



# 1998 Manual of Motor Sport

with 1998 National Competition Rules

Internet address: <http://www.cams.com.au>

CAMS



Member



## International Control of Motor Sport

### MOTOR SPORT

Motor sport throughout the world is directed and controlled by the Federation Internationale de l'Automobile (FIA). Headquarters are at 8, Place de la Concorde, Paris, France. Formed (as the AIACR) by 13 clubs in 1904, the FIA, by 1993, comprised 125 clubs in 106 nations. CAMS has been a member of the FIA since 1970 (then the CSI), and since 1972 Australia has also been represented on the touring side of the FIA by the Australian Automobile Association (see following).

The president of the FIA is Mr Max Mosley

of Great Britain, and the Secretary-General is M Pierre de Coninck.

### TOURING ASPECTS OF MOTORING

General motoring enquiries of other than a sporting nature should be directed to the FIA's touring affiliate in Australia, the Australian Automobile Association, PO Box 1555, Canberra, ACT 2601.

Mr Lauchlan McIntosh is the Executive Director.



**Max Mosley**  
President of FIA

## National Control of Motor Sport

National control of motor sport is delegated by the FIA to one national sporting authority ("ASN") in each nation. In many countries the ASN is also the body recognised for all motoring activities, including sporting and touring. However in some countries, of which Australia is one, the sporting power and touring authority are held by separate and independent bodies.

The Confederation of Australian Motor Sport (CAMS) was inaugurated in February, 1953. By 1995, when it was incorporated as CAMS Limited with Australian Company Number 069 045 665, it had grown to be an association of more than 300 affiliated clubs and 36,000 members. CAMS Limited is now the ASN, and is still referred to as "CAMS". CAMS' structure includes a Board of six directors, one elected by each State Council; six State Councils, the delegates to which are elected by the affiliated clubs; the affiliated clubs and their committees; and the members themselves. The Board annually elects an independent Chairman, who is also the President of CAMS and the titular head of the organisation.

The Board of CAMS is elected to manage the affairs of the Company, and is the policy determining body for motor sport in Australia. To assist it in planning and administering the sport, it maintains a structure of commissions, committees, panels and advisors.

CAMS has National and State offices which are staffed by full-time and part-time professional officials. A number of Committees and specialist advisors are vital parts of the national and state operations.

The sporting aspects of motor racing are administered by the Motor Racing Executive Committee, the members of which are appointed for their knowledge of the sport and to provide a balance of views. A sub-committee is the National Motor Racing Panel, which consists of the chairman of each State Motor Race Panel, and thus provides a direct consultative connection to each State's racing activities. Communication with competitors, officials and organisers is achieved by personal contacts, by CAMS Report, by Bulletins and through the State Motor Race Panels. The State Panels generally deal with activities below

respective State Councils and administrations.

**Historic motor sport** is administered by the Historic Commission, which succeeded the Historic Car Committee in May, 1995. The Commission has authority to manage historic motor sport, including matters of vehicle eligibility and the rules for historic competition. The management and control of eligibility is assigned to the Historic Eligibility Committee, and is applied by the Historic Eligibility Officers in the field.

**Rally activity** is administered at the national level by the Australian Rally Commission (ARCom). The ARCom is charged with specific responsibility for developing policy for national rallying, including the integration of all levels of the sport into an overall plan. State Rally Panels advise State Councils on rally activity within each State, and the Chairmen of those Panels comprise the Rally Co-ordinating Group which advises ARCom on the interface between National and State matters.

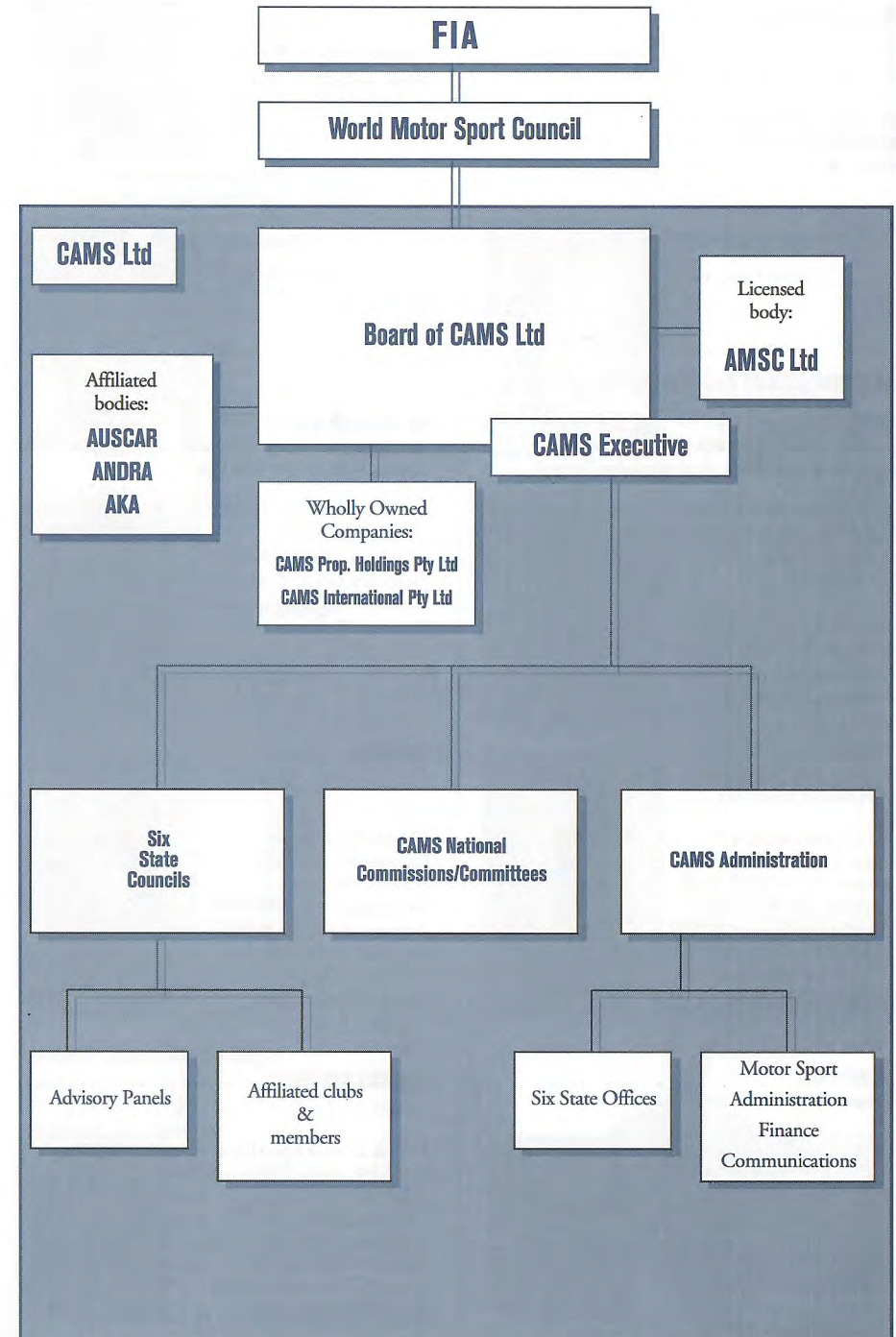
**Motorkhana, Off Road and Superkart** competition activity is managed by State Panels appointed by each State Council, and by a National Committee in each discipline. The National Committees generally consist of one member from each state, and an independent Chairman, serviced by an Executive Officer of CAMS' staff.

The administration of other motor sport activity is assisted in most States by advisory panels appointed by the State Councils. Those panels consider issues which arise from the clubs and members, and advise their State Councils on matters such as allocation of dates, procedural questions, proposals for rule changes and the like.

CAMS delegates authority for **Superspeedway**, for **Drag Racing** and for **Sprintkart Racing** to recognised bodies by a process of annual renewal. Those delegations are subject to approval by the FIA, and the activities are conducted under conditions which must be approved by CAMS and notified to the FIA.

The Australian Motor Sports Commission Limited was formed in 1995 as an independent company. It operates under licence from CAMS, to manage defined commercial activities for the benefit of the sport. CAMS appoints its Chairman, and certain of

## Administration of Motor Sport

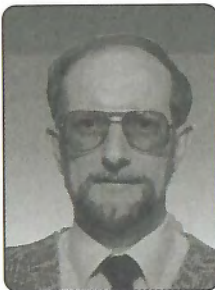




**Chief Technical Advisor**

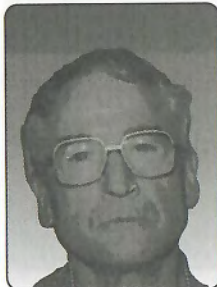
**Technical Advisor  
Historic Cars**

**Graham Hoinville**  
45 Pine Ridge  
Donvale Vic 3111  
Tel: (03) 9842 1419



**Chief Timekeeper**

**Barry Frost**  
24 Cooke Street  
Findon SA 5023  
Tel: (08) 8268 1350



**Chief Medical Assessor**

**Dr Geoff Wigley**  
266 Grange Road  
Ormond Vic 3163  
Tel: (03) 9578 6999



**Regional Chief  
Scrutineer**

**Greig Black**  
142 Gloucester Road  
Hurstville NSW 2220  
Tel: (02) 9570 6082



**Chief Medical Advisor**

**David Vissenga**  
PO Box 67  
Narre Warren North  
Vic 3804  
Tel: (03) 9796 8246



**National Officiating  
Co-ordinator**

**Phyl Stuckey**  
c/- CAMS SA Office  
255 Hutt Street  
Adelaide SA 5000  
Tel: (08) 8232 4855  
Fax: (08) 8232 4818

## Legal Advisors

Rigby Cooke  
101 Collins Street  
Melbourne Vic 3000

## Insurance Brokers

Sedgwick Limited  
GPO Box 2637  
Adelaide SA 5001  
Tel: (08) 8211 7655

## Bankers

National Australia Bank  
Camberwell Junction Branch  
566 Burke Road  
Camberwell Vic 3124

## Auditors

Ernst & Young  
120 Collins Street  
Melbourne Vic 3000

An economy test is one wherein the driver attempts to secure maximum economy from his vehicle under such conditions as may be specified by CAMS from time to time.

## 22. SPEED EVENT

Any event of more than 200m in a forward direction from a standing start, along a track or course clearly defined or marked, and which is determined by outright speed alone. The term "speed event" shall include races, attempts at record, Hillclimbs, Rally-cross, Short Course Off Road, and speed or acceleration tests by whatever name.

## 23. RACE

### (i) Circuit Race

A competition between two or more automobiles running simultaneously, on the same course, and in which speed is the determining factor. Races on a circuit, involving any corners or departures from a straight course, shall be known as "circuit races".

### (ii) Drag Race

A competition between two vehicles over a measured distance on a straight course, from a standing start, in which the first vehicle to cross the finishing line at the end of that distance shall be deemed the winner, regardless of the elapsed time.

### (iii) Superspeedway Race

A competition between two or more automobiles running simultaneously, on the same course, and in which speed is the determining factor. Superspeedways are circuits which have been constructed specifically to handle very high speeds, and which will normally feature high banking in the turns.

## 24. AUTOCROSS

A speed event of less than 2km on a grass or unsealed surface. The winner shall be determined as in NCR 26.

## 25. OFF ROAD EVENTS

An event on sand or defined tracks in desert areas. Off Road events may be classified as "short course" (up to 15km) or "long course" (over 15km). "Short course" events are speed events.

## 26. RALLYCROSS

A speed event which takes place on a combination of sealed and unsealed surfaces as part of a permanent circuit. Each competing vehicle shall be separately timed, the winner being determined by the lowest individual time recorded in one event or the lowest aggregate time over a pre-determined number of heats, as specified by the organisers.

## 27. PROMOTERS

Any person or body (other than an organising committee) proposing to hold, holding, or organising a meeting (see NCR 54).

## 28. ORGANISING PERMIT

The documentary authority to organise and hold a competition, granted solely by CAMS (see NCR 63).

## 29. ORGANISING COMMITTEE

A committee of at least three persons approved by CAMS authorised by promoters to organise a meeting on their behalf. Where an organising committee is appointed to act on behalf of promoters, such organising committee shall take the place of such promoters for the purpose of the Rules, except that the promoters shall be responsible for the acts and omissions of such organising committee as if such acts and omissions were their own (see NCR 61).

## 30. SUPPLEMENTARY REGULATIONS

Regulations supplementary to these Rules drawn up by the promoters of a competition or competitions and approved by CAMS, with the object of laying down the details of such competition or competitions (see NCR 67).

## 31. PROGRAM

A document prepared by the promoters of a State level and above speed meeting for the purpose of informing the participants and spectators about such meeting.

## 32. COURSE

The route to be followed by competing automobiles in a competition (see Part V of these Rules).

## 33. TRACK

A permanent or temporary course used for competitions including record attempts.

## 34. AUTODROME

A permanent track to the proprietors of which CAMS has given permission for the use of the name "autodrome". Such permission will only be given in respect of tracks suitable for high speeds, the super elevation of curves being normally required.

## 35. METRIC CONVERSION

(i) For all conversions of imperial to metric measurements and vice-versa the following equivalents shall be used:

1 mile	= 1.60934 km
1 yard	= 914.4 mm
1 foot	= 304.8 mm
1 inch	= 25.4 mm
1/1,000 inch	= 0.025 mm
1 kilometre	= 0.621 mile
1 kilometre	= 1098 yards
1 metre	= 1.09 yards
1 metre	= 3.28 feet
1 centimetre	= 0.394 inches
1 ton	= 1016.0 kilograms
1 hundredweight	= 50.8 kilograms
1 pound	= 453.6 grams
1 ounce	= 28.35 grams
1 kilogram	= 2.2 pounds
1 gram	= 0.0353 ounces
1 gallon	= 4.546 litres
1 pint	= 0.568 litres
1 litre	= 1.76 pints

- (ii) (a) in cases where exact measurement is not vital (eg: length of tracks other than for records, distance from tracks of obstacles etc), distances may be measured to the nearest whole metre (see Appendix T);
- (b) in cases of attempts at records, the measurements shall be as specified in Appendix D to these Rules;
- (c) in cases where a close to exact measurement is required, it shall be necessary to record measurements to within 0.025mm (eg, measurements of bore, stroke etc).

## 36. RECORD

The best result obtained under the prescribed conditions:

- (i) **Local Record:** a record established on a permanent or temporary track approved by CAMS whatever the nationality of the competitor.
- (ii) **National Record:** a record made within the territory of CAMS, recognised as such by CAMS regardless of the nationality of the competitor (see NCR 121).
- (iii) **International Class Record:** a record recognised by the FIA as the best performance of its class.
- (iv) **World Record:** a record recognised by the FIA as the best performance irrespective of class.

## 37. HOLDER OF RECORD

- (i) if the record is one established in the course of an individual attempt, the holder is the person to whom permission to make the attempt was granted and who made formal application for such permission (see NCR 43).
- (ii) if the record is one established in the course of a meeting, the holder is the competitor in whose name the record-breaking automobile was entered.

## 38. THE START

The start is the moment when the order to start is given to a competitor or competitors (see Part VI of these Rules).

## 39. CONTROL LINE

A line, drawn or imaginary, by reference to which an automobile is timed or its performance in a competition is determined.

## 40. STARTING LINE

The first control line of a course (see NCR 102). For the purpose of ascertaining false starts in a race (NCR 111), each vehicle is deemed to have a separate starting line.

## 41. FINISHING LINE

The last control line on a course.

## 42. HANDICAP

The method laid down in the Supplementary Regulations of a competition for the purpose of equalising the chances of the competitors.

## 43. COMPETITOR/ENTRANT

- (i) A competitor/entrant shall be a person whose entry is accepted for any competition and who holds a general competition licence with an endorsement to the effect that the individual

is an entrant as well as a competitor.

- (ii) An attributed entrant, being a third party to which the entry may be attributed and listed in the relevant programme (NCR 74) shall, even though not the entrant, be deemed to be expressly subject to the NCR (see NCR 57) and shall (unless a club affiliated with CAMS) hold an entrant licence.
- (iii) An entrant licence shall be a licence issued in accordance with NCR 47 to any person, corporation, group or firm which shall entitle the licensee to enter an automobile in a competition even though the licensee is not the driver.
- (iv) In the case of a corporation, group or firm the person authorised in writing by the corporation, group or firm to sign the entry on behalf of the licence holder shall be deemed to be the entrant, but the corporation, group or firm must hold an entrant licence.
- (v) In club or multi-club events, where the driver is not the *bona fide legal owner* of the automobile and the *bona fide legal owner* does not hold an entrant licence, the driver shall assume the position and all responsibilities of the entrant under the NCR in place of holding an entrant licence.

## 43A. BONA FIDE LEGAL OWNER

A *bona fide legal owner* shall mean the legal owner, the lessee or the hirer of the automobile. If the automobile is subject to hire purchase or lease the vendor in the case of the hire purchase agreement and the lessor in the case of a lease shall be the legal owner for the purpose of NCR 73(i).

## 44. DRIVER

A person nominated as the driver of an automobile in any competition whatsoever.

## 45. NAVIGATOR / CO-DRIVER

A person, other than the driver, carried in a vehicle during a competition, whose function it shall be to navigate the vehicle along a prescribed route, and who may, unless Supplementary Regulations prevent it, act as driver/co-driver during the event.

## 46. PASSENGER

A person, other than the driver, carried in a vehicle during a competition. No passenger shall be permitted at speed meetings, or in speed events in competing cars either in competition or in practice other than with the express written permission of CAMS.

## 47. LICENCE

- (i) A licence is a certificate of registration issued under the NCR by CAMS to any qualified person, corporation, group or firm wishing to enter or participate in a competition held under the NCR.
- (ii) Such licence shall be in a form as specified in the NCR and Section 2 General Regulations of CAMS and shall only entitle the holder to participate in competitions in accordance with

It shall be the obligation of the promoter to advise intending entrants in writing whether or not their entry has been accepted not later than seven days before the meeting.

#### 73. ENTRANT TO BE BONA FIDE LEGAL OWNER

- (i) Only the *bona fide legal owner* of an automobile shall be entitled to enter the automobile in any competition. In the case of the entrant being a lessee or a hirer, the entrant shall at the time of entry of the automobile in a competition produce the written consent of the legal owner.
- (ii) The *bona fide legal owner* shall be described as the entrant. The entrant shall hold a valid entrant licence as described in Section 2 General Regulations of CAMS – Licences, paragraph 3 and referred to in NCR 43.
- (iii) In the case of the entrant being a corporation, it may by notice in writing authorise a person to enter the automobile in a competition on behalf of the corporation. In such case the corporation must be the holder of an entrant licence.
- (iv) Any attempt to enter an automobile in any competition without a valid entrant licence shall be a breach of this NCR and the entry or attempted entry shall be deemed void. In such case the entry fee shall be forfeited to the promoter of the competition. (See NCR 43, 82, 86 and 128.)

#### 74. ATTRIBUTION OF ENTRY

Provided that the requirements of NCR 73 above have been duly complied with, it shall be permissible for the said entry to be attributed to a third party (or person) in the relevant program, list of entrants or results.

In such case, such third party (or person) shall (unless a club affiliated with CAMS) be required to be the holder of a current and valid General Competition Licence as a competitor at the time of the relevant competition (see NCR 43).

#### 75. DISPUTE REGARDING ENTRY

If any dispute shall arise otherwise than by way of protest between a competitor or driver and promoter regarding an entry or nomination to drive which has already been accepted, such dispute shall be referred to the stewards for decision subject to the right of appeal provided by these Rules.

If judgment is not pronounced before the holding of the competition, any competitor whose entry has been accepted and any driver who has agreed to his nomination to drive in that competition who does not take part therein shall (unless the promoters have so agreed) thereby be guilty of a breach of these Rules unless the stewards are satisfied that such failure to participate was in all the circumstances justifiable (see NCR 145).

#### 76. OPENING OF ENTRIES

An organising permit having been granted, the promoters may invite, receive and accept entries from eligible competitors. Every entry form or invitation to enter sent out by the promoters shall be accompanied by the relevant Supplementary Regulations.

Entries shall be made in writing on the entry form provided by the promoters which shall provide for a statement of the name and address of the entrant, of the drivers nominated, if any, together with their licence numbers, and any other information required by the Supplementary Regulations to be stated on the entry form. The Supplementary Regulations may allow the nomination of drivers to be delayed.

An entry not accompanied by the entry fee (if any) laid down by the Supplementary Regulations shall be null and void. Nothing in this NCR shall be deemed to prevent an organiser from advertising or publicising a competition already published in the calendar or otherwise approved by CAMS in principle even though the organising permit may not have been granted at the time of such publicity (see NCR 81).

#### 77. CONTENTS OF ENTRY FORM

Entry forms for all competitions shall contain the following:

- (i) spaces for the full names (not assumed names) and addresses of the entrant, driver/s and passenger/s and, if appropriate, the licence number of entrants and driver/s, together with space for assumed names;
- (ii) space for the signature of the entrant. (An entry may be submitted for an entrant by an agent, but in such case the entrant shall himself sign and submit an entry form before the commencement of the competition.);
- (iii) the following statement: "If an entrant or any driver or crew member is under 18 years of age, this form must be counter signed by the appropriate parent or guardian" (see NCR 79(ii));
- (iv) space for any required signatures by parents or legal guardians, together with their address;
- (v) statements in accordance with NCRs 56 and 79 (i) of these Rules;
- (vi) such other information as is required by these Rules or by the Supplementary Regulations to be stated on the entry form;
- (vii) spaces for the recording of:
  - (a) the date of signing the entry form by the said entrant;
  - (b) the date of receipt of such entry by the Secretary of the meeting;
  - (c) the date and time of official acceptance of the entry by the relevant organiser;
  - (d) (deleted 1991);
  - (e) attribution of entry (see NCR 74).

