

2019 Outlaw F2 Rules and Regulations



These Rules and Regulations are set out and prepared and owned by Ringwood Raceway for the NSA and its organisers. These are set out as a guide line to meet Health and Safety Requirements of the Formula and can be amended at any time without prior notice. The rights and copyright are preserved and must not be used or reworded by any other Promoter/Organiser without prior written consent

2019 Outlaw F2 Stock Car Rules and Regulations

Definition

An Outlaw stock car shall be RWD, front mounted engine, open wheeled, single seated car with a steel space framed chassis. The centre line of the car will be determined as the centre of the two main chassis rails (when viewed from above) and the engine, gear box, seat, and rear axle will be fitted along the centre line of the car within the tolerances of 1 inch. Minimum weight is 650kg and the maximum weight is 750kg. Cars will be weighed in race trim but without the driver.

VIOLATIONS

When referring to the engine, gearbox, final drive, mechanical or constructional Rules & 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 the Standard Parts in any way.

It is the responsibility of the Driver to prove to the Promotion that the part is legal, by way of written proof of where the part originated. This must be undertaken within 7 days, otherwise the item in question will be deemed illegal, resulting in immediate suspension from racing & referral for disciplinary action. Unless the rules say you can do it, you cannot do it!

Presentation of a Vehicle for Scrutineering is a declaration by the entrant that the vehicle is eligible for that event.

Car, engines and fuel will be checked on a random basis. Violations or refusal to allow an engine check will result in an immediate suspension of all racing facilities.

All Car and Engine Specifications will be taken from either the manufacturers Technical Specifications or the Technical Service Data books as published by Glass's Guide.

Should a discrepancy occur between the Specifications then the Promotion will exercise its judgement, and that decision will be final.

Clarification on any one item may be sought from the Promoter.

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

Drivers have been advised to keep a check on other cars IF you think something is wrong please make the staging promoter aware.

Anyone found to be illegal with engine or suspension parts to be awarded a minimum of 3 months racing ban, and at discretion of the promotion may be extended further.

Type of Construction

Car construction is to comply with rules and regulations of Brisca or Spedeworth cars from 2009-2017.

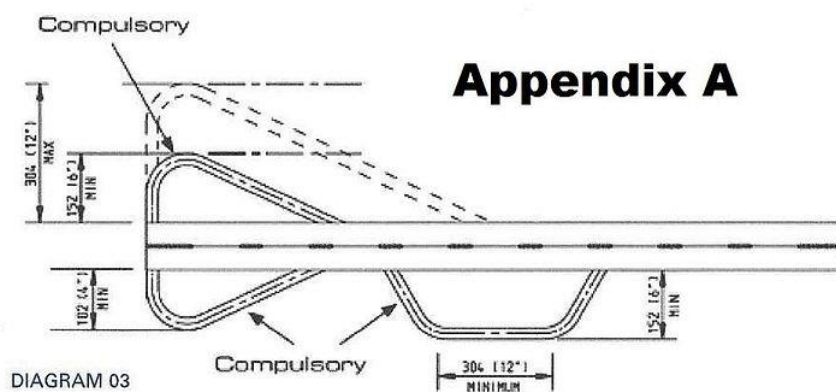
Chassis and cab.

All cars must have a steel chassis of welded construction, the chassis rails must be constructed of RHS with a minimum wall thickness of 3mm. They must be of a minimum size of 40mm x 40mm or a maximum of 70mm x 70mm. The chassis shall have an integral rollcage welded to the main rails, consisting of a minimum of 2 roll bars, 1 over the screen pillars and one over the drivers head, joined together at the top by 2 longitudinal bars. The main uprights and longitudinal bars together with the roll bar over the screen pillars shall be constructed of 30 x 30mm RHS or 30mm round tube minimum of 3mm wall thickness. The remainder of the roll cage must be constructed of 25mm x 25mm RHS or 25mm round tube minimum, 2.5mm wall thickness, and must consist of side bars that must be welded to the roll cage pillars at approx. elbow height and running between the front and rear pillars. These bars must measure a minimum of 750mm wide at the driver's seat and must be joined to the main chassis rail by 2 vertical tubes of 25mm x 2.5mm minimum welded at both ends equally spaced between the front and the front rear roll cage pillars. The steering wheel must be well inside the front roll cage pillars, and there must be a 100mm (4") difference between the driver's legs and the steering support cross member when seated in the driving position. A minimum of one vertical bar the same size and gauge as the main roll cage, must be welded between the rearmost rollcage top bar and the rear rollcage cross bar (the rear window aperture) to stop a bumper contacting the drivers head. Two vertical bars, or two bars forming a cross will be acceptable if the driver feels this is safer. A sheet of steel plate no less than 3mm thick must be welded continuously to the top of the roll cage on all 4 sides. The plate must measure a minimum of 500mm long x 400mm wide. The roll cage must be constructed so that the drivers head remains within the confines of the cage at all times. When the driver is strapped and wearing a helmet there must be AT LEAST 1" clearance between the top of the helmet and the roof plate.

