

SPEEDWAY SEDANS AUSTRALIA INC

ONLINE – VERSION 11 – JULY 2020

SSA PRODUCTION SEDAN SPECIFICATION MANUAL

Rules and Regulations



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The content of this manual is to be read in conjunction with the SSA Class Technical Manual available as a separate download. [Click Here](#)

CLASS SPECIFICATION: SSA PRODUCTION SEDAN

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PLEASE NOTE: Where possible the data in the Class Specification Manual has been taken from www.automobile-catalog.com which is the main reference book used by the SSA Inc. Information that is not available at www.automobile-catalog.com is taken from the Manufacturers Workshop Manuals. We have checked and cross checked the information in this Manual. If you do find something that does not seem right, anywhere in this Specification Manual, please let us know immediately, so that we can check it out and if it is incorrect, we can change it. (01/07/17)

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SPEEDWAY SEDAN AUSTRALIA INC. SPECIFICATIONS

SSA Production Sedan CLASS SPECIFICATION

The content of this manual is to be read in conjunction with the SSA Class Technical Manual available as a separate download. [Click Here](#)

Note – All new and existing cars must comply with all specifications as detailed. If “IT” is not in the book, it will be considered **non-compliant** until written approval for use is issued by SSA Inc after approval through the CTAC and Technical Committee and ratified by the SSA Inc Board. (01/07/2020)

Prior to constructing a car not listed in the tables at the rear of the class specification manual full details will be submitted to the Class CTAC Representative who will forward to Class CTAC Chairperson. Submissions will be handled in a confidential manner. Approval, or required modification before approval, will be given in writing to the applicant. An administration fee of up to \$250 will apply for unusual or unconventional design vehicles. (01/07/18)

Once approved the approved vehicle will be included in the Class Specification Manual and the opportunity will be available for any competitor to build the same vehicle. (01/07/17)

There is a specific form to be completed – Application for Additional Make/Model Not Currently listed -please refer to specific class specification technical pages – [Click Here](#) (01/07/18)

An **SSA Production Sedan** class race car is built from a hard-top road car seating a minimum of four persons as per the compliance plate and catalogued for sale in Australia, i.e. available new to the general public through authorised Dealer Sales and Service Networks throughout Australia.

Base model body is used for measurements and specifications. Forced induction models not permitted in that form.

Four wheel drive, all wheel drive and/or four wheel steer models not permitted.

Passengers optional, but all bar work to be mirrored from right hand side. Passengers must face forward.

Age limit of SSA Production Sedan eligibility – 5 years. For 2019 – competitor can only build up to 2014 model car.

As of 01/07/18 the use of a VF Commodore is now permitted. (01/07/18)

As of 01/01/2020 the use of an FGX Falcon is now permitted. (01/07/2020)

1. BODY/ROLLING SHELL:

1.1 GENERAL (01/07/19)

DEFINITION – MONOCOQUE (MONO) is a type of vehicle construction (as of an automobile) in which the body is integral with the body.

- a) Race car is to use an original, complete metal Mono (monocoque) body with suspension mounts/pivots in OEM position and being used. Refer to Section 10 - Suspension.
- b) Body panels may be upgraded by using later model panels from same series of car.
Example - VN Commodore can use up to VS panels.
Example – EA Falcon can use up to EL panels.
AU Falcon CANNOT use BA panels



The updated model panels must be attached over the complete remaining panel where applicable but car must be registered as the original model and be subject to ALL specification compliance requirements applicable to that model.

- c) All fittings such as door handles, visors, ornamental mouldings, body trim strips, wheel trims etc must be removed.
- d) All unnecessary flammable interior materials must be removed, such as door trims, floor coverings etc. Attached sound deadening material is permitted, except in close proximity to exhausts.
- e) All window glass, tail and head lamps, indicators etc must be removed. Window glass apertures are not permitted to be covered.
- f) Instrument glass permitted – gauges.
- g) The only body panels able to be replaced with metal, fibreglass, aluminium, plastic sheet, and composite type panelling e.g. Alucobest, which will be of a maximum thickness of 2mm are:

Doors	Bonnet
Boot Lid	Front Fenders (guards)
Nose Cone	Rear Quarter Panels
Scuttle Panels (OEM Removable)	Rear Valance Panel
Front and Rear Stone Trays	

Under panel reinforcement plates of any thickness are NOT permitted.

If OEM turret (roof) is damaged, a fibreglass replica may be attached over the damaged turret, only if OEM turret remains intact.

PERMITTED ALTERATIONS TO MONOCOQUE BODY (01/07/19)

1.2 FRONT ENGINE BAY AREA

- a) Radiator support panels may be completely removed.
- b) Inner fender skirt lips that attach OEM fenders may be trimmed or removed.
- c) Front sub rails and/or skirts that sub frames attach to, forward of the attached sub frame that do not constitute suspension mounting points/pivots may be removed. Refer to Section 10 - Suspension.
- d) All remaining wheel house (wheel well or tub) and fender skirts of metal construction that are not inclusive of suspension mounts/pivots attached to floor pan, sub rails and/or rocker sill panels may be repositioned for moving wheel clearance, maximum 50mm.
- e) Front wheel drive cars with transverse engine may modify cradle assembly to strengthen engine mounts.
- f) Lower windscreen plenum area, upward of top OEM firewall spot welded joint may be completely removed and replaced with metal, minimum 0.9mm. e.g. VN-VF Commodore, EA-FG Falcon.
- g) Applicable models with non-removable Cowl Panels may trim windscreen plenum material for ease of access. E.g. VB-VL Commodore, XD-XF Falcon, Torana and Cortina.
- h) Car models with OEM laminated (glued) in front firewalls, i.e. VN-VZ Commodore and Monaro – may replace the OEM removable unit with fabricated metal, minimum 1mm.

DEFINITION – THE ONLY MODEL CARS PERMITTED TO HAVE A FABRICATED NON-OEM FRONT FIREWALL ARE VN-VZ COMMODORES AND MONARO. ALL OTHER MODELS MUST RETAIN THE OEM NON-REMOVABLE FIREWALL.

- i) Upper firewall and lower windscreen plenum skirt extensions may be removed.
- j) OEM removable scuttle panels may be removed and replaced.
- k) All NON-STRUCTURAL bracketry, tabs, heater core housings, battery trays etc may be removed.
- l) Wheel house crumple panels may be removed.

1.3 FLOOR, INTERIOR/CABIN AREA

- a) Plastic and/or vinyl coated dash panels inclusive of metal reinforcement panels rearward of lower windscreen plenum may be completely removed.
- b) Pedal boxes, heater core housings, non-structural bracketry, tabs etc on interior side of firewall may be completely removed.
- c) OEM upper back and lower seat pedestals, transmission tunnel console bracketry, interior plastic panel tabs or clips may be completely removed.
- d) Inner roof turret header panels may be removed, ONLY where interference with roof halo bars (Bar #2) occurs.
- e) Inner B-Pillar tabs and bracketry that attached OEM interior panelling may be trimmed as to not remain a snare hazard when entering or exiting the car. Pinch Welds on leading edge of B-Pillar above window sill height and upper edge of door aperture have 50% trimmed for ease of entry and exit ONLY.
- f) Rear door opening wheel arch dog leg may be completely removed from OEM door latch position downward, to top of outer rocker sill panel, inward to pinch weld.
- g) Rear wheel house and wheel arch, if not inclusive of OEM suspension mounts/pivots, may be raised for tyre clearance MAXIMUM 50mm. Refer to Figure 1. Refer to Section 10.
- h) Rear wheel house, where it attaches to ¼ panel wheel arch, may be removed inward to pinch weld and a metal insert fabricated and rewelded or replaced with plastic replica.
- i) Rear firewall may have material removed for fitment of radiator ONLY. The overall dimensions of radiator will determine the amount of removable firewall material permitted. (OEM PARCEL SHELF/TRAY MUST REMAIN)
- j) Under floor pan, brake and OEM fuel line attachment tabs, clips etc may be removed.
- k) Under seat floor pan and transmission tunnel area may be NOTCHED ONLY to assist in the proper attachment of seat base bar work or sub frame. Refer Section 2 – New Roll Cage Option.
- l) Transmission tunnel may be NOTCHED ONLY at points where front and rear spreader bars intersect transmission tunnel. Refer Section 2 – New Roll Cage Option.
- m) Floor pan and front firewall may have material removed to allow fitment of internally ducted exhaust. Refer Section 2 – New Roll Cage Option and Section 2a – existing Roll Cage Option.

1.4 BOOT AND FUEL TANK AREA

- a) Clips, tabs, bracketry etc, on rear of OEM firewall may be removed.
- b) Clips, tabs, bracketry etc on underside of rear parcel shelf may be removed.
- c) Boot lid hinges and hinge bracketry may be removed.



- d) Boot floor, sub-rails, spare wheel well, rear valance panel and stone tray if applicable, may be removed. Rear ¼ panels may be removed from a line that projects from most rearward point of OEM window glass position, to the centre line of rear axle in OEM position and replaced with replica panel. Cut line is determined at ride height.
- e) Any inner panelling that is rearward of OEM axle centreline may be removed unless it constitutes OEM suspension mounts/pivots points.

NON PERMITTED ALTERATIONS TO MONO (MONOCOQUE) BODY (01/07/19)

1.5 FRONT ENGINE BAY AREA

- a) Sub rails that engine mount and suspension sub frames attach to CANNOT be removed or altered and must remain OEM. Refer Section 10 - Suspension.
- b) Sub rails that include suspension mounts/pivots OEM CANNOT be removed. Refer Section 10 - Suspension.
- c) Structural fender bulkhead brace panels CANNOT be removed or altered and must remain completely OEM.
- d) Non-removable cowl panels and attached windscreen plenums on applicable car models CANNOT be removed and replaced. E.g. VB-VL Commodore, XD-XF Falcon, Torana and Cortina.
- e) Non-OEM removable firewalls CANNOT be removed and replaced.

DEFINITION – THE ONLY MODEL CARS PERMITTED TO HAVE A FABRICATED NON-OEM FRONT FIREWALL ARE VN-VZ COMMODORES AND MONARO. ALL OTHER MODELS MUST REMAIN THE OEM NON-REMOVABLE FIREWALL.

NOTE – REINSTATEMENT OF THE ABOVE MENTIONED OEM STRUCTURAL PANELS, FIREWALL AND SUB RAILS ETC WILL BE NECESSARY PRIOR TO REGISTRATION.

1.6 FLOOR, INTERIOR CABIN AREA

- a) Under floor OEM sub rails and torque boxes cannot be removed or altered and must remain in OEM position on body.
- b) A and C Pillar inner header panels cannot be removed or lightened.
- c) B Pillars cannot be removed, gutted, lightened, relocated etc and must remain complete OEM with the exception of notching for NASCAR bar installation and interior OEM panel clips and bracketry. Refer Section 1.3 e). REMOVAL OF LOWER B-PILLAR OUTER LEAVING ONLY THE INNER PANEL IS **NOT** NOTCHING.
- d) Rocker sill panels, outer and multiple inners cannot be removed, gutted, hole saw lightened, etc and must remain completely OEM. VT-VZ Commodores, Monaro and IRS VS Commodores/Statesman are permitted 1 x 100mm maximum hole ONLY, in rear of rocker sill panels to aid in rear swing arm installation and removal.
- e) Door aperture and front and rear window glass pinch welds cannot be removed or trimmed. Refer to Section 1.3 e) for exemption.
- f) OEM gutter rails and Kant Rails CANNOT be removed, trimmed or filled. OEM removable plastic mould strips in Kant rails are permitted.
- g) Transmission tunnels cannot be relocated or altered, side to side, fore and aft, raised or lowered.
- h) Floor pans cannot be unpicked and relocated, side to side, fore and aft, raised or lowered.
- i) Rear view mirrors are not permitted.



NOTE – REINSTATEMENT OF THE ABOVE MENTIONED OEM STRUCTURAL PANELS, FIREWALL AND SUB RAILS ETC WILL BE NECESSARY PRIOR TO REGISTRATION.

1.7 BOOT AND FUEL TANK AREA

- a) Rear parcel tray cannot be removed and must remain completely OEM.
- b) Rear sub rails that constitute suspension mount/pivots cannot be removed. Refer Section 10.
- c) Rear sub rails that suspension and differential sub frames attach to cannot be removed or replaced with NON-OEM rails, and cannot be altered in any way. Refer Section 10.

NOTE – REINSTATEMENT OF THE ABOVE MENTIONED OEM STRUCTURAL PANELS, FIREWALL AND SUB RAILS ETC WILL BE NECESSARY PRIOR TO REGISTRATION.

1.8 BODY PANELS AND SILHOUETTE

- a) Replacement replica panels must be attached to monocoque body or substantial fabricated bracketry using rivets, bolts or dzus fasteners only. Cable ties and race tape may be used for race night repairs only.
- b) Front and rear under body stone trays if applicable must retain OEM appearance and silhouette.
- c) Front and rear spoilers are permitted, if OEM option for model. V8 Supercar type and Walkinshaw type derivatives are NOT permitted.
- d) Rear spoiler must not be higher than half rear window height, not wider than waistline of car and no further rearward than the OEM bumper position.
- e) Other aerodynamic aids are not permitted.
- f) Bonnet - 1 piece and 3 piece that includes front fenders, must be securely attached to car at all times that race car is on race track.
 - (i) 4 bonnet pins are to be used to attach bonnet (5 for fibreglass).
 - (ii) Pins must be 12mm minimum to 15mm maximum in diameter and are to be of mild steel or suitable equivalent. Proprietary bonnet pin kits i.e. Allstar, AFCO etc are permitted.
 - (iii) If using a 3 piece inclusive bonnet, bonnet pins are not to be in sides of fenders.
 - (iv) To aid in infield crash crew bonnet removal, any attachment method on sides of fenders that requires tooling is not permitted e.g. dzus fasteners.
 - (v) Bonnet pin clips are to be 3mm minimum to 6mm maximum with 30mm minimum reinforcement washers attached to bonnet pin holes.
- g) Boot panel is to be securely attached.
 - (i) A minimum of 4 x 12mm minimum to 15mm maximum pins with 30mm minimum reinforcement washers attached to pin holes.
 - (ii) 2 boot pins are permitted if using hinged boot lid of OEM material. Under panel skeletal support must remain within 50mm of hinge which is to be welded to OEM panel.
 - (iii) To aid in infield crash crew bonnet removal, any attachment method on sides of fenders that requires tooling is not permitted e.g. dzus fasteners.
- h) Multi piece sheet metal, brittle plastic or die cast metal front grille openings are not permitted. If air flow is required 5mm woven mesh may be used.
- i) Head light and tail light apertures must be filled with 1.6mm steel maximum, plastic or fibreglass.
- j) Wheel arch flares are permitted if OEM for model car. Flares cannot be reinforced, are to be of body material, and must be of OEM shape for model.



- k) Dash panelling at window sill height is not to continue rearward past the most forward point of steering wheel when attached to steering column or shaft.
- l) Interior of car can NOT be fully sheeted or decked as per Super Sedan and must be accessible for Technical Inspection.
- m) Driver's foot well may be sheeted to cover front spreader bar where applicable so as not to act as a snare hazard for driver's feet.
- n) Driver and/or passenger where applicable, must be isolated and protected from all mechanical, fuel, oil, exhaust and electrical systems in engine bay and boot areas by metal firewalls minimum thickness of 0.9mm.
- o) Mud protection guards that deflect mud and debris away from engine and/or suspension components must not be lower than 150mm from ground level and are not to attach to bumpers. Refer Section 3 a).

