



MANUAL OF MOTOR SPORT

with 1987 National Competition Rules

1987

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 cardan 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 providing for radio communication between the vehicle whilst in motion and pit and service crews, save in races, and in special stage rallies;
 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.
 9. unless specifically otherwise approved, use only Commercial fuel, as defined.
 10. be fitted with windows (including windscreens) which if of other than glass, are clear, transparent and free of colouring; glass windows must not be coloured or tinted after production.
 11. have displayed on the dashboard a valid CAMS registration label for the relevant competition (Races, Open Rallies and Off Road Events).
 12. be fitted with safety harness or seat belts as prescribed in Part 9.
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 litre (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 except for sports cars (formerly known as Group A), be constructed so that when all tyres on the same side of the car are deflated, no part of the car shall touch the ground.

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; see Part 5
- 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, Article 2;
- 4 be fitted with at least two (2) rear vision mirrors, of which each must have a reflecting surface of at least 50 cm², and provide an unobstructed view to the rear of the car, save that, in automobiles with closed body-work (whether of sports or touring types), one such mirror shall be fitted internally and one externally.
- 5 be fitted with a fuel tank as specified in Part 14 of this Appendix as is appropriate.
- 6 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.
- 7 be fitted with fuel lines only of metal, braided Neoprene, or other CAMS approved material.
- 8 In closed cars first registered with CAMS after 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.

- .9 *Seat fitment to Production based bodyshells:* Where a seat is a separate entity to the structure of a vehicle and it is not supported by the structure, and where the standard seat mountings are not retained or the vehicle does not comply with the Australian Design Rules for seat mountings, the seat shall be mounted by not less than four 8mm (5/16'') bolts. Where they are affixed to the unreinforced section of the floorplan, these attachment points shall be reinforced by the use of plates of not less than 75mm x 50mm x 3mm (1/8'' thick).

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. Combining of Groups M & N with other Groups is permitted, subject to specific application to CAMS in each case. 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. Cars must conform with the appropriate Group date specification in concept and in detail. Where any doubt exists between Historic regulations and the original period specification, the latter will take precedence.
- .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. A central register of Historic cars in all groups is maintained.
Before commencing construction work, or before acquiring a car, owners must consult the Historic Eligibility Officer regarding eligibility of the said vehicle.
- .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 may 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 in principle must be sought prior to commencement of the project. It should be noted that this does not in itself guarantee the registration of the vehicle which shall always be the subject of inspection and approval when completed.
 - (iii) There must be justification for the project, i.e., it must be a significant car.
 - (iv) only a faithful re-creation will be considered.
- .7 Three-wheeled cars participating in events exclusively for Historic cars are exempted from NCR 12.
- .8 The original style of paintwork and livery is encouraged. No advertising matter is permitted unless evident in the applicable Group period (see also section 6 of Group N).
- .9 Additional information and advice is provided in the Historic Racing Guide which is available from CAMS Offices.

2. GENERAL:

- .1 *Safety*
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 (except Group N), safety-harness, minimum coachwork, towing eyes, and fire-walls (although the fitment of these devices is in some cases desirable), and safety fuel tanks.
Concerning roll bars, Historic cars (except Group N) are subject to the following possibilities, viz:
 - a) No roll bar.
 - b) A roll bar to the Group period specifications.
 - c) A roll bar complying with Part 10.
 - d) A roll bar specifically approved by CAMS.
- .2 *Fuel*
Cars in all groups 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 period, and subject to prior application to and approval of CAMS, alternative fuels may be permitted, excepting in Group L(a), which are at all times restricted to Commercial Fuel.
- .3 *Terminology*
The term "style", where used in relation to wheels, refers to Sankey, wire, cast, steel centre, etc.
By "original" is meant a component which is in all respects identically similar to that originally fitted, is produced by the manufacturer who produced the original component(s), and is indistinguishable from it in all respects.
By "period" is meant the applicable Group period of the vehicle in question.
- .4 *Tyres*
The following minimum aspect ratios, as determined by the Tyre and Rim Association are applicable:

| | |
|----------------|--|
| Groups J, K, L | 70% |
| Group M | 60% |
| Group O | 60% — unless it can be demonstrated that the subject car was fitted with tyres of less than 60% in the Group period. |

 Slicks, grooved slicks or short life motor cycle tyres are not permitted in any Group.
- .5 *New Groups*
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 1969.
- .6 *Supercharging*
Cars in this category fitted with superchargers are not subject to the 1.4 factor as to displacement.
- .7 *Numbers*
Groups J, K, L(b) & L(c) are exempted from the requirements as to background specified in Part II. Application for exemption may be made in individual cases for other cars where the specified car ran in such visual form during the group period.

ELIGIBILITY

1. Factory built racing and sports cars constructed before 31st December, 1930.
or
2. Special sports or racing cars constructed at any time. Such cars must be built in the concept and likeness of actual historic Group J cars from components—engine, transmission, chassis, axles and suspension—manufactured before 31st December, 1930.
The combination of such components must be in the likeness of but not identical to those of an actual historic Group J car. An improbable mix of components will not be acceptable.
3. Only modifications compatible with the Group period will be accepted.
4. Only cars in this group shall be eligible for any prize or trophy to be awarded to a Vintage car.

SPECIFIC REQUIREMENTS

1. *Coachwork.* Coachwork must be manufactured from materials and utilise construction methods evident in the period. Glass fibre and other similar materials are not permitted.
2. *Cockpit.* The cockpit configuration and materials must be compatible with the group period, particularly instruments, steering wheel and seats. The use of electronic instruments is not permitted.
3. *Engine*
 - .1 Internal components of the engine are free, but cylinder block, crankcase and cylinder head/s must be original.
 - .2 Cylinder head/s, crankcase and cylinder block must be as used together in the period. Interchange between makes or models is not permitted unless it can be demonstrated as common practice within the group period.
 - .3 Dry sump lubrication is not permitted unless fitted as original equipment by the manufacturer.
 - .4 Toothed belt drives are not permitted.
 - .5 Any increase in swept volume shall be in keeping with the practice of the period on that particular type of car and engine. The crankshaft stroke must be to the original specification.
 - .6 The exhaust system is free but must be of a style evident in the group period.
 - .7 The induction system must be of a type compatible with the car within the group period.
Post 1930 carburettors are not permitted except in the case of SU instruments, in which case later units up to and including "H" type are accepted. Multi-choke carburettors and/or superchargers are not permitted unless they were used on that type of engine in the period, and they are of a period type.
Fuel injection and/or turbo charge is not permitted.
4. *Gearbox.* Gearbox casings must be original and contain the same number of forward ratios. Internal components are otherwise free.
Austin 7 specials may use a "Works Type" four speed conversion within a group J period 3 speed case.
5. *Final Drive.* All external components of the final drive assembly must be of the period, with the exception of the "nose piece" which is free. All internal components are free.

6. *Brakes.* The braking system must be of a type fitted to the car within the group period save that:
 - .1 Mechanical actuation may be converted to hydraulic operation.
 - .2 Dual/tandem master cylinders may be fitted.
(Disc brakes and/or non period brake boosters are not permitted.)
7. *Suspension.* The suspension system must remain unchanged from a specification evident during the group period and applicable to the subject car.
Fore and aft axle location may be varied, but transverse location may not.
Hydraulic shock absorbers are not permitted unless fitted as original equipment or used on the subject car within the group period.
Spherical or "Rose" type joints are *not* permitted.
8. *Wheels.* Wheels of the original style, diameter and rim width must be used.
In the case of new specials, the minimum rim diameter is 18" and the maximum rim width is 3½".
9. *Electrical Equipment.* Alternators, electric fans, and any form of electronic ignition devices are not permitted. Electric starter motors may be fitted. Sports cars must be fitted with operable lighting and generating equipment compatible with the period.

Group K—Post Vintage Thoroughbred Cars (1930/1940)**ELIGIBILITY**

Factory built racing and sports cars constructed after 1st January, 1931 but before 31st December, 1940.

or
Specials—sports or racing cars—constructed at any time. Such cars must be built in the concept and likeness of actual historic Group K cars from components—engine, transmission, chassis, axles and suspension—manufactured after 1st January 1931 but before 31st December, 1940.

The combination of such components must be in the likeness of but not identical to an actual historic Group K car. An improbable mixture of components will not be acceptable.

Only modifications compatible with the Group period will be accepted.

Cars in this group only shall be eligible for any prize or trophy to be awarded to a PVT car.

