

2024 **O.R.Ci** SALOON STOCK CAR SPECIFICATIONS

VIOLATIONS

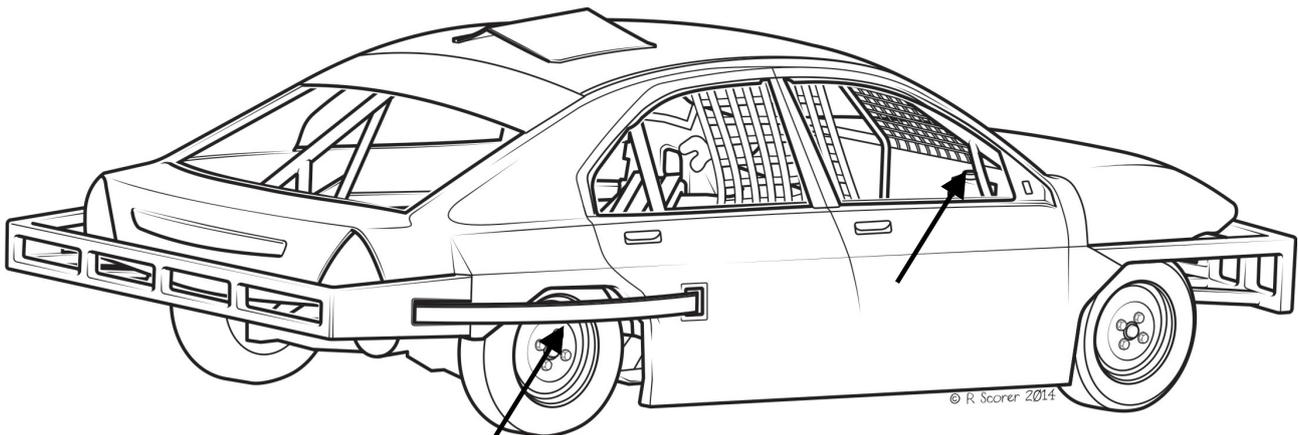
When referring to ANY OF THE SALOON STOCK CAR SPECIFICATIONS NOTED HERIN the principle will always be: **Unless permission is specifically granted to make modifications or any variation, NOTHING MAY BE DONE TO ALTER OR CHANGE IN ANY WAY THE STANDARD PARTS. Unless these rules state you CAN do it, you CANNOT do it.**

All specifications, where applicable, will be taken from Auto Data. Technical queries can be addressed to, SSCA, PO Box 687, Weston S Mare BS23 9QN. Drivers are encouraged to submit queries in writing on any aspect of technical information for which they require clarification. Any written queries will require 21 days to receive an answer.

Technical checks can be carried out at any time. If parts are suspected of being illegal you must leave them with the promotion. If you refuse, this will automatically deem the parts illegal. It is the responsibility of the driver to prove to the SSCA that the part is legal by the way of written proof of where the part originated. This must be done within seven days; otherwise the part(s) in question will be deemed to be illegal and will result in immediate suspension from racing and referral for disciplinary action.

1. CARS & BODY SHELLS

- Cars must be built to Ford Sierra running gear specification. All cars/components/running gear must be UK specification only, no sports, competition, RS or 4x4 components permitted unless otherwise stated in these technical specifications.
- All bodysHELLS must be constructed using one from the following (estate versions not permitted):
 - Ford Sierra/Sapphire, Ford Mondeo (Mk1-4, 4dr or 5dr)
 - Vauxhall Vectra (Mk1-2, 4dr or 5dr) - **Vectra C (Mk3) bodysHELL is not permitted on new cars after 2014.**
 - Lexus IS200 (Mk1 4dr 1998-2005)
 - BMW E36/E46/E90 3 series (4dr no compacts)
 - Audi A4 (Mk1-2), VW Passat (Mk 1-2), Skoda Octavia (Mk 2)
- **The bodysHELL (i.e. roof, pillars, bonnet, boot, doors) to a minimum of 150mm from the bottom of the window apertures to waistline must be original – see diagram below.**
- **The roof and side panels of the bodysHELL must remain attached together as per manufacture.**

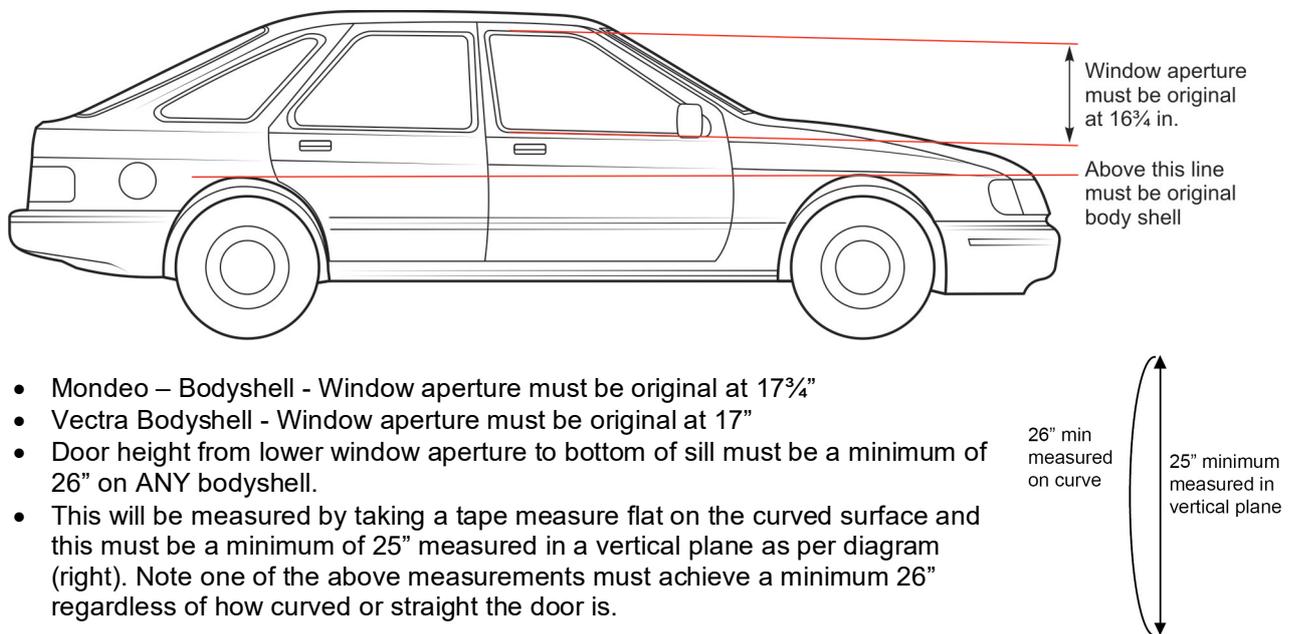


- **ALL PILLARS MUST REMAIN IN THEIR ORIGINAL POSITION** and must retain the original door mirror locating corner gusset. It is **ONLY** permitted to move the bodysHELL B pillar (up to 100mm from original), if a support bar is fitted from the rollcage at the A pillar returning downwards to the driver's door top/chassis rail as noted by an arrow above.
- BodysHELLS must not be tatty, and must be complete with no holes, unless standard to the panel.
- Strips of metal inserted to widen the body shell are not permitted. Strips of metal to hold the original shell together are permitted.
- The bodysHELL to the lower side rail must be symmetrical on both sides, with the required door/sill/window heights to be achieved on both sides of the car. Sills folded under the car to achieve

correct bodyshell heights are not permitted, and therefore the sill must be backed by steel tube or RHS at its lowest point.