Wheel Arch Modification

Fig. 1

The rear axle centre line to be OEM position

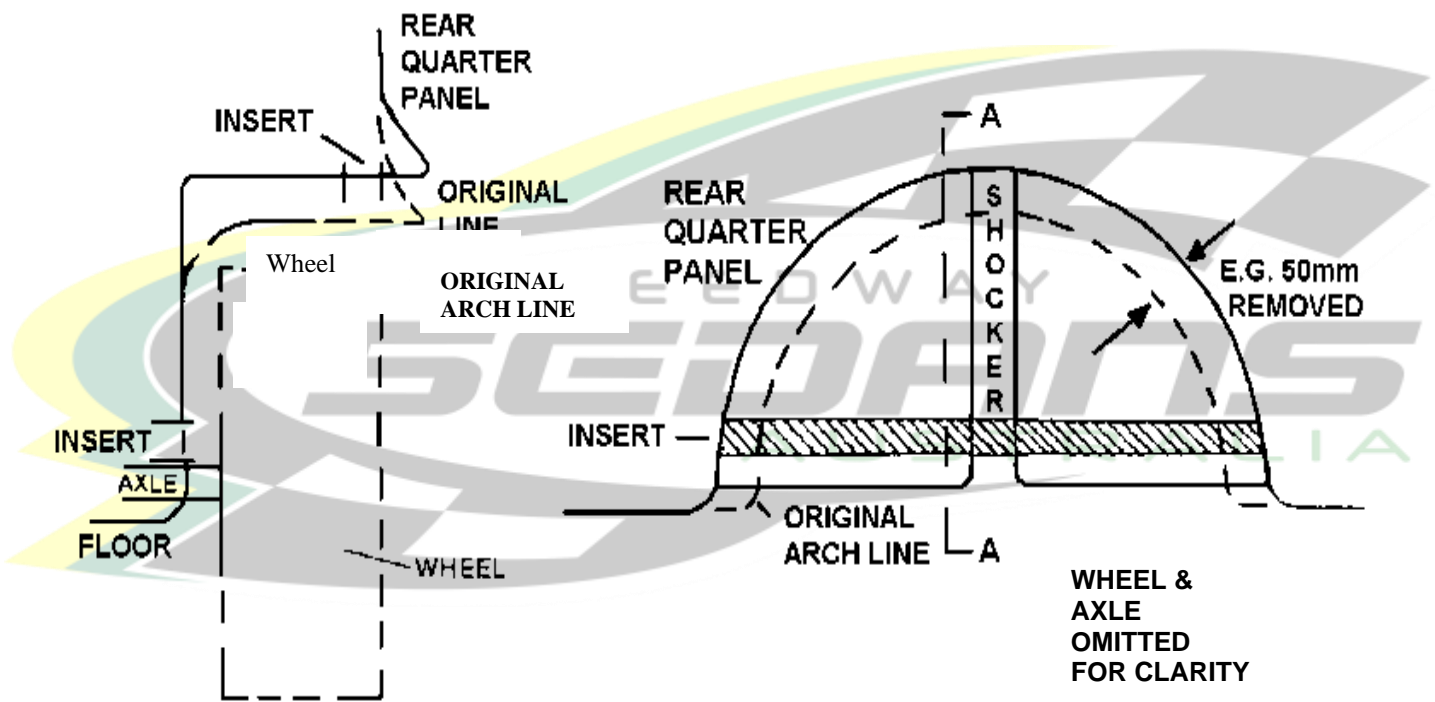
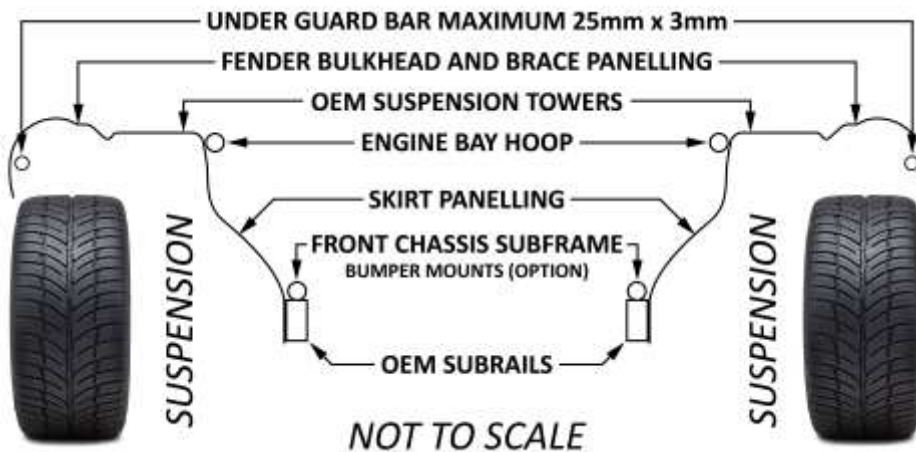


Fig 2 – Front Engine Bay Area



Refer to Class Technical Manual for information regarding the following items – [Click Here](#) (01/07/20)

PRESENTATION	WINDOW NET and FITTING
DRIVER SAFETY	PADDING
PROTECTIVE CLOTHING	FIRE EXTINGUISHER
SEAT BELTS and INSTALLATION	TRANSPONDER MOUNTING
SEATS and SEAT MOUNTING	ENGINE SEALING
DUAL REGISTRATION	

2. ROLL CAGE - Material and Design Option Effective for Registration commencing 1 July 2019

To enable a seamless introduction to the new Section 2 Roll Cage specification, newly constructed vehicles will be able to option the use of the current Section 2 Roll Cage Material and Design, alongside of the new specification for a period ending June 30 2021. This will allow cars currently under construction to be completed to current specification and allow roll cage manufacturers and constructors to tool up.

The continuation or abandonment of this phase in period is subject to review and may be altered under the sole authority of Speedway Sedans Australia Inc.

Vehicles compliantly constructed and registered optioning the current Section 2 Roll cage specification will be able to continue to be registered during and after the phase in period has ceased as per current Speedway Sedans Australia Policy.

Both specifications will be subject to their individual respective design and material compliance requirements and are unable to be cross referenced.

Construction of new specification roll cages inclusive of its design and material only, will be able to be commenced effective from the date of publication of this release. Speedway Sedans Australia highly recommend this option.

Roll Cage Material and Design Option Effective for Registration commencing 1 July 2019

– [Click Here](#) for full details

2a. **ROLL CAGE** (for cars built and registered up to and including 30 June 2021) (01/07/19)

Fig 3(i) details the minimum structural requirements. Each item number is referred to in the text below.

The roll cage is to prevent the collapse of cabin area under impact, all bar work must be entirely inside the OEM glassed area of the cabin.

Roll cage, to enclose the driver, to be full width and full height of the cabin area. The roll bars are to constitute a cage type framework, braced fore and aft. The cage must extend from behind driver's seat forward to the windscreen area and incorporate protection for the driver's feet.

All roll bar material must be of good quality mild steel, AS1450, minimum Gr300. MINIMUM 38mm O.D. x 3.0mm w.t. CHS. (Sonic test at not less than 2.70mm ABSOLUTE). Aluminium based materials not permitted. All bends to be made using a pipe bender with the correct size former, with no evidence of crimping, wall failure, or significant weakening. Galvanised tubing or welding over threaded tubing is not permitted in any structural bar work. (01/07/16)

Water pipe fittings or malleable fittings are not permitted. Roll cages built using other than fusion welding techniques will not be accepted. Gussets on welded joints may be required at daylight inspection of weld quality.



1. **Main Hoop:** The rear main hoop will be made of one continuous length of tubing. See Fig.3 (i). Hoop to be within 50mm of sides of roof at the narrowest point, be within 50mm of the inside line of the B pillar measured at point B of Fig. 3 (i), and be completely inside the body line. The base of the hoop will be fitted square in the car.
2. **Roof Hoop:** The roof hoop will be formed from one continuous length, or alternately be replaced by using one continuous length to form the front leg A pillar bar, which then continues back to the rear hoop, with a top windscreen bar being fitted to complete the hoop. The roof hoop to be within 50mm of the roof at sides, within 50mm of windscreen opening, and be welded to the main hoop to form a halo around the drivers head – it does NOT have to follow the windscreen within 50mm of the entire opening. (01/07/16)
3. **Front Legs / A pillar:** The two front legs are to be formed each from a continuous length, and be welded to the roll cage base (bar 13) and the roof hoop (bar 2) or if using the second option for the roof hoop, welded to the main hoop (bar. 1).
A third option is: The top Nascar bar, lower windscreen bar and passenger's top Nascar bar may be formed in one continuous bar. This entails the front leg to be formed in 2 pieces. One from the roll cage base to this hoop with the upper section from this hoop upwards to the roof hoop.

The top part of all options must join the roof hoop at a point no further than 50mm from the windscreen opening, and follow downwards to point A of Fig. 3 (i) at an angle of 45 degrees downward from the horizontal.

Newly constructed cars, as at 22nd August 2014 the front leg will be no further than 300mm behind, and 50mm inwards of the OEM door opening at points A & C of Fig 3 (i).

Cars previously registered prior to the 22nd August 2014 will fully comply with the relevant Specification Book, with that being the last printed version of the Production Sedan Class Specification Book 2012.

4. **Centre Roof Bar:** Centre roof bar to be minimum of 32x3mm CHS, and shall be welded between the main hoop and the roof hoop, in the centre line of the roll cage.
5. **Rear Diagonal:** A one piece diagonal brace, minimum 38x3mm CHS, will be fitted in the roll cage hoop, behind the driver's head, within 250mm of the bend, and down to the point where the hoop joins the L/H cage base as per Fig 3 (i). A second brace may be fitted in cruciform. If cruciform type bracing is used, a minimum of 32x3mm CHS, may be used.
6. **Seat Back/Shoulder belt Bar:** A 38x3mm CHS, mounting bar to be fitted to mount the seat back and seat belts, to be positioned so that the belts are anchored a maximum of 300mm from the point at which the shoulder belts come through the back of the seat. Top seat mount to be no further than 75mm lower than this bar.
7. **NASCAR Bars:** On the driver's side, three horizontal bars that will resemble the drawings provided. They are to have a deflection/bend at either end of the bar which allows the Nascar bars to be positioned towards the door skin and placed between front and rear cage legs, evenly spaced between window sill and roll cage sub-frame. Top NASCAR door bar to be within 50mm of the window opening for all cars built after 1st July 2015. The centre or bottom horizontal bar may run straight through, from front wheel arch to rear wheel arch, and then have two separate pieces of 38x3mm CHS, turning to the NASCAR bar connecting to the roll cage main hoop, and to the front leg. There will be a minimum of two vertical bars evenly spaced between the front leg, and the rear hoop for each of the openings created by the Nascar bars, making a minimum of six bars to be fitted. Refer to Fig 3 (i). Door pillar to be notched, NOT removed, to accommodate bar work. (01/07/17)
8. **Door Bars:** Passenger side will have a minimum of two bars fitted between the front leg and the main hoop. One of these must be horizontal at window sill height.
9. **Lower Windscreen/dash bar:** A 38x3mm CHS, bar between the front legs must be fitted at top Nascar bar height. Refer also to front leg options (3). As an option a bar (16.) can be fitted between lower windscreen/dash bar and the front spreader bar.



10. **Centre Windscreen Bar:** A 25x3mm CHS, minimum bar, to be fitted at centreline of cage, between to roof hoop, and the lower windscreen bar.
11. **Rearward Brace Bars:** Two rearward brace bars minimum 34mm CHS, to extend from top rear of main hoop down onto the rear sub frame (approx.. 45 degrees). They may form a crucifix and must be attached to the rearward side of the main hoop within 100mm of the centre of the bend.
12. **Foot Protection Bar:** When drivers feet are forward of the front roll cage leg (bar #3) in race position. i.e. accelerator is at W.O.T (wide open throttle) foot protection is mandatory. See Fig 3 (iii)

Foot protection bar is to be of 38x3mm CHS minimum and is to attach to the front roll cage leg (bar #3) no lower than 300mm from the roll cage sub frame base (bar #13) and protrude forward toward the front firewall / RHF wheel well and re-attach to the roll cage sub frame base (bar #13) to protect the drivers feet in the event of side intrusion. See Fig 3 (iii)

The foot protection bar is to be braced (bar #17) to substantial bar work to the left and is to be a minimum of 25x3mm CHS. This is to prevent the collapse of the foot protection bar in the event of side intrusion. See Fig 3 (i)

Foot protection area to be completely filled with either 3mm MS or 5mm aluminium plate. See Fig 3 (iii)

When using a bolt in removable foot protection plate, it is to be attached to the outside of the foot protection bar using a minimum of 4 x 50x50x3mm (square) or 4 x 55x40x6mm (rectangular) MS tags attached no further than 200mm apart with 8mm or 5/16" bolts facing inward, spot welded, with no protrusions. The larger the foot protection area, the more tags required. Multi-hole or scalloped tags are NOT permitted. (16/09/17)

13. **Sub Frame:** Roll cage legs shall be welded to the top of a sub-frame of 38x3mm CHS, or 50x50x5mm angle or 50x50x3mm RHS section running fore and aft. Sub-frame to be securely welded, or bolted to the floor pan/sills using at least four 12mm steel bolts through the sub-frame and using 100x100mm plates under the floor.
14. **Spreader Bars:** A minimum of two sub frame spreader bars at roll cage legs, either 38x3 CHS. or 35x35x3mm RHS to be fitted. 200mm is the maximum distance forward or back, from the front leg of roll cage, for fitment of the spreader bar, before a brace may be required.
15. **Quarter Window Bar:** A quarter window bar (bar.15) if required because of excessive rake or a long roll cage, where the "A" pillar bar (bar. 3) is less than 45 degrees from the horizontal must be fitted to both sides and installed from the top nascar bar to top one third section of the "A" pillar bar, using a minimum of 25x3mm CHS.
The lower mount point must be aligned with or be within 50mm of the first dropper bar. On the passenger side this will require an additional dropper bar between the top nascar bar (bar.7) or the door bar (bar.8) and the base bar (bar.13) to support the quarter window bar.
16. **Lower Windscreen/ Dash Bar Support:** As an option a bar (16.) can be fitted between lower windscreen/dash bar and the front spreader bar.
17. **Foot Protection Support Bar:** A bar (17) minimum 25x3mm CHS, will attach from the foot protection bar at one end, and the other end to bar work to the left.
18. **Dropper Bar:** On the passenger side a 38x3mm CHS bar will be required between the top nascar bar (bar.7) or the door bar (bar.8) and the base bar (bar.13) if the quarter window bar is fitted. (01/07/17)

Windscreen Mesh: Mesh screen to cover entire area from "A" pillar to centre bar and from dash to roof bar.

- i) Maximum effective mesh size 50x50mm mild steel. Mesh gauge 3mm. (16/09/18)
- ii) Windscreen mesh to be welded, or clamped with metal clamps to the roll cage "A" pillar and centre windscreen bar.
- iii) Minimum of four clamps.
- iv) Mono cars may be welded to body.



Anti Spear Plates: 3mm steel or 5mm alloy, (NOT to be lightened by drilling).

- i) The anti spear plates to be mounted to the outside of the NASCAR bars and overlap the edge of the NASCAR bar work. (01/07/17)
- ii) Recommended 1/3 length between roll cage legs, to be fitted on the driver's side, from base of roll cage to top Nascar bar, forward of the first vertical door dropper bar to the front leg of the roll cage.
- iii) If not welded, three external door plates to be bolted on, using a minimum of 6 – 50x50x3mm (square) or 55x40x6mm (rectangular) mild steel plate tags and bolted to either 8mm or 5/16th high tensile bolts with no protrusions.
- iv) If individual pieces are used then a minimum of 4 – 50x50x3mm (square) or 55x40x6mm (rectangular) mild steel plate tags and bolted to either 8mm or 5/16th high tensile bolts to each piece with no protrusions.
- v) Plates/tags to be solid square or rectangular with one only hole for the mounting bolt. (01/10/16)

Passenger Option: Roll cage left side must mirror right hand side and have full cruciform. Passenger handle for support, optional.

Typical Roll Cage

Fig 3. (i)

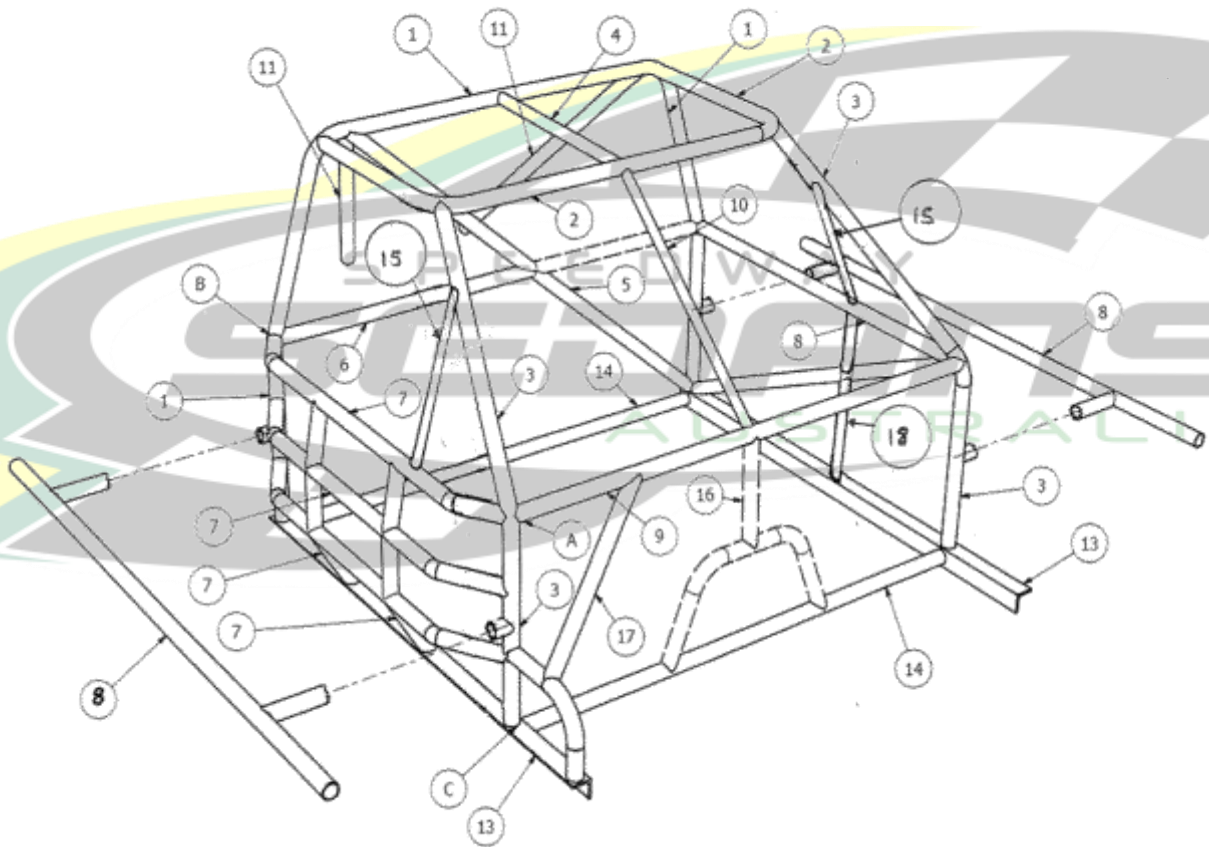


Fig 3 (ii)

