



## SELCO.IE FORMULA VEE CHAMPIONSHIP



## 2024 SPORTING & TECHNICAL REGULATIONS



# 1. SPORTING REGULATIONS

## 1.1 TITLE AND JURISDICTION

The Selco.ie Formula VEE Championship is administered and organised by the Mondello Park Sports Club (MPSC), promoted by Formula Vee Association in accordance with the General Competition Rules and Appendices (GCR) of Motorsport Ireland (MI) incorporating the provisions of the International Sporting Code of the FIA and these Championship Regulations.

**Championship Permit No: P017/24**

Upon request from the Formula Vee Association and in accordance with the Formula Vee Association constitution, MPSC reserves the right to amend or vary the Sporting and Technical Regulations in accordance with MI Yearbook Appendix 41 Article 1.1 at any time before or during the Championship and further issue additional statements concerning the Regulations from time to time, subject to MI approval, and all such statements will be issued by the use of Form RC1 to MI and to all registered competitors by email or by post to the address detailed on the Registration Form, or by delivery to the competitor by hand. It is a condition of entry into the championship that all competitors, teams, team members and persons associated with any of the above agree to be bound by the Regulations including any amendments, variations or statements relating thereto.

## 1.2 OFFICIALS

**1.2.1 Championship Principal:** Adam Macaulay

**1.2.3 Championship Representative:** Stephen Morrin

**1.2.5 Championship Eligibility Scrutineer:** Jason Keogh  
Anthony Hoey  
or their appointed Deputy

### 1.2.6 Championship Stewards

Championship Stewards will be appointed in accordance with MI GCR 182 and may only adjudicate on any disputes, irregularities or appeals arising from a decision of the Class Registrar on the approved Championship regulations.

## 1.3 COMPETITOR ELIGIBILITY

### 1.3.1 Entrants must be:

- a) a fully paid up valid members of the Formula Vee Association and an affiliated MI Motor Club,
- b) registered for the Championship, and
- c) in possession of a valid Motorsport Ireland Entrants Licence

### 1.3.2 Drivers and Entrant/Drivers must be:

- a) a fully paid up valid member of the Formula Vee Association and an affiliated MI Motor Club,
- b) registered for the Championship, and
- c) in possession of a valid MI Race National B Licence or Motorsport UK equivalent, as a minimum, and,
- d) if under the age of 18, must be entered and accompanied by the holder of a current valid MI Minor Entrant Licence in accordance with MI GCR 108.2.3.

**1.3.3** All necessary documentation must be presented for checking at all rounds when signing-on.

## 1.4 REGISTRATION

**1.4.1** All competitors must register for the championship by returning the Registration Form with the Registration Fee to the Championship Registrar prior to the first round being entered. Registration after this date will only

be at the discretion of the Organisers. Registrations will be accepted once Championship Regulations have been published and are accepted on a “first come, first served” basis.

- 1.4.2** The Registration fee is €120 (discounted to €95 for 1<sup>st</sup> year of registration) and €30 for a one off event. Social membership is €25. Once a driver has taken part in an official qualifying session, there will be no refund of the registration fee under any circumstances.
- 1.4.3** Acceptance or rejection of a Championship Registration will be at the total discretion of the Championship Organisers. The Championship Organisers reserve the right to revoke a competitor’s Registration at any point during the season.
- 1.4.4** Competitors may choose their competition number, which will be allocated on a first come first served basis with priority given to competitors who competed in the previous year’s championship wishing to retain their championship numbers. After 28 February numbers will be allocated by the Championship Registrar and will be the permanent competition number for the championship. Where no number is chosen, it will be allocated by the Championship Registrar. Numbers 1 to 10 inclusive are reserved for use by the top ten drivers in the previous year’s National Championship.
- 1.4.5** Championship points will not be backdated and will only apply from the date the registration fee is paid
- 1.4.6** The Organisers reserve the right to enter a ‘Celebrity/Guest’ driver in any event. They will not score points but will be eligible for a trophy should their race result merit an award.

## 1.5 CHAMPIONSHIP ROUNDS

- 1.5.1** The Championship rounds will be contested at the following venues:

Rounds	Event Date	Venue	Club
1	23 Mar 2024	Kirkistown	500 MRCI
2	6/7 Apr 2024	Mondello Park	MPSC
3 & 4	18/19 May 2024	Bishopscourt	BARC
5 & 6	8/9 Jun 2024	Mondello Park	MPSC
7	6/7 Jul 2024	Mondello Park	MPSC
8	27 Jul 2024	Kirkistown	500 MRCI
9 & 10	14/15 Sep 2024	Mondello Park	MPSC
11	28 Sep 2024	Kirkistown	500MRCI

- 1.5.2** MI reserves the right to amend the composition of the Championship rounds at any stage of the season in accordance with MI Yearbook Appendix 41 Article 1.3.2

## 1.6 POINTS

- 1.6.1** The Selco.ie Formula VEE Championship will have three separate championship classes, A (National Championship), B and C. All Formula Vee competitors will be graded ‘A’, ‘B’ or ‘C’ in accordance with the criteria set down in 1.6.2 below. All registered competitors will be eligible to score points in the National Championship. Only registered competitors graded ‘B’ are eligible to score points in the B Championship and only registered competitors graded ‘C’ are eligible to score points in the C Championship.

- 1.6.2.1** A competitor will be deemed to be a ‘C’ grade if they fulfil one of the following criteria:

- (a) a novice driver who has finished in no more than 5 circuit racing events, or
- (b) a junior racing competitor competing in his first senior championship, or
- (c) deemed to be a ‘C’ grade at the discretion of the Formula Vee Committee.

For the purposes of (a), a racing event is defined as a **counting round in either the rookie or** National Championship or non-championship final race.

