



## 2012 Specifications, Rules & Regulations

### JUNIOR RODS

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## 2012 Specifications, Rules & Regulations JUNIOR RODS

### 1. THE FORMULA.

This formula is designed to encourage young drivers to our circuits, to enjoy the atmosphere & thrills of driving on an oval.

The object of the racing in the Junior Rod formula is to complete the specified number of laps in the shortest time without contact with the other cars on the track. As it is a strictly Non-contact form of racing any pushing, nudging, spinning or baulking of the other cars will incur penalties from the Steward of the meeting. Points will be awarded to the finishing places and when accumulated these points will be the basis for a driver grading system. Those new to the racing or low points scorers will start at the front of the grid and will be required to have a car roof painted White. Drivers scoring points will move up the grading system to a Yellow coloured roof followed by Blue & then a Red roof. As you move up the grades your starting position on the grid will move back along the track, similar to a handicapping system. The Clerk of the course can at any time move you to another grade if he thinks it appropriate to do so.

Racing is in a clockwise direction on a clearly defined circuit with a separate infield. Any wheels passing over the demarcation lines or entering on to the grassed infield areas will mean that the driver will be penalised.

### 2. WHO CAN RACE.

1. All Junior Rod Drivers must apply for a Junior Rod licence which costs £30.00 for the year.
2. Once registered it then entitles you to pick your race number, subject to availability, and you will be issued with a copy of the Junior Rod Rules & Specifications.
3. At a meeting all Drivers must book in at the Pit office with their Log Book, where they will be given an entry ticket for themselves.
4. You cannot register mechanics for this formula.
5. You must be between 10 and 15 years of age to Race a Junior Rod – all drivers must retire on their 16<sup>th</sup> birthday.

### 3. WHAT TO DO NEXT.

1. Check through the fixture list for the Junior Rod fixtures and select a meeting or meetings.
2. Contact the Stockcar Office for a booking-in form which you must complete. Details about payment can be discussed with the Administrator.
3. Return the form to the Racing Administrator as soon as possible, as bookings are on a first come first served basis.
4. When the form has been processed you will be placed on to the booking system.
5. On arrival at the Stadium you must first book in at the pit office and pay any fees applicable.
6. You must then get the car Scrutineered and obtain the Passed Scrutineering Sticker which has to be displayed in a prominent position on the car.
7. Ensure you are familiar with the raceway flags and the rules of racing, as you are now ready to race and will come under all the Rules & Regulations, similar to all the other formulae.

### 4. ELIGIBLE CARS.

**Cars can be up to 1000cc – front wheel drive only.**

**Citreon:** AX and Saxo. **Fiat:** 127, Panda, Uno, Cinquecento and Seicento. **Ford:** Fiesta, early KA's. **Lancia:** Y10. **Nissan:** Cherry, Micra. **Vauxhall:** Corsa (*including Corsa C*), Nova, Tigra. **Peugeot:** 104, 106, 205, 206. **Renault:** R5. **Rover:** Mini, Metro. **Seat:** Ibiza, Arosa. **Skoda:** Fabia. **Suzuki:** Swift up to '89. **Talbot:** Simca, Imp. **Toyota:** Starlet.

For any car not on the list please ask Spedeworth. (NB Corsas may use 1000cc Nova Engine)

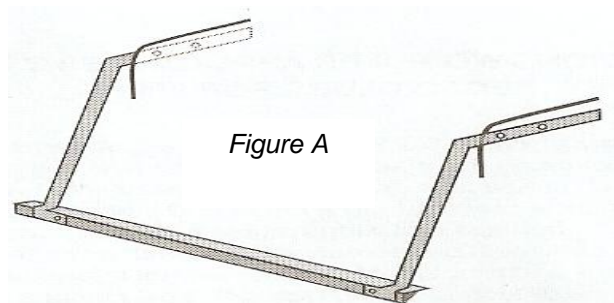
## 5. PRESENTATION OF CARS.

