

SPECIFICATIONS OF AUTOMOBILES

5th Category – Historic Cars

Vehicle Eligibility – Sports and Racing: F, J, K, L, M, O, P, Q, R, T, V and F5000

Modified Article	Date of Application	Date of Publication
1.1 (d)(i)(A,B,C,D,E,F & G) Engine & Clutch Inclusions for Sports 2000	01/01/2019	01/01/2019

Vehicle Eligibility

HISTORIC SPORTS & RACING CARS

1.1 GENERAL REQUIREMENTS:

This section details the requirements common to all historic sports and racing cars with a competition history. The “General Requirements” set out in article 1.1 also apply, together with additional specific requirements for individual groups detailed in the individual group sections.

- (a) **Chassis:** The chassis must be original and unmodified from period specification other than the addition of material to limited areas of the structure to provide local stiffening. Such modifications must not add new stressed members to the chassis and must not be designed to have an interacting effect which could be considered to provide a general stiffening of the structure. Suspension pick-up points may not be moved.
- (b) **Bodywork:** Must be original and unmodified from period specification, or replaced with a new body manufactured to the original design from materials and utilising construction methods evident in the period. Vehicles are to run with all bodywork intact unless it was customary for the particular vehicle to do otherwise within the group period (eg, some mid-engined vehicles customarily ran without an engine cover).
- (c) **Cockpit:** The cockpit configuration, particularly seat/s, steering wheel and instruments must be as fitted to the particular vehicle within the group period.
- (d) **Engine:** Cylinder block, crankcase and cylinder head/s must be original.

Internal components of the engine are free.

Crankshaft stroke must remain unaltered from the period specification on the subject vehicle. The bore may be increased to a maximum of 1.5mm beyond the dimension evident on the subject vehicle within the group period.

Toothed belt drives and dry sump lubrication systems may be used only if fitted to the subject vehicle within the group period.

The use of Roller Rockers is prohibited in all historic racing and sports car groups, up to and including Group M. Unless period evidence exists of their use on the specific vehicle in question.

(i) For Sports 2000;

- (A) 200 and 205 blocks are permitted but does NOT include later EFI cylinder heads with extended inlet ports.
- (B) Compression Ratios: Minimum Cylinder Head combustion volume 49cc (not including head gasket). Polishing and/or tooling of the cylinder head to achieve only the required combustion chamber volume is permitted.
- (C) Standard Ford Gasket, or Fel-Pro Ferrea or equivalent gasket may be used. Minimum thickness 0.9mm, minimum diameter of cylinder aperture 92mm.
- (D) Pistons and connecting rods: are free provided materials and minimum weights are observed.
- (E) Pistons must not protrude above cylinder block surface at TDC.
- (F) Camshafts: new blanks are permitted provided they are ground and stamped according to the original Ford factory specifications. Existing camshafts should be checked for compliance and stamped.

(G) Clutch: AP- type or equivalent competition clutch, provided minimum weight limitations were observed.

- (e) **Exhaust system:** The exhaust system is free, but must be of a style evident in the group period. Any vehicle which was fitted with a distinctive or characteristic exhaust system in the group period is encouraged to retain it.
- (f) **Induction system:** With the exception of Formula Ford vehicles, manifolds are free, but carburettors must be of the period make, type and number fitted to the vehicle. The size may be altered. Superchargers, fuel injection and turbochargers are permitted only if fitted to the subject vehicle within the group period and must be original and unmodified.
- (g) **Transmission:** Gearbox casings must be original and contain the original number of forward ratios. Internal components are otherwise free.
- (h) **Final drive:** All external components of the final drive assembly must be original, with the exception of the “nose piece” which is free. All internal components are free.
- (i) **Suspension:** The suspension must be unaltered from the period specifications on the subject vehicle.

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

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

Acceptable period shock absorbers for use in Fa, Fb, Fc, FF2000 and Sports 2000 are as follows:

- (i) steel bodied Armstrong, SPAX, AVO, GAZ, SACHS and ikon – single knob adjustable;
- (ii) steel bodied Bilstein – gas non-adjustable;
- (iii) steel bodied KONI – double adjustable;

Save for known period use of alloy KONIs, prior to banning; eg, Elwyn 002/003 series.

Specifically excluded are Penske branded and any type of remote canister shock absorber.

If an applicant can show dated period evidence of the use of an item on their particular vehicle's chassis, that item will be considered for approval.

Effective 1 September 2012 for incorrectly-issued Certificates of Description only.

- (j) **Steering:** The steering system employed for the year model in question by the original manufacturer, must be utilised. Only CAMS approved alternative components may be used. These components will be listed in the particular vehicle Specification Sheet.
- (k) **Wheels and tyres:** Wheels must be unaltered from period specification of the subject vehicle in diameter, width and style. Cast alloy wheels may be replaced with wheels cast in a different material, provided that the replacement remains identical in dimensions and appearance.

On individual application, cast alloy wheels may be replaced with a composite version, using the same style as the original wheels. Applications must be based on the substitution criteria to justify the replacement (refer to CAMS Manual - Historic Equipment Standards and Guidelines – Component Substitution Criteria).