- 1.6.2.2** A competitor will be deemed to be a 'B' grade competitor if they do not qualify to be a 'C' or 'A' grade competitor.
- 1.6.2.3** A competitor will be deemed to be a 'A' grade competitor in accordance with the following criteria:  
 (a) a competitor who has won the Formula VEE B Championship in the preceding three years, or  
 (b) a 'B' or 'C' grade competitor who finished in the top 3 positions of the National Championship in any season.
- 1.6.2.4** A competitor previously graded 'A' may be downgraded to a 'B' grade if he finished in the top 5 less than 8 times in his 18 previously contested races. Downgrades must be applied prior to the drivers first race of the season and cannot be applied mid-season.
- 1.6.2.5** Where appropriate, no competitor shall be upgraded unless all drivers ahead of him in their respective championships are also upgraded.
- 1.6.2.6** On receipt of a correctly completed Registration Form, the competitor will be informed of the grade that has been allocated to them. Appeals against the allocation of a grade may be made to the Championship Stewards.
- 1.6.3** Points will be awarded in the National Championship to Competitors listed as classified finishers in the Final Results in accordance with MI Yearbook Appendix 15 Article 6.1.3.1.
- 1.6.4** Points will be awarded in the B and C Championships to Competitors listed as classified finishers in the Final Results as follows:

<b>1<sup>st</sup></b>	25	<b>11<sup>th</sup></b>	9
<b>2<sup>nd</sup></b>	22	<b>12<sup>th</sup></b>	8
<b>3<sup>rd</sup></b>	20	<b>13<sup>th</sup></b>	7
<b>4<sup>th</sup></b>	18	<b>14<sup>th</sup></b>	6
<b>5<sup>th</sup></b>	16	<b>15<sup>th</sup></b>	5
<b>6<sup>th</sup></b>	14	<b>16<sup>th</sup></b>	4
<b>7<sup>th</sup></b>	13	<b>17<sup>th</sup></b>	3
<b>8<sup>th</sup></b>	12	<b>18<sup>th</sup></b>	2
<b>9<sup>th</sup></b>	11	<b>19<sup>th</sup></b>	1
<b>10<sup>th</sup></b>	10		

If a qualifying race is held for 'B' and 'C' competitors, then the respective 'B' and 'C' championship points will be allocated based on the finishing positions in this race, with finishing positions in the final race counting towards National Championship points only.

For the purpose of assigning points to 'B' and 'C' competitors, the results of qualifying race(s) are taken as a continuation from the last person to finish the final race. For instance, a 'C' driver who finished last in the final race will be considered to be placed higher than a 'C' competitor who won the qualifying race, and so on.

- 1.6.5** The totals from all qualifying rounds run, less 2 for the National, B and C Championships, will determine final championship points and positions.
- 1.6.6** For a race to qualify as a championship scoring round, a minimum of 7 starters is required.
- 1.6.7** Drivers excluded from results for a breach of MI GCR Article 139.6 (improper driving) or for a breach of the technical regulations may not use that event as discarded rounds for the purpose of overall championship placing.
- 1.6.8** Ties will be resolved in accordance with MI Yearbook Appendix 15 Article 6.10. If a tie remains unresolved, the competitor who scored the highest single score first will take the higher overall position.

## **1.7 AWARDS**

- 1.7.1** All awards are to be provided by the Formula VEE Association.
- 1.7.2 Per Event**  
Trophies will be awarded to 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> in each Championship.
- 1.7.3 Championship**
- 1.7.3.1** Trophies will be awarded to the top six drivers in the National Championship.
- 1.7.3.2** Trophies will be awarded to the top six drivers in the 'B' and 'C' Championships or those drivers that have completed in 50% or more of the championship rounds whichever is the lesser amount.
- 1.7.4 Bonuses**  
The Organisers reserve the right to provide additional awards for and during the Championship.
- 1.7.5** In the event of any provisional results or revision of championship tables being amended after any provisional presentations and such revisions affect the distribution of any awards and prize money (if applicable) the competitors concerned must return any such awards and prize money to the Class Championship co-ordinator in good condition within 14 days.

## **2 EVENT AND RACE PROCEDURES**

### **2.1 ENTRIES**

- 2.1.1** Competitors are responsible for sending to the Race Organisers correct and complete entries and entry fees prior to the closing dates for each competing round.
- 2.1.2** Incorrect or incomplete entries (including Driver to be Nominated Entries) are to be held in abeyance until they are complete and correct and the date of receipt for acceptance of entry purposes shall be the date on which the Secretary of the Event receives missing or corrected information or fee.
- 2.1.3** Any withdrawal of Entry or Driver/Car changes made after acceptance of any entry must be notified to the Secretary of the Event in writing. If Driver/Vehicle changes are made after publication of Entry lists with Final Instructions, the Competitor concerned will be accepted in accordance with MI GCR 113.
- 2.1.4** In the event of a round being oversubscribed reserves will be nominated with priority firstly being given to registered regular competitors and then to drivers based on their National Championship position, then B Championship position and finally their C Championship position. Reserves will to be nominated on the final list of entries published with Final Instructions or Amendment Sheet Bulletins. All Reserves will practice and replace withdrawn or retired entries in Reserve Number order. If Reserves are given Grid Places prior to issue of the first Grid Sheets for any round the times set in Practice shall determine their grid positions. If Reserves are given places after publication of the grid sheet and prior to cars being collected in the official Assembly Area, they will be placed at the rear of the Grid and be started without any time delay. Otherwise, they will be held in the Pitlane and be released to start the race after the last car to start the green flag lap or last car to take the start has passed the startline or pitlane exit, whichever is the later.

### **2.2 BRIEFINGS**

Organisers will notify Competitors of the times and locations for all briefings in the Final Instructions for the meetings.

### **2.3 QUALIFYING/PRACTICE**

- 2.3.1** Should any Practice session be disrupted, the Clerk of the Course shall not be obliged to resume or re-run the session; the decision of the Clerk of the Course shall be final.
- 2.3.2** Each driver may be required to complete a minimum of 2 laps in the car to be raced, and in the correct session, in order to qualify.
- 2.3.3** The grid for the first race will be set by the fastest lap time in qualifying. The grid for the second race will be set by the second fastest lap time in qualifying.
- 2.3.4** In the event of multiple qualifying sessions, allocation to each qualifying session will be made on the results of the previous race meeting or otherwise at the discretion of the class representative.
- 2.3.6** Following a request from the Chief Scrutineer, the Clerk of the Course may suspend any practice session for all cars to return to the pitlane for an oil check. Only cars that pass this check will be permitted to return to the track for the remainder of the qualifying session.

### **2.4 RACES**

- 2.4.1** Should any race be disrupted the Clerk of the Course shall not be obliged to resume or rerun the race.
- 2.4.2** Each race shall be of a minimum of 15 laps or 15 minute duration.

**2.4.3** In the event of races being oversubscribed the Organisers reserve the right to run qualification races. The slowest competitors will form a full grid for the qualifying race, with the remainder qualifying for the final race from pole position backwards. The remaining places in the final race will be filled by the top finishers from the qualifying races. Where there are insufficient finishers to fill the final grid, positions may be allocated to non-finishers from the qualifying race in the order of retirement.

