar, must not exceed 110cm (43.3in) measured from the ground.
- 5.6.4 The rear Aerofoils must not in width exceed the outer faces of the rear wheel rim.
- 5.6.5 Below the horizontal front axle centreline, no part of the bodywork forward of the front axle vertical centreline shall exceed by more than 30mm per side, the width of the outer face of the front wheel rims, when the steering is central. No part of the bodywork forward of the front axle centreline shall exceed the height of the front mudguards.
- 5.6.6 No part of the bodywork including aerofoils shall extend more than 100cm (39.4in) behind the rear wheel axis.
- 5.6.7 Detachable bonnets must be fitted to all cars and must cover and surround all parts of the engine with the exception of the cylinder head and cam cover and associated parts such as induction and exhaust which may remain uncovered.
- 5.6.8 The floor in the passenger space may be removed to increase cooling to the differential unit.
- 5.6.9 **The following regulations apply to vehicles running all enveloping bodywork.**
- 5.6.10 Sections 5.5.4.2, 5.5.7, 5.5.8, 5.5.9, 5.6.3., 5.6.4., 5.6.6., and 5.6.8. must be respected at all times.
- 5.6.11 The bodywork must not be mounted on un-sprung parts of the car.
- 5.6.12 When viewed in plan, the bodywork must cover the chassis, wheels, tyres (cover the width of the tyre in contact with the road surface), suspension, gearbox, engine and the exhaust ("the primary components"). The exhaust may exit at the side or rear. It is permissible to introduce air inlets, vents, ducts and access holes provided that none of the primary components are visible in plan view.
- 5.6.13 In side elevation:
- The whole of the front wheels and tyres must be visible and unobstructed by any bodywork
 - The bodywork around the rear wheels and tyres must not cover in excess of 40% of the area of the wheel above the axle centreline.
- 5.6.14 Below the horizontal front axle centreline, no part of the bodywork forward of the front axle vertical centreline shall exceed by more than 30mm per side, the width of the outer face of the front wheel rims, when the steering is central.

- 5.6.15 At all times (the steering central), the bodywork should cover the full width of the tyres throughout a continuous arc of 120° with a continuous surface of rigid material in conformity with Article 5.6.12.
- 5.6.16 While respecting sections 5.2., 5.5.2., and 5.5.5 it is permissible for the bodywork to provide access to the vehicle only by the driver's cockpit. The passenger space must be covered at all times during competition and the use of a separate rigid removable panel is permitted to cover the passenger cockpit but for the avoidance of doubt flexible or fabric 'tonneau' covers are not permitted.
- 5.6.17 At all times the bodywork must be demountable for the purposes of scrutineering and facilitate the inspection of the drivers cockpit and controls including the pedal box.
- 5.6.18 The bodywork must only be constructed of wet lay-up material of any of glass reinforced plastic, Kevlar and / or carbon fibre composite materials in any combination thereof.

5.7. Engine: The following engines are permitted:

PART A – SPORTS 1600 CLASS

Clubmans 1600 DOHC 'K' Series

- 5.7.1 The proprietary components specified in the build standard below are the only components eligible for use in the BARC Clubmans Sports 1600, and must conform with the proprietary specifications and/or drawings for these components.

From time to time it will be necessary to approve alternative equivalent components. Only components approved as alternatives and published in official amendments to these regulations are eligible.

The production engine specified in these regulations is modified and prepared to a uniform specification. Only engines approved by and originally supplied through the Clubmans' Register are eligible for this Championship.

As a sealed engine it is implicit that only parts defined with alternatives can be changed in specification whether protected by seals or not. In all other cases, if it is not allowed in the regulations, the specification cannot be changed and for the avoidance of doubt this includes all engine management sensors and wiring loom which must be fitted and operational as supplied and originally envisaged.

The core of the engine, i.e. those components contained within and including the cam cover, cylinder head, and sump, is supplied sealed by 2 MSA approved seals attached to the cam cover which may only be broken by the Championship Eligibility Scrutineer or an authorised agent of the Clubmans Register details available from the Clubmans Register. Only engines carrying 2 unbroken seals are eligible for the Championship. Each registered driver in the Championship is entitled to purchase a maximum of 2 engines. Only those engines purchased by or in the name of a driver may be used in competition by that driver. Engines may be exchanged at any time in accordance with the prevailing price structure. Any engine so purchased or exchanged will become one of the permitted 2 engines.

The Championship Organisers reserve the right to require a driver to exchange an engine for replacement at any time. The engine seal numbers will be recorded against the name of the driver and this will be used to administer the above procedures. Only engines with a full complement of seals will be eligible for exchange.

It is emphasised that the engine sealing is an integral part of the engine eligibility, and must not be damaged or lost.

On behalf of the Clubmans Register Paul Freeman provides a Diagnostic Only Support service at race events. This service is to provide only diagnosis of any malfunction of a Cup engine

presented to compete in conformity with these Regulations. This service does not include any remedial works that may be required and which at all times remains the responsibility of the competitor for the purposes of payment of any fees for remedial work agreed between the competitor and Paul Freeman Motor Services Limited. The diagnostic service is provided on a first-come basis and at all times subject to the availability of PF at the event in question.

5.7.2 Build Standard

Components marked (M) below are sealed and identified by MSA seals. Such components are only eligible if the required undamaged seal is affixed. It is the competitor's responsibility to protect the seals from damage.

DESCRIPTION	PART NUMBER
Engine Type	'K' 1600 Mpi
Base Engine	LBB 106500 (M)
Bore	80.0mm
Stroke	79.0mm
Capacity	1588cc
Fuelling	MG MPFI
Throttle Body Dia.	48.0mm
Inlet Manifold	LK3 107140
Inlet Ports	As cast in production
Manifold Gasket	LKJ 100730
Oil Scavenge Pump Assembly	RCO 13005A or Titan 'Gold' Pump
Sump	RCO 13003A (M)
Ignition Control Box & Rev. Limiter	MG M.E.M.S. (M)
Exhaust Manifold	Free
Flywheel (with starter ring)	PSD 101980
- Dimensions: Diameter	249.75mm +_ 0.25mm

N.B. Flywheel, including inner diaphragm surface must remain as cast.

