

**1 SPORTING REGULATIONS — GENERAL****1.1 TITLE & JURISDICTION**

The **FORMULA VEE CHAMPIONSHIP** is organised and administered by the 750 Motor Club Ltd in accordance with the National Competition Regulations (NCR's) of Motorsport UK (incorporating the provisions of the International Sporting Code of the FIA) and these Championship Regulations.

1. **MOTORSPORT UK Championship Permit No: CH2026/**
2. **MOTORSPORT UK Championship Grade: C.**
3. **Race Status:** Inter Club.

**1.2 OFFICIALS**

1. **Co-Ordinator:** G.Groombridge, Donington Park, Castle Donington, Derbyshire, DE74 2BN  
☎ 01332 814548; ✉ giles@750mc.co.uk
2. **Eligibility Scrutineer(s):** S. Dockray, Deputy: B. Blackmore
3. **Championship Stewards:** C. Emmerson, T. Gregory, I.Sowman, T. Stevens

Any three Championship Stewards will constitute a quorum. In the event of any of the Championship Stewards listed above being unavailable or being unable to consider any particular matter due to a perceived conflict of interest, the organisers reserve the right to appoint an alternative Championship Steward or, if deemed to be necessary, more than one alternative Championship Steward. NCR Ch.4 App.1 Art.1.2. The Championship Stewards can only adjudicate upon any disputes irregularities or appeals arising from the published Championship Regulations. They are also empowered to consider any request from the Championship Coordinator to penalise any Competitor for any breach of Championship Regulations and after holding a formal hearing those Stewards may impose a penalty in accordance with NCR Chapter 2 C.2.1.1 subject to the rights of Appeal to the National Court.

**1.3: COMPETITOR ELIGIBILITY:**

- 1 Entrants must:
  - (a) be fully paid up valid members of the 750 Motor Club and
  - (b) be Registered for the Championship and
  - (c) be in possession of a valid MOTORSPORT UK Entrants Licences.
- 2 Drivers and Entrant/Drivers must:
  - (a) Be current Members of the 750 Motor Club and
  - (b) be Registered for the Championship and
  - (c) be in possession of valid Competition (Racing) Club Licence, 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 National Competition Rules (NCR) Ch.6 App.3 Art.1. and FIA ISC Article 2.3.7.b applies)
  - (e) If participation in the Championship requires absence from education a driver, in full time school education is required to have the approval of their head teacher and a letter stating such approval from their school in order to fulfil registration for the Championship. A driver shall not take time out of their education to participate in motor sport without the prior written approval of their education establishment.
3. All necessary documentation must be presented for checking at all rounds when signing-on.

**1.4: REGISTRATION:**

1. All competitors must register for the championship by returning the Registration Form with the Registration Fee to the Coordinator prior to the Final Closing date for the first round being entered.
2. The Registration Fee for the season is ~~£160~~ **£165** payable upon registration. For competitors wishing to enter a single event a registration fee of £35 is payable and points will be awarded for this event. If further races are entered the balance of the ~~£160~~ **£165** fee must be paid.
3. Registration numbers will be the permanent Competition number for the Championship.

**FORMULA VEE CHAMPIONSHIP****1.5 CHAMPIONSHIP ROUNDS**

The **FORMULA VEE CHAMPIONSHIP** will be contested over the following rounds:

Date	Circuit	Round/s
6 April	Donington Park	2
23/23 May	Pembrey	2
20/21 June	Snetterton 300	2
18/19 July	Cadwell Park	2
15/16 August	Silverstone International	2
20/21 September	Croft	2
11 October	Mallory Park	2