## 2.5 START PROCEDURES

**2.5.1** All cars will be released to form up on the grid prior to the start in formation as specified on the grid sheet.

**2.5.2** The start will be via Standing Start  
The minimum countdown procedures/audible warnings sequence shall be:

Signal	Instruction
<b>1 minute</b>	Start engines/Clear Grid
<b>30 seconds</b>	Be prepared for the start of the Green Flag/Pace lap
<b>Green Flag</b>	Compete one Green Flag/Pace Lap and return to grid position
<b>5 Seconds</b>	Grid is complete, prepare for start. The red lights will be switched on five seconds after the 5 second board is withdrawn and will be extinguished between 2 and 6 seconds later
<b>Red Lights Off</b>	Race start

**2.5.3** Any car removed from the grid after the 1-minute stage or driven into the pits on the Green Flag lap shall be held in the 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.

**2.5.4** Any car which fails to start, or falls to the back of the field behind the last car during the formation lap, and does not enter the pit road, must start the race behind the last line of the grid, must be stationary when the 5 second board is displayed, and must not retake their original grid position

**2.5.5** In the event of any starting lights failure the Starter will revert to use of the National Flag.

## 2.6 SESSION RED FLAG

**2.6.1** Should the need arise to stop any race or practice, red lights will be switched on at the Startline and red flags will be displayed at the Startline and at all marshal 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 should not enter the Pits unless directed to do so and all cars in the pit lane during a red flag period must take any restart from the pit exit.

### 2.6.2 Case A

Less than 2 laps completed by race leader. The race will be null and void. The race will restart from the original grid positions. Competitors unable to take the restart will be replaced by reserves that will start from the back in reserve order. Gaps on the grid should not be closed up. The length of the restarted race shall be determined by the Clerk of the Course but under normal circumstances the race distance will be reduced by at least two laps.

### 2.6.3 Case B

More than 2 laps completed by the race leader but less than 75% of the total distance or duration. The race will restart from a grid set out by the finishing order of part 1. The result of the race will be the finishing order of

part 2. The final result will not be aggregated. The length of the restarted race will be determined by the Clerk of the Course but under normal circumstances the remaining race distance will be the original distance, less the first part, less at least two laps.

#### **2.6.4 Case C**

If the race leader has completed more than 75% of the race distance or duration at the time of the stoppage, the race may not be restarted unless the Clerk of the Course deems it appropriate to restart the race. If the race is not restarted the results will be declared in accordance with MI Yearbook Appendix 40 Article 14.5.

### **2.6 RACE FINISHES**

#### **2.6.1** After taking the Chequered Flag drivers are required to:

- a) progressively and safely slow down,
- b) remain behind any competitors ahead of them,
- c) return to the Pit Lane Entrance/Paddock Entrance as instructed,
- d) comply with any directions given by Marshals or Officials,
- e) keep their helmets on and harnesses done up while on the circuit or in the pit lane,
- f) place their car into the Parc Fermé where it must remain until released by the Championship Eligibility Scrutineer or his deputy.
- g) Attend any podium presentation that may be required.

#### **2.6.2** Parc Fermé conditions apply from the moment of taking the chequered flag until the time that the cars are released from Parc Fermé. Cars must not stop at the pit garage/paddock on the way to Parc Fermé. Team members are not permitted in the Parc Fermé area unless authorised by the Scrutineer or other Official.

### **2.6 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.

### **2.7 TIMING MODULES**

All competitors must provide timing transponders to enable each competing vehicle to be timed. They should ensure that it is securely fitted in the approved bracket fitted in the designated place as indicated by the Chief Scrutineer or the Class Technical Liaison. This must be done prior to any practice or race. Transponder should be of the following type AMB260 and may be direct or battery powered.

### **2.8 CAMERAS**

#### **2.8.1** It is mandatory for all competitors to have video recording equipment fitted in their cars and operating during qualifying and racing. This must consist of at least one forward facing camera providing a reasonable view of circuit ahead (incorporating the steering wheel of the car) as would be expected to provide a representative driver's eye view.

#### **2.8.2** All cameras must be securely/mechanically fitted and in situ at the time the car is presented for pre-event scrutineering.

#### **2.8.3** The choice of system is free, provided that playback is possible at the circuit by regular means, such as via a laptop PC, or by using equipment designed for the purpose provided by the competitor. Competitors must ensure that this equipment is recording during races and make the recorded footage available on request by the Clerk of the Course or his representatives. Failure to do so may lead to disciplinary measures by the Clerk of the Course and may prejudice their defence in the case of an incident. This request is not restricted to the single forward-facing camera mandated, but any additional video recording equipment utilised on the car.



2.8.4 Where no recording is available, for whatever reason, the competitor may receive a penalty at the discretion of the Clerk of the Course.

## 2.9 OPERATION OF THE SAFETY CAR

The Safety Car will be brought into operation and run in accordance with MI Yearbook Appendix 40 Article 12

