

BRISCA^{F2} 2014

**Car Construction Regulations
and Drivers Information**



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CHAPTER 12

BriSCA FORMULA TWO 2014 TECHNICAL CAR SPECIFICATION RULES

Definitions used in these Rules

RHS	Rectangular Hollow Section
SHS	Square Hollow Section
CHS	Circular Hollow Section
OHS	Oval Hollow Section
Axle	A solid axle with a wheel at each end (e.g. a front beam axle, or English rear axle), or both sides of an independent suspension arrangement taken as a pair (e.g. a wishbone/bottom arm front suspension design).
Car centre-line	The main centre-line of the car is defined as a line running along the horizontal length of the car, equidistant between the two main chassis rails when viewed from above.
Engine centre-line	The centre-line of the engine is defined as the rotational centre-line of the crankshaft, measured at the pulley securing bolt.
Standard Type/Size	Component of a size, weight and material as originally manufactured. Details can normally be found in the appropriate Haynes manual.
Production Type/Size	Component of a size, weight and material as originally manufactured. Details can normally be found in the appropriate Haynes manual.
Original Type/Size	Component of a size, weight and material as originally manufactured. Details can normally be found in the appropriate Haynes manual.
TDC	Top Dead Centre
ECU	Electronic Control Unit

General Notes

- It is the driver's responsibility to present a legal car **at all times** (including scrutineering, practise, and racing). This is stressed especially for such simple checks as front wishbone lengths, bumper heights, track width, and rear axle alignment.
- The presentation of a car for scrutineering is a declaration by the driver that the car is eligible to race, and complies with all technical and safety rules.
- Any necessary rule changes during the course of a season (most likely to be safety related) will be notified to drivers through the official BriSCA F2 website (briscaf2.com) and the BriSCA F2 newsletter (sent to all registered drivers). Change advisories received from any other source should be checked against these two official sources for authenticity and accuracy.

200 General Technical Rules

- 200.1** The drilling, lightening or other modification of any plates, bars or safety components is NOT permitted unless explicitly stated in these rules.
- 200.2** Standard parts must NOT be changed or altered unless explicit permission is given in these rules.
- 200.3** The use of ceramic bearings is NOT permitted anywhere on the car.
- 200.4** Unless a rule explicitly states an action can be taken, a modification made, or a replacement part sourced/manufactured, then such actions/modifications/replacements are NOT permitted. This is the overriding principle for ALL technical rules.
- 200.5** Unless these published rules explicitly state something can be implemented, then it CANNOT.
- 200.6** Prior approval MUST be sought and received for any changes to the current published rules or to allow the use of any non-standard or modified parts. Requests MUST be submitted to BriSCA F2 and will be considered for the following year's rulebook. Such parts or changes must NOT be implemented until approval has been granted as appropriate.

201 BriSCA Formula 2 Stock Car Definition

- 201.1** A BriSCA Formula Two Stock Car (subsequently referred to as the car) MUST be:
- Open-wheel in design and construction around a steel space-frame chassis
 - Front-engined
 - Rear-wheel drive
 - A single seater car
- 201.2** The main centreline of the car is defined as a line running along the horizontal length of the car, equidistant between the two main chassis rails when viewed from above.
- 201.3** The engine, gearbox, and driver's seat, MUST all be fitted along the main centreline of the car within the tolerances quoted in the individual rules below.
- 201.4** The front and rear axles MUST be fitted centrally in the car, relative to the car's centreline, within the tolerances quoted in the individual rules below.

202 Weight and Ballast

202.1 Weight

- 202.1.1** The MINIMUM permissible total weight of the car is 650Kg.
- 202.1.2** The MAXIMUM permissible total weight of the car is 715Kg.
- 202.1.3** The MAXIMUM permissible inside (left side) weight distribution is 52.50%.
- 202.1.4** Cars may be weighed at ANY time before, during, or after a meeting and MUST comply with the weight rules at ALL times.
- 202.1.5** ALL weighing measurements are taken WITHOUT the driver in the car.
- 202.1.6** At ALL tracks, the adding of fluids, or making of changes of any kind to the car to bring it within limits for a post-race weight check is NOT permitted.

- 202.1.7** At shale tracks ONLY, excess shale may be removed from the car under supervision, and the car subsequently re-weighted if it is found to be outside the legal limits on first weighing after a race.
- 202.1.8** Cars may be modified in order to pass any pre-meeting weight checks WITHOUT penalty.
- 202.1.9** The penalties for inside (left-side) weight infringements are detailed in a separate section of the rulebook.

202.2 Ballast

- 202.2.1** Bolt-on ballast is NOT permitted.
- 202.2.2** No solid steel bar or plate may be used over 6mm in thickness in the construction of the chassis, bumpers or nerf-rails that may be construed as ballast.
- 202.2.3** The lamination of steel plates in the construction of the nerf-rail or fuel tank/battery protection, which can be construed as ballast, is NOT permitted.
- 202.2.4** Tubular bars or box section must NOT be filled with ANYTHING that will increase their weight.

203 Chassis Construction

203.1 General

- 203.1.1** The car MUST have a steel chassis and roll-cage of welded construction.
- 203.1.2** Brazing is NOT permitted on the chassis or roll-cage.
- 203.1.3** The chassis floor, main rails, bumpers, nerf-rails, and roof-plate MUST ALL be in the same horizontal plane when the chassis is placed on a level surface and viewed from the front and rear.

203.2 Main Chassis

- 203.2.1** The main chassis rails MUST be constructed of RHS or SHS with a MINIMUM wall thickness of 3mm.
- 203.2.2** The main chassis rails MUST be at least a MINIMUM size of 40mm x 40mm, and at most a MAXIMUM size of 70mm x 70mm.
- 203.2.3** The entire length of the main chassis rails MUST be above the centreline of the wheels when viewed from the side.
- 203.2.4** The main chassis rail vertical centreline, when viewed from the side, MUST pass directly through or above the vertical centres of the front and rear bumpers.
- 203.2.5** The distance between the main chassis rails and the undercarriage MUST be equal on BOTH sides of the car.
- 203.2.6** The main chassis rails MUST be joined to each other at the rear with a transverse cross-member. This cross-member will form one of the sides to which the rear-plate MUST be welded (see below). The joints of the cross-member to the main chassis rails MUST be fully welded.

203.3 Roll-Cage

- 203.3.1** The car MUST have an integral 6-pillar roll-cage, welded to the main chassis rails, to protect the driver.
- 203.3.2** The roll-cage MUST be constructed from two main hoops running

either (i) front to back along the line of the main chassis rails, or (ii) side to side between the two chassis rails, thus forming 4 of the 6 required pillars.

- 203.3.3** The main roll-cage hoops MUST be connected together at the top by two bars: one front and one rear in the case of front-to-back main hoops, one at each side in the case of side-to-side main hoops.
- 203.3.4** Two additional pillars (pillars 5 & 6) MUST also connect the main chassis rails to the roll hoop(s) above the driver's head (one pillar on each side of the car).
- 203.3.5** The main hoops (pillars 1-4), their connecting bars (rule 203.3.3), and additional pillars (5&6) MUST be constructed of SHS or CHS with a MINIMUM wall thickness of 3mm.
- 203.3.6** The main hoops (pillars 1-4), their connecting bars (rule 203.3.3), and additional pillars (5&6) MUST be at least a MINIMUM size of 30mm x 30mm (SHS), or 30mm diameter (CHS).
- 203.3.7** With the exception of the main roll-cage pillars and bars as specified above, all other parts of the roll-cage specified below MUST be constructed of SHS or CHS with a MINIMUM wall thickness of 2.5mm, and at least a MINIMUM size of 25mm x 25mm (SHS) or 25mm diameter (CHS).
- 203.3.8** The top and bottom sections of the middle pillars must NOT be offset from each other where they intersect any side or other protection bars.
- 203.3.9** Side-bars running longitudinally between the front and rear roll-cage pillars MUST be installed on both sides of the car at approximately elbow height.
- 203.3.10** The side-bars MUST abut, or be abutted by, the middle roll-cage pillars on each side of the car, and all joints to the roll-cage pillars MUST be fully welded.
- 203.3.11** The side-bars MUST be equal heights from the chassis rails on both sides of the car.
- 203.3.12** The side-bars MUST measure a MINIMUM of 750mm apart from inside edge to inside edge at the driver's seat.
- 203.3.13** At least two separate down-bars MUST be installed on each side of the car within the area bordered by the front and middle roll-cage pillars, the main chassis rail and the side-bar, primarily designed to provide protection for the driver from intrusion in to the cab area from bumpers (through the side panel). At least 1 down-bar MUST connect the side-bar to the main chassis rail, whilst a second down-bar MUST connect either the side-bar or the front roll-cage pillar to the main chassis rail.
- 203.3.14** The down-bars MUST be welded at both ends (to the chassis rails and side-bars/roll-cage pillars), and be equally spaced (as far as practically possible, and with the safety of the driver in mind) so as to divide the area (between the front and middle roll-cage pillars, main chassis rails, and side-bars) in to equal size apertures.

203.3.15 The use of non-vertical down-bars is permitted to allow triangulation for improved strength, subject to the rules above.

203.3.16 The middle roll-cage pillar on each side of the car does NOT count as one of the two down-bars, which MUST be in addition to the 3 roll-cage pillars mandated on each side of the car.

203.3.17 The rear roll-cage pillar on both sides of the chassis MUST be joined to the other by a transverse horizontal cross-member. This cross-member will form one of the sides to which the rear plate MUST be welded (see below).

203.3.18 The joints of the rear cross-member to the roll-cage pillars MUST be fully welded.

203.4 Roll-Cage Plating

203.4.1 A steel sheet plate of MINIMUM 3mm thickness MUST be welded to the top of the roll-cage along the full length of all 4 sides (the two main roll-cage hoops and the two connecting bars) to form a protective roof over the driver's head.

203.4.2 The roof plate MUST measure at least a MINIMUM of 560mm in length across its entire width, and at least a MINIMUM of 400mm in width along the mandated MINIMUM 560mm length. These dimensions include the diameter of the roll-cage tube to which the plate is welded, and will therefore be measured from two verticals butting against the outside of the roll-cage tube.

203.4.3 The use of a non-rectangular roof plate is permitted, if so designed, but it must conform to the above specification, i.e. be a MINIMUM of 560mm in length at all points, not just the centre, and a MINIMUM of 400mm in width for the minimum 560mm mandated length.

203.4.4 A car built/raced to the previous roof-plate dimension specifications (prior to the 2013 rule-book) is permitted a MAXIMUM 2-year run out period (until 31st December 2015), during which time any required changes to the roof plate MUST be made. In such cases the car MUST conform to ALL three of the following specifications to be permitted to race in 2014:

- The roof plate MUST measure at least a MINIMUM of 400mm in length across its entire width.
- The roof plate MUST measure at least a MINIMUM of 400mm in width along the mandated MINIMUM 400mm length.
- The roof plate MUST cover a surface area of at least a MINIMUM of 2,240cm sq (to maintain weight and coverage parity with a 560mm x 400mm plate).

203.4.5 ALL new cars MUST conform to the MINIMUM 560mm x 400mm dimensions specified in rules 203.4.2 / 203.4.3

203.4.6 From 2016, ALL cars MUST conform to the MINIMUM 560mm x 400mm dimensions specified in rules 203.4.2 / 203.4.3

203.4.7 The roof plate must NOT be drilled or lightened in any way, except for the fitting of a roof fin or superstar lights.

203.4.8 There MUST be an adequate clearance between the driver's helmet

and the roof plate, such that the helmet cannot strike the roof when the driver is strapped in the racing position.

203.4.9 The rear of the roll-cage MUST be panelled with a steel sheet plate of at least 2mm MINIMUM thickness, and to a MINIMUM height of at least 300mm above the level of the main chassis rails.

203.4.10 The rear plate MUST be welded on all sides (to the two roll-cage pillars, a chassis cross-member, and a roll-cage cross-member).

203.4.11 The rear plate must NOT be drilled or lightened in any way.

203.4.12 It is strongly recommended that the nearside (left) of the roll-cage (between the main chassis rail and the horizontal side-bar) is also panelled with 2mm thick steel sheet plate, welded on all sides, as per the rear of the roll-cage.

203.5 Bodywork

203.5.1 ALL panels/body-work, where fitted, MUST be constructed of metal, unless specified below. The use of fibreglass, carbon-fibre, Kevlar, or other materials is NOT permitted.

203.5.2 The roll-cage MUST be enclosed with metal panel-work, up to the level of the side-bars, on both sides of the car, and the rear.

203.5.3 The area between the middle and rear roll-cage pillars, above the side-bar may be panelled if so desired, but MUST be metal if fitted.

203.5.4 Equal apertures MUST be left on BOTH sides of the roll-cage for driver entry/exit.

203.5.5 A rear "window" MUST be left open to allow access for scrutineering checks.

203.5.6 The engine bonnet/cover is defined as the primary removable section of body-work/panelling enclosing the top of the engine.

203.5.7 The engine bonnet/cover MUST be constructed of a MINIMUM of 51% metal by external surface area. It MUST fully enclose the engine compartment, and be securely fitted. The use of non-metal composite material sections, e.g. a rocker-cover bulge, within the construction of the bonnet/cover is permitted, subject to the overall 51% metal rule of the entire removable section.

203.6 Windscreen

203.6.1 The windscreen aperture(s) must be covered with a steel mesh to protect the driver from projectiles.

203.6.2 The steel mesh MUST be no more than a MAXIMUM 40mm matrix, and MUST be a MINIMUM 2.4mm thickness.

203.6.3 The steel mesh MUST be securely fitted to the car.

203.6.4 It is NOT permitted to drill holes in ANY roll-cage tube/bar for the purpose of mounting the steel mesh.

203.6.5 An additional solid screen may be fitted if required (e.g. for racing in the rain or on shale), but it MUST be made of a material that will not shatter if impacted.

203.6.6 The steering wheel MUST be positioned well inside the cab, such that the driver's fingers are not at risk of catching in the windscreen mesh under normal racing conditions.

