

Application : Cars of Groups 2, 4, 5, 6, 7, 8.

No kind of ballast is authorised on cars of Groups 1 and 3.

For cars of Groups 2 and 4, the eventually used ballast should be placed in front of the passenger's seat, it should be visible and sealed.

t) Perimeter of the car seen from above : It is pointed out that it concerns the car such as presented on the starting grid, for event considered.

u) Refuelling procedure : In case of a centralised system provided by the circuit, or a system provided by the competitors, the refuelling hose shall be provided with a leak-proof coupling to fit the standardised filler mounted on the car. The dimensions of this filler are given in the diagram shown on page 158.

All cars must be provided with a fuel filler complying with the diagram shown on page 158. The filler must comply with the dead man principle and must not therefore incorporate any retaining device when in an open position (spring-loaded, bayonet, etc).

The air-vent(s) must be equipped with non return valves and valves having the same closing system as that of the standard filler, and of the same diameter.

During refuelling the outlet of the air-vent must be connected with the appropriate coupling, either to the main supply-tank or to a transparent portable container with a minimum capacity of 20 litres provided with a closing system rendering it completely leak-proof. The venting catch tanks must be empty at the beginning of the refuelling procedure.)

Implementation : Please refer to the General Prescriptions of the FIA Championships.

v) : Stock block engine (Such as used for the world championship for two-seater racing cars. Please refer to the championship prescriptions, orange section).

v1) : Maximum cylinder capacity : 5000 cm³.

v2) : Engine whose series production will have been checked by the FIA as being 5,000 units a year, and mounted on (a) series production car(s).

v3) : Engine with valves operated by rockers and pushrods.

v4) : Use of the original cylinder head. The number and location of the original camshaft(s) may not be changed. The number of valves may not be changed. The valve angle and the angle of the intake and exhaust ports may not be changed in relation to the cylinder axis.

v5) : Use of the original block. The number of main bearings may not be changed.

v6) : Supercharging prohibited.

