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Australian Tarmac Rally

TECHNICAL & SAFETY REGULATIONS

ALL COMPETITION VEHICLES

Season **2020/2021** Edition



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WARNING!

Motorsport is dangerous.

Motor Sport activities are inherently dangerous recreational activities and there is significant risk of injury, disability, death or property damage. If you do not wish to be exposed to such risks, then you should not attend or participate in Motor Sport activities.

Participants, spectators, officials and guests are warned that motor racing, including tarmac rally, is dangerous, and accidents can happen. All care is taken to protect participants, officials, spectators, guests and the public but participants, spectators, and guests entering the Event area are warned that there is a possibility of an accident causing personal injury or death, property damage or economic loss. By entering or participating in an Event, the participant or guest acknowledges that the Event has a degree of danger and the owners, organisers, promoters, participants or other person's having any connection with the promoting, organising or conduct of the Event shall have no liability, either in tort or contract, for any personal injury or death, whether caused by negligence or otherwise, to the, participant, spectator or guest, except in regard to any rights those persons may have under the Australian Consumer Law and at law.

The Event will be conducted under the rules of the Australian Auto Sport Alliance Pty. Ltd. The organisers by accepting the entry of any vehicle and by allowing any vehicle to participate in the Event shall not be deemed to warrant or guarantee the competency of any drivers, nor mechanics participating in the Event nor any officials appointed for the supervision of the Event or activity pursuant to these rules, nor the efficiency or mechanical soundness of any vehicle entered in the Event nor that the course for the Event is in a safe condition for racing or driving, nor that such course nor any part thereof shall be free from spectators or any obstacles nor that the rules governing said Event shall be observed by any other entrant, driver, mechanic nor official therein.

ALL VEHICLES & CREW REQUIREMENTS

1. Numbers and Signage

- 1.1. All vehicles must have the left and right front doors available for door panels and numbers, which will be supplied by the organisers. A space of 200mm x 200mm must also be left for smaller numbers without background panels to be fitted to the side screens of the vehicle. *Refer to Event Supplementary Regulations.*
- 1.2. All vehicles must have a space of 200mm in height across the top of the windscreen for sponsor banner. *Refer to Event Supplementary Regulations*
- 1.3. Signs from sponsors or supporters of individual cars may be displayed on the vehicle, provided they do not interfere with the door or windscreen panels mentioned in 1.1 and 1.2 above and are printed and applied in a professional and tasteful manner and are not in conflict with any sponsors of The Event. The organisers reserve the right to have any advertising they consider distasteful or inappropriate removed from a competing vehicle before it is permitted to start.
The Penalty for infraction - NO START
- 1.4. The organisers reserve the right to provide additional Event sponsor decals and require them to be displayed prominently on all vehicles
- 1.5. Driver and Co-Driver/Navigator names may be displayed on both sides of the vehicle, on the rear side glass, or on the upper part of the front mudguards.
Refer to Event Supplementary Regulations
- 1.6. The Organisers accept no responsibility for any damage to vehicle paintwork during removal of Event signage. The entrant agrees to and accepts this as a condition of acceptance of entry.

2. Vehicle Scrutiny

- 2.1. All vehicles must be “scrutineered” or be the subject of a safety check prior to starting in ‘The Event’. Vehicles must be presented to scrutineering fully compliant with all these Regulations and all other requirements. Scrutineering times will be posted in the Event schedule and on the website.
- 2.2. Each vehicle entered in the Competition must hold a AASA Vehicle Passport, which is to be presented at scrutineering.
- 2.3. A vehicle may be inspected or re-scrutinised at any time during the Event to ensure that the vehicle is in an acceptable condition to continue, that all safety equipment is present, serviceable and correctly positioned, and that the eligibility of the vehicle remains unchanged.
- 2.4. All vehicles must pass scrutiny to be allowed to complete/continue to compete in the Event.
- 2.5. If during the Event the Chief Scrutineer considers a vehicle to be non-compliant, he may direct it to be repaired before recommending that the Clerk of Course approve its continuation in the Event. No time allowance will be made for such repairs; however, a new Start Time may be allocated at the discretion of the Clerk of Course.

3. Crew Requirements

- 3.1.1. All Drivers & Co-Drivers must hold a current Civil Licence.
- 3.2. All cars must have two (2) occupants (Driver & Co-Driver or Driver and Navigator).
- 3.3. All crew must hold a current AASA Tarmac Rally Licence or Tarmac Rally Navigator Licence.

3.4. Helmets and Apparel

Drivers, Co-Drivers and Navigators must wear helmets and apparel that comply with the current Australian Standard and the AASA Regulations.

Refer <https://aasa.com.au/regulations/appendices/> Item 4 – Apparel Requirements

Drivers, Co-Drivers and Navigators must wear an approved (FIA, SFI or similar) FHR frontal head and neck restraint system (HANS device).

ALL VEHICLES TECHNICAL & COMPULSORY

4. Technical Requirements for all vehicles

4.1. The Spirit of the Regulations

- 4.1.1. The spirit of the Regulations is to ensure that all vehicles compete in a safe environment and be mechanically sound.
- 4.1.2. Vehicles entered in period categories shall be visually compatible with the period being portrayed. Where any doubt exists between these Regulations and the original period specification, the latter will take precedence.
- 4.1.3. The Technical Regulations are based on the principle that modifications to the vehicle or its components, other than those specified below, are forbidden. All competing vehicles must comply with these Regulations and the AASA Standing Regulations for Tarmac Rallies. These Regulations are to be used in conjunction with the AASA National Competition Rules (NCR's) and any specified Event documentation such as Supplementary Regulations and any further bulletins.

4.2. Vehicle Eligibility

- 4.2.1. Each vehicle must have at least two seats and was capable of achieving road registration when first released.
- 4.2.2. At all times the onus of proof of eligibility of the vehicle and/or components, whether options or not, will be the responsibility of the competitor by way of homologation papers, parts manuals, workshop manuals, etc.
- 4.2.3. These Regulations do not remove the requirement to comply with any civil obligations or regulations, and compliance with all such provisions is the responsibility of the competitor.
- 4.2.4. In cases where production of a model commenced before the cut-off date and continued after that date, vehicles actually manufactured after this date are considered to be eligible provided they were produced to exactly the same specification as the vehicles built prior to the date. This provision, known as "model run-on", terminates upon a change in vehicle specification having been implemented by the manufacturer. In all cases, the onus of proof in relation to eligibility matters lies with the competitor.

4.3. Roadworthiness and Road Registration

4.3.1. All vehicles must be the subject of a valid road registration or have a suitable permit (i.e. Temporary or Rally permit) from a competent civil authority for use on public roads, complete with a current policy of third party insurance, including where necessary an extension for competition use relevant to state or territory requirements from the state of issue. All statutory requirements relating to the use of such permits/registration must be met.

Unregistered vehicles which are to compete in the Event, may obtain an unregistered vehicle permit by applying to Vic Roads

Proof of registration and insurance are required to be provided at documentation.

4.3.2. Left hand drive vehicles are permitted.

4.4. Authority to enter vehicle

4.4.1. The vehicle must be entered by the bona-fide owner of the vehicle, or a person having the written authority of the bona-fide owner.

4.5. Technical Specification

4.5.1. To aid in the classification of the vehicle, the entrant must fully complete the 'Vehicle Identification Form' along with the entry forms. Should any vehicle detail be altered, such alteration shall be notified in writing to the organisers who reserve the right to reclassify the vehicle.

4.5.2. The organisers reserve the right to amalgamate classes if there are fewer than three vehicles in any class.

4.6. Vehicle Passport

4.6.1. Competing vehicles must be the subject of a Vehicle Passport issued by AASA, and as required by the conditions of the Event Regulations, the Passport number must be recorded on the Vehicle Identity Form. Failure to present such Passport when the relevant vehicle is presented for documentation and scrutiny may cause it to be denied permission to start the Event.

4.7. Optional Item Eligibility

4.7.1. The onus is at all times on the competitor to provide proof that each component is in fact a genuine option for the model, and if this cannot be provided the Technical Advisor may either request that the component be removed (prior to the start of the Event) or recommend a penalty.

4.7.2. Options/accessories/parts (henceforth described as the 'option') may be permitted in certain areas, subject to the following:

To be acceptable in competition, each option shall comply with at least one of the following requirements:

- i. It shall be listed by the manufacturer as a "production option", i.e. an optional item or specification listed on the vehicle build sheet and fitted at the time of the build. (For some vehicles, the options with which it was built are listed on the vehicle ID plate).
- ii. It shall be an option listed and authorised by the manufacturer in official sales literature and to which a manufacturer's warranty applies and which may have been fitted at an authorised dealership.
- iii. The option shall have been proven to have been supplied by the manufacturer in more than the minimum production quantities for eligibility, in vehicles registered for road use.