## 2.10 NUMBERS AND DECALS

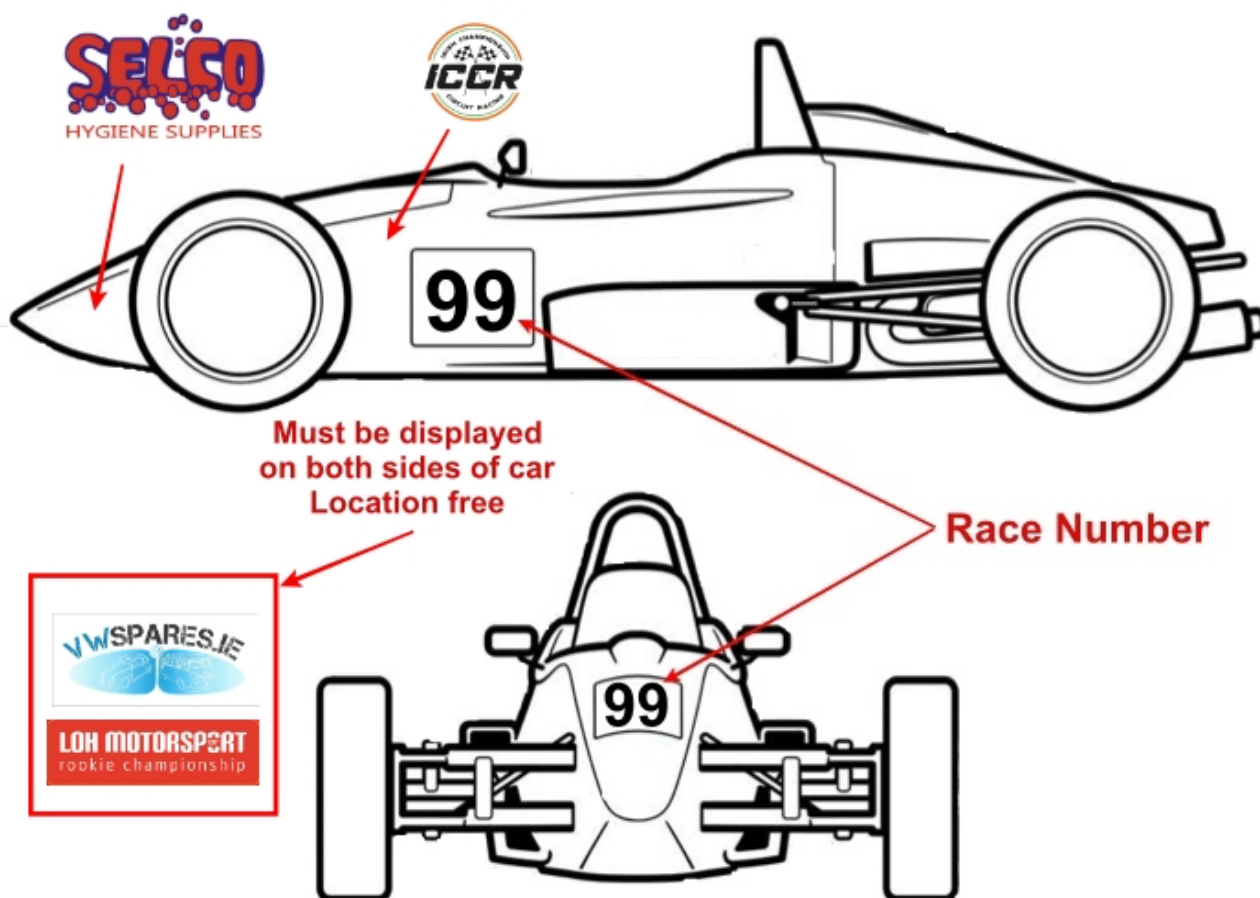
2.10.1 Both car and driver must meet the following requirements of livery during all practice, qualifying and races. Failure to comply shall incur a penalty.

2.10.2 All cars must be identified in accordance with MI Yearbook Appendix 6.

2.10.3 Championship Sponsors' number panels may be supplied and must be fitted unaltered.

2.10.4 Championship Sponsors' decals must also be carried on each car. Specific locations on the vehicle are reserved for Championship sponsors which will be supplied. See diagram. Only one set of series decals will be supplied free of charge by the organisers.

2.10.6 Sponsor badges must be displayed on Drivers' overalls in positions defined, if required, by the Organisers. Wearing of sponsors hats/caps are mandatory on the podium and during any TV or press interviews.



## **3 JUDICIAL PROCEDURES**

### **3.1 ROUNDS**

In accordance with current General Competition Rules and Appendices of Motorsport Ireland

### **3.2 CHAMPIONSHIP**

In accordance with current General Competition Rules and Appendices of Motorsport Ireland

### **3.3 ADDITIONAL SPECIFIC CHAMPIONSHIP PENALTIES**

**3.3.1** For an offence in a race where the offending driver is not classified, the Clerk of the Course or Event Stewards are entitled to impose a penalty of a grid position penalty in the next race/event.

**3.3.2** In the event of any breach of the Regulations, The Championship Stewards, on referral of the matter by the Class Principal, shall be entitled to impose additional penalties, including:

- a) refusal of part or all further race entries, or
- b) removal of all or any championship points scored by the competitor, or
- c) exclusion of the competitor from the championship

**3.3.3** In order to maintain standards of conduct, the Organisers will monitor all Officials/Observers reports of adverse behaviour at race meetings. If any individual is included on such reports, they will receive written warning from the Organisers that his driving/behaviour is to be specifically observed at future race meetings. Any adverse reports during this period of observation may result in a referral to the Championship Stewards who shall be entitled to impose a penalty as defined in 3.3.2.

**3.3.4** Any driver found to have an engine or gearbox declared ineligible as the result of an eligibility check shall be excluded from the points for all races from the point at which the engine / gearbox was sealed (including the race at which the engine /gearbox was sealed) to when the eligibility check was performed, and the driver shall have points deducted for the three previous race finishes in the same season. These penalties are in addition to any penalties incurred as per MI GCRs. All other failures to comply with Technical regulations that result in the competitor being excluded from a race shall result in the total loss of points for that round only.

## 4 TECHNICAL REGULATIONS

### 4.1 INTRODUCTION

4.1.1 The following Technical Regulations are set out in accordance with the Motorsport Ireland specified format and it should be clearly understood that if the following texts do not clearly specify that you can do it you should work on the principle that you cannot.

4.1.2 It is the competitor's responsibility to ensure that their car complies with these Technical Regulations, as published by the Organisers, throughout official practice, qualifying, and races at all times.

### 4.2 GENERAL DESCRIPTION

4.2.1 The Selco.ie Formula VEE Championship is a low-cost formula for Competitors participating in single seater (Monoposto) racing cars, based on original VW components of Types 1, 2 and 3.

4.2.2 For the purposes of these regulations:

<b>Type 1</b>	Beetle 1200, 1300
<b>Type 2</b>	Transporters
<b>Type 3</b>	1500,1600 Variants and Fastback

All Types are with air-cooled engines.

4.2.2.1 Original VW components are only recognised as such if they are contained in the Spare Parts Catalogue of Volkswagenwerk and/or bear a clear identification mark as original VW components and have undergone all the working processes prescribed by the manufacturer for production and/or were fitted as standard equipment on road going vehicles of Types 1, 2 or 3.

4.2.2.2 Any components which are not covered in the above paragraph are permitted only if allowed in these regulations. Original Standard VW Components can only be modified as described in these regulations but it must be possible at all times to establish their identity as standard VW parts. It is not permitted to add, apply or remove material to the standard VW components in any form or manner, unless expressly permitted.

4.2.2.3 No extra parts, washers, or spacers may be fitted to alter the performance of the engine unless explicitly permitted in these regulations.