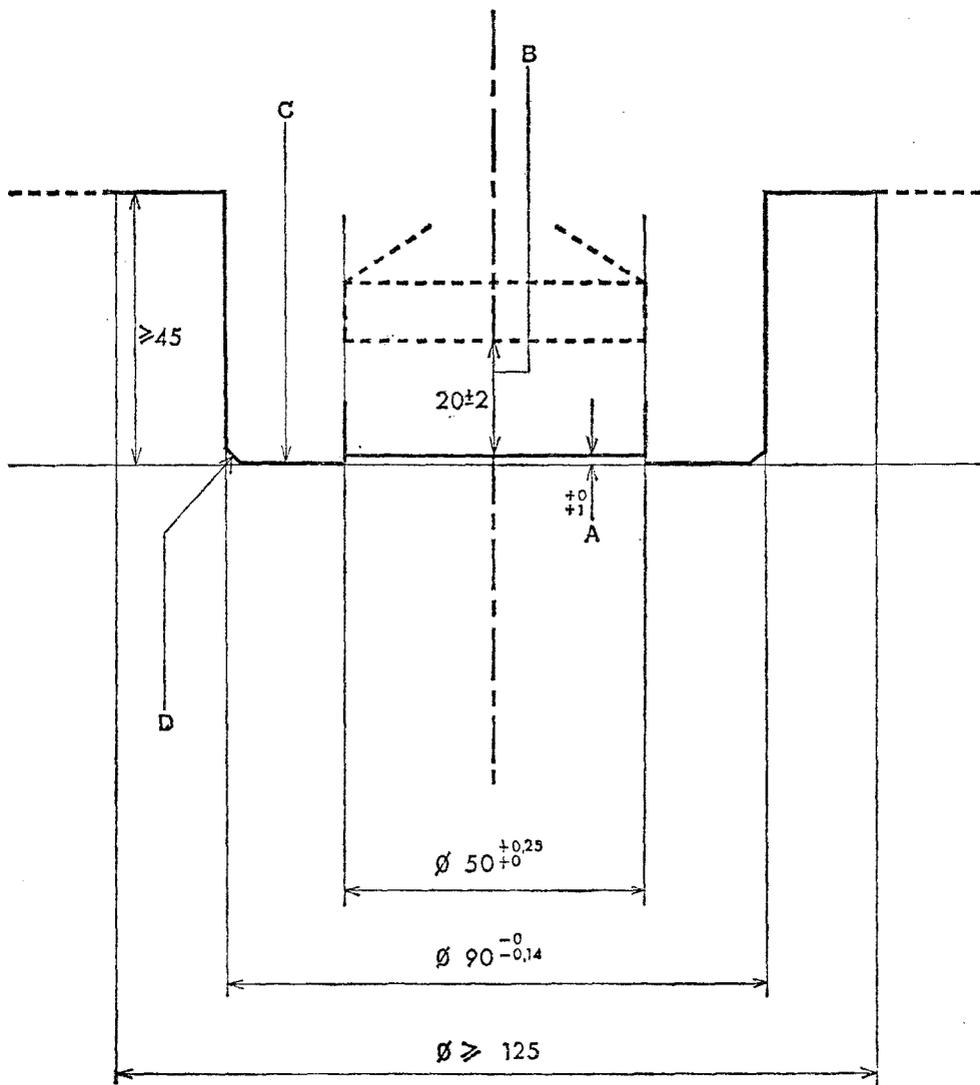
TITLE 3—SAFETY PRESCRIPTIONS

Art 253—Safety devices for all cars competing in events entered on the FIA International Calendar

a) Supplementary locking devices : A supplementary locking device(s) for engine bonnet, boot lid and other important objects carried on board of the vehicle (such as a spare-wheel, tool set, etc).

Application : Compulsory for cars of Groups 1, 2, 3, 4, 5.

b) Supplementary protection of the fuel pipes : A supplementary pro-

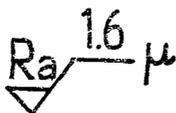


Dessin/drawing No 1

Orifice de remplissage standardisé pour voitures/Standardised car fuel filler

Alliage recommandé/Recommended material: AU4G
(aluminium, cuivre/copper, magnesium)

Usinage/Machining



μ = Micron, Ra = Rugosité admise/
average roughness of a surface.
Toutes cotes en mm/All dimensions
in mm.

A: Position du clapet au repos/position of the released valve.
Clapet normalement fermé et étanche à la pression de 100 m. bar (1.5 psi)/
Valve normally shut and leak proof under 100 m. bar of pressure (1.5 psi).

B: Ouverture du clapet/valve lift (20 ± 2 mm).

C: Plan de joint: tolérance de surfaçage: 0.05 mm/Gasket facing plane, unswerving tolerance: 0.05 mm.

D: Chanfrein $1+1$ à 45° ou arrondi (rayon 1 mm)/
+0

Bevel cut $1+1$ at 45° , or rounded at 1 mm radius.
+0

L'attention des fabricants de l'accoupleur (côté-stands) est attirée sur le fait que la partie en contact avec la surface C de l'orifice de remplissage doit être munie d'un joint Vitton. Aussi, il est recommandé de ne pas dépasser un guidage initial, avant l'ouverture des soupapes, de 18 mm, de telle sorte qu'à l'ouverture maximale autorisée de la soupape (22 mm) la pénétration totale ne dépasse pas 40 mm, laissant ainsi 5 mm minimum de tolérance.

The attention of the manufacturers of the coupling (pit-side) is drawn to the fact that the part in contact with the area C of the filler must be provided with a Vitton joint. It is advised not to exceed an initial locating penetration of 18 mm, before the opening of the valve, so that, with the valve open to the authorised maximum (22 mm), the total penetration does not exceed 40 mm, leaving thus a minimum of 5 mm tolerance.

tection of all fuel pipes and brake lines outside the coachwork against any risk of damage (stones, corrosion, breaking of mechanical pieces, etc) and inside the cockpit against any risk of fire (fuel pipes only).

Application: Compulsory for cars of Groups 1, 2, 3, 4, 5 and 6.

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.

All fuel lines external to the cockpit, with the exception of fuel lines permanently mounted on the engine, should be a reinforced construction, attached by screw-on connectors. They must withstand a 70 kg/cm² pressure (1,000 psi) and a 260° C temperature (500° F).

All electrical wiring should be enclosed in a fire-proof material.

Application: Compulsory for cars of Groups 6, 7, 8.

c) Safety belts: Wearing of one diagonal strap and one abdominal strap: fixation points on the shell: 3.

Application: Compulsory for all cars of Groups 1, 2, 3 and 4 participating in rallies.

Wearing of two shoulder straps and one abdominal strap: fixation points on the shell: two for the abdominal strap—two or eventually one symmetrical in relation to the seat for the shoulder straps.

Application: Compulsory for all cars of Groups 1, 2, 3 and 4 (except in rallies).

It is permitted to make a hole in a series-production seat to allow the passing of a safety belt.

Wearing of two shoulder straps, one abdominal strap and two straps between the legs: fixation points on the body: two for the abdominal strap, two or eventually two symmetrical to the seat for the shoulder straps, two for the straps between the legs.

Application: Compulsory for all cars of Groups 5, 6, 7 and 8.

d) Extinguishers—systems of extinction: The extinguishing system will have a capacity of 5 kg, carried in one or two units maximum. CO² will be considered as unacceptable as an extinguishant; BCF (Freon 12B1) is given as an example to be at least equalled in terms of capability and non toxicity.