**1.6 SCORING**

- Points will be awarded to Competitors listed as classified finishers in the Final Results as follows:- 25; 22; 20; 18; 16; 14; 12; 11; 10; 9; 8; 7; 6; 5; 4; 3. All other finishers 2. All starters who fail to finish 1. Drivers in class B will also score points of: 25, 22, 20, 18, 16, 14, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3. All other finishers 2 points; non-finishers 1 point. Fastest lap 1 point.
- The totals from all qualifying rounds run (excluding any races which are abandoned and which are not replaced) less 2 will determine the final championship points positions.
- Ties shall be resolved using the formula in NCR Ch.4 App.3 Art.4.
- Where the race distance has been reduced (2.6.) it shall still count as a full points scoring round.
- Competitors not registered for the Championship may be permitted on an individual round basis and will:
  - Be deemed "Guest Competitors"
  - Not score points and for the purpose of points scoring will be ignored
  - Qualify for Event awards
  - Comply with the eligibility criteria as prescribed in Article 1.3. above, with the exception of 1.3.1. (b) and 1.3.2. (b), as appropriate

**1.7 AWARDS**

- All awards are to be provided by the Organising Club unless agreed otherwise.
- Per Round: Trophies to 1st, 2nd and 3rd.
- Championship: Subject to a minimum of 5 race starts, trophies to:  
1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> & 6<sup>th</sup> overall in each class.  
Highest placed novice driver (one who has not held an MOTORSPORT UK Race Licence prior to the current season).  
Highest number of pole positions.  
Highest number of fastest laps.  
Best prepared car.
- Presentations: Awards will be presented at the end of each event, and/or at the end of the Championship at the designated presentation ceremony.
- Entertainment Tax Liability: {deleted}
- If Provisional Results or Championship Tables are revised after any presentations and these revisions affect the distribution of awards the Competitors concerned must return them to the organisers in good condition within 7 days.

**2: C'SHIP EVENT MEETINGS & RACE PROCEDURES****1. ENTRIES:**



# FORMULA VEE CHAMPIONSHIP

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. NCR Ch.3 App.11 Art.1.1. 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 will 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 NCR Ch.12 App.6 Art.3.1
  3. At Double Header Meetings the Grid for Race 2 will be set by the finishing position in Race 1 (see 3.3) ~~second fastest practice times.~~
- 4. RACES:** Should any race be disrupted the Clerk of the Course shall not be obliged to resume or rerun the race NCR Ch.12 App.6 Art.9 (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 Lap - Start Engines/Clear Grid.
    - II. 30 Seconds - Visible and audible warning for start of Green Flag 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 Lap or start are required to indicate their situation as per NCR Ch.12 App.6 Art.6.11. 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 LIGHT PANELS / FLAGS will be displayed at the Startline and at all Marshals Signalling Points around the Circuit. This is the signal for all drivers to cease circulating at racing speeds, to slow to a safe and reasonable pace and to return to the pit lane, during practice, and to the starting grid area, during a race, unless otherwise directed by officials. Cars may not enter the Pits unless directed to do so. Work on cars already in the Pits must cease when a race is stopped.
- 7. PITS, PADDOCK & PITLANE SAFETY:**
- 1 Pits & Paddock: Competitors must ensure that MOTORSPORT UK, Circuit Management and Organising Club Safety Regulations are complied with at all times (NCR Ch.12 App.11)
  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 requirements of NCR Ch.12 App.11, 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 or as notified in the Final Instructions or Bulletin for the Event.

**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. NCR Ch.3 App.6 Art.1.4.

**10. TIMING MODULES:** The 750 Motor Club utilises 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. Compatible transponders include the AMB TRANX 260 and MyLaps X2 & TR2 models.

**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 NCR Ch.12 App.8 Art.2.

**13. ONBOARD CAMERAS:** All competitors are required to carry an on board, in car camera that records to an SD (or micro-SD) card that must be capable of recording HD footage that can be played back on a standard laptop. Recordings from the cameras may be used where there is an incident which is subsequently brought before the Clerk of the Course for investigation.

It is the competitor's sole responsibility to ensure safe installation and effective operation of the camera equipment. At all times cameras must be fitted in accordance with MOTORSPORT UK NCRs and be approved by the Chief Scrutineer in accordance with NCR Ch.7 App.9,

Cameras must be mounted in a position such that the steering wheel and track in clear view. The unit must always be switched on and be recording when the car is on track during any official free practice, qualification session and race.

The onus is on the competitor to ensure that the camera unit battery is charged, the camera switched on to record and ensure the SD card has enough capacity to record the above-mentioned sessions. The SD card must ONLY contain the files from the event in question.

