

STARTRAX HOTRODS CONSTRUCTION RULES 2019

INTRODUCTION

This formula is designed primarily for those drivers who wish to compete in oval racing without the substantial financial investment or high level of commitment of our other present formulas. Drivers who have raced in any other formula may compete.

Startrax Hotrods feature reasonable cost, well turned out cars, competing in a strictly non-contact basis. By nature of controlling cost, this has provided the backdrop for rapid growth and for 2018.

**** Please note ****

It is the DRIVERS responsibility to ensure a car presented for racing conforms to the rules, **NOT the responsibility of pre race scrutineering to find any faults/illegal components Your signature upon signing in / licenses is confirmation that you have read, understood and agree to ALL of the rules.**

It is NOT the job of the scrutineer to detect any faults (although this may be done on a random basis) Responsibility remains WITH THE DRIVER.

Any scrutineer checks which may be made, are for SAFETY PURPOSES ONLY.

ANY car, found to be illegal in construction, either pre or post race, may render the driver liable to suspension or further punishment.

The most important rule – IF IT DOESN'T SAY YOU CAN DO, ASSUME YOU CANNOT WITH REQUESTING PERMISSION

VIOLATIONS

When referring to the engine, gearbox, differential, mechanical, or construction rules/regulations, the principle will ALWAYS be:

- Unless permission is specifically granted to make modifications, or any variation, then NOTHING may be done to alter or change standard part, in ANY way shape or form.
- **Unless the rules state you CAN do it you CAN NOT DO IT!**
- Cars, engine and fuel will be checked on a random basis and all drivers must be prepared to have their engine stripped for examination, AT ANY TIME. If the driver does not have the expertise to do this, then he/she MUST provide someone to do it for them.
- Refusal to allow the engine strip, or any other checks, may result in a ban of UP TO ONE YEAR from ALL formulas.
- Violation will result in an immediate suspension of ALL racing facilities at all ORCi venues and any refusal will also result in an immediate suspension.
- All car and engine specifications will be taken from the 'technical service data' book for cars as published by glass's guide service limited.

IT IS THE DRIVERS RESPONSIBILITY TO CHECK THE LEGALITY OR HIS/HER OWN CAR, PRIOR TO COMPETING.

Drivers are reminded that scrutineering checks can be carried out at ANY time and most certainly on ALL official championships. If parts are suspected of being illegal, and you do not agree, you will be required to leave them with the promotion for further checks. If you refuse to do so, it will automatically make the parts ILLEGAL.

IT IS THE RESPONSIBILITY OF THE DRIVER TO PROVE TO THE PROMOTION THAT THE PART IN QUESTION IS LEGAL BY WAY OF WRITTEN PROOF WHERE THE PART ORIGINATED.

This must be done WITHIN 7 DAYS, otherwise the part(s) in question will be deemed illegal and will result in immediate suspension from racing for disciplinary action.

Startrax Hot Rod drivers should be fully licensed for the 2019 season and Licenses are available via the website to download www.startrax.info Licenses entitle DRIVER only admission at race meetings you are competing that. Day Licenses are available @£30 for driver only – You must indicate a day license required when booking. D/L drivers do not score points for Championships

SCRUTINEERING

- Arrival at the track is required AT LEAST ONE HOUR before the advertised start time, to allow scrutineering to be carried out. Failing to do so, may result in the driver starting from the back of the grid, and will receive no racing points during the whole meeting.
- You need to present your car to the scrutineer, to be checked as soon as possible after arriving at the track. The driver MUST accompany the car, complete with balaclava, crash helmet, overalls, gloves and race license / day license. Balaclava and gloves MUST be fireproof and labelled to prove so.

THE SCRUTINEERS DECISION IS FINAL.

