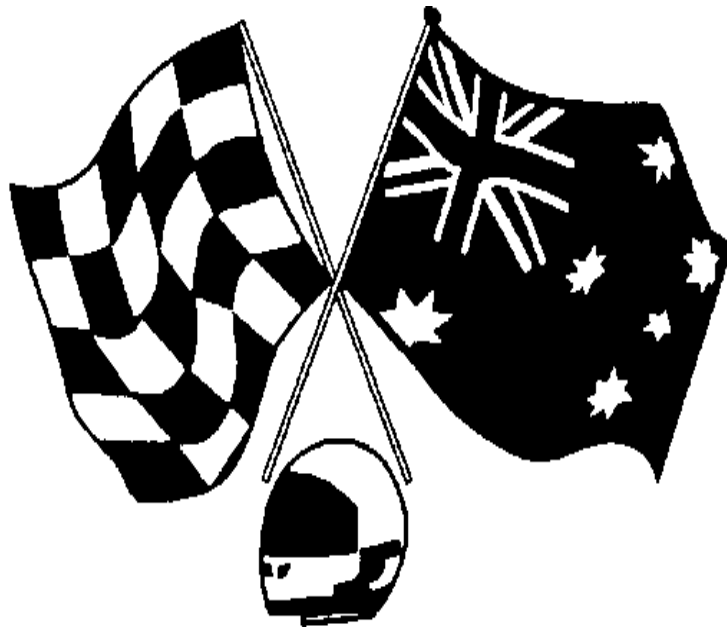


**SPEEDWAY SEDANS AUSTRALIA INC**

# **STREET STOCK SPECIFICATION MANUAL**

---

Rules and Regulations



**ASCF SPEEDWAY SEDANS  
AUSTRALIA INC.**

**ABN 14 329 758 680**

Speedway Sedans Australia Inc  
P.O. Box 163  
HOLDEN HILL SA 5088

Enquiries to State Technical Representative or  
Email: [technical@speedwaysedans.com](mailto:technical@speedwaysedans.com)

Website – [www.speedwaysedans.com](http://www.speedwaysedans.com)

The content of this manual is to be read in conjunction with the SSA Mono Specifications Manual available as a separate download.

# CLASS SPECIFICATION: STREET STOCK

## TABLE OF CONTENTS

	<b>CLASS CRITERIA</b> .....	3
	<b>DIRECTION OF RACING</b> .....	3
	<b>STREET STOCK DERIVATION</b> .....	3
1.	<b>BODY/ROLLING SHELL</b> .....	4
	Non Original Body Firewall.....	5
	Presentation.....	5
2.	<b>ROLL CAGE</b> .....	5
	Cage Diagrams.....	8
	Head Plate.....	9
3.	<b>BUMPER BARS &amp; OPTIONAL EXTERNAL BARWORK</b> .....	10
	Rub Rails.....	11
4.	<b>ENGINE</b> .....	12
	4.1 Electronic Fuel Injection.....	13
	4.2 Carburettor.....	15
5.	<b>BATTERY AND ELECTRICAL SYSTEM</b> .....	15
	Battery Clamp/Hold Down Frame.....	16
6.	<b>EXHAUST SYSTEM</b> .....	16
7.	<b>COOLING SYSTEM</b> .....	17
8.	<b>TRANSMISSION/DRIVELINE</b> .....	18
9.	<b>STEERING</b> .....	18
10.	<b>SUSPENSION</b> .....	19
11.	<b>WHEEL TRACK</b> .....	19
12.	<b>WHEELBASE</b> .....	20
13.	<b>WHEELS</b> .....	20
14.	<b>TYRES</b> .....	20
15.	<b>BRAKES</b> .....	21
16.	<b>FUEL</b> .....	21
17.	<b>FUEL TANK AND FUEL SYSTEM</b> .....	21
18.	<b>TABLES</b> .....	22
	TABLE 1 Engine List.....	22
	TABLE 2 Bore & Stroke.....	23
	TABLE 3 Valve Sizes.....	23
	TABLE 4 Carburettor List.....	24
	TABLE 5 Throttle Bodies.....	24
	TABLE 6 Computer and Injector List.....	25
	TABLE 7 Standard Dimensions.....	26
	TABLE 8 Tyre Ratings.....	27

PLEASE NOTE: Where possible the data in the Specification Manual has been taken from [www.automobile-catalog.com](http://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](http://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)

© All rights reserved. Reproduction or translation of this Manual, in whole or part is not permitted without written authorization from Speedway Sedans Australia Inc.

# SPEEDWAY SEDANS AUSTRALIA INC. SPECIFICATIONS

## Street Stock CLASS SPECIFICATION

The content of this manual is to be read in conjunction with the SSA Class Technical Manual available as a separate download.

**Note** – All new and existing cars must comply with all specifications as detailed. If “IT” is not in the book, it will be considered illegal 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. (01/07/17)

Prior to constructing cars of an unusual or unconventional design, or one 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 may apply. (01/07/17)

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)

### CLASS CRITERIA

- a) A **Street Stock** class 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 authorized Dealer sales and service networks throughout Australia. All new Street Stocks built from March 2014 to be four door sedans and not sports models.
- b) “Base model” body is used for silhouette and measurements. Forced induction models not permitted in that form.
- c) Four wheel drive and/or four wheel steer models not permitted.
- d) Passengers optional, but all bar work to be mirrored from right hand side. Passengers must face forward.

### DIRECTION OF RACING

The direction of racing will be directed with the toss of a coin prior to each race, heads anticlockwise and tails clockwise from the pit gate.

### STREET STOCK DERIVATION

- a) Race Car - To be of the base model of a series, as deemed by the manufacturer.
- b) **Basic Specifications of Car:** Four or Six cylinder only. Forced induction models not permitted in that form. Four wheel drive, all wheel drive and/or four wheel steer models not permitted.
- c) Age limit on Street Stock Eligibility – 5 years. For 2015 – competitor can only build up to 2010 model car. **The use of a VF Commodore is not allowed until 1<sup>st</sup> July 2018.** (01/07/17)
- d) O.E.M. Original Equipment Manufacturer – means for make and model unless otherwise stated.

## 1. BODY/ROLLING SHELL

- a) Mono-construction sedan, coupe or hatchback vehicle only. Full chassis cars or convertibles not permitted.
- b) Parts to be removed: All glass, interior trims, grille, door handles and ornamentation, Bull bar, tow-bar and helper springs. (Glass apertures must not be covered with fibreglass or other material).
- c) The only panels which may be replaced with fiberglass / aluminum / alucobest / metal / plastic replica: - max. 2mm. thick, are doors, bonnet, boot, front guards, nose, head and tail light apertures. If original roof is damaged, fibreglass overlay may be used over existing damaged roof. Under panel reinforcement plate not permitted. Replacement panels must be securely fastened, self drilling (TEK) screws not to be used.
- d) If replica panels used: - To assist with the fitting of door panels, maximum of 25x25x3mm RHS, may be welded at window sill height from A to C pillars.
- e) To assist with appearance of cars, the rear quarter panels may be COVERED with fiberglass replica panels securely attached to the steel panel. Self drilling (TEK) screws etc. or self tapping screws are not to be used. The inner boot skin side vertical panel may be removed.
- f) The door pillars may be notched for bar-work but otherwise must remain intact.
- g) Doors to be securely bolted or welded.
- h) Only interior parts which may be removed:
  - Dash Panel - to assist with the roll cage installation. Replacement dash panel is not permitted to continue past the forward most point of the steering wheel across the width of the car. No extra decking or internal sheeting permitted in cabin.
  - Roof bracing may only be removed where it interferes with roll cage bar work.
  - Floor brackets including seat mounts within the cabin area. (12/10/15)
  - If the rear radiator mounts against the rear firewall, the core area of the rear firewall may be removed.
- i) Removal of OEM wheel well is not permitted, must have a 300x300mm hole cut in the bottom of wheel well close to the fuel tank to drain spilt fuel. If wheel well is not close to fuel tank or if OEM body has no wheel well, hole is to be cut in boot floor.
- j) Rear View mirror - not permitted
- k) Ballast of any description is not to be carried, e.g. Water in tyres etc.
- l) Grille - If grille is fabricated it must be of a steel welded wire mesh, no thicker than 5mm diameter x 25mm minimum aperture or panel steel, 1.6mm maximum. Folded sections, for strength, are not permitted.
- m) Light apertures must be filled using max. 1.6mm metal sheet, fibreglass or plastic
- n) Wheel arches - may be cut out to give a maximum of 50mm clearance around tyres. The inner and the outer panels of the wheel arch are to be re-welded.
- o) Bonnet - Bonnet to be securely fastened.
  - Four bonnet pins (five for fibreglass) to be 12mm minimum to 15mm maximum mild steel or approved equivalent.
  - Bonnet pins to be in the bonnet not sides of mudguards. No mounting pins in side of panels, i.e., mudguards.
  - Bonnet lock pins 3mm min to 6mm max. Heavy duty large reinforcing washers, (min 30mm O.D.) to be fitted to all bonnet pin holes on fibreglass bonnet.
  - Similarly, boot lid to be securely fitted, using pins and large washers as for bonnet. The removable boot lid to be securely mounted in four points.
- p) Hinged bonnet and boot lid permitted, using minimum of two pins. Skeletonising not permitted on hinged panels within 50mm of hinges. The hinged panel is to be welded to the bonnet or boot skin.