The extinguisher(s) will have to be immediately accessible to the driver and co-driver.

Application: Compulsory for all cars of Groups 1, 2, 3 and 4.

Extinguishing system compulsory for cars of Groups 5, 6, 7 and 8.

df) Extinguishing product: BCF (CF₂ C1 Br)—DTE (Br₂ F₄)—BTM (CBr F₃).

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d2) Minimum capacity:

Driver's compartment: 5 kg.

Engine compartment: 2.5 kg.

d3) Location—Mounting method: The 5 kg minimum capacity bottle must be placed inside the main structure.

The 2.5 kg minimum capacity bottle may be placed inside or outside the main structure.

In all cases the bottle mountings must be able to withstand a 25 g acceleration.

d4) Discharge time:

Engine compartment: 10 seconds maximum.

Driver's compartment: 30 ± 5 seconds for BCF and DTE.

60 ± 5 seconds for BTM.

d5) Drive system: Heat sensors may be fitted to permit automatic actuation of the fire extinguisher system. The use of these sensors is only recommended and not compulsory.

Both bottles should be released simultaneously.

Any triggering system having its own source of energy is permitted, on condition that it is possible to operate all extinguishers in case all electric circuits have a breakdown.

Two handles should be provided, one at the disposal of the driver, the other one on the base or along one of the main supports of the safety roll-bar.

d6) Check of bottles: The following weights shall be indicated on each bottle:

Weight of the empty bottle,

Weight of the extinguishing agent,

Total charged weight.

d7) Working: The system must work in any position, also when the bottles are overturned.

e) Safety roll-bars:

General considerations

1) The basic purpose of such devices is to protect the driver if the car turns over or is involved in a serious accident. This purpose should always be borne in mind.

2) Whenever bolts and nuts are used, they should be of a sufficient minimum diameter, according to the number used. They should be of the highest possible quality (preferably aircraft). Square head bolts and nuts should not be used.

3) One continuous length of tubing should be used for the main structure with smooth continuous bends and no evidence of crimping or wall failure.

4) All welding should be of the highest quality possible with full penetration (preferably arc welding and in particular heliarc). Although good outside appearance of a weld does not necessarily guarantee its quality, poor looking welds are never a sign of good workmanship.

5) Braces should preferably be of the same size tubing as used for the main structure.

Their fixation should be located as near as possible to the top of the roll bar, in any case at a minimum of $\frac{2}{3}$ of the total height of the roll bar.

6) For space-frame constructions it is important that crash-bar structures are attached to cars in such a way as to spread the loads over a wide area. It is not

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sufficient to simply attach the roll-bar to a single tube or junction of tubes. The roll-bar should be designed in such a way as to be an extension of the frame itself, not simply an attachment to the frame.

Considerable care should be attached to the necessary strengthening of the basic structure, for instance by adding reinforcement bars or plates so as to properly distribute the loads.

7) For monocoque constructions, consideration should be given to using a roll-bar hoop of 360 degrees completely around the inside of the car, and attached with suitable mounting plates. This type of roll-bar then becomes a substitute for the frame.

Closed cars

As a general rule, the safety cage must be made of two main hoops, one behind the front seats and one following the windscreen pillars (see drawing No 2). For some groups of cars, (see hereunder) the windscreen hoop is not compulsory and the designing may be realised as shown in drawing No 3.

The safety roll-bar or cage must be conceived in such a way as not to obstruct the access to the front seats and not encroach on the space provided for the driver and the passenger. On the other hand, it is allowed that the elements of the roll-bar or cage encroach on the space of the rear passengers, and pass through the upholstery or the rear seat(s).

The main roll-bar hoop(s) must be placed as near as possible to the roof in order to limit its crushing in the event of a somersault.

In order to avoid an important deformation of the coachwork and consequently protect more efficiently the driver in case of a lateral impact, it is possible to enhance the efficiency of the safety roll-bar, thanks to the mounting of a longitudinal support at the door level.

The pipe constituting this support should be integrated in the safety framework, the front and rear rolls of which it connects, and to which it is fitted, either by welding or with a removable coupling; it cannot be fixed on the coachwork itself.

Its diameter, its thickness and its material correspond to the specifications of the FIA for safety roll-bars. Its angle with the horizontal should not exceed 5°. It should divide the height of the opening of the door in the relation 2:1, ie, it is fitted on the framework at a height equal to 1/3rd of the total height of the door above the door sill.