#### 78. ENTRY FOR AN INTERNATIONAL COMPETITION ORGANISED OUTSIDE THE TERRITORY OF CAMS BY A COMPETITOR WHOSE LICENCE WAS ISSUED BY CAMS SHALL BE MADE ONLY WITH THE PRIOR APPROVAL OF CAMS.

An entry for an International Competition organised outside the territory of CAMS by a competitor whose licence was issued by CAMS shall be made only with the prior approval of CAMS.

#### 79. UNDERTAKING BY ENTRANTS, DRIVERS AND PASSENGERS

- (i) Every entrant, driver and passenger, before taking part in any competition, shall sign an undertaking in the following form:

"I have read the Supplementary Regulations issued for this meeting and agree to be bound by them and by the National Competition Rules of CAMS.

"I also acknowledge and agree as a condition of entry that neither CAMS, nor the promoters nor the sponsor organisations, nor the land owners or lessees, nor the organisers of the race meeting/event, nor their respective servants, officials, representatives or agents ("the organisers") shall be under any liability for my death, or any bodily injury, loss or damage which may be sustained or incurred by me, as a result of participation in or being present at the event except in regard to any rights I may have arising under the Trade Practices Act 1974.

I acknowledge that motor racing is dangerous and accidents causing death, bodily injury, disability and property damage can, and do, happen." (See NCR 77.)

- (ii) Any undertaking as prescribed by subparagraph (i) above which is signed by a person under the age of 18 years shall be countersigned by that person's parent or guardian, whose full name and address, together with a statement of whichever of the aforementioned capacities entitles him so to sign, shall be stated.

#### 80. CLOSING OF ENTRIES

The date specified in the Supplementary Regulations for the closing of entries shall, in the case of all race meetings and all International competitions, be not later than seven days before the date of the meeting. However, in events not counting towards an Australian championship, and subject to the prior approval of the body which authorised the issue of the permit, an entry may be substituted for one lodged prior to the stated closing date of entries and in respect of which the entrant has advised his inability to compete. In no other circumstances shall any entry be received after such closing date, except that it shall be permissible to accept entries arriving by the first mail delivery thereafter (see NCR 86).

#### 81. ENTRY BY FACSIMILE, ETC

Notwithstanding the provisions of NCR 76, an entry may be made by telegram, facsimile or telex provided such document is received before the time laid down for the closing of entries and a confirmatory letter with the entry fee (if any)

is dispatched simultaneously. A competitor making an entry by telegram, facsimile, or telex shall, before competing, complete and sign an entry form.

#### 82. ENTRY CONTAINING A FALSE OR INCORRECT STATEMENT

An entry which contains a false or incorrect statement shall be null and void, and the entrant may be deemed guilty of a breach of these Rules and the entry fee may be forfeited. Any statement different from the relevant information in the vehicle log book pertaining to the vehicle concerned may, to the extent of such discrepancy, be deemed false or incorrect, and shall be *prima facie* evidence of a breach of these Rules.

#### 83. REFUSAL OF ENTRY

- (i) If an entry for an international competition is refused, notification of such refusal shall be sent to the entrant at the address given on the entry form so as to arrive in ordinary course of delivery within eight days after the receipt of the entry or at least five days before the meeting, whichever shall be the earlier. Such refusal is final and not subject to appeal, save as provided in paragraph (iii) below.
- (ii) An entry for a competition held under these Rules, other than an International Competition, may be refused in accordance with the Supplementary Regulations relating to such competition (see NCR 72).
- (iii) Notwithstanding anything in this NCR, no entry for a race counting towards any International title, an Australian title race or for any event counting towards any Australian National or State Championship shall be refused until approval to do so has been given in writing by the body which authorised the issue of the permit.

#### 84. CONDITIONAL ACCEPTANCE OF ENTRY

Supplementary Regulations may provide that entries may be accepted under certain clearly stated conditions. For instance, where the number of starters is limited, an entry may be accepted conditionally upon a vacancy occurring among entrants already accepted. Conditional acceptance shall be notified to the entrant by letter, facsimile or telegram dispatched not later than the day following the date for the closing of entries.

#### 85. ACCEPTANCE OF ENTRIES

If the number of entries received exceeds the maximum number of competitors laid down in the Supplementary Regulations, those to be accepted shall be selected in the manner specified by the Supplementary Regulations. If no manner is specified, they shall be selected either by ballot or by the order of their receipt as the Promoters shall decide. Acceptance or conditional acceptance of entries shall clearly state the time and date of such acceptance or conditional acceptance (see NCR 87).

## 146. DESCRIPTION OF AUTOMOBILES

A description of automobiles is given in Section 6 to these Rules together with capacity classes applicable to each category. Such respective capacity classes shall apply to all attempts at national records, and to all events counting for National or State titles, whether for speed events or otherwise, provided that two or more consecutive capacity classes may be combined at the discretion of the organisers.

## 147. IDENTIFICATION MARKS

During a competition each automobile shall carry displayed such numbers or marks, if any, as Regulations made under these Rules and the Supplementary Regulations may require or permit (see NCRs 67 (xxix), 169 (xi), 172 (v) and Schedule K).

## 148. DANGEROUS CONSTRUCTION

The Stewards of a Meeting shall exclude any automobile the construction or condition of which they deem to be dangerous (see NCR 191).

## 149. PROTECTION AGAINST FIRE

All automobiles which take part in competitions shall be required to comply with the requirements of Schedule H insofar as protection against fire is concerned.

## 150. EQUIPMENT

All automobiles taking part in any speed event shall be required to carry such equipment and/or accessory parts as are specified in Appendix C to these Rules. In addition entrants shall be required to produce at all race meetings, all State level Speed, Rally and Off Road events, a vehicle Log Book, properly entered, and issued by CAMS. Notwithstanding these requirements, CAMS may permit the entry in speed competitions nominated by CAMS of certain automobiles without requiring the issue of a vehicle log book in respect to them (see Schedule L, and NCR 137 (v)).

In addition, entrants may be required to produce a current and valid vehicle log book at other events as required by CAMS.

State Councils are authorised to permit members to compete in club and multi-club rallies organised by the members' own club without the necessity to obtain a Log Book. Exemption will be granted once only to each vehicle owner in each calendar year.

## 151. REGISTRATION

Automobiles participating in such competitions as may be decided by CAMS from time to time shall be required to be registered with CAMS for that type of competition, and have displayed thereon the relevant evidence of such registration (see Appendix R). Historic Cars of the 5th Category are exempted from such

registration if competing in races for historic vehicles only.

## 152. SUSPENSION OR DISQUALIFICATION OF A PARTICULAR AUTOMOBILE

CAMS or any tribunal appointed by CAMS may suspend or disqualify a particular automobile in consequence of a breach of the Code or of these Rules by the entrant or the driver (see NCR 199).

## 153. SUSPENSION OR DISQUALIFICATION OF A MAKE OF AUTOMOBILE

CAMS may suspend a make of automobile within its own territory for a breach of the Code or of these Rules by the manufacturer of such make, his accredited representative, or by any person or firm holding the official agency for selling and/or servicing the make concerned. If CAMS wishes a suspension of a make to apply internationally, or if it is desired to disqualify a make of automobile, it shall forward such request to the FIA, and the question shall be decided by an Arbitration Committee of the FIA, consisting of three persons nominated as follows:

- (i) two persons, being members of the FIA, nominated by the President of the FIA;
  - (ii) a third person nominated by the two persons mentioned in (i) above, or in default of agreement between such persons, by the President of the FIA.
- The Arbitration Committee will report its findings to the FIA. Should the Arbitration Committee decide against CAMS, the Board of CAMS may appeal to the International Court of Appeal. If the Arbitration Committee gives judgment in favour of the penalty being made to apply internationally, its decision will be at once communicated by the FIA to all ASN which must bar the make of automobile from all competitions held under their jurisdiction during the period over which the penalty extends. The judgment of the Arbitration Committee may be appealed against by the make penalised to the FIA through the ASN of the country to which the make belongs under the conditions laid down in Part XIII of these Rules. If the ASN of the country in which the make of automobile is manufactured is CAMS, CAMS cannot refuse to forward such appeal to the FIA.

## 154. CERTIFIED TRIAL - PUBLICATION OF RESULTS

Any firm or individual publishing or permitting to be published the results or any portion of the results of a trial or test not held under these Rules, but which trial or test or any part thereof in the opinion of CAMS could properly have been subject to these Rules and the Supplementary Regulations for Official Certified Trials (if any) issued by CAMS, may be deemed guilty of a breach of these Rules (see NCRs 58, 184).

## 155. ADVERTISING AND PUBLICITY OF COMPETITIONS

Subject to the provisions of the relevant Supplementary Regulations, advertisements or trade signs may be displayed upon (but not distributed from) automobiles in competitions. Such signs and advertisements, if not forbidden or further restricted by the Supplementary Regulations, shall be such as to conform with the requirements of these Rules (see Schedule K).

## 156. ADVERTISING AND PUBLICITY OF COMPETITIONS

- (i) Any person or body advertising or publicising a competition or the results of any competition held under these Rules, by means of lettered, spoken, recorded, electronic or depicted matter, or by any means whatsoever, shall be required to do so in a manner which is not, in the opinion of CAMS, likely to mislead the public.
- (ii) Advertisements or announcements relating to the results of a competition shall clearly state the exact conditions of the performance referred to, the nature of the competition, the category, class etc, of the automobile, the position and result obtained, if applicable, that results are subject to official confirmation, and such other information as CAMS may require. It shall not be permissible to use the word "outright" to refer to any prize other than that of the outright winner, nor to emphasise by any means any minor prize in such manner as to be likely to convey the impression that it is an outright prize.
- (iii) The publication of an advertisement relating to any competition, which advertisement, by its appearance, relative value of type or design, by the omission of or addition to any of the particulars required to be stated, or otherwise howsoever causes or is calculated or likely to cause the public to be misled; or the publication of any advertisement relating to any unauthorised competition; or to any claim to record, explicit or implicit, other than to records recognised by CAMS or submitted to CAMS for recognition; shall render the person or body by whose authority or on whose behalf the advertisement is published or issued liable to the penalties provided by these Rules, and may entail the infliction of a penalty on the person responsible for drawing up the advertisement, upon the automobile concerned, or upon the make of automobile (see NCRs 126, 153 and 184).

## 157. NAMING OF AUTOMOBILES

- (i) Cars shall normally be known by the name of the chassis manufacturer and, if an engine is fitted other than the engine manufactured by the chassis manufacturer, the name of the engine may be added after that of the chassis. In addition, provided that prior authority is granted in writing by CAMS and the vehicle log book is duly endorsed, a further name may be added before, or in some cases after, the names referred to above. In considering whether to grant this authority, CAMS will bear in mind the

interest of the chassis and engine manufacturers and the requirements of general good taste.

- (ii) If it is desired to completely re-name a car, authority shall first be obtained from CAMS which will grant permission only if it is patent that the chassis and the basic design have been so altered that the car is no longer recognisable as the design of the original manufacturer.
- (iii) All vehicles shall be known by and entered in competition under the name shown in their vehicle log book.
- (iv) Any dispute concerning the name to be given to a vehicle containing parts supplied by different makers shall be decided by a tribunal appointed by CAMS.

## 158. EXAMINATION OF VEHICLES

- (i) Before, during or after any event the organisers and/or CAMS may require any competing vehicle to be examined to ascertain its compliance or otherwise with the requirements of the competition.
- (ii) Notification that a vehicle is required for such examination shall be made by an official of the meeting to the entrant, the driver, the team manager or the entrant's appointed representative. It shall be the responsibility of the person notified or of his nominee to present the vehicle for such examination at such time and place as may be specified, and failure to so present the vehicle shall necessarily involve the penalty of exclusion from the meeting, without prejudice to such further penalties as may be imposed for a breach of these Rules (see NCRs 144, 183 (ii), 185).
- (iii) In the case of any component part having been sealed by the organisers or by CAMS in order that examination of such part may be made, other than at the meeting, it shall be strictly forbidden to remove or in any way tamper with such seal, or to remove such part save under the authority of and in the presence of an official authorised to do so by the organisers or by CAMS. Breach of this NCR shall necessarily involve exclusion from the relevant meeting, without prejudice to such further penalty as may be imposed for a breach of these Rules.
- (iv) Where practice and racing take place on different days, cars must be scrutinised for fitness before both practice and racing, save that at International Events or National Events conducted for categories for which National Championships are conducted and for which a CAMS Technical Commissioner has been appointed, a safety check is only mandatory prior to commencement of official practice or competition on the first day of the meeting. Any subsequent checks will be conducted at the discretion of the Clerk of Course or Chief Scrutineer.

## General Requirements for Cars and Drivers

(Formerly Appendix C to the National Competition Rules)

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## WING

A wing/aerofoil functions on what is termed the "velocity effect" and essentially involves airflow over both upper and lower surfaces of the section. Essentially, the function of a wing/aerofoil is to produce lift (or downforce in the configurations used in motor sport applications).

## Classification of Cars

### 1. RECORDS

For the purpose of attempting speed and/or endurance records, vehicles will be classified according to their calculated effective engine capacity, using the relevant factors as noted below.

Vehicles will then be placed in one of the following classes:

### VEHICLES WITH POSITIVE DISPLACEMENT RECIPROCATING ENGINES

Over 8000cc	FIA Class 11
5001-8000cc	FIA Class 10
3001-5000cc	FIA Class 9
2001-3000cc	FIA Class 8
1501-2000cc	FIA Class 7
1101-1500cc	FIA Class 6
751-1100cc	FIA Class 5
501-750cc	FIA Class 4
351-500cc	FIA Class 3
251-350cc	FIA Class 2
Below 250cc	FIA Class 1

(See "Supercharging", below)

### 2. GENERAL

(applies to all competition unless specifically noted otherwise)

#### 2.1 Vehicles with Rotary Combustion (Wankel-type) Engines

The engine capacity will be calculated by the following FIA formula: 1.8 times the volume determined by subtracting the minimum capacity of the working chamber/s from its/their maximum capacity gives the piston displacement equivalence (and hence the relevant class).

#### 2.2 Supercharging

If the engine of a car includes a separate device for supercharging it, the nominal cylinder capacity will be multiplied by a factor of 1.7, and the car will be classified in all respects corresponding to the nominal volume thus obtained.

A supercharger is deemed to be:

- a device designed to produce and capable of producing positive (above atmospheric) pressure in the induction system of an engine throughout its operating range;
- any device which effects a measurable increase in the BMEP.

**NOTE:** a dynamic air inlet for ducting air from the atmosphere into the engine intake shall not be considered as a supercharging device.

#### 2.3 Vehicles with Electronic, Turbine, or Steam Engines

For the purposes of record attempts, such vehicles are allotted to classes on a basis of unladen weight:

Up to 500kg	Class 1
501-1000kg	Class 2
Over 1000kg	Class 3

Specific determination insofar as class allocation for racing purposes in concerned will be made on application to CAMS.

#### 3. In competitions other than attempts on records, automobiles shall be classified as follows:

##### 3.1 1st Category: Racing Cars

Australian Formula 2  
Formula Holden  
Formula Ford  
Formula Vee  
Formula Libre (in races) up to 1300, 1301-2000, 2001-3000, 3001-5000cc

(In other speed events) as for Record classes, or as for races.

##### 3.2 2nd Category:

Sports Cars (Open, Closed and Marque) in the following capacity classes:

Up to 1300cc  
1301-1600cc  
Clubman - up to 1300cc only.  
1601-3000cc  
3001-5000cc

##### 3.3 Sports Sedans & Club Cars, in the following capacity classes:

Up to 1300cc  
1301-2000cc  
2001-3000cc  
3001-4000cc  
4001-6000cc

##### 3.4 HQ Holdens

3310cc only

##### 3.5 Porsche Cup Vehicles – when competing in competitions under the Australian Porsche Cup regulations, cars are classified according to their weight-to-power ratio and then compete in one of three corresponding classes.

##### 3.6 3rd Category: Production Cars

Up to 1300cc  
1301-1600cc  
1601-2000cc  
2001-3000cc  
Over 3000cc

##### 3.7 4th Category (Other Automobiles)

As may be specified in Regulations.

##### 3.8 5th Category (Historic Cars)

As may be specified in Regulations.

#### 4. NOTES: Organisers are permitted to amalgamate any adjoining classes, but not to use any other class limits than those stated for the relevant category or group.

In all International and National Competitions events shall be conducted only in accordance with the above categories, unless specific written authority is granted by CAMS to classify otherwise.

## General Requirements of Automobiles

### Schedule A

#### ALL AUTOMOBILES SHALL, OF NECESSITY, IN ALL COMPETITIONS:

- comply with the definition of an automobile; and
- be fitted with some form of protection between engine and driver's compartment suitable and sufficient for preventing the passage of flame; and
- be so constructed that the driver is protected from the entry of foreign matter into the driving compartment from the road or road wheels; and
- be equipped with a transmission system so arranged that:  
the propeller shaft and universal or Cardan joints, if passing through or beneath the passenger compartment, shall be under the floor boards, or fitted in tubes or casings. Such floorboards, tubes or casings shall not be of a temporary nature, but shall be joined together and firmly fixed to the coachwork or chassis. Any chains used in the transmission of power or driving any auxiliary component shall be effectively guarded; and
- be arranged so that all fuel tanks are vented externally to the bodywork; and
- if not registered for use on public roads, have any steering column locking device removed; and
- if required to be fitted with roll-over protection, be equipped with such protection only in accordance with the provisions of Schedule J; and
- unless specifically otherwise approved, use only commercial fuel, as defined (Schedule G); and
- be fitted with windows (including windscreens) which if of other than glass, are clear, transparent and free of colouring; glass windows must not be coloured or tinted after production; and
- have displayed on the dashboard a valid CAMS registration label for the relevant competition as determined by CAMS from time to time, save for Off Road events, Kart races, Motorshans, Speed Events and Historic Category 5 vehicles; and
- be fitted with safety harness or seat belts as prescribed in Schedule I; and

### Schedule B

#### ALL AUTOMOBILES SHALL, OF NECESSITY, IN ALL SPEED EVENTS:

- be fitted with at least two independent fastening systems, of adequate strength and limited extensibility, which simultaneously hold the bonnets or panels closed.  
Bodily unmodified production cars manufactured after 1 January, 1973, and other cars as explicitly approved by CAMS and which are fitted with forward hinged bonnets may utilise the original, unmodified manufacturer's component for closing the bonnet, without the use of a secondary restraint mechanism; and
- (if fitted with crankcase breather/s discharging to atmosphere) have fitted to such breather/s an oil-trap container (which must be empty at the start of the competition) of at least two litres (for cars of under 2000cc) or three litres (for cars of over 2000cc) except in Autocross, Rallycross and other events on unsealed surfaces, save however, that Supplementary Regulations may require fitment for any particular event; and
- (other than Single- and Multi-car Speed Events) be fitted with a roll bar or roll cage and safety harness complying with such specifications as are determined by CAMS from time to time (see Schedules J and I);  
(NOTE: structurally unmodified fixed roof closed cars may compete in events other than National Race Meetings without roll-over protection) and
- be fitted with a fire extinguisher or fire extinguishing system in working order and of a type and capacity as specified in Schedule H as is appropriate; and
- be so constructed that, in the event of any breakage, the tailshaft, its components or mountings shall be effectively prevented from striking the ground; and
- be fitted with wheels which meet the specifications determined by CAMS from time to time (see Schedule E); and
- be so constructed that any aerodynamic device fitted is in accordance with specifications determined by CAMS from time to time (see Schedule F); and
- comply with any Supplementary Regulations for a specific event which requires the fitment of locking or wiring devices adequate for the



- prevention of any loosening of any oil drain plug; and
9. be fitted with a scatter shield if required under the provisions of Schedule M; and
  10. on each throttle, whether butterfly, slide or other type, be fitted with a return spring which in the event of the throttle linkage becoming detached will in all cases return each throttle to the closed position; and
  11. with the exception of vehicles manufactured prior to 31 December 1973 and fitted with the manufacturers original specification braking system, be fitted with a double circuit braking system so arranged that the pedal normally operates on the four road wheels and, in the event of leakage at any point in the braking system, the pedal shall still control two wheels on the same axle. Provided that in "straight-line" Sprint Events, and in events exclusively for historic or vintage cars, braking systems operating on two wheels of the same axle shall be acceptable; and
  12. be fitted with an operable reverse gear; and
  13. be fitted with an exhaust system the outlet pipe/s of which shall be directed either rearwards or sideways. If rearwards, their orifices shall be between 100mm and 450mm above the ground and they shall not protrude by more than 150mm beyond the rearmost portion of the car. If they are directed sideways, their orifices must be located aft of a vertical plane passing through the midpoint of the wheelbase. They may neither project in any way beyond the maximum width of coachwork nor terminate at a point more than 50mm within the projected plan of the coachwork. Adequate protection shall be provided to prevent heated exhaust pipes from causing burns (not 1st Category cars).
  14. have, on the external coachwork, a blue triangle of sides 150mm, which indicates the position of the battery or the isolation switch; and
  15. be fitted with a flame- or liquid-proof bulkhead, which may be of transparent material, which effectively separates the compartment occupied by the crew from any component of the fuel tank or fuelling system; and
  16. for races and multi-start speed events, all external forward facing glass components, save for the windscreen shall be covered by a transparent adhesive film, which shall effectively inhibit broken glass from being spread on the track.

Notwithstanding the above requirements automobiles registered for road use shall not, when competing in Single- and/or Multi-car speed events (not racing), be required to comply with the provisions of sub-sections 2, 3, 5, 8, 9 and 11 of this Schedule.

