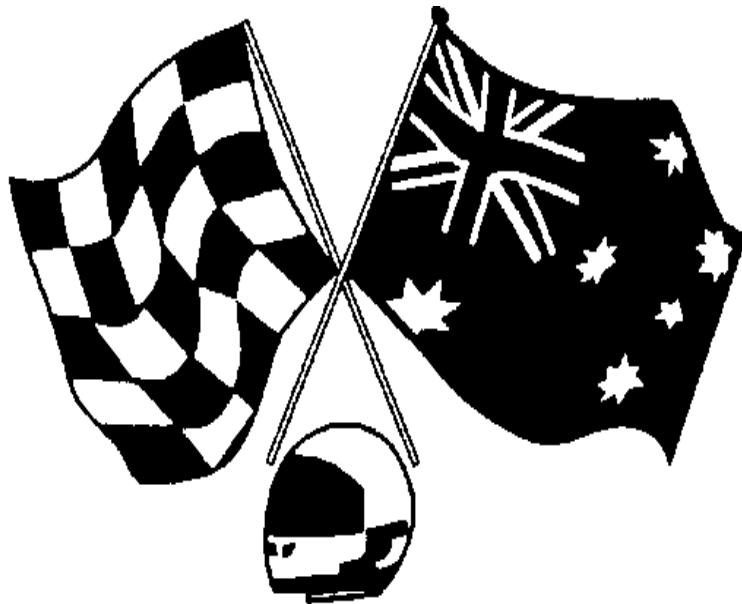


SPEEDWAY SEDANS AUSTRALIA INC

Class Technical Manual

Rules and Regulations

Modified – Production - Street Stock – National 4's – Junior Sedans



**ASCF SPEEDWAY SEDANS
AUSTRALIA INC.**

ABN 14 329 758 680

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

MONO CLASS TECHNICAL SPECIFICATIONS

Applicable to Modified Sedans, Production Sedans, Street Stocks, National 4's and Junior Sedans

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SECTION 1 – POLICY, PROCEDURES and DEFINITIONS

1. INTERPRETATION

Speedway Sedans Australia Inc. (SSA Inc.) shall be the sole authority for the interpretation of, and compliance auditor for, these specifications, referred to from here as 'these specifications'. At any Race Meeting, this authority is delegated to the Head Technical person. (01/07/16)

The SSA National Technical Committee is inclusive of a Technical Representative from each state and the CTAC Chairperson for each division. (01/07/16)

The Class Technical Advisory Committees (CTAC) is a subcommittee of Speedway Sedans Australia and is responsible directly to the SSA board.

The role of the CTAC is to formulate a specification manual and provide clarification of rulings for the competitors and officials.

Amendments to this specification manual may be made during the life of this manual for the reasons as set down in SSA Inc. Policy governing such amendments. Recommendations for an amendment will be submitted by the CTAC for submission to the SSA Inc. Board for approval.

Amendments approved by the SSA will be circularized to all clubs, competitors and be displayed on the SSA website.

All technical enquiries must be directed through your Club Scrutineer, State Technical Delegate, State CTAC delegate and/or your State Office.

SSA Inc. vehicles must only compete with SSA Inc. registered vehicles and [registered in the same division](#) with drivers who hold an SSA Inc. / Speedway Australia licence and SSA Inc. approved insurance and SSA Inc. Infringement card. (01/07/17)

2. GENERAL

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 a 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)

3. DECLARATION OF COMPLIANCE

The Owner of the car shall complete a SSA Inc. DECLARATION OF COMPLIANCE annually. Compliance Declaration will include:

- SAFETY- compliance with all safety requirements
- ELIGIBILITY- Compliance with all manufacturing specifications
- ENGINE- Compliance with class engine specifications

Copies of the declarations of compliance are to be placed in the logbook. An additional Declaration must be completed by the owner and be placed in the Log Book following any chassis or engine repairs that result in a change to the original declaration.

4. REGISTRATION / RACE DAY REQUIREMENTS

Application for registration of an SSA Inc Vehicle cannot be made by a person under the age of 18 years.

