

# 2lt HOTROD RULES - 2012

*This is a 2lt 8 valve OR 16 valve non-contact Hotrod formula.*

**There must be NO contact of any sort, this is including nudging cars into corners to gain an advantage, baulking, pushing or spinning another car is NOT permitted.**

**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 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 most certainly on all official 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.**

## 1. Definition

***This is a up to 2000cc 8 or 16 valve non-contact formula.***

- This Non-Contact Formula using Hatchback and saloon Front Wheel or Rear Wheel Drive cars, up to 2000cc 8 OR 16 valve 4 cylinder engines, using both modified and standard replacement parts.
  - front to rear wheel drive conversions or vice versa allowed. With a maximum overall body length of 160"

## 2. Type of Car

- Only right hand drive, Hatchback and saloon body styles, all panels must be of original design and roof lines must not be shortened or lowered.
    - Full Space framed panel cars are allowed with **all steel and/or fibreglass** panels.
      - Rear semi space frames and non space frame cars are allowed
- Small to medium size cars only e.g - nova, corsa, astra, tigr, starlet, fiesta, escort. if unsure please check before building.
- NO LARGE cars allowed e.g - mondeo, cavalier, vectra, serria etc.

## 3. Engines

**FULL SPACE FRAMED CARS CAN ONLY USE A SINGLE TYPE CARBURETTOR.**

**THEY ARE TWO TYPES OF ENGINES ALLOWED**

**TYPE A = 8V MODIFIED**

**TYPE B = 16V LIGHT MODIFIED in STANDARD form**

### •TYPE A

Maximum limit of 2000cc and two valves per cylinder and must be as produced by the manufacturer, these can be run on any standard OR modified inlet manifold with any carb/s, twin 40/5 or motorbike carbs.

- Heads may be skimmed, camshafts are free, adjustable vernier cam wheel allowed.

Cylinder blocks must have engine numbers and codes remaining, 60thou max oversize boring allowed.

Valve lengths must remain as standard manufacturers tolerances, valve springs are free.

Hydraulic lifters may be welded or modified to be solid or shimmed.

Manufacturers Pistons or original replacements only to be used and must NOT be altered in anyway apart from balancing.

Standard crankshafts ONLY to the make and model .

Any conrod bolts can be used, but conrods must remain standard as manufactured or original replacements

Sumps can be modified , guards can be used..

Dry and semi dry sumps are NOT permitted.

- Flywheel and clutch are free and may be lightened & balanced.
- Solid engine or/and gearbox mounting is permitted.

NO ECU ALLOWED.

### **TYPE B**

ANY 16V ENGINE upto 2000cc MAY BE USED IN STANDARD FORM FROM THE LIST BELOW

VAUXHALLS= 20XE,C18XE,X16XE,Z18XE,Z18EX1,C20XE,X20XEV,X18XEL,X20LEV

FORDS=tbc

OTHERS=tbc

NO welding of any engine part.

Cylinder blocks AND heads must NOT be modified in any way, engine numbers and codes remaining, oversize boring NOT allowed.

Head may be skimmed, allowing for a head gasket replacement, But NO race cams or VERNIER WHEELS allowed , All camshafts and parts must remain standard . No welding allowed on any engine part.

NO ECU, NO Variable Valve Timing allowed (V V T)

ONLY modified manifolds with a single type carburettor , NO twin 40/45 or motorbike type carbs.

Manufacturers Pistons or original replacements only to be used. OVER BORING NOT ALLOWED..

Standard crankshafts ONLY to the make and model .

Any con rod bolts can be used, but con rods must remain standard as manufactured or original replacements only.

Oil cooler can be used.

Sumps can be modified , guards can be used..

Dry and semi dry sumps are NOT permitted.

- Flywheel and clutch are free and may be lightened & balanced.
- Solid engine or/and gearbox mounting is permitted.

### **3. Carburettors**

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

- Manifolds must not have any internal polishing.

Manifolds can be made or original modified to suit engine or/and carb/s

- Any Twin carbs including 40/45 or motorbike carbs etc are allowed, but only on 8 valve engines in non and semi space framed cars only.

**NO TWIN CARBS ON 16VALVE engines or FULL SPACE FRAMED CARS.**

### **4. Injection inlets.**

NO INJECTION INLET SYSTEMS ALLOWED.

### **5. Outlet Manifolds**

- 16v outlet Manifolds can be of standard type as fitted to the car and as manufactured to size of engine. Four branch manifolds allowed.

Race spec Tubular four branches only allowed on 8v engines.

### **6. Gearbox**

- Gearbox. RATIOS ARE FREE; Removing of gears is permitted.
- Welded Diffs, L.S.D or Standard unlocked diffs are allowed.

No four wheel drive

### **7. Bodywork**

- Bodywork, complete **and** with all panels can remain steel all throughout. Light apertures may be blanked off. fibreglass panels allowed, plastic front or rear bumpers are allowed on any type of car or replaced with fabricated steel or fibreglass.
  - 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 1 fixing to secure the door closed.
  - Wheel arches (max 5" 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 steel replacement panels must remain as standard body panel thickness 20 gauge
- Bonnet bulge or carburettor / air filter scoop is permitted.