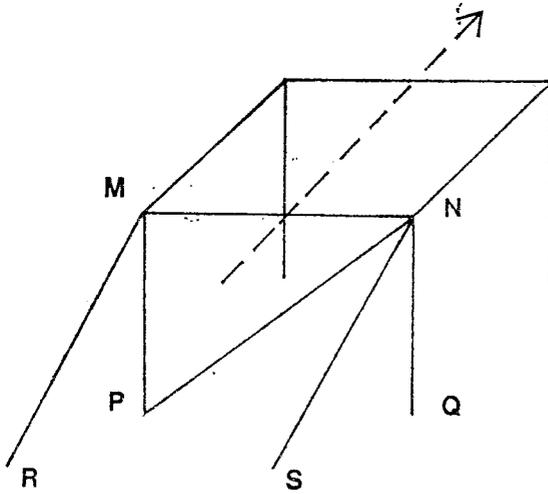
Open cars

Conception and realisation identical to those prescribed for closed cars. Moreover, the main hoop behind the front seats must be symmetrical about the lengthwise centre-line of the car and comply with the following figures (see drawing 10):

Height: The top of the roll-bar must be at least 5 cm (2 in) over the helmet of the driver normally sat at his wheel.

Width: Measured on the inside of the vertical struts of the roll-bar; there must be at least 20 cm (8 in) measured at 60 cm (23 in) above the driver's and passenger's seat (on the line perpendicular to the driver's vertebrae from the lengthwise centre-line to the outside).

Lengthwise location: The lengthwise distance between the top of the roll-bar and the helmet of the driver normally sitting at his steering wheel must not exceed 25 cm.



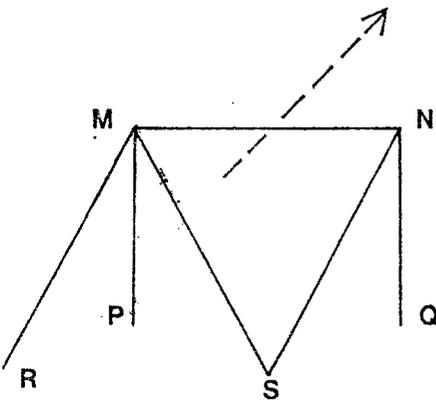
Dessin/drawing No 2

Groupes 1 à 4

Le montage d'un renfort diagonal est obligatoire. Les différentes variantes autorisées sont: MQ, MS, NP, NR. (NP est indiqué sur le dessin no 2 comme un exemple.)

Groups 1 to 4

Fitting of a diagonal strut is compulsory. The various authorised alternatives are: MQ, MS, NP, NR. (NP is shown on drawing 2 as an example.)



Dessin/drawing No 3

Groupes 1 à 4

Le montage d'un renfort diagonal est obligatoire. Les différentes variantes autorisées sont: MQ, MS, NP, NR. (MS est indiqué sur le dessin no 3 comme un exemple.)

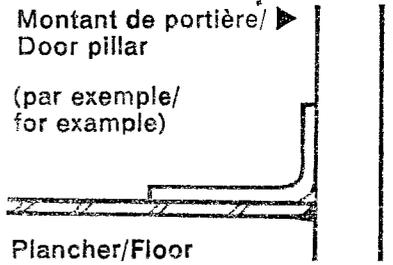
Groups 1 to 4

Fitting of a diagonal strut is compulsory. The various authorised alternatives are: MQ, MS, NP, NR. (MS is shown on drawing 3 as an example.)

Montant de portière/ Door pillar

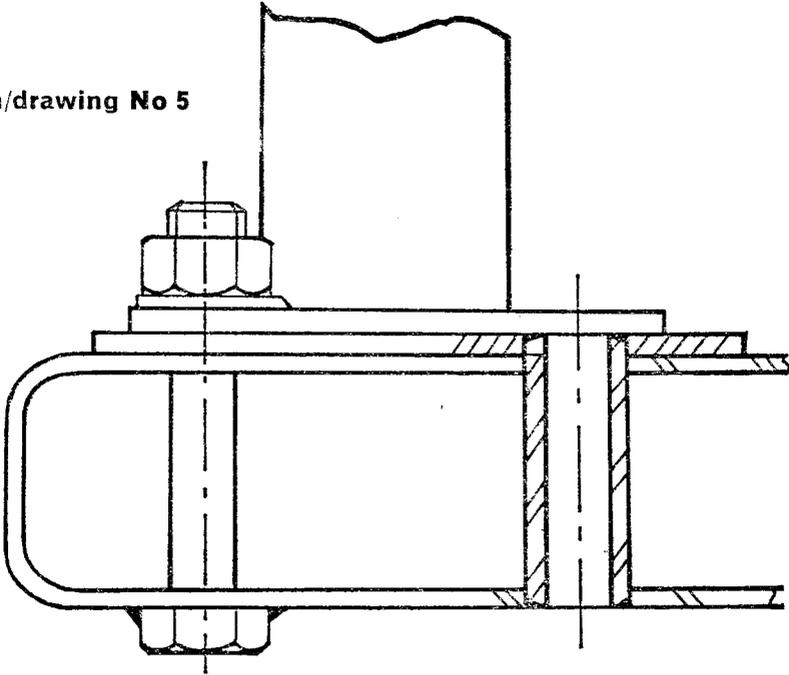
(par exemple/
for example)

