

**2017 APL HEALTH CATERHAM GRADUATES CHAMPIONSHIP**  
**SPORTING & TECHNICAL REGULATIONS**

***CATERHAM GRADUATES  
RACING CLUB***



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

**Published Copy**

**VF – 17/02/17**

## 1. SPORTING REGULATIONS - GENERAL

### 1.1 TITLE & JURISDICTION:

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

MSA Championship Permit No.:	CH2017 / R017
Race Status:	Clubman
MSA Championship Grade:	Grade C

### 1.2 OFFICIALS:

1.2.1 Co-ordinator:	David Wheadon
1.2.2 Licensed Eligibility Scrutineer:	Keith Marchment
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:	Roger Ford

### 1.3 COMPETITOR ELIGIBILITY:

- 1.3.1 Entrants must:
- (a) be current members of the BARC and
  - (b) be Registered for the Championship and
  - (c) be in possession of a valid MSA Entrants Licences.
- 1.3.2 Drivers and Entrant/Drivers must:
- (a) be current racing members of both the BARC and the appropriate class of CGRC and
  - (b) be Registered for the Championship and
  - (c) be in possession of valid Competition (Racing) National B status Licence, as a minimum or

- (d) A professional driver, in possession of a valid Licence (featuring an E.U. flag) and medical, issued by the ASN of a member country of the European Union, or comparable country. ((H)26.2.1, applies)
- (e) If participation in the Championship requires absence from education a driver, in full time school education is required to have the approval of their head teacher and a letter stating such approval from their school in order to fulfil registration for the Championship. A driver shall not take time out of their education to participate in motor sport without the prior written approval of their education establishment.

1.3.3 At the discretion of the Organisers, guest drivers may compete in a race forming a round of the Championship under whatever conditions they deem to be appropriate, but may not score points towards the Championship

1.3.4 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 going “on line” through the BARC website [www.barc.net](http://www.barc.net) and there is then no need to complete the registration form. Alternatively the Registration Form can be completed in full and returned 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 payable.

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

#### 1.5 CHAMPIONSHIP EVENTS:

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

<u>Events:</u>	<u>Date:</u>	<u>Circuit:</u>	<u>Organising Club (Centre):</u>
1 & 2	18 <sup>th</sup> March	Oulton Park	BARC (NW)
3 & 4	22 <sup>nd</sup> / 23 <sup>rd</sup> April	Pembrey	BARC
5 & 6	13 <sup>th</sup> / 14 <sup>th</sup> May	Cadwell Park	BARC
7	3 <sup>rd</sup> / 4 <sup>th</sup> June	Donington Park **	BARC
8 & 9	1 <sup>st</sup> / 2 <sup>nd</sup> July	Croft	BARC
10 & 11	29 <sup>th</sup> / 30 <sup>th</sup> July	Zandvoort	KNAF
12 & 13	9 <sup>th</sup> / 10 <sup>th</sup> September	Snetterton	BARC
14 & 15	7 <sup>th</sup> / 8 <sup>th</sup> October	Silverstone	BARC

\*\* The Donington meeting will also host a four hour race for Caterham cars.

#### 1.6 SCORING:

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

1<sup>st</sup>; 30, 2<sup>nd</sup>; 29, 3<sup>rd</sup>; 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5. All other finishers will be awarded 4 points; 2 points will be awarded to competitors starting but not finishing a race; 1 point will be awarded to competitors who qualify for a race but fail to take the start (including any reserves).

1.6.2 The totals from all qualifying Events run less three will determine final Championship points and positions.

1.6.3 Ties shall be resolved using the formula in (W) 1.3.4, in the current MSA Yearbook.

- 1.6.4 Where the race distance has been reduced in accordance with article 2.6 below, it shall still count as a full points scoring round.
- 1.6.5 Competitors not registered for the Championship may be permitted on an individual round basis and:
- (a) will be deemed "Guest Competitors"
  - (b) will not score points and for the purpose of points scoring will be ignored
  - (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 Before contesting the final meeting of the season, a registered competitor may formally declare to the Organisers, in writing, that they wish to compete in the event as a guest driver. If this is agreed then the provisions of 1.3.3 above apply and the penalties described in C 3.5.1 (a) and (c) are not applicable.

## **1.7 AWARDS:**

1.7.1 All awards are to be provided by the Caterham Graduates Racing Club

1.7.2 Per Event: A garland will be presented to the winner of each race  
Class trophies will be awarded using the following formula:

2 - 4 Starters	Trophy to 1 <sup>st</sup>
5 - 7 Starters	Trophy to 1 <sup>st</sup> and 2 <sup>nd</sup>
8 or more Starters	Trophy to 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>

1.7.3 Championship: A trophy will be awarded to the overall Championship winner  
Class Trophies will be awarded using the following formula:

Average of 2 - 4 Starters per round	Trophy to 1 <sup>st</sup>
Average of 5 - 7 Starters per round	Trophy to 1 <sup>st</sup> and 2 <sup>nd</sup>
Average of 8 + Starters per round	Trophy to 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup>

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 pit lane and may start the race after the last car to take the start from the grid has passed the start-line or pit lane exit, whichever is later.

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

## **2.6 SESSION RED FLAG**

- 2.6.1. Should the need arise to stop any race or practice, red lights will be switched on at the 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:**

If any event is oversubscribed the Organising Club may at their discretion run Qualification Races details of which are found in section 3.

## **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:**

A forward facing video camera must be fitted for the purpose of improving safety.

- i) It is the competitors' responsibility alone to ensure the safe installation and effective operation of the camera equipment.
- ii) The camera must be mounted on the roll cage in accordance with GR J5.21.3 and in a "central to left" position where the field of view should not be obscured by the rear view mirror
- iii) The camera must be fitted in accordance with GR5.21.5 and the Eligibility Scrutineer may insist on additional tethers being fitted
- iv) The camera must be switched on and recording at all times that the competitor is on track and a "clean" memory card must be used at each meeting. It must be possible to play the footage on a laptop computer so "windows" format is preferable
- v) Footage from the camera must be made available to the Clerk of the Course, Stewards and/or the CGRC driving standards team upon request. It is their sole discretion to view camera footage or not.
- vi) The CGRC has the right to ask for the video footage to be made available to them for up to two weeks after any meeting
- vii) In the event that no footage is available (other than due to a proven defect with the equipment, where the burden of proof will lie with the competitor) the following penalties will apply:
  - 1<sup>st</sup> offence - a written warning from the CGRC
  - 2<sup>nd</sup> offence - a fine of £50 payable to the CGRC Marshals Fund
  - 3<sup>rd</sup> offence - referral to the Championship Stewards for additional sanctions which may include a meeting ban

### 3. SPECIFIC CHAMPIONSHIP REGULATIONS:

- 3.1.1 The Championship has five classes - "Classic Graduates", "Sigma-Graduates", "Super-Graduates", "SigMax-Graduates" and "Mega-Graduates". The specification of cars eligible for each of the classes is specified in the Technical Regulations section.
- 3.1.2 The total number of registered contenders is well in excess of the number that can race on a single grid at almost any circuit. So the five classes will be split among several grids. The number of grids allocated may vary according to the anticipated number of entries at each venue and the maximum number of cars permitted on each venue's grid. The allocation will usually be three or four grids.
- 3.1.3 The Organisers will accept a maximum number of entries equal to the maximum starting number of the circuit multiplied by the number of grids, usually irrespective of class. Any further entries will be nominated as ordered reserves.
- 3.1.4 The race organisers, will, when necessary, define how the track space and grid space will be used to best accommodate the interests of all the entered drivers. Their first priority is to try to organize the racing so that the maximum possible number of drivers can race. These parties will then organise the racing so that each class gets treated "fairly". This can include:
- (i) Splitting an over-subscribed class so that it has two qualifying sessions and providing an over-subscribed class with a secondary race, which may be either a "Qualifying race" or a "Consolation Race"(see 3.2.3), and may be on a separate grid or combined with another class's race grid.
  - (ii) Combining races for two or more classes into a single qualifying session or onto a single grid. When classes' races are combined, each class may start separately or together, and cars may (a) be grouped by class or (b) be ordered by qualifying lap-time irrespective of class. A combined race may be for the classes' main championship race or for their secondary race, or a combination of both.
- 3.1.5 Exceptionally, at a double header event, one or more classes may be required to race in a "Round Robin". In this case, drivers will be split by qualifying times into three groups – 1st fastest, 4th, 7th etc. into Group A; 2nd, 5th, 8th etc. in Group B; 3rd, 6th, 9th etc. in Group C. Then Groups A & B will compete in one race, Groups B & C in one race and Groups A & C in one race.
- 3.2.1 Where it is planned to hold two Championship races, only one qualifying session will be scheduled. The fastest time set in qualifying will set the grid for the first race and the second fastest time will set the grid for the second race.
- 3.2.2 The standard scheduled distance shall be 20 minutes plus one 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. This race distance may be varied at certain meeting with Competitors informed in Final Instructions.
- 3.2.3 Secondary races: A Qualification race(s) may be held to accommodate competitors for an over-subscribed class(es), thus making best use of available track space/time to the benefit of competitors and spectators.  
A Qualification race will usually be the same length/duration as the main race. A qualification race may be for one or more classes and can have its own grid or use surplus space available in one of the other classes' grids. A Qualification race can comprise of any number of drivers. Competitors for a Qualification race will be those drivers that were allocated the lowest grid positions after timed practice (see 3.1.4). The highest classified finishers of the Qualification race will be sequentially allocated the remaining positions at the back of the grid for the class's main race.
- (i) Alternatively, and less preferably, a Consolation race may be organised for the excess competitors in a class. A consolation race will be for those drivers that were allocated the lowest grid positions after timed practice, but no drivers qualify from it to the class's Main race.