SPECIFIC REQUIREMENTS

1. *Coachwork.* Coachwork must be manufactured from materials and utilise construction methods evident in the period. Glass fibre and other similar materials are *not* permitted.
2. *Cockpit.* The cockpit configuration and materials must be compatible with the group period, particularly instruments, steering wheel and seats. The use of electronic instruments is not permitted.
3. *Engine*
 - .1 Internal components of the engine are free, but cylinder block, crankcase and cylinder head/s must be original.
 - .2 Cylinder head/s, crankcase and cylinder block must be as used together in the period. Interchange between makes or models is not permitted unless it can be demonstrated as common practice within the group period.
 - .3 Dry sump lubrication is not permitted unless fitted as original equipment by the manufacturer.

- .4 Toothed belt drives are not permitted.
 - .5 Any increase in swept volume shall be in keeping with the practice of the period on that particular type of car and engine. The crankshaft stroke must be original.
 - .6 The exhaust system is free but must be of a style evident in the group period.
 - .7 The induction system must be of a type compatible with the car within the group period.
- Post-1940 carburettors are not permitted except in the case of SU instruments, in which case later units up to and including "H" type are acceptable.
- Multi-choke carburettors and/or superchargers are not permitted unless they were used on that type of engine in the period and they are of a period type.
- Fuel injection and/or turbo charging is not permitted.

- 4. *Gearbox.* Gearbox casings must be original and contain the same number of forward ratios. Internal components are otherwise free.
- 5. *Final Drive.* All external components of the final drive assembly must be of the period, with the exception of the "nose piece" which is free. All internal components are free.
- 6. *Brakes.* The braking system must be of a type fitted to the car within the group period save that:
 - .1 Mechanical actuation may be converted to hydraulic operation.
 - .2 Dual/tandem master cylinders may be fitted.
 - .3 Disc brakes and/or non period brake boosters are permitted.
- 7. *Suspension.* The suspension system must remain unchanged from a specification evident during the group period and applicable to the subject car. Fore and aft axle location may be varied, but transverse location may not. Hydraulic shock absorbers are not permitted unless fitted as original equipment or used on the subject car within the group period. Spherical or "Rose"—type joints are not permitted.
- 8. *Wheels.* Wheels of the original style, diameter and rim width must be used. In the case of new specials, the minimum rim diameter is 16" and the maximum rim width is 4".
- 9. *Electrical Equipment.* Alternators, electric fans, and any form of electronic ignition devices are not permitted. Electric starter motors may be fitted. Sports cars must be fitted with operable lighting and generating equipment compatible with the period.

Group L—Historic Racing & Sports Cars (1940/1960)

PREAMBLE

The sub-classifications L(a), L(b), L(c) refer to the eligibility of cars and not necessarily to the composition of race fields.

There are L(b) Historic sports cars which comply with L(a) requirements, and organisers may choose to field these in the same event with L(a) cars. Similarly, some L(c) cars when in full sports car configuration may also comply with L(a) requirements. In general L(a) cars should compete separately, whilst L(b) and L(c) should race together.

Sub Group L(a)

ELIGIBILITY

Production sports cars, as recognised by CAMS, manufactured after 1st January 1941 but prior to 31st December 1960 with the inclusion of certain model run ons. (e.g. Mk 1 Austin Healey Sprite). Cars classified in this group are not required to have a racing history.

SPECIFIC REQUIREMENTS

- 1. *Coachwork.* Coachwork must be original save that bumper bars and/or windcreens may be removed. "Wrap around" windcreens are not permitted to be fitted.
- 2. *Cockpit.* The cockpit must be original save that floor coverings may be removed. The seats and the steering wheel may be replaced by others of a period style. All original instruments must be intact. Additional instruments of a period type may be fitted. Electronic instruments are not permitted.
- 3. *Engine*
 - .1 Internal components of the engine are free save that the cylinder head/s and crankshaft stroke must be original.
 - .2 Cylinder head/s may be modified provided such modification is effected only by the removal of metal.
 - .3 The cylinder bore may be increased by a maximum of 1.5 mm beyond original dimensions.
 - .4 Toothed belt drives are not permitted.
 - .5 Dry sump lubrication is not permitted.
 - .6 The exhaust system is free but should be of a type compatible with the period.
 - .7 Inlet manifolds are free but carburettors must be of the original make, model and number on the car. The choke size may be altered. Superchargers, multi-choke carburettors or fuel injection are permitted only if part of the original specification for that make and model, and remain unmodified from that original specifications.
- 4. *Gearbox.* Gearbox casings, gear selection mechanisms and the number of forward ratios must be original. Internal components are otherwise free.
- 5. *Final Drive.* External components of the final drive assembly must be unmodified from original specification. Internal components are free.
- 6. *Brakes.* In the case of disc brake systems, the brake discs and calipers must be original. Drum brakes may be modified or replaced with others of period type. Drum and/or backing plates may be ventilated and/or fitted with cooling fins. Dual/tandem master cylinders may be fitted. Mechanical actuation may be converted to hydraulic operation. Drum brakes may not be replaced by disc brakes.
- 7. *Suspension.* The suspension must be unmodified from original specifications, save that spring rates, the ride height and damper settings may be altered. Externally adjustable shock absorbers are not permitted. Fore and aft axle location may be improved but transverse location may not be altered. Spherical or Rose type joints are not permitted.
- 8. *Wheels.* Wheels are required to be original in diameter and style. Rim width may not exceed 5".
- 9. *Electrical Equipment.* All electrical equipment must be unmodified from the original specifications, and fully operative.

The dynamo/generator may not be replaced by an alternator.
Electric fans and any form of electronic ignition devices are not permitted.

10. *Optional Equipment.* Optional equipment is permitted in this group, only if detailed in either:
- .1 Original manufacturers' workshop manual
 - .2 Spare parts catalogue
- and is specifically accepted by CAMS.

Sub Group L (b)

ELIGIBILITY

Historic racing, sports racing and sports cars with a competition history manufactured after 1st January 1941 but prior to 31st December 1960.
The car must be presented in a specification representative of one point of time within the group period.
Upon individual assessment by CAMS, certain cars built in the period, but without a racing history, may be accepted.

SPECIFIC REQUIREMENTS

1. *Coachwork.* Coachwork must be unmodified from that fitted to the particular car within the group period.
Cars are to run with all coachwork intact unless it was customary for the particular car to do otherwise. (e.g. some rear engined cars customarily ran minus engine cover).
2. *Cockpit.* The cockpit configuration, particularly seat/s, steering wheel and instruments must be as fitted to the particular car within the group period. Electronic instruments are not permitted.
3. *Engine.*
 - .1 The internal components of the engine are free save that cylinder block, cylinder head/s and crankshaft stroke must remain unaltered from the period specification on the subject car.
 - .2 The bore may be increased to a maximum of 1.5 mm beyond the dimension evident on the subject car in the group period.
 - .3 Toothed belt drives and dry sump lubrication systems may only be used if fitted to the subject car within the group period.
 - .4 The exhaust system is free, but is to be of a period type. Any car which was fitted with a distinctive or characteristic exhaust system in the group period is encouraged to retain it.
 - .5 The inlet manifold is free, but carburettors must be of the make, model and number fitted to the car in the group period. The choke size may be altered. Superchargers, fuel injection and multi-choke carburettors are permitted only if fitted to the subject car within the group period, and must be to unaltered specification.
 - .6 Motor cycle engined cars originally fitted with Amal carburettors may use Amal Concentric Mk 1 carburettors.
4. *Gearbox.* Gearbox casings, transaxles, the number of forward ratios and gear change mechanisms must be unaltered from period specifications on the subject car. Components are otherwise free.
5. *Final Drive.* External components of the final drive assembly must be unaltered from period specifications. Internal components are free.
6. *Brakes.* The braking system must be of the same type fitted to the car within the group period.

Drum brake systems may not be replaced by disc brake systems.
Brake discs and calipers must be of the make, style and size fitted within the group period.

Drum brakes may be replaced by others of period type. Cooling fins, scoops and ventilating holes may be added.

Dual/tandem master cylinders may be fitted.

Mechanical actuation may be converted to hydraulic operation.

7. *Suspension.* The suspension must be unaltered from the period specification on the subject car, save that
Spring rates, ride height and damper settings are free.
Fore and aft axle location on beam axle cars may be varied. Transverse location may not be altered from period specifications on the subject car.
Externally adjustable shock absorbers and spherical or "Rose" type joints are permitted only if fitted to the subject car in the group period.
8. *Wheels.* Wheels must be unaltered from period specification on the subject car in diameter and style.
Rim width may not exceed 5" unless rims in excess of this dimension were fitted to the subject car within the group period.
9. *Electrical Equipment.* All electrical equipment must be unaltered from period specifications on the subject car and remain fully operative. Alternators, electric fans and any form of electronic ignition devices are not permitted. An electric starter motor may be fitted.