- Race damage repairs and lower panel work may be formed from sheet steel if required.
- Doors must be welded closed.
- The only holes permitted in the bonnet are to accommodate the air filter and to secure the bonnet in place. The air filter aperture must be a straight cut out in the bonnet, with no lips, covers, vents, raised components or similar items. For shale racing a maximum of 150mm high protector maybe mounted a minimum of 250mm from the front face of the air filter aperture towards the front bumper.
- All cars must be a maximum width of 1778mm (70") over the entire length of the car; this does not include the mandatory wheel arch spring as shown arrowed above, and the front bumper extension - see rule 4.
- The overall length of the car, including bumpers must be a minimum of 170" and a maximum of 172". **However, this is taken as being 130" minimum to 132" maximum from the centre of the rear hub forwards. Rearwards from the centre of the rear hub, to the rear face of the back bumper must always be 40".**

Sierra – Bodyshell measurements



- Mondeo – Bodyshell - Window aperture must be original at 17¾"
- Vectra Bodyshell - Window aperture must be original at 17"
- Door height from lower window aperture to bottom of sill must be a minimum of 26" on ANY bodyshell.
- This will be measured by taking a tape measure flat on the curved surface and this must be a minimum of 25" measured in a vertical plane as per diagram (right). Note one of the above measurements must achieve a minimum 26" regardless of how curved or straight the door is.

2. ENGINES

- The only engine permitted for use is the Ford 2 Litre "Black Top" Zetec Engine.
- Please see page 14 and for full technical specifications please refer to the BriSCA F2 Technical Specifications at www.BriSCAF2.com. WHERE REFERENCE IS MADE TO "BRISCA F2", THIS MUST BE INTERCHANGED WITH "SSCA". **NOTE UPDATES FOR 2024 REFERENCE MANIFOLD GASKET THICKNESS & PERMITTED WATER PUMP PULLEYS.**

3. SUSPENSION

Wheelbase

- The wheelbase must be 2604mm. The wheels must occupy their original position within the wheel arch. The driver's side wheelbase measurement must remain standard with a +/-25mm tolerance. The passenger side is permitted a lead of 50mm max. Measurements will be taken from the centre of the rear wheel to the front spindle and without movement of the steering in between taking the two readings. However, this must only be measured once the strut top position is determined to be correct.
- Cars must achieve a minimum ground clearance at all times of 100mm under the entire car.

General

- All measurements for reference are taken from a standard Ford Sierra Sapphire and are measured from the engine rearwards.
- Poly bushes are permitted on the suspension to include compression arms, struts, track control arms and rear wishbones.
- No wheels/tyres are allowed to protrude beyond the outer most edge of the chassis/steelwork

(this does not include the 75mm permitted bumper addition or rear wheel arch spring guard).

This is measured when the car is in race ready condition. Taking a spirit level from the outside edge of the top chassis rail to the ground, in a vertical line with the centre of the hub and in a vertical plane. The level must be upright when touching the top chassis rail and no part of the wheel/tyre is permitted to sit outside this.

- Only one spring permitted per corner (with the exception of the NSF).
- Spring rates are free and springs may be shortened to lower the car.
- The use of rose joints or other spherical type bearings are not permitted (with the exception of the steering column and throttle linkage).
- All suspension components must remain standard with the following exceptions:

Front

- The maximum negative camber permitted on the passenger side front wheel is 12° degrees.
- No positive camber on the driver's side front wheel.
- Strut tops must be original down to the orange line (as shown in picture right).
- Struts must be mounted in as near to original position as possible. The driver's side strut must be



- mounted within 5mm of original position checked by two methods; firstly from carburettor and secondly from front face of pulleys. A tolerance of 50mm is permitted on the passenger side strut top taken from the original centre point, forward or back. You are permitted to move the strut top in towards the engine to achieve camber.
- Only standard Sierra sealed strut units are permitted (no P100 or Bilstein from 1 March 2024 struts permitted). The only alterations are: platform height can be adjustable; spring platform size can be changed; and that the unit can be strengthened. Some downward movement must be retained. The retaining lug on front struts maybe removed. However, the strut must be mounted in its original position in the hub carrier and must not protrude through the mounting point any further than if the retaining lug was used.
- No adjustable shock absorbers or struts are permitted, except one extra shock absorber on the passenger side front. This must be an adjustable platform/damping auxiliary shock absorber, no double adjustment permitted; you may adjust the bump or rebound but not both on one shock absorber. The maximum retail price for a shock absorber is **£135 + VAT**. This must be mounted at one end on the track control arm and at the other end to the steelwork of the car.
- Inboard suspension is NOT permitted.
- The secondary shock absorber mounting points must be rigid and must not pivot.
- One standard Sierra (front) anti-rollbar can be used. This must be mounted in its original position and orientation. An anti-roll bar must not to be used in conjunction with a compression strut, see below.
- A single compression strut maybe used on each side of the car. These are free but no rose joints/spherical objects are permitted; however standard production track rod ends maybe used.
- Track control arms can be strengthened (both sides) and lengthened (passenger side only)
- Driver's side track control arm must be mounted as original Ford manufacture, ***to clarify this means only one mounting hole (multiple holes not permitted)***. Both the driver's side and passenger side must be mounted the same height from the ground when the car is level. However, you may locate the mountings closer to the wheel or engine accordingly. You may mount the passenger side arm up to 25mm further forward. ***The mounting brackets both sides must be at a 90° angle to the engine.***
- The steering rack must remain standard (i.e. driver's side track rod end must be on the driver's side) and be mounted in its original position. This will be checked on the driver's side, by means of measuring from the pivot bolt for the track control arm and the mounting bolt for the steering rack - ***being 163mm apart with a 5mm tolerance*** (see diagram below). However, the mounting hole maybe enlarged to 12mm to take an uprated bolt, and the steering rack maybe drilled to accommodate this.



- The steering rack can be lengthened on the passenger side (only) at the thread end and not the end which attaches to the main part of the steering rack.

Rear

- Rear wishbones maybe mounted without the original horseshoe support beam, however they must be mounted symmetrically in the car, as if mounted using the original horseshoe. This ensures that the wishbones are the same height from the ground on both sides of the car, when the car is level, and that one wishbone cannot be mounted further forward than the other.
- Rear wishbones MUST remain standard, no alterations to profile/angles/dimensions are permitted
- Rear wishbones maybe repaired and strengthened but only by the means noted below.
 - The recommended process for repairing a rear wishbone is to cut from either the top of the casing and/or the bottom of the casing, but not through the entire arm i.e. not cutting through the original seam on either side. These repair cuts can be anywhere within 200mm from the centre of the bolt hole on the two front pick up points as shown in the diagram below.



