

SPECIFICATIONS OF AUTOMOBILES SPEED

National Speed Event Championship Classes

| Modified Article | Date of Application | Date of Publication |
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1. APPLICATION

1.1 The following details the minimum classes for the following:

- (a) CAMS Australian Super Sprint Championship; and
- (b) CAMS Australian Hill Climb Championship.

1.2 These classes may also be applied to:

Any other Speed Event at National and below level as determined by the Event Organisers.

2. CLASSES

2.1 The following table details the applicable classes which must be applied in their entirety and without modification, save for:

- (a) If fewer than three (3) automobiles are entered in a class the organiser may, at their discretion, amalgamate only the displacement classes within that category.
- (b) The event organiser may invite additional classes not listed below.

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|-----------------------------------|--|---|---|
| Formula Ford | All | 3C Rally Cars | (a) 2WD – up to 2000cc (b) 2WD – 2001cc and over (c) 4WD - All |
| Formula Libre | (a) up to 750cc (inc Superkarts) (b) 751 – 1300cc (c) 1301 – 2000cc (d) 2001cc and over | 3D Sports Sedans | (a) up to 1600cc (b) 1601 – 2000cc (c) 2001 – 3000cc (d) 3001 – 6000cc |
| Formula Vee | (a) 1200cc (b) 1600cc | 3J Improved Production | (a) up to 1600cc (b) 1601 – 2000cc (c) 2001 – 3000cc (d) 3001 – 6000cc including Group 3K and Group 3H. (e) 6001cc and over * |
| 2A Sports Cars Open/Closed | (a) up to 1600cc (b) 1601 – 2000cc (c) 2001 – 4000cc (d) 4001cc and over (e) 4WD All | Time Attack | (a) Club Sprint 2WD (b) Club Sprint 4WD (c) Open 2WD (d) Open 4WD |
| 2C Supersports | All | Road Car Refer to: Appendix B | (a) up to 1600cc (b) 1601 – 2000cc (c) 2001 – 4000cc (d) 4001cc and over |
| 2B/2F Prod Sports | (a) up to 1600cc (b) 1601 – 2000cc (c) 2001 – 3000cc (d) 3001cc and over | Limited Modified Road Car Refer to: Appendix B | (a) Up to 1600cc (b) 1601 – 2000cc (c) 2001 – 4000cc (d) 4001cc and over |

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|--------------------------------|--|
| Historic Group N | (a) up to 2000cc (b) 2001cc and over. |
| Historic Groups S and T | (a) up to 2000cc (b) 2001cc and over. |
| Historic Other | All |

* NOTE: 3J Improved Production to be run in accordance with Class E Eligibility Conditions as per SPECIFICATIONS OF AUTOMOBILES – GROUP 3J, ARTICLE 16.3: CLASS E SPECIFIC ELIGIBILITY CONDITIONS.

TECHNICAL REGULATIONS

ROAD CAR AND LIMITED MODIFIED ROAD CAR CLASSES

1. APPLICATION

These Technical regulations shall apply to each automobile entered in either the Road Car or Limited Modified Road Car class in accordance with Appendix A.

1.1 Definitions

Where used in these Technical Regulations, the words and phrases set out in this Definitions section shall have the following meanings. Unless otherwise expressed or implied in these Technical Regulations, words and phrases shall have the same meanings as are contained in the CAMS Manual.

Aftermarket means non-factory parts, accessories and upgrades to a motor vehicle to assist in performance and, for the purposes of these Technical Regulations, includes Factory Extras.

Clubman means a lightweight two-seater open-top sports car generally based on the Lotus Seven, which may be either constructed with a chassis or be of monocoque construction with no limitation placed on the material used in the body shell. A Clubman shall include, but not be limited to, vehicles generally based on the Lotus Seven either manufactured by (either whole, in part or in kit form) or marketed as Lotus, PRB, Birkin, Amaroo, Westfield, Caterham, Elfin, Fraser and Leitch but shall exclude any Clubman Sports 1300 or any other vehicle described in Group 2C - Supersports (Group 2C Clubman Sports Cars) in the CAMS Manual.

