

EUROPEAN VEHICLE REGULATIONS FOR FORMULA SUPER VEE 1600 RACING CARS— 1975



1. **Validity**

These Regulations are valid from 1st January 1975 to 31st December 1975. (Should circumstances necessitate technical changes, these will be advised six months before becoming effective.)

2. **General**

A formula designed for single seater racing cars (monoposto) based on original Volkswagen components of VW Types 1, 2 and 3. Only original VW standard components are recognised as such which are contained in the Spare Parts Catalogue of Volkswagenwerk and/or bear a clear identification mark as original VW components and have undergone all the working processes prescribed by the manufacturer for series production. Other equipment and components are permissible only if expressly permitted by the following Regulations. Insofar as certain components of the VW Type 4 series are specifically permitted, all VW K70 parts are nevertheless excluded.

All adaptation work is permitted which may become necessary in combining the VW components mentioned in the following Regulations.

3. **Permitted alterations and finishing processes**

The original VW standard components may be reworked or machined. It must, however, be possible at all times to establish their identity with the VW standard components. It is not permitted to add or apply material to the VW standard components in any form or manner.

4. **Technical data**

Minimum weight without ballast 400 kg (including 20 kg provided for safety measures in accordance with Article 298 Appendix J).

No part of the car body, with the exception of the roll-over bar, may be higher than 80 cm, measured from the lowest point of the completely sprung structure of the car, as defined by Article 296(g) Appendix J of the FIA Regulations.

The cockpit opening must have the following minimum dimensions:

Length: 600 mm Width: 450 mm.

This width must extend over a length of 300 mm. The length is measured from the rearmost point of the backrest of the seat towards the front. The bodywork in front of the front wheels may not exceed a maximum width of 1350 mm. No part of the bodywork in front of the front wheels which exceeds a total width of 1100 mm may project in height above the front wheel rim edge.

5. **Chassis**

The construction of the chassis is unrestricted (monocoque or frame construction). In regard to strength of manufacture, it must be able to withstand, with an adequate degree of safety, all the stresses encountered in operation.

a) **Front Axle**

The construction of the front suspension and its attachment is unrestricted, but the following Volkswagen series components of VW Type 3 must be used (adaptation work permitted):

1. Stub axle (uprights).

2. Wheel hubs.

3. Brake disc, brake caliper (splash plates may be removed), or a light metal caliper especially authorised by VW as an accessory or special part (Part number FV/002).

b) **Steering**

Any kind of steering may be used.

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c) Rear Axle

The rear suspension is unrestricted, but the following Volkswagen series components must be used:

1. Axle shafts.
2. Universal joints.
3. Wheel hubs.
4. Brake drums, wheel brake cylinder, brake back plates.

Disc brakes may also be used, insofar as they are constructed with Volkswagen series components of VW Type 3 or VW Porsche 914/4 (rear). The brake calipers must conform to Item 5(a) 3.

d) Brake system

The foot brake must be constructed as a dual circuit brake, so that if one of the brake circuits fails at least two wheels on the same axle or diagonally opposite to one another will be braked. The master cylinder or cylinders are unrestricted; the make and design of the brake linings or pads are unrestricted. For cooling the brakes cooling air ducts may be fitted. The fitting of a brake pressure distributor is permitted.

e) Wheels and tyres

The make of the wheels is unrestricted. The following dimensions are stipulated: the diameter may be 13 in minimum and 15 in maximum; rim width may not exceed 6 in maximum on the front axle and 8 in maximum on the rear axle. Only tyres produced by a manufacturer for speeds of over 210 km/h are permitted.

f) Body

The body of the car is unrestricted in regard to material. It may consist of several parts, the shape of which is also unrestricted. The driver must at all times be able to get in and out of the car without any part of it having to be removed. The body of the car must be so constructed that (symmetrical to the longitudinal axis of the vehicle) at least the whole length of the engine is covered. The body may not, however, project beyond the rearmost point of the gear shift rod. Wings (or other aerofoil devices) are permitted if the following conditions are met:

- 1) They must be attached to the fully sprung structure of the car and secured in a satisfactory manner. They must be arranged symmetrically along the longitudinal axis of the car.
- 2) Their maximum height (highest point) must not exceed 80 cm measured from the lowest point of the completely sprung structure.
- 3) The maximum width of the aerofoil must not exceed 95 cm.
- 4) The horizontal distance of the rear edge of the aerofoil measured from the centre of the rear axle (centre of hub) must not exceed 80 cm.
- 5) The projection of the surfaces of the horizontal wings must not exceed 0.50 sq m.

The carburettors may project outside the bodywork.

No part of the body, frame or suspension may project beyond a plane which connects the vertical centre line of the front and rear tyres.

6. Engine

An engine must be used having a maximum piston displacement of 1600 ccm. This engine must consist of standard VW parts, and only components of engines of VW Types 1 to 4 may be used excluding all engine parts from VW Type 4 (2000 cc). Any form of supercharging is prohibited.

Piston rings and rocker box covers are unrestricted.

a) Crank Case and Oil System

The lubricating system of the engine is completely unrestricted. The fitting of an oil cooler is also unrestricted as well as the number of oil pumps. The oil filling aperture must be capable of being sealed in closed position.

b) Cylinder Head

The cylinder heads may be machined as required for removal of metal. The compression ratio is unrestricted.