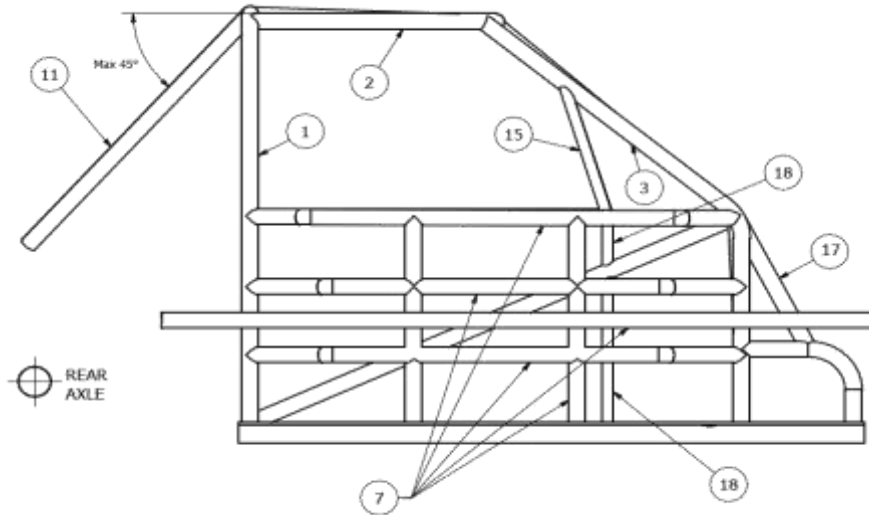


Fig. 3 (iii)

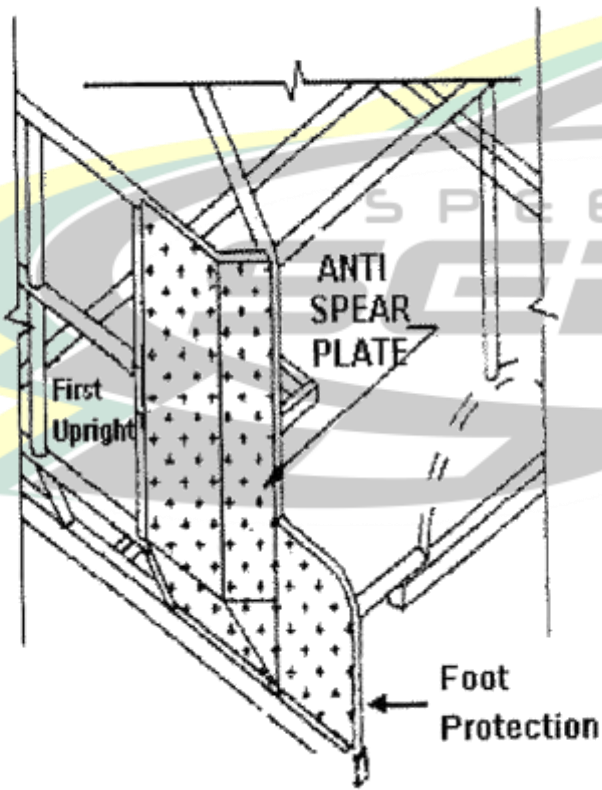


Fig.3(iv)

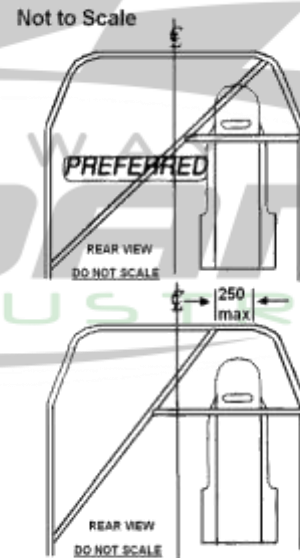
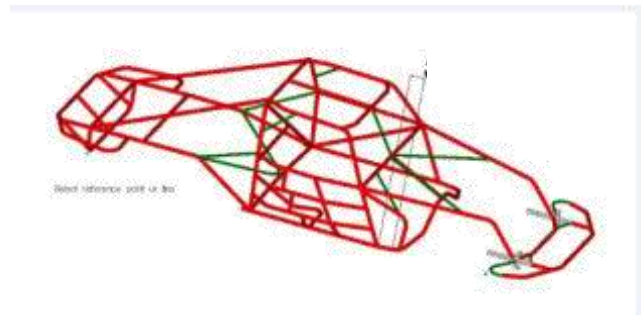


Fig 3a – Alternate Roll Cage Design (24/11/18)

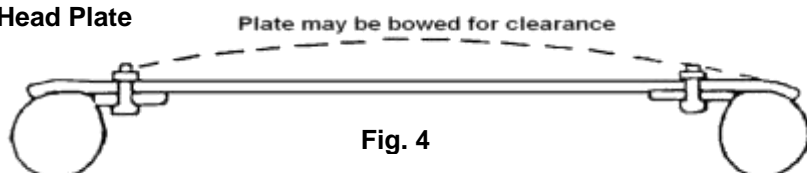


HEAD PLATE:

A minimum of 50mm clearance is required between the helmet, including fresh air intakes and associated fixtures, to any part of the head plate and roll cage when driver is seated and harnessed. (01/07/2020)

- Head plate to be of 5mm ALUMINIUM ALLOY or 3mm STEEL. 25x3mm FMS strips full length to be welded to main hoop, top windscreen bar, centre roof bar and side roof bar.
- The use of 10 mild steel plate tabs measuring 50x50x3mm (square) or 55x40x6mm (rectangular) will be required when using a removable Head Plate.
- Plate to be mounted, from above, with 10 x 8mm dia. High Tensile bolts, 3 each side, 2 front, 2 rear. Heads of bolts to be downwards and spot welded e.g. no protrusions. (01/07/17)
- To simplify the removal of an injured driver it is highly recommended that a removable full-size head plate be used: Fig. 4.
- Plates/tags to be solid square or rectangular with one only hole for the mounting bolt. (01/10/16)

Fig 4. Head Plate

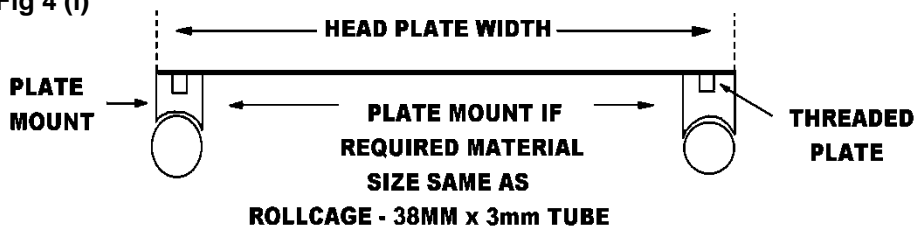


ALTERNATIVELY

- A head plate min. 3mm steel must extend from rear roll bar to top windscreen bar and from driver's side outer roof bar to centre roof bar.
- This plate must be securely welded to these bars with intermittent welding procedure.

Helmet clearance including fresh air intakes and associated fixtures, between roll cage roof/hoop bars for existing vehicles, may raise head plate as per drawing below, to obtain 50mm clearance. (01/07/2020)

Fig 4 (i)



Mounting procedure for raising of head plate (existing cars). 10 stubs 38x3mm tube – stub length is determined by height required to gain 50mm clearance.

Stubs to be end capped and threaded for mounting purposes.

BALLAST (Updated 01/07/18)

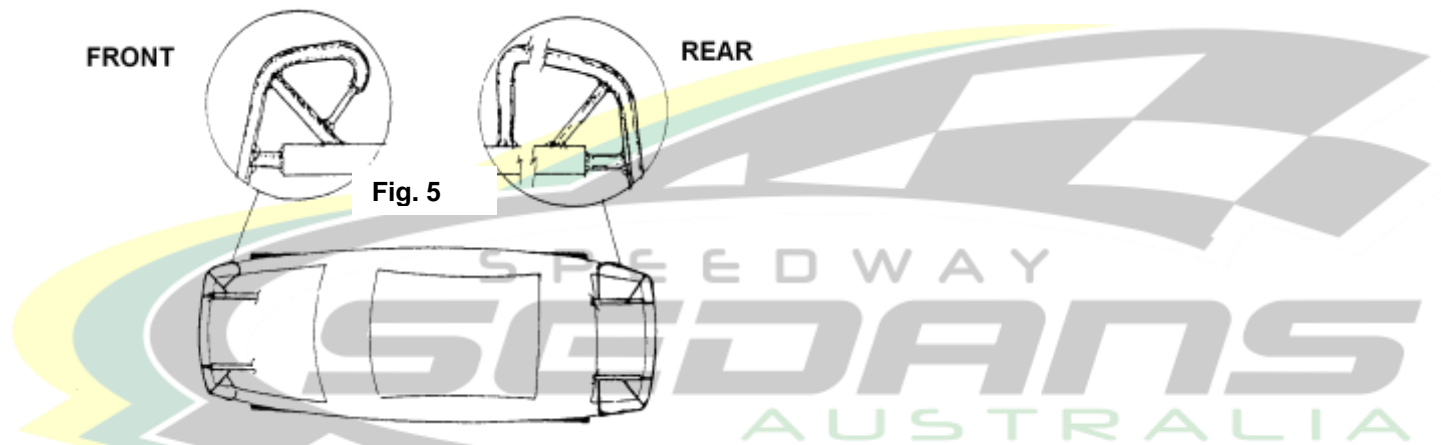
- A typical piece of ballast will be no greater than 610mm long, 100mm wide, and 50mm high.
- Each individual piece of Ballast MUST be PAINTED white ONLY and be permanently marked with registered car number and prefix of the car the ballast is attached to.
- ATTACHMENT OF BALLAST IS TO BE BOLT ON ONLY
 - Ballast is to be attached to roll cage or substantial bar work ONLY
 - Ballast permanently attached to roll cage, bar work, or body via welding, clamping, or any other permanent attachment method is NOT permitted. This includes the welding of attachment hardware (Bolts)
 - Ballast attached to substantial bar work that is RHS is to use one of the below attachment methods ONLY
 - ✓ Sleeves inserted in bar work with a minimum of two ½" or 12mm high tensile bolts, washers and nyloc nuts with a minimum of two threads protruding.
 - ✓ A 5mm plate minimum of 100mm x 50mm to a maximum of 200mm x 75mm with a minimum of two ½" or 12mm high tensile bolts, washers and nyloc nuts with a minimum of two threads protruding. (16/09/18)

- (iv) Ballast attached to roll cage or roll cage material that is 38x3mm CHS is to be attached using a minimum of two proprietary ballast type clamps ONLY. i.e. Allstar, AFco, Bicknell etc. Accessory type clamps are NOT permitted.
- (v) All ballast is to be attached separately using one of the permitted methods per piece of ballast ONLY. ie stacking or using the inverted side of clamps is not permitted.
- (vi) Ballast is NOT to be attached higher than top NASCAR bar.
- (vii) Ballast attached to fuel tank protection bar and/or supports is NOT permitted.
- (viii) Ballast attached to bumper bars mounts and/or supports is NOT permitted.
- (ix) MAXIMUM singular ballast pieces to be no more than 11.5 kg ABSOLUTE
- (x) MAXIMUM total ballast to be no more than 46kg ABSOLUTE

d) Ballast that is non-compliant in weight or attachment may incur an Infringement and penalty notice.

3. BUMPER BARS & OPTIONAL EXTERNAL BARWORK:

OEM type Steel bumper bars **NOT** permitted but may be replaced with max. 42x3mm CHS.



a) Front and Rear Bumper Bar: Pipe Bumper Bars to be covered with a plastic road car bumper or exact OEM fibreglass copy. Front road car plastic bumpers must NOT have non-genuine skirts fitted to bottom of bumpers.

Bumper/s to be securely mounted in original position using supports of a minimum of 100mm from rear of bumper tube. Maximum support size, 42x3mm CHS, 40x40x3mm RHS, or 50x25x3mm RHS only, i.e. gussets are not to be used. Bumpers are not to tie to under-guard bar work. (fig.5)

For purposes of maintaining 100mm clearance of any bracing from rear of bumper tubes; rear of bumper tubes is determined as the inner side of the tubes of both front and rear bumpers. (14/09/19)

- b) Front &/or Rear: Original plastic bumper bar can be reinforced.
- c) FRONT bumper Maximum return 300mm, Minimum 100mm by max. 42x3mm CHS.
 - i) Bumpers are to remain hollow.
 - ii) Corners and the ends of front and rear bumpers to be radius formed, 100mm minimum.
 - iii) A maximum of four mounting points on each bumper bar.
 - iv) Fuel tank protector brace bars do not constitute Bumper mountings.
 - v) Returns and bumpers to be flush fitting with the body, within 25mm.
 - vi) Anti-hook-up bars from returns of Front and Rear bumpers to be extended onto the stay bars.
- d) REAR only: Returns of rear bumper may be extended as a skid rail against outside of body between bumper and wheel arch, and then extend inward to the "chassis rails".
- e) Corner plates on top edges of either bumper not permitted.

f) Plastic bumpers must be fitted with round head bolts. Aluminum rubbing strips optional. 40x3mm max. aluminum strip may be fitted between bolts to support bumper cover.

g) RUB RAILS (01/07/2020)

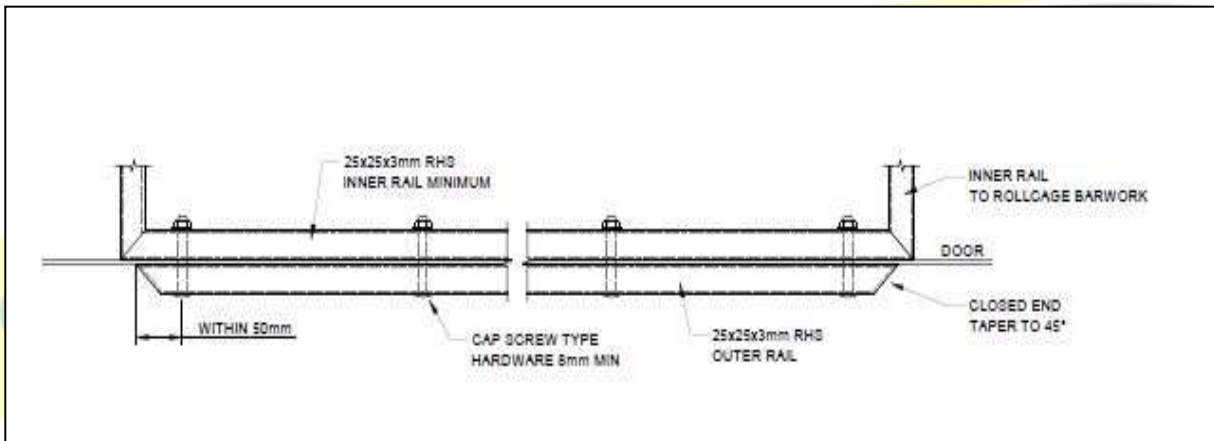
Rub Rails are an optional fitment on an SSA Production Sedan. They are to be attached between front and rear wheel arches. Rub rails on rear quarter panels behind rear wheels are NOT permitted.

GENERAL

- (i) Rub rails are to be either 25x25x3mm mild steel RHS or alternatively 50x12mm nylon or urethane. Nylon or urethane option will be attached as per option 1.
- (ii) Rub rail to be attached to body and inner rub rail support with a minimum of 4 evenly spaced attachment points.
- (iii) Inner rub rail supports are to be a minimum of 25x25x3mm mild steel RHS or 25x3mm CHS and both ends must return to roll cage or bar work regardless of whether either outer rub rail option is used or not to avoid a hook up point in the event of door panel damage.
- (iv) Rub rail attachment bolts are to be of round head, cup head, cap screw type hardware and must be a minimum of 8mm.
- (v) Attachment bolt heads must be external to outer rail wall and must insert horizontally through both outer rail and inner rail support, clamping together with door panel between the two rails.

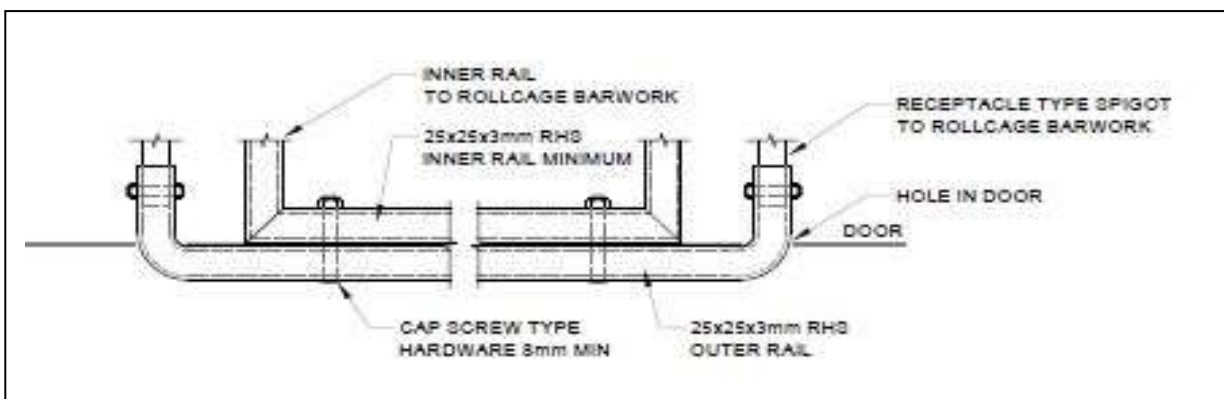
Option 1

- (i) Outer rub rail ends must be closed and taper to 45° so as to not become a tear point.
- (ii) Attachment bolts at each end of outer rail must be within 50mm from each end of rail.