Tyres: Subject to individual group specific requirements and within the limitations of availability and practicality, tyres must be consistent in general appearance and tread pattern with those fitted to the vehicle or similar vehicles during the group period.

- (l) **Brakes:** The braking system must be of the same type fitted to the vehicle 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.

- (m) **Electrical equipment:** Electrical equipment must be unaltered from period specifications and be fully operable.

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

An electric starter motor may be fitted.

Sports cars must be fitted with operable lighting and generating equipment compatible with the period.

Electrical equipment: Engine management systems are not permitted unless originally fitted to the vehicle during the group period.

- (n) **Aerodynamic Aids:** Aerodynamic aids in the form of “flaps”, “tabs” or “spoilers” integral with the vehicle bodywork are permitted provided they are identical to those fitted to the vehicle during the group period. Such devices must be unaltered from period specifications in design, materials and mountings. Modern wing sections and aerodynamic technology inconsistent with the relevant period are not permitted.
- (o) **Component Condition Testing:** Any new application for a Certificate of Description (see categories concerned below) must be accompanied by a valid certificate showing that the components listed below have positively undergone the tests of condition.

Categories concerned by this standard are, racing and sports racing cars of over 2 litre capacity, from the Group O (1966-1969) period onwards.

The following items must be checked for structural integrity and corrosion by non-destructive tests:

- (i) tubular suspension wishbones,
- (ii) light alloy suspension parts,
- (iii) steering columns,
- (iv) light alloy wheels and centres from composite wheels,
- (v) aluminium alloy tubular chassis.
- (vi) front and rear axles.

It is strongly recommended that similar inspections should be carried out on components that are vital to the integrity of the car but which may not be contained in the list above. Strongly recommended components listed below;

- (i) All rear suspension clevis
- (ii) Steering rack ends , e.g. Renault / Lola
- (iii) Steering arms if forged, e.g. Brabham, Lotus etc.
- (iv) All rod ends if unknown quantity [used]
- (v) Brake balance bar and brake pedal.
- (vi) Drive shafts, C.V. joint cages, Hardy Spicer crosses donut output shafts.
- (vii) Triumph type front uprights, e.g. Brabham, Lotus etc.
- (viii) Cast or fabricated rear wing mounts.
- (ix) Front upright top and bottom mounting pins.

Component testing procedures for the listed components must be undertaken using one of the following British (BSEN), Australian (AS) or US (ASTM) standard testing methods , or equivalent procedures approved by CAMS -

- (i) Visual Inspection BSEN 970:1997 (or current edition), AS 3978
- (ii) Penetration Flaw Detection BSEN 571-1:1997 (or current edition), AS 2062:1997 or ASTM E1417 or MIL-STD 6866 Liquid Penetrant Testing (superseded by ASTM E1417).
- (iii) Magnetic Particle Flaw Detection BS 6072:1981 (or current edition), AS 1171:1998 or ASTM E1444 or MIL-STD- 1949 Magnetic Particle Testing (superseded by E1444).
- (iv) X-Ray Flaw Detection BSEN 1435:1997 (or current edition), AS 2177.1:1994
- (v) Detection of Surface Flaws in Non-Ferromagnetic Metallic Products AS 4544:2005 (equivalent to EN12084)

Certification fail or pass test reports will be adequate and are to be retained with the vehicle and components tested are to be clearly identified on those reports.

1.2 SPECIFIC REQUIREMENTS

Group Ja

VINTAGE CARS (PRE-1931)



The classification of vehicles within this group will be at the absolute discretion of CAMS. This group is intended to represent the early racing and sports car development period of significant excellence in design and workmanship known as the “vintage” period.

Vehicles eligible for this group will be racing and sports cars with a competition history established prior to 31 December 1930. Consideration will also be given to individual sports cars that do not have an established competition history but are of a type that appeared in competition prior to the end of 1930.

Specific requirements additional to the General Requirements:

- (a) Cockpit: The use of electronic instruments is not permitted.
- (b) Engine: Any increase in the bore diameter shall be in keeping with the practice of the period on that particular type of vehicle and engine.
- (c) Induction system: Must be of a type compatible with 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 acceptable.
- (d) Transmission: Austin 7s may use a “Works Type” four-speed conversion within a Group J period three-speed case.
- (e) Tyres must have a minimum aspect ratio of 70% as determined by the Tyre and Rim association.

In addition, the use of motorcycle tyres is permitted for use in this group, provided they are fitted on the correct width rims and are operated within their specified load rating. The permitted list of motorcycle tyres can be found in CAMS Manual - Historic - Equipment Standards and Guidelines – List of Permitted Motor Cycle Tyres.
- (f) Fuel: Only pump fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group Ka

POST-VINTAGE THOROUGHBRED CARS (1931-1940)



The classification of vehicles within this group will be at the absolute discretion of CAMS. This group is intended to represent the pre-World War II and early post-World War II periods, which includes the classically engineered factory racing and sports cars, local specials constructed on a “one-off” basis, using production car components from the pre-war period and factory constructed vehicles that were modified with production car engines from pre-war period.