### 4.2.3 Examination of Vehicles

4.2.3.1 The Eligibility Scrutineer (in addition to any other powers they may have under these Regulations) reserve the right before or after any race in the Championship to designate any one or more of the competing cars for special eligibility scrutineering. Upon such election being made, the competitor shall immediately place the car under the control of the scrutineers and be deemed to have permitted all such scrutineering, examination and testing as the scrutineers may responsibly require to undertake. The Eligibility Scrutineer have the right to:

- a) Examine the car at the circuit for such period as they may reasonably require and take fuel and/or other samples and/or
- b) Retain the car for detailed examination at premises chosen by the organisers. If the organisers elect to retain the car, they shall make it available for collection by the competitor at least seven days prior to the qualification session for the next race in the Championship unless the car is found to be in breach of these regulations and/or
- c) Seal the car and its components in such a manner as they may choose and require the competitor at their own expense to present the car at any other premises chosen by the Organisers for detailed examination within a specified period and/or remove the car by transporter at no expense to the competitor to an appointed location. The competitor will be advised in writing of the time, date and location of the subsequent testing or eligibility examination.
- d) To allow for seals to be applied at the track the following items on the engine should be pre-drilled to allow a seal to be fitted

- 2 No. cylinder head studs on each side of the engine
- 2 No. oil pump studs – one on either half of the engine casing

4.2.3.2 The stripping of the engine or any required component will be undertaken by the competitor and/or mechanic/technician nominated by the competitor at the premises designated and overseen by a Motorsport Ireland licenced Scrutineer.

4.2.3.3 The maximum claimable in any case for an engine strip is €500, and for a gearbox strip, €500 if the protest was lodged by another competitor and the protested car passed inspection. Drivers are not entitled to compensation if sealed by a MI Scrutineer.

4.2.3.4 The final decision regarding the eligibility of any car rests with the appointed eligibility scrutineer.

4.2.3.5 Competitors will be personally and solely responsible for ensuring that their cars comply with their registration details and with these regulations for each event at which they are entered. Failure to comply in either respect will be a breach of these regulations. Queries concerning eligibility should be referred in writing to the Organisers or the Eligibility Scrutineer at least seven days prior to an event entered, to permit a written ruling in advance of any meeting at which it is intended to compete.

4.2.4 All cars must be presented for scrutiny in a good condition, clean and tidy with any damage from a previous round removed or repaired. Any car which, in the opinion of the Chief Scrutineer, does not meet with these requirements will be excluded from the event.

4.2.5 In the event that a component is sealed by the Eligibility Scrutineer for examination, and prior to that examination taking the place, the component is damaged such that it is not possible to confirm its compliance with the regulations, the Eligibility Scrutineer will automatically issue a non-compliance /reject report for the sealed parts.

### 4.3 SAFETY REQUIREMENTS

4.3.1 All cars must comply with these Technical Regulations, in addition to the safety requirements as listed in Appendix 2 of the current MI Yearbook.

4.3.2 It is mandatory to use a plumbed in fire extinguisher in accordance with MI Yearbook Appendix 2 Article 6.1. Fire extinguishers must be operational from driver's position in cockpit. Extinguisher nozzles must be directed at the fuel tank and both carburettors. Control must be identified from outside the car.

4.3.3 A driver's seat in good condition must be used and fitted in accordance with MI Yearbook Appendix 2.

4.3.4 A six-point safety harness secured by six bolts in accordance with MI Yearbook Appendix 2 Article 7.2 must be fitted.

4.3.5 Safety helmet must be to the standard specified in MI Yearbook Appendix 2 Article 17 and must incorporate an FIA approved FHR device fitted in accordance with FIA Regulations.

4.3.6 Drivers must wear current FIA homologated flame retardant overalls, underwear, socks, boots, balaclava and gloves. Flame retardant overalls must cover the arms to the wrists, the legs to the ankles and the torso to the neck during the competitive sections of the event. Clothing will remain valid for 5 years after the expiry date shown on the relevant FIA Technical List subject to being in adequate condition in accordance with MI Yearbook Appendix 2 Article 23.

4.3.7 Vehicles must be equipped with an externally operated circuit breaker as per MI Yearbook Appendix 2 Article 22. The circuit breaker must be fitted to the lower main hoop of the rollover bar and must be identified from outside the car. The circuit breaker must be operable when the driver is normally seated irrespective of whether a safety harness is worn or not.

#### 4.4 GENERAL TECHNICAL REQUIREMENTS & EXCEPTIONS

4.4.1 Helicoils may be used for a repair. Case savers may be used.

4.4.2 To allow for use of scrutineer's wire seals, certain components must have the heads of 2 adjacent securing bolts, or the joint flange in 2 opposite locations, cross-drilled. The cross drilling will leave a through hole of 1.6mm minimum diameter. The components that must be made ready for sealing are cylinder heads, engine casing, and oil pump.

#### 4.5 CHASSIS

4.5.1 Construction unrestricted but must be of ferrous metal construction. However, it must be able to withstand with an adequate degree of safety, all the stresses encountered in operation.

4.5.3 Minimum ride height is 4cms.

#### 4.6 BODYWORK

4.6.1 Bodywork must not project beyond the rearmost point of the gear shift rod.

4.6.2 Engine covers, made of aluminium or fibreglass and painted to complement the remainder of the bodywork, must be fitted. The cover must be at least the height of the top of the firewall and must cover the length and breadth of the crankcase, enveloping the upper chassis rails and must not terminate before the rear crossmember.

4.6.3 No part of the body, frame or suspension may project beyond a vertical axis in a plane connecting the front and rear tyres.

4.6.4 Wings, aerofoils and enveloping bodywork are not allowed.

4.6.5 Two adequate rear-view mirrors must be fitted.

4.6.6 Side Pods may be fitted.

4.6.7 All bodywork, including engine cover, must be in place at the start of qualifying and racing. The driver must, at all times, be able to get in and out of the car without removing any part of the bodywork.

#### 4.7 ENGINE

4.7.1 An engine must be used, having a maximum piston displacement of 1603.08cc, with a stroke of 69mm  $\pm$  0.1mm. Maximum piston size 85.96mm and a maximum bore size of 86.018mm. This engine must consist of standard VW components of Type 1, 2 or 3. Any form of supercharging is prohibited. Pistons, rings, bearings and con-rods are unrestricted as regards manufacturer, but must conform in dimension, specification and weight to the original VW part. CRANKSHAFT and CON-RODS must be unmodified, apart from any machining necessary to balance or recondition same. Crankshafts may be re-ground to accept standard undersize bearings.