Bumpers and Armouring

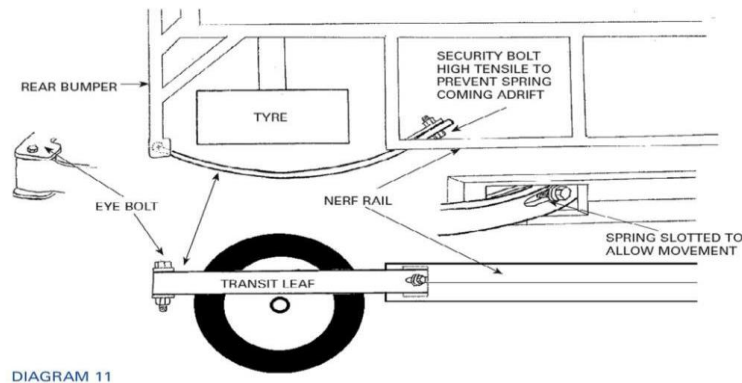
Front and rear bumpers must be steel and have a flat surface of 100mm deep and be 30mm thick maximum with both the bumpers permitted to extend out past the tyre. Front and rear bumpers must measure between 400mm and 450mm (15 ¾ inches and 17 ¾ inches) from the ground, at the centre of the car, without the driver. Bolt on bumpers must have a secondary securing chain (2 front and 2 rear)

Side rails must extend around the rear wheels, joining the rear bumper. The side rails must not extend more than height of the wheel rim. The wheel guards must be securely fitted and be capable of sustaining heavy impact. The side rails must measure between 400mm and 450mm (15 ¾ inches and 17 ¾ inches) from the ground, without the driver. Front bumper hoops / under run bars must follow the pattern in appendix A.



Rear Wheel Guards

A steel wheel guard **MUST** be fitted around the offside rear wheel, from rear bumper to nerf-rail. The wheel guard **MUST** be bolted to its mounts at **BOTH** ends using **MINIMUM** 10mm high tensile nuts and bolts. The nearside is optional if fitted must be the same fitment as the offside. Wheel guards rule will be concluded on a survey for clarity as to whether we are going to allow just one or introduce a lead time for compulsory 2 to meet health and safety requirements, details to follow. See Illustration below as a guide.



SPECIFICATION OF FORD PINTO 2.0 ENGINE

A Ford 2 litre SOHC NE type engine must be used.

2.0 Litre Pinto Engine

All parts appertaining to the engine must be standard Ford 2ltr SOHC items fitted as fitted to the original engine type and production engine tolerances are allowed. The removal or addition of any material to combustion chamber or ports is not allowed unless specified below. The engine may be painted inside and out except in the aforementioned areas and internal painting does not change the surface from matt to smooth.

Blocks: Blocks maybe over bored to 1.5mm or sleeved back to 90.84mm and rebored back to 1.5mm oversized. Main bearing houses may line bored. Blocks may be skimmed but pistons may not protrude above the face of the block at TDC.

Cranks: A standard crank shaft must be used. Spot machining to achieve balance is permitted. Tough riding, shot peening and shot blasting is permitted but polishing is not permitted. Crank shaft minimum weight is 28lbs (12.7kg). It is not permitted to alter the number of bearings or fit bearings of less than minimum width. Oversized and undersized bearings of standard or heavy duty material are permitted. Cross drilled crank shafts are not permitted.

Conrods: Spot machining is permitted to achieve balancing using the pad on the big end cap only, but the body weight on the small end may be removed, and high tensile bolts may be fitted. Tough riding, shot blasting and shot peening is permitted but polishing is not permitted.

Pistons: Pistons must be of any Ford production type (not power maxed or forged) and unmodified except for balancing as detailed. All 3 ring must be fitted and be of standard type. To achieve balance, material may be removed from the inner surface at any location. To allow the refacing of the cylinder blocks, pistons crowns maybe machined and at least one piston must remain its original manufacturer's markings.