- q) Front and rear lifting points are Mandatory. Suggested lifting point for the front be under the bonnet on the "k" frame and the rear inside the boot.
- r) Plastic radiator support panel to be removed and maybe replaced with 1.6mm maximum panel steel, all steel components of radiator support panel to remain.

## NON ORIGINAL BODY FIREWALLS:

The driver must be protected and isolated from mechanical, fuel, electrical and exhaust components by metal fire-walls, min. 0.9mm. thick.

## PRESENTATION:

All Bodywork, including any subsequent repair of race day damage, shall be to a tradesman-like standard and must permit the vehicle to be presented in as near to original condition as possible.

Paintwork and Sign writing: All paintwork, sign writing and numbers to be neat, attractive and of professional standard.

- All vehicles must carry the identification number, as issued by their club. This number may be displayed on each side of car and on the roof, Club prefix, if required, to precede number. Identification number is to be visible from front of car (for pit Marshall).
- The name of the driver will appear on the roof over RH door or on visor strip, in letters of a minimum of 75mm high.

## 2. ROLL CAGE

*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 22<sup>nd</sup> August 2014 the front leg will be no further than 250mm behind, and 50mm inwards of the OEM door opening at points A & C of Fig 3 (i).

**Cars previously registered** prior to the 22<sup>nd</sup> August 2014 will fully comply with the relevant Specification Book, with that being the last printed version of the Street Stock Class Specification Book.

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 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 1<sup>st</sup> 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 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 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. 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. Rearward brace bars are to be no closer to the rear boot panel than 300mm, and may have one spreader bar as long as it is of pipe material. Rearward brace bars may be bolted together within 200mm of roll cage hoop. Bumper support bars may be bolted within 200mm of roll cage spreader bar. (17/08/15) (01/07/16)
12. **Foot Protection Bar:** Foot protection bar 38x3mm CHS, shall be required if any part of the driver's feet or legs, are in front of the front leg ( bar 3 ) whilst the driver is seated in the car in race position. 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. If the front leg is more than 100mm behind the OEM door opening, a plate of 3mm steel or 5mm

alloy, must be fitted to the foot protection bar hole and be completely filled. The foot protection bar must mount to the front leg/A pillar bar no lower than 300mm from the roll cage base. (01/07/17)

13. **Sub Frame:** Roll cage legs shall be welded to the top of a sub-frame of 38x3mm CHS, 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.

- Maximum effective mesh size 50mm x 50 mm. Mesh gauge 3mm.
- Windscreen mesh to be welded, or clamped with metal clamps to the roll cage "A" pillar and centre windscreen bar.
- Minimum of four clamps.
- Mono cars may be welded to body.

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

- 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)
- 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.
- 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 5/16<sup>th</sup> high tensile bolts with no protrusions. 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 5/16<sup>th</sup> high tensile bolts to each piece with no protrusions.
- 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.

Fig. 3 (i) Typical Roll Cage

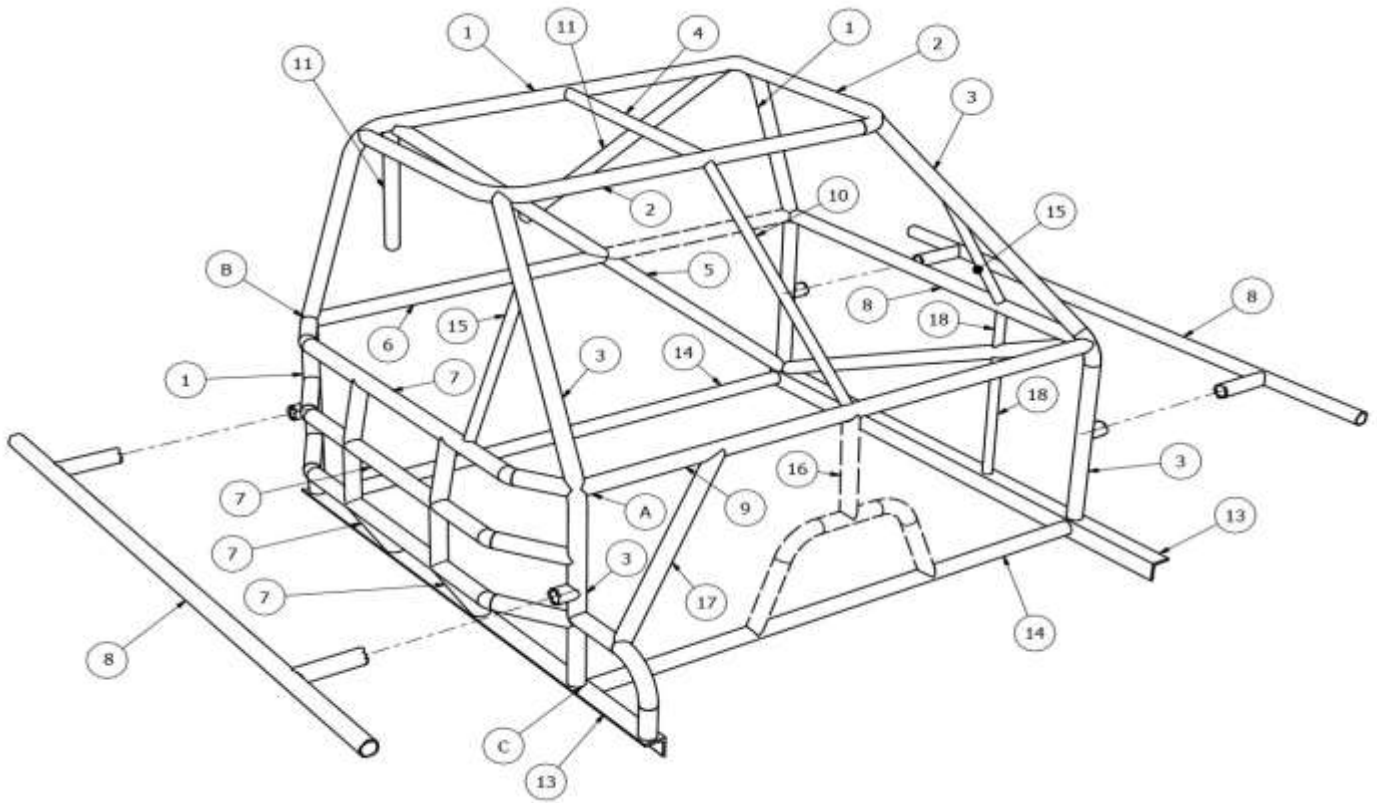


Fig.3 (ii)

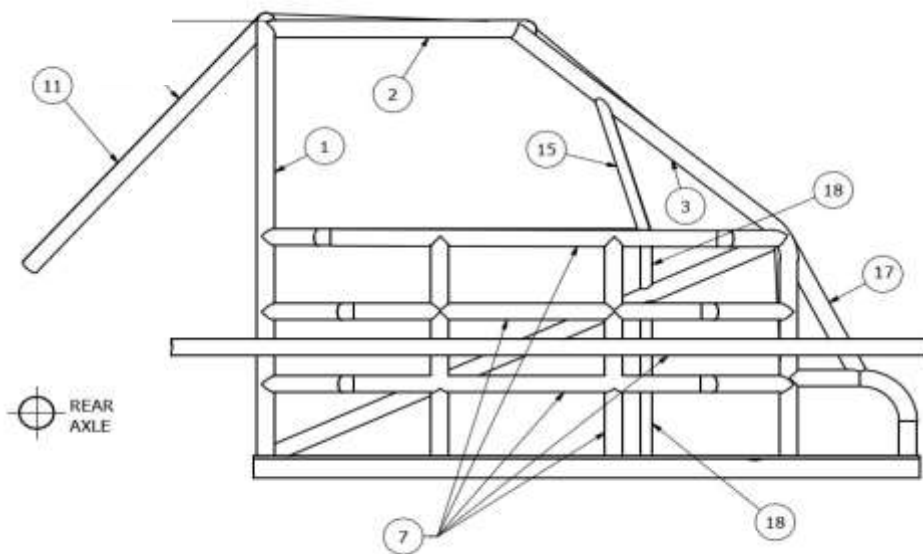




Fig. 3 (iii)