Air Cleaner	K&N 57-0044
Oil Filter	LPW 100180
Starter Motor	'Make' is free, but must be fitted to unmodified mounting points

Spark Plugs - standard heat range	Unipart GSP662 Champion RC9YCC NGK BCPR6ES Bosch FR7DC
Spark Plugs - cooler heat range	Unipart GSP6652 Champion RC7YCC NGK BCPR7ES Bosch FR6DC

Clutch Assembly -

As defined in current Formula Ford 1600 regulations, i.e: a production single diaphragm clutch. Only organic friction material is permitted. Racing clutches are prohibited save that competitors are permitted to substitute the organic driven plate for a 3 blade paddle type driven plate being manufactured by Helix and supplied under part numbers: single rail gearbox: 76-1605 and 3 rail gearbox: 76-1606 {Note part number for Elite sequential gearbox to be notified by bulletin}. For the avoidance of doubt the use of an uprated pressure plate is prohibited and the paddle type driven plate must be mated to a standard Formula Ford 1600 permitted pressure plate. Breach of this regulation will result in the imposition of MSA Regulation [C3.5.1 (c)].

Cooling System Thermostat - it is permitted to run without the thermostat in operation

5.7.3 Engine Location: The engine must be mounted fore/aft upright, plus or minus 15 deg

PART B - PROTO CLASS

5.7.4 A production based naturally aspirated 4 cylinder car engine having a maximum swept volume of 2000cc and with maximum **200 240 bhp** at the flywheel **and a maximum engine speed of 8500 rpm.**

5.7.5 A production based naturally aspirated 4 (maximum) cylinder motorcycle engine having a maximum swept volume of **1600 1300 cc** and with maximum **200 240 bhp** at the flywheel.

Flywheel (with starter ring) must be steel

Clutch Assembly -

Multi plate racing clutches are permitted.

5.7.6 **Engine Location:** The engine must be mounted fore/aft and upright, + / - 15 deg

5.8. **Suspension:** all classes Free

5.9. **Transmissions:**

PART A: SPORTS 1600 CLASS

5.9.1 **Gearboxes must conform to and at all times respect the following:**

General requirements of all gearboxes

- a) Must be separate from the differential and not contained within a transaxle casing.
- b) Must contain no more nor less than 4 operational forward gears and 1 operational reverse gear.
- c) Gearboxes that -as a standard manufacturer's production item- were fitted with 5 or more forward gears must be assembled so that only 4 operational forward gear ratios and 1 operational reverse gear ratio are in use. Where more than 4 forward gears or more than 1 reverse gear ratio were originally fitted by the manufacturer within the gearbox then all unused ratio(s) must be removed or locked out so as to be not accessible for use by any means.
- d) Must not in any way interrupt or interface with or interact with or be conjoined with any part of the engine management system and/or the engine loom.
- e) Must not be of a continuously variable ratio or seamless shift.
- f) Must require the use of a foot operated clutch for disengagement of drive from the engine.
- g) Must not in any way actuate or facilitate the operation of gear changing either pneumatically or hydraulically (except that hydraulic clutch actuation by operation of a foot operated clutch pedal is permitted).
- h) Steering column and/or steering wheel mounted gear-change mechanisms are prohibited.
- i) Subject to these Regulations gear ratios are free but must be freely available to the public for purchase from an identifiable source.

Conventional 'H' pattern non-sequential gearboxes

- j) Must be of Ford Single or Three rail type.
- k) Dog engaged gears are permitted.
- l) Aluminium casings and shortened tail casings are permitted.

Sequential Gearboxes

- m) The permitted sequential gearboxes are the Elite IL 200 5S (with 4 forward gears as stipulated under General Requirements of these gearbox regulations) and the Sadev sequential gearbox under part number: **SCL82-17 FS** ['FS' means 'Ford Short' as the gearbox is a direct fit replacement for Ford Type 9]. The authorisation is for use only as a 4 speed gearbox. This gearbox is available from UK Sadev agent SWR Motorsport. It currently has available fewer ratios than the permitted Elite IL 200 5S.
- n) It is permitted to install electronically operated gear-in-use indicators for display to the driver (and which may be mounted on the steering wheel) and which is permitted to interface with any data logging system installed in the car but in all cases subject at all times to the General Requirements of all gearboxes set out in these Regulations.
- p) The Clubmans Register reserves the right in the interest of preservation of the equality of competition within the Championship to increase at any time during the Championship the minimum weight of any car fitted with a sequential gearbox.

5.9.2 Gearboxes with rapidly interchangeable ratios are prohibited.

PART B: PROTO CLASS

EITHER

5.9.3 A 4 forward and 1 reverse speed gearbox conforming in all respects to Regulation 5.9.1 in which case 5.9.2 applies.

OR FOR 4 CYLINDER PRODUCTION BASED CAR ENGINES

5.9.4 A 6 forward and 1 reverse speed gearbox and which may be operated by conventional gear-lever or by steering column or steering wheel mounted 'paddles'.

5.9.5 A **5 6 speed** gearbox must be separate from the differential and **not** contained within a transaxle casing.

OR FOR 4 CYLINDER PRODUCTION BASED MOTORCYCLE ENGINES

5.9.6 A 6 forward speed sequential gearbox separate from the differential and **not** contained within a transaxle casing and which may be operated by conventional gear-lever or by steering column or steering wheel mounted 'paddles'. A reverse gear must be operational on the car.

ALL CLASSES

5.9.7 Magnesium gearbox and differential casings and bell-housings are prohibited.

5.9.8 **In Sports 1600 class** torque biasing, limited slip and locked differentials are prohibited.

The final drive must incorporate a free differential gear assembly. The intention of this clause is to limit the use of differential gear assemblies to those with no useful torque biasing or limited slip capability, whether by design, construction, assembly or any other method. No prevailing torque within the differential mechanism is permitted.

This condition should be checked by the following method

- a) The rear of the car shall be jacked off the ground. With the gearbox in neutral, rotating one rear wheel in either direction must not result in any significant movement of the opposite rear wheel.
- b) If there is any doubt about the adherence to (a) above then the differential should be removed from the car and there must be no resistance to the movement in the gears making up the differential assembly irrespective of temperature. If any mechanical defect is found the

differential should be rectified and reassembled into the car to ensure that condition (a) above is met. During the period of checking the car and differential shall be deemed to be under Parc Fermé conditions regardless of the actual location of the car and/or differential and no person may enter that Parc Fermé without the express permission of the scrutineers then responsible for the entire car and/or differential.