All vehicles used, i.e. saloons, hatchbacks must retain the manufacturer's original silhouette, i.e. no cut downs. If a hatchback is used it must be fitted with the original tailgate. Vehicles must be presented in a clean and tidy condition. All body panels, doors, bonnets and wings must be securely attached. Doors, bonnet and boot must be securely retained with quick release fixings. All glass must be removed. Bungee straps and rubber hooks alone are not adequate. If any of the above becomes detached during racing this may incur a penalty. Boot floor must remain as standard, if spare wheel is excessively corroded it may be removed but must be replaced with material no more than original thickness in flat steel. No cars shall be fitted with dumb irons, joists, tubes or other circular or rectangular section at the front, rear and sides of cars. Original steel bumpers must be removed. Integral plastic bumpers are permitted. Radiator or any other cooling system pipes that run through the driver's compartment must be made of metal and completely shielded from the driver. Ballast in any form is NOT permitted. Distributors must be fitted with a vacuum capable of working – no distribution protection is allowed. Electronic traction control is not permitted. The steering column should be padded. Towing eyes front and rear are recommended.



## 6. BODY SHELLS, SUSPENSION & SHOCK ABSORBERS.

The body shell and sub-frame of all cars must be of steel as standard. Bonnets, boots and doors may be skinned. One piece fronts on BL Minis must be detachable as one piece and be clipped with bonnet pins or clips, NOT BOLTED. BL Minis with this detachable one piece front, steel or otherwise will be allowed 2 lengths of 1" (25mm) x 1" (25mm) box or round tube of no more than 10swg bolted at both ends diagonally from flitch panel to sub-frame (see figure A).



Flip fronts, one piece detachable fronts (where inner flitches have been removed) can be fitted with 2 x 13mm headed bolts on inside/A panel, and plate same size as body work, 2 pins or clips on top. Grilles must be a maximum 18g and not be replaced with checker plate. No welded grille. All internal structural bodywork must be retained; no drilling of structural panels i.e. door posts, floor, inner wings, bulkheads and tailgate. Inner flitches forward of the front suspension point may be removed no strengthening allowed and must not be braced. A bar to support grille may be used no more than 18 gauge maximum and must be "U" section (2") 5cm x (1") 2.5cm, inner wing must not be cut within the suspension.

Quick steering racks are not permitted. No aerofoils, spoilers or air scoops, if arches and sills are fitted they must not exceed 2" (50mm) wide at their uppermost point of fixing. All sharp edges must be made smooth. If the original front panels are not available (i.e. Starlets) a replacement panel may be used (this must be made of not more than 18g. mild steel) and must be straight and flat but must not exceed the front edge of the front wing. A plastic bumper may be fitted if required – it is prohibited to reinforce the front apron/panel.

All sharp edges must be smoothed off. All cars must be of sound construction and condition and must have a positive fastening on all doors and body parts. All cars that roll will be subject to re-scrutineering.

No modifications or bending of hubs is permitted.

Springs are free. All cars must use standard Kayaba/Cross Reference legs relevant to the specific 1000cc model (for example the Nova must use standard legs relevant to the 1000cc models and not models such as the SR etc). Coil over shock absorbers are not permitted, unless fitted as standard. **Shock absorbers must be as from manufacturer, ie: KYB shocker must remain with KYB components incl oil, No interchanging of parts or oil.** No other suspension modifications, apart from camber/caster, KPI improvements allowed. No positive camber on drivers side front wheel. No negative camber on passenger side rear wheel.

Suspension must not be adjustable.

1. Negative Camber is only permitted on the Nearside front wheel, **upto a maximum of 25mm or 1" in the tyre, from top to bottom.** This is achieved by extending the lower suspension arm or re-positioning the outer swivel joint a maximum of 25mm or 1". This must be a permanent fixing not an adjustable type.
2. Both the front tie-rods can be shortened or lengthened to suit, but again they must not be adjustable.
3. All suspension parts must be located on the original mounting points on the chassis & body.
4. Only standard bushes are permitted.

## 7. PERSONAL SAFETY.

Drivers are advised that under Health & Safety, they are responsible for their own and their Mechanic's actions. Promoters have had complaints made about Registered Drivers & also Mechanics, consuming large amounts of alcohol at meetings, which could effect their judgement or be detrimental to their health, when medical attention has to be administered by Paramedics, St Johns or Hospital Staff.

Should an incident occur that proves fatal on the raceway and you are involved, it is likely that the Police will want interview you. **If you drive, don't drink!** Scrutineers and Officials will report to the Clerk of the Course, anybody they believe is under the influence of Drink or Drugs.

Drivers whom it is thought are under the influence, may be breathalysed.

