



# 750 Motor Club RGB Championship 2016

## Sporting & Technical Regulations

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### 1 SPORTING REGULATIONS: GENERAL

#### 1.1 TITLE & JURISDICTION

The **RGB CHAMPIONSHIP** is organised and administered by the the Royal Automobile Club Motor Sports Association (incorporating the provisions of the International Sporting Code of the FIA) and these Championship Regulations.

1. **MSA Championship Permit No: CH2016/R030**
2. **MSA Championship Grade: D.**
3. **Race Status: Clubman/National B.**

#### 1.2 OFFICIALS

1. **Co-Ordinator:** G.Groombridge, The Conservatory Suite, Donington Park, Castle Donington, Derbyshire, DE74 2RP

☎ 01332 814548; ✉ giles@750mc.co.uk).

2. **Eligibility Scrutineer:** **B. Blackmore**

3. **Championship Stewards:**

R.Knight                      K. Messer                      I.Sowman

#### 1.3 COMPETITOR ELIGIBILITY

1. Entrants must be fully paid up valid membership card holding members of the 750 Motor Club Ltd and possess a valid current year's MSA Entrants Licences.
2. Drivers must be fully paid up valid membership card holding members of the 750 Motor Club Ltd, be registered for the Championship and hold a valid MSA National B (or higher grade) Race Licence or be a professional driver in possession of a valid Licence (featuring an E.U flag) & medical issued by the ASN of a member country of the European Union (MSA Regulation H26.2.1.)
3. All necessary documentation must be presented for checking at all rounds when signing-on.

#### 1.4 REGISTRATION

1. All competitors must register for the championship by returning the Registration Form with the Registration Fee to the Coordinator prior to the Final Closing date for the first round being entered.
2. The Registration Fee is £120 payable upon registration.
3. Registration numbers will be the permanent Competition number for the Championship
4. If any competitor wishes to change to a different car from the one originally registered for the championship, a completed registration form with registration fee must be sent to the Co-ordinator. If the vehicle is in the same class as the one originally registered then, with the approval of the Co-ordinator, championship points already scored may be transferred. If the new vehicle is in a different class, then points will not be transferred.

#### 1.5 CHAMPIONSHIP ROUNDS

The **RGB CHAMPIONSHIP** will be contested over the following rounds:

Date	Circuit	Round/s
02 April	Oulton Park	2
23/24 April	Brands Hatch	2
21/22 May	Croft	2
16/17 July	Anglesey	2
20/21 August	Silverstone Int	2
10/11 Sept	Rockingham	2
½ October	Donington GP	2

#### 1.6 SCORING

1. Points will be awarded to Competitors listed in the Final Results as follows:-15; 12; 10; 9; 8; 7; 6; 5; 4; 3. All other finishers-2; all other starters - 1. Fastest lap per class - 1 point subject to a minimum of 2 starters in class. If there are less than 6 starters in any class, points will be 12; 9; 8; 7; 6. If there are less than 4 starters in any class, points will be 9; 8; 7. If there is only one starter in a class, there will be no point awarded for fastest lap.
2. The totals from all qualifying rounds (excluding any races which are abandoned and which are not replaced) less 2 will determine the final championship points positions.

3. Ties for end-of-season award winning places shall be resolved, when more than one competitor have equal totals, by taking into account the highest number of 1<sup>st</sup> places, 2<sup>nd</sup> places etc from the races they are counting as their best total (i.e. their finishing position in dropped rounds do not get taken into account). If that fails to find a winner their highest or subsequent highest dropped scores will be added to their existing total score until a conclusive result is found.