5.10 Electrics:

Free except:

- a) Sports 1600 Class Cars must use engine harnesses specified and supplied by the Clubmans Register connected to all sensors (see 5.7.1 and 5.7.4 above) and ancillaries.
- b) The use of the inertia switch is optional.
- c) The fuel pump must be controlled by the engine ECU as intended by the specified wiring harness and the use of a separate switch for the high pressure fuel pump is not permitted.
- d) The applicable provisions of 5.9.1 and 5.9.4.

5.11 Brakes: Free

5.12. Wheels/Steering: Free

5.13. Tyres:

5.13.1 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.

5.13.2 In **Proto and Sports 1600 class** the only permitted tyres are (save as provided below) Hankook slick and wet tyres in the following sizes, with compounds and tread pattern as approved by the Clubmans Register:

Front: 170/515R13

Rear: 210/570R13

Or such other Tyres or specification of tyres as may be specified from time to time by the Championship Organisers and the Clubmans Register.

The sole suppliers of Hankook racing tyres to the Championship are:

Hankook Motorsport, Mr Tyres (Motorsport Ltd.), Unit B, 33 Pitsford Street, Hockley, Birmingham, B18 6LJ

Tel: 0121 551 4589

The previously approved Dunlop Clubmans specification wet tyres in the following sizes continue to eligible.

Wet Front: 170/510-13 specification 226

Wet Rear: 210/570-13 specification 226

5.14 Weight:

5.14.1 The minimum permitted weight of the complete vehicle is **Proto 440kg and Sports 1600 420kg** without any form of ballast to achieve the said minimum weight. The weight of any vehicle shall be determined with the vehicle complete with all bodywork fitted and otherwise in conformity with these Regulations but without fuel and without driver. All other fluids sufficient to enable the vehicle to participate in the competition including oil and water shall be present.

5.14.2 The Provisions of 5.9.1 Article 16 should be noted.

5.14.3 The Championship Organisers and the Clubmans Register jointly and severally are empowered to cause any vehicle presented for use in the Championship to be the subject of weight checking by the Championship Eligibility Scrutineer at any time during the period commencing with the opening of entries for the first scheduled round of the Championship and ending with the

declaration of the Final Results of the Championship. Any such check may be conducted at any location directed by the designated Championship Eligibility Scrutineer. The Championship Eligibility Scrutineer is empowered to delegate his functions in respect of any weight check.

5.14.4 Any competitor who fails to present his vehicle for weight checking in conformity with Regulation 5.14.3 shall be automatically suspended from Championship Registration until such time as the vehicle has been presented for weight checking.

5.15 Fuel Tank/Fuel:

5.15.1 Type: Free, but competitors must refer to the applicable sections of the MSA Year Book.

5.15.2 Location: Free. See also Section 5.3.1 of these Regulations

5.15.3 Fuel: The only permitted fuel is PUMP FUEL which conforms with MSA definition

5.16 Silencing:

5.16.1 All vehicles must comply with Section [J 5.17.1, 5.17.2] and Chart 5.18 Section B of the MSA Yearbook

5.16.2 Sports 1600 Class Cars must use the silencer specified and supplied by the Clubmans Register and must be silenced to the standard required by the MSA as specified above for sports racing cars in conformity with Sound test requirements provided by [J 5.18.1 and 5.18.3 - 5 and 5.18.7 - 11 inclusive].

5.16.3 Proto Class Cars: silencer is free but must be silenced to the standard required by the MSA as specified above for sports racing cars in conformity with Sound test requirements provided by [J 5.18.1 and 5.18.3 - 5 and 5.18.7 -11inclusive].

5.17 Numbers and Championship Decals:

5.17.1 To be eligible to compete in a Championship race and obtain points and prizes, it is mandatory to display a) BARC Shield and b) All Championship decals as required by the Clubmans Register and /or the Championship Organiser on each side in an unobscured position when viewed from a direct side elevation (provided that decals are available at the meeting signing-on). These decals may be supplied by the Clubmans Register and a nominal charge may be made.

5.17.2 Competitors will display the competition numbers allocated by the Clubmans Register. Number 1 will be available allocated to the Champion of the class which had the most competitors in the previous year. All other numbers will be allocated on a first come basis in line with the drivers preference as "permanent" numbers.

5.17.4 Competition Numbers and backgrounds shall be displayed in accordance with the requirements of the Championship Organisers.

~~5.17.5 Sports 1600 cars will display a 4" high letter S adjacent to each competition number (top right) and Proto cars will display a P similarly Cars will display CSP 1,2 or 3, whichever is appropriate, adjacent to each competition number using decals supplied by the Clubmans Register.~~

5.18 General Conformity

5.18.1 The Championship Organisers and the Clubmans Register jointly and severally are empowered to cause any vehicle nominated for use in the Championship to be the subject of eligibility checking by the Championship Eligibility Scrutineer in conjunction with nominated officials and representatives of the Clubmans Register acting through the Championship Representative at any time during the period commencing with Registration of the competitor for the Championship and ending with the declaration of the Final Results of the Championship. Any such eligibility check may be conducted at any location directed by the designated Championship Eligibility

Scrutineer and/or the Clubmans Register. The Championship Eligibility Scrutineer is empowered to delegate his functions in respect of any eligibility check.

The eligibility checking envisaged and permitted by this Regulation may include the requirement for the horsepower output of any engine to be checked for conformity with these Championship Regulations and it shall be the responsibility of the Competitor subject of any such check to submit the vehicle for examination as directed and at the exclusive cost of the Competitor. The result of such a horsepower check shall be definitive.

- 5.18.2 Any competitor who fails to present the nominated vehicle in conformity with Regulation 5.18.1 above shall be automatically suspended from Championship Registration until such time as the vehicle has been presented for checking and has been approved by the issue of a certificate of conformity.
- 5.18.3 Competitors are required to present nominated cars in a clean and tidy state and condition and in conformity with these Regulations for all participation in the Championship. If in the reasonable opinion of a majority of the Clubmans Register Committee any nominated car presented for competition in the Championship does not conform with this Regulation then the Championship Representative shall be entitled to require the organiser to suspend forthwith Championship Registration of the relevant competitor until such time as conformity has been satisfactorily demonstrated to the Championship Representative.

6. APPENDICES:

The following Commercial Regulations are “contractual” between the Entrant and / or Driver and the Organisers and / or Promoters and are not considered by MSA. Accordingly, the application of these Commercial Regulations by the Organisers and / or Promoters will not be subject to the Judicial processes of either the Championship Stewards and / or the MSA / MSC.

6.1. Race Organising Clubs and Contacts:

BARC: Thruxton Circuit, Andover, Hampshire. SPII 8PN.

