AUSTRALIAN AUTO-SPORT ALLIANCE

Super Tin Tops

Technical Regulations

1. Philosophy

   Super Tin Tops is intended to be a circuit racing Group for highly modified vehicles bridging the gap between modified production based, and space frame competition vehicles. It is designed to utilise the bodyshell of a four seat production car. It is aimed at Club level competitors who desire to exercise their engineering as well as driving skills.

2. Eligibility

   2.1 To be eligible for Super Tin Tops, the vehicle shall be developed from a road registrable closed vehicle capable of seating four occupants using a steel monococque bodyshell. Vehicles utilising demountable chassis rails shall not be excluded by this definition.

   Note to competitors: Body shells from V8 Supercars including Ford AU and Holden VT models onward do not comply with this requirement as they have numerous internal reinforcement panels deleted when compared to the relevant production body shell.

   2.2 Vehicles which may comply with these technical regulations but have a demonstrated performance well in excess of the remaining field may be, at the discretion of the AASA either:
   (a) excluded from competition in this Group; or
   (b) required to comply with additional restrictions.
   Each such exclusion or restriction shall occur only after consultation with the relevant entrant and with due regard to appropriate notice being given. A Recognition Document, as detailed in article 2.3, may be required prior to the vehicle being accepted into further competition.
   2.3 Vehicles that do not comply with these regulations but in the opinion of the AASA have performance and design broadly compatible may be invited to compete in this Group. Entrants of each such vehicle shall be required to complete a AASA Recognition Document. Once approved by the ***AASA Vehicle Eligibility & Compliance Co-Ordinator***, the Recognition Document shall become the definitive descriptor of the vehicle with which it shall remain in compliance at all times. The Recognition Document may also be valid only for one car/driver combination. Subject to prior consultation with the entrant, the Recognition Document may be varied at any time by the AASA.

3. Bodyshell

   3.1 The bodyshell must remain unmodified save as permitted in the present article.
   3.2 It is permitted to modify the bodyshell of the vehicle as follows. Any opening created by the removal of metal must be closed in by the addition of welded in panels to maintain the integrity of the bodyshell.
   3.3 It is permitted to modify the wheel wells to provide clearance for replacement wheel assemblies.

3.4 It is permitted to modify the transmission tunnel to facilitate the fitment of replacement drivetrain assemblies.

3.5 It is permitted to modify the rear floorpan and add box sections to the rear floor area to allow for the fitment of additional or replacement suspension arms.

3.6 It is permitted to modify the floorpan to provide clearance for the exhaust and mufflers. Under no circumstances may the rocker panels be modified save for the removal or realignment of the pinch weld seams.

3.7 It is permitted to modify the boot floor to facilitate the fitment of a replacement fuel cell. Each opening so created must be reinforced around its perimeter with an RHS tube of minimum 25mm side length and 1.5mm wall thickness.

3.7 It is permitted to add or strengthen jacking points and/or fit air jack systems.

3.8 It is permitted to make holes for the passage of fuel, air or oil lines and electrical wiring.

3.9 The upper radiator support panel may be made removable.

3.10 A hole may be cut into the roof for a fresh air vent, of height not more than 50mm above the roof surface.

4. Body Panels

4.1 Doors may be modified by the removal of metal, but must retain the window frame, door skin, standard hinges, external handle and door catch assembly. Doors must be able to be opened from the outside without the aid of tools The driver's door must have an internal release mechanism. The driver's door must have a flat panel fitted to the inside to prevent the driver's arm from entering the door cavity. This panel may be original, or made of aluminium or carbon/Kevlar composite. Straight carbon fibre is not acceptable unless it is incorporated into a crushable structure of at least 10mm thickness.
Where there is no moving glass in the driver's door, it is recommended that the driver's door cavity be filled with flame resistant polyurethane foam.
Where wheel arch flares are fitted, the rear edge of the rear doors may be modified by the removal of metal to provide clearance for replacement wheel assemblies.

4.2 Wheel arch flares may be fitted provided that the overall width of the car is not increased by more than 100mm. Each flare must extend no further than 200mm radially from the wheel arch opening. Flares must have no openings. Mudguards and rear quarters may be modified by the removal of metal to provide clearance for replacement wheel assemblies. Any opening created must be closed by a welded panel.

4.3 The bonnet may be modified by the removal of reinforcement panels on the underside provided that it retains the original hinge placement, its external shape and can still be securely fastened. It is permitted to cut a hole in the bonnet to clear the engine provided that a bonnet bulge is fitted to cover protruding components. The bonnet bulge may not have any opening and may be no more than 100mm high and 600mm wide.

4.4 The bootlid may be modified by the removal of reinforcement panels on the underside provided that it retains its original hinge placement, external shape and can still be securely fastened.

4.5 Front mudguards may be replaced by others of a composite material provided the external shape licked by the airstream is retained. Front mudguards welded to the bodyshell by the manufacturer may be made removable and held in place by the use of bolts and/or screws.