Permitted refurbishment work on engine crankcases includes:

- Engine casing may be align bored and thrust faces machined to accept oversize bearings
- Threaded inserts (e.g. heli-coil, or similar) are permitted for the purpose of reconditioning worn threads

- Bearing retaining dowels are unrestricted and may be re-positioned or replaced with larger dowels to recondition damaged dowels and holes.
- Crankcase halves may be faced and cylinder seats machined for equal deck height

Aftermarket casings and housings may be manufactured from aluminium alloy. Any aftermarket case shall not weigh less than any eligible original VW case.

**4.7.2** For the balancing of con-rods and piston assemblies, it must always be possible to establish the identity of one standard unmodified piston and con-rod in each group of four in any one engine.

**4.7.3** All engine parts must be assembled in the manner described in the official workshop manual in particular:

- a) Pistons must have arrow facing flywheel.
- b) Con-Rods must have forge marks facing up.
- c) Camshaft drive gear must be fitted to crankshaft with concave face towards flywheel timing mark facing towards the crankshaft pulley end.
- d) All Gaskets may be substituted by gasket cement or totally removed.

#### **4.7.4 Camshaft**

**4.7.4.1** A Camshaft supplied by Kent Cams to Formula VEE Ireland specification must be used. Sealed camshafts are held for comparison purposes.

**4.7.4.2** All components in the operating train of the valve gear must be of standard production quality, dimensions and tolerance, especially in regard to their operating geometry.

**4.7.4.3** With the use of the Kent Camshaft, the gear wheel may be moved to obtain the correct timing through the gearwheel and camshaft of 7 degrees 30 minutes BTDC maximum, with 1mm of clearance at the inlet valve. The gearwheel must be drilled through into the camshaft, these must then be pinned. From the beginning of the 2007 season, only Kent camshafts made from original blanks to the proper specification may be used. Camshafts **reprofiled by Kent** may be used provided they have been sent back to Kent Cams for testing and stamped, if they are found by Kent Cams, to be within tolerances. **Upon eligibility inspection cams will be sent by registered post to Kent Cams for conformity checks.**

#### **4.7.5 Cam Followers, Push Rods and Rockers**

**4.7.5.1** All pertaining parts must be standard

**4.7.5.2** Only aluminium Push Rods to be used. The length of the Push Rods must be 279-282mm. If difficulty is found in obtaining tappet clearance, the rockers may be filed or ground at the adjusting end only. Alternatively, a 1mm thick spacer may be placed under the rocker shaft pedestal, if required, to assist in obtaining the correct valve clearance.

**4.7.5.3** Cam followers with a lubricating hole are permitted (e.g. Lube-a-Lobe). Hydraulic cam followers are not allowed.

**4.7.5.4** The mating of the Camshaft to the CAM drive should be held by two or three bolts.

**4.7.5.5** The timing of the Camshaft Gear to the Camshaft may only be altered as per 4.7.4

**4.7.5.6** The fitting of spacers in any form between the cam bearing and camshaft is not permitted.

**4.7.5.7** Machining of the camshaft to alter valve timing is not permitted.

**4.7.5.8** Any type of Push Rod Tubes may be fitted.

**4.7.5.9** Valves other than VW Valves may be used, provided that they conform in specification to the original part (See 4.7.10.3). Stainless steel valves are permitted for both inlet and exhaust provided they conform in spec to the

original part. Only one angle is permitted on a valve. Valves may be lapped in with grinding paste. No modification of shape or profile of valves is permitted.

**4.7.5.10** High Ratio rocker arms and swivel head tappet screws are not permitted.

**4.7.6 Crankshaft Pulley**

Crankshaft pulley may be turned down or replaced by a non-standard pulley.

**4.7.7 Piston Deck Heights**

Piston Deck heights may be altered by skimming the cylinder barrels, but the piston may not protrude above the top of the barrels at T.D.C.

**4.7.8 Valve Springs**

As per 4.7.10.2.

**4.7.9 Oil System**

**4.7.9.1** Sump baffle and sump extension may be fitted.

**4.7.9.2** Oil pump may be replaced by larger capacity unit.

**4.7.9.3** Dry sump system not permitted.

**4.7.9.4** Oil cooler and remote filter permitted.

**4.7.9.5** Cylinder block may be tapped to re-route oil feed to cooler and filter.

**4.7.9.6** Oil pumps with direct supply to filter are permitted.

**4.7.9.7** All oil pipes fitted must be able to withstand a pressure of 145psi.

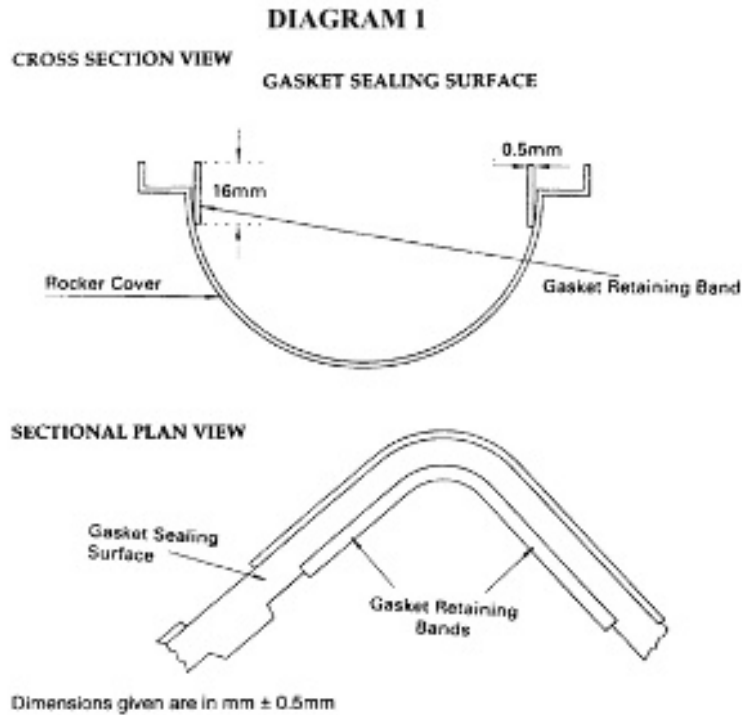
**4.7.9.8** A sump extension may be fitted to the engine and the oil pickup pipe may be extended into the sump.

**4.7.9.9** If the 'top hat' projects below the floorline of the car, an adequate sump guard must be fitted.

**4.7.9.10** Any oil filler neck extension and cap may be fitted.

**4.7.9 Rocker Covers**

**4.7.9.1** To help prevent oil leakages from Cylinder Head Rocker Covers, any type of Rocker Cover may be used, and the standard Rocker Cover may be modified as per Diagram 1.



