

**GAMS**  
**MANUAL**  
**OF**  
**MOTOR**  
**SPORT**

with 1981 National Competition Rules

For the purpose of attempting records, vehicles shall be classified according to their total cylinder capacity as follows:

**VEHICLES WITH POSITIVE DISPLACEMENT RECIPROCATING ENGINES**

Over 8000 cc	Class A (F.I.A. Class	(11)
5001-8000 cc	Class B "	(10)
3001-5000 cc	Class C "	(9)
2001-3000 cc	Class D "	(8)
1501-2000 cc	Class E "	(7)
1101-1500 cc	Class F "	(6)
751-1100 cc	Class G "	(5)
501- 750 cc	Class H "	(4)
351- 500 cc	Class I "	(3)
251- 350 cc	Class J "	(2)
Below 250 cc	Class K "	(1)

(See Supercharging, below)

**VEHICLES WITH ROTARY COMBUSTION (WANKEL-TYPE) ENGINES**

According to the above classes, as calculated by the following F.I.A. formula, viz., twice 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). (See para Supercharging below.)

**VEHICLES WITH ELECTRIC, TURBINE, OR STEAM ENGINES**

Such vehicles are allotted to classes on a basis of unladen weight, viz.:

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

**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 1.4, and the car will pass into the class corresponding to the nominal volume thus obtained.

A supercharger is deemed to be:

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

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

**AUTOMOBILES**

Part 1—Classification	Part 8—Fire Extinguishers.
Part 2—General Requirements	Part 9—Safety Harness.
Part 3—Specifications.	Part 10—Roll Bars.
Part 4—Apparel	Part 11—Markings on Automobiles.
Part 5—Wheels.	Part 12—Log Books.
Part 6—Aerofoils and Coachwork	Part 13—Scatter Shields.
Part 7—Commercial Fuel.	Part 14—fuel Tanks.

The specific requirements for cars are contained at PART 3 of Appendix C. In order to determine the exact requirements for any given vehicle, it is necessary that you first know whether it is to complete in races, rallies, off road events, or speed events; and to which group or formula (and thus category) the car belongs—Part 1 will assist here.

Having determined the type of competition and the category of car, reference must be made to Part 2 for the General Requirements which apply; then, for the specific requirements, look to the appropriate formula or group in Part 3. Parts 4 to 14 give detailed specifications and information, also necessary in order to properly construct or prepare a competition car.

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

### 1st CATEGORY—RACING CARS

<i>Australian Formula 1</i>	V8 production pushrod engines up to 5000 cc; and Formula Pacific engines up to 1600cc.
<i>Australian Formula 2</i>	up to 1600cc.
<i>Formula Libre</i> (in races)	up to 1300, 1301-2000, 2001-3000, 3001-5000
(In other speed events)	as for Record classes, or as for races.

### 2nd CATEGORY—SPORTS CARS (GROUP A)

Up to 1300 cc	2501-5000 cc
1301-1600 cc	Clubman—up to 1300 cc only.
1601-2500 cc	

### 2nd CATEGORY—SPORTS SEDANS (GROUP B)

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

### 3rd CATEGORY—PRODUCTION TOURING CARS (GROUP C)

Up to 1600 cc	2001-3000 cc
1601-2000 cc	3001-6000 cc

### PRODUCTION SPORTS CARS (GROUP D)

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

### 4th CATEGORY (OTHER AUTOMOBILES)

As may be specified in Supplementary Regulations

### 5th CATEGORY (HISTORIC CARS)

As may be specified in Supplementary Regulations.

**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 full International, International and National open competitions events shall be conducted only in accordance with the above categories, unless specific written authority is granted by CAMS to classify otherwise.

## Part 2—General Requirements of Automobiles

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

- .1 Comply with the definition of an automobile;
- .2 be fitted with some form of protection between engine and driver's compartment suitable and sufficient in the case of fire for preventing the passage of flame;
- .3 be so constructed that the driver is protected from the entry of foreign matter into the driving compartment from the road/or road wheels;
- .4 be equipped with a transmission system so arranged that—
  - the propeller shaft and universal or carden joints, if passing through or beneath the driver/passenger compartment, shall be under the floorboards, 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 for driving any auxiliary component, shall be effectively guarded;
- .5 be fitted so that all fuel tanks are vented externally to the bodywork.
- .6 not be equipped with any device which could permit radio communication between vehicle and pit-or-service-crew, save in such events as CAMS may specify as exempt from this requirement;
- .7 if not registered for use on public roads, have any steering column locking device removed;
- .8 if required to be fitted with roll-over protection by the provision of these rules, be equipped with such protection only in accordance with the provisions of Part 10 of this Appendix.

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

- .1 (if fitted with rear hinged bonnets and/or panels) be fitted with at least two independent fastening systems, of adequate strength and limited extensibility, which simultaneously hold the bonnets or panels closed;
- .2 (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 2000 cc) or three litres (for cars of over 2000 cc) except in Autocross, Rallycross and other events on unsealed surfaces, save however that Supplementary Regulations may require fitment for any particular event;
- .3 (other than one-car-at-a-time closed 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 Parts 9 and 10.)  
(Note: structurally unmodified fixed roof closed cars may compete in events other than National Open Race Meetings without roll-over protection.)
- .4 be fitted with a fire extinguisher or fire extinguishing system in working order and of a type and capacity as specified in Part 8 of this Appendix as is appropriate;
- .5 be so constructed that, in the event of any breakage, the tailshaft, its components or mountings, shall be effectively prevented from striking the ground;
- .6 be fitted with wheels which meet the requirements of specifications determined by CAMS from time to time (see Part 5);

- .7 be so constructed that any aerodynamic device fitted shall be in accordance with specifications determined by CAMS from time to time (see Part 6);
- .8 comply with any Supplementary Regulations for a specific event which require the fitment of locking or wiring devices adequate for the prevention of any loosening of any oil drain plug.
- .9 be fitted with a scatter shield if required under the provisions of Part 13 of this Appendix.

Notwithstanding the above requirements, cars registered for road use shall not, when competing in one-car-at-a-time speed events, be required to comply with the provisions of sub-sections 2, 3, 5, 8 and 9 of this Section.

**3. ALL AUTOMOBILES OF THE 1ST CATEGORY SHALL, OF NECESSITY, IN ALL SPEED EVENTS, AND IN ADDITION TO THE PROVISIONS OF 2 ABOVE:**

- .1 if employing a battery electrical system, be provided with either an automatically or manually operated battery-circuit breaker or isolating switch. In the case of a manually operated device, it shall be accessible to the driver and to persons outside the car and shall be clearly identified by a 6-inch blue triangle on a white ground if necessary for contrast. The switch must be on the live side of the battery, and fitted in accordance with the switch manufacturer's directions. A clear indication of "off" and "on" positions must be marked adjacent to the relevant positions.
- .2 be equipped 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;
- .3 be equipped with exhaust pipes, the orifices of which, when directed horizontally to the rear, must be between 300 mm and 600 mm above the ground, and may not protrude by more than 250 mm beyond the rearmost portion of the car;

**4. ALL AUTOMOBILES OF THE 2ND, 3RD AND 4TH CATEGORIES SHALL, OF NECESSITY, IN ALL SPEED EVENTS, AND IN ADDITION TO THE PROVISIONS OF 2 ABOVE:**

- .1 be equipped with an exhaust system, the outlet pipe/s of which shall be directed either rearwards or sideways. If rearwards, their orifices shall be between 100 mm and 450 mm above the ground, and they shall not protrude by more than 150 mm beyond the rear-most 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 wheel base. They may neither project in any way beyond the maximum width of coachwork nor terminate at a point more than 50 mm within the projected plan of the coachwork. Adequate protection shall be provided to prevent heated exhaust pipes from causing burns.
- .2 be fitted with an operable reverse gear;
- .3 be marked with a 150 mm blue triangular sign indicating the location of the battery;
- .4 be fitted with a windscreen in accordance with Part 3, Group A, or as may be required in Production Category;
- .5 be so equipped that under no circumstances is any part of the coachwork less

than 4 cm above the ground, the car being in normal trim with the driver on board.

**5. ALL AUTOMOBILES IN CIRCUIT RACES SHALL, OF NECESSITY, IN ADDITION TO THE PROVISIONS OF PRECEDING PARAGRAPHS 2, AND EITHER 3 OR 4, AS APPLICABLE:**

- .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 reconditioned; 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;
- .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 Part 11, para.7.2;
- .4 be fitted with locking or wiring devices adequate to prevent the loosening of any oil drain-plug (Note: Supplementary Regulations for speed events may also require the fitment of such devices);
- .5 be fitted with at least two (2) rear vision mirrors, of which each must have a reflecting surface of at least 500 mm<sup>2</sup>, and provide an unobstructed view to the rear of the car, save that, in automobiles with close body-work (whether of sports or touring types), one such mirror shall be fitted internally and one externally.
- .6 be fitted with a fuel tank as specified in Part 14 of this Appendix as is appropriate.
- .7 be fitted with readily accessible towing eyes, having an internal diameter of 40 mm; one each forward of the front axle and rearwards of the rear axle.
- .8 be fitted with fuel lines only of metal, braided Neoprene, or other CAMS approved material.
- .9 In closed cars, have the driver's window fully open at all times during practice and racing.
- .10 In closed cars first registered with CAMS after 1st 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
  - if the original seat mountings are not used, is mounted in four places using 100 mm x 45 mm plates, of thickness 6.4 mm aluminium or 4.6 mm steel, each attached by at least 2 bolts of 10 mm diameter or the approved equivalent thereof.

## Part 3—Specifications of Automobiles

### 1st CATEGORY

#### Racing Cars

#### 1. DESCRIPTION:

Automobiles offering accommodation for one person, and designed exclusively for races and speed events on a closed course.

In addition to the requirements of Part 2 of this Appendix, racing cars shall of necessity be required to comply with one or other of the following Formulae, and with such modification or alterations to such Formulae as may be determined by CAMS from time to time.

#### 2. GENERAL REQUIREMENTS (FORMULA 1 & FORMULA 2):

- .1 All cars must be fitted with—
  - (a) A rearward facing red warning light of at least 15 watts. This light must be mounted as high as practicable on the centreline of the car and be clearly visible from the rear. It must be switched on when directed by the Clerk of Course.
  - (b) A head restraint capable of restraining 17 kg under a rearward acceleration of 5G (50m/s<sup>2</sup>). Its dimensions shall be such that in no case can the driver's head be trapped between the roll-over bar and the head-rest itself. The recommended fitting is a head-rest supported around its perimeter and horizontally across its centre, mounted on a structure of the same specifications as the roll-bar (or on the roll-bar itself if practicable), and being itself steel plate of a minimum thickness of 3 mm, and covered with a padding of minimum thickness of 25 mm.
  - (c) A gearbox including a reverse gear, which must be in working order when the car starts the events and be able to be operated by the driver when normally in his seat.
  - (d) An automatic starter with electrical or other source of energy carried aboard the car and able to be controlled by the driver when normally in his seat. The starting of engines is authorised both on the dummy grid and in case of a stop at the pit with temporarily connected power to a proper coupling fixed on the car. Push starts are permitted at all times. The battery must be capable of starting the engine at least twice.
  - (e) Only such aerodynamic devices as comply with the rules relating to coachwork, which must be firmly secured whilst the car is in motion. Under no circumstances can any part of the bodywork or of the suspended part of the car be below a horizontal line passing 1 cm under the bottom of the driver's seat and at least 4 cm above the ground, the car being in normal racing trim with the driver on board.
- .2 Nothing may protrude more than 100 cm behind the centre of the rear wheel.
- .3 Four-wheel drive is prohibited.
- .4 Except if the cables, lines and electrical equipment such as battery, fuel pump, etc., are in compliance with the requirements of the aircraft industry as regards their location, material and connections, they must be placed or fitted in such a way that any leakage cannot result in—
  - accumulation of liquid
  - entry of liquid into the cockpit

— contact between liquid and any electrical line or equipment

Should the cables, lines or electrical equipment pass through or be fitted in the cockpit, they must be fully enclosed in a cover of a liquid-tight and fire-proof material. No oil, fuel and electrical lines shall be situated beyond 600 mm on either side of the car's centreline and must not run adjacent to the main fuel cells or within the crushable structure.

- .5 All oil storage tanks, situated outside the main structure of the car, must be surrounded by 10 mm, thick crushable structure. In any case, no oil storage tank, not located within the main structure, may be situated aft the gearbox or final drive casing.
- .6 On cars constructed after 1st January 1975—
  - (i) Electroplating of steel suspension members of over 695MPa tensile strength is forbidden.
  - (ii) The use of magnesium sheet on the vehicle will be authorised only if its thickness exceeds 3 mm.
- .7 Only commercial fuel as defined herein may be used.

### Australian Formula 1

(Valid to 31 December 1981)

1. Australian Formula 1 consists of three separate sections — the first for 5 litre stock block engines, the second for cars complying with FIA Formula 1, and the third for cars complying with Formula Pacific. Each is eligible for all races for cars complying with AFI; no race may be conducted for other than all 3 parts.
 

To qualify for Formula 1 races, drivers must record a practice time within 10% of the average of the fastest practice time of the drivers qualifying for the first three positions on the grid. However, with the agreement of the Stewards of the meeting, the Clerk of Course may include such other car/driver combination which has demonstrated that it would have qualified under conditions other than those applying in this case.
2. **5000 cc**
  - (a) The engine must be—
    - derived from an "Australian Touring Car" (as defined),
    - of V8, pushrod operated overhead valve configuration
    - of up to 5000 cc swept volume, which may be obtained by alteration of the bore and/or stroke
  - (b) The number of main bearings may not be changed.
  - (c) The location and/or number of camshafts may not be changed.
  - (d) The cylinder head must accommodate only the same number of valves as that of those in the cylinder head with which the block was originally produced. Valves must remain disposed in the same relative position in the combustion chamber as they were in the original head for that block.
  - (e) The minimum weight of the vehicle, including coolants and lubricants, but not including fuel and the driver, shall be 1350lbs (612kg).
3. **FIA Formula 1**

The complete car must comply with FIA requirements for F1 as applies for any year from 1977 to date; save that "skirts" are not permitted - vide par. 2.1.(e) (Page 252).

## 1600 ("Formula Pacific")

Formula Pacific is an International Formula devised by Australia, New Zealand and Japan. It is based on the British "Formula Atlantic".

The following regulations must be considered only in conjunction with all other relevant parts of Appendix C, as apply to AF1.

Competitors who wish to compete outside Australia in races for Formula Pacific cars are invited to obtain a copy of the complete Formula from any CAMS office.

### 1. VALIDITY:

As from 1 January 1980 to 31 December 1982.

### 2. ENGINE:

- .1 The engine must be derived from a reciprocating piston engine from a model of car which has been homologated by the FIA as Group 1, 2 or 3, and which appears on the attached list.
- .2 Engine must be normally aspirated; i.e. supercharging is prohibited.
- .3 Fuel injection is prohibited.
- .4 The maximum cylinder capacity is 1600 cc.
- .5 The maximum number of cylinders is 4.
- .6 The original number of valves must not be increased.