Sub Group L (c)

ELIGIBILITY

Production sports cars recognised by CAMS, manufactured after 1st January, 1941, but prior to 31st December, 1960.

Cars which are of such construction as to readily permit the removal of mudguards and windscreen—where these do not form an integral part of the body—may qualify for Group L(c). Where it can be demonstrated that a car of the subject type competed in this form in the group period, these cars may compete in stripped form as racing cars or, with said equipment refitted, they may also compete as sports cars.

Cars may vary from original specifications only in a manner which is consistent with retaining the nature of a road registered and road used vehicle. In particular, no change to track, wheelbase, engine position and suspension medium may be made. Engine and transmission must be of the type normally fitted to the model in question. Cars in this group are not required to have a racing history.

SPECIFIC REQUIREMENTS

1. *Coachwork.* All elements of the coachwork—including external fuel tank if original equipment on the subject vehicle—must be original, save that cycle type mudguards may be used.
Cycle type mudguards, if fitted, must provide coverage 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.
A steel bonnet may be replaced by a bonnet of alloy construction. Louvres may be added to or omitted from the bonnet. In the case of cars with multiple piece folding bonnets, the sides may be removed. Original body bulkheads and fire walls must be intact and all doors must be operable.
When competing as a racing car the removal of mudguards, lights, spare wheel, running boards and mounting brackets is permitted.

2. **Cockpit.** The configuration and materials of the cockpit, in particular the steering wheel, instruments and seats, must be compatible with the group period. Electronic instruments are not permitted.
The cockpit must be of a stripped rather than a specially constructed nature.
The passenger seat may be removed when the car is competing as a racing car.
3. **Engine**
 - .1 The internal components of the engine are free save that the cylinder head and crankshaft stroke must all be original.
 - .2 The cylinder head/s may be modified provided such modification is effected only by the removal of metal.
 - .3 The cylinder bore may be increased by a maximum of 1.5 mm beyond original manufacturer's dimensions.
 - .4 Toothed belt drives are not permitted.
 - .5 Dry sump lubrication is not permitted unless original equipment.
 - .6 The exhaust system is free but should be of a type compatible with the period.
 - .7 Inlet manifolds are free but carburettors must be of the original make, model and number on the car. The choke size is free. Superchargers, multi-choke carburettors or fuel injection are permitted only if part of the original specification for that make and model, and remain unchanged from that original specification.
4. **Gearbox.** Gearbox casings, gearbox selection mechanisms and the number of forward ratios must be to the original manufacturer's design specifications. Internal components are otherwise free.
5. **Final Drive.** The external components of the final drive assembly must be unaltered from period specifications. Internal components are free.
6. **Brakes.** In the case of disc brake systems, the brake disc and calipers must be original. Drum brakes may be modified or replaced with others of a period type. Drums and or backing plates may be ventilated and or fitted with cooling fins. Dual/tandem master cylinders may be fitted.
Mechanical actuation may be converted to hydraulic operation.
Drum brakes may not be replaced by disc brakes.
7. **Suspension.** The suspension must be unaltered from the original specifications save that spring rates, ride height and damper settings may be altered.
Adjustable shock absorbers are not permitted.
Fore and aft axle location may be varied but transverse location may not be altered.
Spherical or "Rose" type joints are *not* permitted.
8. **Wheels.** Wheels must be unaltered from the original specifications and style.
Wheel sizes are to be as commonly used on cars of this type in the period, e.g. MG TC: 16" diameter by 4" rim width.
In no circumstances may wheel diameter be less than 15" or rim width greater than 5".
9. **Electrical Equipment.** All electrical equipment must be unaltered from the original specifications and be fully operative.
Dynamo/generator may not be replaced by an alternator.
Electric fans and any form of electronic ignition devices are not permitted.
The generator and/or lighting equipment may be removed whilst cars are participating as racing cars.

10. **Optional Equipment.** Optional equipment is permitted in this group only if detailed in either:
 - .1 Original manufacturer's workshop manual; or
 - .2 Spare parts catalogue
 and is specifically accepted by CAMS.

Group M—Post Historic Racing & Sports Racing (1961-1965)

ELIGIBILITY

Historic racing, sports racing and clubman sports cars with a competition history manufactured after 1st January, 1960 and before 31st December, 1965.
The car must be presented in a specification representative of one point of time within the group period, unless otherwise specified in these regulations.
Upon individual assessment by CAMS, certain cars built in the period but without a racing history may be accepted.
Exclusions: Formula Vee cars are specifically excluded from this category.

SPECIFIC REQUIREMENTS

1. **Coachwork.** Coachwork must be unmodified from that fitted to the particular car within the group period.
Cars should run with all bodywork intact unless it was customary for the particular car to do otherwise. (e.g. some rear engined cars customarily ran without engine cover).
2. **Cockpit.** The cockpit configuration, including seat/s, steering wheel and instruments must be as fitted to the particular car within the group period.
3. **Engine**
 - .1 Internal components of the engine are free save that cylinder block, cylinder head/s and crankshaft stroke must remain unaltered from the period specification on the subject car.
 - .2 The bore may be increased to a maximum of 1.5 mm beyond the dimension evident on the subject car in the group period.
 - .3 Toothed belt drives and dry sump lubrication systems may be used only if fitted to the subject car within the group period.
 - .4 The exhaust system is free, but should be of a period type. Any car which was fitted with a distinctive or characteristic exhaust system in the group period is encouraged to retain it.
 - .5 Inlet manifolds are free. Carburettors must be of the period make, model and number fitted to the car in the group period and must be to unaltered specification.
Turbo charging is not permitted.
4. **Gearbox.** Gearbox casings, transaxles, the number of forward ratios and gear change mechanisms must be unaltered from period specifications on the subject car. Internal components are otherwise free. Cars which were fitted with V.W. based transmissions in the group period may not use Holinger or Hewland quick change units or features.
5. **Final Drive.** External components of the final drive assembly must be unaltered from period specifications on the subject car. Internal components are free.
6. **Brakes.** The braking system must be of the same type fitted to the subject car within the group period.
Drum brake systems may not be replaced by disc brake systems.
Brake discs and calipers must be of the make, style and size fitted to the subject car within the group period.

Drum brakes may be replaced by others of period type. Cooling fins, scoops and ventilating holes may be added.

Dual/tandem master cylinders may be fitted.

Mechanical actuation may be converted to hydraulic operation.

7. *Suspension.* The suspension must be unaltered from the period specifications on the subject car.
Spring rates, ride height and damper settings are free.
Fore and aft axle location on beam axle cars may be varied. Transverse location may not be altered from historical group period specification.
Externally adjustable shock absorbers and "Rose" type joints are permitted only if fitted to the subject car in the group period.
8. *Wheels.* Wheels must be unaltered from period specifications on the subject car in diameter and style.
The rim width may not exceed 6" unless rims in excess of this dimension were fitted to the subject car within the group period.
9. *Electrical Equipment.* The electrical equipment must be unaltered from period specification on the subject car and remain fully operative. Alternators, electric fans and any form of electronic ignition devices are not permitted. An electric starter motor may be fitted.

Group N—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 G—Up to 1000 cc. |
| Class D—1601 to 2000 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. (or are otherwise specifically approved by CAMS) 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 330 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 (e.g. EH Holden under 3000cc, Cooper 'S' under 1300cc).
- .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 or fuel injection is not permitted, unless such induction method was employed as standard on the make and model of car by the manufacturer concerned.
Later models of carburettors which were available in the period are acceptable, even with different throat sizes, provided that the outward appearance is the same.
Carburettors of a make not available in the period are unacceptable.
- .4 The original type of gearbox and final drive assemblies including housings as supplied by the manufacturer for make and model concerned shall be employed. The final drive assembly is otherwise free, save that the original housing must be retained (although it may be subject of any machining operations provided always that its origin is able to be established).
The number of ratios may not be changed.
- .5 The original form and 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 form and 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. Modifications to disc brakes are limited to the freedom to fit alternative calipers of a type available pre 1965. Dual circuit braking systems are permitted, as is installation of power brake assistance. Brake lining material and hoses are free.
- .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". Aluminium alloy type wheels may be fitted, but only of a design and style available prior to 31st December 1964. Mudguard flares or extensions are not permitted unless they were fitted as original equipment by the manufacturer.
Tyres may not protrude outside the 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 "Spherical" or "Rose" type joints.
- .9 Dry sumping is not permitted, unless original equipment on the make and model concerned.