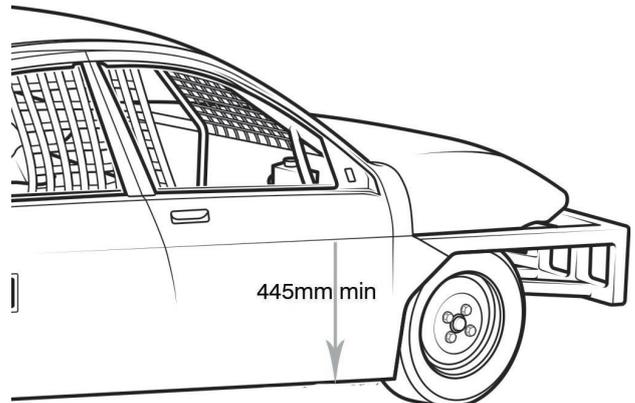
- It is permitted to weld the rear wishbone. It is permitted to add additional steel to the wishbone to strengthen it but this must not go through the arm.
- Subsequent to any repair the wishbone must retain its original geometry, profiles and measurements, to include but not exclusively, the original casting seam lining up.
- The SSCA recognises that there are numerous arms that have been repaired by means of cutting entirely through the casing. To facilitate these arms being used up, the recommended process for repair noted above will apply, with the following exception; you may cut an arm entirely through (within the first 200mm from the pick-up points), including the original seam.
- Any arm that requires repairing more than 200mm from the front pick-up points will be considered not fit for purpose. The SSCA may consider allowing the repair of such arms through an official supplier in the future.
- For the avoidance of doubt, the SSCA will have measuring jigs available, and drivers will be able to utilise the jigs to check repair work. The onus is on the driver to have a wishbone checked prior to racing, should they have doubts about it lining up to a standard wishbone in all respects. The scrutineer's decision is final.
- Multi-hole adjustment IS PERMITTED on rear wishbone mountings, but only to ensure that all pickup points are the same height from the ground on both sides of the car, when the car is level.
- NO OTHER FORM OF ADJUSTMENT IS PERMITTED ON THE WISHBONE MOUNTING POINTS.
- The rear wheels are permitted a maximum of 6° negative camber, but no positive camber.
- To achieve camber on the rear wheel you are permitted to washer out a maximum of 3 drive shaft fixing points on each wheel.
- All suspension component bolts are permitted to be reversed, i.e. enter from the rear of the hole and not the front or vice-versa.
- All shock absorbers must be standard sealed unit type, not-adjustable. They must have a retail value of no more than £50 (inc. VAT) each, and must be openly available to all customers (no Bilstein products permitted). The SSCA will independently check the availability and price of such an item.
- Adjustment on spring platforms is permitted by means of threaded bar, spacers or multi-hole.
- Anti-roll bars are not permitted.

- Sierra 4x4 rear suspension arms can be used.

4. STEELWORK

Chassis

- The chassis must be constructed from steel RHS/SHS a minimum of 40mm x 40mm x 3mm thick, and a maximum of 60mm x 60mm x 6mm thick.
- No ballast is permitted, to include (but not exclusively) layers of steel plate, solid bar, etc.
- The maximum thickness steel plate permitted in the car is 4mm, with the following exceptions.
 - To protect the driver in the event of a front U/J failure, a hoop of 25mm x 6mm steel must be fitted to surround the prop within 300mm of the front U/J. This hoop is not required if steelwork surrounds the prop in this area.
 - Diff mounting plate (one piece) a maximum of 10mm thick and with no one side longer than 300mm, occupying the area directly above or below the diff.
 - Diff mounting brackets, suspension pick up points, pedals and wheel guard mounts, can be constructed from a maximum of 10mm thick steel plate.
 - Single lengths of steel flat a maximum of 50mm wide by 10mm thick for strengthening purposes only in the following areas:
 - front bumper repairs
 - top side rails rearward of the centre line of the front wheel
 - rear suspension area from the suspension arm pick up points rearward to the rear face of the wheel arch.
 - mounting brackets for bolt on rear bumper
- The maximum size of plate permitted for engine mounts is 12mm thick on one individual piece, with the maximum size of plate bolted together being 20mm.
- All RHS/SHS and tube must remain hollow.
- The car must be constructed of at least four through bars of the specification noted in bullet point one above. These must run through the cab area from the bulkhead to the rear in continuous lengths. No scalloping out of steel chassis rails, inside the driver compartment, from their original dimensions to accommodate seat mountings etc.
- Chassis tilt or stagger from passenger side to driver's side is not permitted. This requires that the distance (in a vertical plane) between the steelwork, must be the same on the passenger side as it is on the driver's side and all points in between. This includes undercarriage, **outer rails (commonly known as "side irons")** etc.
- This assumes everything is measured with the car sat flat on the floor (i.e. with no wheels on), and when in this position, all points must remain level/same height from the ground, from passenger side to driver's side of the car.
- The distance between the top of the top chassis rail and the bottom of the bottom chassis rail, must achieve a minimum height of 445mm on both sides of the car, as per image.
- To prevent the loss of wheels, a pair of steel springs, a minimum of 60mm and a maximum of 90mm deep, must cover the rear wheels. Springs must be secured at the front by a minimum 13mm diameter pin and slotted into steelwork at rear or on a 19mm diameter pin locating the rear. The heads of those pins/bolts must be protected. Wheel guards must be in place at all times and must cover the top of the tyre to wheel level, to include at least 75mm of the tyre.



Floor/Bulkhead

- A mild steel floor must be present and complete at all times in the car from the bulkhead to the rear chassis SHS/RHS running across the car where the rear suspension pick-up points are located. No aluminium, no mesh, no holes etc. The exhaust and propshaft must not be visible in any way from the bulkhead to the steel cross member noted above.
- The floor in the driver's compartment (the area which is bulkhead to rear wheel arch and door to gearbox tunnel) must be a maximum of 4mm thick mild steel plate.
- The combined gearbox tunnel/propshaft and exhaust system must be enclosed using a maximum of 2mm thick mild steel plate, however the underside cannot be plated/enclosed in anyway. No mesh. No holes are permitted in this steel.

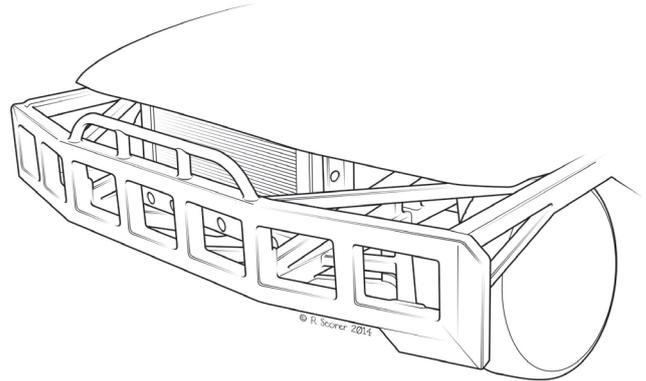
- The maximum thickness mild steel plate permitted in the passenger compartment is 2mm.
- It is permitted to fabricate the bulkhead, if so, this must be made from a maximum of 2mm mild steel. No holes are permitted for access.
- Rear wheels must be protected by trailer arches fitted to each side to prevent debris striking driver.

Bumpers

- Bumpers must be within the 1778mm permitted width of the car.

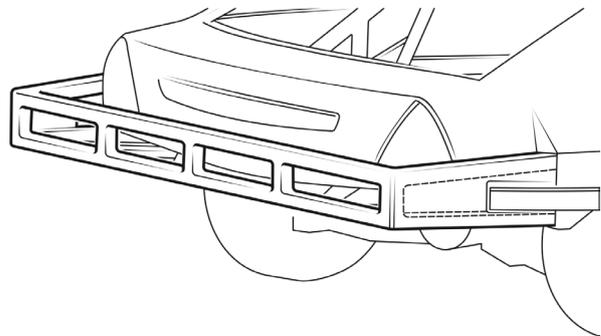
Front

- The front bumper must be a minimum overall depth of 300mm (this measurement must be achieved without the use of flat plate).
- SHS or RHS must not be placed back to back in a horizontal plane. ***This means no doubling up of SHS or RHS, either back to back or on top of each other. The bumper must be as per the drawing.***
- There must be a minimum gap of 30mm before another length of SHS or RHS is placed behind the bumper, for example between the chassis.
- An extension to the front bumper, up to a maximum of 75mm wide is **COMPULSORY** on the nearside – this must be a minimum of 380mm in height and must be mounted as per drawing. This must not be mounted higher than the rest of the bumper. The extension **MUST** be braced/strengthened back to the main bumper (i.e. creating a triangle).
- All SHS or RHS or equivalent, must remain hollow.
- The front bumper must not exceed the height of the bonnet.
- All bumpers **MUST** have smooth and rounded corners and edges. All bumper faces must be vertical.
- A centre hoop on the front bumper to protect the engine is permitted and must be no wider than the radiator and its fixing points.