Plancher/Floor

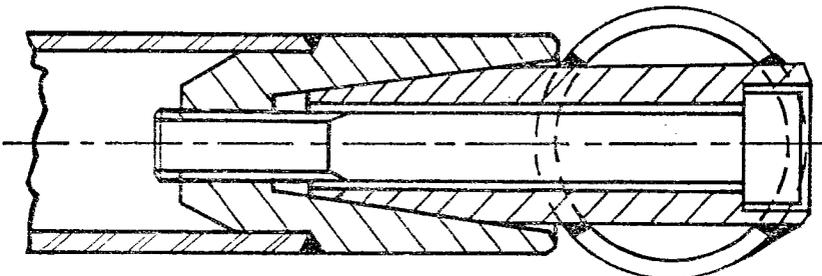


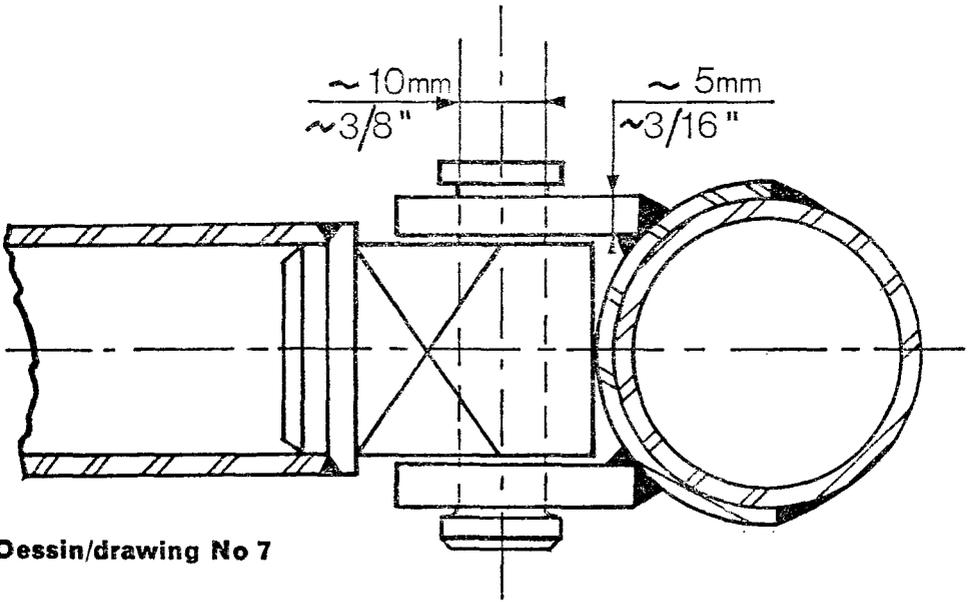
Dessin/drawing No 4

Dessin/drawing No 5

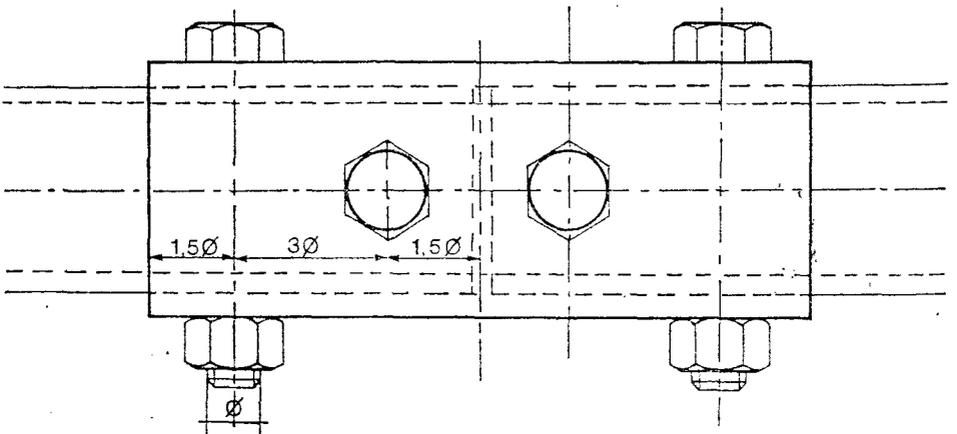


Dessin/drawing No 6



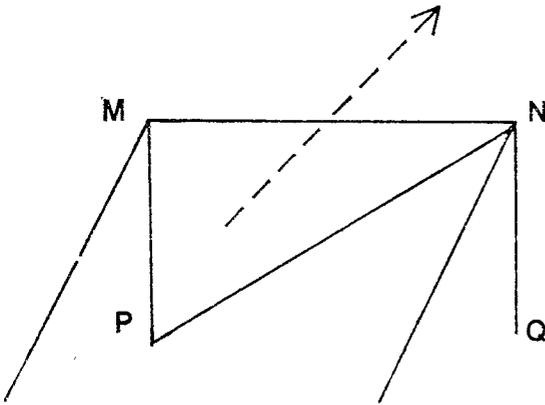


Dessin/drawing No 7



Dessin/drawing No 8

12 mm (tube < 40 mm diam. ext)
 $\phi = 14$ mm (tube ≥ 40 mm < 50 mm diam. ext)
 16 mm (tube ≥ 50 mm diam. ext)



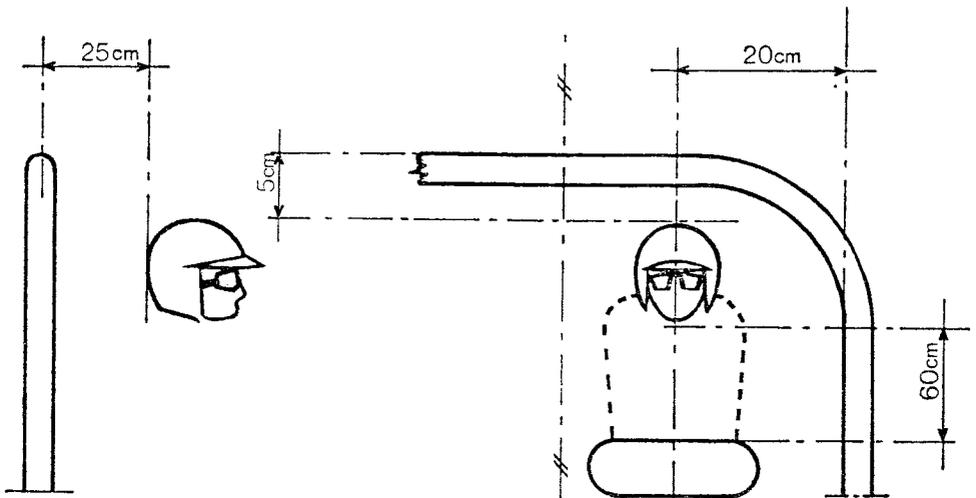
Dessin/drawing No 9

Groupe 5

Le montage d'un renfort diagonal est obligatoire. Les 2 variantes autorisées sont MQ et NP. (NP est indiqué sur le dessin no 9 comme un exemple.)

Group 5

Fitting of a diagonal strut is compulsory. The 2 authorised alternatives are MQ and NP. (NP is shown on drawing 9 as an example.)



Dessin/drawing No 10

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Will also be considered as open cars, cars which have no structural parts between the upper part of the windshield framework and that of the rear window, if any.

Attachment of safety roll-bars on the chassis: The attachment points of the struts of the main roll-bar hoop(s) on the chassis must be reinforced by means of a steel-plate 2-mm thick at least—welded, riveted or bolted on the shell, with a prolongation along a vertical member of the chassis (for example: door pillar—see drawing 4). The total surface of this plate must be of 35 sq cm at least, of which a third at least ensures the connecting with the