### Schedule C

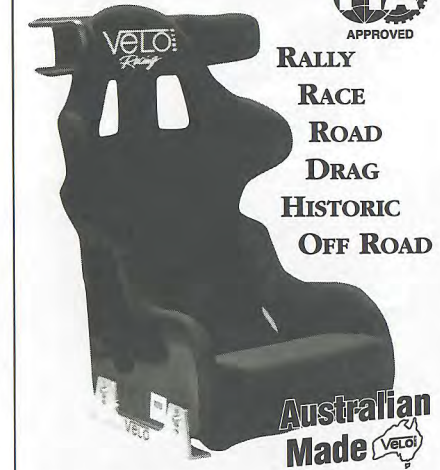
#### ALL AUTOMOBILES IN CIRCUIT RACES SHALL, OF NECESSITY, IN ADDITION TO THE PROVISIONS OF PRECEDING SCHEDULES A & B:

1. Be fitted only with laminated glass in any glass windscreen.
2. Be fitted with tyres which have not been retreaded, recapped, repaired or in any way are re-conditioned; if tubeless racing tyres, shall have been fitted only to suitable rims; if tubeless touring tyres, may be fitted only to rims classified as optimum sizes for the covers concerned (fitting of such tyres to so-called "permissible" or oversize rims is specifically prohibited); in all cases, shall be required to carry a manufacturer's speed rating appropriate to the type of automobile and competition concerned (see Schedule E).
3. Be fitted with bodywork which generally encloses (when viewed from above and each side) the chassis frame and basic mechanical elements, from the front of the automobile rearwards to the vertical plane immediately to the rear of the driver's seat. Provided that, in the case of a vehicle driven by a provisional licence holder, such further panel/s must be fitted as may be necessary to comply with the requirements of Schedule K, Article 2.
4. Be fitted with at least two rear vision mirrors of which each must have a reflecting surface of at least 50cm<sup>2</sup>, and provide an unobstructed view to the rear of the car, save that, in automobiles with closed body-work (whether of sports or touring types), one such mirror shall be fitted internally and one externally.
5. Be fitted with a fuel tank as specified in Schedule N as is appropriate.
6. 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 and painted 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.

7. Be fitted with fuel lines only of metal, braided Neoprene, or other CAMS approved material.
8. In closed cars first registered with CAMS after 1 January, 1980, and in which the relevant regulations permit the replacement of the driver's seat, be fitted only with such replacement seat which:
  - incorporates a head restraint;
  - has no provision for mechanical adjustment of the rake of the squab.
9. Where a seat is a separate entity to the structure of a vehicle and it is not supported by the structure, and where the standard seat mountings are not retained or the vehicle does not comply with the Australian Design Rules for seat mountings, the seat shall be mounted by not less than four 8mm (5/16") bolts. Where they are affixed to the unreinforced section of the floor pan, these attachment points shall be reinforced by the use of plates of not less than 75mm x 50mm x 3mm (1/8" thick).
10. Be configured so that, when measured in competition conditions at 30m from the track edge, the sound emission from the vehicle does not exceed 95dB(A).
11. Be fitted with an effective and efficient muffler, which diminishes the sound of the engine's exhaust.
12. On vehicles with fuel injection systems, the power supply to all fuel pumps must be cut off after a maximum of six seconds absence of crankshaft revolution.

# VELO SEATS



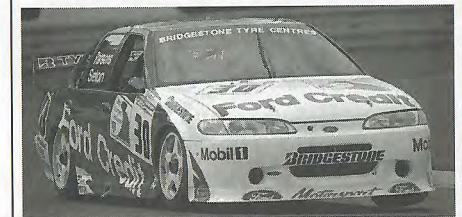
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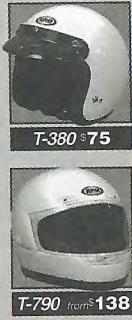
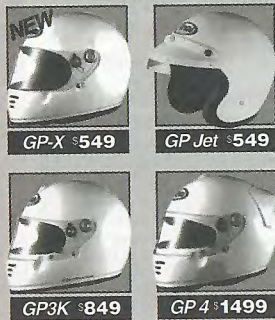
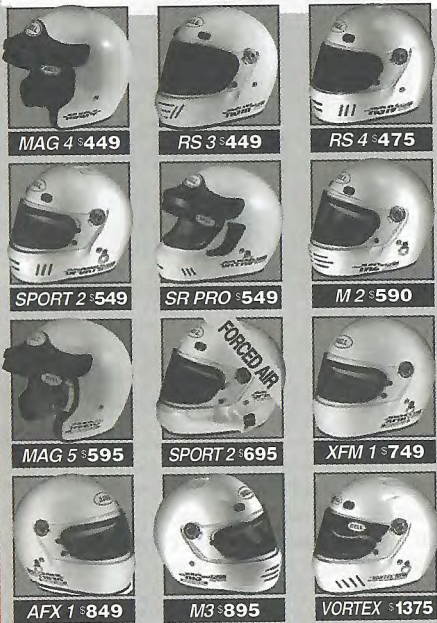
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### Schedule D - Apparel

Races, Speed Events & Off Road Events

#### 1. HEADGEAR

**NOTE:** Events which are entered on the FIA International Sporting Calendar have restricted standards for allowable helmets. Standards approved by the FIA for international competition are accepted by CAMS for domestic competition.

It is compulsory, in all races and other speed events and in other events where helmets are required, that drivers wear helmets of a standard design, construction and fitting approved by CAMS.

Helmets not marked as complying with the approved standard may be approved by CAMS under certain conditions.

All helmets must bear a CAMS-approved label affixed by an authorised official.

It is advised that painting or use of solvents on helmets could be hazardous.

Balaclavas are mandatory for international races and are recommended in all competitions, especially for drivers with long hair and/or beards.

In kart races, it is compulsory for drivers to wear a full face helmet.

Helmets bearing any of the following marks are approved for use in racing, speed events, special stage rallies and other events where helmets are required and the event is not entered on the FIA International Sporting Calendar:

AS1698	Australian standard
Snell SA80, M80, SA85, M85, SA90, M90, SA95	USA standard
SFI Spec 31.1	
SFI Spec. 31.2	USA standard
SIS 88.24.11 (2)	Swedish standard
DS 2124.1	Danish standard
SFS 3653	Finnish standard
ONS/OMK	Germany standard
NF S 72 305	French standard
E22 (with 02, 03 or 04 amendments)	European Standard
BS 6658-85 Type A (incl. amendments)	British Standard
BS 2495-1977	British Standard

#### NOTES:

- Helmets permitted for events entered on the FIA international sporting calendar, or events organised under the authority of an ASN other than CAMS, will be restricted to those bearing one of the following approvals:
  - Snell Foundation SA 90, SA 95 (USA)
  - SFI Foundation Inc, SFI Spec 31.1 or 31.2 (USA)
  - British Standards Institution BS 6658-85 type A including all amendments (Great Britain)
- No helmet may be modified from its specification as manufactured except in compliance with instructions approved by the manufacturer and one of the standards

organisations listed above, which certified the model concerned. Any other modification will render the helmet unacceptable for the requirements of this regulation.

- The FIA has advised that communication systems in helmets must have been tested with that model of helmet for standard assessment. Any subsequent additions or modifications to facilitate communication or breathing devices may invalidate helmet certification.
- Decoration of helmets is potentially dangerous, and members are warned of the hazard of using paint on approved helmets.
- Drivers are cautioned against using helmets which have been damaged or involved in accidents.

#### 2. GOGGLES

Goggles or visors must be worn by drivers of open cars. Those with glass lenses of any kind are not acceptable. Lenses shall be of a plastic material, with high-impact resistance, satisfactory optical qualities and complying with Australian Standard Specification AS 1609-1981.

#### Races

##### 3. CLOTHING

In all circuit races and practice therefor, all drivers shall be required to wear approved clothing as follows:

- one-piece overalls of an approved flame resistant material, extending from wrists to neck to ankles, together with
- heat-resistant underwear, extending from wrists to neck to ankles, and of a woollen or such other material as may be specifically approved by CAMS, and
- socks of undyed wool or other flame retardant material, worn under flame resistant boots or shoes which completely enclose the feet (driving without such footwear is forbidden).
- gloves of recognised flame retardant material. No apparel of flammable material (eg, nylon or similar synthetics) may be worn in any race. Neither two-piece overalls nor Proban-treated material is approved.

**NOTE:** For races entered in the FIA International Sporting Calendar, overalls must comply with FIA regulations (1986 Standard) and other apparel items must have satisfied ISO6940 standard using exposure times of five and 15 seconds and that after flaming times do not exceed five seconds.

#### Superkart Races and Practice

In all Superkart races and practice, drivers must wear a one-piece abrasive resistant race suit (or two-piece suit securely fastened at the waist), which is securely fastened at the wrists and ankles. In the 250cc classes, the suit must be of leather. For all other classes, the material may be leather, cordura, or cordulon.

In all Superkart races and practice therefor, drivers must wear:

- footwear, securely fastened which covers and protects the ankles;



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Standard Requirements

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- abrasive resistant gloves that cover and protect the hands and wrists (including the fingers).

Superkart drivers may wear appropriate wet weather clothing in addition to that specified.

It is recommended that acoustic ear plugs be worn.

#### 4. PIT CREW

All persons working on cars must wear shoes and socks, neck to ankle covering, and at least a short sleeved shirt. On race day, pit crew must be neatly attired. Promoters are authorised to refuse entry to the pit area of people unsuitably dressed.

In races where refuelling operations are permitted, any persons involved in such operations must be attired to the same minimum standards as that appropriate for drivers in races (see 3 (i), (ii), (iii) and (iv) above). In addition, balaclavas must be worn and any resultant exposed areas (eg, eyes) must be covered and enclosed by flame-resistant material. The wearing of full-face helmets is recommended in addition to the above.

#### 5. SPEED EVENTS

In speed events, clothing for drivers and crew members must be from ankles to neck to wrists. Clothing and footwear of flammable synthetic material, such as nylon, is not acceptable.

#### Rallies

- No person may compete in any rally of Australian Championship, International or Special Stage status unless wearing, in other than "transport" stages, a properly fastened helmet of a model listed above.

- No person may compete in any open rally or any rally timed to intervals of less than one minute unless wearing shoes and socks, a shirt with at least short sleeves, and clothing from neck to ankle.

- It is strongly recommended that no apparel of flammable material (eg, nylon or similar synthetics) be worn.

#### All Events

- No driver shall participate in any competition unless wearing suitable and appropriate footwear. Prohibited are, for example, thongs, Roman sandals and high-heeled shoes.

Drivers shall continue to comply with the requirement of Rule 141 until such time as they leave their automobiles.

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## Schedule E - Wheel and Tyres

The following requirements and parameters apply to all competitions.

### 1. RIM WIDTH

- 1st Category: Racing Cars**  
**2nd Category: Sports Cars and cars complying with Clubman Sports 1300 Formula.**

Where a steel centre is employed, the width of any rim attached thereto shall not exceed the following:

- cars up to 2000cc capacity and Clubman: 8.5"
- cars over 2000cc capacity: 10"
- if a steel centre is not utilised, the width is unrestricted.

- 2nd Category: Other Cars**  
**3rd Category: Touring Cars**

- where a steel wheel centre supplied by a vehicle manufacturer as original vehicle equipment is employed, any rim attached to such centre shall not be more than 2" wider than the rim originally fitted to such centre.
- wheels and steel centres other than those supplied by a vehicle manufacturer as original vehicle equipment may not be widened.

### 2. TYRES

- Tyres fitted to all rims shall be in accordance with the Tyre and Rim Association recommendations.
- Tyres not listed in the Tyre and Rim

Association Manual are to be subject to certification by the manufacturer as being suitable for the rim width concerned.

- The tread wear indicators as provided by the relevant tyre manufacturer will be the definitive method of determining minimum tread depth. At no time prior to any official practice or racing may the tread wear indicators be exposed or, in those cases where the tread wear indicator is a dimple in the tyre, worn below such indicator. This does not apply to the shoulder of the tyre where excessive wear may occur due to steering and cornering.

Tyres may be checked by an official in the marshalling area prior to the start of any practice session or race. Any vehicles found not to comply with these regulations may not be permitted on to the circuit.

### 3. WET WEATHER TYRES

- Clerks of Course may, after consultation with the stewards and at an appropriate time announce that "untreated tyres are not to be used until further notice".
- As most untreaded racing tyres are not suited for other than dry tracks, scrutineers must ensure that (for circuit races and tarmac rally stages):
  - on wet days only suitable tyres are used; this will exclude specialised dry tyres, unless they have been suitably modified.
  - tyres used are suitable for the weather and track

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- conditions relative to the car's potential.
- (iii) that all tyres used or likely to be used are scrutinised (competitors, too, must ensure that this is done).
  - (iv) by checking, in the marshalling area, that late changes have not been made which render the cars unsuitable for use.
- 3.3 Championship and long distance races will be subject to special decisions. If a specific order is to be made, it will be that the race will commence on treaded tyres. Competitors would thereafter be free to change. This order will be made in respect of those races if:
- (i) it is raining at the start, and the track is wet, or
  - (ii) it is not raining at the start but the track is "running" with water over the greater part of its length.
- 3.4 In Formulae where a specific dry weather tyre and/or wet weather tyre are specified, the wet weather tyre may be used only under conditions (i) and (ii) in paragraph 3.3 above.

#### 4. CONTROL TYRES

Where specific tyres, otherwise known as control tyres, form part of a formula, those tyres are as much a part of the formula as is everything else which describes the car.

Specified control tyres may not be modified, other than by reduction of tread depth.

In all competitions in which the car is entered under a specific formula, those control tyres must be used.

If the car is not competing in a particular formula, but only as a "racing car", then the competition must be assumed to be for cars of Formula Libre, and control tyres are then not required.

The provisions of this Article, whilst specifically referring to control tyres, which are traditionally one make/model of tyre used in a given application for a number of cars in a single class, also extend to those classes and categories where a limitation is placed on the types or make/ models of tyres which are permitted to be used. Examples given are: Group 3E Production Cars, Historic Group N cars.

It is reiterated that in these classes, the permitted range of tyres to be used by a competitor form as much a part of the Technical Regulations as do the actual regulations themselves and any restrictions to modifications of tyres stated or implied in Article 4 of Schedule E also apply to those classes.

#### Maximum Permissible Rim Widths

Category	Vehicle	Maximum Widening Permitted		Max. Rim Width for Steel Wheels	Maximum Rim Width other than Steel Wheels
		Prod. Steel Wheels	Non-Prod Steel Wheels		
1	Racing F/Holden F/Ford F/Vee	Unrestricted None None	None None N/A	8.5" up to 2000; 10" over 2000 5.5" 5.5"	Unrestricted 16" max. complete wheel 5.5" N/A
2	Sports Cars	Unrestricted	None	"	"
Clubman	-	Unrestricted	None	8.5"	Unrestricted
2	Other cars	50mm (2")	None	8.5" up to 2000; 10" over 2000	As determined by vehicle regulations
3		50mm (2")	None	As determined by vehicle regulations	



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## Schedule F - Aerofoils and Coachwork

The following are the CAMS (and FIA) parameters regarding the fitting of aerofoils and other aerodynamic devices to cars.

- For all vehicles (1st, 2nd, 3rd, 4th and 5th Categories) coachwork shall be deemed to include all external parts of the car which extend above the highest point of either the front or rear complete wheels (with tyres) with the exception of units definitely associated with the functioning of the engine or transmission and the roll bar.

Any specific part of the car which has an aerodynamic influence on the stability of the vehicle must be mounted on the entirely sprung part of the car and shall be firmly fixed whilst the car is in motion.

Neither the roll bar nor any of the units associated with the functioning of the engine or transmission shall have an aerodynamic effect by creating vertical thrust.

All external projections swinging in a horizontal plane shall have a minimum radius of 15mm. The leading edge of any aerofoil fixed to the front of the car shall not be sharp.

Switches for battery isolation and fire fighting equipment may project beyond the coachwork without infringing regulations.

- 2ND CATEGORY** vehicles shall comply with the following requirements (except for cars which comply with Sports Sedan Regulation 3.5 (iv)):

the highest point of any forward facing gap in the coachwork shall not be situated above a horizontal plane 800mm above the lowest point of the entirely sprung structure of the car. The maximum width of coachwork shall not exceed by more than 200mm the maximum width between the two vertical planes tangent to the outer faces of the front/rear wheels.

### 3. 1ST CATEGORY

vehicles shall comply with the following requirements:

- No element of coachwork may exceed in height a horizontal plane situated at 900mm above the ground. Neither the roll bar nor any of the units associated with the functioning of the engine shall be included. Measurements are to be taken with the driver on board.
- Cars of a type registered at 1 January, 1975, but constructed after 1 July, 1975; and cars of a type not registered at 1 January, 1975, but constructed after 1 January, 1976; and cars registered at 1 January, 1975, but which have subsequently been substantially varied; must all comply with the following requirements:
- Wheels shall be external to the coachwork.
- The coachwork opening giving access to the cockpit must be at least 600mm long; and 450mm wide, maintained over 300mm from the rearward point of the seat backrest towards the front. It must be able to be entered or left without it being necessary to open a door or remove a panel. Sitting at his steering wheel the driver must be facing forwards. Moreover, the cockpit must be so conceived that the maximum time necessary for the driver to get out does not exceed five seconds.

	F/HOLDEN	F2	F/FORD
• Maximum width ahead of front wheels	1,500mm	1,500mm	950mm
• Maximum width ahead of front wheels, above height of wheel rims	1,100mm	1,100mm	950mm
• Maximum width between front and rear wheels + deformable	1,300mm	1,100mm +200mm	1,300mm
• Maximum width behind rear wheels	1,100mm	1,100mm	1,100mm
• Front overhang		max. 1,000mm	
• Rear overhang (from centre of wheel/axle)	max. 800mm	1,000mm	

## Schedule G - Fuel

"Commercial fuel" is defined by CAMS in Articles 1, 2 and 3 below, and unless specifically permitted otherwise in the specific regulations for a vehicle, or specifically approved by CAMS, is the only fuel to be used in competition.

### 1. FOR ALL SPARK-IGNITION ENGINES (Reciprocating and Rotary)

A "motor" fuel produced by an oil company and currently distributed at roadside refuelling stations throughout the territory of CAMS. This shall include the normal "unleaded", "premium unleaded" and "leaded" motor fuels. Additionally, a gasoline complying with the recognised specifications for 100/130 AVGAS, produced by an oil company and currently distributed for commercial aviation use throughout the territory of CAMS.

- In all events in which the use of commercial fuel is mandatory, such fuel must contain a maximum of two percent oxygen and one percent nitrogen by weight; the remainder of the fuel consisting exclusively of hydrocarbons and not containing any alcohols, nitro compounds or other power-boosting additives. Only air may be mixed with the fuel as an oxidant.
- Suppliers of fuel to entrants in any competition shall be required to send to CAMS samples of such fuel at such times and in such quantities as CAMS may decide, together with a declaration that such fuel complies with these Rules.
- Nothing in the foregoing shall be deemed to prohibit the addition of water or a lubricant which does not increase the octane rating or specific heat content of the fuel.
- Liquefied petroleum gas (LPG) is acceptable as a commercial fuel. Where a vehicle utilises liquid petroleum gas a sign, on a red reflective background of size 150mm x 150mm, must be placed immediately to the left and centralised vertically to all competition numbers. The sign must have white lettering with the words "LP Gas" in letters at least 40mm in height, as shown below.



**NOTE:** Any other gasoline or petrol (eg, AVGAS 115/145) of higher rating than that specified is NOT permitted when "commercial fuel" is specified.

### 2. FOR COMPRESSION-IGNITION ENGINES (Reciprocating and Rotary)

A hydrocarbon product derived from petroleum, and conforming with British Standard 2869: 1970 Class A1, with the exception of cloud point. The only permissible additive treatments shall be for oxidation or corrosion control or lubricity. Additives to improve the ignition quality of the fuel are not permitted.

### 3. FOR TURBINE ENGINES

Kerosene used by commercial aviation companies for turbo-propeller or jet engines.

### 4. ALCOHOL FUELS

Specific regulations for some groups of Historic cars may permit the use of alcohol fuels. In these cases, it is mandatory that cars using alcohol fuels also carry a symbol in the form of the letter "A" in white on a red circle of approximately 115mm diameter. This symbol should be placed adjacent to the competition number on each side of the car, and at the filling cap of the fuel tank.

### 5. NITROUS OXIDE

Nitrous oxide is not permitted to be used in any competition under any circumstances.

### 6. FORMULA LIBRE

Fuel regulations for Formula Libre cars are contained in the Specific Regulations.

### 7. EXEMPTIONS

- For Touring Cars, only "premium unleaded" fuel is permitted.
- For Series Production Cars, only "unleaded" and "premium unleaded" fuel, as defined in paragraph 1 (above), is permitted.
- A "control fuel" may be specified for a particular series or competition. Where such control fuel is specified, such fuel must either meet the requirements of paragraph 1 (above) or be specifically approved by CAMS. It is prohibited to alter the composition of the fuel in any manner, save for the addition of a lubricant in engines not of an Otto cycle design.

### 8. HEALTH WARNING

All participants in motor sport are reminded that fuels, oils, lubricants and coolants are highly specialised substances.

Participants must be aware that these agents may contain substances that are extremely dangerous to one's health if misused, inhaled or allowed to contact human skin.

Some of the contents of these fuels, oils and lubricants are suspected of having the potential to cause cancer in rare instances.

The use of petrols as a general cleaning and washing agent is a common misuse of a potentially dangerous substance.

## Schedule H - Fire Extinguishers

(not applicable to Karts)

1. All racing cars of Formula Holden and Formula 2 (when competing in circuit races only) shall be required to be fitted with a fire-extinguishing system of at least 5kg extinguishant capacity, at least half of which must be placed forward of the engine, but to the rear of the foremost pick-up points of the front suspension.