#### 1.7 AWARDS

1. All awards are to be provided by the Organising Club unless agreed otherwise.
2. Per Round: Awards of 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> in class will be given, subject to the number of starters as follows:- 2 to 4 starters -1<sup>st</sup> in Class only; 5 to 7 starters -1<sup>st</sup> & 2<sup>nd</sup> in class only; 8 or more starters - 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> in class.
3. Championship: Trophies to:
  - 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> overall.
  - 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> in class subject to a minimum of 5 race starts.
  - *RGB Rookie Trophy*, awarded to the highest finishing eligible driver at the last meeting of the season. This is open to drivers in class F only and who have started fewer than 14 RGB races prior to the start of the 2016 season.
  - Best prepared car.
4. Bonuses:
  - Per Round: Not applicable.
  - Championship: Not applicable
5. Presentations: Garlands and Trophies are to be provided for presentation at the end of each race. Prize money and Bonuses shall be posted to the Entrants within one month of the results being declared final after each season.
6. Entertainment Tax Liability: Not applicable.
7. Title to all Trophies: In the event of any Provisional Results or Championship Tables being revised after any provisional presentations and such revisions affecting the distribution of any awards the Competitors concerned must return such awards to the 750 Motor Club Competitions Secretary in good condition within 7 days.

### 2: CHAMPIONSHIP EVENT MEETINGS & RACE PROCEDURES

#### 1. ENTRIES:

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. 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.
3. Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Meeting Organisers in writing. D25.1.12. applies.
4. The Entry Fee for each event shall be specified in the SRs and on the entry form.
5. Reserves will be listed in the Final List of Entries published with Final Instructions or in a Bulletin.

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.

#### 3. QUALIFICATION PRACTICE:

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. 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).

4. **RACES:** Should any race be disrupted the Clerk of the Course shall



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not be obliged to resume or rerun the race ((Q)5.4.) (1.6.4. above applies)

### 5. STARTS:

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. The start will be via Standing start. The minimum Countdown procedures/audible warnings sequence shall be:-
  - I. 1 minute to start of Green Flag/Pace Lap - Start Engines/Clear Grid.
  - II. 30 Seconds - Visible and audible warning for start of Green Flag/Pace Lap.
  - III. A five second board will be used to indicate that the grid is complete.
  - IV. The red lights will be switched on five seconds after the board is withdrawn.
3. Any car removed from the grid after the 1 minute stage or driven into the pits on the Green Flag lap shall be held in the pitlane and may start the race after the last car has passed the startline or pitlane exit, whichever is the later to take the start from the grid.
4. Any driver unable to start the Green Flag/Pace lap or start are required to indicate their situation as per MSA Regulation (Q)12.13.2. In addition any driver unable to maintain grid positions 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.
5. In the event of any starting lights failure the Starter will revert to use of the National Flag.

**6. SESSION RED FLAG:** 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. Cars may not enter the Pits unless directed to do so. Work on cars already in the Pits must cease when a race is stopped.

### 7. PITS, PADDOCK & PITLANE SAFETY:

1. Pits & Paddock: Competitors must ensure that the MSA, Circuit Management and Organising Club Safety Regulations are complied with at all times.
2. Pitlane: 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.
3. Refuelling: May only be carried out in accordance with the MSA General Regulations, the Organising Club Regulations, Circuit Management Regulations and the SRs or Final Instructions issued for each Circuit/Meeting.
4. Speed Limit: Pit Lane Speed Limit will be 60 km/h.

**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 pitlane.

**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 (D)26.3.)

**10. TIMING MODULES:** The 750 Motor Club utilises AMB transponder-based timing and competitors must have a compatible transponder fitted and working and advise the race organisers of its number prior to the event. The transponder is a TRANX 260 Direct Powered and is available from HS Sports Ltd – 01260 275708.

**11. QUALIFICATION RACES:** If any event is oversubscribed the Organising Club may at their discretion run Qualification Races.

**12. OPERATION OF SAFETY CAR: {deleted}**

**13. ONBOARD CAMERAS: {deleted}**

### 3. SPECIFIC CHAMPIONSHIP REGULATIONS

In the event of any rounds being oversubscribed the Organising Club may, in liaison with the Championship Coordinator, at their discretion run Qualification races as per 2.11 of these regulations. Alternatively at double header race meetings, should there be sufficient space within the timetable, the Organising Club may divide the grid after qualifying into 3 separate Groups. The Groups will then form 3 races whereby each competitor participates in two races. All 3 races will be eligible for full championship points.

At each Round of the championship Race 1 grid positions will be determined by each competitors fastest lap time in Qualifying. At double header meetings, the grid positions for Race 2 will be determined by the competitors second fastest lap time in Qualifying.