Vehicles eligible for this group will be racing and sports cars with a competition history established between 1 January 1931 and 31 December 1949, but constructed from major components manufactured prior to the end of 1940. Consideration will also be given to individual sports cars that do not have an established competition history but are of a type that appeared in competition prior to the end of 1940.

Specific requirements additional to the General Requirements:

- (a) **Cockpit:** The use of electronic instruments is not permitted.
- (b) **Engine:** Any increase in the bore diameter shall be in keeping with the practice of the period on that particular type of vehicle and engine.
- (c) **Induction system:** Must be of a type compatible with 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.
- (d) **Tyres:** must have a minimum aspect ratio of 70% as determined by the Tyre and Rim association.

The use of motorcycle tyres is permitted for use in this group, provided they are fitted on the correct width rims and are operated within their specified load rating. The permitted list of motorcycle tyres can be found in CAMS Manual - Historic - Equipment Standards and Guidelines – List of Permitted Motor Cycle Tyres.
- (e) **Fuel:** Only pump fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group Lb

HISTORIC RACING & SPORTS CARS (1941-1960)

The classification of vehicles within this group will be at the absolute discretion of CAMS. Vehicles classified in this group will reflect the post-World War II period of technology changes extending from the first of the post-war designs through an evolution culminating with the first of the mid-engined vehicles of the late 1950s.

Eligibility will be open to racing and sports cars with a competition history established in the period between 1 January 1941 and 31 December 1960, but excluding vehicles constructed from pre-1940 components which are eligible for classification in Group K. The group will include all vehicles constructed specifically to the post-war 500cc Formula 3 even if such vehicles are constructed from pre-1946 components.

Consideration may also be given to the classification within this group of vehicles constructed between 1 January 1941 and 31 December 1960 but with a competition history established subsequent to 31 December 1960 or, in some circumstances, without a racing history provided the specification of the vehicle is consistent with the general standard of technology evident in vehicles raced during the group period and the vehicle is compatible in appearance with such vehicles.



Specific requirements additional to the General Requirements:

- (a) **Induction system:** Motorcycle-engined vehicles originally fitted with Amal carburettors may use Amal Concentric Mk 1 carburettors.
- (b) **Tyres:** must have a minimum aspect ratio of 70% as determined by the Tyre and Rim Association.

A selected list of motor cycle tyres is permitted for use in this group, provided they are fitted on the correct width rims and are operated within their specified load rating. The permitted list of motorcycle tyres can be found in CAMS Manual - Historic - Equipment Standards and Guidelines – List of Permitted Motor Cycle Tyres.

Fuel: Only pump fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group M

HISTORIC RACING & SPORTS RACING CARS (1961-1965)



The classification of vehicles within this group will be at the absolute discretion of CAMS. The group is intended to cater for racing, sports racing and sports cars with a competition history established in the period between 1 January 1961 and 31 December 1965. Such vehicles will reflect the development of more advanced design features such as complex space frame and monocoque structures, sophisticated adjustable suspension systems and the commencement of wide racing tyre development.

Consideration may also be given to the classification within this group of vehicles constructed between 1 January 1961 and 31 December 1965 but with a competition history established subsequent to 31 December 1965 or, in some circumstances, without a racing history, provided the specification of the vehicle is consistent with the general standard of technology evident in vehicles raced during the group period, and the vehicle is compatible in appearance with such vehicles.

Formula Vee vehicles are specifically excluded from this Group.

Specific requirements additional to the General Requirements:

- (a) **Transmission:** Vehicles which were fitted with VW-based transmissions in the group period may not use Holinger or Hewland gear change mechanism or external features unless so equipped originally.
- (b) **Wheels and tyres:** Each tyre shall have a minimum aspect ratio of 60% as determined by the Tyre and Rim Association, unless it can be demonstrated that the vehicle was fitted with tyres of less than 60% aspect ratio in the group period. The use of motorcycle tyres or slick treaded tyres is prohibited.

Tyres permitted in this group must be selected from the following approved list.

GROUP M APPROVED TYRE LIST:

Dunlop	R5, R6 (CR48 L section), R7 (CR65 M section), R7 (CR65 L section)
Goodyear	Blue streak sports car specials, G-12, G-12A (K), Eagle G-7, G-15
Avon	CR6ZZ, ACB9, Avon grooved slick (A11 compound) on individual application (Grooved slick only eligible for cars with rim width above 6" front and 8" rear.
Hoosier	Vintage TD

The addition of other types of tyre to the List will be considered on application. Additional grooving is permitted to each tyre on the Group M Approved Tyre List.

The use of motorcycle type tyres or 'slick' tyres is prohibited. However the use of grooved slicks selected from the above approved tyre list and conforming with the requirements below may be permitted on individual vehicles. Prior approval for the use of grooved slicks must be obtained from the Historic Eligibility Committee. An application for approval must be submitted to CAMS at least 21 days prior to the first intended use of the tyres. The approval must be verified by appropriate endorsement of the tyre sizes approved on either the Certificate of Description or in the Historic Vehicle Log Book.

