

wheels and lap average speeds of 90m.p.h. on the faster circuits are commonplace.

Formula Vee is controlled in Great Britain by the Formula Vee Association. This organisation is supported by Volkswagen Motors Limited and works closely with the European Association. Each year the Association organises a National Championship. For 1969 this will be run over 20 rounds at circuits all over the country. For each of the 20 events there is £25 for the winner with additional prize money totalling over £65 paid all the way down to sixth place. The winner at the end of the season receives a trophy and £100. Each race during the year also carries an additional prize of £1 for the leader on each lap.

The Association publishes a small booklet which contains the annual calendar, the complete regulations and a list of manufacturers and suppliers and general information about the formula. This booklet can be obtained free of charge from: The Formula Vee Association, Volkswagen House, Brighton Road, Purley, Surrey CR2 2UQ.

Formula IV

(A) The Car

1. Single seater cars only.
2. The body must allow the easy entrance of the driver without necessitating the removal of the steering wheel.
3. Minimum wheel base 63 inches. Minimum track of front and rear wheels 41 inches. The exhaust system to project no more than 12 inches behind the rearmost edge of the rear tyres and the outlet pipe must be horizontal or inclined downwards.
4. A roll bar is compulsory. It must be an integral part of the frame and of sufficient strength to protect the driver should the car be inverted. The height must be greater than the top of the driver's helmet when he is normally seated.
5. The fuel tank must be separated from the driver by a fireproof bulkhead.

(B) General

In addition to the above, cars must comply with the R.A.C. Vehicle Regulations.

675 c.c. Formula 4/2. Single seat racing cars with engines of less than 675 c.c. capacity and un-supercharged. Engine and gearbox to be derived from standard series production touring or sports motor cycle(s) of which more than 1,000 have been produced.

Basic engine components and design must be standard but parts may be modified by tooling and polishing.

Valves, valve size and springs are free and connecting rods may be replaced by others made of steel, aluminium or magnesium alloys only.

Carburettors are free but any system whereby the fuel is directly injected into the airstream by a pump is prohibited.

The number of ratios provided by the gearbox may not be altered.

The weight of the car at the conclusion of a race (including driver and

remaining fuel, oil and coolant) shall be more than 600 lb.

The road wheels shall be of rim dimensions of not less than 10 inches in diameter but not more than 12 inches in diameter and 6 inches in width.

Comply with Appendix "J", article 296, except items (s) and (d).

The retail price of the car as raced including optional equipment and accessories but less engine and gearbox shall not exceed £850.

875 c.c. Formula 4/4. Single seat racing cars with engines of less than 875 c.c. capacity and un-supercharged.

Engine units and gearbox units should be derived from Group 1 homologated cars.

The bore of the engine is free provided capacity limit is not exceeded. Inlet and exhaust manifolds are free but there must not be more than two main chokes or throttles in the carburettor system on any 4 cylinder, 4 stroke engine. However, three chokes or throttles are permitted on any 2 stroke, 3 cylinder engines such as Saab or D.K.W., etc. Fuel injection is only permitted when it is homologated equipment for the engines. The engine valves can be increased in diameter but the valve guide centres may not be moved. The gearbox must be from a standard series production, but can be modified inside with regard to bearings and close ratio gears but must not have more gears than when originally supplied by the manufacturer but not to exceed four forward speeds. Any gear box from a series production motor car may be fitted to any other series production car engine when desirable. The final drive ratio is free but no limited slip or torque biasing differential is permitted.

The engine and gearbox may also be modified according to the limitations in Appendix "J", Article 260 (Group II).

The weight of the car at the conclusion of a race (including driver and remaining fuel, oil and coolant) shall be more than 750 lb.

The road wheels shall be of rim dimensions of not less than 10 inches in diameter but not more than 13 inches in diameter width free.

Comply with Appendix "J", Article 296.

The retail price of the car as raced including optional equipment and accessories less engine, gearbox, manifolds and carburettors, but including engine/gearbox mountings, drive shafts, controls, radiator and battery, shall not exceed £950. Furthermore, the manufacturer shall offer the car within this price and suitably adapted to provide the customer with the choice of fitting one of at least three Group 1 engines.

Formula Ford

These Regulations shall be effective from 1st January, 1969, and until further notice but may be added to from time to time.

Modifications not specifically covered by these Regulations are not permitted except where they are definitely stated to be free.