- (ii) A class's qualification race has to be before the class's main race and whenever possible a class's Consolation race should be after its main race - so that the drivers allocated the front grid positions for a Consolation race can be reserves for the class's main race.
  - (iii) In order to accommodate a Qualification race or Consolation race, the organizers may change the order of any of the classes' races and / or practice sessions at any time up to and including the day of the race, provided a bulletin is issued no less than two hours before the start of any effected race or practice session.
- 3.2.4 If two classes share a race grid (see 3.1.4) the faster class will usually be allocated grid positions ahead of the slower class and there may be a delay between the start of the faster class and the start of the slower class. The delay will usually be 10 seconds, the five second board will not be shown to this delayed class and the delayed class will be started by means of the National flag.
- 3.2.5 The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.
- 3.3.1 Certain functions of the administration of this championship are carried out by the 'Executive Committee of the Caterham Graduates Racing Club' who are retained by BARC for this purpose and carry out their functions with the full authority of the Organisers
- 3.3.2 Team Support is permitted at competitive events and during the test days. This is defined as the provision at a competitive event or test day of technical or mechanical assistance with preparation, repairs or set-up, timing or any other activity associated with the running of a car, when these services are provided on a professional basis.
- 3.3.3 At the discretion of the Organisers, Development Cars may be used in any race or qualifying session, in any class. A Development Car is one on which non-standard parts or components are being used or evaluated and thus is not fully eligible according to the technical regulations, although it must meet all the safety requirements. Drivers of Development Cars will be treated as guest drivers. They will also not be eligible to win any trophies or garlands. In a race, the CGRC may require that the timekeepers handicap a Development Car with a deficit of at least one lap in order to make it very unlikely that it will win a race.

#### **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.

4.1.3 The penalty for the following technical infringements will be exclusion from the race results of only the race at which the offence was committed, forfeiting championship points, prize money and other awards. The result of that race does not have to be counted towards the championship.

(i) Underweight by 5kg or less than the minimum specified in section 5.14.1 of these regulations.

(ii) Low ride height by 10mm or less than the minimum specified in section 5.6.2(v) of these regulations.

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 means of 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 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.

4.3.4 If a competitor receives a penalty that includes licence points, a "3x points multiplier" championship penalty will also be incurred, whereby the number of licence points will be multiplied by three and that number of championship points will be deducted from their championship total after the application of drop scores.

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 Standards:

4.4.1 In the event of a Registered Competitor's driving standards falling below the standards considered to be appropriate to the Championship, the Driving Standards Team, as authorised by the Caterham Graduates Racing Club Executive Committee, may decide, in accordance with the rules of the club, and at their discretion, that they shall:

Either:

(i) Issue a "written warning" and two written warnings within six races will cause a yellow card to be issued.

Or:

(ii) Issue a "yellow card" and two yellow cards within six races will cause a red card to be issued

Or:

(iii) Issue a "red card"

4.4.2 A red card will result in suspension of racing membership of the CGRC thus making the competitor ineligible for the Championship under CR 1.3.2. This suspension will be for a period of two races both of which be counted as points scoring rounds of the Championship with zero points. Refusal to cooperate with the Driving Standards Team will result in a "red card".

4.4.3 Each penalty above will have a shelf life of six races from the date at which the penalty is applied or the conclusion of the season if there are less than six races remaining within the Championship, after which time the competitor is considered to have a "clean slate".

4.4.4 Two "red cards" within one season will result in suspension of racing membership of the CGRC for a period of six races which will be carried forward to the following season if the penalty cannot be taken within the current season

## **5. TECHNICAL REGULATIONS**

### **5.1 INTRODUCTION:**

5.1.1 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 specify that you can do it, you should work on the principle that you cannot. This principle applies to every part of the specification and to every part of the car, regardless of whether or not any deviation is thought to influence a car's performance. Any deviation will be treated as being ineligible - and thus the car may be excluded from competition - without any consideration of whether or not it is deemed to have been inadvertent nor of whether or not it is intended to, or may make, a car any faster. All references to the MSA Yearbook (blue book) relate to the current edition.

### **5.1.2 SCRUTINEERING**

The official MSA Licensed Eligibility Scrutineer and/or his appointed deputy will be attending rounds of the championship and he is available to provide advice as well as ensuring that the regulations are strictly enforced to ensure fair play.

All cars must comply with the requirements as laid down in the Technical regulations at all times, whether during official practice or racing and it is the Driver's and/or Entrant's responsibility to ensure all such requirements are met. Any infringement of the Technical Regulations will render the competitor liable to penalties as set out in Section 4 of these regulations.

Technical checks may be carried out before, during and after practice and at any time between practice and the race and again at the end of the race. The Licensed Eligibility Scrutineer or his appointed deputy is empowered to undertake any form of technical verification procedure that he deems necessary at any time during the race meeting, not only in Parc Fermé, and may order the removal of parts from the car, substitution of standard parts, or for the car to be otherwise dismantled in order to carry out inspection. This specifically includes the substitution of standard parts at random.

The Licensed Eligibility Scrutineer or his appointed deputy reserves the right to check any suspect part directly with a standard part as supplied by Caterham Cars Ltd or from any other source deemed appropriate. Suspect parts that might need to be removed for checking elsewhere will be marked by official MSA approved seals and a certificate of sealing will be handed to the competitor or his agent. This certificate will detail the seals and the precautions that need to be taken to keep the seals intact. Should the competitor or his agent not be present whilst his car is being dismantled for checking, no dispute over his vehicle or its components will be entertained. All costs will be borne by the competitor.

It is a condition of the championship that any vehicle may be selected for an engine power test by the Licensed Eligibility Scrutineer immediately after a race or timed practice and its brake horsepower measured over a representative range of engine speeds. This can include a requirement that the driver presents the car for testing at some location other than the circuit and at some specified later day and time. The Organisers cannot be held responsible for mechanical damage to engines and transmissions when under test. However such tests will not put the cars through any stresses beyond normal design limitations.

Finally, don't forget that although the championship Licensed Eligibility Scrutineer is happy to speak to you about these regulations, it is extremely discourteous to contact him after 10.00pm.

### **5.2 GENERAL DESCRIPTION:**

5.2.1 All cars must be genuine Caterham Sevens, with traceable provenance by having the manufacturer's standard chassis plate/VIN identifications.

In exceptional circumstances, for example non-availability of replacement parts, competitors may be allowed to fit alternative components but only with the prior, written consent of the Licensed Eligibility Scrutineer. The specification of cars must remain consistent with the specification relevant to their year of manufacture.

- 5.2.2 The **Caterham Classic Graduates Class** is for Competitors participating in Caterham 7 Sport vehicles to the specification of The Caterham Scholarship/Academy 1995 to 2000 as supplied solely by Caterham Cars Ltd. No modifications **whatsoever** are allowed unless specifically identified in these regulations.
- 5.2.3 The **Caterham Sigma-Graduates Class** is for competitors participating in cars to the specification of The Caterham Academy 2008 to 2013 **and 2014 to 2016**. No modifications whatsoever are allowed unless specifically identified in these regulations.
- 5.2.4 The **Caterham Super-Graduates Class** is for competitors participating in cars to the specification of The Caterham Academy 2001 to 2007. No modifications whatsoever are allowed unless specifically identified in these regulations. A driver's side aeroscreen may be fitted instead of a windscreen.
- 5.2.5 The **Caterham Mega-Graduates Class** is for competitors participating in Rover "K" Series 1600cc powered DeDion chassis Caterham Sevens in road going form to a controlled specification. The cars must either have been built or supplied by Caterham Cars as a "Mega-Graduate" car (formerly "Super-Graduate" or "Super-Graduate A") or based on a car to the specification of a standard 2001 to 2007 spec Academy car or Super-Graduate car, with modifications as required and permitted below. No modifications whatsoever are allowed unless specifically identified in these regulations.
- 5.2.6 The **Caterham SigMax-Graduates Class** is for competitors participating in Sigma-Graduates cars as described in 5.2.2 but this class additionally permits any one or more changes to specification provided that the resultant specification is or has been permitted for competition in the BRSCC Caterham Cars' Roadsport, Tracksport or Supersport Classes, or other changes as specifically permitted by these regulations.

SigMax cars may thus also be eligible for the Caterham Supersport (or Tracksport) championship, provided the appropriate tyres are fitted. These regulations may permit changes which are *not* permitted in the current Tracksport/Supersport championship, so if SigMax competitors wish their car also to be eligible for one of those, it is their responsibility to check that any specification changes which they choose to make are only those which are permitted in both championships.

### 5.3 SAFETY REQUIREMENTS:

- 5.3.1 All cars must conform to the general and competition regulations of the MSA which define minimum safety requirements for racing purposes. All cars must conform to these regulations before they can be accepted for either racing or official practice. Refer to the MSA Yearbook sections **K** and **Q** Safety Requirements.
- 5.3.2 All cars
- (i) Caterham supplied rollover protection shall be fitted without modification and must be bolted, not welded, in place.
  - (ii) A head restraint must be fitted which should measure a minimum of 10cm x 10cm and be situated not more than 5cm behind the driver's head. The design of the head restraint is free provided that it conforms to MSA regulation **K13**. There should be clearance of at least 5cm between the top of the driver's helmet and the top of the rollover bar. The Caterham race seat (Tillet) may require additional support behind the head restraint area of the seat.
  - (iii) A six point full harness safety belt must be fitted complying with **K2.1.4 Six Point (Q19.14.2)**. Belts designed to pick up on the correct points on the chassis are available from Caterham Cars and other suppliers. Competitors should pay attention to the MSA's section on belts involved in accidents and mixing parts of seat belts.
  - (iv) The use of arm restraints is mandatory.