- 4.7.3.** In addition to the above, an option shall comply with ALL of the following requirements:
- i. Each option must comply with the regulations of the relevant road authority and be ADR compliant.
 - ii. Each option included on the vehicle must have been available during the model run of the vehicle.
 - iii. Where a recognition document has been issued for a particular vehicle, each option shall be specified in the recognition document.
 - iv. Each option must be permitted under the provisions outlined under each specification.

- 4.7.4.** Options will only be permitted in the following areas when in compliance with the requirements set out under each category specification or where these Technical Regulations already provide freedom of modification:

Engine Radiator and oil cooler.

Gearbox Case, gear set and selector. (Classic only)

Suspension bushes, Sway bars, Springs and Shock Absorbers.

Power Steering, Cooler.

Wheels - Wheel size and offset.

Interior - Additional gauges, gauge pods, consoles.

Modifications to these items outside of class regulations may only be used on vehicles in "Super Rally" Category

4.7.4.1. Aerodynamic Devices

Each aerodynamic 'add on' device may be considered as an option, provided it complies with the following requirements

The rear aerodynamic device of a vehicle shall not exceed the dimensions of the original aerodynamic devices supplied by vehicle manufacturer.

Aerodynamic devices that do not comply with these requirements may only be used on vehicles in "Super Rally" Category

The material of construction for the rear aerodynamic device is free.

4.7.4.2. Other Body Options

'Side skirts' fitted between the front and rear wheel arch. The side profile shall be no more than 100mm high, and which are entirely contained within the frontal projection of the standard bodywork without its rear-view mirrors.

4.8. Engine Changes / Oil Leaks / Damaged Engine

4.8.1. Engine Changes

Engines may be changed during the Event, upon application to the Clerk of Course and his/her acceptance of the change. The replacement engine must have the same type of block and cylinder head as the original engine, be of similar or lesser specification as the original engine and must comply with the requirements of the class within which it is entered.

4.8.2. Oil leaks/Spillage

If any official requests repairs to a vehicle to prevent or eliminate oil leaks or spillage, such repairs must be carried out to the satisfaction of the Chief Scrutineer. If a vehicle continues to leak or spill oil the vehicle may be refused permission to continue in the Event, or such other position as is determined by the Clerk of Course. Any Stage official is empowered to prevent, under the above circumstances, a vehicle from starting a stage until a decision is made by the Clerk of Course. If an engine is fitted with any crankcase breather/s discharging to atmosphere, there must be fitted to each breather an oil-trap "catch can" or container (which must be visually empty at the start of each stage).

The capacity of the catch can shall be a minimum of two litres (for NA engines of under 2000cc) or three litres (for turbo engines or engines of over 2000cc).

On engines with a closed or recirculating crankcase ventilation system, provided that there is no venting to the atmosphere (i.e. the engine is totally closed) a catch can is not required to be fitted.

Damaged engine resulting in an Oil Leak

If a competitor damages an engine while driving (including in a transit stage) which results in an oil leak they must immediately pull off the driving line and stop as soon as safe to do so.

Caution triangles are then to be placed in a visible location nominally 50m & 10m before the start of spillage. The crew are then to spread the oil absorbent material carried where the bulk of the leaked oil has been deposited on the road. Crews are to do this in a safe manner with one crew member warning the other crew member of oncoming cars (and if on a competitive stage, at the same time showing the OK board to oncoming cars).

4.9. Wheels & Tyres

4.9.1. Wheels

Wheels may be replaced. Wheel diameters may be varied by up to a maximum of 4" and the width by up to 4" from the standard (not optional) dimensions.

Wheels may be manufactured only from aluminium alloy, steel or magnesium.

Notwithstanding, the maximum wheel diameter is 19" unless larger diameter is specified by the manufacturer as standard fitment, in which case the manufacturer's diameter is the maximum permitted. The maximum wheel width is 11" unless larger width is specified by the manufacturer as standard fitment, in which case the manufacturer's width is the maximum permitted.

The fitment of tyres to rims which are either too narrow or too wide for the tyre in question shall result in exclusion from the Event.

Except where varied by the following specific regulations, the wheel track shall conform to the following requirement:

The upper part of the tyre, down to the wheel rim flange over the wheel hub centre must be within the perimeter of the vehicle when viewed vertically from above

4.9.2. Tyres

Tyres that have been grooved after manufacture, or have been re-grooved, are not permitted to be used.

Tyres must have manufacturers markings providing the aspect ratio, speed rating and load carrying capacity.

The organisers reserve the right to prohibit the use of specific tyres at any time up to the start of the Event should such tyres not meet the spirit of these Regulations. Studded or slick tyres are prohibited. Tyres must have tread that is legal as defined by Australian Design Rules (ADR). At start of each day, and upon subsequent inspection, Event officials may order that a tyre be changed and re-presented for checking before the vehicle can continue.

Tyres must be marked legal for road use as indicated by the presence of either DOT (Department of Transport) marking or be a competition tyre approved by AASA. AASA will be final arbiter on tyres.

The use of tyre warmers or any artificial method of pre-warming tyres is not permitted.

Tread wear indicators as provided by the tyre manufacturer shall be the definitive indicator of tread depth. All tyres must have a minimum tread depth of 1.5mm at any point on the tread normally in contact with the road other than at tread depth indicators.

It is the responsibility of the competitor to ensure that tyres remain in conformance with any civil regulations during touring stages.

In all cases, the correctly inflated tyre shall not foul the body, suspension or steering at any point in full movement of these components.

Tyre Aspect Ratio's

The minimum tyre aspect ratio percentages are:

Vehicles built up to	1946	65
	1947 to 1971	45
	post 1971	30

Lower aspect ratios are not permitted unless specified by the manufacturer as standard fitment, in which case that profile is the minimum permitted. Tyres that are not marked with a percentage aspect ratio by the manufacturer during the manufacturing process are not permitted, except where the tyre has an aspect ratio greater than 70.

Tyre aspect ratios for years are not applicable to Super Rally category. The minimum ratio for any category including Super Rally is 30.

4.9.3. Rim Profile/Inner Tubes

Any tyre fitted to a rim without safety profiles may only be used in classic category and must be fitted with an inner tube.

4.9.4. Tyre fitment

Tyres shall be fitted in accordance with the tyre manufacturer's published specification or the Tyre and Rim Association Manual.

4.9.5. Valve Caps

Each tyre valve shall be fitted with a cap.

4.9.6. Wheel Spacers

A maximum of one metallic spacer may be used behind each wheel.

4.10. Recognition Papers

The organisers may produce recognition papers which will define the specification of a given model, and if such papers have been produced they must be presented at scrutiny by the competitor. If the organisers issue a recognition paper for a recognised model, this will be considered the definitive document.

Irrespective of the parts for which the present article lays down freedom of modification, the original mechanical parts necessary for the propulsion as well as all accessories necessary for their normal functioning, having undergone the normal machining operations laid down by the manufacturer for series production may be subjected to all tuning operations through finishing, scraping but not replacement. Provided that the origin of the series production part may always be established, its shape may be ground, balanced, adjusted, reduced or modified through machining.

However, the modifications permitted by the above paragraph are allowed on condition that the weights and dimensions mentioned on the homologation form, recognition documents, manufacturers manual &/or published specifications and workshop manuals are respected.

4.11. Fasteners

Throughout the vehicle, any nut, bolt, clamp or screw may be replaced by any other nut, any other bolt, clamp or any other screw and have any kind of locking device (washer, lock nut etc.) or clamp.

4.12. Addition of Material and Parts

Any addition of material or parts are forbidden unless it is specified or required by an article in these Regulations.

Restoration of body shape, following accidental damage during the Event, is permissible by the addition of the materials necessary to affect the repairs (body filler, fibreglass, race tape, weld metal etc).

Restoration of chassis geometry following accidental damage during the Event, is permissible by the addition of the materials necessary to affect the repairs (weld metal etc); parts which damaged maybe repaired by the addition or attaching of materials.

Restoration of suspension components following accidental damage during the Event, is permissible by the addition of the materials necessary to affect the repairs (weld metal etc). Parts which are worn or damaged are not to be reused unless first adequately repaired.

After any of the above repairs the car must be re-presented to scrutineering before continuing in the Event.

4.13. Chassis, Sub-Frame, Monocoque and Interior

General modifications to the Chassis, Sub-Frame, Monocoque and Interior trim to facilitate the fitment of mandatory equipment and for the fitment of any other items permitted under specified freedoms within these Regulations, are permitted.

4.14. Rear Vision Mirror

At least one rear vision mirror, with a reflecting surface of at least 50 square centimetres (8 centimetres diameter if round), must be fitted to the vehicle and must provide view to the rear of the vehicle in order to permit the driver to become aware of any overtaking vehicle.