Tel: 01264 882200 Fax: 01264 882233

E-mail: dwheadon@barc.net

Clubmans Register:

Mike Evans Chairman, Clubmans Register.

E-mail: tmikeevans@btinternet.com tmikeevans@btinternet.com

Mike Evans, Driver's Representative;

E-mail: tmikeevans@btinternet.com

Championship Eligibility Scrutineer: Mike Wright????

Keith Auld, 53 Orchard Drive, Ackworth, Pontefract, West Yorkshire, WF7 7DS

Tel: 01977 611746

(Do not telephone after 22.00 hrs)

6.2. Commercial Undertakings:

- 6.2.1 Drivers may put their own advertising on the car, subject to meeting the relevant MSA regulations.
- 6.2.2 No display may contain offensive material.
- 6.2.3 Competing cars must carry Championship decals as required from time to time by any of the Championship Organisers and/or the Clubmans Register.

5a. TECHNICAL REGULATIONS – CLASSIC DIVISION – All Classes

5a.1 INTRODUCTION:

The following Technical Regulations are set out in accordance with the MSA specified format and it should be clearly understood that if the following texts do not clearly specify that you can do it then you must work on the principle that you cannot.

5a.2 GENERAL DESCRIPTION:

5a.2.1 The **BARC CLUBMANS CHAMPIONSHIP (CLASSIC CLUBMANS DIVISION)** is for competitors participating in Non-standard sports racing cars constructed to the following Regulations. They must either be:

5a.2.2 Open two seat front-engined Clubmans sports racing cars with cycle type front mudguards which were manufactured and raced before 31/12/1980

5a.2.3 Front and rear-engined Classic Formula 1300 cars.

5a.2.4 CLASS STRUCTURE:

Class A: Pre '81 Chassis with 1700cc Ford X-Flow full race engine

Class B: Pre '81 Chassis with 1600cc Formula Ford X-Flow full race engine

Class C: Pre '71 Chassis with 1600cc Ford pre X-Flow full race engine

Class D: Formula 1300 Cars with 1300cc ford X-Flow full race engine or 1600cc CVH engine as specified in section 5.18.4.7

NOTE: All vehicles must comply with the general regulations in sections 5.3 to 5.4
Regulations pertaining to Classes A, B & C are contained in sections 5.5 to 5.17
Regulations pertaining to Class D are contained in section 5.18

5a.3 SAFETY REQUIREMENTS:

5a.3.1 The following articles of MSA Section K Safety Criteria Regulations apply:

(Safety roll-over structures) K1.5.1, K1.6.4(b), K1.6.6, K1.7.

(Seat belts) K2.1.2 Mandatory K2.1.3 advisory)

(Fire extinguishers) K3. NOTE: 'Large plumbed-in is mandatory),

Red warning light K5

Tank fillers vents and caps K6.

Crushable structures (see item 5.3.5 below) K7.

External circuit breaker K8

Drive shaft restraint K12

Head restraint K13

General safety recommendations K14

5a.3.2 In addition, all competitors are reminded that their personal equipment must comply with the provisions of K9 and K14.3 in respect of Overalls, K10 in respect of Crash helmets and K11 of Goggles / visors.

5a.3.3 Providing all safety regulations are complied with, the petrol tank, oil tank, battery and fire extinguisher may be located in the passenger space (see item 5.5.3 below)

5a.3.4 Competitors should respect the possibility of side-impact during competition. Accordingly competitors in the Championship should make provision for adequate driver's side-impact protection on the driver's side of the chassis in the area that stretches between the rear of the driver's torso and the leading edge of the pedals at maximum depression ("the zone"). The material is free provided that it conforms with these Regulations. Any side-impact structure

fitted to the zone must be securely affixed but may not be bonded or riveted direct to chassis rails. It may be bolted direct to chassis rails or bolted or riveted to other driver's side chassis panelling in conformity with these Regulations. Consideration should be given to the potential desirability of side-impact protection being afforded by a progressively deformable non-inflammable and/or non-toxic structure throughout the zone.

5a.3.5 No fluids may pass through the chassis tubes in space frame vehicles (MSA J5.20.12)

5a.3.6 Classic Clubmans cars may be updated with forward facing rollover bar supports, dash hoops and crushable structures as 5.3.4. With regard to the fitting of crushable structures (5.3.4.), exemptions will be made for cars where separate rear mudguards are used, if the following alternative is adopted: The chassis rails from the pedal box to the rear of the seat area should be double skinned, at least one skin being a minimum of 16SWG and filled with foam as 5.3.4.

5a.3.7 Removable steering wheels are permitted.

5a.3.7 It is recommended that modern Formula type mirrors are fitted to improve rear visibility

5a.4 GENERAL TECHNICAL REQUIREMENTS AND EXCEPTIONS:

5a.4.1 All vehicles must comply with MSA General Technical Regulations and the relevant parts of Sections J & K of the MSA Yearbook except where specified below

5a.4.2 Electronic data logging is not permitted.

5a.4.3 All engines must have cross-drilled bolts / nuts / studs sufficient to enable the rocker cover and / or cylinder head and sump pan to be wire sealed to the engine block at any time.

5a.4.4 Upon application the Clubmans Register may grant individual exceptions to any vehicle on Championship Technical issues, but not on matters of MSA Safety or Technical issues, if it can be demonstrated that it is running to the specification to that which it ran 'in period'.

5a.5 CHASSIS: Classes

5a.5.1 The chassis may be updated to 31/12/1980 for Classes A & B and to 31/12/1971 for Class C

5a.5.2 All cars must have a protective bulkhead of non-flammable material between the engine and the driver / passenger compartment capable of preventing the passage of fluid or flame. Gaps must be sealed with GRP or intumescent putty. Magnesium is prohibited for bulkheads.

5a.5.3 All cars must have a bulkhead between any fuel tank and filler and the driver / passenger compartment sufficient to prevent the passage of fluid or flame. Where a fuel tank constitutes part of the bulkhead between the passenger and other compartments, an additional bulkhead must be fitted.

5a.5.4 Chassis tubes may encroach upon the minimum internal cockpit width of 81.28cm (32") providing they only extend diagonally from the body sides and / or X the mandatory safety roll over bar, or if tubes are longitudinally placed for the purpose of creating a division between driver and (notional) passenger space and also for the purpose of supporting a tonneau cover. NOTE: The mandatory roll over bar must at all times *respect* K1.6.4 that is to say that the roll over bar must extend across the entire width of that part of the cockpit occupied by the driver, but may not extend across the width of the entire cockpit including the notional passenger space unless the car was constructed accordingly in period. Respecting K1.6.4 the roll over bar must be effectively mounted and braced to structural members forward and aft of the cockpit. Aluminium alloy roll over bars are prohibited K1.7.