Rear

- The rear bumper must **NOT** be higher from the ground than 500mm, nor lower than 375mm to the centre of the lower bar from any point on the bar.
- The distance between horizontal rails shown in the rear bumper sketch should be a minimum of 70mm with the overall depth of the bumper being a minimum of 150mm.
- The bumper must remain continuous side to side.
- ***No doubling up of SHS or RHS is permitted, either back to back or on top of each other. The bumper must be as per the drawing.***
- The rear bumper must be constructed from two continuous horizontal bars (with no dog legs) of a minimum 40mmx40mm x3mm RHS (these must be the same thickness steel over the whole width of the bumper) with five vertical uprights as per the sketch.
- The top rail must be connected to the steelwork within the car, by equivalent steel.

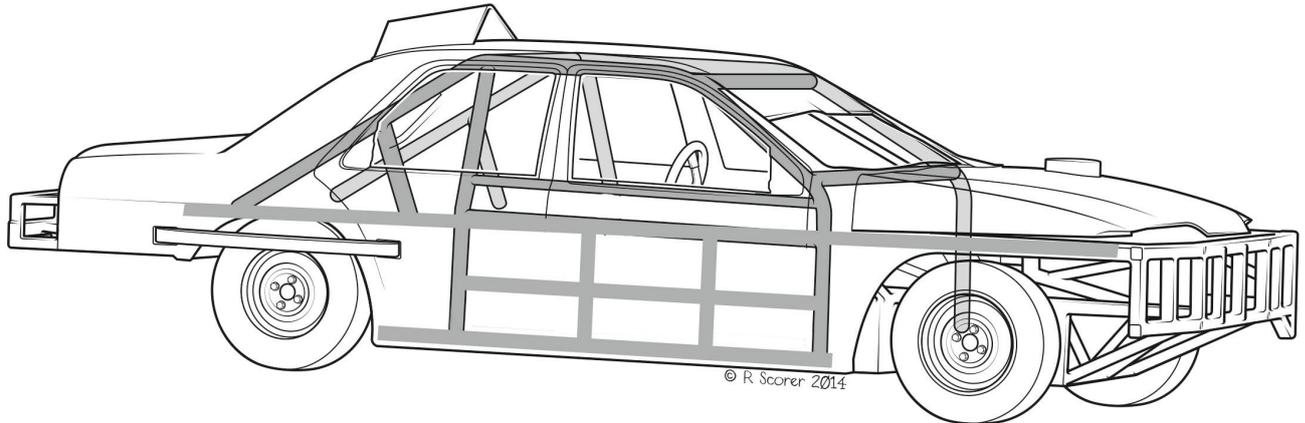


Rollcage

- Rollcages are mandatory and must consist of a minimum:
 - hoop protecting the A pillar, hoop behind the driver, two outer connecting bars between the two hoops, centre connecting bar, two rearward supports with brace underneath.
 - A support bar is required to connect the centre of the rollcage to the chassis in the front passenger area. Due consideration needs to be given to the proximity of this vertical bar to the driver.
- The above must be constructed from a minimum 40mm x 40mm x 3mm RHS or tube equivalent.
- All other rollcage supports, braces, gussets are free.
- The roll cage must be securely welded to the through bars and chassis/floor plates.
- The rollcage must sit centrally between the extreme outside edges of the car.
- The rollcage must be the full width between the front pillars and continue rearward till a minimum of

300mm past the back of the driver's head. A 3mm steel plate must be fitted to cover the driver's side roll cage area and this must be one continuous plate i.e. no holes.

- This must be welded to the roll cage on all four sides including to a support bar joining the front and rear roll cage hoops along the centerline of the car.



- It is required to have a minimum of two rearward supports going back from the top of the rollcage hoop down to the chassis – one on each side of the car (see diagram). You may run the rearward supports in a criss-cross fashion, running diagonally from the top of the rollcage hoop at the driver's side to the chassis on the passenger side and vice-versa.
- The rearward rollcage supports must return to the main inner chassis and not to any other point, i.e. wheel arch.
- Rearward roll cage supports must also be braced underneath as per the diagram. The rearward supports must be made of the same specification steel as the rollcage.
- As a minimum the door areas on both sides of the car must consist of a chassis top rail and a chassis bottom rail (at sill level), these must be a minimum of 40mm x 40mm RHS, 3mm thick (maximum 60mm x 60mm x 6mm thick).
- In addition, the driver's door area must have:
 - A continuous 3mm mild steel plate, going as a minimum from the very front of the foot well/bulkhead and returning rearwards to the rear wheel arch, and going from the top chassis rail to the lower chassis rail (sill level). It is permitted to inset the steel on the chassis rails, however if this is done then the plate must be seam welded to all RHS/SHS. If the plate is on the outer face of the chassis rails then the minimum welds must be 50mm long with 25mm gaps.
 - Where this plate ends it must meet and be welded to vertical mild steel RHS/SHS a minimum of 40mm x 40mm, 3mm thick.
 - A minimum of 40mm x 40mm RHS/SHS, 3mm thick chicken bar is required, extending from foot well/bulkhead and returning rearwards to rear face of the driver's seat, connected at each end to the RHS/SHS noted in the bullet point above. This RHS/SHS chicken bar may run diagonally or horizontally in the driver's door area (see image/diagram below). If fitted horizontally it must be located centrally between the top and bottom chassis rails.
 - A minimum of two vertical connecting steel RHS/SHS, a minimum of 25mm x 25mm (3mm thick) must connect the top chassis rail to the bottom chassis rail and be welded to the chicken bar and the 3mm plate.



- Where the driver's side doors (front and rear) meet the lower window aperture, this must be backed by RHS or equivalent tube, a minimum of 25mm x 25mm, 3mm thick. This should be supported from either/both the roll cage or top rail. Additionally, if the roll cage is not supporting the B pillar (and is

located more towards the rear door) you must fit some protection for the B pillar on the driver's side, (as a minimum) up to shoulder height, by means of a hoop running from the rollcage to either the door tops or the top rail. This must also be as a minimum the same specification steel as above.