vertical chassis-member. The fixing of the main roll-bar hoop(s) must be realised with at least three bolts and nuts—diameter: at least 8 mm—with hexagonal head. The attachment plate integrated to the roll-bar struts shall have the same thickness as the wall of the tube on which it is fixed.

When the roll-bar rests on a box-member, the latter must be locally reinforced by a structure constituted of either welded bolts or welded tubing ends (see drawing 5).

Removable connections: In case removable connections are used in the roll-bar construction, they must comply with a type approved by the FIA. Are approved up to now: a tapered connection and a twin lug connection with axis working under double shearing conditions and a muff-connection complying with drawings 6, 7 and 8.

The twin lug connection may however be used only for longitudinal brace-rods and not for the basic frame of the roll-bar(s).

Specifications of the tubes utilised	Closed cars		Open cars	
	<1,200 kg	≥1,200 kg	<1,200 kg	≥1,200 kg
	Ext. \varnothing × thickness			
Cold drawn seamless carbon steel E~30 daN	\varnothing 38 × 2.6	\varnothing 48.3 × 2.6	\varnothing 44.5 × 2.6	\varnothing 57 × 2.9
Alloy steel type 25 CD 4 SAE 4125 etc, E~50 daN	\varnothing 33.7 × 2.3	\varnothing 42.4 × 2.6	\varnothing 38 × 2.6	\varnothing 48.3 × 2.6

These dimension figures represent in mm the minimum figures admissible. They correspond to standardised tubes (International Standards ISO R 64).