### Flags as used by the Starting Marshall & Trackside Safety Staff.

- Waved Green Flag – Go, the race is on.
- Waved Red Flag – Stop racing, slow down & stop immediately.
- Chequered Flag – Race winner has crossed the line, **continue to race until the Red Flag is shown.**
- Held Yellow Flag – Beware, you are approaching a hazard on the track, continue to race.
- Waved Yellow – Slow down to 15mph, hold your position, **and do not** overtake any other cars.
- White Flag with a Blue spot – Oil on the track.
- A Blue Flag – This is shown to a driver who must hold his racing line. You may be holding up another driver who has been trying to pass you but is being baulked, or you are spoiling a race by holding up a pack behind you, by your driving style.  
Once shown the flag you must either hold a racing line on the inner part of the track or the outer part of the track, not weave between both. If after two laps you fail to obey this Blue Flag you will shown a Blue & White Flag.
- Blue & White Flag – Give up your track position, you have not taken notice of the Blue flag.
- Black cross on a White board – You have committed an infringement and may be penalised in the results.
- Waved Black Flag - You are disqualified, pull off the track immediately.
- **White Flag with a Red Cross – Technical Disqualification, leave track immediately**

Drivers are also reminded that they should line up on the grid with their engines switched off in the correct points order, unless told otherwise.

## 8. SAFETY EQUIPMENT.

### 1. CRASH HELMET

*Helmets must be of a minimum standard as directed by British Oval Racing Safety Executive (B.O.R.S.E). These are BS6658 Type A/FR, FIA8860-2004, Snell SA2005, Snell SA2010, SFI Foundation 31.1A, SFI Foundation 31.2A. The E2205 European standard helmet may be used in Fibreglass, Carbon or Tri-Composite form only i.e. NO POLYCARBONATE helmets are allowed. It is important that the helmet fits the driver correctly. Shatterproof goggles/visors must be worn although tinted visors are not advisable. Your helmet must display the current ORCi (ORC10) sticker.*

### 2. RACING OVERALLS

You must wear Fire retardant, clean, un-torn and brightly coloured Racing Overalls that are made of a fire retardant material and are clearly marked fireproof. Mechanics are also required to wear clean overalls and will not be permitted on to the track without them being on, when instructed to do so.

### 3. GLOVES

It is Mandatory to wear Fire retardant Gloves also clearly marked fireproof.

### 4. BALACLAVAS

It is Mandatory to wear Fire retardant Balaclavas clearly marked fireproof.

### 5. A NECK BRACE: is compulsory, a spine support is also recommended.

### 6. WET WEATHER CLOTHING: is also recommended and must be worn in addition to, and **not** instead of the racing overalls.

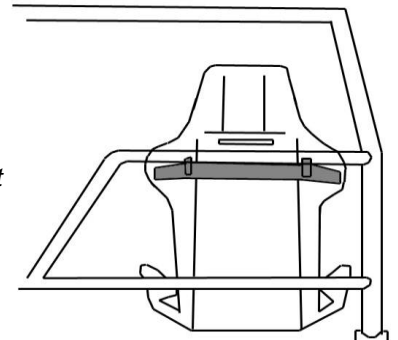
### 7. A WINDOW NET: with a maximum spacing of 76mm x 76mm is compulsory, this must be fitted with a quick release mechanism.

### 8. FIRE EXTINGUISHER: A 1kg Dry Powder Gauge Fire Extinguisher is highly recommended and if fitted, this should be in a tube with a spring top and should be within easy reach of the driver. Old type BCF (green) type fire extinguishers are not allowed. All tow vehicles, must carry a minimum of a 2kg fire extinguisher dry powder or gas, which must be within easy reach of the driver and mechanics at all times, especially when refuelling.

### 9. DRIVERS SEAT WITH HEAD RESTRAINT

You must have a Driving Seat with a head restraint and this may be of a competition type. The seat should occupy its original position where possible and be suitably supported at shoulder height and on both of the sides and back, with a suitable framework or seat stiffener's.

*Additional wrap around seat support at shoulder height.*



## 10. SAFETY HARNESS

A full five point buckle release harness (including NASCAR type) with sub-strap must be fitted and bolted to the floor and/or the roll cage. Shoulder belts with a sternum protection latch are highly recommended. The sub-strap must be used at all times and all belts must connect to the quick release buckle. In the case of NASCAR lever latch buckles it is advisable to fit a secondary means of detent to prevent overall sleeves accidentally unhooking buckles during racing. A small section of Tubegrip elasticated bandage slid over the hooked buckle serves this purpose. Special attention must be paid to the condition of seat belts and fixings once fitted. All seatbelt connection points must be visible and no belts pass through any firewall.