HISTORIC CARS

- .10 Tyres must be an approved type of radial or cross ply construction with a minimum aspect ratio of 70%. Racing tyres are not permitted.
- .11 The radiator cooling fan may be removed; electrically powered fans are not permitted.

4. SAFETY REQUIREMENTS:

- .1 Vehicles shall comply with all relevant requirements of Part 2 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 to CAMS for the fitment of a Lexan or Perspex windscreen.
- .3 A roll bar or cage compliant with Part 10 of Appendix C to the NCRs (Type 4 or 5) is required to be fitted in all cars. Side intrusion bars are permitted to be fitted.
- .4 Foam filling of fuel tanks is permitted. The fuel tank may not be moved from its original location.

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 Electrical equipment in conformity with the requirements of Group A is required to be fitted.
- .3 A high standard of presentation will be insisted upon at all times. Any vehicle considered to be of inappropriate standard will be summarily rejected.
- .4 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 entrant and/or 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.

*Group O—Historic Racing & Sports Racing (1966-1969)***ELIGIBILITY**

Historic racing, sports racing and clubman sports cars with a competition history manufactured after 1st January, 1966 and before 31st December, 1969.

The car must be presented in a specification representative of one point of time within the group period.

Upon individual assessment by CAMS, certain cars built in the period but without a racing history may be accepted.

Exclusions: Formula Vee, Formula Ford and Formula 5000 cars are specifically excluded from this group.

SPECIFIC REQUIREMENTS

1. *Coachwork.* Coachwork must be unmodified from that fitted to the particular car within the group period.
Cars should run with all bodywork intact unless it was customary for the particular car to do otherwise. (e.g.: some rear engined cars customarily ran minus engine cover).
2. *Cockpit.* Cockpit configuration, particularly seat/s, steering wheel and instruments must be as fitted to the particular car within the group period.
3. *Engine*
 - .1 Internal components of the engine are free save that cylinder block, cylinder head/s and crankshaft stroke must remain unaltered from the period specification on the subject car.
 - .2 The bore may be increased to a maximum of 1.5 mm beyond the dimension evident on the subject car in the group period.
 - .3 Toothed belt drives and dry sum lubrication systems may only be used if fitted to the subject car within the group period.
 - .4 *Exhaust Systems.* The exhaust system is free, but should be of a period type. Any car which historically had a distinctive or characteristic exhaust system is encouraged to retain it.
 - .5 *Induction Systems.* Manifolds are free, but carburettors must be of the period make, type and number fitted to the car. The size may be altered. Superchargers, fuel injection and multichoke carburettors are only permitted if fitted to the subject car within the group period and must remain unchanged.
Turbo charging is not permitted.
4. *Gearbox.* Gearbox housings, transaxles, the number of forward ratios and gear change mechanisms must be unaltered from period specifications on the subject car.
Internal components are otherwise free.
5. *Final Drive.* The external components of the final drive assembly must be unaltered from period specifications. Internal components are free.
6. *Brakes.* The braking system must be of the same type fitted to the car within the group period.
Drum brake systems may not be replaced by disc brake systems.
Brake discs and calipers must be of the make, style and size fitted within the group period.
Drum brakes may be replaced by others of period type. Cooling fins, scoops and ventilating holes may be added.
Dual/tandem master cylinders may be fitted.
Mechanical actuation may be converted to hydraulic operation.
7. *Suspension.* The suspension must be unaltered from the period specifications on the subject car.
Spring rates, ride height and damper settings are free.
Fore and aft axle location on beam axle cars may be varied. Transverse location may not be altered from historical group period specification.

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

8. *Wheels.* Wheels must be unaltered from period specifications in size (both diameter and width) and style.
9. *Electrical Equipment.* Electrical equipment must be unaltered from period specifications and fully operable. Electronic ignition devices are permitted if used on the car in the group period but must be to historic specifications. An electric starter motor may be fitted.
10. *Aerodynamic Aids.* Aerodynamic aids are permitted only if fitted to the subject car within the group period. Such devices must be unaltered from period specifications in design and mounting. However, aerodynamic devices which were banned in the group period are not permitted to be used. Modern wing sections and aerodynamic technology are not permitted to be employed.
11. *Safety Equipment.* Roll over protection and harness must be at least to the specifications evident during the group period.

Group P—Formula 5000 Racing Cars (pre 1978)

ELIGIBILITY

Factory built F5000 racing cars, specifically designed to F5000 regulations and constructed before 31st December 1977.

Australian built specials, constructed specifically for F5000 and raced in F5000 events before 31st December 1977.

1977 F5000 regulations are reproduced hereunder:

Engines: unsupercharged engines of V8 overhead valve pushrod configuration, the cylinder block of which derives from a CAMS-recognised touring car, of up to 5000cc capacity. The following restrictions apply:

- (i) displacement may be obtained by alteration of the bore and/or stroke;
 - (ii) the location and/or number of camshafts may not be changed;
 - (iii) the number of main bearings may not be changed;
 - (iv) the minimum weight of the vehicle including coolant and lubricants, but not including fuel and the driver, shall be 1,350lb. (612.36kg).
- The use of other than commercial fuel, as defined by CAMS, is prohibited.

A clear line of history is required for any subject car. Cars cannot be constructed from spares or damaged/cast-off components. (A tub or chassis does not necessarily constitute "a car").

Owners must present cars in their "most significant" historical format.

Only modifications compatible with the group period and to that particular car will be accepted.

Cars in this group only shall be eligible for any prize or trophy awarded to a F5000 car.

SPECIFIC REQUIREMENTS

1. *Coachwork:* Coachwork must be unmodified in design and materials from that fitted to the particular car within the group period. Cars shall run with all bodywork intact (particularly induction air boxes and engine covers) unless it was customary for the particular car to do otherwise within the group period.

2 COCKPIT

Cockpit configuration particularly seat, steering and wheel and instruments must be as fitted to the particular car within the group period.

3 ENGINE

1. Engine must be of the same make and type as fitted to the particular car within group period.
2. Blocks and cylinder heads must be of pre-1978 manufacture (CAMS may consider a model run-on in certain circumstances).
3. The bore may be increased to a maximum of 1.5mm beyond the dimension evident on the subject car in the group period.
4. The bore and stroke must be as used on the subject car in the group period.
5. Other limitations on engine components in force for F5000 at 31 December 1979 apply. Otherwise internal engine components are free.
6. The exhaust system must be as fitted to the subject car within the Group period.
7. Induction systems must be as fitted to the subject car within the group period.

Carburettors may not be replaced by fuel injection.
Turbocharging or supercharging is not permitted.

4 GEAR BOX/FINAL DRIVE

Gear box/final drive housing or transaxles, the number of forward ratios and gear change mechanisms must be unaltered from period specifications on the particular car.

Internal components are free.

5 BRAKES

The braking system must be of the same type fitted to the particular car within the group period.

Brake discs and calipers must be of the make, style, size and material fitted to the particular car within the group period.

Dual circuit systems are mandatory.

6 SUSPENSION

The suspension must be unaltered from the period specifications on the particular car.

Spring rates, ride heights, damper settings and normally adjustable geometry settings (camber, caster, toe) are free.

7 WHEELS

Wheels must be unaltered from period specifications in size (both diameter, width) and style on the particular car.

8 TYRES

Aspect ratios and tread widths must be in accordance with types used on F5000 cars within the group period.

9 ELECTRICAL EQUIPMENT

Electrical equipment must be unaltered from period specification.

Ignition systems must be as used on the particular car within the group period.

Engine management systems are not permitted.

10 AERODYNAMIC AIDS

Aerodynamic aids are permitted only if fitted to the particular car within the group period.

Such devices must be unaltered from period specifications in design materials and mountings.

Modern wing sections and aerodynamic technology is not permitted. (Incl. ground effects).

11 SAFETY EQUIPMENT

Roll over/crash protection and harness must be at least to the specifications evident at the close of the group period (see specific and general requirements for 1979).

"On board" fire extinguisher and life support systems are recommended.

A tail light as required in the group period must be operative.

12 WEIGHT

The minimum weight of the car including coolant and lubricants, but not including fuel and driver shall be 1350lb (612kg).