### 3. MODIFICATIONS AUTHORISED:

Modifications are free, except for the following:

- .1 The number and position of camshafts may not be changed.
- .2 The original type of camshaft drive (e.g. gear, belt, chain) must be retained.
- .3 All engine bearings must be of the original type (e.g. roller, plainbearing, etc.) and number.
- .4 Connecting rods are free, but must be of the same material as specified on the Homologation, which may be of a different quality or tensile strength.
- .5 The stroke of the crankshaft may not be varied. (See Notes 1 & 3). Use of titanium is not permitted.
- .6 The cylinder block and cylinder head may be modified only by the removal of metal, provided that it always remains possible to identify their origin. It is not permitted to add any material except for the following:
  - a) Dowels, bushings, cylinder-liners and instrument drives and fittings.
  - b) Freedom in respect of main bearing caps.
  - c) Water or oil passages may be blocked or plugged.
- .7 Exhaust emission control devices cannot be modified, except that they may be completely removed in which case holes left thereby must be completely blocked.
- .8 Engines which are recognised with four valves per cylinder must use valves only of the original diameter.

### 4. GEARBOX:

Free. However, the maximum number of forward gears and reverse shall be 5 and 1, respectively.

### 5. DIMENSIONS:

- .1 Minimum weight: 450 kg
- .2 Minimum wheelbase: 200 cm
- .3 Minimum track: 120 cm
- .4 Maximum overall width of car: 200 cm
- .5 Maximum width of coachwork (including crushable structure); 130 cm
- .6 Maximum width of coachwork ahead of front wheels: 150 cm except that any portion ahead of front wheels and exceeding 110 cm, shall not extend above the height of the front rim.

### 6. CONSTRUCTION OF VEHICLES:

Cars must be symmetrical, i.e. when the car is lifted laterally and weighed, the half weight on either side must be equal to half the overall weight, a margin of + or -5% being allowed for the said half weight.

To verify the above, the weighing must be done with all tanks full (fuel, water, oil) and a driver, weighing at least 75 kilos normally sitting at the steering wheel (or a ballast of the same weight occupying the same place).

### 7. COACHWORK:

- .1 No element of the coachwork may exceed in height a horizontal plane situated at 90 cm above the ground. The safety roll bar is not included in that measurement. The total height of the air box must be maximum 95 cm above the ground. The top of the roll-bar must also be at least 5 cm above the driver's helmet. These measurements are made in any condition, driver on board.
- .2 *Skirts:* The only parts of the car permitted to be in contact with the ground whilst the car is standing or in motion, are the tyres.  
Under no circumstances can any part of the bodywork, or of the suspended part of the car be below a plane passing 1 cm under the bottom of the driver's seat and at least 4 cm above the ground, the car being in normal racing trim with the driver on board.
- .3 Front Overhang: Maximum — 100 cm  
Rear Overhang: Maximum — 80 cm including exhaust and air spoiler.
- .4 *Crushable structures:* The entire fuel tank area of the car in direct contact with the open air stream must incorporate a crushable structure which is an integral part of the car conforming to the specifications hereafter.  
This area includes the complete external area of the body/monocoque construction irrespective of such added items as water radiators, inlet ducts, windscreens, etc.
  - (a) The crushable structure should be a sandwich construction based on fire-resistant core of a minimum crushing strength of 25 lb/square inch (18 N/cm<sup>2</sup>). It shall be permitted to pass water pipes through this core but not fuel, oil or electrical lines.  
The sandwich construction must include two sheets of 1.5 mm thickness one of which shall be aluminium alloy sheet having a tensile strength of 14 tons/square inch (255 N/mm<sup>2</sup>) and minimum elongation of 5 per cent.
  - (b) The minimum thickness of the sandwich construction must be 1 cm, the side of the fore and aft fuel tank area, however, must contain a crushable structure of at least 10 cm thickness at such crushable structure's

thickest point, the position of this widest point to be at the constructor's discretion, over a length of at least 35 cm after which it may be gradually reduced to 1 cm.

## 8. BRAKING SYSTEM:

The brake system must include a double circuit operated by the same pedal and complying with the following:

- the pedal shall normally control the four wheels.
- in case of a leakage at any point of the brake system pipes or of any kind of failure in the brake transmission system, the pedal shall still control at least two wheels.

## 9. FUEL TANKS:

- .1 All fuel tanks, except for a collector tank not exceeding 5 litres capacity, must be rubber bladders conforming to or exceeding the specifications of FIA/Spec/FT3.
- .2 For reasons of vibration, the fuel tank, if it is not made of rubber or of other elastic materials, should be suspended from the chassis by means of elastic supports (of a type similar to those used for the water radiators).

## 10. EXHAUST PIPES:

The outlet orifices of the exhaust pipes, when directed horizontally to the rear, must be placed at a height of not less than 60 cm above the ground. If they are not entirely covered by an element of the coachwork, they may not protrude rearwards by more than 80 cm from the centre of rear wheel axle.

## 11. REFUELING OF LUBRICANT:

It is not allowed for the whole duration of the event. The filling ports of the oil tanks and radiators shall provide the possibility of affixing seals.

## 12. WHEEL AND TYRE:

Minimum Rim Diameter: 13 inches

Maximum Tyre Width: May be introduced at short notice

Make of Tyre: Tyres must be of specification as determined by the ASN of the country in which the race is conducted.

## 13. SAFETY DEVICES:

- .1 *Safety Structures*: All cars must have a substantial structure to protect the driver's feet which is capable of withstanding a compression load of 25 times the car's racing weight applied to the front of the car without allowing the pedals to move rearwards more than 15 cm when the car is at racing weight. However, in the case of cars manufactured before 1979 the mounting of the structure referred to above is recommended only, and is not compulsory.
- .2 *Roll Bar*
  - (1) The basic purpose of safety structures is to protect the driver. This purpose is the primary design consideration.
  - (2) Roll over protection must be in accordance with Article 253 (e) of Appendix J of the International Sporting Code.

*General Considerations:*

- Whenever bolts and nuts are used, the bolts should be of a sufficient minimum diameter, according to the number used. They should be of the

highest possible quality (preferably aircraft). Square head bolts and nuts should not be used.

- One continuous length of tubing should be used for the main structure with smooth continuous bends and no evidence of crimping or wall failure.
  - All welding should be of the highest quality possible with full penetration (preferably arc welding and in particular heliarc).
  - For space-frame constructions, it is important that roll-over structures are attached to cars in such a way as to spread the loads over a wide area. It is not sufficient to simply attach the roll-bar to a single tube or junction of tubes. The roll-bar should be designed in such a way as to be an extension of the frame itself, not simply an attachment to the frame.
  - Considerable care should be attached to the necessary strengthening of the basic structure, for instance by adding reinforcement bars or plates so as to properly distribute the loads.
  - For monocoque constructions, consideration should be given to using a roll-bar hoop of 360 degrees completely around the inside of the car, and attached with suitable mounting plates. This type of roll-bar then becomes a substitute for the frame.
- .3 *Head Restraints*

All cars must have a head restraint which does not deflect more than 5 cm rearwards, when a rearwards force of 85 kg is applied. It must be designed so that the driver's head cannot be trapped between the roll-over structure and the head restraints.

## Australian Formula 2

(Valid to 31 December 1982)

## 1. ENGINE:

- .1 The engine must be—
  - derived from a touring car recognised as such by CAMS or by the FIA in Group 1 (1977 list or later)
  - of reciprocating piston configuration, with no more than 2 valves per cylinder
  - of not less than 1100 cc nor more than 1600 cc swept volume, which capacity may be obtained by alteration of the bore and/or stroke.
- .2 The engine block, including cylinders (if removable), and cylinder-head castings with machining completed, must be from the same manufacturer, but not necessarily the same model, and subject to prohibitions listed below. These items may be modified provided such modification is effected only by the removal of metal, except as is necessary to achieve the permitted modification in 1.1 above.
- .3 All reciprocating and rotating parts are free.
- .4 Induction shall be by means of carburettor(s), normally aspirated. Supercharging and/or fuel injection are prohibited.
- .5 It is prohibited to use any engine with more than one overhead camshaft (i.e., with more than one overhead camshaft operating the valves on any cylinder).

**2. TRANSMISSION:**

The maximum number of forward gears is 5. An operable reverse gear must be fitted. The differential is free.

**3. TYRES:**

Only such dry weather tyres as are specified by CAMS from time to time may be used. Wet weather tyres are free.

**Formula Libre**

One seater racing cars of free design, but limited to maximum capacity of 5,000 cc. for circuit racing.

Use of existing record classes will be permitted for Formula Libre cars in speed events other than circuit races.

*Fuel:* Free.

**Formula Ford**

*The following is the Australian version of "Formula Ford" as adopted by the Committee of Formula Ford Australia and approved by CAMS.*

*Formula Ford Australia was formed in March 1969 and is recognized by CAMS. The Committee, elected annually by Members, represents the interests of entrants and drivers, racing car manufacturers and organisers.*

*Any entrant or driver wishing to compete in Formula Ford events must be a member of Formula Ford Australia and abide by the rules and regulations issued by the Committee.*

*Enquiries regarding the activities of Formula Ford should be directed to Mr. I. D. McKnight, Administrator, Formula Ford Australia c/- Light Car Club of Australia, 46 Queens Road, Melbourne, Victoria 3004.*

*The Committee and the Administration of Formula Ford Australia derive the power, in conjunction with the Confederation of Australian Motor Sport, to police Formula Ford regulations. Breaches of rules requiring penal action will be referred to the Confederation of Australian Motor Sport for action within CAMS judicial procedures (refer NCR 161).*

*No championship may be held for this Formula.*

1. THESE REGULATIONS shall be effective from 1 January, 1981 until further notice.
2. TYPE OF CAR—FORMULA FORD is open to single-seater cars with open coachwork as defined by the F.I.A. for Formula 1, 2 and 3 and complying with CAMS Vehicle Regulations, using a standard Ford 1600 cc. crossflow engine of the types described in paragraph 3 below.
3. THE ENGINE—Definitions:

For the purpose of identifying the two types of power unit permissible under these Regulations as at the 1 January, 1972, the following definitions and references will be applicable:

"Original engine" will at all times refer to the standard Ford Cortina 1600 GT unit current in Formula Ford racing to the exclusion of all others up to 31 December, 1971.

"Uprated engine" will at all times refer to the Ford 1600 cc. crossflow unit

fitted to the Ford Capri XL as in the Ford Motor Company of Australia's Specification Bulletin entitled "1971 Capri" dated January 1971.

- (a) Only the two engines defined above will be permissible in Formula Ford competition.

Separate Regulations will apply to the two engine types. Regulations for components which are common to both are listed below. Regulations and dimensions for components which differ in each of the two types are listed under the headings "Original engine" and "Uprated engine". **Components may not be interchanged between the "original engine" and the "uprated engine",** save that this restriction shall not apply to crankshafts.

- (b) *Rocker Covers* . Non-standard rocker covers are permitted provided that they in no way improve the performance of the engine. The breather take off may be situated at either end of the rocker cover.
- (c) *Valve Springs* . Valve springs are free within the following limitations:
  - (i) Maximum free length of valve spring + any shim used: 39.37 mm.
  - (ii) Single valve springs only—doubles prohibited.
  - (iii) The standard cap must be utilised without any intermediate device.
- (d) *Pushrods, Rockers, Tappets, Pedestals and Shaft* . All these items must remain standard. No polishing, profiling, lightening or other modification to the standard part is permitted.
- (e) *Carburettor*. The air cleaner may be removed and substituted by a trumpet. Jets may be changed. The carburetor may be modified for both butterflies to open together. The cold start device and diffuser bar may be removed. Anti-surge pipes and/or baffles may be fitted. No other modifications are permitted—chokes must remain standard and no polishing or profiling is allowed. Air-boxes, or aerodynamic devices by whatever name are prohibited; save that a vertical extension of the carburettor-throat, known as a "trumpet", and not exceeding 150 mm in height, is permitted. Only one standard gasket is permitted between the carburettor and the inlet manifold.
- (f) *Exhaust Manifold*. Free.
- (g) *Lubrication System*. Oil sump and pump are free. Dry sump is permitted.
- (h) *Cooling System*. Radiator fan and water pump are free. Tooth belt drive is permitted.
- (i) *Electrical Equipment*. Generator is optional. Only standard Autolite or Lucas distributors may be fitted. It is permissible to discard the vacuum-advance mechanism and either lock the distributor breaker-plate or replace it with a fixed distributor breaker-plate. Transistorised ignition is not permitted. A starter motor, capable of starting the engine at the start of an event, must be fitted. Other electrical equipment is free.
- (j) *Fuel Pump*. A standard mechanical fuel pump only will be permitted, interchangeable between "original" and "uprated" engines.
- (k) *Camshaft*. This must remain entirely standard. It must be fully manufactured and ground by the Ford Motor Company and it is prohibited to re-grind or re-profile camshafts or to grind camshafts from camshaft blanks. Tuftriding and offset dowels are permitted.

Lobes—heel to toe:inlet	33.30 mm
exhaust	33.32 mm
Cam lift—measured at top of pushrod inlet	5.86 mm. ±0.05 mm.
exhaust	5.89 mm. ±0.05 mm.



Maximum valve lift measured at spring cap with zero tappet clearance  
 inlet 9.05 mm  
 exhaust 9.10 mm

Maximum valve lift timing with respect to crank  
 inlet 109° ATDC  
 exhaust 109° BTDC

Base circle radius 13.70 mm. +0.05 mm.

(l) **Crankshaft.** A standard crankshaft must be used. Crankshafts may be inter-exchanged between the "original engine" and the "uprated engine". Spot machining to achieve balance is permitted. Crankshafts may be ground to reclaim damaged surfaces in line with normal reconditioning procedures, provided always the stroke is standard (77.62 mm ± 0.127 mm).

Polishing of the crankshaft is prohibited. Tuftriding is permitted. Crankshaft pulley is free as is with belt drive.

Minimum weight "original engine": 10.65 kg.

"Uprated engine": 11.10 kg.

(m) **Flywheel and Clutch Assembly.** These must be standard components, save that ring gear is free. It is permissible to mill or machine the flywheel only to achieve minimum weight and balance. Friction material is free. Racing clutches not permitted. *The minimum weight of flywheel and Clutch assembly, including bolts, etc., is 11.79 kg.*

(n) **Compression Ratio.** Machining of the block surface is permitted provided that the minimum crown to block distances are *not* exceeded.

	Original Engine	Uprated Engine
Minimum combustion volume, standard bore	44.4 cc.	48.2 cc.
0.030 overbored unit	45.1 cc.	Not permitted
Volume allowed (for scrutineering) between the top of the top ring and the top of the piston	1.64 cc.	1.33 cc.
Maximum permitted bore size	81.86 mm.	81.10 mm.
Volume allowed for valve protrusion	Not applicable	0.3 cc.
Minimum piston to block height	Not specified	0.63 mm.