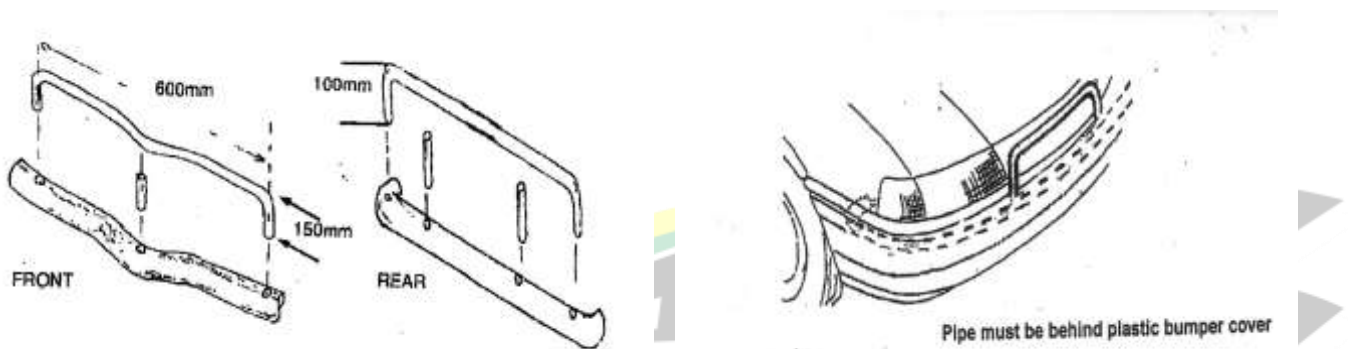
Option 2

- (i) Outer rub rail ends must have a radius formed end as not become a tear point.
- (ii) Outer radiused ends must return through a hole in door panel and be securely attached to a receptacle type spigot on roll cage or bar work.
- (iii) These two radiused ends will be classed as two attachment points.
- (iv) An additional two attachment points of outer rail must be as per specification listed in GENERAL above.



- h) **REAR OVERRIDE BAR:** An override bar may be used. Constructed of maximum 25x3mm CHS it shall be no wider than the boot panel and shall be mounted centrally on the bumper bar at no more than four points, be VERTICAL and be max 100mm high. Brace bars are not to be used.
- i) **FRONT OVERRIDE BAR:** An override bar may be used. Constructed of maximum 25x3mm CHS, Maximum 600mm long x 150mm high and mounted centrally on top of bumper at three points only, i.e. it may have a centre support. Fig. 7.
- j) **TOWING STRAPS – Optional – (01/07/2020)**
 - (i) Tow straps are to be of wire rope cable or nylon webbing.
 - (ii) Tow straps can be attached to front and rear over ride bars.
 - (iii) Tow straps can be accessible through a hole in the front and rear bumpers.
 - (iv) Tow straps are recommended to allow a disabled vehicle to be towed.

Fig 7



4. ENGINE: (updated 01/07/18)

Every attempt has been made to ensure the specification below is inclusive of all engines used in Production Sedans and parts of herein are conclusive of the divisions specification requirements and direction. The specific engine specifications as listed below are subject to clarification and revision. Inclusive direction of the specific engine configuration will be no earlier than 2023. (01/07/19).

1. **COMPLIANCE**

- a) Engine Sealing is mandatory.
- b) All Engines are to be sealed prior to any practice or race meeting.
- c) Roto toolless SSA Inc seals are to be fitted to SUMP x 1, TIMING COVER x 1, and HEAD/S on subsection 4.1 configuration engines (EFI) x 1. (V configuration engines are permitted to have seals attached to Intake manifold bolts acting as head seals).
- d) Engine identification Tag is to be GREEN. If using an engine for a lower division - the engine ID tag will match the class engine specification for which the engine was sealed.
- e) Identification tag is to be fitted together with the timing cover seal using the same wire or cord being used for seal attachment.
- f) The registered car owner is to have the current Engine Seal sheet and the current Technical Inspection Sheet (Daylight) with log book AT ALL TIMES.
- g) Engines will be inspected on the basis that all parts used in/on all engines will comply with the applicable configuration sections contained within this manual, General, Compliance and Sections 4.1 or 4.2. The registered car owner or driver is responsible to prove the above and produce information when directed by a registered SSA Inc official to validate any claim.
- h) Checks will be conducted on any configuration specification, not excluding General and Compliance; including fuel.
- i) Refer Section 16 for regulated fuel specification.
- j) In the event of post-race, impoundment, or protested engine inspection, the registered car

and engine owner will be required to produce evidence to validate any specification compliance claim.

2. GENERAL SPECIFICATION

- a) Maximum 6-cylinder reciprocating engine to 4500cc absolute. ROTARY ENGINES NOT PERMITTED.
- b) Maximum 4 valve SOHC engines permitted.
- c) Engine block to be of OEM type and make for model and series of car being used. NON - OEM ALLOY BLOCKS OR NON-OEM ALLOY HEADS ARE NOT PERMITTED.
- d) Crankshaft stroke NOT to be increased or decreased relative to block being used.
- e) Engine is to be mounted in OEM position for model and series car being used. Refer engine position section.
- f) If resilient engine mounts are used, the mount MUST be restrained with 6mm cable, chain or equivalent.
- g) Engine and Engine component changes are permitted if of OEM make, type and configuration. E.g. Ford to Ford; Holden to Holden. But MUST comply with ENGINE applicable to car model and series specification requirements.

EXAMPLE

- (i) Holden Red 202 straight 6 may be replaced with Holden 3.3 straight 6.
- (ii) VN-VR Commodore cannot use ECOTEC engine
- (iii) EF-EL Falcon cannot use AU falcon engine
Refer to Sections 4.1 or 4.2 whichever is applicable.
- h) Engine is to be based on passenger car engine ONLY.
- i) Manufacturer markings on block MUST remain.
- j) Remote filters, coolers, or heat exchangers etc are permitted and are to be isolated from driver and be mounted securely below window sill height, as to not impair vision through the cabin. All connecting hoses are to use correct JIC or A/N DASH fittings for hose being used as per correct fluid transfer practice. Hoses are to be suitably lagged. Barbed fittings with hose clamps are NOT permitted.
- k) Remote oil pumps and external bearing lubrication systems are permitted in either engine configurations - 4.1 or 4.2.
- l) The use of DRY SUMP lubrication systems in either engine configuration 4.1 or 4.2 is NOT PERMITTED.
- m) 2 return springs are to be fitted to each throttle shaft. Inbuilt springs permitted. 1 return spring must be fitted to accelerator pedal. Inbuilt springs permitted.
- n) All Engines are to use an Air Filter to prevent foreign objects entering throttle body and to act as a flame trap. Air filters and intake tubes are not restricted in either engine configurations 4.1 or 4.2
- o) Intake manifolds are to be OEM for engine being used. Refer to section 4.1 or 4.2, whichever is applicable. Spacers, adaptors or phenolic type gaskets that are thicker than OEM type gaskets between cylinder head and manifold mating surfaces are NOT permitted.
- p) The introduction of additives into combustion chambers by any means in any form is NOT permitted.
- q) The use of Titanium engine parts in any configuration Engine 4.1 or 4.2 is NOT permitted.

SECTION 4.1 - ELECTRONIC FUEL INJECTION (EFI)

The below specification is specific to items relating to models produced with OEM EFI. Engines are limited to but not exclusive to VY Commodore Ecotec V6 and AU Falcon SOHC 4.0 litre straight 6.

4.1A - ELECTRONIC CONTROL UNITS (ECU) and IGNITION

- a) Modified OEM ECU is permitted.
- b) NON-OEM ECU is permitted.
- c) NON-OEM Ignition is permitted.
- d) IGNITION TO BE OF OEM FUNCTION. I.e. If OEM ECU controlled ignition, the modified OEM or NON-OEM ECU must retain this function.
- e) The retention or use of all OEM sensors is optional and NOT restricted.

4.1B - FUEL SYSTEM and INDUCTION

- a) OEM option injectors are permitted. I.e. Tickford, V6 Supercharged Ecotec.
- b) OEM make to make injectors are permitted. I.e. Bosch to Bosch.



- c) Fuel Rail to be OEM for engine being used. I.e. VS Commodore can use VY Commodore fuel rail. A 3/8 hose tail, JIC, or AN Dash type fitting is permitted to be attached to the fuel rail outlet to facilitate the use of a remote mounted fuel pressure regulator. Attachment MUST be of professional tradesman quality.
- d) Modified OEM Fuel pressure regulators are permitted.
- e) NON-OEM adjustable Fuel pressure regulators are permitted.
- f) Remote mounted adjustable fuel pressure regulators are NOT to be accessible from drivers or passengers seat.
- g) OEM Fuel pump or Make to Make fuel pumps are permitted. i.e. OEM Bosch, to 044 Bosch. But are restricted to one singular high pressure supply pump only. Refer to Section 17 s) (16/09/18)
- h) NON-OEM make fuel pumps, such as Walbro and Aeroflow are permitted, but are restricted to one singular high pressure supply pump only. Refer to Section 17 s) (16/09/18)
- i) Fuel supply and return line MUST be one piece, i.e. no joins in cabin area. Bulkhead fittings in firewalls are permitted.
- j) NON-OEM Fuel injection is NOT Permitted. E.g. Mechanical Injection, MUST be OEM EFI.
- k) Forced induction OEM or NON-OEM is not permitted.
- l) Plenum Chambers are to remain OEM internally and externally and cannot be modified, altered or changed in any way.
- m) 4.0 litre SOHC Ford engines are permitted to remove plenum butterflies or have remote manual control of.
- n) ALL Intake manifolds MUST remain OEM internally and externally, and cannot be modified, altered, or changed in any way, and retain OEM casting finish internally and externally, with the exception of a hole 19mm maximum drilled and tapped for fitment of coolant sensor. Water ports not used can be blanked off using proper welding practices.
- o) The practice of coating or painting intake manifolds and plenums EXTERNALLY is permitted for aesthetic purposes ONLY.
- p) 4.0 litre SOHC Ford Engines may use either snail or early log type manifold and plenum.
- q) Throttle bodies are to be completely OEM internally and externally for engine being used.
- r) Butterfly and shaft to be completely OEM and cannot be modified, altered or changed in any way. Refer to Table 3 for listed throttle body measurements.
- s) The practice of machining or grinding the outer air intake rib ONLY, on throttle bodies to accept a NON-OEM bell mouth, NON-OEM intake tube, air filter or filter housing is permitted.
- t) Air filters or Intake tubes ducted into cabin are permitted, but MUST be suitably shrouded from driver. Air filter and Intake tube MUST be in Engine bay if passenger option is utilized.

4.1C - CYLINDER HEADS and VALVE TRAIN

All cylinder heads are to be OEM for engine being used. Offset or angle grinding of head surface is not permitted, head to block mating surface can be ground 0.060 maximum.

- a) NON-OEM head bolts and head studs are permitted.
- b) NON-OEM MLS (Multi-Layer Steel) type head gaskets are permitted.
- c) Intake and exhaust ports MUST remain OEM and retain OEM casting surface finish.
- d) 4.0 litre SOHC Ford engines may use ANY OEM or HTP 4.0 litre type head, including Tickford. OEM casting numbers MUST remain on Head core and MUST be compliant to OEM port and chamber specification. I.e. COMPLETELY OEM.
- e) Modified OEM Exhaust manifolds and NON-OEM exhaust manifolds (Extractors) are permitted.
- f) Combustion chambers MUST remain OEM and retain OEM casting finish.
- g) Multi axis cutting of valve seats is permitted as per Standard engine reconditioning practice.
- h) Blending, machining, or any alteration of valve seat throat to match ports is NOT permitted.
- i) Intake and Exhaust Valves are to be OEM or OEM replacement.
Valve Head diameters are to be OEM for Model and series of car being used. Refer to Table 4 for listed valve diameter measurements.
- j) The practice of back cutting or machining a second angle on valve head is permitted.
- k) NON-OEM type valve springs are permitted but are restricted to 2 units per valve.
- l) Machining of Valve spring seats, pads, or platforms is permitted.

- m) NON-OEM Valve spring retainers and collets are permitted but MUST retain OEM lock design. I.e. bead lock to remain bead lock, conventional to remain conventional, Conversion is NOT permitted.
- n) Rocker assemblies are to be OEM for engine being used and cannot be modified, altered, or changed in any way. 4.0 litre SOHC Ford engines using a solid type lifter attached to rocker arm are permitted to modify the rocker arm to facilitate the adjusting lock nut ONLY. Refer to photo. (01/07/19)
- o) EL Falcons using 4.0 litre Ford SOHC engine are permitted to use hybrid type rocker assemblies but must remain completely OEM. Modification of any sort is NOT permitted.
- p) Camshaft and camshaft timing parts are not restricted.
- q) OEM for engine being used Variable Camshaft timing is permitted.
- r) Camshaft followers or Lifters MUST remain OEM for engine being used, i.e. roller to remain roller, flat tappet to remain flat tappet. Hydraulic Lifters are permitted to be replaced with solid items.
- s) Lifter retention on GMH V motors may be achieved by using OEM Engine configuration components ONLY, that may be modified for fitment. Tie bar lifters unless OEM for engine being used are not permitted. Fabricated NON-OEM bracketry for lifter retention is NOT permitted. Refer General Engine Specification 2 g). (16/09/18)
- t) Push rods are to be of 5/16 maximum in diameter.
- u) NON-OEM Push rod length is permitted and NOT restricted.
- v) Chrome moly push rods are permitted.
- w) Modified OEM rocker covers are permitted.
- x) NON-OEM rocker covers are permitted.



4.1D - BOTTOM END ROTATING ASSEMBLIES and SUMP

Engines are allowed no more than 0.060 overbore and 0.060 machined off deck height. Offset or angle grinding of block to head mating surface is not permitted.

- a) All components in bottom end of engine MUST be OEM for engine configuration being used. I.e. straight 6 to straight 6, V6 to V6.
- b) OEM forced induction bottom end components are NOT permitted. I.e. Supercharged Ecotec Connecting rods.
- c) Removal or addition of material from any part of OEM components to aid in engine balancing is NOT permitted. The ONLY tolerance given is OEM holes in Crankshaft as supplied by manufacturer.
- d) Balance shafts MUST be retained and be functioning as per OEM design from manufacturer.
- e) Piston pin height MUST be of an OEM measurement for engine being used. Custom NON OEM replacement piston pin heights are NOT permitted. (01/07/19)
- f) Pistons are to be of OEM design for engine being used, i.e. dish crown to remain dish crown, flat top to remain flat top. Conversion is ONLY permitted if pistons are an approved OEM replacement. Refer to subsection h). (01/07/19)
- g) Machining for valve relief or Lightening of Pistons is NOT permitted.
- h) OEM replacement forged or high pressure cast pistons are permitted. Refer to approved pistons as listed in Table 7. (01/07/19)
- i) NON-OEM replacement type forged pistons are NOT permitted i.e. any manufacturer of custom made performance pistons.
- j) The use of NON-OEM connecting hardware on connecting rods ONLY is permitted, i.e. ARP bolts and studs. Conversion is permitted. Big end Bearing Main cap hardware MUST remain OEM.
- k) Modified OEM oil pans, sumps and pick up tubes are permitted.
- l) NON-OEM fabricated oil pans, sumps, and pick up tubes are permitted.

4.1E - ANCILLARIES, PULLEYS and DRIVES

- a) OEM pumps, alternators, drive belts and Pulleys etc and attachment of, to Engine or car being used are NOT restricted.
- b) Conversion from or to, modification, alteration, and/or replacement of any of the above listed

- components is permitted and NOT restricted.
- c) The use of NON-OEM flywheels, ring gears, clutch plates, diaphragms, starter motors, thrust bearings and release bearings etc are permitted and NOT restricted.

CHECKS ON ANY OF THE ABOVE LISTED SPECIFICATIONS, SUBJECT TO COMPLIANCE WILL BE CARRIED OUT AT ANY TIME BY ANY MEANS.

SECTION 4.2 - CARBURETOR CONFIGURATION

The below specification is specific to models produced with OEM carburetted engines only.

4.1A - IGNITION and ELECTRICS

- a) All electrical and ignition systems are permitted and NOT restricted.
- b) Conversion to or from OEM or NON-OEM ignition and/or electrical systems is permitted and NOT restricted.

4.2B - FUEL SYSTEM and INDUCTION

- a) OEM or NON-OEM forced induction is NOT Permitted.
- b) Single carburettor to be OEM type and make for engine and car being used. Refer Table 2 for listed permitted OEM carburettors.
- c) All cars fitted with single carburettor OEM are permitted to use a 2 -barrel Holley carburettor on a OEM or OEM option for engine intake manifold, with a bolt on, NOT WELDED, adaptor block that is of a maximum thickness of 1.000" (25.4mm).
- d) Adaptor block MUST be removable and the listed carburettor for model be re-attached and engine will function.
- e) All 2-barrel Holley carburettors are to be of 350cfm, maximum venturi size of 1.203" (30.56mm) measured with GO/NOGO gauge that is of that specified exact measurement.
- f) Holley derivatives, such as Demon, Barry Grant and Dambest etc are NOT permitted.
- g) Inlet manifold is to be OEM or OEM option for engine.
- h) Inlet manifold to remain of OEM structure and appearance in all areas externally. Internal modifications are permitted and not restricted. All fabrication through and involving any machining and/or welding must allow the manifold being used to retain its OEM structure and appearance with the exception of an additional hole (19mm maximum) for the fitment of a sensor and the welding of unused vacuum and water ports no longer in use.
- i) Additional gaskets between Head and Manifold mating surfaces that are thicker than OEM type gaskets are NOT permitted.
- j) The practice of coating or painting internally and externally, or wrapping manifolds is permitted. Manifolds that have been wrapped may be subject to removal of wrapping so as compliance inspection at any time can be carried out.

4.2C - CYLINDER HEAD and VALVE TRAIN

- a) Internal modification or alteration on cylinder head Inlet and Exhaust ports, combustion chambers etc is permitted and NOT restricted.
- b) Cylinder head is to remain visually OEM externally.
- c) Cylinder head to be of OEM material, make and configuration for engine being used.
- d) NON-OEM Inlet and Exhaust valves are permitted and NOT restricted.
- e) NON-OEM rocker assemblies are permitted and NOT restricted.
- f) NON-OEM valve springs are permitted and NOT restricted.
- g) NON-OEM push rods are permitted and NOT restricted.
- h) NON-OEM head bolts and studs are permitted.
- i) NON-OEM rocker covers are permitted.

4.2D - BOTTOM END ROTATING ASSEMBLIES and SUMPS

- a) Crankshaft to be of OEM origin for engine being used.
- b) Removal or addition of metal from crankshaft is permitted and NOT restricted.
- c) Alteration of OEM connecting rods is permitted and NOT restricted.