204 Bumpers

- 204.1 The car MUST be fitted with front and rear bumpers constructed of steel.
- 204.2 Both bumpers MUST be constructed with a flat face surface 100mm (4in) deep.
- 204.3 The MAXIMUM permitted bumper thickness is 30mm ($1\frac{3}{16}$ in).
- 204.4 The MAXIMUM permitted bumper width is 1676mm (66in). The bumper width is defined as the bumper face, whether flat or angled towards the wheels, and includes any additional bumper hoop ironwork that can be construed as forming part of the face.
- 204.5 Wheel-guard mount plates on the rear bumper may extend beyond the 1676mm (66in) MAXIMUM width; however they MUST be constructed so as to only protrude forward from the rear bumper and NOT create any additional face area to that permitted above.
- 204.6 Bumpers are NOT permitted to protrude beyond the outside edge of the nerf-rails on either side of the car.
- 204.7 Front AND rear bumpers MUST measure 410mm from the ground to the vertical centre of the bumper face, mid-way between the main chassis rails WITHOUT THE DRIVER in the car. This measurement MUST be within a tolerance of +/-10mm, i.e. up to a MAXIMUM of 10mm above or below the stated height.
- 204.8 Bumpers MUST be smooth on ALL extremities.
- 204.9 The front bumper MUST be 250mm or LESS from the front tyres in the horizontal plane.
- 204.10 The rear bumper MUST be 300mm or LESS from the rear tyres in the horizontal plane.
- 204.11 Bolt-on bumpers MUST have a MINIMUM of TWO secondary fixings to prevent the bumper leaving the car should the mounting bolts break in an impact. Each secondary fixing MUST comprise of a steel chain made of MINIMUM 8mm thick diameter links, with ends joined together by a MINIMUM 8mm thick diameter steel shackle encompassing a threaded securing mechanism. The use of nuts, bolts and washers to join the ends of the chain is NOT permitted. Each secondary fixing chain MUST be wrapped around BOTH the chassis and suitable section of the bumper.
- 204.12 The front bumper MUST be fitted with a central lower hoop to help prevent the car riding up over other cars. This hoop MUST have a horizontal centre section a MINIMUM of 304mm (12in) wide, and be a MINIMUM of 152mm (6in) deep from the underside of the bumper along the entire horizontal section length. This hoop MUST be braced by 2 rear diagonal support struts.
- 204.13 The front bumper MUST be fitted with a fence-side lower hoop to help prevent intrusion of the bumper end in to another car's driver's compartment. This hoop MUST be a MINIMUM of 102mm (4in) deep from the underside of the bumper, smooth on all edges, and the bottom of any tube MUST be capped. Sharp angles, or tapers, of less than 90 degrees that may cause tyre damage are NOT permitted on the bottom of the hoop.

- 204.14** The front bumper MUST be fitted with a fence-side upper hoop to help prevent intrusion of the bumper end in to another car's driver's compartment, and reduce the risk of entanglement with post and rope fences. This hoop MUST be a MINIMUM of 152mm (6in) and a MAXIMUM of 304mm (12in) high from the top side of the bumper, and smooth on all edges.
- 204.15** ALL bumper hoops MUST be made from **steel** with a MINIMUM 2.5mm wall thickness, and a MINIMUM size of 25mm diameter or square.
- 204.16** All bumper hoops are illustrated in **Technical Diagram 01**.

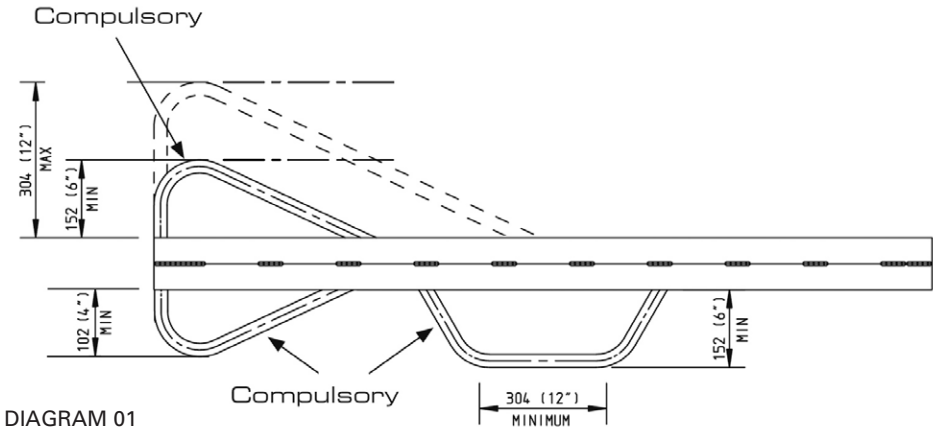


DIAGRAM 01

205 Nerf-Rails

- 205.1** Nerf-rails MUST be fitted to BOTH sides of the car and made of steel.
- 205.2** Nerf-rails MUST be the same height, from the ground, as the bumpers.
- 205.3** The nerf-rails MUST be symmetrical in appearance on BOTH sides of the car when viewed from above.
- 205.4** The outer edge of the nerf rail is defined as the outer-most section running between the front and rear wheels, parallel (or just off parallel) to the main chassis rail.
- 205.5** The outer edge of the nerf rail MUST be at least a MINIMUM size of 25mm diameter/square SHS, RHS, CHS or OHS, and MUST be at least a MINIMUM wall thickness of 2.5mm.
- 205.6** The outer edge of the nerf rail MUST be connected to the main chassis rail by a MINIMUM of two support struts, each being at least a MINIMUM material size of 25mm diameter/square SHS, RHS, CHS or OHS.
- 205.7** Mandated support struts, additional support struts, and bracing struts, MUST be steel, but may be of a thinner material than the mandated outer edge of the nerf rail.
- 205.8** Nerf-rails MUST be at least a MINIMUM depth of 100mm from the rear-most point of the outer edge of the rail forwards for a MINIMUM length of 500mm. This measurement does NOT include any angled section joining

the lower section of the rail to the outer edge of the main nerf rail. **This rule is illustrated in Technical Diagram 02.**

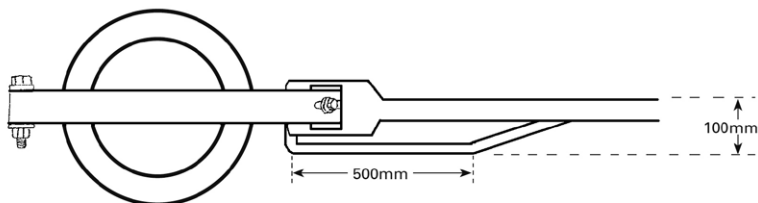


DIAGRAM 02

- 205.9** The mandated minimum 100mm depth section of the outer edge of the nerf rail **MUST** be steel, and **MUST** be at least a **MINIMUM** size of 25mm diameter/square SHS, RHS, CHS or OHS, OR steel plate with a **MINIMUM** thickness of 2mm. The lower edge of any plate used to meet the specified dimensions **MUST** be welded to support bracing, which may include a lower rail to form a side-pod.
- 205.10** Nerf-rails must **NOT** extend past the wheels (when the car is fitted with normal dry running wheels) by more than 2in (50mm). This gives a **MAXIMUM** total chassis width (excluding wheel guards) of 72in (1828mm) if the **MAXIMUM** permitted track width is used.

206 Wheel Guards

- 206.1** A **steel** wheel guard **MUST** be fitted around the offside (right) rear wheel, from the rear bumper to the nerf-rail.
- 206.2** The wheel guard **MUST** be similar in dimensions to the Transit or Escort rear leaf spring.
- 206.3** The wheel guard **MUST** be bolted to its mounts at **BOTH** ends using high-tensile nuts and bolts of a **MINIMUM** 10mm diameter. **A guide to fitment is illustrated in Technical Diagram 03.**
- 206.4** The use of a wheel guard on the nearside (left) rear wheel is optional, but if fitted it **MUST** conform to the above rules.

207 Engine Firewall

- 207.1** A complete firewall **MUST** be installed between the engine and the driver's compartment to help protect the driver from the possibility of burns from fire, fuel, oil or water.
- 207.2** The firewall **MUST** be made of metal.
- 207.3** The firewall **MUST** be complete except for minimal sized holes through which essential cables, pipes or the steering column are required to pass.

208 Cab Floor

- 208.1** A solid floor **MUST** be installed in the driver's compartment (cab).
- 208.2** Where any part of the floor of the driver's compartment is below the bottom of main chassis rails, OR there is not a full under chassis, the

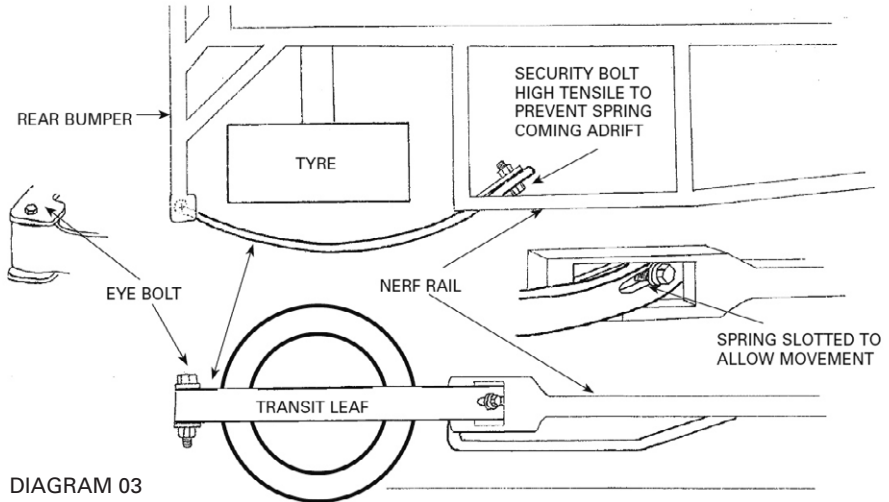


DIAGRAM 03

cab floor **MUST** be constructed of 3mm **MINIMUM** thickness steel plate. Aluminium is **NOT** permitted in this case.

- 208.3** Where the entire floor of the driver's compartment is above the bottom of the main chassis rails **AND** a full under chassis is present (i.e. lower rails extending to at least level with the front transverse edge of the driver's seat not including any leg side-supports/bracing), the cab floor **MUST** be constructed of either 3mm **MINIMUM** thickness aluminium plate (including chequered plate) or 3mm **MINIMUM** thickness steel plate.
- 208.4** The cab floor **MUST** extend rearwards from the engine bulkhead firewall for a **MINIMUM** distance of 600mm over its entire width.
- 208.5** The cab floor **MUST** extend rearwards **BEYOND** the point at which it overlaps in a vertical plane (across the entire width of the car) with the transverse front edge of the driver's seat (behind the driver's knees, not including any leg side-supports/bracing).
- 208.6** The cab floor **MUST** cover the full width of the area between the chassis rails along the floor's entire length.
- 208.7** The cab floor **MUST** be either welded to the chassis, or attached using a **MINIMUM** of eight (in number) high tensile 8mm nuts and bolts.
- 208.8** Cutting of the cab floor around the bell-housing and gearbox for fitment is permitted. **NO** other drilling or lightening is allowed.
- 208.9** The front edge of the cab floor may be angled upwards to prevent catching on high kerbs or other obstacles should car design require this.

209 Foot Protection Plating

- 209.1** Where **ANY** part of the driver's legs or feet are located below the bottom of the main (top) chassis rail a vertical side protection plate of 3mm **MINIMUM** thickness steel **MUST** be welded between the main (top) and

lower chassis rails to cover the entire side area of the driver foot-well on both sides of the car.

- 209.2** Where a driver's legs and feet are located entirely above the bottom of the main (top) chassis rails a vertical side protection plate of 2mm MINIMUM thickness steel MUST be welded between the main (top) chassis rail and the level of the main cab window side-bars to cover the entire side-area of the driver's legs/feet position.
- 209.3** Where a driver's feet are located such that they are both above and below the main (top) chassis rails then steel vertical side protection plates MUST be mounted BOTH between the main (top) and lower chassis rails, AND between the main (top) chassis rail and the level of the main cab window side bars. These protection plates MUST conform to the individual plate rulings above.
- 209.4** In all cases, the side protection plate MUST extend rearwards from the engine bulkhead firewall in front of the driver's feet for a MINIMUM distance of 500mm over its entire height.
- 209.5** In all cases, the side protection plate MUST extend rearwards to a point such that its ENTIRE rear edge is located level with or behind the vertical plane from the transverse front edge of the driver's seat (behind the driver's knees, not including any leg side-supports/bracing).
- 209.6** The side protection plates must NOT be drilled or lightened in any way, except for minimal sized holes through which essential electrical cables or fuel pipes are required to pass.

210 Driver's Seat & Harness

210.1 Driver

- 210.1.1** The driver MUST be seated along the centre-line of the car.
- 210.1.2** The driver MUST be seated in front of the rear axle.
- 210.1.3** ALL parts of the driver's body MUST be entirely behind the rear of the engine cylinder block.
- 210.1.4** The driver MUST be able to exit the car through BOTH sides of the cab whilst wearing all safety equipment used for racing (e.g. Helmet, overalls, gloves, head/neck restraint).
- 210.1.5** It is strongly recommended that the driver ensures there is a MINIMUM 100mm gap between the steering column support cross-member and the driver's legs when seated in the normal driving position.

210.2 Seat

- 210.2.1** The seat MUST be of a bucket type design, with adequate side-support for the driver's build.
- 210.2.2** The seat MUST be securely fitted to the chassis along the centre-line of the car using high-tensile bolts of a MINIMUM 8mm in diameter.
- 210.2.3** Central fitment is measured by taking the distance from the transverse horizontal centre of the seat to the inside edge of the main chassis rail. This distance MUST be equal on both sides of the car to within a tolerance of +/-10mm, i.e. the two measurements MUST be within

10mm of each other. BOTH the front and rear edges of the seat MUST be within the stated tolerances.

210.2.4 The seat MUST be upright when viewed from the front or rear of the car.

210.3 Seat protection Plate

210.3.1 A rectangular steel protection plate MUST be bolted to the base of the seat, or welded to the chassis directly under the seat to protect the driver from the rear-axle, differential, and prop-shaft.

210.3.2 The protection plate MUST be a MINIMUM of 3mm in thickness, and measure a MINIMUM of 350mm wide along its entire length, and a MINIMUM of 250mm front to back across its entire width.

210.3.3 The protection plate must NOT be drilled, lightened, or modified in any way other than to mount it to the seat/chassis.