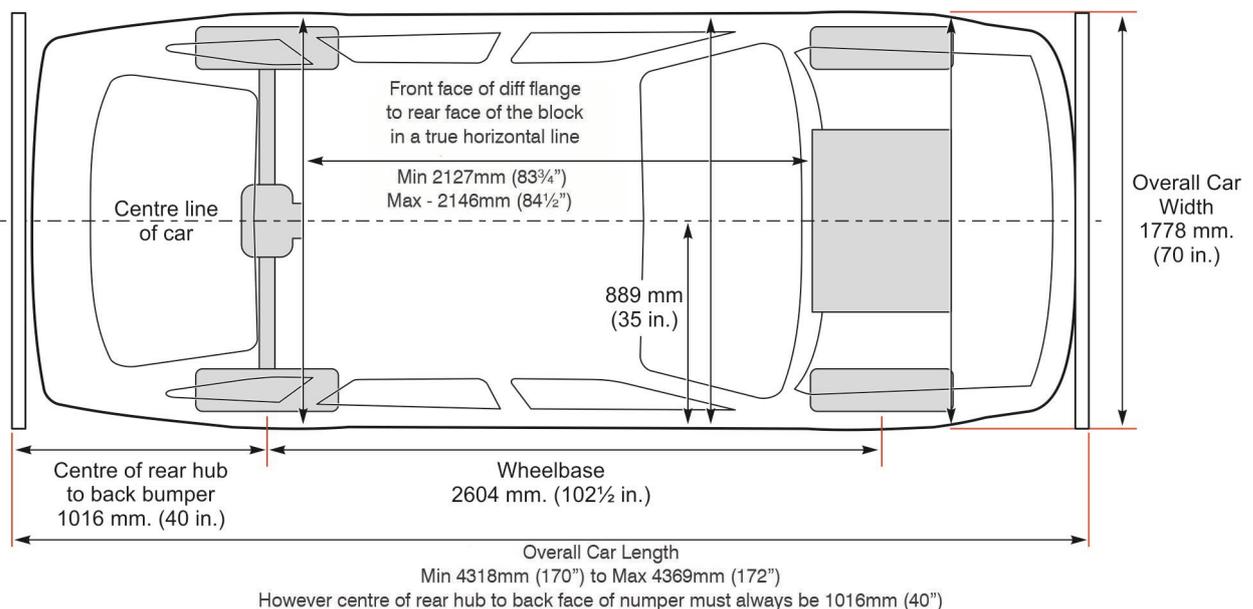
- It is strongly advised to add corner gussets to roll cage joints, and this is mandatory where no more than 75% of the joint is welded.

5. WEIGHT

- The car (excluding driver) will be required AT ANY TIME/RACE READY to record a minimum race weight of 1170Kg and a maximum weight of 1300kg, with a maximum inside weight of 54.0%
 - If the car is checked and found to be under the total permitted weight (not inside weight) this is an automatic ORCi suspension. Up to 1.0kg under = one month suspension, up to 2.0kg under = 2 months suspension. In excess of 2.0kg under = 6 month suspension.
 - The right hand driver's side weight must be a maximum of 54.0%, at any time – this will be weighed without the driver in the car.
 - If the car is over the 54.0%, but under 54.5% on the first offence the driver will lose all points/places gained on the day.
 - If the car is found to be over 54.0% but under 54.5% on a second occasion (during a calendar year) the driver will receive a one month suspension and loaded immediately with loss of any points gained.
 - Any car found over 54.5% on its first check will receive an automatic one month ban and loaded immediately with loss of any points gained on the day.
 - If a car is found over 54.5% on a second occasion (during a calendar year) the penalty will as a minimum be doubled, or possibly carry a longer suspension.

6. ENGINE/DIFF POSITION

The SSCA will be using a jig to ensure the following is adhered to. In particular ensuring all elements are central, including rear axle and positioning of pedal box/gear stick. From 1 March 2024 the pivot point of the pedals must be positioned no more than 300mm from the very rear face of the cylinder head.



- All dimensions will be taken from the engine rearwards.
- The centre line of the car will be measured from any point (or combination of points) from the diff, propshaft, gearbox or engine - to the outer extreme of the car.
- Please pay attention to the drawing below to note that the wheels front to back must be parallel on the driver's side.
- Rear axle locating measurements will be taken from the bellhousing to driveshafts.
- The maximum width of the car is 1778mm. Therefore, any measurement taken from the centre line as noted above must be 889mm.
- The engine and diff are permitted a maximum 25mm offset from the centre line. From 1 March 2024 either the engine or the diff are permitted a maximum 25mm offset, but not both.
- The engine must be located centrally along the line of the crankshaft, within the car and in a vertical

position. Maximum 25mm offset from the centre line noted above.

- The propshaft must be at 90° to the diff/drive shafts. **No propshaft spacers permitted.** The diff must also be located centrally in the car, and centrally within the chassis rails, with a maximum 25mm offset from the centre line noted above.
- **Diff position and wishbone position will always be taken from an original Sierra horseshoe. The SSCA will be producing a jig to ensure positions are correct.**
- The diff position will be taken as 83³/₄" (for the 7¹/₂" diff) to 84¹/₂" (for the 7" diff) from the front face of the diff flange to the rear face of the block in a true horizontal line. See illustration below.

7. BRAKES

- All parts must remain as manufactured unless stated below.
- Brakes must be fitted and effective on all FOUR wheels, and must be identical across the axle, this includes brake pads.
- No bias brake systems. ABS is not permitted.
- Only standard Sierra type brake discs and components are permitted on the front and rear – these are solid Mk1 discs or vented Mk2 discs (no Cosworth, etc parts permitted) and must be fitted in identical pairs. Grooved or drilled discs are not permitted.
- The fitment of disc brakes on the rear can only be achieved by use of the original Ford Sierra disc brake style hub or, by use of the Ford Sierra drum brake hub with a calliper mounting bracket that must not increase the axle width.
- It is permitted to drill one hole in the face of the drum or the disc flange for access to the drive shaft nuts only. This hole must be in line with one of the original holes in the shaft.
- Braided brake hoses and competition brake pads are permitted.
- Master cylinder and brake servo must be from any readily available mass produced road car. However to mirror the Ford Sierra braking system a maximum of three t-pieces are permitted.
- Alternatively, ONE F2 type tilting master cylinder maybe used.
- Only the standard Ford Sierra production bias valve is permitted – this must be located in as near to an original position as possible. It is only permitted to have one pipe from front to rear.

8. GEARBOX

- Any standard production gearbox, which is available from a Ford model, may be used provided it fits a standard 2-litre engine without modification. The standard Transit spacer plate is permitted, with modification, if required to fit the starter/engine mounting brackets.
- All gears must be fitted and in working order with ratios to match the casing used.
- Straight cut gears and/or competition boxes are not permitted.
- The propshaft and gearbox mounting may be modified to accommodate the gearbox used. It is permitted to enlarge the external bolt holes on the gearbox or bell housing. This is to allow the easy removal of the gearbox independently of the bell housing and the use of nuts and bolts to attach the bell housing to the engine.
- **It is permitted to repair the layshaft of a 4 speed 2-litre and 4 speed P100 gearbox by means of a top hat repair on the thrust washer face. The repair must be made of brass and all casting/factory stamping must remain on layshaft.**
- No aluminium bell housings permitted, unless an integral part of the gearbox.
- Gearbox lids and selector forks maybe interchanged from the 5 speed and 4 speed Sierra gearboxes.
- As a trial the SSCA is permitting a maximum of 20mm to be removed from the end of the input shaft/shoulder on a diesel P100 gearbox to enable this gearbox to be used.
- The SSCA will be monitoring the use of non-standard gear levers and attachments.
- As a trial the SSCA will permit with written permission a commonly available mass produced road going manual gearbox i.e Mazda RX8/MX5. This is on a trial basis only and will be required to be fitted by means of an adapter plate. The SSCA reserve the right to end the trial at any time.

9. DIFFERENTIAL

- Crown Wheel & Pinion sets on all cars must match standard manufacturer's ratios.
- No competition ratios are permitted.
- Differentials may be locked but limited slip differentials are not permitted.
- No Cosworth or 4x4 parts permitted.
- The only Crown wheel and Pinion sets permitted are those the SSCA have confirmed as a ratio manufactured by Ford and noted in the following list: 3.38, 3.62, 3.64, 3.91, 3.92, 4.09, 4.27 ratios.
- The drive shafts must enter the diff in an original manner and the prop shaft must be at 90° to the diff.
- **The drive shaft (including flange) must remain unmodified and unmachined from standard.**
- The diff must sit level (front to back).