- d) Replacement of OEM connecting rods to those of a lightened or performance nature is permitted and NOT restricted.
- e) Bottom end hardware, connecting bolts and studs etc is not restricted. Conversion to or from OEM is permitted.
- f) Engine balancing is permitted and NOT restricted.
- g) Modification, alteration or machining of OEM pistons is permitted and not restricted.
- h) NON-OEM pistons are permitted and NOT restricted.
- i) Camshaft and camshaft timing parts are not restricted.
- j) Camshaft followers or lifters are NOT restricted.
- k) Engine Oil pans or sumps are NOT restricted.

4.2E - ANCILLARIES PUMPS and DRIVES

- a) OEM pumps, alternators, drive belts; pulleys and harmonic balancers etc and attachment to engine or car are NOT restricted.
- b) Conversion from or to, modification, alteration and/or replacement of any of the above listed components is permitted and NOT restricted.
- c) The use of NON-OEM flywheels, ring gears, clutch plates, diaphragms, starter motors, thrust bearings and release bearings etc are permitted and not restricted.

ENGINE POSITIONING FOR ALL LISTED PERMITTED MODELS

4.1 CONFIGURATION (EFI)

- a) Engine MUST remain in OEM position.
- b) Engine offset is NOT permitted.
- c) BA/BF/FG Falcon is to mount EA/EB/ED/EF/EL/AU Rear face of engine block in OEM BA/BF/FG engine position.
- d) VZ Commodore is to mount VL/VN/VP/VR/VS/VT/VX/VY Rear face of engine block in OEM VZ engine position.
- e) VE Commodore is to mount VL/VN/VP/VR/VS/VT/VX/VY Rear face of engine block in OEM VE engine position.

4.2 CONFIGURATION (CARBURETTED)

- a) Engine MUST remain in OEM position.
- b) Engine offset is NOT permitted.

4.2 CONFIGURATION ENGINES INTO 4.1 OEM CONFIGURATION ENGINED CARS IS PERMITTED

- a) If using this permitted option, the rear face of a 4.2 configured engine block is to be in the OEM position that the 4.1 OEM engine for model car was located in OEM.

5. BATTERY AND ELECTRICAL SYSTEM:

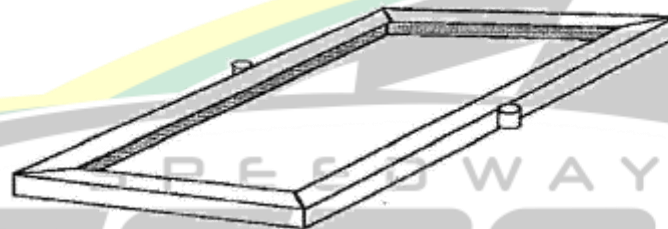
- a) Battery to be securely mounted in a box or steel frame secured to the roll cage or bar work. Proprietary marine type boxes for battery are permitted. (01/07/19)
- b) All battery's and terminals to be covered with non-conductive cover if battery is in cabin area to prevent spillage.
- c) Battery's mounted within the cabin are to be held down by an angle iron/steel/aluminium frame (ie 25mm x 25mm x 3mm) both top and bottom.
- d) Regardless of the location; the battery will be mounted with a minimum of 8mm bolts or rods. (16/09/18)
- e) Maximum size battery permitted is N70ZZ and one only permitted. (01/07/16)



- f) Suitable grommets must be fitted where battery cable pass through metal firewalls.
- g) At the commencement of a meeting, car must be capable of starting with starter motor.
- h) Switches: Ignition switch and electric fuel pump switch, if fitted, must be grouped together and be clearly marked.
- i) An engine 'KILL' switch, suitably marked with a contrasting colour for method of operation, must be of lever/twist type only, must be located centrally and forward of the windscreen mesh. This switch must isolate the battery, and any other electrical item. (01/07/19)
- j) Electrical switches NOT to be mounted through the floor.
- k) Electrical wiring not to be attached to fuel lines.
- l) All electric fuel pumps to be controlled by an engine monitoring relay, to stop fuel pump running when engine stops.
- m) Data logging dashes are not permitted.

Fig. 8

BATTERY CLAMP/HOLD DOWN FRAME



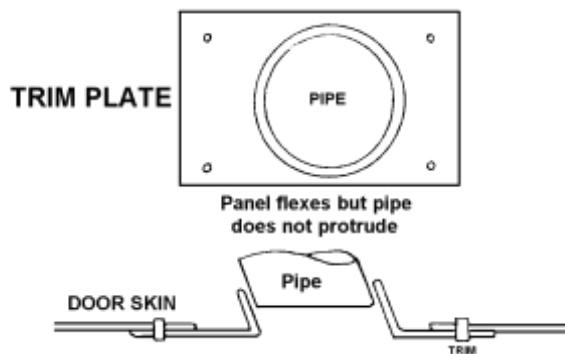
FRAME: 25 X 25 X 3mm ANGLE IRON

6. EXHAUST SYSTEM:

- a) Exhausts must be within local noise level requirements. Recommended 95.dba.
- b) All exhaust gases are to be directed away from all drivers, fuel tanks and tyres.
- c) Internally ducted exhaust system shall vent through the body not higher than 100mm above the door sill panel, using a slip joint as in Fig.9
- d) Driver is to be suitably insulated from the exhaust system. Insulation and firewall sheeting not to exceed 150mm above drive shaft tunnel. It must be within 50mm of exhaust or oil coolers, no other sheeting in cabin area is allowed.
- e) Exhaust systems to have not more than two outlet pipes, not to protrude beyond body line, and to exit rearward of the rear of the driver's seat.
- f) If exhaust system is under floor, safety chains will be fitted to front and rear of pipes and secured to floor pan or sub-frame.
- g) Pipes and mufflers must be securely attached to the vehicle.
- h) Any car exhausting excessive unburned fumes while on dummy grid or being formed up on the track, may be excluded as this constitutes a health hazard.

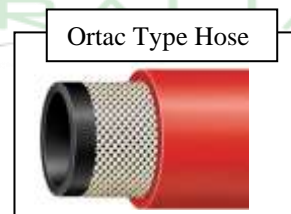
Internal Exhaust Duct Body Vent

Fig 9.



7. COOLING SYSTEM:

- a) Cooling system may be modified.
- b) All radiator hoses to be of fabric reinforced material, plain rubber hoses not permitted.
- c) Radiators may be mounted inside cabin provided that they are mounted as low as possible in the rear of the vehicle and suitably isolated from the driver.
- d) The upper half of rear window opening **MUST NOT** be obscured by the rear radiator. Radiator ducting shroud if used to be maximum of 600mm forward of the radiator and must not be more than half the rear window height.
- e) Cabin mounted radiators: (01/07/20)
 - (i) That are of a crimped-on plastic tank or Copper soldered construction **MUST** have **BOTH** tanks covered to protect driver and others in event of tank becoming dislodged or damaged.
 - (ii) Proprietary or custom fabricated radiators that are of Aluminum construction that have tanks TIG welded onto core, e.g. AFCO, KENCO, KEYSER, PWR etc **DO NOT** require tanks to be covered.
 - (iii) All radiators **MUST** have radiator cap completely covered.
 - (iv) Water spray bars or jets are **NOT** permitted.
- f) Pipes leading to the radiator are to be one of the following; (01/07/2020)
 - steel,
 - aluminum,
 - copper material,
 - Nonconductive reinforced Ortac type hose,
 - PTFE Hose.
 - (i) All cabin internal pipes are to be ducted or lagged with suitable material.
 - (ii) Stainless steel externally braided hose is accepted e.g. Earls, Speedflow, ProFlow etc that utilise the correct JIC or A/N Dash type fittings that have been professionally installed as per correct fluid transfer practice are not required to be ducted or lagged.
- g) Hoses to be as short as possible and fitted to radiator from rear side.
- h) Exposed hoses or joints not permitted in cabin area.
- i) Cabin mounted fans to have shroud or suitable guard.
- j) Cooling system to have a manual pressure relief/cap fitted. Lever vent type caps may be used. Tap to be fitted to direct steam to the ground.
- k) OEM rear firewall must not be removed or relocated, except for any material removed to allow the fitment of the radiator. Replacement of OEM firewall will be necessary prior to registration. OEM rear parcel shelf to remain as per specification book.



- l) Rear radiator to be rearward of Roll Cage main hoop – mounted in the rear cabin area. If radiator is mounted in boot area outlets may come from side of radiator tank and drivers must be protected by firewall. (01/07/16)
- m) Cabin mounted water pumps that are of a plastic construction **MUST** be lagged or covered with a suitable guard that protects driver and others in the event of pump becoming damaged. (01/07/2020)

8. TRANSMISSION/DRIVELINE: (updated 01/07/18)

ELECTRONIC TRACTION CONTROL IS NOT PERMITTED

Every race car is to be fitted with a clutch type mechanism so that the engine may be started, a forward or reverse gear selected, and the vehicle be able to move away as required. Automatic transmissions are permitted.

- a) Gear box or transmission must be of OEM type from a mass-produced passenger car and remain visually OEM internally and externally.
 - (i) The use of purpose-built gearboxes, manual or automatic are NOT permitted. E.g. Brinn, Bert, Falcon, Richmond, Tex Racing, TCI
 - (ii) The practice of installing or concealing a purpose-built race gear set or cluster in an OEM gearbox or transmission is NOT permitted.
 - (iii) The practice of installing or concealing a clutch type mechanism inside an OEM gearbox that renders the clutch mechanism "Internal" is NOT permitted.
- b) **MANUAL GEARBOX**
 - (i) Clutch plates or packs along with diaphragm or pressure and/or floater plates **MUST** be attached to the flywheel.
 - (ii) Actuation of Clutch may be mechanical or hydraulic; conversion is permitted and NOT restricted.
- c) **AUTOMATIC TRANSMISSION**
 - (i) The use of Torque Converters is optional.
 - (ii) The practice of "Manualizing" transmission via modification of valve body and external plumbing that includes a hydraulic tap that functions as a clutch mechanism is permitted.
 - (iii) External plumbing lines **MUST** be of suitable grade and be attached or connected using JIC or A/N DASH type fittings as per proper fluid transfer practice and be suitably covered if inside cabin area. Barbed hose tails with hose clamps are NOT permitted.
- d) **DIFFERENTIAL**
 - (i) Late Model 4.1 bodied cars, **MUST** use OEM differential with ALL mounts/pivots in OEM position and being used. OEM interchangeable differentials may be used if from same make and model car and sub-frame if applicable requires no modifications other than the permitted OEM bush alterations as listed in Section 10. (01/07/19)
 - (ii) Rear gear set ratios are free and NOT restricted.
 - (iii) Early Model 4.2 OEM cars, ie pre VN Commodore and EA Falcon, may use any OEM passenger car differential.
 - (iv) If using above option, ALL OEM suspension mounts/pivots **MUST** be transferred onto selected differential and **MUST** be in OEM position for model and series car being used.
 - (v) If Ford 9 inch differential is used, the top OEM mounts/pivots on differential **MUST** be attached as close as possible to the cars OEM mounts/pivots position where the differentials centre does not permit OEM location.
- e) Internal differential modifications are permitted except that the use of 'quick change' systems in the driveline is specifically prohibited. (01/07/16)
- f) For SAFETY "full floating" rear axle assembly recommended. Conversion to floating hubs permitted.
- g) Rear axle assembly to be of original type. i.e.: IRS to remain IRS
- h) Scattershield: All cars must fit a Scattershield if not using a competition clutch or bellhousing. To be a minimum steel 3mm x 150mm wide or alloy 5mm x 150mm wide and must cover the upper 180 degrees of bell housing and be securely attached to the bell housing or fire wall in engine bay or front fire wall in cabin area to protect the drivers feet and legs from clutch explosion.



- i) Tail shaft may be of one piece or two-piece types, conversion is optional.
- j) No carbon fibre tail shafts allowed.
- k) Tail shaft/s must be fitted with 360° hoops at front and rear.
 - (i) Tail Shaft Loops — Steel strap minimum. 40x3mm FMS or 6mm chain or 6mm wire rope to be SECURELY fitted around the front and the rear of the tail-shaft within 150mm of universal joints to prevent the tail-shaft and or shafts from dropping in an event of breakage.
 - (ii) If wire cable is used the top/upper section (180°) part of the loop to have minimum 40x3mm flat mild steel (FMS) welded or bolted to floor pan/tunnel on either top or bottom. Flat mild steel (FMS) to be one piece from side to side at points that cable passes through floor including FMS. (01/07/2020)
 - (iii) If there is a universal joint in the middle of the tailshaft a third tail shaft loop will be required.
- l) Tailshaft/s must have fully operational constant velocity / universal joints, be suitable for the application and be correctly phased.

REAR AXLE BEARING RETAINING RINGS. If using assembly not fitted with floating axles, a new retaining ring must be fitted at replacement of bearing or axle. Ring must be an interference fit with the axle, when in place the retaining ring is to be tack welded using MIG or a small diameter low hydrogen rod on low amperage.

FAILURE TO OBSERVE THIS PROCEDURE WILL INCUR A PENALTY ESPECIALLY IF AN AXLE IS DISLODGED. (SAFETY DECLARATION)

WHEEL STUDS. Grade 8, 12mm minimum all vehicles.

9. STEERING:

- a) Original type must be used. E.g. Rack remains rack, it may be modified.
- b) Must be in sound condition. Steering joints to be split pinned as required.
- c) Wire spoke or wood rim steering wheels not permitted.
- d) Steering column to be securely mounted to the roll cage dash bar. Minimum material size for steering column tube is to be 3mm wall thickness unless OEM.
- e) Hub of steering wheel to be padded with dense resilient foam and covered.
- f) To reduce thumb and wrist injuries, the use of “PAW SAVER” type disc steering wheel is permitted.
- g) Steering quickeners may be used.
- h) Quick release steering wheels are optional.

10. SUSPENSION: (Updated 01/07/18)

Purpose:

Every attempt has been made to include all configurations of suspensions as used in Production Sedans due to the large amount of variances within suspension and the mounting of. Please contact your State Technical or CTAC representative for further clarification if unsure on the listed configuration of which your car falls into.

GENERAL

- 1) An SSA Inc Production Sedan race car must use a complete metal body with the OEM suspension mounting/pivot points in the OEM position and being used, with the tolerances allowed as listed in the applicable configuration specific sections.



- 2) OEM Suspension mounting/pivot points are defined as.
 - a) Trailing arm; either end.
 - b) Swing Arm; either end
 - c) Lower control arm; either end.
 - d) Castor or Radius rod; either end.
 - e) McPherson Strut or Leg; either end. Including shock insert.
 - f) Double A-Arm/Wishbone Strut; either end.
 - g) Shock absorber; either end
 - h) Coil or leaf spring; either end
- 3) Front and Rear Suspension is to remain of OEM type, design, and function for make and model car being used. That is:
 - a) McPherson Strut type suspension is to remain McPherson Strut.
 - b) Upper and Lower A-Arm/Wishbone Strut type is to remain upper and lower A-Arm/Wishbone strut type.
 - c) Lower Control Arm type is to remain Lower Control Arm type.
 - d) Castor/Radius rod type is to remain castor/radius rod type.
 - e) IRS type is to remain IRS type.
 - f) Live rear axle type is to remain live rear axle type.
 - g) Torsion Bar type is to remain Torsion Bar type.
 - h) Coil Spring type is to remain coil spring type.
 - i) Leaf Spring type is to remain leaf Spring type.
- 4) Conversion, alteration or modification to a Suspension type that is not OEM for make and model of car, is not permitted.
- 5) OEM Front and Rear suspension components may be altered/modified.
- 6) Front and rear Suspension components may be fabricated (Non OEM Components).
- 7) Front and Rear Suspension components, OEM or Fabricated must not vary in length whilst in motion.
 - a) All fabricated suspension components are to be solid in construction
 - b) Material used is NOT to be soft, pliable, able to flex, bend, or change presented appearance whilst in motion.
 - c) Suspension components constructed from rubber, aluminum strap, small diameter rod, and similar type materials are NOT permitted.
- 8) Front and Rear Suspension components MUST NOT mount directly to bar work.
- 9) OEM Front and Rear Suspension Mounts/pivots MAY be supported, braced, or strapped to bar work.
- 10) Multi or single hole NON-OEM brackets that attach to the OEM position on body, sub frames, Skirts or floor pans that retain or change the OEM pivot point of suspension arm, OEM or fabricated, are NOT permitted.
- 11) Front and Rear OEM suspension brackets/mounts on body or sub frames that trailing arms, castor arms/radius rods or wishbones attach to, that are removable OEM, MUST remain OEM. The replacement of OEM brackets/mounts with fabricated items that may retain the OEM pivot point of the above-mentioned suspension components are NOT permitted. Only tolerances are front castor/radius rod bolt in consumable bush assemblies, fabricated replacements are permitted but pivot point of castor/radius rod MUST be within the confines of the removed OEM bush assembly area. I.e. VT/VZ commodore, and control arm/trailing arm bolt hole may be enlarged to 5/8" MAXIMUM.
- 12) OEM cross members/sub frames must be used and cannot be fabricated.
 - a) OEM cross members/ sub frames MUST remain in OEM position front and rear. Location of sub frames front and rear CANNOT be altered or changed in any way.
 - b) OEM Sub frames may be reinforced
 - c) Removal of sub frame material to aid in suspension travel clearance is NOT permitted.
 - d) OEM steering rack mounts may be modified or fabricated to accept NON-OEM steering rack e.g. Appleton.

SHOCK ABSORBERS / DAMPERS

- 1) NON-OEM shock absorbers are permitted.
- 2) OEM and NON-OEM Internal bypass 4WD type shock absorbers are NOT permitted.
- 3) Mono tube, gas adjustable via "Schrader valve" shock absorbers are permitted.