Cylinder Heads: The head face may be skimmed. Ports and chambers must be of original cast as by Ford. No fettling is permitted except in the areas between the valve seat and the valve guide. The ports must have original casting 20mm in on the exhaust ports and the inlet ports. It is permitted to use 3 angle valve seats and valve seat inserts may be used to repair damaged heads, but these must be accompany the exact position of the original seats. No additional metals or materials to the ports or chambers is permitted. Valves must be of standard type with head diameters IN 42mm +- 0.2mm EX36mm +- 0.2mm, and no lightening is permitted. Valve guides may be replaced but must occupy their normal position. Only 8 valve springs per engine are permitted, spring seats maybe machined and shims maybe used to achieve correct fitted length. Steel valve spring caps may be used. 2 camshaft centre main bearing caps maybe strapped.

Camshafts: Camshafts profile is free providing no other part of the engine have to be machined to allow fitting. Ford pattern cam followers of any manufacturer of the slipper type, made of steel or iron are permitted, including those produced with hardened inserts. No roller or alloy followers are permitted. Standard camshafts bearings maybe used but centre drilling is allowed to improve lubrication. A Vernier timing wheel is permitted.

Gaskets: Any standard non-competition head gasket maybe used.

Carburettor: Only the standard Webber 32/36 DGV or DGVA carburettor maybe used with a maximum of 26mm and 27mm size chokes. Polishing or porting, machining or altering air or fuel flow is Not Permitted. Jetting is free. Power Valve may be sealed. Removal of Choke flaps and mechanism is permitted

Inlet Manifolds: Inlet manifolds must be of standard with no matching or porting.

Exhaust

The exhaust system MUST be fitted outside the main/lower chassis rails and bodywork of the car, terminating on the same side as the exhaust ports of the engine. It is NOT permitted for ANY part of the exhaust system to extend rewards beyond the rear face of the roll-cage. For simplicity, the rear face of the roll-cage is defined as the vertical plane from the point at which the rear roll-cage pillars (pillars 3 and 4) meet the top (main) chassis rails.

The exhaust MUST remain on the same side of the centre-line of the car as the engine exhaust ports for its entire length. The exhaust must NOT cross the centre-line of the car at any time. The exhaust MUST terminate on the same side of the centre-line of the car as the exhaust ports.

The exhaust silencer being used must be either be the Brisca approved silencer or the Simpson or Edwards Motorsport Silencer with a decibel reading no greater than 96 DB, it is recommended this must be covered sufficiently to prevent injury and burns.

The exhaust system must be securely fitted and if becomes displaced during racing or becomes louder than the required decibel reading stated above the car will be excluded from the race on a technical infringement.

Fly Wheels: Fly wheel and clutch must be standard 2ltr components, but fly wheels maybe machined down to a total minimum weight of 12.31kg including cover, drive plate and all mounting bolts, excluding ring gear.

Specification for 2.0 Litre Zetec Engine

1. ENGINE PRICE RULE

Unfortunately, some people will always look for an advantage, through expensive modifications and rebuilding costs, and this drives up the price for others to compete. In order to prevent this, a maximum price rule will be enforced for this championship/formula.

At the end of each championship round, any competitor can make a formal offer to buy the engine from another competitor's vehicle. This offer must be made through the championship scrutineer, and must be accompanied by a full cash amount as specified in the price limit. This offer must be made no later than 30 minutes after the end of the final race.

If the engine owner refuses to sell the said engine, the championship scrutineer will mark the major components of the engine (in situ) and that engine (or any of its major components) will be excluded from the results of the meeting and banned from further participation in other meetings or championship races.

The price limit for the 2019 season is £950 excluding VAT

This price applies to the "short engine assembly" i.e. excludes clutch and flywheel, inlet and exhaust manifolds, sump and ignition components.

2. ASSUMED STANDARD STATUS

Although all engine regulations for the formula must be adhered to, there is a possibility that an engine taken from a road car and used unmodified could have previously been modified and thus not be legal, unbeknown to the competitor. In order to avoid the expensive stripping and checking costs, a competitor can present an engine to the scrutineer (before the event) for an engine check.

If this engine shows no signs of having been disassembled from its original factory build, it can be given "Assumed Standard" status. It will thus be legal to race without further inspection.

Any engine which has been disassembled, for any reason, allows the possibility of modification and therefore will be subject to much more stringent checking.

FOR ALL ENGINES BUILT SPECIFICALLY FOR THIS CHAMPIONSHIP/FORMULA THE SPECIFIC RULES (BELOW) WILL APPLY

3. ENGINE GENERAL

- The only permitted engine is the Ford Zetec 2.0 (Black Top) engine. No ST Variants
- Only gaskets and seals of original ford manufacture, or pattern equivalents, are allowed.
- "Competition" gaskets are prohibited.
- The use of thread locking compounds is permitted.

