MSA Oval Tar Racing Handbook 2018

Oval

TAR OVAL REGULATIONS

The contents of this Hand Book take effect from 1st January 2018.

www.motorsport.co.za

Please consult our website for category regulations, as well as any updates or changes made throughout the year.

IMPORTANT NOTICE

These regulations have been prepared for and on behalf of MSA tar oval racing clubs, promoters, officials and competitors that are affiliated to MSA The content here of is accordingly the property of those individuals. These regulations may not be used by other bodies unless MSA is credited as the source.

WHICH RULES APPLY?

In respect of each class of racing there will be 5 sets of regulations that apply. These regulations are the following:-

- The general vehicle regulations that would apply to all vehicles;
- The engine building rules that applies to all classes. In this regard it must be noted that each class will specify which engine building regulations apply to the class;
- The Safety standards that apply to all vehicles;
- The general construction rules that relate to the particular class. In this regard it must be noted that each class will specify which construction regulations apply to the particular class; and
- The specific class regulations that set out the limitations and modifications that applies the specific class.

Ninja midgets warrant their own regulations

These are published at the end of the book. This rulebook does not apply to banger racing. Venues and organizers that wish to present bangers shall furnish the MSA Commission President (for onward transmission to the Commission) with a detailed set of driving and construction regulations for the class.

In order to clear up any confusion it is specifically stated that all these regulations apply to tar oval racing.

WHAT APPLIES IF THERE IS A CONTRADICTION

While every effort has been made to avoid conflicting regulations the following shall apply in the event of a conflict between the various regulations:-

- If the conflicting regulations concern a performance related issue the specific class regulations will apply;
- If the conflicting regulations concern the way an engine is built the relevant engine building regulations will apply and
- If the conflicting regulations concern safety class regulations will defer to the safety standards, then the construction regulations and then the general regulations.

INTERPRETATION OF REGULATIONS AND SPECIFICATIONS

The following GCR is the basis to interpreting all the regulations that apply to motorsport.

GCR226 states: *Interpreting motorsport regulations and specifications "what is not specifically permitted is disallowed" is the normal concept in keeping with the French regulations on which all motor sporting regulations are based.*

This means that you may only do something if the rules say you may. Competitors and officials alike shall adopt the following principle when reading and applying the rules: *They should only be concerned with the normal plain meaning of the wording of the regulations and shall pay no attention to any claim as to what the regulations were intended to mean.*

CURRENCY OF THESE REGULATIONS

These regulations will govern the technical aspects of oval racing until 31 December 2017.

CHANGES TO THESE REGULATIONS

These regulations are administered by MSA, the persons elected and appointed to oversee tar oval racing. They are the controllers of these regulations. They have a responsibility to the broad competitor base to address or clarify issues as and when they arise. They may make changes to the regulations by way of a properly published circular. That circular will only become effective 2 weeks after it is published.

WHAT DO YOU DO IF YOU SUSPECT YOUR FELLOW COMPETITOR IS ILLEGAL

You have the right to protest. You would need to specify what you think is illegal on the vehicle. Race officials will have the car examined by the technical team. Should you be correct the other competitor will be excluded and your money will be returned. Should you not be correct, your money will be retained and the other competitor will be compensated for gaskets etc. from your protest fee. Should the protest fee not cover the cost of the gaskets, etc. you will be responsible for the difference in cost. This does not cover labour cost as the other competitor is deemed capable of his doing his own assemble and repair work.

WHAT IS CHEATING

There is a vast difference between being found to have contravened technical regulations and deliberately planning to be outside the regulation and taking premeditated steps to disguise these irregularities. A good example of cheating is where an electronic control unit on a vehicle opened and altered internally, contrary to regulations or where another control unit is wired into the harness and hidden.

Where technical consultants believe that the line between being illegal and cheating has been crossed, they shall report this to the race officials, having excluded the competitor from the results. A competitor found guilty of cheating shall be banned from racing for at least 6 months without the option of having the ban suspended.

REGULATIONS APPLICABLE TO OVAL TAR RACING
PART 1 GENERAL VEHICLE CONSTRUCTION APPLICABLE TO ALL CLASSES

CR1 DEFINITIONS

1.1 The only GCR's that apply to the interpretation of these class and construction regulations or the duties of officials and competitors in respect there to are **GCR's226, 245, 249, 255, and 257.**

1.2 Throughout these class regulations there will be reference to different types of engine e builds being:

1.2.1 The **stock** engine – which means that all the parts in the engines hall be standard or generally accepted replacement parts for stock vehicles;

1.2.2 The **modified** engine – which means that he parts utilized may at the discretion of the competitor be either standard or race parts

1.2.3 The **open** engine – which as the name implies means that there are almost no restrictions to the manner in which the engine is built.

1.3 The regulations also refer to differing vehicle construction as follows:

1.3.1 **Original road going vehicle** – these vehicles are ordinary road going vehicles that have been converted to race cars. The key element of this type of vehicle is that he suspension pickup points have not been altered or connected to any of the roll cage pipes;

1.3.2 **Semi-space frames**–these vehicles are original road going bodies that have evolved to a point where the suspension pick up points have been altered or where these points are connected to the roll cage pipe work. Included in this class of vehicle is the front wheel drive body shell that has been made rear wheel drive;

1.3.3 **Space frames**– these are purpose built racing chassis; and

1.3.4 **Open wheelers** – these are purpose built chassis designed for open wheel racing.

1.4 The regulations will refer to the following types of body shells:-

1.4.1 **Stock bodies**–this means that the vehicle must be clearly recognizable as an original road going vehicle as the rear fenders ,roof, all fender walls ; bulk heads and roof pillars must still be present;

1.4.2 **Replica bodies**–this means that the whole body or sections thereof may be replaced with a moulded copy of a vehicle. These are typically used with space frames;

1.4.3 **Plated bodies**–these vehicles are also typically space frames and have flat metal sheet or other materials as permitted in their class regulations fitted to cover the frame. These vehicles typically present in a wedge design; and

1.4.4 **Open wheel bodies** – these vehicles have a cover over the engine bay and a separate cover over the rear fuel tank area. The side soft he vehicles are usually plated.

1.5 The following applies in respect of the type of part that may be used:

1.5.1 **Purpose made parts** – these parts are those that the competitor makes himself or has made.

1.5.2 **Race parts** – these parts are made specifically for racing.

1.5.3 **Standard parts** – these are original equipment or generally accepted, commercially available, proprietary branded, replacement parts, which specifically excludes any purpose made or racing parts. These parts may be further limited to:-

1.5.3.1 **Vehicle specific standard parts** – which mean that parts specified for the particular make of vehicle or engine must be used;

1.5.3.2 **Brand specific standard parts** – which mean that parts specified for the particular brand of vehicle or engine may be used. By way of example this means that any component from any Ford may be used in a Ford.

1.5.3.3 **Class specific standard parts** – means that any part which in its own right would qualify as a standard part may be used. These parts are used when for instance the regulations specify that the choice of brakes is free with in the general choice restrictions of the class.

1.6 Throughout these regulations frequent reference is made to fiberglass. The term "fibreglass" must be regarded as a collective word for all forms of suitable composite materials, including carbon fibre and Kevlar™.

1.7 Throughout these regulations references is made to sheet metal. Aluminium sheet may also be used instead of metal sheet.

1.8 Throughout these regulations reference is made to the inside or outside as it relates to vehicles.

Over and above the plain meaning of the words relating to whether or not something is inside or outside something the words, depending on the context, relate to a specific side of the vehicle. The term outside relates to the left side of the vehicle that is raced in a clock wise direction.

CR2 NUMBERS, NAMES, MARKINGS, ADVERTISING AND SLOGANS ON VEHICLES / PAINTING OF VEHICLES

2.1 **Please also refer to GCR's 246 to 249.**

2.2 Numbers:

2.2.1 Competitors must realize that the number is the primary means of identification in respect of scorers, officials, fellow competitors and the spectator. A look at any track will reveal many similar looking and similarly painted vehicles – only the numbers are unique. Competitors should strive towards making the number a feature of their vehicle.

2.2.2 Vehicles will be identified by means of a number as per the National number system. There will be no venue prefix to reflect the competitor's registered home base. MSA will administer the competitor numbers and all drivers must comply with the MSA number system,

NOTICE NATIONAL NUMBERING SYSTEM EXPLAINED

NN1 The objectives of the system are:

1.1 To create a unique race number for each competitor;

1.2 To aid competitors in creating awareness about themselves;

1.3 To assist event officials by removing duplicate numbers and there by potential errors and

1.4 To assist commentators and the public by improving the identification of the competitor.

NN2 **Due** to the many duplications that have developed over time the system has been started by grouping existing competitors in to the following combined class groups:

2.1 N/A

2.2 1600 saloons–tar;

2.3 N/A

2.4 2100 saloons, 2L hotrods and hotrods–tar

2.5 N/A

2.6 N/A

2.7 Junior/Development formulae–tar;

2.8 Super saloons–tar;

2.9 N/A

2.10 Midgets–tar;

2.11 Micro and ninja midgets–tar;

2.12 Sprint Cars–tar

NN3 The numbers remain allocated to a competitor as long as he or she races.

3.1 Where the competitor becomes an SA champion (ends second or third in the series) the race number will remain allocated to him even though he is entitled to use the SA number.

3.2 The number will remain allocated to a competitor for 13 months after his license expires.

3.3 Competitors may buy and sell numbers amongst each other. In this case written proof of purchase must be submitted.

3.4 MSA may declare certain numbers off limits either permanently or for a period in honour of competitors who may have passed away or retired. Example :(**Number 0 is reserved in memory of Johan Roos).**

3.5 Should an existing competitor move to another class he may take his number into that class if it is open in that class. Where a competitor participates in more than one class he will be required to have a single number in all the classes and will be reallocated a number.

NN4 Numbers are allocated as follows:

4.1 It is recorded that there has been a process whereby competitors who have achieved success in the sport have been given preference. This process is now complete. From now onwards it is first come first served.

4.2 As stated, competitors who are already on the National Number data base who continue to compete in the same class or classes will automatically be reallocated their number on a year by year basis.

4.3 New competitors as well as those whose information is not yet on the data base should contact the Numbers administrator by following the relevant links on the MSA website.

4.4 The number selected will be reserved for 14 days in order to allow the competitor to obtain his license. There after the number will be free.

NN5 The number system is being unified as follows:

5.1 When one of the drivers cease competing or fails to renew his license the number in that class will be closed. This process will continue until each number is used only once.

5.2 New numbers are allocated to a driver and are immediately closed to all other classes.

CR.2.2.3 Numbers shall be positioned as set out in the relevant class regulations. Should the number not be visible to the lap scorer – the competitor would not be scored.

2.2.4 There are two definite styles of numbering permitted being:

2.2.4.1 The typical USA / UK oval racing style where the numbers are very stylish and very large on the door panels of the car. The numbers are applied directly on to the bodywork. These numbers shall always be of contrasting colours and be highly visible in the prevailing race conditions and light conditions.

2.2.5 The minimum dimensions of the numbers area's follows:

2.2.5.1 When applied directly on the body work – **400**mm high with a stroke of **75**mm;

2.2.5.2 When applied onto a back ground colour the end plate of awing – **300**mm high with a stroke of **50**mm;

2.2.5.3 On the sun visor panel or front wing (specific to open wheelers) – As large as the dimensions will allow.

2.2.5.4 The size of the pre fix is free.

2.2.6 All numbers shall be in position when the vehicle is presented for scrutiny. Modifications may be required because of observations made by the lap scorers. Numbers shall be placed on the section of the body that is mainly vertical. This means that numbers should not be applied on wheel acres and other similar rounded areas. The number should be visible to the public and the crowd from a position on the ground as well as in the stands.

2.2.7 The South African Champion or the National Class champion shall carry the number "SA 1" on his vehicle. The competitors who finished second and third in the National Championship Series shall carry the numbers "SA 2" and "SA 3" on their vehicles.

2.2.8 The numbers 1, 2 and 3 may not be used outside of the above regulations. No number that would create the impression that the competitor is a champion may be used. It follows that for instance the number 0, 1, 2 and 3 cannot be used under any circumstances. No zero's may be placed in front of any competitors number. The number 0 should normally refer to the pace car. No other numbers are to have the prefix S.A or Z.A. on a car.

2.2.9 No cars displaying ZA numbers will be allowed to race on any MSA event.

2.3 Names:-

2.3.1 The name and surname of the competitor shall be painted or sign written as follows:

2.3.1.1 Saloon vehicles – on to either the whole of the sun visor panel, or on the spectator side of the roof just above the door or on the replacement window panel in the rear door that faces the spectators.

2.3.1.2 Onto the lower, forward area of the end plate of open wheeled vehicles on the spectator side.

2.3.1.3 Dimensions of letters to be a minimum of 150 mm high with a 25 mm stroke.

2.4 Advertising, Logos and slogans:-

2.4.1 The club logo may be added alongside the name.

2.4.2 Advertising is permitted on all vehicles. The advertising shall not interfere with the numbers at all.

2.4.3 In respect of advertising GCR 246, 247 and 248 apply.

2.4. No rude or offensive logo's, signs, slogans, commentating or similar items/acts, are allowed.

2.4.5 As a guide to competitors and officials the following:

2.4.5.1 Swear words, even if disguised by as the risks and other symbols are regarded as rude;

2.4.5.2 Any blatant reference to sex, the sexual act or the naked body shall be regarded as offensive;

2.4.5.3 Any reference to race is offensive;

2.4.5.4 Any reference that belittles or pokes fun at the belief or religion of another shall be offensive. It is however acceptable to state your own personal believes (irrespective of what that is).

2.5 Specific markings required:-

2.5.1 Competitors using methanol as fuel shall display aluminous or a gedot, with a minimum diameter of 300 mm on both sides and on the roof of the vehicle. The wording "Me" or a black lightning bolt shall be printed on the dot. The letters or the bolt shall be at least 175 mm high and have a stroke of 30 mm.

2.5.2 Rookie competitors in saloon classes will mount a 45 x 30 cm yellow flag to the middle of the boot lid. Rookie competitors in the open wheel classes will mount the flag into the top of the rear push bar. In the micro midget class the flag will mount on to the rear wing. In all cases the flag pole used shall have a suitable means of preventing the flag from becoming dislodged.

2.6 Vehicles shall be neatly painted and presented in an acceptable condition to the Scrutineers of an event. Competitors who are part of teams must ensure that steps, other than the numbers, are taken to differentiate between the teammates.

CR3 MIRRORS

3.1 Rear view mirrors are not permitted in open wheel classes. Rear view mirrors may be fitted to other classes but may not protrude outside the widest point of the vehicle. Mirrors may not exceed 300 cm 2.

CR4 WHEELS AND RIMS

4.1 Double wheels are not permitted. Hence all vehicles must have two front and two rear wheels only.

4.2 All wheel nuts shall be machined in order that the scrutineer can determine the length of the studs.
All wheel nuts are to be fitted. The stud thread shall be in good order and when the nut is in place at least 100 % of the diameter of the nut or 20-mm of thread shall be engaged whichever is the greater. In cases where the wheel is fastened by a stud turned into the hub or drum the same regulations in respect of the engagement of the stud shall apply.

4.3 The width of the rim may not exceed the tread width of the tyre utilized with that rim. Officials and competitors should note that this measurement is taken where the tyre seats and is not the distance between the outside edges of the rim.

4.4 Bead lock rims are only permitted on open wheel vehicles and in the classes where they are specifically permitted. The introduction of bead lock rims in the open wheel and hotrod classes have created unforeseen problem in that the fastener on the lock rings have in many cases been responsible for flat wheel sand / or rim damage for other competitors. Measures must accordingly be taken to address the problem. Hence it is necessary to introduce a regulation that compels the competitor who wishes to use lock rings to make the ring thick enough so that the head of the fastener can be counter sunk to a depth where it does not pose a threat to a fellow competitor. The head of the fastener used shall be counter sunk to at least 80 % of the depth of the head. The head shall be bevelled or chamfered.

4.5 Only steel and aluminium wheels would be allowed.

CR5 WHEEL SPACERS AND WHEEL ADAPTERS

5.1 Wheel adapters and spacers are permitted.

5.2 Wheel adapters must be made of steel and may not exceed 25 – mm in thickness.

5.3 Wheel spacers maybe made of steel or aluminium and shall be flat and have a maximum thickness of 65 - mm.

5.4 Adapters and spacers must be stepped to locate the wheel.

5.5 Both these parts may not be fitted to the same wheel simultaneously.

5.6 High tensile steel cap screws shall be utilized to replace wheel studs, a fix adapter, or fit the wheel if any form of spacer or adapter is used.

CR6 TYRES AND SUSPENSIONS

6.1 Tyres may not protrude beyond the wheel arch or body work in all saloon class categories.

6.2 Tyres other than slicks shall have a minimum of 2 mm of standard tread pattern visible and capable of measurement across at least 75% of the width of the tyre when submitted at scrutineering. Scrutineers shall refuse any tyre that has reach end the tread wear indicator.

6.3 All tyres and replacement wheels shall be presented unmarked at scrutineering and may be marked at scrutineering, if they comply with these regulations.

6.4 The tyre manufacturers original extruded side wall markings, indicating manufacturer's details, size, profile, country of origin, ratings, serial numbers and batch codes may not be removed or altered.

6.5 Any chemical treatments or any means to artificially enhance tyre performance is prohibited.
Buffing or skimming is permitted. No grooving is permitted.

6.6 Where ever a class regulation refers to a tyre size, such tyre size shall be determined by reference to the extruded tyre markings made by the manufacturer and not physical measurement. Not with standing this regulation, a scrutineer or a technical representative shall be entitled to measure tyres for compliance with manufacturer's specifications. The only exception to this regulation is rethreaded tyres where the width of the rethreaded portion shall be measured for compliance with width regulations.

6.7 The tyre aspect ratio is free.

6.8 The use of nitrogen in tyres is permitted.

6.9 The following tyre types are, subject to the stipulations contained in the specific class regulations, available to competitors:-

6.9.1 **Road legal tyres**, described as tyres which are designed for road going use in terms of accepted International standards. Any tyre that has an inscription specifying that it is only for competition use or is not permitted on highways is a race tyre and may not be used. It is brought to the attention of competitors that the commonly used "M + S" inscription relates to the tyre's performance in mud and snow and does not sign if ya race tyre. Please also note the tyres that only comply with the USA DOT certification are not considered road legal in South Africa and hence do not comply with this regulation.

6.9.2 **Race tyres**, described as tyres manufactured by are cognized tyre manufacturer, which are designed for race use only. These tyres can be slick tyres for use on tar or treaded for use on dirt. Such tyres must be generally available to all competitors. Please refer to the specific class for details of the tyres that are permitted.

6.9.3 **Rethreaded tyres**, described as tyres, retreaded in the Republic of South Africa by recognized locally domiciled ret readers. These tyres shall comply with the relevant Traffic Act/SABS standards and be distributed to the general public for that purpose. It follows that such tyres must be generally available to the public at reputable commercial tyre dealers or retreaders. Imported casings are permitted. Race tyres may not be used as casings. These tyres are not permissible for tar events.

6.10 The regulators are concerned that certain competitors may achieve an unfair advantage by importing special tyres albeit that the tyres are road legal in the country of origin. This was never the intention of the rule. Competitors and officials are reminded that the choice of tyres is restricted to tyres that are available to the general public at the leading franchise tyre operations in South Africa. Hence if you need to place special orders for tyre or need to import them yourself you may not use the tyre. Tyres may not be skimmed.

6.11 Where a maximum tyre quantity is permitted the event regulations should specify when competitors become locked in to the tyres, failing which it is at scrutineering of the car.

CR7 SUSPENSION / RIDE HEIGHT

7.1 **Suspension** design is free subject to class regulations.
7.2 Coil and leaf spring rates are free in the classes where they are allowed. (Not in Stock Rods).
7.3 Front and or rear strut towers may be braced from one front strut other opposite strut. (Not in Stock rods).
7.4 **Ride height may** be made adjustable by using a threaded pipe to adjust the spring saddle.
7.5 Ride height is free. Vehicles are not permitted to scrape on the track at any time including cornering and braking. A vehicle that causes sparks due to being too low shall be stopped by the race officials.

CR8 EXHAUST & SILENCER

8.1 The exhaust pipe shall be securely fitted to the vehicle and shall preferably be mounted above the floor pan of the vehicle to avoid the loss thereof.
8.2 A suitable metal plate mounted away from the exhaust in order that it acts, as an effective heat shield shall cover the pipe inside the driver's compartment.
8.3 Vehicles that have the exhaust below the floor pan shall fit saddles to the front and rear of the vehicle to retain the **exhaust system** should it break or fail in any other manner. Material to be 25 mm wide and 3 mm thick metal. Saddles are to be properly bolted to the vehicle.
8.4 Competition **exhaust manifolds** are permitted where the class rules allows it.
8.5 Exhaust tailpipes passing out the side of the car may only do so at a maximum height as measured from the top of the pipe to the floor. This height is 500 mm on tar cars. This rule is clarified to mean that the maximum height of the exhaust is reflected in the rule. It may be lower than the height. It may also not point to the face of another competitor.
8.6 All race cars, other than sprint cars, must be fitted with a silencer. The silencer should have a perforated pipe between the front plate and the back plate of the silencer box. Noise may not exceed 109 Db measured 1 meter above ground level at the starters box with the vehicle passing by at full speed notwithstanding the fact that the cars must comply with the rules as set out in the MSA environmental requirements. Competitors racing in Cape Town are restricted to 105Db.

CR9 BRAKES

9.1 Effective braking is mandatory on all 4 wheels of saloons. For open wheelers please refer the specific class regulations.
9.2 Only driver operated brake balance / bias adjustment systems are permitted.
9.3 ABS is not permitted in any class.
9.4 Copper brake lines or pipes are not allowed.
9.5 Pedal boxes are free.

CR10 TRANSMISSION

10.1 Only two-wheel drive is permitted.
10.2 Differentials may be locked.
10.3 No sequential gearboxes or traction control systems are allowed in not allowed in the class rules.
10.4 Clutch driven plates are free. All saloon cars must be fitted with a working clutch.

CR11 CARBURETION/ FUEL INJECTION/ IGNITION

11.1 The use of Nitrous oxide or water injection is not permitted.
11.2 Swirl pots / anti surge tanks are permitted, provided that they in no way aid fuel cooling.
11.3 No fuel cooling whatsoever is allowed.
11.4 Fuel pressure regulators are permitted.
11.5 Induction and ram tubes are free unless specified by a class regulation.
11.6 Fuel and air filters are free and may be fitted at the discretion of the competitor.

11.7 Fuel pumps are free in respect of means of operation and capacity;
11.8 Mechanical fuel injection is permitted unless prohibited by class regulations.

11.9 **Carburettors**

11.9.1 The class regulations state the limitations that apply to carburettors and intake manifolds. Subject to these limitations the carburettors and intake manifolds are free.

11.9.2 Carburettor jets and needles are free and the carburettor may be modified but the operating principle must remain as standard.

11.9.3 Dellorto and Weber carburettor parts may be interchanged.

11.9.4 The internal diameter of choke tubes is subject to class regulations. The internal shape of the choke tube shall have a radius curve leading from the outside of the choke tube to a point where the internal diameter is at the minimum size set out in the applicable class regulation. The parallel section shall remain at that diameter for at least 2mm. It is recognized that most choke tubes are purpose made. However, it is imperative that the choke tube retains a smooth finish and no grooves or holes may be drilled or cut into the internal portion of the choke tube. Otherwise stated it is the clearing tension of the regulations that all air that passes into the carburettor (directly or in directly) shall pass the section of the choke tube where the diameter of the tube reaches the minimum set out in the applicable class regulation.

11.10 **Fuel Injection**

11.10.1 These regulations and the class regulations may limit various aspects of fuel injection systems and intake manifolds. Subject to these limitations the fuel injection systems and intake manifolds are free.

11.10.2 Where the class rules allow fuel injection, individual throttle bodies, butterflies, rollers and slides are not permitted on the 1660 and 2.1 class. It is recommended the original intake manifold may be used for fuel injection; however homemade intake manifolds are allowed limited to the throttle body sizes specified. . These may be ported and/or flowed. A single throttle body, not exceeding 60mm, may only be used in the 1660 class and 70mm. in the 2.1 class.

11.10.3 Competitors may elect to install two injectors per cylinder in classes where fuel injection is permitted, provided they operated from a single controlling source.

11.10.4 No secondary injection systems are permitted, unless permitted in class regulations.

Secondary injection is defined as:

11.10.4.1 The use of more than one system to activate / operate more than one injector per cylinder to in put the fuel into the cylinder; or

11.10.4.2 The injection of water or methanol together with the fuel utilized with the latter option is only allowed to turbo charged engines.

11.10.5 Subject to these limitations and the relevant class regulations the injection is free.

11.11 **Ignition**

11.11.1 The ignition regulations are specified with in each class regulation.

11.11.2 In all cases where standard (original equipment) or specified ignition units are stipulated these units shall remain completely unaltered. Any sign of tampering or unauthorized modification will be regarded as cheating.

11.11.3 Where standard ignition is stipulated all the sensors that make up the ignition system shall be standard parts specified for the particular engine utilized. The crankshaft position sensor may be removed from the flywheel and replaced with a timing disc and pick-up at the crank shaft pulley. In this case steps must be taken so that the unit can be sealed by the technical team.

11.11.4 The ignition system must be visible and accessible for removal. The technical consultant is authorized to check the unit and the wiring at any time during an event.

11.11.5 All engines must have a fixed T.D.C. mark on the front of the engine.

11.11.6 Aftermarket ignition is permitted unless prohibited in a class.

11.11.7 Ignition systems may in corporate rev limiters and may be programmable for timing only.

11.11.8 Engines that do not have distributors in standard donor form must use a sensor on the crank shaft pulley or crank shaft damper only.

11.11.9 Any electronic device that controls more than just the supply of spark to the engine (and the permitted rev limiting function) is deemed to be an engine management system.

11.12 **Electronic / Engine management**

11.12.1 Whenever the regulations allow engine management systems these systems are (unless otherwise stated) limited to systems that are sold, serviced and supported in South Africa.

11.12.2 No system that would permit any form of traction control or administer any form of control over the braking system is permitted. ABS brakes are not allowed.

11.12.3 No electronic attachments or sensors may be affixed to the axles or wheels.

11.12.4 In all cases all auxiliary inputs and out puts should have values set to have absolutely no effect on the operation of the engine, gearbox, differential or brakes.

11.12.5 The system shall have a plug where a computer or controller can be plugged in to the system.

11.12.6 Telemetry systems are not permitted. DATA LOGGING is defined to be the recording of engine information such as temperature and pressure in electronic format capable of being accessed by computer. Displays indicating such information are permitted

11.12.7 The control unit for the ignition / engine management may not be connected to carburettors, brakes, manifolds, gearbox, drive train or wheels through means other than the permitted sensors. The unit as well as all wires connected thereto shall be visible and accessible for removal.

CR12 FUEL AND FUEL ADDITIVES

12.1 Generally please refer to GCR 240.

12.2 Throughout these regulations pump fuel shall mean a petroleum fuel dispensed from a filling station pump, in terms of the fuel sale and distribution regulations of the Republic of South Africa. Such fuel may be of unleaded or lead replacement type.

12.3 Fuels are allocated per class – please refer to the annexure at the end of each class.

12.4 Organizers who run Non National championship club classes shall specify the fuel to be used in that class.

12.5 No diesel is permitted. No ethanol is permitted. No toluene is permitted in any fuel.

12.6 Methanol is permitted provided:-

12.6.1 That the specific methanol safety features are in place at the venue; and

12.6.2 That the specific clothing regulations are complied with; and

12.6.3 That the vehicle is marked for methanol; and

12.6.4 It is permitted in the class regulations.

12.7 Only a single type of fuel is permitted, meaning that, as an example, no methanol may be introduced in to race fuel by any means at any stage of the induction / combustion process. Different brands of fuels may be used

12.8 The only permitted additives to fuel are:

12.8.1 To race fuel (inclusive of LL100)–Proprietary branded upper cylinder lubricants / two stroke oil;

12.8.2 To pump fuel (as the specified fuel) – Proprietary branded upper cylinder lubricants / two stroke oil;

12.8.3 To pump fuel (when other fuels are also permitted) – proprietary branded octane boosters and Proprietary branded upper cylinder lubricants / two stroke oil;

12.8.4 To methanol – Proprietary branded oils / two stroke oil / castor oil / vegetable oil

12.9 Fuel testing

12.9.1 Fuel shall in the first instance be checked by using a Digitron fuel conductivity meter and/or measuring the specific gravity of the fuel. The results of this method of testing shall be used by all race officials to decide whether fuels are compatible with clean fuels supplied by organizers.

12.9.2 A competitor shall have the right to invoke the testing procedure set out in GCR 240. Such procedure shall be at his expense. In order to invoke this procedure he shall lodge a deposit of R10 000 (ten thousand Rand) with MSA through the stewards of the event.

CR13 TOW HOOKS & REMOVAL OF VEHICLES

13.1 All vehicles shall be fitted with a clearly marked towing eye, painted bright yellow, front and back, in order that recovery vehicles may drag stranded vehicles off the circuit with the least delay. Such towing eye shall not protrude from the front or back of the vehicle. It is suggested that properly supported flat bar attached to the roll cage post would provide an ideal means of dragging a stricken car of the circuit using a webbed tow rope.

13.2 All vehicles shall be fitted with eyes or hoops in the engine compartment, painted bright yellow that would enable the vehicle to be lifted by a break down vehicle. This is especially necessary in space-framed vehicles. These eyes or hoops shall be affixed in line with the chassis rails. The hoops may be replaced by permanently fixed straps that are mounted on to a suitable point in the vehicle.

13.3 Vehicles may also fit an overhead, roll cage mounted towing eye. The eye must be able to accept a D shackle.

13.4 This regulation shall not apply to classes that have external bumpers.

CR14 WEIGHT REGULATIONS

14.1Each set of class regulations specifies a minimum weight for the class–please refer.

14.2Ballast weight may be made non removable by being poured into the pipe work of the chassis.

14.3The following applies to removable ballast weights:

14.3.1 Lead blocks shall be used and mounted above the floor;

14.3.2 The ballast shall mount under or immediately in front of the driver's seat; and

14.3.3 The ballast will be secured with10mm high tensile bolts and tear plated. There shall be at least two bolts per 10kg block.

14.4 Where weights are to be checked the SR's for the event shall stipulate which scales are to be used and these scales shall be the only point of reference for all matters arising from any weighing. The organizers shall be obliged to have properly certified test weights available.

14.5 Weight shall include the driver and the vehicle will be in an as raced condition.

CR15 SPECIFICATIONS OF A STOCK ENGINE

15.1 Any normal production type engine is allowed. The class regulations should be consulted for minimum number of engines that have had to be manufactured for an engine to be used. The onus is on the entrant to prove the source and history of an engine.

15.2 A STOCK engine is viewed as a single unit comprising a cylinder block and a cylinder head (or heads) that were designed and manufactured by the manufacturer concerned for use with each other. Hence cylinder heads from another type of engine may not be substituted, irrespective of whether or not they fit onto each other. Similarly cylinder blocks from another type of engine may not be substituted. Ford to Ford and Nissan to Nissan. No adapters etc. are allowed. Cylinder heads from the same manufacturer may be interchanged on different engines from the same manufacturer, providing it is a straight bolt on.

15.3 The following modifications may be made to stock engines:-

15.3.1 The cylinder head may be skimmed.

15.3.2 Compression ratios are free.

15.3.3 The cylinder head ports may be modified no further in than a distance of 20mm inwards of the valves outer edge. Cylinder head port faces and manifold port faces maybe blended together for a maximum of 10mm into either the cylinder head port or manifold port.

15.3.4 Pistons may not be pocketed for valve head clearance.

15.3.5 Camshaft profiles are free but the number of lobes and their location may not be altered. The cylinder head may be relieved if required by a change of camshaft.

15.3.6 The adjustment of valve timing by means of vernier gears or off set keys is permitted.

15.3.7 Camshaft timing adjustment is free and the camshaft drive may be modified for adjustment purposes.

15.3.8 The cylinder head valve seats may be modified. However, only 3 angled seats are permitted.

15.3.9 Valve seats inserts are permitted to address unleaded fuel concerns.

15.3.10 The method of valve tappet clearance adjustment may be modified.

15.3.11 Tappet or valve covers are free as long as the cover is not a part of the valve train.

15.3.12 Solid valve lifters may be substituted for hydraulic valve lifters and vice versa.

15.3.13 The cylinder block may be skimmed / decked.

15.3.14 Oil sumps, baffles and oil pickups are free. Sumps are free in respect of volume and design.

15.3.15 The removal of metal to balance internal engine reciprocating components is allowed. (Subject to your class rules)

To clarify this means that the crank shaft may be drilled / ground to balance. Pistons and connecting rods may be machined to achieve quality of weight. However one piston and one connecting rod that need not be attached to each other must be left untouched.

15.3.16 The shot opening and not riding of internal engine components is allowed. Knife edging however is not allowed.

15.3.17 A flywheel shall be fitted. Please consult the class regulations for weights and type permitted.

15.3.18 All fasteners (Nuts, Studs & Bolts) are free. The gudgeon pin may be made floating.

15.3.19 Pulley sizes are free.

15.3.20 Flexible engine mountings may be made solid.

15.3.21 No forced induction such as turbo charging or super charging is allowed, unless specifically allowed in the class regulations.

15.3.22 Oil flow restrictors in the cylinder head are permitted.

Restrictions:

15.4 The following restrictions are imposed on modifications to stock engines:-

15.4.1 The inlet and exhaust valve head and stem diameters shall remain as specified for the engine utilized. The valve may not be flowed.

15.4.2 The cylinder block may be bored to fit he standard piston stipulated in the manufacturer's specifications plus 1.52 mm;

15.4.3 Pistons shall be as per original manufacturer's specifications in respect of sizes and shape. The maximum over size is the manufacturer's specification for standard plus 1.52 mm.

15.4.4 Connecting rods may not be substituted and shall remain standard, but for balancing.

15.4.5 Crank shafts shall remain as standard but the journals may be resized to manufacturer's specification.

15.4.6 All parts other than the camshafts and cam drive gear shall be according to standard specifications.

15.4.7 Roller rockers, billet steel crank shafts and cast steel connecting rods are not permitted even if the donor engine had these fitted in original equipment form.

15.5 The following applies to the ancillaries of stock engines:-

15.5.1 Only standard water pumps are permitted. No electric water pumps are allowed.

15.5.2 Alternators, power steering pumps and air conditioning pumps may be removed.

CR16 SPECIFICATIONS OF A MODIFIED ENGINE

16.1 Any normal production type engine is allowed. A minimum of 5000 of such engines shall have been manufactured internationally and the con fusion the entrant to prove the source and history of an engine. In view of the fact that cylinder heads may be changed the legality or other wise of an engine will be determined by the cylinder block.

16.2 The cylinder head may be substituted with another cylinder head from the same manufacturer's brand. This is clarified to mean that any cylinder head of the same manufacturer's brand as the cylinder block can be interchanged as long as the cylinder head and the cylinder block comply with the engine units criteria set out above and absolutely no modification to anything of her than minor modification to improve the alignment of the oil and water passages is required to neither the block or the head to fit the cylinder head. The bolt pattern of the head and the block must be identical.

16.3 The following modifications may be made to modified engines:-

16.3.1 The cylinder head may be skimmed.

16.3.2 The cylinder head ports may be modified.

16.3.3 Porting and polishing of cylinder heads and manifolds are permitted.

16.3.4 Cam shaft profiles are free provided the number of lobes and their location are not altered.

16.3.5 Cam shaft timing adjustment is free and the cam shaft drive may be modified for adjustment purposes.
16.3.6 The adjustment of valve timing by means of vernier gears or off set keys is permitted.
16.3.7 The cylinder head valve seats may be modified.
16.3.8 Valves are free.
16.3.9 The inlet and exhaust valve head and stem diameters are free.
16.3.10 The method of valve tappet clearance may be modified.
16.3.11 Solid valve lifters may be substituted for hydraulic valve lifters or vice versa
16.3.12 Roller rockers are permitted.
16.3.13 Tappet or valve covers are free as long as the cover is not a part of the valve train;
16.3.14 Pulley sizes are free;
16.3.15 The cylinder block may be skimmed / decked.
16.3.16 Pistons may be pocketed for valve head clearance.
16.3.17 Pistons are free.
16.3.18 Piston rings are free.
16.3.19 Connecting rods are free.
16.3.20 Compression ratios are free.
16.3.21 Bore and stroke ratios are free.
16.3.22 Crank shafts are free, but for the fact that they must remain cast iron, unless the engine used was manufactured with a cast steel crank shaft. No billet steel crank shafts permitted.
16.3.23 Crank shafts may be knife edged.
16.3.24 Flexible engine mountings may be made solid;
16.3.25 Oil sumps, baffle sand oil pickups are free. Sumps are free in respect of volume and design.
16.3.26 Dry sump lubrication is permitted
16.3.27 The lightening of internal reciprocating components is permitted.
16.3.28 Cast iron main bearing caps may be replaced by steel bearing caps;
16.3.29 The removal of metal to balance internal engine reciprocating components is allowed.
16.3.30 The shot peening and nit riding of internal engine components is allowed.
16.3.31 A fly wheel shall be fitted but the design and specification is free. Aluminium fly wheels are permitted.
16.3.32 All fasteners (Nuts & Bolts) are free. The gudge on pin may be made floating.
16.3.33 The application of a heat deflecting coating is permitted to the exhaust manifold and exhaust pipes, between the bolt up face of the exhaust manifold and the tail pipe.
16.3.34 Oil flow restrictors in the cylinder head are permitted.
16.4 The following restrictions are imposed on modifications to modified engines:-
16.4.1 No forced induction such as turbo charging or super charging is allowed UNLESS permitted specifically by class regulations.
16.5 The following applies to the ancillaries of modified engines:-
16.5.1 Water pumps are free.
16.5.2 Alternators, power steering pumps and air conditioning pumps may be removed.

