

# Historic 750 Formula Series

## Sporting & Technical Regulations 2022

PUBLISHED VERSION Page 1 of 6 - Issued 24/01/2022

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### 1.1: TITLE & JURISDICTION:

The **Historic 750 Formula** Series is organised and administered by the 750 Motor Club Ltd 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 Series Regulations.

1. **MSA Series Permit No: RS2022/**
2. **MSA Series Grade: n/a**
3. **Race Status: Inter-Club / National.**

### 1.2: OFFICIALS:

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

01332 814548; [giles@750mc.co.uk](mailto:giles@750mc.co.uk)

2. **Eligibility Scrutineer:** R.Blackmore

3. **Series Stewards:**

R.Knight

T. Gregory

I.Sowman

### 1.3: COMPETITOR ELIGIBILITY:

1 Entrants must:

(a) be fully paid up valid membership card holding members of the 750 Motor Club and

(b) be Registered for the Series and

(c) be in possession of a valid MSA Entrants Licences.

2 Drivers and Entrant/Drivers must:

(a) Be current Members of the 750 Motor Club and

(b) be Registered for the Series and

(c) be in possession of valid Competition (Racing) Inter Club as a minimum

(d) Or be in possession of the highest grade of national Race licence or valid FIA International Licence, together with their ASN's written consent ((H)26.2. and FIA ISC Article 2.3.7.b applies) (e)

If participation in the Series 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 Series. A driver shall not take time out of their education to participate in motor sport without the prior written approval of their education establishment.

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 Series 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 **£90** payable upon registration.

3. Registration numbers will be the permanent Competition number for the Series.

### 1.5: SERIES ROUNDS:

The **Historic 750 Formula Series** will be contested over the following rounds:

Date	Circuit	Round/s
14th May	Oulton Pk.	1 & 2*
18th-19th June	Pembrey	3 & 4
30th July	Snetterton 300	5 & 6
21st August	Silverstone Intnl.	7 & 8*
18th September	Cadwell Pk.	9 & 10
October 16th	Mallory Pk.	11 & 12

\* The two rounds indicated above are proposed to be handicap format races.

### 1.6: SCORING:

**Being a non-championship series of races, no points are awarded.**

### 1.7: AWARDS:

1. All awards are to be provided by the Organising Club unless agreed otherwise.

2. Per Round: Trophies to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> in each class.

3. Presentations: Garlands for the overall winners and Trophies are to be provided for presentation at the end of each race.

4. Entertainment Tax Liability. Not applicable.

5. Title to all Trophies: In the event of any Provisional Results 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: SERIES 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 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

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

**13. ONBOARD CAMERAS:** On board cameras are recommended but not mandatory.

### Handicap Race Events

A handicap cap race event may be entered as a standalone race. Cars that enter the Handicap race as a standalone event will take part in a practice session shared with H750F cars entering the scratch race.

**For the Handicap event only, cars not complying to full H750F series regulations may be considered at the discretion of the series coordinator.**

In accordance with Section C of the current MSA Yearbook

### 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 SERIES 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 Series Organisers will monitor all Officials/Observers reports of adverse behaviour at race meetings. If any individual is included on two such reports during one racing season the Series 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 Series Sporting Regulations at any stage of a Series 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 Series 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. Series Stewards are also empowered to consider any request from the Series co-ordinator to penalize any Competitor for any breach of Series 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.)

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

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

## 5. GENERAL TECHNICAL REGULATIONS

### 5.1 INTRODUCTION:

The following technical regulations are set out in accordance with the MSA specified format and it should be clearly understood that if the following texts do not clearly specify that you can do it, 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.

**Anyone considering constructing a new car for this formula should contact the Series Co-ordinator to ensure that the concept complies with these regulations.**

Cars already registered with, and competing in the **Historic 750 Formula Series** will be allowed to compete as long as they conform to the regulations. Newly constructed cars must be built to period specification and appearance of the **750 Formula championship**. The onus is on the constructor/driver/builder to prove their car is of period design and appearance.

All newly built cars must use technology and materials which were readily available in club motorsport between 1922 and 1974, relevant to the era of the car being copied.

**For the 2022 season ALL cars will be required to have an approved 750MC Vehicle Identity Form prior to competition. Race entries will not be accepted for vehicles without an approved Vehicle Identity Form.**

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The Series Representative reserves the right to refuse entry to any car which it considers an attempt to defeat the spirit of the regulations, even though it complies to the letter of them.