- (v) A fire extinguisher system shall be fitted in accordance with **K3 (Q19.14.7)**. Preferably, the extinguisher bottle should be located in the passenger compartment, or alternatively in the boot area or on the scuttle in the engine compartment. Over-centre retaining clips are not permitted and must be replaced by threaded fixings.
- (vi) An electrical master switch to **K8** capable of isolating the battery and ignition systems must be fitted in such a position that it can be operated from outside the car. The switch and wiring provided allows it to be located on the offside of the scuttle within the windscreen stanchion where the protective eyebrow must be used. It is not mandatory to use a Caterham supplied switch. Alternatively, Mega-Graduates, SigMax-Graduates and Sigma-Graduates are permitted to fit the switch centrally on top of the scuttle, in which case the "eyebrow" is not required.
- (vii) A flush fitting fuel filler to **K6** must be used, or alternatively the fuel filler must be located inside the boot. If relocated, the fuel filler vent and the screw type cap must comply with **K6**.
- (viii) The battery terminals must be located within the engine bay and the positive terminal shall be protected by a non-conductive cover. The earth lead must be clearly marked in yellow.
- (ix) The electrical cut out must be marked by a red 'spark' on a blue triangle. The fire extinguisher pull of a plumbed in system must be marked by an 'E' on a red circle. The ignition switch 'OFF' position must be marked.
- (x) The rear bulkhead behind the driver and over the petrol tank must be sealed to prevent the passage of fluid or flame to **Q19.1**. An aluminium shield should be placed over the rubber fuel filler hose. The use of tank tape to seal the boot floor to the rear bulkhead is not considered sufficiently flameproof. The Caterham supplied bag tank kit may be fitted.
- (xi) The engine breather (if any) should be arranged so that any oil vented into the atmosphere is collected in a catch tank to **Q19.9**, except that a one litre catch tank is sufficient.
- (xii) All cars must be fitted with the aluminium honeycomb chassis side protection kit available for all Sevens from Caterham Cars and supplied as standard with all cars manufactured to comply with these regulations. This must be fitted in accordance with the manufacturer's instructions.
- (xiii) You should also refer to section **K9** concerning overalls and **K10** for crash helmets. The wearing of flame-resistant balaclavas, gloves and boots is mandatory in this championship.
- (xiv) All cars must be fitted with towing eyes (**Q19.1.3**) front and rear which are provided as standard on the chassis and these should be clearly marked with an arrow in a contrasting colour.
- (xv) Where side-screens are fitted their hinge pins shall not be bolted in place.
- (xvi) The pedal box access cover provides isolation between the engine compartment and the driver's feet. It should always be properly in position and secured by screws through each of the eight mounting holes.
- (xvii) Use of an FIA approved frontal head restraint (HANS device or similar) is **mandatory**. Chassis modifications may be required to the upper harness mounting points. Any modification shall be carried out by Arch Motors or Caterham Westbury.
- (xviii) A minimum of two mirrors shall be fitted of which one shall be mounted on the windscreen or roll-cage as an internal rear view mirror and the other mounted on the driver's side of the car as an external rear view mirror. Additional mirrors may be fitted but all must be in compliance with **Q19.15.1**

### 5.3.3 Caterham Super-Graduates, Sigma-Graduates, SigMax-Graduates and Mega-Graduates Classes:

- (i) If the car has an older chassis which has provision for one, the fitting of a cockpit wishbone brace to improve cockpit stiffness is recommended.
- (ii) A Caterham supplied rear wheel/cockpit protection bar shall be fitted.
- (iii) Driver's side honeycomb floor panel is standard and required unless a Caterham lowered floor is fitted.
- (iv) The boot floor must be an aluminium honeycomb panel as supplied by Caterham Cars.

- (v) A Caterham supplied rollover cage (Caterham part number 79131, T, U, UX or UXT) shall be fitted. Caterham R300/R400 style rollover cages are not permitted.

#### 5.3.4 Caterham Classic Graduates Class:

- (i) A Caterham supplied rollover bar must be fitted without modification and must be bolted, not welded, in place. The removable strut bracing the top of the rollover bar down to a point immediately beneath the scuttle on the passenger's side of the car is mandatory.
- (ii) A Caterham supplied rollover cage can be fitted in place of the rollover bar and is strongly recommended. When a rollover cage is fitted a Caterham supplied side impact protection brace is strongly recommended. Caterham R300/R400 style rollover cages are not permitted.
- (iii) The boot floor over the petrol tank must be an aluminium panel or honeycomb panel as supplied by Caterham Cars.
- (iv) Fitting of aluminium honeycomb floor panels to the driver's side is recommended

### 5.4 GENERAL TECHNICAL REQUIREMENTS AND EXCEPTIONS:

- 5.4.1 All vehicles must comply with MSA General Technical Regulations and relevant parts of **Sections J & Q** of the MSA Yearbook except where specified herein.
- 5.4.2 All cars are to be in identical specification with the exception of the adjustments permitted by these regulations.
- 5.4.3 Options: Unless stated elsewhere in these regulations, any car may be fitted with any of the standard options which were listed on the standard Academy/Scholarship/Graduates/Super-Graduates/Mega-Graduates Caterham Cars Price list which was current when the car was first supplied.
- 5.4.4 No standard components can be modified, substituted, relocated or changed in any way except those specified herein.
- 5.4.5 If in the light of experience, safety related changes to these regulations are necessary, competitors will be given at least 10 days' notice to effect modifications.
- 5.4.6 If at any time after publication of these Championship Regulations, a revision to the technical specifications is considered necessary by Executive Committee, all competitors will be required to comply with the revised specification. Competitors will be given at least 10 days' notice to effect modifications.

### 5.5 CHASSIS:

See also 5.6 Bodywork/~~Chassis~~

- 5.5.1 Chassis Repairs. It is recommended that repairs are carried out by the companies recommended by Caterham Cars. These are Arch Motors (for chassis manufactured up until 2008) and Caterham Westbury or Arch Motors for later chassis. Only repair techniques approved by Caterham Cars may be used. If in doubt, ask.

If chassis repairs are undertaken elsewhere, then competitors are advised to ensure that the repairer has the necessary skill, experience and resources to undertake this type of repair. Any new tubing must be of steel of the same dimensions, gauge and grade as the original and be in exactly the same location as the original tubes. Repairs to a chassis originally manufactured by Arch shall be brazed.

Only chassis tubes with very minor bends may be straightened, rather than replaced. Caterham Cars do not approve of the practice of straightening a bent or twisted chassis.

Dressing any repair or tube with any filler material is specifically prohibited.

If a car has suffered chassis damage at one event, the eligibility scrutineer may require that the repaired car is presented for inspection prior to allowing it to be used in competition at another championship event.

## 5.6 BODYWORK:

5.6.1 All cars must use the standard Caterham chassis and bodywork as originally supplied for cars manufactured to comply with these regulations except where stated otherwise below. The aluminium bodywork and the wings and nose may be unpainted, painted, or vinyl wrapped.

5.6.2 All Cars. Chassis Modifications Permitted:

- (i) General  
The design of the head restraint is free provided that it conforms to K13. The standard supplied race seat (Tillet) may require additional support behind the head restraint area of the seat.
- (ii) Interior:
  - a. The driving seat is free but note 5.3.2(ii)
  - b. The passenger seat and all carpets may be removed.
  - c. Design of the gear knob is free.
  - d. Internal mirrors are free provided that they conform to MSA requirements **Q19.15.1**.
- (iii) Exterior:
  - a. Cars shall race and practice with hoods removed.
  - b. Cars with windscreens may run with tape extending from the back edge of the windscreen for a maximum of 120mm to prevent rain from reaching the inside of the windscreen.
  - c. Cars may only run with cycle wings fitted. Short wing stays (Caterham part numbers 76101/2) or long wing stays (Caterham part numbers 76103/4) may be used.
  - d. All Classes: Exhaust guards may be removed.
  - e. Rear wing rubber piping may be removed from between the rear wings and the body.
  - f. External mirrors are free provided that they conform to MSA requirements (**Q 19.15.1**).
  - g. Caterham fabric boot cover and passenger side fabric tonneau cover may be fitted, or items of the same shape and size as those from Caterham. A single piece boot cover and passenger side tonneau may be used. A rigid boot cover or tonneau is not permitted. Caterham half doors may be fitted, or glass fibre or plastic half doors of the same shape and size as the Caterham half doors may be fitted.
  - h. Windscreen is free provided that it conforms to the Caterham standard outline dimensions and thickness and is mounted in the standard Caterham Frame. Windscreens shall be laminated glass or polycarbonate with scratch resistant coating.
  - i. Revised shoulder belt fixing points, to accommodate HANS or similar safety devices, may be fitted. Drivers are reminded that incorrect fitting of these devices can be very dangerous. It is the driver's responsibility to ensure that any such device is correctly and safely installed.
  - j. Aeroscreen (not Classics) is free provided it conforms to the Caterham **aeroscreen and mount flange (Caterham part No's: 76064 and 76067) or No:5333OR** outline dimensions and thickness. Aeroscreens shall be perspex or plastic and shall be transparent.
- (iv) Silhouette:  
No modifications allowed.
- (v) Ground Clearance:  
The car may be lowered but the minimum ride height will be 120mm measured from the ground to the lowest point on the chassis side rails with the driver normally seated in the car. Ride height may be measured in the scrutineering bay or other appropriate flat



surface area at the start or end of the race or practice session.

For clarity, the reduced penalty - described in 4.2.1 above - applies for ride heights between 110mm and 120mm. Heights of less than 110mm will incur the full ineligibility penalty as per MSA C 3.5.1.

(vi) Lowered floors:

A lowered driver's and/or passenger's side floor may be fitted. The design and construction of the floor is free but competitors must consider the safety of any such modification. The lowered floor may project no more than 50mm below the lower edge of the chassis members.

(vii) Passenger footwell extension:

For some cars' chassis, there is a standard Caterham-approved modification which extends the passenger footwell forwards and thus provides additional space for a passenger; these may be fitted.

### 5.6.3 All Cars: Chassis Modifications Specifically Prohibited:

(i) General:

The standard chassis must be used unmodified in any way and strengthening or stiffening by whatever means is expressly forbidden, other than those specified in 5.3.3 and 5.3.4 and 5.6.2. Only the honeycomb panels permitted in these regulations may be fitted. These should not be bonded into place, but can be riveted to the aluminium floor, not to the chassis rails.

(ii) Interior:

Do not attempt to add any extra stiffness to the chassis frame. The eligibility scrutineer reserves the right to select cars to be returned to the Caterham Cars factory to have torsional stiffness measured. Should there be any deviation from accepted production tolerances the assumption will be made that modifications have been made and that chassis will not be permitted to race again, notwithstanding the application of any penalties.