- 4) Twin tube, adjustable shock absorbers are permitted.
- 5) Remote canister / external reservoir type shock absorbers are NOT permitted.
- 6) Additional shock absorber/s is NOT permitted.
- 7) Shock absorber may have a tolerance of + or – 25mm maximum overall for mounting purpose. Refer to applicable specific configuration specification within this section.
 - a) When using a non-OEM racing type shock that mounts via rod ends, model specific specification will apply.
 - b) Shock absorbers that are remotely adjustable from the driver's seat, are NOT permitted
 - c) The use of a racing type "Coil over" is NOT permitted.
 - d) A racing type "Coil over" is defined as a Coil Spring that is retained on the shock absorber, when the upper and lower rod ends, pins or studs on SHOCK ABSORBER have been disconnected from the points at which the shock is attached.

FRONT SUSPENSION

McPHERSON STRUT CONFIGURATION

1. OEM Strut Tube
 - a) Fabricated strut tubes are permitted but must retain a minimum 70mm of lower OEM strut tube, including any OEM attachment method to spindle or stub Axle within that 70mm of OEM tube. Fabricated OEM tube extensions that attach below retained 70mm of OEM tube, to facilitate the use of a longer stroke shock or insert are NOT permitted.
 - b) The upper strut tube section may be replaced with, or have, a threaded spring adjustment sleeve attached over the top of existing OEM strut tube.
 - c) OEM replacement strut tubes that use a fabricated NON-OEM type spindle clamp bracket are NOT permitted.
 - d) Strut inserts (shock absorber) may be replaced with NON-OEM type inserts.
 - e) Weight jacking or spring height manual adjustment on strut tube is permitted. i.e. NOT to be adjustable from the driver's seat.
2. Top of Strut; Tower Mounting
 - a) The center of strut Insert, top pin/stud/rod end shall be no more than 25mm maximum from the OEM insert/shock mounting position on OEM body or tower mounting hole in a horizontal plane only. Modification or alteration of the OEM body, upper tower hole or OEM Strut top locating holes is NOT permitted.
 - b) The center of strut insert, top pin/stud/rod end shall be no more than 25mm above OR 30mm below the OEM strut mounting position on body or tower in a vertical plane only. Modification or alteration of the OEM body, upper tower hole or OEM Strut top locating holes is NOT permitted.
 - c) Modifications to OEM Strut tops are permitted.
 - d) Fabricated NON-OEM strut tops are permitted.
3. OEM stub axle / spindle type for make and model must be used. Conversion is NOT permitted.
4. Front Hubs to be of OEM mass produced type and attach to stub axle / spindle using the OEM design and function.
 - (a) OEM replacement type hubs such as "Harrop" are permitted.

UPPER and LOWER WISHBONE CONFIGURATION WITH STRUT

1. OEM Strut Tube
 - a) Fabricated strut tubes are permitted but must retain a minimum of 70mm of lower OEM strut tube, in addition to any OEM attachment method to spindle, stub axle or lower wishbone / control arm.
 - b) The upper strut tube section may be replaced with or have, a threaded spring adjustment sleeve attached over the top of existing OEM strut tube.
 - c) OEM replacement strut tubes that use a NON-OEM fabricated type clevis arrangement to attach strut to lower control arm/wishbone are NOT permitted.
 - d) Strut inserts (shock absorbers) may be replaced with NON- OEM inserts.
 - e) Weight jacking or spring height manual adjustment on strut tube is permitted.



2. Top of Strut Mounting
 - a) The center of strut insert, top pin/stud/rod end shall be no more than 25mm maximum from the OEM insert mounting position on OEM body or tower mounting hole in a horizontal plane only. Modification or alteration of the OEM body or upper tower hole is not permitted.
 - b) The center of strut insert, top pin/stud/rod end shall be no more than 25mm maximum above OR 30mm maximum below the OEM strut mounting position on body or tower in a vertical plane only. Modification or alteration of the body or upper tower hole is NOT permitted.
 - c) Modification of OEM strut tops is permitted.
 - d) Fabricated NON-OEM strut tops are permitted.
3. OEM stub axle / spindle type for make and Series model must be used. Conversion is not permitted.
4. Front hubs to be of OEM mass produced type and attach to OEM spindle in OEM design and function.
5. OEM replacement type hubs such as "Harrop" are permitted.
6. AU-BF Falcon stub axle assembly, along with the upper AU-BF Falcon wishbone is permitted for use in EA-EL Falcon. The lower control arm/wishbone must be fabricated as per General specification 3 (iii). This allows for AU-BF Falcon stub axle / spindle to be used on EA-EL Falcon, alleviating the need to cut and re weld two stub axle / spindle assemblies to produce one.

UPPER and LOWER WISHBONE CONFIGURATION NON-STRUT SUBFRAME MOUNTED SHOCK and SPRING - TORANA/CORTINA

1. Front upper OEM shock absorber mount may be modified / altered to enable fitment of NON-OEM racing type shock. Upward or downward in a VERTICAL PLANE ONLY for mounting purpose, 25mm maximum. A minimum of 50% of OEM mount/pivot MUST remain for verification purposes.

BODY MOUNTED SHOCK and SPRING - XD/XF FALCON

1. The OEM top shock absorber three-legged mounting bracket may be modified, altered or fabricated to accept racing type shock absorber.
 - a) OEM three-legged or NON-OEM fabricated top shock mount bracket MUST attach to body or tower in OEM position.
 - b) Where the racing type shock rod end attaches to OEM three-legged bracket or NON-OEM bracket, a tolerance of + or – 25mm upward or downward, in a VERTICAL PLANE ONLY is permitted for mounting purpose.

BOTH ABOVE CONFIGURATIONS

1. Weight jacking or spring seat manual adjustment is permitted.
 - a) ONE end of spring is permitted to be located on shock absorber body via threaded sleeve and adjuster nut or threaded body shock with adjuster nut. RACING TYPE COIL OVER IS NOT PERMITTED. Refer to general Specification.
2. OEM stub axle / spindle for make and Series model must be used.
3. Front hubs to be of mass produced type and attach to OEM spindle in OEM design and function.
4. OEM replacement style hubs, such as "Harrop" are permitted.
5. TE- TF Cortina may replace the OEM stub axle with an OEM XE-XF Falcon stub axle. This is to be done by machining the OEM Cortina stub axle from the spindle and press fit XE-XF OEM stub axle onto Cortina spindle before re welding using proper engineering practices.
6. TE-TF Cortina may also use OEM Mitsubishi L300 stub axle / spindle.

REAR SUSPENSION

LIVE REAR AXLE

1. Trailing Arms
 - a) OEM trailing arm mounts / pivots on body MUST remain and MUST be used to attach trailing arms upper and lower. Reinforcement is permitted.



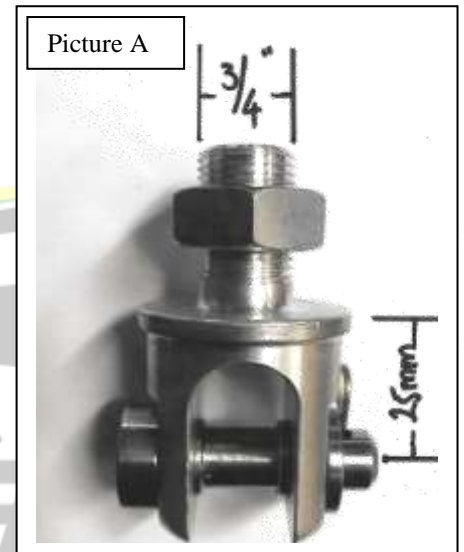
- b) Modification, alteration, replacement to NON-OEM, or removal of OEM trailing arm mounts / pivots on body is NOT permitted. Reinforcement is permitted.
- c) OEM trailing arm mounts / pivots on differential MUST remain OEM, be in OEM position and MUST be used to attach trailing arms upper and lower.
- d) Modification, alteration, replacement to NON-OEM, removal of OEM trailing arm mounts / pivots on differential, is NOT permitted. Reinforcement is permitted. OEM trailing arm mount bolt hole can be enlarged to accept rod ended fabricated trailing arms, 5/8" MAXIMUM. Offset drilling in any direction is NOT permitted.
- e) Modification or alteration of OEM trailing arms is permitted.
- f) Fabricated trailing arms (Non-OEM) are permitted.
- g) Trailing Arms OEM, Modified OEM, or Fabricated MUST not vary in length whilst in motion. Refer General specification 7)
- h) Fabricated trailing arms must use correct rod end / bush / bolt combination for attachment, i.e. large diameter hole and small diameter bolt, not permitted.
- i) Rear axle center line MUST be in OEM position +/- 20mm

2. Lower Shock Mounting.

- a) OEM lower shock mount / pivot MUST remain in OEM position on differential.
- b) Modification, alteration, replacement to NON-OEM, or removal of OEM lower shock mount / pivot on differential is NOT permitted. Enlargement of OEM shock bolt hole is permitted to match rod ended type shock, to 1/2" MAXIMUM

3. Upper Shock Mounting.

- a) On cars where the shock is separate from the spring, i.e. Commodore, Sigma, Torana etc, OEM shock mount on body MUST remain, and CANNOT be altered, or removed. OEM Shock. Mount hole may be enlarged to 3/4" MAXIMUM. 25mm tolerance DOWNWARD is allowable for mounting purpose only to accept clevis type mount brackets. **Refer example Picture A**



- b) On cars where the shock passes through the spring, i.e. Falcon, the OEM shock mount hat hole can be enlarged to accept the fitment of a racing type (Rod ended) shock 25mm ABOVE the OEM shock hole for mounting purpose ONLY. OEM shock hat MUST remain and be attached to body in OEM position. 50% of OEM hat must remain for verification purposes.
- c) On cars that use a Strut type coil / shock configuration i.e. Skyline, the OEM rear tower on body must remain and CANNOT be modified or altered in any way, including OEM strut top locating holes. Strut top may be OEM, modified, or fabricated. In this configuration the upper spring mount MUST NOT be captive on shock or insert, i.e. Coil over. Refer general specification.
- d) Cortina TE/TF upper shock mounts / pivots may be fabricated if OEM mounts / pivots have been rust compromised. Using a 40x40x3mm RHS section welded into the OEM position on body. Mount / pivot MUST be symmetrical to body centerline, 390mm down from the OEM parcel shelf / tray center and 550mm apart. 25mm tolerance is NOT allowable if using this option due to rust compromised OEM mounts.

4. Spring Mounting

- a) On cars where the spring mounting is on the differential i.e. Falcon, Torana, Sigma etc. The OEM spring perch MUST be retained and MUST be used to perch spring. i.e. coil spring sliders are NOT permitted.
- b) On cars where the spring is separate from the shock, and NOT on differential tube i.e. Commodore, Torana, Cortina, Sigma etc the spring MUST be mounted in an OEM style saddle or perch on the trailing arm, OEM or fabricated. I.e. coil spring sliders are NOT permitted.

- c) Manual adjustment of upper or lower spring perches via threaded sleeves with adjuster nuts on trailing arms, body, or differential tubes are permitted.
 - d) Spring buckets that have been incorporated into OEM spring perches on body are permitted.
 - e) UPPER spring mounting ONLY on XE-AU Falcons may use an adjuster nut on a threaded body shock or threaded sleeve on smooth body shock. COILOVERS ARE NOT PERMITTED. Refer to General Shock Absorber Specification 9 for coil over definition.
5. Rear lateral location Devices.
- a) The use and position of panhard bars and watts linkage devices is not restricted.
 - b) Conversion of OEM watts linkage to panhard bar is permitted.
 - c) Conversion of OEM panhard bar to watts linkage is permitted.
 - d) Spring loaded panhard bars / watts linkages are permitted.

IRS REAR AXLE

1. SWING ARMS and SUBFRAMES

- a) OEM swing arm mounts on body or sub frame MUST remain and must be used to attach the swing arm upper and lower. Enlargement of OEM swing arm mount/pivot holes is permitted 5/8" MAXIMUM. Offset enlargement in any direction is NOT Permitted. OEM mounts/Pivots that are larger than 5/8" OEM must remain OEM in size and cannot be enlarged or altered in any way. Enlargement of OEM shock mount hole on swing arm to accept rod ended shock is permitted, 1/2" MAXIMUM
 - b) Rear sub frames MUST attach to the OEM position on body OEM interchangeable sub-frames may be used if from same make and model of car but must retain OEM configuration. i.e. VT-VZ Commodore or BA-FG Falcon. The use of Ford Territory sub-frames is NOT permitted. The replacement of OEM sub-frame to body attachment bushes may be changed to that of solid. Those bush receptacles on sub-frames may be modified to accept that alteration but otherwise must remain completely OEM. (01/07/19)
 - c) OEM swing arms may be modified or altered.
 - d) Fabricated swing arms (Non-OEM) are permitted.
 - e) OEM, OEM modified, and fabricated swing arms must use correct rod end / bush / bolt combination. i.e. Large diameter hole, small diameter bolt not permitted
 - f) Rear axle (Outer Drive) centerline MUST be in OEM position +/- 20mm
2. Upper Shock Mounting
- a) OEM shock mounts / pivots on body MUST remain. Removal or alteration is NOT permitted.
 - b) In cars where the upper shock mount / pivot is of a stud / pin type mount OEM, 25mm tolerance LOWER is allowable for mounting purpose ONLY i.e. Commodore. OEM Shock mount hole may be enlarged to 3/4" MAXIMUM, to accept clevis type mounting bracket. Refer example Picture A
 - c) IRS AU Falcons are permitted to enlarge the OEM shock mount hat hole to accept the fitment of a racing type (rod ended) shock 25mm ABOVE the OEM hat hole ONLY. OEM shock hat must remain and be in OEM position. 50% of OEM hat must remain for verification purposes.
 - d) In cars that use a "Control Blade" type suspension configuration, i.e. BA- FG Falcon. The upper shock mounts/ pivots that are removable OEM - MUST be retained and used.
 - e) In cars that use a shock / spring / strut configuration, i.e. VE Commodore - the OEM strut type upper top MUST be retained and used. Modification is permitted to allow the fitment of a racing type (rod ended) shock UPWARD. Maximum tolerance of 25 mm for mounting purpose ONLY.
3. Lower shock mounting
- a) OEM mounts / pivots may be modified or altered to accept the fitment of a racing type (rod ended) shock. Maximum tolerance of 25mm overall for mounting purpose ONLY.
4. Spring Mounting
- a) The OEM design and function of spring perch on all configuration IRS cars MUST remain. i.e. coil spring sliders are NOT permitted.
 - b) Spring perch manual adjustment via threaded sleeves with adjuster is permitted.
 - c) Spring buckets that have been incorporated into OEM spring perches on body are permitted.



LEAF SPRING CONFIGURATION

1. OEM leaf spring configured cars, MUST remain leaf spring. Conversion is not permitted.
2. OEM leaf spring front mount on body must remain. Modification, alteration, replacement, or removal is NOT permitted.
3. OEM leaf spring rear shackle mount may be converted / altered to that of bearing slider but MUST remain in OEM position.
4. The use and position of lowering blocks is permitted.
5. U Bolts and plates MUST be of sound and applicable grade.

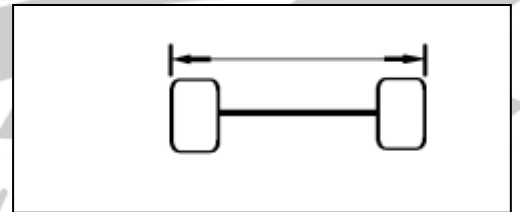
ALL ABOVE CONFIGURATIONS

1. Shock support.
 - a) ALL OEM shock mounts / pivots may be braced, supported, or strapped to bar work front and rear.
2. All OEM shock mounts / pivots must be retained and used.
3. Modification, alteration, or removal is NOT permitted.

Only the listed tolerances or allowances within the applicable configuration sections are permitted within the Production Sedan division. Persons seeking clarification on any of the above should do so through the CTAC process.

11. WHEELTRACK: Fig. 10

Original track plus 75mm maximum is allowed — Measured from the outside of one rim to the outside of the opposite rim. (Wheel/tyre measured at stub axle height and averaged front and back)

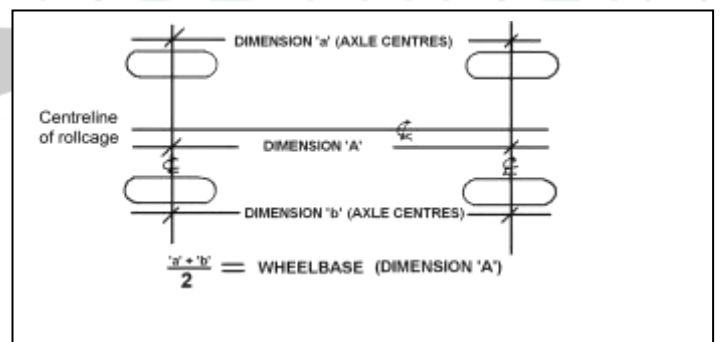


Measurements — Table 4 — include 190mm (180mm rim width, plus 10mm rim thickness) to accommodate SSA Wheel Track measuring tool.

12. WHEELBASE:

Original, within 1% ABSOLUTE!

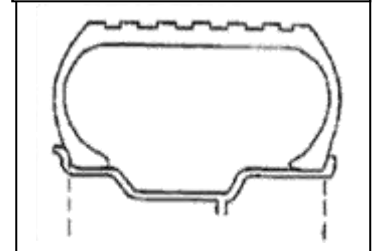
Method of measuring wheelbase shall be; with each front wheel pointing straight ahead. Measure distance from front axle centre to rear axle centre on each side of vehicle. Add dimensions for left and right and divide by 2, allowable tolerance is +/- 1%.



13. WHEELS:

- a) Seven (7") inch (180mm) rims are allowed, bead lock attachment is not permitted. Fig.11
- b) Wheels must be in good condition and free from cracks.
- c) Wide Five style wheels, hubs and adaptors NOT permitted. Dual stud pattern drilling is NOT permitted. Wire wheels and/or dual wheels NOT permitted.
- d) Balance weights to be securely fastened or taped.