A SSA Inc. registration shall only be issued subject to the car conforming to all specifications detailed in the SSA Inc. Specification Manual for the class in which the car is to be registered.

Daylight Inspections each year must be carried out by an independent registered official - not be completed by the car owner or the car builder/constructor.

For registration purposes - Dual registered cars must supply 2 Daylight Sheets (1 for each division) and 2 Engine Sealing Sheets (1 for each division). Dual registration is only approved for Production Sedans as a Modified Sedan. (01/07/16)

The car must pass a daylight examination/re-examination on an annual basis to confirm compliance. A new registration decal will be issued annually and must be attached to a prominent location on the car. Daylight inspection sheets are to be valid for 90 days.

A car being registered must have the log book from the immediate previous season otherwise the chassis area and the roll cage will be subject to new car specifications.

A complete metal body shell including roll cage is the basis for the registration of a race car. Re-shelling of race car means that the same make and model of car currently registered can be re-shelled **with no further cost of registration for the same season. (01/07/17)** (Must be re-daylighted).

Roll cages being transferred to a new car (different model) must fully comply with the current specification. (01/07/17)

Registration is not complete until Pages 2 to 5 of the log book are completed and signed by the Owner/Driver and the Scrutineer/Machine Examiner or Registrar. (01/07/17)

A copy of the Daylight Sheet and Engine Seal Forms corresponding to all seals on the engine must be stapled into the back of the log book.

EFI Junior Sedans and EFI Street Stocks will have an ECU Sealing Sheet with the Log Book – being phased in by 30.06.17. (01/07/16)

The Driver is responsible for having the log book further endorsed before participation in each official practice session or race meeting. The log book must be endorsed. A log book without endorsement by the Machine Examiner/ Scrutineer is equivalent to a no-race ticket.

Race Day Scrutineering – A competitor/owner of a car taking part in the race meeting must not scrutineer or sign off the log book for his/her own race car. (01/07/17)

5. MEASURING OF CARS

All cars are subject to engine checking and general measurement at any time by a duly accredited Scrutineer, the National Technical Committee, Steward or the Racing Disputes Committee.

The SSA Inc. reserves the right to impound and inspect any race car at any time; this may include the removal of any engine seals for inspection and including the downloading of any information via relevant means if applicable.

Cars can be selected at random and ordered to the impound area for dismantling.

The Owner/Driver of the car must deliver them immediately upon request and supply the necessary manpower and hand tools to accomplish dismantling. Only persons actually involved in dismantling the car will be allowed in the immediate area of a vehicle being checked. Any persons not having cars in the impounded area, and gaining entry without authorisation, will be ejected. If there are no facilities available

to check any parts of a vehicle, sealing of parts under question can be carried out and vehicle taken to a mutually agreed venue for examination at another time, but within fourteen (14) days.

Impounded cars will be stored at owner's risk. Although every reasonable precaution will be taken, no responsibility for fire, theft or damage will be assumed by the SSA Inc. and/or affiliated clubs.

6. PENALTIES

The Specification Manual must be read in conjunction with the Australian Speedway Racing Rules and Regulations and/or notices issued by the SSA Inc. from time to time. Ignorance of these Regulations and Specifications and notices shall be deemed as no defence in regard to breaches and/or appeals.

7. AUTHORITY TO EXCLUDE

If an SSA Inc Official, including a duly accredited Scrutineer, the National Technical Committee, Steward, or the Racing Disputes Committee determines prior to the race that the Race Car does not meet the applicable specifications, the car will not be allowed to compete unless, at the discretion of the official, the deficiency:-

- a. will not adversely affect the orderly conduct of the race.
- b. will not provide the competitor with a significant competitive advantage over other competitors.
- c. is so insubstantial as not to warrant a determination that the car is ineligible to race.

If the car is permitted to compete under these circumstances, the Official will advise the competitor in writing of the deficiency and the timeframe for correction of the deficiency. If the deficiency has not been corrected within the allotted timeframe, the car will be prohibited from competing in any future event.

8. SPECIFICATION MANUALS

Specification manuals can be downloaded from the SSA Inc. website www.speedwaysedans.com
Any future updates and specification changes approved will be uploaded as required to the relevant specification manuals.