5a.5.5 The vertical centre line through the steering wheel must be a minimum of 7.62cm (3") behind the centre of the rearmost spark plug hole.

5a.5.6 The chassis is only to be constructed from steel, aluminium or aluminium alloy.

5a.6 BODYWORK:

5a.6.1 Cars from Classes A & B may run any configuration of bodywork that was available to and used by their specific manufacturer of vehicle up to 31/12/1980. Similarly, cars from Class C may run any configuration of bodywork that was available to and used by their specific manufacturer of vehicle up to 31/12/1971. Cars complying with this rule will be automatically acceptable.

5a.6.2 Additionally, any car that can be shown to have run a non-standard bodywork configuration that was used by their car within the relevant periods as defined above will also be acceptable but it will be the owner's responsibility to present such proof.

5a.6.3 Cars from Classes A, B & C may also be permitted to run other alternative bodywork configurations that do not comply with 5.6.1 or 5.6.2. However, dispensation for this must be obtained on an individual vehicle basis. To be considered for a dispensation, the alternative bodywork must comply with the image and style of a pre-1981 Clubmans Sports Racing Car and it must not be considered to provide a performance advantage over an original bodywork format. It is the responsibility of the competitor to apply for dispensation.

5a.6.4 No carbon fibre or Kevlar is permitted in any bodywork structure with the exceptions only of:

- a flywheel scatter shield mounted as an addition to non-carbon fibre non-Kevlar internal panelling
- seat
- prop-shaft tunnel
- other detachable non-structural driver protection conforming with Regulation 5.3.4 in flat sheet form securely affixed to, but easily removable from, the faces of vertical chassis sides
- fuel tank protection

5a.6.5 No under car venturis of any type are allowed. Multi element rear wings are not permitted unless used as original period fitment. Aerofoil sections must be of period type.

5a.6.6 The vehicle must be fitted with:

- cycle type front mudguards conforming to 5.6.7 and which must be a distinctly separate component from the rest of the bodywork. There must be a gap between these mudguards and the rest of the body of not less than 5cm (2") when the steering is central, and be equipped on all wheels with mudguards which present no sharp edges and cover the width of the tyre in contact with the road surface around an arc of not less than 120° and no more than 180°.
- either cycle type rear mudguards conforming to 5.6.6 (a) or
- bodywork covering in plan view but not enclosing the rear wheels and conforming to 5.6.1 - 5.6.4 and 5.6.7, 5.6.9 and 5.6.12 in accordance with original period type/use.

5a.6.7 The minimum covering of wheels provided by 5.6.6 must be:

- achieved with a continuous surface of rigid material uninterrupted by any gaps, holes, slots or vents and
- Extend forward of the axle line and
- Extend downward behind the rear wheel to at least 7.5cm (3") above the axle line

5a.6.8 The front and rear mudguards may be mounted on unsprung parts of the car

5a.6.9 For Classes A & B the maximum height of the bodywork, with the driver aboard, including aerofoils but excluding the safety roll over bar, must not exceed 110cm (43.3") measured vertically from the ground. For Class C there is no such requirement.

- 5a.6.10 For Classes A & B the rear aerofoils must not exceed in width the outer faces of the rear wheel rims. No rear aerofoils are permitted in Class C.
- 5a.6.11 For Classes A & B the width of the coach work ahead of the front wheels must not exceed the width of the outer faces of the front wheel rims when the steering is central. No part of the coach work ahead of the front wheels may exceed the height of the front mudguards. For Class C the maximum width must not exceed the width of the centre line of the front wheel rims.
- 5a.6.12 No part of the bodywork including aerofoils shall extend more than 100cm (39.37") behind the rear wheel axis.
- 5a.6.13 All cars must be fitted with a detachable bonnet which must cover and surround all parts of the engine, with the exception of the cylinder head and rocker cover and associated parts such as induction and exhaust.
- 5a.6.14 The floor in the passenger space may be removed to increase cooling to the differential unit.

5a.7 ENGINE:

- 5a.7.1 For Classes A, B & C the engine and gearbox must be located in front of the rear axle line and the centre of the rearmost spark plug hole must be not less than 91.44cm (36") in front of the rear axle line.

5a.7.2 Engine type - Classes A & C

- a) For Class A engines must be up to 1700cc side draught pushrod engines as in period at 31/12/1980.
- b) For Class C engines must be up to 1600cc pre-crossflow pushrod engines as in period at 31/12/1971.

- 5a.7.2.1 Crossflow blocks type 711 or AX are allowed.

- 5a.7.2.2 The following restrictions apply:

- a) For Class A maximum bore 83.5mm plus 0.2mm wear allowance. Class C free
- b) For Class A maximum inlet valve 40.3mm - Class C free
- c) Valve stems must be spaced to original specification and remain vertical
- d) Camshaft – maximum lift at Pushrod must not exceed .295 (7.493mm) – maximum lift at the valve with tappet clearance reduced to zero must not exceed 0.454" (11.53mm)
N.B. In theory, the 234 Cam will meet the lift requirements, however competitors using this Cam may require some modifications to the Rocker to ensure the lift at the Valve complies.
- e) Rockers must be standard ratio (1.54 : 1) – otherwise free.
- f) Carburetors can be up to 48DCOE with a maximum choke of 38mm - Class C max 36mm
- g) No titanium parts can be used other than valve spring retainers
- h) Where electronic ignition is fitted it must be a simple electronic ignition, a single coil and distributor must be used.
- i) A standard diameter steel flywheel and ring gear must be used
- j) 7.1/4 bronze clutches must be used. Carbon clutches are not permitted
- k) No engine management systems are permitted
- l) Forced induction and / or fuel injection are prohibited
- m) Non-iron cylinder heads and / or engine blocks are not permitted

5a.7.3 Engine type - Class B

For Class B engines must be Formula Ford 1600cc Kent engines to current regulations (save as provided in these Regulations) with the exception of fuel pumps.

5a.7.3.1 The following restrictions apply:

- a) A rebore allowance on Kent engines of +0.030" is permitted.
- b) The pistons used in re-bored engines are restricted to use of either Hepolite 18649 or to Hepolite 20552V1 provided they are within the tolerances shown on the Hepolite drawing number 20552/1/2.