1. CARS ELIGIBLE

- Any FRONT wheel drive car (NO HONDA OR ROVER WITH A HONDA ENGINE) single carburettor, single or multi point injection, maximum 4 cylinder saloon, hatchback or coupe car, with a steel body, not exceeding 1600cc are allowed.
- No turbos or superchargers are allowed.
- No estate cars or vans are allowed.
- No ford RS parts are allowed.
- No Peugeot Rallye or XSI parts are allowed.
- Injections cars may be converted to conventional carburation if available in that manufacturers model range. If in doubt, check with the scrutineer.
- In the FORD fiesta, escort, orion and puma, the ONLY engines allowed are upto 1600cc OHV or CVH.
- Later model fords may use the 1600cc 8V duratec engine.
- Vauxhalls may use 1600cc 8V engines on either injection or carburettor.
- Only fords and Vauxhalls are allowed to use carburettors.

2. PREPARATION.

- Remove ALL exterior lamps i.e headlights, rear lights, indicators etc.
- Remove ALL glass, interior trim, dashboard, head linings, door linings, floor coverings and seats.
- Remove ALL window mechanisms.
- Remove ALL obsolete wiring.
- Remove spare wheel carriers and tow bars (if fitted)
- Remove fuel tank from under the car.

3. BODYWORK.

- ALL panels must remain standard.
- NO homemade panels, i.e fibreglass, plastic, or similar replicas.
- Wheel arches and side skirts are permitted (if wheel arches are used, they need to be steel type trailer arches, no more than 1mm thick)
- Removal of door inners is recommended.
- Removal of the structural stiffeners is NOT permitted, with the exception of boot and bonnet.
- ALL doors and tailgate must be secured shut. They may be tack welded (1" in every 4") or bolted shut. NOT by tying, chaining, taping etc.
- Passenger doors may NOT be folded down.
- Standard door mirrors are permitted, whilst drivers door mirror is a MUST.
- The glass in the door mirrors MUST be taped or siliconed to the mirror housing.
- The use of motorbike type mirrors is permitted.
- Cars MUST have an internal mirror fitted.
- A hole may be cut in the bonnet near to the carburettor or air induction, with the maximum size being 6" square.
- Bonnets MUST be secured with up to 4 bonnet pins. (2 front and 2 back) These pins MUST be maximum 1/2 " (12mm) diameter and must protrude no more than 1.5" above the bonnet.
- These bolts MUST NOT pass through the chassis or be attached to the suspension bed.
- You may remove the slam panel and use either box or tubular steel to create a framework to house your radiator. This framework MUST NOT exceed the width of the chassis rails and the maximum diameter is 22mm. no thicker than 3mm wall. You may mount your bonnet pins to this.
- You may use 2" x 1" box section to make a cradle for your radiator. This may be welded to the bottom of the chassis rails. NO reinforcing the box section.
- You may install a hoop to the box section to allow recovery with minimum damage to the car.
- Triangular corner plates may be fitted between the wing top and scuttle panel. These need to not exceed 200mm x 2mm thick.
- Headlight and rear light apertures may be filled with aluminium or steel, maximum 1mm thick with a maximum overlap of 1mm.
- Sun roof apertures must be plated over and either riveted or welded.

- Boot spoilers may be fitted.
- ALL holes in the front bulkhead must be filled to create a fire wall between driver and engine.
- NO welding for strength.
- NO armouring.
- Repairs to damaged cars can be carried out by patch plating but ONLY steel with the same thickness as the cars body may be used. Any thicker steel will be considered as illegal armouring.
- The drivers name MUST appear on a sun visor and be of a PROFESSIONAL appearance/quality.
- The sun visor MUST be made of either aluminium or steel.
- A metal upright, minimum $\frac{3}{4} \times \frac{3}{4}$ inch MUST be welded or bolted into the windscreen aperture, 1/3 of the way along the drivers side.
- The words 'STARTRAX HOTROD' MUST appear on the rear corners of the car. This MUST be of a professional appearance.
- Failure to do so will result in the driver scoring NO POINTS for that meeting.
- The roof MUST be painted in the correct colour of roof grading.
- Superstars MUST have at least one flashing amber light fitted to their name plate.
- ALL cars MUST have original bumpers fitted front and rear.
- Bright colours for bodywork are a MUST!
- NO team colours permitted.
- Cars may be sign written and of professional appearance.
- The use of vinyl stickers is also permitted as an alternative to sign written.
- ALL Cars MUST look professional and of a good quality.
- NO HOMEMADE NUMBERS
- NO HOMEMADE SPRAY CAN ARTWORK LETTERS OR NUMBERS ARE PERMITTED.
- The numbers on the car MUST correspond too the driver, even if the car is borrowed. They MUST have a professional appearance.