In an uprated engine a damaged bore may be reclaimed by fitment of a standard liner.

(o) **Cylinder Head.** It is permissible to reshape the inlet and exhaust ports to the exclusion of metal but not to the addition of same providing the diameter of the ports at the manifold faces remain in accordance with the dimensions set out below. The cylinder head combustion chamber may not be re-profiled as this is a fully-machined part; polishing only is permitted.

	Original Engine	Uprated Engine
Depth of combustion chamber ±	3.05 mm.	Not applicable
	0.12 mm.	
Maximum length of combustion chamber	80.10 mm.	Not applicable
Maximum diameter of ports at manifold head face		
inlet*	36.10 mm.	
exhaust	29.40 mm.	
Head volume per cylinder	7.8 cc. min.	Not applicable

\*Measured external to chamber.

Standard cylinder head gaskets only will be permitted—compressed thickness 0.85 mm.-0.90 mm.

(p) **Inlet Manifold.** The inlet manifold may have the carburettor seat face machined to the horizontal. Note carburettor gasket restriction in para 3(e) above.

	Original Engine	Uprated Engine
Outer ports at head face	37.60 mm. ×	} all four 31.50 mm.
Bore of all four	32.50 mm.	
Inner ports at head face	32.50 mm.	
Carburettor flange	73.90 mm. × 77.70 mm. × 33.55 mm.- 35.30 mm.	Maximum length 96.52 mm. Primary choke and radius 18 mm. Secondary choke and radius 20.00 mm.

It is permitted to match the manifold ports to the cylinder head ports by machining the manifold ports to a distance not exceeding 35 mm from the manifold head inner face, including polishing. Other than as provided above, manifolds shall remain standard.

(q) **Piston.** These shall be standard Ford production pistons unmodified in any way except for machining of the bowl and crown and balancing as specified below. All three piston rings must be fitted, but Apex 3-piece oil control rings are allowed. Localised machining of the gudgeon pin bosses to achieve a balance and minimum weight is permitted. The brand of piston rings is free.

	Original Engine	Upated Engine
Depth of bowl at centre	12.7 mm. ±0.12 mm.	
Capacity of bowl	minimum 37.7 cc.	
Centre line of gudgeon pin to crown	minimum 43.00 mm.	
Overall height	minimum 82.8 mm.	
Minimum weight with piston rings gudgeon pin	573 g.	555 g.
Minimum weight of steel-strutted pistons	n.a.	570 g.
Weight of gudgeon pin, minimum	113 g.	

(r) Valves. These shall remain standard. No profiling whatever is permitted. The original 45° seat angle must remain. Valve guides may be fitted, provided that such fitment accords with normal reconditioning procedures, and that the valve-location remains as standard. Valves with oversize valve-stems are permitted, provided that they are standard Ford Motor Co. replacement parts.

Distance apart at centres	39.05 mm. 39.15 mm	39.10 mm. ± 0.5 mm.
Maximum distance across face		
Inlet	38.15 mm	39.60 mm
Exhaust	31.80 mm	34.03 mm
Overall length		
Inlet	108.55 mm - 108.85 mm.	110.90 mm ± 0.5 mm.
Exhaust	108.05 mm. to 108.35 mm	4.35" ± 0.020"/ 110.60 mm ± 0.5 mm.

(s) *Connecting Rods.* Standard 1600 GT connecting rods only may be used.

Original Engine:

Polishing is prohibited—balancing only permitted.

Upated Engine:

Polishing is prohibited and the only machining permitted is to achieve balance and metal may only be removed from the balancing bosses on the big end cap and at the little end.

Minimum weight, including big-end bolts, 640 g.

(t) *Miscellaneous.*

(i) The timing chain/sprocket cover may be altered or replaced.

(ii) Mechanical tachometer drive may be fitted.

(iii) The use of non-standard replacement parts is permitted as follows, provided their use does not result in unauthorised modification of any other component:

(a) Fasteners (nuts, bolts, screws, studs, washers, etc.), which are not connected with or support any moving part of the engine or its compulsory retained accessories.

(b) Gaskets and seals, except cylinder head and carburettor to inlet manifold gaskets.

(c) Pump, fan and generator drive pulleys.

(d) Drive belts.

(iv) The crankcase breather may be altered or removed.

(v) Standard oversize/undersize bearings are permitted.

4. *Gearbox.* Not more than four forward gears, all of which must be operable from the driving seat otherwise—free.

5. *Drive.* Rear wheel drive, final drive—Free, save that any form of torque liasing or locking differential is not permitted.

6. *Steering Gear.* Free.

7. *Wheels.* Only 13" steel disc type with a maximum rim width of 5½". Rims must be of standard manufacture but the offset of the centre disc may be altered.

For safety reasons it is strongly recommended that weekly checks are carried out and that wheels are renewed at least once a year.

8. *Brakes.* A dual braking system is mandatory. Alloy calipers are not permitted otherwise—free.

9. *Suspension and Running Gear.* With the exception of springs, hub adaptors, front hubs, front and rear hub carriers, and bearing bushes, all parts must be of steel or ferrous material.

10. *Shock Absorbers.* Free.

11. *Tyres.* The make, type, specification and dimensions of the tyres permissible for use in Formula Ford racing shall be advised from time to time.

Tread Depth: At the start of any race or timed official practice—2 mm/min. save that isolated flat sports may not render a tyre ineligible.

12. *Chassis.* Must be of tubular construction unless built prior to 31 December, 1968. No stress bearing panels are permitted where the total area of all such panels fixed to the chassis tubes, in either the vertical or horizontal planes, exceeds 0.14m<sup>2</sup> with the exception of bulkhead and undertray. The curvature of the undertray may not exceed 25 mm. Tubes may transport liquid. The use of the engine as a stress-bearing member shall not be deemed to be a breach of this Regulation.

13. *Body.* Aerodynamic devices such as aerofoils, skirts and/or spoilers are not permitted. Under no circumstances can any part of the bodywork or of the suspended part of the car be below a horizontal line passing 1 cm under the bottom of the driver's seat and at least 4 cm above the ground, the car being in normal racing trim with the driver on board. Otherwise the body is free within the limitations of paragraph 2 of these Regulations—save that the maximum width ahead of the front wheels shall not exceed 950 mm.

14. *Fuel Tanks.* Free

15. *Roll Bar.* The roll bar must comply with the requirement of Appendix C, Part 10.

16. *Seat Belts.* Seat belts must be fitted in accordance with the requirements of Appendix C, Part 3.

It is strongly advised that a form of crotch/leg restraint be incorporated in seat belt harnesses. Such straps should be fitted so as to be disengaged with the rest of the harness by a single operation of the buckle.

17. **Weight.** The minimum weight, at all times, shall be as specified from time to time—at 1st January 1981, 418 kg.  
Any ballast which is carried must be permanently fixed and be made an integral part of the vehicle by welding, brazing or riveting.
18. **Definition.** The requirement for use of "standard parts" is deemed to mean the part, as defined by the part number, prescribed by the Ford Motor Co. spare parts listing for the appropriate engine. Unless otherwise specified herein, all parts shall be "standard" parts; and further, unless specifically authorised, shall not be altered in any way; and that they shall have been assembled and fitted in the manner intended by the Ford Motor Co.

## Formula Vee

*The following is the Australian version of "Formula Vee", as adopted by the committee of the Formula Vee Association of Australia, and recognised and approved by CAMS.*

*The Formula Vee Association of Australia was formed in April 1969, comprising the Formula Vee Association of New South Wales, South Australia, Tasmania and Victoria; it is recognised by Volkswagen Australia Ltd, and by CAMS.*

*No national championship may be held for this Formula.*

*Any driver wishing to compete in Formula Vee events must be a member of a State Association and abide by the rules and regulations of the Formula Vee Association of Australia.*

*Enquiries regarding interpretations of, and activities relating to, Formula Vee should be directed to Mr. T. Parmiter, 16 Mackay Ave., Northfield, S.A. 5085.*

*The Formula Vee Association of Australia reserves the right to nominate the brand of racing tyres used, but the safety requirements of CAMS regarding tyres must be adhered to.*

*The officers of each Formula Vee State Association derive the power, in conjunction with the Confederation of Motor Sport, to police Formula Vee regulations. Breaches of rules requiring penal action will be referred by State officers to the Confederation of Australian Motor Sport for action within CAMS judicial procedures. (Refer NCR 161.)*

*It is required that all cars be fitted with approved seals in accordance with FVAA sealing procedure.*

### 1. DEFINITION:

A formula for single-seat, open wheel racing cars based on standard Volkswagen 1200 Series Australian Type 1 sedan components, and restrictive in specifications so as to emphasise driver ability rather than design and preparation of the car. No component of the power train, front suspension or brakes may be altered, modified, or changed, nor be of other than VW manufacture, unless specifically authorised in these Regulations.

### 2. WEIGHT AND DIMENSIONS:

Minimum weight, without fuel or driver—375 kg.

Wheelbase, minimum—2,070 mm. Wheelbase, maximum—2,12 mm.

Track, front—standard VW—1.5/1,305 mm ± 10 mm tolerance.

Track, rear—standard Volkswagen (To be measured at zero camber), but when using 1,300 brake drums on the rear, the track tolerance permitted is + or - 10 mm.

Overall length, minimum—3125 mm.

Overall length, maximum—3226 mm.

Body depth at firewall, minimum—635.0 mm.

Body width at firewall, minimum—860 mm.

Body dimensions must be achieved by a substantial portion of the body and not by attached fins, diplanes or similar.

### 3. SUSPENSION, WHEELS & TYRES:

1. Front—The front suspension and steering shall be standard Volkswagen as defined in Section 1. The following modifications are allowed:
  - (a) Removal of one complete torsion bar, to allow installation of anti-sway bar/s. It is allowed to remove one or more leaves from the remaining torsion bar. Removal of rebound rubbers is allowed.
  - (b) No other modifications such as cutting, welding, or repositioning of other components is allowed unless authorised under these rules.
  - (c) Use of any shock absorber which can be mounted on the standard mounts.
  - (d) Relocation of the steering box to a central position, and replacement of the tie rods with others of a suitable length. The use of any tie rod ends is allowed.
  - (e) Any steering column and steering wheel may be used.
  - (f) Standard steering arms may be altered but modification to the stub axle is not permitted.
2. Rear—
  - (a) The rear axle assembly shall be standard Volkswagen as defined in Section 1 and each axle shall be located horizontally by a single trailing arm pivotally attached to the frame forward of the axle. Axle tubes and brake assemblies may be rotated as desired.
  - (b) Telescopic shock absorbers shall be used and coil springs may be used as the springing medium.
  - (c) Cables, straps and/or positive stops may be used to limit positive camber. Any anti-sway bars and/or camber control device may also be used.
3. Wheels shall be standard 15 x 4J as used on Volkswagen 1200 series one Australian model sedan.
4. The brand, make, type, specification and dimensions of tyres permissible for use shall be advised from time to time.

### 4. BRAKES:

1. Brake drums, backing plates and wheel cylinders shall be standard Volkswagen sedan as defined in Section 1.
2. Any lining material may be used on the brake shoes.
3. These cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point of the system, effective braking power shall be maintained on at least two (2) wheels.
4. Any master cylinder/s may be used.
5. A separate hand brake (emergency brake) is not required.
6. The fitting of VW 1300 Sedan brake drums as replacement for the original 1200 drums is permitted, but the 1200 brake shoes only shall be permitted.

**5. ENGINE:**

.1 The engine shall be a standard VW automotive powerplant, as normally fitted to VW sedans as defined in Section 1 and coupled with the transmission may be rotated 180 degrees as a unit.

**.2 Modifications**

(a) Removal of the carburettor air cleaner, and choke mechanism. The standard air cleaner may be replaced by an air filter which does not measure more than 150 mm in a horizontal plane, and no part of which is more than 75 mm above the top of the carburettor. It is permitted to plug the choke shaft holes flush with the inner and outer faces of the carburettor body.

(b) The exhaust system is free but must be in accordance with the General Requirements for 1st Category Automobiles.

(c) Lightening of the flywheel to a minimum of 5.4 kg

(d) Balancing of moving parts of the engine is permitted. Polishing of moving parts is not permitted, other than working surface (i.e. bearing faces, cam-followers).

In any set of components one component must be completely untouched—e.g. 4 pistons being balanced 1 piston must be untouched original.

In the case of connecting rods, however, one end of 1 rod must remain untouched.

(e) Grooving and/or redrilling the crankshaft is not permitted.

(f) No modifications or reconditioning whatsoever are to be made to the camshaft. Only camshaft/crankshaft timing according to Volkswagen specifications is allowed.

(g) Polishing and porting of the intake and exhaust port is permitted, providing such porting and polishing does not enlarge the exhaust port beyond 33 mm inside diameter at the flange face and the intake port beyond 29 mm inside diameter at the flange face.

(h) Valve guides may not be flushed off or modified in any way.

(i) Inserts are part of the ports and, as such, may be enlarged to maximum size, viz. 33 mm exhaust and 29 mm inlet.

(j) Machining of the cylinder head at the barrel spigot contact face is allowed to achieve 43 cc combustion chamber volume. No modification to combustion chamber shape, surface or finish is permitted.

(k) The valve train assembly shall remain standard.

(l) Matching of manifold flanges is permitted. No artificial turbulence devices may be fitted in the inlet tract. No machining, cutting or polishing of the inlet manifold is permitted unless specifically authorised within these regulations.

(m) Removal of any cooling duct component does not include removal of fan, fan housing and fan blades. The fan must function normally. The fan housing may be modified, but only so as to provide for the passage of roll bar bracing, the cut-out must be air-tight.

(n) Fitting of any standard Volkswagen carburettor originally supplied on engines for Volkswagen 1200 Series Type 1 Australian model sedan and the use of any size venturi or jets which may be fitted without alteration to the carburettor body. Modification of the float, so long as no change is made to the float chamber or float valve, is allowed.

(o) Fitting of any standard Volkswagen automotive distributor. Advance curve may be adjusted.

(p) Removal of the intake manifold heat riser tube.

(q) Nothing must be done to interfere with the normal battery charging function of the generator.

(r) The installation of baffles housed completely within the original oil sump and crankcase.

(s) The use of an oil temperature indicating device in the crankcase.

(t) The use of any standard Volkswagen oil pump. It is permitted to instal 1500 Volkswagen type oil pick-up pipe and enlarging inlet oil galley to suit 1500 pick-up.

(u) The use of any standard Volkswagen valve springs, retainers and collents. Non-standard VW valves may be used but must be same size, type and weight as VW.

(v) The following standard dimensions and tolerances of engine components are included as information and shall be observed:

Bore: 77.21 mm

Stroke: 64 mm + 0.1 mm

Exhaust Valve Diameter: 27.99 mm (36 h.p.) or 29.97 mm (40 h.p.)

Inlet Valve Diameter: 29.97 mm (36 h.p.) or 31.49 mm (40 h.p.)