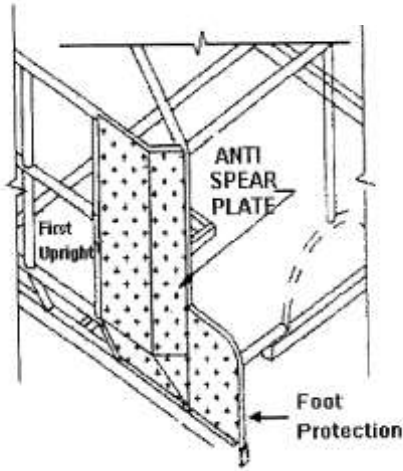
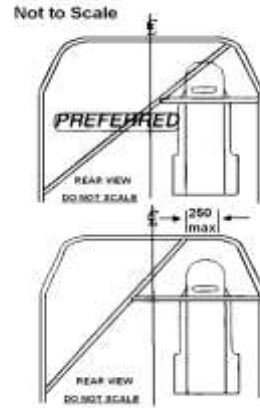


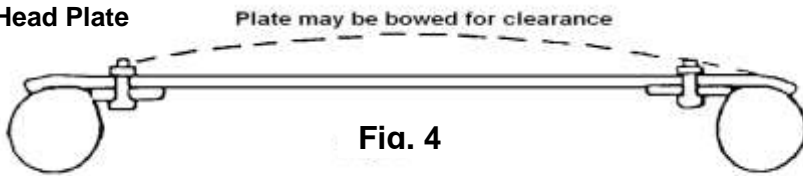
Fig. 3 (iv)



**HEAD PLATE:**

- Head plate to be of 5mm ALUMINIUM ALLOY or 3mm STEEL. 25x3mm FMS strip 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. To simplify the removal of an injured driver it is highly recommended that a removable full size head plate be used: Fig. 4. (01/07/17)
- Plates/tags to be solid square or rectangular with one only hole for the mounting bolt. (01/10/16)

Fig. 4 Head Plate

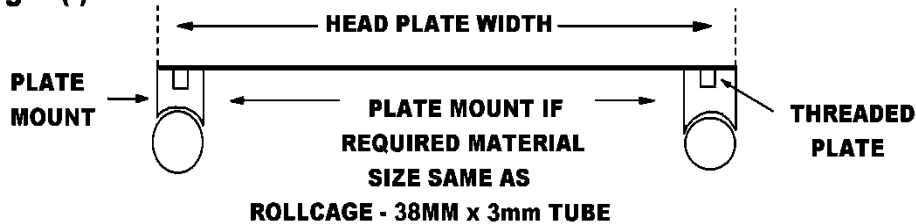


**ALTERNATIVELY**

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 between roll cage roof/hoop bars for existing vehicles, may raise head plate as per drawing below, to obtain 50mm clearance. A minimum of 50mm clearance is required between the helmet and any part of the roll cage and head plate when driver is seated.

Fig. 4(i)

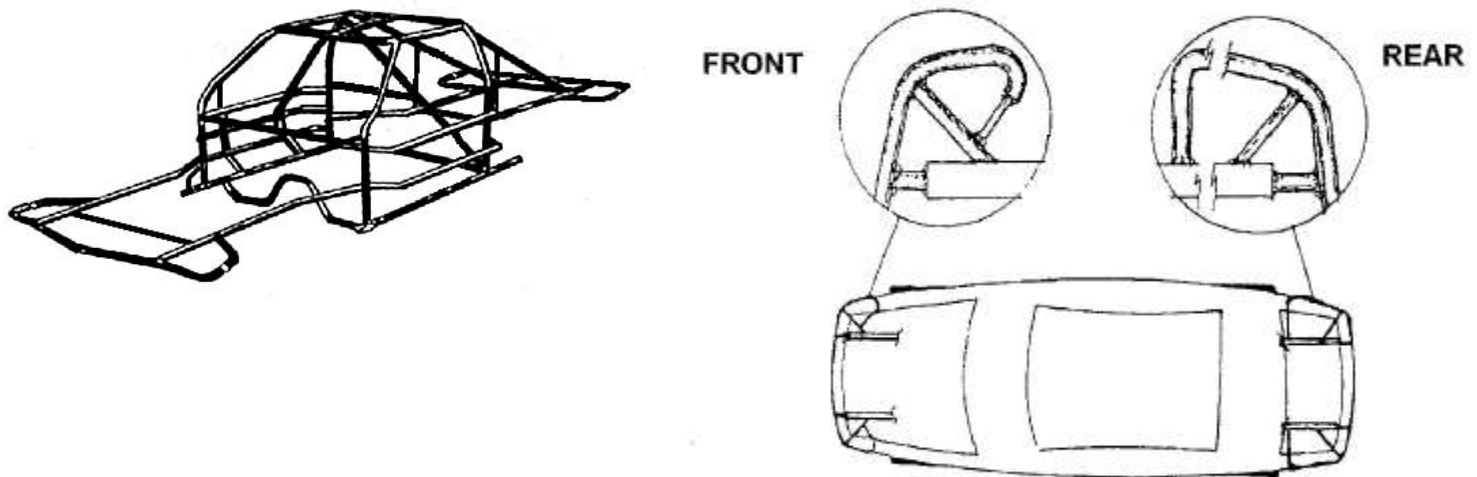


Mounting procedure for raising of head plate (existing cars). 10 stubs 38x3mm CHS – stub length is determined by height required to gain 50mm clearance.  
Stubs to be end capped and threaded for mounting purposes.

### 3. BUMPER BARS & OPTIONAL EXTERNAL BARWORK:

OEM steel or plastic bumper bar must be used.

Fig. 5



- a) Where an original type bumper is not available a bumper of a similar profile and weight must be used. Original front and rear bumpers to be attached to sub frame using original mounting brackets if pipe bumper not used.
- b) All bumpers may have a pipe bumper max 38x3mm CHS to be securely mounted to original mounts or chassis rail or back to roll cage using supports of a minimum 100mm from the rear of the bumper tube.
  - The maximum support size 38x3mm CHS, 40x40x3mm RHS or 50x25x3mm RHS.
  - One bumper support bar per side allowed. Gussets are not to be used.
  - Bumpers are to remain hollow.
  - Corners and ends of front and rear bumpers to be radius formed 100mm maximum.
  - A maximum of four mounting points on each bumper.
  - Returns and bumpers to be flush fitting with the body within 25mm.
  - Anti hookup bars from returns of front and rear bumpers to be extended to chassis rails.
  - Corner plates on top edges of either bumper not permitted.
  - Bumper to be returned to chassis and bolted or welded to side of chassis rail using a maximum 250x3mm flat plate.
  - Front and rear pipe bumper to be covered with a plastic road car bumper. Plastic bumpers to be attached using cup head bolts. 40x3mm flat aluminum may also be used..
  - Removing the lower section of the rear plastic bumper is only permitted to the top of the exhaust cut out. Sides of plastic bumper and top of exhaust cut out to remain intact. Non OEM bumper skirts not permitted.

#### FRONT PIPE BUMPER

- c) The only bar work permitted forward of the roll cage above the lower windscreen bar are bumper support bars (one bar per side). If used they are not permitted to connect to or in any way brace the strut towers. Front bumper minimum return 100mm, maximum 300mm. Front spreader bar between bumper bar support bars permitted as per figure 5 (i).

## REAR PIPE BUMPER

- d) Returns of rear bumper may extend as a skid rail against the outside of the body between the bumper and the wheel arch and then extend inwards to the chassis rail. If bumper support bars are attached to the roll cage, rearward brace bars may attach to these.

## FRONT STRUT TOWER BRACE

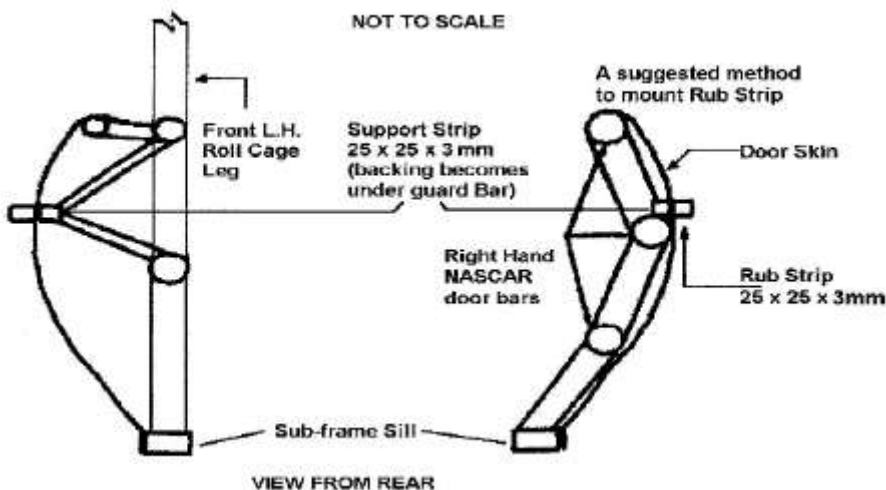
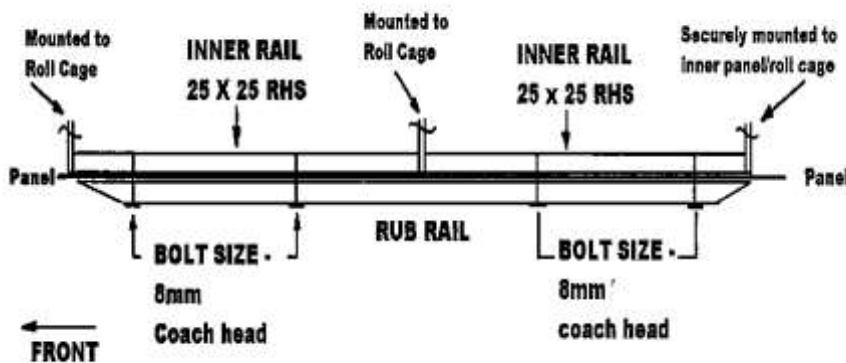
- e) The front strut towers maybe braced back to lower windscreen bar using one bar per tower. Brace bar may extend forward down to chassis rails or lower optional bar work. 34x3mm CHS maximum, then with a 100x100x3mm FMS plate welded to tower for support.
- f) All bar work must be entirely inside the OEM glassed area of the cabin or under body panels.