CR17 SPECIFICATIONS OF AN OPEN ENGINE

17.1 Any normal production type engine is allowed.
17.2 The following modifications may be made to OPEN engines:-
17.2.1 The material of which any engine component is manufactured may be changed.
17.2.2 The cylinder head may be substituted, even with that from another manufacturer or brand.
17.2.3 The cylinder head may be skimmed.
17.2.4 The cylinder head ports may be modified.
17.2.5 Porting and polishing of cylinder heads and manifolds is permitted.
17.2.6 Cam shafts are free.
17.2.7 Cam shaft timing adjustment is free.
17.2.8 The adjustment of valve timing by means of vernier gears or off set keys is permitted.

17.2.9 The cylinder head valve seats may be modified.
17.2.10 The inlet and exhaust valve head and stem diameters are free.
17.2.11 Valves are free.
17.2.12 The method of valve tappet clearance may be modified.
17.2.13 Solid valve lifters may be substituted for hydraulic valve lifters and vice versa
17.2.14 Roller rockers are permitted.
17.2.15 Tappet or valve covers are free.
17.2.16 Pulley sizes are free;
17.2.17 The cylinder block may be skimmed / decked.
17.2.18 Pistons may be pocketed for valve head clearance.
17.2.19 Pistons are free.
17.2.20 Piston rings are free.
17.2.21 Connecting rods are free.
17.2.22 Compression ratios are free.
17.2.23 Bore and stroke ratios are free.
17.2.24 Crank shafts are free.
17.2.25 Flexible engine mountings may be made solid;
17.2.26 Oil sumps, baffle sand oil pickups are free. Sumps are free in respect of volume and design.
17.2.27 Dry sump lubrication is permitted
17.2.28 The lightening of internal reciprocating components is permitted.
17.2.29 Cast iron main bearing caps may be replaced by steel bearing caps;
17.2.30 The removal of metal to balance internal engine reciprocating components is allowed.
17.2.31 The shot peening and nit riding of internal engine components is allowed.
17.2.32 A fly wheel shall be fitted but the design and specification is free. Aluminium fly wheels are permitted.
17.2.33 All fasteners (Nuts, Studs & Bolts) are free.
17.2.34 The use of heat deflective coatings is free.

17.3 Oil flow restrictors in the cylinder head are permitted.

17.4 The following restrictions are imposed on modifications to open engines:-

17.4.1 No forced induction such as turbo charging or super charging is allowed UNLESS permitted specifically by class regulations.

17.5 The following applies to the ancillaries of OPEN engines:-

17.5.1 Water pumps are free.
17.5.2 Alternators, power steering pumps and air conditioning pumps may be removed.

CR18 SPECIFICATIONS OF A ROTARY ENGINE.

18.1 Any twin rotor production type engine is allowed. The onus is on the entrant to prove the source and history of an engine.

18.2 Any modification that is permitted outside the engine (as stipulated in the open engine specifications) shall be permitted for rotary engines.

18.3 The following modifications may be made to rotary engines:-

18.3.1 Porting is allowed.
18.3.2 Peripheral port engines are permitted.
18.3.3 Porting may extend past the face of the rotor.
18.3.4 The water seal may be modified.
18.3.5 The water jackets may be filled.

18.4 **The following limitations apply:-**

18.4.1 No forced induction such as turbo charging or super charging is allowed on rotary engines.
18.4.2 The maximum internal diameter of the last 30 cm of the tail pipe shall be 90 mm. Only a single tail pipe is permitted.
18.4.3 No titanium rotors are permitted.
18.4.4 No aluminium housing plates are permitted.

CR19 GENERAL SAFETY

19.1 No ballast, other than weights fitted to comply with minimum weight regulations is allowed. Any such ballast shall be fitted as set out in CR 14 above.

19.2 All bonnet sand fenders shall be in place at the commencement of every race.

19.3 Competitors must be able to exit their vehicles and reach a point no less than 10 (ten) meters from the vehicle within 30 seconds.

CR20 CRASH HELMETS

20.1 Helmets must fit properly, be secured and be suitable for the purpose intended.

20.2 Helmets as deliberately constructed so as to absorb the energy of an impact. Therefore stands to reason that if, following such impact, the helmet are damaged (even if the damage is not readily apparent) it must be replaced.

20.3 Painting or the use of solvents on helmets can dame the mind is there for potentially dangerous. Helmets should be cleaned with a weak solution of soap and water.

20.4 Helmets should be as closely fitting as possible, consistent with comfort. No sideways movement should be possible, nor should the helmet be able to be pulled off the head in a forwards direction with the strap secured.

20.5 When not in use helmets should be stored in a cool, dry place away from sunlight, preferably in a helmet bag.

20.6 Visors must provide clear vision.

20.7 When there is doubt about a helmet's fitness, the chief scrutineer shall be empowered to impound the helmet for the duration of the event. Once the event is complete the helmet may be returned. Helmets not claimed within 7 days will be destroyed.

20.8 Full face helmets are compulsory.

CR21 COCK PIT AREAS / FIRE WALLS

21.1 All vehicles must have a properly constructed cock pit area. The material used to make the firewall, shaft tunnel and cock pit area shall not be combustible.

21.2 This cock pit area must house the seat and the controls of the vehicle. The cock pit area must separate the competitor from the engine compartment as well as from compartments where the fuel tank is housed.

21.3 The cock pit must have a floor covering the full area where the driver is seated and it must part of the original vehicle's body in the case of original road going vehicles or must be welded into place in space frame vehicles.

21.4 Properly constructed firewalls are a vital part of the mechanisms required to prevent the passage of flame into the driver's compartment. All fire walls, regardless of vehicle construction must be complete in all respects. This specifically requires the area behind the rear axle to be covered as well. Their construction must be such that they, the firewalls, would be fluid proof. This implies that fire wall will be constructed in such a fashion that all pipes, parts of chassis or any other item that need stop ass through the firewall, pass through with the smallest hole possible. All firewalls shall be constructed of metal hence materials such as rubber and fiberglass are not acceptable as firewalls.

21.5 Bonnets shall be so designed and fitted that they would prevent the passage of flame in to the cockpit. Hence no gaps are permitted between the bonnet and the dash board / window aperture area.

21.6 All pipes and wires that pass through the fire wall shall have rubber grommets.

21.7 The cockpit area on the passenger side of the driver may be enclosed. The following shall apply:

21.7.1 The material used shall be folded down ward from the horizontal plane on the driver's side.

21.7.2 The cover may slope downwards from the engine bay to the gear lever. At that point it shall be horizontal and shall be no higher than 50 cm above the original floor or chassis beams. The cover may slope upward to the parcel shelf / rear window / tail gate sill as the case may be from a point 50 cm behind the seat. For existing vehicles a 500 mm

Gap must exist. This gap must be wide enough to extricate the competitor on a back board.

21.7.3 The cover shall be removable.

21.7.4 The cover shall be able to support a weight of 100 kg.

CR22 ROLL CAGES AND SIDE IMPACT ("SISSY") BARS

22.1 The safety cage must be designed and constructed so that it substantially reduces body shell deformation and so reduces the risk of injury to occupant. The essential features of a safety cage are sound construction, design to suit the particular vehicle, ad equates mountings, and a close fit to the body shell. The side impact bars shall be placed so that they offer the most strength and protection in the event of a side impact.

22.2 The specifications for the roll cages and side impact bars can be found in the followings sections of the rule book:-

22.2.1 Saloons – in the section dealing with saloons.

22.2.2 Midgets – in the midget class regulations.

22.2.3 Ninja and Micro midgets – in the Ninja and Micro midget regulations

22.2.4 Sprint cars – in the sprint car regulations.

22.3 The roll cage pipes should be a straight as possible. Where the construction of the vehicles necessitates bowed or curved pipes these shall be reinforced by triangulation.

22.4 The safety cage shall be padded in the immediate vicinity of the competitor's body with a fire retardant foam material.

22.5 The cage shall be fitted with a base plate, welded, or bolted on to the floor, sill, or wheel arch of the vehicle if the original body of a standard vehicle is utilized. The cage of a purpose built chassis shall for man integral part of the chassis itself and shall accordingly be welded directly onto the chassis legs.

22.6 No holes or slots or any type of measure intended to reduce the weight of the pipe work utilized is permitted.

22.7 None of the legs of the roll cage may rely on another element of the roll cage for support.

CR23 SAFETY BELTS

23.1 The seat belts and the installation must comply with the MSA specifications.

23.2 Arm straps are optional, but must be of the quick release type.

23.3 Safety belts must be properly stitched and no holes may be drilled into the safety belts.

23.4 Only approved 4 and 5 point harnesses may be used and these must be properly mounted on welded metal mounts to the chassis and roll cage..

CR24 SEATS

24.1 It is recommended that FIA approved competition seats be fitted.

24.2 Only racing type seats are allowed. It follows that no conventional passenger vehicle seats may be used in their original or modified state.

24.3 Non-FIA approved seats shall be reinforced by clearly visible aluminium or metal backing fitted directly behind these at if it does not mount flush against a properly constructed panel. Such backing shall be properly shaped in accordance with the seat of the vehicle and shall have no sharp edges and for man integral part of the mounting of the seat itself. Fibre glass seats shall be covered. The minimum thickness of materials for non FIA seats is as follows:

24.3.1 Fibre glass / composite materials – 8 mm

24.3.2 Aluminium – 2.5 mm

24.4 Seats must be bolted with tear plates as set out for safety belts above as follows:-

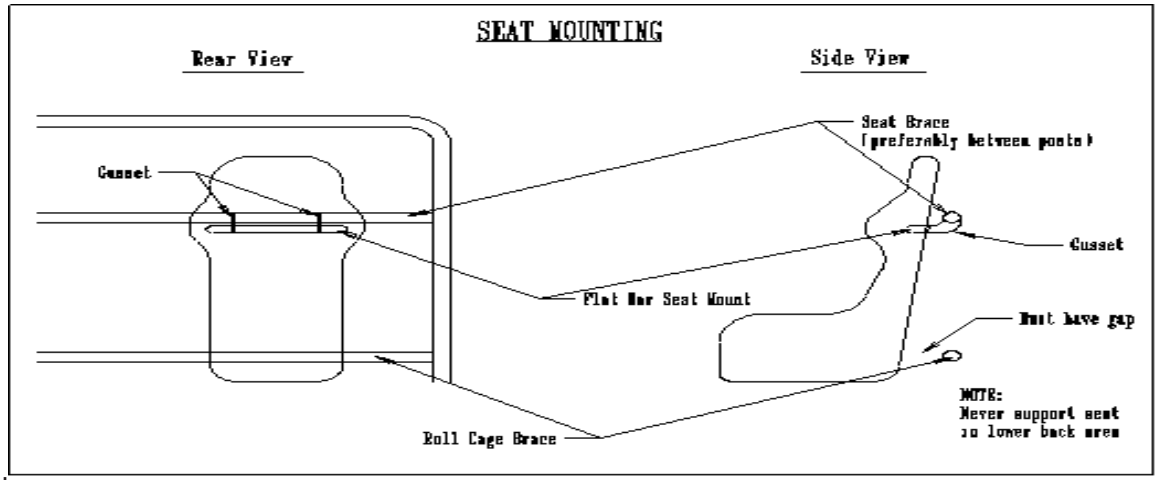
24.4.1 When original road going vehicles are used – to the floor pan of the vehicle – provided that the complete floor plan is still of sound construction and free of rust;

24.4.2 In all other cases – to specifically constructed seat mounting legs that are in turn mounted to the chassis of the vehicle.

24.5 No cracked or broken seats are permitted.

24.6 The driver must sit to one side of the centre line in all saloon vehicle classes.

24.7 A properly braced and triangulated cradle shall be installed if a seat needs to be raised. The triangulation shall be on both length ways sides (to protect against a forward failure) and at least one of the other sides. The cradle shall in turn be fitted as if it were a seat



CR 25 CLOTHING.

25.1 Properly accredited single layer fire retardant race suits are mandatory. Multi layers suits are highly recommended. Please refer to the MSA circular in respect of labelling that would be required on all locally produced race suits. It is printed at the back of this book for the convenience of officials and competitors. Please note this regulation does not require new overall strobe purchased and should rather be seen as a measure to protect the competitor against unscrupulous purveyors of inferior race wear.

25.2 Approved fire retardant gloves are compulsory.

25.3 The use of fire retardant socks and balaclavas is highly recommended for all competitors. **Competitors are ADVISED that they will be permitted to race without these socks and balaclavas but in doing so they knowingly assume the risks associated with being involved in a fiery incident without these safety garments.**

25.4 Ideally fire resistant clothing should carry the FIA'S approval label.

25.5 Clothing must be in good condition and must fit properly.

CR26 DRIVER CONTROLS

26.1 All vehicles shall be operated by means of a steering wheel, which shall not be of wood.

26.2 The steering wheel may be removable. Generally competitors should be aware that a removable steering wheel aids the extraction of the driver in the event of medical intervention.

26.3 The steering column may be repositioned to suit the driver. He shall however remain seated to one or other side of the centre line of a saloon car.

26.4 The steering column may be replaced with a purpose made column. No straight through column are permitted. There must at least be one joint in the column, preferably at an angle to the main column.

26.5 The brakes, accelerator, and clutch shall be operated by means of suitably sized and mounted foot pedals. **Pedal boxes are free.**

26.6 MSA may upon application allow certain specified modifications to be made in order to accommodate the needs of a handicapped competitor. Such application is to be fully motivated in writing. The MSA OR C shall in its deliberations consider the rights of the handicapped as well as those of the organizers and other competitors.

26.7 **All vehicles must be fitted with dual throttle return springs.**

26.8 It is recommended that clutch less vehicles shall have a dual cable system attached to the throttle. Such a system must close the throttle without relying on a spring if the driver lifts the pedal.

26.9 No in car adjustments, other than brake bias, permitted.

26.10 Telemetry systems are not permitted. DATA LOGGING is defined to be the recording of engine information such as temperature and pressure in electronic format capable of being accessed by computer. Displays indicating such information are permitted.

CR27 KILL SWITCHES

27.1 An effective kill switch system must be fitted. The switch must:

27.1.1 Be clearly marked in red and externally with a regulatory blue triangle with a red flash therein.

27.1.2 Be within the driver's reach, when seated and strapped in.

27.1.3 Be operational from outside the vehicle for use by marshals. This can be achieved by activating the main switch by way of a pull cable;

27.1.4 Break the neutral or negative circuit from the battery to the engine and chassis

27.1.5 Break the ignition and electric fuel pump circuits.

CR28 FLUID RETENTION

28.1 All vehicles shall have their sump, gear box and differential / axle plugs wired, and all the oil filters clamped or strapped.

28.2 A radiator water catch tank of a minimum capacity of 2Litres shall be fitted to the cooling system.

28.3 An oil catch tank, with a minimum capacity of 2litres, capable of accepting surplus oil and fumes from the engine shall be fitted. The catch tank shall be connected to each breather outlet by means of a flexible pipe or similar conveyance, designed to feed the oil or fumes to the tank. The catch tank is to be emptied between races.

28.4 A drip tray shall be installed beneath the engine. The tray shall be securely mounted and shall have a lip all round.

CR29 PIPE WORK

29.1 All joints and seams in the construction of the vehicle are to be properly mitred and shall be welded.....

INCORRECT CORRECT

CR30 PROP SHAFT / DRIVESHAFT / RUNNING GEAR PROTECTION

30.1 Drivers must be protected from open running prop shafts by two steel bands, with a minimum width of 50 mm. The bands shall be at least five mm thick and shall be bolted or welded to the chassis. The object of these bands is to prevent a broken shaft from rising and coming into the cock pit area. The one band shall be 150 mm behind the front yoke.

30.2 All vehicles shall have a collar / hoop that would prevent the front end of the running gear (prop shaft or torque tube) to lodge in the track should it break while the vehicle is in motion. To be effective this hoop or collar should be approximately 25% along the distance of the shaft as measured from the front. It is not necessary to install this hoop if the construction of the vehicle already fulfils this function by having the prop shaft run above the chassis.

CR31 BATTERIES

31.1 All batteries must be securely fixed in to the vehicle in a battery box secured by bolts with a diameter of at least 8 mm and reinforcing plate.

CR32 EXHAUSTS AND SILENCERS

32.1 All vehicles and SR's shall comply with GCR 245 and the Environmental code of MSA

32.2 A suitable metal plate mounted away from the exhaust in order that it acts, as an effective heat shield shall cover the pipe inside the driver's compartment.

CR33 FUEL PIPES AND FUEL TANKS

33.1 It is highly recommended that properly designed and manufactured racing fuel tanks, especially bag tanks are utilized. The use of fuel tank foam is also highly recommended. Metal fuel tanks shall be made of metal at least 1 mm thick. Boating tanks are permitted, provided they comply with the balance of this regulation.

33.2 A fuel tank breather, which shall vent externally, must be fitted to all fuel tanks. A non - return valve shall be fitted to the breather. The non – return valve must not be airtight.

33.3 The fuel tank shall have a non – vented cap. The cap may not be mounted into the body work of the vehicle. Where a conventional road going vehicle or space frame vehicle is used the cap shall be fitted directly to the tank and be housed within the boot space. In all other cases, a rubber hose from the tank to the cap will be allowed. The fuel filler hose will terminate into the cap fitting which shall be flush mounted to the upper horizontal portion of the body shell or panelling as the case maybe.

33.4 Fuel tanks must be mounted in a separate compartment to the driver. A complete, sealed firewall must be constructed to separate the competitor from the fuel tank and the fuel pumps. Where conventional road going vehicles are used the fuel tank will mount inside the boot area. In hatch type vehicles the fuel tank will be placed in the spare wheel well. In these cases a firewall will be constructed from the driver's side of the tank to the tail gate sill.

33.5 Fuel tanks must be securely mounted to the boot floor or the chassis of the vehicle with bolts or metal straps. Tanks may not be welded into place.

33.6 The fuel tank shall preferably be mounted on the driver's side of the rear axle. If the tank is fitted behind the rear axle and below the boot floor a hoop shall be welded into place between the chassis rails to protect the tank. The material used shall be pipe with an outside diameter of 38 mm and a wall thickness of 2mm. The hoop will be braced.

33.7 There may only be a single fuel tank which shall be the only source of fuel to the carburettors or fuel injection system. The fuel line may be branched to allow dual or spare pumps to be fitted

33.8 The fuel pumps shall be securely mounted.

33.9 Fuel pumps may not be fitted in the cockpit. All fuel lines in the cock pit must be of copper or steel tubing.

33.10 Inlets and outlets into and out of the tank shall be securely connected to the fuel lines, with special care being taken if the out let is below the tank.

CR34 DRY SUMP TANKS AND OIL LINES

34.1 Where dry sump lubrication is permitted the dry sump tank may be fitted inside the cock pit of saloon cars.

34.2 All oil lines shall be properly shielded.

34.3 The competitor must be shielded from the tank / oil cooler.

34.4 **All hoses to be hydraulic hoses.**

CR35 FIRE EXTINGUISHERS

35.1 Every competitor shall have an operational 1.5 kg fire extinguisher at his pit / service vehicle at all times.

35.2 Any tracks that have methanol cars must have a water truck / vehicle available at the event.

NOTICE

Competitors and Scrutineers are warned that the practice of customizing hand held extinguishers for this purpose is in correct and dangerous. These types of extinguishers have pick up pipes that collect the extinguishing material from the bottom of the cylinder when in an upright position. They do not function in an upside down position for example. Suitably designed pressurized canisters are available from specialist Motorsport shop sand fire safety suppliers.

PLEASE NOTE

THIS SECTION ONLY APPLIES TO SALOON VEHICLES. THE REGULATIONS IN RESPECT OF THE TOPICS ADDRESSED IN THESE REGULATIONS ARE FOUND IN THE INDIVIDUAL REGULATIONS OF THE VARIOUS OPEN WHEEL CLASSES – PLEASE CONSULT THOSE IF YOU RACE AN OPEN WHEEL CLASS.

CR36 VEHICLE TYPES DEFINED

36.1 These regulations envisage 3 specific types of vehicle being:-

36.1.1 The original road going vehicle that has had a roll cage fitted and is now used as a race car.

36.1.2 The conventional road going vehicle that has been extensively modified and has had changed made to the suspension pick up points. These are termed semi space frames.

36.2 The fully fledged purpose built racing frame.

36.3 These three types have been separated in these rules as certain classes are limited to original road going vehicles.

36.4 ORIGINAL ROAD GOING VEHICLES

36.4.1 These are vehicles that were designed and built for road going use by commercially recognized motor manufacturers.

36.4.2 These vehicles are converted to oval racing vehicles.

36.4.3 They do not include the semi – space frame or space frame vehicles.

36.4.4 This use of this type of vehicle is seen as a limitation. There for whenever this class is specified semi space frames and space frames are not permitted.

36.5 **SEMI SPACE FRAME VEHICLES**

36.5.1 These include vehicles are converted from the original road going vehicles.

36.5.2 Major structural changes have been made and the roll cage and pipe work inserted into the vehicle have effectively mounted the drive train and the suspension.

36.6 **SPACE FRAME VEHICLES**

36.6.1 These are purpose built tubular steel chassis.

36.6.2 Where ever the class rules permit space frames original road going cars and semi space frames are also permitted, with the same modifications as those permitted for space frames.

CR37 **GENERAL RULES REGARDING THE EXTERNAL BODY SHELL–APPLICABLE TO ALL SALOONS**

37.1 Roadster type bodies may be used provided they were built with a top by the manufacturer. A Soft top must be replaced by a replica fibre glass top.

37.2 Measurements of the body shell shall be made a cross the driver's seat in respect of the width of the vehicle and in the centre of the vehicle in respect of the length of the vehicle. Such measurements shall exclude wheel arches and flares.

37.3 The maximum thickness of the front and grille panels of vehicles shall be:-

37.3.1 Metal-1.2-mm

37.3.2 Aluminium–1.6mm

37.3.3 Fibreglass–4-mm.

37.4 Should the height of the door impair access it shall not be cut away but shall have a hinge arrangement whereby it folds, at or near the top sissy bar. Doors may be made fully removable, provided they are securely fitted during races. The securing pins shall be removable from the outside.

37.5 The construction, safety, and finish of the original steel body or replacement panels to be to the satisfaction of the Scrutineers. No sharp edges are permitted. Please also see the CR 21 regarding sharp edges inside the cockpit.

37.6 The front panels must retain the original grille and light apertures, provided that both of these may be blanked off. Ducts to supply cool air to the carburettor / fuel injection system or the brakes may be installed into these panels, always subject to the class regulations that control the intake of air into the engines

37.7 The rear boot panels (meaning the portion between the tail lamps) shall be retained.

37.8 Boot lids and tail gates shall in place. They must be adequately secured in the closed position with fasteners

37.9 All panels, irrespective of whether or not they are replacement panels shall be securely fixed and no loose or flapping panels shall be permitted when a vehicle starts a race. The driver shall ensure that steps are taken between races to secure body panels that have become loose or damaged.

37.10 Bonnets and boot lids shall be secured by means of either four pins or two pins and two corner plates. The area around the pin must be reinforced in order to avoid tearing. Operational doors must be fitted with working latches to prevent them opening during races. The latches must be operation al from outside the vehicle. Latches must be fitted so that they do not present a hazard to other competitors, especially on the sides.

37.11 The roof shall be complete. The roof must be the original shape of body being used.

37.12 Wheel arches may be modified to accommodate wheels. Wheel arches may not be reinforced with steel pipes or any other material. The wheel arches may be reinforced using the same material as the rest of the wheel arch. The object of the permitted reinforcement is to protect the wheel area and any reinforcement that is designed to be used as a weapon is prohibited.

37.13 No fastener situated on the front, rear or side panels of the vehicle shall protrude more than 30 mm beyond the body work

CR38 CONSTRUCTION RULES APPLICABLE TO ORIGINAL ROAD GOING VEHICLES

38.1 Further restrictions on replacement, repair, and modifications allowed are found in the class regulations.

38.2 Bodies may not be lengthened, shortened, or narrowed;

38.3 The silhouette as seen from the front shall remain symmetrical, with no off set being permitted.
The silhouette as seen from the sides, the front and the back shall remain the same as the original vehicle, with latitude being allowed for repaired accident damage only.

38.4 Vehicles of this type may not be re bodied. The process of re bodying requires the entire outer shell of the vehicle to be separated from the monocoque. Once this has been done to a vehicle it shall be considered a semi space frame.

38.5 All interior trim must be removed

38.6 The roof may not be lowered and any hole caused by the fitment of for instance a sunroof in the donor vehicle shall be closed.

38.7 The front valance and radiator carrier may be mounted as per space frame regulations.

38.8 The internal fender walls and wheel houses shall be retained front and rear. The shaft tunnel shall be retained. The boot floor shall be retained.

38.9 The engine bay / cock pit bulkhead / firewall shall be retained but may be altered to accept another gearbox should class regulations permit an alternative gear box. The material utilized shall be sheet metal with a minimum thickness of 1 mm mounted on at least a 15 x 15 x 2 mm frame.

38.10 The completer of pillar structure of the vehicle shall be retained.

38.11 The vehicle may be finished by the fitment of either the original plastic bumper or a fibre glass replica of the bumper.

38.12 The inner portion of all doors may be removed. In all cases, care must be taken to avoid edges that could cause injury. Doors may be replaced with sheet metal or fibre glass replicas. In such cases, they shall retain the same shape and curve as the original door. These replica panels may be made of a one piece construction. These replacements shall be properly mounted into place. The use of shape less one piece side sections, typically flat sheets, is not allowed.

38.13 Rear doors must be adequately secured in the closed position with fasteners.

38.14 The metal of the body may be replaced with metal or aluminium sheeting not exceeding 1.2 mm for metal and1.6 mm for aluminium. Where fibre glass is used to replace sections of the external body shell it shall comply with the regulations for the replica bodies described below. In both cases, the repair or replacement shall still resemble the replaced part. In both cases the contours of the body shall be retained.

38.15 Only the bonnet, the front fenders, the 2/4 doors and the tail gate / boot lid may be replaced with exact replica parts. The “B” and “C” pillars may be repaired with fibre glass replicas. Once all the pillars have been replaced with fibre glass the car will be classified as a semi space frame.

38.16 The roll cage may not extend beyond the cockpit.

38.17 Under trays may NOT be fitted.

38.18 All suspension parts (excluding shock absorbers) shall remain standard, albeit that they may be modified in accordance with class regulations. There for a vehicle with arose jointed, A-arm front suspension shall be classed as a semi space frame if it still has the original body.

38.19 All silhouettes, frames and roll cages may not be off set.

CR39 CONSTRUCTION RULES APPLICABLE TO SEMI SPACE FRAME VEHICLES

39.1 Further restrictions on replacement, repair, and modifications allowed are found in the class regulations.

39.2 Bodies may not be lengthened, shortened, or narrowed.

39.3 The silhouette as seen from the front shall remain symmetrical, with no off set being permitted.
The silhouette as seen from the sides, the front and the back shall remain similar to the original vehicle, with latitude being allowed for repaired accident damage.

39.4 All interior trim must be removed.

39.5 Vehicles of this type may be re bodied. The process of re-bodying requires the entire outer shell of the vehicle to be separated from the monocoque.

39.6 The roof may not be lowered and any hole caused by the fitment off or instance a sunroof in the donor vehicle shall be closed.

39.7 The front valance and radiator carrier may be mounted as per space frame regulations.

39.8 The internal fender walls and wheel houses may be removed.

39.9 The vehicle may be finished by the fitment of either the original plastic bumper or a fibre glass replica of the bumper.

39.10 The inner portion of all doors may be removed. In all cases, care must be taken to avoid edges that could cause injury.

39.11 The use of shapeless one – piece side sections, typically flat sheet metal, to replace doors and fenders is not allowed.

39.12 The body may be removed in its totality and replaced with a replica body shell.

39.13 The metal of the body may be replaced with metal or aluminium sheeting not exceeding 1.2 mm for metal and 1.6 mm for aluminium. Where fibre glass is used to replace sections of the external body shell it shall comply with the regulations for the replica bodies described below. In both cases, the repair or replacement shall still resemble the replaced part. In both cases the contours of the body shall be retained. An aluminium sheet, the size of the door below the window aperture, must be fitted. An aluminium sheet must be fitted to the whole roll cage roof area as well.

39.14 The removal of the floor pan is permitted, provided that are placement pan is made for the driver's area and the seat and roll cage posts are properly mounted as per the regulations for space frames.

39.15 Under trays may be fitted if they do not exceed the under floor area of the engine bay.

39.16 The tunnel and part of the fire wall may be modified, using metal with a thickness of 2 mm, when converting front wheel drive to rear wheel drive.

39.17 The original floor pan, the interior floor area of the boot and the fire wall, may be strengthened for the purposes of rigidity. The material used for this purpose shall be a square tube not exceeding 15 mm x 15 mm x 2 mm.

39.18 All silhouettes, frames and roll cages may not be off set.

CR40 SPACE FRAME VEHICLES

40.1 The body may consist of a single continuous shell or loose panels. It is recommended that the driver's door be a separate item.

40.2 The silhouette, frame and roll cage as seen from the front shall remain symmetrical, with no offset being permitted.

40.3 The vehicle may be finished by the fitment of either the original plastic bumper or a fibre glass replica of the bumper.

40.4 Vehicles shall in essence retain the same shape and form as the vehicle on which it is modelled and must still be easily recognizable as being such a vehicle.

40.5 Bodies are to be secured to the chassis by means of support plates that shall not be more than 2 mm thick. The length and width of these plates are free. These plates shall mount to support pipes or the chassis.

40.6 Continuous mounting plates, running the full length of the joint areas are not permitted. It follows that the mountings shall be designed to secure the body work in a safe manner without creating reinforcements.

40.7 No ribbing or reinforcing is allowed in any fibre glass body panels or sections, except the boot lid, roof, and bonnet.

40.8 Under trays may be fitted if they do not exceed the under floor area of the engine bay.

40.9 There shall be a properly reinforced floor pan for the driver's area of the cockpit.

CR41 SPACE FRAME CHASSIS CONSTRUCTION

41.1 The material used to build the chassis and frame shall be suitable steel tubing.

41.2 The chassis shall incorporate the following:-

41.2.1 A roll cage as set out in CR 42 below

41.2.2 Properly triangulated mounting points for the suspension, engine and drive train; and

41.2.3 Structural soundness that will with stand the rigors of racing.

41.3 The minimum specifications for the materials used to the chassis and frame of Saloon classes are:-

41.3.1 Round Tubing: Minimum 38 x 2 mm

41.3.2 Square Tubing: Minimum 38 x 38 x 2 mm

41.3.3 Roll Cage, Sissy Bars, and all other pipe work on the frame: As per CR 42 below.

41.3.4 MSA ORC may, on terms and conditions it deems appropriate, exempt registered chassis builders from the need to have every vehicle it, the chassis builder, produces inspected.

41.3.5 All silhouettes, frames and roll cages may not be off set.

CR42 ROLL CAGES

42.1 The minimum requirements for roll cages in all classes are:

42.1.1 No roll cage may be off set.

42.1.2 The cage shall have four down (vertical) pipes or legs, two of which must be in front of the driver. The other two shall be behind the driver's seat. Four horizontal pipes fitted at the top of the down pipes shall join the four down pipes to each other.

42.1.3 Two cross braces must be fitted, on in front of the driver, above the steering column, and one behind the driver, supporting the back rest of the seat. This brace shall be just below the shoulder of the driver when seated and shall support the seat belt / harness so that the belts would pull the driver down in to the seat. Should the seat have belt slots the bar shall be mounted at the exit point of the slots.

42.1.4 The roll cage must be reinforced as follows:-

42.1.4.1 Two rear ward facing, down wards loping pipes that mount from the top of the cage to the floor, wheel arch or chassis shall be fitted; and

42.2 A cross pipe, that triangulates (from left to right or right to left, top to bottom as viewed from behind the vehicle) either the roll cage down posts or the rear ward facing down ward sloping pipes, shall be fitted. This pipe is in black on the attached drawings.

42.3 All joints and seams in the construction roll cage are to be properly mitred (see diagram in regulation CR 29 above) and shall be welded as follows:-

42.3.1 When original, conventional factory built road or semi-space framed vehicles are used -100% in all cases are able areas provided that a gusset is fitted where joints cannot be fully welded; and

42.3.2 When a purpose built chassis is utilized -100%.

42.4 The Roll cage itself as described in regulation must be constructed of the following materials:

42.4.1 Cold rolled tubing with a minimum diameter of 38 mm and a minimum wall thickness of 2 mm.

42.4.2 The additional obligatory bracing, as described in regulation CR 42.1.4 above as well further specified bracing shall be of:-

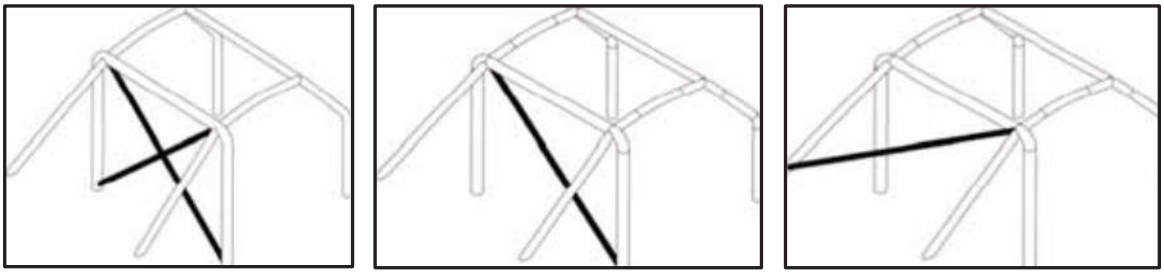
42.4.2.1 Pipe with a minimum diameter of 33 mm and a minimum wall thickness of 2 mm; or

42.4.2.2 Square tubing with a minimum width of 33 mm and a minimum wall t thickness of 2 mm.

42.5 All piping between the various mounting points and joints shall be completely straight, except for the front down pipes or legs of the roll cage which may be shaped in accordance with the profile of the front window, as seen in side elevation. In such case they shall be straight between the floor and the cross brace above the steering wheel and between that brace and the upper horizontals.

42.6 Additional cross pipe bracing may be added to the cage.

42.7 The piping of the cage, constructed as an integral part of a purpose built chassis, maybe shaped to provide a close fit to the body shell. Such cages shall have all the elements of the above chassis as well as additional, triangulated, bracing to reinforce the cage. This bracing is especially required where the cage may have lost some of the strength due to the bends made to obtain a closer fit.



The above sketches are courtesy of the FIA web site and depict the acceptable style of cross bracing (the black pipe) for roll cages. Obviously these drawings assume proper base plates and welding.

CR43 SIDE IMPACT PROTECTION ("SISSY") BARS

43.1 Two sissy bars, fitted horizontally, on the inside of the two front doors, must be fitted between the two down pipes or legs of roll cage and affixed to the roll cage.

43.2 The sissy bars must be a minimum of 50 mm apart. A minimum of one vertical support pipe, in the centre of the sissy bar is compulsory. The sissy bar may not protrude past the roll cage down bars. The sissy bar shall preferably follow the contour of the door, especially on the driver's side.

43.3 Sissy bars shall be fitted in such a manner that the competitor's hips and knees are completely protected when he is strapped in to his seat. In order to achieve this the top horizontal bar must be in the middle of the door, as measured from the floor sill to the bottom of the window aperture. The sissy bars must be constructed so that the internal / external bumper of a competing vehicle would collide with the sissy bar in the even to fat T-bone type collision.

43.4 The sissy bar shall have two vertical supports, welded or bolted to the sill or the chassis, spaced so that they divide the area between the back of the seat and the front lower corner of the driver's side door in to three equal areas.

43.5 The sissy bars may be replaced by across arrangement, securely welded together at the cross over point. The cross shall be installed in such a fashion that the top ends are in line with the top of the door panel. The bottom ends shall be at least 75 mm above the sill height. The cross point shall be gusseted with 2 mm plate for a distance of 100 mm from the cross over point.

CR44 GLASS – WINDOWS AND LIGHTS

44.1 All windows, except the front windscreen, shall be removed for vehicles competing on tar.

44.2 Windscreens are not permitted on dirt. At least one brace running from the top to the bottom of the window aperture, with a minimum diameter of 20 mm (round pipe), 25 mm X 3 mm Flat bar.

44.3 If window or windscreens are fitted, only laminated windscreens will be permitted with additional duct tape or metal brackets securing the four corners being compulsory. No cracked windscreens will be allowed if visibility is in anyway affected.

44.4 All glass and /or plastic indicators or lights shall be removed from the body of the vehicles that participate in racing where contact is permitted. They may be retained for non-contact racing but shall be properly secured.

44.5 The rear side windows may be replaced with side-panels of clear Lexan or poly carbonate. The panels must however remain transparent, without sign writing or advertising, other than the competitor's surname and a regional or club logo. The number may not be fitted here.

CR45 COOLING SYSTEMS

45.1 Radiators shall be mounted within the engine compartment of vehicles participating in tar events.

45.2 The radiators of vehicles participating in dirt events may be moved within the engine bay or may be mounted elsewhere provided that:-

45.2.1 The fitment of the radiator does not obscure the driver's rear ward or sideways vision;

45.2.2 The fitment of the radiator would not hamper the extraction of the driver from the vehicle in the event of an accident and shall be screened as set out in CR-A 32.2 above;

45.2.3 All piping to and from the radiator, other than the joints and the over flow pipes shall be of steel. The pipes must be mounted on the floor between the fire wall and the radiator. All joints are to be enclosed by a rubber sock and all hoses are to be double clamped or cladded.

45.2.4 The radiator is covered on three sides with the open side being the side furthest from the competitor.

45.2.5 Steps are taken to ensure that the water and steam associated with ruptured pipes or radiators vent down wards and away from the competitor.

