

# **S**portsmans **M**otor **C**lub



**2015**  
**Handbook**

# SPORTSMANS MOTOR CLUB

(EST. 1970)

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## 2015 EXECUTIVE COMMITTEE

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CLUB RACEDAY SECRETARY:	John Franklin	As for Treasurer
CLUB LIAISON OFFICER:		
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# THE SPORTSMANS MOTORCLUB

## CLUB CONSTITUTION

1. The aims of the Club are to provide the opportunity for the member to participate in Motor Sport, which will be reasonably inexpensive, and to promote Motor Competitions according to the Rules and Regulations of the MSA. As a secondary function the Club will run social events for the benefit of member's families and friends and invited guests.
2. The Executive Committee shall run the Club.
3. The Executive Committee will be nominated and elected democratically by a majority of the members at the Annual General Meeting. Executive Committee Officers will be elected on a rotational basis of two per year plus any resignations. Executive Committee Officers may serve for three years before being required to seek re-election. The President of the Club will be an honorary position appointed by the Executive Committee.
4. Executive Committee Officers will have been members of the Club for a minimum of three consecutive years.
5. The Executive Committee will consist of:
  - I. President
  - II. Chairman
  - III. Secretary
  - IV. Treasurer
  - V. Eligibility/Safety Officer
  - VI. Club Steward
  - VII. Club Liaison Officer
  - VIII. Raceday Officer
  - IX. Any co-opted Members
6. The Executive Committee will act as board of trustees on behalf of the Club and be authorised to sign all documents concerning Club activities.
7. The Executive Committee will work on normal democratic procedures, the Chairman having the casting vote where a stalemate exists.
8. The Executive Committee reserves the right to refuse membership to the Club of anyone who breaks the Club rules or who is otherwise an undesirable character.
9. The Executive Committee may co-opt any member as required, but to be elected by the majority at the next Annual General Meeting.
10. The Executive Committee will normally meet on the first Tuesday after an autotest. Club members are welcome to attend committee meetings - just ring to confirm date, time, & venue.
11. Race day Officials will be self-nominated and will be elected annually at the Annual General Meeting.
12. The Annual General Meeting will be held before the December autotest.
13. All proposals for the next Annual General Meeting must be received by the Executive Committee, in writing, by the November Autotest.
14. Any suggestions or complaints should be made to the Executive Committee in writing.

## **MEMBERSHIP RULES**

1. All members to pay an annual subscription and provide TWO passport size photos, in advance of issue of Club card and membership enrolment. All memberships will run for 12 months from the date of enrolment and will include a spouse and children up to 18 years of age where applicable.
2. All new members are required to submit their membership application form, membership fee and two passport size photos at least 14 days prior to the event in which they wish to take part, although membership may be taken on the day subject to availability.
3. All new members will be subject to a three-month probationary period.
4. The minimum age for drivers is 16 years. Parent/Guardian/Guarantors are required to sign on at the start of the event. All young drivers under 18 years of age must attend one induction meeting. This is to enable them to show that they are competent to drive and to give them a general insight into the running of a meeting.
5. When SMC organised events are held all drivers to be members of SMC and Membership Cards **MUST** be produced.
6. Any member of the Club doing anything detrimental to the Club, including depriving the Club of any venue, will be banned from membership for life.
7. No member of the Club may take legal action against another member for anything done to him or her under Club rules.
8. Autotests to cost £20.00 per driver, inclusive of dispensation and insurance costs. All drivers must be Club members to compete and should **pre-book and pay by the last day of the preceding month**, to guarantee places.
9. All rules may be amended by the Executive Committee at committee meetings and confirmed at Annual General Meetings.

### **ANNUAL SUBSCRIPTION RATES**

#### **New Memberships**

£30.00 including  
1<sup>st</sup> Auto test  
(2<sup>nd</sup> Auto test £15)

#### **12 months full membership. (Returning members)**

£25.00

## SPORTSMANS MOTOR CLUB - 2015 FIXTURE LIST

January 11 <sup>th</sup>	Sun.	Auto-test	Grove Farm	D/P
February 1 <sup>st</sup>	Sun.	Awards Meal	The Five Bells Eastry	F/R
February 8 <sup>th</sup>	Sun.	Auto-test	Grove Farm	
March 8 <sup>th</sup>	Sun.	Auto-test	Grove Farm	
April 12 <sup>th</sup>	Sun.	Auto-test	Grove Farm	D/P
May 10 <sup>th</sup>	Sun.	Auto-test	Grove Farm	
June 14 <sup>th</sup>	Sun.	Auto-test	Preston	
July 12 <sup>th</sup>	Sun.	Auto-test	Preston	
August 9 <sup>th</sup>	Sun.	Auto-test	Preston	D/P
September 13 <sup>th</sup>	Sun.	Auto-test	Church Hougham	
October 11 <sup>th</sup>	Sun.	Auto-test	Church Hougham	
November 8 <sup>th</sup>	Sun.	Auto-test	Grove Farm	
December 7 <sup>th</sup>	Mon.	AGM	The Five Bells Eastry	TBC
December 13 <sup>th</sup>	Sun.	Auto-test	Grove Farm	D/P

(D/P) = Double points meeting    (F/R) = Fund Raising

Correct at time of printing.