The majority of
British car manufacturers fit
DUNLOP TYRES
as standard equipment

Type of Car. Formula Ford is open to single-seater cars with open coachwork as defined by the F.I.A. for Formulae 1, 2 and 3 and complying with R.A.C. Vehicle Regulations, using a standard, normal specification Cortina GT engine.

The Engine. Balancing and polishing is permitted within the following tolerances. Measurements and weights must be within the following tolerances, except where otherwise stated:

- (a) Full non-machined surfaces within 2½ per cent.
- (b) Machined dimensions within 15 per cent.
- (c) Weights of partly machined parts within 1 per cent.
- (d) Weights of fully machined parts within .75 per cent.

ANCILLARIES

Carburettor. The air cleaner may be removed and substituted by a "trumpet". Jets may be changed. Choke sizes may not be increased (26/27). The 1,500 c.c. carburettor (part No. 118E 9510F) may be fitted to a 1,600 c.c. Unit and a 1,600 c.c. carburettor (part No. 2737E 9510B) may be fitted to a 1,500 c.c. Unit provided that in neither case are the choke sizes changed. It is permitted to modify this Unit so that both butterflies open together. External anti-surge pipes may be fitted.

Cylinder Head. Non-standard rocker covers are permitted provided that they in no way improve the performance of the engine. The breather take-off may be situated at either end of the rocker cover.

Crankshaft. Mechanical rev. counter drive is permitted.

Exhaust Manifold. Free.

Lubrication System. Oil sump and pump—free.

Cooling System. Radiator, fan and water pump—free. Tooth belt drive is permitted.

Electrical Equipment. Dynamo is optional but if fitted must comply with the standard specification. Only standard Autolite or Lucas distributors may be fitted. Transistorised ignition is not permitted. Other parts—free.

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

Flywheel. Standard Cortina GT—details above.

Clutch. Including attachment to flywheel—free.

Drive. Rear wheel drive only, final drive—free, but torque-biasing differential not permitted.

Steering Gear. Free.

Wheels. Only 13 inch steel disc type with maximum rim width of 5½ inch. Rims must be of standard manufacture but the offset of the centre disc may be altered. For safety reasons it is strongly recommended that weekly checks are carried out and that wheels are renewed at least twice a year.

Brakes. Alloy calipers are not permitted, otherwise—free.

Fuel Pump. Free.

Chassis. Must be of tubular construction with no stress-bearing panels except bulkhead and undertray, but the curvature of the undertray must not exceed 1 inch. Tubes may transport liquid. Monocoque construction is not permitted.

Body. Aerofoils and spoilers are not permitted, otherwise—free.

Fuel Tanks. Free.

Suspension and Running Gear. With the exception of springs, hub adaptors, rear hub carriers and bearing bushes all parts must be of steel. Spacers must not exceed 1½ inches. Otherwise—free.

Shock Absorbers. Free.

Tyres. Racing tyres are not permitted, otherwise—free, within standard production retail range as specified in Section 1 of R.A.C. Tyre Regulations, or readily available through normal retail channels outside the United Kingdom. Re-moulded and re-capped tyres are not permitted.

Weight. Minimum weight 400kgs. (881.6lb). Any ballast which is carried must be permanently fixed and be made an integral part of the vehicle by welding, brazing or riveting.

Seat Belts. Full-harness mounting points must be fitted on the chassis and the wearing of a seat harness is strongly recommended.

Roll-Over. The roll-bar must incorporate a strengthening member which is attached to a conveniently strong part of the car or engine.

Cost of Car. Rolling chassis, less engine, not to exceed £1,000 retail ex-works. The chassis must be able to accept either a wet or a dry sump engine and must include, gearbox (including Hewland), exhaust system (including non-standard), adaptor plate, engine mountings, starter motor, fuel pump, water tank, oil filter, oil lines and battery.

Selling Plate. No Competitor will be permitted to place an option on another competitor's engine. The R.A.C., the Formula Ford Register, the Organising Club and the Ford Motor Company will however be able to purchase any Formula Ford engine without prior warning, if necessary. The purchase price will be £150. This will include the complete engine less sump and ancillaries (dry sump equipment, dynamo, exhaust manifold, clutch). The entrant will be responsible for the removal of the engine without delay.

Eligibility of Drivers. No driver who has won a Formula Ford Championship or who fulfils the qualification requirements for full membership of the B.R.D.C. will be permitted to compete in this Formula after the conclusion of the season in which he attains these qualifications.