- One long and one short drive shaft as originally fitted must be used; these must be fitted in standard position (short N/S, long O/S) and cannot exceed the original width of the axle.

10. WHEELS

- Only unmodified standard production (no special production versions) 14" - Ford, Citroen or Peugeot steel rims are permitted up to a maximum of 6" width. Peugeot 106 Rallye wheels are not permitted. The SSCA will be monitoring wheel rim offset to ensure the use of standard rims only.
- Centre plates must not be re-drilled but plates cut from the same wheel as those being used may be fitted over the existing wheels to add strength.
- Wheel studs must have sufficient thread to accommodate a full nut. This means the thread must protrude through the nut. No dome nuts.
- No wheel spacers permitted.
- No alloy wheels permitted.

11. TYRES

- The only permitted tyre is as follows:
 - Yokohama A Drive/Blue Earth 185/65/14
 - Tyre softener is not permitted for use.
 - Tyres may be re-grooved but no tyre cut across the tread may be used on shale tracks.

12. SCREENS

- No glass is allowed in the window apertures or screen.
- A metal upright of min 19mm SHS must be welded or bolted into the windscreen aperture, approximately one third of the way along the driver's side.
- It is compulsory to fit a sturdy wire mesh panel of max 50x50mm matrix, securely fixed to the windscreen aperture and upright covering the driver's side of the screen.
- Mirrors may be fitted inside the car only.

13. DRIVER'S SEAT & CAB AREA

- Aluminium, fibreglass or other specialist competition seats are compulsory, and must be securely fitted and be adequately supported.
- Driver's seat must occupy the original position as best as it can. The centre line of the seat (front to back) must be a minimum of 420mm from the inner face of the driver's door horizontal SHS/RHS.
- From 1 March 2024 the pivot point of the pedals must be a maximum of 300mm from the very rear face of the cylinder head.
- The use of dense foam padding around any protruding objects, which will protect the driver within the cab area, is highly recommended.
- A quick release cloth window net must be fitted to the driver's door window aperture. The netting should have holes not larger than 7.5cm or 3" wide. It should come down level with the steering wheel, and should be flexible and easily removable.
- Shoulder straps maybe fitted to an extra bar on the roll cage behind the seat, approximately 100mm below shoulder height (this bar is to be made of roll cage specification material), **OR TO THE CHASSIS BEHIND THE SEAT BUT NO FURTHER BACK THAN THE FRONT FACE OF THE REAR WHEELS.**

14. SAFETY EQUIPMENT

- The "Driver Safety Equipment Specification Regulations" are a common set of regulations, produced by the ORCi, governing the safety equipment used by drivers, and applicable to all ORCi sanctioned formulas.
- These regulations are located in the "Technical" section of the ORCi website where they can be accessed by anyone, and managed in a controlled fashion to ensure integrity and consistency across formulas.
- Drivers should regularly consult the ORCi website for the latest applicable regulations and updates:
ORCi Website Technical Section: <http://www.orci.co.uk/Content/Technical>
ORCi Website www.orci.co.uk
Follow the ORCi on Social Media: Facebook - @OvalRacingCouncilInternational
Twitter - @orc_int

15. FUEL

- All cars must use fuel that is freely available from at least 200 roadside service stations in the UK.
- These fuels will conform to either to a British Standard, either BSEN228 (premium unleaded) or

BS7800 (super unleaded)

- Regular fuel testing will be carried out with the test for manganese having an upper limit of 100 mgms/litre (100ppm)

Fuel Testing

- Basing the regulations on a pump fuel (which conforms with a British Standard) will facilitate testing for conformity.
- Random fuel testing will take place at a number of events during the season.
- Samples will be taken directly from the car at the end of a race (i.e., as it leaves the track and before it returns to the pits)
- 3 samples (approx 100ml each) will be taken and stored in tamperproof and glass containers, sealed and the seal numbered.
- 1 sample is left with the driver
- 1 sample is left with the organisers (as a control sample)
- Drivers and organisers will sign the fuel testing form which details the seal number.
- The results will be available to the organisers within 2 weeks of receiving the sample.
- The testing will confirm that the base fuel complies with one of the British Standard and that the level of manganese introduced by the addition of CVL does not exceed 100ppm.

16. FUEL SYSTEM

- Only tanks with a maximum capacity of 2 gallons are permitted
- The fuel tank must be positioned as described below:
 - **along the centre line of the car (front to back)**
 - **behind the driver in the rear axle area**
 - **on top of the chassis/steelwork (i.e. must not sit lower than any part of the diff).**
 - **be protected by the roll cage or additional 3mm thick RHS, SHS or tube equivalent**
- All tank filler caps must be metal and screw type fixing.
- Minimum wall thickness for steel tanks to be 3mm and 4mm if aluminium.
- If the fuel tank (to include complete filler neck) is not protected by the rear rollcage supports, it MUST also have some form of steel protection to the rear of it to the full height of the filler neck. This must be constructed from RHS/Tube and/or steel plate with a minimum wall thickness of 3mm, to prevent damage from a rear impact. The scrutineer's discretion is final on this matter. The tailgate/boot does not count as sufficient protection.
- All aluminium fuel tanks that are secured using a bracket(s) bolted down to the steel work, must also be secured with two 50mm wide metal straps over the tank in the opposite direction to the original fixing i.e. if the original bracket is bolted side to side, the secondary brackets need to go from front to back or vice versa.
- Petrol pipes must be metal, metal covered or specific rubber braided fuel hose and have a shut off tap within easy reach of the driver. Reminder that rubber connecting hoses on fuel lines are not permitted
- All tanks must be fitted with a breather system, which prevents spillage if a car is inverted. All petrol pick up pipes must draw through a stand pipe from the top of the fuel tank. A non-return valve is compulsory in the breather pipe. The non-return valve must be easily accessible for scrutineering inspection.
- Fuel lines must be clipped securely and routed away from electrics i.e. if a fuel line runs along the inside edge of the chassis rail, you may run the electrics along with outside edge of the rail, as a minimum.
- Electronic fuel pumps must be mounted either behind the main firewall or under the bonnet.

17. FIREWALL

- A firewall is compulsory. The fuel tank, fuel pump, entire filler neck/cap, must all be contained within a mild steel sheet firewall or box. It is required to have the rear or passenger side, but not both, open to allow inspection of pipes etc. Any access hole in the firewall for the tank filler must be covered with an openable steel flap.

18. BATTERIES & ELECTRICAL

- Batteries must be securely clamped in place (using mild steel) inside the car anywhere from the bulkhead rearwards to the rear suspension pick up points and must not be mounted lower than the chassis. A wet/lead acid type battery must be covered with a leak proof material to prevent spillage.
- An electrical cut off switch must be fitted to the Rear N/S corner of the car and be marked On/Off. If the car is fitted with an electric fuel pump, a switch must also be within easy reach of the driver.
- Self-starter motors must be fitted and in working order at all times.

- Electric wires must be clipped securely and routed away from fuel lines i.e. if a fuel line runs along the inside edge of the chassis rail, you may run the electrics along the outside edge of the rail, as a minimum.