Fig. 11 updated 16/09/17



← 180mm max →

- e) Rim edges to be rolled or rounded off if rim protrudes past the tyre side wall.
- f) Wheel covers are permitted
 - (i) If cover is to be used on a steel rim, attachment brackets must not be welded to outer section of rim, must have radius formed corners and must be MIG or TIG welded. Expandable attachment rings, such as Weld Wheels part number WELP650-5314 are permitted.
 - (ii) If cover is to be used on alloy or 'mag' rims, brackets must not be welded to outer section of rim, must have radius formed corners and must be TIG welded. The practice of using a Bead lock ring with cover attachment included on the outer section rim is permitted but MUST be fully TIG welded to rim edge and be free of weld protrusions.
 - (iii) Covers to be attached with Round Cap Head style bolts or 'DZUS' fasteners. (01/07/17)
- g) Wheels may be reinforced provided they meet with the approval of the Class Technical Advisory Committee and the SSA Inc.
- h) Wheel studs are not to protrude further than 12mm past the outer face of the wheel nut and to be contained within the rim as to not damage another competitors tyres.
- i) **Mag Wheels –**
 - i) Composite type wheels NOT acceptable. Composite wheel means wheels made of different materials. E.g. 3-piece alloy wheels are not classed as composite wheels.
 - ii) Correct matching nuts and washers must be used.
 - iii) All welding done on aluminium rims must be tig welded and be of a professional standard.
- j) **Steel Centre Wheels —**
 - i) Heavy Duty "Off Road" type centres preferred to flat plate.
 - ii) Wheel centre hole is to be chamfered.
 - iii) Stud holes are to be chamfered to suit the nut used and to be chamfered on inner edge also to relieve guillotine action on studs.
 - iv) If the right-hand front wheel is made of flat steel plate, it is to be not less than 10mm in thickness; if dished centre, min. 5mm. thickness absolute.

14. TYRES: (01/07/2020)

GENERAL

- a) Tyres be in good condition.
- b) All manufacturer's markings to be visible on side wall.
- c) Grooving of tyres is permitted.
- d) Safety inner tubes permitted.
- e) Any type of lubrication (Grease or oil etc) is not permitted on tyre side walls. (01/07/17)
- f) Tyre shine type cosmetic products are permitted for application to side wall only.
- g) The compliance of any permitted tyre can be reviewed at any time.

PERMITTED TYRES

- a) Road legal radial tyres
- b) Maximum speed rating 'V'
- c) Minimum aspect ratio 60
- d) Tread wear rating of 220 and above as marked on side wall. Tyres with no tread wear marking may be used provided they meet all other specifications listed.
- e) The tyre must have been listed or is listed in a road tyre section of the manufacturer's tyre catalogue and have been commercially available.
- f) Road legal re-treaded tyres. Tyres must have the correct remoulder's speed rating etc and be legible as per AS 1973-1985.

NON-PERMITTED TYRES



- a) Racing tyres.
- b) Tyres that are road legal for use on Australian roads that have been designed and marketed for motorsport/competition use.

IF IN DOUBT PLEASE SEEK CLARIFICATION FROM SSA INC TECHNICAL COMMITTEE

15. BRAKES:

- a) Foot operated hydraulic brakes to be fitted and be effective at race speeds.
- b) Brakes are to be fitted to a minimum of three (3) wheels. Right Hand Front brake only may be removed.
- c) Electronic ABS not permitted. Adjustable brake systems permitted.
- d) Disc rotors may not be altered by drilling of rotor surface. *Note: some discs are supplied from the factory as drilled disc (i.e.: DBA, Willwood)
- e) No Carbon Fibre components to be used.

16. FUEL:

THE USE OF COOLING SYSTEMS FOR FUEL IS NOT ALLOWED.

Gas: E.g. LPG or CNG is NOT PERMITTED.

Petroleum (01/07/18)

- a) Must be supplied from a commercial outlet, via a multi volume network available to the general public obtained through a bowser pump.
- b) Multi volume PULP fuel varieties such as Shell V-Power, Caltex Vortex, BP Ultimate etc are permitted ONLY.
- c) Only Fuel that has a maximum Octane (RON) of 98 is permitted.
- d) Only Fuel that has a maximum Specific gravity or density of 0.775 is permitted.
- e) Fuels sourced from refinery or depot supplied fuels that are of different or superior quality are NOT permitted.
- f) Ethanol or Ethanol Blend fuels such as E10 and E85 are NOT permitted.
- g) Blending of Ethanol based fuels with PULP fuels is NOT permitted.
- h) The use of exotic or unleaded racing type fuels, such as ELF and or additives that improve fuel quality or increase octain (RON) are not permitted.

DEFINITION - RON = RESEARCH OCTANE NUMBER

Nitro: The introduction into the combustion chamber/s of nitro fuels and/or additives, either in solid, liquid or gaseous form (e.g. – nitrous oxide) by any means is expressly forbidden.

Note: Older engines in later model bodies – fuel as per above only is permitted.

Fuel shall be tested as per the SSA Inc Policies and Procedures.

17. FUEL TANK AND FUEL SYSTEM:



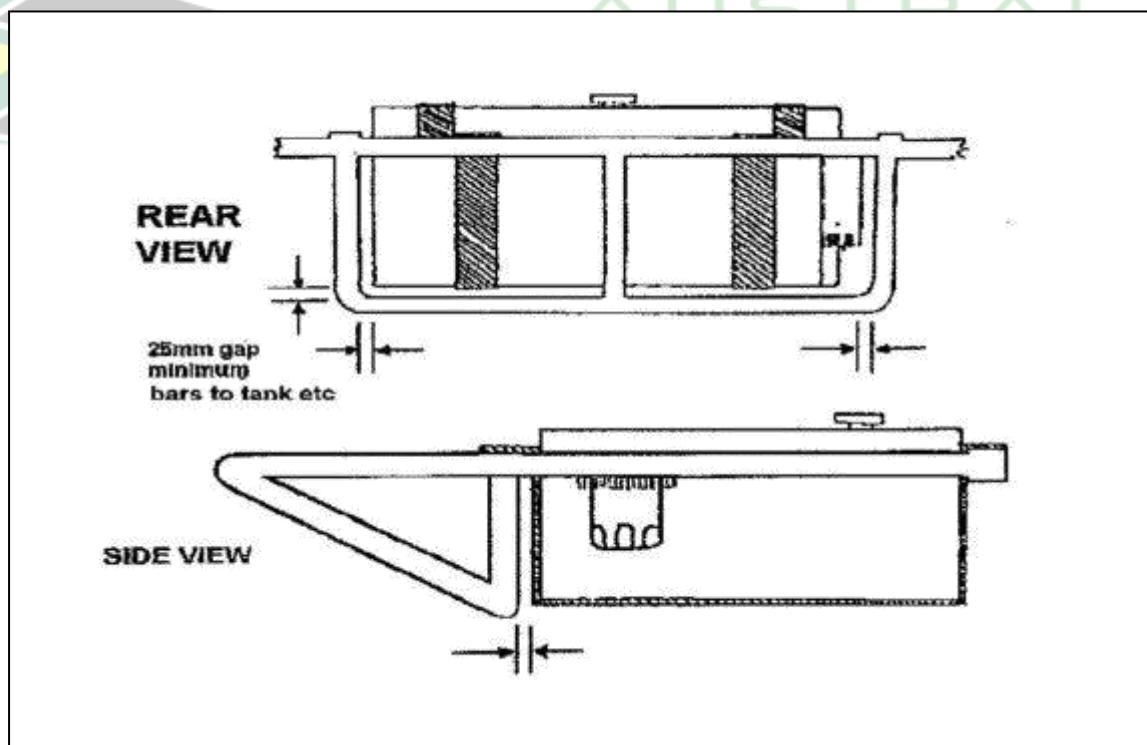
- a) Original fuel tank must be removed and replaced by a tank/s of up to 72 litres.
- b) Pressurised fuel tank/s NOT permitted.
- c) Area beneath tank to be cut out, giving adequate ventilation and ensuring that spillage cannot remain in vehicle.
- d) Fuel tank area is to be accessible for scrutineering. A 300x300mm access panel maybe in the rear parcel shelf, deck panel or the boot lid. Fuel tank is to be isolated from the driver by a minimum 0.9mm metal firewall. For all cars that do not have an OEM firewall to separate the fuel tank from the driver – the fuel tank must be fully enclosed – this includes the base as well as the sides and top. (14/09/19)
- e) Filler cap to be a positive seal, behind a firewall and inside body. Levers on cam locked caps to be clipped.
- f) Metal fuel tanks over 25 litres must be baffled. All joints are to be welded to a professional standard. Fuel tanks are to be constructed of min. 1.0mm steel or 3.0mm aluminium alloy.
- g) Competition type “plastic” tank permitted. The use of an approved type fuel cell and receptacle is recommended.
- h) All fuel tanks are to be constructed with pick-up fittings etc. coming from the top, bottom or side of tank.
- i) If pump is placed in an existing tank, then low outlets are to be blanked off and outlet moved to the top.
- j) A flexible fuel line section must be fitted within 75mm of fuel tank and all fuel lines to be securely fixed in position.
- k) Barbed fittings of the correct size must be used in conjunction with screw type clamps when connecting flexible fuel line. (Genuine SAE R6 fittings and hose exempted).
- l) Neoprene, reinforced plastic or black fuel line may be used. OEM type Bundy steel tubing may be used through the car or under the car. Flexible fuel lines can pass through cabin area. Bulkhead type fittings may be used where flexible fuel lines pass through front and rear firewalls as an alternative to grommets and are highly recommended. Refer to Image (01/07/2020)
- m) High pressure lines are to use high pressure hose and fittings.
- n) **Carburettor cars only** — the fuel line to the engine MUST be fitted with a quick action NON-LEAK fuel tap or valve in working order. The fuel tap, actuator or switch is to be mounted within easy reach of driver and crash crew, and clearly marked “FUEL” and the positions ON/OFF. Solenoid valves or remote mounted fuel taps are permitted.
- o) If a return line is used, it must be fitted with a one-way valve. A fuel pressure regulator will suffice as a One-Way Valve. (01/07/16)
- p) Only passenger car fuel pumps are permitted. Electric fuel pumps must be wired with an independent earth. The pump MUST be controlled by the battery isolator switch and using an engine monitoring relay.
- q) Fuel lines passing through cabin area are to be secured and isolated from electrical wiring and be positioned in such a manner so as potential damage is avoided. (01/07/2020)
- r) Tank/s to be securely mounted in the boot area of the car, and be mounted on suitable bar work or on a frame mounted directly to the bar work. A minimum clearance of 150mm forward of the lower end of the boot panel and 300mm minimum from side of tank to be maintained around the tank, and isolated from



driver by a 0.9mm minimum firewall. Fuel tank not be mounted using brackets welded to tank or cell. Straps to be minimum 25x3mm FMS. (01/07/19)

- s) Swirl pot or surge tank as part of fuel system permitted
 - (i) Must be mounted to substantial bar work, or securely mounted to body, forward of tank or cell.
 - (ii) Must be included within fuel tank protection requirements. (01/07/17)
 - (iii) Swirl pot or surge tank is not to exceed 2.5 litres in capacity. (01/10/17)
 - (iv) One singular low pressure lift pump to supply swirl pot, external or tank or cell internal is permitted. (16/09/18)
- t) Tank to be protected by substantial bar work on all sides.
- u) Fuel tank protection: Bar must be constructed of minimum 38x3mm CHS or 40x40x3mm RHS with 25x3mm CHS OD MINIMUM angled brace bars to be fitted on each side and be 25mm clear all around tank and filter, projecting a line from the rear wheel centre to the bar. (01/07/18 and 24/11/18)
- v) Underslung fuel tank is a fuel tank that is below bumper or chassis rails and therefore must have a fuel tank protector bar fitted.
- w) Bar is to prevent side entry to tank by nose of another vehicle. Protector must be 25mm lower than an underslung tank and mounted as per Fig.12 (Brace bars do not constitute Bumper mountings.)
- x) Non underslung fuel tank is a fuel tank that has some portion above the bumper tube or chassis tube and therefore is to have a fuel tank protector bar fitted. Protector bar must be 25mm higher than a non-underslung tank and mounted as mirror of Fig 12. (Brace bars do not constitute Bumper mountings.)
- y) The corners of the fuel tank protection bar are to be radius corners. No straight side pipes for jacking to extend.
- z) Tank vents to be fitted with an anti-spill device. An earth strap is to be fitted between the plastic fuel filler neck to rollcage or body as an earth to prevent buildup of static electricity.

Fig. 12



18.TABLES

TABLE 1. LIST OF APPROVED/ACCEPTED MAKES/MODELS – if the car you are interested in is not listed here you must make application for inclusion – prior to commencing to build – your car may not be automatically accepted. [Click Here](#)

AMC	CHRYSLER/MITSUBISHI
Rambler Hornet 71	Sigma GE/GH
	Sigma GJ/GN 82-87
BMW	Centura KB/KC
E46 00-06 33ci 2000-2006	Charger
	Valiant CL
DAIHATSU	Valiant VG
Charade G100 87-93	Magna TH-TJ
Charade G102 87-93	DB 380 2005-08
Charade G200 93-96-00	
	FORD
HONDA	Cortina TD-TE-TF
Civic EK MY1996	Falcon XD-XE-XF
	Falcon EA-EB-ED-EF-EL-AU-BA-BF-FG-FGX
HYUNDAI	Telstar AX 92-96
Excel X3 1995-97	
	HOLDEN
NISSAN	Commodore VB-VK-VL
Skyline R31	Commodore VN-VP-VR-VS-VT-VY-VZ-VE-VF
	Monaro V6
TOYOTA	Statesman VS
Celica 82 onwards	Torana LH-LX-LJ-UC
Celica TA22	

TABLE 2. ENGINE LIST FOR VEHICLE MODEL

MODEL	STANDARD BORE	STROKE	ENGINE
HOLDEN			
UC, LH-LX Torana	3.625 (92.075mm)	3.25 (82.55mm)	202 in-line 6
VB-VK Commodore	3.625 (92.075mm)	3.25 (82.55mm)	202(later3300)
VL Commodore	3.3858 (86mm)	3.3465 (85mm)	NISSRB30 OHC6
VN Commodore	3.8 (96.507mm)	3.4 (86mm)	3800 V6
VP-VR-VS Commodore	3.8 (96.507mm)	3.4 (86mm)	3800 V6
VT-VX-VY Commodore	3.8 (96.507mm)	3.4 (86mm)	3800 V6
VS Statesman (01/07/19)	3.8 (96.507mm)	3.4 (86mm)	V6 Ecotec
Monaro (V6)			

Note: VZ Commodore onwards only to use up to VY Ecotec engine – refer to Section 4

MODEL	STANDARD BORE	STROKE	ENGINE
FORD			
TD-TE-TF Cortina	3.6811 (93.5mm)	3.9093 (99.3mm)	4.1 L in-line 6
XD-XE-XF Falcon	3.6811 (93.5mm)	3.9093 (99.3mm)	4.1 L in-line 6
EA Falcon	91.86mm	79.4mm	3.2L OHC 6
EA Falcon	91.86mm	99.31 mm	3.9L OHC 6
EB-ED-EF-EL Falcon	3.63 (92.25mm)	3.90 (99.31mm)	4.0L OHC 6
AU Falcon	3.63 (92.25mm)	3.90 (99.31mm)	4.0L OHC 6
Ford Telstar	84.5mm	74.2mm	KL 2.5L OHC V6

Note: BA Falcon onwards only to use up to AU Engine – refer to Section 4



MODEL	STANDARD BORE	STROKE	ENGINE
CHRYSLER-MITSUBISHI			
Centura	3.76 (89.4mm)	3.68 (93.5mm)	245 Hemi in-line 6
Charger	3.91 (95.5mm)	3.68 (93.5mm)	265 Hemi in-line 6
VG Valiant 1970 (01/07/18)	3.91"	3.68"	Hemi 245 Inline 6
Sigma	9 1.1 mm	98.0mm	2.6L Astron II
Magna TJ	93mm	85.8mm	6G74 24valve 3.5l V6
Magna TH	91.1mm	76mm	6G72 24valve 3.0l V6
Mitsubishi DB 380 2005-08 (01/07/18)	95mm	90mm	6G75 SOHC V6 Transversely mounted

MODEL	STANDARD BORE	STROKE	ENGINE
NISSAN			
Skyline R31	3.3858	3.3464	RB30E

MODEL	STANDARD BORE	STROKE	ENGINE
DAIHATSU			
Charade G100 1987-1993 (14/09/19)	76mm	73mm	993cc/3 Cyld Carburetted
Charade 1295cc 87-96 (G102) Non-Turbo	76mm	71.4mm	1295cc EFI
Charade 1495cc 96-00 G203 (01/07/19)	76mm	82.6mm	1495cc EFI

MODEL	STANDARD BORE	STROKE	ENGINE
BMW (16/09/18)			
E46 – 2000-2006 330ci (16/09/18)	84mm	75mm	M20B25

MODEL	STANDARD BORE	STROKE	ENGINE
AMC			
Rambler Hornet – 7001 – 1971 (01/07/18)	95.25mm or 95.25mm	88.9mm or 99.21mm	232 Jeep Engine or 258 Jeep Engine

MODEL	STANDARD BORE	STROKE	ENGINE
HONDA			
Civic EK MY1996 (01/07/2020)	75mm	90mm	D16Y4 1.6 litre SOHC 16V EFI

MODEL	STANDARD BORE	STROKE	ENGINE
HYUNDAI			
Excel X3 1997 (01/07/2020)	75.5mm	83.5mm	1500 SOHC 4GEK

TABLE 3. CARBURETTOR LIST

Carburetted Cars

MODEL OF CAR	CARBURETTOR PERMITTED
Torana (except HB) mcl 3.3 "Red"	Single Throat Stromberg
Commodore mcl 3.3 "Red"	Single Throat Stromberg
Commodore 3.3 "Blue" Engine	Varijet 11
Monaro	
Cortina TD-TE-TF CROSS FLOW	Single Throat Stromberg
Falcon XD CROSS FLOW	Single Throat Stromberg
Falcon XE 3.3 or 4.1	Weber 34ADM
Centura All models all "Hemi" engines	Dual throat Carter Email.
VG Valiant 1970	OEM 2BBL Carter Email



Sigma All engines	Solex Down Draught 2BBL
Toyota all engines	Aisan Down Draught 2BBL
AMC Rambler Hornet 7001 – 1971	OEM 2BBL Carter Email
Charade G100 1987-1993 (14/09/19)	Twin Barrel Downdraught

NOTE: All cars fitted OEM with single carburettor may use “Holley 350 CFM 2BBL on original manifold or an OEM manifold option for the engine, not a sports option. Carburettor cars are only permitted to use Holley 350 CFM 2BBL Carburettor, copies are not permitted E.g. Demon.

