

GENERAL REQUIREMENTS FOR CARS AND DRIVERS

Schedule R - Requirements for all Rally Cars

In addition to the following requirements, each vehicle must conform to Schedule A (refer to “General Requirements for Cars and Drivers” in the CAMS Manual of Motor Sport).

1. Each vehicle must be registered for use on public roads with an appropriate government authority, or be subject of a vehicle permit issued by an appropriate government authority, which authorises the vehicle’s use on public roads and must be covered by a policy of third party insurance. The engine and chassis numbers must agree with those shown on the certificate of registration or permit.
2. Signs and advertising are permitted on vehicles unless specifically prohibited in Supplementary Regulations. The requirements of NCR 155 and Schedule K (refer to “General Requirements for Cars and Drivers” in the CAMS Manual of Motor Sport) must be observed.
3. (i) **Competition Numbers:**

Vehicles must not display competition numbers other than those specified and provided by an event’s organisers.

Unless otherwise approved by CAMS, such numbers shall comply with the provisions of Schedule K (refer to “General Requirements for Cars and Drivers”) or the Australian Rally Championship Sporting Regulations.
- (ii) **Crew Names:**
 - In all rallies forming part of the Australian Rally Championship, the surname of each driver and co-driver must be displayed on the lower edge of each rearmost side window in accordance with the Championship regulations.

Crew names complying with ARC Regulations, shall be permissible in all rally events with the exception of those comprising part of an FIA Championship, where regulations may conflict.
 - In all other rallies, such display is optional unless required by the applicable supplementary or sporting regulations, but if used shall comply with this Regulation.

The names shall be placed toward the bottom of the rear window, each centred in the window space and to each name, with minimum 30mm separating the upper case letters of the two names and the lower edge of the window frame.

The driver name shall be displayed above the co-driver’s name on both sides of the car.

The letters shall be of uniform style, white in colour and without background, using a capital for the first letter of the name, and lower case for all other letters (see Figure K-4 of Schedule K - refer to “General Requirements for Cars and Drivers” in the CAMS Manual of Motor Sport).

For grammatical correctness other letters of the surname may use a capital letter (eg, MacDonald, Holmes-Walker, O’Riordan).

The typestyle shall be “Helvetica Bold”, “Zurich Bold” or “Arial Bold”.

The same font size shall be used for all letters. The upper case letters shall be 100mm except in the case of co-drivers, where the upper case letters of the co-driver name may alternatively be 80mm high (compulsory in the ARC).
4. All lamps must comply with the Government regulations for the State or Territory in which the sections concerned are held.

Existing lamps may be removed or replaced by other units provided their position remains unchanged. The maximum number of forward-facing headlamps is:

a.	low beam headlamps	two
b.	high beam headlamps	six
c.	fog lamps	two

However, only low beam headlamps and fog lamps may remain alight when low beam is selected. Any additional headlamps must be wired through the high beam circuit so that they extinguish once low beam is selected.

Forward-facing lamps must be rigidly mounted in pairs and be equidistant from the ground and from the centre-line of the car. However, where permissible under state legislation, (eg, Western Australia, Queensland, New South Wales and the Australian Capital Territory) a single lamp is permitted in the centre of the front.

Up to two reversing lamps are permitted provided that they are not more than 1m above the ground. If these are actuated manually, a warning lamp, energised together with the lamps, must be fitted within the sight of the driver.

Any guards fitted to headlamps must permit manual cleaning of the lens.

5. Additional fuel tanks of free but safe design may be fitted outside the passenger compartment and must be vented to the outside of the vehicle. If the design of the car makes fitment outside the passenger compartment impracticable, eg, Ford Laser, it is permitted to fit the tank in that compartment provided that the filling orifice and ventilation are outside that compartment regardless of vehicle construction (see also specific Group Regulations).

On cars in which the fuel tank is either fitted as standard, or has been relocated, in the passenger compartment (ie, the rear of a hatch back) and/ or has been relocated in the luggage compartment of any type of body-work configuration car:

- (i) the fuel filler must be constructed so that any fuel spilled may drain safely to the outside of the vehicle
- (ii) if the filling orifice is located within the bodywork, it must be fitted with a catch tray to the satisfaction of the scrutineers
- (iii) a flame- and liquid-proof bulkhead, which may be of transparent material and which effectively separates the compartment occupied by the crew members from any component of the fuel tank or refuelling system must be fitted.