SCRUTINEERS WILL FAIL CARS THAT ARE NOT IN A CLEAN AND TIDY CONDITION AND CARS MAY BE REFUSED TO RACE OR GIVEN A 'ONE MEETING ONLY' TICKET IF THEY DO NOT MEET THE STANDARDS. THE FORMULA IS WORKING HARD TO STRIVE IN TERMS OF PRESENTATION.

4. SUSPENSION.

- Coil springs may be retained by either wiring, tie wraps or clips, but NOT welding. 2.25" coil springs are allowed on the front, but only on a standard strut. They may be cut or heated in order to lower the car.
- Back shockers are open but MUST be none adjustable.
- After market shock absorbers are permitted but NO adjustable shockers permitted.
- Wheelbase of cars must be within +/-1" from one side of the car to the other.
- Camber is free to ALL wheels.
- Cutting and welding hubs / stub axles is permitted in order to gain camber, but please make sure welds are fit for purpose.

5. ROLL CAGE.

- ONLY full roll cages permitted.
- Roll cages can be either be welded in, bolted in, or both.
- NO clamps or scaffold type cages will be permitted.
- 2 internal door bars (chicken bars) MUST be fitted in both doors (drivers and passengers) and MUST be attached to the front and rear hoop. These may go out to door extremities (outer door skin)
- The only materials permitted are steel tube or square box section. 1.5" (38mm) minimum thickness.
- A metal upright (minimum $\frac{3}{4}$ X $\frac{3}{4}$ and maximum 1.5" X 1.5") MUST be welded or bolted into the windscreen aperture, 1/3 to 1/2 way along the drivers side. Optional mesh is permitted in the front windscreen on the drivers side between metal upright and the A pillar.
- The MINIMUM steel roll cage protection you must have is 1 front hoop, one rear hoop, 2 roof connecting bars, 1 dash cross bar.
- ALL cars must have 2 N/S door chicken bars and 2 O/S door chicken bars.
- The roll cage hoop feet MUST be on 4 welded 100mm X 100mm plate, of a 3mm minimum thickness OR a piece of 38mm X 38mm box section with a minimum thickness of 2.5mm.
- Front and rear hoops may be connected only by welding them to the sill or floor.
- Bolt in type cages MUST have a minimum of 2 M12 bolts per foot.
- All joints MUST be welded over 90% of the joint, unless you are using a bolt in type cage, where professional clamps MUST be used.
- The cage may protrude through to the bulkhead, and form part of a strut brace.
- Rear cage bars MUST terminate no further back than the rear panel.
- The MINIMUM thickness of the roll cage is 3mm tube and 3mm box section.
- Strut braces ARE permitted, with the maximum size of material being the same as the roll cage specification. Please note – this is intended purely to save your car from extensive damage to the chassis and whilst this is rearward of the front wheels, any cars built beyond the spirit of this rule will be considered as armouring and therefor will not be permitted to race.

6. ENGINES

- ONLY 2 valves per cylinder are permitted.
- The engine type MUST remain standard to the manufacturer of car used e.g Vauxhall in Vauxhall etc.
- In addition to ANY interchanging of engines from another model, you must NOT increase the CC size of what was manufactured in that model.
- The stroke measurement MUST be standard.
- MK1 Ford KA's, MK4/5 Ford Fiestas or Pumas may be fitted with a Ford 1600 CVH engine or a 1600 Duratec engine. The duratec MUST be on injection.
- A Ford Fiesta, Escort, or Orion may use either 1600 CVH engine or alternatively a

1600CC OHV engine.