## RUB RAILS

- g) Mild steel rubbing strip between wheel arches to be 25x25x3mm RHS or alternately, nylon (Urethane, nolathane) 50x12mm thick. Be securely mounted against body at a minimum of four points.
- Bolts must be minimum of 8mm coach-head (cup head) bolts and be bolted horizontally to bar work.
  - Bolts at each end must be no more than 50mm from the end of rub rail.
  - Inner mounting bar, 25x25x3mm, to be returned to roll cage / bar work at each end. (01/07/17)
  - Rubbing rail ends to be closed and taper to 45 degrees as not to become a "spear". Fig 6.
  - Rub strips not to be used on quarter panel behind rear wheel.
  - Rub rail mounting bolts to be evenly spaced with a minimum of 4 bolts.

### Rub Strip Mounting

Fig 6 (i)



## 4. ENGINE AND AUXILIARY EQUIPMENT

### ENGINE SEALING IS COMPULSORY

- All Engines must have a number/s or letter/s stamped on the block E.g. 3 x engines, 3 different engine numbers.
  - SSA use triplicate copy engine sealing books that are numbered, top copy (white) to car/engine owner, 2<sup>nd</sup> copy (blue) to state office, 3<sup>rd</sup> copy (green) to remain in book.
  - The car owner/driver is to have copy of engine sealing and daylight forms with logbook at all times.
  - Engine identification tag is to be RED.
  - Seals to be fitted: 1 x sump, 1 x timing cover, 1 x cylinder head, 1 x each cylinder head on EFI engines.
  - **Engine ID tag to be attached to timing cover seal using wire looped through engine seal. (01/07/17)**
  - ECU must be sealed and the completed sealing form is to be kept with the Log Book at all times. See below in 4.1.1 a) for the process. (01/07/16)
- a) In the engine bay one should see the basic items as in the road car, e.g. ignition, coil and distributor, air cleaner, and charging system, all in use on the engine. The use of MSD coils is not allowed. V6 Commodore must run a standard coil or standard replacement, not a performance coil.
- b) ENGINE to be FOUR or SIX cylinder reciprocating ONLY. Rotary, turbo or supercharged engines are not permitted. Mechanical fuel Injection systems are not permitted.
- c) Late Model Cars may fit earlier engine or engine for model
- E.g. EA Falcon onwards may use 4.1 alloy cross flow engine or 4lt EFI engine.
  - VN Commodore onwards may use Holden 6 cylinder in-line engine or V6 EFI engine.
  - The engine must be positioned in the engine bay with the rear face of the block in the same position as the original engine for the model.
  - Specification used for these engines will be based on engine model being used.
  - No engines after AU or VY to be used.
  - Others not included above must be approved by National Technical Committee prior to construction.
- d) VE Commodore or FG Falcons can fabricate a sump but must be the same capacity and function as OEM sump for the engine.
- e) Engine approved for V6 Magna 6G74 3.5lt multivalve single cam per head. Must use approved Falcon computer and airflow meter may be replaced with Falcon map sensor to suit computer. Variable cam timing not permitted.
- f) Engine to be the type and size for the model (see Engine List) except VN Commodore and EA Falcon onwards. Any doubts about engine sizes etc. will revert back to manufacturer's "base model" of the registered series.
- g) Engines will be inspected on the basis that all parts used in/on all engines must comply with the specifications/dimensions specified in the original (O.E.M.) manual produced by the manufacturer for the standard engine; with the exception of the listed permitted modifications. The owner/driver is responsible to prove the above and produce information when necessary to validate the claim.
- h) Refer, Australian Standards "AS 4182-1994 Code of practice for Engine Reconditioning Standards". Engine Balancing: The balancing of any engine componentry or removal of any balance shaft in this class is STRICTLY PROHIBITED. The only tolerance allowed, are the drill holes in the crankshaft as done by the manufacturer (OEM). The conrods cannot have any metal removed or polished. The pistons cannot be machined or lightened. No forged pistons allowed. No flat top pistons permitted unless OEM in base model. E.g. Magna. No copper head gaskets permitted unless OEM. (12/10/15)
- i) A standard engine is allowed no more than .060" overbore and .060" for head facing.
- j) Engine Block: The maximum allowable cylinder sleeves to be fitted to an engine block to be two in total.
- k) OFFSET boring of bearings &/or cylinders, offset grinding of crankshaft or angled facing of head to block surfaces are not permitted.

- l) Engine to be of standard stroke, con-rods and crankshaft to remain as OEM parts for the engine model; the fitting of other model, make or specially built cranks &/or rods not permitted;(standard replacement ARP conrod bolts are acceptable) port sizes and casting finish as for base model.
  - (Eg) 4.1ci Falcon must use 4.1 conrods and crankshaft, Holden blue/black engine must use counter balance crankshaft, not red engine crank shaft.
  - The use of performance aftermarket harmonic balancers (ie Power bond Street Performance) and head studs to replace head bolts is not permitted. Complete harmonic balancer to remain standard for model of engine.
  - All pulleys other than harmonic balancers have no restriction on size. (ie) power steering, water pump and alternators.
  - Intake manifold/plenum chamber to remain OEM standard, this means no machining, no welding, no extra vacuum ports, or drilling for sensors. Except water gallery (03/11/16)
  - All 4lt and 3.9 litre Falcon engines may use any OEM Ford or HTP head up to and including AU, but valve size to be correct for model of engine. No high output or Tickford heads allowed. The original casting on the front of the head must remain. EL is not to use AU engine. (Oct 2016)
- m) Standard flywheel (not lightened). Holden 3.3 blue/black engine must use that flywheel, not 3.3 red engine flywheel. Minimum allowable thickness – Falcon 20.5mm, Holden 32mm, Valiant 22mm, GN Sigma 22mm, GH Sigma 34mm. Must use original cast flywheel with original markings. Except, V6 Commodore may use an aftermarket steel flywheel. Allowable minimum thickness of 35.5mm (not lightened). (Effective 01/07/17 – allowable minimum thickness of 34mm (not lightened))
- n) CAMSHAFT and camshaft timing parts are not restricted. Camshaft lifters are to be solid or hydraulic. The use of adjustable lifters is permitted. Standard replacement push rods, standard length and 5/16”in diameter permitted.
- o) The use of performance parts in the valve train is prohibited, e.g. Roller rockers, cam followers etc.
- p) Engine sump to be visually standard externally
- q) Oil Coolers, if used, are not to be mounted in the cabin area. Engine oil coolers are to be OEM only.
- r) Slow rotor caps fitted to exhaust valves inline six cylinder Commodore may be replaced with spring and cap from inlet valve. The use of valve spring dampers permitted.
- s) If resilient engine mounts are used, a 6mm wire cable or 6mm chain restraint must be fitted.

#### 4.1 ENGINE: EFI CONFIGURATION (ELECTRONIC FUEL INJECTION)

SSA reserves the right to exchange sealed and tested computers supplied from Cool Drive Distribution at any time during a race meeting. (01/07/16)

##### 1. ***E.F.I. is permitted to use with the following restrictions.***

- a) SSA Inc. approved and sealed ECU. All computers are to be sealed by Cool Drive Distribution only. (see below for details for Cool Drive Distribution). All Commodore computers sealed after the 1<sup>st</sup> July 2015 to be sealed with an ATFY memcal only.

The only authorized branch for ECU sealing is:

Cool Drive Distribution, U5/3 Deakin Street, BRENDALE QLD 4500

Phone: 07 3481 5066 Email: [paulmasterson@cooldrive.com.au](mailto:paulmasterson@cooldrive.com.au) Website: [www.cooldrive.com.au](http://www.cooldrive.com.au)

There is an ECU/Computer Sealing Form to be completed and forward along with your computer when sending for sealing – the form is able to be downloaded from

<http://speedwaysedans.com/index.php/technical-specs/44-street-stock-specs/272-street-stock-specification-book>

The competitor is responsible for the downloading of the ECU Sealing form and forwarding along with the ECU to be sealed. It will be completed by Cool Drive Distribution and a copy returned with your ECU. Speedway Sedans Australia have introduced a Seal Sticker which will be attached to all sealed ECU's – this will be placed on the sealed unit by Cool Drive Distribution – removal or tampering of this sticker will result in the need for the unit to be resealed.