The system must include a manual triggering device, operable by the driver on board or by a helper outside the vehicle, the location of which must be indicated by a letter "E" in a red circle. The direction of the outlet/s of the extinguishant is free.

The operating system must be designed so that even if the battery of the car is inoperative, the extinguisher will still function.

2. In other than circuit races, all cars mentioned in 1 (above), and in all competitions, all other Category 1 vehicles must be equipped with at least a fire extinguisher as required in 3 (below).
3. All vehicles of the 2nd, 3rd, 4th and 5th Categories in all speed events including races must be equipped with a fire extinguisher which complies with the following conditions and is properly fitted at a suitable location:
  - (i) it must comply with either of the Australian Standards 1841 (save that extinguishers which meet AS1841.2 are not permitted), 1846 or 1848, save that Halon extinguishers (1201 or 1311, including BCF) are not permitted;
  - (ii) it must be of at least 900g capacity.

The fitment of an "on-board" extinguishing system specifically authorised by CAMS or the FIA shall be acceptable as an alternative to the fitment of a separate extinguisher.

## Schedule I -

### Safety Harnesses / Window Nets

(not applicable to Karts)

1. Safety harness shall comply at least with the requirements of AS 2596 (AS E35), E35, SFI or FIA Standard 8853 or 8854 and must be fitted and worn as required by vehicle and event regulations.

**NOTE:** For events entered on the FIA International Calendar, only harnesses complying with FIA Standard 8853 or 8854 are permitted.

2. In all vehicles in which 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, fitted with a single buckle and of which each component complies at least with the requirements of the standards noted in Item 1 (above). The harness must be securely mounted on at least three points. The shoulder straps mounted behind the driver must be above a line drawn downward from the shoulder at an angle of 40° to the horizontal. If the two shoulder straps join prior to a common mounting point then that junction shall be at least 150mm behind the driver's neck.
3. In closed cars which are not required to be fitted with a roll bar or cage, a seat belt of the full harness type (as described in 2 above) or a lap-sash type must be fitted and worn by the driver. Each component must comply at least with the standards noted in Item 1 (above).
4. In all cases of mounting the following must be observed:
  - (i) Floor mounting points must be reinforced with a plate of at least 75mm x 50mm on the underside of the body.
  - (ii) Full harness rear mounting points must be to a substantial part of the vehicle's structure, reinforced as may be appropriate.
  - (iii) On production cars, the original mounting points may be satisfactory.
5. In races all cars of 1st Category and Sports Cars (Group 2A) must be fitted with a six-strap harness which incorporates a crutch restraint. It is recommended that all cars derived from Series Production Touring cars be fitted with such six-strap harness.

6. Seat belts of cars involved in any accident must be inspected by a scrutineer at the relevant meeting. If appropriate, the vehicle log book will 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.

7. From 1 January 1999, in races, any closed vehicle in which roll over protection is fitted (eg, minimum of a Type 3 roll bar assembly) will be required to have fitted a driver's window net, which meets the following minimum specifications and is able to be released as follows:

From 1 January 1998, any vehicle fitted with a Window net will be required to comply with the following

1. Window nets must be of the ribbon type and must be fitted so that they cover at least 70% of the area of the driver's window.
2. Window nets must be permanently attached to the vehicle along the lower edge of the net.
3. The upper attachment of the window net must be by the fitment of the appropriate rod along the length of the top of the net, which shall be in turn inserted into an appropriate receptacle, located at the rear of the door opening, and be fastened to a place by a catch at the front of the window opening. The release of the window net must be a single hand operation.
4. The window net must be installed so as to withstand a 50kg lateral load applied to the centre of the window area, without failure or premature release of the net or attachments.
5. The competitors must be aware if rescue officials are in any doubt as to the operation of the release of the safety net, the net will be cut to extract any occupants.
6. Any window net where the upper or lower attachment is connected to the door or door frame of a vehicle, then that will be acceptable.

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Standard Requirements

## Schedule J – Roll Over Protection

**NOTE:** These regulations prescribe roll over protection which is acceptable for Australian National and lesser events. The FIA regulations apply to international events, copies of which are available from the CAMS National Office on request.

Roll over protection which complies with the FIA regulations is acceptable in Australian competitions.

### 1. ROLL OVER PROTECTION IS REQUIRED AS FOLLOWS:

1.1 Races: all cars except:

- (i) bodily unmodified, fixed-roof closed cars in races other than International and National Level; and
- (ii) those in competitions exclusively for 5th Category (Historic) Cars other than Group N.

1.2 Truck Races: as specified in Appendix A to the Truck Formula.

1.3 State Level and above Speed Events: all cars, except Touring Cars, cars of the 5th Category, or cars which are road-registered.

1.4 Single- and Multi-car Speed Events: not required.

1.5 Off Road Events: as specified in vehicle regulations for Group 4F.

1.6 Rallies: all cars in International, Australian Championship and Special Stage events.

1.7 Other Events: as specified in the relevant Supplementary Regulations.

1.8 Karts: not required.

### 2. CONFIGURATION

2.1 The general design and form of the protection shall be as shown in Section 3 below.

2.2 The main hoop shall be placed behind and above the driver's head from one side of the car to the other and, with the driver seated in the normal position, the hoop shall:

- (i) be not less than 50mm above the driver's helmet;
- (ii) in conjunction with the vehicle's structure, not leave unprotected any part of the driver's profile, including shoulders, when viewed from the front or rear;

(iii) not overhang, but be within, 150mm of the driver's helmet;

- (iv) in closed cars, be placed as near as practical to the roof in order to limit crushing; and
- (v) in 1st Category (Racing) Cars, be constructed so that the driver's helmet is prevented from passing between the hoop bars to the extent that the helmet is visible at the rear of the hoop when viewed from the side.

2.3 (i) Principal main hoop braces shall be straight; save that in closed cars where the diameter of a brace is not less than 45mm it may be bent to conform to an adjacent coachwork profile, eg, the roof line.

(ii) Any transverse diagonal brace shall ideally be attached to the hoop from the bottom of one side to the top of the other side. See Section 3 for acceptable alternatives.

(iii) Longitudinal brace/s shall be attached to the upper portion of the hoop on each side of the car where applicable, and shall extend towards the rear of the car as far as practicable.

(iv) On 1st Category (Racing) Cars and open Sports Cars, it may be more appropriate for longitudinal braces to be forward of the main hoop rather than rearward. Such configurations may be specifically approved by CAMS, on application; subject to accessibility of the driver not being impaired.

2.4 Front seat access must not suffer interference by the fitting of roll over protection, and no encroachment is permitted upon the space reserved for the driver and any front seat passenger.

2.5 Rear passenger space may be encroached upon by the elements of roll over protection, and elements may pass through rear seat upholstery.

## 3. FORMS OF ACCEPTABLE ROLL OVER PROTECTION

Type	Description	Vehicle Application	Remarks
1	Solo roll bar	1st Category Cars Open sports cars only for other than speed events	Two 25mm dia. x 1.5mm gauge longitudinal braces or one brace of identical size to the hoop
2	Full width roll bar	Light weight (700kg) closed cars and open sports cars	Acceptable only for other than speed events and races
3	Full width braced roll bar	Minimum acceptable in speed events for closed cars under 1150kg and open sports cars	
4	Half cage	Recommended for closed cars under 1150kg. Minimum requirement for closed cars over 1150kg. Recommended for open sports cars. Minimum acceptable for all open cars in off road events.	Strut MS may be RN, RQ or SP
5	Full cage	Recommended for closed cars over 1150kg	Strut MS may be RN, RQ or SP

## 4. MATERIAL

4.1 Mild Steel: All hoops and braces shall be round in section; of minimum sizes set out below; and of steel tube conforming to Australian Standard 1450 – 1983 "Steel Tubes for Mechanical Purposes". The material shall have a minimum yield strength of 250 MPa.

4.2 Alternative Materials: Acceptable aluminium alloys are: B6351 T5 B6061 T6  
Roll over protection using such alternative material may be fabricated only by firms or persons meeting the requirements as notified by CAMS from time to time.

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All protection structures manufactured from aluminium alloy must have a plate affixed by welding to the driver's side rear brace of the main hoop, at a distance of not more than 200mm from the main hoop, and in a position to enable the plate to be viewed from outside the coachwork or through a window, which shall indicate the name of the manufacturer of the structure, the vehicle for which it was designed and the month and year of manufacture.

4.3 Acceptable alternative material sections corresponding to prescribed steel sections are:

Mild Steel	Aluminium Alloy Alternative
25 x 1.5mm	30 x 2.0mm
30 x 1.5mm	38 x 2.5mm
38 x 2.5mm	
45 x 2.5mm	45 x 3.0mm
50 x 2.5mm	50 x 3.0mm

4.4 Bolts and nuts shall be, at least:

- (i) if of imperial size, not inferior to Grade 5 (55 ton/in<sup>2</sup>) hexagon head high tensile units to AS2465 or 90 ton/in<sup>2</sup> cap screws to BS2470, or
- (ii) if of metric size, not inferior to Class 8.8 (830 MPa) hexagon head high tensile bolts to AS1110 or 1250 MPa cap screws to AS1420 and nuts not inferior to Class 8 to AS1112. In all cases, the use of self-locking nuts is recommended.

4.5 Pins for removable connections (see Figure 4) shall be of the same specification as bolts.

#### 5. FABRICATION

5.1 Continuous lengths of tubing shall be used for main hoops and for braces. All bends shall be smooth and without evidence of crimping, wall failure or significant weakening. Any reduction in dimensions of the section at a bend shall not exceed 10 percent of the original dimension.

5.2 All welds should encompass the full circumference of the joint and should be of the highest quality possible with full penetration; the use of MIG or TIG welding processes is preferred.

5.3 For welding of aluminium alloy roll over protection, filler rod with five percent magnesium content must be used.

5.4 Any hole drilled in the main hoop shall conform with Figure 3. The wall thickness of the inserted

tube shall be at least that of the drilled tube.

5.5 Any hole drilled in a brace of less than 3mm wall thickness shall conform with Figure 3. The wall thickness of any inserted tube shall be at least that of the drilled tube.

#### 6. REMOVABLE CONNECTIONS

In cases where removable connections are used in roll over protection they must comply with the following:

- 6.1 twin lug connection with pin/s working under double shear (see Figure 4);
- 6.2 tapered connection (see Figure 5);
- 6.3 tee clamp connection (see Figure 6); or
- 6.4 muff connection (see Figure 7).

#### 7. MOUNTINGS

7.1 Mounting Plates: where the mountings are not part of the car's structure, mounting plates of at least the following dimensions, affixed to a structural portion of the car, are required:

Thickness: (minimum)	Steel & Aluminium	4.0mm	6.0mm
Application	Minimum Area	Minimum Single Dimension	
<b>Upper Plate:</b>			
Car weight			
- under 700kg	6500 sq mm	55 mm	
- 700-1150kg	7500 sq mm	65 mm	
- over 1150kg	10000 sq mm	75 mm	
<b>Lower Plate:</b>	4500 sq mm	Dimensions proportional to upper plate	

7.2 Bolts: at least two of 10mm diameter or three of 8mm diameter, or the approved equivalent, in each plate.

7.3 Chassis Reinforcement: where the roll bar rests on a boxed section the latter must be locally reinforced. A recommended method is shown in Figure 2.

7.4 Road Registered Closed Production Vehicles:

- (i) The main hoop may be attached using at least four safety belt mounting points provided by the vehicle manufacturer, provided that:
- (a) the mounting points are within 75mm of the centre line of the hoop tube, and
- (b) the intermediate mounting plates comply with Item 7.1 (above) for upper plates, and

- (c) The main hoop extends to the floor of the car and the structure sits on feet of at least 100 x 100mm.
- (ii) The braces may utilise as attachment points the rear safety belt mounting points provided by the vehicle manufacturer.

**NOTE:** Roll over protection fitted in this manner may render a vehicle unregistrable in some states.

#### 8. DIMENSIONS

8.1 For the main hoop the minimum sectional dimensions are:

Application	Tube Section (Steel)
Main hoop less than 610mm x 380mm	30 x 1.5mm
Off Road Vehicles of Class 1, 2, 3, 6 or 9	38 x 2.5mm
All other applications	45 x 2.5mm

8.2 For secondary hoops and braces the minimum sectional dimensions are:

Roll Bar Type	Tube Section (Steel)
Types 1 and 2	25 x 1.5mm
Types 3, 4 and 5	
In cars up to 1150kg	30 x 1.5mm
In cars over 1150kg	38 x 2.5mm or 45 x 1.5mm

#### 9. IMPLEMENTATION

Existing cars registered with CAMS prior to 31 December, 1992, may continue in competition provided they remain in conformity with the regulations which were in force up to that date.

#### 10. VARIATIONS

These regulations serve to specify a minimum design standard only. Alternative configurations will be considered by CAMS on individual application and may be specifically approved, subject to:

- the structure meeting the requirement of Article 2 – Configuration
- the design of the structure being specifically approved by CAMS National Office prior to fitment in the car
- the structure meeting specific performance criteria which shall be demonstrated by either calculation or by demonstration
- the completion of a CAMS Roll Over Protection Certificate form, available from CAMS National Office
- the structure being identified with a plate, supplied by CAMS.

Upon completion of this form by the manufacturer and the engineer, the form must be approved and stamped accordingly by CAMS National Office and a copy must be presented on request to the relevant official of a meeting.

#### 11. NON-COMPLYING ROLL OVER PROTECTION

Roll bars which do not comply with these regulations or are not otherwise specifically approved by CAMS are prohibited in all levels of competition, unless approval is granted by the Stewards of the Meeting.



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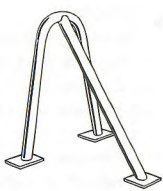
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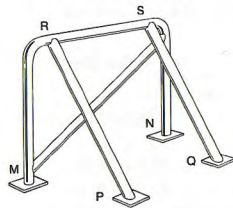
Type 1 Solo Roll Bar



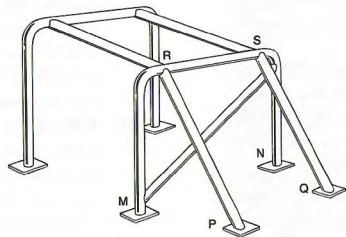
Type 2 Full Width Roll Bar



Type 3 Full Width Braced Roll Bar



Type 4 Half Cage



Type 5 Full Cage

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Fig 1 Bolt Identification

UNIFIED  
Grade 5 Head Marking  
UTS 55 ton/in<sup>2</sup>  
Bolt to AS 2465

METRIC  
Class 8.8 Head Marking  
UTS 830 MPa  
Bolt to AS 1110



Fig 2 Reinforcing a Box Section

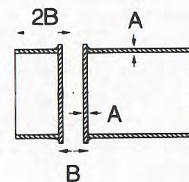


Fig 3 Sleeving a Hoop or Brace

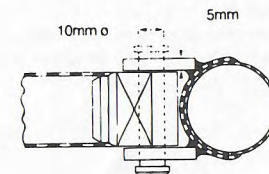
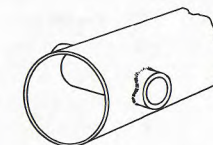


Fig 4 Twin Lug Connection

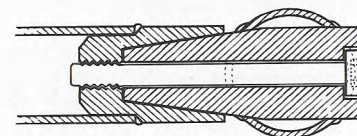


Fig 5 Tapered Connection

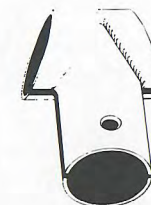


Fig 6 Tee Clamp Connection

Material & Wall Thickness  
Mild Steel: 3.0mm Min  
Aluminium: 4.2mm Min

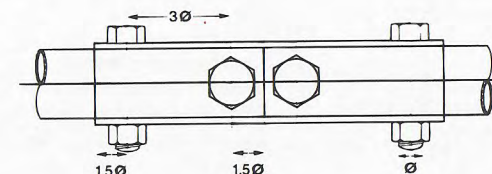


Fig 7 Muff Connection

Minimum Bolt Diameter  
Tube <40mm OD:  $\phi = 12\text{mm}$   
Tube 40-50mm OD:  $\phi = 14\text{mm}$   
Tube >50mm OD:  $\phi = 16\text{mm}$

# FIA Roll Over Protection

## Regulations for Production Based Cars

The following is an extract of article 253.8 (Safety Equipment) from the FIA Yearbook, containing the FIA regulations for Roll Over Protection which is required for International events. This has been included in the CAMS Manual due to the increasing numbers of Australian competitors who are competing in International events, both within Australia and overseas.

Competitors should also be aware that these regulations will form the basis of future CAMS Roll Over Protection regulations, particularly the design and engineering requirements of the FIA regulations. Any amendments introduced by the FIA during 1998 will be advised in CAMS Report.

## 8 ROLLOVER STRUCTURES

### 8.1 Definitions

#### 8.1.1 Safety cage:

A structural framework designed to prevent serious bodysheath deformation in the case of a collision or of a car turning over.

#### 8.1.2 Rollbar:

Structural frame or hoop and mounting points.

#### 8.1.3 Rollcage:

Structural framework made up of a main rollbar and a front rollbar (or of two lateral rollbars), their connecting members, one diagonal member, backstays and mounting points. (For example, see drawings 253-3 and 253-4.)

#### 8.1.4 Main rollbar:

Structure consisting of a near-vertical frame or hoop located across the vehicle just behind the front seats.

#### 8.1.5 Front rollbar:

Similar to main rollbar but its shape follows the windscreen pillars and top screen edge.

#### 8.1.6 Lateral rollbar:

Structure consisting of a near-vertical frame or hoop located along the right or left side of the vehicle. The rear legs of a lateral rollbar must be just behind the front seats. The front leg must be against the screen pillar and the door pillar such that it does not unduly impede the entry or exit of driver and co-driver.

#### 8.1.7 Longitudinal member:

Longitudinal tube which is not a part of the main, front or lateral rollbar and linking them, together with the backstays.

#### 8.1.8 Diagonal member:

Transverse tube between a top corner of the main rollbar or upper end of a backstay and a lower mounting point on the other side of the rollbar of backstay.

#### 8.1.9 Framework reinforcement:

Reinforcing member fixed to the rollcage to improve its structural efficiency.

#### 8.1.10 Reinforcement plate:

Metal plate fixed to the bodysheath or chassis structure under a rollbar mounting foot to spread load into the structure.

#### 8.1.11 Mounting foot:

Plate welded to a rollbar tube to permit its bolting or welding to the bodysheath or chassis

structure, usually onto a reinforcement plate.

#### 8.1.12 Removable members:

Structural members of a safety cage which must be able to be removed.

### 8.2 Specifications

#### 8.2.1 General comments:

8.2.1.1 Safety cage must be designed and made so that, when correctly installed, they substantially reduce bodysheath deformation and so reduce the risk of injury to occupants.

The essential features of safety cages are sound construction, designed to suit the particular vehicle, adequate mountings and a close fit to the bodysheath.

Tubes must not carry fluids. The safety cage must not unduly impede the entry or exit of the driver and co-driver.

Members may intrude into the occupant's space in passing through the dashboard and front side-trim, as well as through the rear side-trim and rear seats. The rear seat may be folded down.

Longitudinally, the safety cage must be entirely contained between the top mounting points of the front suspension and the top mounting points of the rear suspension.

Any modification to a homologated safety cage is forbidden.

#### 8.2.1.2 Basic safety cage:

Only rollcages must be used.

#### 8.2.1.3 Compulsory diagonal member:

Different ways of fitting the compulsory diagonal member: see drawings 253-3 to 253-5.

The combination of several members is permitted.

#### 8.2.1.4 Optional reinforcing members:

Each type of reinforcement (drawings 253-6 to 253-17, 253-17A and 253-17C) may be used separately or combined with others.

### 8.2.2 Technical specifications:

#### 8.2.2.1 Main, front and lateral rollbars:

These frames or hoops must be made in one piece without joints. Their construction must be smooth and even, without ripples or cracks. The vertical part of the main rollbar must be as straight as possible and as close as possible to the interior contour of the bodysheath.

The front leg of a front rollbar or of a lateral rollbar must be straight, or if it is not possible, must follow the windscreen pillars and have only one bend with its lower vertical part. Where a main rollbar forms the rear legs of a lateral rollbar (drawing 253-4), the connection to the lateral rollbar must be at roof level.

To achieve an efficient mounting to the bodysheath, the original interior trim may be modified around the safety cages and their mountings by cutting it away or by distorting it.

However, this modification does not permit the removal of complete parts of upholstery or trim.

Where necessary, the fuse box may be moved to enable a rollcage to be fitted.

#### 8.2.2.2 Mounting of rollcages to the bodysheath:

Minimum mountings are:

- 1 for each leg of the main or lateral rollbar;
- 1 for each of the front rollbar;
- 1 for each backstay (see 8.2.2.3).

Each mounting foot of the front, main and lateral rollbars must include a reinforcement plate, of a thickness of at least 3mm which must not be less than that of the tube onto which it is welded.

Each mounting foot must be attached by at least three bolts on a steel reinforcement plate at least 3mm thick and of at least 120cm<sup>2</sup> area which is welded to the bodysheath. Examples are shown in drawings 253-18 to 253-24. This does not necessarily apply to backstays (see below).

Bolts must be of at least M8 size of ISO standard 8.8 or better.

Fasteners must be self-locking of fitted with lock washers.

These are minimum requirements. In addition to these requirements, more fasteners may be used, the rollbar legs may be welded to reinforcement plates, the rollcage may be welded to the bodysheath. Rollbar mounting feet must not be welded directly to the bodysheath without a reinforcement plate.