- A 1.5mm overbore is permitted.
- ALL parts must remain as manufactured with in the engine type used, so that that compression ratio remains standard to the engine type i.e the cylinder head and block originate from the same CC of engine.
- Pistons MUST remain standard – NO modifications.
- Flywheels MUST remain standard – NO lightening permitted.
- The inlet manifold and exhaust manifold MUST remain standard to the engine. These may be de-carbonised but NOT highly polished or ported and NO removal of casting marks.
- Sumps may be baffled to prevent oil wash away from pick up point.
- Air filters are free.
- Alternators may be removed.
- The engine MUST be fitted with a metal catch tank with 1 litre capacity minimum connected to the engine breather system.

7. GEARBOX / DIFFERENTIAL

- Gearbox ratio MUST remain as manufactured.
- Gearboxes can be locked, limited slip or open.

8. CARBURETTORS

- Carburettors MUST match the range of car.
- Re-jetting IS permitted.
- Cold start devices may be removed.

9. FUEL INJECTION

- BOTH single AND multi-point injection IS permitted.

10. FUEL SYSTEM

- Electric fuel pumps may be used.
- Flexible, non metallic fuel lines may be used to connect metal fuel lines to the carburettor fuel rail and tank. It is advised that these be made of metal braided fuel hose.
- You MUST have a fuel shut off tap within easy reach of the driver.
- In all cases, fuel lines MUST be securely clipped to prevent damage or being tripped over.
- Only road side fuel is permitted. NO AVGAS , special mixes, methanol blends or nitrous oxide boosters are permitted.
- Fuel tanks must have a maximum capacity of 2 gallons or less. The tank MUST be fitted to the rear of the driver but in front of the rear axle centre line. They MUST NOT be fitted below the chassis rails of the car.
- All tank filler caps MUST be of a secure, leak proof metal or screw fitting nature.
- Four 2” drain holes MUST be drilled in the floor to allow excess fuel to exit the vehicle.

- ALL fuel tanks MUST be fitted with an in-line breather system which will prevent fuel spillage if car becomes inverted. These WILL be randomly tested.
- A fire wall between the fuel tank and the driver MUST be fitted.

11. COOLING SYSTEM

- Radiator MUST be fitted in its original position.
- NO steam tanks allowed.
- Thermostat may be removed.
- NO heater matrix permitted inside the car.
- NO oil or water coolers are permitted.

12. EXHAUST SYSTEM

- 4 branch exhaust manifolds are NOT permitted unless standard to the car.
- NO car will be allowed to race without an exhaust system.
- Exhausts are only to be fitted underneath the car.
- The down pipe MUST be standard, but the rest of the system is free, but MUST be suitably silenced. Failing to suitably silence your car will result in you not being permitted to race. The stewards decision will be final.
- The system MUST terminate to the rear.

13. BATTERY AND ELECTRICAL

- Batteries MUST be securely clamped in place and covered with a leak proof material to prevent spillage. They may be fitted under the bonnet, in the passenger foot well or behind the driver. The floor can NOT be cut to accommodate them.
- Batteries MUST be fitted at least 6" away from fuel tank/lines.
- An electrical cut off switch MUST be fitted to R/N/S corner of the car, and clearly marked 'ON/OFF'
- If the car is fitted with an electric fuel pump, a switch MUST be within easy reach of the driver.
- Starter motors MUST be fitted and in working order at ALL times.
- The use of a rev counter is permitted.
- A 24V starter system is permitted.
- Electrical wiring and petrol pipes MUST NOT run side by side. When running parallel through the car they MUST take separate routes as far away from each other as possible. A MINIMUM distance of 12" apart.