### 5.2 GENERAL DESCRIPTION:

The **Historic 750 Formula Series** is for cars based on the side-valve Austin 7 and other cars of similar performance. There are four classes as follows:-

#### **Class A: Non-Super-Charged Austin Sevens and Austin Seven Specials of all types.**

The traditional look and feel of the cars must be maintained. Cars built to the 750 Formula which have a history of competing in 750 Formula races prior to 1966. Cars shall comply with the regulations which were in force when they were constructed or last raced in a 750 Formula race, except that mudguards, electrical equipment and lamps are not required. Pre 1939 sports or racing cars of similar performance under 1100cc.

#### **Class AS: Super-charged Austin Sevens and Austin 7 Specials** As above, with the addition of an eligible supercharger unit.

#### **Class C: Pre-1974 Formula Cars and other Historic Sports or Racing cars under 1500cc**

Non-Austin Seven engined cars such as 1172 cc side-valve Ford engined cars, Reliant engined pre-1974 750 Formula cars, historic sports or racing cars under 1500cc which are of similar performance. Class AS cars which do not confirm to the fuel requirements under section 8.2 (3).

#### **Class D: Historic 500cc racing cars**

Historic 500cc racing cars which conform to the Eligibility and Originality Regulations of the 500 Owners' Association for the current year.

### 5.3 SAFETY REQUIREMENTS:

All newly built (as against restored) cars must comply with the relevant paragraphs of the MSA Safety Regulations in the current Yearbook, section K 1.6.2, 1.6.4 – 1.6.6; Appendix 1 Table 3, 3.1.1; 5.1, 5.2, 6; 8 – 13. Regard should also be paid to recommendations in section 14.1 – 14.3.

All cars regardless of class, must comply with the relevant paragraphs of the MSA Safety Regulations in the current Yearbook, section K Appendix 1 Table 3, 3.1.1; 5.1, 5.2, 6.; 8 – 13.

Class C cars must also comply with section K 1 – 13. Seat belts, if fitted, must be FIA homologated.

Towing eyes must have a minimum internal diameter of 60mm; as an alternative a looped strap of suitable material may be bolted to the chassis. This does not apply to single-seater cars.

### 5.4 General Technical Requirements and Exceptions:

1. All cars must comply with the requirements of sections J and Q19 of the current MSA Yearbook.
2. All vehicles must be of sound construction and mechanical condition and be well maintained.
3. In all classes, modern type superchargers or turbo chargers are not acceptable.
4. Fuel injection is not allowed.
5. 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 Electrics

- 1: Exterior lighting: Not applicable.
2. Rear Warning Light: An LED rear fog light to EU regulation 7, an FIA homologated LED rear warning light, or an LED stop light to EU regulation 38 is mandatory, and must be mounted within 10cms of the centreline of the vehicle. The warning light must be switched on when required by the Clerk of the Course.
3. Batteries: 6 or 12 volt types allowed. Starter motors: an electrically powered starter motor may be used and is recommended but not mandatory. Lithium batteries are not permitted

4. Gauges: Gauges must only have a needle indicator. Digital and LED displays are not permitted. Gauges with coloured backlighting are not permitted.

5. Generators: not required.

6. Lap timers and data loggers are permitted. However, in order to maintain a historic feel to the race car:

- Data loggers ~~and Electronic Water Pump Controllers~~ must be obscured from sight (including with the engine cover removed.)
- Lap timers must not have a permanent fixing to the race car

The eligibility scrutineer will request the removal of none period items (unless falling under one of the exemptions listed)

### Amendments to 2022 regulations (ALL classes)

**7.** Electronic rev limiters are prohibited.

**8.** Gear shift lights are prohibited

**9.** Electronic devices giving driver information are prohibited with the exception of engine conditions; water temperature, oil temperature/pressure, engine speed, battery voltage etc. All gauges and warning lamps must be period in appearance.

**10.** Digital cameras are allowed and may have data logging facilities only to be reviewed post-race, they may not give the driver LIVE information

**11.** Integrated Data loggers are permitted with separate camera inputs, external GPS antenna and one ignition connection. All other sensors will be prohibited. Only recording of engine rpm, speed, location, and lap times will be permitted for analysis post-race only. Devices and ancillaries must be discreetly mounted to retain the historic look and feel of the vehicle. The device must not provide a read out to the driver, or be able to influence the car or driver on track.