Following research made by leading safety harness manufacturers, information has been made available with regard to the best way to fit your safety harness; this will further ensure your safety. Please study the diagrams to ensure your safety harness is fitted correctly. The lap belt crossing should be below the anterior-superior iliac spines (bony part of the hip). Under no circumstances should it be worn over the region of the abdomen.

Lap belt/straps must terminate vertically downwards, and not forwards or rearwards of the hip joint. Lap straps should terminate symmetrically about the wearer on either side of the seat, about 20" (500mm) apart. The distance between the seating surface and the anchorage point should be kept to a minimum to prevent submarining.

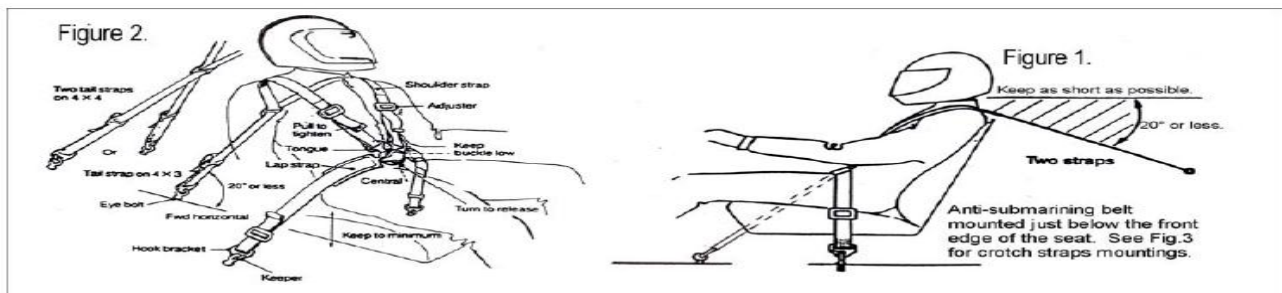
The location of the crotch strap mounting should be to the rear of the driver.

Fig.1 shows the location for the tail straps, which should be horizontal to 20° below horizontal, and as close to the shoulder as is practical for optimum restraint.

Only safety belts comprising of separate shoulder, lap, and sub-straps will be permitted.

The sub-strap must be used at all times, and all belts must connect to the quick release buckle. The abdominal strap fixing point must be on the chassis, roll cage, or floor (for vehicles with no chassis), either side of the driver.

The shoulder straps must be supported at shoulder height. NASCAR type buckles must be fitted with lever on the right side of the driver. It is advisable to fit a secondary means of detent to prevent overall sleeves accidentally unhooking the buckle during racing. A small section of tube grip elasticated bandage, slid over the hooked buckle, serves the purpose.



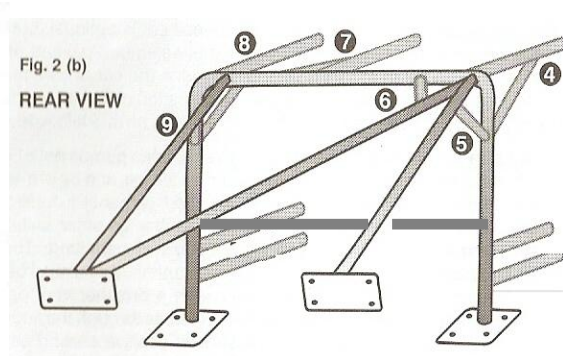
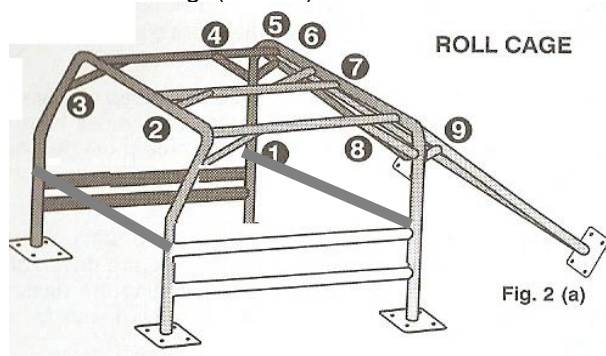
Special attention must be paid to the condition of seat belt fixings once fitted. Information is available, from your Promotion, on the correct procedure to follow when fitting seat belts. *Remember - your life depends on them, and belts, once involved in a severe accident, should be discarded and replaced.*