45.3 No on board radiator spraying, for cooling purposes, is permitted.

CR46 TRACK / WHEELBASE / ENGINE PLACEMENT

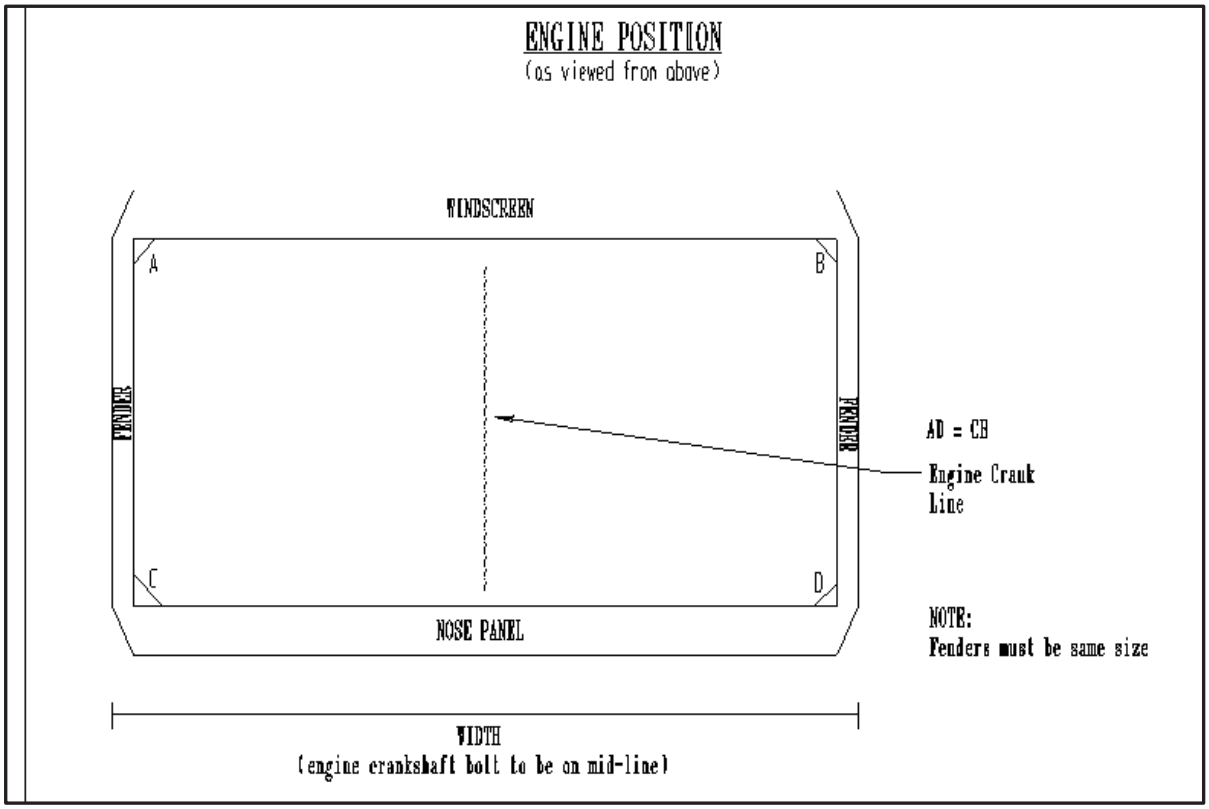
46.1 Track and wheel base are free within the confines of what is allowed in terms of suspension regulations and restrictive class regulations. However all four wheels of the car must fit within the body of the car, which in turn must comply with the maximum dimensions of the vehicles asset out in the appendices for the three classes. No part of the vehicles may be outside the total width and length as published. Competitors are urged to take special care of the outside front wheel of their car when checking for compliance with this rule.

46.2 Engines may be tilted (by up to 20□ from standard) provided all other position regulations are complied with.

46.3 Due to the difficulties in obtaining a true measuring point the placement of the engine will be measured from the centre line of the wheel base. Each of the class regulations will specify the forward distance between the centre lines of the wheel base to the lower front edge of the bell housing. The calculation would be made as follows.

EXAMPLE CALCULATION (all measurements in cm)	
Wheel base of particular vehicle (average of two sides).....	.....238.00
Therefore 50% of wheel base.....	.....119.00
Add forward distance per individual class rules.....	.....78.00
Subtotal.....	.....197.00
Deduct tolerance.....	.....-5.00
Minimum distance from axle centre line to the lower front edge of the bell housing.....	.....**192.00**

46.4 In all front engine, rear wheel drive applications the centre of the crank shaft shall be on the centre line of rear wheel drive vehicles. A tolerance of 50 mm is permitted. See sketch below for means of measurement.



Wheelbase is the horizontal distance between the centre of the front wheel, and the centre of the rear wheel.

CR47 WINDOW NETS

47.1 Window nets are optional. If fitted they shall comply with the following regulation.

47.2 Window nets shall be made of either:-

47.2.1 Non inflammable webbing with a minimum width of 25 mm and a maximum width of 35 mm that has been properly woven and stitched together in a block pattern, with gaps of no more than 75 mm; or47.2.2 Non-inflammable cord with a diameter of 2 mm that has been properly knotted together with gaps of no more than 60 mm. The woven cord shall be stitched into webbing or other suitable material and affixed to the vehicles via properly reinforced eyelets.

47.3 Window nets shall cover:

47.3.1 The full window area from top to bottom

47.3.2 From the edge of the seat at the driver's shoulder to his elbow, measured with the driver seated at the controls with his hands on the steering wheel.

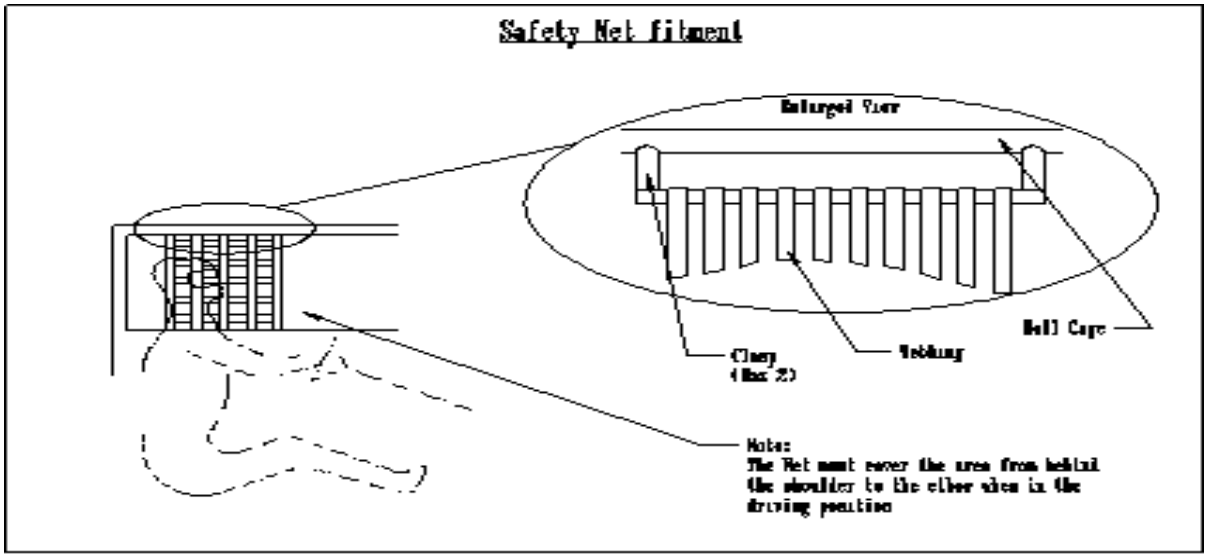
47.4 The net shall

47.4.1 Be firmly mounted into place using suitable using luggage clips;

47.4.2 Mount to the roll cage and sissy bar in the window space–top and bottom

47.4.3 Not be affixed to the release mechanism by parcel elastic, ropes or cableties.

47.5 When a safety net is installed, it must still be possible to open / remove the door or remove the safety net in an emergency. Safety nets are not compulsory.



CR48 BRAKE LIGHT

48.1 The brake light shall be operational at all times.

48.2 One rearward facing red brake light must be fitted in the rear window space. The lens of the light shall be at least 50 mm in length or diameter and must be intact. The lights may be replaced by a non-flashing LED of at least 200 mm in length.

48.3 The brake lights / tail amps must operate by a standard pedal operated switch. No other switches or modifications are allowed. The bulbs must be effective.

48.4 As a general rule brake lights may not be fitted in the body work of the vehicle.

48.5 Care must be taken during the installation of the lights in order that flickering and malfunction may be minimized.

CR49 WHEEL AND BODY PROTECTOR

49.1 A wheel and body protector, fitted between the front and the rear wheel sat sill height, maybe fitted.

49.2 The wheel and body protector shall be straight. In other word sit may only curve in wards once a teach end when it mounts.

49.3 The thickness of material used must not exceed 2 mm. The protector may not protrude more than 30 mm beyond the wheel and must **be flush** with the body work.

49.4 All leading and trailing edges to be smooth and angled back to the sill unless incorporated into the wheel arch.

49.5 No straight round pipe sections are permitted, as these must be rounded back to the chassis / mounting point.

CR50 RESERVED

CR51 RADIATOR PROTECTION

51.1 All vehicles shall be allowed a radiator protection bar that may be fitted either above or below the bumper if the radiator is fitted in the front of the vehicle, ahead of the engine.

51.2 The bar shall have no more than 4 mounting points.

51.3 The bar may in addition form an integral part of the radiator cradle and / or the bumper system.

51.4 The bar and all mounting pipes shall be made of round pipe with a maximum size of 38 x 2 mm.

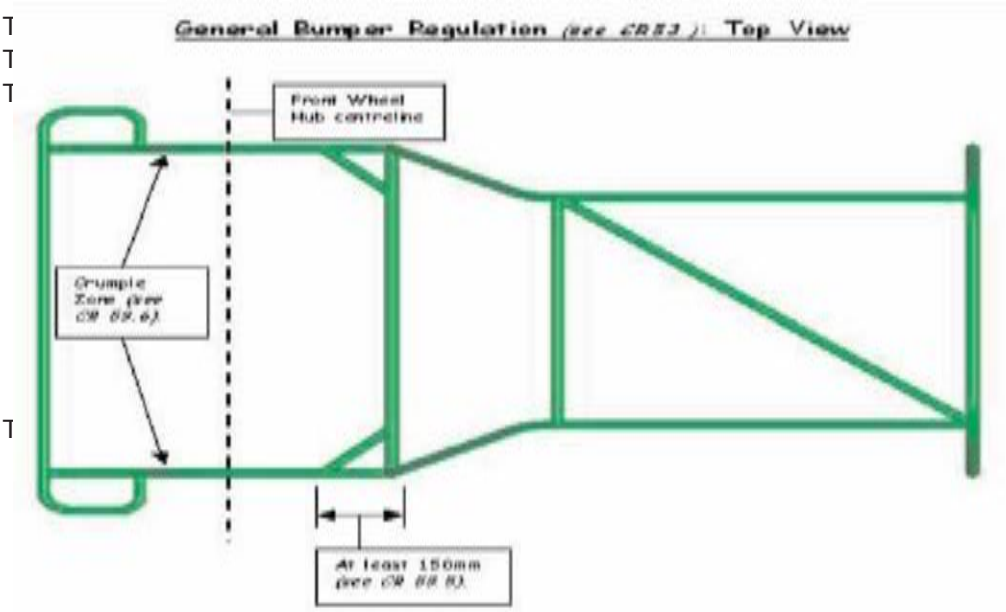
CR52 GENERAL BUMPER REGULATIONS

52.1 Bumpers are considered to be an integral part of the structure of the vehicle and are compulsory. Please refer to the attached sketches.

52.2 T cm above ground level for di

52.3 T gulations the bumper shall be

52.4 T red horizontal) is fitted. The bum



cage pipes on the driver's side of the vehicle. It is against ressed that the bumper mounting must be braced where it mounts onto the roll cage.

52.5 T vehicle shall be to the horizon

The support shall be between the roll cage down pipes and the wheel hubs. The support may be braced vertically in space frames and semi space frames.

52.6 The path of the bumper mounting pipe may be broken by the suspension turrets.

52.7 All bumpers shall be constructed in accordance with the specifications for each class.

52.8 The bumper mounting pipes may not exceed the thickness of the roll cage pipes they mount onto.

52.9 The scrutineer, technical consultant and the Race Controller may, as a body, instruct the removal of any bumper arrangement that is regarded as being beyond the spirit of the regulations.

52.10 No dual bumper systems are allowed. In other words – If contact is permitted in the class to be raced an election must be made between fitting an internal bumper or an external bumper, but not both!

52.11 Bumpers must have rounded ends. No sharp points or edges are allowed.

52.12 All elements of the chassis shall end 100 mm inside the body work, front and back. Unless otherwise stated only the bumpers and the wheel and body protectors may be hard up against the inside of the body. The chassis may not be used as or be part of a bumper system.

52.13 No bumpers may be reinforced with gussets. The main bumper pipe may have a body mounting plate attached to it. No additional reinforcing shall be permitted.

52.14 No standard, original equipment steel bumpers are allowed.

52.15 The only material used for the construction of the bumpers, their support pipes and mounting points **SHALL** be round tube with a maximum OD of 38 mm having a maximum wall thickness of 2 mm.

52.16 Bumpers must be fitted and fashioned in such way that it is possible for a scrutineer to check compliance with these regulations. Similarly all cosmetic covers that are constructed over any portion of the bumpers or their support pipes shall be capable of removal for the purposes of scrutiny.

52.17 Bumpers may not be connected extended to form wheel arch protections as these are expressly prohibited. As wheel arch protection pipes are not permitted it follows that bumpers cannot mount to them.

52.18 All vehicles are allowed to fit plastic or fibre glass bumper covers to improve the aesthetic appearance of the vehicle, subject to the following:-

- 52.18.1 A single original non-metal or replica bumper cover is permitted front and back.
- 52.18.2 Replica covers from another vehicle may also be used.
- 52.18.3 The cover shall be the original manufactured plastic bumper cover or it shall be a replica made of fiberglass.
- 52.18.4 The cover shall not be reinforced and shall not be more than 4 – mm thick and shall be removable.
- 52.18.5 The cover must be properly secured to the internal bumper of space frames / semi space frames and shall be fitted with standard bumper brackets and the standard stiffener in original road going vehicles. In the latter case addition al bolts on to the stiffener / body / brackets must be introduced to prevent loss of the bumper.

CR53 INTERNAL BUMPER REGULATIONS

53.1 The horizontal element shall be placed within the verticals pacing zone of the vehicle's original bumper.

53.2 The bumpers shall be shaped in accordance with the shape of the vehicle and shall be mounted flush against the inside of the body.

53.3 The bumpers shall be allowed to mount to the chassis of the vehicle and do not require bolts.

53.4 The triangulated construction of the chassis shall end at least 100 mm away from the bumper.

53.5 It is recommended that a body panel / bumper cover mounting plate is fitted to the bumper bar.

53.6 It is highly recommended that competitors take steps to aid the swift removal of the ends of the bumper bars in the event of them being pushed on to the wheel.

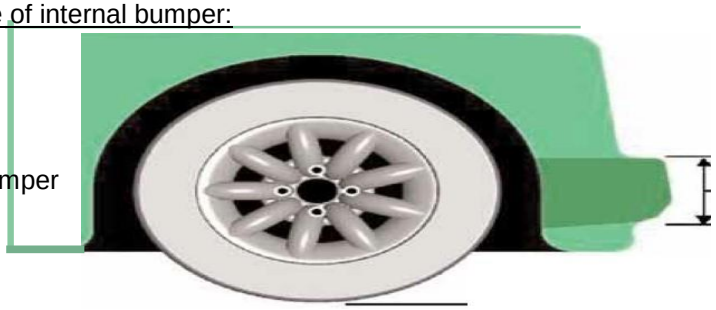
CR54 EXTERNAL BUMPER REGULATIONS – CLASSES PARTICIPATING CONTACT RACING

54.1 These bumpers are only permitted on vehicles participating in races where contact is allowed.

54.2 All bumpers must be attached to their mounting and support pipes by bolts or by welding. The bumper must be connected to the mounting pipe as specified by means of a flange.

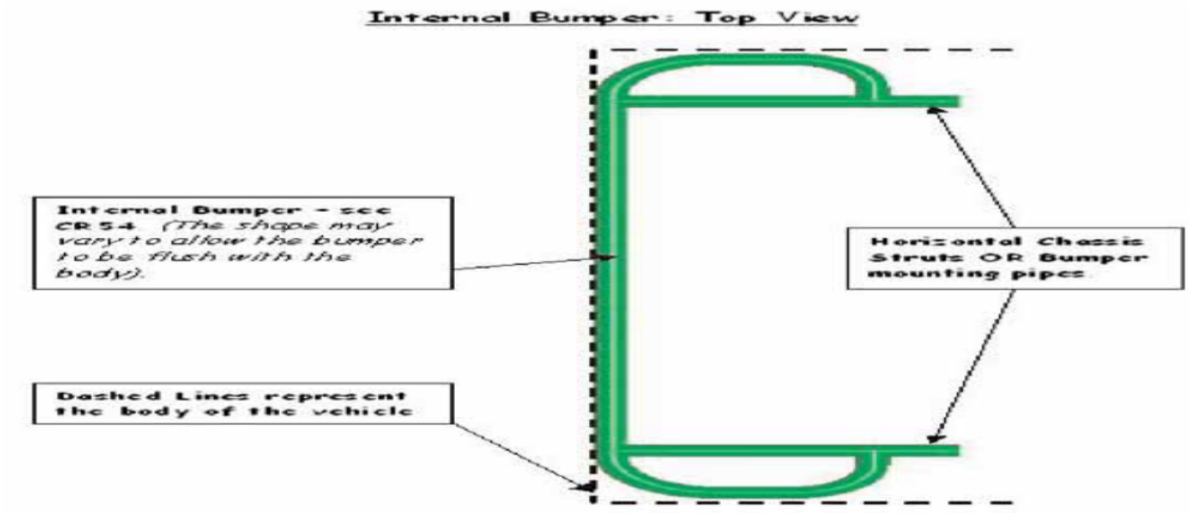
54.3 The space between the bumper and the body work, measured from the nearest point of the body to the inside of the bumper may not exceed 50 mm, front and back of the vehicle. The maximum space measured, as above, shall be 30 mm in respect of the sides of the vehicle.

Vertical spacing zone of internal bumper:



Do Class regulations stand on their own?

The class regulations are not stand alone regulations–in each case the general vehicle regulations, the engine building regulations and the safety standards apply. Inn respect of saloon classes the general saloon regulations also apply. Micro midgets and Junior Midgets are sufficiently different to warrant their own regulations.



WHAT APPLIES IF THERE IS A CONTRADICTION?

While every effort has been made to avoid conflicting regulations the following shall apply in the event of a conflict between the various regulations:-

- If the conflicting regulations concern a performance related issue the specific class regulations will apply;
- If the conflicting regulations concern the way an engine is built the relevant engine building regulations will apply; and
- If the conflicting regulations concern safety class regulations will defer to the safety standards, then the construction regulations and then the general regulations will apply.

In order to clear up any confusion between Dirt and Tar based racing it is specifically stated that all these regulations apply equally to both facets of oval racing. Where a whole class exists only on one or the other facet the regulations will say which facet it applies to. Where the class is active in both facets the facet specific regulations will be clearly marked in CAPITAL LETTERS, directly after the numbering.

WHAT ARE THE SO CALLED VARIABLE REGULATIONS?

This is a section that is found at the end of each class. These variable regulations deal with matters such as weights and tyres that could be changed to address performance issues in the classes.

INTERPRETATION OF REGULATIONS AND SPECIFICATIONS

The following GCR is the basis to interpreting all the regulations that apply to motorsport.

GCR226 states: In interpreting motorsport regulations and specifications "what is not specifically permitted is disallowed" is the normal concept in keeping with the French regulations on which all motor sporting regulations are based. This means that you may only do something if the rules say you may. Competitors and officials alike shall adopt the following principle when reading and applying the rules: They should only be concerned with the normal plain meaning of the word in of the regulations and shall pay no attention to any claim as to what the regulations were intended to mean.+

2017 CLASS REGULATION NINJA MIDGET (NM):

Definition:

To provide young children an entry into short circuit motor racing.

NM 1. Competitor age restriction/limits:

1.1 **(Club):** Open to all drivers from the year of their 3rd birthday, to 31 December of the year in which their 13th birthday occurs.

1.2 **(Regional only):** Open to all drivers from the year of their 6th birthday, to 31 December of the year in which their 13th birthday occurs.

NM 2. Eligibility of vehicle:

2.1 Original manufacturer Wildkart, Allkart or all MSA Homologated chassis are permitted;

2.2 The kart chassis must be of genuine Wildkart, Allkart or MSA homologated chassis manufacture and may not be replicas. The chassis must comply with their respective specification sheet.

2.3 All components must be the same make and type as original equipment the karting commission accredited dealer from Allkart, Wildkart or MSA homologated except for hubs; wheels; sprockets and carriers (provided these are aluminium) as well as seats; bearings (provided these are the same type); steering wheels and bumper.

2.4 Baby carts chassis are permitted for ages 3 till 6, but may not participate in any national or regional championships.

2.5 The axle shaft must be 25mm diameter solid magnetic material 900cm to 100cm in length.

2.6 The rear axle bearing hangers may be slotted for the purpose of aligning the axle.

2.7 The fitting of non-standard additional seat strays / support is permitted.

2.8 Non-standard rear axle bearing housing / carrier may be fitted.

2.9 The base gasket must be a type and fitted in such a way (adhesive on not more than one site) that it will not become damaged upon removal and re-fitment of the cylinder during scrutinizing / eligibility checks.

2.10 In the event that damage does occur and, upon re-fitment of the cylinder using the damage gasket, the combustion chamber volume is found to be less than the permitted minimum, the competitor will automatically be excluded and all the points up to that point will be forfeited

2.11 A mixture of approximately 40-50:1; 2-stroke oil / petrol (40-50ml 2-stoke oil per 1 litre fuel) will be used to check the combustion chamber volume.

NM 3 Safety and General:

3.1 Seat belts must be a minimum three point and mounted on the chassis, no loose end close to the chassis. 4 point seat belts are recommended.

3.2 All competitors must be equipped with:

3.3 Drivers shall wear, both during official and unofficial practice and during all racing, a properly positioned and secured crash helmet, with splinter proof goggles or visor in position. (Only full face helmets are permitted).

3.4 In addition, gloves that cover the hands completely.

3.5 A protective one piece race suit must be worn.

3.6 Boots/racing shoes or closed tekkies and socks must be worn adequate to cover and protect the ankles.

3.7 All suits must be of substantial thickness and suitable for the purpose and in particular must be of adequate thickness and strength in the areas covering the elbows, shoulders and knees. It is recommended that additional reinforcing be placed in these areas. No broken or torn suits will be permitted.
Suits bearing a CIK (or FMK) or MSA approved label are automatically acceptable.

3.8 Neck braces are allowed.

NM 4 Numbers:

4.1 Must be on the inside & outside of the left wing (sitting in the car). The club prefix must also be with the number clearly visible. The size of the number must be minimum 300 x 300 mm.

CLASS REGULATION NINJA MIDGET (NM):

NM 5 **Roll Cage and Body kit:**

5.1 The roll cage must be made out of steel (no Aluminium) 0.16mm thickness.

5.2 Body kit consist out of the following:

5.3 1 x nose cone – please note that the "long circuit" nose cone will not be permitted

5.4 1 x rear cone / bonnet

5.5 2 x side bumper / side pods

5.6 1 x front bumper

5.7 Make sure that both sides are fully covered with metal or aluminium side panels.

5.8 The minimum height of the roll-cage must be 800mm from the bottom of the chassis to the lowest point of the cage, whilst maintaining a minimum of a 100mm clearance between the top of the child's crash helmet and the top and/or any part of the roll-cage.

5.9 Window nets must be fitted to both sides of the kart, this may be cable tied in position..

NM 6 **Wings:**

6.1 Wings are compulsory and are not to be made adjustable. The wing should act as a barrier in case a car rolls over to stop injury if another car collides with it.

6.2 Maximum wing endplate sizes are 750mm x 550mm

NM 7 **Brakes:**

7.1 Must be effective and operated by foot pedal mechanically on both wheels simultaneously

7.2 Hydraulic brakes are permitted.

NM 8 **Steering:**

8.1 Must be controlled by a steering wheel, which must have a completely closed circular shape.

8.2 Flexible steering controls by cable or chain are not prohibited.

8.3 All parts of the steering must have a method of attachments offering maximum safety. (Split pins; self-locking nuts or bolts).

NM 9 **Engine and Transmissions:**

9.1 As per the Comer Specifications – attached.

9.2 W60 or S60 Comer engine will be permitted. All engines must be sealed by a registered engine builder to confirm that the engine is within specification.

9.3 From January 2015 the Maxterino MX-60 motor with a 16mm exhaust restriction plate may be used only as an experimental engine. Further restrictions will be introduced if this engine is found to be much faster than the current Comer engines.

9.4 The drive of the transmission shall always be to the rear wheels.

9.5 All Maxterino MX-60 engines must have a registered serial number seal. Sealed through two cylinder head nuts.

NM 10 **Exhausts:**

10.1 Must be the standard W60 exhaust when Comer engine been used and MX-60 Standard when Maxterino engine been used.

NM 11 **Carburettors:**

11.1 Only the Tilltson HL166B and the Tryron carburettors will be permitted on the Comer engines.

11.2 The venturi, butterfly and intake tube must have the standard factory cast finish (not polished) and flashing trimmed to size by the factory.

11.3 Fuel orifice size – standard

11.4 Idle – 0.70mm max

11.5

NM 12 **Sprockets:**

12.1 **Comer W60:**

12.2 Front: 12

CLASS REGULATION NINJA MIDGET (NM):

12.3 Rear: 88 or 89 or 90

12.4 **Comer S60:**

12.5 Front: 10

12.6 Rear: 74

12.7 **Maxterino MX-60: (Subject to change by Technical Representative) to aid restriction).**

12.8 Front: 11

12.9 Rear: 82

NM 13 **Seat:**

13.1 The seat must be rigidly located on the chassis, it must be so designed as that the driver is securely located to resist movement when cornering or braking.

13.2 A high back seat or a head restraint could be fitted and are recommendable. ***The tops of the seat must be fully supported to prevent any seat collapse***.

13.3 High back seats are compulsory from 1 July 2015.

13.4 No part of the driver's seat must be below the bottom of the chassis

NM 14 **Chain guard:**

14.1 A chain guard is compulsory and must efficiently cover the engine sprocket and axle sprocket down a line at least level with the centre of both front and rear sprocket

NM 15 **Pedals:**

15.1 Whatever the position of the pedals, they must not protrude forward of the chassis including the front bumper

NM 16 **Fuel and Oil:**

16.1 The only fuel permitted to be used is freely and commercially available, pump fuel (highest 95 UPL)

16.2 The addition of any additive other than 2-stroke lubrication oil to either the fuel or air is prohibited.

16.3 It has be mandatory for all competitors/guardians to declare what 2-stroke lubrication is being used and/or to declare the fuel mix

NM 17 **Weight:**

17.1 Minimum weight of 115kg, including driver

17.2 Baby Karts chassis minimum weight of 90kg, including driver

NM 18 **Tyres:**

18.1 Slick tyres must be used except when the race is declared a "wet race" by officials. Wet tyres must be used once the race are declared a "wet race"

18.2 Make – open

18.3 **Size:**

18.4 Front – 10 x 3.60-5

18.5 Rear – 11 x 5.00-5

18.6 Both wheels being the same depth. No stagger is permitted

18.7 Wet weather tyres are permitted if racing in rain or wet track

18.8 The change of wet tyres shall be decided on, unanimously by officials and in concert with all the parents/guardians being present and agreeing;

18.9 Under no circumstances may some competitors race on normal tyres and some wet in one race, this shall remain a safety measure, this ruling may not be disregarded under any circumstance by any official or promoter.

NM 19 **Carburettor air box:**

19.1 Must be standard unmodified.

CLASS REGULATION NINJA MIDGET (NM):

NM 20 **Spark plugs:**

20.1 Spark plugs fitted to the engines must be from the recommended list provided by Comer or Maxterino and must have a standard washer. No other spark plugs may be used. The plugs used must not be modified in any way whatsoever and must have a reach identical to that of the plugs listed. Resistor plugs will be used. The standard Comer/Maxterino resistor spark plug cap - as supplied with the engine - must be used.

NM 21 **Axle**

21.1 The axle shaft must be 25mm diameter solid magnetic material 900cm to 1000cm in length;

21.2 Replacement of 30mm hollow axle may be used in the case of current parts becoming obsolete, it may however, not exceed 30mm in diameter;

21.3 Hubs and carriers may be bored from 25mm to 30mm to accommodate the 30mm axle;

21.4 The rear axle bearing carriers may be slotted for the purpose of aligning the axle;

21.5 The fitting of non-standard additional seat stays for support is permitted;

21.6 Non-standard rear axle bearing housing / carrier may be fitted.

NM 22 **Titanium:**

22.1 The use of titanium for any parts of a kart is forbidden.

NM 23 **Additional rules:**

23.1 Laps:

23.2 Maximum laps – amount of cars plus 2 laps

23.3 Minimum laps – 8 laps

23.4 Repairs and postponements – only the C.O.C can decide on time of postponements of any race and time of any repairs

NM 24 **Withdrawal from an event or race:**

24.1 Refer GCR 110

CLASS REGULATIONS ROOKIE RODS (RR).

RR (D) 1 DESCRIPTION

1.1. This is seen as an introductory class as well as a junior class. The minimum age for participation in this class is 9 years. When used as an introductory class it excludes experienced campaigners from participation in this class. This class provides a home for beginners to race until they are eligible to go to other classes. Importantly any person who participates in even one race in another class cannot return to this class. Seasoned competitors may not race in this class. (See OT. 1.1.3).

1.2. This class is for TAR CIRCUITS ONLY.

1.3. The class is for saloon cars with a maximum engine capacity of l660cc which is the responsibility of the Promoter to police. The Promoter of the club manages the entries of the drivers who races in this class.

1.4. The vehicle shall comply with the general vehicle rules (CR 1 to CR 15), the safety regulations (CR 20 to CR 36) and the Construction regulations applicable to saloon vehicles (CR 37 to CR 55).

1.5. Should a competitor experience problems regarding availability of parts to repair damage or otherwise, he / she can make a written recommendation to the controllers for a directive for that specific vehicle. The reason for this regulation is that it is accepted that the class may become the home of various vehicles where spare parts are potentially a problem. Competitors are cautioned to ensure that they ask before they do–as the fact that you have already done so will not be a reason for allowing what was done.

1.6. The concept of the class is to allow youngsters and beginners to start racing in this class..

1.7. Please pay careful attention to the definitions contained in these regulations refer to those definitions. The specific reference has an enormous impact on the parts that can be used.

1.8. Space frames are allowed at the Promoters discretion.

RR (D) 2 CHOICE OF VEHICLES AND COMPONENTS / PARTS

2.1. Any vehicle, that in original form was equipped with an engine with 4 or less cylinders and a capacity of 1600 cc or less, is permitted.

2.2. When LDV's (Bakkies) are used the roll cage should still have the 6 main points as referred in CR 43.

2.3. Unless specifically permitted all parts used in the vehicle shall be vehicle specific standard parts.

RR (D) 3 DIMENSIONS AND WEIGHT

3.1. The original road going vehicles shall comply with the dimensions of the relevant make and model set out in the Auto Data Digest with a tolerance for accident repairs accepted.

3.2. Weight–The vehicle must comply with the variable regulations below. Minimum weight for car and driver in this class is 800Kg.

RR (D) 4 VEHICLE CONSTRUCTION

4.1. Front and rear wheel drive permitted. No conversion from front wheel drive to rear wheel drive (or vice versa) is allowed.

4.2. No engine off set is allowed.

4.3. Engines are to be fitted in their original positions. The mountings may be made solid.

4.4. Fire walls may not be cut to accommodate modifications.

RR (D) 5 SAFETY CONCERNS

5.1. The vehicle and driver must comply with each and every general safety regulation – see CR 20 to CR 36.

5.2. When using a bakkie the rear ward facing, down ward sloping mountings of the roll cage shall mount in line with the rear axle or rear ward thereof.

RR (D) 6 BUMPERS

6.1. Bumpers must be as per the construction rules for the specific class.

6.2. Bumpers may not be wider than the distance between the wheels from side to side.

CLASS REGULATIONS ROOKIE RODS (RR).

RR (D) 7 STEERING AND SUSPENSION

7.1. The vehicle must comply with CR 8. Please note that certain aspects of CR 8 are regulated by these regulations.

7.2. Only vehicle specific standard parts are permitted. Only South African made Gabriel or Armstrong shock absorbers or replacement shock absorbers sold under proprietary or house brand labels by distributors such as Alert, Midas and Auto zone are allowed. The shock absorbers stall not be altered in any way. It stands to reason that shock absorbers purchased from the spares counter of the vehicle manufacturer are permitted.

7.3. Only vehicle specific standard steering racks and steering boxes as fitted to the donor vehicle are allowed. No quick ratio version is allowed.

7.4. The suspension at the left front wheel may be slotted, top or bottom, for the purpose of adjusting camber only.

7.5. No adjustable shock absorbers are allowed. No coil over shocks are allowed. No rose joints are allowed.

7.6. The suspension shall remain standard, but for the modifications specifically allowed in these regulations.

7.7. Original equipment coil and blade springs can be reduced / cut to lower vehicle. Shimming is also permitted. No specially made up springs or racing springs permitted.

7.8. The suspension may not be adjustable, meaning that a spring would need to be changed or shimmed to changed the length or rate.

RR (D) 8 WHEELS AND TYRES

8.1. Only South African manufactured 13', 14' or 15' road legal tyres to a maximum tread width of 205 mm are permitted.

8.2. Standard rims may be replaced with other rims to a maximum of 8.0 J.

8.3. No wheel spacers or wheel adapters allowed.

RR (D) 9 BRAKES

9.1. Brakes shall comply with CR 10.

9.2. Only vehicle specific standard parts are permitted. This applies to the complete braking system.

9.3. Brakes shall remain standard, meaning that the brakes the donor vehicle came with are the brakes to be used.

9.4. No modified pedal boxes or brake bias devices are permitted.

9.5. Master cylinders must remain as per the donor vehicle.

RR (D) 10 ENGINE

10.1. The maximum total engine capacity is l660 cc but engines may only be over size by 1.52 mm., not withstanding manufacturer's specifications that permit a greater oversize. This all some and that the stroke of the engine may not be changed nor may the piston be changed

10.2. Parts used shall be brand specific standard parts. Items such as pistons, crank shafts, connecting rods, valves, timing gear and valve drive components shall be vehicle specific standard parts.

10.3. The engine may not have more than 4 cylinders. Engines may not have more than 8 valves.

10.4. The cylinder head and engine block must be used in combination as fitted to a manufacturers original vehicle. Nissan on Nissan, Golf on Golf etc.

10.5. Cam shafts and valve springs are free. Single or double valve springs may be used.

10.6. Valves and pistons must be identifiable by the manufacturer's identification marks.

10.7. Degree camshaft pulleys are not allowed.

10.8. Vernier gears are not permitted.

10.9. No slotting on standard pulleys allowed.

10.10. Slotting on the camshaft or crankshaft is not permitted.

10.11. Intake and exhaust manifolds are to remain standard.

10.12. Intake and exhaust ports on the cylinder head are to remain standard. No port matching allowed.

CLASS REGULATIONS ROOKIE RODS (RR)

10.13. Valve guides are to remain standard.
10.14. Electric water pumps are not allowed.
10.15. Balancing of engine parts are allowed, No knife edging are allowed. Please note that the provisions of CR 15.3.15.
10.16. Any other aspect of the engine not mentioned here shall be in accordance with the Rookie engine specifications as set out in CR15.
10.17. It is again stressed that the engines shall remain near standard and modification should not be the norm.
10.18 The Nissan A15 engine may be used in the 1400 ldv.120Y,140Y, 160Y and in the 1200 GX. A14 and A15 engines may not be fitted with SU type carburettors.

RR (D) 11 TRANSMISSIONS

11.1. Gearboxes, clutches (in respect of drive plate, pressure plate and release bearing), and differentials shall be brand specific standard parts.
11.2. Flex plates are not allowed. Fly wheels to remain standard.
11.3. On front wheel drive vehicles a gearbox of the same make and brand can be interchanged to accommodate ratio problems e.g. A VW Golf gear box can be fitted to a VW Polo or vice versa.
11.4. On rear wheel drive vehicles the gearbox can be interchanged. (Ford to Ford). On rear wheel drive the complete axle housing shall remain as per the donor vehicle. The ratio of the differential may be changed with the use of components from the same make of vehicle or differential.
11.5. In order to level the playing field either the ratio in the gearbox or the differential– but not both -may be altered from the standard specifications of the donor vehicle, by using components described above.
11.6. No limited slip differentials are allowed.
11.7. Differentials may be locked.

RR (D) 12 EXHAUSTS

12.1. Branches are allowed, the maximum outside diameter of the branch may not exceed 38mm. It is specifically recorded that the only reason for this exception is that certain car engines came with a branch as standard.
12.2. The exhaust manifold and the down pipe may remain as fitted to the donor vehicle in original road going form. Free flow systems after the end of the manifold are permitted.
12.3. The maximum outside diameter of the exhaust pipe beyond the end of the down pipe is free.
12.4. The exhaust pipe shall end just before the rear axle and shall have a bend that takes the end down wards and importantly away from fuel tanks and fuel lines.
12.5. Any other aspect of the exhaust not mentioned here shall be in accordance with CR 9 and CR 33.
12.6. The vehicle must have a silencer.

RR (D) 13 BODY

13.1. No steel plates are allowed to reinforce the rear of the vehicle.
13.2. Body parts can be replaced with fiberglass body panels resembling the original shapes of the manufacturer.
13.3. Wheels shall remain within the body.
13.4. Tail gates shall be secured so that they do not come loose in a race and especially not in the case of a collision.
13.5. Bodies are to remain standard. Fibre glass bonnets, doors, fenders and boot lids may be used, providing it bolts to the cars original mounting points similar to the original parts.
13.6. CR 38 and CR 39 apply.