**12.** Electronic water pump controllers are prohibited.

**13.** Only **BLACK** water hoses are permitted; other colours are prohibited.

**14.** The use of LEDs will be prohibited, including the use of LEDs in switches (LED rain lights continue to be permitted)

### 5.6 Fuel tank/fuel:

A non-return valve must be incorporated in the vent system.

**1.** There must be a fire-proof bulkhead between the fuel tank and the cockpit.

**2.** Fuel lines passing through the cockpit must be rigid metal or metal braided flexible construction.

**3. Fuel:** Only petrol 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. **Class A & AS cars (ONLY) may use petrol in compliance with FIA Appendix J Art 252, Article 9. Class A & AS cars may use lead and lead replacement additive.** Class AS cars may run on methanol fuel but will compete with Class C. At the end of practice and the race at least 3 litres of petrol 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 petrol is removed.

### 5.7 Silencing:

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

### 5.8 Numbers and Series Decals

Race numbers must be displayed on each side of the vehicle (front doors, alongside the cockpit or on rear wing end plates) and as far forward on the front of the vehicle as possible. 750 Motor Club decals must be affixed prominently near all number backgrounds. For series with classes, class letters must be affixed near the number backgrounds. Series Sponsor's decals (where applicable) must be affixed in or near the positions detailed on the diagram supplied with those decals. 750 Motor Club and Series Sponsor's decals must take preference to any other decals. Failure to comply will render the vehicle and driver ineligible to race. A maximum of 5 decals (in

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addition to Series sponsor, 750 Motor Club, car name and driver's name decals) of up to 355 sq. cms. may be repeated on opposite sides and ends of the car. These decals may not be related to form a larger name or an image.

### 5.9 Prohibited Materials:

Magnesium alloy, titanium, Kevlar and carbon fibre are prohibited. Carbon fibre effect materials are also prohibited. **Honeycomb materials are prohibited from 2022.** Glass fibre plastic (GRP) laminate body parts may be used.

## Class A & AS TECHNICAL REGULATIONS

### 6.1 Chassis:

**Class A & AS:** Except pre-1966 750 Formula, cars must be a Pre War Austin Seven 'A' frame chassis. Both Short & Long wheelbase types are acceptable. Chassis may be lightened or strengthened and may have additional frame members added. Other pre 1939 chassis of similar performance.

### 6.2 Bodywork:

- General:** Bodywork to be constructed in a safe and workmanlike manner and presented in a clean and tidy condition. There is no requirement for mudguards on non single-seater cars except to prevent contact between the driver's arm/s and the tread of any tyre, whilst normally seated in the driving seat. Classes A must have a windscreen or aeroscreen fitted in a normally erect position.
- Class A & AS:** Bodywork, which may be original or new, is to be based on the styles produced by the Austin Motor company for both production and works competition cars and contemporary pre-1939 Austin 7 based cars with bodies produced by other manufactures or individuals prior to 1966. This covers single seater, two seat and four seat types. Fibreglass replica body parts are acceptable. Other pre 1939 types.
- Ground clearance:** As per MSA Regulations J5.20.11.
- Aerodynamic devices:** Wings or ground effect devices are not allowed.

### 6.3 ENGINES:

**Class A & AS:** The engine must be based on the pre-1939 Austin Seven 747 cc. side valve design. The crankcase and cylinder block must be of the Austin design and manufacture or identical pattern part. Two and three bearing Austin crankcases are acceptable. Crankshafts, con rods and pistons are free but must not use any prohibited material. The engine must have a stroke of 3 inches and a bore of not exceeding 2.285". Non Austin oil pumps and water pumps may be fitted. Overhead valve conversions are banned except for the vintage LAP OHV conversion. Pre 1939 type superchargers only are allowed (vane or early Rootes type) and will race in Class AS. Turbochargers are not allowed. Single or multiple 'period type' carburettors are allowed. Modern type carburettors not allowed. Fuel injection is not allowed. De-Siaming of the inlet ports is not allowed. Ignition advance may only be controlled by mechanical means. electronic ignition is allowed but must not change or be capable of changing the spark advance. Wasted spark ignition systems are prohibited. Camshaft free - Austin gear drive to be retained. Reliant 750 SV engines may run in Class A or AS at the discretion of the series coordinator. All other aspects of the car must be Austin 7 based and period pre-1939. Other pre 1939 engines under 1100cc of similar performance will also be considered at the discretion of the series coordinator.