Only vehicles with a front wheel width of 6" or above and rear wheel width of 8" or above may be eligible to use the grooved slick. The tread pattern of each grooved slick must be to period specifications.

Variations from the overall diameter and tread width used in period on the particular type of car shall not exceed 5% and 10% respectively the original diameter relationship between the front and rear tyres shall be maintained. The minimum diameter for front tyres shall be 21 inches and the minimum diameter for rear tyres shall be 23 inches, unless approved by the HEC.

Grooving of Avon slicks is restricted to tyres using the A11 compound with the Avon 'all weather' tread pattern as per the official Avon diagrams (available from CAMS) and a minimum number of circumferential grooves as listed. The use of alternative wet weather tyre compounds and/or tread patterns is not permitted.

From the 01/01/2017 the minimum number of circumferential grooves for each tyre size is as per the Group O list.

- (c) **Fuel:** Only pump fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group O

HISTORIC RACING & SPORTS RACING CARS (1966-1969)



The classification of vehicles within this group will be at the absolute discretion of CAMS.

This group is intended to cater for racing, sports racing and sports cars with a competition history established in the period between 1 January 1966 and 31 December 1969, excluding vehicles fitted with aerodynamic devices as defined

under “specific requirements” below. Formula Vee, Formula Ford, Sports Sedans and Formula 5000 cars are also specifically excluded from this group which is intended to reflect the development of wide treaded racing tyre technology and its effect on suspension and chassis design but stopping short of the period when external aerodynamic devices became a major design feature with a significant impact on cornering performance.

Consideration may also be given to the classification within this group of vehicles constructed between 1 January 1966 and 31 December 1969 but with a competition history established subsequent to 31 December 1969, or in some cases without a competition history, provided that the specification of the vehicle is consistent with the general standard of technology evident in vehicles raced during the group period and the vehicle is compatible in appearance with such vehicles.

Specific requirements additional to the General Requirements:

- (a) Wheels and tyres: Each tyre shall have a minimum aspect ratio of 60% as determined by the Tyre and Rim Association, unless it can be demonstrated that the vehicle was fitted with tyres of less than 60% aspect ratio in the group period.

GROUP O APPROVED TYRE LIST:

Dunlop	R7 (CR65 Mk 3), CR 82, CR 84, R7 (CR65 L section)
Goodyear	Eagle G-7, G-15, G15-A
Avon	ACB9, Avon grooved slick (A11 compound) on individual application

The addition of other types of tyre to the List will be considered on application.

Additional grooving is permitted to each tyre on the Group O Approved Tyre List.

The use of motorcycle type tyres or ‘slick’ tyres is prohibited. However the use of grooved slicks selected from the above approved tyre list and conforming with the requirements below may be permitted on individual vehicles.

Prior approval for the use of grooved slicks must be obtained from the Historic Eligibility Committee. An application for approval must be submitted to CAMS at least 21 days prior to the first intended use of the tyres. The approval must be verified by appropriate endorsement of the tyre sizes approved on either the Certificate of Description or in the Historic Vehicle Log Book.

The tread pattern of each grooved slick must be to period specifications. Variations from the overall diameter and tread width used in period on the particular type of car shall not exceed 5% and 10% respectively the original diameter relationship between the front and rear tyres shall be maintained. The minimum diameter for front tyres shall be 21 inches and the minimum diameter for rear tyres shall be 23 inches, unless approved by the HEC.

Grooving of Avon slicks is restricted to tyres using the A11 compound with the Avon ‘all weather’ tread pattern as per the official Avon diagrams (available from CAMS) and a minimum number of circumferential grooves as listed.

The use of alternative wet weather tyre compounds and/or tread patterns is not permitted.

From the 01/01/2017 the minimum number of circumferential grooves for each tyre size is:

Tyre Size	Number of Grooves
7.00 x 22 x 13	5
8.2 x 22 x 13	6
9.00 x 20 x 13	7
9.2 x 22 x 13	7
10.00 x 22 x 13	8
10.5 x 23 x 13	8

10.5 x 23 x 15	8
11.00 x 23.5 x 15	9
12.00 x 23 x 13	9
13.00 x 23 x 13	10
13.00 x 24.5 x 13	10
13.00 x 25 x 15	11
12.5 x 27 x 15	10
14.00 x 27 x 15	11
15.00 x 26 x 15	12

- (b) **Aerodynamic aids:** The use of aerodynamic aids in the form of “wings” not comprising an integrated component of the bodywork is not permitted even if such devices were fixed to the vehicle during the group period. Such cars will be classified in Group Q. However, cars originally fitted with aerodynamic “wings” in the Group O period may remove them to be classified in Group O.
- (c) **Fuel:** Only pump fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group P

HISTORIC RACING & SPORTS RACING CARS (1968-1972)



This group is intended to cater for racing, sports racing and sports cars with a competition history between 1 January 1968 and 31 December 1972. It is intended to reflect both the continued development of wide treaded racing tyre technology and the emergence of embryonic external aerodynamic devices as an aid to cornering performance.