5a.7.3.2 (a) It is permitted to reduce the weight of the mandatory standard flywheel to a minimum weight of 10,5kg provided that flywheel minimum tolerances conforming to the drawing available from the Clubmans Register are respected and subject to the provision on demand made by the Championship Eligibility Scrutineer of a signed dated Certificate of Conformity in respect of tolerances and

(b) The minimum weight of 10,5kg is inclusive of:

- (1) The entire clutch assembly (driven and cover plate) and
- (2) The clutch assembly mounting bolts and
- (3) The flywheel mounting bolts.

5a.8 SUSPENSION:

5a.8.1 This regulation has been drafted to ensure compliance with the period spirit of the Championship, and as a core element in respect of performance, it is aimed at ensuring cars do not run configurations which appeared on later post 1980 models, by the process of evolution. It is the intention of the regulations, to outlaw any suspension configurations/systems that were not in use prior to 1981. After 1981, older cars were routinely modified to run with suspension configurations from later models from the same manufacturer. Such modifications are not eligible and suspension pick up points and component dimensions must be to pre 1981 specifications. Specific attention is drawn to the following:

5a.8.2 Suspension can only be as fitted up to 31/12/1980 for classes A & B, and up to 31/12/1971 for class C. Later types such as Mumford or TAM are not permitted.

5a.8.3 Droop limiting devices are not allowed, e.g. no external suspension restraining devices such as: droop bars, or cables will be allowed, all cars must demonstrate a minimum amount of droop of $\frac{3}{4}$ ". In the event that this has to be checked, then the following will apply:

5a.8.4 With the car stationary, tyres at race pressures and the car at race ready static ride height (with driver on board). The chassis of the car (front or rear) must be capable of being raised by a minimum of $\frac{3}{4}$ " before the tyre loses contact with the ground. Note this figure includes an allowance for tyre deflection.

5a.8.5 It is up to the individual competitor to demonstrate their compliance with this rule to the satisfaction of the Championship Eligibility Scrutineer. It is commonly thought that most cars of the period would have considerably more suspension droop than the minimum prescribed above, and in the "spirit" of the regulations this is what we would expect to be demonstrated in practice.

5a.8.6 Shock absorbers must be steel bodied period items. Alloy bodies or separate reservoirs are not permitted.

5a.9 TRANSMISSION:

5a.9.1 For Classes A, B & C gearboxes must be four speed manual, non-sequential units. The main case must be iron. Otherwise gearboxes are free.

5a.9.2 Rear axles must conform to original design, i.e. beam, de Dion, independent.

5a.9.3 Torque biasing, limited slip and locked differentials are prohibited.

5a.9.4 The final drive must incorporate a free differential gear assembly. The intention of this clause is to limit the use of differential gear assemblies to those with no useful torque biasing or limited slip capability, whether by design, construction, assembly or any other method. No prevailing torque within the differential mechanism is permitted.

5a.9.5 This condition should be checked by the following method

- a) The rear of the car shall be jacked off the ground. With the gearbox in neutral, rotating one rear wheel in either direction must not result in any significant movement of the opposite rear wheel.
- b) If there is any doubt about the adherence to (a) above then the differential should be removed from the car and there must be no resistance to the movement in the gears making up the differential assembly irrespective of temperature. If any mechanical defect is found the differential should be rectified and reassembled into the car to ensure that condition (a) above is met. During the period of checking the car and differential shall be deemed to be under Parc Fermé conditions regardless of the actual location of the car and/or differential and no person may enter that Parc Fermé without the express permission of the scrutineers then responsible for the entire car and/or differential.

5a.10 ELECTRICS

5a.10.1 Rear Fog Light - as required by current MSA Regulations

5a.11 BRAKES:

5a.11.1 Only twin piston callipers of no more than 2" diameter are permitted, these may be manufactured from either iron or alloy no other material is allowed. Carbon brakes and / or pads are not permitted.

5a.11.2 Vented disc brakes are not permitted. Slots and / or grooves in the surface of the disc and cross-drilling are permitted.

5a.12 WHEELS / STEERING:

5a.12.1 Wheels are free for classes A, B & C.

5a.13 TYRES:

5a.13.1 **Slick Tyres All Classes**

Dunlop Clubmans specification slick tyres in the following sizes

Dry Front: 170/510-13 specification 662

Dry Rear: 210/570-13 specification 662

Avon slick tyres as specified for by the HSCC Classic Clubmans series or

Hankook tyres as detailed within 5.13.2 are permitted. In the case of a car specifically designed to use 20" rear tyres the Hankook 180/550R13 can be used on the rear in the same compound as the Hankook 'control tyre'.

5a.13.2 **Wet Tyres** Hankook and Dunlop wet tyres as specified in 5.13.2, plus Avon wet tyres as specified for the HSCC Classic Clubmans series. In the case of a car specifically designed to use 20" rear tyres the Hankook 180/550R13 can be used on the rear in the same compound as the Hankook 'control tyre'.

5a.13.3 **Limitation on use:** The following limitation on tyre use applies to all classes

5a.13.4 Use no more than 10 new (previously unused) slick and 10 new (previously unused) wet tyres during the Championship (“allocated tyres”).

5a.13.5 Competitors will be allowed to replace any allocated tyres that are damaged or become unuseable through normal racing circumstances but will only be allowed to do so after such tyres have been inspected

5a.14 WEIGHTS: There are no weight limits.

5a.15 FUEL TANK / FUEL

Fuel: The only permitted fuel is PUMP FUEL which conforms with MSA definition

5a.16 SILENCING: Silencers are free for classes A & C but must conform to current MSA requirements (108db). Class B cars must use the standard Formula Ford Kent silencer (108db).

5a.17 NUMBERS and CHAMPIONSHIP DECALS:

As 5.17

~~5a.17.1 Competition numbers and backgrounds shall be displayed in accordance with the requirements of the Championship Organisers and shall be regulation numbers with number backgrounds conforming to the following colours:~~

~~Class A: White with black numbers~~ ~~Class C: Light Blue with black numbers~~

~~Class B: Yellow with black numbers~~ ~~Class D: Red with white numbers~~

~~Class A numbers 11 – 30 and Class B numbers 31 – 60~~

~~Class A cars will display a 4” high letter A adjacent to each competition number (top right) and Class B cars will display a B similarly~~

~~Cars competing in Class D shall be allocated numbers 2 – 10~~

5a.17.2 All competing cars must carry such decals and/or logos as may be required by the Clubmans Register and BARC from time to time. For the avoidance of doubt cars must carry the BARC shield logo at all times.