All dates are subject to change, please check the website for confirmation

# SPORTSMANS MOTOR CLUB

## MONTHLY AUTOTEST SERIES 2015

### SUPPLEMENTARY REGULATIONS

1. The Sportsmans Motor Club will organise an All-Forward Grass Autotest series at Grove Farm, (Elham), Preston and Church Hougham on the 2nd Sunday of each month in 2015 (Unless otherwise stated due to weather conditions)
2. The meeting will be held under the General Regulations of the Motor Sports Association Limited (incorporating the provisions of the International Sporting Code of the FIA), these supplementary regulations and any written instructions that the organising club may issue for the event.
3. Each event will be run under Permit issued by the MSA, as follows:- Classes 1 and 2 (Autotest, Autotest Permit)  
This will be on display at the corresponding event.
4. The events are open to all fully elected members of the organising club.
5. All competitors must produce for inspection at signing-on, a valid Club Membership Card for the event.
6. The programme of the meeting for each event will be as follows:-
  - Scrutineering and drivers meeting starts at 10.30 am.
  - Any competitor not signed on by 11.00 a.m. may be excluded
  - Each event will start at 11.00 a.m.
  - The closing time of tests will be notified at each event.
7. Each event will consist of two classes as follows:

**Class 1**  
Standard production cars only.  
Front wheel drive with engines up to 1350cc with 3 valves per cylinder and 1400cc with 2 valves per cylinder.  
Rear wheel drive up to 1600cc., only the following permitted.

  - i) Standard production engines and parts.
  - ii) Two single choke or one twin choke carburetors.
  - iii) Fuel injection.
  - iv) Single camshaft.
  - v) Two or three valves per cylinder.

Under these rules, flat 4 engines (e.g. Alfasud, Subaru) are not permitted.

**Class 2**  
All cars with engine capacity greater than that allowed in Class 1 or modified ('tuned') engines and the following are permitted.

  - i) Multi choke carburetors.
  - ii) Two or more twin choke carburetors.
  - iii) Fuel injection.
  - iv) Turbocharger.
  - v) Two or more camshafts.
  - vi) Multi valves (16v of all capacities).

8. All vehicles must comply with the MSA Technical Regulations, and be fitted with road pattern tyres only.  
Any vehicle fitted with tyres which the organisers deem unsuitable will not be allowed to complete. THIS MEANS NO KNOBBLIES!
9. Awards will be presented at each event as follows:-  
First in each class, from the previous event.
10. Competitors will be identified by named time sheets.
11. The entry list opens on publication of these regulations and closes finally, for each event on the last day of the preceding month of the event. Late entries may be accepted on the day, subject to availability. All entries must be made on the official entry form and accompanied by the appropriate fee as follows:-  
Classes 1 & 2            £20.00 pre booked (with valid Driving License)
12. The Secretary of the meeting, to whom entries should be sent is  
Mr R Holton, 92 St Richards Road, Deal, Kent, CT14 9LD.  
  
If the field be deemed too wet or the field not be available, the organisers have the right to cancel the meeting or amalgamate classes as necessary. Entry fees will not be refunded if competitors fail to attend, but will roll-over to the following month if notification of withdrawal is given to the Secretary of the Meeting not less than 24 hours before the event.
13. Other officials are: Bernie Watler, John Franklin, Steven Southgate, and Mark Chapman.
14. Details of tests for each event will be issued at signing on. Each driver will have multiple runs at each test, (Quantity decided on day, weather permitting) with the total of the driver's best runs at each test to count towards results, (for example 7 run, total of best 6). Timing for all classes will be by laser timing, timed to 0.01 seconds. The starting signals will be oral Practicing will not be allowed. Starting order is defined by Club Championship position. All marshals will be judges to adjudicate on penalties (M.8).
15. Provisional results will be published as soon as possible following the end of each event.
16. Any protests must be lodged in accordance with MSA Yearbook- Judicial (C) Protests.
17. The Sportsmans Motor Club recommends that drivers wear crash helmets in cars that have roll bars fitted.

18. All other General Regulations of the MSA apply as written except the following which are modified:- (M) 13.4

For each event, a vehicle may not be entered to compete for the same award more than twice, to be driven by different drivers, but no driver may enter more than once.

The number of drivers for any one vehicle is limited to five

(M) 17.1 As the whole event takes place solely on private property, vehicles need not be licensed

(M) 17.2 Light Commercial Vehicles are accepted and will be treated as Touring Cars

(M) 27.4 Marking and Penalties will be as printed in Table M.7 except where amended as follows for all classes:-

- |     |                                                        |              |
|-----|--------------------------------------------------------|--------------|
| (c) | <i>"Not performing a test correctly, etc."</i>         | +60 seconds  |
| (d) | <i>"Striking any pylon, etc. per mistake"</i>          | +10 seconds  |
| (e) | <i>"Failing to cross or stop at any line etc."</i>     | +5 seconds   |
| (f) | <i>"Every second (&amp;fraction) to complete test"</i> | 1 & fraction |



# Specific Regulations for Autotests

*All Regulations are laid out as a guide and referral should always be made back to the "Competitors and Officials Year Book"*

## Clerk of the Course Duties

2. The duties and responsibilities of the Clerk of the Course at Autotest and AutoSOLO events includes ensuring the following:

- a) The maximum size for any timed test site is 200m by 200m. The 200m applies to the length and width of the area on which the test is conducted and not the actual distance covered by a car performing the test.
- b) At all timed tests, all spectators and non-essential Marshals not protected by a solid barrier capable of stopping a car must be separated by rope or fencing at least 10m from the edge of the course, and at least 20m from the Finish Line. Any space at the edge of the course allowed for braking and changes of direction must not impinge on the above distances.

2.1. Every test must have at least one person responsible for:

- The general running of the test
- Observing and recording penalties
- Recording the times taken
- Completing the score card with the addition of penalties.

2.2. Judges of Fact must be appointed to each test to adjudicate on excessive sound.

2.3. Warning notices as required by D.31.1 must be displayed.

2.4. Fire extinguishers (minimum 5kg total capacity in units of not less than 2kg) must be available at each test site.

2.5. The Organisers must provide a First Aid Kit.

2.6. A medium sized spill kit must be available at each test site.

## Test Layouts

3. Cars must not be allowed to travel more than 100m (between manoeuvres) without having to stop astride a penalty line and reverse or drive clear of the line, or manoeuvre in a garage or box.