210.3.4 Seatbelts must NOT be mounted/attached to the protection plate.

210.4 Headrest

210.4.1 A headrest plate MUST be welded to two vertical bars located behind the driver's head/helmet.

210.4.2 The vertical bars MUST be constructed of steel, be an integral part of the roll-cage construction, and be welded to cross-members at the top and bottom. **Example designs are illustrated in Technical Diagram 04.**

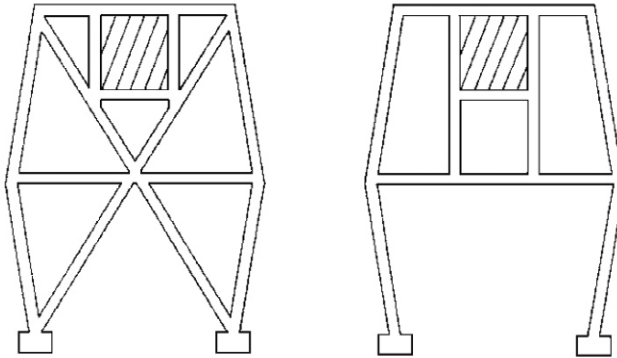


DIAGRAM 04

210.4.3 The headrest plate/vertical bars must NOT protrude from the main roll-cage in profile.

210.4.4 The headrest plate MUST be a MINIMUM of 3mm thick steel plate.

210.4.5 The headrest plate MUST be measure between 150mm and 200mm square.

210.4.6 The headrest plate must NOT be drilled, lightened, or modified in any way.

210.4.7 It is recommended that the headrest plate be padded with dense fire-resistant foam.

210.5 Safety Harness

210.5.1 The car MUST be fitted with a nylon quick-release safety harness to hold the driver in to the seat.

- 210.5.2** The safety harness **MUST** be worn at all times when on track racing or practising.
- 210.5.3** Rules regarding the correct specification, fitment, and use of the safety harness are produced by the ORCi to ensure consistency and best practice across all oval formulas. The ORCi safety specification rules are detailed separately in the rulebook, and unless explicitly stated below, the ORCi rules apply.
- 210.5.4** The safety harness **MUST** consist of two separate shoulder straps, two separate lap straps, and an “anti-submarine” crotch strap (sometimes referred to as a sub-strap). The safety harness **MUST** be of either a 5-point or 6-point design.
- 210.5.5** The safety harness **MUST** be anchored to the car’s chassis by one of the following methods:
- Bolted to an integral part of the chassis using bolts of at least 8mm diameter high-tensile steel.
 - Attached to bolt-on or weld-on purpose made ringed harness eyelets using the harness manufacturer’s original components.
 - Securely buckled around integral roll-cage or chassis cross-members using the harness manufacturer’s original components. Any such cross-member(s) **MUST** be welded to other fixed chassis/roll-cage bars at both ends such that the safety harness cannot become detached, and **MUST** conform to the **MINIMUM** roll-cage material specifications.
- 210.5.6** A **MAXIMUM** of one strap attachment is permitted to any single bolted mount point or bolt/weld-on ringed harness eyelet, e.g. separate lap and anti-submarine belts must **NOT** be mounted to the same eyelet. It is permitted to mount multiple straps around a single integral cross-member, e.g. the shoulder belts to a cross-bar.
- 210.5.7** The shoulder straps **MUST** be supported at shoulder level to prevent deformation/compression of the seat and driver injury in a high-energy impact.
- 210.5.8** **Recommended safety harness installation locations are illustrated in Technical Diagram 05.**
- 210.5.9** All anchorage points **MUST** be easily accessible for scrutineering purposes.
- 210.5.10** It is strongly recommend that all seat apertures through which the safety harness passes are lined to prevent chaffing of the straps.
- 210.6 Safety Exercise**
- 210.6.1** As a safety exercise it is strongly recommended that the rear shock absorbers are disconnected and the rear axle casing jacked up to check that the axle casing contacts the underside of the chassis rails **BEFORE** the differential and/or prop-shaft hit the driver’s seat.

211 Foot Pedals

- 211.1** The car **MUST** have only **ONE** pedal each to operate the clutch, brake and throttle.
- 211.2** Left-foot braking is **NOT** permitted.

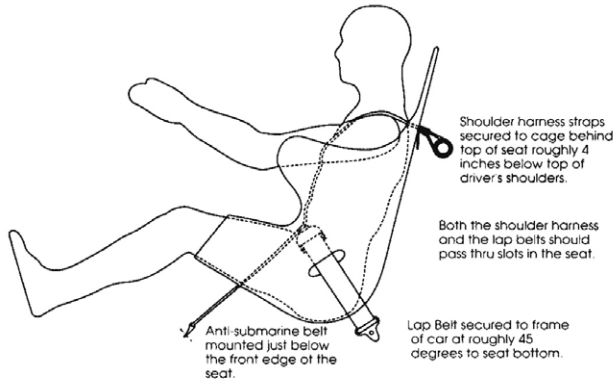


DIAGRAM 05

Recommended Seat Belt Installation

- 211.3** The clutch pedal **MUST** be fitted to the **LEFT** side of the bell-housing/gearbox where the floor of the cab is located below the level of the main gearbox input shaft.
- 211.4** The clutch pedal **MUST** be fitted to the **LEFT** side of the car's centre-line where the floor of the cab is located above the level of the main gearbox input shaft.
- 211.5** The brake and throttle pedals **MUST** be fitted to the **RIGHT** side of the bell-housing/gearbox where the floor of the cab is located below the level of the main gearbox input shaft.
- 211.6** The brake and throttle pedals **MUST** be fitted to the **RIGHT** side of the car's centre-line where the floor of the cab is located above the level of the main gearbox input shaft.
- 211.7** Where the floor of the cab is located above the level of the main gearbox input shaft a metal panel **MUST** be fitted between the clutch and brake pedals to prevent the driver from using their left foot on the brake pedal.

212 Track Width

212.1 Track Width

- 212.1.1** The track width of an axle is measured in the vertical plane along the transverse centreline of the axle and is the measurement between the outermost extremities of the tyre/wheel assemblies on that axle. The measurements **EXCLUDE** any wheel guards.
- 212.1.2** The **MAXIMUM** permitted track width is 68in (1728mm) for both the front and rear axles.
- 212.1.3** The track width **MUST** be set such that the axle would pass in a straight line between two fixed posts/walls that are 68in (1728mm) apart.

212.2 Checking Procedure

- 212.2.1** In practice the nerf-rails (which are permitted to extend beyond the edge of the tyres) may physically prevent the passing of the car between two fixed posts/walls. Checking of this rule may therefore be

carried out using a fixed width gauge placed over/around the wheels and tyres.

212.2.2 The gauge MUST be able to fit over the wheels/tyres with NO forced deflection of the tyre/wheel assembly.

212.2.3 Forced deflection of the tyre/wheel assembly in order to make the gauge fit is regarded as a FAILURE to adhere to the rules.

212.3 Track Width Penalties

212.3.1 The penalties for track width infringements are detailed in a separate section of the rulebook.

213 Shock Absorbers (Dampers), Springs and Anti-Roll Bars

213.1 Shock Absorbers (Dampers)

213.1.1 A MAXIMUM of one shock absorber per wheel/corner is permitted.

213.1.2 A MAXIMUM of four shock absorbers per car is permitted.

213.1.3 Mono-tube shock absorbers are NOT permitted for use.

213.1.4 Remote reservoirs are NOT permitted for use.

213.1.5 A MAXIMUM of ONE adjustment device per shock absorber is permitted.

213.1.6 The mounting of shock-absorbers in-board or out-board of the main chassis rails is permitted, but they MUST be predominantly below the level of the main chassis rails.

213.2 Coil Springs

213.2.1 A MAXIMUM of one coil spring per wheel/corner is permitted.

213.2.2 A MAXIMUM of four coil springs per car is permitted.

213.2.3 Coil springs MUST be made of steel.

213.2.4 Conical coil springs are NOT permitted.

213.2.5 Coil springs MUST be constant in internal and external diameter over their entire length, i.e. they must NOT taper in or out at any point.

213.2.6 Coil springs MUST be constant in diameter of the spring material over their entire length.

213.3 Leaf Springs

213.3.1 A MAXIMUM of one leaf spring per wheel/corner is permitted.

213.3.2 A MAXIMUM of four leaf springs per car is permitted.

213.3.3 A multi-leaf spring in a single unit counts as a single spring for the purpose of these rules.

213.3.4 Leaf springs MUST be made of steel.

213.3.5 Rear-axle leaf springs MUST be mounted longitudinally, outside of the chassis rails. Transversely mounted leaf springs are NOT permitted on the rear-axle.

213.3.6 The front (chassis) mount of any rear-axle leaf spring MUST be fixed. Sliding mounts are NOT permitted.

213.3.7 Front-axle leaf springs may be mounted longitudinally, or transversely.

213.4 Device Adjustment

213.4.1 Any devices which allow adjustment of the spring platforms, shock absorbers, and/or anti-roll bar(s) by the driver from within the cab are NOT permitted.

214 Front Axle/Suspension

214.1 Axle

- 214.1.1** It is permitted to use either a solid beam-axle, or an independent design for the front axle/suspension.
- 214.1.2** Front uprights, brake discs and hubs must NOT be offset in any way.
- 214.1.3** Differing King-pin inclinations are permitted on each side of the car.
- 214.1.4** The use of bird-cage fitments is NOT permitted.

214.2 Independent Front Suspension

- 214.2.1** The top wishbones (including any spherical bearings/rose-joints) MUST be of equal length on both sides of the car. This measurement is taken from the centre of the bearing/pivot point on the upright mounting, to the centre of the bearing/pivot point axis on the chassis mounting.
- 214.2.2** The top wishbone mounting brackets MUST be of equal length on both sides of the car.
- 214.2.3** Camber MUST only be set/adjusted by altering the length of the bottom wishbone/track control arm.

214.3 Solid Beam Axle

- 214.3.1** Beam axles MUST be centrally fitted transversely in the chassis.
- 214.3.2** Central fitment will be measured using the distance from the rotational centre at the top of the king-pins to the outside edge of the main chassis rails when viewing the car from the front. This distance MUST be equal on both sides of the car to within a tolerance of +/-10mm, i.e. the two measurements MUST be within 10mm of each other.
- 214.3.3** The alteration of camber angles is permitted.

214.4 Hubs

- 214.4.1** Front hubs MUST be made of a ferrous material.

215 Rear Axle/Suspension

215.1 Axle

- 215.1.1** The rear axle MUST be of rigid normal production type (similar in pattern to the Ford Escort Mk1/2).
- 215.1.2** The rear axle must NOT be wider than the Ford Cortina Mk3/4/5 axle when measured from the outside of wheel flange to wheel flange.
- 215.1.3** The axle tubes (between the differential carrier and the end flanges) MUST be of equal length.
- 215.1.4** The rear wheels must NOT be cambered in any way.

215.2 Axle Alignment

- 215.2.1** The rear axle MUST be centrally fitted transversely in the car.
- 215.2.2** Central fitment is measured by taking the distance from the inner edge of the rear wheel rim to the outside edge of the main chassis rail. This distance MUST be equal on both sides of the car to within a tolerance of +/-10mm, i.e. the two measurements MUST be within 10mm of each other.

- 215.2.3** Steering of the rear axle by lengthening or shortening the wheelbase is permitted.

215.3 Half-Shafts

- 215.3.1** The half-shafts **MUST** be of equal length.

- 215.3.2** It is strongly recommended that the bearing retaining collar on the nearside (left) is tack welded to the half-shaft to prevent it pulling out.

215.4 Fitting/Installation

- 215.4.1** The rear axle **MUST** be installed and sprung (i) using leaf springs, with anti-tramp bars if required, or (ii) by a traditional 4-link method using two separate link bars on each side of the car with coil-over springs and a lateral location device.

- 215.4.2** The 3-link method of axle installation is **NOT** permitted.

- 215.4.3** **ALL** rear axle mounting/location components **MUST** be fitted **OUTSIDE** of the chassis rails. **NO** rear axle mounting/location components may be fitted inside/between the chassis rails with the exception of (i) a Panhard Bar or Watts Linkage (see below), and/or (ii) in-board mounted coil-over shock absorbers (see below).

- 215.4.4** All rear axles **MUST** be installed and fitted such that the failure of any one mount/joint will not cause the axle to rotate resulting in the differential/prop-shaft hitting the seat.

215.5 Mountings

- 215.5.1** All rear axle mounting components (including, but not limited to, link, anti-tramp, Panhard and Watts Linkage bars) **MUST** be bolted to separate fixed points on the chassis and axle.

- 215.5.2** Bolting/mounting more than one component to a single point is **NOT** permitted.

- 215.5.3** A **MAXIMUM** of three fixed mounting points are permitted for each mount location (e.g. each end of a link bar) giving a fixed range of adjustability.

- 215.5.4** A **MAXIMUM** of six fixed mounting points are permitted on each side of the car for a 4-link axle mounting design (i.e. 3 per link bar).

- 215.5.5** A **MAXIMUM** of six fixed mounting points are permitted on each end of the axle for a 4-link axle mounting design (i.e. 3 per link bar).

- 215.5.6** The use of rotating, sliding, or other minutely adjustable mounting devices, or any slotted mounts is **NOT** permitted.

- 215.5.7** The use of over-size mounting holes (in relation to the bolt size) and/or undersize bolts (in relation to the mounting holes) is **NOT** permitted.

- 215.5.8** It is permitted to seal off any original mounting-holes (over and above those permitted within the above rules) by in-filling with weld, covering with a welded plate, or other permanent method. The use of any nuts and bolts (standard or security in design), or non-permanent components, is **NOT** permitted.

- 215.5.9** The use of original, or modified, adjustable mounting components, e.g. aluminium sliders, is **NOT** permitted, even if mounted to fixed points.

215.5.10 The use of any “changeable specification mounting component” design is NOT permitted. This includes, but is not limited to, the use of changeable plates incorporating the mounting holes, multiple mounting locations that would require the removal and installation of different length link bars, and, adjustable length link bars. (The normal small range of link bar adjustment provided by a standard design rose-joint is permitted).

215.6 Link Bars and Anti-Tramp Bars

215.6.1 All rear axle link and anti-tramp bars MUST be constructed of steel or aluminium, and, where required, utilise steel or aluminium rose-joints/bearings.

215.6.2 All rear axle link and anti-tramp bars MUST be of solid fixed-length construction, such that their length cannot change/be changed under load during racing (i.e. NO springs, damping or telescopic devices).

215.6.3 The use of adjustable mounting bearings (e.g. a threaded rose-joint) at the end(s) of a link or anti-tramp bar that allows total length adjustment off-track is permitted.

215.7 Lateral Location

215.7.1 Lateral location of the rear axle may be achieved by the use of a Watts Linkage, or Panhard Bar only.

215.7.2 Any Panhard Bar or Watts Linkage MUST be fitted behind the axle casing and below the main chassis rails.

215.7.3 The use of an A-Frame for lateral rear axle location is NOT permitted.

215.8 Strengthening

215.8.1 The rear axle casing may be strengthened through the use of welded or bolted-on bracing. The use of adjustable bracing is permitted.

215.8.2 The use of links incorporating rose-joints or other threaded/adjustable bearings/fixings/fittings is permitted for the purpose of strengthening the casing, and/or adjusting out race-damage and the effects of heat from welding brackets etc.

215.8.3 The use of rubber/poly bushes in a bolted brace, to allow a small amount of flex under shock load, is permitted.

215.9 Torque Arms/Birdcages

215.9.1 The use of torque arms is NOT permitted.

215.9.2 The use of bird-cage fitments is NOT permitted.

216 Wheel Rims

216.1 All cars MUST have 4 wheels.

216.2 Wheel rims MUST be made of steel or alloy.

216.3 Alloy wheel rims, if used, MUST be genuine Ford or a replacement competition type.

216.4 Wheel rim widths MUST be equal on BOTH sides of each axle, but may vary between the front and rear axles.

216.5 The MAXIMUM permitted front wheel rim width is 5½J.

216.6 There is no MAXIMUM or MINIMUM limit on rear wheel rim width.

- 216.7** Wheel back-depths **MUST** equal on **BOTH** sides of each axle, but may vary between the front and rear axles.
- 216.8** Wheel spacers are **NOT** permitted on any wheels or axles, whether loose, welded, bonded or bolted.
- 216.9** Wheel-nuts **MUST** be the correct fitment for the wheel rim/stud configuration used, and stud threads **MUST** visibly protrude through open wheel-nuts.