13 ADVERTISING

Advertising is not permitted, save that a particular vehicle may compete in the same livery as was evident on that car, at one point of time within the group period.

SUPERKART FORMULA

In all State and National Superkart competitions, competing vehicles shall be required to comply with the following regulations:

1. CHASSIS

Wheelbase: Minimum 100 cm — maximum 127 cm.

Track: At least two-thirds of wheelbase used, measured between wheel centres. Overall length 240 cm maximum. **Maximum height** of any part of the kart shall not exceed 71 cm from the ground; same for any structure the sole purpose of which is to serve as a head rest unit without any beneficial aerodynamic effect; and same for wings and their end plates which must not be more than 100 cm from the ground.

Tyres shall be pneumatic, with or without tubes, with a maximum outside diameter of 35 cm. Retreaded or remoulded tyres are prohibited.

Wheels shall revolve on ball or roller type bearings whether as separately mounted wheels or on a rotating axle shaft. Cast iron and plastic wheels are prohibited. Wheels must be secured to axle by either self-locking metal nuts or high tensile type bolts.

Frame shall be all metal.

Bumpers: All karts must be fitted with bumpers front and rear. No accessory fitted to the kart may extend past either the front or rear bumpers or bodywork.

Steering shall be effected by the operation of a full wheel or aircraft type wheel. Straight handlebars are prohibited. Steering stops must be fitted to karts to prevent jamming, bending or overstressing of tie rods at maximum lock. Detachable steering wheels are allowed.

Steering shall be direct acting through a steering shaft of 16 mm minimum diameter if solid or 19 mm minimum diameter if tubular, having a minimum wall thickness of 1.5 mm for 80 cc G.B. and 125 cc G.B. classes and 2 mm for 250 cc G.B. classes and be constructed of steel. The shaft shall be tapered, key splined, welded or bolted with a mating collar for steering wheel attachment. The steering wheel boss must be of metal. The steering shaft shall have a fail safe system to prevent its being pulled from the lower bush or bearing. All steering linkage assembly bolts and nuts must be cottered or safety wired or fitted with self-locking nuts (including king pin bolts). The tie rods must be of at least 8 mm OD steel rod or 10 mm OD by 2 mm steel tube or 10 mm OD aluminium alloy rod or equivalent or 12 mm OD by 2.6 mm aluminium alloy tube or equivalent. A male rod end with provision for grease nipples is not permitted.

All bolts must be at least 6 mm diameter high tensile with a shear strength of not less than 6 kN. All tie rods must have "rose" joints or similar aircraft type universal joints. "Peg" type joints may not be used. It is advisable that no steering components be chrome plated.

Brakes must be foot operated, providing efficient braking to at least the two rear wheels. Where there is free play at the ends of the axle keys a hose clamp or other positive mechanical method of key retention will be required. All exposed brake pad mounting bolts must be drilled and safety wired with quality tie wire.

Dual circuit brakes on four wheels are compulsory for 250 cc Gearbox karts.

Brake cables must be of multi-strand steel wire of at least 2.25 mm diameter. Cables must be fastened by a machine swage or by positive clamps that do not cut into the cable. Clamps must contact both main strand and return strand in two places at each end. Electrical connectors or similar are not permitted.

Brake rods must be at least 6 mm diameter solid steel.

Nylon brake hoses may not be connected using female compression olive type fittings. Tubes must be supported by male type support connections.

The **exhaust system** shall discharge behind the driver and shall not exceed the height of 50 mm. The exit must not include sharp edges. Outlet end of muffler to be within the confines of the kart when viewed from above.

Mufflers must provide for a maximum sound level of 96 dba. The driver seated normally, must be protected from all contact with the exhaust system.

Throttle: Operated by a pedal equipped with a return spring. Butterfly throttle must be fitted with two return springs both able to shut off throttle if one should fail.

Engine sprocket and chain **guards** are compulsory and must efficiently cover the engine sprocket and the axle sprocket down to the vertical centre line of the axle sprocket. The engine sprocket guard must incorporate sufficient side protection to prevent driver from trapping his fingers in the chain when seated in normal driving position. All chain guards must be securely fixed at both ends.

There must be a **floor** made from rigid material extending from the seat to the front of the kart. It must be edged on each side by a tube or rim to prevent the driver's feet from sliding off the floor, and not exceed the dimensions of the bodywork including wings and end plates. If perforated, the holes must not have a diameter exceeding 1 cm.

The **seat** must be so designed that the driver is well located to resist movement towards the side or front when cornering or braking. The driver must be able to see over the top of the steering wheel when seated in the normal position in the kart. Drivers' legs must occupy the front half of the kart. Whatever the position of the **pedals**, they must not protrude forward of the chassis, including the bumper.

Fuel Tanks must be firmly fixed to the chassis and not by any temporary system of attachment. Tanks must be built in such a way that neither they nor the fuel pipes, which must be flexible, present any danger or leakage during the competition. The containers must be fitted with male connectors to accept the fuel line, which must be wired or clipped. If side tanks exist, they must be efficiently protected by a bumper.

Front and Rear Tanks may be constructed of any leakproof material so as to fit under the steering hoop in the front of the kart. Tanks in the normal rear position are acceptable. Steel tanks must be constructed of material at least .7 mm thick. All fuel containers must be fitted with a male connector to accept the flexible fuel line. Flame retardent materials are recommended.

Maximum capacity front tank 14 litres
Maximum capacity rear tank 14 litres

Taps are optional. If fitted they shall be within easy reach of the driver when seated in the kart. Tanks and fittings must not protrude lower than the floor pan.

All automatic methods of chain **oiling and greasing** are prohibited.

Commercial fuel as defined may be used.

Any **suspension** device, either elastic or hinged, is prohibited.

Gearbox **drain plug** must be wired. All karts fitted with liquid filled transmission must have all drain, indent plunger caps and filler caps wired.

The **fairing** is free forward of the steering wheel; and shall not cover the driver rearward of the steering wheel when seated in the kart. Fairings shall not extend in width more than 50 mm beyond the quadrilateral formed by the outer edges of the front and rear tyres.

Perspex, plexiglass or fibreglass **bubbles**, minimum thickness of 1.2 mm, may be used and may extend up to a maximum of 75 mm above the top of the steering wheel.

Fairings must be of safe and sound construction and must be securely fastened to the frame. Construction of fairings is limited to glass reinforced epoxy or polyester resin or aluminium. Vacuum formed ABS of minimum thickness 2 mm and comparable non shatterable material is also permitted.

Fairings must be easily removable for Scrutineering.

All karts fitted with **liquid cooled** motors must be fitted with radiator overflow catch tanks.

SUPERKART FORMULA

2. AEROFOILS

Aerofoils must be mounted on the frame of the kart with supports of minimum 13 mm x 2 mm tubing, or equivalent. Aerofoils must be firmly fixed while the kart is in motion and must not be used as containers. The leading edge of any aerofoil shall have a minimum radius of 5 mm. Recommended materials for construction of aerofoils are glass reinforced plastic, aircraft weight plywood or aluminium (1 mm). Steel is prohibited.

3. ENGINES AND TRANSMISSIONS

Engines must be of 2 stroke cycle. Modifications are permissible. The following *Classes* shall be observed for all State and National Superkart Championships:

- 0 to 80 cc — to be known as 80 cc Gearbox Class.
 - 84 to 125 cc — to be known as 125 cc Gearbox Class.
 - 131.25 to 250 cc — to be known as 250 cc Gearbox International Class.
 - 131.25 to 250 cc (Single cylinder) — to be known as 250 cc Gearbox National Class.
 - 0 to 100 cc — to be known as 100 cc Non-Gearbox Class.
- Supercharging* of engines is forbidden.
Clutches are compulsory.
Front wheel drive systems are forbidden.

4. GENERAL

The *construction* of the vehicle shall be such as to satisfy the scrutineers as to its soundness and safety.

The minimum combined Kart/Driver *weight* for Superkart events shall be as follows:

| | |
|--|--------|
| 80 cc gearbox Junior | 130 kg |
| 80 cc gearbox Senior | 140 kg |
| 125 cc gearbox | 155 kg |
| 100 cc non-gearbox Junior | 105 kg |
| 100 cc non-gearbox Senior | 130 kg |
| 250 cc International gearbox with body | 195 kg |
| without body | 185 kg |
| 250 cc National gearbox with body | 185 kg |
| without body | 175 kg |

All weights must be securely fastened to the Kart.
 All karts and drivers, fully equipped, must be weighed at the time of scrutineering.