In the event that no recording is available when requested by the Organisers or Clerk of the Course for judicial purposes then the following penalties will be applied by the Clerk of the Course.

- a. First offence – ~~Championship Reprimand~~ Championship Points Deduction – Equivalent to a 10<sup>th</sup> place finish.
- b. Second Offence - Championship Points Deduction – Equivalent to a 5<sup>th</sup> ~~an 8<sup>th</sup>~~ place finish.
- c. Third Offence - Disqualification.

## 3: SPECIFIC CHAMPIONSHIP REGULATIONS

**1.** By registering for the Championship all competitors and their associates commit to positively promote and demonstrate the Motorsport UK's Respect Code.

Where any reports of disrespectful conduct are judged to be well founded the Championship organisers may issue



warnings or require remedial actions and/or report the matter to the Championship Stewards who may impose appropriate penalties which can include loss of Championship points and/or race bans through to Championship Expulsion and referral to Motorsport UK.

It is imperative that we promote the safety and wellbeing of young people and adults at risk. In addition to this all participants must be aware of their behaviour and conduct at all times and abusive language and harmful behaviour will not be tolerated. Any such incidents must be reported to the Championship Coordinator and/or Safeguarding Officer who will also relay the report Motorsport UK. Details of the Motorsport UK Policies and Guidelines are available at [www.motorsportuk.org/resource-centre](http://www.motorsportuk.org/resource-centre) by selecting Policies and Guidelines.

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

3. At each Round of the championship Race 1 grid positions will be determined by each competitor's fastest lap time in Qualifying. At double header meetings, the grid positions for Race 2 will be determined by the result of Race 1. Grid positions for Race 1 non-finishers will be set in order of the most distance covered in Race 1. Any non-starters from Race 1 will have their Race 2 grid positions set behind Race 1 starters in order of their fastest practice times.

#### **4: SPECIFIC CHAMPIONSHIP PENALTIES:**

**In accordance with the current Motorsport UK National Competition Rules (NCR) Chapter 2 and additionally:**

##### **4.1: INFRINGEMENT OF TECHNICAL REGULATIONS:**

1. Arising from post practice Scrutineering or Judicial Action: Minimum Penalty: The provisions of NCR Ch.2 App.8.
2. Arising from post-race Scrutineering or Judicial Action: Minimum Penalty: The provisions of NCR Ch.2 App.8.
3. For infringements deemed to be of a more serious nature the Clerk of the Course may invoke the provisions of NCR Ch.2 App.8 Art.2

##### **4.2: ADDITIONAL SPECIFIC CHAMPIONSHIP PENALTIES:**

1. In the case of a driver being disqualified from a race, the Clerk of Course will impose the penalties set out in NCR Ch.2 App.8 and may impose the penalty set out in NCR Ch.2 App.8 Art.2
2. In order to maintain standards of conduct, the Championship 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 Championship Organisers will request the Clerk of Course at future race meetings to consider specific observation of that driver's conduct.
3. The Clerk of Course may impose a "Stop-Go" or "Drive through" penalty during a race in accordance with NCR Ch.12 App.10 Art.2
4. Any Competitor who is penalized under the Championship Sporting Regulations at any stage of a Championship event and receives an allocation of penalty points on their race license in accordance with MOTORSPORT UK Regulations, will receive a Championship points deduction equal to the number of penalty points which were allocated. Should the same competitor receive penalty points at another round of the Championship then the number of Championship points deducted will be double the number of penalty points applied. If penalty points are applied at a third round, then the Championship points deducted will be triple this number, and quadrupled at the fourth occurrence of such a penalty etc. This may result in a driver receiving a negative score.
5. Championship Stewards are also empowered to consider any request from the Championship co-ordinator to penalize any Competitor for any breach of Championship regulations and, after holding a formal hearing if they deem it necessary, to impose a penalty in accordance with NCR Ch.2 App.2 Art.4 (subject to the rights of appeal provided for in NCR Ch.2 App.5 Art.1)
6. One or more of the following may be imposed by the Championship Stewards as appropriate;
  - a) Reprimand
  - b) Fine. This may be also applied in the case of a driver receiving three reprimands from the Championship



Stewards in one season.