RR (D) 14 WINGS

14.1. No wings are permitted.

CLASS REGULATIONS ROOKIE RODS (RR)

RR (D) 15 FUEL INJECTION / CARBURETION

15.1. Only pump fuel is allowed. No methanol, ethanol or toluene allowed.
15.2. Fuel injection is not permitted.
15.3. Carburetion can be altered to fit up to a 38DGAS Weber carburettor. Chokes may not exceed 28 mm on all twin choke carburettors.
15.4. No air intake ducting will be allowed.
15.5. Adaptors may be used to fit cone type air filters. The filter may not be mounted more than 200 mm from the carburettor.

RR (D) 16 IGNITION AND ENGINE MANAGEMENT

16.1. After market ignition systems are not allowed, TP 100 is allowed.

RR (D) 17 NUMBER PLACEMENT

17.1. Please see CR 3.
17.2. It is compulsory for the number to be placed on the rear window on the outside (spectator) side of the vehicle, preferably with the driver's name. The number shall be black with white background. The size of the numbers shall be 300 mm high with a stroke of 50 mm.
17.3. The number shall be placed on both sides of the vehicle, the roof and on the visor panel (for line up purposes).

RR (D) 18 APPENDIX "A"/ VARIABLE REGULATIONS

18.1. The weight of the vehicle including driver shall be 800 kg.
18.2. Ballast may not be fitted inside the cockpit, nor may it be outside the vehicle.

RR (D) 19 SPECIFIC PERMISSIONS

19.1. Rookies are only allowed to race in this class at their home circuit. Should they race at another club.
19.2. A brace is allowed between the strut towers at the top or the bottom but not both. These may only be bolted on.

CLASS REGULATIONS STOCK RODS (SR).

SR (D) 1 DESCRIPTION

1.1. This is seen as an introductory class as well as a junior class. The minimum age for participation in this class is 10 years. When used as a junior class it provides a home for youngsters to race until they are eligible to go to other classes. Importantly any competitor who participates in a higher class on the day may not participate in this class on the day.

1.2. This class is for TAR CIRCUITS ONLY.

1.3. The class is for saloon cars and monocoque construction light delivery vehicles ("bakkies") with a maximum engine capacity of l660cc.

1.4 The vehicle shall comply with the general vehicle rules (CR 1 to CR 15), the safety regulations (CR 20 to CR 36) and the Construction regulations applicable to saloon vehicles (CR 37 to CR 55).

1.5. Should a competitor experience problems regarding availability of parts to repair damage or otherwise, he / she can make a written recommendation to the controllers for a directive for that specific vehicle. The reason for this regulation is that it is accepted that the class may become the home of various vehicles where spare parts are potentially a problem. Competitors are cautioned to ensure that they ask before they do–as the fact that you have already done so will not be a reason for allowing what was done.

1.6. The concept of the class is that the donor vehicle is raced as a unit. Competitors should choose the donor vehicle carefully.

1.7. Please pay careful attention to the definitions contained in CR 1 as these regulations refer to those definitions. The specific reference has an enormous impact on the parts that can be used.

1.8. No space frames are allowed.

SR (D) 2 CHOICE OF VEHICLES AND COMPONENTS / PARTS

2.1.Any vehicle, that in original form was equipped with an engine with 4 or less cylinders and a capacity of 1600 cc or less, is permitted provided it complies fully with the regulations for Original road going vehicles / original manufacturer body vehicles as described in CR 1, CR 37, CR 38 and CR 39. Please again pay attention to the requirement of 1.6 above – if the vehicle was produced with a 3 cylinder engine it must be raced with that same three cylinder engine.

2.2. When LDV's (Bakkies) are used the roll cage should still have the 6 main points as referred in CR 43.

2.3. Unless specifically permitted all parts used in the vehicle shall be vehicle specific standard parts.

SR (D) 3 DIMENSIONS AND WEIGHT

3.1. The original road going vehicles shall comply with the dimensions of the relevant make and model set out in the Auto Data Digest with a tolerance for accident repairs accepted.

3.2. Weight–The vehicle must comply with the variable regulations below. Minimum weight for car and driver in this class is 800Kg.

SR (D) 4 VEHICLE CONSTRUCTION

4.1. Front and rear wheel drive permitted. No conversion from front wheel drive to rear wheel drive (or vice versa) is allowed.

4.2. No engine off set is allowed.

4.3. Engines are to be fitted in their original positions. The mountings may be made solid.

4.4. Fire walls may not be cut to accommodate modifications.

SR (D) 5 SAFETY CONCERNS

5.1. The vehicle and driver must comply with each and every general safety regulation – see CR 20 to CR 36.

5.2. When using a LDV. (Bakkie) the rear ward facing, down ward sloping mountings of the roll cage shall mount in line with the rear axle or rear ward thereof.

CLASS REGULATIONS STOCK RODS (SR).

SR (D) 6 BUMPERS

6.1. Only the vehicle specific original bumpers are allowed. Fibreglass copies of the original bumpers will be allowed with an internal bumper of 38 X 2mm tubing mounted on two 40mm X 4 mm flat bars welded to the original chassis. Add on spoilers are allowed. The original silhouette must be maintained.

6.2. Bumpers may not be wider than the distance between the wheels from side to side. Edges are to be rounded.

SR (D) 7 STEERING AND SUSPENSION

7.1. The vehicle must comply with CR 8. Please note that certain aspects of CR 8 are regulated by these regulations.

7.2. Only vehicle specific standard parts are permitted. Only South African made Gabriel or Armstrong shock absorbers or replacement shock absorbers sold under proprietary or house brand labels by distributors such as Alert, Midas and Auto zone are allowed. The shock absorbers stall not be altered in any way. It stands to reason that shock absorbers purchased from the spares counter of the vehicle manufacturer are permitted.

7.3. Only vehicle specific standard steering racks and steering boxes as fitted to the donor vehicle are allowed. No quick ratio version is allowed.

7.4. The suspension at the left front wheel may be slotted, top or bottom, for the purpose of adjusting camber only.

7.5. No adjustable shock absorbers are allowed. No coil over shocks are allowed. No rose joints are allowed.

7.6. The suspension shall remain standard, but for the modifications specifically allowed in these regulations.

7.7. Original equipment coil and blade springs can be reduced / cut to lower vehicle. Shimming is also permitted. No specially made up springs or racing springs permitted.

7.8. The suspension may not be adjustable, meaning that a spring would need to be changed or shimmed to changed the length or rate. A brace may be bolted on between the strut towers.

SR (D) 8 WHEELS AND TYRES

8.1. Only South African manufactured 13', 14' or 15' road legal tyres to a maximum tread width of 205 mm are permitted.

8.2. Standard rims may be replaced with other rims to a maximum of 8.0 J.

8.3. No wheel spacers or wheel adapters allowed.

SR (D) 9 BRAKES

9.1. Brakes shall comply with CR 10.

9.2. Only vehicle specific standard parts are permitted. This applies to the complete braking system.

9.3. Brakes shall remain standard, meaning that the brakes the donor vehicle came with are the brakes to be used.

9.4. No modified pedal boxes or brake bias devices are permitted.

9.5. Master cylinders must remain as per the donor vehicle.

SR (D) 10 ENGINE

10.1. The maximum total engine capacity is l660 cc but engines may only be over size by 1.52 mm, not withstanding manufacturer's specifications that permit a greater oversize. This al some ans that the stroke of the engine may not be changed nor may the piston be changed.

10.2. Parts used shall be brand specific standard parts. Items such as pistons, crank shafts, connecting rods, valves, timing gear and valve drive components shall be vehicle specific standard parts.

10.3. The engine may not have more than 4 cylinders. Engines may not have more than 8 valves.

10.4. The cylinder head and engine block must be used in combination as fitted to an original vehicle.

10.5. Cam shafts and valve springs are free. Single or double valve springs may be used.

10.6. Valves and pistons must be identifiable by the manufacturer's identification marks.

10.7. Degree camshaft pulleys are not allowed.

10.8. Vernier gears are not permitted.

10.9. No slotting on standard pulleys allowed.

CLASS REGULATIONS STOCK RODS (SR).

10.10. Slotting on the camshaft or crankshaft is not permitted.
10.11. Intake and exhaust manifolds are to remain standard.
10.12. Intake and exhaust ports on the cylinder head are to remain standard. No port matching allowed.
10.13. Valve guides are to remain standard.
10.14. Electric water pumps are not allowed.
10.15. Balancing of engine parts are allowed, No knife edging are allowed. Please note that the provisions of CR 15.3.15.
10.16. Any other aspect of the engine not mentioned here shall be in accordance with the stock engine specifications as set out in CR15
10.17. It is again stressed that the engines shall remain near standard and modification should not be the norm.
10.18 The Nissan A15 engine may be used in the 1400 ldv.120Y,140Y,160Y and in the 1200 GX. A14 and A15 engines may not be fitted with SU type carburettors. Any engine from the same manufacturer may be interchanged subject to cc limitations.

SR (D) 11 TRANSMISSIONS

11.1. Gearboxes, clutches (in respect of drive plate, pressure plate and release bearing), and differentials shall be brand specific standard parts.
11.2. Flex plates are not allowed. Fly wheels to remain standard.
11.3. On front wheel drive vehicles a gearbox of the same make and brand can be interchanged to accommodate ratio problems e.g. A VW Golf gear box can be fitted to a VW Polo or visa versa.
11.4. On rear wheel drive vehicles the gearbox can be interchanged. (Ford to Ford). On rear wheel drive the complete axle housing shall remain as per the donor vehicle. The ratio of the differential may be changed with the use of components from the same make of vehicle or differential.
11.5. In order to level the playing field either the ratio in the gearbox or the differential– but not both -may be altered from the standard specifications of the donor vehicle, by using components described above.
11.6. No limited slip differentials are allowed.
11.7. Differentials may be locked.

SR (D) 12 EXHAUSTS

12.1. Branches are allowed, the maximum outside diameter of the branch may not exceed 38mm.It is specifically recorded that the only reason for this exception is that certain car engines came with a branch as standard.
12.2. The exhaust manifold and the down pipe may remain as fitted to the donor vehicle in original road going form. Free flow systems after the end of the manifold are permitted.
12.3. The maximum outside diameter of the exhaust outlet pipe is free. The outlet pie must be on a hanger bracket.
12.4. The exhaust pipe shall end just before the rear axle and shall have a bend that takes the end down wards and importantly away from fuel tanks and fuel lines.
12.5. Any other aspect of the exhaust not mentioned here shall be in accordance with CR 9 and CR 33.
12.6. The vehicle must have a silencer.

SR (D) 13 BODY

13.1. No steel plates are allowed to reinforce the rear of the vehicle.
13.2. Body parts can be replaced with fiberglass body panels resembling the original shapes of the manufacturer.
13.3. Wheels shall remain within the body.
13.4. Tail gates shall be secured so that they do not come loose in a race and especially not in the case of a collision.
13.5. Bodies are to remain standard. Fibre glass bonnets, doors, fenders and boot lids may be used, providing it bolts to the cars original mounting points similar to the original parts.
13.6. CR 38 and CR 39 apply.

CLASS REGULATIONS STOCK RODS (SR).

SR (D) 14 WINGS

14.1. No wings are permitted.

SR (D) 15 FUEL INJECTION / CARBURETION

15.1. Only pump fuel is allowed. No methanol, ethanol or toluene allowed.

15.2. Fuel injection is not permitted.

15.3. Carburetion can be altered to fit up to a 38DGAS Weber carburettor. Chokes may not exceed 28 mm on all twin choke carburettors.

15.4. No air intake ducting will be allowed.

15.5. Adaptors may be used to fit cone type air filters. The filter may not be mounted more than 200 mm from the carburettor.

SR (D) 16 IGNITION AND ENGINE MANAGEMENT

16.1. After market ignition systems are not allowed, TP 100 is allowed.

SR (D) 17 NUMBER PLACEMENT

17.1. Please see CR 3.

17.2. It is compulsory for the number to be placed on the rear window on the outside (spectator) side of the vehicle, preferably with the driver's name. The number shall be black with white background. The size of the numbers shall be 300 mm high with a stroke of 50 mm.

17.3. The number shall be placed on both sides of the vehicle, the roof and on the visor panel (for line up purposes).

SR (D) 18 APPENDIX "A"/ VARIABLE REGULATIONS

18.1. The weight of the vehicle including driver shall be 800 kg.

18.2. Ballast may not be fitted inside the cockpit, nor may it be outside the vehicle.

SR (D) 19 SPECIFIC PERMISSIONS

19.1. A strut brace may be placed between the struts at the top or the bottom, but not both. These may only be bolted on.

CLASS REGULATIONS- 1660 SALOONS (SSS).

SSS 1 DESCRIPTION

1.1 In respect of the age of the competitor this is an open formula with a minimum age of 16 years.

1.2 The choice in respect of the type of car construction is free.

1.3 The vehicle shall comply with the general vehicle rules (CR 1 to CR 15), the safety regulations (CR 20 to CR 36) and the Construction regulations applicable to saloon vehicles (CR 37 to CR 55).

SSS 2 CHOICE OF VEHICLES AND COMPONENTS / PARTS

2.1 In order for the vehicle, engine or any component thereof to be used 5000 of the particular make and model (reasonable face lifts included) had to be sold internationally. The onus is on the entrant to prove the source and history of a vehicle or component.

2.3 Throughout reference is made to standard parts or components. Please see CR 1.5 above. For clarity this means that when the rules for this class specify a standard part it may be from any vehicle that complies with this choice criteria and need not be a combination with the body shell or engine. In other words if a Nissan engine is used you may use a Ford brake rotor, a BMW brake calliper and a Toyota gearbox– provided each of the donor vehicles complies with SH 2.1.

SSS 3 DIMENSIONS AND WEIGHT

3.1 The original road going vehicles shall comply with the dimensions of the relevant make and model set out in the Auto Data Digest with a tolerance for accident repair accepted.

3.2 Semi space frames and space frames (on tar) shall not exceed a length of 5 meters and a width of 2 meters.

3.3 Weight – The vehicle must comply with the variable regulations at SH 18.

SSS 4 CAR CONSTRUCTION

4.1 See CR 36 to CR 38.

4.2 RESERVED

4.3 Space frames are permitted – This means Original road going vehicles and semi space frames are permitted and are allowed to make the same modifications that are permitted for space frames, subject to generally specified safety standards.

4.4 Front and rear wheel drive permitted. However if a car has been converted from front wheel drive to rear wheel drive it is regarded as a semi space frame and is permitted.

4.5 This is a saloon class and therefore the vehicle shall comply with the general regulations for saloon classes.

SSS 5 SAFETY CONCERNS

5.1 The vehicle and driver must comply with each and every general safety regulation – see CR 19 to CR 35.

SSS 6 BUMPERS

6.1 Only internal bumpers may be fitted.

SSS 7 STEERING AND SUSPENSION

7.1 The vehicle must comply with CR 7.

7.2 Only South African made Gabriel and / or Armstrong shock absorbers may be used. No modifications are allowed to the shock absorbers. Coil overs are allowed.

7.3 Power steering is permitted.

7.3.1 Double wishbone suspensions are permitted.

7.3.2 Front wheel drive space frames are permitted. Only solid rear axles are permitted. No independent rear suspensions are allowed.

7.4 The flowing suspension rules apply.

7.4.1. Shocks are free.

7.4.2. Rose joints are permitted.

7.4.3. On the inside front the following modifications are permitted:-

7.4.3.1 A tolerance of 25 mm from the standard wheel base is permitted.

7.4.3.2 Camber is free.

7.4.3.3 The standard anti roll bar / tie rod / bush may be modified.

7.4.4 On the outside front the following is permitted:-

7.4.4.1 The track rod may be extended by up to 25 mm.

7.4.4.2 The steering rack arm (end) may be extended by up to 25 mm.

7.4.4.3 The standard anti roll bar / tie rod / bush may be modified.

7.4.4.4 Negative camber is permitted.

7.4.5 Rose type joints are permitted.

7.5 **Suspension.**

7.5.1 Steering racks / boxes are free.

7.5.2 Suspension design is free.

7.5.3 The use of rose type joints is permitted.

7.5.4 Suspension may be designed with an off set.

7.5.5 A maximum of 6 links may be used on the rear suspension and must be of the live axle type if rear wheel drive issued.

7.5.6 Wish bone type suspensions are allowed in this class.

SSS 8 WHEELS AND TYRES

8.1 The vehicle must comply with CR 4 to CR 6.

8.2 Tyre and wheel restrictions:

8.2.1 Maximum wheel diameter is 15”

8.2.2 Maximum tyre width 205 mm.

8.3 Tyre choice: A road legal tyre within the above sizing must be used from July 2014. No semi slicks will be allowed after this date.

8.4 A total maximum of 6 tyres allowed per event.

SSS 9 BRAKES

9.1 The vehicle must comply with CR 9.

9.2 Only standard components are permitted at the wheels. The brake callipers are restricted to single pot and two pot types.

9.3 The master cylinder is free. Twin master cylinders are permitted.

9.4 Drum brakes maybe converted to disc brakes.

SSS 10 ENGINE

10.1 On original road vehicles the engine must sit in the original position.

10.2 The tar the following shall apply:

10.2.1 To rear wheel drive vehicles – the rear face of the engine block must be at least 78 cm forward of the centre line between the front and rear axles. See CR 46 above.

10.2.2 To front wheel drive vehicles – the engine shall fit in the standard position.

10.3 The maximum capacity of the engine shall be 1660cc.

10.4 The engine shall have no more than 4 cylinders with no more than 2 valves per cylinder. Engines with a capacity below 1450 cc shall be allowed to have 4 valves per cylinder. Engines with a capacity below 1550 cc but above 1451 cc shall be allowed 3 valves per cylinder.

10.5 The engines must be built in terms of the modified engine regulations to be found at CR 16 above.

10.6 Only wet sump lubrication allowed.

CLASS REGULATIONS- 1660 SALOONS (SSS).

SSS 11 TRANSMISSION

11.1 The vehicle must comply with CR 10
11.2 Only standard gear boxes are permitted.
11.3 Gear ratios are free but no straight cut gears are permitted.
11.4 Any standard differential and axle is permitted
11.5 Limited slip type differentials are not permitted. Only standard or locked differentials permitted.
11.6 Differential gear ratios are free.
11.7 Flex plates are not permitted.
11.8 The original cast iron flywheel or are placement steel / aluminium fly wheel is permitted.
11.9 Whilst the ratios of the gear box and differential are described as being free it must be understood that the freedom applies only to the actual numeric relation between the parts and does not mean that the choice of parts is not prescribed. The regulation permits the use of differing components but each of the must come from a vehicle that would comply with SH 1. The internals of the gear box and differential must be standard original equipment parts. This means that no purpose made race parts or straight cut gears are permitted.

SSS 12 EXHAUST

12.1 Refer CR 8 and CR 32.

SSS 13 BODY

13.1 Body work shall comply with CR 37 and CR 38.

SSS 14 WINGS

14.1.1 Wings are permitted. Wings may not protrude pass the width of the vehicle body.

SSS 15 FUEL / INJECTION / CARBURETION

15.1 Pump fuel, race fuel, LL 100 or methanol is permitted.
15.2 Carburetion is limited to a pair of side draught carburettors with a maximum throttle body diameter of 40 mm. Maximum diameter of the choke tubes is 34 mm. These will be measured at 4 points.
15.3 Fuel injection may be used with a local management system. A tubular manifold may be constructed with 4 intake runners into a single tube fitted with a throttle body of maximum 60 mm. The fuel injection manifold may be used and ported and a single throttle body of maximum 60mm. may be fitted to it .

SSS 16 IGNITION / ENGINE MANAGEMENT

16.1 Any standard distributor may be used.
16.2 A standard electronic ignition may be fitted.
16.3 Any local engine management system may be used for fuel and ignition management.(Dicktator, Splitronic, Mr.Turbo, Gotech, Spitronic Etc.)
16.4 A MSD may be fitted if the stock engine option is utilized.

SSS 17 NUMBER PLACEMENT

17.1 It is compulsory for the number to be placed on the rear window on the outside (spectator) side of the vehicle, preferably with the driver's name. The number shall be black with white background. The size of the numbers shall be 300 mm high with a stroke of 50 mm.
17.2 The number shall be placed on both sides of the vehicle, the roof and on the visor panel (for line up purposes).

SSS 18 APPENDIX "A"-VARIABLE REGULATIONS

18.1 Minimum Weight, Including the driver: 800kg.

SSS 19 SPECIFIC PERMISSIONS

19.1 The Datsun / Nissan A15 engine is permitted for use.

CLASS REGULATIONS- 1660 SALOONS (SSS).

19.2 The cylinder head may be substituted with another cylinder head from the same manufacturer's brand. This is clarified to mean that any cylinder head of the same manufacturer's brand as the cylinder block can be interchanged as long as the cylinder head and the cylinder block comply with the engine units criteria set out above and absolutely no modification is required on either the block or the head to fit the cylinder head. The bolt pattern of the head and the block must be identical. If a cylinder head is substituted the substitute head must have the same camshaft and Valve configuration as the cylinder head originally fitted. Cross flow heads may be substituted for reverse flow heads and vice versa.

19.3 A specific permission is granted for the BMC / Leyland Mini to participate in this class with the following restrictions:

19.3.1 The vehicle may only be run in original manufacturer body configuration;

19.3.2 A single 45 mm throttle body carburettor must be fitted;

19.3.3 Carburettor choke tubes may not exceed 38mm;

19.3.4 The cylinder head must be a 5 port head;

19.3.5 The weight shall be 650 kg including the driver; and

19.3.6 The vehicle must have a Leyland / BMC Mini engine.

19.3.7 Should the vehicle fail to comply with any one of the above specific restrictions it will be permitted to race at a weight of 800 kg.

CLASS REGULATIONS- 2 LITRE HOT RODS (2LHR).

2LHR 1 DESCRIPTION

This class will now be known as the 2 Litre Hot Rod class.

1.1 In respect of the age of the competitor this is an open formula with a minimum age of 16 years.

1.2 This class is for Tar Saloon cars with a 2.0 litre Ford Pinto SOHC engine where standard bodies, semi space frames and space frames may be used.

1.3 Please note that this class previously bore the name 2 Litre Hotrods. (Pinto's)

2LHR 2 CHOICE OF VEHICLES AND COMPONENTS

2.1 Any Saloon, GT or Coupe type car or body of which a minimum of 500 have been sold in South Africa may be used.

2.2 Any standard drive train, cooling, axle or brake component maybe used provided that the donor vehicle complies with 2.1 above.

2.3 Only rear wheel drive vehicles are permitted.

2.4 Only Ford 2.0litre Pinto SOHC engines may be used. Gear boxes must be Ford.

2.5 Any reference to standard parts in respect of the engine shall refer to Ford production parts or accepted commercial aftermarket parts specifically for the **Ford 2.0litre Pinto SOHC engine** and **NOT** competition parts or parts from other engines. References to standard measurements shall mean the measurements of the standard component for the **Ford 2.0litre Pinto SOHC engine** and **NOT** competition parts or parts from other engines

2.6 Any reference to standard parts in respect of the rest of the vehicle shall refer to production parts or accepted commercial aftermarket parts for a **vehicle described in HR-T 2.1** and NOT competition parts.

2.7 1 Approved experimental motor may be used by a MSA nominated competitor. This competitor will not score any points and may not compete in any championships events with this engine.

2LHR 3 DIMENSIONS AND WEIGHT

3.1 Vehicles shall not exceed a length of 5 meters and a width of 2 meters.

3.2 Weight – The vehicle must comply with the variable regulations at HR – T 18 below.

2LHR 4 CAR CONSTRUCTION

4.1 See CR 36 to CR 38.

4.2 Space frames permitted – This means Original road going vehicles and semi space frames are permitted and are allowed to make the same modifications that are permitted for space frames, subject to generally specified safety standards.

4.3 Only rear wheel drive permitted.

4.4 This is a saloon class and there for the vehicle shall comply with the general regulations for saloon classes.

2LHR 5 SAFETY CONCERNS

5.1 The vehicle and driver must comply with each and every general safety regulation – see CR 19 to CR 35.

2LHR 6 BUMPERS

6.1 Only internal bumpers may be fitted.

2LHR 7 STEERING AND SUSPENSION

7.1 The vehicle must comply with CR7.

7.2 Steering racks / boxes are free.

7.3 Suspension design is free but limited to either standard suspension up rights as fitted to vehicles described in LHR – T 2 above or locally fabricated components. Adjustable spring plat forms may be fitted. Competition springs are permitted.

7.4 The use of rose type joints is permitted.

7.5 Shock absorbers are free but may have only one adjustment for either bump or rebound. Limit is 4 in total, one per corner.
7.6 No remote shock absorber reservoirs may be used.
7.7 Power steering is permitted.
7.8 Suspension may be designed with an off set.
7.9 A maximum of 6 links may be used on the rear suspension.
7.10 Independent rear suspensions are NOT permitted.

2LHR 8 WHEELS AND TYRES

8.1 The vehicle must comply with CR4,CR5 and CR6. Tyres must be freely available locally.
8.2 Wheels rim size is restricted to 15 inch rims.
8.3 In addition to the Nankang/Sonar or any road legal, local manufacture street 205 tyre, any 13", 14" or 15" tyre, with a stated tread width not exceeding 205 mm, may be used.
8.5 A total maximum of 6 tyres are allowed per event.

2LHR 9 BRAKES

9.1 The vehicle must comply with CR 9.
9.2 Only standard components, sourced from a vehicle that complies with 2.1 are permitted at the wheels. Ventilated Toyota Cressida discs may be used in this class. This must be machined down to the same size as the original Ford disc. The original Ford callipers must be retained, but it may be spaced to fit over the disc. The disc may be drilled and/or grooved. Twin pot callipers sourced from a local vehicle may be used at the rear brakes.
9.3 The master cylinder is free.

2LHR 10 ENGINE

10.1 The engine shall fit in the standard position for original road going vehicles.
10.2 The rear face of the engine block must be at least 78 cm forward of the centre line between the front and rear axles. See CR 46 above.
10.3 The stock engine regulations apply should the following be silent on any issue.
10.4 **Choice and size**
10.4.1 Any Ford 2litre SOHC engine may be used.
10.4.2 The bore may not exceed 90.84 mm plus an allowance for a1, 5 mm overbore. Sleeving back to standard (90.84mm) is permitted. Sleeves may be over bored to a maximum of 1.5mm.
10.4.3 The stroke may not exceed 77 mm.
10.4.4 The cylinder block may be skimmed but pistons may not protrude above the cylinder block upper deck.
10.4.5 Cylinder blocks may be inline bored.
10.4.6 No other modification permitted.
10.5 **Crank shaft / Connecting rods / Balancing**
10.5.1 Only standard cast iron crank shafts may be used.
10.5.2 Spot machining of the crank shaft to achieve balance is permitted.
10.5.3 Tuf riding and nit riding permitted, but polishing outside of the journals is not permitted
10.5.4 The minimum weight of the crank shaft is 12.7 kg.
10.5.5 The number of bearings may not be altered. Bearings may not be less than Ford specified minimum width. Oversize bearings of standard or heavy duty material permitted.
10.5.6 Cross drilled crank shafts not permitted.
10.5.7 No forged steel crank shafts or connecting rods are permitted.
10.5.8 Engine components may be balanced and spot drilling is permitted for that purpose only. At least 1 component of each shall remain standard and unaltered.

10.5.9 The connecting rod bolts may be changed but the connecting rod may not be drilled or modified to accept the replacement bolt.

10.6 **Pistons**

10.6.1 Only standard Ford or standard replacement pistons (Karl Schmidt, Hepolite, Wellworthy, AE or Mahle) may be used.

10.6.2 Pistons may not be modified, other than for balancing. No forged pistons are allowed. Gudgeon pins may be made floating

10.6.3 Pistons may not protrude above the cylinder block.

10.6.4 Pistons may not be skimmed and identification marks on the pistons may not be removed.

10.6.5 Lightening (other than for balancing purposes above) and stress relieving is not allowed.

10.6.6 Choice of piston rings is free but the number of rings must be as standard. No machining of the piston is permitted. Accepted ring gapping permitted.

10.7 **Lubrication system**

10.7.1 Dry sump and semi – dry sumps are not permitted

10.7.2 Oil filter must be clamped and must be in its original position, but with a sandwich plate permitted.

10.7.3 Oil galleries in the cylinder block and cylinder head may be altered. Restrictors are allowed in the oil galleries.

10.7.4 Sumps may be modified to hold more or less oil and may be baffled to prevent surge.

10.7.5 The oil pickup must terminate within the confines of the sump.

10.7.6 Aluminium sumps are permitted.

10.7.7 High pressure oil pumps are permitted. High capacity oil pumps are allowed.

10.7.8 An oil cooler may be fitted in the engine compartment, using a sandwich plate fitted between the oil filter and the block.

10.7.9 The oil pump and distributor drive may be replaced by a suitably modified Allen key tool.

10.8 **Gaskets**

10.8.1 Only standard Ford or replacement gaskets designed specifically for the above engine may be used.

10.8.2 No copper Gaskets.

10.8.3 All gaskets must be unmodified with no sealing aids.

10.8.4 No competition gaskets allowed on any part of the engine or ancillaries

10.9 **Cam shaft**

10.9.1 Cam shaft type is free.

10.9.2 Vernier timing gears permitted.

10.9.3 Standard length cam belts, used with the standard tensioner must be used. No modifications permitted

10.9.4 Centre drilled cam shafts are permitted. The oil spray bar may be removed and a splash shield may be fitted.

10.9.5 Roller cam bearings are not permitted.

10.9.6 Rocker arms are free but the use of roller rocker is not permitted.

10.9.7 Rockers may have the end snipped.

10.9.8 Heavy duty rocker arm retaining springs are permitted.

10.9.9 The rocker arm pedestal stud is free.

10.10 **Cylinder head**

10.10.1 Any Ford 2.0litre Pinto SOHC casting allowed.

10.10.2 The cylinder head must not be modified (other than the skimming and valve spring fitment permitted) and material may not be removed from or added to the ports or the combustion chamber.

10.10.3 Valve guides must occupy their original position and must be standard parts. No bronze or competition guides permitted. Thin wall bronze inserts in to existing guides are permitted. Valve guides may be changed to address sun leaded fuel concerns.

10.10.4 Valves must be standard parts of standard length (110.65 - 111.65 for inlet valves and 110.10 - 112.05 for exhaust valves) The valve head size shall be 42 mm for the inlet valve and 36 mm for the exhaust valve.

10.10.5 The head gasket face may be skimmed.

10.10.6 Any single or double valve spring may be fitted and the head may be modified to allow them to fit.

10.10.7 Only standard spring tops and standard length ball studs permitted. Towers may be reinforced.

10.10.8 Heavy duty rocker arm retaining springs are permitted.

10.10.9 No "O" rings permitted.

10.10.10 Three angle valve seats are permitted.

10.10.11 The slight lip where the back of the valve meets the valve seat may be ground away at a 30º angle to a maximum width of 2.5 mm.

10.10.12 Oil flow restrictors are permitted.

10.10.13 Cylinder head bolts may be replaced by ARP bolts.

10.11 **Inlet manifold**

10.11.1 Only Ford 2.0litre Pinto SOHC engine permitted.

10.11.2 The manifold may not be faced to alter the angle of the manifold or the carburettor.

10.11.3 No inlet port matching from the carburettor flange face or from the manifold ports to the head will be permitted.

10.11.4 No material may be added to or removed from the gas flow area.

10.11.5 Water circulation holes may be blanked off.

10.11.6 A stabilizer may be fitted to support the manifold

10.12 **External modifications**

10.12.1 Any production type starter motor, excluding competition types, may be used.

10.12.2 Power grip type pulleys are permitted. The crank shaft pulley is free.

10.12.3 Manual fuel pumps may be removed and replaced with remotely positioned electric pumps.

10.12.4 No electric water pumps permitted.

10.13 **Retention of standard parts**

10.13.1 All other parts appertaining to the engine, which have not been specifically mentioned must remain the standard Ford 2.0 litre Pinto SOHC engine part.

2LHR 11 TRANSMISSION

11.1 The vehicle must comply with CR 10. Ford V6 gearbox may be used.

11.2 Any standard Ford 2.0litre Pinto SOHC engine flywheel, which may be lightened, may be used. Cast iron flywheels may be replaced with steel / aluminium flywheels.

11.3 Clutch plates are free but no competition types are permitted. Copper plate type permitted.

11.4 Flywheels may be doweled to the crank shaft.

11.6 Only standard Ford gearboxes as fitted to vehicles described in 2LHR-T2 above may be used. Quaife or any form of racing gearbox is prohibited.

11.7 Any standard rear axle (as fitted to any car described in above may be used).

11.8 Any standard differential (as fitted any car described in 2LHR-T2 above) may be used No limited slip type differentials are permitted. The differential must be locked. Gear ratios are free.

11.9 Only space frame cars may convert from a front wheel drive system to a rear wheel drive system.

11.10 Flex plates not allowed.

11.11 Whilst the ratios of the gearbox and differential are described as being free it must be understood that the freedom applies only to the actual numeric relation between the parts and does not mean that the choice of parts is not prescribed. The regulation permits the use of differing components but each of the must come from a vehicle that would comply with HR-T2. The internals of the gearbox and differential must be standard original equipment parts. This means that no purpose made race parts or straight cut gears are permitted.

11.12 Hydraulic or cable clutch systems may be used.

2 CLASS REGULATIONS- 2 LITRE HOT RODS (2LHR).

LHR 12 EXHAUST

12.1 Refer CR8 and CR32.

12.2 Exhaust manifolds are free. Ceramic coating is allowed on the exhaust.

2LHR 13 BODY

13.1 Bodywork shall comply with CR37 and CR40 above.

13.2 No roadster open type bodies may be used.

13.3 Body work must be centrally placed on the chassis and may not be off set.

2LHR 14 WINGS

14.1 Wings may not protrude beyond the width of the car. The wing may not protrude beyond the rear bumper of the car.

14.2 Wing end plates may not exceed 500mm x 500mm and may be off set.

14.3 The upper most edge (attack edge) of the upper horizontal vane shall not be more than 300mm above the roof line of the vehicle

14.4 Wings may not protrude forward of the B post of the vehicle.

14.5 The size of the wing is to be contained within the dimensions of the end plates.

14.6 The number of vanes (elements) is free but they must all be within the dimensions of the endplates.

2LHR 15 FUEL/INJECTION/CARBURETION

15.1 Pump fuel, race fuel, LL100 or methanol is permitted.

15.2 Carburettor

15.2.1 Only the standard Weber 32/36 DGAV carburettor may be used. The choke sizes on these carburettors are restricted to a maximum of 26/27mm for the primary and second stage respectively.

15.2.2 No polishing or re profiling is allowed.

15.2.3 No modification to the carburettor body or original design is permitted.

15.2.4 Gaskets must be original or replacement replicas of the original meaning no modified gaskets are permitted.

15.2.5 A single adaptor/insulator block must be fitted between the carburettor and the inlet manifold. The insulator/adapter block, with the two gaskets should be a maximum of 8 mm thick.

15.2.6 Main jets, primary jets, air jets, auxiliary venture is and emulsion tubes may be changed.

15.2.7 Pump jets may be changed but must face down ward towards the butterflies.

15.2.8 Butterflies maybe modified to open together.

15.2.9 Replacement spindles maybe fitted with standard screws.

15.2.10 Cold starting devices may be removed, with the retaining lugs and the subsequent holes blanked off.

15.2.11 Air and fuel galleries may not be enlarged or modified.

15.2.12 Fuel may enter the needle valve/float chamber from either side.

15.2.13 Floats may not be modified or weighted and must control the fuel flow.

15.2.14 Needle valves may not be larger than 250 and may not be enlarged or modified.

15.2.15 The power valve must be fitted in the base of the fuel bowl, but may be sealed off. The diaphragm may be removed.

15.2.16 No trumpets are allowed.

15.2.17 The calibrated brass bush which controls the high speed enrichment, as fitted on the secondary venture is ide of the carburettor between the top and base of the carburettor, maybe sealed off or enlarged, but must be fitted.

15.2.18 A secondary fixing on the fuel feed line is required and fuel may enter the carburettor from either side.

15.2.19 It is permitted to use a grub screw, or similar device, to fix the auxiliary venturi to the carburettor.

CLASS REGULATIONS- 2 LITRE HOT RODS (2LHR).

2LHR 16 IGNITION

16.1 **Distributors**

16.1.1 Either the Ford 2.0litre Pinto SOHC engine distributor (Motor craft or Bosch), complete with points and condenser or a standard Ford electronic ignition system that uses a conventional coil must be used.

16.1.2 The mechanical or vacuum advance may be altered. The vacuum advance maybe removed.

16.1.3 Notwithstanding the above the only electronic ignition systems that are permitted are:

16.1.3.1 Ford Bosch fitting kit FK 221 with power module PMA 50; and

16.1.3.2 Motor craft fitting kit FK 9 with power module PMA 50

16.1.3.3 VW TP 100

16.1.4 The Sierra / Sapphire “black box” ECU is not permitted.

16.2 **Spark plugs**

16.2.1 Any standard heat range spark plug for a Ford 2.0litre Pinto SOHC engine maybe used.

16.2.2 Competitors are allowed to manufacture an insert at the existing spark plug hole for the sole purpose of fitting a different diameter plug, in order to fit a plug from a wider heat range.

2LHR 17 NUMBER PLACEMENT

17.1 It is compulsory for the number to be placed on the rear window on the outside (spectator) side of the vehicle, preferably with the driver’s name. The number shall be black with white background. The size of the numbers shall be 300 mm high with a stroke of 50 mm.

17.2 The number shall be placed on both sides of the vehicle, the roof and on the visor panel (for line up purposes).

17.3 The number on the side may be moved to the wing end plates.

2LHR 18 APPENDIX “A” – VARIABLE REGULATIONS

18.1 The minimum weight shall be 800KG

CLASS REGULATIONS 2.1 MODIFIED SALOONS (2.1 MS).