#### 8.2.2.3 Backstays:

These are compulsory and must be attached near the roof line and near the top outer bends of the main rollbar on both sides of the car. They must make an angle of at least 30° with the vertical, must run rearwards and be straight and as close as possible to the interior side panels of the bodysheath.

Their materials specification, diameter and thickness must be as defined in 8.3.

Their mountings must be reinforced by plates. Each backstay should be secured by bolts having a cumulative section area at least two thirds of that recommended for each rollbar leg mounting in 8.2.2.2 above, and with identical reinforcement plates of at least 60cm<sup>2</sup> area (see drawing 253-25).

A single bolt in double shear is permitted, provided it is of adequate section and strength (see drawing 253-26) and provided that a bush is welded into the backstay.

#### 8.2.2.4 Diagonal members:

At least one diagonal member must be fitted.

Their location must be in accordance with drawings 253-3 to 253-5 and they must be straight, not curved.

The attachment points of the diagonal members must be so located that they cannot cause injuries. They may be made removable but must be in place during events. The lower end of the diagonal must join the main rollbar of backstay not further than 100mm from the mounting foot. The upper end must join the main rollbar not further than 100mm from the junction of the backstay joint, or the backstay not more than 100mm from its junction with the main rollbar.

They must comply with the minimum specification set out in 8.3. Diagonal members fixed to the bodysheath must have reinforcement plates as defined in 8.2.2.3 above.

#### 8.2.2.5 Optional reinforcement of the rollcage:

The diameter, thickness and material of reinforcements must be as defined in 8.3.

They shall be either welded in position or installed by means of demountable joints.

#### 8.2.2.5.1 Transverse reinforcing members:

The fitting of two transverse members as shown in drawing 253-7 is permitted. The transverse member fixed to the front rollbar must not encroach upon the space reserved for the occupants. It must be placed as high as possible but its lower edge must not be higher than the top of the dashboard.

#### 8.2.2.5.2 Doorbars (for side protection):

One or more longitudinal members may be fitted at each side of the vehicle (see drawings 253-7, 253-8, 253-12, 253-17). They may be removable. The side protection must be as high as possible, but its upper attachment points must not be higher than half the total height of the door measured from its base. If these upper attachment points are located in front of or behind the door opening, this height limitation is also valid for the corresponding intersection of the strut and the door opening. In the case of doorbars in the form of an "X" (cross-struts), it is recommended that the lower attachment points of the cross-struts be fixed directly onto the longitudinal member.

#### 8.2.2.5.3 Roof reinforcement:

Reinforcing the upper part of the rollcage by adding members as shown in drawings 253-9 and 253-9A is permitted.

#### 8.2.2.5.4 Reinforcement of bends and junctions:

It is permitted to reinforce the junction of the main rollbar or the front rollbar with the longitudinal struts (drawings 253-10 and

Minimum material	Minimum yield (diameter in mm)	Minimum dimensions	Use
Cold drawn	350 N/mm <sup>2</sup>	Preferably	Main rollbar
seamless	45 x 2.5 (drawing 253-38) ;		
carbon steel	or, failing that lateral rollbar 50 x 2.0 and their rear connection (drawing 253-39) according to construction		
Cold drawn seamless carbon steel	350 N/mm <sup>2</sup> or 40 x 2.0	38 x 2.5	Other parts of the safety cage

253-16), as well as the top rear bends of the lateral rollbars and the junction between the main rollbar and the backstays.

The ends of these reinforcing tubes must not be more than half way down or along the members to which they are attached, except for those of the junction of the front rollbar, which may join the junction of the door strut/front rollbar.

A reinforcement as in drawing 253-17B may be added on each side of the front rollbar between the upper corner of the windscreen and the base of this rollbar.

#### 8.2.2.6 Protective padding:

Where the occupants' bodies or their crash helmets could come into contact with the safety cage, non-flammable padding must be provided for protection.

#### 8.2.2.7 Removable members:

Should removable members be used in the construction of a rollcage, the demountable joints used must comply with a type approved by the FIA (see drawings 253-27 to 253-36). They must not be welded.

The screws and bolts must be of ISO standard 8.8 or better.

It should be noted that demountable joints must not be used as part of a main, front or lateral rollbar because they act as hinges in the principal structure and allow deformation. Their use is solely for attaching members to the rollbars and for attaching a lateral rollbar to a main rollbar (drawing 253-4). In this last case, hinged joints illustrated in drawings 253-30, 253-33 and 253-36 must not be used.

#### 8.2.2.8 Guidance on welding:

All welding must be of the highest possible quality with full penetration and preferably using a gas shielded arc. Although good external appearance of a weld does not necessarily guarantee its quality, poor looking welds are never a sign of good workmanship.

When using head-treated steel the special instructions of the manufacturers must be followed (special electrodes, gas protected welding).

It must be emphasised that the use of

heat-treated or high carbon steels may cause problems and that bad fabrication may result in a decrease in strength (caused by brittle heat-affected zones) or inadequate ductility.

#### 8.3 Material specifications

Specifications of the tubes used: (see chart above).

Note that these figures represent the minima allowed. In selecting the steel, attention must be paid to obtaining good elongation properties and adequate weld ability.

The tubing must be bent by a cold working process and the centreline bend radius must be at least three times the tube diameter. If the tubing is ovalised during bending, the ratio of minor to major diameter must be 0.9 or greater.

#### 8.4 Homologation by an ASN

Safety cage manufacturers may submit a safety cage of their own design to an ASN for approval as regards the quality of steel used, the dimensions of the tubes, the optional reinforcing members and the mounting to the vehicle, provided that the construction is certified to withstand the stress minima given hereafter in any combination on top of the safety cage:

- 1.5 W\* lateral ;
- 5.5 W fore and aft ;
- 7.5 W vertical.

(\*W = weight of the car + 150kg).

Longitudinal rollcage extensions are allowed up to the level of the original suspension mounting points on the shell. There must not be direct connection between the top extension and the bottom extension.

A homologation certificate, approved by the ASN and signed by qualified technicians representing the manufacturer, must be presented to the event's scrutineers. It must contain drawings or photos of the safety cage in question including its fixation and particularities, and must declare that the rollcage can resist the forces specified above.

Any new cage which is homologated by an ASN and is on sale, as from 1 January, 1997, must be identified by means of an individual number affixed to it by the manufacturer; this number must be neither copied nor moved.

A certificate bearing the same number will be attached to each of the cages by the manufacturer. This certificate must also be presented to the event's scrutineers.

These safety cages must not be modified in any way.

To obtain the ASN's approval, a manufacturer must have demonstrated his consistent ability to design and manufacture rollcages which comply with the specifications approved by the FIA.

Manufacturers approved by the ASN shall supply customers only with products designed and manufactured to the approved standards.

Each ASN-approved manufacturer shall demonstrate to the ASN:

- that the material he uses has a certificate of origin or of traceability, and is kept segregated from other batches or material ;
- that the welding methods he uses produce consistent and sound welds and are regularly checked by laboratory tests ;
- that he operates and maintains auditable in-house quality standards and procedures, updated regularly.

Rollcages made up of a basic structure as per articles 253.8.1 to 8.3, or of a structure already tested and homologated by the ASN concerned and coming from the same manufacturer, and on which the only modifications carried out will have been the addition of parts, may be homologated directly by the ASN concerned, once the resistance has been tested and the manufacturer has supplied a certificate. For the other rollcages, the ASNs may carry out a static test as follows (see drawing 253-37):

#### 1 - Rollcage to be considered:

As the total function of a rollcage must be considered only in its entirety, the test must be carried out on the complete rollcage.

#### 2 - Testing device:

This must be constructed in such a way that none of the loads has any influence on its structure.

#### 3 - Mountings:

The rollcage must be fitted to the testing device by its original mountings.

#### 4 - Test:

A vertical load of 7.5 W (W being the weight of the car + 150kg) is to be applied with a stamp with minimum area 500 x 200mm on the main rollbar behind the driver's seat.

#### 5 - Accepted distortion:

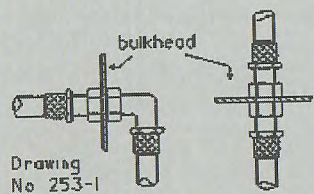
This test must not produce, in the total safety structure, any breakage or any plastic distortion of more than 50mm.

#### 8.5 FIA homologation

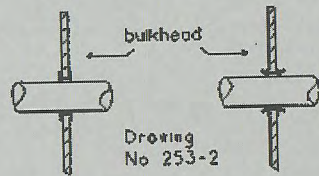
FIA suggests that each car manufacturer should recommend a type of safety cage complying with FIA standards, as defined in 8.4 above. This safety cage must be described on a homologation extension form presented to FIA for approval and the safety cage must not be modified (see 8.2.1.1) in any way.

# FIA Roll Over Protection

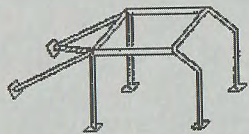
Drawings



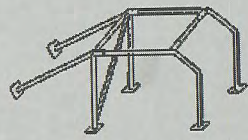
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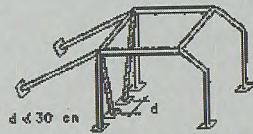
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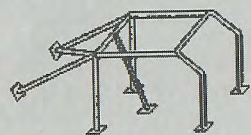
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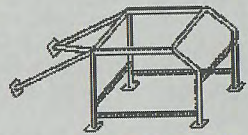
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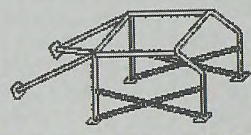
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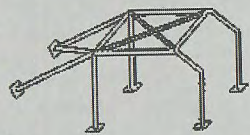
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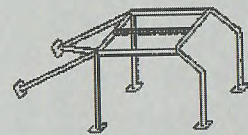
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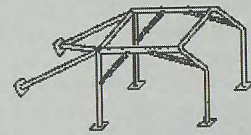
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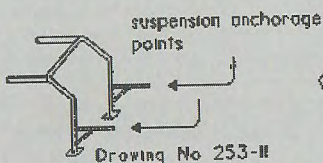
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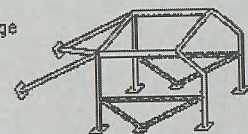
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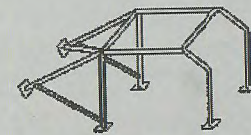
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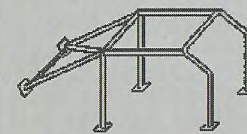
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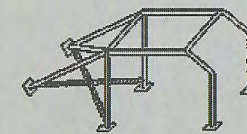
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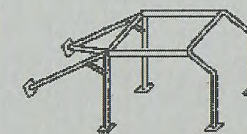
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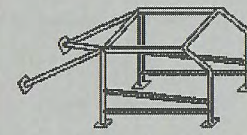
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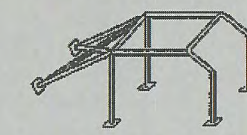
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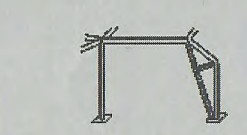
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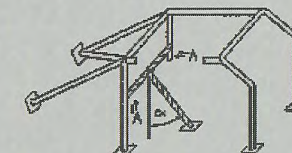
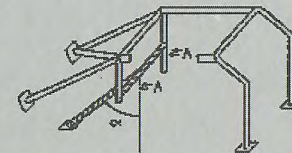
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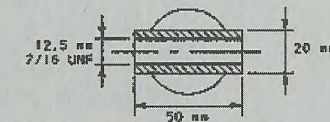
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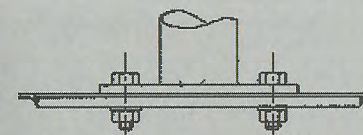
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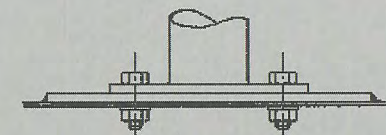
- ⊗ mounting holes for harnesses
- ⊙ minimum angle 30°



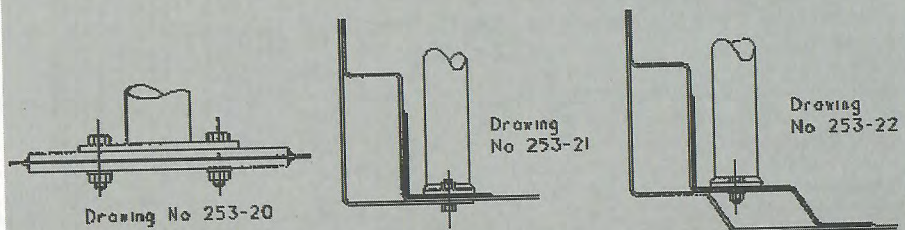
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Drawing No 253-18



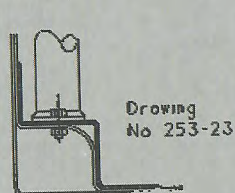
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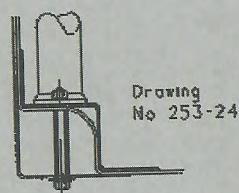
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Drawing No 253-21

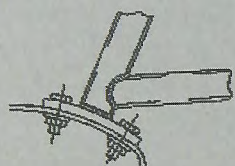
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Drawing No 253-23



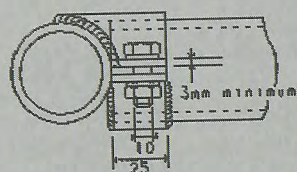
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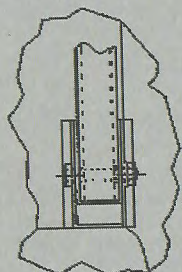
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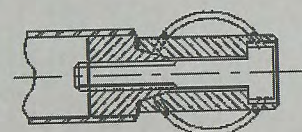
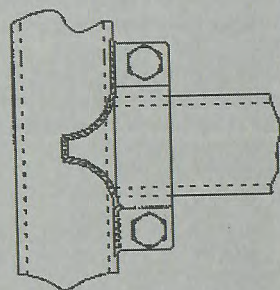
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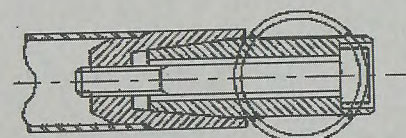
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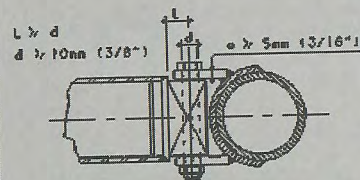
direction of applied load



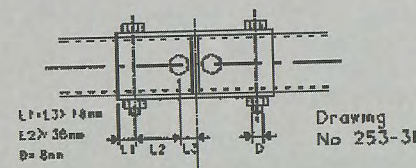
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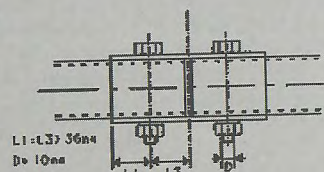
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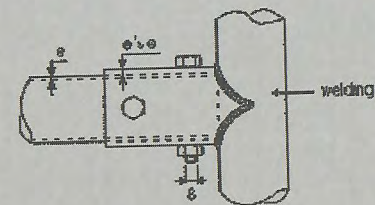
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Drawing No 253-31

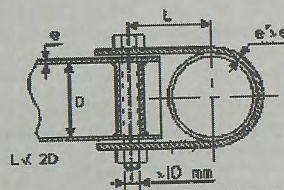


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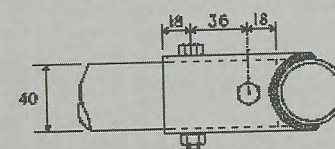
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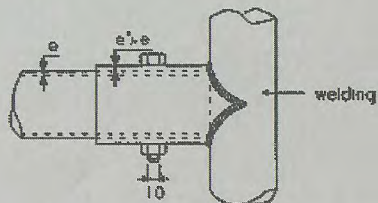
Dimensions in mm



Drawing No 253-33

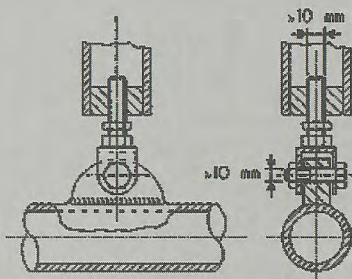
L must be minimum  
The clamp width must be at least 25 mm



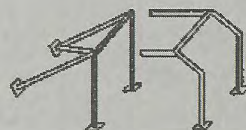
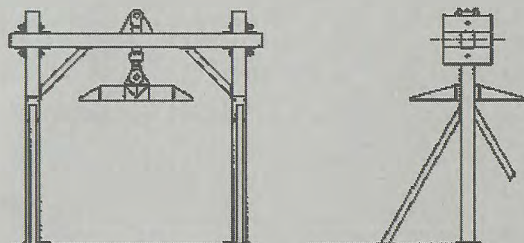
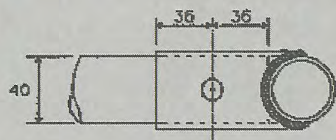


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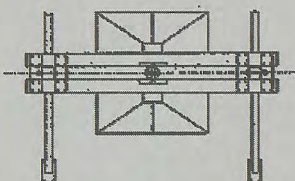
Dimensions in mm



Drawing No 253-36



Drawing No 253-38



Drawing No 253-37



Drawing No 253-39

## Schedule K - Markings on Automobiles

### 1. NUMBERS

1.1 Competition numbers carried on automobiles in accordance with Rule 147 in speed competitions shall comply with the following requirements:

- (i) the number shall be carried in such manner that in the opinion of the Chief Timekeeper it is clearly visible from both sides and the front of the automobile;
- (ii) On 1st Category cars, the numbers must, if physically possible, be displayed on the end plates of any rear wing; failing which they must be displayed on the body alongside the cockpit, totally on a vertical surface. On cars of 2nd and 3rd Category, the number must be displayed on the front doors;
- (iii) the number shall be either white on a black background or black on a white background. The background for the number must be either a disc or rectangle in a colour contrasting with the colour of the coachwork.

1.2 Numbers must be of the typestyle known as "Helvetica Bold":

**1234567890**

- (i) on 1st Category and Sports Cars, the minimum height of the figure shall be 230mm and the minimum width of the line in each figure at least 40mm. The background shall be at least 450mm wide by 310mm high (see Figure 8);
- (ii) on all other cars, each figure must be at least 280mm in height, and the width of the line in each figure must be at least 50mm (see Figure 8).

1.3 No part of any numeral shall be closer than 40mm to any part of the adjoining numeral, or to any part of the edge of the background; and no part of the competition number shall be closer than 160mm to any part of other signs permitted hereunder.

1.4 Above or below the background, a surface having the same width as the background (in any case at least 450mm wide on 1st Category and Sports Cars and 500mm on other cars), and of a height of at least 120mm, shall be left free of advertising to be used at the discretion of CAMS, which may use it for advertising purposes, or which may delegate to the organisers authority to use that

space. On cars on which such an area is not available due to coachwork limitations the competitors shall keep free of any advertising an equivalent surface in the immediate vicinity of the background (see Figure 8).

- 1.5 Competition number "1" is reserved exclusively for the current Australian champion driver in each applicable category. The champion driver may elect not to use number "1", and in such eventuality it would be withheld for the appropriate period. In Australian Rally Championship events, the current Australian Rally Champion driver may use a yellow background where the relevant Regulations stipulate a white background. The exclusive use of the number "1" by the current champion will not apply to rallies.
- 1.6 "Zero" alone is not permitted to be used as a number.

### 2. PROVISIONAL LICENCE HOLDERS

In any race automobiles driven by the holders of Provisional Licences for Drivers shall carry, mounted so that they are clearly visible from the rear of the automobile at a distance of 100m in daylight, a plate carrying the capital "P", in red on a white background, basically similar in size and design to those approved by Australian authorities for civil probationary or provisional drivers.

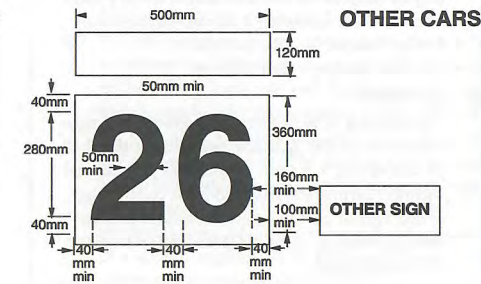
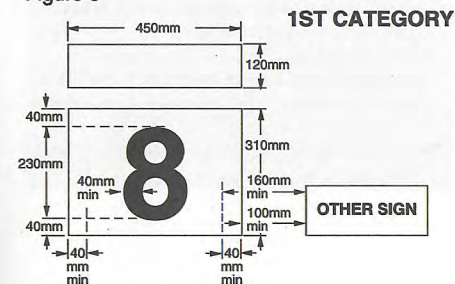
### 3. OTHER SIGNS

- 3.1 Signs or advertisements displayed upon automobiles in accordance with NCR 155 shall comply with the following requirements:
  - (i) No sign or advertisement shall be permitted on any windscreen, side or rear window.

Notwithstanding the provisions of this subparagraph, it shall be permitted to display signs

- on the top of the windscreen on a background free as to colour and depth, subject to the lettering and devices being placed within the upper 200mm of the windscreen surface; and
- on the rear window of closed cars on a background strip located within the upper 85mm of the top of the glass, provided that it does not interfere with the visibility of the driver;
- the sport regulations for a CAMS-approved championship, cup, challenge etc may make other requirements.