217 Tyres

- 217.1** The **Avon Wide Safety GT 7.3x13** tyre may be used in either treaded or slick form, subject to the following limitations:
 - 217.1.1 Slicks.** The manufactured slick form of the Avon tyre may be used at any meeting, but on the **FRONT** axle only.
 - 217.1.2 Hardness.** The tyre hardness, measured by a durometer, **MUST** be 40 or above at **ALL** times.
 - Hardness checking procedure:**
 - The tyre will be cleaned by hand across the tread.
 - The scrutineer or appointed BriSCA F2 Technical Officer will take three durometer readings across the tyre and produce a mean average.
 - A mean average below 40 will render the driver liable to penalty.
 - Tyre hardness penalties:**
 - The penalties for tyre hardness infringements are detailed in a separate section of the rulebook.
- 217.2** The **Yokohama 185/70-13 A021-R K12131** may be used in its original form, subject to the following limitations.
 - 217.2.1** Tyre softener and/or treatment of **ANY** kind is **NOT** permitted on the Yokohama tyre.
 - Softener/treatment checking procedure:**
 - A chemical “sniffer” may be used to check for the presence of softener or treatment products.
 - A tyre sample may be taken away for laboratory testing for the presence of softener or treatment products.
 - Softener/treatment penalties:**
 - The penalties for tyre softener infringements are detailed in a separate section of the rulebook.
- 217.3** Tyres must **NOT** be re-cut, or have their tread pattern altered by siping of the tread blocks.
- 217.4** Tyre identification marks must **NOT** be removed.
- 217.5** Mechanical tyre buffing and surforming is permitted in order to clean up the feathered edges of the tread blocks.
- 217.6** The same tyre type **MUST** be used on each axle, but may vary between the front and rear axles.
- 217.7** Tyre gaiters may be used on one or both axles subject to the following conditions:

- 217.7.1** Tyre gaiters **MUST ONLY** be used on the outside edge of the wheel/tyre assembly - furthest from the chassis.
- 217.7.2** Tyre gaiters **NOT** be used on the inside edge of the wheel/tyre assembly - nearest to the chassis.
- 217.7.3** If used, tyre gaiters **MUST** be used on **BOTH** wheels on an axle. The use of a tyre gaiter on only one wheel on an axle is **NOT** permitted.
- 217.7.4** Tyre gaiters are included within the overall track width measurement rules and **MUST** therefore pass within any measurement gauges.
- 217.8** If a tyre check is requested the driver **MUST** proceed directly round the track to the checking location without delay, otherwise the tyres will be considered illegal.

218 Brakes

- 218.1** Any braking system may be used, but it **MUST** be in working order.
- 218.2** All brake callipers **MUST** be made of ferrous material.

219 Transmission/Final Drive

219.1 Materials

- 219.1.1** Gearbox casings and differential housings **MUST** be made of a ferrous material.
- 219.1.2** Aluminium alloy bell-housings, tail-housings, and the Morris 1000 rear axle are permitted.

219.2 Gearboxes

- 219.2.1** Quick ratio change gearboxes (defined as gearboxes where ratios are changeable without removing the gearbox from the car) are **NOT** permitted.
- 219.2.2** Replacement gear kits with different ratios to the original manufacturer's specification are permitted, e.g. Quaife or Tran-X.

219.3 Bell-Housing

- 219.3.1** A single hole of 25mm diameter **MUST** be drilled in the bell-housing on all 2-litre powered cars to allow inspection of the flywheel and clutch by an appointed scrutineer.
- 219.3.2** The bell-housing must **NOT** be drilled or lightened in any way (other than the required inspection hole).

219.4 Differentials

- 219.4.1** Differentials may be un-locked, locked, or of the limited-slip design.
- 219.4.2** Only original specification standard production differential ratios may be used in the ratio range from 3.5:1 to 4.44:1. For example, the Volvo 3.73:1, BMC 3.90:1, and Ford 4.125:1 are all permitted within this rule, as are other standard ratios (within the above range) produced by these and other car manufacturers.

219.5 Prop-shaft Hoop(s) / Tunnel

- 219.5.1** Where the rear of the gearbox tail-shaft (or drive flange for gearboxes without a tail-shaft), is located behind the transverse front edge of the driver's seat (behind the driver's knees, not including any leg side-supports/bracing), a **MINIMUM** of 1 **steel** hoop **MUST** be fitted around

the prop-shaft, attached to the seat base, chassis rail(s), a chassis cross-member, or a steel cab floor, designed to catch the prop-shaft in the event of a breakage.

- 219.5.2** Where the rear of the gearbox tail-shaft, (or drive flange for gearboxes without a tail-shaft), is located in front of the transverse front edge of the driver's seat (behind the driver's knees, not including any leg side-supports/bracing), a MINIMUM of 2 steel hoops MUST be fitted around the prop-shaft, one at each end, attached to the seat base, chassis rail(s), a chassis cross-member, or a steel cab floor, designed to catch the prop-shaft in the event of a breakage.
- 219.5.3** As an alternative to prop-shaft hoop(s), the use of a prop-shaft tunnel is permitted.
- 219.5.4** All prop-shaft hoops MUST be constructed from a MINIMUM material size of 25mm x 3mm flat bar, and be adequately secured either by welding or the use of 8mm MINIMUM high-tensile nuts and bolts.
- 219.5.5** All prop-shaft tunnels MUST be constructed from 3mm MINIMUM thickness steel plate, and be adequately secured to the gearbox, chassis, or steel cab floor either by welding or the use of a MINIMUM of four (in number) high tensile 8mm MINIMUM size nuts and bolts.
- 219.5.6** A prop-shaft tunnel along the entire length of the prop-shaft is considered an adequate alternative to the 2-hoop requirement. Where the rear of the gearbox tail-shaft, (or drive flange for gearboxes without a tail-shaft), is located in front of the transverse front edge of the driver's seat (behind the driver's knees, not including any leg side-supports/bracing), and only a partial length prop-shaft tunnel is fitted on one end, then a MINIMUM of 1 steel hoop MUST also be installed around the opposite end of the prop-shaft.

220 Batteries

- 220.1** Any type of conventional or gel type battery may be used.
- 220.2** The MAXIMUM permitted size of a single battery is the "063" standard (dimensions: 210mm x 175mm x 175mm, OR, volumetric equivalent: 6,431cubic centimetres).
- 220.3** A MAXIMUM of 2 batteries may be used (each up to the MAXIMUM size stated).
- 220.4** All batteries MUST be adequately covered with a rubber or similar anti corrosive material to prevent sparking/short circuiting, and the spilling of battery acid.
- 220.5** Batteries MUST be bolted to the chassis to prevent movement in an impact or roll-over.
- 220.6** Batteries must NOT be located where they may leak acid/fumes on to the driver safety harness.
- 220.7** Batteries must NOT be fitted between the driver's legs.
- 220.8** 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.

- 220.9** A battery isolator switch, in the earth circuit, **MUST** be fitted to the dashboard of the car at the base of the windscreen in an easily accessible position (from the outside). The On/Off positions of the switch **MUST** be clearly marked on the dashboard, and the location of the switch **MUST** be clearly marked on the outside of the car where it can be seen by track marshals.

221 Radiators and Cooling System

- 221.1** Any radiator **MUST** be fitted between the main chassis rails, **AND** forward of the firewall between the engine and driver compartments.
- 221.2** Cooling systems **MUST** utilise the original outlets from the engine.
- 221.3** Blocking off the heater hose outlets on the water pump and/or inlet manifold is permitted.
- 221.4** Use of the heater hose outlets on the water pump and/or inlet manifold with a secondary radiator is permitted.
- 221.5** ALL overflow pipes **MUST** point directly at the ground.
- 221.6** Electric cooling fans are permitted.

222 Fuel and Fuel System

222.1 Fuel System

- 222.1.1** Pressurized fuel systems are **NOT** permitted.

222.2 Fuel Tanks

- 222.2.1** Fuel tanks **MUST** be constructed of steel with a **MINIMUM** 2mm wall thickness. Alloy tanks are **NOT** permitted.
- 222.2.2** The filler cap **MUST** be of a metal threaded screw type.
- 222.2.3** The fuel tank **MUST** have a breather pipe that prevents spillage in case of inversion. A one-way valve **MUST** be fitted in the breather pipe to prevent fuel spillage.
- 222.2.4** The fuel feed pipe **MUST** enter the fuel tank at or near the top.
- 222.2.5** The **MAXIMUM** permitted fuel tank capacity is 3 gallons (13.64 litres).
- 222.2.6** The fuel tank **MUST** be securely fitted, preferably strapped down within a steel cage, rather than mounted on lugs that are prone to fatigue.
- 222.2.7** The fuel tank **MUST** be protected from intrusion by an additional single steel plate or steel tubes (both **MINIMUM** 2mm wall thickness). Any steel plate used may be a **MAXIMUM** of 6mm in thickness.
- 222.2.8** If fitted outside of the main chassis rails, the fuel tank **MUST** be positioned next to the chassis rail with **NO** gap between the outside edge of the rail and the inside edge of the tank. The outer edge of the tank may be a **MAXIMUM** distance of 9in (228mm) from the outside edge of the main chassis rail. The outside edge of the tank **MUST** be a **MINIMUM** distance of 10in (254mm) from the outside edge of the nerf rail(s).
- 222.2.9** If the fuel tank is fitted behind the driver's seat a full firewall **MUST** be installed between the driver's compartment and the fuel tank.

222.3 Fuel Line

- 222.3.1** The fuel line **MUST** be constructed of metal pipe, or steel braided fuel hose.

- 222.3.2** The use of plastic pipes, and/or non-steel braided fuel hoses in the construction of fuel lines is NOT permitted.
- 222.3.3** A fuel shut-off tap MUST be fitted in the fuel line, and be positioned within easy reach of the driver when strapped in their seat.
- 222.3.4** The use of a fuel regulator is permitted.

222.4 Fuel

- 222.4.1** All cars MUST use fuel that is freely available from at least 200 roadside service stations in the UK.
- 222.4.2** Any promotion or BriSCA F2 Technical Officer has the right to supply a car or cars, prior to the start of a race, with fuel that conforms to one of the following standards, and will supply an approved additive if required:
 - BS EN 228 : 2008 – Unleaded
 - BS 7800 : 2006 – Super Unleaded
- 222.4.3** The ONLY fuel additive permitted for use is Millers “CVL”.
- 222.4.4** The Millers “CVL Turbo” product is NOT permitted for use.

223 Exhaust/Silencer

- 223.1** 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.
- 223.2** Where a car has a sufficiently high floor in the driver’s compartment it is permitted to fit the exhaust system between the main chassis rails and run it under the cab floor, subject to the following conditions:
 - 223.2.1** The exhaust MUST remain on the same side of the centre-line of the car as the engine exhaust ports for its entire length.
 - 223.2.2** The exhaust must NOT cross the centre-line of the car at any time.
 - 223.2.3** The exhaust MUST terminate on the same side of the centre-line of the car as the exhaust ports.
- 223.3** All cars MUST be fitted with the approved BriSCA F2 stainless-steel silencer. This approved silencer has the BriSCA F2 name/logo clearly etched in to it.
- 223.4** The approved BriSCA F2 silencer must NOT be modified in any way.
- 223.5** Welding is NOT permitted on the silencer unit within 25mm of the silencer box.
- 223.6** All sections of the exhaust system, from the exhaust ports to the collector, between collectors in a multi-collector system, and from the final collector to the mandated BriSCA F2 silencer, MUST be constructed from tube with a constant, non-varying, internal and external diameter.
- 223.7** Collector sections MUST be constructed for the sole purpose of merging multiple exhaust pipes in to one, and MUST NOT incorporate any other performance altering design.
- 223.8** Additional exhaust attachments, tail pipes, and performance altering devices are NOT permitted.
- 223.9** The scrutineer or appointed BriSCA F2 Technical Officer has the right to fail any silencer if he considers that, due to a significant difference

in volume and engine note, it has been modified from the original manufactured specification.

224 Fire Extinguishers

- 224.1 It is **recommended** that all cars carry a hand-held fire extinguisher, or have an appropriate plumbed-in fire suppressant system installed.
- 224.2 Fire extinguishers should be 1Kg (2.2lbs) in size, include a gauge, and contain either dry powder or CO₂ gas. BCF extinguishers (old-style green) are NOT permitted.
- 224.3 The fire extinguisher or activation knob **MUST** be within easy reach of the driver when strapped in the seat, and mounted below shoulder height.
- 224.4 It is advised that hand-held fire extinguishers are mounted within a vertical steel tube, with a spring retainer catch to hold it in.
- 224.5 **Details of the transporter vehicle fire extinguisher requirements can be found in the ORCi Safety Specification rules detailed separately in the rulebook.**

225 Aerofoils/Wings

225.1 General

- 225.1.1 The use of a top-mounted aerofoil or rear-mounted Superstox-type wing, on or over the cab, is optional.
- 225.1.2 The use of any aerofoil or wing on the front, or any other part of the car is NOT permitted.
- 225.1.3 Any aerofoil/wing **MUST** be mounted centrally on the car when viewed from the front/rear.
- 225.1.4 Any aerofoil/wing (including but not limited to its body, side-plates and mounting sliders) mounted on or above the cab **MUST** be mounted with at least a **MINIMUM** clearance of 1in (25mm) **ABOVE** the roofline at all points.
- 225.1.5 In practice, any aerofoil/wing **MUST** be mounted high enough above the roof of the car such that a tube/pole/bar, 1in (25mm) diameter/ square in size, in a horizontal orientation is able to pass below both the side plates, the body and mounting sliders, and above the roll cage roof plate along the entire length of any overlap between the aerofoil/wing and the cab roof. **This rule is illustrated in Technical Diagrams 06 to 09.**

225.2 Aerofoils

- 225.2.1 The **MAXIMUM** permitted body-size for a top-mounted aerofoil is 44in x 44in (1117mm x 1117mm).
- 225.2.2 The **MAXIMUM** permitted side-plate size for a top-mounted aerofoil is 48in x 24in (1219mm x 610mm) (length x height).

225.3 Superstox-type wings

- 225.3.1 The **MAXIMUM** permitted body-size for a rear-mounted Superstox-type wing is 48in x 18in (1219mm x 457mm) (transverse width x longitudinal depth).