. We recommend Arches ,side skirts , sun visors must be fitted with drivers name.

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

- Front scuttle may be covered. (Recommend Drivers Side)

A FULL STEEL TYPE BULKHEAD MUST BE FITTED BETWEEN THE ENGINE AND DRIVER, THE ORIGINAL CAN BE REPLACED OR MODIFIED TO SUIT THE ENGINE POSITION.

### **8. Wheels and Tyres**

- One-piece steel or aluminium wheel of manufactured design with a maximum size of up to 10" is permitted.
  - Banded wheels are allowed providing the centre is not moved.
    - No tyre softener or additive is allowed.
    - Gaiters are not allowed.
    - No buffed tyres.
- Any slick racing Tyre allowed **upto a maxium of 8" WIDE Only, height profiles are free , rim height is free** .  
Any tyre up to a max width of 8"(205) ONLY in wet weather conditions, rim and profile heights are all free.
  - Additional tread patterns can be cut in slicks to make wet weather tyres.
- Wheels must not be re drilled to allow fitting to other cars i.e.: Ford to Vauxhall or vice versa. Multi fitting wheels are allowed e.g weller etc.
  - 3 stud wheels may be changed for 4 studs.
    - Wheel studs are free.

### **9. Suspension**

#### **All suspension can remain standard or modified as below**

- Competition type shock absorbers and springs are permitted. Spring and damping rates free, use of adjustable type shock absorbers are allowed. Suspension components must remain in or near to the original position.

Springs can be cut or heated

  - Oil or gas shock absorbers allowed
  - Strut reinforcement may be fitted to front and rear, these can be welded to roll cage.
- Negative/Positive camber is allowed on front and rear wheels. max of 2-" on n/s/f and 1" on the rest.

Antiroll bars are free.

### **10. Drive Shafts & Prop Shafts**

- Drive and prop shafts can be modified to suit.

### **11. Brakes**

- Brakes must be complete and working on all FOUR wheels. Hand brakes can be removed.

### **12. 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 allowed and must remain under the confines of the bonnet area.
  - NO DRY SUMP SYSTEMS.

### **13. 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 minimum of 30mm steel box or tubular section frame must be fitted to protect the fuel tank from a rear impact.** • 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. (Electric pumps must be turned off with a ignition switch in easy reach of the belted driver and the n/s/r cut off switch)

### **14. 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
- 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 nearside of the car.
- If the car is fitted with an electrical fuel pump, the switch must also be within easy reach of the driver.

### **15. 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, 1 x Chicken bar, 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 rear cage bars must terminate at least 4" from the rear panel. All bars connected to the cage must be steel.
- The minimum thicknesses 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.

### **16. 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 highly recommended,
- Fire proof gloves and balaclavas Mandatory and must be **marked appropriately**.
- A quick release cloth window net **MUST** be fitted and used at all times, fitted to the driver's door window aperture and should be flexible and easily removable separate to the movement of the door.

### **17. Helmets**

- Protective goggles or visors must be worn.
- Helmets must be of a minimum standard these are BS6658/85 Type A, BS6658/85 Type A/FR, Snell SA 95, Snell SA2000, SFI Foundation 31.1, or SFI Foundation 31.2. **The E2205 European Standard helmet may be used in Fibreglass form only. I.e. no plastic helmets.**

### **18. Fire Extinguishers**

- **Fire extinguishers MUST BE be fitted but must be of a dry powder or gas and be of the dial type and be fitted with in 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)**

### **19. Seats**

- The driver's seat should be bolted or welded to floor and adjustable runners should also be bolted or welded and Braced to the roll cage , all seats MUST 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.

### **20. Screens**

- All glass must be removed from both inside and outside the car. Proper shatterproof plastic windowscreens are allowed but must have a working wiper.
  - Mirrors must be fitted.
- **All cars must have a drivers 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.

### **21. Silencers**

- Cars must be fitted with at least one silencer . The rear box can be removed.
- Exhaust routed inside the passenger compartment must be fully covered.

### **22. 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 around 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.

### **23. 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 1/4 of the roof.

### **24. Appearance**

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

Driver's name or nickname must appear on sun visor.

- No childish or abusive slogans.

### **25. Overalls**

- Drivers must wear overalls of flame retardant Proban or higher specification material.
- The driver at scrutaneering must present Flame retardant overalls, gloves and balaclava along with 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.

### **26. 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.

### **27. 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.
    - No team racing of any kind.,
  - You must be scrutinised and 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 your racing line. Inside or out you are being lapped.
- 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.

**PLEASE CHECK OUT OUR WEBSITE BELOW FOR UPDATES/NEWS AND MORE**

**[www.swaffhamraceway2lthotrods.yolasite.com](http://www.swaffhamraceway2lthotrods.yolasite.com)**