(iii) Exterior:

a. It is not permitted to drill any holes into or to modify the outer skin or inner panelling of the car except where specified in the assembly instructions or to mount accessories. Small drain holes may be drilled through the floor to allow the egress of rainwater.

b. Wings and nosecone must remain in glass fibre as standard, or items from suppliers other than Caterham Cars may be used provided that they are identical in shape and size to the standard Caterham Cars' items and must be made from either glass fibre or plastic. The substitution of aluminium or carbon fibre items even though available from Caterham is not permitted.

c. A front number plate shall be fitted to Classic Graduates only. Standard UK number plates measuring approximately 525mm x 110mm must be fitted vertically; self-adhesive plates are not permitted. Number plates do not need to display the registration number of the vehicle. All other classes must *not* have a front number plate.

d. It is permitted to fit standard Caterham rear wing stone guards but these must be made of stainless steel and not carbon fibre.

e. A rear number plate is not required but is permitted.

(iv) Silhouette:

a. Where fitted, standard full windscreens must be fitted at the correct angle and no additional holes are permitted to be made in the bodywork. Caterham wind deflectors may be fitted (Caterham part number 77321)

b. It is specifically prohibited to move the front wing location. These must be fitted as designed by Caterham\_Cars and the distance from the leading edge of the wing to the centre-line of the front wing-stay must be 65mm +/- 10mm.

c. Spare wheel carriers must not be fitted. Stubs that protrude by no more than 60mm are permitted, to allow optional fitting of a removable carrier for road use.

#### 5.6.4 Caterham Classic Graduates Class

- (i) Vehicles eligible for this class of championship must be based on a car to the same specification as the standard Caterham "Live Axle" Scholarship/Academy chassis from any year between 1995 and 2000. The 2001 to 2014 Academy DeDion chassis may not be used.
- (ii) All the components fitted to the vehicle must be the same as those that were fitted to the standard Scholarship/Academy car of its year, except as otherwise permitted by these regulations.

#### 5.6.5 Caterham Sigma-Graduates

- (i) Vehicles eligible for this class of the Championship must be based on a car to the same specification as the standard 2008 to 2013 and 2014 to 2016 DeDion Academy chassis.
- (ii) All the components fitted to the vehicle must be the same as those that were fitted to the standard Academy car of its year, except as otherwise permitted by these regulations.
- (iii) Cars may practice and race with the windscreen removed and replaced with a driver's side aeroscreen and mount flange (Caterham part No's: 76064 and 76067) or Caterham part No: 5333OR. If the windscreen is removed then the windscreen wiper motor, wiper mechanism and wash system may be removed.
- (iv) A footbox insulation kit such as Caterham pt. # 58260 may be fitted.
- (v) It is permitted to replace a 2008 to 2013 chassis with a 2014 to 2016 chassis. All other mechanical components of the vehicle shall be to the specification of a 2008 to 2013 car.

#### 5.6.6 Caterham SigMax-Graduates Classes

- (i) Vehicles eligible for this class of the Championship must be based on a car to the same specification as the standard 2008 to 2013 DeDion Academy chassis.
- (ii) All the components fitted to the vehicle must be the same as those that were fitted to the standard Academy car of its year, except as otherwise permitted by these regulations.
- (iii) Cars may practice and race with the windscreen removed and replaced with a driver's side aeroscreen and mount flange (Caterham part No's: 76064 and 76067) or Caterham part No: 5333OR. If the windscreen is removed then the windscreen wiper motor, wiper mechanism and wash system may be removed.
- (iv) A footbox insulation kit such as Caterham pt. # 58260 may be fitted.
- (v) It is permitted to replace a 2008 to 2013 chassis with a 2014 to 2016 chassis. All other mechanical components of the vehicle shall be to the specification of a 2008 to 2013 car.

#### 5.6.7 Caterham Super-Graduates Class

- (i) Vehicles eligible for this class of the Championship must be based on a car to the same specification as the standard 2001 to 2007 DeDion 1600 Academy chassis.
- (ii) Cars may practice and race with the windscreen removed and replaced with a driver's side aeroscreen and mount flange (Caterham part No's: 76064 and 76067) or Caterham part No: 5333OR. If the windscreen is removed then the windscreen wiper motor, wiper mechanism and wash system may be removed.

#### 5.6.8 Caterham Mega-Graduates Class

- (i) Vehicles eligible for this class of the Championship must be based on a car to the same specification as the 2001 to 2007 DeDion 1600 Super-Graduate / Academy / Mega-Graduates / Roadsport A chassis.
- (ii) Cars shall practice and race with the windscreen removed and replaced with a driver's side aeroscreen and mount flange (Caterham part No's: 76064 and 76067) or Caterham part No: 5333OR. Windscreen wiper motor, wiper mechanism and wash system may be removed.

### 5.7 ENGINES:

#### 5.7.1 Engine Sealing and control

This section applies to all engines for all classes.

### 5.7.2 SPECIFICATION:

Super-Graduates and Mega-Graduates Rover engines. The specification of the internal mechanical parts of the engines and specifically those parts that are contained within the sealed core of the engines and details of all the permitted internal modifications, are defined in the document "Caterham Graduates Racing Club Engine Specifications 2012" which is kept by the MSA Licensed Eligibility Scrutineer and issued to Authorised Engine Builders.

### 5.7.3 SEALING:

The production engines specified in these regulations are modified and prepared within a uniform specification. Only engines that are to the same specification as those that were originally supplied for this championship by Caterham Cars, McMillan Motorsport or Minister Racing Engines are eligible for this championship, except for the modifications specifically permitted by these regulations.

- (i) The proprietary components specified in the build standards and herein are the only components eligible for use in the Championship, and must conform with the proprietary specifications and/or drawings for these components. It is permitted to use alternative OEM components but only if these are identical in every respect to the original proprietary components. If a standard proprietary component is obsolete or otherwise unavailable and no identical equivalent is available and no other equivalent has been authorised, alternative components may be used but only with the written permission of the eligibility scrutineer, who will also consult with the Organisers.
- (ii) Seals: The core of the engines, i.e. those components contained within and between the inlet manifold, cam cover, cylinder head, and sump, must be sealed by at least two seals, fitted by an Authorised Engine Builder.
- (iii) As sealed engines, it is implicit that only parts defined with permitted alternatives can be changed in specification whether those parts are 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 (except Mega-Graduates' and Super-Graduates' wiring loom) which must be fitted and operational as supplied and as originally envisaged.
- (iv) The Caterham Graduates Racing Club's Technical Director shall ensure that a record is kept of all engine seals, recording the current MSA seal numbers for every engine. It is the driver's (or entrant's) responsibility to ensure that details of engine seals are properly reported to the Technical Director, and specifically must ensure that any change of seals is reported. The report should be accompanied by an authorised engine builder's documentation, quoting the engine number and seal numbers, and stating that the engine has been built in accordance with the requirements of the regulations and specification for the appropriate class of the championship.

This record will be made available to the Licensed Eligibility Scrutineer (or his nominated deputy) at every championship round. Any car not carrying the two correct seals will be in breach of this regulation which will result in the imposition of MSA [C3.5.1]. The only permitted exception to this rule is if a car needs emergency engine repairs immediately prior to an engine being used in a championship event and is unable to fit the required seals due to technical or other problems, but only with the permission of and at the discretion of the Licensed Eligibility Scrutineer. Any such engine must be sealed immediately after the event and before being removed from the venue.

- (v) Authorized Engine Builders:
  - McMillan Motorsport (all engines)
  - The Classic Car Workshop (Classic Graduate engines)
  - Godfrey Racing Services (Classic Graduate engines)
  - Paul Freeman Motor Services (Super and Mega Graduate engines)
  - Caterham Cars Ltd, (Sigma and Sigmax Graduates engines)
- (vi) In addition, at any time, the Organisers reserve the right to appoint an alternative or additional championship engine builder(s) and also to withdraw Authorised Engine Builder Status, for any one or more of the various engines. Any such appointment or withdrawal will be announced to all competitors in an Official Championship Bulletin.

- (vii) In exceptional circumstances, permission may be granted to an individual driver to use an alternative engine builder. This authority will be granted only by The Caterham Graduates Racing Club's Executive Committee. By default, and unless otherwise stated, any such authority will be granted only to cover a single repair and/or re-build of a single engine. The authority will state the process by which that engine must subsequently be sealed before being used in competition. Before the repair/re-build is undertaken, the driver must get that authority from the Club's Technical Director in writing and must present a copy of that authority to the championship eligibility scrutineer who will check its validity before giving permission to go ahead. Permission will not normally be granted retrospectively.
- (viii) Competitors entering a particular car into a class of the championship for the first time may, at the Technical Director's discretion, use an engine which carries seals which were fitted as a result of the engine having been supplied/built/repared/re-built by someone other than an Authorized Engine Builder but only if the driver's seal number report to the Technical Director is accompanied by the engine builder's documentary statement that the engine is in accordance with the requirements of these regulations, and stating the class for which the engine is compliant. The engine must then be fitted with seals by an Authorized Engine Builder. This whole process is intended to ensure that an engine cannot be introduced into the championship if it uses non-standard parts or techniques that could give a performance advantage over engines supplied by the Authorized Engine Builders.
- (ix) Any engine that still carries seals that were previously fitted for this championship by an Authorized Engine Builder may be used in its appropriate class. Although competitors should bear in mind that if a current Authorized Engine Builder was not the last engine builder to take the engine apart, this is no guarantee that the engine is necessarily to an eligible specification.
- (x) If a competitor requires a new engine, for whatever reason, this shall only be supplied by an Authorized Engine Builder.
- (xi) Competitors wishing to use in this championship an engine which is not covered by clauses (ix) or (x) above, should be aware that if it does not carry an Authorized Engine Builder's seals they must submit the engine to an Authorized Engine Builder to have it sealed but must expect to have to pay for the engine to be stripped and inspected. For the avoidance of doubt, competitors should be aware that this means that if seals are removed, or lost, from any engine, they must expect to have to pay for an inspection before that engine can be used in the championship.
- (xii) It is strictly forbidden for a competitor to modify any part of the engine or any of its ancillaries. In the event of an engine failure or wear, the engine must be returned to an Authorized Engine Builder to be rebuilt and resealed. It is the competitor's responsibility to return his engine, and to pay the cost of the rebuild.