SECTION 2 – PERSONAL SAFETY EQUIPMENT

9. DRIVER SAFETY

All protective clothing and safety equipment must be used and/or worn in the approved and accepted manner whilst competing, or testing and/or practice.

All race wear / equipment shall be inspected at each practice/race meeting.

Illegal parts or safety equipment will be confiscated and stored by State where event is being held.

10. PROTECTIVE CLOTHING

All protective clothing shall comply with minimum standards for Safety Apparel as specified in the Australian Speedway Racing Rules and Regulations and/or notices issued by the SSA Inc. from time to time for safety standards pertaining to a division or class.

11. SEAT BELTS

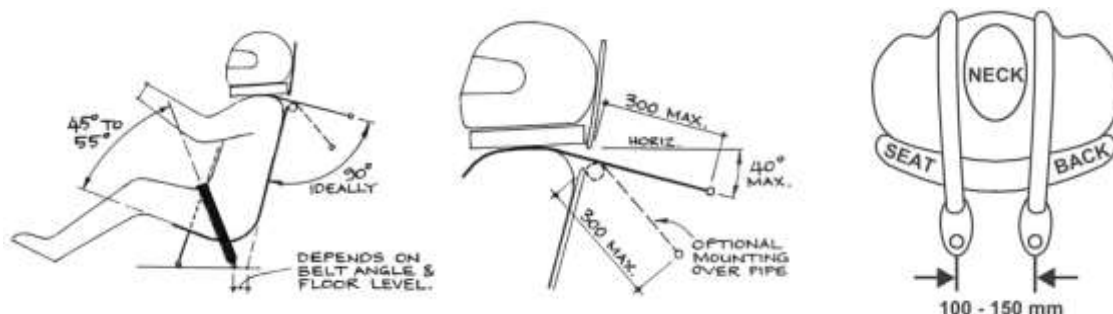
An approved type racing harness must be fitted, using a minimum of four major belts and four mounting points, plus one or two anti-submarine/crotch straps.

- Shoulder and Hip Belt width 50mm minimum, 75mm highly recommended.
- Only belts with over centre lever lock buckle to be used.
- **SEAT BELT LIFE IS A MAXIMUM OF TWO YEARS FROM DATE OF MANUFACTURE**
- Shoulder belts are to have separate anchor points/adjusters.
- Shoulder belt mounting points shall be positioned to the rear and below the point at which the shoulder

belts come through the seat and be not more than 300mm from that point, attached to 38OD x 3.0mm CHS. See Fig 2

- Lower seat belt mounting brackets (anchor points) must mount to roll cage and chassis or substantial bar work using a minimum construction of 25x25x3mm RHS or 25x3mm CHS. Seat belt attachment tag to be 5mm minimum mild steel. (01/07/17)
- Seat belt mountings to be relevant to position of seat – this is particularly important when moving a seat to suit the driver. (01/07/17)

Fig. 2



12. INSTALLATION OF DRIVER RESTRAINT SYSTEMS

The mounting points must be solid and should remain so even if the vehicle is deformed due to an accident. The mounting points should also not put undue strain or twist on the belt system hardware. The lap belt should be positioned so it rides across the solid pelvic area and not the soft stomach area or down on the thighs. The shock absorbing ability of the pelvic area and its ability to protect internal organs make it the preferred location for the lap belt. See Fig 3 (i) & (iii).

The shoulder harness should be mounted to prevent driver's shoulders from moving forward (upward if semi-reclining), out of the seat, in the event of a rollover.