4.15. Battery

The battery may be relocated to any position. Regardless of the battery location it must be mounted securely to prevent movement in the event of an accident. If mounted within the cabin of the vehicle, it must be behind the front seats and mounted within an acid-proof sealed container with a vent outside the vehicle, or be of dry cell construction (dry cell construction batteries are preferable).

All positive battery terminals shall be insulated (i.e. covered with plastic or rubber boots).

A blue triangle of sides 150mm indicating the location of the battery must be placed on the vehicle adjacent to the battery location.

All vehicles must be equipped with a battery isolation (master) switch, which effectively isolates all electrical circuits from the battery and stops the engine. The battery switch should be located as close to practicable to the battery, the switch must be capable of being operated either directly or by some means of remote control by the driver when seated in the driver's seat. There must also be a second means of operating the battery isolation switch on the outside of the vehicle. This "external battery isolation switch control" shall be in the vicinity of the A pillar (for vehicles without an A pillar the switch shall be in a comparable position). This external control must be clearly marked by a symbol showing a red spark in a blue triangle.

4.16. Fuel & Fuel Tanks

A maximum of 105RON fuel is permitted to be used during the Event.

Commercially available E85 (up to 105RON) and ethanol blended fuels are also permitted.

All commercially available fuels including diesel fuel that are legal for road use are permitted.

Classic category entrants may apply to the organisers in writing prior to the Event for an exemption to fuel specification rule.

Penalties will apply for exceeding the octane rating.

First offence: 10-minute penalty.

Second offence: Exclusion.

The carriage of fuel in containers that are not part of the piped vehicle fuel system is prohibited, regardless of the vehicle construction.

All fuel lines passing through the cockpit area must be metal or protected (e.g. covered by a metal shield or enclosed in a metal tube) and must not have any joins inside the cabin.

Fuel tanks are free but must be of safe design. Race Fuel Cells / FT3 standard fuel tanks are recommended. If an FT3 fuel tank is being utilised, the minimum amount of local modification of the bodywork to fit the fuel tank is permitted. An auxiliary fuel pump, to enable transfer of fuel to a swirl pot if required, is permitted.

4.17. Extensible Straps

Extensible straps (e.g. 'Octopus' straps) shall not be used to hold down objects of more than 100g mass inside the vehicle.

4.18. Cameras

Cameras and video recorders may be fitted to vehicles.

The mounting of any on-board camera shall be to AASA Regulations and approved by the Chief Scrutineer.

No camera may be fitted in such a way that it relies solely on a suction cup mounting.

4.19. SRS Air Bags

Competition vehicles fitted with SRS (Supplementary Restraint Systems – airbags) must have these systems disconnected, deactivated or removed where any equipment is mounted in front of the airbag, and must carry a sticker advising of this deactivation.

4.20. Anti-lock Brakes

Vehicles fitted with ABS (anti-lock brake systems) may have these systems disconnected or deactivated.

4.21. Electronic Driver Aids

Electronic Driver aids and active system may be disconnected or deactivated.

4.22. Steering Wheel

The steering wheel may be replaced by another, providing that the replacement is:

- i. It is not made of wood.
- ii. Complies with all relevant civil regulations.

4.23. Pedals

Removable 'pads' on brake, clutch and accelerator pedals are free.

4.24. Navigation Instruments

Aftermarket Electronic or Mechanically driven navigation instruments may be fitted.

5. All Vehicles – Compulsory Equipment

5.1. Safety Cage

All relevant vehicles must be fitted with a safety cage in compliance with AASA Safety Cage Regulations Class 3 and any other requirements for tarmac rally.

A safety cage demonstrated as meeting the requirements of other internationally recognised motorsport sanctioning bodies may be accepted subject to prior written approval by AASA Refer <https://aasa.com.au/regulations/appendices/>

Additionally, any part of the safety cage structure where the helmet or body (excluding limbs) of either of the crew could come into contact with during an accident, and any safety cage bar that is directly above or to the side of the helmet of an occupant, shall be fitted in that area with protective padding, which complies with either FIA standard 8857-2001, SFI specification 45.1. or SFI specification 45.2.

Rally Challenge & Target Time entrants see category requirements for category minimum safety cage requirements.

5.2. Seats

Vehicles must be equipped with minimum 2 seats (one for each occupant). The material from which seats are manufactured is free, including carbon fibre and Kevlar provided each seat is compliant with one or more of the following:

- The original seat as supplied by the OEM for the vehicle; or
- A seat licensed by the SFI Foundation to the SFI 39.2 standard; or
- A seat in compliance with the requirements of an internationally recognised motorsport sanctioning body; or
- A seat that has no provision for backrest adjustment, incorporates a head restraint and is supplied by a manufacturer recognised by the AASA.

Fixed back winged seats to an internationally recognised standard are highly recommended

For further information refer AASA Standing Regulations for Tarmac Rally.

Seats shall be mounted in accordance with the seat manufacturer's instructions. This shall include the use of each required mounting point and associated components supplied. Seats may be mounted, either separately or in combination, to

- the unmodified OEM seat mounting points on the vehicle's structure; or
- the safety cage; or
- additional mounting points, each incorporating a steel reinforcement at least 3mm in thickness and in contact with surrounding vehicle structure over an area not less than 3750mm². The fitment of additional seat mounting points to automobiles constructed of a material other than steel will be authorised by the AASA on an individual basis and recorded in the AASA Vehicle Passport.

For further information refer AASA Standing Regulations for Tarmac Rally.

The front seats may be moved rearwards, but not beyond the vertical plane defined by the front edge of the original rear seat (where originally fitted). The limit relating to the front seat is formed by the seatback at its rearmost point where the seat does not incorporate the headrest, and if the headrest is incorporated into the seat, by the rearmost point of the driver's shoulders.

5.3. Seatbelts/Harnesses

All competition vehicles (excluding Target Time) shall be fitted with safety harnesses for each crew member that comply with the requirements listed below.

Harnesses are recommended but not mandatory for Target Time competition vehicles.

The use of 3 inch wide five/six point belts as the standard is recommended.

Safety harnesses shall be marked as having compliance to one or more of the following standards:

- ECE 16 (European Standard)
- SFI 16.1 (SFI Standard)
- AS 2586 (Australian Standard)

8853/98 or 8853-2016

Additionally, harnesses meeting the requirements of internationally recognised motorsport sanctioning bodies will be deemed acceptable.

Any harness showing visible signs of wear, damage or degradation will be rejected.

The age limit on harnesses is 31st December of the marked expiry date year + 5 years. (harnesses without an expiry date are not acceptable).

The Safety harness may be mounted to either the OEM harness mounting points, to the safety cage, or to additional mounting points on the vehicle structure. Additional mounting points shall incorporate a steel reinforcement at least 3mm in thickness and in contact with surrounding vehicle structure over an area not less than 3750mm².

The fitment of harness mounting points to automobiles constructed of a material other than steel will be authorised by the AASA on an individual basis and recorded in the AASA Vehicle Passport

Refer <https://aasa.com.au/regulations/appendices/> Appendix 5-Occupant Restraint Systems

Harnesses must be worn at all times when the vehicle is moving.

Under no circumstances may a safety harness mounting bolt be used to also affix a ROPS to the bodyshell. Harnesses or seat belts of cars involved in any accident must be inspected by a scrutineer.

If appropriate, the Vehicle Passport shall be endorsed with a requirement that the belts be replaced.

The scrutineer at the car's next meeting must satisfy himself that the replacement has been made.

An approved (FIA, SFI or similar) FHR frontal head and neck restraint system (HANS device) is compulsory for both Driver and co-driver of all competition vehicles.

Refer <https://aasa.com.au/regulations/appendices/> Appendix 4

5.4. Helmets and Apparel

Drivers, Co-Drivers and Navigators must wear helmets and apparel that comply with AASA Regulations.

Refer <https://aasa.com.au/regulations/appendices/> Item 4 – Apparel Requirements.

Drivers and Co-Drivers must wear an approved (FIA, SFI or similar) FHR frontal head and neck restraint system (HANS device).

5.5. Headlamps & Lighting

Effective headlamps must be fitted to the vehicle.

Vehicles must have lighting and signalling equipment that complies with civil regulations applicable to the State or Territory where the Event takes place-

Vehicles with standard retractable headlamps may be fitted with two alternative auxiliary lights, which must be fitted securely and to a standard approved by the scrutineer. When illuminated, these lights must be visible to at least the same extent as the vehicle's standard headlamps on low beam in daylight.

5.6. Throttle Return Spring

On each throttle, whether butterfly, slide or other type, there must be fitted a return mechanism which, in the event of the throttle linkage becoming detached, will in all cases return each throttle to the closed position. *This requirement does not apply to electronic drive by wire throttle body mechanisms.*

5.7. Wiring, Brake/Fuel & Oil Lines

Wiring, brake, fuel or oil lines and brake cables where installed under the vehicle or in an area that may be subject to damage, must be protected against damage or deterioration (stones, corrosion, mechanical breakages, etc). If the OEM designed system is retained, no additional protection is deemed necessary.