2.1 MS 1 DESCRIPTION

1.1 In respect of the age of the competitor this is an open formula with a minimum age of 16years.

1.2 These class regulations are for tar only. Saloon cars with a maximum engine capacity of 2100 cc and where standard bodies, semi space frame sand space frames may be used.

1.3 The vehicle shall comply with the general vehicle rules (0 to CR14), the safety regulations (CR 19 to CR35) and the Construction regulations applicable to saloon vehicles (CR36 to CR54).

2.1 MS 2 CHOICE OF VEHICLES AND COMPONENTS/PARTS

2.1 In order for the vehicle, engine or any component thereof to be used 5000 of the particular make and model (reasonable face lifts included) had to be sold. The onus is on the entrant to prove the source and history of a vehicle or component.

2.2 Throughout reference is made to standard parts or components. Please see CR1.5 above. For clarity this means that when the rules for this class specify a standard part it may be from any vehicle that complies with this choice criteria and need not be a combination with the body shell or engine.

2.1 MS 3 DIMENSIONS AND WEIGHT

3.1 The dimensions of Original road going vehicles shall remain according to the specifications of the manufacturer/as per the Auto Data Digest with a tolerance for accident repair accepted.

3.2 Semi space frames–as for original road going vehicles.

3.3 Space frame shall not exceed a length of 5metres and a width of 2metres.

3.4 Weight–The vehicle must comply with the variable regulations at MS18 below.

2.1 MS 4 CAR CONSTRUCTION

4.1 See CR36 to CR38.

4.2 Space frames permitted – This means Original road going vehicles and semi space frames are permitted and are allowed to make the same modifications that are permitted for space frames, subject to generally specified safety standards.

4.3 Front and rear wheel drive permitted. However if a car has been converted from front wheel drive to rear wheel drive it is regarded as a space frame.

4.4 This is a saloon class and there for the vehicle shall comply with the general regulations for saloon classes.

2.1 MS 5 SAFETY CONCERNS

5.1 The vehicle and driver must comply with each and every general safety regulation – see CR19 to CR35.

2.1 MS 6 BUMPERS

6.1 Only internal bumpers maybe fitted.

2.1 MS 7 STEERING AND SUSPENSION

7.1 The vehicle must comply with CR7.

7.2 Steering racks/boxes are free.

7.3 Suspension design is free but limited to either standard suspension up rights as fitted to vehicles described in MS2 or locally fabricated components. Adjustable spring plat forms may be fitted. Competition springs are permitted.

7.4 The use of rose type joints is permitted.

7.5 Shock absorbers are free but may have only one adjustment for either bump or rebound. Limit is 4 in total, one per corner.

7.6 No remote shock absorber reservoirs may be used.

7.7 Power steering is permitted.

7.8 Suspension maybe designed with an offset.

7.9 A maximum of 6 links maybe used on the rear suspension.7.10 Independent rear suspensions are permitted

CLASS REGULATIONS 2.1 MODIFIED SALOONS (2.1 MS).

2.1 MS 8 WHEELS AND TYRES

8.1 The vehicle must comply with CR4 to CR6.

8.2 Tyre and wheel restrictions:

8.2.1 Maximum wheel diameter is15”

8.2.2 TAR ONLY: Maximum width is 205mm.

8.3 Tyre choice: It is specifically noted that any tyre, including “semi slick” tyres that are locally available are permitted.

8.4 Bead lock rims are not permitted.

8.5 TAR ONLY: A total maximum of 6 tyres allowed per event.

2.1 MS 9 BRAKES

9.1 The vehicle must comply with CR9.

9.2 Brakes are free. Up to 4 pot calipers are permitted at the wheels.

9.3 The master cylinder is free.

9.4 Drum brakes maybe converted to disc brakes.

2.1 MS 10 ENGINE

10.1 Only normally aspirated reciprocating engines are permitted.

10.2 The engine shall fit in the standard position for original road going vehicles and as per MS 10..3 for space frames.

10.3 The rear face of the engine block must be at least 78cm forward of the centre line between the front and rear axles. See CR46 above.

10.4 The maximum capacity of the engine shall be 2100cc For 8 VALVE engines and 2000cc for multivalve engines. Engines may be rebored to 1.52 mm. oversize, but may not exceed 2,100cc.

10.5 The engine shall have no more than 4 cylinders. Engines with more than 2 valves per cylinder are permitted, 2 Litre 16 Valve engines are permitted but is limited to one 70mm throttle body. Multivalve engines up to 1700cc. is allowed individual throttle bodies with maximum 45mm. throttle bodies or side draught carburettors with maximum 38mm choke tubes.

10.6 The engines must be built in terms of the modified engine regulations to be found at CR16.

2.1 MS 11 TRANSMISSION

11.1 The vehicle must comply with CR10.

11.2 Quaife (or similar) gears/gear boxes are permitted.

11.3 Gear ratios are free.

11.4 Any standard differential and axle is permitted.

11.5 Limited slip type differentials are permitted.

11.6 Differential gear ratios are free.

2.1 MS 12 EXHAUST

12.1 Refer CR8 and CR32.

2.1 MS 13 BODY

13.1 Bodywork shall comply with CR37 and CR38.

13.2 Slots or holes to aid airflow are permitted in the rear of the vehicle.

2.1 MS 14 WINGS

14.1 Wings may not protrude beyond the width of the car.

14.2 Wing end plates may not exceed 500mm x 500mm and may be off set.

14.3 The upper most edge (attack edge) of the upper horizontal vane shall not be more than 300mm above the roofline of the vehicle.

14.4 Wings may not protrude forward of the B post of the vehicle.

14.5 The size of the wing is to be contained within the dimensions of the end plates.

14.6 The number of vanes (elements) is free but they must all be within the dimensions of the endplate.

2.1 MS 15 FUEL/INJECTION/CARBURETION

15.1 Methanol, Aviation fuel (LL100), pump fuel (with octane booster) and Race fuel allowed.

15.2 Fuel injection is allowed but is restricted to a either a single throttle body not exceeding 64 mm or individual throttle bodies not exceeding the maximum carburettor size of 48 mm. 70 mm Throttles are allowed on 2 litre multivalve engines.

15.3 When a single throttle body is used the intake manifold maybe modified to accept the throttle body and change the direction of air intake.

15.4 Carburettors are limited to a pair of side draught carburettors with a maximum throttle body size of 48mm.

15.5 Chokes tubes shall not exceed 40 mm in diameter.

2.1 MS 16 IGNITION

16.1 Ignition systems are free.

16.2 Engine management systems are allowed–please consult CR 11 above.

2.1 MS 17 NUMBER PLACEMENT

17.1 It is compulsory for the number to be placed on the rear window on the outside (spectator) side of the vehicle, preferably with the driver's name. The number shall be black with white background. The size of the numbers shall be 300 mm high with a stroke of 50 mm.

17.2 The number shall be placed on both sides of the vehicle, the roof and on the visor panel (for line up purposes).

17.3 The number on the side maybe moved to the wing end plates.

2.1 MS 18 APPENDIX "A" – VARIABLE REGULATIONS

18.1 Minimum Weight, including the driver: 800 kg

2.1 MS 19 SPECIFIC PERMISSIONS

19.1 A specific permission is granted for the BMC / Leyland Mini to participate in this class with the following restrictions:

19.1.1 The vehicle may only be run in original manufacturer body configuration;

19.1.2 A single 45 mm throttle body carburettor must be fitted;

19.1.3 Carburettor choke tubes may not exceed 38 mm;

19.1.4 The cylinder head must be a 5 port head;

19.1.5 The weight shall be 650 kg including the driver; and

19.1.6 The vehicle must have a Leyland / BMC Mini engine.

19.1.7 Should the vehicle fail to comply with any one of the above specific restrictions it will be permitted to race at a weight of 800 kg.

19.18 Fuel injection may be used with a local management system. A tubular manifold may be constructed with 4 intake runners into a single tube fitted with a throttle body of maximum 70 mm. on the 2 Litre multivalve engines. The standard fuel injection manifold may also be used and ported and a single throttle body of maximum 70mm. may be fitted to it. This must be combined with a local fuel and ignition management system.

CLASS REGULATIONS – SUPER HOTRODS (SHR)

SHR1 DESCRIPTION

1.1 In respect of the age of the competitor this is an open formula with a minimum age of 16years.
1.2 This is an open class for Saloon cars where only semi space frames and space frames may be used.
1.3 The vehicle shall comply with the general vehicle rules (0 to CR 14), the safety regulations (CR 19 to CR 35) and the Construction regulations applicable to saloon vehicles (CR 36 to CR 54).

SHR2 CHOICE OF VEHICLES AND COMPONENTS / PARTS

2.1 Body shells are limited to series production vehicles available internationally.
2.2 Throughout reference is made to standard parts or components. Please see CR 1.5 above. For clarity this means that when the rules for this class specify a standard part it may be from any vehicle that complies with this choice criteria and need not be a combination with the body shell or engine.

SHR3 DIMENSIONS AND WEIGHT

3.1 Semi space frames – according to the specifications of the manufacturer / as per the Auto Data Digest with a tolerance for accident repair accepted.
3.2 Space frame shall not exceed a length of 5 meters and a width of 2 meters.
3.3 Weight – The vehicle must comply with the variable regulations at SHR 18 below.

SHR4 CAR CONSTRUCTION

4.1 See CR 36 to CR 38.
4.2 Space frames permitted – This means Original road going vehicles and semi space frames are permitted and are allowed to make the same modifications that are permitted for space frames, subject to generally specified safety standards.
4.3 Front and rear wheel drive permitted.
4.4 This is a saloon class and therefore the vehicle shall comply with the general regulations for saloon classes.

HR5 SAFETY CONCERNS

5.1 The vehicle and driver must comply with each and every general safety regulation – see CR 19 to CR 35.

SHR6 BUMPERS

6.1 **SHR8** Only internal bumpers may be fitted.

SHR7 STEERING AND SUSPENSION

7.1 The vehicle must comply with CR 7.
7.2 Power steering is permitted.
7.3 Steering racks / boxes are free.
7.4 Suspension design is free.
7.5 The use of rose type joints is permitted, but must be at least 12 mm type.
7.6 Shock absorbers are free but may not be adjustable from inside the cockpit.

SHR8 WHEELS AND TYRES

8.1 The vehicle must comply with CR 4 to CR 6.
8.2 Tyre and wheel restrictions:
8.2.1 Maximum wheel diameter on tar is 13 inch.
8.2.2 Maximum tyre tread width on tar is 10 inch.
8.2.3 Maximum 4 new tyres may be used at each event in the 2017 National Championship.

8.3 Bead lock rims are permitted.

8.4 Tyre choice:

8.4.1 On Tar – Any make of 13" tyres are allowed. A maximum of 10 tyres is allowed for the National series.

8.5 A total maximum of 6 tyres allowed per event at all events.

SHR9 BRAKES

9.1 Brakes are free within the confines of CR 9.

SHR10ENGINE

0.1 The rear face of the engine block must be at least 78cm forward of the centreline between the front and rear axles. See CR46 above.

10.2 The following engines are permitted:

10.2.1 Any 4 cylinder engine of which more than 5000 were sold internationally. The only proviso being that the vehicle it was fitted to had to be considered a series production car. The engines must be built in terms of the open engine regulations to be found at CR 17.

10.2.2 A rotary engine that complies with CR18.

10.3 The engine capacity for normally aspirated engines is free in respect of vehicles competing on tar On dirt the capacity is restricted to 2450 cc for engines with more than 2 valves per cylinder and 2750 cc for those engines with 2 valves per cylinder.

10.4 Turbo chargers may be fitted to 4 cylinder reciprocating engines.

10.5 One experimental rotary turbo engine will be allowed for Dries Pienaar.

SHR11 TRANSMISSION

11.1 Gearboxes are free.

11.2 Limited slip type differentials are permitted.

11.3 Differential gear ratios are free.

11.4 Flex plates are permitted.

SHR12 EXHAUST

12.1 Refer CR 8 and CR 32. Noise restriction must comply to the local authority.

SHR13 BODY

13.1 Body work shall comply with CR 37 and CR 38.

13.2 Slots or holes to aid air flow are permitted in the rear of the vehicle.

SHR14 WINGS

14.1 Wings may not protrude beyond the width of the car.

14.2 Wing end plates may not exceed 500 mm x 500 mm and may be off set

14.3 The upper most edge (attack edge) of the upper horizontal vane shall not be more than 300 mm above the roof line of the vehicle.

14.4 Wings may not protrude forward of the B post of the vehicle.

14.5 Thesizeofthewingistobecontainedwithinthedimensionsoftheendplates.

4.6 The number of vanes (elements) is free but they must all be within the dimensions of the end plates.

SHR15 FUEL / INJECTION / CARBURETION

15.1 Methanol, Aviation fuel (LL100), pump fuel (with octane booster) and Race fuel is allowed.

CLASS REGULATIONS – SUPER HOTRODS (SHR)

15.2 Fuel injection and carburettors are free subject to CR 11.
15.3 Secondary injection is permitted; please see CR 12.10 for clarification.
15.4 All type of injections allowed.

SHR16 IGNITION

16.1 Ignition systems are free.
16.2 Engine management systems are free in respect of where they are purchased supported or serviced but must comply with CR 11 above.

SHR17 NUMBER PLACEMENT

7.1 It is compulsory for the number to be placed on the rear window on the outside (spectator) side of the vehicle, preferably with the driver's name. The number shall be black with white background. The size of the numbers shall be 300 mm high with a stroke of 50 mm.
17.2 The number shall be placed on both sides of the vehicle, the roof and on the visor panel (for line up purposes).
17.3 The number on the side may be moved to the wing end plates.

SHR18 APPENDIX "A"-VARIABLE REGULATIONS

18.1 Minimum Weight, including the driver: 800kg

SHR19 SPECIFIC PERMISSIONS

19.1 None

CLASS REGULATIONS - SUPER SALOONS (SS).

SS1 DESCRIPTION

1.1 In respect of the age of the competitor this is an open formula with a minimum age of 16 years.

1.2 This class is for tar cars with six or eight cylinder engines and where standard bodies, semi space frames and space frames may be used Turbo charging is allowed on 6 cylinder engines only.

1.3 The vehicle shall comply with the general vehicle rules (0 to CR 14), the safety regulations (CR 19 to CR 35) and the Construction regulations applicable to saloon vehicles (CR 36 to CR 54).

SS2 CHOICE OF VEHICLES AND COMPONENTS / PARTS

2.1 In order for an engine or any component thereof to be used 5000 of the particular make and model (reasonable face lifts included) had to be sold internationally. The onus is on the entrant to prove the source and history of a vehicle or component.

2.2 Throughout reference is made to standard parts or components. Please see CR 1.5 above. For clarity this means that when the rules for this class specify a standard part or engine, it may be from any vehicle that complies with these choice criteria and need not be a combination with the body shell or engine.

SS3 DIMENSIONS AND WEIGHT

3.1 The dimensions of Original road going vehicles shall remain according to the specifications of the manufacturer / as per the Auto Data Digest with a tolerance for accident repair accepted.

3.2 Semi space frames – as for original road going vehicles.

3.3 Space frame cars shall not exceed a length of 5.2 meters and a width of 2.1 meters.

3.4 The height at boot and bonnet level shall not exceed 1000 mm. This height shall include any aero dynamic device fitted into / onto the boot lid or bonnet. The total height of the car, measured at the highest point of the wing, may not exceed 1,500mm.

3.5 Weight–The vehicle must comply with the variable regulations at SST18 below.

3.6 The maximum front to back centre wheel base allowed is 3050 mm.

SS4 CAR CONSTRUCTION

4.1 SeeCR36 to CR38.

4.2 Space frames permitted – This means Original road going vehicles and semi space frames are permitted and are allowed to make the same modifications that are permitted for space frames, subject to generally specified safety standards.

4.4 This is a saloon class and there for the vehicle shall comply with the general regulations for saloon cars.

4.3 Only rear wheel drive permitted. However if a car has been converted from front wheel drive to rear wheel drive it is regarded as a space frame. No independent rear suspensions are allowed.

45 Chassis may not be built with offset.

4.6 Notwithstanding the regulations above permission is granted for vehicles to be widened between the front and rear wheels. Such widening shall be to the width of the track of the wheels plus an allowance of 50 mm each side. The object of the regulation is to do away with the spats, as was the norm prior to the introduction of this regulation. Experience has shown that the spats, by nature of their construction, of ferno protection in the event of even minor collision, resulting in wheel and tyres taking the impact.

SS5 SAFETY CONCERNS

5.1 The vehicle and driver must comply with each and every general safety regulation – see CR 19 to CR 25.

5.2 Roof type door flaps are permitted however the driver must be able to exit the vehicle from another aperture as per CR 1919. 2.

SS6 BUMPERS AND NERF BARS

6.1 The car may be equipped with one rear and one front steel internal bumper up against the inside of the body panels. This material may not exceed 38 mm x 2 mm thick tubing. Please see CR 53 above.

6.2 The bumpers shall be 450 mm above ground level with the driver seated at the controls.

6.3 Wheel and body protectors (refer CR 49 above) are permitted.

6.4 A hoop, protecting the radiator, with two mounting points on to the front bumper is optional.

CLASS REGULATIONS - SUPER SALOONS (SS).

SS7 STEERING AND SUSPENSION

7.1 The vehicle must comply with CR 7.
7.2 Suspension design is free subject to the constraints hereof.
7.3 The front suspension is limited to the wish bone and strut type.
7.4 Adjustable spring platforms may be fitted. Competition springs are permitted.
7.5 The use of rose type joints is permitted but may not be less than the 12 mm type.
7.6 Shock absorbers are free.
7.7 Power steering is permitted.
7.8 Suspension may not be designed with an off set.
7.9 In dependent rear suspensions are permitted, provided they were fitted to a production vehicle distributed in South Africa by are cognized motor manufacturer.
7.10 Only live axles are allowed on space frame cars. Independent suspensions are allowed on normal bodied cars.
7.11 Axles to be utilized in 3 link, 4 links, 5 links or leaf spring configuration.

SS8 WHEELS AND TYRES

8.1 The vehicle must comply with CR4 to CR6.
8.2 Wheel restrictions:
8.2.1 Maximum wheel diameter is 16” with a maximum width of 12”.
8.3 A total maximum of 6 tyres are allowed per event. Only two tyres may be new. The other 4 shall have wear of more than 20% as determined by the wear indicator.

SS9 BRAKES

9.1 The vehicle must comply with CR9.
9.2 Brake systems are free.

SS10 ENGINE

10.1 Engine mounting position can be from standard to a point where the back face of the crank- shaft damper is a maximum of 250mm rearwards of a line drawn through the centreline of the front stub axle.
10.2 Only 6 or 8 cylinder engines allowed. 6 Cylinder multi valve engines with turbo charging/or supercharging is allowed.
10.3 The maximum engine capacity shall be 360 cubic inches on 2 valves per cylinder engines and 4300 cc on Cylinder Multi valve engines.
10.4 Oil systems are free, subject to compliance with CR28 above.
10.5 The engines must be built in terms of the open engine regulations to be found at CR17.
10.6 Turbo charging and/or supercharging’s are allowed on 6 cylinder engines but not on 8 cylinder engines.

SS11 TRANSMISSION

11.1 The vehicle must comply with CR10.
11.2 Gearboxes are free. No sequential boxes are permitted.
11.3 Any differentials are allowed. (Including quick change differentials using normal prop shafts). No independent rear suspensions or torque tubes are allowed on space frame cars. Production cars, originally built with independent rear suspensions, may be used in the original configuration.
11.4 All cars must have a working starter and clutch at all times.

SS12 EXHAUST

12.1 Refer CR 8 and CR 32.

SS13 BODY

13.1 Body work shall comply with CR 37 and CR 38.
13.2 Space frame vehicles (flexi) with replica saloon bodies are allowed

CLASS REGULATIONS - SUPER SALOONS (SS).

13.3 Slots or holes to aid air flow are permitted in the rear of the vehicle.

13.4 A driver's door opening must be fitted. Where a driver can exit his car in 10 seconds, this is not required.

SS14 WINGS AND BOOT SPOILERS

14.1 Either a wing or a boot spoiler may be fitted, but not both.

14.2 Wings may not protrude beyond the width of the car.

14.3 Wing end plates may not exceed a maximum of 2500 cm2 in surface area and may be offset.

14.4 The upper most edge (attack edge) of the horizontal vane shall not be more than 300 mm above the roof line of the vehicle.

14.5 Wings may not protrude forward of the B post of the vehicle.

14.6 The maximum height to a boot spoiler, if fitted, is 300 mm.

14.7 The number of vanes (elements) is free but they must all be within the dimensions of the end- plates.

SS15 FUEL/INJECTION/CARBURETION

15.1 Methanol, Aviation fuel (LL100), pump fuel (with octane booster) and Race fuel is allowed.

15.2 Fuel injection, throttle bodies and carburettors are free subject to CR11.

15.3 Turbochargers are permitted on all 6 cylinder engines. (Including multivalve engines).

SS16 IGNITION

16.1 Ignition systems are free.

16.2 Engine management systems are free in respect of where they are purchased supported or serviced but must comply with CR11above.

SS17 NUMBER PLACEMENT

17.1 It is compulsory for the number to be placed on the rear window on the outside (spectator) side of the vehicle, preferably with the driver's name. The number shall be black with white back - ground. The size of the numbers shall be 300 mm high with a stroke of 50 mm.

17.2 The number shall be placed on both sides of the vehicle, the roof and on the visor panel (for line up purposes).

17.3 The number on the side may be moved to the wing end plates.

SS18 APPENDIX "A"-VARIABLE REGULATIONS

18.1 Minimum Weight, including the driver: 6 cylinder cars= 950 Kg, 6 cylinder turbo = 1000kg and 8 Cylinder cars= 1050kg

CONSTRUCTION REGULATIONS- MIDGETS AND SPRINTS.

OW1 BODIES

1.1 Closed body panels are required on both front and rear sections.
1.2 Body panels may be made of either fiberglass or sheet metal and must be constructed to retain the traditional midget/sprint car profile.
1.3 The bonnet and tail piece may be constructed of fiberglass or any composite material.
1.4 No vehicle will be allowed to enter a race without a bonnet and tailpiece.

OW2 CHASSIS FRAME AND ROLL CAGE

2.1 The chassis frame may be constructed of round or square steel tube. Chrome-moly is allowed as an alternative, subject to the use of the same minimum sizes.
2.2 The roll cage shall be round tube only.
2.3 The minimum dimensions for the chassis and roll cage materials are:
2.3.1 Midget chassis- 30x2mm (30x30x2mmifsquaretubeisused)
2.3.2 Midget roll cage–30x2mm
2.3.3 Sprint Car chassis–34x3(34x34x3mmifsquaretubeisused)
2.3.4 Sprint Carroll cage–34x3mm
2.4 No alloy aluminium or composite material will be allowed for the frame or roll cage.
2.5 Local and imported frames are allowed.
2.6 The roll cage must enclose the driver with four down pipes. (Cross braces optional)
2.7 The minimum clearance of 50mm must exist between the driver's helmet and any part of the roll-cage.

OW3 NUMBER PLACEMENT

3.1 The number shall be placed on both sides of the tail section of the vehicle.
3.2 The number shall be placed on the horizontal section of the top wing.
3.3 The number shall be placed on the top right hand side of the top wing endplate on the outside of the vehicle.

OW4 SAFETY EQUIPMENT

4.1 Vehicles shall be fitted with anti-submarine type (five or six point) safety belts that comply with MSA seat belt regulations.
4.2 Competitors are recommended to wear neck braces or a MSA specified HANS device.
4.3 Wrist restraints or safety nets are not compulsory.
4.4 Seats must be constructed in such a way to protect the right hand side of the driver's body.
4.5 A floor pan is compulsory under the driver's feet.
4.6 A clip off steering wheel is compulsory.
4.7 Radiators must be fitted between chassis beams.

OW5 SUSPENSIONS

5.1 Suspension design is free. Springs are free.
5.2 Coil Springs must be tied to the main frame by steel cable.
5.3 Only torsion bar, coil over and cross over leaf springs are allowed on the front suspension.
5.4 The front axle must be solid steel. No independent suspension will be allowed.
5.5 Only torsion bar or coils over suspensions are allowed in the rear.
5.6 Any rear axle system will be allowed as long as it is a solid axle–no independent suspension will be allowed. No wires may be attached to the rear axle.
5.7 No electronic device to aid traction or electronic traction control will be allowed.

OW6 BRAKE REQUIREMENTS

6.1 Brakes are free providing they must be in effective working condition.

6.2 The vehicle must have effective operational braking power on a minimum of 3 wheels.
6.3 A single brake calliper on a solid one piece rear axle shaft is permitted.

CONSTRUCTION REGULATIONS- MIDGETS AND SPRINTS.

OW7 ENGINES
7.1 Engines shall be solid mounted.
7.2 The feet of the driver must be behind the rear face of the engine block.

OW8 TRANSMISSIONS
8.1 Drivers must be protected from open prop shafts by steel bands with a minimum size of 50mm x 5mm.
8.2 Drivelines must run between the driver's legs.
8.3 Only rear wheel drive is permitted.

OW9 WINGS AND AEROFOILS
9.1 Wings must be bolted on and not welded into position.
9.2 Only a single nose wing and a single top wing are permitted.
9.3 The wings may not impede the driver's forward vision in anyway whatsoever.
9.4 Wings may be adjustable from inside the cockpit while the car is in motion.
9.5 The shape of the wings is free, but is limited to a single horizontal wing.
9.6 The wings may not protrude outside the wheels adjacent to them. In other words the front wing must fit within the confines of the front wheels and the top wing must fit within the confines of the rear wheels.

OW10 BUMPERS
10.1 Front and rear bumpers are compulsory.
10.2 The shape of the front bumper is optional, but may not protrude beyond the width of the chassis at the front.
10.3 The fitment of shock absorber protectors is permitted, provided that they are constructed behind the line between the two front tyres with no sharp edges protruding. Their ends shall be turned back to the chassis.
10.4 The bumper/ push bar shall be designed in accordance with the body shape and shall protect the fuel cell. The bumper shall protect the area behind the rear axle.
10.5 The rear bumper/push bar mounting points may not exceed the width of the chassis at the rear.
The rear vertical element of the bumper shall ount to a solid point on the vehicle or the other vertical elements.

OW11 NERFBARS
11.1 Nerf bars must be fitted to both sides of the vehicle.

11.2 The nerve bars shall:-
11.2.1 Be constructed of pipe with a maximum measurement of 38mmx 2mm;
11.2.2 Be designed to protect the full width of the rear wheels of the vehicle;
11.2.3 Bolt on to the vehicle;
11.2.4 Not protrude more than 50mm past the outside edge of the rear wheels;
11.2.5 Not be more than 50mm inside the outside edge of the rear wheels; and
11.2.6 The nerve bar may not be covered in any manner.
11.3 Single or twin tubes may be used to construct the nerve bar assemblies however the upper bar, if at win tube system issued, may not extend above a line drawn between the front and rear wheel hubs
11.4 The nerve bar may be closer to the chassis in front and become progressively wide rat the back.

OW12 FUEL TANK S/FUEL
12.1 Fuel cells are permitted, as are Neoprene / Plastic tanks

12.2 Aluminium, Stainless Steel or Steel tanks are allowed provided they have a minimum wall thickness of 1mm.

12.3 Tanks must be securely mounted.

CLASS REGULATIONS- SUPER MIDGETS (SM).

SM 1 DESCRIPTION

1.1 In respect of the age of the competitor this is an open formula with a minimum age of 16 years.

1.2 The vehicle shall comply with the general vehicle rules (0 to CR 14), the safe tyre regulations. (CR19 to CR35) and the Construction regulations applicable to open wheel vehicles (OW 1 to OW 12).

1.3 Only one class is permitted. The class shall be termed Super Midgets.

SM 2 CHOICE OF VEHICLES AND COMPONENTS / PARTS

2.1 In order for an engine or any component thereof to be used 5000 of the particular make and model (reasonable face lifts included) had to be sold internationally. The onus is on the entrant to prove the source and history of a vehicle or component.

2.2 Throughout reference is made to standard parts or components. Please see CR 1.5 above.

SM 3 DIMENSIONS AND WEIGHT

3.1 The wheel base shall not exceed 2100 mm nor shall it be less than 1600 mm.

3.2 The maximum overall length is defined as being measured from the extreme front point to the extreme rear point of the vehicle and this measurement must not exceed 3300 mm.

3.3 The maximum width of the body or chassis may not exceed 1000 mm at its widest point.

3.4 The maximum height of the vehicle, measured from the top of the roll cage to the ground must not exceed 1600 mm.

3.5 The minimum weight is set out in MDT 18 below.

SM 4 CAR CONSTRUCTION

4.1 The roll cage and chassis frame must be constructed with a minimum of suitable 30 mm x 2 mm round steel tube and shall be triangulated at all points . The two lower main rails may be constructed of square of the same dimensions as the round tube.

4.2 The roll cage must enclose the driver and consist of four down pipes and a minimum of two cross braces.

4.3 There is no discrimination between locally produced and imported frames.

SM 5 SAFETY CONCERNS

5.1 The vehicle and driver must comply with each and every general safety regulation– see CR 19 to CR 35 as well as OW 4 above.

SM 6 BUMPERS AND NERFBARS

6.1 FRONT BUMPERS

6.1.1 Front bumpers are compulsory and must be constructed of pipe with a maximum measurement of 40 mm x 2 mm. The bumper shall be between 350 mm and 450 mm from the ground

6.1.2 The bumper shall also not protrude (rear ward) more than 150 mm beyond a line drawn immediately in front of the two front tyres. A tolerance of 50 mm shall be permitted.

6.1.3 The bumper pipe shall be a straight pipe that shall be parallel to the axle, with no deliberately constructed kinks or bends. Accident damaged pipes shall be replaced.

6.2 REAR BUMPERS

6.2.1 The rear bumper shall be made of pipe having a maximum diameter of 50 mm x 2 mm. The bumper / push bar centre height shall be 400 mm from the ground and may extend between 250 mm and 600 mm above the ground.

6.2.2 The bumper / push bar shall not be more than 100 mm from the nearest body panel.

6.3 NERF BARS

6.3.1 Nerf bars are compulsory. See OW 11 above

SM 7 STEERING AND SUSPENSION

7.1 The vehicle must comply with OW 5 but need not comply with CR 7.
7.2 Competition springs are permitted.
7.3 The use of rose type joints is permitted.
7.4 Shock absorbers are free for the Super midget class but are restricted to SA manufactured shock absorbers for the midget class.
7.5 Power steering is permitted.
7.6 Suspension may be designed with an off set.
7.7 Imported bird cages are not permitted in the midget class.

SM 8 WHEELS AND TYRES

8.1 Each competitor may only use a single set of rear tyres. Competitors are entitled to bring a spare set of properly marked and mounted rear tyres which will be impounded by the technical consultants. These spare tyres will only be released to a competitor who is able to satisfy the technical consultants that the original tyres have been punctured or damaged in a racing incident.
8.2 The vehicle must comply with CR4 to CR6.
8.3 The following tyre restrictions apply to tar:
8.3.1 Maximum tyre width is 13”
8.3.2 Maximum Wheel Diameter is13”. A 15” right rear not wider than 11 inches may be used.

SM 9 BRAKES

9.1 The vehicle must comply with CR9.
9.2 The vehicle must have effective operational braking power on a minimum of 3 wheels.
9.3 A single brake calliper on a solid one piece rear axle shaft is permitted.

SM 10 ENGINES

10.1 Super Midgets:

10.2.1 Any engine up to 4 cylinders of which more than 5000 were sold internationally may be used. The only proviso being that the engine is considered a series production engine. The engines must be built in terms of the open engine regulations to be found at CR 17.
10.2.2 A rotary engine that complies withCR18. No turbo charging is allowed rotary engines.
10.2.3 The engine capacity for normally aspirated engines is free in respect of vehicles participating on tar.
10.2.4 Superchargers and turbo chargers may be used on all engines not exceeding 2500cc. (Including multi valve engines)

SM 11 TRANSMISSION

11.1 The vehicle must comply with CR10.
11.2 No gearboxes are allowed.
11.3 No clutch systems are allowed.
11.4 Operational starters are optional.
11.5 The midget class on have quick change differentials, irrespective of whether or not the system was produced locally or overseas.

CLASS REGULATIONS- SUPER MIDGETS (SM).

SM 12 EXHAUST

12.1 Refer CR8 and CR32.

12.2 Twin exhausts are permitted but in the case of rotary engines the combined area of the circles formed by the internal diameter of the edge of the tail pipes shall not exceed that of a circle with a diameter of 72mm. All cars must be fitted with a silencer as specified in these rules. Exhausts must be pointed in the direction of the inner field and not towards the public on the stands. Exhausts must comply to the local authority specification.

SM 13 BODY

13.1 See OW1.

SM 14 WINGS

14.1 The wing must comply with OW9.

14.2 The horizontal component of the wing may not exceed 1300mmx 1300mm if a nose wing is fitted and may not exceed1500mmx 1500mm if a nose wing is not fitted.

14.3 The side component (endplate) of a wing may not exceed 1700mmx1000mm.

14.4 A nose wing is permitted. The wing must not exceed a width of 610mm.

SM 15 FUEL/INJECTION/CARBURETION

15.1 Methanol, Aviation fuel (LL100), pump fuel (with octane booster) and Race fuel is allowed.

15.2 Fuel injection and carburettors are free subject to CR11.

15.3 Slide, butterfly or roller throttle bodies are allowed.

15.4 Secondary injection is permitted in the Super Midget class, See CR12.10 for clarification.

SM 16 IGNITION

16.1 Ignition systems are free.

16.2 Engine management systems are free in respect of where they are purchased supported or serviced but must comply with CR11above.

SM 17 NUMBER PLACEMENT

17.1 See OW3 above

SM 18 APPENDIX "A"-VARIABLE REGULATIONS

18.1 Minimum weights:

18.1.1 The minimum weight for a super midget is 500kg.

SM 19 NO SPECIFIC PERMISSIONS HAVE BEEN GRANTED.

19.1 Motorcycle midgets are not allowed.

19.2 Aluminium Mopar Midget engines are not allowed.

CLASS REGULATIONS- SPRINT CARS (SP).

SP1 DESCRIPTION

1.1 In respect of the age of the competitor this is an open formula with a minimum age of 16 years.

1.2 The vehicle shall comply with the general vehicle rules (CR14), the safety regulations (CR 19 to CR 35) and the Construction regulations applicable to open wheel vehicles (OW1 to OW 12).

1.3 A sprint car is defined as:-

- 1.3.1 A single seater American Sprint Car;
- 1.3.2 A car with a front mounted"V8" pushrod engine;
- 1.3.3 A car with or without a wing.

SP2 CHOICE OF VEHICLES AND COMPONENTS/ PARTS

2.1 Free–provided the vehicle stays within internationally accepted sprint car standards.

SP3 DIMENSIONS AND WEIGHT

3.1 The maximum track front wheel shall not be more than 2050mm.

3.2 The maximum track as measured from the outside of the left rear wheel to the outside of the right rear wheel shall not be more than 90inches. (Not more than 2286mm.)

3.3 The maximum wheelbase is 2286mm (90inches).

SP4 CAR CONSTRUCTION

4.1 The vehicle must comply with OW2.

SP5 SAFETY CONCERNS

5.1 See OW4 above.

5.2 See CR19 to CR35

SP6 BUMPERS AND NERF BARS

6.1 OW10 and OW11.

SP7 STEERING AND SUSPENSION

7.1 The vehicle must comply with OW5 but need not comply withCR7.

.2 Competition springs are permitted.

7.3 The use of rose type joints is permitted.

7.4 Shock absorbers are free.

7.5 Power steering is permitted.

7.6 Suspension may be designed with an off set.

SP8 WHEELS AND TYRES

8.1 Rims and tyres are free. Maximum 16” diameter.

8.2 At National Championship events a competitor is restricted to using a single right rear tyre. His spare wheel will be impounded by the technical team and will only be released If the Technical consultant is satisfied that the original tyre was damaged by a racing incident or a puncture.

SP9 BRAKES

9.1 The vehicle must comply with CR9.

9.2 The vehicle must have effective operational braking power on a minimum of 3wheels.

9.3 A single brake calliper on a solid one piece rear axle shaft is permitted.

CLASS REGULATIONS- SPRINT CARS (SP).

SP10 ENGINES

10.1 Any make of V8 Pushrod Engine is allowed.

10.2 No engine will be allowed in excess of 410 cubic inches.

10.3 Cylinder blocks are free.

10.4 No turbo chargers or superchargers will be allowed.

10.5 The engines may be built according to the open engine regulations found at CR17above, although any internal modification within the engine is permissible.

10.6 No transverse mounted engines are permitted.

SP11 TRANSMISSIONS

11.1 Any Gearbox/Slider are permitted.

11.2 Only rear wheel drive is permitted.

SP12 EXHAUST

12.1 No silencers are required on sprint cars providing the cars are within the specified noise limitations..

SP13 BODYWORK

13.1 See OW 1above.

SP14 WINGS

14.1 The wings will comply with OW9.

14.2 The following applies to top wings:

14.2.1 Any shape or design is permitted,

14.2.2 The maximum size shall be 4000 square inches after assembling and as ready to race.

14.3 The following applies to nose wings:

14.3.1 Any shape or design permitted.

14.3.2 The maximum size shall be 900 square inches after assembling and as ready to race.

14.4 Adjustment of wings whilst car is in motion is permitted.

SP15 FUEL/ INJECTION/ CARBURETION

15.1 Only methanol is allowed.

5.2 Fuel injection throttle bodies and carburettors are free subject to CR11.

15.3 Down port injection is permitted.

SP16 IGNITION

16.1 Ignition systems are free.

16.2 Engine management systems are free in respect of where they are purchased supported or serviced but must comply with CR11 above.