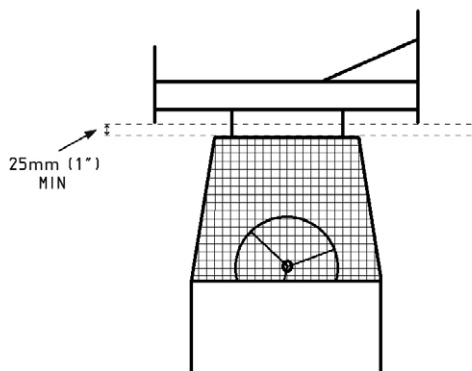


DIAGRAM 06

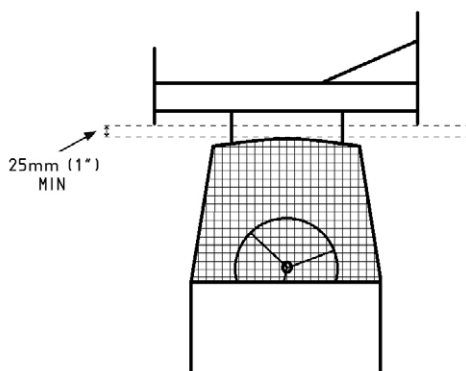


DIAGRAM 07

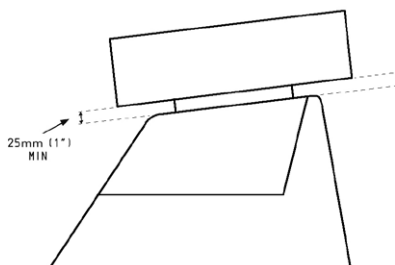


DIAGRAM 08

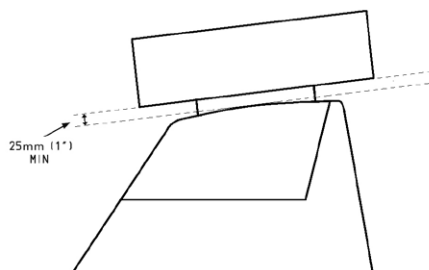


DIAGRAM 09

225.3.2 The MAXIMUM permitted side plate size for a rear-mounted Superstox-type wing is 26in x 12in (660mm x 305mm) (length x height).

(Note: A decision on the outlawing of multi-deck wings/aerofoils has been deferred. These devices will be reviewed during 2014 with an appropriate ruling issued for 2015.)

226 Transponders

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

226.2 The ONLY permitted transponder is the "Mylaps 260 Direct Powered" transponder.

226.3 The transponder MUST be fitted, and working, at all times when the car is on the track or being scrutineered.

226.4 The transponder MUST be mounted a MINIMUM of 1800mm (1.8m) back from the front bumper, and approximately 450mm from the ground. Care should be taken to ensure a clear line of signal from the transponder to the ground.

226.5 Transponders may be sold/transferred at any time; however, the driver MUST inform the Licencing Officer and complete a Transfer Form.

226.6 Results will NOT be credited to a driver if their transponder fails to operate from the start of the meeting.

226.7 Transponders are available from MYLAPS Sports Timing (www.mylaps.com) and HS Sports (www.hssports.co.uk).

227 Driver/Car Identification

- 227.1** The driver's assigned racing number (as indicated on their licence) MUST be displayed on both sides and the rear of the car, and on both sides of any roof fin or aerofoil.
- 227.2** The driver's number MUST be black on a white background, in strokes of 1in (25mm) MINIMUM, to a MINIMUM height of 9in (228mm).
- 227.3** The driver's name MUST be displayed in letters at least 3in (76mm) tall on the off-side (right) of the aerofoil (or car body-panels if no aerofoil is fitted) where it can be CLEARLY seen by the spectators.
- 227.4** Sponsor names and logos may appear on the car, but they must NOT interfere with the numbering or driver's name.

228 Grading Colours/Roof Painting/Lights

- 228.1** The following official championship winning roof/roll-cage colours apply:
- | | |
|----------------------------|------------------------------|
| • World Champion | Gold |
| • National Points Champion | Silver |
| • British Champion | Black/White chequered |
| • European Champion | Red/Yellow chequered |
| • World of Shale Champion | Two Gold stripes, 100mm wide |
| • World Cup Winner | One Gold Stripe, 100mm wide |
| • Shootout Champion | Orange/White chequered |
- 228.2** The following official grading roof/roll-cage colours apply:
- | | |
|-------------------------|--|
| • Superstar/Star grades | "Mail-box" Red |
| • 'A' grade | Light Blue |
| • 'B' grade | Yellow |
| • 'C' grade | White |
| • Novice | White, with a 75mm wide Black Cross on the rear of the car |
- 228.3** The whole of a top mounted aerofoil, if fitted, MUST be painted in the driver's official grading/championship winning colour with the exception of the driver's race number which MUST be black on white (see Car Identification rules above).
- 228.4** The roof plate, roll-cage, and "ear" panels (from the waistline up) of a car using a top mounted aerofoil MUST be painted in EITHER:
- The driver's official grading/championship winning colour
 - OR
 - A neutral colour (i.e. NOT one of the colours listed above)
- 228.5** The whole of a top/rear mounted "Superstox-type" wing, if fitted, MUST be painted in the driver's official grading/championship winning colour with the exception of the driver's race number which MUST be black on white (see Car Identification rules above).
- 228.6** The roof plate of a car using a top/rear mounted "Superstox-type" wing MUST be painted in:
- The driver's official grading/championship colour ONLY.
- 228.7** The roll-cage, and "ear" panels (from the waistline up) of a car using a top/rear mounted "Superstox-type" wing MUST be painted in:
- The driver's official grading/championship colour

OR

- A neutral colour (i.e. NOT one of the colours listed above)

- 228.8** Superstar graded drivers MUST fit at least one flashing amber roof light in working order.
- 228.9** External lights, flashing or otherwise (with the exception of Superstar graded lights), are NOT permitted.
- 228.10** Any driver appearing with the wrong roof colour will be made to start at the rear of the grid in all races until the colour is rectified to the satisfaction of the Steward/Scrutineer/Clerk of the Course.

229 Engines – General Rules For ALL Engines

- 229.1** The engine MUST be mounted longitudinally in the chassis.
- 229.2** The engine MUST be mounted in an upright position, as fitted to the vehicle of origin.
- 229.3** The engine MUST be mounted centrally between the main chassis rails such that the rotational centre-line of the crankshaft sits along the centre-line of the car.
- 229.4** Central fitment is measured by taking the distance from the inner edge of the main chassis rails to the rotational centre of the crankshaft pulley securing-bolt. This distance MUST be equal on both sides of the car to within a tolerance of +/-50mm, i.e. the two measurements MUST be within 50mm of each other, thus giving a maximum distance from the centre-line of the car to the rotational centre-line of the crankshaft pulley securing-bolt of 25mm.
- 229.5** An oil catch tank with a MINIMUM capacity of at least 1-litre MUST be fitted to the car and connected to the engine's breather system.
- 229.6** Turbocharging and/or supercharging is NOT permitted.
- 229.7** Fuel injection is NOT permitted.
- 229.8** Electronic advance/retard and flywheel/crankshaft pickup systems are NOT permitted.
- 229.9** Telemetry devices that are used to record engine data to enhance performance are NOT permitted.
- 229.10** The following engines are permitted for use, subject to the individual specifications below:
- 229.10.1** Any push-rod or side-valve water-cooled engine of English manufacture up to an original capacity of 1300cc. (**Note:** This engine type will NOT be permitted from **2015** onwards).
- 229.10.2** The Ford 2-litre SOHC NE type engine (commonly referred to as the 2-litre Pinto). This engine has a nominal bore of 90.84mm and a stroke of 76.95mm.
- 229.10.3** The Ford 1.8-litre Duratec engine (Engine Type 1.8L (M14)). This engine has a nominal bore of 83mm and a stroke of 83.10mm.
- 229.11 Engine Checking Procedures**
- 229.11.1** The scrutineering of engines will be very strict, and on a totally random basis, as the rules are designed to maintain parity of performance.
- 229.11.2** The engine MUST be made available at any track for scrutineering.

- 229.11.3** Compensation for gaskets and oil will be made, providing the engine is legal (excepting checks for the top three in the World Final).
- 229.11.4** Any driver whose engine is sealed or protested **MUST** arrange with the Chief Technical Officer to have the engine dismantled and checked within 21 days of it being sealed.
- 229.11.5** It is the responsibility of the driver to produce his engine for inspection at a convenient place for the involved parties.
- 229.11.6** The following people **MUST** be in attendance at the inspection:
- BRISCA F2 appointed Engine Scrutineer
 - The Driver's Engineer
 - Two witnesses (preferably registered drivers)
- 229.11.7** Engines that are required to be stripped for Championship events will be stripped on the day of the event, at the track. A **MAXIMUM** of 3 people may attend the engine inspection.

Notes for 2015:

- *BriSCA F2 intends to introduce the 2-litre Ford Duratec engine, together with the 2-litre Ford Zetec engine, in to the sport in 2015 alongside the current 2-litre Ford Pinto and 1.8-litre Ford Duratec engines.*
- *The technical specifications for all engines will be aimed at bringing the performance of all models as close to each other as possible.*
- *Detailed technical specifications will be published during 2014.*
- *The "Up to 1300cc" engine specification will be removed from the rulebook from 2015 and will no longer be permitted (effective 01-Jan-2015).*

230 Engines – Up to 1300cc Specification

- 230.1** Any push-rod or side-valve water-cooled engine of English manufacture up to an original capacity of 1300cc is permitted.
- 230.2** The Ford 1100cc engine may be bored-out up to a **MAXIMUM** of 85mm plus 0.030in.
- 230.3** The Ford 1200cc engine may be bored-out to accept Lotus Twin Cam pistons at standard size, i.e. 0.0625in over the manufacturer's original size.
- 230.4** The Ford 1300cc engine may be bored-out up to a **MAXIMUM** of 0.060in over the manufacturer's original size.
- 230.5** All other makes of engine may be bored-out up to a **MAXIMUM** of 1300cc plus 0.060in.
- 230.6** Ford 1500cc-1600cc blocks are **NOT** permitted.
- 230.7** All pushrod engines are restricted to a **MAXIMUM** carburettor choke size of 34mm.
- 230.8** A conventional single coil and distributor **MUST** be used.
- 230.9** The cylinder head and block **MUST** be from the same manufacturer.
- 230.10** It is **NOT** permitted to change the original stroke of the engine.
- 230.11** The engine **MUST** be of pre-1975 design or manufacture.

231 Engines – Ford 2-Litre SOHC NE (Pinto) Specification

- 231.1** The Ford 2-litre SOHC NE type engine (commonly referred to as the 2-litre

Pinto) is permitted. This engine has a nominal bore of 90.84mm and a stroke of 76.95mm.

231.2 General Rules

- 231.2.1** Unless otherwise stated, ALL parts appertaining to the engine MUST be standard Ford 2-litre SOHC items, as fitted to the original engine type. Production tolerances are permitted.
- 231.2.2** The removal or addition of ANY material from or to the combustion chamber and/or ports is NOT permitted unless specified below.
- 231.2.3** Painting of the engine, inside and outside is permitted, except in the combustion chamber and ports.
- 231.2.4** Internal painting must NOT change the surface from matt to smooth.

231.3 Engine Block

- 231.3.1** Over-boring the engine block up to a MAXIMUM of 1.5mm (0.060in) is permitted.
- 231.3.2** Sleeving the cylinder back to 90.84mm and re-boring up to a MAXIMUM of 1.5mm (0.060in) oversize is permitted.
- 231.3.3** Line boring of the main bearing housings is permitted.
- 231.3.4** Surfacing the block deck is permitted, but pistons must NOT protrude above the face of the block at TDC.
- 231.3.5** Securing the oil seals and core plugs through the use of grub screws or similar is permitted.

231.4 Crankshaft

- 231.4.1** A standard crankshaft MUST be used.
- 231.4.2** The crankshaft weight MUST be at least a MINIMUM of 28lbs (12.7Kg).
- 231.4.3** Spot machining to achieve crankshaft balance is permitted.
- 231.4.4** Tuftriding, shot peening and shot blasting of the crankshaft is permitted.
- 231.4.5** Polishing the crankshaft is NOT permitted.
- 231.4.6** Altering the number of bearings is NOT permitted.
- 231.4.7** Altering the bearing width is NOT permitted.
- 231.4.8** The use of narrower bearings of less than MINIMUM standard width is NOT permitted.
- 231.4.9** The use of oversize and/or undersize bearings of standard or heavy-duty material is permitted, but these MUST be within the standard range available for engine reconditioning.
- 231.4.10** The relieving of oil-way holes on each crank journal is permitted. The modification of all other oil-ways is NOT permitted.
- 231.4.11** Cross-drilling of crankshafts is NOT permitted.
- 231.4.12** The original unmodified standard camshaft toothed-belt drive pulley, separating washer, and water pump "V-belt" drive pulley, all mounted to the crankshaft, are all permitted.
- 231.4.13** Replacement of the standard water pump "V-belt" drive pulley mounted to the crankshaft with a machined/manufactured water pump "V-belt" drive pulley is permitted. Any replacement pulley must NOT incorporate the separating washer.

- 231.4.14** The circumference of any replacement water pump “V-belt” drive pulley mounted to the crankshaft **MUST** measure at least a **MINIMUM** of 363mm. This equates to a **MINIMUM** diameter of at least 115.55mm.
- 231.4.15** The weight of any replacement water pump “V-belt” drive pulley mounted to the crankshaft **MUST** measure at least a **MINIMUM** of 600g.
- 231.4.16** Removal of the separating washer between the camshaft toothed-belt drive pulley and water pump “V-belt” drive pulley mounted on the crankshaft, is **NOT** permitted.
- 231.4.17** Replacement of the original camshaft toothed-belt drive pulley, mounted on the crankshaft, with a machined/manufactured part is **NOT** permitted.

231.5 Con Rods

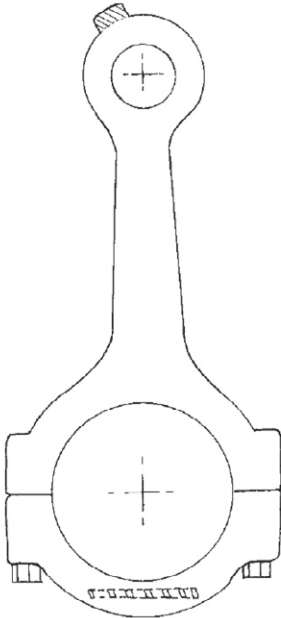
- 231.5.1** Spot machining to achieve con rod balance is permitted using the pad on the big-end cap **ONLY**.
- 231.5.2** Removal of the bob-weight on the small-end is permitted.
- 231.5.3** **The areas where fettling is permitted are illustrated in Technical Diagram 10.**
- 231.5.4** Tuftriding, shot peening and shot blasting of the con rods is permitted.
- 231.5.5** Polishing the con rods is **NOT** permitted.
- 231.5.6** The fitting of high-tensile bolts is permitted.
- 231.5.7** The use of steel con rods is **NOT** permitted.