Additional fuel containers which are not part of the piped fuel system must not be carried in the passenger compartment regardless of vehicle construction. If carried, they must be securely fastened to the vehicle structure.

- 5a. Fuels complying with the definitions of commercial fuel or FIA fuels as contained in Schedule G (refer to "General Requirements for Cars and Drivers" in the CAMS Manual of Motor Sport) shall be permitted. Notwithstanding that general provision, the use of any fuel containing more than 0.013g/L of lead is prohibited.

6. All cars must be fitted with a seat belt/safety harness for all crew members and passengers carried during an event which must comply with Schedule I (refer to "General Requirements for Cars and Drivers" in the CAMS Manual of Motor Sport).

Note: In all vehicles where a roll bar/cage is required to be fitted, there shall be fitted a full harness consisting of at least a lap strap and two strap shoulder harness (ie, Type A or B).

All seats utilised in vehicles competing in tarmac rallies shall comply with the provisions of Schedule C, article 8 (refer to "General Requirements for Cars and Drivers" in the CAMS Manual of Motor Sport).

7. An effective exhaust muffler must be fitted at all times. The maximum noise emission permissible is 96 dB(A) as tested by the CAMS method.
8. At least two reflective or fluorescent red triangles of metal or plastic material (sides at least 350mm in length) must be carried, and must be displayed in cases where a stationary car could be a hazard to other road users (eg, breakdown).
9. The use of studded or spiked tyres is prohibited. All tyres must be treaded in the original manufacturing process to a minimum depth of 2mm. Tyres used must not be expressly designed for use on motor racing circuits (eg, slicks). The onus is at all times on individual competitors to demonstrate compliance with these requirements.

Mud flaps of stout material must be fitted behind all driving wheels, and in the case of front wheel drive vehicles, behind all four wheels. They must be no closer than 50mm to, and no further than 100mm from, the ground, must mask the full width of the tyre when viewed from behind, and be within 300mm of the tyre. Mud flaps fitted behind wheels must leave un-masked at least one-third of the width of the car. Those fitted in front of the rear wheels must leave at least 20cm un-masked. The vehicle must comply with these requirements when it is presented in "ready to start" condition.

10. For rally fire extinguisher requirements, refer to Schedule H ("General Requirements for Cars and Drivers" in the CAMS Manual of Motor Sport). **Please note: the use of AFFF fire extinguishers in each supercharged vehicle is strongly recommended.**

II. APPEARANCE

General appearance and presentation of vehicles must be of a neat and well-finished standard.

12. EQUIPMENT

Each car is to carry at least one 'OK/SOS' sign. 'OK' shall be green or black, and 'SOS' shall be red. The sign may incorporate reflective materials.

Supplementary Regulations are to specify whether the organiser will supply a sign in the roadbook, or as a separate rigid sign, or if each crew is to supply its own rigid sign.

If a sign is supplied in the roadbook, the back cover of the roadbook or route instructions shall be printed on

one side with 'OK' and 'SOS' on the other side, and printed on card (min. 130gsm). The background must be at least A4 size (297mm x 210mm). For all Australian Rally Championship and National-level Tarmac Rally events the sign background must be A3 size (420mm x 297mm). The sign may be folded to fit within the A5 format (148mm x 210mm) of the roadbook or route instructions.

Road signs shall be on a mounting sheet of area at least 620cm² and the letters shall be clearly discernable and fit for the purpose. Such signs may be mounted on to rectangular or triangular self-supporting brackets. Where the crew is to supply the sign, it shall be presented at scrutiny.

All vehicles are required to carry on board a weatherproof emergency first aid kit, which can be easily accessed, containing at least the following:

2 x extra large universal accident dressings
2 x large open weave bandages
2 x medium open weave bandages
1 x pair dressing scissors
1 x roll adhesive tape
6 x safety pins
1 x large burn dressing with a non-adhesive surface
1 x thermo accident blanket
2 x medium combination pads
6 x adhesive plaster strips
1 x triangular bandage
2 x sterile eye pads
1 x first aid manual

Notes:

- 1 These items may be purchased from St John Ambulance as a kit or from any reputable first aid supply company.
- 2 This kit is no substitute for first aid training. It is recommended that all competitors should undertake a first aid training course.

The following equipment is recommended for all cars:

- (i) towing and de-ditching gear.
- (ii) fitment of a laminated windscreen.
- (iii) windows tinted with a film which complies with the state vehicle regulations in the relevant state may be used.