EMS means such a device as is variously known as the Engine Management System, the Engine Control Unit and/or the Engine Control Module and is the electronic device that controls various aspects of the operation of the vehicle's engine including but not limited to, the control of:

- (i) the engine ignition system,
- (ii) the engine fuel supply and fuel injection, and
- (iii) if the automobile is turbocharged the air pressure, above atmosphere, produced by the turbocharger.

EMS Modification means the modification of the EMS in any manner whatsoever and includes but is not limited to:

- (iv) a modification (including reprogramming) of the software program incorporated in and forming part of the EMS; and/or
- (v) the replacement of the EMS or any part of it; and/or
- (vi) the fitting of any additional component to the EMS; and/or
- (vii) the "flashing", "chip tuning" and/or "remapping" of the EMS.

Exotic means any automobile that has or had a Manufacturer's Recommended Retail Price that exceeds the Exotic Indexed Price for that automobile. For the purposes of this definition, Manufacturer's Recommended Retail Price shall not include what are commonly called On Road

Costs, including, without limitation, Stamp Duty, Registration Fees, premiums paid or payable for any Compulsory Third Party Insurances and any Dealer Delivery Fees.

Exotic Indexed Price means the applicable Indexed Price as at the Year of Automobile Manufacture as shown in the following:

Year of Automobile Manufacture Indexed Price

| | |
|-----------------------------|--------------|
| Any year prior to 2005..... | \$75,000.00 |
| 2005..... | \$76,800.00 |
| 2006..... | \$79,900.00 |
| 2007..... | \$81,600.00 |
| 2008..... | \$85,200.00 |
| 2009..... | \$86,400.00 |
| 2010..... | \$89,100.00 |
| 2011..... | \$92,300.00 |
| 2012..... | \$93,400.00 |
| 2013..... | \$95,600.00 |
| 2014..... | \$98,500.00 |
| 2015..... | \$100,000.00 |
| Any year after 2015..... | \$101,500.00 |

For the purpose of this definition, the year of automobile manufacture shall be the year of manufacture shown on the Identification Plate (formerly known as a Compliance Plate) attached to the automobile.

Factory Extra means any optional extra available for purchase at the time of the sale of the original automobile but only if such optional extra was manufactured by or on behalf of the manufacturer of the automobile and offered for sale by the seller of the new automobile.

Four Wheel Drive Turbo means a Production Car with a forced induction engine where all four wheels are or can be driven and where such forced induction is achieved by the use of a turbocharger.

Free means that the original part, as well as its function(s), may be removed or replaced with a new part, on condition that the new part has no additional function relative to the original part.

Kit Car means an automobile produced by the assembly of a kit or set of components supplied by a supplier, which supplier may or may not be the manufacturer of some or all of the components supplied, where the assembly of the components is carried out by a party other than the supplier of the components.

Production Car means an automobile of which the production of a certain number of identical examples within a specified period of time has been verified and which are destined for normal sale to the public. In regard to these Technical Regulations the following shall also apply to the definition of a production car:

- (i) Either manufactured in Australia and/or overseas, the model of which is or has been commercially available to the general public in Australia and/or overseas as a new car through a manufacturer's dealer network;
- (ii) At least 200 examples of such model must have been registered for normal road use in Australia and/or in the country of manufacture; and
- (iii) at least 200 examples of such a model must have been produced in a 12 consecutive month period.

Registration Documents, in respect of an automobile, means the documentation identifying the vehicle issued by the appropriate body administering the registration system of vehicles used for normal road use in Australia, which identifies the registered operator of the vehicle and the fact that it is valid and considered to be Road Registered.

Replica means an automobile that is not mass produced but is generally available to the public and which is intended to resemble an automobile manufactured by others either in performance or appearance.