### 6.4 Suspensions:

**Class A & AS:** The rear axle is to be an Austin Seven with torque tube. The axle is to be fixed to quarter elliptic springs attached to the rear ends of the 'A' frame. The front axle may be an Austin Seven rigid beam or lowered sports type Austin Seven beam type suspended on a transverse leaf spring, a split front axle or Bowdenex and Speedex front suspensions are allowed. Front and rear shock absorbers are to be of pre-1966 design. The wheelbase may be 6'3" or 6'9". The front track is free.

### 6.5 Transmissions:

Gearbox Class A & AS: Pre 1939 Austin 7 types with three or four forward gears plus mandatory reverse. Replacement close ratio gears may be fitted. Other pre 1939 gearboxes of similar performance.

### 6.6 Electrics:

- Exterior lighting: Not applicable.
- Rear Warning Light: An LED rear fog light to EU regulation 7, an FIA homologated LED rear warning light, or an LED stop light to EU regulation 38 is mandatory, and must be mounted within 10cms of the centreline of the vehicle. The warning light must be switched on when required by the Clerk of the Course.
- Batteries: 6 or 12 volt types allowed. Starter motors: an electrically powered starter motor may be used and is recommended but not mandatory.
- Generators: not required.

**See section 5.5 for guidance applicable to all car classes and note changes for 2022.**

### 6.7 Brakes

- The brakes are to be drum type either mechanical or hydraulic operation. Early Austin pressed steel drums are not recommended.

### 6.8 Wheels/steering:

#### 1. Wheels

**Class A & AS:** Spoke type Austin 7 wheels must be of minimum rim diameter 14"; maximum width 5". Speedex pattern wheels are allowed on Speedex cars. Wheels must be secured with use of with large, plain, heavy washers and steel locknuts MUST be used. Original type Austin 7 brass wheel nuts are prohibited. Other wheels of pre 1939 type.

#### 2. Steering

**Class A & AS:** An Austin Seven period steering wheel must be used. An Austin Seven steering box or reproduction copy must be used. Other pre 1939 steering boxes are permitted.

### 6.9 Tyres:

**Class A & AS:** Any tyre, with a profile higher than 70, in the current year's MSA Blue Book List 1A or List 1B may be used and must be to MOT requirements in every respect.

**In addition, the tyre's tread and overall appearance must be in keeping with the series. Radial road tyres may be used but must not be racing or track-day type. racing tyres must be type cross-ply with a maximum width of 500 maybe used.**

Also permitted are

- Dunlop L section or R5 tyres.
- 450 x 15 Dunlop
- 500 x 15 Dunlop
- 145/R x 14 Camac Road radials
- 145/80 x 14 Bridgestone radials
- Firestone F560 tyres
- Vredestein Sprint Classic 155 / 15 / 82s
- Dunlop Sport Classic 155/80 R15

No alteration to the tyre from the manufacturer's specification is permitted. Re-cutting, re-grooving or in any other way modifying the tread pattern is not permitted. All the manufacturer's data must be clearly visible. Buffing of sidewalls to remove data is prohibited. The use of tyre heating/heat retention devices, tyre treatments are prohibited. Other tyres used by pre-1939 cars.

### 6.11 Vehicle Weight:

Free

### 6.12 Additional Eligibility for Class A & AS.

- Pre-1966 750 Formula cars must comply with the regulations in force when the car was raced before 1966. No further development is permitted. Pre 1939 sports or racing cars of similar performance.

## 7. CLASS C TECHNICAL REGULATIONS

### 7.1 General

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### **All cars must be constructed materials and technology which were readily available in club motorsport pre-1974.**

Electronic water pumps and electronic ignition (section 7.4.6) are permitted.

Radiators, lubricants, spark plugs, gaskets and HT leads do not need to comply with the pre-1974 regulation.

Cars must maintain an historic appearance.

### **7.2 Chassis**

**Class C pre '74 750 Formula cars:** The chassis is to have as the main longitudinals, either the side members of a pre-1939 Austin Seven, (the top hat sections may be de-brimmed and boxed by welding plates to the underside) or, alternatively, 2"x 2"x 16 swg square section steel tubes of at least 52" length. To either type a tubular space frame superstructure may be added. If the chassis is of any other type and does not comply with this regulation then ballast of 6.7 kg may be added to that car.

