Dimensions: minimum wheelbase

minimum track maximum rim width

200 cm 120 cm 10 inches

Tyre restrictions

The tread-width of F3 tyres is limited to a nominal value of 8 inches, plus a certain tolerance to compensate for tyre wear. This tolerance is provided for in the drawing on page representing the measuring gauge to be used during scrutineering.

Checking may be done at any moment of the race and practice.

The measuring gauge being applied horizontally and without exercising pressure, to the tyre tread, points A and B (see drawing) must be in contact with the tread.

At the limit points C and D (see drawing) are in contact with the tyre shoulder

but points A and B must remain in contact with the tyre tread.

If a competitor uses tyre of dimensions evidently smaller than 8 inches, points A and B will naturally not touch the tyre tread simultaneously, but the checking will then not be necessary.

Minimum weight, without ballast: 440 kg.

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.

Vacuum tightness control apparatus of the induction system for F3 engines:

The control apparatus described hereafter represents the ultimate method of verification of the vacuum tightness of F3 induction systems, without the possibility of appeal. All F3 organizers will have to put such an apparatus at the disposal of the scrutineers for verification purposes both before and after the race.

The apparatus aims to create artificially a vacuum in the induction system and includes:

- a membrane suction-pump, with a nominal output of 25 to 28 litres/minute, and capable of obtaining a vacuum of 55 to 65 cm Hg for zero airflow.
- a rubber tubular stop perfectly adjusted to the flange.
- a vacuum-gauge connected to the piping between the rubber stop and the suction-pump.

The procedure to be respected for the checking is the following:

- a) Rotate the engine into such a position that, in each cylinder, at least one of the valves is closed.
  - b) Open the injection slide or the carburettor butterflies.

c) Check on the vacuum-gauge that the suction-pump creates in the induction

system a depression superior or equal to 15 cm Hg.

d) If the condition a) cannot be met, disconnect the rocker-arms or remove the camshaft in order to shut all inlet valves, If one or several valves have been damaged during the event, the entrant may repair them under the steward's control before undergoing the testing procedure. In these last cases, the minimum vacuum to be obtained shall be 20 cm Hg, instead of 15.

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.

b) The construction of the vehicle must be symmetrical i.e. when the car is lifted laterally and weighed, the half weight on either side must be equal to half the overall weight, a margin of + or - 5% being allowed for the said half weight. To verify the above, the weighing must be done with all tanks full (fuel, water, oil) and a driver, weighing at least 75 kilos normally sitting at the steering-wheel (or a ballast of the same weight occupying the same place).

c) Reverse gear: all vehicles must have a gearbox including a reverse gear, which must be in working order when the car starts the events and able to be operated by the driver when normally in his seat.

d) Compulsory automatic starter with electrical or other source of energy carried aboard the car and able to be controlled by the driver when normally in his seat.

e) Driver's seat liable to be occupied or left without it being necessary to open a door or remove a panel. Sitting at his steering-wheel the driver must be facing the road.

Moreover, the cockpit must be so conceived that the maximum time necessary for the driver to get in or out does not exceed 5 seconds.

 Safety harness: Cars must be equipped with a "six-point" safety harness, le, a harness made of two shoulder straps, one abdominal strap and two crutch straps. The wearing of this harness is compulsory.

g) Coachwork: no part of the coachwork, with the exception of the safety roll bar, shall exceed in height a horizontal plane, 80 cm above the lowest point of the entirely sprung structure of the car.

In other words, a car with its wheels and the mobile suspension elements removed, but without regard to the roll-over bar, must pass between two parallel planes separated by 80 cm.

### Formulae 1 and 2

Behind the front wheels, the coachwork shall not exceed a maximum width of 110 cm.

The coachwork ahead of the front wheels may be extended to an overall maximum width of 150 cm.

Nevertheless, any part of the coachwork ahead of the front wheels, exceeding an overall width of 110 cm, shall not extend above the height of the front wheel rims.

### Formula 3

Behind the front wheels, the coachwork must not exceed a maximum width of 95 cm (nevertheless, the present exception provided for in Appendix J for lateral fuel tanks remains valid).

The coachwork ahead of the front wheels may be extended to an overall

maximum width of 135 cm.

Calibre/Gauge

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Nevertheless, no part of the coachwork ahead of the front wheels, exceeding an overall width of 95 cm, shall extend above the height of the front wheel rims.

For all Formulae: wheels shall be external to the coachwork.