231.6 Pistons

- 231.6.1** Pistons **MUST** be of Ford production type.
- 231.6.2** Powermax pistons are **NOT** permitted.
- 231.6.3** Forged pistons are **NOT** permitted.
- 231.6.4** Pistons must **NOT** be modified in any way, except for balancing or cylinder block resurfacing as detailed below.
- 231.6.5** To achieve balance, the removal of material from any inner surface location is permitted. The removal of material from other locations is **NOT** permitted.
- 231.6.6** The machining of piston crowns to allow the resurfacing of cylinder blocks is permitted.
- 231.6.7** Piston rings **MUST** be of standard type.
- 231.6.8** All three piston rings **MUST** be fitted on each piston.
- 231.6.9** At least one piston **MUST** retain its original manufacturer’s markings.

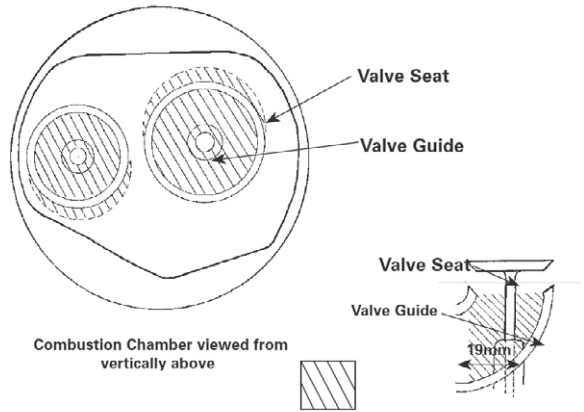
231.7 Cylinder Head

- 231.7.1** Surfacing of the cylinder head face is permitted.
- 231.7.2** Ports and chambers **MUST** be as originally cast by Ford.
- 231.7.3** Fettling is **NOT** permitted except in the area between the valve seat and valve guide. **This rule is illustrated in Technical Diagram 11.**
- 231.7.4** Three-angle valve seats are permitted.
- 231.7.5** Valve seat inserts used to repair damaged heads are permitted. These **MUST** occupy the **EXACT** position of the original seat.



Area where fettling is permitted

DIAGRAM 10



Combustion Chamber viewed from vertically above

DIAGRAM 11

Area where fettling is permitted

231.7.6 The addition of metal or any other material to ports and/or chambers is NOT permitted.

231.7.7 The strapping of camshaft centre main bearing caps is permitted.

231.8 Cylinder Head Valves

231.8.1 Valves MUST be of a standard type with head diameters of 42mm ± 0.2 mm for the inlet, and 36mm ± 0.2 mm for the exhaust.

231.8.2 The lightening of valves is NOT permitted.

231.8.3 The replacement of valve guides is permitted, but replacements MUST occupy the original positions.

231.8.4 Only eight valve springs per engine are permitted.

231.8.5 The machining of valve spring seats is permitted

231.8.6 The use of shims to achieve correct fitted length is permitted.

231.8.7 Steel valve spring caps are permitted.

231.9 Camshaft and Followers

231.9.1 The camshaft profile is free, but the machining of other engine parts to allow its fitment is NOT permitted.

231.9.2 Slipper type Ford pattern camshaft followers made of steel or iron, including those with hardened inserts, are permitted from any manufacturer.

- 231.9.3** Roller and/or alloy camshaft followers are NOT permitted.
- 231.9.4** Standard camshaft bearings MUST be used.
- 231.9.5** Centre drilling of standard camshaft bearings to improve lubrication is permitted.
- 231.9.6** Replacement ball-studs are permitted, but replacements MUST be made of ferrous material and remain as standard construction, 1.81in in length.
- 231.9.7** As a means of repair, up to a MAXIMUM of 3 ball-studs (of the original 8) per engine are permitted to be longer than the standard 1.81in in length.
- 231.9.8** A standard 2-litre Ford SOHC NE camshaft belt MUST be used.
- 231.9.9** The camshaft cover is free, but it must NOT incorporate any water passages.
- 231.9.10** The use of a vernier timing wheel is permitted.
- 231.9.11** As a means of repairing camshaft thrust groove wear, the machining away and replacement of the worn groove section is permitted. The use of a single centre bolt as a fixing is permitted.

231.10 Gaskets and Seals

- 231.10.1** Any standard non-competition head gasket is permitted.
- 231.10.2** Carburettor and inlet manifold gaskets MUST be of the original type.
- 231.10.3** All other gaskets not specified above/below are free.

231.11 Carburettor

- 231.11.1** The standard Weber 32/36 DGV or Weber 32/36 DGAV MUST be used.
- 231.11.2** The MAXIMUM permitted size of the chokes is 26mm diameter for the smaller, and 27mm diameter for the larger.
- 231.11.3** Polishing and/or re-profiling is NOT permitted.
- 231.11.4** Modifications to the carburettor body and/or original design are NOT permitted.
- 231.11.5** The interchanging of tops from other Weber carburettor models is NOT permitted.
- 231.11.6** All gaskets MUST remain standard and original in design and manufacture.
- 231.11.7** A single original specification insulator block with two gaskets MUST be fitted between the carburettor and the inlet manifold (the combined total thickness is approximately 5mm depending on the compression of the gaskets).
- 231.11.8** Changing the main jets, primary and secondary jets, auxiliary venturi, emulsion tubes, and/or accelerator pump jets for alternative standard parts is permitted, but they MUST face downwards towards the butterflies.
- 231.11.9** The modification of chokes to open together is permitted. The fitting of replacement spindles with standard screws is permitted.
- 231.11.10** The removal of cold-starting devices is permitted. Blanking off the retaining lugs and subsequent holes is also permitted.
- 231.11.11** Enlarging and/or modifying the air and fuel galleries is NOT permitted. Fuel may enter on either side of the float chamber.

- 231.11.12** The modification and/or weighting of floats is NOT permitted. The floats MUST control the fuel flow.
- 231.11.13** The enlargement and/or modification of needle valves is NOT permitted.
- 231.11.14** Needle valves MUST be no larger than a MAXIMUM of size "250".
- 231.11.15** The power valve MUST be present and fitted in the base of the fuel bowl. Sealing off the power valve and/or removing the diaphragm is permitted.
- 231.11.16** Trumpets are NOT permitted.
- 231.11.17** The use of a grub-screw or similar device to secure the auxiliary venturis to the carburettor body is permitted.
- 231.11.18** The blanking off and/or modification of top end enrichment devices is permitted.
- 231.11.19** A secondary fixing MUST be used on the fuel feed inlet pipe connection to the carburettor.

231.12 Inlet Manifold

- 231.12.1** The inlet manifold MUST remain standard.
- 231.12.2** The inlet manifold must NOT be faced to alter the angle of the manifold to carburettor.
- 231.12.3** The gas flow area MUST remain as standard. Material must NOT be added to or removed from the gas flow area.
- 231.12.4** Inlet port matching of the carburettor to the manifold, and/or the manifold to the head is NOT permitted.
- 231.12.5** The fitment of a steel support to stabilise the inlet manifold is permitted, but any fastening must NOT penetrate the manifold runner or plenum.
- 231.12.6** Machining of the inlet manifold is NOT permitted.
- 231.12.7** Welded repairs to cracked manifolds are permitted, but subsequent internal finishing MUST be consistent with the original and NOT be deemed to have affected manifold performance.

231.13 Exhaust Manifold

- 231.13.1** The exhaust manifold and system are free, subject to the separately documented Exhaust/Silencer rules.
- 231.13.2** A silencer MUST be fitted (refer to separately documented Exhaust/Silencer rules).

231.14 Lubrication

- 231.14.1** Only the original steel sump with optional baffling and/or enlargement, or the RS2000 alloy sump in standard form is permitted.
- 231.14.2** Dry sumps are NOT permitted.
- 231.14.3** The modification of oil pickup pipes is permitted.
- 231.14.4** Oil pickup pipes MUST terminate in the sump.
- 231.14.5** Remote oil filters are NOT permitted.
- 231.14.6** Compact oil filters are permitted.
- 231.14.7** The use of a sandwich plate for fitment of an oil cooler is permitted.
- 231.14.8** All oil galleries MUST be unmodified.
- 231.14.9** The relieving of oil-way holes is NOT permitted, with the exception of the crank journals (see crankshaft rules).

231.15 Flywheel And Clutch

231.15.1 The flywheel and clutch **MUST** be standard 2-litre components.

231.15.2 The total weight of the complete flywheel assembly, including clutch, cover, driven plate and all mounting bolts **MUST** be at least a **MINIMUM** of 12.31Kg.

231.15.3 The total weight of a bare flywheel **MUST** be at least a **MINIMUM** of 6.2Kg.

231.15.4 Machining down of the flywheel to the **MINIMUM** weight (for both the bare flywheel and the complete assembly) is permitted.

231.15.5 1600cc clutch components are **NOT** permitted.

231.15.6 Steel flywheels manufactured by Redline, SRD and Baines have been approved, subject to the above rules.

231.16 Distributor & Coil

231.16.1 A conventional single coil and distributor **MUST** be used.

231.16.2 The standard Motorcraft or Bosch distributor **MUST** be used.

231.16.3 Modifications to remove vacuum-advance parts, fit competition parts, and/or fit electronic ignition are permitted.

231.17 Fuel pump

231.17.1 Any fuel pump is permitted.

231.18 Water Pump

231.18.1 Electric water pumps are **NOT** permitted.

231.18.2 Modification of the water pump is **NOT** permitted unless stated below.

231.18.3 Blocking off the heater-hose outlet is permitted.

231.18.4 Replacement of the standard water pump pulley with a competition type pulley is permitted.

231.18.5 The use of an aluminium water pump pulley is permitted.

231.18.6 Replacement of the standard drive belt with a competition type drive belt is permitted.

231.18.7 Only a single "V" drive belt is permitted.

231.18.8 The use of a toothed drive belt is **NOT** permitted.

231.19 Thermostat Housing

231.19.1 Modification of the standard thermostat housing is **NOT** permitted unless stated below.

231.19.2 The welding of a water temperature gauge outlet to the standard thermostat housing is permitted.

231.19.3 Blocking off the bleed hose outlet on the standard thermostat housing (as per the original Sierra Pinto component) is permitted.

231.19.4 Modification of the standard thermostat housing to alter the angle/direction of the outlet pipe is permitted.

231.19.5 A fabricated replacement thermostat housing is permitted.

231.19.6 Any fabricated replacement thermostat housing may be made of steel or aluminium alloy.

231.19.7 Any fabricated replacement thermostat housing **MUST** only be for the same purpose as the original standard part, i.e. housing a thermostat and directing water to the radiator via an attached pipe/hose.

- 231.19.8** Additional functionality (other than a temperature sensor outlet, or bleed hose take-off as per the original Sierra Pinto component) is NOT permitted on a standard or fabricated housing.
- 231.19.9** A water temperature gauge outlet in a fabricated thermostat housing is permitted.
- 231.19.10** Changing the angle of the outlet pipe (from the original design of the alloy component) in a fabricated thermostat housing, e.g. from upwards to downwards, is permitted.

231.20 Engine Sealing

- 231.20.1** An appointed scrutineer may require the engine to be sealed at a race meeting as part of the scrutineering procedure.
- 231.20.2** Wire seals will be used to seal engines, and therefore a number of holes MUST be pre-drilled to accept such seals, as detailed below.
- 231.20.3** A hole of 3mm diameter MUST be drilled through the camshaft cover and cylinder head above the No.1 cylinder spark plug.
- 231.20.4** A hole of 3mm diameter MUST be drilled through the opposite side of the camshaft cover and cylinder head from the No.1 cylinder spark plug.
- 231.20.5** Additional seals will be fitted as follows:
- The sump will be sealed by removing one sump bolt from each side of the engine and replacing with wire seals.
 - The bell-housing will be sealed to the engine by removing two bell-housing bolts and replacing with wire seals.
 - The carburettor will be sealed to the inlet manifold, and the inlet manifold to the cylinder head, by the use of paint.

232 Engines – Ford 1.8-Litre Duratec Specification

- 232.1** The Ford 1.8-litre Duratec engine (Engine Type 1.8L (MI4)) is permitted. This engine has a nominal bore of 83mm and a stroke of 83.10mm.
- 232.2 General Rules**
- 232.2.1** Unless otherwise stated, ALL parts appertaining to the engine MUST be standard Ford Duratec parts as used in the 110PS and 125PS versions of the 1.8-litre engine. Production tolerances are permitted.
- 232.2.2** Painting of the inside of the engine is NOT permitted.
- 232.2.3** Painting of the outside of the engine block is permitted.
- 232.3 Engine Block**
- 232.3.1** Re-boring the engine block up to a MAXIMUM of 1mm oversize to accept production type (not forged) pistons is permitted.
- 232.3.2** Re-sleeving the block to repair damaged bores is permitted, but the bore MUST remain within the 84mm MAXIMUM diameter (83mm nominal bore plus 1mm oversize).
- 232.3.3** Align boring of the main bearing housings to reclaim damaged housings is permitted.
- 232.3.4** Surfacing the block deck is permitted, but pistons must NOT protrude above the block deck at TDC.
- 232.3.5** Securing the oil seals by the use of cap screws or similar is permitted.

232.4 Crankshaft

- 232.4.1** The standard 1.8-litre Duratec crankshaft **MUST** be used. This has a nominal weight of 13.6Kg. No other crankshaft is permitted.
- 232.4.2** Spot machining, drilling, and/or localised grinding to achieve crankshaft balance only is permitted.
- 232.4.3** The removal of material to achieve anything other than balance or journal refurbishment is **NOT** permitted.
- 232.4.4** Tuftriding, shot peening and shot blasting of the crankshaft is permitted.
- 232.4.5** Polishing the crankshaft is **NOT** permitted.
- 232.4.6** Altering the number of bearings is **NOT** permitted.
- 232.4.7** Altering the bearing width is **NOT** permitted.
- 232.4.8** The use of narrower bearings of less than **MINIMUM** standard width is **NOT** permitted.
- 232.4.9** The use of oversize and/or undersize bearings of standard or heavy-duty material is permitted, but these **MUST** be within the standard range available for engine reconditioning.
- 232.4.10** The relieving of oil-way holes on each crank journal is permitted. The modification of all other oil-ways is **NOT** permitted.
- 232.4.11** Cross-drilling of crankshafts is **NOT** permitted.
- 232.4.12** Keying the timing gear and front pulley to the crankshaft is permitted. The position for phasing is free.