Figure 8



- (ii) No sign or advertisement shall be permitted within 100mm of the background area of a competition number, or within 160mm of the number itself (see figure 8).
- 3.2 No sign shall be permitted to contain any Arabic numerals, unless such sign comprises the name of a club affiliated with CAMS; or forms part of a registered trade mark; or being a telephone number is displayed on a rearward facing coachwork panel. In the case of cars competing in road events, Arabic numerals may be displayed subject to them being not greater than 100mm in height, not located on either front door of the car, and otherwise complying with the requirements of this Schedule.
- 3.3 No sign or advertisement shall be permitted to be indecent or in breach of good taste; the Clerk of Course at any meeting shall be authorised to refer to the Stewards of the Meeting any sign which he deems to be contrary to the requirements of this paragraph and the stewards' decision thereon shall be final in respect of that meeting.
- 3.4 Registration labels and official number plates shall not be deemed to be advertising with regard to this Schedule.
- 3.5 In International competitions, there shall be displayed on both front mudguards a facsimile of the national flag of the driver/s, as well as the names of the driver/s. The minimum height of each flag and name shall be 40mm.
- 3.6 In each of the Sports Sedan, Production Car, GT Production, Touring Car and Australian Rally Championships, the surname of each driver (and co-driver where applicable) must be displayed on the lower edge of each rear-most side window and the rear window, in letters of uniform style, 100mm height (side windows) and 50mm height (rear window), white in colour, and without background, using a capital for the first letter of the name, and lower case for all other letters.

The typestyle must be **Helvetica Bold**.

In non-championship races for closed cars, such display is optional, but if used, must comply with this Regulation.

- 3.7 On vehicles which conform to the Truck Formula, including Utility Trucks, the area of the turret/door frame immediately above the side glass line may be used for the entrant's and/or driver's name subject to the following maximum dimensions:
- Utility Trucks: 50 x 600mm
  - All other trucks: 50 x 600mm

#### 4. LETTERING

The lettering of all numerals and letters in all signs referred to in this Schedule and these Rules shall be carried out in a neat, regular and professional manner. Scrutineers may order the re-lettering of any sign or part of a sign etc, which in their opinion fails to comply with the requirements of this paragraph.

#### 5. TRADE MARKS

- 5.1 Arabic numerals where they form part of a registered trade mark may be used subject to the foregoing, and the following additional requirements:
- (i) on the sides of the car no part of the numeral shall come within 120mm of a competition number;
  - (ii) shall be no larger than and of a colour contrasting with the competition number.
- 5.2 The above notwithstanding, the Chief Timekeeper may direct the removal of such numbers from the side of the car presented to the timing box, if in his opinion the presence of the numerals could prejudice the operation of the timing and lap scoring.

#### 6. SPONSOR REQUIREMENT

- 6.1 In the absence of the written approval of the Board or the Executive, no sponsor and/or promoter may make any requirement or prohibition regarding signs on vehicles in races which is binding on entrants.
- 6.2 In National Championship rallies, an area 500mm wide x 520mm high, unencumbered and white in colour, must be reserved on each front door for the organisers' signs.
- 6.3 Organisers may make no other requirements as to signs on the sides of cars.

#### 7. HISTORIC CARS

In the case of Historic Cars competing under the 5th Category Regulations the following provisions shall apply:

- the original style of paintwork and livery is encouraged
- the name of the driver may be shown on the vehicle, appearing once on either side in a position below the window line, in a size not larger than 40mm by 300mm
- a club badge, of an acceptable motoring club, can appear on the vehicle. Each badge must be not larger than 150mm by 100mm and must be placed below the window line. Only two such badges are permitted
- the territory of origin of the driver may be shown on the vehicle. Each sign must be not larger than 100mm by 150mm and must be placed below the window line. Only two such signs are permitted, one on each side of the vehicle.
- no other advertising material or sign is permitted unless evident in the applicable group period. (See relevant Group regulations in 5th Category.)
- **Competition Numbers:** Groups J, K, Lb & Lc are exempted from the requirements as to background specified in Schedule K. Applications for exemption may be made in individual cases for other vehicles where the specified vehicle competed in such visual form during the group period.

#### 8. VARIATION

Notwithstanding the requirements of this part of Appendix C, the Chief Executive Officer of CAMS shall have discretion in approving any sign not in conformity therewith, provided it is deemed to be a public service and/or beneficial to the sport; and in respect of numbers, on condition that artwork of the proposal is submitted, and if permitted, that a fee of \$500 be paid annually. All such variations must be noted in the subject vehicle's log book.

#### Schedule L - Vehicle Log Books

1. The production of a properly entered vehicle log book issued by CAMS is required by Rule 150. Failure to present such vehicle log book when the relevant vehicle is presented for scrutineering may involve exclusion of the vehicle concerned from the relevant competition. The Chief Steward may, however, permit the vehicle to practice upon payment of a fine of \$40 (see Appendix R) and completion of a Statutory Declaration that the vehicle is subject to a current and valid log book. Should the relevant log book not be produced prior to the competition, the vehicle will not be permitted to compete save upon the explicit authority of the stewards, subject to whatever conditions they may impose. Failure to produce the log book may result in the competitor/s being charged with an offence against the NCR, including NCR 183 (ii), (iii) and (xii).  
It shall be required that if a vehicle competes at a meeting in respect of which the possession of a log book is not required, and such vehicle nevertheless is the subject of a log book, then the log book shall be presented at such a meeting.
2. The vehicle log book shall contain a description and specification of the automobile to which it refers, together with such other information as may be from time to time required by CAMS. Only one log book shall be issued for each vehicle (other than by way of extension or replacement), and the possession of two log books for any vehicle at one time shall be deemed an offence against these Rules.
3. CAMS will issue a vehicle log book only upon written application signed by the *bona fide* owner of the relevant automobile, and upon payment by such owner of a fee as stated in Appendix R to these Rules.
4. Notwithstanding the issue by CAMS of such vehicle log book the said log book shall be deemed invalid if:
  - (i) the specification therein, or any of them, are found upon examination by a scrutineer to differ from the specifications laid down in the relevant vehicle's homologation or Recognition Certificate, or (in the event that such certificate is not available for whatever reason) from the specifications laid down for the make and model concerned by the relevant manufacturer (3rd Category vehicles only); or
  - (ii) the automobile is found, upon examination by a scrutineer, to differ from the specifications stated in the vehicle log book; and the presentation of the automobile for scrutineering under either of the contingencies foreseen in subparagraphs (i) or (ii) of this paragraph shall be deemed a *prima facie* breach of these Rules, and punishable accordingly.
5. Amendments to the vehicle log book shall be made only by CAMS and upon the completion of a written application by the *bona fide* legal owner of the automobile concerned.

state, in "ready to race" condition, and with competition numbers and all intended advertising in place.

#### 4.4 Compliance:

The car entered for the meeting must correspond with the detailed description contained in the relevant recognition form (as appropriate) and the log book issued for that car. Any variation may result in the vehicle being excluded, the forfeiture of any fees paid and the application of other penalties at the discretion of the stewards in accordance with the NCRs.

#### 4.5 Examination for Eligibility:

Should the Clerk of Course and/or the scrutineers at any time suspect that a car does not comply with these regulations, they may so advise the entrant and/or pit manager and/or driver thereof, and failing receipt of an adequate explanation which they, in their sole discretion, consider satisfactory, they may require the car to be dismantled sufficiently to be examined on the points in question. Should such question/s arise before or during the meeting, it may be requested that such examination be postponed until after the meeting, and in such cases as permission is granted, immediately upon completion of the race the car is to be impounded.

#### 4.6 Manufacturing and Measuring Tolerances:

The following tolerances apply when examining cars; it is emphasised that these are manufacturing tolerances; it is not permitted to modify components even though the end result may fall within the permitted range, unless there is specific provision in the CAMS Group or Category regulations to do so.

- All machining (except bore and stroke) including fan, crankshaft bearings, connecting rod bearings, valves, exit port of carburettor, venturi, exhaust and clutch:  $\pm 0.2\%$
- Distance from gudgeon pin centre line to highest point of piston crown:  $\pm 0.5\%$
- Unfinished castings:  $+4\% - 2\%$
- Cam lift:  $+1\%$
- Weight of flywheel, clutch, crankshaft, connecting rods, pistons:  $+7\% - 0.3\%$
- Width of car at front and rear axles:  $+1\% - 0.3\%$
- Wheelbase:  $\pm 1\%$
- Track:  $\pm 25\text{mm}$

If no tolerance is expressed in the recognition documents, the above mentioned tolerances apply. If a tolerance or range is expressed, then these tolerances do not apply.

#### 4.7 Impounding:

Any competing car, regardless of its place, may be impounded by the organisers at the conclusion of its race. In the case of any vehicle impounded, the cost of examination (if any) and replacement of gaskets etc, shall be payable by the entrant, save as provided in NCR 210.

#### 4.8 Advertising and Signs:

Advertising signs shall be in accordance with Schedule K.

It is recommended that the name of the driver be displayed on the front mudguards in letters 100mm high in those cases where Regulation 3.6 of Schedule K does not apply. The motor sport logo must be displayed near each number, as directed.

#### 4.9 Accidents and Scrutineering:

Any body damage incurred during practice or racing may necessitate the car being black-flagged and returning to the pits forthwith for examination by the scrutineers.

Following rectification (if any) such car may rejoin the race at the discretion of the Clerk of Course upon advice from the Chief Scrutineer.

Cars withdrawn from practice or race due to accident damage are required to be returned to the scrutineering bay for examination by scrutineers. They will not be released to entrants other than upon the direction of the Chief Scrutineer.

### 5. PRACTICE

#### 5.1 Scrutiny is Compulsory:

No vehicle will be permitted to practice without first having been passed by the scrutineers.

#### 5.2 Practice Times:

Practice session times will be advised in further Supplementary Regulations.

#### 5.3 Practice is Compulsory:

- (i) Unless specifically permitted by the Clerk of Course, all drivers and relief drivers shall complete the minimum number of timed practice laps as may be specified in Supplementary Regulations. Failure to do so may result in exclusion, at the discretion of the Clerk of Course.
- (ii) When it is impossible for a driver to practice in the car in which he intends to race, he may be permitted at the discretion of the Clerk of Course to practice in a car of similar type. Lap times so recorded will not count for grid positions.
- (iii) In the case of drivers who fail to appear for practice or do not practice, the following will apply:
  - (a) If the holder of a Full CAMS Driver's Licence, and the driver has raced on the circuit previously, permission to race on race day may be given, but only in exceptional circumstances and at the discretion of the Clerk of Course and stewards. If granted, such driver will start from the rear of the grid in each race in which he participates.
  - (b) If the holder of a Provisional Driver's Licence, the driver will not be permitted to race.
- (iv) In the case of Championship events, only those vehicles which have specifically practised for that event will be allowed to participate. In exceptional cases, and with the permission of the Clerk of the Course, vehicles which have practised out



# Section 8

## 5th Category - Historic Cars

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# 5th Category - Historic Cars:

## General Regulations

### 1. PREAMBLE

1.1 The following definitions and general requirements governing Historic Cars have been adopted to facilitate the organisation of competitions and meetings in which such vehicles are involved.

1.2 Events for vehicles within the 5th Category may be programmed to cater for:

(i) group racing; specific individual groups within the category; or

(ii) combined group racing; a combination of several specific individual groups; or

(iii) divisional racing; a combination of vehicles from any of the individual groups with eligible vehicles selected on the basis of their perceived compatibility in performance potential. Any number of events of this type may be programmed at any one meeting to divide the overall entry into compatible performance divisions.

Engine capacity classes may be incorporated in any of these types of events or an overall engine capacity limitation placed on any event. It would generally be preferred that any engine capacity limitations selected be consistent with those commonly in use during the relevant period.

No specific limitations are imposed on vehicle combinations which will be permitted in combined group or divisional events but fields should consist of vehicles which are generally compatible in performance potential.

CAMS will hold the absolute discretion to disallow any proposed vehicle combinations which it considers might create safety hazards arising from speed differentials or visibility problems. It would for example not generally be appropriate to combine events for Groups P and Q with those for earlier vehicles because of the speed differential involved or to combine events for Group Na, Nb or Nc with other groups because of speed differentials.

Within any group or combined group event, it will be permissible to include by invitation individual vehicles from other groups where such action is considered desirable to achieve the most performance-compatible field. Where such action is taken notation should be made in the program to record the subject vehicles' correct group classification and the event should be described in the program as including vehicles from other groups by invitation.

When programming combined group or divisional racing events, consultation with the state member of the Historic Commission or Historic Eligibility Committee is encouraged to assist determination of the most compatible mix of vehicles.

1.3 The express purpose of these regulations is to ensure that vehicles in the various groups

compete in a condition, mechanically and visually, compatible with the period of racing being portrayed. "Updating" in whatever form is not condoned. CAMS reserves the right to reject any vehicle which it considers not within the spirit of these regulations. Vehicles must conform with the appropriate group date specification in concept and in detail. Where any doubt exists between Historic regulations and the original period specification, the latter will take precedence.

1.4 CAMS in its absolute discretion reserves the right to accept or reject any vehicle for Historic classification. The issue of all log books must be firstly authorised by the Historic Eligibility Committee through CAMS National Office. A central register of Historic vehicles in all groups is maintained, and the issue of all Historic log books is carried out through CAMS National Office.

All new Historic Vehicle Log Books being issued are accompanied by an Historic Certificate of Description which is a Recognition Certificate for the vehicle concerned.

A Temporary Permit to Compete may be issued at the sole discretion of CAMS, in circumstances where a vehicle is visiting temporarily from outside of Australia, and otherwise at the sole discretion of CAMS. (Competitors should be aware of the requirements of Schedule L – Vehicle Log Books.)

1.5 CAMS reserves the right to classify, withdraw classification, or re-classify a vehicle to a group which in its absolute discretion CAMS believes it conceptually belongs.

1.6 Before commencing construction of a special or the acquisition and/or restoration of a vehicle, it is most advisable that CAMS National Office or the State Historic Eligibility Officer be contacted regarding eligibility of the said vehicle.

1.7 CAMS may approve re-creation of significant vehicles which have been destroyed under the following conditions:

- there may be only one re-creation;
- CAMS must **approve in principle** vehicles prior to the commencement of the project. It should be noted that this does not in itself guarantee the acceptance of the vehicle which shall always be the subject of inspection and approval by CAMS when completed;
- there must be justification for the project, ie, it must be a significant vehicle, and only a faithful re-creation will be considered.

1.8 Three-wheeled vehicles participating in events exclusively for Historic vehicles are exempted from NCR 12.

1.9 The original style of paintwork and livery is encouraged.

The name of the driver may be shown on the vehicle, appearing once on either side in a position below the window line, in a size not larger than 40mm by 300mm.

A club badge, of an acceptable motoring club, can appear on the vehicle. Each badge must be not larger than 150mm by 100mm and must be placed below the window line. Only two such badges are permitted.

The territory of origin of the driver may be shown on the vehicle. Each sign must be not larger than 100mm by 150mm and must be placed below the window line. Only two such signs are permitted, one on each side of the vehicle.

No other advertising material or sign is permitted unless evident in the applicable group period. (See relevant Group Articles.)

1.10 Additional information and advice is provided in the Guide to Historic Racing which is available from CAMS National or State Offices.

## 2. GENERAL

### 2.1 Log Books:

The production of a properly entered Historic vehicle log book issued by CAMS is required by NCR 150.

Vehicles in all Historic groups are to comply with the requirement of Schedule L – Vehicle Log Books. In addition:

(i) Vehicle Log Books must be endorsed for the 5th Category and/or titled "Historic Vehicle Log Book", and

(ii) Vehicles must comply with their Certificate of Description (where such a document has been issued), such Certificate of Description being a Recognition Certificate referred to in Schedule L.

### 2.2 A Temporary Permit to Compete:

A Temporary Permit to Compete, specific to the 5th Category – Historic Cars, issued by CAMS is acceptable as an alternative to the possession of an Historic Vehicle Log Book as defined in 2.1 above.

### 2.3 Safety:

Vehicles in all Historic groups – while competing in events specifically limited to such vehicles – are exempted from CAMS requirements in respect of fire extinguishing systems (but not fire extinguishers) (refer Schedule H), scatter shields, roll bars (except Groups Na, Nb, Nc and Sc), safety-harness, minimum bodywork, towing eyes, firewalls (although the fitment of these devices is in some cases desirable), starter motors, reverse gears and safety fuel tanks.

These exemptions will not be applicable to any vehicle which was originally equipped with any of the above mentioned equipment or design features.

Vehicles using alcohol fuels must carry a CAMS-approved fire extinguisher, applicable for use on an alcohol fire.

All tanks equipped with a quick-release filler cap shall have a secondary locking device or be wired shut.

CAMS recommends that competitors wear an approved full-face helmet when driving in open vehicles (refer Schedule D).

Concerning roll bars, Historic vehicles (except Groups Na, Nb, Nc and Sc), are subject to the following possibilities:

- no roll bar (unless the vehicle was originally equipped with one); or
- a roll bar to the group period specifications; or
- a roll bar complying with Schedule J; or
- a roll bar specifically approved by CAMS.

### 2.4 Fuel:

The specific requirements for each group will be found in the relevant Regulations. It is mandatory that vehicles using alcohol fuels (where permitted) also carry a symbol in the form of the letter "A" in white on a red circle of approximately 115mm diameter with a white border. This symbol must be placed adjacent to the racing number on each side of the vehicle, and at the fuel filler cap.

### 2.5 Terminology:

The term "style", where used in relation to wheels, refers to Sankey, wire, cast steel centre etc.

By "original" is meant a component which is in all respects identically similar to that originally fitted, as produced by the manufacturer who produced the original component/s, and is indistinguishable from it in all respects.

By "period" is meant the applicable group period of the vehicle in question.

### 2.6 Supercharging:

Vehicles in this category fitted with superchargers are not subject to the 1.7 factor as to displacement.

### 2.7 Competition Numbers:

Groups J, K, Lb & Lc are exempted from the requirements as to background specified in Schedule K. Applications for exemption may be made in individual cases for other vehicles where the specified vehicle competed in such visual form during the group period.

### 2.8 Motorcycle Tyres:

Refer Groups J, K and L – List of Permitted Motorcycle Tyres on page 8-29.

# Group Na

## Production Touring Cars (Pre-1958)

Group Na is designed to provide a forum for competitors to race pre-war production touring cars and early post-war production touring cars in a form similar to club racing of the period. To this extent, the modifications permitted are those that are not intended to radically alter the individual vehicle's character or appearance and will be of an improved performance road car nature, as opposed to making the vehicle totally dedicated to outright competition; the concept being that the vehicles could be driven comfortably to and from the race meeting.

An important consideration in forming these Regulations was the need to provide eligibility rules which will require a minimum of administration, particularly at race meetings.

People wishing to race vehicles of a more highly-modified nature should look to other categories.

### 1. ELIGIBILITY

1.1 Production touring cars as recognised by CAMS, commercially available in Australia prior to 31 December, 1957, with the inclusion of certain run-on models. The vehicles must be of a touring form providing adequate normal seating for four or more adult persons. Vehicles classified in this group will not necessarily have a racing history. Factory-built competition variants of standard production vehicles or GT-type vehicles are not eligible for this Group.

#### 2.2 Classes:

Vehicles shall compete in the following capacity classes: Up to 1100cc  
1101 - 1500cc  
1501 - 3000cc  
3001cc and over

Limited modifications may be made. These should be of a period nature and not out of character with the vehicle or group period.

#### 3.3 Eligible Vehicles:

A list of vehicles eligible for this group will be published by CAMS from time to time.

#### 1.4 Specifications:

Individual specifications will be produced for each type of vehicle, determining its specifications and allowable modifications.

### 2. BODY

#### 2.1 Bodywork:

The bodywork, body fittings and interior trim in its entirety must be supplied by the manufacturer save that wheel nave plates must be removed. Bumper bars must be retained.

#### 2.2 Cockpit:

The cockpit must be original save that floor coverings may be removed. The steering wheel may be replaced by another of the period style but the rear seat must be retained in all respects including location.

Vehicles must be fitted with original-type or CAMS-approved seats (refer to page 8-28). Some extra padding is allowed. Seats must be trimmed in the same, matching or complementary colours as other trim on the vehicle.

Original instruments must be intact. Additional instruments of a period type may be

fitted. Electronic tachometers may be substituted for mechanically-driven units, provided they are compatible in face, style and size with the other instruments.

#### 2.3 Chassis:

Chassis or chassis-body unit must be original and unmodified.

### 3 PERMITTED MODIFICATIONS

Mechanical modifications may be made, provided that the following restrictions are observed:

#### 3.1 Engine:

Cylinder block and head must be original, or a CAMS-approved alternative.

Internal components of the engine are free save that the crankshaft stroke must be original.

The cylinder bore may be increased by a maximum of 1.5mm beyond original dimension.

Cylinder head/s may be modified provided such modification is effected only by the removal of metal.

Toothed belt drives are not permitted.

Dry sump lubrication is not permitted, unless originally fitted.

The exhaust system is free but should be of a type compatible with the period.

The cooling system must remain as standard, save that the radiator core is free as to thickness. Electric fans may be added.

#### 3.2 Induction:

Carburettors or fuel injection systems must be of the make and model originally available in the period. Bore size is free. Superchargers are not permitted unless part of the original specification. Multiple carburettors may be fitted in the ratio of one choke per two cylinders.

Inlet manifolds are free except that they must be of a type compatible with the period.

#### 3.3 Transmission:

Gearbox casing, gear selection mechanism and the number of forward ratios must be original. Internal components are otherwise free. External components of the final drive assembly must be unmodified from the original specification. Internal components are free. Limited slip or locked differential are not

allowed unless part of original specification.

#### 3.4 Brakes:

The original form and type of braking system shall be employed. The major brake dimensions of drum brakes (ie, internal drum diameter and width) shall be as supplied as original equipment with a tolerance of 3mm permitted on drum diameter. Backing plates may be ventilated and/or fitted with cooling ducts.

Mechanical operation may be converted to hydraulic operation.

In the case of disc brake systems, the brake discs and callipers must be original.

Drum brakes may not be replaced by disc brakes. Dual or tandem master cylinders may be fitted. The installation of power brake assistance is permitted.