Minimum Capacity of Each Combustion Chamber in Head: 43 cc

Minimum Depth, Top of Cylinder Barrel to Top of Piston: 1 mm

(w) Normal accepted Volkswagen reconditioning processes within specifications as described in Section 5 of these rules. The camshaft is excluded from this allowance.

(x) Any 6v VW starter motor may be fitted and must be capable of starting the engine at the start of the event; none of its parts may be removed during the event.

**6. TRANSMISSION—REAR AXLE:**

.1 The transmission-rear axle assembly shall be standard VW as defined in Section 1. The synchromesh must be in place and operating on at least three gears.

**.2 Permitted modifications:**

(a) Installation of any standard Volkswagen Australian Type 2 (transporter) and Type 3 (1500 sedan) gears, which can be fitted without modification of any component of the transmission or of the gearset itself.

(b) The transposing of the ring gear to provide proper axle rotation.

(c) Removal of the handbrake linkage.

(d) Alteration of the shock absorber mounts.

(e) Any standard Volkswagen clutch may be used including alternative brands; however, no modification to flywheel for fitment is permitted.

**.3 Prohibited are:**

(a) Installation of the transmission in an inverted position;

(b) Use of any "limited slip" device; and

(c) Removal of reverse gear, which must remain and be operable from the cockpit.

**7. BALLASTING:**

Ballast must comply with CAMS requirements.

**8. FRAME:**

The frame must be constructed of steel tubing and of such design as to present no hazard to either the driver or other competitors.

**9. BODY:**

- .1 The top of the rear decking must extend from the back of the firewall to a point in line with the rear of the selector housing, but may have air intake openings.
- .2 The rear trailing arms, coil springs and shock absorbers may not be faired in by covering or shrouding them away from the air stream.
- .3 The front mounting point or radius pad may be inside the trailing edge of the side body panel.
- .4 The driver's seat must be capable of being entered without the removal or manipulation of any component.
- .5 Firewall, floor and safety equipment must conform with the CAMS requirements.
- .6 Air ducting may be used provided it is attached to the body or the frame of the car. Ducting may not be made part of or attached in any way to the engine assembly.
- .7 Under no circumstances may any part of the coachwork be less than 4 cm above the ground, the car being in normal trim with the driver on board.

**10. NON-STANDARD PARTS:**

The use of the following non-standard VW replacement parts is allowed. These parts must be normal replacement parts and shall not result in any unauthorised modification of any other component.

- Gaskets and seals
- Piston rings
- Wheel bearings
- Connecting rod bearings and crankshaft main bearings
- Fan belt
- Valve guides (must comply with standard length of 64 mm)
- Brake shoes and linings
- Coil
- Clutch and pressure plate
- Shock absorbers
- Piston and barrel sets of same size, type and weight as standard VW components
- Torsion arm link pin
- King pin sets
- Axle boots
- Voltage regulator

**11. AUTHORISED PARTS**

The following parts are permitted to be from any source, providing their use does not result in any unauthorised modification to any other component:

- Fasteners (nuts, bolts, screws, etc.)
- Wiring
- Brake lines and fuel lines
- Spark plugs
- Master cylinders
- 6-volt batteries
- Carburettor jets and venturis
- Push-rod tubes

2nd CATEGORY

**Group A (Sports Cars, Open and Closed)**

**1. ELIGIBILITY**

Automobiles, whether of production origin or not, complying with the definitions of Group A hereunder:

Such cars shall, of necessity, be in conformity with the general requirements of automobiles and shall compete in the classes specified in Part 1 of this Appendix.

They shall moreover be required to comply with the following specifications:

*Sports Cars, Open*

**2. WEIGHT**

- .1 When the special regulations for a Competition impose a minimum weight for automobiles in Groups A and B, this weight must consist of the manufactured vehicle itself with its component parts, and cannot therefore be made up by the addition of anything extra in the way of ballast, etc.
- .2 In order to assist competitors, the automobile may be weighed without draining out the lubricating oil, in which case the following will be added to the minimum weights by the Supplementary Regulations:

Classes A and B .....	20 kg
Classes C and D .....	15 kg
Classes E, F and G .....	10 kg
Classes H, I, J and K .....	5 kg

**3. BODY**

- .1 Bodies must be completely finished, and must not have any temporary part.
- .2 They must have at least two seats of equal dimensions and symmetrically disposed on each side of the longitudinal axis of the automobile. The minimum external width of the body must be 900 mm; this dimension shall be measured at right angles to the longitudinal axis of the automobile at the immediate rear of the steering wheel, and must extend in the vertical plane over 250 mm. Two seats must be capable of being occupied over a minimum width of 350 mm each.

- .3 (a) Seats must fulfil the conditions set out hereunder (Figs. 1 and 2).

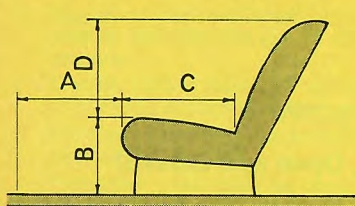


Fig. 1.

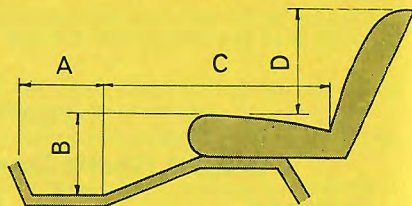


Fig. 2.

- (b) (A) is always measured horizontally and parallel to the longitudinal axis of the chassis, between two vertical planes perpendicular to the longitudinal axis and delimiting from front to rear the open space on a level where such measurement is taken.
- (c) For the driver's seat (A) is measured on the floor level, or at the bottom of any recess if need be, from the perpendicular of the furthest pedal in its position of rest. For the passenger seat, this measurement is taken at a height of 200 mm above the floor, or at the bottom of the recess if need be.
- (d) In the case of movable seats, it is forbidden to alter the position of any seat while the cars are being measured.
- (e) (B) is measured vertically from rear of (A) to the horizontal plane tangent to the highest part of the cushion as shown on the drawings.
- (f) (C) is measured in the horizontal plane defined above from the upper end of (B) parallel to (A) and in the centre of each seat as far as the vertical plane perpendicular to the longitudinal axis of the chassis and tangent to the foremost point of the back of the seats, (D) is measured vertically from the horizontal plane used in measuring (C).
- (g) When the following minimum dimensions are fulfilled:  
 A = 300 mm                      C = 400 mm  
 B = 100 mm                      D = 300 mm
- the measurement of the body must be such that  $A + B + C = 1100$  mm at least.
- (h) In the case of semi-reclining seats of a continuous contour and having no separate cushion and squab elements, the basis of acceptability shall be that the surface length, measured along the centre line of the seat plus dimension B if any, shall be no less than 950 mm. The limitations of A and D must be maintained.
- (i) All measurements to be made when the seat cushions are uncompressed.
- .4 The passenger's place shall remain available throughout the competition, and under no circumstances may it be occupied by a spare wheel, fuel tank or any other equipment. It is permissible either wholly or partly to cover the passenger's place with a cover of supple material, provided that such cover may be quickly removed by hand without the use of tools. The opening delimiting the driver/passenger compartment must be symmetrical about the lengthwise centre line of the car.
- .5 The minimum width for the foot space for each person must be 250 mm measured at the level of the pedals along a horizontal line at right angles to the longitudinal axis of the chassis.

- .6 During competitions wherein a "Le Mans" type start is specified, or wherein a specified pit stop is compulsory, it is obligatory for the driver(s) to enter and leave the car by way of the door.
- .7 All automobiles must have at least two rigid doors, each with closing devices and hinges giving direct and adequate access to the seats. Each door shall accept a rectangular hole in a vertical plane of at least 300 mm x 500 mm. These dimensions shall not include any area above the horizontal plane of the body and door panels. The door openings may not be obstructed in any way. The locking mechanism shall be operable from both inside and outside of the car. (Vehicles first registered with the CAMS prior to 1/7/73 may be equipped with doors of 400 mm x 200 mm.
- .8 (a) Mudguards must not include temporary parts, and they must be firmly fixed to the vehicle. They must throughout their structure be opaque, homogenous as to material and impervious to material thrown up by the wheels.
- (b) They shall provide sufficient covering of at least one third of the circumference of the tyres (over at least the full width of the wheel and tyre as it is viewed both vertically and horizontally).
- (c) The rear extremity of the rear mudguard must be not higher from the ground than a horizontal line passing through the centre of the wheel hubs.
- (d) Cooling holes may be provided between the mudguards and the body. Openings or cooling holes directed to the rear must be fitted with louvres, baffles or any other device which prevents the dispersion of foreign matter towards the rear.
- (e) Mudguards fitted to the axles and turning when the wheels are steered are prohibited. Mudguards must therefore be solidly mounted on the chassis or body. This requirement shall not apply to special vehicles in speed events or on the public highways.
- .9 A transparent windscreen is compulsory. An aero type screen or similar device offering protection only to the driver is acceptable. If a windscreen is constructed of glass, only laminated safety type is permitted.
- .10 Automobiles fitted with a full-width windscreen which is in the normal line of vision of the driver must have an automatic wiper acting on an area sufficient to enable the driver to see effectively from his normal seating position.

#### 4. ELECTRICAL EQUIPMENT

- .1 (a) The component parts of a complete electric system, including generator, accumulators, warning apparatus and lights, are compulsory. None may be of a temporary kind or an addition.
- (b) The entire electrical system, including lighting and warning apparatus, must be in working order at the start of the competition. The Supplementary Regulations may specify that these devices shall be in order during the whole of the event or allow for penalties in cases where the systems are not working at any time during the event.
- .2 Self-Starter:  
 (c) A self-starter fitted to the vehicle in proper working order is obligatory, and none of its parts may be removed during the event. Upon failure of the engine to start on the starting motor at the start of a competition, such car may, after the departure of other vehicles from the grid, be push started; and in such cases a time-penalty of one minute shall be applied

to the car concerned, such penalty to be promptly advised to the car's pit crew; but failure so to notify the pit crew shall nevertheless not expunge the penalty.

- (d) Supplementary Regulations may require that others means of starting during the event be forbidden and provide for a penalty in case of the non-functioning of the self-starter during the event.

3. Lighting:

The complete lighting system must comprise at least two dipping headlamps each of 35 watts minimum power, and two tail lights each of three watts minimum power, both the above sets of lights to be no less than 600 mm apart; and at least one stop-light of 15 watts minimum power. If only one such stoplight it is fitted, it shall be in the central vertical plane of the vehicle. At the start of the competition, headlamps must be in effective working order and correctly aligned; the lens must be protected by a translucent shield.

**5. EXHAUST SYSTEM:**

An efficient silencer, causing the exhaust to give the impression of a muffled and diminished sound in which the explosions of each cylinder are not strongly accentuated, may be required by Supplementary Regulations.

**6. GENERAL PROVISIONS:**

- .1 The Supplementary Regulations may provide that the first change of wheels shall compulsorily be made with a spare wheel carried aboard. In this case, the wheel removed from the spare wheel carrier must be substituted by another eligible wheel before the vehicle continues in the competition. During competitions, and for safety reasons, any spare wheel placed outside the body must include at least two kinds of systems to fix it which must be independent one from the other (for instance, a hub-shaped attachment, and straps).
- .2 Supplementary Regulations may require that all the integral parts of the body, such as front and rear mudguards, supports and frame of windscreen, doors, and spare-wheel attachments, must be maintained (or, at need, repaired at the first passage at a replenishing pit), in a normal position of use throughout the event. Supplementary Regulations may provide for the penalisation for loss of all or part of accessories such as windscreen glass, vibration or stones, etc., thrown up mirrors, etc.; but damage to glass through vibration or stones, etc., thrown up cannot give rise to penalisation. Replacement of bulbs must always be allowed. Furthermore, the Supplementary Regulations may provide that only those cars are eligible which carry a national registration plate enabling proper identification to the exclusion of all provisional mobile plates (trade plates, etc.).
- .3 All vehicles complying with the above requirements shall be eligible to enter in all Australian national competitions for sports cars; however, this eligibility shall not prevent promoters from refusing entry to a competitor for any other reason.

**7. FUEL:**

Commercial fuel as defined by CAMS shall be used.

*Sports Cars, Closed*

**8. DESCRIPTION:**

Automobiles of closed type, not otherwise complying with the requirements of Groups C or D of this Appendix, but complying with the provisions of Group A.

**9. BODIES:**

Bodies of closed cars, whether convertible or not, shall correspond at least to all the conditions indicated above for open cars.

They shall also comply with the following specifications:

.1 Windows:

- (a) Bodies of closed cars must be constructed in such a way that they ensure adequate visibility for the driver in all directions forward of the driver when normally seated, and must be fitted with windows of safety glass or rigid transparent plastic material to the following minimum requirements:
  - (i) (b) Each door must be fitted with a dindow of minimum height 250 mm and minimum length 400 mm. At least one-third of the window are must be "mobile"—by lowering, sliding, or pivoting—to provide ventilation. (Vehicles registered with CAMS prior to 1/7/1973 may have windows of at least 200 mm height.)
  - (ii) (c) A back window of 500 mm total wifth, composed of one pane or several panes inserted into separate frames. Height 100 mm all along the width, measured vertically.
  - (iii) (d) All windows (including windscreens) of other than glass must be clear, transparent and free of any coloring; glass windows must not be coloured or tinted after production. All windows are subject to the specific approval of the Chief Scrutineer.
- (b) During the race, a sufficient draught must exist to prevent gases accumulating inside the automobile, and such draught must be ensured by means of open window(s). The moverable portion of the driver's window must be fully open during practice and racing.

.2 Windscreen:

A full width windscreen of minimum with 700 mm and a minimum height in the vertical plane of 150 mm is compulsory.

.3 Doors:

The hinges of the doors may not be located on the rear door post nor on the door sill. The doors shall be so designed that in case the car is partially or completely overturned, at least one of the doors shall remain in a position to be opened or a means of escape other than the door must be provided. (Vehicles first registered with CAMS prior to 1/7/73 are not subject to this requirement.)

.4 Firewall:

An adequate firewall must separate the fuel tank from the driver's compartment. It must be impervious to the passage of fumes or liquids.

- .5 The height of the roof, excluding any interior roof padding or trim, shall be at least 850 mm measured from the lowest part of the uncompressed seat cushion, such measurement to be effected vertically and coincide with the centre line of the seat.

## (Group B) Sports Sedans

(Valid Until 31 December 1981)

### 1. GENERAL

- .1 This group envisages a considerable degree of modification to cars so as to render them more suitable for competition without undue modification to the original body shape.
- .2 The basis for the vehicle, and the name by which it is known, will be the body/chassis unit.
- .3 Cars must conform with "General Requirements" (as applicable) in Part 2 of Appendix C; and the specific requirements in Part 3, Group A, as are applicable and not in conflict with the requirements of this Group.