The coachwork opening giving access to the cockpit must have the following minimal dimensions:

Length: 60 cm

Width: 45 cm, maintained over 30 cm from the most rearward point of the seatbackrest towards the front.

- h) Braking safety system which must include a double circuit operated by the same pedal and complying with the following:
- the pedal shall normally control the four wheels;
- in case of a leakage at any point of the brake system pipes or of any kind of failure in the brake transmission system, the pedal shall still control at least two wheels.
- i) Filling port complying with the following requirements:
- the filling port(s) and their caps shall not protrude beyond the coachwork material:
- the opening shall have a sufficient diameter for allowing the air exhaust at the time of quick refuelling (in particular those done under pressure) and if necessary the breather-pipe connecting the tank with the atmosphere shall be such as to avoid any liquid leakage during the running.
- i) Oil catch tank: the mounting of a tank(s) or device meant for collecting any oil spilling out of the engine and/or transmission is compulsory. This device must be conceived in conformity with the prescriptions of Art. 253 a).
- k) Exhaust pipes: the outlet orifices of the exhaust pipes, when directed horizontally to the rear, must be placed at a height of more than 30 cm and less than 60 cm above the ground. If they are not entirely covered by an element of the coachwork, they may not protrude by more than 25 cm beyond the overall length of the car.
- 1) No refuelling of lubricant is allowed for the whole duration of the event. The filling ports of the oil tanks and radiators shall provide the possibility of affixing seals.

The leads sealing the filling port(s) of the lubricant tank(s) may not be re-

moved at any time during the race.

The leads sealing the filling port(s) of the radiator(s) shall be in place at the start of the race, but may be removed at any pit-stop.

m) Safety devices: the safety devices and measures given hereafter must be complied with for racing cars of the international formulae.

### Roll-bars:

Dimensions: the dimensions of the roll-bars must be as follows: the minimum height must be at least 36 inches (92 cm) measured along the line of the driver's spine, from the metal seat to the top of the roll-bar. The top of the roll-bar must also be at least at 5 cm above the driver's helmet, when the driver is sitting in normal driving position.

The width must be at least 38 cm measured inside the roll-bar between the two vertical pillars of the sides. It must be measured at 60 cm above the metal seat

on the perpendicular to the line of the driver's spine.

Strength: in order to obtain a sufficient strength for the roll-bar, two possi-

# bilitles are left to the manufacturers:

- a) The roll-over bar, of entirely free structural conception, must be capable to withstand the stress minima indicated under Art. 253 o) - III.
- b) the tubes and brace(s) must have a diameter of at least 14 inch (3.5 cm) and at least 0.090 Inch (2 mm) wall thickness. The material should be molybdonum chromium SAE 4130 or SAE 4125 (or equivalent in DIN, NF, etc.).

There must be at least one brace from the top of the bar rearwards at an angle not exceeding 60° with the horizontal. The diameter and material of the brace must be the same as those of the roll-bar itself.

In the case of two braces, the diameter of each of them may be reduced to 20/26 mm.

Removable connections between the main hoop and the brace must comply with drawings nos 10 and 11 of Art. 253 or with any other type approved by the FIA.

Cables, lines and electrical equipment: except if the cables, lines and electrical equipment such as battery, fuel pump, etc., are in compliance with the requirements of the aircraft industry as regards their location, material and connections, they must be placed or fitted in such a way that any leakage cannot result in:

accumulation of liquid.

- entry of liquid into the cockpit,

- contact between liquid and any electrical line or equipment.

Should the cables, lines or electrical equipment pass through or be fitted in the cockpit, they must be fully enclosed in a cover of a liquid-tight and fire-proof material.

## Safety fuel tanks

Formula 1 cars must be equipped with safety fuel tanks in conformity with the specifications FIA/Spec/FT3 (see Art. 253 j), Formula 2 and Formula 3 cars must be equipped with safety fuel tanks in conformity with one of the three sets of specifications approved by the FIA.

NB: As from 1/1/1973, Formula 2 cars must be equipped with safety fuel tanks in conformity with the specifications FIA/Spec/FT3.

# Red warning light

All Formula cars must be equipped with a rearward facing red warning light of at least 15 Watts. This light must be mounted as high as possible on the centreline of the car and be clearly visible from the rear. The warning light must be switched on order of the clerk of the course.

Tank fillers and caps: It is recalled that on formula cars, the tank fillers and their caps must not protrude beyond the coachwork.

The caps must be designed in such a way as to ensure an efficient locking action which reduces the risks of an accidental opening following a crash impact or incomplete locking after refuelling.