19. NUMBERING

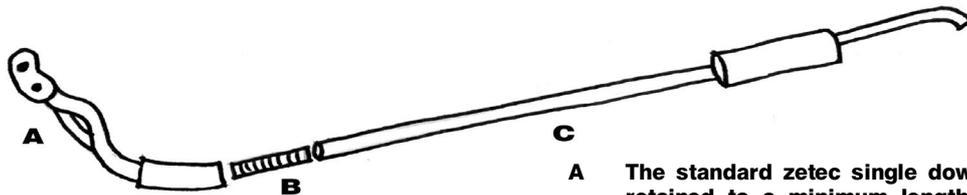
- Your SSCA registered number must be displayed on both sides of the car and also on a roof fin plate.
- Regulation side numbers must be 350mm high in 75mm strokes.
- Regulation roof fin numbers must be 225mm high in 25mm strokes. The whole of the number must be visible above the roof line.
- All numbers must be of professional appearance, **PAINTED BLACK ON A WHITE BACKGROUND.**

20. SIGN WRITING

- The drivers name must appear plainly on the car.
- Only other writing confined to sponsors or mechanics names which must at all times have the approval of the SSCA.

21. SILENCERS & EXHAUSTS

- The exhaust system (not including the silencer) must be made from mild steel only.



- A** The standard zetec single down pipe must be retained to a minimum length of 500mm. Tail pipes MUST point sideways or downwards.
- B** 50mm flexible joining section if required
- C** Rear exhaust section fitted with BriSCA silencer

- The only silencer permitted is latest specification BriSCA F2 silencer available from race suppliers.
- To accommodate the BriSCA F2 type silencer it is permitted to use larger than 50mm inside diameter pipe for the last 150mm BEFORE the silencer.
- This is due to the fact that the silencer has slightly oversized inlet and outlet pipes.
- If the exhaust is routed through the car, this must be boxed in completely (except underneath) throughout the car, to where the floor terminates. See rule 4 Steelwork – this must be covered by mild steel sheet, no mesh, no holes cut out etc.
- All systems must terminate in front of the rear axle.
- The silencer must remain unaltered within 25mm either side of the box and must be easily removable for inspection. **NO COMPETITION STYLE EXHAUSTS ARE PERMITTED.**
- Please refer to specific 2 Litre Zetec Engine rules regarding down pipes.
- Maximum of 50mm inside diameter pipe can be used to connect from the downpipes to the silencer.
- Due to the height of engines and positioning of steelwork, you may shorten the down pipes at the manifold end only.

22. ROOF COLOURS

- When notified of their grading, drivers will paint the roof of their car in their appropriate colour.
- White, yellow, blue or red down to the tops of their doors. Any driver winning an official ORC Championship will be required to paint their roof the said colour for that championship:

World	Gold	British	Black/White Chequered
European	Red/Yellow Chequered	National	Gold Stripe
National Points	Silver	ORC	Orange/White Chequered
English	St. George's Cross	Scottish	St. Andrew's Cross
Irish Open	Green/White Chequered	Irish	Green
UK	Union Jack	World of Shale	Gold stripe x2

World Cup

National Series Rounds

Red/Gold Chequered Stripe Front to Back maximum width 450mm

All NS contenders must fit at least one flashing amber light

- All roof grades/champions noted above, must start at the back of the grid.

23. TRANSPONDERS

- All cars **MUST** be fitted with a working transponder for electronic lap-scoring.

- The permitted transponders are:
 - MyLaps/AMB – Tran-X 260 DP (Direct-Powered)
 - MyLaps/AMB – Tran-X 260 (Rechargeable)
 - MyLaps/AMB – Tran-X 160 (Rechargeable)
 - MyLaps - X2 Car Transponder (Rechargeable)
 - MyLaps - X2 Car Transponder (Direct-Powered)
- *Note: The subscription for the latest X2 range of transponders MUST be activated and the transponder enabled before it can be used on track.*
- The transponder MUST be securely fitted, and working, at all times when the car is on the track or being scrutineered. Care should be taken with rechargeable units to ensure they are securely fitted to the car and will not come loose in an impact; It is recommended that such units are bolted to the car, and backed-up with additional cable-ties, rather than using the plastic mount with an R-clip.
- The transponder MUST be fitted 1.8 metres back from the front most position of the car and in the passenger side area and visible inside the car.
- A hole of at least 150mm square (or in diameter) is required in the floor, with the transponder fitted vertically, at floor level. Care should be taken to ensure a clear line of signal from the transponder to the ground.
- In the event of a dispute with the transponder result, the Steward of the meeting will make the final decision, however, if the driver is found to have fitted the transponder further forward than the required 1.8 metres, then the driver will be excluded from the meeting.
- Results will NOT be credited to a driver if their transponder fails to operate from the start of the meeting.
- Transponders are available from MYLAPS Sports Timing (www.mylaps.com) and HS Sports (www.hssports.co.uk).

24. PERFORMANCE MONITORING/ALTERATION

- The installation and/or use of any kind of system(s) or components to facilitate the logging, and/or transmission of engine or chassis data/information/operating-parameters is NOT permitted unless explicitly stated elsewhere in these regulations. This includes, but is not limited to, fittings, wiring, outlets, data loggers, or any other kind of hardware/software.
- The installation and/or use of any kind of system(s) to automatically alter the engine, or car performance, e.g. lambda sensors, is NOT permitted unless explicitly stated elsewhere in these regulations.
- The use of telemetry devices to wirelessly transmit information is NOT permitted.
- Gauges used to display/monitor engine operating parameters, such as oil pressure, water temperature, and engine speed, are permitted, subject to the following:
 - Tachometers that record the single peak engine speed (so-called “tell-tale” devices) are permitted.
 - Devices that can record and play back parameters/performance recorded over a period of time are NOT permitted.

SALOON STOCK CAR **ZETEC ENGINE SPECIFICATIONS**

The overriding principle of these regulations is that unless it is stated that you can do it, you must work on the principle that you CANNOT. The whole emphasis of these rules is that this is an engine which MUST remain in its standard form.

Those that choose to use this engine must be aware that it will come in for stringent checks on a regular basis, for example camshaft profiles and spring tension will be checked.

The performance of the engine will be closely monitored in relation to existing engines within Saloon Stock Car racing. THIS WILL BE AN ONGOING EVALUATION BY ALL PARTIES – PROMOTERS/DRIVERS/SCRUTINEERS ETC. Should the need arise the SSCA reserve the right to restrict the engine described in these rules. This would most likely be done by the use of exhaust and/or carburettor restrictor.

Permission for any proposed change currently not permitted by the SSCA must be applied for in writing to the Saloon Stock Car Association or by email to info@SaloonStockCars.com. Where upon the Technical Committee will consider the request and duly respond within 28 days. Notification of any decision made will be in the first instance through publication on the official website www.SaloonStockCars.com

If parts are suspected of being illegal you must leave them with the promotion if you do not agree. If you refuse it will automatically make the parts illegal. It is the responsibility of the driver to prove to the SSCA that the part is legal by the way of written proof of where the part originated. This must be done within seven days, otherwise the part(s) in question will be deemed to be illegal and will result in immediate suspension from racing and referral for disciplinary action.

NOTE FOR FULL THE TECHNICAL SPECIFICATIONS REGARDING THE ZETEC ENGINE PLEASE REFER TO THE BRISCA F2 TECHNICAL SPECIFICATIONS www.BriSCAF2.com WHERE REFERENCE IS MADE TO BRISCA F2, THIS MUST BE INTERCHANGED WITH SSCA. All ECU's must be registered to their current owner, this will be deemed illegal if it is not and no warranty will apply.