### **7.3 Bodywork:**

**1. General:** Bodywork, for all classes of car, to be constructed in a safe and workmanlike manner and presented in a clean and tidy condition. There is no **current** requirement for mudguards on non single-seater cars except to prevent contact between the driver's arm/s and the tread of any tyre, whilst normally seated in the driving seat. **This remains under review for the 2023 season.**

**2. Class C pre '74 750 Formula cars:** As MSA Vehicle Regulation with the following additional requirements. There shall be only one cockpit space for both driver and passenger, the opening of which shall be large enough to accept a horizontal quadrilateral frame with hinged joints and one side 32" long, two opposite sides 18" and the fourth side 25". In checking the cockpit opening any obstruction caused by roll bar supports or fire extinguisher may be ignored. If the bodywork does not comply with the above regulation then the car may be ballasted to compensate. The bodywork should be period for pre 1974 in all cases.

**3. Passenger space requirement:** newly constructed cars, built after 01.01.2021 will be required to comply with the following; Passenger space measured at floor level, must be at least 11 inches wide at the rear of the cockpit and at least 28 inches in length to the front of the foot well, which must be at least 6 inches wide, the passenger space must remain clear of any obstruction other than a fire extinguisher. 'Dummy floors' and floors constructed significantly higher in the passenger space (in comparison to the driver space) will be disregarded for the purpose of taking this measurement.

Any existing cars which do not meet the minimum size requirements, may apply to the Series Coordinator to request an exemption. Photographic evidence of the passenger space measurement must be provided.

Any cover over the passenger space and/or forming an extension to the windscreen alongside the driver must be constructed only of supply and flexible fabric, and must be easily removable.

**4. Ground clearance:** As per MSA Regulations J5.20.11.

**5. Aerodynamic devices:** Wings or ground effect devices are not allowed.

### **7.4 ENGINES:**

#### **1. Class C pre '74 750 Formula cars:**

The engine may be:

- (a) Reliant OHV 642cc
- (b) Reliant 747cc sidevalve
- (c) 747cc sidevalve Austin 7
- (d) Reliant OHV 748/850cc
- (e) Coventry Climax 750cc.

**2. General:** There must be no more than two valves per cylinder, and the valves must remain parallel to each other. Fuel injection and external slide throttles are prohibited. Exhaust manifolds are free. Oil system free, either wet or dry sump. Inlet manifold can be of free design, exception engine (e) see section 7.4 (5).

**3. Forced Induction:** Forced Induction i.e. supercharging is only permitted on engines (b) and (c) above, i.e. the sidevalve engines.

**4. Porting / Compression:** Cylinder head porting is permitted on all engines. Compression ratio may be increased on all engines.

**5. Carburetion:** Carburetion shall be by only one carburettor choke. Exception for engine (e) where Carburetion shall be either by:- only one carburettor choke on a free inlet manifold, or two 1¼" SU carburettors on a modified standard inlet manifold. Only carburettors produced pre 1974 by Weber, Dellorto, SU, Solex and Zenith are permitted

**6. Ignition:** On any engine ignition advance may only be controlled by mechanical means. Electronic ignition is allowed but must not change or be capable of changing the spark advance. Only ignition systems that use only one trigger, inside the distributor or external, to initiate the low-tension current will be permitted. Any system that requires more than one sensor or input to provide another signal/voltage for any electronic/microprocessor control system will not be permitted. Wasted spark ignition systems are prohibited.

### **7. Engines**

#### **(a) Reliant OHV 642cc.**

If the Reliant OHV 642cc engine is used, it must have a standard cylinder head casting and standard cylinder block/crankcase. The standard stroke of 2.4 inches must not be altered, nor must the bore exceed 2.28 inches giving a capacity of 642cc. The camshaft is free provided that it remains in the manufacturer's original position and is the sole means of operating the valves.

#### **(b) (c) Reliant 747 sidevalve & Austin 747 sidevalve**

The capacity of either of the sidevalve units must not exceed 803cc. The camshaft is free provided that it remains in the manufacturer's original position and is the sole means of operating the valves. The capacity of either sidevalve unit must not exceed 803cc, OHV or OHC conversions are not allowed.