3.1. Competitors must either stop a stride a penalty line or make a change of direction of at least 90° at a distance of not more than 25m before the Finish line.

3.2. The route must be made available to all Drivers before any test.

3.3. There must be no optional direction of travel, except as specified in 7.7.

3.4. Clarification of where and how a change of direction or spin turn may be made without incurring a penalty must be available on request to all Competitors before the start of any test.

## Autotests

4. Any 'garage' used in an Autotest must have a minimum length of 5m and a minimum width of 3m.

4.1. When Competitors are required to perform a 180° turn in a box, the size of the box should be sufficient to contain a circle of 14m diameter.

4.2. Markers should be not less than 1m in height, unless the Supplementary Regulations (SRs) or test instructions specify otherwise.

## All Forwards Autotests

5. In tests where the direction of travel is all forward and there are no penalty lines (other than the Start and Stop lines), Competitors must change direction at most every 50m by:

- a) Executing a turn of over 180° around a single marker, or
- b) Changing direction through a three marker line either in slalom fashion or by completing a turn of between 90° and 180°, or
- c) Changing direction through a three marker triangle whose base is at right angles to the original line of travel requiring Competitors to turn through 90° from the line of entry.

- 5.1. Whichever of the above methods is used to change direction, this will not preclude the inclusion of less severe slalom manoeuvres which produce turns of less than 90° being incorporated between the mandatory directional changes every 50m.
- 5.2. All lines, or pairs of adjacent markers, forming part of any all-forward test must be a minimum of 3m and a maximum of 4m long or apart. See Appendix 1, Drawing number 5.
- 5.3. Example of a test showing all 8-10 elements in use. Only applicable where direction of travel is all forwards.

### **Test Procedures**

7. Drivers will be considered under Starter's orders when instructed by an Official to proceed to the Start line.
- 7.1. Drivers then failing to proceed may forfeit their run or may be penalised in accordance with Table M.7(a).
- 7.2. A start will only be valid if made under the vehicle's own power.
- 7.3. When a car is required to stop astride a line, the line must be between its front and back axles and all the area of the tyres in contact with the ground must be seen to have crossed the full width of the line.
- 7.4. Similarly, if a car is required to cross a line with all four wheels, all tyre contact area must be seen to be clear of the line.
- 7.5. Timing at completion of a test must be based on the leading wheel (on the same axle) crossing the Finish line.
- 7.6. Penalties will be applied for failure to cross the line, or alternatively, if timed to a flying finish, for crossing the baulk line. In the event of Competitors performing a test incorrectly, their times must still be recorded, together with the appropriate penalties.
- 7.7. In any diagram illustrating a test, the dimensions should be approximate and for guidance only. Indications of the direction of travel of the competing cars when crossing a line, or passing between markers, must be shown unless specified otherwise (ignoring 'shunts' to avoid markers).
- 7.8. All Autotests. A maximum penalty (see Table M.7(c)) shall be applied if a competitor crosses with both leading wheels a marked test line in the wrong direction, out of the prescribed sequence or too many/few times, otherwise competitors may correct their mistakes by returning to the point where they deviated from the test diagram, unless otherwise stated in the SRs.
- 7.9. In changes of direction and spin turns, either lock can be used (unless the test diagram specifically states otherwise). It is recommended for safety reasons that Drivers are on the 'inside' during spin turns.
- 7.10. Clerks of the Course wishing to define direction of travel between markers should include any necessary marked line(s).
- 7.11. In the event of re-run caused by a timing failure, the greater number of penalties incurred in either run will be added to the time taken in assessing the performance on that test.

### **Marking**

8. Judges must be appointed to each test to adjudicate on:
- a) False starts
  - b) Crossing/failing to cross marker lines
  - c) Touching markers and not following correct route.
- 8.1. Competitors will be provided with a score card for the Organisers to record times and penalties at the completion of each test run (13).
- 8.2. Marks will be lost for time taken (if applicable) and for any infringements of the test instructions, such as striking a marker or crossing a boundary line (26-28).

### **Results**

9. To be classified as a finisher, Competitors must complete not less than half of the tests and must hand in their score card to Officials within 15 minutes of all other Competitors completing the final test.
- 9.1. Competitors will start with zero marks.
- 9.2. All Class awards must be calculated on the basis of penalty marks lost, with the Competitor incurring the least penalty points being judged the winner.
- 9.3. In the event of a tie, the Competitor who was first to have the lesser penalty from the start will be adjudged the winner, unless another method of resolving ties is stated in the SRs.
- 9.4. Performance will be assessed as in Table M.7, unless the 'Marks Lost' stated are modified by the SRs. See Appendix 1, Table M.7.

**Note: Throughout these sections an asterisk (\*) indicates a requirement for additional information to be printed in the Supplementary Regulations (SRs).**

*Text shown in Italics indicate a Regulation which may be amended in the SRs.*

### Competitors' Regulations applying to Autotests

#### Licences

10. Competitors must produce a valid Club membership card and, where required, a valid Competition Licence (A.17, A.20, Section D.4.3, D.4.5, Section H).

10.1. Competitors must declare on their entry form if they hold a valid RTA Licence.

10.2. Competitors holding a full RTA licence may use any vehicle allowed by the Technical Regulations.

### Minimum Ages and Unlicensed Drivers

#### Autotests

11. Entries may be accepted from Drivers who are 16, and over who do not have a full RTA Licence, subject to the following.

- a) The vehicle must by definition be a 'touring car'.
- b) Engine capacity must not exceed 1400cc.
- c) Forced induction is not Permitted.

#### Instructions to Competitors

13. Before the start, cars and Competitors (including any Passengers) must be checked for eligibility.

13.1. Any Competitor not reporting as instructed may be fined, penalised, excluded or forfeit their starting position.

13.2. No Passenger is allowed to be carried in any timed test except in Production Car Autotests.

13.3. Cars competing in Autotests must comply with Technical Regulations 16-18.

13.4. A car may not be entered to compete for the same award more than twice, unless Permitted by the SRs, and in all circumstances it must be driven by different Drivers.