Over the years, we have had many unnecessary injuries due to badly fitted seats. They frequently occur in Non-contact Formulas, when perhaps a driver believes it is more unlikely that he will be involved in a serious crash, and he also believes that, if he is involved in a collision, the impact on his car will be from the front. However, this is often not the case. It is therefore, imperative that you ensure your seat is really well supported, especially where the shoulder straps go through. You must also ensure that your seat cannot move sideways.

**The safety of your seat will be judged by the Scrutineer's and you will only be permitted to race when they are satisfied that you will be as safe as possible in any event.**

## 9. ROLL CAGE.

All Junior Rods must have a soundly constructed full roll cage (see diagrams 2a and 2b) fixed to the body or chassis, welded to footplate minimum size 4" x 4" or (100mm x 100mm) bolted or welded to car. The surrounding floor area must be sound. Minimum requirements for all cages are 32mm tube or 32mm x 32mm box section of not less than 12swg. (2.5mm).



Two strutting braces must be fitted to the rear hoop. A centre bar from the front to the rear between the main hoops must be fitted, or this may be diagonal from corner to corner. A diagonal bracing strut must be fitted from the drivers head to lower fixing or rear bar (see figure 2b). All joints must be welded or bolted if on an approved manufacturers roll cage. If full width hoops are cut and welded there must be additional webs welded or bolted minimum size 2" x 2" x 10 gauge (50mm x 50mm). All welded in roll cages must have webs on all welded roof



joints, or tubes may be fitted to triangulate right angles. All bolt together roll cages must have a minimum of 2 bolts per joint, if not, they must have webs. Two chicken bars must be fitted on both sides of the cage in the front door apertures – minimum tube sizes as for roll cages, welded or bolted between front and rear uprights of roll cage. Chassis/roll cage must stop 6” short of front and rear panel. A dash bar should be fitted as well as a support bar fitted horizontally behind the drivers seat (middle of back of seat). Alloy cages are not permitted. **Both suspension turrets can be supported by two brace bars from off of the front of the cage going through the bulkhead, but it must be made from the same material as the cage**

## **11. FIRE-PROOF BULKHEAD.**

All cars must have protective bulkheads of non-flammable material between the engine and driver and also between the fuel tank and the driver. These bulkheads must be capable of preventing the passage of fluid, flame or steam etc. All gaps must be sealed with flame retardant material.

## **12. VEHICLE WEIGHT.**

Cars may be checked at any time for being under weight or having too much weight on the right-hand side of the car.

1. The minimum car weight is 650KG.
2. The maximum permissible weight on the drivers or right-hand side is 51% of the total vehicle weight. If you break this rule points/monies and penalties will be imposed upon you.
3. Any added weight must be bolted inside the car in the foot-wells and the bolts welded at the ends.

## **12. FUEL SYSTEM.**

1. Fuel tanks must be metal or FIA approved & fitted behind the driver but in front of the rear axle centre line.
2. The tank must have a maximum capacity of 9 litres and be of top feeding type.
3. The tank should not be below the chassis rails so where a floor exists, four 50mm diameter holes should be drilled for drainage purposes.
4. Fuel caps must be of a metal screw type, no push fit types are allowed
5. The fuel outlet must be from the top of the tank.
6. The tank must have a positive means of fixing.
7. A breather pipe must be fitted which should incorporate a one – way valve, with the pipe terminating below the tank so as to prevent spillage if inverted.
8. All fuel lines must be inside the car and be metal or metal covered.
9. A fuel shut off tap must be within easy reach of the driver.
10. A complete fire wall must cover the tank.
11. You cannot enclose the rear boot area from the seat to the rear window aperture.
12. Only roadside fuel can be used. No additives are allowed. (see separate sheet at back of these rules).

## **13. BATTERIES.**

All batteries must be covered with a non-metallic material and securely fixed so that they do not become dislodged in the event of an accident or incident. Battery may remain in original position. If the battery is fitted inside the car driving compartment, they must be securely fitted within a box and leak proofed. If fitted in the boot the battery MUST be segregated from the fuel tank and covered in a non-metallic material. A maximum of 2 batteries may be fitted and be of reasonable size 2x6 Volt or 2x12 Volt.