There is a 12 month phase in period (ending 30.06.17) for all ECU's to be resealed with the SSA Seal sticker and an ECU Sealing Sheet for placement in the Log Book (01/07/16)

- b) Engines to be limited up to VY Commodore Ecotec and up to AU Falcon. No variable cam timing (VCT).
    - All Commodore engines after VP are to use VN / VP computer, DFI module and coil packs.
    - A Standard Memcal only to be used.
    - VT Commodore onwards may use VS Commodore injector and fuel rail
    - Commodores are permitted to adjust tone wheel in the back of the harmonic balancer
    - All Falcon engines after EB to AU to use EA/EB computer and may use inlet manifold and injectors for model of car, or EB manifold and injectors.
    - Falcons may disconnect the spout wire from the distributor to the computer, allowing the timing to be locked
    - If using EF to AU manifold the flap inside the manifold maybe open or closed or controlled by another device.
    - (01/07/16)
  - c) EFI cars to run standard size exhaust pipe; 4 litre Falcon – maximum 63.5mm. V6 Commodore may have two pipes maximum 51mm each. Must be fitted beyond rear of driver's seat, then free from there. (01/08/17)
  - d) All standard sensors must be fitted and be operating including fuel pressure regulator except oxygen sensor and coolant sensor.
  - e) All engine components must be fitted (air cleaners etc)
  - f) Engine specifications as in all other engines.
  - g) Header tanks for fuel pumps not allowed.
  - h) No adjustable fuel pressure regulators
  - i) Rev limiter to remain OEM
2. ***The following are specific items relating ONLY to models produced with OEM Fuel injection:-***
- a) Standard size OEM injectors are to be used for make and model of car or fuel injection system used. Inside diameter not to be increased or decreased.
  - b) Any passenger car fuel pumps only are permitted. Bosch 044 fuel pump allowed. Fuel pump must be fitted with engine monitoring relay to stop fuel pump running when engine stops. Fuel pumps to be mounted in the boot area. (12/10/15)
  - c) A flexible fuel line section must be fitted within 75mm of fuel tank and all fuel lines to be securely fixed in position.
  - d) Barbed fitting of the correct size must be used in conjunction with screw type clamps when connecting flexible fuel line. (Genuine SAE R6 fittings and hose exempt)
  - e) 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.
  - f) Flexible fuel line can pass through the cabin area, must be one piece, fuel tap not permitted. (17/08/15)
  - g) High pressure lines are to use high pressure hose and fittings.

- h) If a return line is used, it must be fitted with a one way valve, at the fuel tank, the fuel pressure regulator is the only restriction permitted. (17/08/15)
- i) Computer control units are restricted. If OEM unit includes ignition, must perform this function.
- j) Size of throttle body to be OEM type and size for model being used and to be standard in INTERNAL and external appearance. (No machining or alteration permitted)
- k) Checks will be on fuel and OEM equipment. Any modification to throttle body or butterfly is not permitted.
- l) Non OEM fuel injection not permitted. Forced induction not permitted.
- m) Return springs must be fitted to each butterfly shaft (inbuilt springs accepted),
- n) A standard air box must be used Holden to Holden, Ford to Ford.
  - No extra holes to be cut or drilled in the air box.
  - A standard replacement air filter must be fitted. A pod filter maybe fitted to the inlet of the air box.
  - OEM air filter and air flow meter maybe in the cabin or moved under the bonnet.
  - Air filter inlet to be shrouded from the driver, air box must be under the bonnet with passenger in the car.
- o) ADDITIVES- Into the combustion chamber/s of additives, either in solid, liquid or gaseous form, (eg. nitrous oxide) by any means is expressly forbidden.

## 4.2 ENGINE: CARBURETTOR CONFIGURATION

- a) DEFINITELY not more than one carburetor as originally fitted.
- b) Refer Carburetor Listing in Rear of Manual or use one only 1<sup>7</sup>/<sub>32</sub>" Stromberg carburetor with 25mm maximum adaptor.
- c) For all cars the carburetor is to be: OEM standard or Stromberg option, including venturi size, except that an adjustable main jet may be used; the choke butterfly and shaft must be in-place; float bowl position relative to engine, as in original vehicle.
- d) That any use of upper Cylinder lubricant via carburetor or vacuum system is illegal. Any vehicle found with these types of systems will be deemed illegal.
- e) A return spring MUST be fitted to each throttle shaft of the carburetor. (In-built springs acceptable).
- f) Air cleaner is to be of a passenger car type not a sports option. A pod type air filter in front of the standard air filter is accepted, but the standard filter must remain.

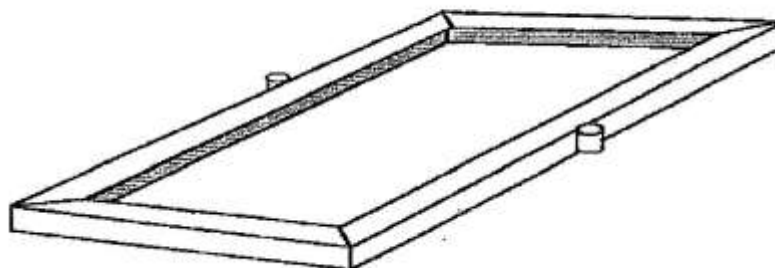
## 5. BATTERY AND ELECTRICAL SYSTEM

- a) Battery to be securely mounted in a box or steel frame secured to roll cage or bar-work.
- b) All batteries and terminals to be covered with non conductive cover if battery is in cabin area to prevent spillage.
- c) Batteries mounted within the cabin area be held down by an angle iron/steel/aluminum frame (ie 25x25x3mm) both top and bottom. All batteries to use a minimum 8mm bolts or rods.
- d) Maximum size battery permitted is N70ZZ and one only permitted. (01/07/16)
- e) Suitable grommets must be fitted where electrical cables pass through metal fire-walls.

- f) At the commencement of a meeting car must be capable of starting with starter motor.
- g) Switches: Ignition switch and electrical fuel pump switch, if fitted, must be grouped together and be clearly marked.
- h) An engine 'KILL' switch, suitably marked with a contrasting colour for method of operation must be located centrally and forward of the windscreen mesh. This switch must isolate the battery, and any other electrical item.
- i) Electrical switches NOT to be mounted through the floor.
- j) Electrical wiring not to be attached to fuel lines.
- k) All electric fuel pumps to be controlled by an engine monitoring relay, to stop fuel pump running when engine stops.
- l) Data logging dashes are not permitted.
- k) Auxiliary Equipment: e.g. charging system etc., to be as per base model.

**Fig. 8**

**BATTERY CLAMP/HOLD DOWN FRAME**



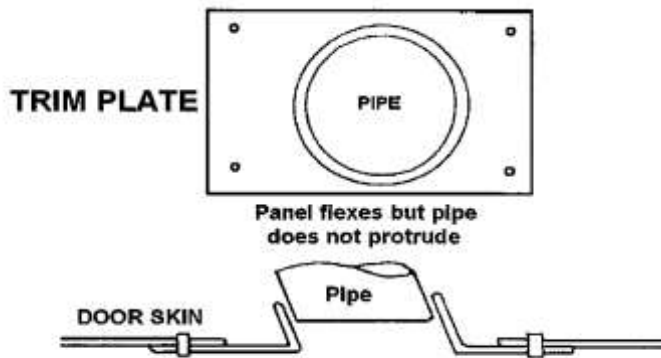
**FRAME: 25 X 25 X 3mm ANGLE IRON**

## **6. EXHAUST SYSTEM**

- a) Exhaust Manifold - to be "base model" standard, No coating or alteration of manifold permitted. Remainder of the exhaust system is free (except EFI) provided that it has not more than one outlet pipe, it is vented to the side or the rear of the vehicle behind the driver, and does not protrude beyond the body line.
- b) Internally ducted exhaust system if used shall vent through the body not higher than 100mm above the door sill panel, and to finish flush with the door panel.
- c) Driver to be suitably insulated from exhaust system. Insulation and firewall sheeting not to exceed 150mm above the drive shaft tunnel. Sheeting to cover exhaust to be within 50mm of exhaust, no other extra sheeting allowed in cabin area.
- d) If exhaust system is under floor, safety chains will be fitted to the front and the rear of the exhaust pipes and attached securely to the floor pan or sub-frame.
- e) The muffler/s must be securely attached to the vehicle.
- f) NOISE must be within the local requirements, recommended max. 95 D.B.A.
- g) EFI cars to run standard size exhaust pipe; 4 litre Falcon – maximum 63.5mm. V6 Commodore may have two pipes maximum 51mm each. Must be fitted beyond rear of driver's seat, then free from there. (01/08/17)