#### 5.7.4 Permitted modifications, all classes

- (i) Water Cooling: As per standard Caterham 7 Sport, except:
  - a. It is permitted (and recommended) to fit a stone guard to the radiator grille.
  - b. It is permitted to fit an alternative radiator and fan.
  - c. Fan switches may be over-ridden.
  - d. It is permitted to use silicone coolant hoses.
- (ii) Oil System: It is permitted to fit a Caterham standard oil cooler.
- (iii) A throttle stop may be used (and is recommended) and design of this is free. Caterham Cars supply a suitable part under number 74128.
- (iv) Exhaust: it is permitted to fit an alternative exhaust silencer and primary downpipes provided that these parts are dimensionally (internally and externally) identical to the Caterham standard parts

#### 5.7.5 Permitted modifications, Caterham Classic Graduates Class

Cars originally built for the Caterham Scholarship 1995 to 1997 must use the Ford engine. Cars built for the Scholarship/Academy of 1998 to 2000 must use the Vauxhall engine.

- (i) **Ford 1.6 litre OHV 'Kent' Crossflow.**

BASE UNIT:	Ford OHV 2265E 'Kent' Crossflow
BORE:	80.98mm

STROKE:	77.62mm
CAPACITY:	1599cc
COMPRESSION RATIO:	9.0:1
CYLINDER HEAD:	Standard
CAMSHAFT:	Ford GT Profile
FLYWHEEL:	Caterham lightened & balanced item, part no. 72012A, weight 5.45 kg.
CLUTCH:	Uprated competition cover and drive plate. Part no. 72600 (cover) and C784AF (spinner)
IGNITION:	Caterham distributor with Ignitor electronic ignition, part no 71022
LUBRICATION:	Standard oil pump with Caterham wet sump
INLET MANIFOLD:	Caterham cast alloy
CARBURATION:	Two Weber twin choke 40 DCOE 151 (sidedraft), main jets size 120, 30mm venture
AIR FILTRATION:	Two K&N performance filters
MAXIMUM POWER:	100 bhp at 6000 rpm
MAXIMUM TORQUE:	95 lb/ft at 4800 rpm
IGNITION TIMING:	14d btdc
VALVE CLEARANCES:	Inlet – 0.010”                      Exhaust - 0.022”
SPARK PLUG TYPE:	NGK BP7ES
EXHAUST:	Four into two into one with rear exit.
FUEL PUMP:	Mechanical fuel pump. As per standard Ford Caterham 7 Sport

Permitted Modifications:

It is permitted to re-bore the engine to a maximum of +0.020" and standard Ford type aftermarket +0.020" cast pistons are allowed.

OR

(ii) **Vauxhall 1.6 litre SOHC 8 Valve.**

BASE UNIT:	Vauxhall 1.6L 8 valve SOHC (Family 2)
BORE:	80.00mm                      STROKE:                      79.50mm
CAPACITY:	1598cc                      COMPRESSION RATIO:                      10.4:1
CYLINDER HEAD:	Ported & Skimmed                      CAMSHAFT:                      Standard Vauxhall
FLYWHEEL:	Standard Vauxhall, weight 7.3kg
CLUTCH:	Standard Vauxhall cover plate, Caterham driven plate part no. C784AF
LUBRICATION:	Standard oil pump with Caterham wet sump
INLET MANIFOLD:	Caterham cast alloy
CARBURATION:	Two Weber twin choke 40 DCOE 151 (sidedraft), main jets size 115
AIR FILTRATION:	Two K&N performance filters
MAXIMUM POWER:	101 ps at 5,500 rpm
MAXIMUM TORQUE:	107 lb ft at 3,600 rpm
VALVE ACTUATION:	Hydraulic
SPARK PLUG TYPE:	Bosch FR8LDC, <u>FLR8 LDCU±</u> , or direct equivalents,
EXHAUST:	Four into one side exit with 5" diameter silencer.
IGNITION SYSTEM:	Caterham electronic module, part no 72163
FUEL PUMP:	Electric fuel pump. As per standard Vauxhall Caterham 7 Sport part no. 40105

It is permitted to re-bore the engine up to a maximum of +0.020" and standard Vauxhall type aftermarket cast pistons are allowed.

(iii) Modifications permitted, for all Classics Graduates, with either engine:

- a. Location: As per standard Caterham 7 Sport and using standard Caterham mounting brackets and rubbers.

- b. Coolant thermostats may be omitted or changed (omission is recommended).
- c. Oil System: It is permitted to modify the oil breather system through the use of a ventilated oil filler cap. It is permitted to modify the oil pick-up pipe and internally baffle the sump.
- d. Induction Systems: Twin Weber 40 DCOE carburettors. The method of attaching carburettors must remain as standard and no changes to the throttle linkage or carburettor jets and chokes are permitted.
- e. Exhaust System: No modifications are permitted. Catalytic converters are not required on Classic Graduates since all Classic Graduates cars were manufactured before 1st January 2000.
- f. It is permitted to substitute an alternative ignition coil.
- g. No other modifications are permitted.

#### 5.7.6 Caterham Sigma-Graduates Class

5.7.6.1 A year 2008 to 2013 Academy specification car may compete in the Caterham Sigma-Graduates with an Academy-standard 2008 to 2013 1600cc Ford Sigma engine.

The base engine is a standard Caterham Academy Ford Sigma production engine, built in accordance with the factory technical manual.

It is mandatory for the ECU to be programmed with the latest race tune as advised by and provided by Caterham.

- a. Use of spark plugs Caterham part number 36E038A is mandatory.
- b. The use of uprated valve springs and caps Caterham part number 30E169A is recommended but not mandatory.
- c. It is permitted to fit an oil sump windage tray, Caterham part number 30E504B

5.7.6.2 A year 2014 to 2016 Academy specification car may compete in the Caterham Sigma-Graduates with an Academy-standard 2014 to 2016 1600cc Ford Sigma engine.

The base engine is a standard Caterham Academy Ford Sigma TiVCT production engine, built in accordance with the factory technical manual.

It is mandatory for the ECU to be programmed with the latest race tune as advised by and provided by Caterham.

- a. Use of spark plugs Caterham part number 36E038A is mandatory.
- b. It is permitted to fit an oil sump windage tray, Caterham part number 30E504B
- c. Use of a cold air induction system is prohibited and shall be removed. Air filter Caterham part number 36E073A shall be used. The bonnet may retain the cold air inlet openings.

#### 5.7.7 Caterham Super-Graduates Class

A year 2001 to 2007 Academy specification car may compete in the Caterham Super-Graduates with a standard 2001 to 2007 Academy specification 1600 cc Rover 'K' Series engine.

- (i) The base engine is a standard Rover K16 DOHC EU3 production engine, built in accordance with the factory technical manual.

##### NOMINAL DATA:

Bore	80.0mm
Stroke	79.00mm
Capacity	1588cc
Valve actuation	Hydraulic
Sparking plugs	NLP100290 or NGK plug – PFR6N-11

ECU	MEMS ECU with Caterham Cars Ltd TUNE 75801R. DAF L307FB75, PAF KLR3P007. Drivers must permit their ECUs to be electronically interrogated to check for correct TUNE / DAF / PAF software and correct operation by the eligibility scrutineer or his agent or by a representative officially authorized by The Caterham Graduates Racing Club.
FUEL SYSTEM	Use of the standard non-adjustable fuel pressure regulator is mandatory. With the engine at the correct operating temperature, and idling, the fuel pressure in the fuel rail must be: <ul style="list-style-type: none"> <li>a) With manifold vacuum applied to the fuel pressure regulator 2.5 BAR + or – 0.15 bar, AND</li> <li>b) With the manifold vacuum pipe disconnected to the fuel pressure regulator 3.0 BAR+ or – 0.15 BAR.</li> </ul>

(ii) Permitted Modifications:

- a. Coolant thermostats may be omitted or changed (omission is recommended).
- b. If the coolant thermostat is omitted the coolant by-pass hose from the thermostat housing to the coolant return rail may be blocked or removed.
- c. It is permitted to re-route the engine oil breathers from the inlet manifold to a remote oil catch tank(s).
- d. It is permitted to cut an opening of up to 25mm diameter in the plastic cam-belt cover - to permit viewing of the cam pulley timing marks without removing the cam-belt cover, which would otherwise necessitate removal of seals. It is recommended that any opening is covered during competition to prevent ingress of debris.
- e. Exhaust System: May use either:
  - The standard Caterham Cars silencer with catalytic converter, as fitted when new.
  - The McMillan Motorsport catalytic silencer and exhaust as designed and supplied by them specifically for this championship and as approved by the Executive committee.
- f. The air bypass valve mounting may be modified or relocated.
- g. Engine mounting rubbers featuring an internal restraint system may be fitted, (Caterham Cars part number BM382FS). Engine mounting restraints were revised in 1999 to improve control and may be fitted (part number 70114).
- h. It is permitted to mount a remote oil pressure sender.
- i. A short undertray designed to protect the crankshaft pulley and belt is available from Caterham Cars (part number 70113). No other undertrays are permitted.
- j. The Caterham supplied throttle pedal clasp bush may be fitted if required. Part no. 74127 and should be used in conjunction with a throttle stop.
- k. Air filter shrouds may not be fitted. To avoid a clash between the air filter and the pedal box, it is permitted to fit a short length of tubing between the throttle body and the air filter. The maximum distance between the throttle body and air filter shall not exceed 100 mm.
- l. Fuel Delivery System: It is permitted to move the fuel pump from the standard location only if a bag tank is fitted and the standard Caterham supplied item must be used.
- m. It is permitted to disable the engine immobiliser.
- n. Starting system: Choice of starter motor is free. Heat shielding may be applied to the starter motor. The solenoid activation wiring may be modified to by-pass the multifunction unit and the method of activation is free, provided that in no case is the battery master switch by-passed. It is specifically prohibited to fit any ducting to the starter motor or elsewhere in the system.
- o. It is permitted to block the original sump plug and replace it with another sump plug at a different location where it is less likely to get damaged by, or be unscrewed by, contact with the ground.