14. STOP LIGHTS

- Brake lights MUST be fitted and operated from a standard stop light switch.
- Stop lights may be square, round or LED strip type, and clearly visible from the rear.

15. BRAKES

- Brakes MUST remain as manufactured and working on all 4 wheels.

- The handbrake MUST be in working order.

16. WHEELS AND TYRES

- Wheels may be a maximum of 6.5J width. Any off set MUST be covered by the wheel arch and matched side to side on the same axle.
- Any standard road wheel to a maximum 15" is permitted.
- Hub caps and wheel trims MUST be removed.
- Tyres may have a maximum diameter of 195mm and minimum of 50 series.
- Any tyre with buff markings will NOT be accepted.
- ALL front tyres MUST be manufactured by KINGPIN.
- Rear tyres are open.
- Tyres MUST match on the same axle i.e profile and size.
- ONLY road legal tyres, that are 'E' marked may be used.

17. DRIVERS SEAT

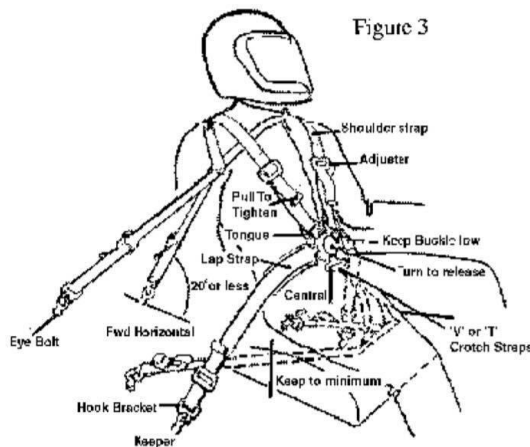
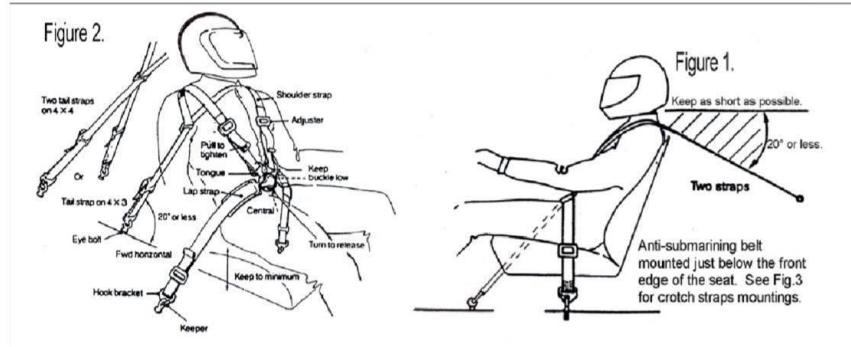
- A seat with a head restraint MUST be fitted. The seat MUST be securely mounted to the floor and at shoulder height to the cross bar or rollover bar.

18. SAFETY EQUIPMENT

- Helmets MUST be of a minimum standard as directed by British Oval Racing Safety Executive (B.O.R.S.E) These are FIA8860-2004, Snell SA2005, Snell SA2010, SFI Foundation 31.2A. The E2205 European standard helmet may be used in Fibreglass, Carbon, or tri-Composite form ONLY i.e NON 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.
- Neck braces are recommended.
- Fireproof balaclavas are MANDATORY and MUST be marked appropriately.
- Fire retardant gloves are MANDATORY and MUST be marked appropriately.
- A MINIMUM of 3' (75mm) wide safety belts (1.75" (40mm) sub-strap) are MANDATORY. This MUST be a full 5 point buckle release harness (including NASCAR type) with sub-strap and MUST be fitted and bolted to the floor and/or 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 the buckles during racing. A small section of tube grip elasticated bandage slid over the hook buckle, serves this purpose. Special attention MUST be paid to the condition of seatbelts and fixings once fitted. An extra bar is to be fitted to the roll cage behind the drivers seat, approx. 4" below shoulder height of driver. Your seat belts may be fixed to this bar. The bar to be used will be the same material as the roll cage.
- Window nets MUST be used. They must be quick release fitting and fitted to the drivers window aperture. The netting should have holes NO bigger than 7.5cm (3") wide.
- It is COMPULSORY that the steering wheel centre is to be filled with a permanent dish. NO taping or temporary fillings will be accepted.
- A 2kg dry powder / gas gauge fire extinguisher MUST be available at the race transporter