Eligible vehicles are those which competed on or after 1 January 1968 and prior to the end of 1972 and which are fitted with aerodynamic aids in the form of wings, which cannot be adjusted while the automobile is moving, and with treaded tyres in accord with the Group O approved tyre list. The use of wings which are mounted on unsprung suspension components or which are adjustable while the automobile is in motion is prohibited.

Specific requirements additional to the General Requirements:

- (a) **Fuel:** Only pump fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group Q

HISTORIC RACING & SPORTS RACING CARS (1970-1977)



The classification of vehicles within this group will be at the absolute discretion of CAMS.

The group is intended to cater for racing, sports racing and sports cars with a competition history established in the period between 1 January 1970 and 31 December 1977, and for vehicles excluded from classification within other groups of the 5th Category because of the nature of aerodynamic devices with which they are fitted. Formula Vee, Formula Ford, Sports Sedans and Formula 5000 cars are specifically excluded from this group, which is intended to reflect the development of aerodynamic technology as an aid to cornering performance but without extending to the period when such technology extended to the use of the vehicle underbody as an aerodynamic aid, ie, the wing car era.

Consideration may also be given to the classification within this group of vehicles constructed between 1 January 1970 and 31 December 1977, but with a competition history established subsequent to 31 December 1977 or in some cases without a competition history, provided the specification of the vehicle is consistent with the general standard of technology evident in vehicles racing during the group period and the vehicle is compatible in appearance with such vehicles.

Specific requirements additional to the General Requirements:

- (a) **Tyres:** The use of slick tyres will be permitted on vehicles that originally used such tyres during the group period. Where treaded tyres are used the tread pattern is free.
- (b) **Safety equipment:** Rollover protection and harness must be at least to the specifications evident during the group period. Refer to CAMS Manual – Historic - General Requirements – 1.5 Safety.
- (c) **Fuel:** Only pump fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group F 5000

FORMULA 5000 RACING CARS (PRE-1978)



The classification of vehicles within this group will be at the absolute discretion of CAMS.

Factory-built Formula 5000 racing cars specifically designed to F5000 regulations and constructed before 31 December 1977; or Australian built specials, constructed specifically for F5000 and raced in F5000 events before 31 December 1977. A clear line of history is required for any subject vehicle.

Vehicles may not be constructed from spares or damaged/cast-off components (a tub or chassis does not necessarily constitute a vehicle).

Owners must present vehicles in a matching mechanical and visual (livery) specification for the event or year selected. Only modifications compatible with the group period and to that particular vehicle will be accepted. Vehicles in this group only shall be eligible for any prize or trophy awarded for a F5000 car.

Specific requirements additional to the General Requirements:

- (a) **Engine:** Cylinder blocks and heads must be of pre-1978 manufacture (CAMS may consider a model run-on in certain circumstances). The bore and stroke must be as used on the subject vehicle in the group period. Other limitations on engine components in force for F5000 at 31 December 1977 apply. Otherwise internal engine components are free.
- 197700 engine regulations are reproduced hereunder:
- Unsupercharged engines of V8 overhead valve pushrod configuration, the cylinder block of which derives from a CAMS-recognised touring vehicle, 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 and
 - (iii) the number of main bearings may not be changed.
- (b) **Aerodynamic aids:** Aerodynamic aids are permitted only if fitted to the particular vehicle within the group period. Such devices must be unaltered from period specifications in design, materials and mountings. Modern wing sections and aerodynamic technology are not permitted.
- (c) **Safety equipment:** Rollover protection and harness must be at least to the specifications evident at the close of the group period (refer to CAMS Manual – Historic - General Requirements – 1.5 Safety). “On board” fire extinguisher and life support systems are recommended. A tail lamp as required in the group period must be operative.
- (d) **Weight:** The minimum weight of the vehicle including coolant and lubricants, but not including fuel and driver, shall be 1350lb (613kg).
- (e) **Fuel:** Only Pump Fuel or Leaded Racing Fuel as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group R

HISTORIC RACING & SPORTS RACING CARS (POST-1977)



The classification of vehicles within this group will be at the sole discretion of CAMS.

This group is intended to cater for racing, sports racing and clubman sports cars with a competition history established in the period between 1 January 1978, and the various end dates below shown under Eligible vehicles.

Formula Vee cars are specifically excluded from classification within this group.

Vehicles of other types not specifically included may be considered but, to be considered, they must have a competition history and be constructed to a design specification consistent with the period the group is intended to portray. Vehicles of a design and type specification consistent with those appearing in contemporary categories will not be eligible.

Consideration may also be given to classification within this group of vehicles with a competition history established subsequent to the dates defining the group period, or in some cases without a competition history provided that:

- the detailed specification of the vehicle is substantially identical to others of that make constructed within the group period; or
- construction commenced during the group period and the vehicle is compatible in appearance and its specification is consistent with the general standard of technology evident in vehicles of that type racing in the group period.

The group is intended to cater for vehicles employing more sophisticated chassis, suspensions and aerodynamic technology but specifically excluding vehicle types seen in contemporary categories.