SPECIFIC REGULATIONS

These classes shall be open to karts fitted with 2-stroke motors normally fitted to production motorcycles, fitted with, and driven through a gearbox, modifications allowed, subject to the following:

- (a) The driver shall be permitted to change gears during racing.
 - (b) The motor shall be fitted with an operable clutch that is foot or hand operated.
1. **80 cc Gearbox Class (0-80 cc)**
 This Class is open to karts fitted with single cylinder production motor cycle engines, fitted with and driven through a gearbox fitted with no more than 7 forward ratios. Front wheel brakes are optional.
 2. **125 cc Gearbox Class (84-125 cc)**
 Engines in this class may be of 1 or 2 cylinders, fitted with gearboxes with no more than 7 forward ratios.
 Karts must be fitted with brakes on both front wheels (type optional) as well as the rear wheels; and shall be equipped with a double circuit braking system so arranged that

- (i) the pedal normally operates on the four road wheels and
 - (ii) in the event of leakage at any point in the braking system, the pedal shall still control two wheels on the same axle.
3. **250 cc Gearbox Class (131.25 cc-250 cc)**
 Karts must be fitted with brakes on both front wheels (type optional) as well as the rear wheels and shall be equipped with a double circuit braking system so arranged that
 - (i) the pedal normally operates on the four road wheels and
 - (ii) in the event of leakage at any point in the braking system, the pedal shall still control two wheels on the same axle.

All wheels must have a bead retention recess of at least 1 mm. The rear wheels must also have 3 bead retaining pegs on the outside bead. Where 3 bead retaining pegs are fitted to inside and outside of the wheel a retention recess is optional. Penalty for non-compliance is exclusion from the Competition.

INTERNATIONAL:

Engines may be of 1 or 2 cylinders. Two single cylinder 125 cc GB engines are permitted.

NATIONAL:

Engines may be of 1 cylinder only.

- .4 100 cc Non-Gearbox Classes (0-100 cc)
 This Class is open to karts complying with Appendix F and N (AKA Regulations).

All vehicles must be equipped with a clutch. These Karts are not eligible to race with 250 cc G.B. International Karts.

Part 4—Apparel

Races, Speed Events & Off Road Events

1. HEADGEAR:

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

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.

All helmets for use in Races & Special Stage Rallies must bear a CAMS approved label affixed by an authorised official.

“Balaclavas” are recommended (though not mandatory) for drivers, especially those with long hair and/or beards, as are face-masks. Save for Kart races, in which case it is compulsory for drivers to wear face masks or guards of Proban, Nomex, leather, 2 layers of woollen material, or of other approved material; or alternatively, a full face helmet.

Painting or use of solvents on helmets could be hazardous.

2. GOGGLES:

Goggles or visors must be worn by drivers of open cars. Those with glass lenses of any kind are not acceptable. Lenses shall be of a plastic material, with high impact resistance, satisfactory optical qualities and complying with Australian Standard Specification 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) One piece 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) Socks of undyed wool or other flame retardant material, worn under flame resistant boots or shoes which completely enclose the feet. (Driving without such footwear is forbidden.)
- (d) Gloves of recognised flame retardant material.

No apparel of flammable material (e.g. nylon or similar synthetics) may be worn in any race. Neither 2 piece overalls nor Proban treated material are approved.

In all Kart races and practice therefore, drivers must wear

- (a) jackets and trousers of leather, corduroy or cordulon, which are securely fastened at the waist, wrist and ankles. Full racing suits are recommended.

- (b) footwear securely fastened which covers and protects the ankles.

Kart drivers may wear appropriate wet weather clothing, in addition to that specified, subject to the approval of the stewards. It is recommended that acoustic ear plugs be worn.

4. PIT CREW:

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

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 AS1698 or otherwise approved by CAMS.

6.

No person may compete in any open rally or any rally timed to intervals of less than 1 minute unless wearing shoes & socks, a shirt with at least short sleeves, & clothing from neck to ankle.

7.

It is strongly recommended that no apparel of flammable material (e.g. nylon or similar synthetics) be worn.

All Events

8.

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—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.

2nd Category Sports Sedans

GT Cars**3rd Category Touring 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 10" for Sports Sedans, 18" for GT Cars, and as determined by vehicle mass for Touring Cars.

2. 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.

3. WET WEATHER TYRES:

- .1 Clerks of the Course will, after consultation with the Stewards and at an appropriate time announce that "untreaded tyres are not to be used until further notice".
- .2 As most untreaded racing tyres are not suited for other than dry tracks, scrutineers must ensure that (for circuit races and tarmac rally stages):
 - (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.
- .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, or
 - (b) It is not raining at the start, but the track is "running" with water over the greater part of its length.
- .4 In Formulae where a specific dry weather tyre and/or wet weather tyre are specified, the wet weather tyre may be used only under conditions (a) and (b) in paragraph 3 above.

4. CONTROL TYRES:

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

MAXIMUM PERMISSIBLE RIM WIDTHS

| Category | Vehicle | Maximum Widening Permitted | | Max. Rim Width for Steel Wheels | Maximum Rim Width other than Steel Wheels |
|----------|---------------|----------------------------|------------------------|------------------------------------|---|
| | | Prod. Steel Wheels | Non-Prod. Steel Wheels | | |
| 1 | Racing | Unrestricted | None | 8½" up to 2 000; 10" over 2 000 | Unrestricted |
| 2 | Sport Cars | Unrestricted | None | " | " |
| 2 | Sports Sedans | 50 mm (2 in.) | " | " | 10" |
| 2 | GT | 50 mm (2 in.) | " | Max width complete wheel: 18" | |
| 3 | Touring Cars | 50 mm (2 in.) | " | as determined by vehicle mass | |
| 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.

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

2.

2nd Category vehicles shall comply with the following requirements, (except for cars which comply with Sports Sedan Reg. 3.12 or G.T. D Reg. 3.11), 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 faces 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:

| | Mondial | 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 | 1300 mm | 1100 mm + 200 mm | 950 mm |

- | | 1100 mm wheels | 1100 mm | 1100 mm |
|--|----------------|---------|---------|
| 3 Front overhang, max | 100 cm | — | — |
| Rear overhang, max (from centre of wheel/axle) | 80 cm | 100 cm | — |
- .4 Wheels shall be external to the coachwork.
 - .5 The coachwork opening giving access to the cockpit must have the following minimum dimensions:—
Length: 600 mm
Width: 450 mm, maintained over 300 mm from the most rearward point of the seat backrest towards the front.
 - .6 Driver's seat able to be entered or left without it being necessary to open a door or remove a panel. Sitting at his steering wheel the driver must be facing forwards. Moreover, the cockpit must be so conceived that the maximum time necessary for the driver to get out does not exceed 5 seconds.

Part 7—Commercial Fuel

Unless specifically permitted otherwise, the only fuel to be used in competition is that described herein.

“Commercial fuel” is defined by the CAMS as:

1. FOR ALL SPARK-IGNITION ENGINES (RECIPROCATING AND ROTARY):

Either a “motor” fuel produced by an oil company and currently distributed at roadside refuelling stations throughout the territory of CAMS. This shall include the normal “unleaded,” “premium” “super” and “regular” motor fuels and gasoline complying with the recognised specification for 100/130 AVGAS, produced by an oil company and currently distributed for commercial use throughout the territory of the CAMS.

- (a) In all events in which the use of commercial fuel is mandatory such fuel must contain a maximum of 2% oxygen and 1% nitrogen by weight; the remainder of the fuel consisting exclusively of hydrocarbons and not containing any alcohols, nitro compounds or other power boosting additives. Only air may be mixed with the fuel as an oxygen.
- (b) Should a commercial fuel, of higher octane rating than is marketed at the date of the publication of these Rules be produced, the oil company producing such fuel shall give notice to the CAMS by registered letter; such fuel, or its equivalent, may thereafter be used from a date 30 days after the mailing of such registered letter.
- (c) Suppliers of fuel to entrants in any competition shall be required to send to the CAMS samples of such fuel at such times and in such quantities as the CAMS may decide, together with a declaration that such fuel complies with these Rules.
- (d) Nothing in the foregoing shall be deemed to prohibit the addition of water or a lubricant which does not increase the octane rating or specific heat content of the fuel.

N.B. Any other gasoline or petrol (e.g. Avgas 115/145) of higher rating than that specified is NOT permitted when “commercial fuel” is specified.