### 4. SPECIFIC CHAMPIONSHIP PENALTIES:

In accordance with Section C of the current MSA Yearbook and additionally:

#### 4.1: INFRINGEMENT OF TECHNICAL REGULATIONS:

1. Arising from post practice Scrutineering or Judicial Action:  
Minimum Penalty: The provisions of MSA Regulations: C3.3.
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 will invoke the provisions of Regulation C3.5.1 (c).

#### 4.2: ADDITIONAL SPECIFIC CHAMPIONSHIP PENALTIES

1. In the case of a driver being excluded from a race, the Clerk of Course will impose the penalties set out in MSA Regulation C3.5.1 a & b and may impose the penalty set out in MSA Regulation C3.5.1 c.
2. In order to maintain standards of conduct, the Championship Organisers will monitor all Officials/Observers reports of adverse behavior at race meetings. If any individual is included on two such reports during one racing season the Championship Organisers will request the Clerk of Course at future race meetings to consider specific observation of that driver's conduct.
3. The Clerk of Course may impose a "Stop-Go" or "Drive through" penalty during a race in accordance with MSA Regulation Q.12.6.
4. Any Competitor who is penalized under the Championship Sporting Regulations at any stage of a Championship event and receives an allocation of penalty points on their race license in accordance with MSA Regulations, will receive a grid slot penalty at the next round in which they compete following the allocation of penalty points, equal to the number of penalty points which were allocated. Double headers will be considered as two separate rounds; however if the decision to allocate penalty points is delayed such that further round/s of the Championship have taken place since the offence, the grid slot penalty will be implemented at the next round in which they compete after the allocation of the penalty points.  
The penalty will mean that a Competitor will be moved back grid slot places from their grid position (e.g. if a Competitor with a three grid slot penalty had a qualifying time that was good enough for pole position then the Competitor will start fourth on the grid). If for any reason the imposition of this grid penalty is impractical (such as the competitors qualifying time, starting from the pit lane etc.) or the offence occurs at the final meeting of the season, a time penalty of 5 seconds will be added to the elapsed time of the Competitor.
5. Championship Stewards are also empowered to consider any request from the Championship co-ordinator to penalize any Competitor for any breach of Championship regulations and, after holding a formal hearing if they deem it necessary, to impose a penalty in accordance with MSA Regulation C.2.1.1 (subject to the rights of appeal provided for in Section C.)



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6. One or more of the following may be imposed by the Championship Stewards as appropriate;

- a) Reprimand
- b) Fine. The may be also applied in the case of a driver receiving three reprimands from the Championship Stewards in one season.
- c) C) Time or Grid Penalties
- d) D) Suspension from all or part of the Championship. This may also be applied in the case of a driver receiving two fines from the Championship Stewards in one season.

## 5 TECHNICAL REGULATIONS

### 5.1 INTRODUCTION

The following Technical Regulations are set out in accordance with the MSA specified format and it must be clearly understood that if the following texts do not clearly specify that you can do it, you must work on the principle that you cannot. The fact that some modifications are mentioned as prohibited does not imply that others are allowed.

### 5.2 GENERAL DESCRIPTION

The **RGB CHAMPIONSHIP** is for Competitors participating in two-seater (not tandem) cars powered by a series-production four-stroke motorcycle engine as detailed in 5.7 of these regulations. Cars will run in two classes:

**Class F:** Front-engined cars up to 1000cc.

**Class R:** Rear or mid-engined cars up to 1000cc.

The engines must have been fitted to production motorcycles manufactured by Honda, Kawasaki, Suzuki or Yamaha and produced prior to 1/1/09 (in the case of Suzuki and Yamaha motorcycles) or 1/1/10 (in the case of Honda and Kawasaki motorcycles).

Entries must be accompanied by the car's current engine number. If an engine is changed during the season the replacement engine number must be provided to the championship coordinator prior to the vehicle competing in a championship event.

### 5.3 SAFETY REQUIREMENTS

All cars must comply with the technical regulations listed in the MSA Year Book Section K & Q, and with the minimum safety requirements listed in section K.

Note rollage requirements for grp/composite monocoques as per 5.5 below.