4.7.9.2 The crankcase breather on the engine must be piped into a catch tank, mounted securely, and piped appropriately to prevent oil leaks.

#### 4.7.10 Cylinder Heads

4.7.10.1 Standard VW Twin-port cylinder heads as per 4.7.10.2 only, permitted. Heads using long reach plugs may be used so long as all other specifications are as original.

4.7.10.2 Reinforcing spacers may be fitted around head studs between cooling fins to prevent cracks and oil leaks.

4.7.10.3 Cylinder Head Volkswagen Type 2 or 3 Twin-Port with the following dimensions:

Rocker ratios must be	1.1:1.0
Minimum combustion chamber volume in cylinder head	50.0cc
Maximum diameter of inlet port at headface	32.0mm
Maximum diameter of exhaust port at headface	32.5mm
Maximum Inlet valve head diameter	35.55mm
Maximum Exhaust valve head diameter	32.0mm
Inlet and exhaust port finish	As cast
Inlet valve length	112.0mm
Exhaust valve length	111.9mm
Valve springs: 6.5 coils O/D	31.1mm
Wire diameter	3.9mm
Uncompressed length	Not to exceed 52.5mm
Spacers may be fitted under the valve spring. The total length of the uncompressed spring plus the spacers may not exceed	54.8mm

The step in the Combustion Chamber on some Cylinder Heads may be removed. As stated above, minimum combustion chamber volume in cylinder head is 50cc. Cylinder heads may be machined to allow for this. A steel or copper spacer may be placed between the head and the barrel to achieve the required volume.

These dimensions are given as a minimum/maximum size for each section of the cylinder head. The standard part must not be machined in order to obtain these dimensions unless specifically advised by these regulations.



In the event of an engine being stripped for an eligibility check, excess carbon must be removed from the combustion chamber and top of piston using a solvent spray and cloth or scotch pad

#### **4.7.11 Inlet Manifolds**

**4.7.11.1** Standard VW Type 2 or 3. Cast iron manifolds may be polished internally, but internal diameter at bottom end, adjacent to Cylinder Head must not exceed 33mm. A stack may be fitted between each inlet manifold and the carburettor and both stacks may be joined by a balance pipe. Dimensions of stacks and balance pipe unrestricted.

**4.7.11.2** Aftermarket cast aluminium inlet manifolds may be used and may be polished internally. The outside surface may be ground to permit the free movement of the mounting nuts at the cylinder head. The Throat diameter of the manifold is 33mm.

#### **4.7.12 Carburation**

**4.7.12.1** Two Zenith VN 2 Carburettors, unmodified in any way, apart from the altering of jets and removal of choke butterfly (if required) must be used. 29mm chokes only may be used.

**4.7.12.2** Alternatively, two Weber 34 ICT Carburettors, with a choke size of 29mm may be used.

**4.7.12.3** Throttle linkage, air cleaners are free.

**4.7.12.4** It is recommended that a separate throttle return spring is fitted to each carburettor. A minimum of three throttle return springs must be fitted.

#### **4.7.13 Cooling**

The standard fan, fan housing and shrouds may be altered/removed. Additional cooling ducts may be fitted.

### **4.8 SUSPENSION**

#### **4.8.1 Front Axle**

**4.8.1.1** Must be original VW Type 1 or trailing arm torsion spring design. Connection of the front axle to the chassis is unrestricted. The front axle must be fitted with telescopic shock absorbers, manner of operation and make unrestricted. Coil springs may be used in conjunction with front shock absorbers.

**4.8.1.2** The arrangement and method of fixing the shock absorbers is unrestricted. The shock absorber attachment horn of the front axle may be altered or removed. The piece (connection) between the torsion bars may be removed and replaced with a steel box section of minimum 50mm x 25mm size and minimum 2.5mm wall thickness (EN 10219-2 2006) but the distance between the top and bottom beam elements must remain unchanged.

**4.8.1.3** For adjustment of the suspension, one torsion spring may be replaced by a stabiliser, anti roll bar and the other may be altered. The fitting of a further stabiliser in any form is permitted. The centre grubscrew mounting, retaining the torsion springs, may be repositioned by cutting and rewelding the tube, or by fitting an adjustable grubscrew mounting.

#### **4.8.2 Rear Axle**

**4.8.2.1** The rear axle/rear suspension must be of trailing link or leading arm construction. Coil springs, together with telescopic shock absorbers, must be used for the suspension of the rear wheels.

**4.8.2.2** Mode of operations, construction, make and fixing of shock absorbers is unrestricted. Dual systems are not permitted. The removal of shock absorber horn from axle tube is permitted.

**4.8.2.3** Dampers with remote canisters are not permitted.

**4.8.2.4** The fitting of a stabiliser or an equaliser, and attachment points for link arms is allowed.

4.8.2.5 The use of VW double jointed axle (even partially) is not permitted.

## 4.9 TRANSMISSIONS

4.9.1 A fully synchromesh VW Type 1 or 3 gearbox must be used. All four forward gears as well as reverse gear must be present and in operative condition. Shift linkage free.

4.9.2 The fitting of a locking differential, even with a limited slip, is prohibited. No lightening of gearbox internal components or driveshafts is permitted.

4.9.3 The following reconditioning practices are permitted, if required:

- **Linish** longitudinal thrust faces of gears to obtain free play
- Build up selector forks
- Bush selector rod guide holes in gear carrier
- Remove detent spring plugs and replace with grub screws
- Re-machine circlip grooves on rear of pinion and main shafts
- Weld synchromesh hub to gear
- Recondition detent grooves in selector fingers and detents in synchromesh selector hubs
- Reconditioning of threads and studs
- Fit mainshaft and pinion shaft rear bearing retaining plate if required to prevent bearing loosening in housing

4.9.4 The following gear ratios must be used:

Gear	Set 1 Type 3 (Variant)
First	3.80 (38:10 or 34:9)
Second	2.06 (35:17)
Third	1.26 (29:23 or 63:50)
Fourth	0.89 (24:27) or 0.88 (53:60)
Diff	4.125 (33:8)

The gear ratios can be checked with the gearbox in-situ. The car should be placed in gear and the position of top centre on the crank pulley and rear tyre should be marked. The car should be slowly pushed forward and the number of engine and wheel revolutions counted. The correct ratios are:

- 3rd gear: 26 engine revolutions to 5 wheel revolutions
- 4th gear: 11 engine revolutions to 3 wheel revolutions

4.9.5 Reverse gear must be fitted and operational.

4.9.6 The internals of the gearbox must be assembled as originally intended by the manufacturer (with the exception of the differential, which may be reversed to allow for the repositioning of the gearbox at the rear of the car).