#### Supplementary Regulations

15. The Supplementary Regulations must specify:

- a) \*Details of the tests or when these details will be
- b) \*The number of runs per Driver and how these count towards the results
- c) \*The method of identifying cars
- d) \*The method of timing and whether or not the starting signal

### Technical Regulations applying to Autotests

#### All Autotests

16. Vehicles competing in Autotests must comply with the following:

16.1. Body (including Aerodynamics)

- a) Body shape must conform to the original silhouette of the production vehicle and retain original layout of engine and transmission
- b) Bumpers can be removed and wheel arch extensions added
- c) An effective windscreen or Aero-type screen must be fitted.
- d) Any areas of window, opening or transparent material originally specified as part of the vehicle to provide Driver visibility must remain consistent with the original specified dimensions and position. No additional areas may be added. If a vehicle is equipped with any such additional areas they must be rendered opaque before the vehicle is allowed to compete.
- e) Vehicles not complying with the above will be classified as Specials.

16.2. Engine must comply with J.5.4.

16.3. Silencing must comply with silencing levels in J.5.17.

16.4. Safety: all open cars and Specials are recommended to fit safety roll-over bars to at least K.1.6.1

16.5. - see 16.1(d).

16.6. - see 16.1(e).

16.7. The following parts of Section J remain unmodified by this section: Chassis; Seating; Suspension; Brakes; Steering; Tyres; Cooling; Oil Systems; Fuel Systems; Electrical Systems; Weight/Ballast; Exhausts; Silencing.

16.7.1. All vehicles should carry a small spill kit complying with J5.20.13.

16.8. Tyres from List 1b are not permitted.

17. Miscellaneous

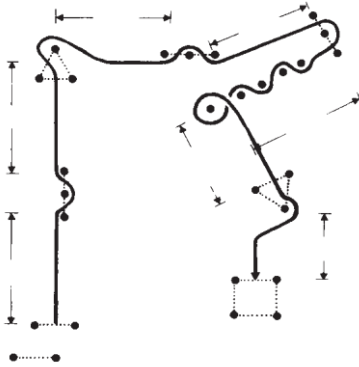
17.1. Any entered vehicle must be currently registered and taxed as a private car, unless otherwise specified in the SRs.

Whilst on the Public Highway, vehicles must comply with all Statutory Regulations as to Construction and Use.

17.2. Battery-powered and light commercial vehicles may compete in appropriate Classes, subject to SRs.

17.3. Production cars whose original wheelbase is less than that specified in J.5.20.7 are Permitted.

Drawing number 5



Drawing number 19

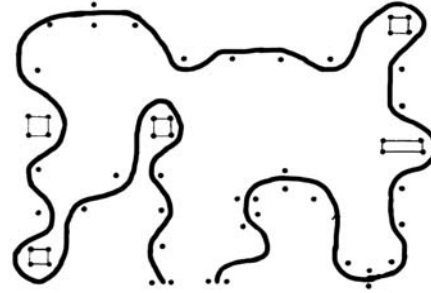


TABLE M.7	Marks
	Lost
(a) Each minute late in reporting at the start or a restart	5*
(b) Not attempting or being ready to attempt a test when instructed to do so	30*
(c) Not performing a test correctly, other than in (d) or (e) or not completing the test or making a false start	30*
(d) Striking any barrier, wall or marker or crossing the boundary of a test (per mistake)	10
(e) Failing to cross or stop at any line or specified position as required in a test (per mistake)	5
(f) Every second (and fraction) taken to complete test	1 and fraction
(g) Every second (ignoring fractions) to complete test	

\* Plus the lowest by any competitor in the class making an attempt correctly on that run. The maximum penalty (including time) for any test cannot exceed penalty (b) or (c) above.

Regulations 'b' and 'c' are modified by the Sportsmans Motor Club supplementary regulations to 60 seconds.

# Common Regulations for Competitors: Vehicles

*All Regulations are laid out as a guide and referral should always be made back to the "Competitors and Officials Year Book"*

## General

1.1. Vehicles competing in events will conform to the Technical Regulations as appropriate.

1.2. Categories of Vehicles. Where the Supplementary Regulations leave any doubt as to the category in which a particular type of vehicle falls for the purposes of the competition, the position shall be governed by the definitions set out in these Regulations.

**Note: Throughout these sections an asterisk (\*) indicates a requirement for additional information to be printed in the Supplementary Regulations (SRs).**

*Text shown in italics indicates a Regulation which may be amended in the SRs.*

## Scrutineering (G.7)

3.1. Before taking part in any competition, or practice for any competition, all vehicles must be presented to the event Scrutineers for examination and approval.

3.1.1. The fact of obtaining a Scrutineer's approval at pre-event scrutiny does not indicate that the Scrutineer is accepting any responsibility for the safety or the roadworthiness of the vehicle, nor does it indicate that the vehicle complies in all respects with the Regulations. Please note that pre-event scrutineering or logbook inspection by a scrutineer is only a spot check of a limited number of key safety and eligibility features of a vehicle's condition. Alone it will not guarantee that the vehicle meets all applicable regulations or standards.

3.1.2. Subsequent to pre-event scrutiny, any vehicle involved in an accident, or having been modified in any way, must be represented to the Scrutineers for further examination.

3.1.3. At any time during an event, the Clerk of the Course, or the Scrutineers may order that a vehicle be re-examined, even if this involves stopping a vehicle whilst practising or competing.