The following exceptions/additions are noted:

1. PERMITTED ENGINE

- The only engine permitted for use is
 - UK specification Ford Zetec 1988cc 16v petrol (commonly known as a “black top” due to black plastic cam cover)
 - often referred to as the phase/series 3 engine.
 - in its 136PS or lower form with nominal bore 84.80mm and stroke 88.00mm
 - or a new standard uncoded Ford replacement complete engine as per above.
 - THE ENGINE MUST IN BOTH CASES REMAIN IN ITS STANDARD FORM.
- The engine block must have one of the following codes stamped on it (engine code is located on the exhaust side of the block i.e. right hand side when viewed from the front):
 - **NGB, NGC, NGD (from Ford Mondeo Mk2 16v 1996-2000)**
 - **EDDB, EDDC, EDDD, EDDF (from Ford Focus Mk1 16v 1998-2004)**
 - **EBBC, EBBD, EDDB, EDBB (from Ford Cougar 1998-2001)**
- Production tolerances are permitted providing the total swept volume does not exceed 1989cc.
- All codes or ID numbers must be visible and untouched.
- The SSCA is permitting the use of the 1796cc “BlackTop” Zetec on an experimental basis. Written permission is required to test this engine and will only be granted if accompanied by relevant engine code. Aside from engine codes all other specifications apply.

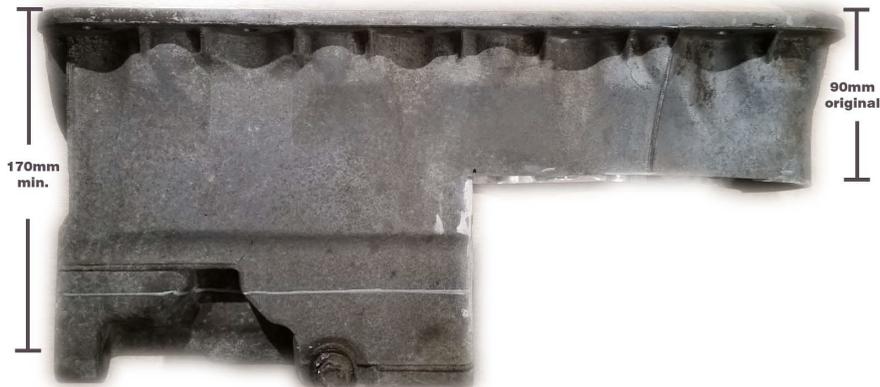
2. ENGINE - GENERAL

- The engine must be mounted in exactly the same position as noted in current technical specifications for the 2-litre pinto engine.
- A catch tank must be fitted within the engine compartment capable of catching any oil discharged from the engine.
- It is permitted to reduce the depth of the longer bolt fixing points on the exhaust manifold side of the engine, to allow one continuous plate/engine mount to be attached.

- It is permitted to tap unused mounting lugs on the side of the block for the purposes of bolting to an engine mount only.

3. SUMP

- The only sumps permitted for use are as follows:
 1. **Official SSCA steel sump** (stamped with SSCA logo and serial number)
 2. **1.8 litre Ford Sierra Standard CVH sump**
 - This may be modified to fit, however the overall size/shape of the sump must not be altered in any way. It is permitted to extend the length by a maximum of 5mm.
 3. **Two piece Ford sump as fitted as standard to the “Black Top” engine noted in Rule 1 Permitted Engines**
 - Replacement of the lower steel tin component of the sump with a fabricated steel part, to increase oil capacity, is permitted.
 - Modification of the lower steel tin component of the sump, to increase oil capacity, is permitted.
 - Modification of the original cast aluminium section of the sump is permitted in order to produce an effective sealing sump unit utilising original components from a donor engine that were designed to add strengthening to the block. For example, to fit a level flange to which a replacement lower steel oil-pan can be fitted.
 - The aluminium cast section must NOT be increased in depth or volume.
 - The lower oil-pan section MUST be a steel component, as described above.
 - The overall height is a minimum of 170mm over at least 30% of the length of the block. At least 90mm original aluminium section depth must be retained as per image below.
 4. **One piece Ford sump as fitted as standard to the “Silver Top” Zetec Engine.**
 - may modify to fit to as long it is in accordance with the dimensions



- The lower part of the original cast aluminum section may be modified/removed, however at least the first 90mm must remain as original (see picture below):
 -
 - The cast aluminium lower section may be replaced with a fabricated part or modified to increase oil capacity up to a maximum of 5 litres. The sumps overall height must be a minimum of 170mm over at least 30% of its length.
 - Exterior webbing on the cast aluminium may only be removed to allow for starter motor fitment.
 - The original Silver Top steel baffle plate maybe fitted directly onto the cylinder block by using either of the following methods:
 - Using original "Silver-Top" main-bearing cap bolts with tube spacers
 - Welding 8mm bolts on to the existing main bearing cap bolts. In this case, one of the bolts is also permitted to support the oil pickup pipe (see below).
 - An aluminium baffle plate maybe added, but this must be welded inside the sump.
 - Machining of main bearing bolts is NOT permitted.
- On all Ford sumps it is permitted to modify the oil pick up pipe. The oil pick up pipe mounting bracket may also be modified to fit and a single bearing cap bolt may be used to allow for support and relocation of the oil pick up pipe. No machining of main bearing bolts is permitted.

- THE FOLLOWING ARE ACCEPTABLE MEANS OF SUPPORTING THE PICK UP PIPE
 - Using original “silver top” main bearing cap bolts with tube spacers
 - Welding 8mm bolts onto the existing blacktop main bearing cap bolts is permitted to support the oil pickup pipe only
 - Replacing ONE main bearing cap with a manufactured bolt (the equivalent tensile as standard bolts)
 - Modification of a single bearing cap bolt to allow support and relocation
 - The welding of a stud or bolt
 - Machining or replacing of the remaining main bearing bolts is not permitted (only ONE for pickup pipe support)
 - Modification of the oil pickup pipe is permitted

4. ENGINE COVERS

- It is permitted to modify the aluminium cambelt cover and adjoining aluminium plate on the block (as shown highlighted in the photo with a black circle) for the purposes of using wire rope to strap the engine in only.



5. COOLING SYSTEM

- A water based liquid cooling system is mandatory.
- A water coolant additive is permitted.
- The standard production water pump and housing as fitted specifically to the engine noted in *Rule 1 Permitted Engines* must be retained, although drive to the pump, its rotational speed and direction may be changed as noted below.
 - Reverse water pump impellers are permitted but must retain six blades as per the original Ford water pump fitted to this engine. The reverse impeller must be fitted to the standard water pump.
 - Two additional pulleys (one in front of the crankshaft damper and one on the water pump) may be fitted to reverse the direction to the same as the crankshaft, when using a reverse impeller.
 - A single additional idler pulley may be used to reverse the direction of the unmodified water pump to the opposite direction to the crankshaft. This must be fitted using a bracket bolted to existing engine bolt holes only.
- The radiator and associated pipes are free.
- The radiator must be mounted in front of the engine, between the chassis.
- Fans are permitted for use but must be securely fitted to the water pump or crankshaft only - not on additional pulleys or brackets.
- Electric fans are permitted.
- No other pump may be used to circulate or assist circulation of the coolant liquid.
- Thermostat housing is free.

6. EXHAUST MANIFOLD

- The only exhaust manifold permitted is the cast manifold which is fitted as standard to the engine, and is stamped 968F9430. This must retain the Ford manufacturers stamp and all other markings. See photo. No tubular exhaust manifolds permitted.
- The standard single down pipe must also be retained to a minimum length of 500mm. It is permitted to cut, straighten or bend the original downpipe to avoid engine mountings etc.
- The single down pipe must then connect as detailed in *Rule 21 Saloon Stock Car Specifications*.



REVISED RULES FOR 2024 IN BOLD/ITALIC/RED PRINT
ITEMS MARKED ~~STRIKETHROUGH~~ ARE NO LONGER ALLOWED

V1_2_24 issued 23 January 2024

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