Anti-submarine straps serve two purposes;

1. To secure the lap strap down across the driver's hips, so in the event of an accident, it is not pulled up across the stomach by the shoulder straps.
2. To prevent the driver from sliding forward and out of the harness. When the driver is seated in an upright position, as in most sedans, a five point system (a single anti-submarine or crotch strap) is considered adequate (Fig3 ii). For extra assurance a double strap anti-submarine belt can be used. (Fig 3 iv)

When the driver is seated in a semi-reclining position a six point system (two anti-submarine or crotch straps) is preferable. Most drivers find the two anti-submarine strap system more comfortable. In many instances, the anti-submarine straps are mounted much too far forward of the seat. This practice could cause unnecessary injury as the body can slide partially out of the seat before being restrained when the strap contacts the groin. It is much more practical to cut a slot in the seat bottom so the anti-submarine strap can be anchored in line with the chest. (Fig 3 i)

Because of the differences (often vast) in competition vehicles, a 'standard' method of mounting is impractical. Good judgement and common sense in inspecting restraint system mounts is needed.

Safety equipment is often neglected in favour of performance equipment, but its proper operation when the need arises is essential to survival.

Fig. 3(i)

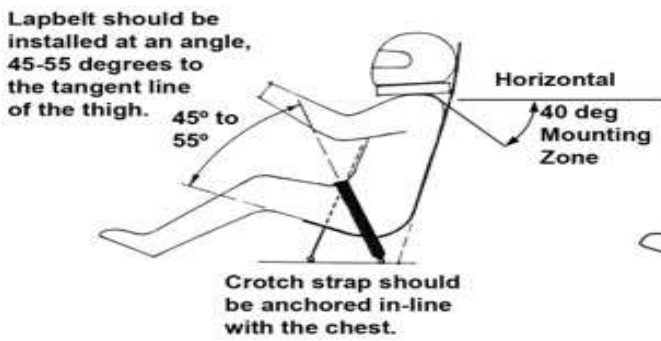


Fig. 3(ii)

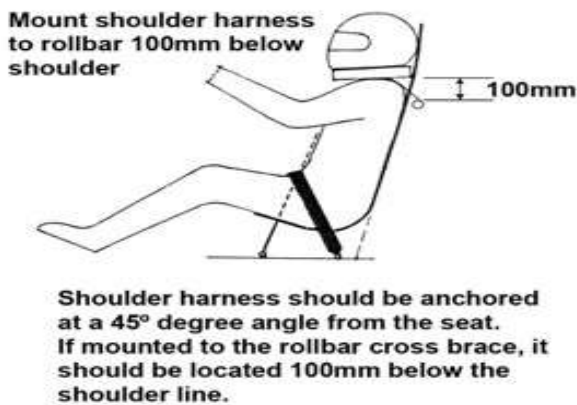
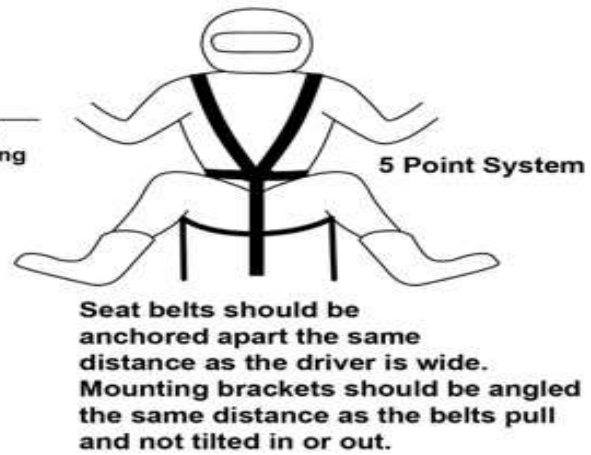


Fig. 3(iii)

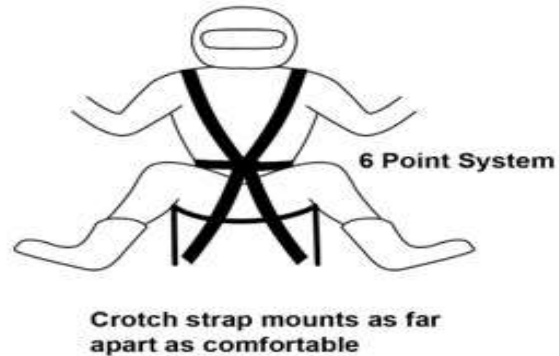


Fig. 3(iv)

13. ADJUSTMENT OF DRIVER RESTRAINTS

With the driver fully kitted out in 'underwear and driving suit', check that, with the driver seated, belt slots in the seat line up with natural line of the belt from anchor to buckle when just the lap belt is tensioned. Ensure that the lap adjusters do not foul the seat and that they are readily accessible. Some belts adjust by pressure downward others by pull up. Check that the driver can manipulate belt adjusters with gloves ON.