3.1.4. At the conclusion of a competition, a number of vehicles, as agreed by the Clerk of the Course and the Scrutineers, or as ordered by the Stewards, or as laid down in the Regulations, may be required to be presented for Post-Event Scrutiny. No work may be done on such vehicles after finishing the competition except by permission or request of the Scrutineers, until after the examination is completed and the vehicle released. It is the responsibility of the competitor to provide appropriate tools and personnel within an agreed time to carry out the work required.

3.1.5. The Post-Event Scrutiny will be mainly directed at the vehicle's eligibility and may involve parts of the vehicle being sealed for subsequent stripping and examination (C.5.4.1). This should normally be within a maximum of 30 days, although it can be extended by mutual agreement to 50 days. At the end of the season, series or championship, it should never exceed 30 days.

3.1.6. Vehicles, or components, may be sealed on the instructions of the Clerk of the Course, Stewards of the Meeting, the Technical Commissioners, or following a protest. Sealing may be by wire seals, special reactive paint, or other suitable method. Such seals must not be broken except with the written permission of the person who originally affixed the seal, or of the MSA, or by the person designated to examine the parts in question. The Technical Commissioner or Scrutineer examining the vehicle or component will report his findings to the Clerk of the Course for his action (C.3.1.1).

3.1.7. Approval of a vehicle will only be in relation to those items of the vehicle which have been examined and will only apply to the event which the vehicle has just completed.

## **Technical**

5. The following technical regulations are mandatory and apply to vehicles in all forms of competition (other than Karting). In addition vehicles must comply with the appropriate Specific Technical Regulations. Where there are several regulations concerning any particular subject it shall be taken, as a general principle, that one does not override another unless specifically stated.

## **General**

5.1. As a general principle in all Technical Regulations, it is prohibited to carry out any tuning or modification that is not specifically permitted. The fact that some modifications are mentioned as prohibited does not imply that others are allowed.

Vehicles that are not exclusively powered by an internal combustion engine are subject to the following regulations, those set out in (K) or SR's as appropriate and are also subject to additional requirements, available on application to the MSA Technical Department.

5.1.1. Competitors competing under the provisions of H12.1 are permitted to make modifications, additional to those permitted by regulation, solely for the purpose of enabling operation of vehicle control systems.

### **All vehicles must:**

#### **Chassis/Body (including aerodynamics)**

5.2.1. Be fitted with bodywork including a driver (and passenger) compartment isolated from the engine, fluid filled batteries, gearbox, hydraulic reservoirs, transmission shafts, chains, belts and gears, brakes, road wheels, suspension components including their operating linkages and attachments, petrol/fuel tanks, oil tanks, water header tanks, catch tanks and fuel system components (other than where such components comply with J5.13.1 and J5.13.2) such as to prevent there being a hazard. With the exception of cars of Periods A-E, front engine vehicles to be fitted with a bonnet covering the engine and all its' major components. Excepting for cars of Periods A-E exposed transmission shafts, gears and chains to be guarded such as to prevent their being a hazard. Where a radiator is not isolated from the driver/ passenger compartment a suitable deflector to be fitted to prevent fluid directly coming into contact with the vehicle's occupants.

5.2.2. With the exception of cars of Periods A to E, which in period specification were not equipped with a bonnet or casing of metal or solid flame resistant material covering and surrounding the main engine structure, have a protective bulkhead of non-flammable material between the engine and the driver/passenger compartment capable of preventing the passage of fluid or flame. Gaps must be sealed with suitable flame proof material that completely closes any gap at all times. Magnesium is prohibited for bulkheads.

5.2.3. Have a complete floor of adequate strength rigidly supported within the driver/passenger compartment.

5.2.4. Not have the space normally occupied by passengers encroached upon in such a way that may impede extrication of the driver from that side, but may have the passenger seats removed.

5.2.5. Deleted.

5.2.6. With the exception of racing cars or cars of periods A to D be equipped on all wheels with mudguards which present no sharp edges and cover the complete wheel (flange+rims+tyre) around an arc of 120 degrees. This minimum coverage must:

a) be achieved with a continuous surface of rigid material within which ventilation louvres may be fitted. The tyre must not be visible when viewed from above. When viewed from the rear, the tyre must not be visible above any point 50mm or more above the axle centre line.

b) extend forward ahead of the axle line. c) extend downward behind the wheel.

5.2.7. Aerodynamic devices may only be fitted to Racing and Sports Racing Cars (unless prohibited by an Approved Formula), or where specifically permitted, where FIA homologated, or where complying with National type approval. Such devices may not extend beyond the maximum width of the vehicle, above the maximum height of any roof or extend longitudinally from the bodywork by more than 100mm.

5.2.8. If originally fitted with driver/passenger doors, hatchback doors, sliding doors, opening boots or tailgates, these must be secured in the closed position during events.



5.2.9. Have effective means of ventilating closed cars.

5.2.10. Tinted glass in any window which can significantly affect through vision (in or out) or distort the colours of signal flags or lights, is prohibited.

5.2.11. With the exception of Cross Country Vehicles, Racing Trucks and Karts, in all vehicles with the driver seated normally, the soles of his/her feet, resting on the pedals in the inoperative position, shall not be situated to the fore of the vertical plane passing through the centre line of the front wheels. Not applicable to vehicles constructed prior to 1.1.99 or for those vehicle designs which have participated in an MSA Permitted Championship prior to 1.1.99.

### **Seating**

5.3.1. Have a normal adequate seat for the driver.

5.3.2. The seat must be rigidly located within the compartment and must not tilt, hinge or fold unless it is a production seat fitted with a serviceable locking mechanism preventing independent operation.

5.3.3. It must support and retain the driver within the vehicle.

5.3.4. The seat cushion (i.e. the part on which the occupant sits) when uncompressed, must not be less than 15.25cm below the top edge of the adjacent body side or door.