SP17 NUMBER PLACEMENT

17.1 See OW3 above.

SP18 APPENDIX "A"-VARIABLE REGULATIONS

18.1 None

SP19 SPECIFIC PERMISSIONS

19.1 Two cones must be placed in the corner before the start. The pole car will start the race between the two cones. The green flag must be waved when the pole car starts the race.

19.2 Only one new right rear tyre will be allowed for the first two National events and one new tyre will be allowed for the 3rd and 4th Nationa. The choice of tyre manufacturer is free.

REGULATIONS APPLICABLE TO OVAL TAR RACING
PART 2 APPLICABLE TO ALL EVENTS

In order to make reference to specific regulations easier the numbering system of the regulations in both languages are the same. The Standing Supplementary Regulations are referred to as "OT".

Any item not specifically mentioned in these SSR's will revert back the GCR's.

APPLICATION OF THE GENERAL COMPETITION RULES OF MSA (GCR's)

Oval racing is in the first instance administered by the rules and regulations contained in this rule book. However the rules must be read in conjunction with the relevant GCR's. As an aid to competitors certain relevant GCR's are reprinted in this book. This list is not exhaustive and the mere fact that it is not printed in these regulations does not mean that it does not apply.

Importantly, please refer to GCR 225, which states: *Where there is a contradiction between the GCR's and the SSR's (in this case oval rule book), the latter take precedence except where the category regulations provide otherwise. This does not apply to international events, which are run under the relevant International Sporting Code.*

This means that in the first instance you apply the oval rule book. If the oval rule book does not deal with a particular issue you refer to the GCR.

INTERPRETATION OF REGULATIONS AND SPECIFICATIONS.

The following GCR is the basis to interpreting all the regulations that apply to motor sport.

GCR 226 states: *In interpreting motorsport regulations and specifications "what is not specifically permitted is disallowed (not allowed)" is the normal concept in keeping with the French regulations on which all motor sporting regulations are based.*

This means that you may only do something if the rules say you may. Competitors and officials alike shall adopt the following principle when reading and applying the rules: *They should only be concerned with the normal plain every day meaning of the wording of the regulations and shall pay no attention to any claim as to what the regulations were intended to mean*.

Rules are for the obedience of fools and the guidance of wise men.
- Douglas Bader.

OT1 <u>COMPETITORS.</u>

1.1. ACTIVE COMPETITORS

1.1.1. "Active competitor" shall mean a competitor who has participated in at least fifty percent (50%) of the events organised by the venue where he is registered within a calendar year, which is deemed to be a period of 12 months from any given date. Where such organisation presents in excess of twenty events per year, the competitor shall compete in at least 10 events annually in order to be regarded as an active competitor. A competitor shall not be included, as a competitor, in the records of more than one organisation unless he has chosen to compete in two separate and distinct classes. For the purposes of this definition "participate" shall require the competitor concerned to have completed at least one race at each event in which he participated.

1.1.2. SEASONED COMPETITORS.

1.2. If you race in a higher class on the day you are not allowed to race in the stock rod class.

1.2.1. Licences are issued on application to MSA. Please refer to part V of the MSA GCR hand book.

1.2.2. Aspirant competitors who have no previous race experience will not be allowed to participate at Regional or National championship level until they have successfully competed in at least 3 club races. Such rookie shall be obliged to mark his car so that officials and fellow competitors can be easily aware of his rookie status. It is expected to only allow rookies in cars with a specification no higher than a Stock Rod to enable rookies to move up in the Stock Rod class when they gain more experience. Entry age for rookies is 13 years old.

1.2.3. Only one licence shall apply for all Tar Oval Classes.

1.3. MINIMUM AND MAXIMUM AGES FOR COMPETITORS

1.3.1. The various classes may stipulate a minimum and (in some cases) a maximum age for competitors – please refer.

1.3.2. Please note that a competitor may be permitted into a class if he will be off age for the majority of the first season. On the assumption that the race season starts on 1 August a competitor who attains the minimum age January of the following calendar year will be permitted, but a competitor who only attains the age in April

1.3.3. Will not be allowed.

1.3.4. Any competitor will be allowed to complete a racing season he started when he was under the maximum age.

1.3.5. Should an aspirant competitor, be younger than the age criteria set for a class, believe that he/she has obtained sufficient experience in another formula to be able to race, a detailed racing CV will have to be submitted with the application. The application will be referred to MSA.

1.4. MOVEMENT OF COMPETITORS BETWEEN CLUBS / ASSOCIATIONS

1.4.1. The object of this rule is to provide for an orderly movement of competitors in respect of how and where they register and race. This rule must be subject to the Constitution of the Republic and accordingly this rule cannot deny any competitor his right to choose where he wants to be a member or with whom he chooses to associate. This rule does not prohibit a competitor from being a member of more than one club or association. The rule similarly must reinforce club/association constitutions and allow them to take steps against troublesome competitors. The rule must protect all the

stakeholders and fellow competitors by providing a framework for certainty of participation at events agreed to by associations and promoters/clubs.

1.4.2. Each competitor shall select a single venue as a home base for a specific formula which election shall coincide with the valid period of his MSA licence. Once a competitor has selected his home base he may not leave that home base and join another club/association unless he has resigned from the former in terms of their constitution. The office bearers of the prospective club/association shall ensure that the competitor concerned is in possession of a letter releasing him from his previous home base commitment.

1.4.3. The releasing club/association shall not be entitled to withhold the release of a competitor, except in circumstances where they intend taking disciplinary action against the competitor. In such cases that club/association shall institute such action within seven days of the competitor's written resignation, failing which they shall be barred from taking action and shall be deemed to have released the competitor concerned.

1.4.4. A competitor shall not be entitled to change club/associations until the conclusion of disciplinary action described above. The competitor shall remain subject to the constitution of the club/association concerned for that period. A competitor will only become entitled to release from his club/association once any period of suspension imposed on him has been served. Conversely the competitor will be entitled to his immediate release should the disciplinary body above rule in his favour. The provisions of GCR 218 shall apply.

1.4.5. Where a dispute arises between a competitor and his club/association, concerning the resignation of such member, such dispute shall be resolved in terms of the grievance procedures of the club/association concerned. If such steps do not resolve the dispute MSA shall act, as arbitrators in the matter, and their ruling shall be final.

1.4.6. Should any competitor or club/association fail to comply with this sub-rule they shall be liable to the imposition of a fine and/or suspension and a fine respectively. This regulation cannot and does not interfere with any agreements made between organisers and drivers, whether these agreements are in writing or not. Disputes regarding such agreements must be resolved using the legal processes available.

1.4.7. Club/associations, organisers, and promoters may not under any circumstances restrict a competitor from taking part in other events, unless there is a prior home base commitment. The hosting organisers may only accept entries from guest competitors if they have satisfied themselves that the competitor concerned does not have a prior racing commitment to his home base or is in possession of written permission to participate in the event concerned. All competitors are obliged to inform their home club/association, in accordance with that organisation's prescribed communications channels, of their intention to take part in any events not inscribed on the home base calendar. This sub-rule shall not apply to regional and national championship status events.

1.4.8. Should a competitor feel he is being pressured in any way to stay away from meetings by his club/association, he has the right to report this matter directly to the Commission, who may at their discretion elect whether or not to investigate the matter.

OT2 MSA OVAL COMMISSION STRUCTURE.

2.1. DEFINITIONS

2.1.1. PROMOTER. A Promoter shall be defined as a club, body or person who is affiliated to MSA.

2.1.2. VENUE. A venue shall be a Tar Oval racing facility designated by MSA Oval Commission and licensed by MSA.

2.2. REGIONAL STRUCTURE – Each club must appoint one member, of each class racing at the specific club, to act as the representative for that specific class. These class representatives will then nominate one person to represent them with their promoter, or his representative, to a regional committee which will make recommendations to MSA for any future rule changes. MSA will them make these recommendations to the MSA technical committee for approval.

2.3. NATIONAL STRUCTURE:
2.3.1. MSA will form a Commission
2.3.1.1. The President – to be appointed by MSA
2.3.2. Terms of office – per MSA Articles of Association.

OT3 PROCEEDINGS AT MEETINGS.

3.1. Voting shall, unless agreed otherwise, be by closed ballot and a simple majority shall carry motions.
3.2. Parties may agree by open discussion on a strategy to break a deadlock. If the deadlock persists the matter shall stand over.

OT4 INVESTIGATION INTO EVENTS.

4.1. MSA shall form an on-going working group to:
4.1.1. Oversee the upholding of the even-handed consistent enforcement of the regulations by organisers and officials; and
4.1.2. Investigate (or cause to be investigated) issues of safety.
4.2. The working group shall in conjunction with and subject to the rights of MSA be entitled to call for Enquiries to be held.

OT5 DATE ALLOCATION.

5.1. Dates shall be allocated in the following order:
5.1.1. MSA controlled National Championship events;
5.1.2. Thereafter regional championship shall take precedence, unless incorporated into the national series;
5.2. MSA shall on an annual basis arrange a meeting of all registered venues to determine the calendar. MSA will appoint a chairman for the meeting.
5.3. MSA will determine the venues and dates for the National Championship events in conjunction with the role players. Dates for any foreign tours will be set by the Oval Commission in consultation with MSA, where necessary.

OT6 LICENSING AND GRADING OF TRACKS.

6.1. Tracks shall be graded on an annual basis.
6.2. The inspection shall be scored in terms of the score sheet approved by MSA from time to time.
6.3. The venue shall pay the inspection fee as per agreement with relevant track technical inspector to MSA before the inspection takes place. The reasonable costs of the track inspector in respect of travel and accommodation are for the account of the venue.
6.4. The Track Inspector / Inspection Committee may issue a provisional grading and may require additional works to be undertaken before the issue of a grading and / or licensing of the track by MSA.

6.5. Venues shall be graded according to their suitability to host Club/Regional or National/International events.

6.6. A track licence is only valid for so long as there are no material alterations to the track or its immediate surroundings. The licensee accepts, as a term of the licence that may be issued, that it will forthwith advise MSA if there are any alterations to the track or its immediate surroundings during the period of the licence.

6.7. MSA reserves the right to inspect the track at any time during the currency of a licence. If, as a result of such inspection MSA is of the opinion that the track is unsafe or unsuitable for racing in any respect then, notwithstanding any previous inspections or representations to or by MSA as to the suitability of the track, MSA will have the right (but not obligation) to retract this licence. Such retraction may take place with immediate effect in the event of circumstances of urgency. In such circumstances the licensee will be allowed to make representations for the reversal of such retraction. Otherwise such retraction will only take place after notification to the licensee granting the licensee a period of 14 days in which to remedy any defect in the track or to submit representations to MSA as to why the licence should not be revoked.

6.8. Neither MSA nor the appointed track inspector does, by the issue of a licence or a grading, acknowledge or undertake any liability whatsoever for, or any approval of, the safety precautions or other precautions taken in regard to competitions, the circuit, races, vehicles or anything connected therewith. They shall not be liable to the promoters or organisers, or to any other person whatsoever, for any loss, injuries or damages whatsoever which any person or party may suffer arising from, in connection with or in relation to events held at the licenced track.

OT7 TRACK STANDARDS AND SPECIFICATIONS.

7.1. Please refer to track standard document that is available from MSA Johannesburg on request. It is also published on the MSA Oval Commission website.

OT8 GRADING OF OFFICIALS.

8.1. Clerks of the course, observers, stewards, technical consultants, scrutineers, lap scorers, starters and marshals shall all be licensed and be graded as follows:

8.1.1. **NATIONAL GRADE** - (Grade A) which shall allow the official to take charge of the particular function at ANY event;

8.1.2. **CLUB GRADE - (**Grade B**)** which shall allow the official to take charge of the particular function at events with CLUB status; and

8.1.3. **NOVICE GRADE** – (Grade C) which pre-supposes that the official has a working knowledge of the rules and the position concerned, shall allow the official to officiate under the tutorship of an official at club events. The object of this grade is to allow a person to buy insurance and participate in the administration of the sport legally while undergoing training.

8.2. All officials must be graded and licensed. MSA will convey the necessary training of officials by holding an annual instruction course for officials. Unlicensed officials may not be used at any stage for any positions on events. Unlicensed officials are not covered by MSA insurance.

8.3. The grading, upgrading and downgrading of officials shall be handled as follows:

8.3.1. Generally GCR 158 applies:

8.3.2. Practical experience and results will determine up or downgrading;

8.3.3. Notwithstanding examination results a grading may be withheld if MSA does not belief the aspirant Clerk of the Course has the experience or temperament to handle National Championship events.

8.3.3.1. All officials will be subject to ongoing review at Club and Regional level:

8.3.3.2. MSA shall discuss the performance of all officials for all events held in conjunction with the MSA Regional Committee.

8.3.3.3. Where circumstances point to officials that are not up to standard the relevant organiser, Steward, Regional Committee or National Commission shall report the matter to the MSA Secretariat. A copy of the report shall also be sent to the official concerned. When the MSA Secretariat is in receipt of such a report it shall forward a copy of the report to MSA who shall investigate the circumstances of the report and may request a formal Enquiry into the ability of the official to hold his current grading.

8.3.4. Any MSA Disciplinary hearing that in its findings comes to the conclusion that an official is not up to the standard that it, MSA expects, must rule on the downgrading or suspension of the relevant official.

8.3.5. Officials who hold a grading for numerous positions must demonstrate an on-going use of the grading in order in each division to retain the grading.

OT9 POWERS, DUTIES AND PLACEMENT OF OFFICIALS

This rule is to be read in conjunction with Part VII of the MSA Handbook – which has for your convenience been printed as an annexure to this set of regulations.

It is important to note that every person that officiates at events must be licenced, graded and registered with MSA. This requirement relates to insurance issues as well as to jurisdiction issues as a person who is not a recognised official would have no power to make decisions.

9.1. No official may compete at any event where he is an official. It follows that he/she cannot officiate in a class in which he/she competes or has family in that class. This dispensation can only be allowed at club events.

9.2. Where members of the same family act as officials, permission must be obtained from MSA in writing.

9.3. All officials shall, bearing the nature of the sport in mind, exercise extreme care in the fulfilment of their duties and no official may expose himself to any hazard that is not essential to the performance of his duties. The positioning of the officials below are considered ideal and shall apply to all National Championship events.

9.4. All officials shall sign the sign on sheet before commencing their duties.

9.5. The following officials (except the timekeeper on non-timed events) are all considered necessary for the presentation of an event and are required for all National championship events.

9.6. The ***Race controllers*** (collective term for Clerks of the Course and Stewards) shall: -

9.6.1. Make all decisions with the least amount of delay and communicate same to the competitors and officials in the appropriate fashion;

9.6.2. Officiate from elevated positions where they are best able to view the racetrack. One clerk should be posted on the start line so that all flags, instructions, penalties, reprimands and warnings that need to be conveyed to the competitors and officials can be channelled through him. The clerk of the course posted on the start line may also act as the starter, provided he is not solely in charge of the particular race.

9.6.3. Be in constant radio (or other) contact with at least the 3 circuit marshals described in OT 9.11 below (who shall act as observers), the chief marshal, the commentator, the pit gate marshal, the chief lap scorer, the starter and the start line clerk.

9.6.4. Make themselves available to competitors the purposes of the application of OT42 both during the event and specifically after the event.

9.6.5. Carry out the duties of the Clerk of the Course and Stewards (see GCR 151-157) apart from each other, bearing in mind that:
9.6.5.1. Competitors are entitled to fair, unbiased hearings at all levels; and
9.6.5.2. Clerks of the Course may, once they have exhausted their powers, refer matters like dangerous driving to the Stewards for the purpose of an increased penalty. Please see GCR 156(viii) in this regard as well as the overriding provisions of OT 41.
9.6.6. Hear the protests of competitors and make all decisions that would ordinarily be the responsibility of the stewards with care to for avoid that input from those having conduct of the races do not taint the objectivity of those who would need to hear such protest. The Clerk of the Course who had control of a race shall not be privy to the deliberations concerning a protest. He shall obviously give evidence and reasons for a decision he may or may not have taken.
9.6.7. Consist of a body of at least 5 people made up as follows:
9.6.7.1. A single Clerk of the Course;
9.6.7.2. One assistant COC; and
9.6.7.3. Two stewards. (One MSA Steward and one club Steward).
9.6.8. The assistant Clerk of the Course, should assume the duties of the Clerk of the Course should it become necessary for the said Clerk to address a problem or incident. Promoters must realise that the benefits of having sufficient experienced personnel to ensure the smooth running of events far outweighs the increased cost of a reserve person. At club level use of an experienced marshal would be acceptable, provided the Clerk of the Course has given the said marshal clear instructions regarding the resolution.
9.6.9. Officials shall have the following grading for Club level: Grade C
9.6.9.1. The Clerk of the Course – minimum of club grading;
9.6.9.2. Assistant COC – minimum novice grade clerk of the course; and
9.6.9.3. A MSA stewards at the same level as the Clerk of the Course and the club Steward at the same level as the assistants. The MSA steward may overrule the Clerk of the Course on safety issues only.
9.6.10. Have the following grading for events with status of higher than Club level: Grade A
9.6.10.1. The Clerk of the Course – minimum National grading;
9.6.10.2. An assistant COC – minimum club clerk of the course grading; and
9.6.10.3. A MSA steward at the same level as the Clerk of the Course and the club Steward at the same level as the assistants.
9.6.11. Have the following specific duties:
9.6.11.1. The appointed clerk of the course shall:
9.6.11.1.1. Assume full executive responsibility for the specific race;
9.6.11.1.2. Exclude, reprimand or fine competitors when called upon to do so in these regulations; Shall supervise the starter in respect of the starting procedure and the number of laps run;
9.6.11.1.3. Ensure that all signals are conveyed to competitors in a clear manner; and
9.6.11.1.4. Be responsible for the administrative and reporting duties that are allocated to Clerks of the Course by these rules and GCR 151 to 154 and GCR 156 and 157 of the MSA handbook to the extent that those duties and powers are not in conflict with other stipulations of these rules;
9.6.11.1.5. Address the queries from competitors in terms of the query procedure detailed below.
9.6.11.1.6. Ensure that the entire infrastructure required to present an event is in place before the commencement of the practice session or racing at such event;
9.6.11.1.7. Ensure that the race regulations detailed elsewhere in these rules with consistency and even-handedness; and
9.6.11.1.8. Note the input of his assistants and the input from the competitors in making decisions or taking action.
9.6.11.1.9. The assistants to the Clerk of the Course who has / had control of the race shall:

9.6.11.1.10. Have primary duties of invoking caution flag, full caution / safety flag or race stoppage (red flag) procedures regarding an incident in his sector of the track and reporting factual accounts of general racing incidents to the Clerk of the Course who has control of the race; and
9.6.11.1.11. Carry out the duties of marshals once there has been a stoppage or incident.
9.6.11.2. The Stewards shall carry out the duties as per GCR 151-157 as well as further duties allocated to Stewards in terms of the regulations;
9.6.12. Ensure that the means of starting, whether they be lights or flags, are in good working order;
9.6.13. Receive the competitors from the marshal concerned and apply the start procedure;
9.6.14. Only act in accordance with instructions given to him by the Clerk of the Course and shall not make decisions on behalf of the Clerk of the Course.
9.6.15. Ensure that the correct number of laps are run; and
9.6.16. In conjunction with the Clerk of the Course ensure that the correct signals are given.

9.7. The ***Scrutineer(s)*** shall: -
9.7.1. The competitor is in the first instance responsible to scrutineer his own car and the scrutineer must carry out the duties stipulated in GCR's 166, 252, 253 and 254 of the MSA handbook; A scrutineer may not have any interest or connection to the vehicle taking part in the event at which he is officiating;
9.7.2. Re-examine any vehicle that was involved in an incident that caused structural damage to the vehicle and was serious enough to prevent the competitor in question from completing the race or practice;
9.7.3. Re-examine any vehicle as and when instructed to do so by the Clerk of the Course, stewards or Technical Consultants;
9.7.4. Examine vehicles for compliance with the construction and class regulations, applicable specific regulations that may apply to the event, championship series or other series of events;
9.7.5. Specifically ensure that brakes are tested and found to be operational;
9.7.6. Examine vehicles for compliance with the sponsorship advertising requirements stipulated in the SR's of the event;
9.7.7. Ensure that the time at which the vehicle passed scrutiny is noted in the competitor's scrutiny book;
9.7.8. Ensure that the competitor has completed documentation;
9.7.9. Notify the competitor of any fault that be have been detected;
9.7.10. Afford the competitor an opportunity of remedying such shortcoming by no later than 30 minutes after the end of documentation or scrutiny;
9.7.11. Reflect all faults in the competitor's scrutiny book and submit a report, listing all the faults located, to the Clerk of the Course, before the commencement of the racing;
9.7.12. Affix a scrutineering sticker to each vehicle that has passed scrutineering;
9.7.13. Have the authority to reject any competitor's vehicle that does not comply with the regulations, this only after consultation with the COC.
9.7.14. Be responsible for the Parc Ferme and other designated areas used during pre-race and post-race examination of cars; and
9.7.15. Not convey any information obtained at scrutineering to any person other than competitor concerned, the Clerk of the Course or the Technical Consultants.
9.7.16. Ensure that all tyres are marked, if required, and checked during the event.
9.7.17. Satisfy himself, by taking into account details of their design and construction, that vehicles are: -
9.7.17.1. Suitable for racing in respect of the safety requirements stipulated in these rules;
9.7.17.2. Apparently eligible for the class of racing entered; and
9.7.17.3. Present no hazard to the competitor, another competitor, or other vehicles.
9.7.18. Have regard to the content of the competitor's scrutineering book, a static examination of the vehicle as well as the performance of the vehicle in any official

practice period or race in formulating his opinion about compliance with the regulations;

9.7.19. Require a competitor to seat himself in the vehicle to determine the suitability of safety features such as the roll cage and the safety belts;

9.7.20. Ensure that vehicles meet the requirements in respect of the size and eligibility of the numbering;

9.7.21. Check the competitor's ability to evacuate his race car within 10 seconds;

9.7.22. Specifically check the condition and fittings of all fuel hoses – both feed and return lines; and

9.7.23. Specifically check the competitor's compliance with the regulations in respect of safety clothing by having the competitor clothe himself with the gear presented.

It is compulsory for Oval Scrutineers to inspect all oval competitors' driving apparel at scrutiny at every event – irrespective of the status of the event. Competitors failing to comply with MSA's safety requirements regarding protective clothing may under **no circumstances whatsoever be allowed to practice or start an event.**

9.8. The ***Timekeeper*** shall: -

9.8.1. Be seated in such manner that it is possible to accurately measure the time taken by the competitor to complete a lap; and

9.8.2. Carry out the duties set out in GCR 163.

9.8.3. Timekeeping devices should be tested and approved by MSA.

9.9. The ***Lap scorer*** shall: -

9.9.1. Record the competitors' positions at the end of each lap of each race of the event;

9.9.2. Record the results of each race;

9.9.3. Be positioned in line with the start/finish line, with a clear view of the line;

9.9.4. Complete result sheets for distribution to competitors throughout the event or as set out in the SR's for the event;

9.9.5. Bring into account any deduction of points, exclusion(s) or re-instatement(s) ordered by a competent official; and

9.9.6. Prepare the result sheets to be posted at the end of the event.

9.10. The ***Chief Marshal*** shall: -

9.10.1. Have overall responsibility for the marshals at each event;

9.10.2. Ensure that the track surface, markings and protective works are maintained in good order throughout the meeting;

9.10.3. Ensure that the firefighting equipment is readily available and correctly sited and that his assistants and the paddock marshal are familiar with its operation;

9.10.4. Ensure that there are sufficient brooms, spades and cement available on tar tracks;

9.10.5. Supervise the removal of any vehicle which may have stopped on the circuit from the track;

9.10.6. Ensure that all entrances to the track proper are manned and that no unauthorised person enters this area;

9.10.7. Ensure that at a sufficient amount of marshals (wearing distinctive vests or uniforms) are present throughout racing; and

9.10.8. Take charge of the recovery vehicle operations.

9.11. The ***Marshals*** are divided into three distinct groups being: -

9.11.1. Circuit marshals who are primarily involved in ***communication*** between the competitors and the race officials by being responsible for the operation of the lights

and flags as well as being responsible for communicating whether or not competitors who through accident have come to a standstill against the barrier wall are in need of medical assistance. They also act as observers and shall be graded Clerks of the Course at National Championship events.

9.11.2. Arena marshals who are responsible for the rendering of assistance to competitors, removal of vehicles, cleaning of the track and its verges and will be deployed from the centre of the arena. They shall also assist the scrutineers with the control of Parc Ferme after the completion of the racing.

9.11.3. Gate, paddock and line up marshals who are responsible for controlling the line-up, entry and exit of competitors to and from the pits.

9.11.4. The chief marshal shall be positioned on the infield.

9.11.5. The ***circuit marshals*** shall be posted as follows:

9.11.5.1. One marshal on each of the two corners with the clear understanding that this marshal shall relocate himself when the direction of racing is changed. It is desirable that this marshal is placed behind the safety wall/debris fence. Should these marshals be placed on the infield they shall be stationed within a suitably constructed tyre barrier at the approach to each of the four corners. As stated it is expected that the marshal will relocate upon a change in the direction of the racing; and

9.11.5.2. Another on the back straight directly opposite the start/finish line.

9.11.6. The ***circuit marshals*** shall:

9.11.6.1. Carry out the duties set out in GCR 170 of the MSA handbook;

9.11.6.2. Pay close attention to the racing on the track;

9.11.6.3. Show the appropriate warning signs to the competitors in respect of dangers in the sector of the track under his control;

9.11.6.4. Be on the lookout for races that have been stopped or placed under safety flag conditions (full course yellows) and convey that information to the competitors;

9.11.6.5. Immediately ascertain if a competitor is injured in an incident in his vicinity, in which case he shall show the appropriate signal; and

9.11.6.6. Report factual accounts of incidents, accidents, offences or breaches of regulations to the Clerk of the Course.

9.11.7. The ***arena marshals*** shall be positioned as follows:

9.11.7.1. Two marshals (response marshals), one of whom may be the driver, on a response vehicle that should be parked on the infield in a ready to go situation. The response vehicle should at the very least be equipped with revolving amber lights although it is preferable that they have the ability to switch on a red revolving light as well. Where the layout of a circuit permits ambulances and other response vehicles to park on the infield without posing a danger to the said vehicles, the rescue staff or competitors and does not interfere with the sight of the race officials the marshals may be deployed from one of these vehicles.

9.11.7.2. Sufficient marshals to attend to cleaning of the track and removal of vehicles shall be based on the infield, behind the tyre barrier.

9.11.8. The ***arena marshals*** shall:

9.11.8.1. Remove vehicles that have stopped in his vicinity from the track when it is safe to do so;

9.11.8.2. Assist with crowd control, where necessary;

9.11.8.3. Carry out any instruction given to him by any member of the medical organisation, the chief marshal, the Clerk of the Course or the stewards;

9.11.8.4. Remove all debris from the racetrack when it is safe to do so;

9.11.8.5. Attend to the sweeping of tar tracks and the laying of cement, in case of an oil spillage, as soon as it is safe to do so.

9.11.9. The ***response marshals*** shall:

9.11.9.1. Be on the lookout for emergencies that require their attention;

9.11.9.2. Respond to such emergency as soon as is possible, always having consideration for the safety of all involved;

9.11.9.3. In conjunction with (and acting in terms of instructions given by) the medical staff be responsible for assisting in the removal of competitors from vehicles;

9.11.9.4. Be responsible for the firefighting services on the track and shall be trained as such; and
9.11.9.5. Ensure that they have the required safety equipment and clothing to render their services.
9.11.10. The ***gate marshal*** shall be responsible for opening and closing the gates in terms of the instructions given to him and shall operate the gates in a safe manner.
9.11.11. The pit ***line up marshal*** shall place the cars in the dummy grid whilst the on circuit line up marshal shall ensure that the vehicles are in their correct order and shall be responsible for setting out vehicles on restarts and when safety status is withdrawn. The start line Clerk of the Course may fulfil the role of on circuit line up marshal.
9.11.12. The ***Chief Paddock Marshall*** and his team shall: -
9.11.12.1. Maintain orderly conduct in the paddock and/or pit area;
9.11.12.2. Notify the competitors to assemble in their respective grid positions on the dummy grid, prior to each heat;
9.11.12.3. Notify the Clerk of the Course (and through him the organisers) of any refuelling system that is unsafe or hazardous in his opinion;
9.11.12.4. Ensure that no competing vehicle goes onto the track unless it has been approved by the Scrutineers;
9.11.12.5. Ensure that the pit gates are closed and secured; and
9.11.12.6. Receive the names of all withdrawals and convey them to Clerk of the Course/Lap scorers.

9.12. The ***Secretary of the Meeting*** shall: -
9.12.1. Carry out the duties set out in GCR 159;
9.12.2. Ensure that all competitors are licenced and have signed the entry sheets;
9.12.3. Record the time of entry of each competitor, who shall countersign same;
9.12.3.1. Ensure that all officials and drivers have completed the sign on sheet, and that their mechanics names are recorded. Mechanics must also sign on at the gate.
9.12.4. Ensure that competitors comply with specific eligibility regulations that may apply to that event, championship or series of events; and
9.12.5. Ensure that all competitors and their crews are issued with the applicable means of pit entry.

9.13. The ***Technical Consultant/team*** shall: -
9.13.1. Consist of a person or persons, approved by MSA, who hold suitable qualifications (gained in theory or practice) to enable them to check compliance with specifications. The Technical consultant is responsible to the Clerk of the Course.
9.13.2. Carry out all the measurements and inspections required to determine whether or not a particular vehicle complies with certain specific limitations at the request of MSA, the organisers, the stewards or the Clerk of the Course;
9.13.3. The Technical consultant, in conjunction with the scrutineers, organisers and the Clerk of the Course is responsible for the management of the post event procedure regarding technical compliance; The Technical Consultant may not get involved in the general organisation and running of the event.
9.13.4. Have the powers to exclude, fine or penalise a competitor for technical infringements provided that the technical consultant is duly instructed by MSA, the organisers, the Clerk of the Course or the stewards;
9.13.5. Report their findings, which shall include details of the action that the technical team have taken or propose to take against the competitor, to the Clerk of the Course and the competitor concerned as soon as possible after the completion of the examination.
9.13.6. Observe all races at the event and advise the Clerk of the Course of the identities of competitors whose performance gave rise to doubts about their compliance with technical regulations in respect of the vehicle campaigned by them.

9.14. The ***environmental officer*** – whose functions are set out in the relevant MSA codes; and

9.15. The ***alcohol/drug control officer***– whose functions are set out in the relevant MSA codes.

OT10 PIT CREWS.

10.1. Pit crews shall: -

10.1.1. Not be allowed on the track unless they have the prior approval of the Clerk of the Course;

10.1.2. Conduct themselves in an orderly manner. Any disorderly conduct, failure to obey official instructions or breach of these rules may render the pit crew and the competitor they pit for liable to disciplinary action by the Organisers, Clerk of the Course, Stewards, or MSA as the case may be.

10.1.3. Not interfere with any official, nor shall involve themselves with any derogatory action, sign or proceeding against any such official;

10.1.4. Not consume alcohol immediately prior to the event, or while the event is in progress until 30 minutes after the last race.

10.1.5. Not assist or aid any unauthorised person to gain access to the demarcated pit area;

10.1.6. At all times display the identification utilised by the organisers of the event in question;

10.1.7. Not touch a competitor's vehicle while it is on the racetrack; and

10.1.8. Not make a fire or have an open fire in the pits

OT11 FLAGS AND WARNING SYSTEMS.

11.1. The minimum size of a flag is 60 cm x 80 cm. Flags shall be mounted so that they can be easily and safely handled by all officials.

11.2. The number signalling board to be used by the Clerk of the Course shall have white letters, at least 100 mm high on a black background.

11.3. The flags shall be stored in holders adjacent to the official's post.

11.4. The use of lights is recommended, especially if racing takes place at night. The lights should be of good quality, must be visible and must be safely placed. The lights should be place at the end of the straights as well as in the middle of the straights. It is considered ideal if the lights are operated from a central position, preferably close to the position of the Clerk of the Course.

11.5. The regulations only refer to the use of flags. It goes without saying that the lights corresponding to the particular flag should be used. The light stipulated as a replacement for each of the flags is discussed within each section of flags below.

11.6. When these regulations require a flag to be deployed the previous flag shall be withdrawn if it is still being shown.

11.7. The following flags are compulsory at all events:

11.7.1. START FLAG

11.7.1.1. The flag utilised shall be the MSA flag. A green MSA flag is preferred.

11.7.1.2. The flag shall be operated by the starter in accordance with the instructions contained in the rules regarding starting.

11.7.1.3. The flag may be replaced by a light arrangement, provided that an orange light shall indicate the fact that the competitors are under starter's orders in place of the raising of the flag concerned. The actual dropping of the flag may be replaced by the illumination of a green light. These lights shall be in a robot arrangement.

11.7.2. WHITE FLAG.

11.7.2.1. The flag is shown from the start / finish line and may not be waved.

11.7.2.2. The flag is operated by the starter to indicate: -

11.7.2.2.1. That the start procedure is about to commence; and

11.7.2.2.2. The commencement of the last lap.

11.7.2.3. The flag is held in a stationary position.

11.7.2.4. A flashing white light or stationary white lights around the circuit may replace the flag.

11.7.3. FINISH FLAG.

11.7.3.1. The flag utilised shall be a black and white chequered flag.

11.7.3.2. The flag shall be displayed at the finish line until all the competitors have completed the race.

11.7.3.3. The flag shall also be operated by the starter.

11.7.4. GREEN FLAG.

11.7.4.1. The green flag has many uses, depending on the circumstances in which it is shown.

11.7.4.2. The flag generally means that all is clear racing can start or continue.

11.7.4.3. Marshals shall not be permitted to operate the green flag on the circuit during the race. They shall however be permitted to signal an "all clear" sign to the chief marshal with the flag between races.

11.7.4.4. The chief marshal shall indicate the fact that all is clear to the starter and the Clerk of the Course by raising the green flag.

11.7.4.5. The flag may be replaced by a green light.

11.7.4.6. The starter in turn has numerous reasons for displaying the green flag, being: -

11.7.4.6.1. To signal to competitors that the track is clear to start warm up laps.

11.7.4.6.2. To signal to competitors that a race being raced under safety (yellow flag) can be restarted.

11.7.4.7. The operation of the green flag, <u>by the starter</u>, shall be the same as the starting flag.

11.7.4.8. The said green flag may be replaced by the light arrangement referred to in the starting flag section above.

YELLOW WITH RED STRIPES FLAG.

11.7.4.9. The flag is utilised by the circuit marshals to indicate a change in or on the racing surface or an obstruction.

11.7.4.10. The flag may accordingly be utilised to indicate obstructions and for instance very wet patches on dirt circuits as well as water, oil, sand or other material on a tar circuit.

11.7.4.11. Competitors are expected to familiarise themselves with the circuit, as the flag need not be shown for the whole race.

11.7.5. BLACK FLAG.

11.7.5.1. The flag shall only be shown from the start finish line. The flag shall be shown by the Clerk of the Course or on the instruction of the Clerk of the Course by the starter together with a board signalling the number of the competitor concerned.

11.7.5.2. A competitor being shown the said flag shall stop immediately, having been disqualified by the Clerk of the Course.

11.7.5.3. The flag shall only be utilised by the Clerk of the Course after he has considered all other options available to him. **It is recommended that clerks of course utilise the various other regulations at their disposal before deploying the above flag.**

11.7.6. BLACK AND WHITE FLAG.

11.7.6.1. The flag shall be divided into black and white halves diagonally.

11.7.6.2. The flag shall only be shown from the start finish line. The flag shall be shown by the Clerk of the Course or on the instruction of the Clerk of the Course by the starter together with a board signalling the number of the competitor concerned.

11.7.6.3. The flag indicates to the competitor that he is being warned for a contravention of the regulations, or indicates that a competitor is engaging in deliberate obstructive tactics.

11.7.6.4. The competitor shall continue under observation for the rest of the race and shall report to the Clerk of the Course immediately after the race.

11.7.6.5. The flag shall only be utilised by the Clerk of the Course after he has considered all other options available to him. **It is recommended that clerks of course utilise the various other regulations at his disposal before deploying the above flag.**

11.7.7. BLACK FLAG WITH ORANGE DOT.

11.7.7.1. The flag is black and has an orange dot, with a diameter of at least 40-cm, on it.

11.7.7.2. The flag shall only be shown from the start finish line. The flag shall be shown by the Clerk of the Course or on the instruction of the Clerk of the Course by the starter together with a board signalling the number of the competitor concerned.

11.7.7.3. The competitor concerned must stop on the infield immediately as the Clerk of the Course is of the opinion that the vehicle concerned has a potentially dangerous defect.

11.7.7.4. The deployment of the flag shall not signal the imposition of a penalty by the Clerk of the Course and the competitor shall not be excluded from participation in any further or final rounds or heats of an event merely because of a defect on his vehicle. There is however a responsibility on the competitor to repair the defect to the satisfaction of the scrutineer and he may not race until the scrutineer is satisfied with the repairs. Similarly the competitor shall not be categorised as a competitor who was excluded from the event.

11.7.7.5. The flag may also be used to remove rookies from the race when it is obvious that they are not coping and have become a danger to fellow competitors.

11.7.7.6. Given the gravity of the reasons for the deployment of the flag. **Clerks of the Course should use the flag with circumspection as it cannot and should not be withdrawn once deployed.**

11.7.8. YELLOW FLAG.

11.7.8.1. The flag is used to invoke the safety flag status. It may be deployed by any of the circuit marshals but only on the instructions of the COC in the interests of safety. Given the gravity of the reasons for the deployment of the flag marshals should use the flag with circumspection as it cannot be withdrawn once deployed. Marshals must realise that the use of the flag involves a process that may be detrimental to the leading competitor.

11.7.8.2. The deployment of the flag in response to race regulations is the sole responsibility of the Clerk of the Course.