4. CYLINDER BLOCK ASSEMBLY

- No modification to the original cylinder block is permitted.
- Re-boring of the cylinder block is prohibited.
- Installation of liners is prohibited.
- Only original "Ford" crankshafts and con rods may be used. Use of genuine Ford parts from other engines is prohibited.
- Rebuilding with new pistons, rings and bearings is permitted, however only original standard Ford parts or pattern equivalents are allowed.
- Con-rod big end bolts must be original "Ford" items and remain unmodified from standard specifications. Aftermarket bolts are prohibited.
- Machining or grinding marks on crankshafts, con-rods or pistons which indicate that balancing may have been carried out, will make that component illegal.
- The standard Ford oil pump / front cover may not be modified in any way.
- The front pulley, for ancillary drive belts is free.
- Flywheel – the original 2.0litre Non ST flywheel may be lightened, provided that the flywheel, complete with clutch assembly (cover disc and bolts), excluding ring gear, weighs no less than 11.5kg.
- A Manufactured Sump is permitted and Must be made of Metal, its configuration and shape similar to the Pinto Sump, The Original oil feed pipe may be altered to suit, sump may be baffled.

5. CYLINDER HEAD ASSEMBLY

- The cylinder head casting must remain unmodified but can be skimmed to a minimum thickness of 132.5mm, to be measured from the extreme top and bottom faces of the cylinder head.
- Only the original surface finish is permitted, shot peening, shot blasting, polishing or other surface treatments are prohibited.
- Re-shaping or polishing of ports and combustion chambers is prohibited.
- All valve gear components must remain original Ford items and modification is prohibited.
- The fitting of additional parts to assist or modify the operation of the valves is prohibited.
- Camshafts and pulleys must remain original Ford items (as fitted to the 2.0l Zetec "Black top" engine) and modification is prohibited this includes lift and duration.

- Interchanging of camshafts from original locations is prohibited. Example 2 Inlet camshafts not to be used.
- Belt tensioner mechanism is free.
- Pattern cambelts may be used.
- Cam timing is to remain STANDARD.
- Skimming of the head gasket faced is permitted. However, the thickness of the head must be no less than 132.5mm. This dimension is from the head gasket face to the rocker cover face.

6. INDUCTION SYSTEM

- Inlet manifold is free, but it may not extend out from the cylinder head mounting face more than 180mm. **The Promotion/NSA are looking to introduce a one make Inlet manifold solely for this formula to keep all cars the same.**
- Polishing of the internal ports is prohibited.

7. CARBURETTOR

- Refer to the Carburettor Section within the 2.0 Pinto Carburettor.

8. EXHAUST SYSTEM

The exhaust system MUST be fitted outside the main/lower chassis rails and bodywork of the car, terminating on the same side as the exhaust ports of the engine. It is NOT permitted for ANY part of the exhaust system to extend rearwards beyond the rear face of the roll-cage. For simplicity, the rear face of the roll-cage is defined as the vertical plane from the point at which the rear roll-cage pillars (pillars 3 and 4) meet the top (main) chassis rails.

The exhaust MUST remain on the same side of the centre-line of the car as the engine exhaust ports for its entire length. The exhaust must NOT cross the centre-line of the car at any time. The exhaust MUST terminate on the same side of the centre-line of the car as the exhaust ports.

The exhaust silencer being used must be either be the Brisca approved silencer or the Simpson or Edwards Motorsport Silencer with a decibel reading no greater than 96 DB, it is recommended this must be covered sufficiently to prevent injury and burns.

The exhaust system must be securely fitted and if becomes displaced during racing or becomes louder than the required decibel reading stated above the car will be excluded from the race on a technical infringement.

Each of the four primary pipes must NOT exceed a MAXIMUM length of 790mm. This measurement is taken from the face of the cylinder head flange to the termination of the pipe, and is measured along the centreline of the pipe and through the centreline of any bends.

The external diameter of the four primary pipes must NOT exceed a MAXIMUM of 45mm. The four primary pipes MUST maintain a constant, non-varying, internal and external diameter along their entire length, with the exception of up to a MAXIMUM of 50mm from the join to the cylinder head mounting flange. The collector must NOT exceed a MAXIMUM length of 150mm. This measurement is taken from the swaged primary end to the point where the single straight main pipe starts. The external diameter of the single straight main pipe, linking the collector to the mandated silencers listed above, must NOT exceed a MAXIMUM of 57mm.