2. FOR COMPRESSION-IGNITION ENGINES (RECIPROCATING OR ROTARY):

A hydrocarbon product derived from petroleum, and conforming with British Standard 2869:1970 Class A1, with the exception of cloud point. The only

FUEL

permissible additive treatments shall be for oxidation or corrosion control or lubricity. Additives to improve the ignition quality of the fuel are not permitted.

3. FOR TURBINE ENGINES:

Kerosine used by commercial aviation companies for turbo-propellor or jet engines.

Part 8—Fire Extinguishers

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

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

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

2. In other than circuit races, all cars mentioned in .1 (above) and in all competitions, all other Category 1 vehicles, must be equipped with at least a fire extinguisher as required in .3 (below).
3. All vehicles of the 2nd, 3rd, 4th and 5th Categories in all speed events must be equipped with a fire extinguisher which complies with the following conditions and is properly fitted at a suitable location:

- (a) it must comply with either of the Australian Standard 1846 or 1848;
- (b) it must be of at least 900 g capacity;

The fitment of a CAMS-approved "on-board" extinguishing system shall be acceptable as an alternative to the fitment of a separate extinguisher.

Part 9—Safety Harness

1. Safety harness shall comply at least with the requirements of AS E35 and must be fitted and worn by the driver.
2. In all vehicles in which a roll bar/cage is required to be fitted, there shall be fitted a full harness, consisting of at least a lap strap and two-strap shoulder harness, fitted with a single buckle, and of which each component complies at least with the requirements of AS E35. The harness must be securely mounted at at least three points; the shoulder straps mounted behind the driver must be above a line drawn downward from the shoulder at an angle of 40° to the horizontal. If the two shoulder straps join prior to a common mounting point then that junction shall be at least 150 mm behind the driver's neck.
3. In closed cars which are not required to be fitted with a roll bar or cage, a seat belt of the full harness type (as described in .2), or a lap-sash type, must be fitted and worn by the driver. Each component must comply at least with ASE35.
4. In all cases of mounting the following must be observed:
 - (a) Floor mounting points must be reinforced with a plate of at least 75 mm x 50 mm on the underside of the body.

- (b) Full harness rear mounting points must be to a substantial part of the vehicle's structure, reinforced as may be appropriate.

(c) On production cars, the original mounting points may be satisfactory. In races all cars of 1st category and sports cars (formerly CAMS Group A) must be fitted with a 6 strap harness which incorporates a crutch restraint. It is recommended that all cars derived from series production Touring cars be fitted with such 6 strap harness.

Part 10—Roll Over Protection

1. ROLL OVER PROTECTION IS REQUIRED AS FOLLOWS:

- .1 Race Meetings—all cars, except competition exclusively for 5th Category (Historic) cars other than Group N.
- .2 Open Speed Events—all cars, except Touring Cars, those of 5th category, or those which are road-registered.
- .3 Closed Speed Events—not required.
- .4 Off Road Events—see Vehicle Regulations.
- .5 Rallies—all cars in International, Australian Championship & Special Stage events.
- .6 Other Events—as stipulated in the relevant Supplementary Regulations.
- .7 Races other than International and National open—not required on bodily unmodified fixed roof closed cars.

2. CONFIGURATION:

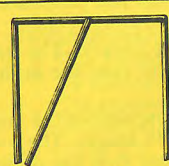
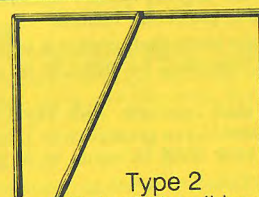
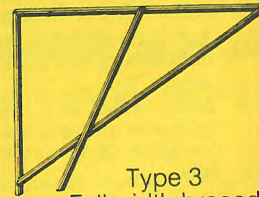
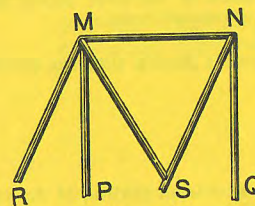
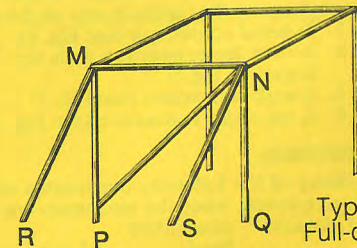
- .1 The *general design* and form of the Protection shall be as shown in Section 3 hereof.
- .2 The *hoop* shall be placed behind and above the driver's head from one side of the car to the other, and with the driver seated in the normal position, the hoop shall:
 - (a) be of a height not less than 50 mm above the driver's helmet;
 - (b) in conjunction with the vehicle's structure not leave unprotected any part of the driver's profile, including shoulders when viewed from the front or rear;
 - (c) not overhang, but be within 150 mm of the driver's helmet;
 - (d) in closed cars, be placed as near as possible to the roof in order to limit its crushing in the event of a somersault.
 - (e) in 1st Category (Racing) Cars, be constructed so that the driver's helmet is prevented from passing between the hoop bars to the extent that the helmet is visible at the rear of the hoop when viewed from the side.
- .3
 - (a) *Braces* shall be straight, save that in closed cars where the diameter of the brace material is 45 mm (1½") or more, they may be bent to conform to a coachwork profile, e.g. roof line.
 - (b) A *transverse diagonal brace*, where fitted, shall be attached to the hoop from the bottom of one side to the top of the other side.
 - (c) *Longitudinal brace/s* shall be attached to the upper portion of the hoop on each side of the car where applicable and extend towards the rear of the car as far as practicable.
- .4 *Front seat access* must not suffer interference by the fitting of roll over protection and no encroachment upon the volume reserved for the driver and front seat passenger is permitted.
- .5 Rear passenger space may be encroached upon by the elements of roll over protection and elements may pass through rear seat upholstery.

Note: Forward Facing Struts—Alternatives

On 1st Category cars, it may be more appropriate for the longitudinal braces to be forward rather than rearward. In such cases, these may be approved subject to accessibility to the driver not being impaired. Similarly, in open sports cars, the same may apply. In the case of Sports Cars, prior approval of CAMS is necessary.

3. FORMS OF ROLL OVER PROTECTION ACCEPTABLE

| Type | Description | Vehicle Application | Remarks |
|--------|----------------------------|--|---|
| Type 1 | Solo Roll Bar | 1st Category Cars. | Two 25 mm dia. x 1.5 mm gauge longitudinal braces or one brace of identical size to the hoop. |
| Type 2 | Full width Roll Bar | Light weight (700 kg) closed cars and open sports cars. | Acceptable only for other than speed events and races. |
| Type 3 | Full width Braced Roll Bar | Minimum acceptable (speed events) for closed cars under 1150 kg and open sports cars. | |
| Type 4 | Half Cage | Recommended for closed cars under 1150 kg. Minimum requirement for closed cars over 1150 kg. Recommended for open sports cars. Minimum acceptable for all open cars in Off Road events. | Strut MS may be MQ, NR or NP. |
| Type 5 | Full Cage | Recommended for closed cars over 1150 kg. | Strut NP may be MQ. |

Type 1
Solo roll barType 2
Full width roll barType 3
Full width bracedType 4
Half-cageType 5
Full-cage

4. MATERIAL:

- .1 For *hoops* and *braces* all steel tube shall be round in section of minimum sizes as set out below, electrical-resistance welded to Australian Standard 1450-1974 ("Circular and Non-Circular Steel Tubes for mechanical and general engineering purposes").
- .2 *Alternative materials* may be used only in protection manufactured by authorised firms or persons, and such protection must bear the manufacturer's name and licence number.
- .3 *Alternative Sections* corresponding to steel tube sections.

| | |
|-------------------|------------------------------------|
| <i>Mild Steel</i> | <i>Aluminium Alloy Alternative</i> |
| | (i) B6351 T5 |
| | (ii) B6061 T6 |
| mm | mm |
| 25 x 1.5 | 30 x 2.0 |
| 30 x 1.5 | 38 x 2.5 |
| 38 x 2.5 | |
| 45 x 2.5 | 45 x 3.0 |
| 50 x 2.5 | 50 x 3.0 |
- .4 *Bolts* shall be either Grade 5 (55 ton) High Tensile hexagon headed bolts or 90 ton cap screws (see Fig. 1).
- .5 *Pins* for removable connections shall be either 55 ton High Tensile steel or 90 ton Cap Screws.