### 2. ELIGIBILITY

- .1 Cars, to be eligible for this Group, must be derived from:
  - (a) Automobiles recognised by CAMS as an Australian Touring Car; or
  - (b) Automobiles recognised by the FIA as being in Group 1 or Group 2; or
  - (c) Automobiles accepted by CAMS at its sole discretion notwithstanding that they do not meet the requirements of (i) or (ii) above.
- .2 The displacement of the engine must not exceed 5,100 cc, except that if the car is fitted with the engine with which it is recognised as a touring car under either of sub-paragraphs (a) or (b) above, then the displacement may be up to a maximum of 6,000 cc.

### 3. COACHWORK

- .1 The body shell shall be unchanged in material and unchanged in silhouette when viewed from front, rear and sides, and in plan, except as in hereinafter provided.
- .2 Optional body panels, even if homologated, are not permitted unless such optional modification is specifically authorised herein.
- .3 Bumper bars, trim strips, grillework and other external decoration may be removed. Roof or turret guttering may not be removed.
- .4 (a) When viewed from above, the coachwork must cover the tyres over the distance from the centre line of the front hubs to the rearmost extremity of the vehicle.
- (b) The rear extremities of the front and rear mudguards and/or extensions must not be above the horizontal line drawn through the centres of the respective wheel hubs. The full width of the tyre must be covered down to hub-height as viewed from the rear.
- (c) On cars complaint with paragraph 2.1 (b), and on other cars which CAMS may from time to time specifically denote as being subject to this paragraph, no modification to mudguards will be permitted other than the fixing of extensions recognised for that car.
- (d) On cars not the subject of (c) above, mudguards may be flared and/or extended in order to cover the tyres as required in paragraphs (a) and (b) above. The flares may be extended in width up to a maximum of 100 mm per side in excess of the original width of the body at the measured point. From the reformed wheel arch, the mudguard flare must merge from the allowed 100 mm to 50 mm by 50 per cent of the length of the flare, and

thereafter merge with the original body at an included angle of no more than 45 degrees.

The total allowed front ward flare merging length is 400 mm, and rearward 600 mm for each mudguard.

Viewed in side elevation, the general upper horizontal body line must not be altered from its original profile.

No holes are permitted in mudguards, unless the mudguard is an unmodified original equipment item.

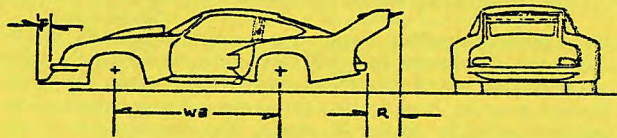
- (e) Mudguard extensions, and the original mudguard material may be replaced with panels made from:
  - (i) material of the same gauge and composition as the original part, or
  - (ii) aluminium, or aluminium alloy, of a gauge no thinner than 1.25 mm or
  - (iii) glass fibre, or glass reinforced plastic, of a minimum thickness of 3 mm.
- .5 (a) The use of undertrays, fairings, or other aids to aerodynamic form (including aerofoils) is not permitted unless mentioned specifically on the relevant recognition document.
- (b) It is permitted to fit a spoiler or air dam on the front part of the car such that no part of it extends above the horizontal plane passing through the wheel hubs, so that no part of it is further forward than any other part of the coachwork, and so it extends in width not further than the outer edge of the front mudguards at their foremost point.
- (c) It is permitted to fit a rear deck lid spoiler which complies with either of the following:
  - (i) It is specified on the recognition documents for the subject car; or
  - (ii) (to the exclusion of any rear mounted aerodynamic aids which may be recognised), it is of maximum height of 200 mm above the coachwork where mounted, of maximum width not exceeding the width of the coachwork excluding any flaring of the mudguards. It must be fitted contiguously with the rear deck, shall not restrict rearward vision below that required of Appendix C, may not extend rearwards of the rearmost extremity of the coachwork, and must be fitted rearwards of the rear window.

Aerodynamic aids may not be used for any additional or alternative functions, e.g. for mounting an oil radiator.
- .6 (a) Changes in the shape of the engine covering panel (i.e. bonnet) is permitted where the position of the engine or its ancillary equipment prevents the full closing of a panel of the original shape.
- (b) A panel of modified shape must completely cover the part or parts which caused the change to be effected; must not hinder the safe operation of any other part of the vehicle, and must not impair the driver's vision.
- .7 Bonnet, boot lid, front apron, rear apron and door skins may be replaced by panels identically similar in shape, but manufactured from any of the following:
  - (a) material of the same gauge and composition as the original part;
  - (b) aluminium or aluminium alloy of a gauge no thinner than 1.25 mm;
  - (c) glass fibre, or glass reinforced plastic, of a minimum thickness of 3 mm.
- .8 Both front doors must be swung from their leading edge, and must be capable of being fully opened. All door hinges, catches and locking devices must be as supplied on the original bodywork, and catches must be capable of operation from both inside and outside the car. Supplemental door catches may be fitted, again provided that they are operable from both inside and



outside the car. In the case of four-door vehicles, it is not required that the rear doors be operable, or fitted with latches and hinges.

- 9 (a) All interior fittings and/or trim (including seats, dashboards, door trim, roof lining, etc.) may be modified, removed or replaced, provided that such removal does not reduce the structural strength of any component member of the body shell.
- (b) When door trim is removed, it must be replaced with flush fitting rigid material.
- (c) All windows may be replaced by a suitable rigid transparent material of adequate strength (e.g. Perspex), which must be of no less than 3 mm thickness for side and rear windows, and no less than 6 mm thickness for the windscreen (see Group A).
- (d) Cars will be required to be fitted with at least a driver's and a passenger's seat fulfilling the requirements of Group A of Appendix C to the N.C.R.'s.
- 10 The battery should be located in the position originally envisaged by the manufacturer of the car. If its relocation is necessary because of other permitted modifications, it must be firmly mounted, and—if fitted in the passenger compartment—effectively encased to prevent spillage of the contents.
- 11 Vehicles in this Group, in which the engine is located in the front, may be required to be fitted with a scatter shield of the specified dimensions and standard (see Part 13).
- 12 Cars registered for the Australian Sports Sedan Championship subject to specific authorisation by CAMS, which generally will not be given to cars of a model which has been out of production for 7 years or more, and subject to the minimum weight limits specified hereunder, may be fitted with aerodynamic aids as depicted herein, viz - a front spoiler/air dam not exceeding 10% of the wheel base of the car or 20 cm in length (whichever is the lesser) measured from the front extremities of the coachwork, and located below the centre line of the front wheel hubs; a rear spoiler not exceeding 20% of the wheel base or 40 cm (whichever is the lesser) measured from the rear extremities of the coachwork, which is no higher than any other part of the coachwork; provided that neither device exceeds the width of the coachwork in the area where fitted;



Minimum weight limits—

up to	1300 cc	540 kg
	1600 cc	575 kg
	2000 cc	625 kg
	2500 cc	680 kg
	3000 cc	730 kg

3500 cc	780 kg
4000 cc	825 kg
4500 cc	870 kg
5000 cc	905 kg
5500 cc	945 kg
6000 cc	980 kg

#### 4. MECHANICAL COMPONENTS

Modifications may be made to the vehicle subject to the provisions set out herein.

- 1 Brakes:
- (a) The design of brakes shall be free.
- (b) All cars in circuit races must 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 system, the pedal shall still control two wheels on the same axle.
- 2 Suspension and Chassis:
- (a) Freedom of chassis, sub-frame and all body components other than the shape of the external coachwork is allowed forward of the front firewall/bulkhead and rearward of the rear firewall/bulkhead. The firewall must be of the original material and modification is permitted only to allow mechanical modification. In case of modification, suitable strengthening must be incorporated to ensure adequate rigidity.
- (b) Other suspension components, their configuration and actuation are free.
- (c) The wheel base and the location of the centre-lines of the front and rear hubs may not be changed.
- 3 Transmission:
- The design of the transmission is free, provided that the end of the car to which power is transmitted is as envisaged by the manufacturer (viz, rear wheel drive body remain rear wheel drive, etc.).
- 4 Engine:
- (a) The engine block shall be derived from a car eligible under the provisions of 2.1 hereof.
- (b) The engine shall be located in the same general area as envisaged by the manufacturer of the body. In rear engine cars the engine must be in the original location relative to the rear axle.
- (c) Engines mounted in front or rear (subject to (b) above) may intrude into the space originally intended for passengers (provided that the minimum dimensions required are maintained—vide Group A), save that no part of the cylinder block may extend across a line drawn at right angles to the longitudinal axis of the vehicle at a point halfway between the front and rear wheel hub centres.
- (d) The induction and exhaust systems are free. Forced induction (e.g. supercharging) is permitted subject to the provisions of Appendix C, Part 1.
- (e) The make and type of cylinder head is free.

## Clubman Formula

*This Formula is published for general information of members, and is commended to organisers of various kinds of events. Its use is not mandatory, but may be made so in Supplementary Regulations, in which case reference to the Formula as here printed shall be adequate.*

### 1. PURPOSE

The purpose of the Formula is to define a restricted design, low-cost sports car of conventional layout and suited to participation in a wide range of competitive events.

### 2. GENERAL CHARACTERISTICS

The basic design of the automobile must meet the following requirements—viz., it must

- (a) be an open two-seater automobile,
- (b) be of front engine, rear wheel drive configuration,
- (c) be generally of non-aerodynamic body form, and
- (d) comply with the requirements of 1st Category Sports Cars, Group A, Appendix C, of the N.C.R.'s of CAMS save as provided in para. 4 (c) below.

### 3 MECHANICAL REQUIREMENTS

- .1 The engine shall be a liquid cooled reciprocating piston unit not exceeding 1300 cc capacity. This capacity may be obtained by increasing or reducing the bore or stroke or both.
- .2 The following components must be those of a CAMS recognised production car (not necessarily the one production car).
  - (a) *The engine block*—including cylinders (if they are removable) and cylinder head castings, machining completed.
  - (b) *The gear box and all components.* Gear ratios and number of ratios employed in it must be catalogued component parts by the manufacturer concerned. Except that modifications may be made to the outer ends of input and output shafts for adaptation purposes.
  - (c) *The rear axle* and its gears must be catalogued component parts by the manufacturer concerned. Rear axle half shafts are free.
  - (d) *All brake assemblies and components.* Friction material, hydraulic lines and mechanical links are free. Any 2-piston caliper may be used, provided there is only one per wheel.
  - (e) *Steering box.* The steering box is free.
  - (f) *The front stub axles* and axle carriers—(e.g. uprights). However non-production fabricated or cast uprights are acceptable if the material used is steel.
- .3 *The following restrictions must be observed:—*
  - (a) Engines with more than one overhead camshaft may not be used.
  - (b) The location of the camshaft may not be changed.
  - (c) The cylinder head casting may be modified provided that such modification is effected only by the removal of metal. The replacement of valve seats by inserts is permitted.
  - (d) The use of supercharging or fuel injection is not permitted.
  - (e) Engine cooling radiator cores (both oil and water) must be mounted in front of the engine cylinder block.
  - (f) The rear axle employed must be rigid 'live' rear axle suspended as such and must include a differential. Independent rear suspension, a De Dion

rear axle, or a solid rear axle and self locking, spin resistant, or limited slip differentials (by whatever name) are not permitted.

### 4. BODYWORK REQUIREMENTS

Bodywork shall meet the requirements of Appendix C Group A, with the following provisions.

- .1 The seats must be forward of the rear axle.
- .2 No doors are required provided the body incorporated in 'cut away' of the same dimensions on each side extending downwards to within 250 mm (but not less than 150 mm) of the lowest portion of the uncompressed seat cushion; and provide adequate access to the seats without the necessity of removing the steering wheel.
- .3 (a) The bodywork must be generally of symmetric shape and the fitting of aerofoils and other aerodynamic aids is prohibited.
- (b) The maximum width of the body, excluding the mudguards, shall not exceed the maximum width between the two vertical planes tangent to the inner face of the front and rear wheels; furthermore the front wheels at all angles of steering lock (i.e. lock to lock) must be outside the vertical plane of the bodywork.
- (c) The width of the body forward of a line connecting the centres of the front wheel hubs shall not be wider than at this line.
- (d) The overhang of the body shall not be more than one-third of the wheelbase to the rear and to the front, measured horizontally from a line connecting the centres of the appropriate hubs.
- (e) The minimum height of the front overhang shall be 20 cm for at least half in length, the length being measured as in (d) above.
- (f) The minimum height of the car measured vertically from the lowest part of the chassis to the top of the body work at a point on the centre line of the two front axles should be 28 cm.
- (g) A rear panel must be fitted and it may be at an angle of not more than 25 degrees from the vertical.
- (h) The height of the body excluding windscreen, mudguards and headlights, must not exceed the height of the scuttle on the longitudinal axis of the car by more than 100 mm.
- .4 (a) Mudguards must cover the full width of wheels and tyres, and must lie within the area described by the radius of the tyre plus 20 cm, when the suspension is at 'full bump'.
- (b) The rear mudguards may be demountable or integral with the body. The front of the rear mudguards must extend to a point below the 'cut away' (see 4.2).
- (c) The front mudguards must not be blended in form with the general body and must be separate and/or demountable from the body structure. The front mudguards may be mounted on unsprung components.
- .5 The headlights must be separate units and not contained within the bodywork or mudguards. They must be maintained in proper adjustment (i.e. not turned sideways or facing the rear, etc).

\*'Aerodynamic' is deemed to imply a characteristic of having been designed to have favourable aerodynamic properties, a good penetration and low drag characteristics, etc.

**5. WHEELS**

- .1 Wheels are subject to the requirements of Part 5 of Appendix C.
- .2 If supplementary Regulations for an event require a spare wheel to be carried, the spare wheel must be mounted externally on the rear panel of the body and at right angles to the longitudinal axis of the car. For the purposes of measurement in 4.3 (d) above, the spare wheel must be in place or assumed to be in place.

**6. GENERAL**

- .1 Cars complying with this Formula shall be acceptable to compete in events for 2nd Category Sports cars Group A.
- .2 The CAMS reserves the right to reject any car which it considers as representing an attempt to defeat or circumvent the spirit of this Formula, even though it may comply with the letter of the said Formula.

## 3rd CATEGORY

**Group C (Production Touring Cars)****1. PREAMBLE**

- .1 Group C (Production Touring) Cars are intended to be representative of mass produced motor vehicles, made more suitable for competition by a number of modifications. Only those modifications which are expressly permitted may be effected. In addition to the requirements of Group C, herein, all cars are required to comply with the "General Requirements of Automobiles"—see Part 2 of Appendix C.
- .2 Cars become eligible for Group C upon acceptance by CAMS of the model as an Australian Touring Car—in general terms—
  - (a) a vehicle produced in Australia for which CAMS has issued recognition documents;
  - or (b) a model recognised by the FIA as being of Group 1, and for which that body has issued recognition documents;
  - or (c) a model not manufactured in Australia, but which CAMS accepts, notwithstanding that it does not comply exactly with the relevant FIA document—e.g. being a model uniquely for the Australian market.
- .3 Persons contemplating an investment in an imported car particularly are urged to first ascertain from CAMS that the car would be accepted as an Australian Touring Car. All amendments (variants, evolution, etc.), to FIA Group 1 papers may not be acceptable. It is suggested that the fullest enquiries be made of CAMS Head Office before commitment.
- .4 It is emphasised that Group C cars must be production based; the car to which the permitted modifications are made must be of a configuration which properly represents a model of car as manufactured and sold to the public and which is properly described in the relevant documents.