Eligible vehicles: Eligible vehicle types and the period end dates are as follows:

- FIA Formula 1 with a competition history prior to 31 December 1985.
- FIA Formula 2 with a competition history prior to 31 December 1986.
- FIA Formula 3 with a competition history prior to 31 December 1984.
- Formula B (SCCA), Atlantic, Pacific and Mondiale cars with a competition history established in Australia, New Zealand, Asia, the UK or North America prior to 31 December 1986.

Sports racing cars (ie, two-seater, road-equipped vehicles of specialist design intended specifically for motor racing use) with a competition history in Australia prior to 31 December 1987. Sports racing or sports prototype cars with a competition history outside of Australia will be considered individually within the terms of item 1 - Eligibility, above.

- Clubman sports cars with a competition history in Australia prior to 31 December 1981.
- Australian Formula 2 cars with a competition history prior to 31 December 1987.
- Sports 2000 cars, with a competition history prior to 31 December 1984. Cars classified in this group must comply with the Sports 2000 rules of the period in the country in which the car's competition history was established, save as specified by CAMS special requirements.
- Formula Ford 2000 with a competition history prior to 31 December 1983. Cars classified in this group must comply with the Formula Ford 2000 rules of the period in the country in which the car's competition history was established, save as specified by CAMS special requirements.
- Formula 3000 with a competition history prior to 31 December 1988 and exhibiting aluminium monocoque and fibreglass construction. Cars classified in this group must conform with the FIA F3000 competition rules.
- Formula Libre vehicles with a competition history established in Australian events prior to 31 December 1985.
- IndyCar vehicles with a competition history established prior to 31 December 1986.
- Formula Super Vee, with a competition history established prior to 31 December 1988 (maximum engine capacity of 1600cc). Cars classified in this group must conform with the SCCA, Robert Bosch Super Vee Championship Regulations.
- Formula Holden, with a competition history established prior to 31 December 1991 (specifically excluding full carbon-tub cars). Cars classified in this group must conform to the rules of the period.
- UK Monoposto Formula cars: Single-seater cars with competition history prior to 1987 with a maximum engine size of 1700cc (this capacity shall include the bore increase of 1.5mm) that ran under rules intended to allow competition on a lower "club-level" budget. The construction, specification and performance should be consistent with the regulations of Australian Formula 2 of the period. Approval in principle from CAMS is strongly recommended prior to purchase/import of any UK Monoposto Formula car.
- FIA Group C1 Prototypes with a competition history prior to 31 December 1993;
- FIA Group C2 Prototypes with a competition history prior to 31 December 1993; • IMSA GTP Prototypes with a competition history prior to 31 December 1993.

Specific requirements additional to the General Requirements:

- (a) **Engine:** Vehicles with turbocharged F1 engines are restricted to a maximum of 2.5 bar total boost.
- (b) **Final drive:** Torque biasing, limited slip and locked differentials are not permitted in vehicle types which were not permitted to use such equipment in the period.
- (c) **Aerodynamic aids:** Any part having an aerodynamic influence and/or any part of the coachwork must be rigidly secured to the entirely sprung part of the chassis/monocoque structure of the car. Cars built using ground effects principles must have any sliding skirts removed, or immobilised at a height of not less than 40mm above the surface of the ground. Cars with fixed side skirts may retain them, but no part of the skirt or the chassis/monocoque structure may be lower than 40mm above the surface of the ground, measured whilst the car is stationary on a flat horizontal surface with the driver on board in a race-ready configuration.

The intention of these requirements is to control ground effects by prohibiting the sealing of the gap between the coachwork and the road surface and to do so in a uniform and consistent manner. Any means, device or construction that is designed to bridge the gap between the sprung part of the car and the ground is prohibited under all circumstances.

- (d) **Vehicle identification:** In addition to vehicles in this class complying with Schedule K of this Manual all vehicles must display an upper case “R” being black in colour, 100mm in height in typeset Helvetica Bold Condensed immediately following the vehicle’s racing number at the bottom right-hand corner and within the number panel.
- (e) **Safety equipment:** Rollover protection and harness must be at least to the specifications evident during the period (refer to CAMS Manual – Historic - General Requirements 1.5 Safety).
If a fire extinguishing system was fitted in the period, then that fire extinguishing system as used in the period is the minimum requirement. Vehicles must also comply with the requirements of Schedule H as to the extinguishing medium.
- (f) **Tyres:** The use of slick tyres will be permitted on vehicles that originally used such tyres during the group period. Where treaded tyres are used the tread pattern is free.
- (g) **Fuel:** Only Pump Fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group F

FORMULA FORD RACING CARS



The classification of vehicles within this group will be at the sole discretion of CAMS.

The group is intended to cater for Formula Ford 1600 racing cars within the various sub-groups set out below:

Eligible Vehicles

GROUP FA (PRE-1978)

Vehicles with a competition history established prior to 31 December 1977. Vehicles classified within this sub-group will generally be restricted to those equipped with ‘outboard’ rather than ‘inboard’ mounted springs and shock absorbers. However, consideration may be given to the classification of vehicles equipped with ‘inboard’ mounted springs and shock absorbers where the general design standard of the vehicle is consistent with Formula Ford vehicles raced within the sub-group period.