232.5 Con Rods

- 232.5.1** Spot machining to achieve con rod balance is permitted on the big-end cap **ONLY**.
- 232.5.2** The alteration of any other part of the con rod (except the big-end cap as above) is **NOT** permitted.
- 232.5.3** Shot peening and shot blasting of the con rods is permitted.
- 232.5.4** Polishing the con rods is **NOT** permitted.
- 232.5.5** Heavy duty rod bolts are permitted, but the original thread size **MUST** remain unchanged.

232.6 Pistons

- 232.6.1** Pistons **MUST** be of standard Ford production type, and they **MUST** be of a type freely available for engine remanufacture.
- 232.6.2** Racing type pistons are **NOT** permitted.
- 232.6.3** Forged pistons are **NOT** permitted.
- 232.6.4** The piston must **NOT** exceed a **MAXIMUM** nominal compression ratio of 10.8 to 1 in an otherwise standard engine.
- 232.6.5** Pistons must **NOT** be modified in any way, except for balancing or height equalisation as detailed below.
- 232.6.6** The machining of pistons to increase valve to piston clearance is **NOT** permitted.
- 232.6.7** Machining of the piston crown squish band to equalise piston heights is permitted.
- 232.6.8** At least one piston **MUST** retain its original manufacturer's markings.

232.6.9 To achieve balance, the removal of material from any inner surface location is permitted. The removal of material from other locations is NOT permitted.

232.6.10 Piston rings MUST be of standard type.

232.6.11 All three piston rings MUST be fitted on each piston.

232.7 Cylinder Head

232.7.1 Surfacing of the cylinder head is permitted.

232.7.2 Machining of the front engine timing cover to achieve a level gasket surface for the camshaft cover is permitted.

232.7.3 Ports and chambers MUST be left as originally finished by the manufacturer.

232.7.4 The addition or removal of any material to/from ports and chambers is NOT permitted.

232.7.5 Three-angle valve seats are permitted.

232.7.6 Valve seat inserts used to repair damaged heads are permitted. These MUST occupy the EXACT position of the original seat.

232.7.7 Gas flowing of the valve throat and guide area of the ports is permitted. Porting and/or gas flowing work in any other area is NOT permitted. **This rule is illustrated in by the shaded area in Technical Diagram 12.**

232.7.8 Machining of the cylinder head in the valve spring platform area to increase the spring installed height is NOT permitted.

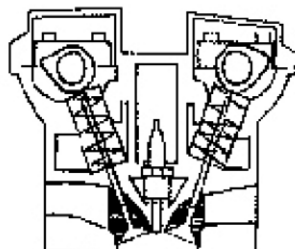


DIAGRAM 12

232.8 Cylinder Head Valves

232.8.1 Valves MUST be of a standard type with head diameters of 32.5mm for the inlet, and 28mm for the exhaust.

232.8.2 Shortening of the valve stem lengths by up to a MAXIMUM of 0.5mm is permitted, but the collet groove location MUST remain unchanged.

232.8.3 The lightening of valves is NOT permitted.

232.8.4 The re-profiling of valves is NOT permitted.

232.8.5 The replacement of valve guides is permitted, but replacements MUST occupy the original positions.

232.8.6 Thin-wall bronze repair sleeves used to reclaim worn guides are permitted. "Full" bronze guides are NOT permitted.

232.8.7 Single valve springs only (not duplex), of any manufacture, are permitted. The original valve spring cap and collets MUST be retained.

232.8.8 The use of shims to reduce installed valve height is permitted.

232.8.9 The original 1.8-litre Duratec valve stem seal and spring platform type MUST be retained.

232.8.10 Threaded or interference fit plugs are permitted for the plugging of injector apertures.

232.9 Camshaft and Followers

- 232.9.1** The camshaft profile is free, but the machining of other engine parts to allow its fitment is NOT permitted.
- 232.9.2** The original mechanical bucket type followers MUST be retained. The addition of shims to the valve stem tip as an alternative method of tappet adjustment is permitted.
- 232.9.3** The standard camshaft bearing diameters MUST be retained.
- 232.9.4** The use of a vernier timing wheel is permitted.
- 232.9.5** Camshafts with special flanges to achieve vernier adjustment are permitted.
- 232.9.6** Modification of the standard hydraulic timing chain tensioner to provide a fixed means of timing chain adjustment is permitted.

232.10 Gaskets and Seals

- 232.10.1** Any standard non-competition head gasket is permitted.
- 232.10.2** Carburettor gaskets MUST be of the original type.
- 232.10.3** A MAXIMUM thickness of 1mm is permitted for the gasket seal between the inlet manifold and the cylinder head. Alternatively, RTV sealer or a similar product is permitted for this seal.
- 232.10.4** All other gaskets MUST be a standard type.

232.11 Carburettor

- 232.11.1** The standard Weber 32/36 DGV or Weber 32/36 DGAV MUST be used.
- 232.11.2** The MAXIMUM permitted size of the chokes is 26mm diameter for the smaller, and 27mm diameter for the larger.
- 232.11.3** Polishing and/or re-profiling is NOT permitted.
- 232.11.4** Modifications to the carburettor body and/or original design are NOT permitted.
- 232.11.5** The interchanging of tops from other Weber carburettor models is NOT permitted.
- 232.11.6** All gaskets MUST remain standard and original in design and manufacture.
- 232.11.7** A single original specification insulator block with two gaskets MUST be fitted between the carburettor and the inlet manifold (the combined total thickness is approximately 5mm depending on the compression of the gaskets).
- 232.11.8** Changing the main jets, primary and secondary jets, auxiliary venturi, emulsion tubes, and/or accelerator pump jets for alternative standard parts is permitted, but they MUST face downwards towards the butterflies.
- 232.11.9** The modification of chokes to open together is permitted. The fitting of replacement spindles with standard screws is permitted.
- 232.11.10** The removal of cold-starting devices is permitted. Blanking off the retaining lugs and subsequent holes is also permitted.
- 232.11.11** Enlarging and/or modifying the air and fuel galleries is NOT permitted. Fuel may enter on either side of the float chamber.
- 232.11.12** The modification and/or weighting of floats is NOT permitted. The floats MUST control the fuel flow.

- 232.11.13** The enlargement and/or modification of needle valves is NOT permitted.
- 232.11.14** Needle valves MUST be no larger than a MAXIMUM of size "250".
- 232.11.15** The power valve MUST be present and fitted in the base of the fuel bowl. Sealing off the power valve and/or removing the diaphragm is permitted.
- 232.11.16** Trumpets are NOT permitted.
- 232.11.17** The use of a grub-screw or similar device to secure the auxiliary venturis to the carburettor body is permitted.
- 232.11.18** The blanking off and/or modification of top end enrichment devices is permitted.
- 232.11.19** A secondary fixing MUST be used on the fuel feed inlet pipe connection to the carburettor.

232.12 Inlet Manifold

- 232.12.1** The BRISCA F2 control inlet manifold is the ONLY inlet manifold permitted.
- 232.12.2** The inlet manifold must NOT be modified in any way, other than permitted alterations as stipulated below.
- 232.12.3** Inlet port matching of the carburettor to the manifold, and/or the manifold to the head is NOT permitted.
- 232.12.4** The fitment of a steel support to stabilise the inlet manifold is permitted, but any fastening must NOT penetrate the manifold runner or plenum.
- 232.12.5** Welded repairs to cracked manifolds are permitted, but subsequent internal finishing MUST be consistent with the original and NOT be deemed to have affected manifold performance.

232.13 Restrictor Plate

- 232.13.1** A BRISCA F2 control restrictor plate may be fitted between the carburettor gasket plate and the inlet manifold.
- 232.13.2** If fitted, the restrictor plate must NOT be modified in any way.
- 232.13.3** The Board of Control reserve the right to mandate the use of, or change the size of the restrictor plate if it is deemed necessary to maintain competitive equality with the 2.0-litre SOHC (Pinto) engine.

232.14 Exhaust Manifold

- 232.14.1** The exhaust manifold and system are free, subject to the separately documented Exhaust/Silencer rules.
- 232.14.2** A silencer MUST be fitted (refer to separately documented Exhaust/Silencer rules).

232.15 Lubrication

- 232.15.1** Modification and/or baffling of the original aluminium sump is permitted.
- 232.15.2** A replacement bespoke steel sump is permitted.
- 232.15.3** Dry sumps are NOT permitted.
- 232.15.4** The oil pump MUST remain as standard, but alteration of the relief pressure valve is permitted.
- 232.15.5** The modification of oil pickup pipes is permitted.

- 232.15.6** Oil pickup pipes MUST terminate in the sump.
- 232.15.7** Additional scavenge pumps etc. are NOT permitted.
- 232.15.8** The use of an adapter/sandwich plate for the fitment of a remote oil cooler and/or oil filter is permitted.
- 232.15.9** Remote oil filters are permitted.
- 232.15.10** Compact oil filters are permitted.
- 232.15.11** All oil galleries MUST be unmodified.
- 232.15.12** The relieving of oil-way holes is NOT permitted, with the exception of the crank journals (see crankshaft rules).

232.16 Flywheel And Clutch

- 232.16.1** Replacement of the standard dual mass flywheel with a one piece component made of iron or steel is permitted.
- 232.16.2** Integral ring-gears are permitted, but all ring gears MUST be of the standard 1.8-litre Duratec diameter.
- 232.16.3** Excluding the ring gear, the flywheel must NOT be thicker than 15mm at any point, and must NOT be thinner than 8.5mm at any point.
- 232.16.4** Heavy duty flywheel mounting bolts are permitted.
- 232.16.5** The standard 2.0-litre SOHC "Pinto" engine clutch MUST be used.
- 232.16.6** The total weight of the complete flywheel assembly, including clutch, cover, driven plate and all mounting bolts MUST be at least a MINIMUM of 10.14Kg.

232.17 Ignition System

- 232.17.1** The BRISCA F2 control ECU is the ONLY ECU permitted for use. This ECU has a fixed advance curve with an RPM limit set at 7,750 RPM. This ECU has only a single engine sensor which is for the sensing of crankshaft speed.
- 232.17.2** Changes to the RPM limit may be specified by BRISCA F2 on review.
- 232.17.3** Devices capable of altering any input, output, or intended ECU control are NOT permitted.
- 232.17.4** The standard 1.8-litre Duratec front pulley MUST be retained with 36-1 trigger pattern.
- 232.17.5** Lightening of the front pulley is NOT permitted.
- 232.17.6** The front pulley timing position relative to the crankshaft is free.
- 232.17.7** The standard speed sensor MUST be retained.
- 232.17.8** The Board of Control and/or their appointed representative reserve the right to swap ECUs between cars competing at the same meeting in an effort to aid policing of the rules. ECUs will be pre-marked and subsequently returned to their owner after evaluation. Alternatively, the Board of Control reserve the right to swap a competitor's ECU for a control ECU, the pre-marked original being returned to the owner after evaluation.

232.18 Fuel Pump

- 232.18.1** Any fuel pump is permitted.

232.19 Water pump

- 232.19.1** The standard water pump MUST be used, and MUST be driven by a belt from the crankshaft.

232.19.2 Fitting of an idler wheel to accommodate belt tension and driving of the pump in the correct direction is permitted.

232.20 Thermostat Housing

232.20.1 The thermostat housing MUST remain as standard.

232.21 Engine Sealing

232.21.1 An appointed scrutineer may require the engine to be sealed at a race meeting as part of the scrutineering procedure.

232.21.2 Wire seals will be used to seal engines, and therefore a number of holes MUST be pre-drilled to accept such seals, as detailed below.

232.21.3 A hole of 3mm diameter MUST be drilled through the camshaft cover and cylinder head above the No.1 cylinder spark plug.

232.21.4 A hole of 3mm diameter MUST be drilled through the opposite side of the camshaft cover and cylinder head from the No.1 cylinder spark plug.

232.21.5 Additional seals will be fitted as follows:

- The sump will be sealed by removing one sump bolt from each side of the engine and replacing with wire seals.
- The bell-housing will be sealed to the engine by removing two bell-housing bolts and replacing with wire seals.
- The carburettor will be sealed to the inlet manifold, and the inlet manifold to the cylinder head, by the use of paint.

BRISCA FORMULA TWO TECHNICAL INFRINGEMENT PENALTIES

301 Left-Side Weight Distribution

301.1 Pre-meeting or pre-race failures are not liable to penalties.

301.2 Over 52.5%, and up to 53.0%

301.2.1 First Offence (at a meeting) - Loss of all points and prize money due on the day up to the point at which the infringement was detected. A final warning will be issued along with an entry made in the driver's log-book. The infraction **MUST** be corrected before the driver's next race. Subsequent points and prize money earned following correction of the infringement will not be affected.

301.2.2 Second Offence (at a meeting) - Loss of all points and prize money due on the day. Immediate 1-month suspension from racing, including the remainder of the meeting.

301.3 Over 53%

301.3.1 First Offence (at a meeting) - Loss of all points and prize money due on the day. Immediate 1-month suspension from racing, including the remainder of the meeting.

301.3.2 Second Offence (during a season) - Loss of all points and prize money due on the day. Immediate 2-month suspension from racing. Referral to the disciplinary committee for possible additional sanctions.

302 Track Width

302.1 Any failure **MUST** be corrected before the driver is allowed to race.

302.2 Pre-meeting or pre-race failures are not liable to penalties, subject to subsequent correction prior to racing.

302.3 Post-race failure will result in disqualification and the loss of points / prize money from that race only.

303 Tyres

303.1 Avon Wide Safety GT 7.3x13 – Hardness

- First offence – Exclusion from the meeting, and loss of points.
- Second offence – 1-month ban from racing.
- Further offences – Referral to the disciplinary committee.
- Tyre infringements will not be transferred from season to season, but a driver found in contravention of this rule is not permitted to race again within the following 24 hour period.

303.2 Yokohama 185/70-13 A021-R K12131 – Use of Softener

- The detected use of any tyre softener or treatment will result in an automatic 12-month ban from racing with immediate effect.

304 Grading Colours / Roof Painting / Lights

304.1 Any driver appearing with the wrong roof colour will be made to start at the rear of the grid in all races until the colour is rectified to the satisfaction of the Steward / Scrutineer / Clerk of the Course.

305 Other Infringements

- 305.1** Penalties for other technical infringements will be decided by the Steward of the meeting, or referred to the BriSCA F2 for further consideration.

