

## Swaffham Raceway

### **Stock Rods 2016**

This is a non-contact formula. **There must be NO contact of any sort. Any driver making deliberate contact will receive an immediate black flag and disqualification with further penalties a possibility.**

This formula is **NON-CONTACT** and cars should be prepared with a professional racing appearance. This is a standard that is required to be kept throughout the racing season. Cars with tatty, dented, badly battered or dirty panels or not within the spirit of these rules may not be allowed to race. Remember racing is supposed to be FUN!

### **Violations**

All car and engine specifications will be taken from the Technical Service Data book for cars as published by Glass's Guide Service Limited and or Haynes manual. When referring to the engine, or construction, rules and regulations the principle will always be; unless permission is specifically granted to make modifications, or any variation, nothing may be done to alter or change in any way the standard parts.

**Unless these rules state that you can do it, you CANNOT DO IT.**

Cars/engines can and will be checked on a random basis.

Violations will result in an immediate suspension of all racing facilities and any refusal will also result in an immediate suspension.

**NB Drivers are reminded that scrutineer checks may be carried out at any time, and also after heavy damage and most certainly on championships. If parts are suspected of being illegal make sure you leave them with the promotion, if you do not agree. If you refuse it will automatically make the part illegal.**

### **Definition**

This is a Non-Contact Formula using lightly modified Saloon or Hatchback Front Wheel or Rear Wheel Drive cars, up to 1400cc

Engines must be in car as manufactured – No engine transplants except MK1 and MK2 Fiesta engines may be fitted to either MK1 or MK2 Fiesta shells or the 1.4 Astra engine may be fitted into the Nova/Corsa shell.

No front to rear wheel drive conversions or vice versa.

## Type of Car

Only right hand drive, steel bodied Saloon or Hatchback, all panels must be of original design and roof lines must not be shortened or lowered.

The standard floor pan and bulkheads must remain in position intact as original.

Space framing is not allowed.

## Engines

Only 4 cylinder inline 8 or 16 valve engines, ( must remain standard ) No injection or turbo's are allowed

*Cylinder block* nominal over boring to a max of 60 thou is permitted facing of the block on the head gasket surface only is permitted.

*Pistons* must remain standard and must not be altered in any way.

*Pistons* must not protrude above the block.

*Camshafts* are free no machining is allowed to accommodate it.

*Vernier timing* wheels or offset dowels & solid lifters permitted.

*Ignition* systems must remain as standard. Ignition systems may be use from the same manufacture i.e.: Vauxhall to Vauxhall ford to ford but must not be modified to fit, Bolt on electronic are **NOT** permitted.

Heads may be skimmed but all other parts of head must remain un worked.

A 3 angle cut is permitted but no machining or felting either side of the Valve seat

*Flywheels* may be lightened & balanced.

*Drilling only may lighten* crankshafts and rods.

There may be occasions we need to seal engines prior to stripping, therefore all engines must have at least two head bolts, one inlet manifold bolt and two cam cover / rocker cover bolts and two sump bolts, drilled with a 2ml hole.

Only 1 Solid engine or gearbox mount is permitted.

### Carburettors

Original type carburettors with manifold are to be used for the size of engine & car. **Vauxhalls must use Pierburg 2E3 20/24mm chokes only, jetting is free.**

Choke butterfly's cold start and economy equipment may be removed but No polishing of internal parts is allowed.

Linkages may be altered to open both venturies together.

*Manifolds* must not have any internal polishing or other alterations.

Only original carbs should be fitted to any twin carb cars NO twin 40s etc.

Also see supplement

### Manifolds

Manifolds are to be of standard type as fitted to the car and as manufactured to size of engine no tubular four branches.

### Gearbox

Gearbox. RATIOS ARE FREE; Removing of gears is not permitted.

Welding only may lock Diffs. No L.S.D. or POWER LOCK.

### Bodywork

Bodywork, complete **and** with all panels and to remain steel all through out. Light apertures may be blanked off. No fibreglass panels.

Floor pan must remain and not be cut out ie: boot well.

Doors may be welded shut but must not be seam welded. (Tack welded i.e.: 2" long weld) If the driver's door is hinged there must be at least 2 fixings to secure the door closed.

Wheel arches (max 2" wide) must cover the outside edge of all four wheels, side skirts, spoilers; aerofoil must be securely welded or bolted in place, with No sharp edges. Any replacement panels must remain as standard body panel thickness 20 gauge and ironwork added to the front or rear is definitely not permitted.