#### **(d) Reliant 748 OHV / 850cc**

If the Reliant OHV 748 or 850cc engine is used, all parts must be standard Reliant; the cylinder head may be from any OHV Reliant; flywheel can be lightened and compression ratio may be increased. Camshaft: On the 850cc the camshaft is a control camshaft and must be obtained from the series coordinator. On the 748cc the camshaft is free. Camshaft timing is free; cylinder block, liners and pistons to be standard Reliant. On the 850cc unit rockers and rocker posts must be standard Reliant, and must remain in the original location and of the original dimensions. Rockers can be lightened/balanced by only removal of material from the non-functional faces. No addition of material is allowed. Rocker ratio must be maintained to the original dimensions to give a **maximum permissible valve lift of 0.345"**, irrespective of valve clearance. Spacers may be used in place of Reliant rocker springs. Rockershafts are FREE, but must remain in the standard location and of standard diameter. Off-setting of rockers, rocker posts or rocker shafts is not permitted.

#### **(e) Coventry Climax 750cc**

All parts must be standard and unmodified, with the exception of the flywheel which is free. Exceptions allow for porting of the cylinder head. Valves of maximum size 28mm. **The size of the piston cut-outs may be increased to clear the valve. Valve springs, valve shims and camshaft free. Oil system free, either wet or dry sump. The water inlet on the side block may be enlarged. The crankshaft pulley may be replaced or modified. The Head gasket is free.**

**NOTE: The camshaft will remain free in 2022 season. In 2023 a control camshaft may be specified, please contact the series coordinator for more information.**

### **Other Engines Under 1500cc:**

Engines not complying with the above will be allowed at the discretion of the series coordinator but must be of similar performance. If an engine not listed above is found to have excessive power it may be restricted or disallowed from entering future events. Restriction will be achieved with a plate mounted between the carburettor and inlet manifold with an aperture to allow gas flow. On any engine ignition advance may only be controlled by mechanical means. Electronic ignition is allowed but must not change or be capable of changing the spark advance.

### **7.5 Transmissions**

Gearbox Class C pre '74 750 Formula cars: Pre 1939 Austin 7 type, Reliant side valve or Standard Reliant type with no more than four

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forward gears and reverse. Replacement close ratio gears may be fitted.

Other gearboxes of pre 1974 design and manufacture, of similar performance.

### 7.6 Brakes

A dual separate braking system is required, whether mechanical, hydraulic or combined. FRONT disc brakes are allowed if they are of pre 1974 design. Calliper and disc must be iron and only solid discs are allowed, drilled or grooved discs are not permitted.

Rear brakes must be DRUMS. Aluminium "Minifin" type drums are permitted.

### 7.7 Wheels

Wheels must be period of pre 1974 design and must not be constructed from any of the prohibited materials in 8.5.

### 7.8 Steering

**Class C:** All parts of the steering must be period for pre 1974

### 7.9 Tyres

**Class C:** Dunlop racing tyres. CR65, CR48 or R5 tread pattern. 204 compound. Max width 525. L section can run maximum width 550, diameter free.

### 7.10 Suspension

Shock absorbers may have steel or alloy bodies. Only shock absorbers with a single adjustment for bump & rebound will be permitted.

### 7.11 Minimum weight

FREE.

## 9.0 ADDITIONAL ELIGIBILITY APPENDICES FOR CLASS C

### 1. Eligibility regulation for 1172 Ford SV engine cars for

#### Class C:

**A) Chassis:** Free. Engine to be in front position, ahead of driver.

**B) Bodywork:** Two seat sports or saloon types to be constructed in a safe and workmanlike manner and be presented in a clean and tidy condition. The internal width of the cockpit must be at least 32" wide x 28".

**C) Engine:** The power unit is to be based on side valve Ford 993cc or 1172cc engine casting (Ford 8, 10 or 100E types) of any type. Modifications must not include forced induction (supercharging, turbocharging), conversion to OHV, reversal in function of the inlet and exhaust ports or the dividing of the siamesed inlet ports. Ford crankshaft to be used. Con rods are free. The standard stroke of 92.55mm must not be exceeded and the bore must not be greater than the Ford '10' 63.5mm plus 0.060" rebore allowance. Standard bore centres must be retained. Carburettors: two single or one twin choke are permitted. IGNITION: ignition advance may only be controlled by mechanical means. electronic ignition is allowed but must not change or be capable of changing the spark advance.

**D) Suspension:** Solid axles front and rear, or IFS with solid rear axle. Springs and dampers must be period for pre 1974.

**E) Transmission:** Three or four speed conventional car gearboxes with mandatory reverse.

**F) Electrics:** as per 5.5, 7.4.6

**G) Brakes:** Solid discs up to 9" diameter, with a cast iron 2-pot calliper from a series production car may be fitted only if disc brakes were fitted in period on the front wheels; discs may not be cross-drilled or grooved. Rear brakes are to be drums. Application may be made to the Series Coordinator for cars not complying with those restrictions and a waiver will be considered.