- c) Time or Grid Penalties
- d) Suspension from all or part of the Championship. This may also be applied in the case of a driver receiving two fines from the Championship Stewards in one season.

## 5 TECHNICAL REGULATIONS

### 5.1 INTRODUCTION

The following Technical Regulations are set out in accordance with the MOTORSPORT UK 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.

### 5.2 GENERAL DESCRIPTION

The **FORMULA VEE Championship** is for Competitors participating in single seater racing cars based upon original Volkswagen components of VW Type 1. Commercially available parts not originating from VW but being the same in all the critical dimensions and materials may also be used. All components may be modified by machining or by the removal of material except where expressly prohibited. All fasteners are unrestricted.

### 5.3 SAFETY REQUIREMENTS

All entrants, competitors and their vehicles must comply with the relevant articles of NCR Chapters 7 & 9  
Other: Extinguishers must comply with NCR Ch.7 App 6. Seat belts must be FIA homologated and as per NCR Ch.7. All cars must display a tamper proof Motorsport UK decal on the ROPS to show that the ROPS has been checked for compliance with K4 NCR Ch.7 App. 3. These will be issued by the Championship Eligibility Scrutineer.

### 5.4 GENERAL TECHNICAL REQUIREMENTS & EXCEPTIONS:

All cars must comply with the requirements of the current NCR Ch.7 and NCR Ch.12. All vehicles must be of sound construction and mechanical condition and be well maintained.

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

### 5.5 CHASSIS:

Steel space-frame, Aluminium or steel monocoque. The only carbon- fibre chassis permitted are those which were registered for the 750 Motor Club Formula Vee Championship in 2002 or earlier, or those which have been officially approved by the 750 Motor Club. All such chassis must carry the identification plate issued and affixed to the chassis by the 750 Motor Club. This permission is limited to those original chassis and is not transferable. Cars utilising carbon-fibre chassis must be presented at scrutineering with a Vehicle Passport issued by MOTORSPORT UK.

### 5.6 BODYWORK:

#### 1. MODIFICATIONS PERMITTED





- (a) **General:** Unrestricted in respect of materials or number of sections.
- (b) **Interior:** Minimum cockpit width opening 45cms.  
**Exterior:** The bodywork must cover the whole length and width of the engine crankcase. No part of the front bodywork forward of the front edge of the entire front wheels and more than 25cms from the longitudinal centreline of the car may be above the front wheel rim height. Maximum body width in front of front wheels 87cms. Maximum bodywork height with driver normally seated is 90cms from ground level. The roll-over bar is not included in this dimension. Cars built prior to 1976 may exceed this height dimension only if the bodywork is to the original design.
- (c) **Silhouette**
- (d) **Ground Clearance:** In accordance with NCR Ch.7 App.2 Art.22.12.

## 2. MODIFICATIONS PROHIBITED

- a) **General:** No part of the body frame or suspension may project beyond a vertical axis in the plane connecting the inside faces of front and rear wheels.
- b) **Interior**
- c) **Exterior:** No part of the bodywork may project beyond the rearmost part of the gearshift. Apart from normal continuous bodywork, any device whose primary function is to aerodynamically create downforce is prohibited e.g. nose fins, spoilers, aerofoils and ground effect bodywork. No panel under the car may deviate from the horizontal by more than 25mm and may not extend rearwards beyond the centreline of the rear axle.
- d) **Silhouette**
- e) **Ground Clearance**

## 5.7 ENGINE:

The engine shall be from a Volkswagen Type 1 up to 1300cc, with the following exceptions only:

### 1. MODIFICATIONS PERMITTED

VW or VW pattern parts may be modified by the removal of material except where expressly prohibited.

**Cylinder Heads:** Only VW siamesed port cylinder heads are permitted. Material may be removed.

Compression ratio is unrestricted. The inlet port must remain in the uppermost surface of the cylinder head casting. The rocker cover material is free but it must be possible to fit a standard VW rocker cover without removing the inlet manifold.