No steel front bumpers permitted. Bonnet slam panels may be replaced by 1" light gauge box section or similar.

NO OTHER ARMOURING ALLOWED. Arches, skirts and sun visors must be fitted.

Any vehicle with a modified front must have a minimum of 8 x 25mm holes.

**Panels may be fitted but must not alter the profile of the car.**

**Stainless panels or foam filled bumpers are not permitted.**

Front scuttle may be covered. (*Recommend Drivers* )

All Fuel tanks must be fitted behind a full and complete fire wall

### **Wheels. Tyres and steering**

One-piece steel or aluminium wheel of manufactured design with a maximum size of up to 6J is permitted.

Banded wheels are allowed providing the centre has not been moved.

No tyre softener or additive is allowed.

Gaiters are not allowed.

No slicks allowed.

The only tyre allowed is Yokohama A021R 185 X 70 profile ( Compound No:T567)

In order to keep costs down only one new tyre will be permitted per meeting bolting on 4 new tyres will not be allowed

Additional tread pattern must not be cut into the tyre.

Wheels must not be re drilled to allow fitting to other cars i.e.: Ford to Vauxhall or vice versa.

3 stud wheels may be changed for 4 studs.

Wheel studs are free.

Near side only part of the steering rack may be altered (shortened/lengthened)

### **Suspension**

Competition type shock absorbers are permitted. Spring and damping rates free except use of adjustable type shock absorbers are not allowed. Suspension components must remain in original position.

Rear shock absorbers must not be of competition type.

Repairs to the rear axle beam should be done only by hydraulic means i.e.: port a power to manufacture specifications.

No offset rear beams.

No Competition bushes are allowed.

Strut reinforcement may be fitted.

NSF track control arm may be adjustable.

Tie rods may be adjustable.

Camber on front wheels is permitted: up to a maximum of 15 degrees negative on the passenger side and a maximum of 4 degrees positive on the driver's side.

Holes on nsf strut- hub fixing holes may be elongated also see supplement.

**The wheelbase is adjustable original manufacture. I.e. Nova 92 inch + / - 2 inch (50mm) on nearside and 1 inch (25mm) on offside from original dimension .**

### **Drive Shafts**

See supplement.

### **11.Brakes**

Brakes must be complete and working on all FOUR wheels.

Hand brakes must remain fitted and working.

Biased braking is not allowed

### **Cooling Systems**

All water-cooling systems must remain within the confines of the original bonnet area but may be modified in any way to accommodate a larger radiator.

Oil cooler systems must remain under the confines of the bonnet area.

NO DRY SUMP SYSTEMS.

A heater matrix or similar may be added but must remain under the confines of the bonnet area.

## Fuel Systems

Only roadside fuel is allowed. The use of any additive/octane booster is not permitted. Samples may be taken for testing.

A maximum 3-gallon tank and must be of metal construction fitted behind the driver and also behind a full firewall with 4 x 2" drains holes under or around the tank. A metal threaded screw on cap must only be used. No plastic tops allowed.

**If fitted in the rear boot well a 2in steel box or tubular section frame must be fitted to protect the fuel tank from a rear impact. This frame must be welded to the rear supports of the roll cage & terminate no less 4" from the rear panel.**

Fuel feed pipe must enter the top of the tank and a breather pipe must be fitted in the top. The breather pipe must have a **one-way** valve or must terminate **below** the bottom of the tank on the offside of the car.

All pipes must be metal and fixed securely to prevent chaffing.

AN ON/OFF TAP must be fitted within easy reach of the driver (down the centre of the car) at all times.

Electric pumps to be fitted behind the firewall. Any fuel filters to be fitted behind the firewall or inside engine compartments.

## Electrics and Batteries

Electrics and batteries must be fastened securely and covered in a rot proof material.

Batteries may be fitted in under the bonnet (**recommended**) the floor must not be cut to accommodate the battery and must be at least 6". (Minimum) from the fuel tank.

All wiring must be securely fastened and kept away from fuel lines as much as possible.

A minimum of **one** brake light is to be fitted at the top of the rear screen aperture.

An electrical master cut off switch (clearly marked ON/OFF) must be fitted to the R/N/S corner of the car.

If the car is fitted with an electrical fuel pump, the switch must also be within easy reach of the driver.

When the engine is not fitted with a distributor as standard and is not possible to fit a distributor from the same manufacture certain types of Lumination will be allowed to be fitted. Lumination Kit No: C410 ECU may be fitted to the Renault Cleo 1.4. Top line mapped only, Max advance @3750 RPM no retarding this figure must continue till the end of the Rev range.