4.9.7 Only 80W90 gear oil can be used in gearboxes. No ATF fluid or engine oil can be used.

4.9.8 Mode of clutch operation, clutch lining and springs unrestricted. Number of springs may be changed. Clutch may not be lightened.

4.9.9 Standard Type 1, 2 or 3 flywheel must be used, but it may be lightened and balanced by the removal of material. Additional or larger dowel pins and larger gland nut may be used for fixing the flywheel. The crank sealing surface on the flywheel may be refurbished to prevent oil leaks.

#### 4.10 ELECTRICS

4.10.1 An operable electrical starter and a dashboard ignition switch are compulsory. The ignition switch and starter button must be operational from the driver's seat with seat belts fastened.

4.10.2 Ignition unrestricted, except double ignition not allowed. A 009 distributor must be used using either contact breaker points or Lumenition (or similar) contactless ignition which must be connected directly to the coil with 2 wires and fitted inside the distributor cap. Generator and pedestal may be removed.

4.10.3 Battery unrestricted. Only dry cell batteries must be used. **Batteries must be securely fastened in the car.**

4.10.3 In addition to this, a separate rear light switch must be installed. This switch must operate a rearward-facing red warning light of a minimum of 21 watts, with surface area minimum 20 cm<sup>2</sup>, maximum 40 cm<sup>2</sup>, which must be located within 10cms of the centre line of the vehicle and be clearly visible from the rear. See MI Yearbook Appendix 2 Article 2.2. The warning light must be switched on when visibility conditions are reduced, or when instructed by an official. Only bayonette-type bulbs or LED lights may be used. If using LED lights, then a minimum of 75% of the LEDs must be working.

#### 4.11 BRAKES

4.11.1 All components of the wheel brakes must be VW Standard TYPE 1 or 3.

4.11.2 Solid front disc brakes are optional. The specification and part numbers as agreed with and provided to the MI Race Committee.

4.11.3 Any air-cooled VW Beetle wheel brake cylinder may be used on the rear brakes

4.11.4 Machining of the internal, non-friction surface of brake drums is not permitted.

4.11.5 The foot brake must be constructed as a dual circuit brake.

4.11.6 Each brake master cylinder must be fed by a separate fluid reservoir. The make and type of master cylinder and make of brake linings is unrestricted.

4.11.7 The fitting of a brake pressure distributor is permitted.

4.11.8 Cooling air ducts may be fitted only for the purpose of cooling the brakes.

#### 4.12 WHEELS/STEERING

4.12.1 Wheels are supplied by Weller, Starco, or Compomotive to Formula VEE Ireland. Steel Weller and Starco wheels and alloy Compomotive wheels (model number ML1362) are permissible. The nominated supplier is SW Adair Tyres, Tel No. 0044 28 8164 8428.

4.12.2 Wheels may be fastened to hubs using standard VW wheel bolts, or alternatively using proprietary screw-in after-market M14 wheel studs and nuts. The studs must be threaded into the wheel hub and welded to the inside of the hub to prevent loosening

4.12.3 Standard Beetle steering box or any steering rack may be fitted, and steering arms are unrestricted. Drop arm between steering box and steering arm assembly must be the original standard part. An extension of minimum

thickness ¼” may be fitted between the drop arm and steering rods but it must be bolted to both parts. It may also be welded.

#### 4.13 TYRES

4.13.1 The only tyres permitted are TOYO PROXES R888 or R888R (GG Compound). All tyres on the car must be either R888R or R888 and no mixing is allowed. Minimum tread depth of 1.6mm is to be maintained around the circumference of the tyre measured across 75% width of the tyre.

#### 4.13.2 Permitted Compounds

##### 4.13.2.1 Toyo Proxes R888R

Front Toyo Proxes R888R 185/60R13 80V GG (Medium Hard) Compound

Rear Toyo Proxes R888R 205/60R13 86V GG (Medium Hard) Compound

##### Toyo Proxes R888

Front Toyo Proxes R888 185/60R13 80V GG (Medium Hard) Compound

Rear Toyo Proxes R888 205/60R13 86V GG (Medium Hard) Compound

4.13.3 Nominated supplier SW Adair Tyres  
49 Killymore Rd  
Newtownstewart  
Co. Tyrone  
BT78 4DU  
Tel No: 0044 28 8164 8428.

#### 4.14 WEIGHTS

The minimum vehicle weight excluding driver is 385kg, including driver is 485kg. The car and driver weight are intended to include the driver suitable dressed for competition, with safety helmet and all safety equipment. It is emphasised that both these minimum weights must be respected at all times during both Qualifying and Competition. Failure to meet either or both will be considered an offence under these regulations.

#### 4.15 FUEL TANK/FUEL

4.15.1 Only proprietary fuels, such as those available in normal petrol stations shall be used. The maximum permitted rating for fuel is 99 octane. For the avoidance of doubt race fuel is prohibited.

4.15.2 The organisers reserved the right to introduce a control fuel/supplier and competitors will be notified by a Championship Bulletin.

4.15.3 Additives which shall alter the properties (octane value, etc) of the fuel are not permitted.

4.15.4 No fuel may be added during qualifying or racing. At the end of timed practice/qualifying or races, there must be at least one litre of fuel from the tank of the competing car made available to the scrutineers for analysis. Compliance with minimum weight for the car will be taken before any fuel is removed.

4.15.5 A mechanical fuel pump suitable for VW Type 1, 2 or 3 only, must be used. A non-return valve may be fitted to the fuel tank breather pipe. If a non-return valve is not fitted, the breather pipe must be looped higher than the top point of the tank (filler) and must then continue to under the bottom point of the chassis, where it must be secured, e.g. run through a hole in the sump guard and tied securely.

#### 4.16 SILENCING

4.16.1 All vehicles must be silenced in accordance with MI Yearbook Appendix 2 Article 9.

- 4.16.2** The exhaust system must not extend further than 60cms from the axis of the rear axle. The height of the exhaust system at outlet(s) must be no higher than 60cms. (Driver in car, car in race trim). The height is defined as the difference from ground level to the centre line of the exhaust silencer.
- 4.16.3** An adequate silencer must be fitted and secured using bolts. It must be included in any exhaust system dimensions. The dimensions of the silencer are free. Two independent forms of fixing must be applied. All cars must comply with relevant circuit requirements.
- 4.16.4** Exhaust pipes and silencer must be painted with a heat-resistant paint, or be in a presentable condition.