In the case of cars weighing more than 1,200 kg, the dimension figures prescribed for cars weighing less than 1,200 kg may be used for tubular elements other than the main hoop located behind the front seats.

NB: The CSI, conscious of the problem of habitability raised by the use of roll cages, suggests that each car manufacturer recommends a type of roll-bar complying with FIA Specifications.

This roll-bar will have to be entered on a recognition sheet amendment and submitted to the CSI for approval.

Important: The exact weight of the device shall be subject to a statement from the competitor, to be appended to the entry form. This weight must be added to that indicated for the vehicle on the recognition form.

Application: Groups 1-3.

Cars of Groups 1 and 3:

Fitting compulsory for all speed events on circuits. Fitting optional for rallies, hill-climbs and slaloms. However, should the organisers of a rally or hill-climb deem that the driving conditions during their event are comparable to those of a speed event, they are entitled to prescribe the compulsory fitting of a safety roll-bar or cage, even for cars of Groups 1 and 3. This obligation must, in that case, be clearly mentioned in the Supplementary Regulations of the events.

Cars of Groups 2 and 4:

Fitting compulsory for all events. In rallies, the diagonal strut is not compulsory. The safety cage, as shown in drawing No 2, provided for cars whose weight exceeds 1,200 kg, is compulsory for all cars whose cylinder-capacity exceeds 2 litres.

Cars of Group 5:

Fitting compulsory for all cars. The safety cage as shown in drawing No 2, provided for cars whose weight exceeds 1,200 kg, is compulsory.

Cars of Group 6:

All cars should be equipped with a safety roll-bar symmetrical about the longitudinal axis of the car.

In cars fitted with doors, the roll-bar will have a minimum height of 92 cm measured vertically from the lowest point of the entirely sprung structure of the car.

In cars without any door, the minimum height will be 120 cm. In any case, the top of the roll-bar must be at least at 5 cm above the driver's helmet when the driver is sitting in normal driving position.

Manufacturing of roll-bars, in conformity with the following table and drawings 9 and 10 (International Standards ISO R 64 except for $\varnothing 35 \times 2$), and to previous specifications concerning the removable connections and the general considerations.

The mounting of front stays to protect the driver is accepted on condition that they are removable, for open cars.

It is recalled that the safety roll-bar must be symmetrical about the lengthwise centre line of the car.

	Closed and Open Cars	
	< 700 kg	≥ 700 kg
Cold drawn seamless carbon steel E~30 daN	$\varnothing 42,4$ $\times 2,6$	$\varnothing 48,3$ $\times 2,6$
Alloy Steel type 25 CD4 SAE 4125 etc E~50 daN	$\varnothing 35$ $\times 2$	$\varnothing 42,4$ $\times 2,6$

However, recognised and traditional manufacturers may also present a roll-bar of free conception as regards the material used, the dimensions of the tubes and the implantation of the braces, providing that the construction is certified to withstand stress minima given hereafter.

The weight being that of the car in starting order (driver aboard, full tanks),

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the roll-bar must be able to withstand three simultaneously applied loads:

- 1.5 G lateral,
- 5.5 G fore and aft,
- 7.5 G vertical, the induced loads being carried over into the primary structure.

A certificate signed by a qualified technician must be submitted to the Scrutineers of an event. It must be accompanied by a drawing or a photograph of the said roll-bar and state that this roll-bar can withstand the above mentioned loads.

Cars of Groups 7 and 8:

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 possibilities are left to the manufacturers:

a) The roll-bar, of entirely free structural conception, must be capable to withstand the stress minima indicated on the scale hereabove (§ concerning cars of group 6).

b) The tubes and brace(s) must have a diameter of at least $1\frac{3}{8}$ inch (3.5 cm) and at least 0,090 inch (2 mm) wall thickness. The material should be molybdenum 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 No 6 and 7 or with any other type approved by the FIA.

Provided the prescriptions concerning cockpit openings and strength of roll-bars are met, stays may be fitted forward.

f) Safety fuel tanks approved by the FIA :

Technical specifications :

The FIA reserves its right to approve any other set of technical specifications after study of the dossier submitted by the manufacturers concerned.

Specifications FIA/Spec/FT3:

1. Material

The flexible tank skin must be manufactured from a woven fabric in polyamide, polyester or equivalent impregnated and coated with a fuel resistant elastomer.