5a.18 TECHNICAL REGULATIONS - CLASS D - CLASSIC FORMULA 1300cc

5a.18.1 DESCRIPTION: Class D

Two-seater open Formula 1300 sportscars manufactured and raced before 31.12. 2000, front or rear-engined, equipped with cycle type front mudguards. All enveloping bodywork is not permitted.

5a.18.2 CHASSIS: Class D

5a.18.2.1 No restrictions on build or construction, but proprietary rear-engined cars such as Chevron, Lola, March etc. are not permitted. Proprietary front-engined cars are restricted to those built and raced before 31.12.1980

5a.18.2.2 Chassis may be updated to 31.12.1980 on proprietary front engined cars. No carbon fibre or Kevlar is permitted to be used as part of or affixed to any chassis structure save in conformity with 5.18.3.10 below.

5a.18.2.3 No under car venturis of any type are allowed. Multi element rear wings are not permitted unless used as original equipment

5a.18.3 BODYWORK: Class D

5a.18.3.1 There must be only one cockpit space for both driver and passenger, the opening of which must be large enough to accept, with its longest side transversely, a horizontal quadrilateral frame with hinged joints and one side 81.3cm (32") long, two opposite sides 45.7cm (18") and the fourth side 63.5cm (25").

5.a18.3.2 In checking the cockpit openings any obstruction caused by bracing members for a roll over bar may be ignored.

5a.18.3.3 In addition, it must be possible to drop into the cockpit at right angles to the longitudinal centre line of the car, an inverted U shaped member with legs 76.2cm (30") apart within 76mm (3") of floor level.

5a.18.3.4 The passenger space exclusive of seat if fitted, measured at floor level must be at least 27.9cm (11") wide at the rear of the cockpit and at least 91.4cm (36") in length to the front of the footwell which must be at least 15cm (6") wide with a minimum vertical height of 25.4cm (10") over this area.

5a.18.3.5 The passenger space must remain clear of any obstruction other than a fire extinguisher and roll over bar brace

5a.18.3.6 If a seat structure is incorporated in this space, it must be no higher than 17.8cm (7") above the 91.4cm (36") floor line and at least 12.7cm (5") clear of any structure over any part of the passenger space.

5a.18.3.7 Rear aerofoils to the following dimensions are permitted, to the width of the rear bodywork including rear wings of 150cm (59"), whichever is less, chord 40cm (15.7") maximum. Rear overhang including all bodywork must not exceed 85cm (33.5") measured from the centre line of the rear wheels.

5a.18.3.8 Aerofoil devices ahead of the front wheels must be below the top of the front wheel rims and not exceed in width the centre line of the front tyres, they must form a continuous part of the bodywork.

5a.18.3.9 The maximum height of bodywork with driver aboard including aerofoils but excluding safety roll over bar must not exceed 90cm (35.4") measured vertically from the ground.

5a.18.3.10 No carbon fibre or Kevlar is permitted in any bodywork structure with the exceptions only of:

- a) a flywheel scatter shield mounted as an addition to non-carbon fibre non-Kevlar internal panelling
- b) seat
- c) prop-shaft tunnel
- d) other detachable non-structural driver protection conforming with Regulation 5.3.5
- e) flat sheet form securely affixed to, but easily removable from, the faces of vertical chassis sides
- f) fuel tank protection

5a.18.4 ENGINE: Class D

5a.18.4.1 Engine type - Class D

Engines must either be Ford 1300cc pushrod OHV or Ford 1.6 type CVBH of British manufacture

5.a18.4.2 Ford 1300cc pushrod OHV; The following restrictions apply:

- a) The crankshaft must be cast iron
- b) A Ford cast iron five bearing block must be used
- c) Bores must not exceed 82.7mm (81mm original bore + 1.5mm rebore allowance + 0.2mm wear allowance)
- d) Swept volume must not exceed 1354cc measured at the point of maximum ring travel
- e) All five main bearings must be used with standard main bearing caps
- f) Connecting rods are free provided they are made of ferrous metal
- g) A standard Ford iron cylinder head must be used
- h) Ports and combustion chambers may be modified by the removal of material
- i) Ports must remain in their original position in the side of the head.
- j) There must be no more than two valves per cylinder and these must remain in parallel with each other and the centre line of the bores in all planes.
- k) The camshaft is free, but must remain in the manufacturers original position, be manufactured from cast iron, retain chain drive and be the sole means of operating the push rods and valves.

5a.18.4.3 The following modifications are prohibited:

- a) No material may be added to the crankshaft other than for the reclaiming of damaged bearing surfaces.
- b) Crankshaft stroke must not exceed 63.0mm
- c) The addition of material to the cylinder head in any form other than replacement of valve seats or guides is prohibited
- d) Down draft cylinder heads are prohibited
- e) Push rods made from, or using elements of carbon or titanium are prohibited

5a.18.4.4 Engine location is free

5a.18.4.5 Oil and liquid cooling systems are free provided the radiators are within the overall periphery of the vehicle

5a.18.4.6 Induction systems may be of the following two options, but forced induction, fuel injection and external side throttles are prohibited

- a) Inlet manifolds are free

- b) Carburation may be either twin Weber 40DCOE or twin Dellorto 40DHLA carburettors and the following must remain as standard to those carburettors
 - i) The bore of the carburettor immediately downstream of the carburettor butterfly must not exceed 40.1mm
 - ii) The throttle butterflies must be retained and their position in the body of the carburettor may not be changed
 - iii) Main venturis up to 34mm may be used and their position in the carburettor may not be modified. (Note that standard 34mm venturis usually exceed the stated size - the use of smaller venturis opened out to the maximum size is recommended)
 - iv) Standard Weber and Dellorto auxiliary venturis must be used and their position in the carburettor body relative to the main venturis may not be modified. Any standard size of auxiliary venturi is permitted
 - v) Slide throttles (in any position) are prohibited
- c) Alternatively, engines may have a single restrictor of maximum bore 34mm, fitted between the carburettor and the inlet manifold. If removable the carburettor choke may form the restrictor, but no allowance will be made for jet carriers etc.

5a.18.4.7 Ford 1.6 type CVH; E) Ford 1.6 type CVH/1.4. The engine must be Ford 1.6 type CVH/1.4 engine code LPA or LUA of British Manufacture.