**Valve Train:** Valve springs, spring caps and shims are unrestricted. Rocker shafts, rocker pillars and rockers must be standard VW or pattern parts. Valves may be replaced with non-standard parts provided they do not exceed the following dimensions:- Maximum Inlet valve head 33.1mm. Maximum Exhaust valve head 30.1mm. Minimum valve stem bearing diameter must not be less than 7.90mm. Any waisted portion under the valve head must not be less than 7.00mm diameter.

**Camshaft:** Camshaft, cam followers, push rods, push rod tubes, rocker shaft spacers and tappet adjusting screws are unrestricted subject to 5.7.2.

**Pistons & Barrels:** Any make permitted providing all standard dimensions are complied with (including Mahle pistons and barrel sets with the part number: K70030, including those sets with pistons marked E70030.) Pistons and barrels may be machined only to alter the compression ratio, to match cylinder head machining, provide valve to piston clearance or to achieve balance. Piston rings are unrestricted. Maximum bore permitted is 77.6mm. Omega forged pistons marked 'Omega Formula Vee' and part number '6886' in 'standard' and '0.5mm' oversize diameters are permitted.

**Crankshaft & Conrods:** A VW 1300/1500/1600 crankshaft must be fitted and the stroke must not exceed 69.1mm. Bearings are unrestricted. The use of counter-weighted crankshafts is not permitted. Conrods must be of pattern design but the choice of bolts/studs used is free. H-Beam conrods are not permitted. A crank pulley and bolt must be fitted.

**Clutch and Flywheel:** The clutch must be either 180mm or 200mm diameter as used on VW type 1 or 2 engines. Clutch operation, linings and springs are unrestricted. The clutch cover must be steel, the pressure plate either steel or cast iron and only one friction plate may be used. The flywheel may be lightened and extra location dowels fitted.

**Crankcase:** A VW type 1, 2 or 3 crankcase must be used. Sump extensions, alterations and baffles are permitted. Dry sump system is optional; oil pump is unrestricted. Pattern aluminium crankcases are permitted.



## 2. MODIFICATIONS PROHIBITED

The addition of material to any VW or VW pattern part is prohibited. The exception to this is in order to reclaim damaged or worn parts back to their original specification. High lift rockers are not permitted. Roller type camshaft and cam followers are not permitted. No oil jets positioned to cool the underside of the pistons are permitted.

## 3. LOCATION

Unrestricted.

## 4. OIL/WATER COOLING

Any standard VW Type 1 fan is permitted. Fan housing and ducts may be modified or removed. Oil radiators are free as to location and number.

## 5. INDUCTION SYSTEMS

Carburettor and manifold are unrestricted. A maximum of 2 throttle butterflies/slides only may be used with all of the fuel/air mixture entering the engine via one or more restrictor plates of maximum bore 34mm and minimum depth of 3mm.

(a) **Carburettor Restrictor Plates:** The only permissible restrictor plates are those supplied by the 750 Motor Club Ltd to registered competitors. The 750 Motor Club Ltd reserves the right to demand at any reasonable time the removal of the restrictors for inspection. Replacement restrictors will be issued to the competitors.

These restrictor plates must be fitted between each carburettor flange and the induction manifold. Tapered bore flow adaptors are permitted to smooth flow across restrictor plates.

Inlet port divisions, fuel injection (high or low pressure) and forced induction are prohibited. Additional jets for the injection of fuel upstream or downstream from the carburettor are not permitted. Slide throttles are permitted provided they are totally enclosed. Variable length inlet trumpets are not permitted. If a balance pipe is used between induction manifolds it cannot contain any valve or device to manually or automatically open or shut the balance pipe or vary its internal diameter.

Automatic fuel adjustment of carburettors by means of a lambda sensor, or thermocouple, is prohibited.

Electronic adjustment of jets or air/fuel mixture is prohibited.

Carburettors may be fitted with throttle operated mechanical accelerator pumps/jets and manually operated chokes to aid starting.