## **14. IGNITION/MASTER SWITCH.**

Key type ignition switches must not be used. Only lever operated or push/pull switches will be accepted and must be clearly marked ON/OFF. Steering lock mechanisms must be removed. A battery master switch must be fitted in the rear left-hand window and clearly marked “ON-OFF” or have an electrical danger decal.

## **15. BRAKE LIGHTS.**

All cars must be equipped with two rear lights of the anti-crash type i.e. fog lights, one fitted to each side of the rear of the car and be operated by depression of the car foot brake pedal only. Multi LED units are not permitted.

## 16. STARTER MOTOR

Starter motors must be fitted and be capable of starting the car at all times.

## 17. WHEELS, BRAKES AND TYRES.

Efficient brakes must be on all wheels at all times – a hand brake is optional. Cars must have 4 wheels only. All nuts securing wheels must be made of steel and in thread contact over a minimum length of 1 ½ times bolt/stud diameter. Safety wheel nuts that prevent wheels pulling off over standard nuts are recommended.

Brakes are free within the manufacturers' model range. Adjustable bias brake valves are not permitted. Alloy wheels are permitted for use provided correct wheel nuts and studs/bolts are used.

Wheel spacers must not be used unless fitted as standard equipment on the car in question. Any disc 7" or 7 1/2 "single pot calipers only. No vented discs, unless fitted as standard. No modifications to rear brakes are permitted.

Tyres must be road legal and maximum tyre size must not exceed 560 or 165 x 13. No Yokohama tyres are permitted.

## 18. EXHAUST SYSTEMS.

All vehicles must have an efficient exhaust system. The exhaust system must be isolated from the driver i.e. beneath the floor or, if run inside the car, secured (for protection purposes) in casings of sound material. Inadequate/ faulty systems or losing part of the exhaust while competing may result in disqualification. Exhaust systems will be checked for noise levels and must satisfy Spedeworth's scrutineers before being allowed to race.

## 19. ENGINE & TRANSMISSION.

Any 1000cc push rod or OHC engines as homologation list. Single point injection is permitted, standard original equipment only. 2 wheel drive only, single engine only.

Due to valve springs for 1000cc OHV Vauxhall being unavailable from Manufacturers or Factors, the following alterations are permitted: 1400cc 8 valve OHC valve springs are permitted with the addition of either one solid spacer under exhaust valve spring or original turntable ground off, or the centre of 1400cc turntable machined to fit valve guide. The solid spacer used must not measure any more or less than 7mm.

Part numbers for 1400cc components, Spring 9026508 G.M. Spring VSP 954255 (Factor) Turntable 90106266. Washer 90128720.

2 wheel drive only – no fuel injection.

Cars must be of a model originally fitted with 1 only single choke carburetor (or single point injection), max 2 valves per cylinder, with engines of up to 1000cc front wheel drive. No Cooper S, GT., Rallies, Sports, Special Editions, or engines parts permitted etc:

**No modifications to engines permitted except as listed.**

Drivers please note:-all cars must be as were produced by the manufacturers, except for permitted modifications. If a driver refuses to allow Spedeworth to fit an ECU they will be deemed illegal. If it is not stated that it can be done then it **CANNOT** be done.

1. 60 thou (0.060") maximum overbore permitted and any other renewal or replacement of worn components.
2. No reprofiled or remanufactured camshafts, manufacturers original or manufacturers' replacement ½" wide lobe, 3/8" lobe cam is allowed but must be within the manufacturers tolerances. Camshaft Nos 6267 or 4717 are permitted. 4717 can be identified by 1 ring between lobes of cylinder N<sup>o</sup> 3, 6267 can be identified by 1 or 2 ring between lobes of cylinder N<sup>o</sup> 2. Other vehicle camshafts will be checked against manufacturers' technical data.
3. Manufacturers' dowel or woodruff keys must be fitted as standard.
4. Engine balancing is permitted. No machining of pistons except for balancing purposes and this can only be carried out on the inside surface of the piston and they must not protrude above block face but, some manufacturers have pistons that protrude as standard, so particular vehicles will be checked on their merit, according to manufacturers tolerances, for that specific vehicle. One piston and one con rod must remain as standard. Competition pistons are not permitted.
5. No centre main crankshaft straps.