5a.18.4.8 Modifications Permitted

- i) Production tolerances are permitted provided the bore does not exceed 81.1mm (standard 80mm bore + 1.0 mm rebore allowance + 0.1mm wear allowance) and the swept volume does not exceed 1643cc measured at the point of maximum ring travel.
- ii) The standard Ford crankshaft of 79.52mm stroke must be used. Spot machining to achieve balance is permitted as are polishing, tuffriding, shotpeening and shot blasting. Machining to enable fitting the first motion shaft and flywheel is permitted.
- iii) Pistons must be standard Ford part no 6098522 (XR3), AE part no 20760 or KS part no 93363. Alternatively the standard Ford CVH 1300 pistons (Part no 81SM6102CA or 81SM6102GA, AE part no 20761, or KS part no 93362) may be used. All three rings must be used. Piston crowns and valve pockets may be modified by the removal of material. It is permitted to remove material from below the lowest point of the gudgeon pin to achieve balance.
- iv) Connecting rods must be standard Ford production part and may be modified by any means on all surfaces other than that inside the 'H' section. Surface treatment and bolts are free.
- v) The cylinder head must be from either the standard 1.6 litre engine code LPA or from the XR3 engine code LUA. It is permissible to reshape the ports by removal of material.
- vi) The valves must remain in the standard production position. It is permitted to repair damaged valve seats and guides.
- vi) The camshaft must be from the Ford XR3 (carburettor model or mechanical fuel injection models only, part no's: 1614767 or 6186554), or Kent Cams part no KC 7501614767 or KC 7506186554 or Piper Cams part no 750XR2/3 and remain entirely unmodified; it must be fully machined and ground by the Ford Motor Company, Kent or Piper. Tuffriding and/or parkerising is permitted.
- vii) The standard hydraulic tappet must be used.
- viii) Standard valve spring retainers, rockers and rocker bearings must be used. Shims, valve springs and valves are free.
- ix) Offset dowels, keys or Vernier timing sprockets are permitted.
- xi) Flywheel and clutch are free.

5a.18.4.9 Modifications Prohibited

- i) The addition of material in any form and by any means to the cylinder head is prohibited.
- ii) It is prohibited to grind camshafts from blanks, to regrind or to re-profile.
- iii) It is not permitted to modify any of the component parts of the tappet or to add material by any means. Solid tappets are not permitted.

5a.18.4.10 **Induction Systems:** Air filtration system is free.

- i) Inlet manifolds and carburettors are free.
- ii) Slide throttles and/or fuel injection are not permitted.

5a.18.4.11 **Ignition systems:**

Distributor is free, must be used and remain in the standard position; it must be the sole ignition system. A rev limiter is permitted. No engine management system is permitted. Only ignition systems that use only one trigger, inside the distributor or external, to initiate the low tension current will be permitted. Any system that requires more than one sensor or input to provide another signal/voltage for any electronic/microprocessor control system will not be permitted.

5a.18.5 SUSPENSION: Class D

Shock absorbers with separate reservoirs are not permitted. Suspension can only be as fitted up to 31.12.80 on proprietary front engined cars. Later types, such as Mumford or Tam are not permitted.

5a.18.6 TRANSMISSION: Class D

5a.18.6.1 The gearbox must include an operable reverse gear, capable of being engaged by the driver whilst normally seated in the car and must also contain no more than four forward gears

5a.18.6.2 Gearboxes and transaxles with rapidly interchangeable ratios are permitted subject to a declaration at the beginning of each season of the ratios to be used throughout the season

5a.18.6.3 One change of each ratio will be permitted during the season providing a declaration in writing is made prior to competing, to the F1300 Class Drivers Representative, who will be responsible for verifying that competitors are observing this regulation

5a.18.6.4 Automatic transmission, torque biasing or limited slip differentials, non-standard magnesium alloy bell housings, gearbox casings or tail shaft housings are prohibited

5a.18.7 ELECTRICS: Class D

5a.18.7.1 A starter and battery are mandatory. No further electrical equipment required

5a.18.7.2 Electronic data logging is not permitted

5a.18.8 BRAKES: Class D

Only twin piston callipers of no more than 2" diameter are permitted, these may be manufactured from either iron or alloy no other material is allowed. Carbon brakes and / or pads are not permitted.

5a.18.9 TYRES: Class D

5a.18.9.1 **Slick Tyres:** As 5a.13.1

5a.18.9.2 **Wet Tyres:** As 5a.13.2

5a.18.10 WEIGHTS: Class D There are no weight limits

5a.18.11 FUEL: Class D Pump fuel which conforms to MSA definitions must be used

5a.18.12 SILENCING: Class D Silencing must conform to current MSA requirements

6a. APPENDICES

The following Commercial Regulations are “contractual” between the Entrant and / or Driver and the Organisers and / or Promoters and are not considered by MSA. Accordingly, the application of these Commercial Regulations by the Organisers and / or Promoters will not be subject to the Judicial processes of either the Championship Stewards and / or the MSA / MSC.

6a.1 RACE ORGANISING CLUBS AND CONTACTS

6a.1.1 Championship Organisers

British Automobile Racing Club Limited

Thruxton Circuit Andover

Hampshire SP11 8PN

Tel: 01264 882200

Fax: 01264 882233

E mail: dwheadon@barc.net

Clubmans Register:

Chairman and Drivers Representative:

Mike Evans, Chairman, Clubmans Register.

Email: tmikeevans@btinternet.com

Championship Eligibility Scrutineer

Mike Wright,

Tel: 07932 006663

Email: Michael.gatley4@tiscali.co.uk

Keith Auld

Tel: 01977 611746

Email: keith.auld@btinternet.com

(Do not telephone either after 22.00 hrs)

6a.2 COMMERCIAL UNDERTAKINGS

6a.2.1 The intention of this championship is to re-create the ‘golden years’ of Clubmans racing with cars prepared with due consideration to period detail and historical accuracy. General preparation should be to the highest possible standard to match those expected by the Clubmans Register

6a.2.2 Cars are required to be registered on official Clubmans Register Classic Clubmans Identity Papers, these must be supplied with any requisite authenticating information and photographs to the Classic Clubmans Championship Eligibility Scrutineer, to whom all questions on eligibility should be addressed. Any points scored by an un-registered vehicle will be considered provisional until that vehicle has been approved and registered. This process must be completed within three races from the first race appearance of that vehicle for the points to be confirmed.