

surrounding at least a third of their circumference. The width of each mudguard shall extend beyond the side of the tires when the wheels are parallel to the longitudinal axis of the car.

In case the mudguards constitute a part of the body, or are partly overhung by the structure of the body, the combination of mudguards and body, or the body alone, shall meet the above requirements.

**Art. 290. — Lighting :** the minimum lighting equipment shall be :

- a) at least two braking-lights ;
- b) for night racing, two head-lights at least as effective as those normally fitted on touring cars and two direction indicators mounted at the rear.

The supplementary regulations of an event may require additional lighting equipment.

**Art. 291. — Wheels and tyres :** there shall be no restriction on the size of wheels or tyres, provided they are identical on the right and left front axles, and identical on the right and left rear axles.

A spare wheel and tyre is not required.

**Art. 292. — Safety equipment :**

a) **Fire extinguisher :** all cars shall carry during competition a dry chemical fire extinguisher of at least 1 kg capacity. It must be securely mounted and may be located in the space provided for the passenger.

b) **Scatter shield :** the installation of a scatter shield is required on those cars where the failure of the clutch or fly-wheel could, due to its location, create a hazard to the driver. In addition, any rotating part of the drive train shall not pass openly through the driver and passenger compartment, but must be under the floor or chassis structure.

c) **Roll bars :** cars shall be equipped with a roll bar or structure to protect the driver in case the car overturns. It shall be firmly attached to the chassis structure and designed to withstand compression forces from the weight of the car as well as fore-and-aft loads from horizontal forces.

d) **Safety belts :** the car shall be provided with a safety belt of a quick release type attached to the chassis structure and designed to restrain the driver in his seat.

e) **Exhaust system :** the exhaust system shall terminate behind the driver and passenger seats.

f) **Firewall and floor :** cars shall have an adequate firewall to prevent the passage of flame from the engine compartment or under the car to the cockpit. Openings in the firewall for the passage of engine controls, wires, and lines shall be of the minimum size necessary.

The floor of the cockpit shall be constructed to protect the driver by preventing the entry of gravel, oil, water, and debris from the road and engine. Bottom panels or belly panels shall be adequately vented to prevent the accumulation of liquid.

g) **Bulkheads and tanks :** no part of any fuel, oil or water tank shall be exposed to any part of the driver and passenger compartment. Fuel tanks shall be vented to prevent the accumulation of fumes and to prevent fumes from passing into the driver or engine compartment.

Fuel tanks shall be isolated by means of bulkheads so that in case of spillage, leakage or a failure of the tank the fuel will not pass into the driver or engine compartment or around any part of the exhaust system.

Batteries shall be fully enclosed.

h) **Closed cars :** adequate ventilation shall be provided to prevent the accumulation of fumes inside the car.

## TITLE XI

### SINGLE-SEATER RACING CARS

**Art. 293. — Formula n° 1.**

**Validity:** from the 1st January 1966 to 31st December 1970.

**Engines with alternating pistons :**

- a) engine cylinder-capacity without supercharging : inferior or equal to 3.000 cc ;
- b) engine cylinder-capacity with supercharging : inferior or equal to 1.500 cc.

### 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 cylinder-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.