5.8. Windscreen & Glass

Vehicles must be fitted with a laminated glass windscreen unless fitted otherwise with a non-glass windscreen by the OEM.

Other glass in all windows except for the windscreen may be replaced by any transparent material of adequate strength (e.g. polycarbonate), which must be fixed and operate in the same manner as the glass replaced. Such material shall be resistant to shatter and not less than 3mm thickness. Safety straps or clips on front and rear windows are permitted.

Tinted windows are permitted on the side and rear windows only in accordance with State Vehicle Regulations

5.9. Oil Absorbent Material

Competitors are required to carry in the vehicle a minimum 1kg bag of oil absorbent material, e.g. "Kitty Litter" or alternatively, a minimum 500g of specialist oil absorbent material.

5.10. First Aid Kits

All vehicles are required to carry on board a first aid kit which can be easily accessed, reasonably protected from dust, water or other contaminants and secured so as not to be a potential hazard in the event of a collision. The contents of the first aid kit must be in date, usable and sterile (where applicable). Competitors are responsible for ensuring the contents of the first aid kit are maintained and must make the kit available for inspection by Event officials as required.

5.11. OK/SOS Signs

Each vehicle is required to carry an OK/SOS sign on board, minimum A4 size, at all times.

5.12. Reflective Warning Triangles

At least two reflective 'safety triangles', with sides at least 300mm in length, must be carried in the vehicle at all times while competing. Triangles should be carried within the cabin of the vehicle, be secured so as not to be a potential hazard in the event of a collision, be in an accessible position and able to be removed without the use of tools (i.e. not cable tied). If a vehicle has stopped on a competitive stage for any reason (including a minor breakdown). One triangle must be placed approximately 100m and the second triangle approximately 50m prior to the vehicle - immediately after the Failure to place triangles as described may result in a penalty being applied by the Clerk of Course

5.13. Fire Extinguishers

Each vehicle is required to carry one or two hand-held extinguishers, which must meet the following criteria:

Be in compliance with Australian Standard AS1841, suitable for use in motor vehicles and having a combined extinguishant capacity of at least 2 Kilograms. Where a single extinguisher is fitted it shall comply with either AS1841.4 (Foam) or AS1841.5 (Dry Chemical). Additional extinguishers may include those to AS1841.2 (Stored pressure-water).

Extinguishers shall be mounted so as to remain restrained when subject to a force of 25 times the gross weight of the container in any direction, and be removable without the use of tools.

Due to the widely varying structure of competition automobiles, advice is not provided as to the location of each fire extinguisher but at least one extinguisher must be within the cockpit.

Consideration should be given to allowing access to each extinguisher by the crew, or other parties outside of the vehicle. Access to extinguishers in the luggage compartment must not require the use of keys or internally located release mechanisms.

Each extinguisher must be equipped with a gauge or means of checking the pressure of its contents. The following information must be visible on each extinguisher:

Capacity, Type of extinguishant, Date on which the extinguisher was manufactured (stamped or engraved into the cylinder by the manufacturer).

Fire extinguishers must be maintained according to the following prescriptions:

An inspection, at least once every six months, or otherwise prior to competition. This shall involve visually checking the both the extinguisher and its mountings for condition and damage, checking the pressure of the contents, and shaking the container to check for settling of the extinguishant.

The mandatory requirement states extinguisher/s shall be replaced 3 years after date of manufacture on the cylinder, or alternatively maintained in compliance with AS1851 (severe environment provisions). In this case the fire extinguisher may be emptied, pressure tested, and refilled to the requirements of AS1851 by a recognised fire service supplier. Note: if AS1851 servicing is undertaken, it is the competitor's responsibility to provide written evidence by way of certificates and invoices (with the extinguishers identified) that the required three yearly services to AS1851 have been undertaken (fire extinguisher "tags" are not considered satisfactory evidence of servicing).

A non-removable, plumbed fire suppression system is recommended and may be installed as a supplement to the above requirements.

5.14. Bonnet Restraints

Each vehicle must have at least two independent fastening systems, of adequate strength and limited extensibility, which simultaneously hold the bonnet closed.

5.15. Towing Eyes

To facilitate the ease of recovery of a vehicle, towing eyes shall be fitted complying with the following:

Are fitted forward of the front axle and rearwards of the rear axle;

Are clearly visible from front or rear of the car in yellow, orange or red, (the chosen colour being in contrast to the colour of the body work immediately adjacent the towing point) and indicated by 'Tow' signs.

Each towing point shall be capable of permitting the insertion of a circular pin of diameter 40mm and be of sufficient strength to permit the vehicle to be towed with its wheels locked on an asphalt surface. Tow hooks provided by the manufacturer of the car as a standard fitment may be utilised, provided they comply with the above:

5.16. Carriage of spare wheel & tyre

A single spare wheel & tyre may be carried either in the boot space, inside the driving compartment, on the boot lid or any manufacturers original location on the following conditions.

(i) That it is firmly secured with a retaining device of adequate strength to avoid excessive movement in the event of an accident.

(ii) That it does not protrude into the space reserved for the driver and/or co-driver.

(iii) The rearward vision must not be obstructed.

(iv) The fitting devices must satisfy the Vehicle Safety Checkers who shall be considered Judges of Fact for all matters relating to wheels and tyres

5.17. Rallysafe

A Rallysafe device is compulsory for all vehicles and will be provided by the organisers at documentation. Rallysafe antennas, wiring and mountings (fitting kits) are available from <https://shop.statusas.com/shop/category/rallysafe/>

and must be installed in all vehicles prior to the Event to allow for fitment of the Rallysafe device before scrutineering.

For further information see <https://rallysafe.com.au/competitors-tm/>

5.17 Compulsory Requirements Interpretation

The Organisers, Rally Officials and Scrutineers shall be considered Judges of Fact in relation to all compulsory requirements.

Whilst every attempt has been made to ensure these Regulations reflect the provisions that will be in place at the time of the Event, the timing of the Event and publication of the Supplementary Regulations can make that difficult. Any changes made by AASA to the relevant provisions of the AASA Regulations shall supersede these requirements and in addition, the organisers reserve the right to amend the safety equipment to reflect such requirements.

CATEGORY REQUIREMENTS

6. Category List

Category	Applicable Years
Target Time	1900 - current
Rally Challenge	1900 - current
Early Classic	Pre 1972
Classic	1972 - 1985
Classic Modified	1900 - 1985
Early Modern	1986 - 2007
Modern FWD	2008 - current
Modern RWD	2008 - current
Modern AWD	2008 - current
Super Rally	1900 - current

7. Classic Category (Early Classic / Classic / Classic Modified)

7.1. Classic Categories

There are 3 Classic categories, 2 based on age. (Early Classic (pre 1972) & Classic (1972-1985)) and a third encompassing both ages with a higher allowed modification level

1. Early Classic, Open to vehicles manufactured prior to 31st December 1971 or vehicles of a model/specification which matches that of a vehicle manufactured prior to 31st December 1971
See "run on" 4.2.4
2. Classic, open to vehicles manufactured between 1st January 1972 & 31st December 1985 or vehicle to a model/specification which matches that of a vehicle manufactured prior to the 31st December 1985.
See "run on" 4.2.4
3. Classic Modified, Open to vehicles manufactured prior to 31st December 1985 or vehicle to a model/specification which matches that of a vehicle manufactured prior to the 31st December 1985.
See "run on" 4.2.4 with a modification level as described in these regulations
The organisers reserve the right to combine Classic Categories if there are insufficient entries in any given Category

7.2. Technical

All vehicles entering Classic category must comply with the Classic category requirements below
Vehicles that do not comply with Classic category requirements may be eligible for entry in Super Rally category subject to complying to the Super Rally category requirements.

7.2.1. Application

The Technical Regulations are based on the principle that modifications to the vehicle or its components, other than those specified below, are forbidden.

7.2.2. Minimum Weight

The minimum weight must be in accordance with the organisers imposed minimum or manufacturer's original specifications, homologation papers, workshop manuals, or sales specifications (in that order of priority). This weight will be deemed to include all liquid tanks to be at the normal operating levels as foreseen by the vehicle manufacturer, except the fuel tank which shall be empty.

For the purposes of confirming weight during the competition, the organisers may refer to the minimum competition weight of the vehicle.

If the organisers intend to use competition weight as the reference, this intention will be stated in the Supplementary Regulations for the Event.

The minimum competition weight shall be not more than 15% below the manufacturer's original specifications.

7.3. Modifications Permitted

Vehicles can be modified. The modification level of such vehicles is controlled to a level deemed compatible within the parameters set out in these Regulations.

Vehicles modified beyond the limits specified, will be required to enter in Super Rally category subject to the limitations of this regulation.

Vehicles homologated prior to 31 December 1985 (including Errata) can be presented in their entirety. The minimum production number is twenty vehicles. It is the obligation of the Competitor to prove that the minimum quantity has been produced.