Replacement component where these regulations permit the replacement of a component that replacement component is free, unless the replacement component is otherwise restricted by these regulations.

Road Registered means registered for normal road use within the Commonwealth of Australia by the application of valid Road Registration by the relevant State Roads and Traffic Authority or equivalent.

Two Wheel Drive means an automobile where only two wheels of the automobile are or can be driven and includes both rear wheel drive and front wheel drive automobiles.

Road Car Class

1. ELIGIBLE AUTOMOBILES

- (a) The class is for road registered and unmodified production cars meeting the original manufacturer's specifications. Exotic, Four Wheel Drive Turbo, Clubman, Kit Car and Replica are not permitted to be entered in the Road Car Class. A Road Car may be eligible for another class.
- (b) Permitted automobile types include open sports (with mudguards), sports coupes, sedans, station wagons, utilities and vans.
- (c) Each automobile must be as originally specified by the manufacturer except for the specific freedoms allowed herein.
- (d) Each automobile must be Road Registered and, apart from any freedom specifically mentioned in these regulations, no modification is permitted to be made to the automobile during competition that would render it ineligible for such registration.
- (e) Each automobile must comply with the General Requirements for Cars and Drivers in the CAMS Manual. Modifications necessary to comply with these requirements are permitted. Where freedom is permitted to fit nominated or recognised parts, such freedom is strictly limited to such components themselves and it is not permitted to modify other components, save by the drilling of holes for mounting purposes.
- (f) It is permitted to remove or conceal a registration number plate. Valid Registration document/s must be available for inspection by the Event Secretary and when the vehicle is presented for scrutineering to verify both the ownership of the vehicle and that the vehicle is Road Registered.
- (g) Components considered a Factory extra are permitted.

2. BODYWORK

2.1 General

- (a) The spare wheel and associated tools may be removed.

2.2 Internally

- (a) Safety equipment and cosmetic or comfort accessories may be added, provided that they do not improve the performance of the vehicle.
- (b) Additional instruments and switches are permitted and may be fitted to a separate panel.
- (c) The driver's seat may be replaced with a non-standard seat that is commercially available and permitted in a Road Registered vehicle. The front passenger's seat may also be replaced provided that the replacement seat is equivalent to or better than the seat replacing the driver's seat. Seat supports may be modified to enable fitment of an allowable replacement seat. Any rear seat or seats may be removed.

2.3 Externally

- (a) Additional headlights (e.g. fog lights and driving lights) are permitted.

3. ENGINE

- (a) The engine may be reconditioned in accordance with the manufacturer's repair manual and specifications.
- (b) It is permitted to add baffle plate/s to the removable section of the engine oil pan or sump.
- (c) Each condenser, ignition coil, filter element, spark plug, lead, fan belt, radiator hose and gasket is free.
- (d) It is permitted to replace the engine exhaust system only with such replacement components of the same configuration and diameter as the original.
- (e) No EMS modifications are permitted.

4. TRANSMISSION

Clutch linings are free, as is their method of attachment.

5. BRAKES

Brake linings and rotors are free provided that the diameters of the rotors are not increased.

6. SUSPENSION

It is permitted to adjust the wheel alignment in accordance with the manufacturer's recommendations and/or normal wheel alignment principles.

7. FUEL

Only Commercial Fuel in accordance with Schedule G of the CAMS Manual is permitted.

8. WHEELS AND TYRES

8.1 Wheels

It is permitted to replace each wheel only with such a wheel that is equivalent to the original manufacturer's size and mounting specifications.

8.2 Tyres

Only tyres which are compliant with the Production Car Tyre List for Speed Events in Schedule E of the CAMS Manual are permitted to be used. Tyre size must comply with the original manufacturer's specifications in respect to width and aspect ratio.

8.3 Tyre Tread

At no time prior to the commencement of a competition may any tyre tread wear indicator as provided by the tyre manufacturer be exposed. In all areas where there is no indicator the original tread pattern must be clearly visible except on the shoulder of the tyre where localised wear may occur.