Fig. 9



## 7. COOLING SYSTEM

- a) Front Radiator, if used, to remain in original position. Different type passenger car radiator may be used as long as it is in the same position as original, (fitted in same hole without enlargement) and does not protrude through the body work.
- b) Welded steel protection mesh of 25mm minimum aperture and 5mm maximum thickness may be used on both sides of the radiator. Mesh area to be not larger than radiator area.
- c) Rear radiator to be rearward of roll cage main hoop mounted in the rear cabin area but the top section of the radiator must not obstruct vision through the upper half of the rear window. If radiator is mounted against rear firewall, it shall be against the firewall in total with the core forming part of the firewall.
- d) Cooling system to have a manual pressure relief not push-button. Tap to be fitted with a hose to direct stream to the ground.
- e) Radiator can be converted to cross flow or vice versa. Cabin mounted radiators must have the tanks and cap totally covered to protect driver.
- f) The cabin mounted radiator is not to be shrouded to direct air into the radiator nor can the boot area be vented to let air out.
- g) Rear radiator coolant pipes through the cabin area are to be on the inside of the roll cage and to be lagged or suitably covered. Hoses are to be kept as short as possible and to connect to the radiator from the rear. All header tanks, hoses and caps in cabin area to be covered, and must be mounted below half window height.
- h) Pressure relief taps or caps to be fitted to both radiators
- i) Cabin mounted cooling fans are to be fitted with guards.
- j) Sprinkler bar or any such like device used for the provision of cold water onto the exterior of the radiator - NOT permitted.
- k) Engine Fan – Optional
- l) Electric Fans permitted.

## 8. TRANSMISSION/DRIVELINE

- a) Ratios are optional but must be from the same make or optional model.

- b) Gearbox to be Holden in Holden and Ford in Ford.
- c) Clutch Assembly to be of the standard replacement for the model gearbox being used.
- d) All cars must fit a Scatter-shield: To be a min. 3mm steel or 5mm alloy x150mm wide and must cover the upper 180 degrees or in the case of a fwd car the 180 degrees to the rear of the bell housing and be securely attached to the bell housing or firewall in engine bay or front firewall in cabin to protect the driver's feet and legs from a clutch explosion.
- e) Aftermarket bell housings permitted.
- f) Tail Shaft Loops - Steel strap minimum. 40x5mm 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. If there is a universal joint in the middle of the tailshaft a third safety chain is required.
- g) Conversion of two piece tail-shaft to one piece and vice versa is permitted. (Additional tail-shaft hoops required for two pieces.)
- h) REAR AXLE BEARING RETAINING RINGS: If using a rear axle 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 to the axle using small diameter low hydrogen rod on low amperage or MIG welded. Failure to observe this procedure will incur a penalty, especially if an axle is dislodged. (Safety Declaration) Where a particular axle has a proven failure record, conversion to a stronger axle may be required.
- i) Differential - Must be locked. Ratios may be altered if the crown wheel and pinion only are changed. Housing to be from original model, not a complete differential from another model. Differential pinion angle to remain O.E.M., standard for make and model. The use of either of the top two differential mounting positions maybe used in EL or AU Falcon. Cast iron diff hats, mass produced are permitted.

## 9. STEERING

- a) Steering- must be standard. Modifications not permitted except for the replacement of LC/LJ rack with LH/LX rack. (Originals not available)
- b) Pedal position must remain in original position. OEM standard pedal arms must be used; lightening by drilling of pedals is prohibited. A maximum 100mm non adjustable block extension, welded or bolted to the pedal pad is allowed. No second set of pedals to push on first set. AU Falcon pedal box may be used in a BA Falcon mounted in original position, due to the unavailability of manual pedal box.
- c) Original or fabricated steering shaft must pass through a loop of 12mm diameter. Steel rod or self aligning bearing welded or bolted to the roll-cage dash bar.
- d) Power steering optional – power steering racks and boxes to be O.E.M and in original position. All rack mounts to remain O.E.M. A clamp may be fitted to the left hand side of steering rack next to original mount to prevent rack moving sideways. (01/07/16)
- e) Hoses and mounting position of pump is optional. Pulleys are optional. Power steering reservoir maybe fabricated to be a maximum 800ml, and coolers recommended. Mechanical belt driven pumps only permitted. All power steering components to remain under the bonnet eg. hoses, reservoirs and coolers.
- f) The standard diameter steering wheel for the model must be used. Centre of the steering wheel to be padded. Removable steering wheel permitted.
- g) Steering from lock to lock to remain O.E.M. for make and model
- h) To reduce thumb and wrist injuries, the use of "PAW SAVER" type disc steering wheel is permitted.

## 10. SUSPENSION

- a) A Street Stock race car must use a complete metal body with suspension mounting points in original position and being used.
- b) Suspension mounting points are defined as mounting points of suspension arm either end, shock absorber, either end, strut either end and springs either end.
- c) The use of jacking or other adjustments not permitted.
- d) Shock Absorbers/Strut Inserts:
  - Standard replacement units only.
  - No external adjustment/adjusters, e.g. no external reservoir/canister type, or externally gas pressure adjustment, (e.g. increase/decrease gas pressure).
  - No competition aftermarket derivatives. E.g. AFCO, Pro. Shock absorbers/ strut inserts must be standard replacement, listed in the catalogue for the model, and readily available from automotive parts suppliers, e.g. Repco, Auto Pro etc. Mounting ends to remain original.
  - Fitment of Bilstein front shock absorbers in VR onward Commodores: The top swaged section of the OEM housing may be removed, a new insert fitted and retained by welding the collar supplied to the top of the housing.
  - Fitment of Koni shock absorbers: The top swaged section of the OEM housing maybe removed and a new insert bolted through the bottom.

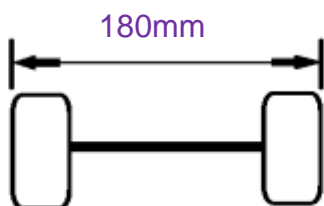
During the life of this manual, a controlled shock absorber may be implemented.

- e) Measuring of coil springs: Spring coil outer diameter to be the same as original spring. Maximum coil spring wire diameter – 18mm.
- f) Suspension – to remain visually standard with the exception of the strengthening of front lower control arms in XD-XF Falcons, by the use of one only 300mm x 12mm solid rod, stitch welded along each side of control arm. Standard size anti roll bars if used must be fitted in original positions. Adjustable suspension arms, Panhard rod / watts linkages etc are not to be used. Independent rear suspension is acceptable if option for the model. No strengthening of K frames permitted. One K frame mounting point may be repaired by welding washers in original position. Rear arms maybe re-welded but not strengthened. (01/07/16)
- g) Strut brace between the towers permitted.

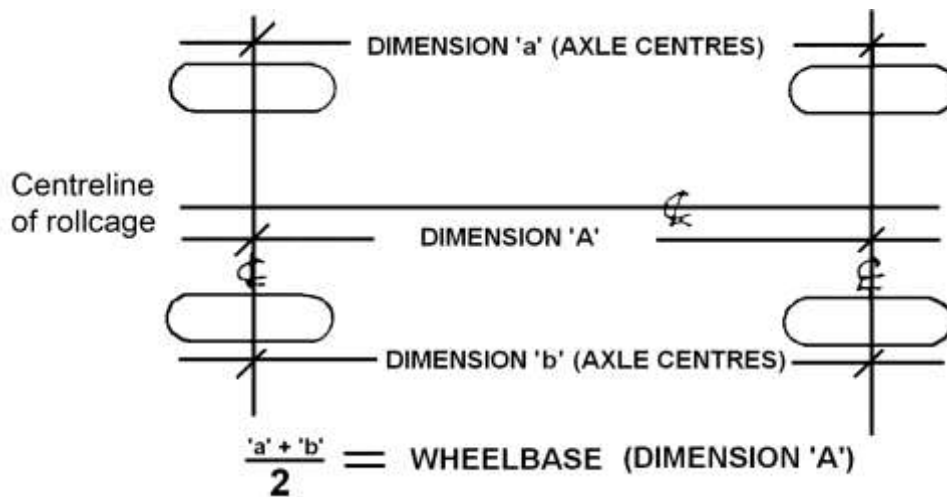
## 11. WHEEL TRACK

Original track plus or minus 15mm 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.7) includes 190mm for measurement (180mm rim width and 10mm rim thickness) – to accommodate SSA wheel track measuring tool. (01/07/17)

Fig. 10



## 12. WHEEL BASE

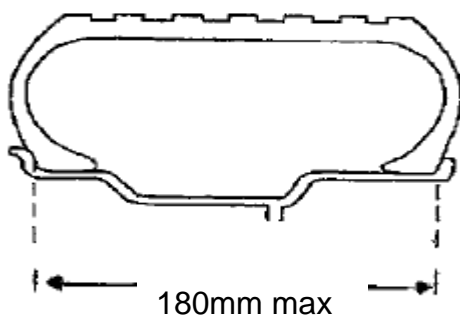


Method of measuring wheelbase shall be; with each front wheel pointing straight ahead. Measure distance from front axle centre to rear axle centre on each side of vehicle. Add dimensions for left and right and divide by 2, allowable tolerance is +/- 1%.