Consideration may also be given to the classification within this sub-group of vehicles with a competition history established subsequent to 31 December 1977 or, in some cases, without a competition history, provided:

- the detailed specification of the vehicle is substantially identical to others of that make constructed within the sub-group period; or
- construction commenced during the sub-group period, the vehicle is compatible in appearance and its specification is consistent with the general standard of technology evident in Formula Ford vehicles racing in the sub-group period.

GROUP FB (1978-1983)

Vehicles with a competition history established between 1 January 1978 and 31 December 1983 but excluding the Swift DB1.

Consideration may also be given to the classification within this sub-group of vehicles with a competition history established subsequent to 31 December 1983 or, in some cases, without a competition history, provided:

- the detailed specification of the vehicle is substantially identical to others of that make constructed within the sub-group period; or

- construction commenced during the sub-group period, the vehicle is compatible in appearance and its specification is consistent with the general standard of technology evident in Formula Ford vehicles racing in the sub-group period.

GROUP FC (1984-1989)

Vehicles with a competition history established between 1 January 1984 and 31 December 1989.

Consideration MAY also be given to the classification within this sub-group of vehicles with a competition history established subsequent to 31 December 1989 or, in some cases, without a competition history provided:

- the detailed specification of the vehicle is substantially identical to others of that make constructed within the sub-group period; or
- construction commenced during the sub-group period, the vehicle is compatible in appearance and its specification is consistent with the general standard of technology evident in Formula Ford vehicles racing in the sub-group period.

Specific requirements additional to the General Requirements:

- (a) **Engine:** All vehicles must use either the Ford Cortina 1600GT crossflow engine (original engine) or the Ford Capri XL 1600 crossflow engine (updated engine). Vehicles equipped only with the updated engine during the relevant sub-group period may not use the original engine.

Original engines must comply in full detail with the specifications set out for such engines in the 1970/71 CAMS Manual.

Updated engines must comply in full detail with current Formula Ford 1600 engine regulations save that the water pump must be mechanically driven and in the original location.

- (b) **Final drive:** Torque biasing, limited slip and locked differentials are not permitted.
- (c) **Tyres:** The make, type, specification and dimensions of tyres permitted for use are approved by the Australian Historic Motor Sport Commission, viz: Dunlop CR82 9092 or, as an interim measure until supplies of the Dunlop CR82 9092 are readily available, the Avon ACB9 with the following specifications;

- Compound A29
- Front tyre number: 14297
- Rear tyre number: 14298

(NOTE: Existing Dunlop and Avon ACB9 (A25, medium compound) tyres will be eligible for use until the 30th of June)

- (d) **Safety equipment:** Rollover protection and harness must be at least to the specifications evident during the relevant sub-group period.

If a fire extinguishing system was fitted during the relevant sub-group period then that fire extinguishing system as used in the period is the minimum requirement. Vehicles must also comply with the requirements of Appendix H as to the extinguishing medium.

- (e) **Minimum weight:** All vehicles must comply with the minimum weight requirement applicable in Australian Formula Ford events (as listed below) in the year to which the car's current specification relates.

1969-1979	400kg	car only (without fuel)
1980-1983	470kg	car and driver
1984-1989	485kg	car and driver

- (f) **Suspension:** Refer to 1.1 CAMS Manual – Historic - General Requirements; (i) suspension.
- (g) **Fuel:** Only Pump Fuel or Leaded Racing Fuel as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

Group V

FORMULA VEE RACING CARS



The classification of vehicles within this group will be at the sole discretion of CAMS.

The group is intended to cater for Formula Vee racing cars within the various sub-groups set out below:

Eligible Vehicles:

GROUP VA

FORMULA VEE RACING CARS: PRE-1975

The classification of vehicles within this group will be at the absolute discretion of CAMS.

The group is intended to cater for Formula Vee racing cars with a competition history established in the period between 1 January 1965 and 31 December 1974.

Consideration may also given to the classification within this group of vehicles constructed between 1 January 1965 and 31 December 1974 but with a competition history established subsequent to 31 December 1974, or in some cases without a competition history, provided that:

- the specification of the vehicle is consistent with the Formula Vee rules and general standard of technology in vehicles raced during the group period, and
- the vehicle is compatible in appearance with such vehicles.

While maintaining the original specification as required in General Requirements 1.2, historic Formula Vee vehicles must comply with all details of the Formula Vee regulations published in the 1974 CAMS Manual, except in respect to the specific variations permitted below. Copies of the 1974 period regulations are available on request from the CAMS National Office.

GROUP VB

FORMULA VEE RACING CARS: 1975-1985

The classification of vehicles within this group will be at the absolute discretion of CAMS.

The group is intended to cater for Formula Vee racing cars with a competition history established in the period between 1 January 1975 and 31 December 1985.

Consideration may also given to the classification within this group of vehicles constructed between 1 January 1975 and 31 December 1985 but with a competition history established subsequent to 31 December 1985, or in some cases without a competition history, provided that:

- the specification of the vehicle is consistent with the Formula Vee rules and general standard of technology in vehicles raced during the group period, and
- the vehicle is compatible in appearance with such vehicles.