## Roll Cage

No alloy roll cage or part cage are allowed. The minimum steel roll cage protection you must have is; 1 x Front Hoop, 1 x Rear Hoop, 2 x Connecting Bars, 1 x Dash Cross Bar, 2 x Chicken bars N/S, 2 x Chicken Bars O/S.

The roll cage hoop feet must be on four welded plates. All joints must be welded over 90% or the joint unless professional clamps are used. The cage may protrude through the bulkhead. The rear cage bars must terminate at least 4" from the rear panel. All bars connected to the cage must be steel.

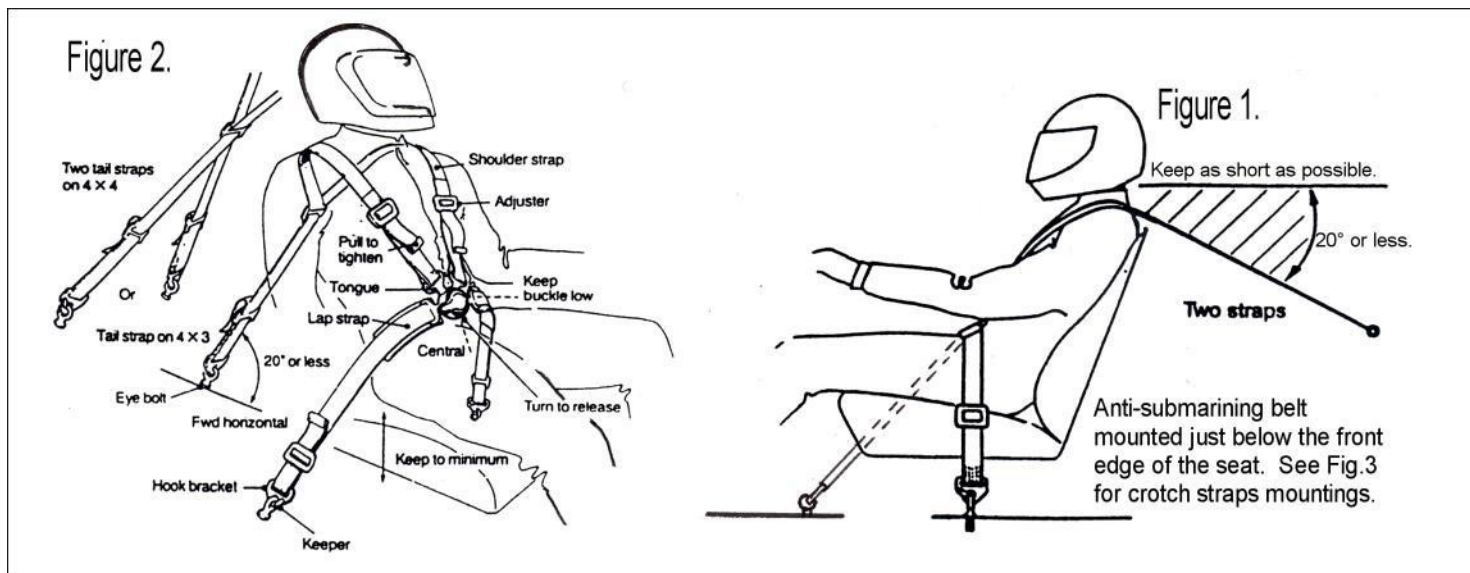
The *minimum* thickness's of the roll cage are; 1.25OD 10swg (3mm) tube or 1.5"OD 12swg (2.5mm) tube or 1.5" x 1.5" 10swg (3mm) box.  
Rear brace optional.

## Safety Belts and Equipment

Minimum 5-point harness comprising 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. A minimum width of a 2" belt may be used. (3" recommended)

In the case of NASCAR lever latch buckles, it is advisable to fit a secondary means to prevent accidentally unhooking buckle during racing. A small section of tube grip elasticated bandage slid over the hooked buckle may serve this purpose.

Special attention must be paid to the condition of seat belts and fixings once fitted.



Neck braces are **Mandatory** and must be **marked appropriately**

Fire proof gloves and balaclavas are **Mandatory** and must be **marked appropriately**.

A quick release cloth window net must be fitted to the driver's door window aperture and should be flexible and easily removable separate to the movement of the door.

### Helmets

Helmets must be of a minimum standard as directed by British Oval Racing Safety Executive (B.O.R.S.E). These are FIA8860-2004, FIA8860-2010, Snell SA2005, Snell SA2010, Snell SA2015, 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.