## 6. EXHAUST SYSTEMS

Must comply with NCR Ch.7 App.8 Art. 1.3-4

## 7. IGNITION SYSTEMS

Dual ignition is prohibited. A standard type distributor of the Bosch 009 design type with only mechanical centrifugal advance activated from within the distributor is allowed. Switching of the low tension current must take place by means of a set of contact breaker points and condenser or by a points replacement kit manufactured by Lumenition part no MTK 001 or a Pertronix 1847A which must be housed within the distributor. No interruption of the wiring from the distributor to the coil is permitted. Electronic mappable or programmable systems are not permitted. Traction Control is not permitted.

## 8. FUEL DELIVERY SYSTEMS

Fuel lines must be either metal braided or standard VW black flexible pipe. Fuel pumps are free.

## 5.8 SUSPENSIONS

### 1. PERMITTED MODIFICATIONS

The outside interconnections may be cut down and trimmed but must remain four sided and rectangular in section; minimum width 35mm, minimum depth 52mm. Cut outs are permitted to allow for track rods. The maximum permitted width of the front axle tube/s, measured at the outside faces, is 87cm. The construction and attachment of the front suspension is otherwise unrestricted. Torsion bars must be standard VW Beetle items; the number of leaves used is free. Any front bump stop must not contact its reaction point until the lowest part of the chassis forward of the steering wheel is within 20mm of the ground. This is to be measured when the car is on flat ground with tyres at their correct pressure and the front of the car is forced towards the ground. Remote reservoir dampers are permitted but all suspension must comply with NCR Ch.7 App.2 Art 6.1





- (a) **Front:** Torsion bar suspension is mandatory. The following VW Type 1 components must be used - Stub Axles, hubs, front axle beam including two horizontal tubes complete with any interconnection, and torsion arms.
- (b) **Rear:** The following VW Type 1 components must be used - hubs, halfshafts, axle tubes and bearing housings.

## 2. PROHIBITED MODIFICATIONS

- (a) **Front:** Coil spring or any other dual system is prohibited.
- (b) **Rear:** The use of the VW double-jointed rear axle or parts thereof is prohibited.
- (c) **Wheelbase/Track:** Rear track must not exceed 139cms when the wheels are set vertically.

### Class B - Suspension

## 3. PERMITTED MODIFICATIONS

- (a) **Front:** Torsion bar suspension is mandatory. The following VW Type 1 components must be used - Stub Axles, hubs, front axle beam including two horizontal tubes complete with any interconnection, and torsion arms. The outside interconnections may be cut down and trimmed but must remain four sided and rectangular in section with a minimum width of 35mm and minimum depth 52mm. Cut outs are permitted to allow for track rods. The maximum permitted width of the front axle tube/s, measured at the outside faces, is 87cm. Torsion bars must be standard VW Beetle items; the number of leaves used is free. Any front bump stop must not contact its reaction point until the lowest part of the chassis forward of the steering wheel is within 20mm of the ground. This is to be measured when the car is on flat ground with tyres at their correct pressure and the front of the car is forced towards the ground. The front suspension may use a maximum of two dampers. On each side of the car, one end of the front damper must be attached directly without any links, extensions, push rods or other intermediaries to the front lower trailing arm; the other end of the damper must be attached directly to the chassis or the top beam tube via a bracket or the original VW damper mounting. Only dampers constructed of steel (including the mounting eyes) with internal reservoirs may be used and if adjustable, only have a single adjuster.
- (b) **Rear:** The following VW Type 1 components must be used - hubs, halfshafts, axle tubes and bearing housings. The rear suspension may use a maximum of two coil spring/dampers, additional dampers and springs to control vertical movement are not permitted. On each side of the car, one end of the rear damper must be attached directly without any links, extensions, push rods or other intermediaries to the wheel end of the axle tube or trailing arm; the other end of the damper must be attached directly to a bracket on the chassis. As an alternative, there may be one spring/damper unit mounted on the chassis, each end of which is connected by pushrods to either end of the wheel end of the axle tube or trailing arm. Only dampers constructed of steel (including the mounting eyes) with internal reservoirs may be used and if adjustable, only have a single adjuster.