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c) **Camshaft**

The camshaft, cam followers and push rods are completely unrestricted in regard to make and machining. Roller type camshaft and cam followers are not permitted.

d) **Carburettor and Air Inlet Manifold**

A maximum of two double or four single choke carburettors may be used with a maximum nominal diameter of 40 mm measured at the throttle butterfly. The make of carburettor is free. Fuel injection is not permitted.

e) **Valve Springs**

Valve springs and spring caps are unrestricted in respect of design and number

f) **Clutch**

Like the other stipulated engine parts, the clutch must be of a type used for Volkswagen engine VW Types 1, 2, 3 and 4. The mode of operation of the clutch, mechanical or hydraulic, the clutch lining and the clutch springs are unrestricted. The weight of the flywheel may be reduced. For fixing the flywheel additional or larger dowel pins may be used.

g) **Electrical Equipment**

An electric starter is compulsory and must be operable from the driver's seat. The battery is unrestricted in regard to make and type. Ignition is unrestricted with respect to type and construction. Double ignition is not allowed. The generator may be removed.

h) **Cooling Fan**

The use of any series VW fan from Types 1, 2, 3 and 4 is permissible. The fan may be altered or removed. The fan housing and cooling air ducts may be altered or removed. Where a fan is used it must be directly driven by the engine.

i) **Exhaust**

The exhaust pipes of all cylinders must lead towards the rear. Their construction is unrestricted. The end or ends of the exhaust pipes must run horizontally for a distance of at least 100 mm. The end pipe (lower edge) must be between 300 and 600 mm above the ground. The pipe ends must not project beyond the overall length of the car by more than 250 mm in accordance with Article 296(k) Appendix J.

7. **Gears and Axle Drive**

The VW gearbox case is compulsory. Only a maximum of four operable forward speeds and one reverse may be installed. The arrangement of the gearing and the gear ratio are unrestricted. The fitting of a locking differential—even with limited slip—is prohibited. All adjustment work is permitted that may be necessary in combining different VW engines with the different gearings. The gearbox may not be turned in its position by 180°.

8. **Fuel System**

The fuel tank must be so placed that it is separated from the engine by a fire wall. The capacity of the fuel tank may not exceed 45 litres. The filler connection and filler cap of the fuel tank may not project outside the body. The ventilation of the fuel tank must end outside the body of the car and at least 250 mm to the rear of the driver's seat. The use of a safety fuel tank in accordance with FIA Regulations is optional. For races in the USA safety fuel tanks are compulsory. A non-combustible coating must be applied to fuel tanks of metal. Electric fuel pumps are permitted but may not be installed in the cockpit.

9. **Safety Equipment**

a) **Fire Wall**

Between the engine and the driver's seat, the car must be provided with a full width tightly sealing fire wall.

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b) Roll-Over Bar

The roll-over bar must conform in dimensions (not in material) to Article 298(a) Appendix J of the International Motor Sport Law.

c) Circuit Breaker

A circuit breaker must be provided for the main electrical circuit, accessible from inside and outside the car and marked as follows:
Blue Triangle with sparks in accordance with Article 298(f) Appendix J.

d) Oil Catch Tank

An oil catch tank must be provided with a minimum capacity of 2 litres into which all engine and gear box breather pipes leading into the open air must terminate—Article 296(j) Appendix J. The oil catch tank must be transparent so that the oil level can be seen from the outside.

e) Rearview Mirror

On each side of the car a rearview mirror with a minimum reflection surface of 60 cm² must be fixed in a manner such as to prevent vibration.

f) Fire Extinguisher

The car must be provided with fire extinguishing equipment in accordance with Article 267, Appendix J. The total content of fire extinguishing substance must be at least 5 kg. The fire extinguishing equipment must be operable both manually by the driver and by a helper outside the car. The discharge mechanism must be marked with a red circle around the letter 'E'. The discharge must be effective on the fuel feed, engine and carburettor and in the driver's compartment. Automatic discharge devices are permissible.

g) Fuel and Electricity Supply Lines

Fuel and electricity supply lines must not be laid adjacent to each other through the driver's compartment. They must be completely encased with liquid- and fireproof material (metal sheathing). The entry of combustible fluids into the driver's compartment must be effectively excluded. Hose couplings must conform to the provisions of Article 298(b) Appendix J.

h) Safety Belts

6-point safety belts are obligatory in accordance with FIA requirements.

i) Rear Light

Every car must be equipped with a red warning lamp of at least 15 watts lighting power facing towards the rear in accordance with Article 298(d) Appendix J. This warning lamp must be fitted as high as possible in the centre axis of the car and be clearly visible from behind. The warning lamp must be switched on as directed by the race organisers.

GENERAL

Only normal proprietary fuels such as are available in normal petrol stations in the country in question shall be used. Additives which alter the properties (ie, octane value etc) of the fuel shall not be permitted with the exception of upper cylinder lubricants.

British National Championship Events

Formula Super Vee cars taking part in events in Great Britain must also comply with the RAC Vehicle Regulations published in the 1975 RAC Motor Sport Regulations and such additions and amendments that may be issued by the RAC.

Further, any interpretation of these Regulations shall be at the sole discretion of the Formula Vee Association (GB) Appointed Eligibility Scrutineer and/or the Association's Council.