#### 3.5 Suspension:

The suspension must be unmodified from original specifications, save that spring rates, ride height and damper settings may be altered.

Suspension pickup points may not be modified. Eccentric or modified suspension components that alter the dimensions or geometry from original specifications are not permitted. Externally adjustable shock absorbers are not permitted.

Fore and aft axle location may be improved but transverse location may not be altered.

Fitment of period-type anti-sway bar to the front suspension is permitted.

Spherical or "Rose" type joints are not permitted.

#### 3.6 Wheels and Tyres:

Wheels are required to be original in diameter and style (ie, steel wheels may not be replaced by alloy wheels). Rim width may not exceed 5" unless originally specified by the manufacturer; in which case the rim width must be as originally supplied.

Tyres must have an aspect ratio of at least 65 percent as determined by the Tyre and Rim Association manual. (Refer Na, Nb, Nc, Sa, Sb and Sc Tyre List, page 8-30.)

#### 3.7 Electrical Equipment:

All electrical equipment must be unmodified from the original specifications and fully operative. The dynamo/generator may not be replaced by an alternator. Electronic ignition devices are not permitted.

### 4. SAFETY REQUIREMENTS

4.1 Vehicles shall comply with all relevant requirements of Schedules A, B and C.

4.2 A laminated windscreen is required in races and in multiple speed events. However, in the event that a laminated screen is unavailable, approval may be given on individual application to CAMS for the fitment of a Lexan or Perspex windscreen.

4.3 CAMS-approved rollover protection and seat belts are compulsory. A roll bar or half cage conforming with Schedule J (Type 3 or Type 4) is required

to be fitted to all vehicles. Roll cages are allowed. Side intrusion bars and other additional braces are permitted provided they do not pass through any part of the bodywork.

Roll bar assemblies must not be installed so as to become a "de facto chassis" used to improve the torsional or beam strength of the original chassis. Head rests are strongly recommended but must be supported by the same structure that supports the driver's seat.

4.4 Foam-filled flexible fuel tanks are strongly recommended.

### 5. ADVERTISING

No advertising material or sign will be distributed from or carried on any vehicle in this category provided that this rule shall not apply to the manufacturer's usual name plate. CAMS reserves the right to permit also the display – in neat, unobtrusive lettering – of the name of the entrant and/or the driver and/or the State of his residence on the scuttle or the side of the vehicle. The total area of all such signs shall not exceed 75mm in height and 600mm in length on each side of the vehicle.

Club badges of an acceptable motoring club may appear on the vehicle. Each badge must be not larger than 150mm by 100mm and must be placed below the window line. Only two such badges are permitted.

The territory of origin of the driver may be shown on the vehicle. Each sign must be not larger than 100mm by 150mm and must be placed below the window line. Only two such signs are permitted.

No other signs may be displayed.

# Group Nb

## Touring Cars (Pre-1965)

Group Nb is the revised description of the group previously known as Appendix J, and more recently as Group N. It is a group for series production type touring cars, manufactured prior to 31 December, 1964. The group recognises models or components homologated for competition by the manufacturer, however at least 100 examples of a particular model must have been produced for the vehicle to be eligible.

Original vehicles with a competition history are welcome, however it is envisaged that most vehicles will not have a racing history and these are acceptable provided that they are accurate in detail, both mechanically and visually. In the case of original vehicles, they must conform with the mechanical specifications listed below, however minor modification undertaken and employed during the period are acceptable.

### 1. ELIGIBILITY

1.1 Series production type touring cars, manufactured prior to 31 December, 1964, of which 100 of the particular model must have been produced.

### 1.2 Classes:

Vehicles shall compete in the following engine capacity classes:

- Class G - Up to 1000cc.
- Class F - 1001 to 1300cc.
- Class E - 1301 to 1600cc.
- Class D - 1601 to 2000cc.
- Class C - 2001 to 2600cc.
- Class B - 2601 to 3000cc.
- Class A2 - 3001 to 4500cc.
- Class A1 - Over 4500cc.

(Classes may be amalgamated.)

### 2. BODY

2.1 The body must be of a touring hard-top form, and must provide adequate normal seating accommodation for four or more adults.

2.2 Vehicles in the above-mentioned Classes A, B, C, D, and E must have four doors unless they have been homologated by the FIA, or are otherwise specifically approved by CAMS, in a two-door version. Vehicles in Classes F and G must have at least two doors.

2.3 The bodywork, body fittings and interior trim in its entirety must be as supplied by the manufacturer except only that wheel nave plates must be removed, additional instruments fitted and the steering wheel replaced: provided that the replacement wheel is not less than 330mm in diameter (unless the original wheel was of a lesser diameter, in which case a replacement of at least equal diameter to the original is acceptable).

2.4 The use of undertrays, fairings etc, designed to improve the aerodynamic form of the automobile shall not be permissible unless supplied as standard equipment.

2.5 The original rear seats must be retained in all respects, including location.

The driver's seat may be replaced with a CAMS-approved driving seat.

The original passenger seat must remain in place – see Schedule C of Section 6. Such seats must be trimmed in the same, matching, or complementary colours as other trim on the vehicle.

On vehicles fitted with a bench front seat as original equipment, the whole seat may be removed, and the passenger seat must be a bucket seat from, eg, a comparable Falcon Futura, Holden Premier etc. If the original equipment bench seat is retained, modification of the driver's portion of that seat is free so long as the origin of the seat may be determined.

2.6 Restoration of original trim is permitted, but should be as near as practicable to original specifications. Floor coverings may be removed. Insulating material may be added.

### 3. PERMITTED MODIFICATIONS

Mechanical modifications may be made, provided that the following restrictions are observed:

3.1 **Engine:** The original type of cylinder block and crankcase must be employed. The bore may be varied and/or the stroke reduced provided that the swept volume of the engine remains within the same cubic capacity class as that within which the engine came as supplied by the manufacturer (eg, EH Holden under 3000cc, Morris Cooper S under 1300cc).

The original type of cylinder-head casting must be employed. The cylinder-head may be modified provided that such modification is effected only by the removal of metal.

A dry sump is not permitted unless fitted as original equipment on the make and model of the vehicle of the period.

The radiator cooling fan may be removed; electrically powered fans are permitted.

3.2 **Induction:** Forced induction or fuel injection is not permitted, unless such induction method was employed as standard on the make and model of vehicle by the manufacturer concerned.

Later models of carburettors which were available in the period are acceptable, even with different throat sizes, provided that the outward appearance is the same.

Carburettors of a make not available in the period are unacceptable.

3.3 **Transmission:** The original type of gearbox and final drive assemblies including housings as supplied by the manufacturer for the make and model concerned shall be employed. The final drive assembly is otherwise free, save that the

original housing must be retained (although it may be subject to any machining operations provided always that its origin is able to be established).

The number of gear ratios may not be changed.

3.4 **Suspension:** The original form and type of suspension only shall be employed (eg, a semi-elliptic leaf-spring suspended live rear-axle may not be replaced by a coil-spring suspended De Dion type, and so on).

At all times, the original form of steering and suspension joints must be employed, and in particular, may not be replaced by spherical or "Rose" type joints.

3.5 **Brakes:** The original form and type of brake system shall be employed (eg, drum brakes may not be replaced by disc brakes). The major brake dimensions (ie, internal drum diameter and width) shall be identical with the dimensions of these components as supplied as original equipment by the manufacturer concerned; provided that overall variation in the diameter of such drums of not more than 3mm shall be permissible. Modifications to disc brakes are limited to the freedom to fit alternative callipers of a type available pre-1965. Dual circuit braking systems are permitted, as is installation of power brake assistance. Brake lining material and hoses are free.

3.6 **Wheels and Tyres:** The wheels shall be either as supplied by the manufacturer or of a type approved by CAMS and which is in harmony with wheels used prior to 31 December, 1964. At all times the original wheel diameter shall be maintained, and the width of the rim may be increased by not more than 1" over the original, subject to an absolute maximum width of 6". Aluminium alloy type wheels may be fitted, but only of a design and style available prior to 31 December, 1964. Mudguard flares or extensions are not permitted unless they were fitted as original equipment by the manufacturer.

Tyres may not protrude outside the bodywork, but otherwise track is free.

Tyres must be of an approved type of radial or cross-ply construction with a minimum aspect ratio of 60 percent as determined by the Tyre and Rim Association. (Refer Na, Nb, Nc, Sa, Sb and Sc Tyre List, page 8-30.)

### 4. SAFETY REQUIREMENTS

4.1 A laminated windscreen is required in all vehicles. However, in the event that a laminated screen is unavailable, approval may be given on individual application to CAMS for the fitment of a Lexan or Perspex windscreen.

4.2 A roll bar or cage conforming with Schedule J (Type 4 or 5) is required to be fitted in all vehicles. Side intrusion bars and other additional braces are permitted provided they do not pass through any part of the bodywork. The roll bar

or cage must not be used as a means of increasing the structural strength of the vehicle.

4.3 Foam filling of fuel tanks is permitted. The fuel tank may not be moved from its original location.

### 5. GENERAL

5.1 The vehicle shall be required to comply with such requirements of Schedules A, B and C as are applicable and not in conflict with this Group.

5.2 Electrical equipment in conformity with the requirements of Group 2A is required to be fitted.

5.3 A high standard of presentation will be insisted upon at all times. Any vehicle considered to be of inappropriate standard will be rejected.

5.4 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 owner, by way of homologation papers, parts manuals, workshop manuals etc.

In marginal cases, proof may be required to be produced to the effect that a vehicle of the same model was produced prior to 31 December, 1964.

### 6. ADVERTISING

No advertising material or sign will be distributed from or carried on any vehicle in this category provided that this rule shall not apply to the manufacturer's usual name plate. CAMS reserves the right to permit also the display – in neat, unobtrusive lettering – of the name of the entrant and/or the driver and/or the State of his residence on the scuttle or the side of the vehicle. The total area of all such signs shall not exceed 75mm in height and 600mm in length on each side of the vehicle.

Club badges of an acceptable motoring club may appear on the vehicle. Each badge must be not larger than 150mm by 100mm and must be placed below the window line. Only two such badges are permitted.

The territory of origin of the driver may be shown on the vehicle. Each sign must be not larger than 100mm by 150mm and must be placed below the window line. Only two such signs are permitted.

No other signs may be displayed.

### 7. SPIRIT OF REGULATIONS

It is emphasised that the purpose of this category of racing is to emulate, as far as is practicable, racing of touring cars under Appendix J regulations which were current until 31 December, 1964. Under the spirit of these regulations, over-restoration of vehicles, including the use of technology, parts or equipment not available within the period in question, are not acceptable and will render the vehicle ineligible. The Historic Eligibility Committee will interpret these regulations and determine any eligibility matters relating thereto in accordance with this spirit.

# Group Nc

## Touring Cars (1965-1972)

Group Nc is an historic group introduced on 1 January, 1995, to cater primarily for vehicles of a make and model which competed in Australia between 1 January, 1965, and 31 December, 1972 in either the Australian Touring Car championship and in races specifically for 3rd Category Group C Improved Production Touring Cars.

During the 1965-1972 period the rules for the vehicles evolved significantly, therefore the Group Nc rules have been established to enable competition under a common set of rules which reflect the nature of top-level car racing in the period.

It is envisaged that most vehicles in this class will not have a racing history and these are acceptable provided they are accurate in detail both mechanically and visually. Vehicles with a racing history may be presented in the most predominant form in which they were raced in the period, including the original sponsor signage, even though this specification may not fully conform with these rules.

A list of eligible vehicles and vehicle specification sheets for the more popular models are under preparation and will be available from CAMS.

### 1. ELIGIBILITY

1.1 Touring Cars of a make and model which competed in Australia between 1 January, 1965 and 31 December, 1972 in either the Australian Touring Car Championship or in races specifically for 3rd Category Group C Improved Touring Cars.

1.2 Vehicles shall compete in the following capacity classes:

Class E	Up to 1500cc
Class D	1501cc - 2000cc
Class C	2001cc - 3500cc
Class B	3501cc - 5000cc
Class A	Over 5001cc

1.3 Owners of recognised vehicles with a competition history during the period are encouraged to present the vehicle in its original format evident at a given point in its history. Historic precedence will prevail over the following regulations with regard to these vehicles. Proof of this precedence falls to the owner and acceptance of it is at the absolute discretion of CAMS.

1.4 For a vehicle to be constructed, approval must be given by CAMS. The applicant must provide proof that the particular make and model competed in races described in 1.1 above.

1.5 A comprehensive detailed specification of each make and model and the permitted modifications for that vehicle will be provided upon approval for construction being granted by CAMS.

### 2. BODY

The bodywork, fittings and interior trim in its entirety must be as supplied by the manufacturer.

#### 2.1 Body Modifications

Body modifications may be made, provided that the following restrictions are observed:

The inner lip of the wheel opening may be folded back for tyre clearance.

Mudguard extensions may be used if homologated.

The driver's seat may be replaced with a CAMS-approved racing seat.

The steering wheel may be replaced with a sports steering wheel of 330mm minimum diameter.

Floor coverings may be removed.

The use of under trays, fairings etc designed to improve the aerodynamic form of the vehicle are not permitted unless supplied as standard equipment for the make and model. If brake cooling ducts or scoops are fitted, they must be separated by a minimum of 300mm, so as not to form an aerodynamic aid and their sole function shall be to assist in the supply of air to the brakes.

Additional instruments may be added providing all original instruments and switches remain intact and that additional equipment is fitted to a separate panel.

### 3. Engine

Mechanical modifications are permitted subject to the following restrictions:

The original type and design of cylinder block and crank case must be employed. The bore may be increased to a maximum of 1.5mm, the stroke must remain standard as specified for the make and model.

Dry sump lubrication systems are not permitted unless fitted as original equipment (lubrication may be modified and additional cooling provided).

The original type and design of cylinder head casting must be employed; it may be modified provided that such modification is achieved only by the removal of metal.

Electronic ignition devices are not permitted unless fitted as original equipment.

### 4. Induction

Fuel injection is not permitted unless fitted as original equipment.

Carburettors of a make and model not available during the period are not permitted.

### 5. Transmission

The original type and design of transmission and drive train assemblies including the number of forward and reverse ratios, assembled and operating as originally supplied by the manufacturer shall be retained. The use of

alternate ratios is permitted. Any form of locking differential is permitted. Fully floating hubs are permitted. The gear lever may be modified but the original shift pattern must be retained.

### 6. SUSPENSION

The original configuration of suspension whether by leaf spring, coil spring, torsion bar, air, rubber etc for the make and model must be retained. The following modifications are permitted:

Modifications to ride height are free; shock absorbers are free.

Additional control arms and equipment may be added but must not override the original component function.

Spherical joints may not be used to replace existing components.

The original wheelbase dimensions must be retained. The track may be increased by not more than 50mm.

### 7. BRAKES

The original form and type of braking system must be employed, eg disc/drum.

Components may be replaced with those from another model from the same vehicle manufacturer produced before 31 December, 1972, provided there is no increase in the swept area of the disc or drum.

Dual/tandem master cylinders may be used. Brake bias must not be adjustable from the driver's compartment.

### 8. WHEELS AND TYRES

Wheels may be replaced with period style alloy wheels. Maximum rim width permitted is:

- Class A and B maximum 8 inches
- Class C and D maximum 7 inches
- Class E maximum 6 inches

The same diameter wheels must be those used on the model during the group period. Tyres must be of approved tyre radial or cross-ply construction with a minimum aspect ratio of 60 percent as determined by the Tyre and Rim Association. (Refer Na, Nb, Nc, Sa, Sb and Sc tyre list, page 8-30.)

### 9. COOLING SYSTEM

The radiator may be replaced but must retain its original location and support panel opening. The radiator cooling fan may be removed. An electric fan may be fitted.

### 10. FUEL TANK

The fuel tank may be foam-filled or replaced with a tank of the same dimensions and capacity to the same location.

### 11. SAFETY REQUIREMENTS

11.1 A laminated windscreen is required to be fitted in all vehicles.

11.2 A roll cage conforming with Schedule J is required to be fitted in all vehicles. Side intrusion bars and other additional braces are permitted provided they do not pass through any part of

the bodywork. The roll cage must not be used as a means of increasing the structural strength of the vehicle.

11.3 Foam filling of fuel tanks is permitted. The fuel tank may not be moved from its original location.

### 12. ADVERTISING

No advertising material or sign may be distributed from or carried on any vehicle in this category provided that this rule shall not apply to the manufacturer's usual name plate. CAMS reserves the right to permit also the display – in neat, unobtrusive lettering – of the name of the entrant and/or the driver and/or the State of his residence on the scuttle or the side of the vehicle. The total area of all such signs shall not exceed 75mm in height and 600mm in length on each side of the vehicle.

Club badges of an acceptable motoring club can appear on the vehicle. Each badge must be not larger than 150mm by 100mm and must be placed below the window line. Only two such badges are permitted.

The territory of origin of the driver may be shown on the vehicle. Each sign must be not larger than 100mm by 150mm and must be placed below the window line. Only two such signs are permitted.

No other signs may be displayed.

### 13. SPIRIT OF REGULATIONS

It is emphasised that the purpose of this category is to emulate, as far as practicable, the racing of touring cars in the period from 1 January, 1965 to 31 December, 1972. Under the spirit of these regulations, over-restoration of vehicles, including the use of technology, parts or equipment not available within the period in question, are not acceptable and will render the vehicle ineligible. The Historic Eligibility Committee will interpret these regulations and determine any eligibility matters relating thereto in accordance with that spirit.

Mechanical actuation may be converted to hydraulic operation.

Drum brake systems may not be replaced by disc brake systems.

Brake discs and callipers must be of the make, style and size fitted within the group period.

Dual/tandem master cylinders may be fitted.

#### 2.9 Suspension:

The suspension must be unaltered from the period specifications on the subject vehicle.

Spring rates, ride height and damper settings are free. Fore and aft axle location on beam axle vehicles may be varied. Transverse location may not be altered from group period specification.

Externally adjustable shock absorbers and "Rose" type joints are permitted only if fitted to the subject vehicle in the group period.

#### 2.10 Wheels and Tyres:

Wheels must be unaltered from period specifications on the subject vehicle in diameter, width and style. Cast alloy wheels may be replaced with wheels cast in a different material provided that the replacement remains identical in dimensions and appearance.

Within the limitations of availability the tyres fitted must be of the same tread width and diameter and be consistent in general appearance and tread pattern with those fitted to the vehicle or similar vehicles during the group period.

The use of slick tyres will be permitted on vehicles which originally used such tyres during the group period.

The make, type, specification and dimensions of tyres for use on historic Formula Ford vehicles are those tyres approved by the Historic Commission, viz: Dunlop CR82 9092.

## Group S

### Production Sports Racing Cars (1941-1969)

Groups Sa and Sb are designed to provide a forum for competitors to race production sports cars from the '50s and '60s (sometimes known as "Classic Sports Cars"), in a form similar to period club racing.

To this extent, the modifications permitted are not intended to radically alter the individual vehicle's character or appearance and will be of an improved performance road car nature, as opposed to making the vehicle totally dedicated to outright competition.

An important consideration in forming these Regulations was the need to provide eligibility rules which will require the minimum of administration, particularly at race meetings.

People wishing to race vehicles of a more highly modified nature should consider competing in the Marque Sports Car category (Group 2B).

### Group Sa

#### Production Sports Cars (1941-1960)

##### 1. ELIGIBILITY

1.1 Production Sports Cars, as recognised by CAMS, manufactured after 1 January, 1941 but prior to 31 December, 1960 with the inclusion of certain model run-ons (eg, Mk 1 Austin Healey Sprite). Cars classified in this group will not necessarily have a racing history. Factory built, competition variants of standard production vehicles are not eligible for this group,

##### 2.11 Electrical Equipment:

Electrical equipment must be unaltered from period specifications and be fully operable.

Electronic ignition devices are permitted if used on the vehicle in the group period but must be to historic specifications.

An electric starter motor may be fitted.

##### 2.12 Aerodynamic Aids:

Aerodynamic aids are permitted only if fitted to the subject vehicle during the period. Such devices must be unaltered from period specifications in both design and mounting. Modern wing sections and aerodynamic technology are not permitted.

##### 2.13 Safety Equipment:

Roll over protection and harness must be at least to the specifications evident during the group period.

CAMS recommends that competitors wear an approved full-face helmet when driving in open vehicles (refer Schedule D).

##### 1.2 Eligible Vehicles:

AC Ace	
AC Ace	Bristol
Alfa Giulietta	Spider/Sprint
Alvis TD21	
Aston Martin	DB2, DB2/4, DB4, DB4GT
Austin A40	Sports
Austin Healey	100/4, 100/6 Mk 1, Sprite Mk 1
Berkeley	2 & 3 cyl models
Buchanan	Cobra
Chevrolet	Corvette
Daimler	SP250
Elva	Courier Mk1/2
Ferrari	250 (Other Ferrari models on application)
Fiat	1100/1200 Spyder
Jaguar	XK120 roadster, XK140, XK150
Jensen	CV8
Lancia	Aurelia
Lotus	Elite Stage 1 & 2
Mercedes-Benz	190SL, 300SL roadster, 300SL coupe
MG	TA, TC, TD, TF
MGA	1500 roadster & coupe, 1600 roadster & coupe, 1600 deluxe, 1600 twin cam
Morgan	Plus/4, 4/4
Porsche	356A
Singer	Roadster - 9 & 1500
Sunbeam	Alpine Series I, II & III
Triumph	TR2, TR3 & TR3A
Turner	BMC, 997 Ford, Climax

The above is not a wholly exhaustive list. Other makes/models may be considered for inclusion upon application to CAMS.

## 2. SPECIFIC REQUIREMENTS

##### 2.1 Chassis:

Chassis or chassis-body unit must be original and unmodified.