Extinguishers must comply with MSA regulation K 3.1.2 a).

Seat belts must be FIA homologated and as per K2.1.2 , 2.1.3. or 2.1.4; K3, K5, K6, K8 – K14.

Towing eyes must have a minimum internal diameter of 60mm; (note the tow eye may be of either a suitable rigid or flexible material bolted to the chassis).

### 5.4 GENERAL TECHNICAL REQUIREMENTS & EXCEPTIONS

All cars must comply with the requirements of sections J and Q19 of the current MSA Yearbook.

All vehicles must be of sound construction and mechanical condition and be well maintained. There is no requirement for an MOT Certificate, Road Tax or Insurance. STANDARD: The word 'standard' used within these technical regulations as a description of components is to be interpreted as per 'Standard Part' defined in Section B – Nomenclature & definitions in the MSA Blue Book. Checking will be by comparison to spare parts supplied by the manufacturer's official agent or by any other means necessary to ensure compliance.

As a minimum, two mirrors must be fitted, each with a minimum surface area of 50 sq cms and giving a clear view to the rear, one on each side of the centreline of the vehicle.

### 5.5 CHASSIS

Chassis must be constructed either of a tubular steel spaceframe or an aluminium or steel monocoque. Composite monocoques are only permitted if part of a production run of at least 5 identical vehicles and a rollage complying with MSA Regulation K drawings 3 or 4 is fitted. Cars utilising carbon-fibre chassis must be presented at scrutineering with a Vehicle Log Book issued by the MSA.

### 5.6 BODYWORK:

- a. Maximum overhang of front bodywork from front wheel axis is 890 mm. Maximum overhang of rear bodywork from rear wheel axis is 850 mm.
- b. Wings are prohibited, where a wing is defined as a separate part of the bodywork of a car positioned above, behind or in front of the main bodywork and in such a position that air may flow both above and below the part.
- c. The cockpit area must be enclosed on both sides, floor and bulkheads front and rear. 'Spats' may be fitted in order to comply with MSA regulation J5.2.6.
- d. Any forward facing front spoiler/splitter within 15 degrees to the horizontal whether integral with or additional to the original bodywork may not project more than 50mm beyond the plan form of the bodywork where that bodywork is part of the static structure of the car and rises to a height of at least 25mm above the top surface of the floor of the car. A front spoiler/splitter may not exceed the width of the car across the front wheel arches. In addition it must form a continuous part of the bodywork.
- e. For the purposes of these regulations the following terms shall have the following meanings:
  - i. 'floor' shall mean the lower surface of the chassis together with any other part of the car which is visible from a point on the ground immediately beneath that point and which is less than 300mm from ground level when the car is resting on the ground at its normal attitude but excluding mechanical components
  - ii. 'front floor' shall mean any part of the floor ahead of the front axle line
  - iii. 'centre floor' shall mean any part of the floor between the front axle line and the lower edge of the rear bulkhead where it meets the floor
  - iv. 'rear floor' shall mean any part of the floor behind the lower edge of the rear bulkhead where it meets the floor
  - v. 'mechanical components' shall mean any device which is present on the car for a purely mechanical purpose and is not present and is not designed or shaped in order to have an aerodynamic effect and shall include, but not be limited to, exhaust systems, bolts, nuts, sumps and suspension components
  - vi. 'aerodynamic advantage' means the generation of or contribution towards an increase in downforce or a reduction in lift.

The purpose of these regulations is to ensure that RGB cars have simple floors and do not rely upon the underside of the car to provide an aerodynamic advantage. For the avoidance of doubt, diffusers, vortex generators and any other device (save as specifically permitted by these rules) which provides an aerodynamic advantage is not permitted. Your attention is drawn to regulation 5.1 of these regulations.

f. The front floor, centre floor and rear floor must be flat laterally (that is, side to side) subject to a tolerance of 10mm. The tolerance permitted of 10mm is to allow for manufacturing tolerances and must not be used to shape any part of the floor to provide an aerodynamic advantage. Any part of the floor shall be treated in this regulation as flat provided that, moving from the centreline of the car to the outer edge of the plan form of the car in a lateral direction, the height of the floor increases or remains constant.