Period Rule Compliance:

While maintaining the original specification as required in CAMS Manual – Historic - General Requirements 1.2, historic Formula Vee vehicles must comply with all details of the Formula Vee regulations published in the 1985 CAMS Manual, except in respect to the specific variations permitted below. Copies of the 1985 period regulations are available on request from the CAMS National Office.

Specific requirements additional to the General Requirements:

The general requirements set out in 1.1 of the 5th Category regulations are applicable to all historic Formula Vee vehicles except where these provisions are in conflict with period Formula Vee regulations.

Variations permitted from Original Period Specification:

- (a) **Wheels and tyres:** The make, type, specification and dimension of tyres used on Historic Formula Vee vehicles are those tyres approved by the Australian Historic Motor Sport Commission, viz. Hoosier tyre Model Numbers 44405 (front) and 44408 (rear) or Dunlop CR82 (434). Different tyre brands may not be used simultaneously on any individual vehicle.

Rim widths up to 4.5 inches are allowed.

GROUP V APPROVED TYRE LIST

Manufacturer	Tyre
Dunlop	CR82 (434)
Hoosier	44405 (front) and 44408 (rear)

- (b) **12-volt battery:** The use of a compact 12 volt battery is allowed.
- (c) **Lubrication system:** An external oil filter and sump extensions up to a maximum extra capacity of 500cc are allowed.
- (d) **Engine:** The use of an FVAA camshaft is allowed. When using an FVAA camshaft an offset keyway to maintain standard timing specifications is allowed. A listing of approved engine sealers is set out below.
Bosch 009 ignition distributor is allowed.
- (e) **Mandatory safety requirements:** In addition to the safety equipment requirements set out in CAMS Manual – Historic - General Requirements 1.5 - Safety, all Historic Formula Vee vehicles must have the following safety modifications:
- (i) To reinforce the hollow LH front stub axle against breakage, the axle is to be fitted with an 8mm high tensile bolt or pin (grade 8.8 min.) Such pin or bolt shall be a minimum of 75mm in length, be inserted into the hole originally provided for the fitment of the speedometer cable and is to be held in place by resin.
- (ii) To prevent loss of a rear wheel due to cracking of a rear brake drum, a steel diaphragm must be fitted between the rear wheel and the brake drum.
- (f) **External oil coolers:** are permitted to be fitted to Group V vehicles.
- (g) **Fuel:** Only Pump Fuel or Leaded Racing Fuel as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.

ENGINE SEALS FOR HISTORIC VEES

All Historic Vees are now required to have additional engine sealing tags applied and be sealed by HFVAA approved historic sealers. The details of the sealers are as available from the CAMS website: [www.cams.com.au/Sport/Historics/Historic Groups.aspx](http://www.cams.com.au/Sport/Historics/Historic%20Groups.aspx)

Group T

PRODUCTION SPORTS CARS WITH A COMPETITION HISTORY (1941-1981)



The classification of vehicles within this group will be at the absolute discretion of CAMS.

Vehicles classified in this group will reflect the post-World War II period of improved production sports and GT car racing.

Vehicles with a competition history which are classified within this group may also be classified in the group for historic racing and sports cars relevant to the period in which their competition history was established (eg, Groups L, M, O or Q etc) and/or Group S. Vehicles with such multiple classification will be eligible to compete in events for either of the groups in which they are classified.

Eligibility will be open to:

- Production sports and GT cars with an Australian competition history established prior to 31 December 1981 in events which specifically catered for marque or production sports cars.
- Vehicles with an appropriate competition history established outside Australia prior to 31 December 1981 may be eligible for this classification on individual application where the extent of modification from the standard production vehicle specification is consistent with period regulations for marque or production sports car racing in Australia.
- Some genuine factory built competition variants of standard production Sports and GT cars constructed between 1 January 1941 and 31 December 1977 with or without a competition history, where the extent of the modification from the standard road version of the production vehicle provides a performance that is consistent with period marque or production sports cars raced in Australia, may be eligible for this group subject to specific application.

Specific requirements additional to the General Requirements:

- (a) Tyres: All vehicles may use either:
 - (i) Tyres of a type and size included on the Group S approved tyre list; or
 - (ii) Vehicles with a competition history may use tyres conforming to the requirements for the historic racing and sports car group relevant to the period in which their competition history was established (eg, Groups L, M, O or Q etc).
 - (iii) Factory built competition variants without a competition history may use any other tyres that are consistent in general appearance and tread pattern with those fitted as standard by the manufacturer.
- (b) **Vehicle identification:** All vehicles must display an upper case "T" being black in colour, 100mm high in typeset Helvetica Bold Condensed immediately following the vehicle's racing number at the bottom right-hand corner and within the number panel.
- (c) **Fuel:** Only Pump Fuel or Leaded Racing Fuel or an approved fuel noted on the Certificate of Description and/or in the vehicle Log Book, as defined by Schedule G of the CAMS Manual of Motor Sport are permitted.