### 13. WHEELS

- a) Maximum rim width 180mm. All wheels must be steel or alloy construction. (01/07/16)
- b) Maximum rim diameter 16" for all cars.
- c) Alloy or Mag wheels may be used, but must be of one piece construction.
- d) 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. The use of wheel spacers not permitted
- e) Wheel studs must not protrude further than 12mm past the outer face of the wheel nut. Correct matching nuts must be used.
- f) Custom made offset wheels NOT permitted.

Fig 11



### 14. TYRES

**Radials only;** 215mm side wall markings maximum; speed rating H maximum; all details are to be visible in OEM markings on tyre side-wall. (e.g. 215/60 R15H or 215/75 R15H) The use of tyres branded "Competition Use Only" are not permitted.

Current use of retread tyres must have the correct remoulder's speed rating etc. and be legible as per AS 1973 – 1985. V rated retreads permitted.

Any type of lubrication (grease or oil etc) is not permitted on the tyre walls (01/07/17)

### 15. BRAKES

- a) Foot operated O.E.M hydraulic brake system to remain standard and to operate correctly on all 4 wheels and be effective at race speed.
- b) No brake isolation switch/s or drilled / lightened disc rotors allowed.
- c) The use of brake bias adjustment is not permitted.
- d) A.B.S Braking systems not allowed. Where A.B.S. only is fitted it must be converted to non A.B.S system.

## 16. FUEL

### THE USE OF COOLING SYSTEMS FOR FUEL IS NOT ALLOWED.

#### All cars are to comply to the following fuel specification:

**Petroleum** Must be supplied by a commercial outlet through multi volume network via bowser pump, e.g.: Shell, BP, Caltex, and must meet the fuel standard (petrol) determination act.

*Maximum Octane; 98 (RON). Maximum Specific Gravity; 0.780*

Premium or standard unleaded fuel only to be used.

The use of exotic or racing fuels and additives not permitted.

Fuel shall be tested as per the SSA Inc. policies and procedures.

## 17. FUEL TANK and FUEL SYSTEM

- a) Original tank to be removed.
- b) Fuel tank may be fabricated – All metal tanks to be constructed of min 1.0mm steel or min. 3.0mm aluminum. - Maximum capacity 30 litres or 8 US gallons.  
Jerry can or boat fuel tank must comply with the above metal thickness. Maximum capacity 30 litres or 8 US gallons Plastic marine tanks accepted.
- c) Proprietary Fuel cells are highly recommended. When using a proprietary fuel cell, e.g. RCI The pickup supplied in side or bottom should be used. A earth strap to be fitted from the plastic fuel cell filler neck to the roll cage or body as an earth to prevent the buildup of static electricity.
- d) Rear of fuel tank to be not further back than the rear of the wheel arch, centrally mounted and securely mounted in OEM boot area. Fuel tank must not be mounted using brackets welded to the fuel tank. Fuel tank is to be isolated from the driver by a minimum 0.9mm metal firewall. If using a proprietary fuel cell it must be mounted against rear firewall and may protrude past rear wheel arch and must be mounted in a cradle. The minimum strap size to be 25x3mm FMS.
- e) Fuel tank area must be accessible for scrutineering.
- f) Tank must have a non-spill breather pipe passing through a hole in the floor away from the exhaust system.
- g) Pick up and breather pipes to enter top of tank only. Except proprietary Fuel Cells
- h) Fuel line/pipe from fuel tank to engine, is to have a flexible section close to the tank, and to be securely fastened. Must be fitted with a driver operated tap, except EFI and to be suitably marked " FUEL" and the tap positions "ON/OFF".
- i) Neoprene fuel line using proper clamping practices may be used, or the original fuel system.
- j) The use of cooling systems for fuel is not allowed.

- k) A flexible fuel line section must be fitted within 75mm of fuel tank and all fuel lines to be securely fixed in position.
- 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). 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 the cabin area. High pressure lines are to use high pressure hose and fittings.
  - The fuel line to the engine must be fitted with a quick action NON-LEAK fuel tap or valve in working order – Carburettor cars only.
  - 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.
  - If a return line is used, it must be fitted with a one-way valve.
- l) Electric fuel pumps must be wired with an independent earth. The pump MUST be controlled by the 'KILL' switch and by an engine monitoring relay.
- m) Fuel lines must be isolated from electrical wiring.

## 18. TABLES

**TABLE 1 ENGINE LIST FOR VEHICLE MODEL**

**Maximum Capacity Engine**

<b>HOLDEN</b>		<b>FORD</b>	
EH - HD	179	XP Falcon	170
HR - HG	186	XR-XW Falcon	3.6
HQ on	202	XY-XB Falcon	250
LC Torana	186	XC-XD Falcon	250 crossflow cast iron head
LJ Torana	202	XD-XF Falcon	250 crossflow alloy head
LH – UC Torana	202	EA Falcon	250 or 3.9
VB Commodore	202 Red	EB-EL Falcon	250, 3.9 or 4lt
VC-VK Commodore	202 Blue or 3.3	AU-BA Falcon	250, 3.9, 4lt or AU 4lt
VL Commodore	RB30 or 3.3	TC-TD Cortina	200
VN-VR Commodore	3.3 or series 1 and 2 V6	TD Cortina	250 crossflow cast iron head or log head
VS-VY Commodore	3.3 or series 1, 2 and Ecotec	TE-TF Cortina	250 cross flow alloy head
		Escort MK1	1300
		Escort MK 11	1600 cross flow (not OHC)
		Capri 4 Cyld	1600 cross flow (not OHC)
<b>MITSUBISHI</b>			
GE	1850 Astron		
GJ on	2.6 Litre		
Magna	V6 6G74		
<b>DATSUN</b>		<b>CHRYSLER</b>	
1600	L16	Valiant R – VF	225 Slant Engine
180B	L18	Valiant VF – VJ	245 Hemi
200B	L20	Valiant VJ onwards	265 Hemi
240K	L24	Charger	265 Hemi
260C	L28	Centura	245 Hemi
280C	L28		
1000	A10		
1200	A12		
3 Litre	RB30 Nissan Skyline		

**TABLE 2. BORE & STROKE**

TYPE OF CAR	STANDARD BORE	STANDARD STROKE
<b>HOLDEN</b>		
LJ Torana 202	92.07	82.55
LJ Torana 186	92.07	76.20
Commodore 202	92.07	82.55
Commodore RB30	86.00	85.00
Commodore V6	96.52	86.36

TYPE OF CAR	STANDARD BORE	STANDARD STROKE
<b>FORD</b>		
4.1 Litre	93.47	99.31
3.9 Litre	91.86	99.31
4.0 Litre	92.26	99.31

TYPE OF CAR	STANDARD BORE	STANDARD STROKE
<b>MITSUBISHI</b>		
Magna V6 3.5 Litre	93.00	85.80
Sigma 2.6 Litre	91.09	98.00

TYPE OF CAR	STANDARD BORE	STANDARD STROKE
<b>CHRYSLER</b>		
Centura	95.50	93.48
Valiant Charger 245	95.50	93.48
Valiant Charger 265	99.31	93.48

TYPE OF CAR	STANDARD BORE	STANDARD STROKE
<b>NISSAN</b>		
Skyline	86.00	85.00

**TABLE 3. VALVE SIZES**

TYPE OF CAR	INTAKE VALVE SIZE	EXHAUST VALVE SIZE
<b>HOLDEN</b>		
LJ Torana 202	38.10	32.50
LJ Torana 186	38.10	32.50
Commodore 202	41.25	36.00
Commodore RB30	42.10	35.10
Commodore V6	43.40	37.80
Commodore Ecotec VS	45.50	38.50
Commodore Ecotec VT onwards	46.63	38.74

TYPE OF CAR	INTAKE VALVE SIZE	EXHAUST VALVE SIZE
<b>FORD</b>		
4.1 Litre up to Falcon XE	44.00	38.20
XF Falcon	45.70	38.20
Falcon 3.9 Litre	47.00	39.00
Falcon 4 Litre	47.00	39.00
AU Falcon	47.00	41.00
Cortina 250 ci	44.00	38.20

TYPE OF CAR	INTAKE VALVE SIZE	EXHAUST VALVE SIZE
<b>MITSUBISHI</b>		
Sigma 2.6 Litre	43.00	35.00
Sigma GN 2.6 Litre	46.00	38.00
Magna V6 6G74	35.00	30.50

TYPE OF CAR	INTAKE VALVE SIZE	EXHAUST VALVE SIZE
<b>CHRYSLER</b>		
Centura	46.83	38.10
Charger 245	46.83	38.10
Charger 265	50.00	40.87