5.3.5. Any other seats fitted must similarly comply and all seats must face forward.

5.3.6. Cars of periods A to D are exempt from this requirement.

5.3.7. If a single seater, the maximum time for a driver to get in or out of the vehicle should not exceed 5 seconds.

### **Engines**

5.4.1. If forced induction is used, the coefficient will be 1.7:1. unless stated otherwise in Specific Technical Regulations or SRs.

5.4.2. Be equipped with a positive method of throttle closing by means of external spring/springs so that in the event of failure of any part of the throttle linkage the throttle(s) are sprung closed.

5.4.3. Vehicles fitted with electronic throttle control as standard original manufacturer's equipment for that vehicle are exempt from this requirement.

### **Suspension**

5.5.1. Be fitted with sprung suspension between the wheels and the chassis.

5.5.2. Suspension must be controlled to avoid fouling of wheels on chassis or bodywork.

5.5.3. Cars of periods A and B need not have sprung suspension, if originally built without it.

### **Brakes**

5.6.1. Be fitted with brakes that are operative and capable of stopping the vehicle as required.

5.6.2. Carbon disc brakes are prohibited unless specifically authorised by the MSA for a class or category of car.

### **Steering**

5.7.1. Have a steering wheel with a continuous rim not incorporating any reflex angles in its basic shape (except for Drag Race vehicles). 'D' shape wheels are permitted.

5.7.2. Specifically not permitted are wheels having a non-continuous rim shape similar to that shown in the Drawing 5.7.

5.7.3. Cars of periods A and B may have a tiller or alternative to a steering wheel if it formed part of the original vehicle.

5.7.4. Have steering movement controlled to avoid fouling of wheels on chassis or bodywork.

5.7.5. Rear wheel or four wheel steering is prohibited unless fitted on a Production vehicle by the manufacturer, or permitted under the Specific Technical Regulations, or SRs.

## **Wheels**

*5.8.1.* Have not less than four road wheels and tyres (excluding the spare).

*5.8.2.* Not be fitted with any wheel spacer exceeding 2.5cm in thickness or of less than hub diameter. Multiple or Laminated Spacers and extended studs are prohibited.

*5.8.3.* Have all hub nave plates and wheel embellishers removed.

## **Tyres**

*5.9.1.* Have tyres complying with Specific Technical Regulations and/or Construction and Use Regulations (if Standard Road Tyres), for the duration of the event.

*5.9.2.* Tyres, if treaded, must have not less than 1.6mm of tread remaining at the start of an event. Formula Ford 1600 1mm.

*5.9.3.* Where freedom of choice of tyres is left to the Competitor, the responsibility rests with each Competitor to ensure that the tyres to be used are of adequate rating having regard to the potential speed of their vehicle and the nature of the event.

*5.9.4.* The fitment and/or use of pressure control valves to wheels and/or tyres is not permitted.

*5.9.5.* Unless permitted under sporting regulations the use of chemical tyre softeners is not permitted.

## **Cooling**

*5.10.1.* Have any fluid carrying lines or tubes carrying coolants through the driver/passenger compartment painted red, and if non-metallic to be internally or externally metal braided hydraulic pressure hose.

*5.10.2.* Screwed hose clips (e.g. 'Jubilee Clips') may only be used in conjunction with a suitably swaged pipe.

## **Transmission**

*5.11.1.* Have the transmission outside the driver/passenger compartment, beneath the floor or secured in casings or coverings of solid material.

*5.11.2.* Be equipped with a reverse gear in normal working order unless otherwise stated in Specific Technical Regulations. Racing Cars of periods A to E are exempt from this requirement.

## **Oil Systems**

*5.12.1.* Have any oil lines passing through the driver/passenger compartment protected and, if non-metallic, to be of internally or externally metal braided hydraulic pressure hose.

## **Fuel Systems**

*5.13.1.* Have any fuel lines passing through the driver/passenger compartment protected and, if non-metallic, to be internally or externally metal braided hydraulic pressure hose or fuel lines complying with FIA specifications.

*5.13.2.* They may only be joined by screwed sealing joints or vehicle manufacturers approved joint.

*5.13.3.* If fitted with fuel fillers in a closed boot, or under closure, have collector/spill trays incorporated to drain outside the vehicle.

*5.13.4.* Use Pump Fuel (see definition Nomenclature and Definitions) except, subject to prior written authority having been given by the MSA, where permitted otherwise under event SRs, and Championship Regulations.

*5.13.5.* If using LPG, the entire system must conform with Construction and Use regulations and LPG Industry Technical Association Code of Practice No. 11.

*5.13.6.* If using non-pump fuel have a 3 inch diameter 'Day-Glo' orange disc affixed immediately adjacent to the Competition Numbers on both sides.

*5.13.7.* With the exception of cars competing in Sprint and Hill Climb road going production category, cars competing in British and MSA Titled Championships for, and all new build cars for, Rallycross, Car Racing, Special Stage Rallying, Sprints and Hill Climbs must be equipped with the facility to enable a fuel sample to be taken. For fuel injected cars the facility must be a dry break fuel sampling coupling, approved by the FIA, Competitors to carry and make available a 300mm minimum length of hose to which, where necessary, the appropriate mating part is to be attached.

*5.13.8.* Have sufficient fuel for a fuel test (D.34) present at any time during the event.



## **Electrical Systems**

*5.14.1.* Have any wet batteries in driver/passenger compartment enclosed in a securely located leak-proof container.

*5.14.2.* Have batteries duly protected to exclude leakage of acid and to protect terminals from short circuiting and producing sparks.

*5.14.3.* With the exception of racing cars be equipped with battery, generator, self-starter, side, tail, and brake lights. All this equipment to be in normal working order. Exceptionally when taking part in an event held totally off the public highway, need not comply with DfT Statutory Requirements regarding lighting or horn.

*5.14.4.* With the exception of racing cars, or cars of periods A to C, have headlights in normal working order with glasses of minimum 182.5 sq cm each unless SRs permit their removal.