- p. It is permitted to apply heat insulation material to the exhaust system and/or manifold but only to those parts within the confines of the bodywork.
- q. No other modifications are permitted.
- r. It is permitted to fit an alternative air filter Caterham part number 36E073A.

#### 5.7.8 Caterham Mega-Graduates Class

The specification for Mega-Graduate engines is the same as for Super-Graduates with Rover engines, as detailed in 5.7.7 (i) and (ii) except for the following differences:

- (i) SPECIFICATION
 

Valve actuation	Solid lifters
Cams and valve gear	uprated, as defined in the CGRC Engine Specification
ECU	MEMS ECU with Caterham Cars Ltd TUNE 75806 and must be running Caterham Cars Ltd DAF L302FC11, PAF KLR3P002.
- (ii) Permitted modifications. As in 5.7.7 (i) and (ii) plus:
  - (a) It is permitted to use the VVC plenum and throttle body
  - (b) It is permitted to fit a Caterham supplied dry sump system with either a bell tank or a remote oil tank.
  - (c) It is permitted to remove material from the driver's side engine mount to allow the inlet manifold to clear the bonnet, or to use the VVC engine mount. It is permitted to fit washers between the engine mounts and the chassis.

#### 5.7.9 Caterham SigMax-Graduates Class

- (i) Specification
 

The base engine is a Caterham Academy Ford Sigma production engine **2008 to 2013**, built in accordance with the factory technical manual, upgraded and including a lightened flywheel to the specification of The Caterham Supersport championship. It is permitted to use the upgraded Ford Sigma engine with a standard flywheel. Alternatively a standard Sigma-Graduates' engine may be used.
- (ii) It is permitted to use either the cold air inlet kit or the standard air inlet filter, Caterham part number 36E073A, in its standard location.
- (iii) It is permitted to fit an oil sump windage tray, Caterham part number 30E504B

### 5.8 SUSPENSION:

#### 5.8.1 Caterham Classic Graduates Class

Springs and dampers

- (i) All cars:
  - a. Front: Standard Classic with additional link and 5/8"anti-roll bar. Standard linear coil springs over Bilstein dampers (Caterham part No: 75522).
  - b. Rear: Live Axle (baffled). Lower A frame and upper radius arms. Standard progressive coil springs over Bilstein dampers (Caterham part No: 75524).
  - c. It is permitted to fit adjustable spring platform kit (Caterham part no. DSSU01). Addition circlip grooves may be machined into the damper body to allow for ride height adjustment.
- (ii) Options for 1995 – 1998 specification cars:
  - a. Front: Coil springs over adjustable rate Spax dampers.
  - b. Rear: Coil springs over adjustable rate Spax dampers.
  - c. It is permitted to substitute Spax dampers with adjustable spring platforms. Part number G775-AS180 (front), and G776-AS180 (rear).
  - d. Springs are: 170lb to 200lb, 8 inch length, ID 1.9 inch.
- (iii) Anti roll bars: It is permissible to substitute any front anti-roll bar supplied for these vehicles by Caterham Cars. These must be located in standard positions.
- (iv) Wheelbase/Track: As per standard Caterham 7 Sport.
  - (a) It is permitted to fit spacers between the rear dampers and the chassis.
  - (b) Front spring seats may be modified to raise the ride height.
  - (c) It is permitted to use front hubs Caterham part No: 146479A or 146479AA



- (v) It is permitted to use an alternative rear axle A-frame bush material. Drivers contemplating using harder bushes should be aware that although the original standard bushes are soft and can wear out quickly, this is the original Lotus design and was intended to be "sacrificial" to prevent damage to other parts which may be harder or costlier to replace.
- (vi) No other suspension modifications are allowed.

#### 5.8.2 Cars with DeDion rear suspension: Sigma-Graduates, Super-Graduates, SigMax-Graduates and Mega-Graduates

- (i) Cars are supplied with standard De Dion suspension and in respect of all components and their positioning must remain standard with the exception of the modifications permitted below Dampers are front M0 (Caterham part number 75526) and rear M2 (Caterham part number 75531). Dampers marked M1 provided by Caterham Cars under part numbers 74501 and 74502 are permitted as an option for SigMax-Graduates only.
- (ii) Suspension Modifications Specifically Permitted
  - a. The ride height may be lowered to give a minimum ride height of 120mm from the lowest point of the chassis rail to the ground. Note, however that this measurement is with the driver normally seated in the car.
  - b. No modification can be made to the De Dion tube, except that shims may be inserted between the De Dion tube and the aluminium ears. Only the standard aluminium ears that nominally provide 1½° of camber may be used. No spacers or shims may be fitted between the hubs and the road wheels.

Allowing for manufacturing tolerances maximum settings should be:

Rear camber: 3.0° (negative per side)  
Rear toe: Free

- c. All De Dion tubes should be inspected regularly for signs of damage and should be changed as a matter of course after an accident. Failure to tighten the damper securing bolts to the threaded bushes may result in the bush being torn from the tube.
- d. The front suspension provides for limited adjustment of camber and castor. Any front anti-roll bar supplied by Caterham Cars for these vehicles may be fitted. The front anti roll bar may be removed.

Maximum settings should be as follows:

Front camber: Free  
Front toe: Free

- e. Circlip grooves may be added to the body of the shock absorber to allow for ride height adjustment. No other machining or modification in any way to the dampers themselves is permitted.
  - f. A Caterham rear anti roll bar (½" or ⅜") may be fitted. This anti roll bar may be disconnected.
  - g. Spring platforms may be machined.
- (iii) Suspension Modifications Specifically Prohibited.  
Except as detailed below, no other modifications whatsoever are permitted to the car's suspension and suspension components must not be modified in any way nor may suspension pick up points be changed. The front damper body must be mounted to the lower suspension wishbone.
  - (iv) Wheelbase and track must not deviate from the manufacturer's specifications which are as follows:
 

Wheelbase:	2225 mm
Front Track (Narrow):	1270 mm
Rear Track:	1336 mm or 1346 mm

A tolerance of plus or minus 5 mm is permitted to account for dimension changes caused by permitted suspension adjustment.

### 5.8.3 Caterham Super-Graduates Class

- (i) The requirements of section 5.8.2 (i) through (iv) apply to the Super-Graduates Class, except as stated below.
- (ii) Suspension Modifications Specifically Permitted
  - a. Front and rear springs (Caterham part numbers 75511 and 71198) must be as fitted as standard. They must mount in the same positions as standard. Alternatively linear rate springs (Caterham part numbers, front 77843 - 250lb rating and rear 77844 - 215lb rating) may be fitted. Only one spring may be fitted to each damper, except that 4lb/in, 4" long helper springs and adapter rings may be fitted under the 215lb rear springs.
  - b. Later production models use a DeDion tube that is 10mm wider and stronger than the original but both variants use the same part number (79028). Either tube may be used but only the later tube is now available from Caterham.
  - c. Front and rear damper spring seats may be modified by removal of metal only to allow greater adjustment of spring positioning.
  - d. A spring seat and adjuster kit is standard on Super-Graduates cars - Caterham part number DSSU01.
  - e. The bump rubbers on the Bilstein dampers may be reduced by up to, but no more than, 50% of their original length.
  - f. It is permitted to use front hubs Caterham part No: 75113A or 75117. If part number 75117 is used then a new stub axle etc. is required and is available as a kit of parts, Caterham part No: HUR2003

### 5.8.4 Caterham Mega-Graduates and SigMax-Graduates Class

- (i) The requirements of section 5.8.3 (i) through (ii) apply to the Mega-Graduates and SigMax-Graduates Classes, except as stated below.
- (ii) The Mega-Graduates Class shall use Caterham Cars' wide track front suspension. SigMax-Graduates Class may use either wide track or narrow track front suspension. It is permitted to mount the main body of the front dampers to either the chassis or the lower suspension wishbone. To increase front suspension travel a spacer (Caterham part number 71302) may be fitted between the front upright and lower ball joint.
- (iii) An adjustable front anti-roll bar may be used. The design and supply of the front anti-roll bar is free except that bar must use only the four standard Caterham mounting points. Front anti-roll bars with adjustable stiffness may be used, but not remote adjustment, i.e. the driver must not be able to adjust the bar without getting out of the cockpit.
- (iv) Wheelbase and track must not deviate from the manufacturers specifications which are as follows:

Wheelbase:	2225 mm
Front Track (Wide):	1336 mm
Rear Track:	1336 mm to 1346 mm

A tolerance of plus or minus 5 mm is permitted to account for dimension changes caused by permitted suspension adjustment.

## 5.9 TRANSMISSION:

5.9.1 The standard transmission specification including gearbox, bell-housing, clutch, axle and differential must be retained and all parts must be fitted and assembled correctly. It is permitted to substitute an alternative clutch plate.

### 5.9.1 Transmission Modifications Specifically Permitted.

- (i) Standard and high ratio clutch pedals as supplied by Caterham Cars are permitted.
- (ii) It is permitted to fit a clutch pedal stop if required. The design and supply of this is free although Caterham provide a suitable part under part number 74127.
- (iii) The Classics Graduates' original Ital half-shaft arrangement **must** be replaced by the floating half-shaft design specifically commissioned by CGRC for these cars from, and supplied by, Rakeway Ltd.
- (iv) It is permitted to fit a remote differential oil catch tank.

- (v) It is permitted to fit steel or steel with brass insert baulk rings and steel blockers to the gearbox.
- (vi) Up-rated gearbox parts such as selectors and associated components may be used to improve reliability.
- (vii) It is permitted to fit a gearbox breather to the gearbox main casing cover.

#### 5.9.2 Transmission Modifications Specifically Prohibited

- (i) Other than those specified above no modifications whatever are permitted. In particular straight cut or non-standard gear ratios are not permitted, except for Mega-Graduates as stated below.
- (ii) Mis-assembly of parts, particularly in respect of synchromesh, is illegal.
- (iii) It is specifically prohibited to fit a limited slip differential, except in the SigMax-Graduates Class where, as an option, a limited slip differential identical to that which is permitted in 2012/13/14/15 BRSCC/Caterham Supersports may be fitted.
- (iv) The standard flywheel must be used, unmodified (except for SigMax, as per 5.7.9(i) )

#### 5.9.3 Transmission and Drive Ratios

- (i) All classes (except Sigma-Graduates 2014 to 2016):  
Only the Caterham 5 speed gearbox may be used in the championship, except as stated below. The ratios within the gearbox must remain as per standard Caterham specification.