Also check that anchor hardware is aligned and that it is not possible to have a hitch in the anchor area without detection (sudden release of the belts to 50mm slack can put the driver off-line). Also check if the belt is holding the seat or the driver, it should be the latter.

Adjust the anti-submarine strap/s to ensure that the buckle is held flat and close to the body over the pelvis. When satisfied that the lap belt is OK, put on the helmet and check just how far the helmet (with visor) can reach, head plate clearance, helmet/window net etc. Slacken the seat belt, engage the shoulder belts into the buckle and tension the seat belts again, checking position of the buckle and adjusters. Tension each shoulder belt, checking that the adjustment range is suitable to the driver, that the belts and hardware don't foul the seat and that the natural line of the belts holds the driver as with the lap belts.

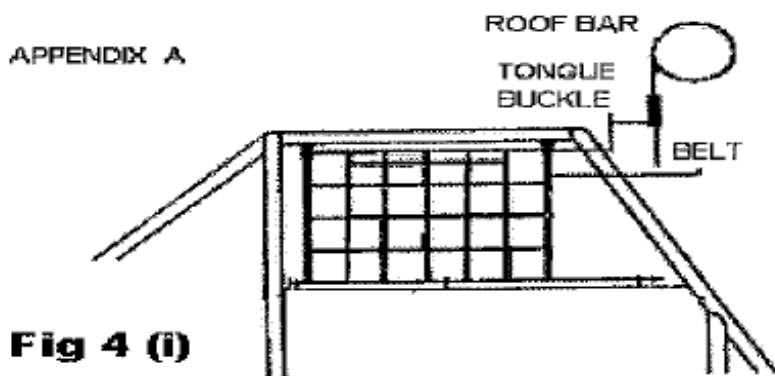
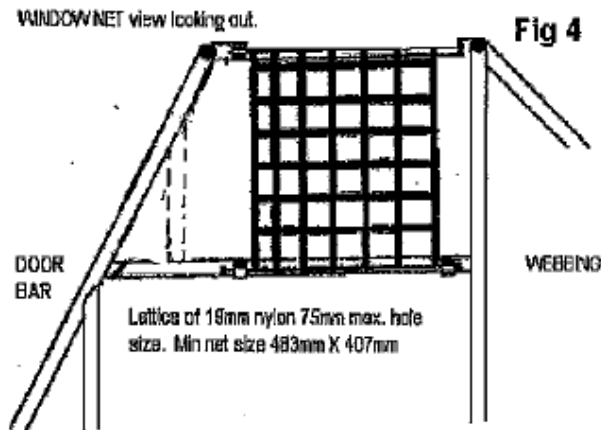
Note also any change in the buckle location and lay. If there is too much variation with the buckle it would appear that lap anchors are not in optimum position.

Before the driver releases the buckle, he should slacken both shoulder belts with the adjusters, in order to make re-entry to the car and refitting of the seatbelts as simple as possible.

14. WINDOW NET

Window Net is mandatory. Net to be a minimum approved SFI standard of 27.1 or, Window Net to be a minimum 19mm woven webbing with 75mm maximum hole size. (Fig4). Window Net minimum rod thickness $\frac{1}{4}$ " (6mm).

The window net shall be hinged from the bottom and shall be fixed at the top via a 6mm rod threaded through the cavity provided. The rod shall be secured with lock pins or a central spring-loaded pin. Window net shall be secured to the roof hoop bar and top NASCAR door bar. Quick release seat belt type attachments are also permitted.



This design uses push button seat belt buckles and belts. Tongues are welded to side of roof bar. 25mm x 3.0mm FMS welded to rear buckles, tubing at base of net fixed with lock pins.

15. PADDING

Padding may be used to protect driver from injury in the event of an accident. Cars shall be manufactured to minimise driver contact with sharp edges, projections, or bar work in the cabin area.