*5.14.5.* Have the battery earth lead, if not readily distinguishable, identified by a yellow marking.

*5.14.6.* If required to have a self-starter, be able to demonstrate during the competition that it is capable of starting the engine.

*5.14.7.* Engines must be fitted with effective radio interference suppressors.

## **Weight/Ballast**

*5.15.1.* If subject to a minimum weight, that must be the weight of the vehicle in the condition in which it crosses the finishing line (excluding driver and passenger), or at any time during the competition and/or practice (except for certain classes or formulae which include the driver in the total weight).

*5.15.2.* Any ballast required must be attached to the shell/chassis via at least 4 mounting points using bolts with a minimum diameter of 8mm each with steel counter plates of at least 400 sq mm surface area and 3mm thickness.

*5.15.3.* Provision must be made for the fixation of seals by scrutineers if deemed necessary.

*5.15.4.* Where ballast is fitted to touring, sports, sports racing or GT cars it shall be fitted in the passenger's location.

*5.15.5.* Single seat racing cars are exempt from the above mounting requirements.

## **Exhausts**

*5.16.1.* Have the exhaust system isolated from the driver/passenger compartment (e.g. beneath the floor or secured in casings of solid material).

*5.16.2.* Have no part of the exhaust system protruding to the rear of the bodywork more than 15cm.

*5.16.3.* If Racing Car with rear aerodynamic device, not have any exhaust pipes extending rearwards beyond the aerofoil.

*5.16.4.* If Racing Car without aerodynamic device, not have exhaust pipes extending more than 60cm beyond the rear wheel axis.

*5.16.5.* If Rear Engine Single Seater Racing Car, have the exhaust outlet between 4cm and 60cm from the ground.

*5.16.6.* Have all exhaust outlets terminating behind the mid-point of the wheelbase of the vehicle and within 150mm of the outside of the bodywork periphery in plan view. Side exhausts not to protrude more than 4cm. For vehicles other than racing cars that are not fitted with enveloping bodywork any side exhaust may not extend beyond the plane through the outside of the front and rear tyres with the front wheels in the straight ahead position. Cars of periods A to E and Drag race vehicle are exempt from these requirements.

*5.16.7.* Exhaust catalytic converters must be fitted to all petrol engine production based saloon, touring and sports cars, including specialist production and kit cars, manufactured after 31/12/99. They may be specified for certain other formulae. Competitors are reminded of their obligation to maintain such equipment on a vehicle used on the highway where government legislation requires it.

## **Silencing**

*5.17.1.* The reason for Silencing (SOUND CONTROL) is to reduce environmental impact and to keep Motor Sport running. Environmental Protection legislation has increased the pressure on activities generating noise and Local Authorities have the power to suppress any noise source deemed to be causing a nuisance. Our system of control is acceptable to most Environmental Bodies and must be considered as part of eligibility to Compete in events.

*5.17.2.* All competing vehicles are subject to mandatory silencing, unless a specific waiver for that Class, or Formula is granted. Where specified as mandatory, a silencer must be used, irrespective of the exhaust sound generated without it.

*5.17.3.* Vehicles which comply with the Technical Regulations of FIA Formulae and Championships set out in the current FIA Yearbook and other FIA approved Champion-ships, Series and Cups which are participating in races for such Formulae, Championships, Series and Cups at meetings which have been entered on the FIA International Calendar are exempt from MSA sound test requirements but must comply with the sound test requirements set out in the appropriate Formulae, Championship, Series or Cup Regulations.

*5.17.4.* Silencing is not mandatory in competitions catering exclusively for the following categories of vehicle but is strongly recommended, and may be made mandatory in the SRs at the request of the Circuit/Venue owners:

- a) All cars of periods A to D. (This does not include events any part of which takes place on the Public Highway where national laws will apply.)
- b) Formula 1 and other single seater racing cars of periods E and F.
- c) Drag race vehicles.

*5.17.5.* For British Formula Three, British GT and British Touring Car Championships the sound test shall be conducted as set out within these regulations with the engine running at 3/4 maximum speed, the sound level meter at a height of 0.5 metres above the ground ( $\pm$  0.1 metre) located at 45° to and 0.5 metres distant from the exhaust with a maximum permitted sound level of 118dB(a).

*5.17.6.* Special regulations apply to High Speed Oval formulae and are only applicable when racing on high speed oval circuits.

*5.17.7.* Temporary Silencers, by-pass pipes or the inclusion of temporary parts to achieve silencing requirements are prohibited. Officials may refuse to carry out Sound Checks on vehicles utilising temporary parts in exhaust systems. Organisers are empowered to exclude in such situations.

*5.17.8.* Circuit/venue owners/organisers may impose additional restrictions in SRs. **Sound Test Requirements** (Chart 5.18)

*5.18.1.* Measurements will be made at 0.5m from the end of the exhaust pipe with the microphone at an angle of 45° with the exhaust outlet and at a height of 0.5 to 1.0m above the ground.

*5.18.2.* Where more than one exhaust outlet is present, the test will be repeated for each exhaust and the highest reading will be used. In circumstances where the exhaust outlet is not immediately accessible, the test may be conducted at 2.0m from the centre line of the vehicle at 90° to the centre line of the vehicle, with the microphone 1.2m above the ground.

*5.18.3.* Measurements should be made outdoors with no large reflecting objects (e.g. walls etc.) within 3.0m (in the 0.5m test) or within 10.0m (in the 2.0m test).

*5.18.4.* Background sound levels should be at least 10dB(A) below the measured level.

*5.18.5.* Where possible measurements should be taken as close as possible to the vehicle, at the defined distances, to avoid background noise.

*5.18.6.* Cars of periods A to D falling within Sections C and D should run engines at two thirds maximum RPM.

*5.18.7.* The 2.0m test can be made from either side of the car.

*5.18.8.* The highest reading registered being the one needing to comply with the maximum noise requirements.