The original carburettor bolt pattern and position must be used and, if required, an adaptor plate maximum 25mm thick may be used.

All Holley 350 CFM 2BBL Carburettor – Maximum Venturi internal diameter or 30.56mm.

Venturi will be checked using a GO/NOGO gauge. Venturi's are to be symmetrical and be affixed in position.

TABLE 4. THROTTLE BODY

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
HOLDEN		
VK Commodore	68mm	65mm
VL Commodore	64mm	54mm
VN Commodore	72mm	60mm
VP Commodore	72mm	60mm
VR Commodore	72mm	60mm
VS-VY Commodore	72mm	64mm
VS Statesman (01/07/19)	72mm	64mm
Monaro	72mm	64mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
FORD		
XF Falcon	70mm	64mm
EA Falcon	64mm	64mm
EB Falcon	64mm	64mm
ED Falcon	64mm	64mm
EF Falcon	70mm	64mm
EL Falcon	70mm	64mm
AU Falcon	70mm	64mm
BA Falcon	70mm	64mm
FG Falcon	70mm	64mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
MITSUBISHI		
Magna TJ	66mm	65mm
Magna TH	66mm	65mm
Mitsubishi DB 380 (01/07/18)	69.5mm	67.5mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
NISSAN		
Skyline R31	64mm	54mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
DAIHATSU 16/09/17		
Charade 1295cc 87-96 EFI (G102)		45mm
Charade 1495cc 96-00 EFI (G203) (01/07/19)		50mm



MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
BMW (16/09/18)		
E46 2000-2006 330ci M20B25	63mm	60mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
HONDA (01/07/2020)		
Civic EK MY1996	60mm	56mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
HYUNDAI (01/07/2020)		
Excel X3 1997		41mm

TABLE 5 VALVE SIZES

MAKE	ENGINE	INTAKE VALVE	EXHAUST VALVE SIZE
HOLDEN			
VL Commodore	RB30 3.0 litre	42.10	35.10
VN-VR Commodore	V6 3.8 litre	43.40	37.80
VS Commodore	Ecotec 3.8 litre	45.50	38.50
VS Statesman (01/07/19)	Ecotec 3.8 litre		
VT-VY Commodore	Ecotec 3.8 litre	46.63	38.74

MAKE	ENGINE	INTAKE VALVE	EXHAUST VALVE SIZE
FORD			
EA Falcon	3.9 litre	47.00	39.00
EB-EL Falcon	4.0 litre	47.00	39.00
AU Falcon	4.0 litre	47.00	41.00

MAKE	ENGINE	INTAKE VALVE	EXHAUST VALVE SIZE
NISSAN			
Skyline R31	3.0 litre	42.10	35.10

MAKE	ENGINE	INTAKE VALVE	EXHAUST VALVE SIZE
DAIHATSU 16/09/17			
Charade 1295cc 87-96 EFI (G102)	1.3 litre	30.00mm	33.00mm
Charade 1495cc 96-00 EFI (G203) (01/07/19)	1.5 litre	30.00mm	33.00mm

MAKE	ENGINE	INTAKE VALVE	EXHAUST VALVE SIZE
MITSUBISHI (01/07/18)			
Mitsubishi DB 80 2005-08	V6 6G75	36.5mm x 2	32mm x 2

MAKE	ENGINE	INTAKE VALVE	EXHAUST VALVE SIZE
BMW (16/09/18)			
E46 2000-2006 33ci	M20B25	42mm	36mm

MAKE	ENGINE	INTAKE VALVE	EXHAUST VALVE SIZE
HONDA (01/07/2020)			
Civic EK MY1996 (01/07/2020)	D16Y4 1.6 litre SOHC 16V EFI	30mm	27mm



MAKE	ENGINE	INTAKE VALVE	EXHAUST VALVE SIZE
HYUNDAI (01/07/2020)			
Excel X3 1997 (01/07/2020)	1500 SOHC 4GEK	2 x27.44mm Head 99mm long x 6mm stem	32mm Head 98.3mm long x 6mm stem

TABLE 6. DIMENSIONS

Note:

*Listed measurements for the track includes the 75mm max. allowance and 190mm rim measurement. (Std + 75mm + 190mm) – to accommodate SSA Wheel Track measuring tool.

If using wheel covers, listed track measurements do not include additional cover width. (01/07/17)

**Method of measuring wheelbase shall be; with each front wheel pointing straight ahead. Measure distance from front axle centre to rear axle centre on each side of vehicle. Add dimensions for left and right and divide by 2, allowable tolerance is +/- 1%.

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
HOLDEN		New 01/07/2020	Updated 01/07/17	Updated 01/07/17
LJ Torana	2540	2515 / 2565	1581	1555
LH/LX Torana	2586	2565 / 2617	1665	1637
UC Torana	2586	2565 / 2617	1680	1647
VB-VK Commodore	2668	2641 / 2695	1716	1682
VL Commodore	2668	2641 / 2695	1716	1698
VN Commodore	2731	2704 / 2758	1716	1743
VP Commodore	2731	2704 / 2758	1716	1743
VR-VS Commodore	2731	2704 / 2758	1756	1756
VS Statesman (01/07/19)	2826	2798 / 2854	1831	1831
VT-VY Comm & Monaro	2788	2760 / 2816	1834	1852
VZ Commodore	2789	2761 / 2817	1834	1842
VE Commodore	2915	2886 / 2944	1867	1883
VF Commodore (01/07/18)	2915	2886 / 2944	1867	1883

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
FORD		New 01/07/2020	Updated 01/07/17	Updated 01/07/17
TD Cortina	2578	2552 / 2604	1687	1687
TE Cortina	2578	2552 / 2604	1691	1691
TF Cortina	2578	2552 / 2604	1691	1691
XD-XE Falcon	2818	2790 / 2846	1824	1792
XF Falcon	2829	2801 / 2857	1815	1790
EA Falcon	2794	2766 / 2822	1811	1798
EB-ED Falcon	2794	2766 / 2822	1819	1798
EF-EL Falcon	2791	2763 / 2819	1831	1812
AU Falcon	2793	2765 / 2821	1831	1812
BA-BF Falcon	2829	2801 / 2857	1818	1838
FG/FGX Falcon	2838	2810 / 2866	1848	1863
Telstar AX	2610	2584 / 2636	1765	1765

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
Chrysler-Mitsubishi		New 01/07/2020	Updated 01/07/17	Updated 01/07/17
KB/KC Centura	2667	2640 / 2694	1665	1662
CL Valiant	2819	2791 / 2847	1746	1756
VG Valiant 1970 (01/07/18)	2743	2716 / 2770	1835	1835
GE/GH Sigma	2515	2490 / 2540	1635	1613
GJ/GN Sigma	2530	2695 / 2749	1645	1615



Magna TH-TJ	2722	2695 / 2749	1810	1800
Mitsubishi 380 DB 2005-08 (01/07/18)	2750	2723 / 2777	1760	1760

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
TOYOTA		New 01/07/2020	Updated 01/07/17	Updated 01/07/17
Celica 82 onwards	2500	2475 / 2525	1660	1650
Celica TA22	2425	2401 / 2449	1545	1550

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
NISSAN	Updated 01/07/17	New 01/07/2020	Updated 16/09/18	Updated 16/09/18
Skyline R31	2615	2589 / 2641	1699	1675

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
DAIHATSU	Updated 01/07/17	New 01/07/2020	Updated 16/09/18	Updated 16/09/18
Charade G100 87-93 (14/09/19)	2340	2317 / 2363	1650	1630
Charade G102 87-96	2340	2317 / 2363	1650	1630
Charade G200 93-96-00 (01/07/19)	2395	2371 / 2419	1650	1655

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
BMW (16/09/18)		New 01/07/2020	Updated 01/07/2020	
E46 2000-2006 33ci	2725	2698 / 2752	1736	1748

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
AMC (24/11/18)		New 01/07/2020		
Rambler Hornet 7001 – 1971	2743	2716 / 2770	1724	1713

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
HONDA (01/07/2020)		New 01/07/2020		
Civic EK MY1996	2620	2594 / 2646	1740	1740

MODEL	WHEELBASE STANDARD	**WHEEL BASE MINIMUM/MAXIMUM	*FRONT TRACK MM	*REAR TRACK MM
HYUNDAI (01/07/2020)		New 01/07/2020		
Excel X3 1997 1.5 litre	2400	2376 / 2424	1685	1675

TABLE 7 TYRE SPEED RATINGS

Up to and including V rated tyres are permitted

SPEED SYMBOL	SPEED RATING
S	180 kmh
T	190 kmh
U	200 kmh
H	210 kmh
V	240 kmh



TABLE 8 REPLACEMENT APPROVED PISTONS (01/07/19)

GMH	MAHLE	PH03800L6MMS
	HYPATEC	PH03800L60601H
FORD	MAHLE	PF03986L6MMS

Summary of Updates

12/10/15

Page 17 – Section 7 Cooling System

Page 19 – Section 10 Suspension

01/07/16

Page 2 – Section 1 – Body/Rolling Shell Item i)

Page 5 – Section 2 – Roll Cage – updating AS number

Page 5 – Section 2 – Roll Cage – Item 2 Roof Hoop clarification

Page 14 – Section 4 – Engine – 4.1 r) – correction of typo 0.060

Page 15 – Section 5 – Battery and Electrical System Item d)

Page 17 – Section 7 – Cooling System Item m)

Page 18 – Section 8 – Transmission/Driveline Item a)

Page 18 – Section 8 – Transmission/Driveline Item c)

Page 19 – Section 10 – Suspension Item e)

Page 19 – Section 10 – Suspension Item s)

Page 22 – Section 17 – Fuel Tank and Fuel System Item o)

Page 25 – Section 18 – Tables – addition of Magna TH specifications

Effective 01/10/16

Page 7 – Section 2 – Roll Cage – mounting tabs on anti-spear plates

Page 9 – Section 2 – Roll Cage – mounting tabs on head plates

Effective 01/07/17

Page 1 – Reference changed to www.automobile-catalog.com

Page 2 – Introduction date for VF Commodore – 01/07/18

Page 2 – Section 1 Body/Rolling Shell Item b)

Page 7 – Section 2 Roll Cage - #7 NASCAR Bars

Page 7 – Section 2 Roll Cage - #12 Foot Protection Bar

Page 7 – Section 2 Roll Cage - #18 Dropper Bar

Page 8 – Section 2 Roll Cage – Anti Spear Plates

Page 10 – Section 2 Roll Cage – Head Plate

Page 13 – Section 4 – Engine – attachment of engine sealing ID tags

Page 13 – Section 4 – Engine – Item d) and Item j)

Page 14 – Section 4 – Engine 4.1 – Item d), j), l), q), r)

Page 15 – Section 4 – Engine 4.1 – Item s), t)

Page 19 – Section 10 – Suspension - Front Castor Bar mounting point

Page 21 – Section 13 – Wheels – Item f)

Page 22 – Section 14 – Tyres – Item c), f)

Page 24 – Section 17 – Fuel Tank and Fuel System – Item s)

Page 27 – Table 5 – Dimensions – updated

Effective 16/09/17

Cover – update of logo, addition of Version and Issue Date

Page 3 – Section 1 Body/Rolling Shell - #h) (iii) – Rear quarter panels

Page 7 – Section 2 – Roll Cage - #12 – Foot Protection Bar

Page 13 – Section 4 – Engine – Engines sealed for a lower division

Page 14 – Section 4.1 – Engine EFI – d) Size of Throttle Body

Page 14 – Section 4.1 – Engine EFI – l) – Sensors reworded

Page 22 – Section 13 – Wheels – updated rim drawing

Page 25 – Section 18 – Tables – inclusion of Daihatsu Charade

Effective 01/10/17

Page 24 – Section 17 – Fuel Tank and Fuel System – Item s) (iii) – maximum size swirl pot

Effective 01/11/17

Page 15 – Section 4.1 – Engine EFI – u) MLS Head Gaskets permitted



Effective 01/07/18

Page 2 – Section 1 – Body/Rolling Shell – updated panel info to include VF Commodore
Page 3 – Section 1 – Body/Rolling Shell – h) – rear quarter panel cut to be measured at ride height
Page 10 – Section 2 – Roll Cage – Ballast section replaced
Page 13 – Section 4 – Engine – section replaced
Page 21 – Section 8 – Transmission/Driveline – a) b) c) d) replaced
Page 22 – Section 10 – Suspension – section replaced
Page 31 – Section 16 – Fuel – section replaced
Page 32 – Section 17 – Fuel Tank and Fuel System – v) addition of fuel tank protection brace bars
Page 33 – Section 18 – Tables – inclusion of VF Commodore, VG Valiant and Mitsubishi DB 380

Effective 16/09/18

Page 8 – Windscreen Mesh – added – ‘mild steel’
Page 10 – Ballast – included minimum and maximum size of 5mm plate
Page 15 – Section 4 - Engine - 4.1B – Item g) and h) – update wording on fuel pump
Page 16 – Section 4 - Engine – 4.1C – Item s) – update wording on Lifter Retention
Page 19 – Section 5 – Item c) wording update and Item d) new item – 8mm bolts or rods
Page 32 – Section 17 – Fuel – Item s) – update wording on fuel pump supply to swirl pot
Page 33 – Section 18 - Tables – inclusion of BMW E46
Page 36 – Table 5 – Dimensions – updated Nissan Skyline R31

Effective 24/11/18

Page 2 – Section 1 – Body Rolling Shell – Item a) addition of wording - If it is not specifically listed in the items that can be removed then it must be in place.
Page 5 – Section 1 – Body Rolling Shell – Item r) addition of wording - The use of Dzus clips on bonnets or boot lids is not acceptable. Exception being hatchbacks with a permanently fixed hatch panel.
Page 10 – Fig 3a – Alternate Roll Cage Design
Page 33 – Section 17 – Fuel – Item v) – brace bars to be fitted on each side of the fuel tank
Page 34 – Section 18 – Tables – inclusion of AMC Rambler Hornet 7001

Effective 01/07/19

Page 1 – Index – inclusion of Roll Cage Material and Design Option listing
Page 2 – Section 1 – Body/Rolling Shell – section completely rewritten
Page 8 – Section 1 – Fig 2 Front Engine Bay Area - reconfigured
Page 8 - Section 2 – Roll Cage Material and Design Option
Page 6 - Section 2a – change to reference number
Page 18 – Section 4 Engine – 4.1C n) lock nut permitted
Page 19 – Section 4 Engine – 4.1D
e) Piston pin height
f) Approved OEM replacement piston
h) Forged and high-pressure pistons
Page 21 – Section 5 – Battery and Electrical – i) Kill switch to be lever type
Page 24 – Section 8 – Transmission/Driveline – d) OEM interchangeable diffs permitted if OEM
Page 24 – Section 8 – Transmission/Driveline – k) – change to mounting of tail shaft loops
Page 30 – Section 10 – Suspension – IRS Rear Axle – b) updated wording
Page 35 – Section 17 – Fuel Tank and Fuel System – r) change to wording on fuel tank mounting method
Page 36 – Section 18 – Tables – Table 7 – new table – Approved Replacement Piston numbers
Page 36 – Section 18 – Tables – inclusion of G203 Charade and VS Statesman

Effective 14/09/19

Page 14 – Section 3 – Bumper Bars & Opt External Bar work – Rear of bumper tube is determined as the inner side of the bumper tube – front and rear.
Page 34 – Section 17 – Fuel Tank and Fuel System – Item d) – additional wording – tanks not separated from the driver by an OEM firewall must be fully enclosed – including bottom, sides and top.
Page 36 – Section 18 – Tables – inclusion of G100 3 Cyld Charade 1987 - 1993

Effective 01/07/2020

Page 2 – updated illegal to non-compliant
Page 2 – inclusion of Ford FGX
Page 8 – List of items covered in Class Technical Manual and link to website
Page 12 – Head Plate – updated layout including updated wording for helmet clearance



Page 15 – Section 3 – Bumper Bars & Optional External Bar work – g) Rub Rails - whole section reworded with new drawings
Page 16 – Section 3 – Bumper Bars & Optional External Bar work – j) Towing Straps Optional – updated wording
Page 23 – Section 7 – Cooling – e) f) m) updated wording on radiator tank covering and hoses and covering water pumps
Page 24 – Section 8 – Transmission/Driveline – k) – updated wording
Page 32 – Section 14 – Tyres – whole section rewritten
Page 33 – Section 17 – Fuel Tank and Fuel System – l) updated fuel hoses permitted q) updated wording for hoses passing through the cabin area
Page 36 – Section 18 – Tables renumbered to accommodate a new table – Table 1 List of Approved/Accepted Makes/Models for class
Page 40 - Table 6 – Dimensions – now include minimum/maximum Wheelbase