5. Windscreen and Glass

All moving and fixed glass, except for the windscreen, may be replaced with clear polycarbonate. Moving glass may be fixed in position. The windscreen must be retained and be of laminated glass. The driver's door window may be removed.

6. Aerodynamic Aids

Aerodynamic aids of plastic or composite material may be fitted. No part of any aid may protrude more than 100mm from the original profile of the vehicle when viewed from above. The aids may consist of:

- Modifications to front and rear bumper bars, including airdams, undertrays and diffusers
- Side skirts and door mouldings/spats
- A rear spoiler, or rear wing which may not extend above a horizontal plane 200mm below the height of the top of the roof

7. Suspensions, Wheels and Tyres

7.1 The front suspension is free provided that it retains the original configuration (e.g. Macpherson strut, double A-arm). Suspension Pivot points may be re-located and the front subframe may be modified or replaced.

7.2 There rear suspension may either be retained in its original configuration, or be replaced with a live or dead beam axle located longitudinally by a 4 link system. In either case suspension pivot points may be relocated, and all suspension components are free. Any rear subframe is free.

7.3 Wheels are free in regard to diameter and method of mounting. Where a single nut is used to mount each wheel, a positive retention mechanism must be fitted to prevent the nut coming loose. The sum of the defined rim width of all four wheels, in inches, shall not exceed the dimensions shown in Table 1.

7.4 Tyres are free. Only air or nitrogen may be used to fill the tyres. The use of tyre warmers to pre-heat the tyres prior to a session is prohibited. Tyres must not be repaired or re-treaded. It is permitted to add grooves to tyres but not to make existing grooves deeper.

8. Engine

8.1 Two-wheel drive vehicles: The engine is free, but must not exceed 7 litres swept volume unless a larger engine is fitted as standard whereupon that engine may be retained. Forced induction may be utilised on engines under 4.0 litres swept volume. The location and orientation of the engine within the engine bay is free. Engine mounts are free but no part of the engine block/cylinder heads, or rotor housing/endplates, may extend rearwards of the original firewall.

8.2 All wheel drive vehicles: The original cylinder block and head(s) must be retained. The engine is otherwise free. Engine mounts are free.

8.3 Forced Induction. Where a vehicle uses forced induction the effective capacity of the engine shall be the result of the swept volume multiplied by 1.7.

8.4 A restrictor may specified in the Recognition Document. If so it shall remain in place at all times.

9. Transmission/driveline

9.1 Two-wheel drive vehicles: The clutch, flywheel and bell housing are free. The gearbox is free provided that it has no more than 6 forward gears and incorporates an operable reverse gear. Gearbox mountings are free. Driveshafts are free. The final drive is free as is the end of the car to which power is delivered. Two-wheel drive vehicles must remain two-wheel drive.

9.2 All wheel drive vehicles: The clutch and flywheel are free. The internal components of the gearbox and final drive are free but the casings must remain standard. Driveshafts are free.

10. Other Systems

10.1 The fuel system is free. The complete fuel system must be isolated from the cockpit, save for fuel lines where the only joints may be at the front and rear bulkheads.

10.2 The electrical system is free. Each vehicle must retain the original design of headlight and tail light assemblies. The low beam headlamps, tail and stop lamps shall remain functional. At least one functional electrically powered windscreen wiper must be fitted.

10.3 The brake system is free, but must be configured so that the brakes still work on two wheels should a failure occur in any one part of the system.

10.4 The lubrication system is free. Coolers, pumps and reservoirs must not be located in the cockpit. Oil lines through the cockpit must be insulated to prevent burns

11. Interior

All interior trim, except for the upper section of the dash pad, may be removed. The driver's seat must be located entirely to the right side of the vehicle. The steering column is free save that the steering wheel may be no further than 100mm rear of the rearmost position of the standard wheel. The locations of the brake, clutch and accelerator pedals are free

12. Safety

12.1 Each vehicle competing on non-slick (e.g. R-Spec) tyres must be fitted with at least a half cage. Each vehicle competing on slicks must be fitted with a full safety cage.

12.2 Each competitor in a non-road registered vehicle must use a safety harness with at least 4 straps in contact with the driver. Each competitor in a road registered vehicle may utilise the standard lap-sash safety belts, but a safety harness is strongly recommended.

13. The Racing Weight of the vehicle, including driver and fluids remaining as it leaves the track, shall be at least that as shown in Table 1. Where a different racing weight is specified in the vehicle's Recognition Document, this revised weight shall supersede that shown in table 1.

Table 1

Effective Capacity (including multipliers)	Racing Weight	Total Rim Width
up to 1400 cm^3	760 kg	32
over 1400 cm^3 and up to 1600 cm^3	850 kg	32
over 1600 cm^3 and up to 2000 cm^3	930 kg	36
over 2000 cm^3 and up to 3000 cm^3	1100 kg	36
over 3000 cm^3 and up to 4000 cm^3	1280 kg	40
over 4000 cm^3 and up to 5000 cm^3	1450 kg	40
over 5000 cm^3 and up to 5700 cm^3	1560 kg	44
over 5700 cm^3 and up to 7000 cm^3	1650 kg	48