Limited Modified Road Car Class

1. ELIGIBLE AUTOMOBILES

1.1 General

- (a) The class is for Road Registered production cars with limited modifications to the original manufacturer's specifications. Clubman, Kit Car and Replica are not permitted to be entered in the Limited Modified Road Car Class. A Limited Modified Road Car may be eligible for another class.
- (b) Permitted automobile types include open sports (with mudguards), sports coupes, sedans, hatchbacks, station wagons, utilities and vans.
- (c) Each automobile must be as originally specified by the manufacturer except for the specific freedoms allowed herein.

- (d) Each automobile must be Road Registered and, apart from any freedom specifically mentioned in these regulations, no change is permitted to be made to the automobile during competition that would render it ineligible for such registration.
- (e) Each automobile must comply with the General Requirements for Cars and Drivers in the CAMS Manual. Modifications necessary to comply with these requirements are permitted. Where freedom is permitted to fit nominated or recognised parts, such freedom is strictly limited to such components themselves and it is not permitted to modify other components, save by the drilling of holes for mounting purposes.
- (f) It is permitted to remove or conceal a registration number plate. Valid Registration document/s must be available for inspection by the Event Secretary and when the vehicle is presented for scrutineering to verify both the ownership of the vehicle and that the vehicle is Road Registered.
- (g) Components considered a Factory Extra are permitted.

2. BODYWORK

2.1 General

- (a) The spare wheel and associated tools may be removed.
- (b) Bracing may be fitted between front MacPherson strut towers.

2.2 Internally

- (a) Safety equipment and cosmetic or comfort accessories may be added, provided they do not improve the performance of the vehicle.
- (b) Additional instruments and switches are permitted and may be fitted to a separate panel.
- (c) The steering wheel may be replaced.
- (d) All controls and their functions must remain as provided by the manufacturer, but it is permissible to arrange them in such a way as to make them more accessible and easier to use (e.g. fitting additional padding to pedals, extensions to switches, etc.).
- (e) The driver's seat may be replaced with a non-standard seat that is commercially available and permitted in a Road Registered vehicle. The front passenger's seat may also be replaced provided that the replacement seat is equivalent to or better than the seat replacing the driver's seat. Seat supports may be modified to enable fitment of an allowable replacement seat. Any rear seat or seats may be removed.
- (f) Carpets and sound deadening material may be removed.

2.3 Externally

- (a) Reforming of the wheel-arch beading against the inside of the mudguard is permitted, and any body joint protrusion may be rendered safe.
- (b) Additional headlights (e.g. fog lights and driving lights) are permitted.

3. ENGINE

3.1 Applicable to each automobile except for Four Wheel Drive Turbo:

- (a) **General**
 - (i) Each condenser, ignition coil, filter element, spark plug, lead, fan belt, radiator hose and gasket is free.
 - (ii) Air conditioning systems are free.
 - (iii) The engine may be reconditioned in accordance with the manufacturer's repair manual and specifications.
 - (iv) It is permitted to add baffle plate/s to the removable section of the engine oil pan or sump.
- (b) **Fuel System**