6. When closed the valve head must protrude into the combustion chamber and not be recessed.
7. Valve springs must remain standard to the engine used.
8. No matching or machining of carb to inlet or manifold to block. Inlet and exhaust manifold must remain as standard.
9. Head numbers 12A 1456 2A 629 Minis or "APlus" CAM4810. Cylinder heads may be skimmed, but no modification to oilways. Lead free inserts and 3 angled valve seats may be used.
10. Oil pump pick-ups may be relocated, sumps may be baffled.
11. BL "A+" 1000cc engines or running gear are permitted. Crank, rods and pistons must remain standard to block.
12. No "S" type distributors on BL. "A" series and A+ engines. Distributor must remain standard to the engine used and be fitted with a vacuum capable of working. **Distributors must be the original manufacturer's part. No electronic ignition unless it is fitted as standard. The distributor base plate MUST BE attached to the vacuum unit – it must not be secured and MUST BE FREELY MOVABLE. Distributors MUST remain standard as manufactured; the vacuum pipe must be connected and not modified in any way (i.e. holes in diaphragm, worn out holes in pipe or blockages).**
13. Electronic ignition permitted if fitted as standard. A+ 1000cc camshafts, heads and springs may be interchanged with A series 1000cc or vice versa.
14. Fitting of dynamo/alternator optional.
15. No duplex timing chains.
16. Air filters free. No ram pipes, air scoops, turbo or any other forced induction.
17. Carburetor butterfly must not be modified or removed.
18. All cars must retain original carburetion. 1 ½" maximum. S.U. Needles must remain round.
19. No twin specialist carburetors.
20. Casting and or forging marks must remain.
21. Vauxhall Novas may blank off original oil filter and use an adaptor plate to allow the oil filter to be re-positioned.
22. **The Citroen AX carburetor engine & gearbox can be fitted into the Saxo.**

All gearboxes must retain all gears. NOVA gear box must retain 1.96 second gear.

Gearboxes and axles must be as originally fitted to the car with NO modifications except:-  
Differential final drive ratio may be altered within the manufacturers range.

1. No competition or limited slip diffs are permitted.
2. Output drives and drive shafts must be within the manufacturers range.

2.2.1 and 2.1.8 Gear Clusters are not permitted for use in this formula.

## 20. ENGINE SEALING.

**Spedeworth:** We may at any time require your engine or other parts to be sealed. This may or may not mean your engine / parts will automatically be stripped or checked. It could be that we wish to monitor your performance or seek clarification on an item. It is normal to strip engines at all major championships unless they run consecutively in which case by agreement with Spedeworth, stripping may be postponed.

**Driver:** Drivers wishing to have their engines sealed may do so. It will require two people ( one may be an official, the other a Scrutineer) to be present at the final stages of a build & it will incur a charge based on the time & distance travelled. If this option is taken at a major championship your engine will not require stripping unless seals have been broken. Seals can only removed by Spedeworth officials & if they are removed without permission the engine/ parts will deemed to be illegal & the Driver suspended pending a Board of Control meeting. If any engine/ parts are sealed because Championship events are within a period, which may exclude that Driver due to a rebuild, the Driver with Spedeworth's agreement, postpone stripping for three meetings.

It is the Drivers responsibility to make provision for the sealing of the engine by drilling 1.5mm sealing holes in the following bolts / nuts & marked with red paint for identification purposes:

Either side of the Sump  
Two Head bolts, if not covered wholly by a rocker / cam cover.  
Two Inlet manifold bolts  
Two Rocker / Cam cover bolts  
The Bell housing  
The Carburettor body and the mounting bolts / nuts.

## 21. COOLING SYSTEM.

1. Radiators are free, but they must not be moved from their original position.
2. Electric cooling fans may be wired to a separate switch.
3. Interior heaters must be removed.

## 22. MIRRORS.

All vehicles must be fitted with adequate rear view mirror/s. These should not be made of glass.

## 23. DOOR NUMBERS AND FIN PLATES.

The drivers racing number must appear on both sides of the car. The numbers should be a minimum of 10" high x 1.5" wide, black numbers on a white background.