7.3.1. Engine (Early Classic & Classic)

Other than turbo/supercharged vehicles where replacement with a different type is not permitted, the cylinder block shall be standard, or a replacement cylinder block is permitted subject to the following requirements:

The replacement must be a production cylinder block from the same manufacturer and of the same configuration, with more than 2500 units sold for road use, which upon application may be approved for tarmac rallies by the organisers as a suitable replacement engine; or

Be a documented recognised replacement or substitute for use in this period with approval of the organisers, in which case the approved item shall be utilised in its entirety.

The guidelines for approval of replacement cylinder blocks are that the block shall:

- i. be produced prior to 01 January 1986,
- ii. be produced by the same manufacturer as the original,
- iii. have the same number of cylinders,
- iv. be made of the same material as original, (i.e. be iron block or alloy block)
- v. and be able to be located in the same general location as the original.
- vi. No body modification is permitted to allow the fitment of the replacement cylinder block.

Engine (Classic Modified)

All vehicles (including Turbo/supercharged) may replace engine with a different type provided it meets the following criteria.

- i. Be produced prior to 01 January 1999,
- ii. Be produced by the same manufacturer (including associated companies) as the original,
- iii. Have the same number of cylinders,
- iv. Be able to be located in the same general location as the original.
- v. No body modification is permitted to allow the fitment of the replacement cylinder block.
- vi. Ancillary pulleys and drive belts are free.

7.3.2. Engine Capacity

For all engines other than rotary engines the maximum engine capacity is free. In the event engine capacity is required for classing or awards grouping, the vehicle will be classified according to its actual capacity inclusive of any bore or stroke increases (or decreases) and any relevant supercharging and rotary equivalence factors.

Rotary-engine vehicles are permitted to be fitted with engines with one size larger housing available from the original manufacturer, (e.g. for Mazda engines, from 10A to 12A, or from 12A to 13B) over what was standard in the vehicle. The same number of rotors as standard shall be retained.

Classic Modified rotary engine capacity is free

7.3.3. Crankshaft

The crankshaft and connecting rods are free.

7.3.4. Pistons & Rings

Pistons and piston rings are free.

7.3.5. Cylinder Heads

Cylinder heads are free.

Valve size is free.

7.3.6. Camshafts

Camshafts are free, providing the original number and location are retained.

7.3.7. Rotary Engines

Modifications to rotary engines rotors, housings and end plates may be affected only by the addition of metal to the housing to run peripheral port, so as to attach an intake manifold.

Rotary engines may be modified by the utilisation of the porting technique/s extend, bridge and peripheral. The rotors and seals of rotary engines are free.

7.3.8. Ignition

The ignition system is free.

7.3.9. Turbos & Superchargers

Where fitted as original equipment, the turbo and waste gate or supercharger may remain standard or be replaced by another from the same period, provided the turbo mounting flange is fitted in the same position as the original part.

Turbo boost level is free, provided that it remains fixed,

The remainder of the induction system is free including intercoolers, but these must be fitted without any modifications to the external bodywork.

7.3.10. Induction (Early Classic & Classic)

For naturally aspirated vehicles the complete induction system is free save that fuel injection shall not replace carburettors, unless it was an option on another model of the same family of vehicle from the same period.

Where fuel injection replaces carburettors, all replacement items must be from the same period as the original items replaced.

Additional air ducting is permitted.

The radiator support panel may be modified to allow fitment of induction system ducting but external body panels may not be modified.

Induction (Classic modified)

For naturally aspirated vehicles the complete induction system is free

Fuel injection may replace carburettors.

Additional air ducting is permitted.

The radiator support panel may be modified to allow fitment of induction system ducting but external body panels may not be modified.

7.3.11. Fuel System

Fuel pump/s, fuel pressure regulator, fuel rail/s, fuel filter, fuel line diameter and hoses are free

7.3.12. Exhaust

The exhaust system is free.

Vehicles must be fitted with an effective exhaust muffler so that the maximum noise emitted is no more than 95dB(A) when measured 30m from the edge of the tarmac at any point on a competitive stage determined by the Clerk of Course.

7.3.13. Engine Cooling System

The engine liquid cooling systems are free. However, save for the radiator support panel which may be modified to accommodate the liquid cooling systems, the bodywork must not be modified to allow fitment, nor are additional air scoops permitted.

Air cooled engine cooling systems are free.

7.3.14. Clutch

Clutches and flywheels are free, and carbon components are permitted in the clutch assembly. Clutch activation system cable or hydraulic is free

7.3.15. Sump

The sump is free and/or dry sump oil systems are permitted. Oil filters are free.

7.3.16. Engine Mounts

Engine mounts are free.

7.3.17. Internal Engine Modifications

All other internal engine modifications, other than those specifically addressed and/or limited in this Article, are free.

7.3.18. Gearbox/Transmission/Final Drive (Early Classic & Classic)

Gearboxes or transaxles may be replaced by another of free design, provided they have no more forward gears than what was originally supplied on that model and one (1) reverse gear.

Automatic transmissions provided optionally by the manufacturer for that model are permitted in lieu of a manual gearbox and vice versa.

Transmission tunnel modifications necessary to allow the fitment of a transmission are permitted.

It is permitted to modify the body for revised gearbox mounts and for the entry of the gear lever mechanism into the cabin.

The bell housing is free.

Column gearshift mechanisms may be transferred to floor shift mechanisms. The original method of actuating the gear change, (e.g. 'H' pattern, pre-selector) must be retained. Shortened or 'quick' shifters are permitted. Sequential change mechanisms are not permitted unless originally fitted.

The configuration of the rear axle or final drive assembly must be as originally fitted to the vehicle (e.g. a live rear axle must remain in a vehicle so equipped as original), but otherwise the rear axle or final drive assembly is free.

Full floating hubs are permitted.

Limited slip differentials or other differentials which act to limit the differential action are permitted.

Only mechanical differentials are permitted. 'Mechanical limited slip differential' means any system which works purely mechanically, i.e. without the use of hydraulic or electric actuators.

All transmission drive shafts are free.

Gearbox and differential oil coolers are permitted provided these are mounted without any modifications to the outside bodywork.

Gearbox/Transmission/Final Drive (Classic Modified)

Gearboxes or transaxles may be replaced by another of free design, provided replacement has no more the six (6) forward gears and has one (1) reverse gear that is located in the same location as gearbox originally supplied in that model

Automatic transmissions provided optionally by the manufacturer for that model are permitted in lieu of a manual gearbox and vice versa.

Transmission tunnel modifications necessary to allow the fitment of a transmission are permitted.

It is permitted to modify the body for revised gearbox mounts and for the entry of the gear lever mechanism into the cabin.

The bell housing is free.

Gearshift location is free but must be mechanical

Shortened or 'quick' shifters are permitted.

Sequential change mechanisms are permitted but must be activated directly by mechanical lever. (electronic or pneumatic activation is not permitted)

The configuration of the rear axle or final drive assembly must be as originally fitted to the vehicle (e.g. a live rear axle must remain in a vehicle so equipped as original), but otherwise the rear axle or final drive assembly is free.

Full floating hubs are permitted.

Limited slip differentials or other differentials which act to limit the differential action are permitted.

Only mechanical differentials are permitted. 'Mechanical limited slip differential' means any system which works purely mechanically, i.e. without the use of hydraulic or electric actuators.

All transmission drive shafts are free.

Gearbox and differential oil coolers are permitted provided these are mounted without any modifications to the outside bodywork

7.3.19. Chassis/Sub-Frame/Monocoque

The chassis, and any monocoque structure may be prepared to Group N specification (AASA Regulations) Seam welding is permitted. Further strengthening is permitted provided the added material follows the shape of the original component, the chassis and body must be otherwise standard except for any modifications to the body shell in the immediate area which may be necessary to permit the fitment of a replacement seat or specified safety equipment. No part of the modified bodywork may extend any lower than the surrounding bodywork.

Suspensions sub-frames are free, providing they are attached exclusively at the original mounting points.

7.3.20. Suspension (Early Classic & Classic)

The suspension type/configuration as fitted front and rear must remain original (e.g. McPherson strut, dual wishbone, live rear axle, de Dion rear axle etc.), but may be modified only in accordance with the following regulations:

All sprung and semi-sprung suspension components may be replaced, and/or modified.

The material used in suspension bushes is free. Rose joints, spherical bearings, or heim joints may replace elastomeric bushings.

Springs, torsion bars, McPherson struts and dampers and their mountings are free.

Anti-roll (sway) bars, mountings and links are free, rear suspension is free, subject to the following:

For live rear axles:

The body shell may be modified to allow the fitment of brackets to mount locating arms. To that end, the minimum required amount of metal may be removed from the standard body shell to allow the construction of a forward mount for the suspension arms inside the cockpit space.