##### 2.2 Bodywork:

Bodywork must be original save that bumper bars and/or windscreens may be removed. Single seater type and/or wrap-around windscreens are not permitted, but other replacement screens are. Rigid removable tonneau covers are permitted.

##### 2.3 Cockpit:

The cockpit must be original save that floor coverings may be removed. The seats and the steering wheel may be replaced by others of a period style, or CAMS-approved seats (refer to page 8-28). Original instruments must be intact. Additional instruments of a period type may be fitted. Electronic tachometers may be substituted for mechanically driven units, provided they are compatible in face, style and size with the other instruments.

##### 2.4 Engine:

Cylinder block and head must be original, or a CAMS-approved alternative. Internal components of the engine are free save that the crankshaft stroke must be original. The cylinder bore may

be increased by a maximum of 1.5mm beyond original dimensions. Cylinder head/s may be modified provided such modification is effected only by the removal of metal.

Toothed belt drives are not permitted.

Dry sump lubrication is not permitted.

The exhaust system is free but should be of a type compatible with the period.

##### 2.5 Induction:

Carburettors or fuel injection systems must be of the make, type and number originally fitted to the vehicle. Bore size is free. Superchargers are not permitted unless part of the original specification.

Inlet manifolds are free except that they must be of a type compatible with the period.

##### 2.6 Transmission:

Gearbox casing, gear selection mechanism and the number of forward ratios must be original. Internal components are otherwise free. External components of the final drive assembly must be unmodified from original specification. Internal components are free.

##### 2.7 Brakes:

Drum brakes may be modified or replaced with others of period type. Drums and/or backing plates may be ventilated and/or fitted with cooling fins. Drum brakes may not be replaced by disc brakes.

In case of disc brake systems, the brake discs and callipers must be original. Modification or removal of dust shields on disc brake systems is permitted. Mechanical actuation may be converted to hydraulic operation. Dual/tandem master cylinders may be fitted.

##### 2.8 Suspension:

The suspension must be unmodified from original specification, save that spring rates, ride height and damper settings may be altered. Suspension pickup points may not be modified. Externally adjustable shock absorbers are not permitted. Fore and aft axle location may be improved but transverse location may not be altered. Spherical or "Rose" type joints are not permitted.

A maximum of 2° negative camber will be permitted.

##### 2.9 Wheels and Tyres:

Wheels are required to be original in diameter and style (ie, steel wheels may not be replaced by alloy wheels). Rim width may not exceed 5" unless originally specified by the manufacturer, in which case the original width must be retained.

Tyres must have an aspect ratio of at least 60 percent as determined by the Tyre and Rim Association.

The maximum tyre section permitted in each eligible model will be determined and published by CAMS. (Refer Na, Nb, Nc, Sa, Sb and Sc Tyre List, on page 8-30.)

Application for the inclusion of additional tyres on the list may be made at any time. In the submission of candidate tyres, the following criteria should be borne in mind:

- the tread pattern should be distinctive and preferably of a contemporary style;
- grooved slicks are not acceptable;
- tread patterns consisting substantially of very fine and shallow sipes, which quickly disappear in use, are not acceptable;
- asymmetric patterns are acceptable subject to conformity with the above criteria.; and
- tyres designed to offer high levels of adhesion (featuring modern sticky compounds) are not acceptable.

#### 2.10 Electrical Equipment:

All electrical equipment must be unmodified from the original specifications, and fully operative. The dynamo/generator may not be replaced by an alternator.

The radiator cooling fan may be removed; electrically powered fans are permitted (refer page 8-14, Article 3.1). Electronic ignition devices are not permitted, unless included in the original specification.

#### 2.11 Optional Equipment:

Optional equipment is permitted in this group only if it is detailed in the relevant vehicle's Certificate of Description.

#### 2.12 Safety Equipment:

CAMS-approved roll bars (refer Schedule J) and seat harness (refer Schedule I) are recommended.

Roll bar assemblies must not be installed so as to become a "de-facto chassis" used to improve the torsional or beam strength of the original vehicle.

It is foreshadowed that roll bars and harnesses will become mandatory for these vehicles at some time in the future.

Foam filled, flexible fuel tanks are strongly recommended.

CAMS recommends that competitors wear an approved full-face helmet when driving in open vehicles (refer Schedule D).

## Group Sb

### Production Sports Cars (1961-1969)

#### 1. ELIGIBILITY

- 1.1 A specific group of Production Sports Cars generally manufactured between 1 January, 1961 and 31 December, 1969, with the inclusion of model run-ons (eg, Triumph Spitfire Mk3), as detailed in the following list. Vehicles classified in this group will not necessarily have a racing history. Factory built, competition variants of standard production vehicles are not eligible for this group, but could be eligible for Groups M or O, subject to specific application.

Limited modifications as detailed in the following regulations are allowed to these vehicles. Where performance improving modifications are made, these should be of a nature and not out of character with the vehicle or group period.

#### 1.2 Eligible Vehicles:

AC	Cobra 289, Cobra 427, 2.6
Abarth	1000 OTR Coupe
Alfa Romeo	Giulietta Spider, Giulietta, Spider, Veloce, GTV, 105
Aston Martin	DB5, DB6, DBS (not DBS V8)
Austin Healey	3000 Mk II, Mk III, Sprite, Mk II, III, IV
Bolwell	Mk 7
Chevrolet Corvette	All models to end 1969
Datsun	Fairlady 1500
Datsun Sports	1600, 2000
Elva Courier	Mk 3, Mk 4
Ferrari	250 GT, 275 GTB, 275 GTS, 330, 320 GTS, 365 GTB/4, 206 Dino, 246 Dino
Fiat	124AC, 124 Spyder (AS), 124 Spyder, Dino Spyder
Ginetta	G4 (Mk 3 only)
Honda	S600, S800
ISO Rivolta	IRS 300, IRS 340
Jaguar	E type Series One, 11/2, Two, 3.8, 4.2
Lancia	Flavia and Fulvia coupes
Lotus	Elan S1, S2, S3, S4, Plus 2, Europa (Renault engine)
Marcos	All models to end 1969
Maserati	3500 GT, Sebring, Mistral, 5000 GT, Mexico, Ghibli
Mercedes-Benz	230 SL, 250 SL, 280 SL
MG	A 1600 Mk 2, MGB 1800 and MGB GT 1800, Mk 1 and Mk 2, MGC, Midget 948, 1098, 1275cc
Morgan	4/4 Series III, IV, V, 1600, Plus 4, Plus 4 S/Sports, Plus 8
Porsche	356B/C, 911 E, 912, 914, 914/6, T and S (1991cc)
Shelby American	GT350
Sunbeam	Alpine Series 4 and 5, Tiger

Triumph	TR4, TR4A, TR5, TR6, Spitfire, Mk 1, 2, 3, GT6 Mk 1, 2, 3
Turner	1500
TVR	All models to end 1969
Volvo	P1800, P1800S, P1800E

The above is not a wholly exhaustive list. Other makes/models may be considered for inclusion upon application to CAMS.

#### 2. SPECIFIC REQUIREMENTS

##### 2.1 Chassis:

Chassis or chassis body unit must be original and unmodified.

##### 2.2 Bodywork:

Bodywork must be original save that bumper bars and/or windscreens may be removed. Single-seater type and/or wrap-around windscreens are not permitted.

##### 2.3 Cockpit:

The cockpit must be original save that floor coverings may be removed. Seats and steering wheel may be replaced by others of a period style, or CAMS-approved seats (refer to page 8-28). Original instruments must be intact. Additional instruments of a period type may be fitted.

Electronic tachometers may be substituted for mechanically driven units, provided they are compatible in face, style and size with the other instruments.

##### 2.4 Engine:

The cylinder block and head must be original, or a CAMS-approved alternative. Internal components of the engine are free save that the crankshaft stroke must be original.

The cylinder bore may be increased by a maximum of 1.5mm beyond original dimensions.

Cylinder head/s may be modified provided such modification is effected only by the removal of metal.

Dry sump lubrication is not permitted, unless included in the original specification.

Toothed belt drives are not permitted, unless included in the original specification.

The exhaust system is free but should be of a type compatible with the period.

##### 2.5 Induction:

Carburettors or fuel injection systems must be of the make, type, and number originally fitted to the vehicle. Bore size is free.

Inlet manifolds are free except that they must be of a type compatible with the period.

The cooling system must remain as standard, save that the radiator core is free as to thickness. Electric fans may be added.

Supercharging is not permitted unless part of the original specification.

##### 2.6 Transmission:

Gearbox casing, gear selection mechanism and the number of forward ratios must be original. Internal components are free.

External components of the final drive

assembly must be original from original specification. Internal components are free.

#### 2.7 Brakes:

Disc or drum brake systems must be of the make, model, size and type as originally fitted to the vehicle. Drums and/or backing plates may be ventilated and/or fitted with cooling fins.

Drum brakes may not be replaced by disc brakes. In case of disc brake systems, the brake discs and callipers must be original. Modification or removal of dust shields on disc brake systems is permitted. Dual/tandem master cylinders may be fitted.

#### 2.8 Suspension:

The suspension must be unmodified from original specification, save that spring rates, ride height and shock absorber settings may be altered.

Suspension pickup points may not be modified.

Externally adjustable shock absorbers are not permitted unless originally fitted to the vehicle. Lever action shock absorbers where not an integral part of the suspension may be replaced by tubular shock absorbers.

Fore and aft axle location may be improved but transverse location may not be altered.

Spherical or "Rose" type joints are not permitted.

A maximum of 2° negative camber will be permitted.

#### 2.9 Wheels and Tyres:

Wheels are required to be original in diameter. Replacement of standard style wheels by period style alloy wheels will be considered upon individual application.

Rim width may not exceed 5" for vehicles of up to 1300cc swept volume, and 6" for vehicles of over 1300cc, unless otherwise equipped as standard, in which case the original width must be retained.

Tyres must have an aspect ratio of at least 60 percent as determined by the Tyre and Rim Association.

The maximum tyre section permitted on each eligible model will be determined and published by CAMS.

Tyres permitted for this group shall be subject to approval by CAMS which will maintain and publish an approved tyre list (refer Na, Nb, Nc, Sa, Sb and Sc Tyre List on page 8-30).

Application for the inclusion of additional tyres to the list may be made at any time. In submitting candidate tyres, the criteria as stated in paragraph 2.9 of Group Sa should be borne in mind.

#### 2.10 Electrical Equipment:

All electrical equipment must be unmodified from the original specifications, and fully operative.

The dynamo/generator may not be replaced by an alternator.

Electronic ignition devices are not permitted, unless included in the original specification.

The radiator cooling fan may be removed; electrically powered fans are permitted (refer page 8-14, Article 3.1).

#### 2.11 Optional Equipment:

Optional equipment is permitted in this group only if it is detailed in the relevant Certificate of Description.

#### 2.12 Safety Equipment:

CAMS-approved roll bars (refer Schedule J) and seat harness (refer Schedule I) are recommended.

Roll bar assemblies must not be installed so as to become a "de-facto chassis" used to improve the torsional or beam strength of the original vehicle.

It is foreshadowed that roll bars and harnesses will become mandatory for these vehicles at some time in the future.

Foam filled, flexible fuel tanks are strongly recommended.

CAMS recommends that competitors wear an approved full-face helmet when driving in open vehicles (refer Schedule D).

## Group Sc

### Production Sports Cars (1970-1977)

#### 1. ELIGIBILITY

1.1 A specific group of non-turbo charged production sports cars generally manufactured between 1 January, 1970, and 31 December, 1977, with the inclusion of model run-ons (eg, Datsun 260Z) as detailed in the following list. Vehicles classified in this group will not necessarily have a racing history. Factory-built, competitive variants of standard production vehicles are not eligible for this group, but could be eligible for Historic Group Q, subject to specific application.

#### 1.2 Eligible Vehicles

Alfa Romeo	Spider 2000, GTV, Alfetta GT Alfetta 2.0GTV, Montreal, No Alfa Suds, except for the Sprint. These are Production Touring Cars, and Sprint was not available in Australia until July 1979
<b>American Motors AMX</b>	
Aston Martin	DB, DBS V8
Bolwell	Nagari
Chevrolet	Corvette
Datsun	240Z, 260Z, 260Z 2+2 Not Datsun 280Z - the 280Z was never sold in Australia; only 280ZX & this not introduced until March 1979
Detomaso	Pantera
Ferrari	308GT4, 365GTC, 365GTC/4, 308GTB, 365GTB B/B
Fiat	X1/9, 1300/1500, 124 BC, 124CC, 124 Spyder 1.8, 2.0, B/S, M/SL, C/S, Dino 2400, "E" Type V12
Jaguar	Healey
Jensen	Interceptor
Lamborghini	Urraco, Espada
Lancia	Beta coupe, Spider, Monte Carlo, Coupe 20-00, 2000HF
Lotus	Elite S1, Eclat S1, Europa T/C
Marcos	2 Litre, 2.5 Litre, 3 Litre
Maserati	Bora, Merak, Khamsin
Mercedes-Benz	350/450SL, SLC Coupe
MG	BGT V8
Porsche	911 up to 3.0 litre, 914, 916, 924, 928
Triumph	Spitfire IV and 1500, TR7 Coupe, Stag
TVR	1300, 1600M, 2500, 3000M, Taimar

The above is not a wholly exhaustive list. Other makes/models may be considered for inclusion upon application to CAMS.

#### 2. Specific Requirements

##### 2.1 Chassis:

Chassis or chassis body must be original and unmodified.

##### 2.2 Bodywork:

Bodywork must be original save that bumper bars and/or windscreens may be removed.

Single-seater type and/or wrap-around windscreens are not permitted.

#### 2.3 Cockpit:

The cockpit must be original save that floor coverings may be removed. Seats and steering wheel may be replaced by others of a period style. Original instruments must be intact. Additional instruments of a period type may be fitted.

Electronic tachometers may be substituted for mechanically driven units, provided they are compatible in face, style and size with the other instruments.

#### 2.4 Engine:

The cylinder block and head must be original, or a CAMS-approved alternative.

Internal components of the engine are free save that the crankshaft stroke must be original.

The cylinder bore may be increased by a maximum of 1.5mm beyond original dimensions.

Toothed belt drives are not permitted, unless included in the original specification.

Cylinder heads may be modified provided such modification is effected only by the removal of metal.

Dry sump lubrication is not permitted, unless included in the original specification.

The exhaust system is free but should be of a type compatible with the period.

Carburetors or fuel injection systems must be of the make, type and number originally fitted to the vehicle. Bore size is free. Forced induction is not permitted.

Inlet manifolds are free but they must be of a type compatible with the period.

The cooling system must remain as standard, save that the radiator core is free as to thickness. Electric fans may be added.

#### 2.5 Gearbox:

Gearbox casing, gear selector mechanism and the number of forward ratios must be original. Internal components are free.

#### 2.6 Final Drive:

External components of the final drive assembly must be unmodified from the original specification. Internal components are free.

#### 2.7 Brakes:

Disc or drum brake systems must be of the make, model, size and type as originally fitted to the vehicle.

Drums and/or backing plates may be ventilated and/or fitted with cooling fins. Modification or removal of dust shields on disc brake systems is permitted.

Dual or tandem master cylinders may be fitted.

#### 2.8 Suspension:

The suspension must be unmodified from original specification, save that spring rates, ride height and shock absorber settings may be altered.

Suspension pickup points may not be modified.

Externally adjustable shock absorbers are not permitted unless originally fitted to the vehicle.

Fore and aft axle location may be improved but transverse location may not be altered.

Spherical or "Rose" type joints are not permitted.

#### 2.9 Wheels and Tyres:

Wheels are required to be original in diameter. Replacement of standard style wheels by period style alloy wheels will be considered upon individual application.

Rim width may not exceed 5" for vehicles of up to 2000cc swept volume, and 6" for vehicles of over 2000cc, unless otherwise equipped as standard.

Tyres must have an aspect ratio of at least 60 percent as determined by the Tyre and Rim Association Manual. In all cases the fitment of the tyre to the rim must also meet requirements of that manual.

The maximum tyre section permitted on each eligible model will be determined and published by CAMS.

Tyres permitted for this group shall be subject to approval by CAMS which will maintain and publish an approved tyre list (refer Na, Nb, Nc, Sa, Sb and Sc Tyre List on page 8-30).

Application for the inclusion of additional tyres to the list may be made at any time. In submitting candidate tyres, the criteria as stated in paragraph 2.9 of Group Sa should be borne in mind.

#### 2.10 Electrical Equipment:

All electrical equipment must be unmodified from the original specifications, and fully operative.

Generators may not be replaced by alternators. Electronic ignition devices are not permitted, unless included in the original specification.

#### 2.11 Optional Equipment:

Optional equipment is permitted in this group only if it is detailed in the relevant Certificate of Description.

#### 2.12 Safety Equipment:

CAMS approved roll bar and seat harness must be fitted. Competition seats similar to those used in the period are strongly recommended.

Roll bar assemblies must not be installed so as to become a "de-facto chassis" used to improve the torsional or beam strength of the original vehicle.

Foam filled, flexible fuel tanks are strongly recommended.

CAMS recommends that competitors wear an approved full-face helmet when driving in open vehicles (refer Schedule D).



# Seats for Groups Na, Sa, Sb and Sc

## 5th Category

The following list of after-market seats have been approved by the Historic Commission for use in 5th Category Groups Na, Sa, Sb and Sc Historic vehicles as a replacement for the standard seats.

Trim colour must be either as per the original, ie match the existing seats, or black.

It is recommended that seats with integral headrests should have seat belt slots to ensure proper location of the shoulder and lap belts. Special attention should be given to the seat mounting and seat adjustment methods (refer Section 6, Schedule C, Article 9).

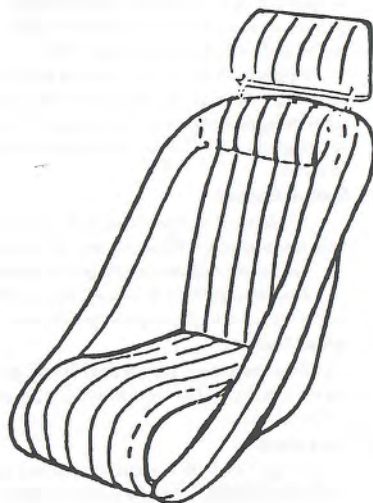
A separate headrest may be used with standard seats, provided that the headrest is supported on the same structure as the seat and cannot move independently.

CAMS will maintain a list of the specific seats approved for these groups. Approved seats for these groups may be updated by CAMS Historic Commission at any time. Consult the CAMS National Office or your state Historic Eligibility Officer to obtain the up-to-date list.

### Approved seats

### Type

Velo Spider Retro (with headrest)	A
Cobra Vintage (with headrest)	A
Cobra Carrera "Classic"	B
New Cobra Sprint	B
Clubman	B
RPM Competition "Classic"	B
Corbeau Clubman	B



TYPE A



TYPE B

# Tyre List

## Groups Na, Nb, Nc, Sa, Sb and Sc

This approved tyre list relates to tyre characteristics applying at the date of publication. In the event of a tyre manufacturer effecting reformulation of an approved tyre (particularly in respect of tread pattern or stickiness of compound) such reformulation normally will result in the approved status of the tyre lapsing.

For Na, the minimum aspect ratio permitted is 65 percent. For Nb, Nc, Sa, Sb and Sc, the minimum

aspect ratio permitted is 60 percent (effective 1 January, 1997).

CAMS will maintain a list of the specific tyres approved for these groups. Approved tyres for these groups may be updated by CAMS Historic Commission at any time. Consult the CAMS National Office or your state Historic Eligibility Officer to obtain the up-to-date list.

Make	Model		
ADVAN (refer Yokohama)	A008		
AVON	Turbosheel	Turbosport	Turbospeed
BRIDGESTONE	319V	RD229V	RD339V
RE71	RD229	RD339	RE88
	S310 (10" only)	S330	S340
	S370	S372	Supercat
CONTINENTAL	CV51	CZ91	
DUNLOP	SP Sports D40	Monza D8	Daytona
	Le Mans A4	Grand Sport G5	Formula W-1
	CR 48 (R6)	CR 65 (R7)	
FALKEN	GB RS410S		
FIRESTONE	Eurosteel S211	S330	H330
	F560	F630	
	Firehawk		
	Cavallino Sport 200		
GOODRICH	Comp T/A		
GOODYEAR	Eagle NCT	Grand Rally S	
	Vector	Ducaro	Eagle NCT-2
	Eagle VR	Eagle CA	
	GTR	GT Sport 70	
	Bluestreak Sportscar Special		
HANKOOK	Optimo Plus 827	838	
HOOSIER	Street TD	Vintage TD	Hoosier TD 10"
KLEBER	GTS	T1	C2
	C2T	C20H	C50H
	C40H		
KUMHO	737, 755, 756, 766, 768, 771, 772, 777A, 782, 788, 790		
MICHELIN	XVS	MXV	MXL
	TDX-V	MX	XDZ
	XAS	XZX	XWX
	MXV2	MXV3	MXV3A
	MXT	MXF	XM+S244
OHTSU	Falken FK		
PIRELLI	CN36	P6	P7
	P77	P700	P5
	P8	P4	P44
	P600	P700Z	P500
	Stelvio	CH36	CH67
	P2000	P4000E	
RIKEN	G4-06	GR-14	GR-16
	GR-301		
SUMITOMO	HTR60H	HTR60V	
TOYO	600	600CI	6004D
	600FI	600F4	600F7
	600F3	600F5	600F8
	800 Plus	Proxus-H4	
UNIROYAL	Rallye 340/65		
YOKOHAMA (refer ADVAN)	AVS161	AX321	S707
	Y352	GX501 (10" only)	A008
	A509	AVS	