BRISCA FORMULA TWO 2014 TEMPORARY LICENCE RULES

401 Temporary Licences

- 401.1** A Temporary Licence is available in the following circumstances:
- For potential new BriSCA F2 drivers wishing to “try before they buy”
 - For one-off “guest” drivers
- 401.2** A Temporary Licence is valid for a MAXIMUM of three meetings. After this time the holder MUST upgrade to a Full Licence if they wish to continue racing.
- 401.3** A Temporary Licence costs £50.
- 401.4** A Temporary Licence is NOT a cheap alternative to a Full BriSCA F2 Licence.
- 401.5** The following racing conditions apply to the holder of a Temporary Licence:
- 401.5.1** The holder is NOT eligible to compete at meetings that include a championship event.
- 401.5.2** The holder MUST start all their races from the back of the grid.
- 401.5.3** The holder is NOT eligible to score any points.
- 401.5.4** The holder is NOT eligible to receive any prize-money.
- 401.5.5** The holder is NOT eligible to receive any trophies.
- 401.5.6** The holder will be EXCLUDED from all published results.
- 401.5.7** The holder is NOT entitled to hold any specific grade.
- 401.5.8** The holder is NOT permitted to race in a meeting Final where drivers must qualify for such a race (e.g. meetings following the traditional heats/ consolation format).
- 401.5.9** The holder is NOT permitted to compete in a race where a specific limit has been placed on the number of cars taking part if, by doing so, the holder of a Full Licence would be excluded from the race.
- 401.6** The following non-racing conditions apply to the holder of a Temporary Licence:
- 401.6.1** The holder is NOT entitled to receive an Unloaded 7.3 magazine subscription.
- 401.6.2** The holder is NOT entitled to vote in any driver referendums/voting processes.
- 401.6.3** The holder IS entitled to submit a claim to the BriSCA F2 Drivers Benevolent Fund subject to the normal rules of the scheme.
- 401.7** The holder of a Temporary Licence remains eligible to compete in a subsequent “Novice of the Year” (NOY) competition provided that ALL the following conditions are met:
- He/she races under a Full Licence in the year of the NOY competition.
 - He/she has NOT held more than one Temporary Licence prior to registering for a Full Licence.
 - He/she meets all other specified criteria of the NOY competition.
- 401.8** NOY competition points may only be accrued from the point at which a Full Licence is taken out (if a holder upgrades to a Full Licence during a season).
- 401.9** Previous results, while racing under a Temporary Licence, will NOT be converted in to NOY competition points (if a holder upgrades to a Full Licence during a season).

APPENDIX A

1. RACE POINTS WILL BE AWARDED AS FOLLOWS:

Meeting 1 (full) 2/3 heats, cons, Final, GN.

Heats: 10, 9, 8, 7, 6, 5, 4, 3 (2, 1 if 10 progress to Final)

Cons: 6, 5, 4, 3, 2, 1, 1, 1, 1

Final: 20, 18, 16, 14, 12, 10, 8, 6, 4, 2

GN: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 50 points maximum.

(Final winner receives double in GN from 1 lap handicap).

Meeting 2 (4 heat) 2 heats, Final, GN.

Heats: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1

Final: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1

GN: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 50 points maximum.

(Final winner receives double in GN from 1 lap handicap).

Meeting 3 (4/5 races) 3 heats, Final (G.N.).

Drivers race in 2 out of 3 heats as directed.

Heats: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1

Final: 10, 9, 8, 7, 6, 5, 4, 3, 2, 1

(GN): 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 50 points maximum.

(Final winner receives double in GN from 1 lap handicap).

In all cases, the Final winner must take a full lap Handicap if he wishes to compete in the Grand National event, and if he does, he will receive double prize money also. In a meeting consisting of three heats and a consolation, the number of drivers going forward to the Final may be six, seven or eight, at the discretion of the promoter, but in a meeting constituted by only two heats and a consolation, the number of drivers going forward to the Final must be eight minimum.

In Heats and Consolation Races, drivers may gain points only if they qualify directly for the Final (i.e. if only six drivers are entitled to go forward from each heat to the final, then points will not be gained for 7th and 8th place. In all other races, points are always awarded down to 10th place.

No points will be awarded for non-qualifiers events.

Any driver gaining a reserve place in the Final will not be awarded any points, not for any place gained in the Final itself. Prize monies are not affected by these rulings. In the event of a dead heat, the points for the two places are equally divided. In the event of two consolation races being run, where less than the usual number of cars are to qualify, only those drivers qualifying for the Final will be awarded points.

Where a driver qualifies more than once for a Final, then only the points scored at his first attempt will count.

At special race meetings, where there are two or more stages of qualifying for the meeting Final, a special points system will be applied by the Official Grader on receipt of meeting schedules subject to Board approval.

All championship events carry double points, except World, Consolation and Semi Finals.

APPENDIX B

METHOD OF GRADING

All drivers, except first year drivers and those returning to racing after a period of retirement, will commence a new season with a grade determined by their performance in the previous season. Drivers who do not race during a grading period (as defined below) will be considered as retired and when they recommence racing, they will do so at the grade they last held.

Any driver licensing with BriSCA F2 for the first time who has had experience in other short circuit formulae, must declare his highest grade held on his Licence Form. He will commence racing at B grade (yellow) unless BriSCA F2 shall deem another grade appropriate.

Points scored in meetings held outside the dates defined in Regulation 3 are considered 'out of season' meetings and do not count for National Points.

The top 138 drivers are graded as follows, in order of points scored:
Superstars 8, Stars 20, A grade (Blues) 40, B grade (Yellows) 70.

In addition, the World Champion and the National Points champion shall be considered Superstars for as long as they hold either title. Previous World and National Points champions may not be downgraded below Star grade for four years. A World Champion who fails to retain his title must continue to race as a Superstar until the next grading period commences.

If an A, B or C grade driver wins a final, that driver will be upgraded by one grade with effect from the fifth day after the final win. For the remainder of the grading period in which the final was won, plus the whole of the following grading period, the driver shall race at the higher of:

- the grade attained by way of the Official Grading List,
- the grade attained by way of the final win upgrade.

If an A, B or C grade driver wins a second final while still at the lower grade (i.e. before the five day upgrading from winning the first final has taken place), he is still only upgraded by one grade, with effect from the fifth day after winning the first final.

Star grade drivers who win a final may not be downgraded at the next grading period. In addition, Star grade drivers who are due to be downgraded to blue from the 1st of the following month but who win a final between the end of the grading period and the 1st of the following month, will retain their Star grading for the remainder of the grading period in which the final was won, plus the whole of the calendar month following the end of the grading period in which the final win occurred.

Superstar grade drivers who win a final may, provided all other criteria are satisfied, drop to star grade in the following grading period.

A driver racing as a reserve in the Final (i.e. a non-qualifier who will not be awarded points for any place gained in the Final) will not be subject to the upgrading rule as outlined above should he win the Final.

Grading and Grading Periods

The first grading period of a season runs from the start of the season to 15th April (inclusive), and all points scored during that period count towards the new grading list effective from 1st May. Subsequent grading periods run as follows (all dates are inclusive):

16th April to 20th May,
 21st May to 20th June,
 21st June to 20th July,
 21st July to 20th August,
 21st August to 20th September, and
 21st September to **the second Sunday** in November.

Each grading period's total, within a season, is cumulative. Each successive grading list produced becomes effective on the first day of the following month except that where the first day of the month falls in the middle of a racing weekend, the official grader may alter the effective date accordingly. The end of the final grading period of the year will be the **second Sunday in November** and no points will be awarded for meetings held after this date and before 1st March in the following year **unless special sanction has been obtained from the BriSCA F2**.

Drivers who attain Superstar grade, on merit, for any three grading periods at any time cannot be downgraded below Star grade for four years.

Drivers who attain Star grade, on merit, for any four grading periods at any time cannot be downgraded below A grade (Blue) for four years.

Drivers who attain A grade (Blue), on merit, at any time cannot be downgraded below B grade (Yellow) for four years.

A driver's grade is held 'on merit' if:

- a) he has scored sufficient points to appear within that grade group on a grading list, or
- b) he is the current World or National Points champion (in which case he holds the grade of Superstar 'on merit' while he holds either title), or
- c) he has won a final, thus (in the case of A, B and C grade drivers) promoting him to that grade on the fifth day after the final win, or (in the case of Star grade drivers) maintaining his Star grade.

In order for a Superstar, Star, A grade (Blue) or B grade (Yellow) driver to be eligible

for downgrading in the next grading period, he must race in at least **3** meetings during the current grading period AND (**except for the opening grading period in any season, or if a driver** is a first year driver in his first month of racing) have raced in at least one meeting in the immediate preceding grading period.

A driver's grade that is retained only because he has raced in insufficient meetings to be downgraded is not considered to be held 'on merit'.

A driver who is suspended from racing during a grading period may not be downgraded, even if he has raced in at least **3** meetings during the grading period. When he returns to racing after his suspension, he will do so at the grade previously held.

Provided all the above criteria have been satisfied, a driver who gains insufficient points to maintain grade will be downgraded by one grade per grading period.

APPENDIX C

COMPOSITION OF WORLD FINAL EVENTS IS AS FOLLOWS:-

Qualifying Rounds

A driver is entitled to enter World Championship Qualifying Rounds at each stadium should a vacancy be available. Preference in bookings will be given to top grade drivers. **Every effort should be made by the promoter to see that Qualifying rounds consist of a minimum of two Heats, a Consolation and a Final.** Grid positions for the Final must be predrawn by the promoter at random, in grades. **For qualifying round Finals there is no requirement for Heat and Consolation winners to start at the rear of their grades.**

Qualifying Round points are awarded in accordance with Appendix A, except that Grand National, Helter Skelter, **All Comers** and non-qualifiers events will not score points towards the World Final.

Non-qualifying reserves will not be included in Finals at Qualifying Rounds.

Drivers may attend as many qualifying rounds as they wish (subject to being able to obtain bookings) but only their best five points scores will count towards their qualifying total. In addition, each driver will receive 5 attendance points for each round at which they race. Note that accumulation of attendance points is NOT limited to drivers' best five rounds but covers ALL rounds they race at. In order to receive attendance points a driver must be on track and have taken the green flag in at least one of the qualifying races.

When all the rounds are complete, a table of points will be compiled using the above criteria and the top 56 cars will take part in the Semi Finals.

Semi Finals.

Both Semi Finals will take place on the same track on the same day, with drivers allocated in points order between the two alternately. 10 cars will qualify for the World Final from each Semi Final, leaving a balance of 36 cars eligible for the Consolation Semi Final. Reserves who attend the Semi Final meeting and do not get on the grid may race in the Consolation Semi Final from the back of the grid. The Consolation Semi will be formed based on the drivers World Championship Qualifying Round score – highest at the front – followed by the non racing Semi Final reserves as above then 6 cars will qualify from the Consolation Semi Final, with 7th to 10th place men World Final Reserves.

World Final.

Pole position for the World final will be determined by the result of the meeting final on Semi Final day. Of the twenty successful semi finalists, the driver achieving the best result in the meeting final will secure pole position for the World Final for the winner of his/her Semi Final. The ten drivers who progressed from that Semi Final to the World Final will therefore grid on the inside line.

The grid will consist of the 20 Semi Final qualifiers, then 6 Consolation Semi Final qualifiers, then reserves, if required, and the World Champion if he has failed to qualify. Overseas drivers will be included on Rows 3, 6, 9 and 12. Any programmed driver that has failed to grid will be replaced by a reserve, but once the green flag has been shown to start the race, no other driver or car will be allowed to take part under any circumstances, and when reserves are used, spaces are not left on the grid. Points awarded are as follows: winner 50, 2nd 48, 3rd 46. The winner shall receive £1500 minimum prize money made up as the promoter shall think fit. The World Champion may use the number '1' for the term of his reign, but must revert to his previous number immediately after the World Final that he loses that title. At World or Semi Finals, when the grid is formed, and there are drivers missing for any reason, the rows will simply move forward to take up the gaps in the line up.

APPENDIX D

GRAND NATIONAL POINTS CHAMPIONSHIP

QUALIFYING ROUNDS

Qualifying Rounds shall be open to all drivers wishing to compete, subject to local track restrictions limiting the number of cars in any race. The winner of the Final shall be handicapped one full lap, i.e. will start at the front of any 'C' Grade drivers competing.

Qualifying Round points will be awarded 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 to the first ten drivers who finish. The handicapped driver will, however, be awarded DOUBLE POINTS (20, 18, 16, 14, 12, 10, 8, 6, 4, 2) for any place gained in the first ten finishers.

GRAND FINAL

This will be run as per World Final format, where all top qualifiers will take part, highest scorers at the front, with the Championship being one race, within a full meeting.

APPENDIX E

RACE STOPPAGE SUMMARY

Race Duration (Laps)	Laps Completed by Leader (in Brackets)		
30	Complete Re-Run (3)	Re-Start Indian File (23)	Result Stands
25	Complete Re-Run (3)	Re-Start Indian File (19)	Result Stands
20	Complete Re-Run (3)	Re-Start Indian File (15)	Result Stands
16	Complete Re-Run (3)	Re-Start Indian File (12)	Result Stands
12	Complete Re-Run (3)	Re-Start Indian File (9)	Result Stands

APPENDIX F

CHAMPIONSHIP EVENT FORMATS

British Championship

The British Championship shall be run over a number of heats, in which drivers have a minimum of three chances of scoring qualifying points according to the number of drivers booked, with each driver taking part in a proportion of the heats. After the heats, the points scored will be compiled, and the Final will take place with highest scoring drivers at the front of the grid.

European Championship

The first sixteen to twenty drivers will automatically be seeded through to the Championship race. The top six highest points scoring, non qualifying drivers from the Saturday night meeting, up to and including the meeting final, plus all the overseas drivers will have their grid positions decided by random public draw.

Benevolent Fund Trophy

The staging promotion shall publish in advance how many cars will take part in the race and set out to invite the highest graded drivers. The race will grid from the current grading list in reverse order.

English Open Championship

Traditional qualifying procedure for the meeting Final, which is gridded in the reverse averages order, in groups of six.

Formula Two Nationals

The staging promotion shall publish in advance how many cars will take part in the race. Highest graded drivers available from the current Grading List shall take part, and the grid will be by random draw.

Novice of the Year

This season-long competition is open to any driver who is in his or her first season of Formula Two Stock Car racing, and who started their career as a white top. Of the drivers who meet this criteria, the Novice of the Year Champion will be the driver who scores the most National Points in the season.

World of Shale Championship

This contest is open to any driver and Qualifying Rounds will be held at all shale tracks. Priority of bookings in later rounds will be given to drivers who have already accumulated points. When all the qualifying rounds are completed, a table of points will be compiled and the top 20 drivers will be seeded directly to the World of Shale final. The next available 28 drivers from positions 21 to 60 in the points table will take part in a Last Chance qualifiers race from which the top six finishers will be transferred to the World of Shale final. In no circumstances will any driver

who finishes below position number 60 in the points table be eligible for the Last Chance qualifiers race.

The World of Shale final shall be held with a parade of qualifiers, there shall be commemorative awards for each qualifier and the grid for the World of Shale final shall consist of the top 20 drivers from the final points table, then the top 6 finishers from the Last Chance qualifiers race, then reserves if required. Reserves will be taken from 7th place onwards in the Last Chance qualifiers race and shall be as many as are needed to bring the total number of qualifiers in the race to 26. Overseas drivers shall be included on the grid on Rows 3, 6 and 9 (and if eight overseas drivers are included – on row 12 as well).