16. FIRE EXTINGUISHER

An on board fire extinguisher of the correct type is permitted. It must be securely mounted and suitable for the fuel being used.

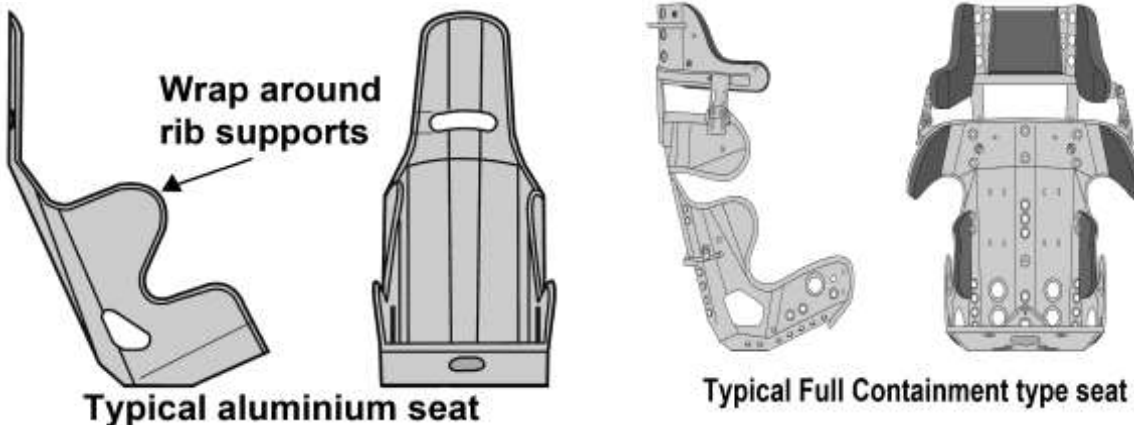
17. SEAT

A purpose/ proprietary one piece steel, aluminium, fibreglass or carbon fibre bucket type seat incorporating a substantial head rest shall be used.

- Aluminium seats shall be constructed of a minimum 3mm material thickness.
- Steel seats shall be a minimum 2mm material thickness.
- Proprietary aluminium full containment seats shall be a minimum 2.5mm material thickness.
- Proprietary carbon fibre competition seats must use manufacturers mounting kits when supplied.
- Seats include Kirkey, Butler, United Speedway Accessories, Bratpac and Racetech.

- Magnesium seats not permitted.
 - Seat design shall provide Lateral (sideways) support to hips and chest.
 - The driver shall have a minimum 50mm clearance between the helmet and any part of the head plate and roll cage when seated.
 - Top of the headrest to be at least 50mm above helmet contact point, headrest must be padded. At the discretion of the scrutineer the headrest will need a form of support if it is deemed too flexible and/or the area between the seat and roll cage is too great.
 - As a minimum the seat shall support the drivers back to the top and full width of the shoulders. Seat back is to be braced and attached to the roll cage approx 75mm below shoulder height using a minimum of two 8mm bolts and 40mm body washers.
 - All seats may be padded and covered. The covering shall be securely attached. Maximum padding thickness is 50mm.
 - **Seat must be fully mounted to the roll cage with no attachment to the floor pan or any part of the body. (01/07/17)**
 - **Seat mount to be attached to the roll cage in a minimum of 3 points – preferably 4 points. (01/07/17)**
 - The seat is to be mounted completely on the right hand side of the vehicle centreline.
 - The seat base is to be mounted to roll cage at a minimum of two points using 8mm bolts and minimum of 40mm diameter body washers. Base of the seat is defined as the lower side of the seat and under the seat, for mounting purposes.
- (i) 4 DOOR CARS. The rear of the backrest must be no further back than 125mm behind the centre pillar, measured at window seal height.
- (ii) 2 DOOR CARS. The rear of the backrest must be no further back than rear of centre pillar, measured at window sill height

*Points (i and ii) do not apply to National 4 Cylinders.