5. FABRICATION:

- .1 One continuous length of tubing should be used for the main structure with smooth continuous *bends* and no evidence of crimping, wall failure or significant section weakening.
- .2 All *welding* should be of the highest quality possible with full penetration preferably arc welding and in particular heliarc.
- .3 Any *holes* drilled in the main hoop shall conform with Fig 2 below. The wall thickness of the inserted tube shall be equal to or greater than the drilled tube.
- .4 *Holes* drilled in a brace shall conform with Fig 3 below unless the wall thickness of this brace is equal to or greater than 3 mm (10 gauge). The wall thickness of the inserted tube shall be equal to or greater than the drilled tube.

6. REMOVABLE CONNECTIONS:

In cases where removable connections are used in roll-over protection construction they must be one of the following approved types.

1. Tapered connection (see Fig. 5)
2. A twin lug connection with axis working under double shearing conditions (see Fig 4)
3. A muff connection (see Fig. 7)
4. A tee clamp connection (see Fig. 6)

7. MOUNTINGS:

- .1 *Plates* of the following dimensions affixed to a structural portion of the car are required, when the mountings are not part of the car's structure.

| | | |
|-------------------|-----------|----------------|
| <i>Thickness:</i> | Aluminium | |
| | Steel | 4.7 mm (3/16") |

Area: *Lower:* 100 mm x 45 mm

Upper: Where the car's weight is less: than 700 kg: 100 mm x 65 mm
 between 700 kg-1150 kg: 100 mm x 75 mm
 greater than 1150 kg: 100 mm x 100 mm

- .2 *Bolts:* At least 2 of 10 mm (3/8") diameter or 3 of 8 mm (5/16") diameter, or the approved equivalent thereof, in each plate.
- .3 *Chassis Reinforcement.* Where the roll bar rests on a boxed section the latter must be locally reinforced. A recommended method is shown in Fig. 2.
- .4 *Road Registered Production Closed Vehicles.*
 - (a) The hoop may be mounted utilising a minimum of 4 safety belt mounting points provided by the vehicle manufacturer, provided that—
 - (i) the mounting points are within 75 mm of the centre line of the hoop tube, and
 - (ii) the intermediate mounting plates are as specified in .1 above for *upper* plates.
 - (b) The braces may use the rear safety belt mounting points provided by the vehicle manufacturer.

8. DIMENSIONS:

- .1 For the main hoop the minimum sectional dimensions are as follows:

| <i>Hoop Size</i> | <i>Tube Section (Steel)</i> |
|--|-----------------------------|
| Less than 610 mm x 380 mm | 30 mm x 1.5 mm |
| Off Road Vehicles of up to 700 kg mass | 38 mm x 2.5 mm |
| All others | 45 mm x 2.5 mm |

- .2 Bracing Material shall be not less than—

| | |
|----------------------|--|
| (a) Types 1 and 2 | 25 mm x 1.5 mm |
| (b) Types 3, 4 and 5 | cars less than 1150 kg: 30 mm x 1.5 mm cars above 1150 kg: 45 mm x 1.5 mm |

9. IMPLEMENTATION:

The foregoing revised requirements came into effect on 1st January 1980 for all cars first registered with CAMS after that date. Pre-existing cars must comply with the requirements effective until 31st December 1979.

10.

The above requirements serve to specify a minimum standard only. Alternative configurations will be considered by CAMS on individual application.

11.

Roll bars which do not comply with these regulations or are not otherwise specifically approved (see Reg. 10) are prohibited.

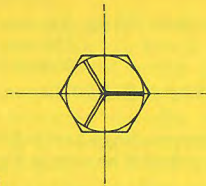


Fig 1
Bolt Identification
Grade 5 Head Marking.
U.T.S. 536 TON/in.²
Threads to A.S. B18.2.

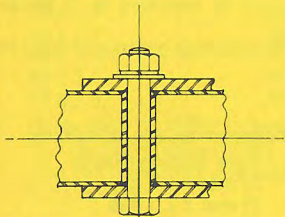


Fig 2
Method of Reinforcing
a Box Section

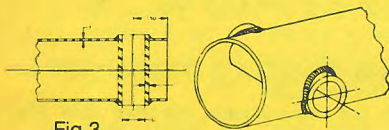


Fig 3
Method of Sleeving
a Hoop or Brace

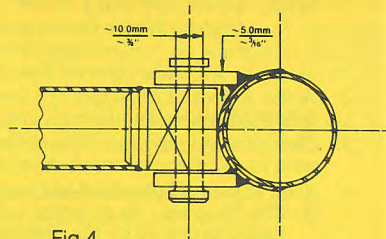


Fig 4
Twin Lug Connection

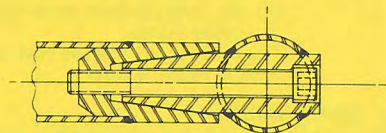


Fig 5
Tapered Connection

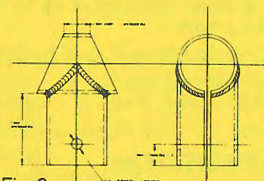


Fig 6
Mat'l & Wall Thickness.
Mild Steel; 3.0 mm min.
CAMS Approved Alloys only.
Alloy Welding: 5% Magnesium
Filler Rod

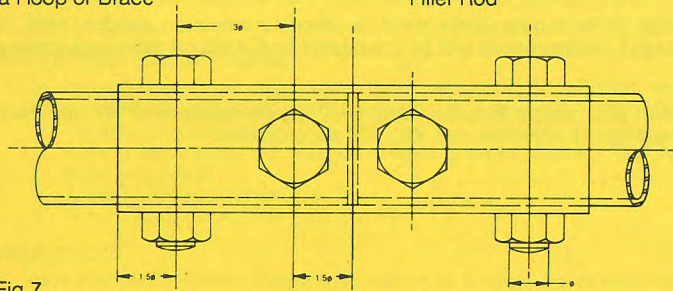


Fig 7
Muff Connection

12.0 mm (Tube \leq 40.0 mm O.D.)
14.0 mm (Tube \leq 40.0 mm $<$ 50.0 mm O.D.)
16.0 mm (Tube \leq 50.0 mm O.D.)

drawings by Robt. Vale.

Part 11—Markings on Automobiles

1. NUMBERS:

- .1 Competition numbers carried on automobiles in accordance with Rule 147 in Speed competition shall comply with the following requirements:
 - (a) the number shall be carried in such manner that in the opinion of the Chief Timekeeper it is clearly visible from both sides and the front of the automobile;
 - (b) in cars of 2nd & 3rd category, the number must be displayed on the front doors. In 1st Category cars, the number must be displayed alongside the cockpit or if physically possible, on the end plates of the rear wing;
 - (c) the number shall be either white on a black background or black on a white background. The background for the number must be either a disc or rectangle in a colour contrasting with the colour of the coachwork.
- .2 Numbers must be of the style known as "Tempo heavy condensed," viz—

1 2 3 4 5 6 7 8 9 0

- (a) on 1st Category & Sports cars, the minimum height of the figure shall be 230 mm and the minimum width of the line in each figure at least 40 mm. The background shall be at least 450 mm wide by 310 mm high.
- (b) on all other cars, each figure must be at least 280 mm in height, and the width of the line in each figure must be at least 50 mm;
- .3 No part of any numeral shall be closer than 40 mm to any part of the adjoining numeral, or to any part of the edge of the background; and no part of the competition number shall be closer than 160 mm to any part of other signs permitted hereunder.
- .4 Above or below the background, a surface having the same width as the background (in any case at least 450 mm wide on 1st Category & Sports cars and 500 mm on other cars), and of a height of at least 120 mm, shall be left free of advertising to be used at the discretion of CAMS, which may use it for advertising purposes, or which may delegate to the organisers authority to use that space. On cars on which such an area is not available, due to coachwork limitations the competitor shall keep free of any advertising an equivalent surface in the immediate vicinity of the background.
- .5 Competition number "1" is reserved exclusively for the current Australian champion driver in each applicable category. The champion driver may elect not to use number one, and in such eventuality it would be withheld for the appropriate period.
- .6 "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 windcreens 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 Rally Cars, 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; or being a telephone number is displayed on a rearward facing coachwork panel. In addition, the case of cars competing in road events, arabic numerals may be displayed subject to them being not greater than 100 mm in height, not located on either front door of the car, and otherwise complying with the requirements of this part of Appendix C.
 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.
 6. In International competitions, there shall be displayed on both front mudguards a facsimile of the national flag of the driver/drivers, as well as the names of the drivers. The minimum height of both flags and names shall be 40 mm.

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 no larger than and of a colour contrasting 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 National Championship rallies, an area 450mm wide x 600mm high must be reserved on each front door for the organisers' signs. Organisers may make no other requirements as to signs on the sides of cars.

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.