**H) Wheels/Steering:** Must be period for pre-1974

**I) Tyres:** Dunlop racing tyres. CR65, CR48 or R5 tread pattern. 204 compound. Max width 525. L section can run maximum width 550. Diameter free.

**J) Vehicle weight:** Minimum weight 8cwt with no allowance for topping up of fluids.

**K) Fuel tank/fuel:** as per 5.15.1; 5.15.2; 5.15.3.

### 2. Eligibility of other Vintage, PVT, Historic and Pre 1974 Classic cars up to 1500cc, including 750 Formula up to

### December 1973. (Eligibility of newly constructed cars is described in 5.1).

Historic and Classic cars must be of similar performance and conforming to the regulations of their historic formula in all respects. No development is allowed or changes to engines, wheels, tyres, chassis etc., from the historic regulations pertaining to that formula. Dunlop racing tyres. CR65, CR48 or R5 tread pattern. 204 compound. Max width 525. L section can run max width 550. Diameter free. All of these cars are only accepted at the discretion of the Series Coordinator and Eligibility Scrutineer.

### Eligibility regulations for Historic 500 cc cars for Class D:

**a)** Cars must have been originally built before 31<sup>st</sup> December 1961 and must comply with the original specification, the guidelines for which are given below. (Based on the 500 Owners' Association regulations for such cars)

**b)** Chassis, frame and suspension: This should be basically original and not have been subject to any major alterations. Chassis that are severely damaged and require rebuilding will be subject to inspection and proven history of the vehicle will be required.

**c)** Wheels: Replacement wheels of the same diameter as original and up to 1" wider may be used.

**d)** Tyres: As from 1<sup>st</sup> January 1982 the 13" wheels and tyres have been required to comply with a minimum rolling diameter and maximum profile width formulated to prevent the use of compounds which are not available to the users of 15" wheels. The tyres which are allowed are:-

#### A. Road Tyres

**(i).** Radial ply tyres which are of the types listed and approved in the MSA 'Year Book' marked 125, 135, 145, 155, 165 x 15.

They may be of HR or SR speed rating. They must not be marked with anything but the width size and the wheel size e.g. 145 SR 15. Therefore '70', '65' and '60' profile tyres are not eligible.

**(ii).** Crossply tyres marked 560, 590, 600 and 640 x 15.

#### B. Racing Tyres

**(i).** Goodyear Formula 'Vee' tyres marked 590 x 15 and 620 x 15. These tyres are no longer manufactured but many are still in use.

**(ii).** Dunlop 15" L or M profile tyres marked 450 x 15, 500 x 15 or 550 x 15. Compounds and tread patterns are free.

**(iii).** Dunlop Formula 'Vee' tyres marked 120/590 x 15 or 135/620 x 15 in any compound which Dunlop make them. In the very few cases where it is possible to prove that the car was raced on 13" rims under the original formula the only tyres eligible will be Dunlop L or M profile ones.

**e)** Bodywork: This should be of the original basic shape and preferably made of the same material as the original.

**f)** Engine and gearbox: The types are restricted to those available at the time that the cars were raced i.e. pre - 31<sup>st</sup> December 1961. The engine must be externally, as original. Internal modifications are allowed, i.e. this permits free modification of cams, pistons, valves etc. "Replica" engines such as John Tickle Manx Norton and Modern Speedway JAPs are allowed provided that they are externally similar to the original engines; in the case of Cole crankcases - they will be permitted without modification. Twin plug heads of the period are allowed. The gearbox must retain the same number of ratios as the original but the ratios themselves are of free choice. The Norton Commando box is acceptable being basically a pre-1961 design. Clutches must be either solid disc or cork insert friction plate design. A Bewley clutch of this type may be used.

**g)** Engine ancillaries: The choice of carburettor, magneto, coil/contact-breaker ignition are all free. Transistorised ignition is not allowed.

**h)** Fuel and fuel additives: As per relevant Formula Junior/500 Owners Association regulations.

**i)** Supercharging: Cars raced in the 'up to 500cc' class cannot be supercharged.

**j)** Modifications: Original modifications to individual cars carried out before 31<sup>st</sup> December 1961, are usually accepted. All cars must comply with MSA Regulations.