It is permitted to make the appropriate modifications (such as removal of metal and welding in replacement panels of the necessary shape) in order to construct a "turret" in the rear wheel arch, inner guard and/or boot area, the purpose of which is to accommodate and mount the top of a damper or combined spring/damper unit.

The cockpit space must be effectively sealed from the outside of the vehicle in the area where such modifications are made.

Suspension pivot points are free.

Adjustable strut tops which may have the effect of altering the camber and/or caster are permitted (where applicable, i.e. on McPherson strut equipped vehicles). Modifications are permitted to the bodywork at the point where the strut top is mounted to allow clearance for the strut top.

The addition of braces for strut/damper towers is permitted.

Suspension (Classic Modified)

The suspension type/configuration as fitted front and rear must remain original (e.g. McPherson strut, dual wishbone, live rear axle, de Dion rear axle etc.), but may be modified only in accordance with the following regulations:

McPherson strut may replace double wishbone

All sprung and semi-sprung suspension components may be replaced, and/or modified

The material used in suspension bushes is free. Rose joints, spherical bearings, or heim joints may replace elastomeric bushings.

Springs, torsion bars, McPherson struts and dampers and their mountings are free.

Anti-roll (sway) bars, mountings and links are free, rear suspension is free, subject to the following:

For live rear axles:

The body shell may be modified to allow the fitment of brackets to mount locating arms. To that end, the minimum required amount of metal may be removed from the standard body shell to allow the construction of a forward mount for the suspension arms inside the cockpit space.

It is permitted to make the appropriate modifications (such as removal of metal and welding in replacement panels of the necessary shape) in order to construct a "turret" in the rear wheel arch, inner guard and/or boot area, the purpose of which is to accommodate and mount the top of a damper or combined spring/damper unit.

The cockpit space must be effectively sealed from the outside of the vehicle in the area where such modifications are made.

Suspension pivot points are free.

Adjustable strut tops which may have the effect of altering the camber and/or caster are permitted (where applicable, i.e. on McPherson strut equipped vehicles). Modifications are permitted to the bodywork at the point where the strut top is mounted to allow clearance for the strut top.

The addition of braces for strut/damper towers is permitted.

7.3.21. Steering

Steering is free.

All changes to the original steering layout/system must be accompanied by a certification document signed by an Australian Road Authorities' accredited Engineer. Collapsible steering columns are highly recommended.

7.3.22. Brakes

The brakes are free providing they do not incorporate ceramic materials.

Modifications to fit pedal boxes and/or dual master cylinders are permitted.

Cooling ducts may be added but these must remain within the perimeter of the bodywork when viewed from above.

Handbrake along with method of activation of handbrake is free

7.3.23. Throttle Cables

Throttle cables and linkages are free.

7.3.24. Coachwork/Bodywork

Bodywork and body fittings in their entirety must be as supplied by the manufacturer, including materials, save that:

Front mudguards, bonnet, nose panel, boot lid or rear hatch of alternative material are permitted, provided they are of the same external shape as the original panel. The following minimum specifications of alternative materials shall be respected:

aluminium – 1.25mm thick, glass fibre/glass fibre reinforced plastic – 3mm thick.

The use of any under trays, fairings, scoops, louvres, air intakes or exits is not permitted (except as provided for in 0 above) unless supplied by the vehicle manufacturer as standard equipment in original production or the competitor can prove their legitimate use on the particular make and model in national or international level rally & circuit racing competition during the period in which the vehicle was manufactured.

Notwithstanding the above, the addition of period style bonnet louvres and engine cooling ducts within the bonnet and/or front valance panel is permitted.

Easily demountable windscreens may be replaced by another screen of a period type.

The addition of front and rear aerodynamic aids, side skirts and mudguard/wheel arch flares is permitted provided these are identical with the components originally fitted to a production model of the same body shape and the items are fitted in accordance with the total original package configuration.

Where a vehicle does not have access to such components, wheel arch flares may be added by bolt on means only, provided that the increase in the total width of the bodywork is less than 100mm and that the flare may not exceed the radius of the original wheel arch opening by more than 200mm. In this case, the maximum track increase allowed is 100mm and for the purpose of wheel and tyre clearance, it is permitted to remove up to 75mm of original bodywork measured radially from the edge of the wheel arch outwards. Any cavity exposed in a door or wheel arch through the removal of metal must be covered by the addition of a metal closing panel. Any body joint protrusions must be rendered safe. The operation of any door must not be affected.

Bumper bars and over riders may be removed, or replaced by others of the same shape, but of alternate material.

Roof vents may be added provided they are of a style evident in competition prior to 31 December 1985.

7.3.25. Interior

Except for the door trim (which shall comply with the requirements below) and dashboard and instrument binnacle, interior and fitments are free. Any remaining trim should be of period style.

Doors - Side trim:

It is permitted to remove the soundproofing material from the doors, provided that this does not modify the shape of the doors. It is permitted to remove the trim from the doors and replace this with a panel made from some form of rigid material (e.g. carbon fibre or Kevlar, aluminium, fibreglass). Alternatively, it is permitted to remove the trim from the doors together with their side protection bars to install a side protection panel which is made from composite materials.

If the original structure of the doors has not been modified (removal, even partially, of the tubes or reinforcements), the door panels may be made from metal sheeting at least 0.5mm thick, from carbon fibre at least 1mm thick or from another solid and non-combustible material at least 2mm thick. The rules mentioned above also apply to the trim situated beneath the rear side windows of two-door vehicles. The minimum height of the door's side protection panel must extend from the base of the door to the maximum height of the door strut.

The material from which additional interior brackets, switch panels and other similar fitments are made is free, including the use of carbon fibre or Kevlar.

The removal of heating and air conditioning systems is permitted, providing adequate provision is made for windscreen demisting.

7.3.26. Electrical system

The wiring harness is free. Original instruments may be replaced, provided that they are replaced by items compatible in face, style and size with the other instruments. If an alternative electronic dash is added, the original instruments must remain in place

A panel incorporating additional/replacement switches and/or circuit breakers may be added. The battery may be replaced by one of free type and may be relocated provided that it is located within an appropriate battery box and securely mounted.

8. Modern Categories (Early Modern / Modern)

8.1. Categories

8.1.1. Early Modern Category

Open to vehicles manufactured between 1st January 1986 and 31st December 2007 or be a model/specification which matches that of a vehicle manufactured prior to 31st December 2007 See "run on" 4.2.4

8.1.2. Modern FWD Category

Open to Front Wheel Drive (2 Wheel Drive) vehicles manufactured 2008 to current

8.1.3. Modern RWD Category

Open to Rear Wheel Drive (2 Wheel Drive) vehicles manufactured 2008 to current

8.1.4. Modern AWD Category

Open to All Wheel Drive (4 Wheel Drive) vehicles manufactured 2008 to current

8.2. Technical

All vehicles entering Modern category must comply with the Modern category requirements below. Vehicles that do not comply with Modern category requirements may be eligible for entry in Super Rally category subject to complying to the Super Rally category requirements.

8.2.1. Weight

The minimum weight must be in accordance with the organisers imposed minimum or manufacturers original specifications, provided either by details obtained from recognition papers, workshop manuals or sales specifications (in that order of priority).

This weight will be deemed to include all liquid tanks to be at the normal operating levels as foreseen by the vehicle manufacturer.

For the purposes of confirming weight during the competition, the organisers may refer to the minimum competition weight of the vehicle.

If the organisers intend to use competition weight as the reference this intention will be stated in the Supplementary Regulations for the Event.

8.3. Modifications Permitted

Vehicles can be modified. The modification level of such vehicles is controlled to a level deemed compatible within the parameters set out in these Regulations.

Vehicles modified beyond the limits specified, will be required to enter in Super Rally category subject to the limitations of these regulations.

The minimum production number is twenty vehicles. It is the obligation of the Competitor to prove that the minimum quantity has been produced.

8.3.1. Engine

Replacement engine with a different type engine is not permitted, unless the replacement engine is from the same "engine family" as an engine fitted to the same model by the original manufacturer, with more than 2500 units sold for road use.

The replacement engine must be a production cylinder block.

8.3.2. Engine Capacity

For all engines other than rotary engines the maximum engine capacity is 120% of the largest engine fitted to the same model by the original manufacturer, In the event engine capacity is required for classing or awards grouping, the vehicle will be classified according to its actual capacity inclusive of any bore or stroke increases (or decreases) and any relevant supercharging and rotary equivalence factors.

Rotary-engine vehicles are permitted to be fitted with engines with one size larger housing available from the original manufacturer, (e.g. for Mazda engines, from 10A to 12A, or from 12A to 13B) over what was standard in the vehicle. The same number of rotors as standard shall be retained.

8.3.3. Crankshaft

The crankshaft and connecting rods are free.

8.3.4. Pistons & Rings

Pistons and piston rings are free.