/ tow vehicle. Old type BCF (green) type extinguishers are NOT permitted.

PLEASE STUDY THE DIAGRAMS BELOW TO ENSURE YOUR SAFETY HARNESS IS FITTED CORRECTLY.



- Drivers MUST wear BRIGHT coloured racing overall type clothing of flame retardant Proban or a high specification material and this MUST be maintained in a clean and tidy condition in view of the public.
- If wet weather clothing is used this must be worn IN ADDITION TO and NOT INSTEAD OF the regulation flame retardant overall type of clothing described above.
- A 1kg dry powder gauge fire extinguisher is highly recommended and if fitted, this should be in a tube with a spring top and within easy reach of the driver.

19. RACING NUMBERS/ Line up and Grading

- Your racing number MUST be displayed on roof fins/pod and be easily seen from race control. You MUST also display your racing number on BOTH front doors, and they MUST be either black on a white background, or white on a black background.
- They MUST have a minimum height of 16" and 2" wide brush stroke.

THE FRONT HALF OF YOUR ROOF MUST BE PAINTED IN YOUR GRADING COLOUR. IF THE ROOF IS NOT PAINTED IN THE CORRECT COLOUR YOU WILL BE MADE TO START AT THE BACK OF THE GRID WITH NO EXCEPTIONS. THE STEWARDS DECISION IS FINAL.

It is up to the driver to understand his position on the grid and line up in the right place, the staff will NOT be running around moving drivers around as we have curfews, LINE UP correctly – if you don't you risk losing places / points

The Graders decision is Final and in conjunction with the BoC may regrade drivers if it appears a 'new' driver is under graded for example

Race winners will move to the back of their grade and Final winners will move up at least a grade

20. TRANSPONDERS.

- All drivers MUST have a registered and activated transponder. This MUST be fully charged and fitted to the passenger side rear foot well.
- If a driver arrives and his/her transponder is not working, then they MUST hire one from the promotor (limited quantity available)
- Transponders MUST be used for ALL races.
- NO transponder = NO racing.

21. DRIVERS ELIGIBLE.

- Each driver is only permitted ONE car per meeting in Startrax Hot Rods and each car is only permitted ONE driver per meeting.

22. DRIVER CONDUCT.

- If any driver or his/her team or family member are found to be making derogatory remarks or comments about other drivers, their teams, promotors or officials, on social networking sites such as FACEBOOK, they WILL be the subject of an inquiry from which a racing ban is likely.
- Please bear this in mind when making comments on various social networking sites. This will be taken very seriously and we do not want to issue bans, however, if the above rule is broken then it is likely.

23. CONTACTS.

- Drivers MUST book in to ensure points are allocated. All drivers are welcome but you MUST adhere to the booking procedure.
- Drivers MUST book in via Hayley Harvey on the facebook page titled "Startrax Hotrod Public Page" or alternatively by email at hayleyanddanny@hotmail.com.
- Formula representative at track and scrutineer is Danny Harvey.

THE SCRUTINEERS DECISION IS FINAL.

24. Disputes

Any disputes MUST be reported to the Steward and no later than 30 minutes after completion of the last Hot Rod race – If unresolved, the driver may log a dispute and request a form to outline any complaint – this must be either handed in or forwarded to the Board of Control – they can be e-mailed to stevenrees01@btinternet.com

Race position disputes – The Steward/Lap scorers decision is Final – and dispute again must be notified and a form completed