

Special engines :

- a) **Rotary piston engines** : cars with rotary piston engines covered by the NSU-Wankel patents will be admitted on the basis of a piston displacement equivalence. This equivalence is twice the volume determined by the difference between the maximum and minimum capacity of the working-chamber, thus a maximum capacity of 1.500 cc for a non-supercharged NSU-Wankel type engine and a maximum capacity of 750 cc for a supercharged engine.
- b) **Turbine engines** : cars propelled by a turbine engine will be admitted on the basis of a formula of equivalence with regard to alternating piston engines. This formula is the following :

$$A = \frac{C \times 0,09625}{(3,10 \times R) - 7,63}$$

A = High-pressure nozzle area-expressed in square centimetres by which is meant the area of the air-flow at the exit from the stator blades (or at the exit from the first stage if the stator has several stages). Measurement is done by taking the minimum area between the fixed blades of the high pressure turbine first stage. In cases where the first stage turbine stator blades are adjustable, they will open to their greatest extent to present the greatest area for the determination of area « A ».

The area of the high pressure nozzle is thus the product — expressed in square centimetres — of height by width and by the number of vane spaces.

C = Cylinder-capacity of the alternating piston engine expressed in cubic centimetres (formula 1 : 3.000 cc).

R = The pressure ratio i.e. the ratio of the compressor of the turbine engine. This pressure ratio is obtained by multiplying together a value for each stage of the compressor, as indicated hereafter :

Subsonic axial compressor = 1,15 per stage.

Supersonic axial compressor = 1,5 per stage.

Radial compressor = 4,25 per stage.

Thus a compressor with one radial and six axial stages will be designated to have a pressure ratio of :

$$4,25 \times 1,15 \times 1,15 \times 1,15 \times 1,15 \times 1,15 \times 1,15 \text{ or } 4,25 \times 1,15^6.$$

- c) The C.S.I. reserve their right to modify the basis of comparison established between conventional type engines and new type engines, while giving a previous notice of one year to start from January 1st, following the date on which the decision was made.

Minimum weight, without ballast (see hereafter) : 500 kilos.

Conditions imposed on Formula 1 events :

- a) events counting for the World Championship must compulsorily be run on a distance of at least 300 km and at the most 400 km ;
- b) for other events, the promoters are free to fix the distance they want in the supplementary regulations of their event, but should the provided distance exceed 400 km, they must compulsorily provide at least one re-fuelling operation.

Art. 294. — Formula n° 2.

Validity : from 1st January 1967 to 31 st December 1971.
Alternating piston engines : engine cylindre.-capacity superior to 1.300 cc and inferior or equal to 1.600 cc.

Special engines : the same specifications as those provided hereabove for Formula 1 are valid for Formula 2, the difference of cylinder-capacity being taken into account.

Minimum weight, without ballast (see hereafter) : 420 kgs.

The cylinder-block must compulsorily be taken from an F.I.A. recognized model of car, manufactured in a quantity of at least 500 units in 12 consecutive months. The cylinder-capacity may be obtained by increasing or reducing either the original bore or stroke or both dimensions.

On the cylinder-block, entirely finished will be permitted all modifications which are necessary to ensure the mounting and/or tightness of the cylinder-head, the driving device of the camshaft(s), ignition distributor, pumps (water, fuel, injection pump) and other accessories, when the original location or form of the above has been changed.

The type of cylinder (with or without sleeves) as well as the friction system of connecting rod and crankshaft bearings must remain the same as on the original engine.

The number of camshafts is free.

Feeding : the feeding system of the engine is free (by carburettor, direct or indirect injection) but no device liable to have a supercharging effect may be mounted.

The number of cylinders per engine is limited at six, but the C.S.I. reserve their right to reconsider this decision from the moment that the F.I.A. would have recognized in one of the first three groups of Appendix « J », three models of cars of different makes with an engine of more than six cylinders and of a cylinder-capacity inferior or equal to 2.000 cc. However such a decision of modification would only come into effect as from the 1st January of the following year.

Cooling system : the system of the original engine must be preserved (by air, by water).

Propulsion : through a maximum of 2 wheels.

Gear-box : maximum 5 ratios, the reverse-gear not included.

Art. 295. — Formula n° 3.

Validity : from 1st January 1964 to 31st December 1968.

Engine : alternating piston engines only. Max. cyl. capacity 1.000 cc. Maximum cylinder-capacity may be obtained by increasing or reducing either the original bore or stroke or both dimensions.

Maximum number of cylinders : 4.

The engine block, including cylinder-head and cylinders (should they be removable) shall be those of an F.I.A. recognized model of car, manufactured in a quantity of at least 1.000 units in 12 consecutive months, excluding all engines with overhead camshafts.

The number of crankshaft bearings shall not be modified, nor the type of bearing (the replacement of a plain bearing by a roller bearing is therefore forbidden). The location of the camshaft shall not be altered.

The induction system shall be the same as that used on the

car from which the engine has been taken (the use of an injection system on an engine normally fed by a carburettor is therefore forbidden).

The engine shall be equipped with only one carburettor, whatever its number of chokes, and a throttling flange of a maximum diameter of 36 mm and a minimum thickness of 3 mm shall compulsorily be mounted between carburettor and inlet pipe. Through this throttling flange all the carburated mixture feeding the cylinders must pass.

No supercharging device is authorized even if a series-production one was mounted on the original engine.

Other mechanical parts : the gear-box shall be that of an F.I.A. recognized model of car, manufactured in a quantity of at least 1.000 units in 12 consecutive months, but not necessarily the one from which the engine has been taken. It shall not have more than 4 forward ratios plus a reverse gear. The scale of ratios is free. The use of any self-locking system on the differential is forbidden.

Dimensions : minimum wheelbase 200 cm
minimum track 110 cm
maximum width of coachwork 95 cm

Minimum weight, without ballast (see hereafter) : 400 kilos.

Certificate of origin : any Formula 3 car showing up at the start of an event shall be supplied with a certificate established by the manufacturer and ratified by the National Sporting Authority, specifying the origin of the basic elements of the vehicle.

Art. 296. — Prescriptions and definitions applicable to racing cars of the 3 international formulae.

a) **Minimum weight** : the minimum weight is that of the car in running order i.e. with all lubrication and cooling liquids but without fuel.

The ballast which is prohibited is that of a removable type. It is therefore permissible to complete the weight of the car through one or several ballasts incorporated to the materials of the car provided that solid and unitary blocks are used, and that they are fixed by means of a tool and offer the opportunity of being sealed on should the officials entrusted with the scrutineering of the car deem it necessary.