First	3.36:1 or 3.34:1	Fourth	1.00:1
Second	1.81:1	Fifth	0.82:1
Third	1.26:1		

- (ii) Sigma-Graduates and SigMax-Graduates classes (except Sigma-Graduates 2014 to 2016):

Cars of any year may optionally use the wider ratio gearbox which was fitted as standard to Academy cars from 2009 on:

First	3.65:1	Fourth	1.00:1
Second	1.93:1	Fifth	0.82:1
Third	1.37:1		

- (iii) Mega-Graduates class

As an alternative to the Caterham 5 speed gearbox, any 5 speed synchromesh gearbox using the standard Caterham gear casing (Ford 'type 9') straight cut or helical gears with the following ratios, or those in 5.9.4.(i) may be used in the championship. The standard Caterham 5 speed shift pattern shall be used. Sequential gear shift is not permitted.

First	2.29:1	Fourth	1.00:1
Second	1.55:1	Fifth	0.93:1
Third	1.23:1		

or

First	2.20:1	Fourth	1.00:1
Second	1.54:1	Fifth	0.93:
Third	1.21:1		

- (iv) Sigma-Graduates 2014 to 2016:

Cars shall use the Mazda gearbox fitted as standard to Academy cars 2014 to 2016:

First	3.136:1	Fourth	1.00:1
Second	1.888:1	Fifth	0.814:1
Third	1.330:1		

#### 5.9.4 Final Drive:

- (i) Caterham Classic Graduates Class Final drive ratio fixed at 9:37 - approx. 1:4.11
- (ii) Caterham Super-Graduates, and Mega-Graduates Classes' final drive ratios must remain as original, fixed at approx. 1:3.92

- (iii) Sigma Graduates & SigMax Graduates cars of any year may use either a Ford or BMW differential with associated drive shafts and propshaft. Ford differential final drive ratio 1:3.92. BMW differential final drive ratio 1:3.91. SigMax Graduates cars only may use an LSD as described in 5.9.2(iii).

## 5.10 ELECTRICS

5.10.1 The standard electrical system and wiring loom must be retained with all items working correctly so that the car remains fully roadworthy at all times, except that:

- (i) It is permitted to remove or deactivate the steering lock and the ignition/starter switch may be repositioned or substituted.
- (ii) All power feed to the vehicle and engine looms must be connected via the master battery switch.
- (iii) Exterior Lighting:
  - a. All Classes:  
The cars' original reversing light, rear fog light, rear number plate light and front wing mounted repeater indicators may be removed.
  - b. Classic Graduates:  
- Must retain the standard front lights and wing mounted rear light clusters.
  - c. Sigma-Graduates, Super-Graduates:  
- May remove front lights and indicators.  
- Sigma-Graduates of any year are permitted to use the 2011 onwards headlights and mounting brackets.  
- Need not retain the rear light clusters but if they are removed brake lights must be fitted, as for Mega-Graduates and SigMax -Graduates (see below).
  - d. Mega-Graduates, SigMax-Graduates:  
- No exterior lighting required except brake lights.  
- Headlights and front indicators must be removed but other lights are optional.  
- Must fit brake lights – either by means of the standard Caterham rear light clusters or the Caterham high-level mounted lights part number 30L170B.
- (iv) On those cars which are permitted to remove the standard rear light cluster but choose to retain it, all the lights in the cluster should be working.
- (v) It is permitted to re-route wiring to avoid damage from heat or track debris.
- (vi) Mega-Graduates only: It is not required that the standard wiring loom is used.

### 5.10.2 Rear Warning Light

A rear warning light must be fitted and should be used in conditions of poor visibility. Cars must have a motorsport LED rain light or an FIA homologated LED light because they are less likely to fail due to poor bulb contact. Note that failure of the warning light at any time during a wet race can result in a competitor being black-flagged out of the race.

The rear warning light must not be located in the standard Caterham road-car position on the back panel, it must be centrally located as per MSA Regulation **K5** and must be wholly above the level of the bodywork.

### 5.10.3 Battery

It is permitted to fit an alternative battery. The battery must be located within the engine compartment. The battery must be securely fixed. In some cases the standard Caterham mounting may not be adequate and if so it should be reinforced.

5.10.4 Alternator: The alternator must remain fixed, unmodified, connected and working.

### 5.10.5 Instrumentation

- (i) The standard Caterham dash, instruments and switches must be fitted.
- (ii) Additional auxiliary instrumentation for monitoring engine parameters may be fitted.
- (iii) A 12v power feed or socket may be fitted, but must not bypass the isolation switch.
- (iv) A lap timer may be fitted.
- (v) An audio entertainment system (radio, cassette, CD player, etc.) may be fitted.

- (vi) Transponders are used for race timing. It is required that transponders are fitted on the front of the steering rack mounting frame.
- (vii) Shift lights, ACES SureShift 2 or SureShift SB or any alternative may be fitted.
- (viii) A working speedometer is not required and the speedometer drive may be removed. However, drivers are reminded that speed limits are applied in the paddock and pit lane and drivers should ensure that they have a method of determining speed to comply with such limits.
- (ix) Tyre pressure and temperature monitoring devices: "Tyresure" or any alternative may be fitted.
- (x) It is permitted to fit data-logging systems.
- (xi) It is not permitted to fit any non-standard instrument or system that has a controlling function such as launch control, traction control or flat shift.
- (xii) Cars may be fitted with a timing device, such as a clock, stopwatch or "count-down timer", which may be used to display to the driver the amount of elapsed time, or remaining time, during any practice session or race. Any such device must be securely mounted, and can be fitted anywhere in the car except on the steering wheel.

#### 5.10.6 Caterham Super-Graduates and Mega-Graduates Classes:

- (i) It is permitted to substitute non-standard dashboard instruments and switches. It is also permitted to fit any Caterham standard or blank or "Stack" dashboard with non-standard dashboard instruments, switches and paint finish.
- (ii) The inertia cut out switch may be repositioned or removed (also applies to Sigma/SigMax-Graduates).
- (iii) It is permitted to fit a modified engine wiring loom.

### 5.11 BRAKES:

5.11.1 The standard braking system appropriate to the original production specification must be retained apart from the following specific modifications.

#### 5.11.2 Brake Modifications Specifically Permitted.

- (i) Brake pads and shoes are free.
- (ii) It is permitted to insert shim washers into the standard master cylinder or to fit an adjustment bolt to reduce 'dead' pedal travel.
- (iii) It is permitted to fit standard or high ratio brake pedals to allow for driver preference.
- (iv) It is permitted to fit alloy brake master cylinder (Caterham Part No 77176) in all classes except Classic-Graduates
- (v) It is permitted to fit a brake pressure reducing valve in the rear circuit in all classes except Classic-Graduates. The make of this valve is free (Caterham recommend the use of the lever type (part number 58541) or the rotary type (part number 19X066542R) and it is permitted to drill fixing holes in the chassis to mount it. It is permitted to fit the brake limiting valve using braided hose.
- (vi) It is permitted to replace solid brake pipe with flexible brake hose. In Mega-Graduate, Super-Graduate, SigMax-Graduates and Sigma-Graduate classes, the fitting of flexible rear brake hoses is mandatory.
- (vii) It is permitted to fit brake master cylinder Caterham part number 30B006A.

#### 5.11.3 Brake Modifications Specifically Prohibited.

No other brake modifications are permitted. The updated brake packages available from Caterham Cars are not to be fitted.

### 5.12 WHEELS AND STEERING:

5.12.1 The car is fitted as standard with rack and pinion steering using a rack with 1.93 turns lock to lock (8%). The steering column is telescopic for safety and includes a limited range of adjustment.

#### 5.12.2 Permitted Options:

- (i) The steering wheel is free and in addition it is permitted to modify the steering column to take a quick release mechanism.

- (ii) The cars of each class may be fitted with either the standard Caterham “8%” rack or the Caterham “22%” rack.

#### 5.12.3 Prohibited Options.

The standard steering mechanism must be used without modification except that shims may be fitted beneath the steering rack mounts.

#### 5.12.4 Construction and Materials.

No changes are permitted except as specified in these regulations.

#### 5.12.5 Dimensions

All dimensions must remain within manufacturer's specification, except where permitted within these regulations.

#### 5.12.6 Caterham Classic Graduates Class

The cars must be run on 5.5" X 13" Caterham standard Weller steel wheels or 6" x 13" aluminium alloy wheels as supplied by or identical to those supplied by Caterham under, part no 77360. Alternatively cars may fit 6" x 13" aluminium alloy wheels manufactured by John Brown Wheels, JBW Minilight (NOT Minilight Mag) with 16 mm offset (ET16)

#### 5.12.7 Caterham Sigma-Graduates, Super-Graduates, SigMax-Graduates and Mega-Graduates Classes

The cars must be run on 6" x 13" aluminium wheels as supplied by or identical to those supplied by Caterham Cars under part nos. 77393, 77393B, 77296, 77296BL, 77296SL, 30W029A and 30W041B. Alternatively cars may fit 6" x 13" aluminium alloy wheels manufactured by John Brown Wheels, JBW Minilight (NOT Minilight Mag) with 23 mm offset (ET23)

#### 5.12.8 Wheel nuts are free.

#### 5.12.9 Finish and colour of wheels is free.

### 5.13 TYRES:

#### 5.13.1 Specification

- (i) Cars must run on the nominated treaded road tyre.
- (ii) The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.
- (iii) Competitors will only be permitted to use a limited number of tyres for practice (i.e. qualifying) and racing throughout the season. The number of tyres permitted is 12 and these may be marked by the MSA Scrutineer. If any of the wear bars are flush (level) with the tread surface at pre-event scrutineering or when a car is first about to go out on track, the vehicle will be rejected and not allowed to compete.
- (iv) Where a tyre is damaged on track it may be replaced without affecting the permitted maximum of 12 tyres provided that:
  - (a) The tyre is not more than 25% worn in any area
  - (b) The driver obtains the approval of the Eligibility scrutineer
  - (c) No more than one tyre per meeting or 2 tyres per season are replaced in this way

#### 5.13.2 Nominated Tyre Manufacturer – Yokohama

#### 5.13.3 Caterham Classic Graduates Class:

Competitors must use only Yokohama 185/60 R13 A539.