### Fire Extinguishers

Fire extinguishers **may** be fitted but **must** be of a dry powder or gas and be of the dial type and be fitted within easy reach of the driver. It should be maintained in good working order at all times, securely fitted but **not** taped OR **tied** in. (recommend 1Kg (2lb))

**All tow** vehicles must carry a **minimum** of a 2kg fire extinguisher of dry powder or gas which must be in easy reach at all times especially when refuelling.

### Seats

The driver's seat should be bolted or welded to floor and adjustable runners should also be bolted or welded. (*Bracing to the roll cage is recommended.*) Recommend all seats have a headrest fitted permanently as high as the top of the driver's head and 2/3rd of the width of the back of the seat.

Competition seats only must be used. Reclining seats must be solid. If seat is fitted direct to floor pan, extra strengthening to floor panel must be used.

### Screens

No glass is allowed in the window apertures or screen. All other glass must be removed from both inside and outside the car.  
Mirrors must be fitted.



### **All cars must have a door mirror**

Screen bar must be fitted in the centre line of car 1" x 1" box section or similar.

Any glass i.e. mirrors, gauges ect should be clear taped.

### **Silencers**

Cars must be fitted with an effective silencer system. Recommend Fordson Major Box, part No E1 ADDN 5320A, AX 891 Laws or Simpson ORC 225 or similar. The tail pipe must exit rearwards and or pointing downwards.

**NO competition exhausts systems apart from the Simpson / Edwards exhaust system will be allowed**

Exhaust routed inside the passenger compartment must be fully covered.

### **Numbers**

Numbers must be displayed on both sides of the car in contrasting colours with a minimum of 12" high in 2" strokes. Regulation fin numbers must be BLACK on a WHITE background 9" high in 1" strokes. The fin plate must be no higher than 12" in total from the roof; all numbers must be of professional appearance.

### **Roof Colours**

When notified of their grading, drivers will paint the roof of their car in the appropriate colour, White, yellow, Blue or Red and must cover at least  $\frac{3}{4}$  of the roof.

### **Appearance**

Cars are to be presented in a professional manner, no unpainted cars or panels. Sign writing to be of a reasonable standard.

No team racing of any kind. Driver's name or nickname to appear on sun visor.

No childish or abusive slogans.

## Overalls

Drivers must wear bright coloured racing type clothing of flame retardant Proban or higher specification material and this must be maintained in a clean and tidy condition when in view of the public.

The driver at scrutaneering must present Flame retardant overalls and helmet.

NB If wet weather clothing is used, this must be worn in addition to **NOT** instead of the regulation flame retardant overall type clothing described above.

## Fitness

Any driver who has suffered concussion as a result of an incident during a race will not be permitted to engage again in that meeting.

Any driver, for whom a race has been stopped or suspended because he/she has given the Steward cause to believe that he/she could be injured, may be excluded from the rest of the meeting for medical reasons.

The consumption of alcohol is strictly forbidden. Any body caught or suspected of drinking will be suspended immediately

## General Rules of Racing

Each driver is only permitted one car per meeting, and each car is only permitted one driver per meeting.

Any driver winning a race must start at the back of his/her grade for the remainder of the meeting. The onus is on the driver to take up their correct grid position and a minimum of two places may be docked by the steward for each position out of place taken at the start.

On entering the race track you must line up in your graded order, no burnouts are allowed remember there might be still marshals on the track.

**You car must be scrutineered and you must signed in before you may practice / race.**

## **Flags Shown.**

Green, Start of race.

Yellow static, Caution

Yellow waved, Slow down to single file.

Blue, Hold you're racing line.

Black X, You may be penalised.

Black, You must leave the race immediately proceed to the safety area, (it may be that something may be wrong with your car)

Red, Race stopped, Stop quickly but safely.

**Ignorance is not only dangerous but also is no defence.**

## **Eligible Cars**

The following cars may be used in Swaffham Stock Rod racing. They must use the engines as manufactured and must keep to the engine rules i.e. only 4 cylinder, in-line engines up to 1400cc, 2 valves per cylinder.

No Injections. NO Turbos.