## 4. PROHIBITED MODIFICATIONS

- (a) **Front:** Coil spring or any other dual system is prohibited.
- (b) **Rear:** The use of the VW double-jointed rear axle or parts thereof is prohibited.
- (c) **Wheelbase/Track:** Rear track must not exceed 139cms when the wheels are set vertically.

## 5.9 TRANSMISSIONS

A system of gear ratio validation is applied which uses the recognised MOTORSPORT UK Scrutineers' seal. A hole must be drilled at the gearbox-casing joint to enable locking wire to be passed through. When gear ratios are checked and passed as being correct by a Scrutineer the gearbox will be sealed by this method. If at any time this seal is broken the ratios must be rechecked. No points may be scored by a driver whose car has unchecked ratios. A breather must be fitted to the gearbox housing, feeding to a catch tank of minimum capacity 100ml; as an alternative the engine catch tank may be used for this purpose provided it has a minimum capacity of 2.1 litres.

**1. PERMITTED MODIFICATIONS**

Full synchromesh VW Type 1 gearbox must be used. It must contain an operable reverse gear and four forward gears capable of being engaged by the driver whilst normally seated. The transmission must be mounted in the chassis behind the engine. The crown wheel may be transposed to provide the required direction of shaft rotation. The use of a sandwich plate between the engine and the gearbox (or any other method of mounting engine to gearbox) is permitted provided the additional increase in the distance between the engine and gearbox does not exceed 25.4 millimetres.

**2. PROHIBITED MODIFICATIONS**

Removal of the synchromesh units from the gearbox is prohibited. The gearbox may not be fitted inverted. Locking or limited slip differentials are prohibited. The use of any VW Transporter gears is prohibited. Traction control is prohibited. The use of any device to detect the rotational aspect, including speed, of either or both of the rear wheel(s) is strictly prohibited. Any form of sequential gear change or steering wheel mounted paddle shift is prohibited.

**3. TRANSMISSIONS & DRIVE RATIOS**

Only the following VW gearbox ratios are permitted:

	1961-1966	1966 Type 1 1200 & 1300	Type 1 - 1500 Type 3
1 <sup>st</sup>	16.625:1 or 15.675:1	16.625:1 or 15.675:1	16.625:1 or 15.675:1
2 <sup>nd</sup>	9.005:1 or 8.492:1	9.005:1 or 8.492:1	9.005:1 or 8.492:1
3 <sup>rd</sup>	5.767:1 or 5.437:1	5.516:1 or 5.200:1	5.516:1 or 5.200:1
4 <sup>th</sup>	3.885:1 or 3.666:1	*3.885:1 or 3.666:1	3.885:1 or 3.666:1
Dif f	8-35 or 8- 33	8-35 or 8- 33	8-35 or 8- 33

\* The later ratio of 3.865:1 is permitted.

ALL TRANSPORTER GEARS ARE  
PROHIBITED

**5.10 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 in accordance with NCR Ch.7 App.5 Art.6

**3. BATTERIES**

An electric starter operable from the driver's seat is mandatory and must be capable of repetitive starts. The battery is unrestricted.

**4. GENERATORS**

A charging system is optional.



## 5.11 BRAKES

The braking system must be only VW Type 1 drums or discs on the front and drums on the rear. Standard parts must be used.

### 1. PERMITTED MODIFICATIONS

Spacers may be utilised to enable standard VW Type 1 disc brake calipers to be fitted to front drum brake stub axles. Brake linings, brake master cylinders, brake lines, pedals and operating linkages are unrestricted. The friction faces of the disc may be reclaimed by simple machining maintaining a minimum disc thickness of 8.00 mm. Data logging sensors/speed sensors may only be attached by being glued to the non-friction area of the disc/bell.

### 2. PROHIBITED MODIFICATIONS

Any that contravenes the above permitted modifications. Machining of or drilling holes in the brake drums is prohibited. Fitting of disc brakes to the rear axle is prohibited. The use of discs which are grooved, cross-drilled, radially drilled or modified in any other way is not permitted, except for the machining of the friction faces as specified in 5.11.1. No modification may be made to the non-friction area of the disc/bell.