*5.18.9.* Sound testing should be carried out BEFORE taking part in any competition.

*5.18.10.* The time and location of sound testing should be advised to competitors prior to the event.

*5.18.11.* It is stressed that all participants in motor sport, competitors, officials, marshals, etc., should be aware of, and protect themselves from, noise.

## **Safety**

*5.19.1.* All vehicles must comply with Safety Regulations as itemised under their Specific Technical Regulations and as detailed under the section headed Safety Criteria (Section K).

*5.19.2.* The vehicle occupant(s), seated in their normal position, wearing normal equipment, with seat belts fastened and the steering wheel in place, must be able to evacuate the cockpit in a maximum of 7 seconds.

## **Miscellaneous**

*5.20.1.* Be of sound construction and mechanical condition and be well maintained.

*5.20.2.* Have positive fastenings for all doors and all hinged or detachable parts of the bodywork.

*5.20.3.* Have no temporary parts incorporated in their construction.

*5.20.4.* Not necessarily be equipped with seat belts, speedometer, spare wheel or bumpers if the event is held on private property unless specified to the contrary by SRs. Any exposed sharp ends of bumpers etc., must be protected.

*5.20.5.* Be prohibited from carrying cameras/videos unless authorised by the Chief Scrutineer and Event Organiser.

*5.20.6.* Not be a vehicle of commercial type, such as a van/pick-up which was initially intended solely for commercial or goods carrying, unless permitted by SRs.

*5.20.7.* Have a minimum distance of 183cm between the centre lines of the foremost front and rearmost rear substantial load-carrying wheels, unless complying with an Approved Formula, or being a standard production car.

*5.20.8.* Except for racing cars, be fitted with a windscreen. If plastic windscreen, side screens or rear windows are fitted the thickness must not be less than 4mm.

*5.20.9.* Sports cars supplied as standard with plastic side screens may retain them in their original thickness.

*5.20.10.* Not have skirts, bridging devices or any form of aerodynamic device between the chassis and the ground/track. Any specific part of the car influencing its aerodynamic performance must:

- a) comply with rules relating to coachwork.
- b) be rigidly secured to the entirely sprung part of the vehicle.
- c) remain immobile in relation to the vehicle.

*5.20.11.* Under no circumstance can any part of the bodywork, or of the suspended part of the car, be below a horizontal plane passing 4cm above the ground, the car being in normal racing trim with the driver aboard. A gauge of 4cm may be used by Scrutineers before or after races or practice to check the ground clearance.

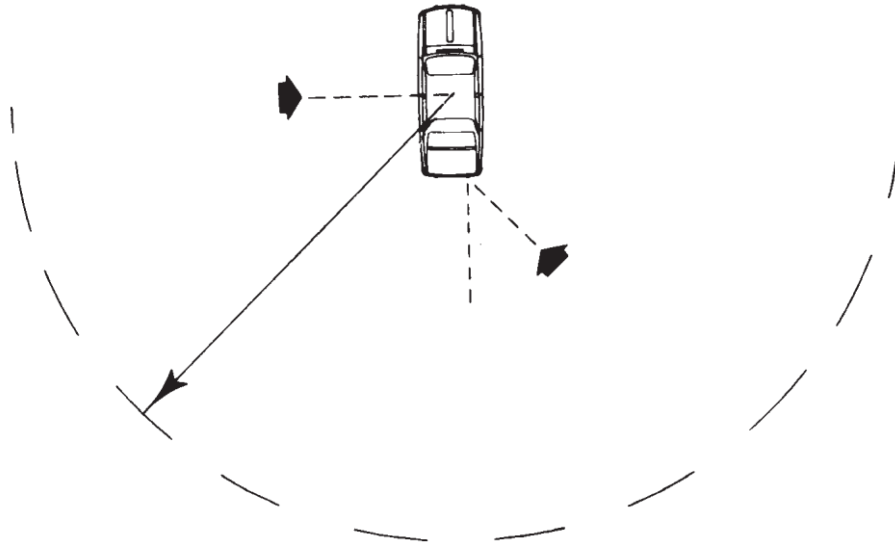
*5.20.12.* Not carry or pass any liquids in or through any tubes comprising part of the chassis structure, or safety roll-over bar.

*5.20.13.* It is strongly recommended for all competitors participating in single venue competitions to have available at their paddock base, and for multi venue competitions to carry within their vehicle a self contained spill kit capable of effectively absorbing minor spillages of up to 1.25 litres of all vehicle fluids - oils, fuels, coolants, battery acid. Used spill kits are to be disposed of in accordance with local or National guidelines.

### Chart 5.18: Maximum Noise Limits

The following table gives alternative distance readings. (Noise measured in dB(A).)

	0.5m	2.0m	
Section 'A'	105	93	CAR RACE (SALOON AND SPORTS CARS) MAXIMUM AT ¾ MAXIMUM RPM
Section 'B'	108	96	CAR RACE (SINGLE SEATER AND SPORTS RACING CARS) MAXIMUM AT ¾ MAXIMUM RPM
Section 'C'	100	88	STAGE RALLY, AUTOTEST, TRIALS, MAXIMUM AT 4,500 RPM
Section 'D'	98	86	ROAD RALLY MAXIMUM AT ¾ MAXIMUM RPM
Section 'E'	100	88	CCV MAXIMUM AT ¾ MAXIMUM RPM
Section 'F'	108	96	AUTOCROSS AND RALLYCROSS MAXIMUM AT ¾ MAXIMUM RPM
Section 'G'			HILLCLIMB AND SPRINT MAXIMUM AT ¾ MAXIMUM RPM –
	110	98	RACING AND SPORTS LIBRE CARS AND CARS COMPLYING WITH S.12 AND S.13
	108	96	ALL OTHER CATEGORIES



Drawing 5.7: Steering