The fillers must be placed away from points which are vulnerable in case of a crash. The air vents must be located at least 25 cm to the rear of the cockpit.

Electric circuit-breakers: it is recalled that since 1st January 1969, the fitting of a general electric circuit-breaker, clearly indicated, is mandatory for all cars taking part in speed races.

For Formula cars, this circuit-breaker must be indicated by a blue triangle with a spark and be easy to reach from inside as well as from outside the car.

Extinguishing system: All cars of the International racing formulae must be fitted with an extinguishing system conforming to Art. 269.

## Additional safety measures applicable to Formula 1

The following safety measures will be valid exclusively for Formula 1 as from the dates indicated. If appropriate, these measures replace those mentioned above.

- 4) At least half of the extinguishing capacity must be placed forward of the engine but rearward of the foremost pick-up points of the front suspension. Waivers to this rule may be given by the CSI for an installation which can be considered to be within the main structure of the car. Applicable as from 1st January 1972.
- e) Provision for a clearly indicated external emergency handle which can be actuated easily by the circuit rescue personnel even at a distance with a hook. This emergency handle shall simultaneously initiate the fire-extinguisher, cut off the engine and isolate the battery. Applicable as from 1st July 1972.
- 8) Compulsory fitting of a headrest capable of restraining 17 kg under a rearward acceleration of 5 G. Its dimensions shall be such that in no case can the driver's head be trapped between the roll-over bar and the headrest itself. Applicable as from 1st January 1972.
- The use of magnesium sheet will be authorized only if its thickness exceeds 3 mm. Applicable as from 1st January 1972.
- 5) The battery must be capable of starting the engine at least twice. However, it will be possible to start the engine in the pits or on the dummy grid with an external power source. In that case, the starter socket must be installed at the rear of the car and must face rearwards. If male sockets are used, they must be recessed and be provided with a cover. Applicable as from 1st January 1972.
- 6) Chromium plating of steel suspension members of over 45 tons per sq in tensile strength is forbidden. Applicable as from 1st January 1972.
- a) Manufacturers may replace, inside the rubber safety tanks, safety foam by supplementary internal bag, made of a supple synthetic material, which shall contain the fuel. The space between this inner bag and the elastomere outer bag to be pressurized with an inert gas. This type of safety tank eliminates the necessity of air vents and avoids any mixtures of air and fuel inside the tank.
- 8) It will be allowed to increase the overall width of the car to 130 cm on condition that the supplementary 10 cm on each side form a deformable structure containing no fuel, fuel lines, electrical power sources or lines. However, an aerodynamic device situated behind the front wheels must remain within 55 cm on either side of the car's centre-line. Applicable as from 1st January 1972.
- 9) The part of the structure surrounding the fuel tank which is in direct contac with the external air stream, must include an aluminium sheet of at least 1.5 mm thickness. The alloy used must be an aluminium-magnesium alloy with a minimum tensile strength of 14 tons per sq in and a minimum elongation of 5%.

The use of other materials for the surrounding structure may be authorized by the CSI on condition that they ensure an impact resistance equivalent to the prescribed aluminium. Applicable as from 1st January 1972.

### n) Conditions required for International Formula events

The following limits of distances are compulsory for all international formula races.

The superior limits are valid for all events admitting cars of international racing formulae.

The inferior limits are compulsory only for events counting towards an FIA Championship, Cup or Trophy.

Length of 1 heat		Total length of event	1 heat-event		(in km)
Min	Max	Max	Min	Max	
150	250	450	250	325	
100	175	325	200	250	
75	100	200	100	175	
	Min 150 100	Min Max 150 250 100 175	Min Max Max   150 250 450   100 175 325	Min Max Max Min   150 250 450 250   100 175 325 200	Min Max Max Min Max   150 250 450 250 325   100 175 325 200 250

### TITLE XI

# FORMULE LIBRE RACING CARS (Group 9)

Art. —It is permitted to organize sporting competitions open to other racing cars than those defined in one of the previous Groups of Appendix J.

All specifications concerning the vehicles and particularly the limitations of the cylinder-capacity are in this case at the discretion of the promoters and it rests with them to list these specifications as clearly as possible in the Supplementary Regulations of the event, which anyway have to be approved by the National Sporting Authority answerable to the FIA.

However racing cars which do not comply with any of the International Racing Formulae, must for security reasons be in conformity with the following rules listed here-above under Art, 296, General prescriptions and definitions: e), f), h), i), D, m) = 2002, 2007

NB: The introduction of safety foam in safety fuel tanks is only compulsory if commercial fuel is used.