## 5.12 WHEELS / STEERING

### 1. PERMITTED OPTIONS

Steering system is unrestricted.

### 2. PROHIBITED OPTIONS:

None.

### 3. CONSTRUCTION & MATERIALS:

Make of wheel is unrestricted. Magnesium wheels are prohibited.

### 4. DIMENSIONS:

Wheels must be 15ins diameter and maximum 6ins width.

## 5.13 TYRES

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

### 1. SPECIFICATIONS

The only tyres permitted are those produced by Hoosier. Minimum tread depth of 1.0mm is to be maintained. Measurement to be taken prior to the start of any race or practice session.

### 2. TYRES FITTED TO THE FRONT WHEELS MUST BE

120/590-15 Vintage T.D.

### 3. TYRES FITTED TO THE REAR WHEELS MUST BE

135/620-15 Vintage T.D.

### 4. NOMINATED MANUFACTURERS

Hoosier.

## 5.14 VEHICLE WEIGHT

Minimum vehicle weight is 380 Kgs (834 lbs). Minimum weight of car and driver is 470 Kgs (1036 lbs). No allowance will be made for the topping up of fluids. The 750 Motor Club reserves the right to change the minimum weight of any carbon-fibre chassis after rounds 4 & 8, giving 21 days' notice. Any ballast added to the vehicle in order to achieve the minimum weight must be within the overall periphery of, and be securely bolted to, the chassis.

## 5.15 FUEL TANK / FUEL

### 1. TYPES



F.I.A homologated safety tanks are mandatory if fitted outside the chassis frame. Tanks within the chassis frame must be covered externally with a fireproof coating. A non-return valve must be incorporated in the vent system.

## 2. LOCATIONS

Inside or outside the chassis frame subject to the above.

## 3. FUEL

Only petrol as defined in NCR Ch.8 App.1 Art.1.7 a and complying with BS4040, BSEN228 or BS7800 or petrol as defined in NCR Ch.8 App. 1 Art 1.7b and complying with FIA Appendix J Art 266 is permitted. as defined in may be used; fuel which exceeds the stated RON (max) levels in NCR Ch.8 App.1 Art.1.7 is prohibited even if it is sold/promoted as being legal for UK Competition and/or obtainable from 'roadside' pumps. The use of additives by competitors which boost the octane rating (RON) in any petrol is prohibited. At the end of practice and the race at least 3 litres of 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

## 5.16 SILENCING

All vehicles must comply with the relevant maximum noise limits set out in NCR Ch.7 App.8

## 5.17 NUMBERS & CHAMPIONSHIP DECALS

### 1. POSITIONS

Race numbers must be displayed on each side of the vehicle alongside the cockpit/driver and as far forward on the front of the vehicle as possible. 750 Motor Club decals must be affixed prominently near all number backgrounds. Championship 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 Championship Sponsor's decals must take preference to any other decals. Failure to comply will render the vehicle and driver ineligible to race. Class B cars must display a "B" decal in a prominent place next to their race number.

### 2. SUPPLIERS

Sponsors and Club decals will be available at the first championship race in which the vehicle is entered.



## 6 APPENDICES

### 1. Car suppliers and hirers

<b>Dominator</b>	Alan Harding, AHS (Mechanical) Ltd, Tel. 01455-553052/ 07989 414471 <a href="mailto:alan@formulavee.co.uk">alan@formulavee.co.uk</a>
<b>GAC</b>	Phill Foster, Bears Motorsport Tel. 0121 742 2200/07976 715812 <a href="mailto:info@bearsmotorsport.co.uk">info@bearsmotorsport.co.uk</a>
<b>Leystone</b>	Paul Heavey, Leystone Racing, Kilmeague, Naas, Co. Kildare, Ireland Tel. 00353 (0) 45 860658
<b>Scarab</b>	Andy Storer, Tel. 01636 822033 / 07970 632874
<b>Storm</b>	Steve Glasswell Tel. 07500 836492 <a href="mailto:Stephen@sgmachining.co.uk">Stephen@sgmachining.co.uk</a>