11.7.8.3. Once deployed the flag shall be waved vigorously by all marshals until it is clear from the actions of all the competitors that they have seen and responded to the flags. Thereafter the flags shall be held stationary at the start line and at every post around the track.

11.7.8.4. The alternative use of the flag is to regulate the warm-up lap procedure in which case it is deployed by the starter.

11.7.8.5. This flag may be replaced by flashing or revolving amber lights. The lights should be set to become stationary once the procedure is fully invoked.

11.7.8.6. Any competitor who ignores the yellow flag and overtakes any other competitor while the yellow flag is out will be given a penalty as prescribed in the rules.

11.7.9. RED FLAG.

11.7.9.1. The flag is used to stop races may be deployed on instructions from the COC only in the interests of safety. Given the gravity of the reasons for the deployment of the flag, marshals should use the flag with circumspection as it can and should not be withdrawn once deployed. Marshals must realise that the use of the flag involves a process that may be detrimental to the leading competitor.

11.7.9.2. The deployment of the flag in response to race regulations is the sole responsibility of the Clerk of the Course.

11.7.9.3. Once deployed the flag shall be waved vigorously by all marshals until it is clear from the actions of all the competitors that they have seen and responded to the flags. Thereafter the flags shall be held stationary at the start line and at every post around the track

11.7.9.4. The flag may be replaced by flashing or revolving red lights. The lights should be set to become stationary once the procedure is fully invoked.

11.7.10. BLUE FLAG.

11.7.10.1. The blue flag shall be light blue and shall have a distinctive cross over it.

11.7.10.2. The flag is used by the Clerk of the Course or on the instruction of the Clerk of the Course by the starter to signal to a competitor that he is being lapped, or is holding up the race (see OT 27.2)

11.7.10.3. The blue flag must be waved to a competitor when he holding up another competitor. This must be shown to the competitor for two laps and if he ignores this flag, he must be black flagged on the third lap. A competitor, deliberately holding up another competitor at the start or during the race, must be penalised.

11.7.11. WHITE FLAG WITH RED CROSS.

11.7.11.1. The flag is used by marshals to indicate Medical emergencies.

11.7.12. YELLOW FLAG WITH RED ARROW.

11.7.12.1. This flag shall be yellow and the arrow shall be on both sides of the flag and shall as large and as visible as possible;

11.7.12.2. The flag is used to instruct competitors to return to the pits. Once deployed by the Clerk of the Course (or by the starter on instruction of the Clerk of the Course) it shall also be deployed at the pit gate.

SIGNAL BOARDS

The following signal boards, complying with the sizes in OT 11.1 above, are

Compulsory at all events:

11.7.13. Back of grid signal **–** This board will have the words "BACK/AGTER" on it. This board is used by the Clerk of the Course to indicate to a competitor that he is to go to the back of the field.

11.7.14. Lap counting boards – for at least the last 5 laps;

11.7.15. A board to indicate the amount of laps to be run;

11.7.16. A board instructing competitors to reform in original positions; and

11.7.17. A board instructing competitors to reform in single file.

11.7.18. A chalk board and chalk to indicate to competitors the no of the vehicle being penalized.

OT12 <u>ELIGIBILITY OF CARS / CHANGE OF COMPONENTS.</u>

12.1. Vehicles must comply with the construction regulations and applicable class regulations published in these regulations, including official amendments, additions or deletions, as well as the regulations and specifications applicable to the event. GCR 254 also refers.

12.2. Club status racing comprises the bulk of all oval racing and accordingly all race meetings shall comply with the sporting and technical regulations set out in this rule book as amended. Where organisers wish to deviate they shall be obliged to prepare a comprehensive set of club regulations and submit same to MSA for approval, which approval will not be withheld without good cause. The only deviations that would be permitted are specific further restrictions to these rules in respect of the National Championship classes and properly motivated new classes that the venue wishes to present. Here venues will need to satisfy the Commission in respect of the need for the proposed class.

12.3. MSA may require the organisers to perform such checks in regard to eligibility as it may stipulate.

12.4. Any new class at club level is to be authorised by MSA, upon proper written application, prior to the establishment of such a class.

12.5. A competitor may not enter more than one car for a particular class. He will only be allowed to race the car in which he drew onto the dummy grid for his first race. This regulation is modified for tar racing to the extent that he is limited to using the car with which he started the qualifying procedure, or after he has drawn for a grid position.

12.6. A competitor may enter different vehicles for different classes at the same event.

12.7. A competitor may enter the same vehicle in different classes at the same event, provided that the vehicle complies fully with the class regulations for all the classes. Should it transpire, after a technical evaluation that the vehicle does not comply with the regulations of one of the classes the competitor will be excluded from all the classes where he used the specific vehicle, irrespective of whether or not the vehicle complied in the other class.

12.8. A competitor may only compete in a class in which he had entered (in accordance with the entry provisions for the event concerned). Furthermore he shall only be allowed to race in classes where he carried his entry through by signing on during documentation.

12.9. The following shall apply to the change of components:

12.9.1. Any competitor who wishes to change any component that is subject to any limitation in terms of the class regulations shall notify the chief scrutineer of his intention to do so. The scrutineer shall be entitled to impound any part that is replaced. Scrutineers shall record all their observations in writing.

12.9.2. Failure to comply with the above renders the competitor liable to exclusion.

12.9.3. Any part so removed shall comply with the class regulations and any non-compliance shall render the competitor liable to exclusion as if the component were installed. Competitors shall declare all spare components <u>that are subject to technical limitations</u> at scrutiny.

12.9.4. All competitors must be able to remove the engine and gearbox from the vehicle within 2 hours of being instructed to do so by the technical officials. Failure to do so will entail exclusion from the event.

12.9.5. Rules relating to technical items must be written in a way to make policing easy.

OT13 <u>DETERMINATION OF GRIDS – GENERAL.</u>

13.1. There are 4 means of determining grids being:

13.1.1. Qualifying – as set out in OT14;

13.1.2. Draws – as set out in OT15;

13.1.3. Grading systems; and

13.1.4. Seeding or handicapping.

13.2. The following shall apply to all methods of determining a grid:

13.2.1. The method to be used shall be clearly set out in the regulations for the series or event;

13.2.2. A competitor shall not be entitled to a re-determination of the grid if, upon investigation it transpires that he had signed onto the incorrect sheet at documentation. In such a case he shall qualify last, start last or be placed at the back of the grading section he is allocated to in grids that are not determined by a draw or a partial draw.

13.2.3. Should a competitor be left off the grid due to an administrative error by the organisers or the officials of the day the following shall apply:

13.2.3.1. The first determined grid or qualifying order shall stand;

13.2.3.2. All the tokens shall be returned and the aggrieved competitor shall draw;

13.2.3.3. He shall take up the place on the grid or qualifying behind the number he draws and all other competitors will move one position back. He will remain in the sequence and shall invert as if was drawn in that position.

OT14 <u>DETERMINATION OF GRIDS – QUALIFYING.</u>

14.1. Whenever the SR's for an event or series regulations dictate that competitors need to qualify for grid positions these regulations will apply. The SR's shall set out the number of starters that will qualify for the races of the event concerned. The SR's or the series regulations shall set out the points to be scored from the results of the qualifying.

14.2. Qualifying will be under the control of the Clerk of the Course and the starter, the timekeepers, the lap scorers and a full complement of marshals will be at their posts. The organisers shall supply properly calibrated timing equipment to be used as the only official time recording system for the event. The same equipment on the day must be used for all qualifiers and will be deemed as the official timing equipment.

14.3. The organisers shall conduct a draw for the qualifying order. In a Regional or National series the draw will only be for the first event. Thereafter the order will be determined by the total points achieved thus far in the Championship.

14.4. Each competitor shall be afforded three timed laps, with the best result to count for the determination of the grid. Cars with semi or slick tyres will be afforded 2 warm up laps.
14.5. All competitors due to qualify in a particular class shall line up on the infield, in their qualifying order, upon being requested to do so by the pit marshal.
14.6. A competitor who fails to line up in his slot will line up last in the class. His time will also be adjusted by a factor of **1.025**. Competitors who have not lined up by the time the last competitor, other than those who failed to line up in their slots, have finished their qualifying laps will not be allowed to qualify and will be deemed to have posted the slowest time. No repair time will be allowed once the competitor has become under starters orders.
14.7. On Regional and National events, competitors in all classes will qualify for starting positions. The fastest qualifier will start the first race on pole position. A tie on qualifying will be resolved by placing the competitor, who achieved the time first, in the first position. The second race will be an invert of the starting order of the first race and the third race will be determined on total points for the first and second race. A tie on points after the second race will be resolved by the fastest qualifying time. In a case where positions were drawn, the best placing in the first race will be applicable.
14.8. The National Championship series will be open to all competitors who qualify through their clubs. Entries for the National Championship events must be routed through the club secretary. Day licenses will be available.
14.9. All competitors, including those who needs push starts, shall qualify from the infield.
14.10. Competitors in classes that require push starting shall ensure that they have their own push start vehicles. Vehicles that need to be push started shall start and be capable of running by themselves after the completion one lap of the circuit. Vehicles that do not start shall not be awarded a qualifying time and will have to start from the back of the grid. This will be carried forward to resolve any ties.

14.11. Once a vehicle has come onto the track it comes under starter's orders. The yellow flag will be out. Once the starter is satisfied that the track is clear he will introduce the white flag as well. The next time the competitor come to the start line he shall receive the green flag which allows him to commence his warm up laps. Vehicles on slick tyres shall be afforded 3 laps of the circuit. All other classes shall be afforded no more than one lap.
14.12. On the lap prior to completion of the warm-up laps the starter will waive the white flag as well as the green flag to signify that he is to begin his timed laps on the next lap. He shall show the green flag once the timed laps start, the white flag at the start of the last lap of the timed laps and the chequered flag at the end of the timed laps.
14.13. The competitor shall thereafter slow down and leave the circuit to the infield, when it is safe to do so.
14.14. Competitors who suffer mechanical breakdowns, are involved in incidents or stop of own accord during their qualifying session shall leave the circuit or be removed from the circuit as the case may be. Any time that they posted shall stand. If they failed to post a time they shall start at the back of the grid.
14.15. Competitors, who broke down, were involved in an incident or stopped without recording a time and those that could not start during their qualifying session, those who failed to line up and those who may have come late shall start last in the abovementioned order. Within these groups they shall start in the order they were drawn.
14.16. Should there be an incident on the track or a failure of the timing equipment the particular competitor's session will be stopped by means of the red flag. Should there be a timing equipment failure the competitor's session will be restarted and any time he may have posted will be scrapped. The officials of the event will be obliged to make practical arrangements to ensure that the competitor does not benefit from warm tyres as an example.

14.17. The following shall apply should the qualifying session of a particular class be affected by circumstances such as rain or a power failure: -

14.17.1. If less than 20% of the field has qualified – a complete new qualifying session shall commence if the time limits for the event allow;

14.17.2. If more than 20% of the affected field has qualified – the session shall be delayed if the time limits for the event allow;

14.17.3. If the time limits do not allow the session shall be cancelled and the positions the competitor had in the draw for the qualifying order shall be the starting grid and the competitors shall not score for qualifying.

14.18. The results of qualifying shall be posted on the notice board as soon as possible after the end of the session.

OT15 DETERMINATION OF GRIDS – DRAW.

15.1. The organisers shall provide the Clerk of the Course with suitable cards, discs, or balls (hereinafter referred to as "the discs") on which the competition numbers of each of the competitors have been noted. Such discs shall be identical and shall be free of any markings that could assist the draw of a specific competitor into a specific grid position.

15.2. The Clerk of the Course shall verify that all competitors who have entered and passed scrutiny have been allocated discs.

15.3. The discs shall then be shuffled. The order in which the discs are drawn shall be noted. This document shall be posted on the notice board. If there is only one race the list is the grid. If there is more than one race per heat the first drawn competitor shall take pole position in the first race. The second drawn competitor shall take pole position in the second race. The balance of the positions on the grid(s) to be determined in like manner. If the regulations specify an inverted grid the procedure shall start from the bottom up, after deleting those who have withdrawn.

15.4. There shall be no grouping of competitors for the purposes of the draw at regional championship and national championship status events.

15.5. The system whereby discs, bearing the numbers 1 upward to the number of vehicles entered in the class, are shuffled and these discs are then drawn per competitor is also acceptable. In this instance the competitor takes up the grid slot corresponding to the number he draws or is drawn for him. Where heats are split and this method is used the competitor drawing number one will occupy pole in the first race. The competitor drawing two will occupy the pole position in race two and so on. The invert will be the same as above.

OT16 CHANGING OF VEHICLES AND COMPETITORS.

16.1. Once a competitor has started the first race in one vehicle he shall not be permitted to: -

16.1.1. Use his second vehicle if the first vehicle is unable to complete the event for any reason;

16.1.2. Swap the cars between the different classes he may have entered;

16.1.3. Change the class in which he is competing.

16.1.4. No change of driver of any kind will be permitted after qualifying has started or he has drawn a grid no.

OT17 <u>ASSEMBLY OF THE GRID.</u>

17.1. The manner of determining the grid for an event shall be detailed in the SR's for the event. The method of determining the grid shall be the same for all events counting towards any series of events.

17.2. Unless specified in series or championship regulations the number of vehicles to compete in each heat shall be determined by the organisers, in consultation with the Clerk of the Course, taking into consideration the number of entrants and the reigning track and weather conditions.

17.3. Vehicles shall start two abreast, one on each side of the white centre line.

17.4. The grid for the first cycle of rounds or heats shall be posted on the notice board as soon as possible after being determined.

17.5. The grids for the further rounds or heats shall be posted on the notice board as soon as possible after the completion of the first round. Without being prescriptive organisers and officials shall, within the constraints of the event itself afford competitors a reasonable time to establish that they are able to proceed with the next race. Competitors who withdraw shall be removed from the ensuing grids and the places left open shall be filled by moving up the balance of the grid.

17.6. A dummy grid shall preferably be formed in the pits in accordance with the grids determined above. If the dummy grid cannot be formed in the pits due to space constraints the vehicles should at least be put into a line-up / holding area. At very least a dedicated official shall confirm that the competitor is aware of his place on the grid in such cases.

17.7. Competitors shall at all times be aware of the race format and be ready and available to take his place on the dummy grid or grid. Public address systems in the pits will aid this.

17.8. Competitors shall proceed onto the track, in single file, in the positions that they occupy on the grid. Competitors shall refrain from engaging in any form of sprinting, car testing, or the like until the commencement of the warm-up laps, if applicable.

17.9. The final grid placing is only determined once the pit gate has closed for the race. The places left open on the grid due to vehicles not coming out onto the track for the race will be filled. In all circumstances the positions left open shall be filled up. This is achieved by the single file start to the starting procedure.

17.10. Competitors shall obey the instructions of the line-up marshal and observe the flags and lights being aware that they are under starter's orders from the time they enter the track.

17.11. MSA may stipulate the maximum amount of vehicles that may participate in any one race on a specific track, in the interests of safety. This authority shall be exercised circumspectly upon advice of the stewards of the events held at such a track.

OT18 <u>STARTING PROCEDURE.</u>

18.1. All races shall commence with a rolling start.

18.2. Warm up laps, although not compulsory, shall form part of this procedure, if allowed. Please continue at sub-rule 18.7 below for starts that do not require warm-up laps.

18.3. The warm up laps shall be conducted as below.

18.4. The Clerk of the Course will advise the competitors how many warm up laps are to be given throughout the event during drivers briefing if it is not stipulated in the SR's for the event.

18.5. While cars are being started (or are entering the track) the track shall be in safety flag status, the yellow flags being displayed at the start and at every marshal post around the track.

18.6. Once the starter or the Clerk of the Course is satisfied that the track is clear the starter shall start the warm up laps by waving the green flag.

18.7. Once the predetermined amount of warm-up laps has been run the starter will deploy the yellow flags. The track shall return to safety flag status. The competitors shall fall into single file in order of their grid positions. This facilitates confirmation of the correctness of the grid by start line officials. The responsibility of returning to a grid position once it has been vacated rests with the competitor. Positions left open by competitors that did not come out of the pits or had withdrawn from the race before that point in time shall be filled. This is made easier by the single file order. The first competitor takes up pole, the second goes to position 2 and so on. Please note that classes that do not require warm up laps continue their start position from this point forward.

18.8. The line-up marshal (or in his absence the starter) shall then indicate to competitors that they must take up their allocated grid positions alongside one another by crossing and uncrossing his arm across his chest. Any competitor that is not able to slot into his correct position shall signal this to the officials. The Clerk of the Course may take action against a competitor who slotted into the incorrect position by placing him at the back of the grid. In the interests of the spectators and the time management of the event the Clerk of the Course may instruct the start, notwithstanding that the competitors are not in their correct position. By this action he reserves the right to act against the competitors that caused the delay.

18.9. All competitors shall line up on the pole position man.

18.10. Once the starter or the Clerk of the Course is satisfied that start formation is correct he shall indicate that the race will start on the next lap by raising the white flag at the start. The competitors must be ready to start the next time they approach the start line.

18.11. The competitor in pole position shall regulate the pace of the formation lap of the race.

18.12. A competitor who stalls or suffers another mechanical breakdown during the formation lap shall make a concerted effort to pull out of the formation and off the track as the case may be. The circuit marshals shall be on the lookout for such stalled competitors and shall immediately signal such an occurrence by waving both the red and the yellow flags simultaneously in circular motions, if the competitor is not able to pull off the track to a place of reasonable safety.

18.13. The principle objective is to start races if stalled competitors are able to pull off the track without disadvantaging other competitors. If that was not possible and the yellow and red flags were used the aborted start procedure shall apply.

18.14. Vehicles that are not able to start, having pulled off the track, shall be entitled to join that specific race at any stage but can only do so from the infield directly across from the starters position. He would do so by moving to that position and being waved away by a marshal. No competitor may join the race after the flag has dropped.

18.15. The pole position competitor shall slow prior to entering the corner before the start in order to ensure that the field is well bunched and in formation as the start line is approached. The pole position competitor shall proceed towards the starting line at the same speed at which he entered the corner prior to the start. It follows therefore that the pace at which the competitors approach the start must be above idling speed yet substantially below race pace.

18.16. A competitor that passes another competitor or leaves his position prior to the start of the race shall be adjudged to have jumpstarted and shall be penalised, unless the Clerk of the Course is of the opinion that the person ahead or abreast of him reduced speed (other than in terms of the above sub-rule) before the start of the race. A competitor who neglects to slow down on the approach to the final corner or accelerates prior to the start of the race shall be penalised by the Clerk of the Course. A competitor who fails to take up his correct grid slot or fails to bunch up as required shall be penalised by the Clerk of the Course.

18.17. The starter shall, thereafter start the race by lowering the start flag or illuminating the green light. Acceleration may only take place from that moment on, irrespective of whether or not the lead car has crossed the start finish line. The starter shall start the race at any point from the apex of the corner up to the start finish line. He shall at all

times face the racetrack. The starter shall remain in a fixed place throughout the event and shall start the race before the lead car passes his position. The starter shall report jumped starts to the Clerk of the Course immediately.

18.18. The Clerk of the Course shall at all times be in close proximity to the starter in order ensuring the effective enforcement of the starting procedures.

18.19. No official may refrain from starting the race once the white flag has been shown in the starting procedure. If there is a problem the yellow flags should be waved after the first lap. Please see aborted starts below.

18.20. Vehicles that need to be pushed to the infield, having stalled on the formation lap or dummy grid, shall only be pushed by officials or vehicles authorised to do so.

18.21. The sprint cars will have two cones, placed at a strategic position in the corner before the start. The pole car will start the race at a point between the two cones. The starter will wave the start flag when the pole car starts the race.

OT19 <u>ABORTED STARTS.</u>

19.1. The Clerk of the Course shall start race at all times after the white flag has indicated that the race will start on the next lap and stop the race with the yellow flag if: -

19.1.1. A competitor's vehicle stalls on the formation lap and he is not able to pull off the track with or without disadvantaging another competitor;

19.1.2. A competitor is adjudged to have jump started;

19.1.3. The field is no longer bunched or in formation as they approach the start line;

19.1.4. The pole position competitor failed to slow on the approach to the corner prior to the start; or when a competitor crossed the centre white line before the start line.

19.1.5. A competitor accelerated prior to the start of the race.

19.2. The Clerk of the Course shall immediately invoke the safety flag procedure. While the race is in this state he shall take appropriate action against an offending competitor and then initiate a complete new start, which shall commence with the signal to competitors to take their grid positions or the white flag as the case may be. In cases where the aborted start was caused by a competitor who stalled or had a breakdown the competitor will be afforded an opportunity to restart their vehicles. They shall however be placed at the back of the grid. If more than one competitor stalled they, the stalled competitors, shall start in single file in the same order in which they occupied the original grid.

19.3. The Clerk of the Course shall exercise strict control in such circumstances and may order that the competitor who caused the aborted start be deemed a non-starter if the competitor is not able to restart his vehicle immediately. The Clerk of the Course shall not allow the stalled competitors more than one minute to elapse prior to the commencement of the new start. Vehicles that are not able to start shall be pushed off the track by the marshals. The competitor concerned shall not be entitled to join the race at any stage, even if the start is again aborted.

19.4. The competitor shall not receive any outside assistance, other than push starting.

19.5. The grid slot left open by a stalled competitor, a competitor who withdrew on the formation lap or a competitor who has had disciplinary action taken against him for any reason shall be left open.

19.6. No re-fuelling shall be permitted.

19.7. Vehicles that need to be pushed to the infield for whatever reason shall only be pushed by officials or vehicles authorised to do so.

19.8. Clerks of the Course should not abort starts if competitor(s) have gained an advantage without prejudicing another competitor's actual start. It would be more appropriate to penalise the offending competitor after the event. This is particularly the case where the first two competitors jump the start.

OT20 PUSH STARTING PROCEDURES – CLUTCHLESS VEHICLES ONLY.

20.1. The competitor must be seated at the wheel of his vehicle throughout the push start operation.

20.2. Due care shall be taken while pushing assistance is being given and all instructions given by officials shall be obeyed immediately.

20.3. Vehicles that need to be pushed to the infield, having stalled on the formation lap or dummy grid, shall only be pushed by officials or vehicles authorised to do so.

20.4. All competitors shall be obliged to arrange their own push vehicles, unless the SR's indicate that the organiser will provide these.

20.5. Push vehicles shall leave the track to the infield or to the pits as soon as possible. Push vehicles that remain on the infield shall ensure that they do not present a danger to competitors nor obstruct the view of the officials. One such vehicle shall however remain on the infield at all times.

20.6. A vehicle that is not able to start within one complete lap of the circuit shall be deemed a non-starter. If a vehicle starts and then stops, 5 minutes repair time will apply.

20.7. Push start vehicles shall be manned throughout the race and should be ready to take to the track upon the instruction of the race officials to assist with any restart that may be ordered.

20.8. Vehicles may be pulled onto the track with straps or ropes but may not be started in this manner.

20.9. **Competitors that have spun out by themselves or due to the actions of others shall be restarted by the appointed push cars. If they are not ready to start when the push car arrives or do not start when pushed they shall be pushed to the infield.**

20.10. **Should the same vehicle spin for a third time in a race it will not be restarted but will be pushed to the infield.**

20.11. **Where a competitor has spun his own vehicle he shall be placed at the back of the grid. Should more than one competitor spin of own accord they will still be placed at the back of the pack but will be placed in the order they were before they spun.**

20.12. **Where a competitor is spun by another competitor the innocent competitor shall be restarted and put back in his position. The culprit shall, pending the further actions of the Clerk of the Course, be put at the back of the grid.**

20.13. **Push starting under full course yellow flags or on restarts is not regarded as outside assistance.**

20.14. **These regulations apply equally to the micro-midget class where the competitor's crew would be responsible for push starting.**

20.15. **For clarity it is recorded that this regulation applies to sprint cars, micro-midgets and midgets as national classes as well as to other club classes that permit clutch less vehicles**

OT21 WET RACES.

21.1. The provisions of circuit racing SSR 44 do not apply. Instead the Clerk of the Course and the Stewards shall determine the procedure to apply.

21.2. When the race is declared a wet race, or if the track is wet, competitors must start in single file formation.

OT22 RACING UNDER THE YELLOW FLAG (SAFETY STATUS RACING).

22.1. This procedure is only used in accordance with regulations dealing with aborted starts and if a vehicle has been involved in an incident and has come to rest in a position where it presents a danger to other competitors.

22.2. This rule shall not be implemented if a car has spun off and poses no threat for another. This rule shall not be used as a means to communicate a penalty to a competitor other than in the case of an aborted start.

22.3. In applying this rule the circuit officials shall be mindful of the disadvantage it has for competitors who have built up substantial leads over their closest rivals in the race.

22.4. Once the yellow flags are deployed the competitors shall cease racing and shall line up in single file and continue circulating at a sedate pace, marginally above idling speed, holding the exact positions they had when the procedure was invoked, without overtaking each other while awaiting the restart or a stoppage. Where a competitor passes another competitor in the process of ceasing racing he shall forthwith defer to that competitor. A competitor that passes another competitor under the yellow flags will be dealt with as follows after the race in terms of the penalty provisions in OT41.

22.5. Competitors that have been lapped shall remain in their positions in the field. The object of this rule is to preserve the exact order the vehicles had on the track until a restart is possible. Competitors who are about to lap back markers shall not use this opportunity to gain an advantage by lapping the competitor and shuffling the field to have the field in the order in which they would be placed had the race been finished. By way of example – if the first and second placed competitors have lapped the last placed competitor, the last placed competitor shall remain in third place on the track. In this way the rest of the competitors have the same challenges in respect of passing slower traffic.

22.6. Once the field has reduced speed the start line officials shall signal the leader's number by holding the number alongside a stationary yellow flag. **Competitors and officials alike are reminded that there is no requirement for race officials to put the competitors in order under yellow flags. The responsibility of maintaining or regaining the position that was held rest with the competitor. Race officials shall only intervene by instructing competitors to go to the back of the grid, return to their position or pull of the track if the car does not want to start.**

22.7. The safety flag shall be held out as long as is deemed necessary by the Clerk of the Course, who shall however have regard to the temperatures as well as the fuel situations of the vehicles in the field. Once the Clerk of the Course is satisfied that the track is clear he shall instruct the starter who shall raise the white flag. This shall indicate to competitors that the race will continue with race at the start of the next lap when the green flag will be shown.

22.8. **The operation of the green flag shall be the same as for the start procedure except that a cone shall be placed on the exit of the turn to indicate the point at which the race will be restarted by the starter.**

22.9. Should the marshals be unable to remove the obstacle from the track the Clerk of the Course shall stop the race.

22.10. **The laps completed under yellow will count towards the total number of laps that should have been run.**

22.11. **Officials are reminded that the prolonged / frequent use of the yellow flag could destroy a good race and is harmful to the spectators' level of enjoyment and leads to heat build-up in engines and cooling down in tyres. Hence it is preferable to stop a race if the removal of an obstruction is not complete within 3 laps or two minutes.**

22.12. **The Clerk of the Course shall take action against competitors who caused the deployment of the safety flag. As a general principle the competitors should be placed at the back of the pack.**

22.13. **Clutchless vehicles (midgets, micro midgets and sprint cars) may be push started. As the vehicles in all other classes should be able to start with starter motors the option of a push start should be offered to the**

competitor whose vehicle will not start upon penalty of racing from the back of the grid. Please refer to OT 20. This regulation shall not apply when a competitor has been spun off within the rules in contact racing. This regulation does not change the basis for initiating the yellow flag as set out elsewhere in this rule. Clerks of the Course shall not initiate the yellow flag to assist a stalled competitor unless the vehicle presents a danger. In any event proper application of the regulations would see the stalled competitor being placed at the back of the grid as being the cause of the stoppage.

OT23 STOPPING OF RACES.

23.1. A race shall only be stopped in the interests of safety or if the circuit officials are of the opinion that the track would not be able to be cleared of vehicles (that pose a danger) in the time allowed for full course yellow flags.

23.2. Officials shall do so only after considering all other options available to them. The decision to stop a race shall not be taken lightly.

23.3. The Clerk of the Course shall also stop a race if the driving regulations compel him to do so. The Clerk of the Course has the sole right to stop a race in this case.

23.4. **The Clerk of the Course shall take disciplinary action against the competitor responsible for the incident that caused the stoppage. As an absolute minimum such a competitor shall be placed at the back of the pack.**

23.5. Competitors shall cease racing and come to a stop at the finish line when it is safe to do so and as soon as possible.

OT24 GENERAL RACE REGULATIONS.

24.1. Any vehicle which appears dangerous (in the opinion of the Clerk of the Course, the chief scrutineer or technical consultant) or which is being driven dangerously, notwithstanding that it has been passed by the scrutineers, may be halted by the Clerk of the Course, whether during practice or during a race.

24.2. If any vehicle, having passed scrutineering, is dismantled or modified in a manner which may affect its suitability or safety, or it is involved in any incident likely to have a similar effect it shall be submitted for scrutiny again.

24.3. Only an officially licensed competitor shall drive a racing vehicle on the circuit during practice and racing. Under no circumstances may passengers be transported in a race vehicle during practice, qualifying or in races. No passengers are allowed on the back of push vehicles.

24.4. All vehicles, except emergency vehicles, shall be pushed or driven in the direction used by the class on the circuit at the time. Between races great care should be taken.

24.5. All "doughnuts" and "wheelies" are to be performed under the direct supervision of the Clerk of the Course with his permission having first been obtained.

24.6. Any parade shall be under the control of the Clerk of the Course. Full racing kit is to be worn by competitors. All parades to be at a sedate pace with a pace car setting the pace.

OT25 DRIVING REGULATIONS.

25.1. A competitor shall, at all times, drive in a manner compatible with general safety. The competitor may be halted or penalised by the Clerk of the Course for failure to do so.

25.2. A competitor who is found to be responsible for an accident/incident outside the scope of the applicable driving regulation shall have disciplinary action taken against him by the Clerk of the Course.

25.3. No competitor may deliberately block another competitor by driving next to each other for more than one lap. The blue flag shall be applied on the first lap and a black flag shall be applied by the second lap.

25.4. Competitors are expected to assist in the orderly conduct of races that need to be restarted after being stopped or run under caution (yellow flag) by keeping their position behind the driver ahead of them, bearing in mind that lapped competitors must remain in their position on the track and not in the lapped competitor's race classification.

25.5. Manoeuvres liable to hinder other competitors such as premature direction changes, obvious obstruction, deliberate crowding to the inside or outside of the track, dangerous lane changes, premature braking, braking on exits of corners or any other abnormal actions are strictly prohibited. Manoeuvres that have the clear intention being unsporting shall be penalised.

25.6. No competitor may change direction more than once down the straight.

25.7. When a competitor leaves the track while competing he shall immediately bring his vehicle under control and re-join the race near the place where he left the race when it is safe to do so. No advantage must be gained over the other competitors, nor may he disadvantage any other competitor upon re-joining.

25.8. The tarred section of the track alone shall be used by the competitors during the race. A competitor passing the finish line with no wheels on the tarred section of the track, will not be seen to have crossed the finish line.

25.9. Competitors who have completed the race shall leave the track, together with those who may have been halted by the Clerk of the Course, in an orderly fashion and proceed to the pits immediately. Those whose vehicles require the assistance of tow vehicles shall await the required vehicle and leave track as soon as possible. A competitor shall not be allowed to interfere with the operation of the breakdown crews, except that they may give advice concerning the most effective means of towing the vehicle. Vehicles may remain on the infield for one race if the breakdown crews cannot remove all the stranded vehicles at once.

25.10. Where a competitor is unable to complete a race due to race damage caused by another competitor, the competitor who caused the damage shall be excluded. The competitor who caused the incident shall be placed at the back of the grid when the race is restarted irrespective of whether the incident was deliberate or accidental. If the damage cannot be repaired and that competitor cannot race for the rest of the event, the competitor causing the damage must be excluded for the whole event, even though he was already placed at the back of the grid for the race where he caused the damage.

25.11. A competitor who needs to draw attention to a problem may proceed to draw the attention of the race officials and shall do so prior to coming under starter's order – that is before the white flag is raised. Competitors shall not avail themselves of this remedy if they could have addressed the problem in the pits. A competitor may, by way of example, not solve a mistake by the lap scorers at this point. That should have been done in the pits. He may address a situation where a race official has placed him in slot 4 instead of his allocated slot number 3. In cases where vehicles have done warm up laps and are expected to form up themselves the competitor should fall out of the line and circulate at the back of the grid and come to a stop off the race line on the inside of the circuit.

25.12. **No competitor may bring his vehicle to a stop on the circuit to have race officials address any grievance he may have irrespective of the situation once the signal to form the grid or the white flag has been given. This type of action is dangerous. Competitors should avail themselves of the protest regime set out in the regulations.**

25.13. In various places in the driving related regulations reference is made to the inside or outside as it relates to vehicles. Over and above the plain meaning of the words relating to whether or not something is inside or outside something the words, depending on the context, relate to a specific side of the vehicle. The term outside relates to the left side of the vehicle that is raced in a clockwise direction.

OT26 DRIVING STYLES.

26.1. There is only one distinct driving style of racing on tar ovals namely – non-contact.

26.2. The SR's shall stipulate the driving style permitted for the event. The organiser has the right to determine the driving style but is not empowered to overrule National Championship or National qualifying regulations.

26.3. Contact racing is prohibited on tar circuits with the only exception on tar being the banger classes which are not supported by MSA. MSA officials must be withdrawn in the event where Promoters support banger events. These are not covered by MSA insurance.

26.4. The following definitions apply to the words used to describe what is permitted and not permitted in the two styles.

26.4.1. "Non-Contact" shall mean nothing more than the coming together of vehicles caused by close racing. Such coming together shall not be forceful enough to cause the leading vehicle to be placed in a different racing line involuntarily.

26.4.2. "Contact" shall mean any deliberate or accidental collision with a leading vehicle.

26.4.3. "Shunting" shall mean the force required to move a leading competitor off his chosen racing line but shall not be forceful enough to cause him to loose control of his vehicle, spin out, or come into contact with the safety wall or barriers.

26.4.4. "Bumping" shall be the deliberate collision with a leading vehicle with the aim of upsetting the leading vehicle's approach to the corner or the exit thereof.

26.4.5. "Spinning off" or "spinning out" shall mean the removal of the leading competitor from the track, to the inside, by applying sustained and deliberate pressure to the inner rear area of his vehicle. It should be noted that spinning of is a quick almost instantaneous action that allows the competitor executing the spin to proceed in the race without losing his place. When the attempt at spinning is not immediately successful the competitor attempting the spin shall back off;

26.4.6. "Passing manoeuvre" shall mean the coming together of vehicles caused by one competitor passing or attempting to pass another competitor. A "passing manoeuvre" shall not include "contact," "bumping," "shunting" or "spinning off."

26.4.7. "Accident " shall mean a racing incident / collision between one or more vehicles and or any structure on the track; and

26.4.8. "Incident" shall mean spinning out due to loss of control, oil spillage, breakages or technical failures such as a light malfunction or incorrect use of flags by officials.

26.5. The following applies to <u>all styles</u> of racing: -

26.5.1. During the **<u>first lap</u>**: -

26.5.1.1. The non-contact rules will apply; assign manoeuvres are permitted;

26.5.1.2. An accident / incident that causes a disadvantage to other competitors, will automatically cause the race to be stop restarted;

26.5.1.3. If a competitor is spun out by another competitor the race will be restarted;

26.5.1.4. A competitor deemed to be responsible for such an accident or incident will be sent to the back of the grid by the Clerk of the Course;

26.5.1.5. Should a competitor that competes in a class that does not require an operational clutch spin out and remain on the circuit or partially on the circuit the safety flag procedure shall be invoked. The offending competitor shall be placed at the back of the grid. OT19, OT20 above apply; and

26.5.1.6. These first lap regulations shall apply until all the competing competitors have completed the first lap or until those who have not yet completed the first lap have been passed by the leaders, thus lapping them.

26.5.2. After the first lap all racing shall proceed in accordance with the general regulations in OT25 above as read with the regulations applicable to overtaking and lapping set out in OT27. Further racing shall be strictly in accordance with one of the driving styles mentioned above and set out in detail below.

26.5.3. Where a competitor's car is damaged in a first lap incident, the COC at his discretion may allow the competitor 5 minutes repair time.

26.6. The following applies to **non-contact** racing:

26.6.1. Only non - contact passing manoeuvres are permitted;

26.6.2. A competitor may not maintain contact with or push a vehicle in front of his own during a race.

26.6.3. No contact will be permitted.

26.6.4. The Clerk of the Course shall exclude competitors who spin other competitors off.
26.6.5. Once another competitor has the nose of his car past your door post in a race, it should be accepted that he has passed you and you may not interfere with him until you both have passed the next corner.
26.6.6. No contact, bumping, or shunting is permitted at the end of the straight upon entering the corner. Passing manoeuvres and non-contact shall however be permitted.
26.6.7. No contact is permitted going into corners.
26.6.8. Unsporting spinning off is not permitted. Unsporting spinning off is defined as and is punishable with exclusion and/or a load up instruction.
26.6.8.1. Deliberate spinning off where the competitor executing the spin is clearly able to outrace the competitor being spun; Fill up positions
26.6.8.2. Situations where attempts to spin have not been successful and the competitor attempting the spin continues to push the competitor ahead of him, especially when the pressure is being exerted on the body, between the front and rear wheels (as opposed to the usual contact area of the rear fender area); and
26.6.8.3. Pushing the competitor into the barrier walls/fence.