g. The centre floor must be flat longitudinally subject to a tolerance of 10mm. The tolerance permitted of 10mm is to allow for manufacturing tolerances and must not be used to shape any part of the floor to provide an aerodynamic advantage.

h. The height of the rear and front floors is free (subject to the minimum ride height restriction in paragraph 5 of 'Modifications Permitted') save that they must be flat laterally.



i. It is not mandatory to panel the whole or any part of the floor of the car but where any part of the floor is not panelled no part of the floor as defined above may be shaped or designed to provide an aerodynamic advantage. For the avoidance of doubt, any ducts or holes, the purpose of which is to divert air from or to the underneath of the floor of the car, will be treated as part of the floor and are therefore not permitted.

j. It is permitted for mechanical components to extend below the floor of the car (subject to the minimum ride height restriction in paragraph 5 of 'Modifications Permitted') but in this regard your attention is drawn to the definition of mechanical component above.

### 5.6.1 Modifications Permitted

**1. General:** The cockpit seen in plan view must be symmetrical about the longitudinal axis of the car. The dimensions of the passenger seat space, elbow space, foot and leg room in terms of length, width and height must be at least 75% of that provided for the driver; only a fire extinguisher, a battery and any rollbar bracing may impinge upon the passenger space.

Tandem seating is not permitted.

Cockpit opening must measure at least 81.3cms (32") wide x 71.1cms (28") long.

The centreline of the driver's seat must be at least 25.4cms (10") from the longitudinal centreline of the car. The centreline of the seat is defined to be that line along the floor of the car which is a vertical projection of the line from the centre of the top of the seat to a point midway between the two crotch straps as they penetrate the seat when the driver is seated and strapped in.

The bulkhead in front of the rear axle shall be a solid panel that, at all heights between the chassis floor and the top of the driver's backrest, shall form a continuous horizontal straight line at 90° to the longitudinal centreline of the car across the width of the driver/passenger compartment. No part of the driver's seat may be behind this bulkhead. Cables, harnesses, pipes, linkages and (in front engined cars) the transmission/propshaft tunnel may pass through this bulkhead, but all holes into the driver/passenger compartment must be sealed with a fireproof sealant.

**2. Interior:** It is permissible to remove interior trim and passenger seat.

**3. Exterior:**

**ALL VEHICLES:** The engine and transmission must be fully enclosed. It is permitted for the air exit from a front-mounted radiator to exhaust through the top surface of the bodywork without any covering but the ducting between the bodywork and the radiator must ensure that the radiator hoses and piping are fully shielded from this ducting.

Tonneau covers are not permitted.

Any car fitted with a soft-top or hardtop will be considered to be a closed car and must be fitted with a full width and height windscreen and rear screen.

**FRONT ENGINED CARS:** Air filters may protrude through the bonnet without the need for any cover but must have an effective seal between them and the bonnet; any other holes in the upper surface of the bodywork forward of the steering wheel plus any holes in the side surfaces of the bodywork forward of the steering wheel above a longitudinal line joining the top of the front and rear wheel rims ("Engine Cover Holes"), must be covered with solid bodywork having only a forward facing opening, forward facing louvres or with a metallic gauze with a maximum hole size of 1mm. Holes solely for the exhaust system do not require any cover/gauze but must be a reasonably close fit. The total area of non-forward facing Engine Cover Holes (excluding properly ducted radiator exhausts as described in this section) must not exceed 400 cm<sup>2</sup>.

**4. Silhouette:**

**5. Ground Clearance:** Under no circumstance can any part of the bodywork, or of the suspended part of the car with the exception of the exhaust system, be below a horizontal plane passing 75mm (50mm for exhaust systems) above the ground, the car being in normal racing trim with the driver aboard. A gauge of 75mm or 50mm may be used by Scrutineers before or after races or practice to check the ground clearance. There is no minus tolerance to these measurements.