9. COOLING SYSTEM

- A water based liquid cooling system is mandatory.
- The standard production water pump and housing must be retained, however the drive to the pump, its rotational speed and direction may be changed.
- No other pump may be used to circulate or assist the circulation of the coolant liquid.
- Thermostat housing is free
- Oil coolers are prohibited

10. IGNITION SYSTEM AND ENGINE CONTROL UNIT (ECU)

- Only the original and unmodified Ford Mondeo Ford / Ford Focus Ecu designed for the specific Engine are permitted. No ST Versions are permitted
- The Use of the Omex 200 Ecu is Permitted using its Original Software and be un modified.
- No other Ecu is Permitted
- **The Promotion / NSA are seeking to use a one make ECU Ignition for the Formula**

PLEASE NOTE WHEN READING THESE REGULATIONS THE EMPHASIS IS UPON YOU (THE COMPETITOR) TO COMPLY: IF YOU ARE NOT SURE ABOUT THE LEGALITY OF AN ITEM – GET IT CHECKED BEFORE RACING!

ENGINE SEALING

Promoter: 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 the Promoter, 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 and it will incur a charge based on the time and distance travelled. If this option is taken at a major Championship your engine will not require stripping unless the seals have been broken. Seals can only be removed by the Promoter's Officials and if they are removed without permission the engine/parts will be deemed to be illegal and 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 the Driver due to a rebuild, the Driver with the Promoter's agreement, postpone stripping for three meetings.

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

Either side of the Sump.

To 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.

RADIATORS / COOLING

All cars Must use a water based cooling system. The Use of Water coolant additive is Permitted.

The radiator being used is free in terms of make and size, but must fit between chassis rails and forward of the engine and be in front of the firewall between engine compartment and driver.

Coolant pipes are free and must be secured correctly with metal fixings and must be connected to the original coolant outlets on the engine being used. If any overflow pipes are used they must be directed to below the car.

The use of Mechanical and Electronic fans are Permitted

OIL CATCH TANK

A 0.5-1 litre oil catch tank must be fitted with in the engine bay.

The tank must have a minimum of 2 breather pipes connected to it from both the rocker box breathers and return down to the engine block.

Ineffective tanks during racing or practice will mean the car being withdrawn from the event.

Axle, Gearboxes and Transmissions

Rear Axle: Rear wheel drive only is permitted with locked or unlocked differential of any ratio. Both half shafts must be of equal length. Anti-roll bars are Permitted front and rear. Limited slip differentials are permitted to be used. Any braking system may be used but must be in full working order on all four wheels.

Standard Rwd Ford Pinto Gearbox 4 or 5 speed may be used, Trans X and Elite gearboxes can be used. **The NSA will be looking at discontinuing the use of the elite gearboxes at the end of the 2019 season to help keep costs down for drivers for the future.**

Windscreen

Windscreen mesh must be fitted with a minimum mesh of 40mm square x 2.4mm thickness.

Driver's Seat

A 3mm steel plate must be fitted to the bottom of the seat covering the full width and length and a prop shaft loop must be fitted minimum of 25mm x 3mm flat steel. The driver's seat may be of metal construction or fibreglass/Kevlar (rally type/spec) and must supported at shoulder height and head rest must be supported.

Head Rest

A head rest must be fitted behind the driver's seat with a steel plate minimum thickness of 3mm and must be braced to prevent forward or rearward collapse.

Batteries and Electrical

Batteries MUST be bolted to the chassis to prevent movement in an impact or roll-over. Batteries must NOT be located where they may leak acid/fumes on to the driver safety harness. Batteries must NOT be fitted between the driver's legs. If fitted outside of the main chassis rails, batteries MUST be positioned next to the chassis rails with NO gap between the outside edge of the rail and the battery/batteries.

Batteries and terminals must be covered with a rot proof material

A battery master switch must be fitted and clearly marked "ON – OFF" or have an electrical danger decal.

When an electric fuel pump is used, a cut-off switch must be positioned within easy reach of the driver and be operating correctly and must be secured

A self-starter motor must be fitted and working at all times.

A 24 volt system may be used. If Using this system the batteries will need to be side by side.

If fitting 2 batteries they both must be operational with the system with all fittings, and not used solely for ballast purposes. They must be both the same size in dimentions and have equal volume inside with weight.

FUEL SYSTEM

Fuel tanks must be metal or FIA approved minimum of 2mm thickness and either fitted inside the car behind the driver seat it must have a full firewall in place. If the tank is mounted outside of the cab, a steel plate not less than 3mm thick must be securely fitted underneath.

You cannot enclose the rear boot area from the seat to the rear window aperture.

The tank must have a minimum capacity of 10 litres (2 Gallon) and max 15 litres (3 Gallon).

Fuel caps must be of a metal screw type, no push fit types are allowed.

The tank must have a positive means of fixing.

The fuel outlet, must be from the top of the tank.

Fuel regulators are allowed.

An electric fuel pump can replace the mechanical one and be securely fixed.

All fuel lines must be inside the car and be metal or metal covered.

A fuel shut off tap must be within easy reach of the driver.