The use of film which complies with the provisions of Article 253.11 of FIA Appendix J is permitted in ARC events.

Note: Compliance with FIA Article 253.11 is not mandatory for other than International events.

13. SPECIAL REQUIREMENTS FOR AUSTRALIAN CHAMPIONSHIP, INTERNATIONAL AND SPECIAL STAGE RALLIES

- (i) An adequate firewall to separate the fuel tank from the habitacle which is impervious to the passage of fumes or liquids, must be fitted to all cars which are fitted with other than their standard fuel tank systems.
- (ii) **Fuel lines, lubricating oil lines and lines containing hydraulic fluid under pressure – Specifications and installation**

Application: a vehicle first subject of a CAMS log book from 1 January 2009 shall comply with this regulation and from 1 January 2010, all vehicles shall comply.

The original series production fittings and lines may be retained. If the series production fittings and lines are not retained and where line replacement is permitted by relevant Group regulations, the following regulations shall apply.

Lines which carry hydraulic fluid, fuel or lubricating oil may pass through the cockpit.

Any line containing fuel or lubricating oil shall not incorporate any connectors inside the cockpit except at the front and rear bulkheads in accordance with Drawings 253-59 or 253-60.

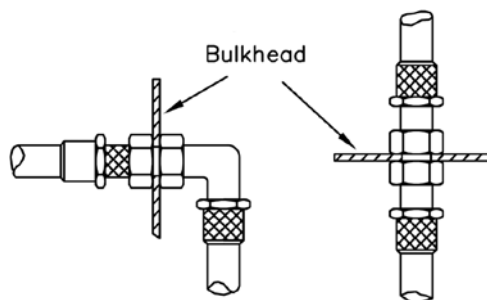
All fittings and lines used for the passage of fuel, lubricating oil and hydraulic fluid under pressure shall be manufactured according to the specifications below:

- when flexible, these lines must have threaded, crimped or self-sealing connectors and an outer braid resistant to abrasion and flame (will not sustain combustion);
- the minimum burst pressure measured at the noted minimum operating temperature shall be:

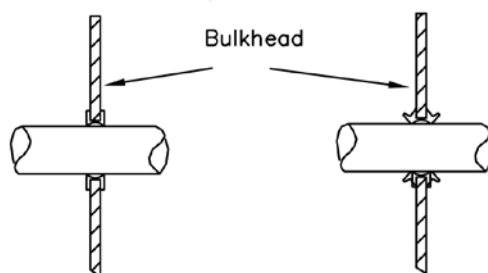
Fuel lines (except the connections to the injectors and the cooling radiator on the circuit returning to the tank including any cooling radiator or lines):	70 bar (1000 psi) at 135°C (250°F)
Lubricating oil lines:	70 bar (1000 psi) at 232°C (450°F)
Lines containing hydraulic fluid under pressure:	280 bar (4000 psi) at 232°C (450°F)

Notwithstanding the requirements detailed above, if the operating pressure of any hydraulic system is greater than 140 bar (2000 psi), the burst pressure shall be at least double the operating pressure.

Note: Steel 'bundy' tube which is designed for use in automotive applications will usually comply with the minimum burst pressure as will many flexible braided lines designed for fuel injection systems. Reputable hose and line suppliers or manufacturers will be able to provide specifications and documentation (eg, a catalogue) that can assist the scrutiny process.



Drawing 253-59



Drawing 253-60

14. Other than in introductory rallies, cars must be fitted with towing points complying with the following:

- have an internal diameter of at least 40mm;
- are fitted forward of the front axle and rearwards of the rear axle;
- are clearly visible in yellow, orange or red, the chosen colour being in contrast to the colour of the body work immediately adjacent the towing point;
- are constructed and fitted in such a way that when a load is applied to the towing point, parallel to the ground and in a direction facing away from the vehicle, parallel to the longitudinal centre line of the vehicle, the vehicle shall be capable of drawing the car over two blocks of 100mm height. These blocks shall be of a section 100mm x 200mm, not less than the width of the tyre and shall be placed immediately "in front" of the tyres closest to the towing point being subject to the applied load. In order to test the strength of the towing point, any non-structural body work which interferes with the test may be removed.

OR

As an alternative to the above, tow hooks provided by the manufacturer of the car as a standard fitment may be utilised, provided they are easily accessible and clearly visible, in yellow, orange or red, contrasting with the colour of the bodywork immediately adjacent to the towing point, and pass the same test as outlined above.