- (i) Carburettors may be replaced, provided the replacement(s) are of the same configuration (i.e. downdraught or side draught) and have the same number of inlet venturis as the originals.
 - (ii) A sandwich-type adaptor plate to enable installation of a replacement carburettor is permitted.
 - (iii) Fuel injectors are free but not their number or position.
 - (iv) Fuel injection cannot replace carburettor(s) and vice versa.
 - (v) EMS Modifications are permitted on non-turbo cars.
- (c) **Engine Ancillaries**
- (i) Pistons and piston rings are free.
 - (ii) Material may be removed from, but not added to, piston crowns and cylinder heads for the purpose of volumetric balancing of the combustion chambers only.
 - (iii) Material may be removed from a conrod, crankshaft and/or flywheel for the purpose of balancing and surface polishing.
 - (iv) Material may be removed from a cylinder bore for reconditioning purposes to the limit of manufacturer's specifications.
 - (v) The camshaft/s is free but not the number of its bearings.
 - (vi) Inlet and exhaust manifolds and ports may be internally polished and reshaped.
- (d) **Rotary Engine**
- (i) For each rotary engine the original dimensions of the intake and exhaust ports on the inner side of the engine can be changed, however, bridge and peripheral porting is not permitted.
- (e) **Exhaust**
- (i) The exhaust system is free on a naturally aspirated automobile.
 - (ii) On each turbocharged automobile the exhaust is free from the exit of the turbocharger only.
 - (iii) No muffler(s) shall be visible outside the perimeter of the automobile when viewed from above or from the side.
- NOTE:** Noise restriction requirements of an event must be adhered to.
- (f) **Turbocharged Automobile**
- (i) No modifications are permitted to the induction system or any components associated with its functioning.
 - (ii) Maximum engine inlet pressure must remain in accordance with the original manufacturer's specifications for the automobile.
 - (iii) No EMS Modifications are permitted on a turbocharged automobile..

3.2 Applicable for a Four Wheel Drive Turbo

- (a) The engine may be reconditioned in accordance with the manufacturer's repair manual and specifications.
- (b) It is permitted to add baffle plate/s to the removable section of the engine oil pan or sump.
- (c) Each condenser, ignition coil, filter element, spark plug, lead, fan belt, radiator hose and gasket is free.
- (d) It is permitted to replace the engine exhaust system only with such replacement components of the same configuration and diameter as the original.
- (e) Maximum engine inlet pressure must remain in accordance with the original manufacturer's specifications for the automobile.
- (f) EMS modifications or additions are not permitted.
- (g) Air conditioning systems are free.

4. TRANSMISSION

- (a) Clutch linings are free, as is their method of attachment.
- (b) Limited slip differentials are permitted only when available as an option for the automobile model concerned from the original manufacturer, or its authorised supplier. Modifications to the differential cover or the fitting of a high capacity differential cover to increase the oil capacity of the differential are permitted.
- (c) Non-standard gear and differential ratios are permitted only when available as an option for the automobile model concerned from the original manufacturer, or its original supplier.

5. BRAKES

- (a) Brake linings and rotors are free provided that the diameters of the rotors are not increased.

6. SUSPENSION

- (a) The type of shock absorber is free but not their number or mounting points.
- (b) The rate and length of springs is free and adjustable spring platforms are permitted.
- (c) Sway bars may be added, replaced or deleted.
- (d) It is permitted to adjust the wheel alignment in accordance with the original manufacturer's recommendations and/or normal wheel alignment principles, except that the original dimensions must be respected as to wheelbase and a maximum increase in track of 25mm (1") is permitted.
- (e) Camber adjustment kits are permitted.
- (f) It is permitted to replace each elastomer suspension pivot point bush and subframe mounting bush by a dimensionally identical bush made from another elastomer material.

7. FUEL

Only Commercial Fuel in accordance with Schedule G of the CAMS Manual is permitted.

8. WHEELS AND TYRES

8.1 Wheels

It is permitted to increase the original manufacturers specification for each wheel diameter by a maximum of 2" and each wheel width by a maximum of 1", provided that the tyre fitted does not extend beyond the outer edge of the bodywork (including wheel arch flares) when viewed vertically from above.

8.2 Tyres

Only tyres which are compliant with the Production Car Tyre List for Speed Events in Schedule E of the CAMS Manual are permitted to be used.

8.3 Tyre Tread

At no time prior to the commencement of a competition may any tyre tread wear indicator as provided by the tyre manufacturer be exposed. In all areas where there is no indicator the original tread pattern must be clearly visible except on the shoulder of the tyre where localised wear may occur.

9. STEERING

Aftermarket power steering cooling units are permitted.