From 1st January, 1969, all drivers will be supplied with a disc which must be worn on the car until they become "Graded". Discs may be removed by drivers once they have attained three first places. For these purposes two second places will equal one first, two third places will equal one second and two fourth places will equal one third. Thus three firsts, six seconds, twelve thirds, twenty-four fourths or a combination of these placings will qualify for "grading". Only results from pure Formula Ford races will count. Placings of Formula Ford cars in Formule Libre or Private events, for instance, will not count.

Whether your preference is for
Cross-Ply or Radial-Ply
—say **'DUNLOP'**

Registration. Details of all cars must be lodged with the Formula Ford Register. The register will issue all owners, quite free of charge, with a log book and a chassis number plate. Log books must be presented with the car at scrutineering, if required, and the chassis number plate must be permanently attached to the chassis (either by brazing or riveting) in an easily accessible position.

All Formula Ford drivers must be members of the Formula Ford Register and must be prepared to produce their membership card at scrutineering. Where three or more cars of the same design are produced then the manufacturer must be a manufacturing member of the Formula Ford Register.

Formula 5000

GENERAL

1. Single-seater open wheeled racing cars running on pump fuel available to the public through normal roadside retail petrol stations.

2. Cars must be equipped with on-board self-starters controlled by the driver in the normal driving position. The self-starter must be in working order but competitors will not be penalised for push starts on the starting grid. All other starts made during the course of an event must be made by use of the self-starter.

3. The driver must be able to enter the car without the removal or manipulation of any part or panel of the car.

4. Cars shall be equipped with a dual braking system operated by a single control. In case of a failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.

5. No part of the frame or body shall project beyond a plane connecting the vertical centre lines of the front and rear tyres.

6. Rear aerofoils may only be fitted on rear wheel drive cars.

7. Cars fitted with four-wheel drive will run to a wheel rim width limitation of 12 inches.

ENGINES

1. 5,000 c.c. Production Engines:

(a) Mass production V8 engines with pushrod operated valve mechanism listed hereunder. The following list includes all engines eligible in this class at the time of publication.

Make	Original Displacement (cu. ins.)*	Cylinder Head Material	Block Material
Am. Motors	287	Cast iron	Cast iron
Am. Motors	290	Cast iron	Cast iron
Am. Motors	327	Cast iron	Cast iron
Am. Motors	343	Cast iron	Cast iron
Buick	215	Aluminium	Aluminium

Make	Original Displacement (cu. ins.)*	Cylinder Head Material	Block Material
Buick	300	Cast iron	Cast iron
Buick	340	Cast iron	Cast iron
Buick	350	Cast iron	Cast iron
Buick	283	Cast iron	Cast iron
Chevrolet	302	Cast iron	Cast iron
Chevrolet	307	Cast iron	Cast iron
Chevrolet	327	Cast iron	Cast iron
Chevrolet	350	Cast iron	Cast iron
Chevrolet	340	Cast iron	Cast iron
Chrysler	273	Cast iron	Cast iron
Dodge	318	Cast iron	Cast iron
Dodge	361	Cast iron	Cast iron
Dodge	260	Cast iron	Cast iron
Ford	289	Cast iron	Cast iron
Ford	302	Cast iron	Cast iron
Ford	352	Cast iron	(not tunnel port) Cast iron
Kaiser Jeep	327	Cast iron	Cast iron
Mercury	260	Cast iron	Cast iron
Mercury	289	Cast iron	Cast iron
Mercury	302	Cast iron	Cast iron
Mercury	302	Cast iron	(not tunnel port) Cast iron
Oldsmobile	215	Aluminium	Aluminium
Oldsmobile	330	Cast iron	Cast iron
Oldsmobile	350	Cast iron	Cast iron
Plymouth	273	Cast iron	Cast iron
Plymouth	318	Cast iron	Cast iron
Plymouth	361	Cast iron	Cast iron
Pontiac	326	Cast iron	Cast iron
Pontiac	350	Cast iron	Cast iron
Rover	215	Aluminium	Aluminium

*5,000 c.c. = 305 cubic inches

(b) Engines may be modified or altered as desired, except for the following restrictions:

- The maximum displacement shall be 5,000 c.c. and may be obtained by alteration of bore and/or stroke as desired.
- Cylinder block and/or cylinder head(s) may not be substituted.
- The location of the camshaft may not be changed.
- The number of main bearings may not be changed.
- Superchargers are not permitted.

The best of both worlds
DUNLOP
 Cross-Ply and Radial-Ply