TYPE OF CAR	INTAKE VALVE SIZE	EXHAUST VALVE SIZE
<b>NISSAN</b>		
RB30 Skyline	42.10	35.10

**TABLE 4. CARBURETTOR LIST**

MAKE and MODEL OF CAR	CARBURETTOR PERMITTED
EH-HZ All Engines include 3.3 "Red"	Single Throat Stromberg
Torana (except HB) inc 3.3 "Red"	Single Throat Stromberg
Commodore includes 3.3. "Red"	Single Throat Stromberg
Commodore 3.3 "Blue"	Varijet 11
Commodore 3.3 "Black"	Varijet 11
Cortina TC & TD 6 cyl. Non cross flow	Single Throat Stromberg
Cortina TD-TE-TF Cross Flow	Single Throat Stromberg
Falcon XK-XB all engines non cross flow	Single Throat Stromberg
Falcon XC-XD cross flow	Single Throat Stromberg
Falcon XE - AU 3.3 or 4.1	Weber 34ADM
Valiant VG-CM all "Hemi" engines	Dual throat Carter Email
Centura All models all "Hemi" engines	Dual throat Carter Email
Sigma All engines	Mikuni Down Draught 2BBL

**TABLE 5. THROTTLE BODY - Butterfly ID is to be measured parallel to throttle shaft.**

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
<b>HOLDEN</b>		
VK Commodore	68mm	65mm
VL Commodore	64mm	54mm
VN – VR Commodore	72mm	60mm
VS – VY Commodore	72mm	64mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
<b>FORD</b>		
XF Falcon	70mm	64mm
EA – AU Falcon	64mm	64mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
<b>MITSUBISHI</b>		
Magna V6 6G74	66mm	65mm

MAKE	THROTTLE BODY OUTER SECTION I.D.	BUTTERFLY SECTION I.D.
<b>NISSAN</b>		
RB30 Skyline	64mm	54mm



**TABLE 6. COMPUTER AND INJECTOR LIST**

**NOTE:** All commodore engines after VP are to use VP computer.

**NOTE:** All Falcon engines after EB are to use EB computer and V6 Magna TF.

**COMPUTERS**

CAR TYPE	COMPUTER	COMPUTER BRAND	COMPUTER NUMBER
<b>HOLDEN</b>			
VK Commodore	550803	BOSCH	0280001305
HOLDEN	IGM206		
VL Commodore	550805	BOSCH	9260060002
HOLDEN	IGM112		
VN-VP Commodore	550801		
HOLDEN	1227808		

CAR TYPE	COMPUTER	COMPUTER BRAND	COMPUTER NUMBER
<b>FORD</b>			
XF Falcon	550703	FORD	84DA12A650MA
	550705	FORD	86DA12A650BA
EA Falcon	550706	FORD	87DA12A650C CFI only
EA – EB Falcon	550706	FORD	87DA12A650A/87DA12A650B
			87DA12A650D
	550707	FORD	90DA12A650A/90DA12A650B

CAR TYPE	COMPUTER	COMPUTER BRAND	COMPUTER NUMBER
<b>NISSAN</b>			
RB30 Skyline	550805	BOSCH	9260060002

**STANDARD FITMENT FUEL INJECTORS**

CAR TYPE	FUEL INJECTOR
<b>HOLDEN</b>	
VN Commodore Series 1	0280150901 195 14.5
VN/P/R Commodore Series 2	0280150960 200 14.5
VS Commodore Ecotec	0280150973 203 12.0
VT/VX/VY Commodore	0280155777 200 12.0

CAR TYPE	FUEL INJECTOR
<b>FORD</b>	
XF Falcon Leaded fuel	0280150203 200 16.2
XF Falcon Unleaded	0280150726 204 14.5
EA/EB Falcon CFI	0280150065 812 1.3
EA-EL Falcon Multipoint	0280150736 199 or 0280150790 199 15.9
AU Falcon	0280155844 200 14.5

CAR TYPE	FUEL INJECTOR
<b>MITSUBISHI</b>	
Magna	0580453477

**TABLE 7. DIMENSIONS**

These are maximum measurements including 15mm absolute tolerance for track. These measurements are outside to outside of rim, maximum measurements measured at stub axle height. Measurements include a 190mm allowance to accommodate the SSA Wheel Track measuring tool. (01/07/17)

MODEL	WHEELBASE mm	FRONT TRACK mm	REAR TRACK mm
<b>HOLDEN</b>		Updated 01/07/17	Updated 01/07/17
LJ Torana	2540	1521	1495
LH/LX Torana	2586	1605	1577
VB-VK Commodore	2668	1656	1622
VL Commodore	2668	1656	1638
VN Commodore	2731	1656	1683
VP Commodore	2730	1656	1683
VR-VS Commodore	2731	1696	1696
VT – VY Commodore	2788	1774	1792
VZ Commodore	2789	1774	1782
VE Commodore	2915	1807	1823

MODEL	WHEELBASE mm	FRONT TRACK mm	REAR TRACK mm
<b>FORD</b>		Updated 01/07/17	Updated 01/07/17
TD Cortina	2578	1627	1627
TE Cortina	2578	1631	1631
TF Cortina	2578	1631	1631
XD Falcon	2818	1764	1732
XE Falcon	2818	1764	1732
XF Falcon	2829	1755	1730
EA Falcon	2794	1751	1738
EB- ED Falcon	2794	1759	1738
EF – EL Falcon	2791	1771	1752
AU Falcon	2793	1771	1752
BA-BF Falcon	2829	1758	1776
FG Falcon	2838	1788	1803

MODEL	WHEELBASE mm	FRONT TRACK mm	REAR TRACK mm
<b>MITSUBISHI</b>		Updated 01/07/17	Updated 01/07/17
KB/KC Centura	2667	1605	1602
CL Valiant	2819	1686	1696
Magna TF	2722	1750	1740

MODEL	WHEELBASE mm	FRONT TRACK mm	REAR TRACK mm
<b>CHRYSLER</b>		Updated 01/07/17	Updated 01/07/17
GE/GH Sigma	2515	1575	1553
GJ/GN Sigma	2530	1585	1555

MODEL	WHEELBASE mm	FRONT TRACK mm	REAR TRACK mm
<b>NISSAN</b>		Updated 01/07/17	Updated 01/07/17
RB30 Skyline	2615	1615	1600

## TABLE 8 TYRE RATINGS

**Tyres** - Radial only. 215mm maximum width (on sidewall markings).  
Speed rating H maximum. E.g. 215/60/R or 215/75/15H.

TYRE RATINGS	SPEED RATING	TYRE RATINGS	SPEED RATING
A1 – A8	5-40 kmh	M	130 kmh
B	50 kmh	N	140 kmh
C	60 kmh	P	150 kmh
D	65 kmh	Q	160 kmh
E	70 kmh	R	170 kmh
F	80 kmh	S	190 kmh
G	90 kmh	T	200 kmh
J	100 kmh	U	200 kmh
K	110 kmh	H	210 kmh
L	120 kmh		

### Summary of Updates:

17/08/15

Page 6 – Section 2 - Roll Cage

Page 13 – Section 4.1 - Engine EFI Configuration

12/10/15

Page 4 – Section 1 - Body/Rolling Shell

Page 12 – Section 4 - Engine and Auxilliary Equipment

Page 13 – Section 4.1 2 - Engine EFI Configuration

01/07/16

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

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

Page 6 – Section 2 – Roll Cage – Item 11 – removal of wording – approx. 45 degrees

Page 8 – Section 2 – Roll Cage – Fig 3 (ii) – removal of 45 degrees from drawing

Page 13 – Section 4.1 - Engine EFI Item a)

Page 13 – Section 4.1 - Engine EFI Item b)

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

Page 17 – Section 9 - Steering Item d)

Page 18 – Section 10 - Suspension Item 10 f)

Page 19 – Section 13 - Wheels Item a)

Page 25 – Section 18 – Table 7 Dimensions

01/10/16

Page 12 – Section 4 l) – inclusion of 3.9 litre Falcon engines

Page 7 – Section 2 Roll Cage – Anti Spear Plate – tag clarification

Page 8 – Section 2 Roll Cage – Head Plate – tag clarification

03/11/16

Page 12 – Section 4 l) – water gallery update

### Effective 01/07/17

Page 2 – Reference changed to [www.automobile-catalogue.com](http://www.automobile-catalogue.com)

Page 3 – Derivation – added VF Commodore introduction date

Page 6 – Section 2 Roll Cage - #7 NASCAR Bars

Page 6 – Section 2 Roll Cage - #12 Foot Protection Bars

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

Page 7 – Section 2 Roll Cage - Anti Spear Plates

Page 9 – Section 2 Roll Cage – Head Plate

Page 11 – Section 3 Bumper Bars & Optional External Bar Work – Rubbing Strip

Page 12 – Section 4 – Engine ID tag placement

Page 13 – Section 4 – Engine and Auxiliary Equipment – change in thickness of V6 Commodore flywheel

Page 19 – Section 11 - Wheel Track – updated measurements

Page 20 – Section 14 – Tyres – lubrication not permitted  
Page 26 – Table 7 – Dimensions – updated

Effective 01/08/17

Page 14 – Section 4.1 Engine: EFI Configuration – Item c) – specific size of exhaust pipe added

Page 16 – Section 6 – Exhaust System – Item g) – specific size of exhaust pipe added