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. Must not be drilled or tampered with **Min 6 Month ban**

Only roadside fuel can be used. No additives are allowed.

All Oval Racing Formulae

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

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), BS 7800 (Super Unleaded).

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.

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.

Lead Replacement Gasoline, LRG, also known as LRP. Only additives from Sodium, Phosphorous, Potassium, or 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.

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 degrees	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.

Car Weights

Car must weigh minimum of 650kg to a maximum of 750kg without the driver at any one time. Inside weight must not exceed 53%.

Steel Floor and Ankle Supports

Steel plate floor and ankle side plates must be securely welded from the fire wall to the front of the driver's seat.

REARVIEW MIRROR

A rearview mirror may be fitted. If fitted, this mirror must be shatterproof and secured safely.
An External mirror is not permitted.

PAINTWORK

The external appearance of the car must look professional at all times, drivers of scruffy looking cars will be told to improve their appearance and may not be allowed to race.

A maximum of two cars may be painted in team colours or painted to look similar, unless it is required by the Promoter for a particular team event.

Sign writing must be professional and be approved by the Promoter.

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 & Mechanics consuming large amounts of alcohol at meetings, which could affect their judgement or be detrimental to their health, when medical attention has to be administered by Paramedics, Private Medical Cover supplier 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 to 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. You have been warned!

Flag Signals

- Waved Green Flag – Go, the race is on.
- Waved Red Flag – Stop racing, slow down and stop.
- 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, do not overtake any other cars.

- Waved Blue Flag – Shown to a driver who must hold his racing line. Driver must either hold a line on the inner part of the track or the outer part of the track, not weave between both.
- Blue & White Flag – Give up your track position, you have not taken notice of Blue Flags.
- White Flag with a Blue Spot – Oil on the track.
- Waved Black Flag – You are disqualified, pull off the track immediately.
- Black Cross on a White Board – You have committed an infringement and may be penalised in the results.
- White Flag with a Red Cross – Technical Disqualification, leave the track immediately.

SAFETY EQUIPMENT

A. CRASH HELMET GOGGLES AND VISOR

A helmet conforming to at least one of the approved standards **MUST** be worn. Helmets **MUST** meet or exceed the **MINIMUM** standard as directed by BORSE. The current approved standards permitted for all drivers are: • FIA 8860-2004 • FIA 8860-2010 • FIA 8859-2015 • Snell SA2005 (This standard will be reviewed at the end of the 2017 season) • Snell SA2010 • Snell SAH2010 • Snell SA2015 • Snell EA2016 • SFI Foundation 31.1A • SFI Foundation 31.2A • SFI Foundation 31.1 • ECE R22.05 (in Fibreglass, Carbon or Tri-Composite form **ONLY**) The use of polycarbonate helmets is **NOT** permitted. The helmet **MUST** fit the competitor correctly, according to the manufacturer's sizing/fitting guidelines.

Shatterproof goggles or a shatterproof visor **MUST** be worn with the helmet at all times. the use of tinted visors is **NOT** advisable

B. RACING OVERALLS

A flame resistant race-suit/overall **MUST** be worn. Flame resistant race-suits/overalls **MUST** be manufactured from Proban, or material of a higher specification, e.g. Nomex. Flame resistant racesuits/overalls **MUST** be clearly marked with the relevant SFI, FIA or equivalent standard, or the manufacturer's statement of protection. Race-suits/overalls **MUST** be maintained in a clean and tidy condition. Race-suits/overalls manufactured/certified to Karting standards, including, but not limited to, the CIK-FIA Level 1 or Level 2 standards, are **NOT** permitted as they do **NOT** provide the appropriate level of heat/flame protection

C. GLOVES

Flame resistant gloves MUST be worn. Flame resistant gloves MUST be clearly marked with the relevant SFI, FIA or equivalent standard, or the manufacturer's statement of protection.

D. BALACLAVAS

A flame resistant balaclava MUST be worn. Flame resistant balaclavas MUST be clearly marked with the relevant SFI, FIA or equivalent standard, or the manufacturer's statement of protection.

E. NECK BRACE

A Neck Brace is compulsory, spine support is also recommended. The use of Hans device is permitted.

F. WET WEATHER CLOTHING

Wet Weather Clothing is also recommended and must be worn in addition to, and not instead of the racing overalls.

G. WINDOW NET

A quick-release fabric window net MUST be fitted in the offside window aperture of the cab if a seat head restraint is not fitted. The width of the netting holes must NOT exceed a MAXIMUM size of 3in/75mm wide. The window net MUST be fitted such that it hangs down level with the steering wheel. The window net MUST be flexible and easily removable, independent of any movement of the offside window of cab.