SECTION 3 – Construction and SSA General Rulings

18. CONSTRUCTION

- Workmanship on race cars is to be of a professional standard.
- All material being used should be of a good quality.
- All material sizes quoted are a minimum unless a maximum is stated.
- Bolts are not to be used through structural tubing in the roll cage cabin area unless a welded sleeve is provided.
- No pop rivets in roll cage tubing.
- No TEK Screws or self tappers are to be used.

GLOSSARY OF TERMS & DEFINITIONS.

Material:

CHS - Circular Hollow Section.

FMS - Flat Mild Steel

RHS - Rectangular Hollow Section.

W.T - Wall thickness.

O.D - Outer Diameter

OEM - Original Equipment Manufacture; used to indicate parts used, or the complete vehicle as it left the production line from the original manufacturer and means for make and model unless otherwise stated.

CARBURETTOR - Is to have all working parts in use, e.g. needle and seat, fuel bowl, float, jets etc and fuel is to be naturally delivered to the main jet by atmospheric pressure. The air pressure in the carburettor venturi being lower than atmospheric pressure, allows fuel then to flow from the bowl to the carburettor venturi as the pressure in the carburettor throat decreases.

Fuel is then drawn down the venturi and carburettor throat by vacuum provided by the rotation of the engine.

Carburettors that are of different configuration than that of the above must be submitted to the Class Technical Advisory Committee (CTAC) for permission to be used. A complete description must accompany the submission to substantiate a request.

PROPRIETARY – (of a product) marketed under and protected by a registered trade name. (01/07/17)

19. SSA GENERAL RULINGS

Transponders - are to be fitted a maximum of 450mm forward of the front axle centreline.

One Way Communicators - are **mandatory** for all race meetings. Radio Telemetry or any form of wireless communication to and from a race car is not permitted by unauthorised personnel.

Roof Number Plate - Use of a roof plate is **mandatory** for all race meetings, State and National Titles.

It shall be a metal plate, 300mm square with a 50mm right angle fold at the bottom, where two holes at 200mm centres shall be drilled to take 6mm bolts. The number on the plate shall be painted using a black background and white number/s. Number to be a minimum of 250mm high in block font.

A triangular three sided roof number plate is optional, plate to be 300mmx300mmx300mm. Black background with white number.

ENGINE SEALING - Engine Sealing is **Compulsory** (exception National 4's)

SEAL IDENTIFICATION LOCATION AND TAG COLOURS

Seals are to be stamped SSA Inc and numbered then placed on the engine in the following position's

Engine ID tag to be attached to timing cover seal using wire looped through engine seal. (01/07/17)

Modified Sedan- 1 x sump 1 x timing cover 1 Blue class ID tag

Production Sedan- 1 x sump 1 x timing cover 1 Green class ID tag 1 x each Cylinder Head on EFI engines.

Street Stock- 1 x sump 1 x timing cover 1 x Cylinder Head 1 Red class ID tag
1 x each Cylinder Head on EFI engines.

Junior Sedan- 1 x sump 1 x timing cover 1 x Cylinder Head 1 Orange class ID tag
1 x each Cylinder Head on EFI Engines (01/07/17)

National 4's- No engine seals required.

Dual Registered Cars – Street Stock registered cars cannot be dual registered as Production Sedans.(01/07/16)

Production Sedans can be dual registered as Modified Sedans - Engine must be sealed with appropriate seals and conform to relevant class specification. Dual registered cars must have 2 Engine Sealing Sheets (1 for each division) 2 Daylight Inspection Sheets (1 for each division) (01/07/16)

Summary of Updates

Effective 01/07/16

Page 2 – Section 1.1 – Interpretation

Page 2 – Section 1.4 – Registration

Page 9 – Section 3.19 – SSA General Rulings

Effective 01/07/17

Page 2 – Section 1.1 - Interpretation

Page 2 – Section 1.2 - General

Page 3 – Section 1.4 – Registration/Race Day Requirements

Page 4 – Section 2.11 – Seat Belts

Page 7 – Section 2.17 - Seat

Page 9 – Section 3.18 – Definitions - Construction – addition of definition of Proprietary

Page 9 – Section 3.19 – Engine Sealing – placement of ID tag