### 5.6.2 Modifications Prohibited

**1. General:** Any in contravention of 5.6.1.

**2. Interior.** It is not permitted to mount the fuel tank/s within the driver/passenger space.

**3. Exterior:** No wings are permitted where a wing is defined as in 5.6.

**4. Silhouette:**

**5. Ground Clearance:** Side skirts or bridging devices are not permitted.

### 5.7 ENGINE

Any production four stroke motorcycle engine manufactured by Honda, Yamaha, Kawasaki or Suzuki and with manufacturer's quoted capacity and date of production as per 5.2. If requested the competitor must supply manufacturer's official literature with registration to prove compliance with this regulation.

Two stroke engines or multi-engine installations are not permitted.

The engine must remain entirely standard – your attention is drawn to 5.1. As the engine is standard preparation of the engine must be restricted to those modifications that do not add or remove metal from the engine internals.

It is permitted to remove the standard coolant pump and oil/coolant intercooler if fitted as standard.

It is permitted to obscure any ports used on the standard engine for air injection into the exhaust system.

Camshafts, their drive sprockets and connecting bolts must be standard and unmodified. Where slots are provided in camshaft sprockets in addition to circular timing holes, only the holes are to be used for timing the camshaft. The slots must not be used for any location purposes. In engines where the timing is set by the sprocket not having any positive location on the camshaft (e.g. the Suzuki engine), valve timing must be in accordance with standard manufacturers' settings.

The wiring loom/harness is free.

Crankcase breathing is free.

Limited Edition engines are not permitted.

The lubrication system is free and may have the oil pickups and drain holes modified to suit the installation. Dry sump systems, modified sumps and pick-up pipes are permitted. Oil coolers are permitted provided they are within the overall periphery of the vehicle.

### 5.7.1 Modifications Permitted

As per 5.7.

### 5.7.2 Modifications Prohibited

Any other than those permitted in 5.7.

### 5.7.3 Location

Front only in class **F**; rear/mid only in class **R**.

### 5.7.4 Oil and engine cooling

Any system may be used for oil and engine cooling provided radiators are within the periphery of the vehicle. Waterless coolant is permitted.

Oil hose connectors must be either swaged fittings, 'Aeroquip' – type compression fittings or good-quality high-pressure fittings. (The use of hose-clips on oil pipes is prohibited due to the extreme pressures developed by bike engines.)

### 5.7.5 Induction Systems

Air filtration system is free.

The induction system must be standard for the engine being used, though jetting on carburetors is free. The boundary between the induction system and the air filtration system is defined to be at the entry to the throttle body or carburetors. Hence, aftermarket velocity stacks are permitted.



### 5.7.6 Exhaust systems

Exhaust systems including manifold are free but must comply with MSA noise restrictions as per MSA yearbook J5.16.5 & 5.17.

All vehicles must be fitted with an exhaust catalytic converter through which all exhaust gases must flow.

### 5.7.7 Ignition systems

1. The standard ECU's rev-limiter must remain in operation with standard manufacturers settings, and be the only non-mechanical means of controlling engine speed (excepting functions of the standard ECU for the engine). Ignition-cutting systems other than the standard rev-limiter are not permitted. The standard ECU for the engine must be used as the main control of engine management.

The standard ECU must not be modified in any way; in particular it is not permitted to change the ignition, fuel or any other mapping or configuration in any way. The 750 Motor Club reserves the right to remove and test ECUs or to exchange the ECU in any specific car, for the duration of a race or an entire meeting, for an equivalent manufacturer's standard unit. Failure to comply with such an exchange request will render the car in question ineligible to compete at the meeting in question.

Competitors are required to make their own ECUs available for swapping to facilitate these checks. As such it must be straightforward to remove and replace the ECU, along with any item keyed to the ECU such as an ignition key. All competitors' ECUs so used will be labelled with their name using non removable labels provided by the 750 Motor Club. The competitor's own ECU will be returned to them at the conclusion of the meeting.

2. The use of a single approved 'piggy-back' device, in conjunction with the standard ECU, to modify fuelling only is permitted provided it does not contravene the remainder of 5.7.7. Approved piggy-back devices are the Dynojet Power Commander PCII, PCIII, PCIIIr, PCIIusb (fuel module only) and PCV (fuel injection module only). Note that the use of a PCV module that incorporates ignition timing mapping, or any separate ignition mapping module, is not permitted.