**2. ELIGIBILITY**

- .1 Cars recognised as Australian Touring Cars, the criteria for such recognition being as follows—
  - (a) FIA Group 1 homologation or
  - (b) Cars manufactured in Australia in quantities of not less than 1000 basically similar units and which shall be the subject of recognition by CAMS.
- .2 These cars shall compete in events without having undergone any preparation likely to improve their performance or their conditions of use, save that which is permitted hereunder. Except for that which is specifically authorised, any part damaged through wear or accident may be replaced only by an original one identical to the one damaged.
- .3 Compliance with the requirements of this Group shall be determined if possible, by comparison with the Recognition Document. Whilst recognition documents aim to define the standard specification of the car in question, there may remain areas where the recognition documents are not definitive of some feature of a component. If considered necessary, reference may be made to the manufacturer's workshop manual or service manual and any supplements or service bulletins duly promulgated by such manufacturers or distributors in accordance with normal trade practice. Comparison of the component in question with an example or examples of standard components purchased through normal spare parts channels shall provide prima facie evidence of conformity or otherwise of the parts in question.

- .4 Removal of any item included in recognition and not specifically permitted to be varied by the provisions of this Group is prohibited.

### 3. COACHWORK

- .1 The coachwork must remain as specified on the recognition document (subject only to specific modifications authorised hereunder).
- .2 Supplementary accessories not included in the recognition documents are authorised without restriction, such as those concerning the aesthetics or the inside comfort i.e., lighting, heating, radio, etc., or those enabling an easier or safer driving of the car (screen washers, etc.) provided that they do not affect, even indirectly, the mechanical performance of the engine, steering, transmission, roadholding or braking.
- .3 Metal may be removed from panels only when mudguard flares, as described in (d) hereof, are fitted. The only reforming permitted is—
- The flattening of wheel arch beading against the inside of the mudguard, permitted only where such beading constitutes a potential danger to the tyre and must be effected so the outside contour of the mudguard remains unchanged.
  - The rendering safe of body jointing protrusions, which may be closed against the appropriate inner mudguard panel.
  - It is permitted to create a recess in the floor pan sufficient to house a CAMS approved exhaust muffler. Exhaust pipes must remain below the level of the floor pan, and should such exhaust muffler be fitted, then all floor coverings must be removed.
  - It is permitted to fit mudguard flares as described in the relevant recognition documents as issued by CAMS. It is permitted to remove such metal as may be necessary for this purpose.
- .4 Mufflers, if fitted, must be either of a CAMS approved type or, in cars where the complete original exhaust system is retained, as originally fitted.
- .5 Save for carpet and underfelt none of the normal elements of coachwork (including dashboards and all inside quilting, whatever their location) and none of the accessories normally mounted by the manufacturer on the model, may be removed or replaced. However, their location may be varied, (within the same general location) so as to allow fitment of a roll cage.
- .6 The modifications derived from the fitting of supplementary accessories authorised herein, such as those necessitated by adding of a windscreen washer (drilling a hole in the bonnet) will be allowed.
- .7 All controls and their functions must remain those provided by the manufacturer, but it is permissible to arrange them in such a way as to make them more accessible and easier to use (e.g. fitting additional pads to the brake pedal, extensions to switches, etc.).
- .8 The front seats may be varied by the replacement of either or both seats with CAMS approved unit/s, provided that if both original seats are replaced the weight of both replacement seats is the same.
- .9 The addition of a radiator screen(s) is authorised.
- .10 Instruments and switches, in addition to those already provided may be fitted on a separate panel, provided that all original instruments and switches are retained in their original locations. Steering-column locks which entail the use of a key must be removed, or rendered inoperative (except on road registered cars in which case they may be removed or rendered inoperative).
- .11 Safety fasteners may be provided for the windscreen and rear window.

- .12 The driver must wear a CAMS approved harness, and any of the other places may also be so equipped. All seat belts originally mounted may be removed.
- .13 Plates of insulating material may be added in all places where they may be necessary so as to protect those aboard the car from risk of fire.
- .14 The windscreen must be of laminated glass.
- .15 Steering wheels may be replaced by one of a CAMS approved model of at least 30 cm. diameter.
- .16 During practice and competition, the driver's window must remain fully open. It is permissible to affix transparent material (e.g. Lexan) to the window frame, subject to the material being—
- transparent and free of colouring
  - fixed to the door frame on the inside of the window channel so as to permit the free movement of the original glass
  - fitted so that there is no gap between it and the front of the opening
  - fitted so that it extends no further rearwards than 50% of the length of the window sill, then finishing in a line being either vertical, or parallel with the back of the window opening.

### 4. ENGINE

The engine shall be unmodified except for the following specific items—

- The make and type of *carburettor* or *fuel injection* system is free. Substitution of a fuel injection system by carburettors or vice versa is not permitted. The inlet manifold must not be modified. An intermediate mounting plate to enable the mounting of a different carburettor or fuel injection system is authorised.
- Pullution control* devices, including manifold heating passages, may be rendered inoperative and/or removed.
- "Facing" of the *cylinder head* is permitted provided that the final dimensions are within the manufacturer's tolerances, and that the resultant combustion chamber capacity is not less than that specified in the Recognition Document.
- The *thermostat housing* may be modified only as necessary to enable the fitting of a thermometer. The thermostat may be removed, replaced or modified, but if retained must remain in its original location.
- The *valve train* components are free, except that: Roller cam followers are not permitted. Valves must be of the same head diameter and seat angle as the standard component. The original type of valve spring must be retained. The valve spring seating dimension in the cylinder head may be modified.
- The *exhaust* system is free.
- The *camshaft* is free.
- Piston* assemblies are free save the compression ratio must not exceed the higher of 10.5:1 or the ratio specified on the relevant recognition documents.
- Lubrication*
  - The engine sump may be modified so as to vary the oil capacity, provided that this is achieved by modification to the original component in similar material.
  - Baffling in the sump is free.
  - The oil pump pickup may be modified or replaced up to that point where it meets the cylinder block (or pump, as appropriate).

- (d) Additional or alternative oil pumps may be fitted and such oil pumps may be driven:
- from any external rotating shaft of the engine;
  - from the existing oil pump drive;
  - electrically.
- The effect of the foregoing may be that a "dry sump" lubrication system may result.
- (e) One additional oil cooler of maximum capacity one litre may be fitted, provided that it remains within the confines of the coachwork (i.e. not mounted externally and no part projecting beyond the coachwork lines.) Should a "wet sump" be used this oil cooler may be attached only to the pressure side of the engine lubrication system, and no auxiliary pumps may be fitted.
- (f) Oil cooler attachments and hoses are free.
- (g) The fitting of an intermediate by-pass block between the oil filter and the engine is permitted as is relocation of the oil filter within the same coachwork compartment.
- (h) If fitted with crankcase breather/s discharging to the atmosphere there shall be 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 under 2000 cc.) or three litres (for cars over 2000 cc.). Recovery of oil from this oil trap container is permitted.
- Oil breather pipes may be replaced.
  - Should the oil filler cap be integral with the original oil breather pipe then the oil filler cap need not be retained.
- .10 *Connecting rods* are free.
- .11 *Crankshafts* are free except that the stroke, the phasing, the travel of the piston, and the types of bearings used must be as on the original crankshaft.
- .12 All engine *bearings* are free as to material, but unless subject to specific other freedoms within these rules, must be of the same type and dimension.
- .13 The crankshaft/Harmonic damper and/or pulley is free.
- .14 Any flexible portion of the engine mounting system is free, however all designated dimensions must be retained.
- .15 The cooling *fan* and its pulley may be removed, modified or replaced. Belts may be replaced by others of a different type e.g. Vee by flat.
- .16 Parts of the engine normally *balanced* in manufacture may be further balanced.
- .17 Radiators are free subject to no modification being required to allow their fitment, and subject to their weight being not less than that of the original radiators.
- .18 *Turbocharged Engines.*
- All freedoms allowed to normally aspirated engines are available, save those restricted below.
  - The nominal cylinder capacity will be multiplied by a factor of 1.4 and the car will pass into the class corresponding to the nominal volume thus attained.
  - The inlet manifold is deemed to include the turbocharger and all internal ducting and components.
  - If no other purpose is served:
    - The lubrication system of the turbocharger may be modified.
    - A cooling duct not exceeding 75 mm in diameter may be attached to the exhaust side of the turbocharger.

- .19 *Rotary Piston Engines (Wankel type)*
- Freedoms* available to reciprocating piston engines apply where applicable.
  - Rotor seals* are free.
  - Freedom is allowed to increase the timing *overlap effect* by varying the ports of the rotor chamber viz:
    - Exhaust* — by increasing the size of the port provided this is achieved only by the removal of metal,
    - Inlet* — by either,
      - increasing the size of the port provided this is achieved only by the removal of metal, or
      - by removal of metal creating another port in the inlet quadrant of the side housing (i.e. side plate). This additional port must be no longer than, and remain parallel to, the existing port. It is emphasised that no work in the inlet or exhaust tracts is permitted beyond that described above.

## 5. TRANSMISSION

- Gearbox and final drive *ratios* must be as nominated on the recognition documents.
- Oil coolers* and circulation pumps may be fitted to gearbox and differential.
- So as to allow for the conversion of *rear axles* to fully floating assemblies, the following freedoms are permitted:
  - The *half shafts* — provided that the maximum diameter of the original shaft is not exceeded, and that the replacement half shafts fit the original differential unit (or in the case of independently suspended cars, the joint or flange);
  - The type and number of *wheel bearing* ;
  - The hub/bearing carriers; Modifications made under (b) & (c) above are limited to an area within 150 mm. of the extremity of the original axle housing. It is prohibited to undertake any of the above modifications if the result is not a fully floating rear axle assembly.
- The size and material of wheel bearing shrink rings is free; the size and material of the wheel bearing retaining plate is free. It is permitted to machine the existing shrink ring bearing surface on the axle to no more than .002" depth to assist in the location of the shrink ring. All edges resulting from that machining should be appropriately machined. It is permitted to machine a fine thread onto the axle, outwards of the standard shrink ring, and to attach to this a bearing retaining nut.
- The recognised *crown wheel* and pinion must be retained. Without permitting any modification to the housing, *differential* action is free. *Splines* on axle shafts may be changed so as to take advantage of this freedom.
- Clutch cover assemblies (pressure plates), driven plates and release bearing are free. The flywheel must be the type originally fitted to the vehicle. Clutch fixing bolt holes and dowel positions may be altered. All or part of the flywheel face may be modified by machining no more than 4 mm therefrom so as to enable advantage to be taken of the foregoing freedom. (Gearbox input shafts may not be modified.)

**6. SUSPENSION:**

- .1 The suspension components and configuration shall be unmodified, except that freedom is allowed in respect of:
  - (a) *Springs*, provided the means of suspension and type of spring is unchanged.
  - (b) *Noise insulators* and bump stop *rubbers*.
  - (c) Material used in *bushings*. The dimensions and type thereof must remain unaltered, i.e. spherical bushes are not permitted as a replacement.
  - (d) *Packing* of springs to enable fitting to original mountings. Such packings must be positively attached to the mountings.
  - (e) Replacement, deletion or addition of suspension stabilisers (i.e. radius arms, anti-roll bar or Panhard rod). Freedom is allowed in respect only of such items as do not fulfil some other function.
  - (f) The make and size of shock absorbers, provided that no addition is allowed, the system of operation is unchanged (i.e. lever, telescopic, hydraulic, friction etc.) and not modification of the mountings is required.  
(*Note:*) In cars fitted with Macpherson strut type front suspension, only the internal damping mechanism is considered to be "shock absorber"; thus the external components e.g. strut, spring mountings, etc., are not free, and may not be modified).
- .2 All the original elements of the suspension, save as specifically mentioned, must remain unaltered.
- .3 At all times, the freedoms and restrictions noted above have the following effect:
  - (a) The original spring having been removed, it is permitted to replace it with another spring together with any additional intermediary devices necessary to enable such spring to be fitted.
  - (b) It is not permitted to modify any original components other than those specifically mentioned in .1 above.
- .4 The car, supplied with enough fuel for starting the event, its oil and water tanks full, must be able to drive over without touching, under the power of its engine, and with its driver at the steering wheel, a block of 800 mm x 800 mm x 100 mm in height.

**7. WHEELS, TYRES AND STEERING:**

- .1 The design of wheels is free, provided that the wheels may be fitted to the car without any modifications other than those expressly permitted herein.
- .2 Wheel spacers, i.e. their addition or deletion, are free.
- .3 Wheel retaining studs, nuts and set screws may be replaced subject to the original number remaining unchanged.
- .4 The make, type and size of tyres are free, on the condition that the tyres concerned are foreseen by their manufacturer to be fitted on the wheels without any modification of the rims, and without need of any intermediary device.
- .5 The track is free, provided that the wheels/tyres, in their entirety, are completely covered by the mudguard and/or mudguard flares when viewed from above; and when viewed from the rear, the width of the tyre, in its entirety, is covered by the mudguard and/or mudguard flare to a point not higher than the centre of the wheel.

- .6 Steering box ratio is free, provided that the original (recognised) steering box is retained, and the steering gears/ratio are provided by the manufacturer of the automobile as a listed component, and not necessarily for that model.

**8. BRAKES:**

- .1 The original form of brakes must be retained (i.e. disc or drum).
- .2 Brake discs and calipers may be replaced by other brake discs and calipers, provided that the outside diameter of the disc is not varied by more than 5% from that recognised.
- .3 Brake drums and shoes may be replaced by other brake drums and shoes, provided the inside diameter of the drum is not increased by more than 5%.
- .4
  - (a) Backing plates and/or dustshields may be removed.
  - (b) Should the calipers be replaced with others as is provided in .2 above then modifications to the mounting boss are permitted as is their method of attachment.
  - (c) The original brake hoses may be replaced by other brake hoses; Hose run is free.
- .5 The replacement of lining is authorised and the brand, composition and system of attachment is free, as is pad and lining area.
- .6
  - (a) It is permitted to replace a brake master cylinder with another master cylinder, provided that neither the bore nor the stroke of the replacement cylinder is altered from its original construction.
  - (b) The mechanism linking the brake pedal to the master cylinder is free, provided that the pedal itself remains unaltered other than for the addition of pads as provided for elsewhere in these rules.
  - (c) Divided braking systems must be retained.  
A dual line system may be fitted; if two master cylinders are fitted, a balancing mechanism between the two is permitted.
- .7 Wheel cylinders in drum brakes may be replaced by other wheel cylinders, provided that neither the bore nor the stroke of the replacement cylinder is altered from its original construction.
- .8 Brake fluid reservoirs which are normally part of the master cylinder are free, subject to their remaining in the same general location as originally positioned.
- .9 The park brake mechanism may be removed.
- .10 It is permitted to conduct cool air to front and/or rear brakes through ducts no larger than 3 inch (7.62 cm) diameter (or the rectangular equivalent thereof). One such duct may be fitted for each wheel. Air may be collected at the front of the car and for this purpose the front air dam or skirt may be neatly pierced. No air duct shall protrude beyond the perimeter of the body. No other body modifications are permitted for this purpose.