#### 5.13.4 Caterham Sigma-Graduates, Super-Graduates, SigMax-Graduates and Mega-Graduates Classes:

Competitors must use Yokohama 185/60 R13 A048R, medium (M) compound or Yokohama 170/550 R13 N2968 (M) marked "For competition use only" A048R. These tyres are identical apart for the markings on the side wall. Competitors should note that these tyres are marked by Yokohama to show the preferred direction of rotation. Fitting tyres so that they rotate in the opposite direction is not a non-compliance, but competitors are reminded that they do so at their own risk.

## 5.14 MINIMUM WEIGHT LIMIT:

5.14.1 The car with driver must weigh not less than the weight limit with driver in (wearing helmet, overalls, shoes and gloves). Any ballast that needs to be added must be in the form of flat lead plates fitted within the passenger side of the cockpit securely bolted to the chassis or floor. Cars may be weighed in the scrutineering bay at the end of the race or practice session and this weight will be deemed to be the weight at which the car has completed the race. It is recommended that competitors check the weight of their cars and add ballast if necessary.

A car's measured weight will not be amended to allow for loss of any fluids or bodywork or anything else that may result in weight loss during a race or during a qualifying session; neither is it permitted to add any such lost parts or fluids to a car before weighing. Competitors are reminded that it is prudent to carry some additional fuel or ballast to reduce the probability that the car could be found to be underweight if fluids or parts such as wings are lost during a race or qualifying session.

The Classes' minimum weights are:

(i)	Caterham Classic Graduates Class:	610kg
(ii)	Caterham Sigma-Graduates Class 2008 to 2013:	605kg
(iii)	Caterham Super-Graduates Class:	600kg
(iv)	Caterham SigMax-Graduates Class:	605kg
(v)	Caterham Mega-Graduates Class:	600kg
(vi)	Caterham Sigma-Graduates Class 2014 to 2016:	630kg

### 5.14.2 Caterham Sigma-Graduates Class 2014 to 2016

Sigma-Graduates 2014 to 2016 TiVCT peak engine power is higher than the Sigma-Graduates 2008 to 2013. Therefore the minimum weight limit is higher for the Sigma-Graduates 2014 to 2016 cars. To equalise performance, the minimum weight limit for Sigma-Graduates 2014 to 2016 cars may be adjusted, increased or decreased, by the Organisers after any or each of the first four Meetings. Competitors will be given a minimum of 10 days' notice of any minimum weight change prior to the next Meeting.

## 5.15 FUEL TANK AND FUEL

### 5.15.1 Type of Fuel Tank

- (i) The standard fuel tank may be retained. An aluminium honeycomb protection kit is available as an option and its fitting is recommended.
- (ii) Alternatively a bag tank kit as supplied by Caterham Cars may be fitted. Please note that the bag tank has a limited life span. Competitors should take note of, and comply with, all the bag tank's manufacturer's requirements for correct and safe installation.
- (iii) The fuel tank vent must be installed to prevent spillage through the breather system. It may be necessary to fit a vent tube and additional check valve to prevent spillage when the tank is full.

### 5.15.2 Location of the Fuel Tank.

The tank must be located in its correct standard position.

### 5.15.3 Fuel

All cars must run on pump fuel as defined by the MSA. All cars must run on unleaded fuel.

## **5.16 SILENCING:**

All cars must be silenced to comply with the MSA regulations under **J5.17**. Silencers degrade with use. It is the competitor's responsibility to ensure that his car complies with these limits which are strictly enforced at many circuits.

## **5.17 COMPETITION NUMBERS AND DECALS:**

### **5.17.1 Positioning of Decals.**

- (i) Competition numbers must be positioned to be clearly visible from above and from the side, as per MSA Regulation J4. In particular, side facing numbers wrapped across the bonnet side are unacceptable as they cannot clearly be read by the timekeepers.
- (ii) The correct championship-issued number squares must be used mounted on the nosecone and on each body side. The Championship's Trade and sponsorship decals must be carried at all times in their specified position and competitors will be notified of these decals and decal positions before the first round. Additional decals may be required to be displayed during the season and competitors shall fit these additional decals within 14 days of notification. Areas not allocated for trade and sponsorship decals will be available for personal sponsorship. All cars must carry BARC shields.

### **5.17.2 Supply of Decals.**

Championship decals are available from the Caterham Graduates Racing Club, although competitors must provide their own racing numbers. BARC shields are obtainable directly from the BARC, one of which must be displayed on each side of the car at all times.

## **5.18 PROVISION FOR LESS-ABLED DRIVERS:**

In the exceptional circumstance of a driver with a bona fide physical disability which prevents them from using the standard hand / foot controls, modified controls may be fitted; details of such controls must be provided to, and approved by, the Organisers. Note: MSA Regulation J5.1.1 applies.



## 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 & Contacts:

British Automobile Racing Club, Thruxton Circuit, Andover, Hampshire. SP11 8PN  
Tel: 01264 882200 Fax: 01264 882233 E-mail: [dwheadon@barc.net](mailto:dwheadon@barc.net)

Caterham Cars Ltd, Kennet Road, Dartford Kent. DA1 4QN  
Tel: 01322 625800 FAX: 01322 625810

Caterham Cars:  
Fleming Way, Crawley, West Sussex, RH10 9VQ.  
Tel: 01293 312300

Eligibility Scrutineer: Keith Marchment, 54 Above Town, Upper Clatford, Andover, Hampshire  
Tel: 01264 356400 (Do not telephone after 22.00 hrs)

Chairman of Caterham Graduates Racing Club and Drivers' rep:

Roger Ford, 8 Poulett Gardens, Twickenham, Middlesex, TW1 4QR  
Tel: 07785 728512 or 0208 8926496 E-mail: [chairman@graduates.org.uk](mailto:chairman@graduates.org.uk)

Technical Director of Caterham Graduates Racing Club:  
Nick Haryett, Beggars Folly, Milford Road, Elstead, Surrey GU8 6HW  
Tel: 07815 200984 or 01252 703017 E-mail: [technical@graduates.org.uk](mailto:technical@graduates.org.uk)

Treasurer of Caterham Graduates Racing Club:  
Mark Carter, 9 Looke Lane, Puncknowle, Dorchester, Dorset, DT2 9BD  
Tel: 07899 983204 or 01308 897529 E-mail: [treasurer@graduates.org.uk](mailto:treasurer@graduates.org.uk)

Secretary of Caterham Graduates Racing Club:  
Charles Elliott  
Tel: 07803 015246

Caterham Graduates Racing Club Ltd  
Registered address: 9 Looke Lane, Puncknowle, Dorchester, Dorset, DT2 9BD  
Registered in England and Wales: No. 5114877  
MSA recognised club no. 174665

McMillan Motorsport:  
Wharf Farm, Coventry Road, Hinckley, Leicestershire, LE10 0NB  
Tel : 01455 239900 E-mail: [info@mcmm.co.uk](mailto:info@mcmm.co.uk)

Paul Freeman Motor Services Limited:  
Chapel Farm, Carpenters Hill, Heath Green, Nr Redditch, B98 9BT  
Tel: 07831 489146 or 01527 592122

The Classic Car Workshop:  
Old Sawmill, **Parham** Park, Pulborough, West Sussex, RH20 4HS  
Tel: 07881 787150 or 01903 744234

## **6.2 COMMERCIAL UNDERTAKINGS**

- 6.2.1 Where appropriate, 'The Organisers' shall always be deemed to be the BARC and The Executive Committee of the CGRC, who will act in co-operation with each other at all times
- 6.2.2 The Executive Committee of the Caterham Graduates Racing Club.  
For the purposes of these regulations, it comprises of four people: its Chairman, Secretary, Treasurer and Technical Director (see names and addresses in 6.1, as at 01/01/2015). Where any part of the technical regulations allows change by, or requires authorisation of, the Executive Committee, this means that the matter requires the agreement of at least three members of the Executive Committee. Except that if a decision needs to be expedited and only two members of the Executive Committee are available, those two may reach a decision, however in very exceptional circumstances, just the Chairman.
- 6.2.3 The Driving Standards Team is made up of not more than six drivers (or ex-drivers) from the Championship appointed by the Executive Committee. New members of this committee shall only be appointed with the unanimous agreement of the existing members. Names of the committee members will be published on the club website.
- 6.2.4 Vehicle presentation.  
Competitors shall take note of paragraphs H33.1.7, J5.20.1 and J5.20.3 of the 2013 MSA Yearbook.  
Additionally the presentation of the car is important to the profile of the championship, its sponsors and its audience. Therefore in considering whether to permit any car to race at any point during the season, the Caterham Graduates Racing Club Executive Committee will consider the standard of presentation of both the interior and exterior of the car. The Caterham Graduates Racing Club may request the organisers/Clerk of Course to exclude any car, the appearance of which may prejudice the reputation of the championship.  
This will include where a car is presented at a race event bearing significant accident damage sustained at a previous event. Note: A double header can be regarded as one event for the purpose of this regulation.
- 6.2.5 Trade and sponsorship decals must be displayed correctly positioned in order for the competitor to be eligible for championship points. In exceptional circumstances, the Executive Committee may authorize a driver to have the championship sponsors' decals fitted in non-standard locations, or for not all of them to be fitted. An example of such exceptional circumstances might be when a driver is using a car in this and another championship, and the other championship requires decals in the same locations as the Graduates championship.

Cars must not display decals which "conflict" with the championship sponsors' decals. For example, since Yokohama is a championship sponsor, cars must not show a decal promoting any other tyre manufacturer. If in doubt, consult with the Executive Committee – their ruling is final.