H. FIRE EXTINGUISHER

A fire extinguisher, meeting the specifications below, MUST be carried in the competitor's tow vehicle/transporter at all times. The fire extinguisher MUST be within easy reach of the competitor and team members at all times, especially when re-fuelling the racecar. The fire extinguisher capacity MUST be at least a MINIMUM of 2Kg. The fire extinguisher MUST be of a dry powder or gas type. Old type BCF (green) fire extinguishers are NOT permitted

I. COMPETITION STYLE DRIVERS SEAT WITH HEAD RESTRAINT/THE HEADREST

You must have a competition type driving seat with a head restraint. Reclining bucket seats are not permitted. The seat should occupy its original position where possible and be suitably supported at shoulder height and on both sides and back, with suitable frame and stiffeners. The headrest of your seat must have a support in place.

Top of driver's seat must be supported with diagonal brace/s connected to top cross rail between b post

J. SAFETY HARNESS

A full safety harness MUST be used in accordance with the specifications below. All mandated straps MUST be used at all times, The harness MUST comprise of a MINIMUM of 2 shoulder straps, 2 lap straps, and an anti-submarine strap (also referred to as a sub-strap, or crotch-strap) in a MINIMUM 5-point design. Shoulder straps with a sternum protection latch are highly recommended. The harness MUST incorporate a quick-release buckle (including rotary buckles, and NASCAR lever-latch type buckles), to which all straps MUST be connected. Where a NASCAR lever-latch type buckle is used, it is advisable to fit a method of protection to prevent race-suit/overall sleeves from accidentally unhooking the buckle during racing. A small section of "Tubegrip" elasticated bandage, slid over the hooked buckle is sufficient for this purpose.

All Non-FIA Approved Harnesses - The shoulder and lap/pelvic straps of ALL NON FIA approved harnesses MUST measure at least a MINIMUM of 3in/75mm in width. This applies, but is not limited to: • ALL nonhomologated harnesses • ALL harnesses with NASCAR lever-latch type buckles • ALL harnesses homologated to SFI standards • ALL harnesses that do not meet ALL FIA criteria below

FIA Approved Harnesses – The use of narrower lap/pelvic straps is now permitted on FIA approved harnesses ONLY. The harness MUST meet ALL the following criteria:

- The harness MUST be certified/homologated to the current FIA standards: 8853/98 or 8853-2016
- The shoulder straps MUST measure at least a MINIMUM of 2.75in/70mm in width (unless used in conjunction with an FHR device – see below).
- The lap/pelvic straps MUST measure at least a MINIMUM of 2in/50mm in width.
- The FIA identification/homologation labels MUST be intact and visible to scrutineers on ALL sections of the harness.
- The harness MUST be within its visibly stated validity period.

ALL Harnesses - The anti-submarine strap MUST measure at least a MINIMUM of 1¼in /44mm in width.

ALL Harnesses - Where an FHR device is used by a competitor, it is permitted to use shoulder straps that narrow below the minimum specification (stated above) in order to ensure the correct fitment of the harness/FHR device combination. This exception applies to the shoulder straps ONLY. Any such straps MUST be manufactured by a recognised industry supplier AND be specifically designed for use with an FHR device. The harness MUST be securely mounted to the floor, roll-cage, and/or chassis of the race car. Harness manufacturers specify their own installation requirements depending on the design of their harnesses. Therefore, harnesses MUST be installed according to the manufacturer's recommended best practice using only approved mounting components/methods. All the major manufacturers have installation information on their websites, and competitors are advised to refer to this when fitting harnesses to their race cars. Useful websites include (addresses correct at time of publication):

Manufacturer's Websites. • www.willans.com • www.schrothracing.com • www.tris-motorsport.com • www.racequip.com Safety Standards • www.sfifoundation.com • www.fia.com/homologations Key general guidelines from manufacturers for the installation of harnesses state that:

- Strap lengths should be kept as short as possible to avoid excessive stretching under impact.
- Shoulder straps should be supported at or just below shoulder level.

- Shoulder straps should be prevented from moving sideways, such that they may drop off a competitor's shoulders under severe impact/stretching. It is recommended that any seat apertures, through which the straps pass, are lined to prevent chaffing of the straps. Special attention MUST be paid to the condition of straps and fixings once installed. The harness MUST be maintained according to the manufacturer's recommended best practice, and where possible kept free of dirt, oil and grease that could degrade any materials

Roof Wings and Grade Colours

Roof wings are optional and if fitted must be fitted securely. The forward mountings, if from the windscreen pillars, must be mounted on the outside of the pillars so as to minimise the risk of the mountings entering the cab in the event of a roll over. The roof wing must be painted completely in the current grading. Any sign writing on top of the grading colour may be as you desire but must not interfere with official racing numbers. In the case of cars with no roof wing, the car roof must be painted in the current grading colour down to the waist line of the car.