**9. ELECTRICAL:**

- .1 The voltage of the electrical system may not be changed.
- .2 The make and capacity of the battery is free, provided that the location remains unchanged (i.e. the coachwork compartment in which the battery was originally located) save as provided for in .7 below.
- .3 The make and capacity of the generator and regulator are free and the complete electrical system, including lighting and warning apparatus, must be in working order at the start of the competition.

- 4 The coil, condenser and distributor are free subject to the ignition system remaining the same as that provided by the manufacturer for the model concerned, and the replacement of the said accessories do not entail any modification of the attachment systems provided by the manufacturer for the model concerned. However, it is specified that the fitting of an electronic ignition system is allowed in this group provided that no mechanical part other than that mentioned herein is modified or replaced.
- 5 The make and type of spark plugs are free.
- 6 Extra relays and fuses may be added to the electrical system.
- 7 The fitting of a separate exclusive power source for the sole purpose of radio communication is authorised in such events which permit the use of radios.

## 10. FUEL SYSTEM:

- 1 *Safety Bladder Tanks*
  - (a) The installation of an FIA approved bladder type tank is permitted provided that it is installed in the general location of the original tank and panel modifications are in accord with paragraph 9 of Part 14 of Appendix C.
  - (b) The capacity of such a safety tank may be varied from that fitted by the manufacturer of the car, provided always that the capacity does not exceed that nominated in paragraph 10 of Part 14 of Appendix C.
- 2 *Foam-Filled Tanks*
  - (a) The fitment of a one-way valve on the fuel tank inlet for fuel ventilation (maximum breather outlet not to exceed 13 mm internal diameter) and designed to prevent the egress of fuel in case of accident is permitted, provided that the diameter of the fuel tank inlet or port is not increased beyond original specification.
  - (b) The fuel filling port may be relocated in those cars which have foam-filled fuel tanks. In the event of relocation—
    - (i) the filler orifice shall be located not more than 50 mm from the tank.
    - (ii) original fuel port shall be rendered inoperative.
    - (iii) no panelling modifications are permitted save that the floor of the luggage boot may be modified to allow protrusion of the filler neck.
    - (iv) regardless of the number of original fuel ports one port only may be utilised and this shall have no greater diameter than that of the original filler orifice; and in the case of cars fitted originally with multiple fuel ports, one of the original filler orifices.
- 3 *Pumps/Filters*
  - (a) The replacement of the fuel pump or pumps is permitted.
  - (b) Additional fuel pumps and supplementary reservoirs are prohibited.
  - (c) The fitment of fuel filters is permitted. (Note: fuel filters of inordinately large capacity, or of a capacity larger than is required to fulfil the prime function as a filter, will not be permitted).
- 4 All cars must be fitted with fuel lines only of metal, braided Neoprene, or other CAMS-approved material. Internal diameter is free, up to a maximum of 12 mm. Routing is free, provided that the fuel line does not run through the habitacle.

## 11. GENERAL:

- 1 Where freedom is permitted to fit nominated or homologated parts, such freedom is strictly limited to such components themselves, and it shall not be permissible to modify other parts, save only by the drilling of holes for

supporting purposes so as to facilitate the fitting of or to take advantage of the freedom to fit, such nominated or homologated components or parts.

- 2 The addition of any protective device underneath the car is forbidden unless such device is mentioned on the recognition documents for the car concerned.
- 3 The use of any substances which leave a metallic coating on cylinder heads, combustion chambers, inlet ports and inlet or exhaust manifolds is prohibited.
- 4 Each car must finish competition equipped to conform with the specifications laid down, excepting that any body damage or glass breakage shall not be deemed an infringement of this regulation.
- 5 All ball and roller bearings may be replaced by non-original items of the same type and of identical dimensions.
- 6 Nuts and bolts, may be locked; nuts, bolts, screws, washers, fan belts, water hoses, clips and gaskets may be replaced with non-original items, provided always that they may be fitted without modification to any other component.
- 7 The requirements of Group A of this Appendix shall, where not provided for by the above requirements, be also applicable to cars of this Group.

## Group D (Production Sports Cars, Open and Closed)

### 1. ELIGIBILITY:

- .1 Automobiles of a series-production type, other than those eligible for the production touring car category, will be eligible to compete in this Group if:
  - (a) they are recognised by the FIA as Group 3 or Group 4, are named on the relevant FIA lists and comply with the recognition documents for the relevant Group, or
  - (b) they are of a type of which there exist at least fifty (50) in Australia, or
  - (c) they are of a type which CAMS, in its sole discretion, may deem to be eligible.
- .2 CAMS shall indicate, by the official publication of a list or lists from time to time, which vehicles are to be so categorised.

### 2. BODY:

- .1 The body may be of open or closed type, offering adequate accommodation for a minimum of two persons.
- .2 The bodywork, body fittings and interior trim in its entirety must be as supplied by the manufacturer, except that
  - (a) The bodywork may be modified, if necessary, to permit the fitting of permitted suspension refinements.
  - (b) The outer mudguards may be flared to accommodate any permitted increase in track.
  - (c) The inner guards may be modified.
  - (d) The driver's and/or passenger's seat/s may be replaced by a special seat of a CAMS-approved make and model.
  - (e) On open cars the windscreen and all windows and associated fittings may be removed, although a windscreen remains compulsory. Fixed front screen pillars on open cars may be removed.
  - (f) The windows on closed cars may be replaced (vide Group A) and the associated fittings removed or replaced.
  - (g) Carpet, mats and underfelt may be removed.
  - (h) The steering wheel may be changed subject to it being replaced by a commercially marketed steering wheel of safe design with a minimum overall diameter of 300 mm.
- .3 On closed cars, the driver's window must be fully open. A portion of that opening may be closed subject to the material—
  - being transparent
  - being fitted to the door frame on the inside at the window channel (so that the original window may still be fully closed)
  - being fitted so that it is flush with the front of the window opening.
  - extending no further rearwards than 50% of the length of the window sill and then finished vertically, or, alternatively parallel with the back of the door frame.
- .4 It is permitted to fit a spoiler or air dam on the front part of the car such that no part extends above the horizontal plane passing through the wheel hubs, so that no part is further forward than any other part of the coachwork, and so that it extends in width no further than the outer edge of the front mudguards at their foremost point.
- .5 The use of any other undertrays, fairings, etc., designed to improve the aerodynamic form of the automobile shall not be permissible unless supplied as standard equipment; provided that, in appropriate events (e.g. trials and

rallies) Supplementary Regulations may authorise the fitting of devices to protect components such as sumps, transmissions, fuel tanks, radiators, etc. Supplementary Regulations may also specify the type and method of fitment of such devices in accordance with the requirements of the particular event.

- .6 Bumpers, wheel-embellishments and other such decorative additions to the bodywork may be removed. Notwithstanding, the radiator grille may neither be removed nor modified.
- .7 Instruments and switches, in addition to those normally provided, may be fitted on a separate panel, provided that all original instruments are retained in their original locations.

### 3. MODIFICATIONS:

- .1 Mechanical modifications may be made, provided that the following restrictions are observed:
  - (a) The original design of cylinder-block and crankcase must be employed. The bore and stroke may not be varied except that reboring is permitted on the condition that the resulting increase in the capacity does not make the automobile pass into the next engine capacity class.
  - (b) The original design of cylinder-head casting must be employed. The cylinder-head may be modified provided that such modification is affected only by the removal of metal.
  - (c) Forced induction (supercharging) is not permitted, unless such induction method is employed as standard on the make and model by the manufacturer concerned. In the case of automobiles so fitted with a supercharger, their nominal capacity will be increased in accordance with Part 1 hereof.
  - (d) The original design of transmission train assemblies, including the number of forward and reverse ratios, assembled and operating as originally supplied by the manufacturers, shall be retained. The use of alternative ratios in the gearbox and final drive is permitted, as is the use of a "limited slip" differential.
  - (e) The original configuration of suspension, whether by leaf spring, coil spring, torsion bar, air, rubber, etc., shall be retained. (Modifications to the method of axle location or control are permissible.)
  - (f) The original form of rear-wheel brake (viz., disc or drum) must be retained. Furthermore, the diameter and other dimensions of drum or disc governing the area available to be swept by the friction material shall remain unaltered except that in the case of brake drums a total overall variation in this diameter of 32 mm. is permissible.
- .2 All road wheels must be identically similar, and interchangeable with each other.
- .3 The original wheelbase dimensions must be retained. The track may be increased by no more than 50 mm.
- .4 The fuel tank may be modified or replaced in accordance with the requirements of Part 14 of this Appendix.

### 4. GENERAL:

The automobiles shall be required to comply with such requirements of Group A of this Appendix as are applicable and not in conflict with the requirements of this Group.



## 5th CATEGORY

## Historic Cars

## 1. PREAMBLE:

- .1 The following definitions and general requirements governing Historic cars are recorded to facilitate the organisation of competitions and meetings in which such cars are involved.
- .2 In addition to running each group separately—entries permitting—events combining Group J, K & L would be generally acceptable. In no circumstances shall Group M be combined in events for any of the preceeding Groups. However, it is permissible for selected suitable cars from Group L to compete by invitation in Group M events. In all cases cars invited to participate should be in accord with the period of motor racing it intends to portray so far as their general appearance is concerned. Combinations of groups other than as indicated above is strongly discouraged, and CAMS reserves the right to disallow variations therefrom.
- .3 The express purpose of these regulations is to see that cars 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.
- .4 CAMS, in its absolute discretion, reserves the right to accept or reject any car for Historic classification. The issue of all Log Books must be firstly authorised by CAMS head office, and a general register of Historic cars in all groups will be maintained.
- .5 CAMS reserves the right to classify or re-classify a car to a category which in its absolute discretion CAMS believes it conceptually belongs having regard to Australian Motor Racing History.
- .6 CAMS will, in general, approve re-creation of significant cars which have been destroyed under the following conditions:
  - (i) There may be only one re-creation.
  - (ii) Approval of CAMS must be sought prior to commencement of the project.
  - (iii) There must be justification for the project.
  - (iv) A faithful recreation only will be considered.

## 2. GENERAL:

- .1 Cars in all groups—while competing in events specifically limited to such cars—are exempted from CAMS requirements in respect of fire extinguishing systems (but not fire extinguishers), scatter-shields, roll-bars, safety-harness and safety fuel tanks.
- .2 Cars in Groups J, K and L shall generally not be bound by any regulation concerning self-starting devices, lights, road equipment or minimum or maximum dimensions or weights. However sports cars and sports racing cars in Groups L and M will be required to conform with the minimum requirements of Category 2, Group A, so far as electrical equipment is concerned.  
All cars must comply with the appropriate provisions of Part 2 of Appendix C, except that cars which raced without bodywork in the respective group period are exempted from the requirements of Part 2, Par. 5(c) as regards bodywork.

Morgan 3-wheel cars participating in events exclusively for Historic cars, are exempted from the requirements of Part 2, Par. 1 (a).

- .3 *Fuel*  
Cars in Group J, K and L have freedom to use any type of fuel. Cars categorized in Group M & N will normally be restricted to commercial fuel, as defined by CAMS; however provided that it can be demonstrated that the subject car used other than commercial fuel during the Group M period, and subject to prior application to and approval of CAMS, alternative fuels may be permitted.
- .4 Suspension media must remain unchanged in all groups from the specification evident during the applicable group period, excepting that with "new" Group J and K cars, the suspension medium shall be compatible with the group period portrayed. Fore and aft axle location may be improved in all groups.
- .5 *Coachwork*  
In all groups, fibreglass panels are not normally permitted unless fitted as original equipment. Exceptions may be considered based on individual assessment.  
In production cars, all internal and external trim must be intact, except that carpeting, windscreen and bumpers may be removed and seats may be replaced by others of period and type appearance.
- .6 *Wheels*  
If original wheels are not fitted, then the following minimum and maximum dimensions shall apply, unless there is evidence to establish beyond doubt that a car was otherwise equipped—

Group	Non-original Wheels		Tyres *Minimum aspect
	Minimum Diameter	Maximum Width	
J	18"	3.5"	70%
K	16"	4"	70%
L	15"	5"	70%
M	13"	6"	60%
N	—	6"	— (see Group N)

\*as determined by the Tyre & Rim Association Manual.

.7 Specific Components (*Conditions of use*)

	<i>Production Cars</i>	<i>Others</i>
Toothed belt drives	only if original equipment	only if used on subject car within group period
Supercharging Electric fans "Rose"/Unibal joints	only if original equipment	
Gear box	original number of ratios internal mechanism free	number of ratios as in otherwise group period
Brakes	original system only  dual/tandem master cylinders Mechanical to hydraulic conversion permitted	a system fitted to the subject car within group period may be fitted.
Starter motor, electric	may be fitted	
Differentials and axle	axle tube outers must be as original. Differential, carrier and axles are free	
Induction system	carburettors must be of a type and make available in the applicable group period. Single choke carburettors may not be replaced by multiple choke units (Groups J, K, L & M)	

- .8 Nothing in the foregoing definitions shall affect any rights or powers conferred upon organisers or others by CAMS, in relation to the refusal of entries or exclusion of competitors.
- .9 CAMS foreshadows the introduction, at some appropriate time, of Groups within this category for Production Sports Cars beyond 1960, and for Racing and Sports-racing Cars beyond 1965.

## 3. GROUPING:

*Group J—Vintage Cars*

- .1 Factory-built racing cars and sports cars, all constructed before December 31, 1930, or
- .2 Special racing cars and sports cars, all constructed at any time, employing primary, engine, transmission and chassis components, and modes of suspension, of cars constructed before December 31, 1930, in any combination.
- .3 Cars in this Group *only* shall be eligible for any prize or trophy to be awarded to a "Vintage" car.

A statement "Pre 1931, referred to as Vintage", should be included in programmes, above the list of entries of vehicles in this class.

*Group K—Post Vintage Cars*

- .1 Factory-built racing cars and sports cars, all constructed between December 31, 1930, and December 31, 1940, or
- .2 Special racing cars and sports cars all constructed at any time, employing primary, engine, transmission and chassis components, and modes of suspension of cars constructed before December 31, 1940 in any combination.
- .3 Cars in this Group *only* shall be eligible for any prize or trophy to be awarded to a "Post-Vintage" car.

A statement "Pre 1941, referred to as Post-Vintage" should be included in programmes, above the list of entries of vehicles in this class.