8.3.5. Cylinder Heads

Cylinder heads are free.

8.3.6. Camshafts

Camshafts are free, providing the number and location are "original".

8.3.7. Rotary Engines

Modifications to rotary engine's rotors, housings and end plates may be affected only by the addition of metal to the housing to run peripheral port, so as to attach an intake manifold.

Rotary engines may be modified by the utilisation of the porting technique/s extend, bridge and peripheral. The rotors and seals of rotary engines are free.

8.3.8. Ignition / Engine Management

The ignition system is free.

The electronic control unit is free.

8.3.9. Turbos & Superchargers

Turbo & superchargers are only allowed where fitted as original equipment or fitted as original equipment to the same model by the original manufacturer. The turbo and waste gate or supercharger may remain standard or be replaced by another part of not more than 150% capacity of original, provided the location including the turbo mounting flange on any turbocharger is fitted in the same position as the original part.

Turbo boost level is max 1.75bar or 125% factory original boost. (whichever is the higher)

The remainder of the induction system is free including intercoolers, but these must be fitted without any modifications to the external bodywork.

Twin Turbo to Single Turbo conversion

Factory "twin turbo" systems may be replaced only with a single turbo to a specification approved for the application by the organisers. (Where the twin turbo system is retained the requirements for Turbo above applies to each turbo).

For the purposes of fitment of an approved single turbo to a twin turbo engine, the exhaust manifold/s shall be fabricated from metallic pipe suitable for the application or may be cast.

8.3.10. Induction

For naturally aspirated vehicles the complete induction system is free, providing the number of venturis or throttle (butterfly) openings does not exceed one per cylinder. The air filters and housing are free.

Additional air ducting is permitted.

For turbo/supercharged vehicles, the injection system is free. The pipes between the supercharging device and the intercooler and the manifold are free, but their only function must be to channel air.

8.3.11. Fuel System

Fuel pump/s, fuel pressure regulator, fuel rail/s, fuel filter, fuel line diameter and hoses are free

8.3.12. Engine Cooling System

The engine liquid cooling systems are free. However, save for the radiator support panel which may be modified to accommodate the liquid cooling systems. The external bodywork must not be modified to allow fitment. Air cooled engine cooling systems are free.

8.3.13. Sump / Lubrication System

The lubrication system is free. Oil tanks may not be located in the cockpit. There may be no joins in oil lines within the cockpit. The sump is free and/or dry sump oil systems are permitted. Oil filters are free.

8.3.14. Engine Mounts

Engine mounts are free.

8.3.15. Clutch

Clutches and flywheels are free, and carbon components are permitted in the clutch assembly.

8.3.16. Gearbox/Transmission/Final Drive

Gearboxes or transaxles may be replaced by another, provided the replacement is based on the original manufacturers gearbox and have no more forward gears than what was originally supplied on that model and one (1) reverse gear.

Automatic transmissions provided optionally by the manufacturer for that model are permitted in lieu of a manual gearbox and vice versa.

It is permitted to modify the body for revised gearbox mounts and for the entry of the gear lever mechanism into the cabin.

The bell housing is free.

Gearshift mechanisms may be replaced provided the original method of actuating the gear change, (e.g. 'H' pattern,) must be retained. Shortened or 'quick' shifters are permitted. Sequential change mechanisms are not permitted unless fitted by the original vehicle manufacturer.

The configuration of the drive axle/s or final drive assembly must be as originally fitted to the vehicle (e.g. a live rear axle must remain in a vehicle so equipped as original), but otherwise the axle or final drive assembly is free.

Full floating hubs are permitted.

Limited slip differentials or other differentials which act to limit the differential action are permitted.

All transmission drive shafts are free.

Gearbox and differential oil coolers are permitted.

8.3.17. Chassis/Sub-Frame/Monocoque

The chassis, sub-frames and any monocoque structure may be prepared to Group N specification (AASA Regulations). Seam welding is permitted. Further strengthening is permitted provided the added material follows the shape of the original component, the chassis and body must be otherwise standard except for any modifications to the body shell in the immediate area which may be necessary to permit the fitment of a replacement seat or specified safety equipment. No part of the modified bodywork may extend any lower than the surrounding bodywork

8.3.18. Suspension

The suspension type/configuration as fitted front and rear must remain original (e.g. McPherson strut, dual wishbone, live rear axle, de Dion rear axle etc.), but may be modified only in accordance with the following regulations:

All sprung and semi-sprung suspension components may be replaced, and/or modified. "Coil Over" suspension is permitted.

Suspension sub-frames are free.

The material used in suspension bushes is free. Rose joints, spherical bearings, or heim joints may replace elastomeric bushings.

Springs, torsion bars, McPherson struts and dampers and their mountings are free.

Anti-roll (sway) bars, mountings and links are free,

Rear suspension is free, subject to the following:

For live rear axles:

The body shell may be modified to allow the fitment of brackets to mount locating arms. To that end, the minimum required amount of metal may be removed from the standard body shell to allow the construction of a forward mount for the suspension arms inside the cockpit space.

It is permitted to make the appropriate modifications (such as removal of metal and welding in replacement panels of the necessary shape) in order to construct a "turret" in the rear wheel arch, inner guard and/or boot area, the purpose of which is to accommodate and mount the top of a damper or combined "coil over" spring/damper unit.

The cockpit space must be effectively sealed from the outside of the vehicle in the area where such modifications are made.

Suspension pivot points are free.

Adjustable strut tops which may have the effect of altering the camber and/or caster are permitted (where applicable, i.e. on McPherson strut equipped vehicles). Modifications are permitted to the bodywork at the point where the strut top is mounted to allow clearance for the strut top.

The addition of braces for strut/damper towers is permitted.

8.3.19. Steering

Steering is free.

All changes to the original steering layout/system must be accompanied by a certification document signed by an Australian Road Authorities' accredited Engineer.

8.3.20. Brakes

The brakes are free.

Modifications to fit pedal boxes and/or dual master cylinders are permitted.

Cooling ducts may be added but these must remain within the perimeter of the bodywork when viewed from above.

Handbrake along with method of activation of handbrake is free.

8.3.21. Coachwork/Bodywork

Bodywork and body fittings in their entirety must be as supplied by the manufacturer, including materials, save that:

Front mudguards, bonnet, nose panel, boot lid or rear hatch of alternative material are permitted, provided they are of the same external shape as the original panel. The following minimum specifications of alternative materials shall be respected:

aluminium – 1.25mm thick

glass fibre/glass fibre reinforced plastic – 3mm thick.

The use of any under trays, fairings, scoops, louvres, air intakes or exits is not permitted (except as provided for in 0 above) unless supplied by the vehicle manufacturer as standard equipment in original production or the competitor can prove their legitimate use on the particular make and model in national or international level rally & circuit racing competition during the period in which the vehicle was manufactured.

Notwithstanding the above, the addition of non-obtrusive bonnet louvres and engine cooling ducts within the bonnet and/or front valance panel is permitted.

The addition of front and rear aerodynamic aids, side skirts and mudguard/wheel arch flares is permitted provided these are of identical shape with the components originally fitted to a production model of the same body shape and the items are fitted in accordance with the total original package configuration.

Bumper bars may be removed provided they are replaced by others of the same shape, but of alternate material.

Roof vents may be added provided they are of a style used in rally in competition.

8.3.22. Interior

Except for the door trim (which shall comply with the requirements below) interior and fitments are free.

Doors - Side trim:

It is permitted to remove the soundproofing material from the doors, provided that this does not modify the shape of the doors. It is permitted to remove the trim from the doors and replace this with a panel made from some form of rigid material (e.g. carbon fibre or Kevlar, aluminium, fibreglass).

The rules mentioned above also apply to the trim situated beneath the rear side windows of two-door vehicles. The minimum height of the door's side protection panel must extend from the base of the door to the maximum height of the door strut.

The material from which additional interior brackets, switch panels and other similar fitments are made is free, including the use of carbon fibre or Kevlar.

The removal of heating and air conditioning systems is permitted, providing adequate provision is made for windscreen demisting.

8.3.23. Throttle Cables

Throttle cables and linkages are free.

Fly by wire throttle system may be replaced by a cable operated system or vice versa

8.3.24. Exhaust

Vehicles must be fitted with an effective exhaust muffler to all exhaust/s so that the maximum noise emitted is no more than 95dB(A) when measured 30m from the edge of the tarmac at any point on a competitive stage determined by the Clerk of Course.

For naturally aspirated and mechanically-supercharged vehicles the exhaust is free from the cylinder head.

For turbocharged vehicles, the exhaust system is free from the point of exit of the turbo charger.

8.3.25. Pulleys

Ancillary pulleys and drive belts are free.

8.3.26. Electrical system

The wiring harness is free. Original instruments may be replaced,

A panel incorporating additional/replacement switches and/or circuit breakers may be added. The battery may be replaced by one of free type and may be relocated provided that it is located within an appropriate battery box and securely mounted.