All cars must have a roof fin fitted above the gutter line of the vehicle i.e. not to the side of the car. This fin must be white and be large enough to carry solid black number a minimum of 6" (153mm) high and 1" (25mm) minimum width. It is the drivers responsibility to ensure that their numbers can be seen clearly to enable them to be lap scored.

## 24. SPECIFICATION AND RULE CHANGES

The Promotion may at any time make amendments to the Specifications for the following reasons:

- In the interests of Safety
- Reduce costs for the driver
- In areas that are detrimental to the future of the formula
- If an unnecessary advantage has been deemed.

*Current registered drivers will be notified automatically of any changes.*

## 25. ROOF GRADING.

**Drivers are also reminded that they should line up on the grid with their engines switched off in their grades, unless told otherwise. Drivers with the incorrectly painted roof, after the points chart has been issued, will have to start at the rear of the grid.**

1. All roof grade champions must start at the rear of the Grid, unless told otherwise by an official.
2. If you win a race at a meeting; you will start the remaining races from the rear of your grade. Should you win another race at the same meeting – you will be automatically upgraded.

Grid Line up / Roof Order:

- White
- Yellow
- Blue
- Red
- Superstar (Red, White & Blue Stripes)
- Silver Roof – Current National Points Leader

## 26. SCRUTINEERING OF NEW CARS.

All new cars must be Scrutineered prior to its first meeting. Arrangements must be made with Spedeworth to bring the car along to a Stadium on the day of an event and then your car will be Scrutineered.

## All Oval Racing Formulae

Permitted fuel specification from 1<sup>st</sup> January 2008 (this specification supersedes all previous specs).

1. All cars must only use fuel from roadside pumps as defined below.  
Petrol (Motor Gasoline of the type on sale to the general public from roadside filling stations) BS 4040 (Leaded) Subject to a valid permit for use. LRG (Unleaded), BS EN 228 (Unleaded), BS7800 (Super Unleaded).
2. Petrol is a product refined from crude oil that contains a large number of identifiable compounds that can typically be 250 in number. These compounds can be identified and compared to the available petrol from major oil companies and suppliers.
3. Unless otherwise stated, or the distinction is made between leaded and unleaded petrol, major gasoline fuel shall meet the following; Acceptance levels for Octane numbers will be determined at 95% confidence level. Only additives to this motor gasoline fuel solely for the purpose of lead replacement are allowed.
4. Lead Replacement Gasoline, LRG, also known as LRP. Only additives from Sodium, Phosphorous, Potassium, or Manganese according to manufacturers recommendations are allowed. Note; Manganese can enhance octane values in any petrol. Under no circumstances will values in excess of 0.005 grams/litre be permitted.  
**Lead in excess of EU directive 98/70EC requirements is illegal.**
5. We reserve the right to amend the detail of the above specification to reflect any change occurring in the quality of the fuel on sale to the general public at any time.

### Roadside fuel consistency when testing fuel samples.

	BS EN 228	BS 7800	BS 4040	LRG/LRP	Test Standard
Motor Oct No (max)	89.0	89.0	89.0	89.0	ASTM D2700/86
Mon (min)	85.0	86.0	86.0	86.0	ASTM D2700/86
Research Oct No (max)	100.0	100.0	100.0	100.0	ASTM D2699/86
Ron (min)	95.0	97.0	97.0	97.0	ASTM D2699/86
Lead (max)	0.005	0.005	0.15		ASTM D3341 / IP362
Lead (min)	ASTM D3237	ASTM D3237		0.005	ASTM D3237 / D3341 / IP362
Density @ 15°	0.720 - 0.775	0.720 - 0.775	0.720 - 0.775	0.720 - 0.775	ASTM D1298/ D4052
Oxygen % max	2.7% w/w	2.7% w/w	2.7% w/w	2.7% w/w	Elemental
Nitrogen % max	0.1% w/w	0.1% w/w	0.1% w/w	0.1% w/w	ASTM D4629/ IP379
Benzene % max	1.0% v/v	1.0% v/v	1.0% v/v	1.0% v/v	EN238
Sulphur	150mg/kg	150mg/kg	150mg/kg	150mg/kg	EN ISO 14596 / ASTM D2622
Olefins*	18% v/v	18% v/v	18% v/v	18% v/v	ASTM D1319
Aromatics*	42% v/v	42% v/v	42% v/v	42% v/v	ASTM D1319

\* Olefins and Aromatics values are expressed as a percentage of total fuel.