*Group L—Historic Racing and Sports Cars (1940/60)*

- .1 *Sub Group (a) Sports Cars* manufactured after December 31, 1940 but prior to December 31, 1960, employing original major engine, transmission, body, chassis and suspension components. Suspension shall remain unmodified from original specification, except that spring rates, ride height and damper setting may be altered, and fore and aft axle location improved.
- .2 *Sub Group (b) Racing Cars and Sports Racing Cars* manufactured after December 31, 1940 but prior to December 31, 1960 employing original major engine, transmission, body, chassis and suspension components.
- .3 *Sub Group (c) Sports Cars* manufactured after 31st December 1940 and prior to 31st December 1960, on which the mudguards and windscreen are readily removeable, and on which they do not form an integral part of the main body may compete in stripped form. Vehicles may vary from standard production form only in a manner which is consistent with retaining the "nature as road registered and road used vehicles. In particular, no change to track, wheelbase, engine position and suspension medium may be made. Engine, transmission and differential should be of the type normally fitted to the model.
- .4 Non-factory built cars in either sub group may be admitted after individual assessment.

*Group M—Historic Racing and Sports Racing Cars (1961/65)*

(Note: Production sports cars are not eligible in this Group.)

Racing cars, sports-racing cars and clubman cars manufactured after 1st January, 1961 and before 31st December, 1965, employing original engine, transmission, suspension and chassis components.

*Group N (Appendix J)—Saloon Cars (Pre 1965)*

## 1. ELIGIBILITY

- .1 The automobile must be a series production type saloon, manufactured prior to 31 December, 1964 of which 100 of the particular model must have been produced.
- .2 Cars shall compete in the following engine capacity classes:—
 

Class A—Over 3000 cc.	Class E—1301 to 1600 cc.
Class B—2601 to 3000 cc.	Class F—1001 to 1300 cc.

Class C—2001 to 2600 cc.  
Class D—1601 to 2000 cc.

Class G—Up to 1000 cc.  
(Classes may be amalgamated).

## 2. BODY

- .1 The body must be of a saloon (i.e.: "hard-top") form, and must provide adequate normal seating accommodation for four adult persons or more.
- .2 Cars in the above-mentioned Classes A, B, C, D, and E must have four doors unless they have been homologated by the F.I.A. in a two-door version: cars in Classes F and G must have at least two doors.
- .3 The bodywork, body fittings and interior trim in its entirety must be as supplied by the manufacturer, except only that wheel naveplates may be removed, additional instruments fitted and the steering wheel replaced. Provided that the replacement wheel is not less than 380 mm 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.
- .4 The use of undertrays, farings, etc., designed to improve the aero-dynamic form of the automobile shall not be permissible unless supplied as standard equipment.
- .5 Original seats may not be replaced with other seats. However, the driver's seat may be padded to provide additional support.
- .6 Restoration of original trim is permitted, but should be as near as practicable to original specifications.

## 3. PERMITTED MODIFICATIONS:

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

- .1 The original type of cylinder-block and crankcase must be employed. The bore and stroke may be varied, provided that the cubic capacity of the engine remains within the same cubic capacity class as that within which the engine came as supplied by the manufacturer.
- .2 The original type of cylinder-head casting must be employed. The cylinder-head may be modified provided that such modifications is effected only by the removal of metal.
- .3 Forced induction is not permitted, unless such induction method is employed as standard on the make and model of car by the manufacturer concerned.
- .4 The original type of gearbox and rear-axle assemblies as supplied by the manufacturer for the make and model concerned shall be employed. The use of alternative ratios in the gearbox and back axle is permitted, provided that the components used are supplied by the manufacturer concerned as catalogued component parts.
- .5 The original type of suspension only shall be employed (e.g.: a semi-elliptic leaf-spring suspended live rear-axle may not be replaced by a coil-spring suspended De Dion type, and so on).
- .6 The original type of braking system shall be employed (e.g.: drum-brakes may not be replaced by disc-brakes). The major brake dimensions (i.e.: 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 a total overall variation in the diameter of such drums of no more than 3 mm shall be permissible. Dual circuit braking systems are permitted, as is installation of power brake assistance.

- .7 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 31st December, 1964. At all times the original wheel diameter shall be maintained, and the width of the rim may be increased by no more than 25 mm/1" over the original, subject to an absolute maximum width of 6". Tyres may not protrude outside the coach work, but otherwise track is free.
- .8 At all times, the original form of steering and suspension joints will be employed, and in particular, may not be replaced by "Uniball" or "Rose" type joints.
- .9 Dry sumping is not permitted, unless original equipment on the make and model concerned.
- .10 Tyres must be an approved type of radial or cross ply construction with a minimum aspect of ration 70%. Racing tyres are not permitted. A list of approved tyres appears as an Appendix to these Regulations.

## 4. SAFETY REQUIREMENTS:

- .1 Vehicles shall comply with all relevant requirements of Part 1 of Appendix C to the NCR's.
- .2 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 for the fitment of a Lexan or Perspex windscreen.
- .3 Whilst not currently required, roll-over protection complying with Part 10 of Appendix C may be required in the future.

## 5. GENERAL

- .1 The automobile shall be required to comply with such requirements of Appendix "C" as are applicable and not in conflict with this Appendix.
- .2 A high standard of presentation will be insisted upon at all times. Any vehicle considered to be of inappropriate standard will be summarily rejected.
- .3 At all times, the onus of proof of eligibility of the automobile and/or components, whether options or not, will be the responsibility of the owner, by way of Homologation papers, parts manuals, workshop manuals etc. Additionally, in marginal cases, proof may be required to be produced to the effect that a vehicle of the same model was raced prior to December 1964.

## 6. ADVERTISEMENTS ON AUTOMOBILES:

No advertisement or trade sign will be distributed from or carried on any automobile in this category. Provided that this Rule shall not apply to the manufacturer's usual name plate, transfer or other device normally attached to, engraved or stamped on cars sold by them to the public. CAMS reserves the right to permit also the display, in neat, unobtrusive lettering, of the name of the driver and/or the State of his origin on the scuttle or side of the car. No such sign shall in its entirety exceed 75 mm in height and 600 mm in length.

## 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 saloon cars under Appendix "J" regulations which were current until 31st December, 1964. Over-restoration of vehicles, the use of technology, parts or equipment not available within the period in question is not within the spirit of these regulations; these regulations and any eligibility matters relating thereto shall be interpreted and applied in accordance with the spirit.

## Part 4—Apparel

### Races, Speed Events & Off Road Events

#### 1. HEADGEAR:

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

The helmets acceptable by CAMS shall be required to comply with AS1698-1974.

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

“Balaclavas” are recommended (though not mandatory) for drivers, especially those with long hair and/or beards.

#### 2. GOGGLES:

Goggles 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 AS1609-1974, and bearing either the SAA mark or the CAMS-approval mark.

### Races

#### 3. CLOTHING:

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

- (a) Overalls of an approved flame-resistant material, extending from wrists to neck to ankles; *together with*
- (b) 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*
- (c) Woollen socks, worn under boots or shoes which completely enclose the feet. (Driving without such footwear is forbidden.)

The wearing of face-marks and driving gloves is strongly recommended.

No apparel of flammable material (e.g. nylon or similar synthetics) may be worn in any race.

#### 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.

### Rallies

#### 5.

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, complying with such specifications as CAMS may lay down for rallies.

### All Events

#### 6.

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 requirements of Rule 141 until such time as they leave their automobiles.

## Part 5—Wheels and Tyres

The following requirements and parameters apply to all competitions.

#### 1. RIM WIDTH:

##### 1st Category—Racing Cars

##### 2nd Category—Group A (Sports Cars) and cars complying with Clubman Formula.

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

Cars up to 2,000 cc. capacity—and Clubman—215 mm (8½ in.).

Cars over 2,000 cc. capacity—250 mm (10 in.).

Otherwise unrestricted.

#### 2.

##### 2nd Category Group B (Sports Sedans)

##### 3rd Category Group C (Production Touring Cars)

##### 3rd Category Group D (Production Sports Cars)

- (a) 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 50 mm (2 in.), wider than the rim originally fitted to such centre.
- (b) Wheels and steel centres other than those supplied by a vehicle manufacturer as original vehicle equipment may not be widened.
- (c) The absolute maximum rim width, regardless of wheel construction shall be:
  - Group B & C .. 10"
  - Group D .. up to 2000 cc. 8½", over 2000 cc. 10".

#### 3. TYRES:

- .1 Tyres fitted to all rims shall be in accordance with the Tyre and Rim Association recommendations.
- .2 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.

#### 4. WET WEATHER TYRES:

- .1 As most un treaded racing tyres are not suited for other than dry tracks, scrutineers must ensure that:
  - (a) On wet days only suitable tyres are used; this will exclude specialised dry tyres, unless they have been suitably modified.
  - (b) Tyres used are suitable for the weather and track conditions relative to the car's potential.
  - (c) That all tyres used or likely to be used are scrutinised (competitors too, must ensure that this is done).

- (d) By checking, in the marshalling area, that late changes have not been made which render the cars unsuitable for use.
- .2 Clerks of the Course will, after consultation with the Stewards and at an appropriate time announce that "untreated tyres are not to be used until further notice".
- .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—
  - (a) It is raining at the start, and the track is wet.
  - (b) It is not raining at the start, but the track is "running" with water over the greater part of its length.

**NOTES;**

For wheel and tyre restrictions to 4th and 5th Category vehicles, see relevant sections of Group regulations.

**MAXIMUM PERMISSIBLE RIM WIDTHS**

Category	Group	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	Unrestricted	None	8½" up to 2 000; 10" over 2 000	Unrestricted
2	A	Unrestricted	None	"	"
2	B	50 mm (2 in.)	"	"	10"
3	C	50 mm (2 in.)	"	"	"
3	D	50 mm (2 in.)	"	"	215 mm (8½ in.) up to 2 000; 250 mm (10 in.) over 2 000
Clubman	—	Unrestricted	None	8½"	Unrestricted

**Part 6—Aerofoils and Coachwork**

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

**1.**

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 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 15 mm. The leading edge of any aerofoil fixed to the front of the car shall not be sharp.

**2.**

**2nd Category** vehicles shall comply with the following requirements, viz: The highest point of any forward-facing gap in the coachwork shall not be situated above a horizontal plane 800 mm above the lowest point of the entirely sprung structure of the car. The maximum width of the coachwork shall not exceed by more than 200 mm the maximum width between the two vertical planes tangent to the outer face of the front/rear wheels.

**3.**

**1st Category** vehicles shall comply with the following requirements:

- .1 No element of coachwork may exceed in height a horizontal plane situated at 900 mm 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.

- .2 Cars of a type registered at 1 Jan 1975, but constructed after 1 July 1975; and cars of a type not registered at 1 Jan 1975, but constructed after 1 Jan 1976; and cars registered at 1 Jan 1975, but which have subsequently been substantially varied; must all comply with the following requirements, viz:

	F1	F2	FF
Maximum width ahead of front wheels	1500 mm	1500 mm	950 mm
Maximum width ahead of front wheels, above height of wheel rims	1100 mm	1100 mm	950 mm
Maximum width between front and rear wheels + deformable	1200 mm + 200 mm	1100 mm + 200 mm	950 mm
F/Pacific absolute maximum	1300 mm		
Maximum width behind rear wheels	1100 mm	1100 mm	1100 mm

**.3**

	F/Pacific	Others
Front overhang, max	100 cm	—
Rear overhang, max (from centre of wheel/axle)	80 cm	100 cm

- .4 The minimum weight is that of the car in running order, i.e. with all lubrication and cooling liquids but without fuel. The ballast which is prohibited is that of a removable type. It is therefore permissible to complete the weight of the car through one or several ballasts incorporated to the materials of the car provided that solid and unitary blocks are used, and that they are fixed by means of a tool and offer the opportunity of being sealed on should the officials entrusted with the scrutineering of the car deem it necessary.
- .5 Wheels shall be external to the coachwork.
- .6 The coachwork opening giving access to the cockpit must have the following minimal dimensions:—

## Part 11—Markings on Automobiles

### 1. NUMBERS:

- .1 Competition numbers carried on automobiles in accordance with Rule 147 in speed competitions shall comply with the following requirements:
  - (a) The number shall be required to 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. In cars of Groups B, C and D, the number must be displayed on the front doors.
  - (b) 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 a rectangle in a colour contrasting with the colour of the coachwork.
  - (c) In form the number shall be of the sans serif type, each figure being at least 280 mm in height, and the width of the line in each figure being at least 50 mm.
  - (d) No part of any numeral shall be closer than 40 mm to any part of the adjoining numeral or any part of the edge of the contrasting background; and no part of the said competition number shall be closer than 160 mm to any part of other signs as permitted hereunder.
- .2 Numbers used must be of the style known as Tempo Heavy Condensed, and regardless of size must retain the shape and proportions, as shown in the sample numerals hereafter.

**1 2 3 4 5 6 7 8 9 0**

- .3 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 one, and in such eventuality it would be withheld for the appropriate period.
- .4 "Zero" alone is not permitted to be used as a number.

### 2. PROVISIONAL LICENCE HOLDERS:

In any race (other than those for Karts) 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 100 m 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:

- .1 Signs or advertisements displayed upon automobiles in accordance with Rule 155 shall comply with the following requirements:
  - (a) No sign or advertisement shall be permitted on any windscreen, side or rear window, or, other than the competition number, above a line joining the upper level of each of these. Notwithstanding the provisions of this sub-paragraph, it shall be permitted on series production based cars the windscreens of which are of original dimensions, to place a sign, on the windscreen, indicating the make of the vehicle, or the model of the vehicle, or the driver's name, or the name of an affiliated or associated car club, or in the case of cars of Group G, the drivers' and navigators' names; provided that such sign does not extend downwards for more

than 25% of the depth of the windscreen from the upper edge thereof, save that no part of the sign may be more than 100 mm below the top level of the windscreen.

- (b) No sign or advertisement shall be permitted within 100 mm of the background area of a competition number, or within 160 mm of the number itself.
- .2 No slogan, or any sign containing a verb or verbal phrase, shall be permitted.
- .3 No sign shall be permitted to contain any Arabic numerals, unless such sign comprises the name of a Club affiliated or associated with CAMS, or forms part of a registered trade mark.
- .4 No sign or advertisement shall be permitted to be indecent or in breach of good taste; the Clerk of the Course at any meeting shall be authorised to refer to the Stewards 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.
- .5 Registration labels and official number-plates shall not be deemed to be advertising with regard to this Appendix.

### 4. LETTERINGS:

The lettering of all numerals and letters in all signs referred to in this Appendix and these Rules shall be carried out in a neat, regular and professional manner; scrutineers may order the relettering 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:

- .1 Arabic numerals where they form part of a registered trade mark may be used subject to the foregoing, and the following additional requirements:
  - (a) On the sides of the car no part of the numeral shall come within 120 mm of a competition number;
  - (b) shall be on a panel to the rear of a competition number;
  - (c) shall be no larger than and a contrasting colour to the competition number;
- .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 REQUIREMENTS:

1. In all races, sponsors may make no requirements or prohibitions (regarding signs) binding on entrants.
- .2 In rallies of championship status only, sponsors may require the reservation of the front doors only for advertising matter, but may make no other restrictions.

### 7. 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.