9. Super Rally

9.1.1. General

Vehicles in Super Rally Category are to comply with all Regulations outlined in the relevant Classic or Modern categories with the following additional freedoms.

9.2. Additional Freedoms

9.2.1. Weight

Super Rally vehicles are exempt from minimum base weights, with a maximum of 20% variance allowed.

9.2.2. Engine

Engine make, model and type is free.

Replacement engines maybe from the same or an alternative manufacturer or model provided the engine is installed in compliance to statutory regulations.

Engine block is free.

Pistons are free.

Connecting rods are free.

Crank is free.

Cylinder head including cylinder head material is free.

Valve train components, including camshaft/s, are free.

Additional mechanical treatments, different from those carried out on the series production part, are free to be made to the crankshaft and connecting rods. E.g., shot peening, chemical/heat treatment.

Maximum capacity of any engine can be no more than 200% of the largest engine fitted into the model by the manufacturer or 10.70L whichever is the smaller, engines of larger than 10.7L will only be accepted if the engine is the original manufacturers specification.

Rotary Engines:

Modifications to rotary engines, their rotors, housings and end plates is free.

9.2.3. Forced Induction

Turbocharger/s along with its mounting and location is free, fitting of non-original turbo charger/s is allowed.

Turbo or super charging of NA engines is allowed.

Intercooling and piping is free.

Maximum boost is free.

9.2.4. Gearbox/Transmission/Final Drive

Flywheel is free

The clutch is free.

Clutch activation system cable, hydraulic or other is free

The internal components of the differential, axles and drive shafts, are free.

Live rear axle equipped vehicles may be modified to incorporate floating rear hubs.

Diff housing is free

Gearbox its casting and gear set are free provided the gearbox is in the original location.

Gear selector & shifting mechanism is free

9.2.5. Exhaust

The exhaust system is free.

All vehicles must be fitted with an effective exhaust muffler so that the maximum noise emitted is no more than 95dB(A) when measured 30m from the edge of the tarmac at any point on a competitive stage determined by the Clerk of Course.

9.2.6. Chassis / Subframe/ Monocoque

The chassis, sub-frames and any monocoque structure may be prepared to Group N specification Modifications including Reinforcing, Seam welding, and re-fabricating of any part of the chassis or front or rear sub-frames for fitment of engine, driveline components or suspension is allowed Modifications to Monocoque body shell which may be necessary to permit the fitment of a replacement seat or specified safety equipment are allowed

No part of the modified bodywork may extend any lower than the surrounding bodywork.

9.2.7. Suspension

Original suspension mounting points may be altered in design, and or location.

Adjustable strut tops are permitted,

Suspension bushings are free, the bush offset of the hole within the bush is free.

Springs and their mountings, dampers and torsion bars are free.

Anti-roll bars and attachments are free.

Addition of braces for strut/damper towers is permitted, and the design of the brace is free.

9.2.8. Aerodynamic Devices

Aerodynamic devices are free however, the onus is on the competitor to ensure all statutory requirements are met.

9.2.9. Steering

Reversal of the driving side is permitted, on the condition that conversion is accompanied by an engineer's certificate and signed by an accredited engineer.

9.2.10. Brakes

The complete braking system is free. Cooling ducts may be added, but these must be visually acceptable and not require modification of the bodywork.

Modifications to allow fitment of brake pedal boxes and dual master cylinders are permitted.

Handbrake along with method of activation of handbrake is free.

9.2.11. Coachwork, Bodywork

The Competition Vehicle shall be built from body shell as supplied by the vehicle manufacturer (space frames chassis are prohibited.)

Any removeable panel (Front mudguards, bonnet, nose panel, boot lid or rear hatch, doors, and bumpers) may be replaced with a panel an alternative material provided they are of the same external shape as the factory original parts.

Composite roof panels are allowed provided the structural integrity of the body shell is maintained.

Roof vents are allowed

Additional air intakes for oil or brake cooling may be fitted.

It is permitted to remove auxiliary lights or blanking plates and use these apertures for cooling ducts.

9.2.12. Interior

The vehicle interior (all trims) may be removed. Any exposed sharp edges that maybe be contacted by crew during normal vehicle operation, access or egress OR in the event of accident must be protected. Removed front door trim panels must be replaced (see below)

The material from which replacement or additional, dashboards, gauge mountings, interior trim, brackets, switch panels and other similar fitments are made is free, including the use of carbon fibre or Kevlar.

It is permitted to remove the trims from the inside of the front doors provided they are replaced with a panel made from some form of rigid material (e.g., carbon fibre or Kevlar, aluminium, fibreglass). Alternatively, it is permitted to remove the trim from the doors together with their side protection bars in order to install a side protection panel which is made from composite materials.

9.2.13. Electrical System

The wiring and electrical systems are free.

9.2.14. Wheels and Tyres

Wheels are free to a maximum size of 20" diameter x 11" width.

Tyres must be in accordance with the provisions outlined elsewhere in these Regulations.

9.2.15. Windscreen Demisting

The removal of heating and air conditioning systems is permitted, providing adequate provision is made for windscreen demisting.

10. Rally Challenge

Rally Challenge vehicle and entry requirements are as per the general requirements for all vehicles along with the requirements of relevant classic or modern category with the following amendments:

10.1.0 Safety Cage

Cars must have at minimum AASA approved class 1 half Safety Cage, preferably a class 1a safety cage fitted with side protection bars (*NOTE class 3 full safety cages are recommended*).

10.1.1 Rally Challenge Maximum Speed

The maximum speed allowed for any Rally Challenge vehicle is 130km/h.

Speed will be monitored by Event officials using data from Rallysafe. Rallysafe data will be the Judge of Fact.

Violations reported to the Clerk of Course will result in the following action being taken:

First Offence:

The entrant will be required to attend to the Clerk of Course, who will consider the nature of the infringement and apply a penalty as deemed appropriate.

Second Offence:

The entrant may be excluded from the Event.

11. Target Time

Target Time vehicle and entry requirements are as per the general requirements for all vehicles along with the requirements of relevant classic or modern category with the following amendments:

11.1.0 Safety Cage

Vehicles are not required to have a safety cage fitted (*note. Class 3 safety cages are recommended*). Seatbelts may be worn by occupants in lieu of harnesses (*note. Wearing of harness is recommended and preferred*).

Drivers, Co-Drivers and Navigators may elect not to wear an FHR (frontal head restraint) device (*the wearing of FHR is highly recommended and preferred*).

11.1.1. Target Time Maximum Speed

The maximum speed allowed for any Target Time vehicle is 130km/h.

Speed will be monitored by Event officials using data from Rallysafe. Rallysafe data will be the Judge of Fact.

Violations reported to the Clerk of Course will result in the following action being taken.

First Offence:

The Participant will incur a time penalty of two seconds for each one second above 130km/h and may be required to attend to the Clerk of Course, who will consider the nature of the infringement and apply a further penalty as deemed appropriate.

Second Offence:

As above, additionally the entrant may be excluded from the Event.

11.1.2. Target Time Minimum Speed

The minimum speed without penalty for any Target Time vehicle is 30km/h.

Speed will be monitored by Event officials using data from Rallysafe. Rallysafe data will be the Judge of Fact.

Stopping on stage for purposes of meeting Target Time is strictly forbidden

Violations reported to the Clerk of Course will result in the following action being taken.

First Offence:

The Participant will incur a time penalty of two seconds for each one second below 30km/h and may be required to attend to the Clerk of Course, who will consider the nature of the infringement and apply a further penalty as deemed appropriate.

Second Offence:

As above, additionally the entrant may be excluded from the Event.

11.2. Target Time Points Scoring

Points Scoring will be based on the competitors actual stage time in relation to the Official Target Time set for the stage.

One point will be added to the competitors score for each one second (or part thereof) early or late then competitor is into the flying finish.

The Official Target Times for individual stages will be given to all Target Time competitors at documentation

12. Further Vehicle Eligibility

A vehicle which does not comply with the eligibility requirements may at the discretion of the organisers be entered in on special invitation. All safety requirements set down in these Regulations must be complied with, and modifications permitted will be specified by the organisers. The crew of the vehicle will not be eligible for awards.

Appendix

For the purpose of calculating and equivalent engine capacity for any class engine capacity awards the following engine capacity calculations are applied to the actual engine cubic capacity to result in the final classing of an engine: Supercharged/Turbocharged x 1.7, Rotary x 1.8, Turbo Diesel x 1.5.

General

The organisers reserve the right not to accept any crew, vehicle or crew/vehicle combination. Acceptance of a vehicle or crew in one year does not necessarily mean that vehicle will be accepted in a following year/s.

Vehicles with a production run of fewer than twenty identical units will at the discretion of the organisers be eligible for Super Rally or special invitation classification only.

For any and all Technical Regulation enquiries, please contact Pam Stables on
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