OT27 <u>OVERTAKING AND LAPPING.</u>

27.1. The following shall apply to overtaking: -
27.1.1. The leading competitor may not change direction more than once down the straights. On tar the leading competitor shall stay either on either inside or outside once he has passed the demarcation line going into the corner;
27.1.2. The corners as well as the approach and exit zones thereof may be negotiated by the competitor in any way they wish, within the limits of the track and the constraints imposed by these regulations;
27.1.3. Overtaking, according to the possibilities of the moment, may done on the inside or outside;
27.1.4. When a competitor has been passed in a corner, he will not interfere with the competitor who has passed him down the first straight they encounter. The passed competitor may challenge for the lead within the ambit of these rules from the next corner;
27.1.5. When a competitor has been passed down a straight, he will not interfere with the competitor who has passed him going into the first corner they encounter. The passed competitor may challenge for the lead within the ambit of these rules from the next corner;
27.1.6. If the passing competitor is on the outside the competitor being passed must adjust his race line when he exits the corner so that the passing competitor has sufficient space on the clear race line to pass down the next straight; and
27.1.7. If the passing competitor is on the inside when approaching the corner the competitor being passed shall leave sufficient room on the inside for the passing competitor. He may not turn in on the passing competitor.

27.2. The following shall apply to races being held up unnecessarily: -
27.2.1. The competitor who is holding up the race unnecessarily shall receive the blue flag; A competitor deliberately holding other competitors up by stretching the distance between the front and rear competitors shall be send to the back of the grid. Officials must not start a race if the field is unnecessarily drawn out by a competitor.
27.2.2. Such competitor shall <u>race his usual race line and refrain from defensive tactics</u>;
27.2.3. If the competitor's actions still hold up the competitor intent on passing the Clerk of the Course shall take action against the leading competitor.

27.3. The following regulations shall apply to the lapping of another competitor: -
27.3.1. <u>Generally</u>:

27.3.1.1. If a competitor is about to be lapped**,** he shall receive the blue flag to indicate that he is about to be lapped;

27.3.1.2. Any competitor, who does not take notice of the blue flag, may be penalised by the Clerk of the Course. Systematic or repeated offences may result in exclusion from the race.

27.3.1.3. The competitor who is a lap behind the leader shall not interfere with or race against the leading competitors.

27.3.1.4. The competitor being lapped shall not interfere with or obstruct the faster competitor at all.

27.3.1.5. If the passing competitor is on the outside the competitor being passed must adjust his race line when he exits the corner so that the passing competitor has sufficient space on the clear race line to pass down the next straight.

27.3.1.6. If the passing competitor is on the inside when approaching the corner the competitor being passed shall leave sufficient room on the inside and shall exercise care so that he does not himself spin off and hinder the passing competitor.

27.3.2. The competitor who is to be lapped shall stay on either the inside or outside once he has passed the demarcation line going into the corner.

OT28 REPAIRS AND MAINTENANCE.

28.1. The Clerk of the Course, at his discretion, may allow a competitor 5 minutes repair time for a first lap incident. Other competitors may not circulate the track while 5 minutes repair time is allowed to a competitor they will stop at the start line.. Repairs should not take place on the tar section of the circuit unless allowed inside the pit gate.

28.2. Marshals are, as part of their cleaning up duties, authorised to remove loose and flapping body panels, irrespective of the laps run or remaining. No one is allowed to bend pipes and the like during a race. This is considered repairs and is not permitted. Mechanics and crew may not touch a race car on the track. No outside assistance, is allowed.

28.3. The decision of the Clerk of the Course in instances such as these is final.

OT29 STOPPING OF A VEHICLE DURING THE RACE.

29.1. This regulation does not apply to the situation where a competitor spins out, is spun out or looses control and brings his vehicle to a standstill momentarily to regain control.

29.2. A competitor wishing to leave the race shall signal his intentions in good time and is responsible for ensuring that the manoeuvre is carried out safely and as near as possible to the point of exit to the infield.

29.3. Apart from the competitor himself - and in exceptional cases, the competent officials, nobody is allowed to touch a stationary vehicle under penalty of exclusion from the race.

29.4. A competitor shall not push his vehicle along the track or push it across the finishing line, irrespective of his opinion about the safety of such step.

29.5. Any competitor stopping on the circuit or its verges, whether voluntarily or involuntarily (such as through stalling) shall remain there until it is safe to move as directed by an official. Competitors may not remove their crash helmets and/or their safety belts unless instructed to do so by the Clerk of the Course or Flag Marshall.

29.6. Vehicles that have spun off or have stopped on the edge of the track must be removed to the inside of the circuit if they are not able to continue racing in the particular race immediately.

29.7. Any competitor who stops his vehicle of own accord shall be deemed to have withdrawn from the race and shall not be permitted to re-join the race at any stage or score points, irrespective of the number of laps to be run.

29.8. Once a competitor gets out of his vehicles he is considered a having withdrawn from the race.

29.9. Any competitor who has stopped his vehicle (as set out in this rule) shall not re-join the race at any stage and shall not score points.

29.10. No repairs may be carried out on the infield or the track.
29.11. The replenishment of vehicles on the track or infield is prohibited as the competitor has withdrawn and cannot benefit from any subsequent stoppage.

OT30 WITHDRAWAL AND RETIREMENT FROM A RACE.

30.1. Competitors who are unable to participate in a race or event must inform the Paddock Marshall as soon as possible, stating their reason for withdrawal (refer GCR 110 ii). They may be required to sign a form declaring such withdrawal / retirement.
30.2. Once a competitor/ vehicle has/has been retired or withdrawn from a particular race, he/it may not re-join that particular race.
30.3. Any vehicle involved in a collision or accident, during either racing or practice, may be halted by the Clerk of the Course, chief Scrutineer or Technical Consultant for examination by the Scrutineers. If the vehicle is not in a fit condition to continue, it shall either: -
30.3.1. Be repaired to the satisfaction of the Chief Scrutineer or his appointed deputy;
30.3.2. Be impounded until the time for protests, regarding driving conduct in the race concerned, has elapsed; or.
30.3.3. Removed from the course.
30.4. A vehicle that was involved in an accident, that caused death or bodily injury, may not be removed without the written authority of the Clerk of the Course. The stewards of the meeting must impound the vehicle.
30.5. A competitor who withdrew from every race in the heats shall not be permitted to start the final race.

OT31 RESTARTING OF RACES THAT WERE STOPPED.

31.1. If the first lap of the race has not been completed: -
31.1.1. The original start shall be invalid and the race shall be restarted in the original starting positions, unless the Clerk of the Course has taken action against a competitor, the competitor causing the stoppage may be penalised.
31.1.2. The race shall be considered a new race and the full amount of laps shall be run.
31.1.3. Competitors who stalled between coming onto the track for the race and the first start shall be entitled to join the race provided they remained seated in their vehicles and managed to start the vehicle without assistance. Vehicles that do not require assistance may restart the race. **Under the discretion of the COC.GCR 273 and 274.**
31.1.4. Classes that does not have clutches shall be allowed a push start.
31.1.5. A race shall only be restarted as a new race once. If a further incident takes place in the first lap of the restarted race the race shall be stopped but shall restart from the second lap with the vehicles in single file – see OT 31.2 below.
31.2. If one or more laps had been completed by the leader: -
31.2.1. The race shall restart with the competitors in single file – see OT 31.7 below.
31.2.2. Only the competitors whose vehicles crossed the finish line on the previous lap and were able to reach the holding point at the start line shall be permitted to restart the race. However competitors who could not reach the holding point due to the deliberate or accidental actions of another competitor during an incident that lead to the stoppage shall be permitted to restart, subject to the Clerk of the Course's obligation to take action against the competitor who caused the incident as he may not be allowed to restart the race.
31.2.3. The number of laps in the second part of the race shall be the number required to complete the original number of laps. The lap on which the incident occurred shall fall away – the race being shortened by the lap on which the incident occurred.
31.3. The complete starting procedure as set out elsewhere in these regulations shall apply to all restarts, except that the green flag shall be used to restart the race in situations where one or more laps had been completed. Where the race is stopped in the first lap

the start flag shall be used, as it is a completely new race. The second or further formation lap shall not be included in the number of laps to be run.

31.4. No refuelling, adjustments or replenishments will be allowed. Competitors are therefore urged to ensure that they commence races with sufficient fuel, oil, and water.

31.5. If a specific race has to be restarted more than twice due to a deliberate infringement by the same competitor(s), as deemed by the Clerk of the Course, the said competitor(s) shall be excluded from further participation in that particular race. Restart positions will be taken as per the relevant positions of competitors concerned, prior to the incident, with the guilty party having been excluded.

31.6. The Clerk of the Course may not declare the race complete. It must be restarted even if there is only 1 lap to run, unless under exceptional circumstances.

31.7. Once a race is stopped the scorers shall revert to the positions of the competitors as they were on the track at the end of the lap before the incident (go back one lap). The competitor who caused the stoppage shall forfeit his position on the track and shall be deemed to be the last on track. If more than one competitor caused the stoppage they shall be placed behind the last competitor who was not involved in the incident, in order of their respective positions. Vehicles that have been lapped shall remain in their positions in the field. The object of this rule is to preserve the exact order the vehicles had on the track. Competitors who were about to lap back markers shall not use this opportunity to gain an advantage by lapping the competitor and shuffling the field to have the field in the order in which they would placed had the race been finished. By way of example – if the first and second placed competitors have lapped the last placed competitor, the last placed competitor shall remain in third place on the track.

31.8. The lap scorers shall determine the positions as soon as circumstances permit and furnish them to the starter without delay.

31.9. **Clutchless vehicles (midgets, micro-midgets and sprint cars) may be push started. All the vehicles in all other classes should be fitted with a clutch and be able to start with starter motors. The option of a push start should be offered to the competitor whose vehicle will not start upon penalty of racing from the back of the grid. Please refer to OT 20. This regulation does not change the basis for initiating the red flag as set out elsewhere in these rules. Clerks of the Course shall not initiate the red flag to assist a stalled competitor.**

OT32 DETERMINATION OF THE FINISH OF A RACE.

32.1. GCR 272 applies.

OT33 NUMBER OF LAPS AND THE NUMBER OF COMPETITORS IN RACES.

33.1. The SR's for each event shall deal with this issue. The SR's for an event may not override series or championship regulations.

33.2. Maximum recommended number of starters in the final: Tar –**26.**

33.3. A guideline for the maximum number laps in any heat is two more than the number of vehicles that started the race and 5 more in the final.

33.4. The following is a guideline for the maximum number laps in any final: -

33.4.1. If less than the recommended number of competitors start: -

33.4.1.1. At least five more than the number of vehicles that started the race.

33.4.2. If the recommended number or more competitors start: -

33.4.2.1. Tar circuits – 20 laps

OT34 SCORING.

34.1. Lap scorers shall ensure that they record each race in such a manner that they can at any time provide other race officials with information such as the precise order vehicles

occupied on the circuit as well as their classification in the race concerned. Lapped traffic shall be suitably marked.

34.2. Where a point penalty is incurred the original points Penalty immediately. 3 points is the norm. The following abbreviations shall be inserted on the result sheets:

34.2.1. DNS: to denote that a competitor did not start a race. In order to be classified a starter the competitor has to receive the start flag. In other words if a competitor withdraws at any stage prior to the start flag he will be scored as a DNS

34.2.2. DNF: to denote that a competitor did not finish a race due to a breakdown or as a result of his own decision to withdraw from the race;

34.2.3. WD: to denote that a competitor withdrew from a specific race;

34.2.4. WE: to denote that the competitor withdrew from the event at the event;

34.2.5. DNA: to denote that a competitor who had entered for an event did not arrive for the event;

34.2.6. OD: to denote that a competitor was halted by the Clerk of the Course due to a perceived dangerous defect on his vehicle;

34.2.7. RD: to denote that a competitor did not complete a race due to race damage sustained;

34.2.8. EXR: to denote that a competitor was excluded from the race;

34.2.9. EXE: to denote that a competitor was excluded from the event; and

34.2.10. PP (n) – x: to denote that the competitor received a point's penalty. The "n" denotes the race in which the penalty was incurred and "x" denotes the amount of points to be deducted. This annotation shall be made in the margins alongside the competitor's name.

34.2.11. 2017 REGIONAL AND NATIONAL CHAMPIONSHIPS.

a) REGIONAL CHAMPIONSHIP.

An individual Regional Championship shall be run in each region to determine the Regional Champions in the classes where Regional approval has been obtained from MSA. The dates will be shown on MSA oval calendar. Points will be scored as follows:20,18,16,15,14,13,12,11,10 to 1. All finishers shall score at least 1 point. An additional 5 points will be scored for appearance after a car has appeared on the circuit on the day of the race. An average amount of six cars per class, are to compete in the four legs of the Regional championship. In the Northern region competitors will run a dual championship being the Regional Championship and the National Championship in the same event. All 4 events will count towards the Regional Championship. Only Northern region competitors will score Regional Championship points in the National championship events in their positions achieved, excluding competitors from other Regions from the Northern Regions Championship.

i) All classes will qualify as per the National criteria. Points from 10 to 1 will be allocated for qualifying. All competitors who qualified will score at least 1 point. The qualifying time will determine the grid position for the first race. The second race will be an invert of the first race. All drivers will draw for position for qualifying in the first event. Qualifying order will by means of a draw at the events and the draw will take place as per the sign on register. Total points for the first two heats will then place all the competitors on the grid for the final heat.

Six cars per class on average over the championship will be required to determine a Regional Champion.

b) NATIONAL CHAMPIONSHIP.

ii) In all the National events, competitors will be placed on the grid by qualifying. All competitors will be allowed to compete in the National Championship events. An average amount of 10 cars per class will be required to compete in the four legs of the National Championship. Qualifying order for the first event will be by draw. Points will be awarded from 10 to 1 point for qualifying. All qualifiers will score at least 1 point. All competitors will be awarded 5 appearance points, per event, for competing in the National Championship, will once again be on a draw. The order will be as per the sign on register, with no points in the others. The second heats grid position will be determined by an invert of the first heat. The final will be based on the total points scored in heat 1 and heat 2.

iii) Competitors must complete in all 4 events. All 4.

OT35 <u>CLASSIFICATION OF A FINISHER.</u>

35.1. For a competitor to be classified as a finisher, he must cross the finish line on the racing surface with his vehicle running under its own power and receive the chequered flag. No outside assistance is allowed. If a competitor looses control of his vehicle and crosses the finish line on the infield or outfield and is able to regain control of his vehicle before the end of the straight he shall forfeit 2 positions in the classification. If he does not regain control and does not return to the track before the end of the straight he shall be placed last. A competitor who is spun or bumped off the track on the last lap, in contravention of the rules, shall be reinstated where he was prior to the spin or bump, provided the culprit is penalised as well. If another competitor has passed the feuding competitors while they are involved with the spin or bump, the passing competitor shall not be prejudiced by the reinstatement. In practical terms it may mean that two competitors are scored with the same position.

35.2. The provisions of GCR 274 shall only apply if the point at which a race is determined as being complete is altered by the race officials, after having afforded competitors a hearing or receiving a protest as the case may be. The provisions are however modified as follows:

35.3. Where there is a time constraint. The results will then be determined as per OT 35.3.1 and 35.3.2.

35.3.1 Competitors will be classified according to:-

Firstly – the number of laps that they completed and;

35.3.2 Secondly - the order in which they passed the start / finish line for the last time before the incident/accident. The competitor causing the stoppage will not score any points. Such competitor will also be restart behind the last competitor in the race.

35.4. When applying the above rule race officials shall have regard to the prejudice that others could suffer as a result of altering the point at which the race is deemed complete. They are empowered to award an aggrieved competitor the points achieved by the culprit only if the actions of the culprit warrant an exclusion from the race or event.

OT36 <u>DEAD HEATS AND TIES.</u>

36.1. Competitors, who are adjudged to have dead heated for a place in a particular race, shall be awarded an equal share of the cumulative total of the points they would have scored had they finished one ahead of the other. The competitor finishing behind those who have dead heated shall be awarded the points for the position he would have achieved had the preceding competitors finished one ahead of the other.

36.2. In the case of a dead heat for the first place in respect of the final race of an event, the prizes for the first and second place will be divided equally between the two competitors. Dead heats for other positions will be dealt with similarly. This only applies if the prizes are determined by the race placing and not points scored. An award will be shared.

36.3. A tie in respect of qualifying will be broken by reference to the second and then third best times. If the tie still persists preference will be given to the competitor who posted the time first.

36.4. A tie for points occurring **prior** to a final for an event will be broken by taking into account the competitors' highest placing obtained during both the first two heats of the event. If this does not resolve the tie reference shall be made to qualifying, if applicable. If this does not resolve the tie the competitor who first obtained the highest placing shall take preference. If this does not resolve the tie the competitors shall draw.

36.4.1. A tie for points occurring after a final of an event will be broken by taking into account the highest placing obtained in the final of the event.

OT37 POST-EVENT PROCEDURE.

37.1. The Clerk of the Course or Technical consultant is specifically empowered to order that any vehicle that, in his opinion, does not conform to fuel or other specifications is placed in Parc Ferme and subjected to post event scrutiny.

37.2. He may require that the vehicle be stripped with the cost being borne by the competitor. Re-assembly to be done by the competitor. The provisions of GCR 254 shall apply.

37.3. The results of the event shall be posted upon the notice board, or such other place as described in the SR's, for a period of thirty minutes: -

37.3.1. Within thirty minutes of the completion of the last race of the event; or

37.3.2. The time stipulated for the commencement of the prize giving function, whichever is the later.

OT38 COMPLIANCE WITH ENGINE, FUEL AND WEIGHT SPECIFICATIONS.

38.1. The provisions of GCR 254 shall apply.

38.2. The competitor and a maximum of two of his pit mechanics shall, under the direction and scrutiny of the technical team and the scrutineers, carry out the stripping.

38.3. The capacity of an engine shall be limited to the measurement of the bore and stroke only. The method of the calculation stipulated in GCR 37 shall apply. Each cylinder shall be measured individually and the engine capacity shall be the sum of such individual volumes.

38.4. Where regulations specify the use of unaltered standard parts the scrutineers/technical team shall be entitled to remove suspect parts and compare them to parts that are available from the supplier of such parts. Parts so removed shall be sealed in containers or bags and shall only be opened at the time and place advised to the competitor. The competitor will be deemed to be suspended for as long as it may take the technical team or scrutineers to establish whether or not the parts are standard. The technical team and the scrutineers shall act without delay and deal with the legibility or otherwise of the

parts expeditiously. In respect of all engine and parts used the onus of proof in respect of the legality of the part or engine remains that of the competitor. If the competitor is not able to prove the legality of the part or engine to the satisfaction of the Technical Consultant the part will be impounded and delivered to MSA. A formal hearing will be convened within 21 days of the Wednesday following the event to determine the legality of the part. Regulations regarding representation per GCR's apply.

38.5. Samples of fuel shall be taken at the discretion of the Clerk of the Course. Please refer to the guidelines in respect of fuel sampling as contained in GCR 240. All competitors must declare any additives added to their fuel on entry of the event venue when signing on.

38.6. The organisers, the duly appointed technical consultant (or failing him the chief scrutineer) and the Clerk of the Course, acting in concert, shall be entitled to instruct a competitor to swap to a control fuel as follows:

38.6.1. The swapping procedure shall take place in a controlled environment and may, notwithstanding any regulation to the contrary be conducted on the infield of a circuit;

38.6.2. The competitor shall drain all fuel from his vehicle under the supervision of a duly appointed official;

38.6.3. The organiser shall have a supply of fuels complying with these regulations as well as any permitted additives available;

38.6.4. The competitor should, inform to the Clerk of the Course as to what additives he added to his fuel beforehand.

38.6.5. The competitor shall be entitled to elect whether or not he wishes the drained fuel to be bottled for testing purposes at the time of draining and shall be barred from exercising his right to have the fuel tested if he does not make such an election at this point;

38.6.6. All details of the procedure shall be properly documented and countersigned by the official and the competitor concerned;

38.6.7. The competitor shall be liable for the reasonable cost of the fuel and additives supplied and non-payment of these costs shall constitute sufficient grounds for the refusal of the entry of the competitor from the next or similar event;

38.6.8. The competitor shall also be entitled to recover the fuel or balance of the fuel drained from his vehicle as the case may be.

38.7. In respect of compliance with minimum weights the following:

38.7.1. Competitors are reminded that vehicles can be checked at any time and it is therefore advisable to ensure that adequate compensation is made for the loss of fluids during an event.

38.7.2. All checking shall be done on the authority of the duly empowered race officials only and shall be properly supervised and recorded.

38.7.3. The competitor whose vehicle is to be weighed shall be required to declare whether or not the vehicle is intact when presenting the vehicle for weighing.

38.7.4. Competitors who claims that they have lost parts of their vehicle in a just-completed race shall be afforded an opportunity to indicate which portions have been lost. They shall be required to satisfy the chief scrutineer and / or the technical delegate that the parts had been lost in the race just completed. Once the said officials are satisfied they shall be entitled to remove a similar part from elsewhere on the vehicle and weigh the part. The weight of the part shall be added to the weight of the vehicle. If the part so indicated do not

make up the weight needed to have the vehicle equal the minimum weight or the officials are not satisfied that the part was lost in the race the competitor will be deemed to have been underweight.

38.7.5. A vehicle that had sustained race damage, as set out above shall be allowed a kilogram in respect of the weight limit itself as well as the criteria regarding the imposition of penalties. All other vehicles shall comply.

38.8. The provisions of GCR 256 in respect of incidental findings shall apply.

38.9. The scales provided by the organisers on the day will be accepted as correct and will be the norm for the day. All vehicles must comply to the required weight OF THEIR RESPECTIVE CLASSES on the day.

OT39 FIRE EXTINGUISHERS.

39.1. A minimum of 16 fire extinguishers shall be available for use on track before the start of an event.

39.2. The extinguishers shall all be certified and in working order. The extinguishers utilised shall be of the stored pressure type containing ABC powder type and shall have a minimum capacity of 9 kg. The extinguisher shall furthermore be serviced by an SABS approved service provider and shall bear proof of such service.

39.3. These shall be positioned as follows: two in the pits, 1 at each corner (4 in total), two in the centre of the track. The remaining extinguishers shall be on board a rescue or recovery vehicle to facilitate swift deployment.

39.4. Circuits that have separate pit areas, at opposite sides of the track, for different classes of vehicles shall be required to place two extinguishers in each such pit area as well. The amount of extinguishers required shall also increase accordingly.

39.5. Extinguishers used during the event shall be replaced from reserve supplies before the event may continue.

OT40 RECOVERY VEHICLES.

40.1. A minimum of two breakdown vehicles, well equipped with a suitable drag-off rope/line, must be in attendance at all times.

40.2. These vehicles shall be equipped with properly mounted push bars set up at the mid-point of the midget class rear bumper.

40.3. For regional, national, national championship or international events, the above requirement shall be increased to three and must remain as such for the complete duration of the event.

OT41 PENALTIES.

41.1. Any breach of these regulations, the GCR's, the SSR's or the SR's for any competition shall be penalised by the appropriate official whether or not any penalty is specified for such breach.

41.2. The Clerk of the Course shall be entitled to impose one or more of the following penalties for contravening a particular rule for which no specific penalty is prescribed:

41.2.1. A reprimand;

41.2.2. A points or time penalty;

41.2.3. The amendment of the classification with the culprit being moved down the classification.

41.2.4. A fine up to a maximum of R10 000; or

41.2.5. The exclusion of a competitor

41.2.6. A load up instruction – which requires the competitor, his family and crew to leave the venue.

41.3. The penalties listed below shall be imposed by the Clerk of the Course (or technical consultant in respect of technical infringements) once it has been established that a competitor has contravened these regulations. The Clerk of the Course may in addition fine the competitor or request further action by the Stewards or MSA if the circumstances warrant same. The penalties are;

OFFENCE	PENALTY
(As detailed below or in applicable rule)	(To be applied – subject to the applicable rules)
41.3.1. Entering an event without a valid oval club membership.	Withdrawal of licence.
41.3.2. Failing to present a vehicle for scrutiny or attending to documentation	Exclusion from the event
41.3.3. Failing to present a vehicle for scrutiny or attending to documentation within the required time	Placement at the back of the grid for heats not determined by the results of other heats or A DEDUCTION OF 5 POINTS.
41.3.4. Failure to attend drivers briefing	Exclusion from the event or placement at the back of the grid for heats not determined by the results of other heats or A DEDUCTION OF 5 POINTS.
41.3.5. Contravention of regulations concerning race wear	Exclusion from the race concerned, increasing to exclusion from the event.
41.3.6. Ignoring flags deployed by the Clerk of the Course	Placement at the back of the grid of the race concerned to exclusion from the race or event for repeated or serious offences
41.3.7. Pushing or driving a vehicle in a direction other than in the direction of the course during racing or practicing	Exclusion from the race or event
41.3.8. Changing drivers or permitting other persons to race his race car	Exclusion from the event
41.3.9. Passing another competitor on the assembly lap, jumpstarting, failing to slow down into the last corner or not maintaining formation lap pace prior to start	Placement at the back of the grid of the race concerned to exclusion from the race or event for repeated or serious offences. The penalty may be applied to the next race.
41.3.10. Assuming incorrect grid position	Placing at the back of the field
41.3.11. Failure to be seated at the wheel throughout the whole time a vehicle is being push started	Placement at the back of the grid of the race concerned to exclusion from the race or event for repeated or serious offences
41.3.12. Failure to obey an official instruction while vehicle is being pushed started	Exclusion from the race or event

41.3.13. Passing another competitor whilst under safety (yellow flag) or not complying with safety flag regulations	Placement at the back of the grid of the race concerned to exclusion from the race or event for repeated or serious offences. The offending competitor may be placed behind the aggrieved competitor in the classification. The offending competitor may also be placed in the position he held at the time of the offence.
41.3.14. Being responsible for an incident that causes a race to be run under caution or stopped	Placement at the back of the grid of the race concerned to exclusion from the race or event for repeated or serious offences
41.3.15. Unauthorised replenishment of vehicles on the infield or track or carrying out repairs on the track	Exclusion from the race
41.3.16. Being responsible for damage to another competitor that rendered that competitor unable to participate or compete further in that race or the event.	Placement at the back of the grid of the race concerned to exclusion from the race or event if the other competitor is unable to participate further and the **actions** were found to be contrary to race regulations
41.3.17. Responsibility for an accident in the first lap that leads to a stoppage of the race	Placement at the rear of the grid and exclusion for continued offences of the same type
41.3.18. Spinning off of a competitor during the race when not authorised in the rules or spinning off outside the spinning zone	Placement at the back of the grid of the race concerned if the race is still being run. When the race is complete a penalty ranging from the amendment of the classification so that the culprit is placed behind the aggrieved competitor to exclusion from the race or event for repeated or serious offences
41.3.19. Disorderly conduct during a race or the contravention of driving regulations.	Placement at the back of the grid of the race concerned if the race is still being run. When the race is complete a penalty ranging from the amendment of the classification so that the culprit is placed behind the aggrieved competitor to exclusion from the race or event for repeated or serious offences
41.3.20. Allowing a party other than the competitor or authorised official touching a competing vehicle during a race	Placement at the back of the grid of the race concerned, if the race is still being run. If the offence is brought to the attention of officials after the completion of the race – exclusion.
41.3.21. Pushing a competing vehicle across the finish line or along the track	Imposition of a meaningful 5 point penalty increasing to exclusion from a race or event for serious or repeated offences.
41.3.22. Failure to furnish the Clerk of the Course with an incident report	Exclusion from the race
41.3.23. Contravention of technical regulations or specifications where an advantage is gained. Refer GCR 176 (i)(a) and (b). The use of illegal fuels or fuel additives or the contravention of technical regulations in	As a minimum - Exclusion form the event. Depending on the nature of the irregularity further penalties ranging from exclusion from the results of the previous 3 events forming part of the same series to a 6-month ban from racing.

respect of engines and minimum weights.	
41.3.24. Contravention of technical regulations or specifications other than engine limitations and fuel specifications where an advantage is not gained. Refer GCR 176 (i)(a) and (b).	A fine of not less than R500
41.3.25. Refusal to subject a vehicle to post event scrutiny or failure to strip vehicle when so instructed or to provide fuel samples or to swap fuel when so instructed	Exclusion from the event
41.3.26. Utilising an unmarked or illegal tyre	Exclusion from the event
41.3.27. Having consumed alcohol or other illegal substance	Please refer to MSA Anti-doping code
41.3.28. Disorderly conduct as set out in GCR 172. This includes disorderly conduct by the entrant or his pit crew.	Suspension of the competitor for six months for a first offence, irrespective of whether the competitor caused the incident or retaliated. Second and further offences should be penalised by doubling up the previous sentence. As a practice guide, officials dealing with these issues should ensure that the competitor, his vehicle and crew ARE loaded up and leaves the premises.
41.3.29. Forcing a yellow or red flag	Placement at the back of the grid. Upon completion of the race a hearing to establish the facts. If guilty – load up.
41.3.30 Displaying or pointing a fire arm anywhere on the premises.	Exclusion from the event and a minimum of six months to 1 year ban.

IMPORTANT NOTICE.

- **The stated penalties are listed for the convenience of the competitors and officials alike but do not override any other penalties contained elsewhere in these rules and regulations, in the sporting regulations or in the GCR's.**

41.4. The Clerk of the Course or the technical consultant shall be entitled to impose a penalty for technical infringements without the need for a hearing in terms of GCR 175.

41.5. The Clerk of the Course shall similarly be entitled to place a competitor at the back of the grid, exclude him from a race by means of the black flag and warn him by means of the black and white flag without the need for a hearing where this sanction is called for in the start and race regulations.

41.6. The Clerk of the Course shall be entitled to impose penalties without the need for a hearing if the competitor refuses or neglects to report to the Clerk of the Course. He shall be similarly entitled if the competitor departs from the hearing without waiting for the Clerk of the Course's decision or subjects him to abuse. In cases other than where the competitor was excluded from a race due the use of the black flag, the Clerk of the Course shall communicate his decision and penalty to the competitor verbally. He shall be required to put same in writing as soon as circumstances permit, but shall do so immediately he is advised of the competitor's intention to protest that decision.

41.7. The Clerk of the Course shall specifically be empowered to change a warning flag into an exclusion from a race or heat after the completion of the race or heat in question. Similarly the Clerk of the Course shall be able to take action and impose any penalty provided for in these regulations against any competitor irrespective of the completion of the race concerned and irrespective of whether or not the competitor received, saw or acknowledged any such signal.

41.8. The penalty for dangerous driving may be reduced if the offence relates to an isolated incident. The penalty for acts of dangerous driving shall be imposed even if such acts were involuntary.

41.9. The penalty for failing to attend competitors briefing may only be imposed if such a briefing is specified in the SR's for the event.

41.10. The stewards of the meeting shall be authorised to increase penalties, fines, and periods of suspension for serious violations of the rules by a competitor by at least 100%. Fighting and the abuse of officials shall be considered to be such violations. It is however that the Clerk of the Course discharges his duties in respect of such incident to the full extent of his powers. Stewards should bear in mind that if the Clerk of the Course has not discharged his dut, their actions as stewards may be unlawful and they, the stewards, expose themselves to disciplinary action.

41.11. Any penalty under these regulations shall not prevent any further appropriate action by MSA. Race officials are reminded that they have extensive powers on the day and as such matters that are not dealt with by them on the day of the event will not be investigated by MSA unless the ability of the official who could or would not deal with the incident is not also investigated by MSA.

41.12. All penalties imposed by the Clerk of the Course shall be posted on the notice board as soon as possible after the hearing with the competitor concerned.

IMPORTANT NOTICE

COMPETITORS ARE ALLOWED REPRESENTATION AT ALL FORMAL HEARINGS. SUCH REPRESENTATION TO BE PER THE LAST PARAGRAPH OF GCR 212.

OT42 PROTESTS AND APPEALS.

42.1. There are 3 levels of resolving a grievance concerning racing conduct and results being: -

42.1.1. A query to the clerk of the course; (Incident report).

42.1.2. A protest to the stewards; and

42.1.3. Application to Appeal to MSA

42.2. Querying from the clerk of the course

42.2.1. A competitor shall be entitled to query an incident or decision with the Clerk of the Course during the event by submitting a complaint is writing. (Incident report).

42.2.1.1. The Clerk of the Course shall decide how and when to deal with the query, which decision shall be final.

42.2.2. Once the event is complete a compulsory 30 minute cool down period shall apply. Thereafter queries regarding driving conduct and results shall be made to the Clerk of the Course within 30 minutes.

42.2.3. These queries shall be logged and shall be resolved as swiftly as possible.

42.2.4. The regulations in respect of hearings and representation shall apply.

42.2.5. The Clerk of the Course shall advise, record the queries and shall record their decisions in writing. The record of the queries shall be posted on the notice board and shall be regarded as due notice of their findings/decisions.
42.2.6. The Clerk of the Course may postpone a hearing for presentation of video footage or oral evidence.
42.3. Protests
42.3.1. Competitors are referred to Parts IX and X of the MSA Handbook.
42.3.2. No protest can be made regarding any sporting matter unless the query procedure has been followed. Protests regarding technical matters are not affected.
42.3.3. The time limits for the lodgement of protests shall notwithstanding the contents of the MSA handbook be as follows:
42.3.3.1. A protest concerning any aspect of the track or instructions to the competitors – within 30 minutes of signing on for events before his arrival and within 15 minutes thereafter
42.3.3.2. A protest against the acceptance of an entry - within fifteen minutes of the aggrieved competitor becoming aware of the entry.
42.3.3.3. The protests described in GCR 200(ii) – within 10 minutes of the posting of the grid concerned.
42.3.3.4. A protest concerning the decision of the Clerk of the Course – within 30 minutes of the record of queries being posted.

OT43 CARD SYSTEM.

43.1. Any competitor who is excluded from a race for any driving conduct related infringement shall receive a yellow card warning from the Clerk of the Course. A second yellow card offence shall receive a red card.
43.2. These penalties shall be recorded in the competitor's scrutiny book and shall be reported to MSA.
43.3. **A competitor who receives a red card for the first time shall be suspended from all forms of motorsport until 2 race meetings have been run at his home circuit for the particular class.**
43.4. Once the suspension is served the red card falls away and the competitor has a clean slate.
43.5. A second red card shall mean a 4 race meeting ban, a third an 8 meeting ban and so on.
43.6. A competitor who is serving a ban may not participate in any event of any status anywhere in the country.
43.7. A yellow card shall lapse after a competitor has participated without further incident in at least 50% plus one of the races (not events) held at his home circuit during the six months following the receipt of the yellow card.
43.8. It shall be the duty of the competitor to affix a 45 x 30 cm yellow sticker onto the outside (in relation to the track when racing) rear side window in saloon cars or the outside of the main wing in respect of open wheel vehicles.

OT44 VIDEO FOOTAGE.

44.1. In view of the high incidence of video recordings found at oval racing events race officials are more and more regularly confronted with the demand that video footage must be viewed. These demands are mostly made to implore the officials to act against a competitor. Conversely video footage is produced by

competitors in support of a demand that a penalty that was imposed must be reversed.

44.2. The Clerk of the Course shall refer all such footage to a television adjudicator. This adjudicator shall be a graded Clerk of the Course at regional and national championship status events. At other events he shall be a person well versed with the rules of oval racing, typically a retired driver. This adjudicator will be deemed to be a judge of fact.

44.3. The adjudicator shall view the footage in the presence of those affected and shall communicate his findings to the parties and to the Clerk of the Course. The findings of the adjudicator shall be final.

44.4. The Clerk of the Course shall thereafter act in accordance with the findings and may penalise the offending competitors.

44.5. Where footage is presented as part of the protest or appeal procedure the footage shall be viewed by the stewards of the meeting, tribunal or Court of Enquiry as the case may be. These parties are entitled to request the adjudicator to advise them.

44.6. Where clerks of the course or stewards are called upon to deal with unruly behaviour on track it is advisable that they ascertain whether or not there is video footage available prior to holding the hearing. Such footage often highlights the seriousness of the behaviour and generally places the sequence of events into perspective.

OT45 DECISIONS OF THE OFFICIALS.

45.1. Given the nature of the sport officials have to decide potentially contentious issues within split seconds, without the luxuries of video footage and replays.

45.2. Hence any decision made by the officials shall be deemed to be in good faith and unless a decision can be rectified by agreement between the parties (normally the aggrieved competitor and the culprit) any decision taken by the officials shall stand and shall not be protestable until the racing is complete.

45.3. No protest shall be permitted unless the aggrieved competitor has followed the query procedure above.

45.4. It is therefore possible that a competitor may be incorrectly penalised. Unfortunately it is not possible to legislate for human error and oval racing has to accept these as part of the sport just as many other sporting codes have to do.

45.5. In incidents where a thorough investigation of the facts / video evidence reveals that some other party is guilty – that party may be penalised.

45.6. Neither the Clerk of the Course nor the stewards shall be entitled to order the re-run of a race, irrespective of the incident, the damage suffered by the aggrieved competitor nor has the effect the incident on his standing in an event, championship or series. They shall however bear these factors in mind when taking action against the offending competitor.

45.7. The Clerk of the Course or the stewards may, after a hearing regarding an incident that they witnessed or was reported to them or was protested be entitled to alter the point at which a race was completed or award points to the aggrieved competitor to address such an incident. Please refer OT 35.2. To clarify this it must be understood that intervention of this kind must be reserved for offences/incidents where the innocent party has suffered prejudice and must be reflected by action against the transgressor, at least equal to the benefit gained by the aggrieved competitor. It would be appropriate for two or more competitors to have the same race result as a result after intervention by the race officials. Should such an intervention lead to a tie in points the competitor

who was penalised shall defer to the others. If the competitor who was elevated into a position of a tie as a result of this intervention he shall defer to the other competitor on equal points. It is stressed that this regulation is not meant to resolve incidents where no blame can be apportioned.

46. **Remuneration of officials: (Guideline only). To be negotiated with officials.**

46.1 Travelling (This include toll fees) R3.50 per kilometre both ways. This includes Toll

Fees.

47. **Documentation.**

Post event documentation should be forwarded to MSA on the Monday after the event. All fees related for any event shall be paid over to MSA by the Wednesday after the event. Late submission of documentation is subject to a fine by MSA.

48. **Day Licences.**

Day licences are available from MSA. These may only be issued on application from MSA on the day the license is required. Day licences are issued on a numerical system and if a number for the day license has not been issued by MSA, the license will not be valid and the competitor will not be covered by MSA medical insurance.