3. The standard ECU and any piggy-back device should be easily accessible for scrutineering purposes. Any manufacturer markings on the ECU and any piggy-back device must remain intact and easily visible.

4. The 750 Motor Club reserves the right to install a logging device in any RGB car during pre-race scrutineering and to access that device in post-race scrutineering, where such a device is intended to check compliance with the rest of these regulations.

5. The engine's ignition timing must always be in the control of the original ECU's ignition maps and any standard engine components such as trigger wheels and position sensors. The use of a device, such as the Dynojet IRC and wiring so as to convince the ECU that it is always in 6<sup>th</sup> gear, is permitted if that device merely assists the ECU in selecting sites in the standard ignition maps.

6. The 750 Motor Club reserves the right to require some subset of the cars completing a race to complete a power run on a rolling road dynamometer that may be present at a race meeting. So as to obviate dependence on dynamometer accuracy, the results from such tests will be used merely for comparative purposes and not for the purposes of determining absolute power output.

7. The standard loom's diagnostic connector is required to be available for ease of connection of ECU analysis equipment. An in-car gear indicator may be connected to the diagnostic connector as long as it is easily removable for scrutineering purposes.

8. Any electronic module related to the engine and present in the car is required to be connected to the engine at all times during qualifying and racing.

### 5.7.8 Fuel delivery systems

Fuel pump and fuel lines are free, subject to MSA regulations.

## 5.8 SUSPENSION

1. **Permitted modifications:** Suspension systems are free, subject to MSA regulations.

2. **Prohibited modifications:** Active suspension is prohibited.

3. **Wheelbase/track:** Free.

## 5.9 TRANSMISSION

The gearbox must be standard to the engine.

There must be a means of reverse, which may be internal or external to the gearbox; this must be operable by the driver whilst normally seated. Cars will be required to drive in reverse a minimum distance of 3 metres on the flat during which one of the wheels will be required to pass over a block 40mm square.

### 5.9.1 Permitted modifications

Drive may be either by propshaft or chain.

**Gear position electronic sensor:** The gear position sensor to the ECU, if fitted, must be permanently disabled or permanently enabled; it is not permissible for it to be switchable.

**Clutch:** Clutch plates are free. Steel reinforcing bands may be fitted around the outside of the clutch basket. Clutch springs may be updated. Clutch operation may be hydraulic or mechanical but must be under direct control of the driver with no electrically or electronically controlled assistance.

### 5.9.2 Prohibited modifications

Gear selection, clutch and throttle operation must be purely mechanical and solely under direct control of the driver. The gear linkage and clutch system must be purely mechanical (hydraulic clutch systems are permitted). No electrical connections, switches or sensors may operate on any part of the clutch or gear controls or linkages. Note that this implies that "flatshifters" are not permitted in any form.

Four-wheel drive is not permitted.

Electronic traction control is not permitted.

### 5.9.3 Transmission and Final Drive ratios

Gearbox ratios must remain as standard. Final drive ratio is free. A limited slip differential may be fitted.

## 5.10 ELECTRICS

### 5.10.1 Exterior Lighting

This must consist of at least the following:

- A pair of forward facing white main beam lights positioned towards the front of the car and one near to each side of the car.
- A pair of red tail lights, clearly visible to following drivers, and positioned at the rear of the car with one on each side of the car.
- A pair of red brake lights, clearly visible to following drivers and positioned at the rear of the car with one on each side of the car.
- Indicator lights positioned on each corner of the car and easily visible to drivers in front and behind.

### 5.10.2 Rear Warning Light

An LED red warning light compliant with MSA MSA Yearbook regulation J.5.1 is mandatory and must be mounted directly to the rear or the underside of the rear roll hoop, within 10cms of the centreline of the vehicle. Where high bodywork behind the rollcage may prevent the light being fully visible, the light may be fitted to the rear of that bodywork at an equivalent height within 10cms of the centreline of the car. Any manufacturer fitted rear fog light must be disabled.

### 5.10.3 Battery and starter

A battery and starter motor capable of repetitive starts must be fitted and operable by the driver whilst normally seated.