Bl Metro, Mini  
Citroen AX, Saxo  
Fiat Uno  
Ford Escort, Fiesta  
Mazda 121,323  
Opel Kadett  
Peugeot 309, 205,  
Renault 5, Cleo  
Suzuki Swift  
Toyota Starlet  
Vauxhall Astra, Belmont, Nova, Corsa, Tigra  
Volkswagen Golf, Jetta, Polo,

This list will be revised in due course

**If the vehicle that you would like to use is not on this list please contact the promotion for clarification**

*Swaffham Stock Rods reserves the right to make amendments to the Stock Rod rules & regulations at any point during the season.*

*Drivers will be notified of any changes to the formula.*

## Supplement

EXPERIMENTAL ENGINES : Any 1400cc 16v cars will permitted to run as experimental cars with the exception of HONDA/ROVER. The Fuel injection must be removed and an inlet manifold manufactured to fit the carburettor which must be a Weber 32/32 DMTL This manifold rule will be reviewed in the future with the intention of proposing one specific manifold. The engine must remain standard and unmodified in any way – There will be a buying price for these engines of £750 which means any driver racing on the day may put a protest in to buy another drivers engine or the Promoter may buy the engine at this price. The engine must be complete including clutch and flywheel, but excluding carburettor and inlet manifold. The idea is to encourage the introduction of more up to date cars to the formula but the use of these vehicles/engines will be subject to Promoters decision

## Carburettors

### VENTURI SIZES 1300cc CARS

Fiat Uno 1299cc may be fitted into a Fiat 128 .....	19/23
Weber 30/32	
Ford Fiesta 1300 MK1 – MK5 (OHV or CVH) .....	23/24
Nissan	
Micra .....	20/27
Toyota Starlet 1.3 1290cc – Must use standard 1300cc Carburettor .....	23/26 (throttle linkage may be altered)
Toyota Starlet 1.3 1290cc –Weber 32/36 DGV/DGVA Carburettor .....	26/27 (throttle linkage may be altered)
Vauxhall Corsa 1300cc .....	Pierburg 2E3 Twin Choke 20mm/24mm + 8mm/7mm pre-atomiser
Vauxhall Corsa C 1300cc .....	Pierburg 2E3 Twin Choke 20mm/24mm + 8mm/7mm pre-atomiser
Vauxhall Nova 1300cc .....	Pierburg 2E3 Twin Choke 20mm/24mm + 8mm/7mm pre-atomiser
Vauxhall Tigra (run as Nova 1300cc) .....	Pierburg 2E3 Twin Choke 20mm/24mm + 8mm/7mm pre-atomiser

**It should be noted that some venturi sizes may vary slightly from those specified by the manufacturer. In these cases drivers should use the above sizes.**

1400cc CARS	
Citroen AX - 1360cc .....	Solex
32/34 Z2	
Citroen Saxo .....	Run as
AX spec	
Citroen C2 .....	Run
as AX spec	
Fiat Uno - 1301cc , 1372cc	
Ford Fiesta - 1392cc	
Peugeot 106 - 1360cc .....	Solex
32/34 Z2	
Peugeot 205 - 1360cc .....	Solex
32/34 Z2	
Renault Clio - 1400cc	
Vauxhall Corsa 1400cc .....	Pierburg 2E3 Twin Choke 20mm/24mm +
8mm/7mm pre-atomiser	
Vauxhall Corsa C 1400cc .....	Pierburg 2E3 Twin Choke 20mm/24mm +
8mm/7mm pre-atomiser	
Vauxhall Nova 1400cc .....	Pierburg 2E3 Twin Choke 20mm/24mm +
8mm/7mm pre-atomiser	
Vauxhall Tigra 1400cc .....	Pierburg 2E3 Twin Choke 20mm/24mm +
8mm/7mm pre-atomiser	

**It should be noted that some venturi sizes may vary slightly from these specified by the manufacturer. In this case Drivers should use the above sizes.**

**All carburettor/venturi sizes for the above are to be the original standard part**

### **Weight limit**

**There is no minimum weight for the time begin but the cross weight rule will be applied**

**The right hand driver's side weight must be a maximum 53%, at any time – this will be weighed without the driver in the car.**

## **Suspension/front hub**

**Both hubs must be of the same type**

**In the interests of safety where the hole has been elongated on the NSF strut to hub assembly you may weld a washer to secure the new position.**

## **Driveshafts**

**In the interests of safety a longer driveshaft may be used on nearside only ie: Astra/Corsa may be fitted to the Nova. Drive shafts must not be modified i.e. cut**

**New Driver/s/White top drives may start a minimum of 1 meeting at the rear of the grid this is at the discretion of the race steward is satisfied of the drivers competence. Once a driver leaves white grade he/she cannot return to the white grade**

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