Numbering

The driver's registered number must be painted on both sides of the tallest side panel of the roof wing. They must be neatly shown in black, a minimum of 12" high and 2" wide (larger if possible) on a white square. If a roof wing is not fitted, a number board must be fitted, large enough to accommodate the correct size numbers, again, black numbers on a white roof board. It would be helpful to the lap scorers if the numbers/white background be painted in matt so as not to reflect under the track lights. To assist lap scoring, the drivers number should appear on the rear of the car, recommended inside the rear window aperture, to keep it clean. It should be black on white, minimum size 9" high and 1" thick.

Wheels and Tyres

The car shall have 4 wheels. Steel or alloy wheels maybe used with no modification to fit the hub assembly, up to a maximum of 6inch wide fronts and a maximum of 10inch wide on the rear.

Each wheel must use the correct wheels Nuts or bolts and the correct amount of fixings to secure the wheel to the hub assembly, it is the drivers responsibility that all wheel fixings are present and secured correctly and torqued to the manufacturers specifications, the Promoter/ Organisers or the NSA will not be responsible should fixings or wheel become loose, or if any Injury or fatality occurs to any individual, whether staff, driver, pit crew or any spectator, it is the drivers Responsibility Only and are Responsible for any said Incident.

The following Tyres listed below are permitted. All four tyres on the car must be 4 of the same size and make (Example 4 Yokohama A021R).

Mix and matching of sizes or makes is NOT permitted (Example 2 Yokohama A021Rs and 2 Spedeworth Hoosier HSPRT).

- A) The Yokohama A021R tyre, labelled as "185/70R13 A021R" (Pre-2015) or "175/590R13 A021R" (2015-on) may be used in its original form.
- B) Spedeworth Hoosier HSPRT 24 x 6.0 x 13
- C) Brisca Avon Wide Safety GT 7.3 x 13 Treaded or Slick
- D) DMACK (types 195-70-13, DMG+1)

The Promotion and National Stockcar Association will be looking at a One Tyre Ruling possibly for 2020, but we will be talking to drivers as well as suppliers with feedback before any decision is made.

Tyre Buffing is Permitted.

Tyre Softner, Chemical or treatments are NOT Permitted, durometer readings will be taken from anywhere on the tyre and hardness must read above 40 at any time, should any readings be found below this penalties will be incurred to the driver. The Promotion/Scrutineers can check this at anytime during any race meeting.

Cutting or Re-treading is NOT Permitted, the tyre must use tread of its original Manufacture.

Tyre Gaitors are NOT Permitted.

Inner tubes are Permitted

Track Width

The permitted track width for both front and rear axles must be a maximum track width of 1728mm (68 Inches) excluding any wheel guards. The track width of an axle is measured on the vertical plane along the transverse centreline of the axle and is the measurement between the outermost points of the wheel/tyre assemblies on said axle.

Scrutineering

It is recommended that drivers arrive at the meeting at least 1 hour before the meeting. The cars must be presented for scrutineering, ready to race, with seat belts and wing fitted and accompanied by the designated driver. The driver must have his licence, helmet and overalls with him and be prepared to be measured, sitting in the car if required to do so.

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.

ROOF GRADING

All roof grade Champions must start at the rear of the Grid, unless told otherwise by an Official.

If you win a race at a meeting; you will start the NEXT race from the rear of your grade. Should you win another race at the same meeting – you will be automatically upgraded.

Drivers are reminded that they should line up in points order on the grid with the engine switched off. Drivers with incorrectly painted roofs after the points chart has been issued will have to start at the rear of the grid.

Grid Line up / Roof Order: White
Yellow
Blue
Red
Southern Champion Blue & White Chequered
Silver Roof Track Points Champion
National Champion Red with Gold Stripe
European Champion Red and Yellow Chequered
English Champion St Georges Cross
World Champion Gold

29. SOCIAL MEDIA, FACEBOOK, TWITTER, INSTAGRAM, OR SIMILAR

Unacceptable behaviour on social media towards The Promoter, Organiser, a fellow competitor, pit crew, family member will result in a 12 Month ban.

N.B – NSA (National Stockcar Association) is governed and controlled by the directors of Ringwood Raceway LTD and accepted and Associate Members have no influence control over Rules and Regulations Set out by the governing and controlling Director.

The use of logos associated to NSA (National Stockcar Association) is not permitted unless obtained in writing from the governing Directors.

Acceptance into the NSA is by way of Paid Membership under licence and contract terms with the Association and its Governing Director.