### 5.10.4 Charging system

The standard engine's alternator/generator must be fitted and electrically connected so that the standard battery charging function is providing a charge to the onboard battery. All phases of the standard alternator/generator must be fully functional.

## 5.11 BRAKES

A parking brake mechanism must be fitted that permits the car to be held in position such as on a sloping race circuit grid. It should be noted that hydraulic line locks are permitted.

### 5.11.1 Permitted Modifications

Free.

### 5.11.2 Prohibited Modifications

ABS systems are prohibited. Carbon fibre discs are not permitted



### 5.12 WHEELS / STEERING

- 1. Permitted Options:**
- 2. Prohibited Options:** Four wheel steering is not permitted. The fitment of any 'wheel trims' or similar air deflectors is prohibited.
- 3. Construction & Materials:**
- 4. Dimensions:** Wheels: Max width 7".

### 5.13 TYRES

- 1. Specifications:** The only permitted tyres are the Yokohama AO48R compound M or MH and the Avon CR28 Sport. No alteration to the tyre from the manufacturer's or supplier's specification or pattern is permitted
- 2. Nominated Manufacturers:** Yokohama, Avon.
- 3. Suppliers:** Tyres will be available, if pre-ordered, at most race meetings from Polleysport – 01354 688111.
- 4.** The use of tyre heating/heat retention devices, tyre treatments and compounds is prohibited.

### 5.14 VEHICLE WEIGHT

Minimum weight including driver with helmet, race overalls etc is:-

**Front engined car:** 560kg.

**Mid/rear engined car:** 560kg.

The 750 Motor Club reserves the right to change any of these minimum weights, after rounds 3, 6 & 9, giving 7 days' notice.

Any ballast needed to satisfy these weight regulations shall be fitted in the car in agreement with MSA Yearbook regulation J.5.15.4. In an RGB car the phrase "passenger's location", as it appears in that regulation, shall be taken to mean the space where a passenger seat would be fitted if it were present.

### 5.15 FUEL TANK AND FUEL

- 1. Types:** Fuel tanks are free but safety tanks are recommended. A non-return valve must be incorporated in the vent system. Fuel tank capacity must be sufficient to allow the car to race for at least 30 minutes plus one lap, after which the car must comply with 5.15.3.
- 2. Locations:** Position free subject to MSA regulations.
- 3. Fuel:** Only fuel as defined in Section B Nomenclature & Definitions, Pump Fuel a) section of the MSA Yearbook for the current year and complying with BS4040, BSEN228 or BS7800 may be used; fuel which exceeds the stated RON (max) levels in Appendix 1 of Section B Nomenclature & Definitions is prohibited even if it is sold/promoted as being legal for UK Competition and/or obtainable from 'roadside' pumps. The use of additives by competitors which boost the octane rating (RON) in any petrol is prohibited. At the end of practice and the race at least 3 litres of fuel from the tank of the competing car must be available to the scrutineers for analysis. Compliance with minimum weight for the car will be taken before the fuel is removed.

### 5.16 SILENCING

All vehicles must comply with the relevant maximum noise limits set out in MSA Year book regulation J. Chart 5.18.

### 5.17 NUMBERS AND CHAMPIONSHIP DECALS

These regulations apply to the race numbers and other decals that are required to be carried on cars. Failure to comply with these regulations will render the vehicle and driver ineligible to race.

**1. Race numbers:** Race numbers and backgrounds, in accordance with MSA Yearbook regulations J.4 must be displayed on each side of the vehicle alongside the cockpit/driver and as far forward on the front of the vehicle as possible. 750 Motor Club decals must be affixed prominently near all number backgrounds. A single "R" or "F" class letter, approximately half the height of the race numbers, must be displayed adjacent to all race numbers.

**2. Championship sponsor's decals:** Unless specified otherwise by the sponsors such decals must be displayed on each side and towards the front of the car. 750 Motor Club and Championship Sponsor's decals must take preference to any other decals. Failure to comply will render the vehicle and driver ineligible to race.

**3. Championship decals:** If available, championship decals must be displayed on both sides and at the front of all cars.

- 4. Suppliers:** Sponsors, Championship and Club decals will be available at the first championship race in which the vehicle is entered.