2. Minimal physical properties

Tensile strength: 450 lb min. Spec MIL-CCC-T-191b Method 5102.

Tear strength: 50 lb min. Spec MIL-CCC-T-191b Method 5134.

Puncture test: 175 lb min. Spec MIL-T-6396-C Article 4.5.17.

These physical properties must be maintained throughout all areas of the finished fuel cell, including seams, joints and fittings.

3. General remarks regarding fittings and connections

All fittings in elastomer shall be vulcanised on the skin and therefore be integral part of it.

All metal fittings shall be:

- either coated with elastomer and vulcanised on the skin,
- or integrated to the skin, by heating under pressure,
- or mechanically bound to the skin by a system of ring and counter-ring, the sealing being ensured either by a flat joint, or with an 'O' ring. In all cases, if there is a connection with bolts, it is recommended to fit steel inserts in the light alloy plates.

The hose clamp area of all nipple fittings shall be covered either with fabric, or with protection laths, in order to avoid cold flow or rubber when under clamp pressure.

4. Safety tank manufacturers recognised by the FIA

Entrants must use safety fuel tanks made by a manufacturer recognised by the FIA. In order to obtain the FIA's agreement, a manufacturer must have proved the constant quality of its product and its compliance with the specifications approved by the FIA.

Safety tank manufacturers recognised by the FIA must undertake to deliver to their customers exclusively tanks complying with the norms approved. To this end, on each tank delivered there shall be a printed code indicating the name of the manufacturer, the exact specifications according to which this tank has been manufactured and the date of the manufacturing.

5. Ageing of safety fuel tanks

The ageing of safety tanks entails a considerable reduction in the strength characteristics after approximately five years.

Therefore, all fuel cells must be replaced at the latest five years after the fabrication date indicated on the cell. Fuel cells which are not codified such as to show their date of fabrication will be considered to date from before January 1st 1970.

6. List of recognised manufacturers

Federal Republic of Germany

Uniroyal, 5100 Aachen, Postfach 410

United States

Aero Tec Laboratories, 20 Beldon Place, Norwood, New Jersey 07648

Donn Allen Inc, 5730 Bankfield Drive, Culver City, California 90230

Firestone Coated Fabrics Co, 1200 Firestone Parkway, Akron, Ohio 44301

Fuel Safe Corporation, 15545 Computer Lane, Huntington Beach, California 92649

Goodyear Fuel Cell Labs, The Goodyear Tire and Rubber Company, Akron, Ohio 44316

France

Kléber-Colombes Division Marston, BP 22, 4 rue Lesage Maille, 76-Caudebec-les-Elbeuf

Superflexit SA, 45, rue des Minimes, 92-Courbevoie

Great Britain

FTP Industries Ltd, The Airport, Portsmouth, Hants

Marston Excelsior Ltd, Wobaston Rd, Wolverhampton, Staffs

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Italy

Autodelta SpA (Alfa Romeo), Via Enrico Fermi 7, 20019 Settimo-Milanese
Pirelli, Viale Rodi 15, Milano

Japan

Bridgestone Tyre Co Ltd, 1-1 Chome Kyobashi, Chuo Ku, Tokyo 104
Kojima Press Ltd, 3-30 Shimolchibacho Toyota, Aichiken
Sakura Rubber Co Ltd, 48-14-1 Chome Sasazuka, Shibuya Ku, Tokyo
Sumitomo Electric Industries Ltd, 15-5 Chome Katahama, Migashi Ku, Osaka

Specifications FIA/Spec/FTA

1. The fuel tank should consist of three zones:

A) Outside zone:

The extinguishing liquid should be located on the outside of the fuel cell, around the fuel tank, so that the fuel tank partition in contact with the air should be entirely in contact on the inside with the extinguishing liquid and never with the fuel.

B) Fuel zone:

The fuel should be contained in cells of a 2L maximum capacity, the cells communicating with each other only to permit the filling and the emptying of the fuel tank.

C) Zone of the extinguishing liquid:

Is the zone situated between each fuel cell and which surrounds the cells with the extinguishing liquid.

2. Material of the fuel tank:

The fuel tank can be conceived in any material: metal, plastic, rubber.

The material used should not be fragile, so as to avoid any ruptures due to the vibrations of the car and the engine.

3. For reasons of vibrations, the fuel tank, if it is not made of rubber or of another elastic material, should be suspended from the chassis by means of elastic supports (of a type similar to those used for the water radiators).

4. If the tank is made of metal, it should be treated in an epoxy resin F 90 bath which, by penetrating the cavities intended for the extinguishing product and the fuel, will prevent any possible leakage due to porosity, welding, etc.

5. The cap of the refuelling orifice of the extinguishing liquid must be conceived like a radiator filler-cap, so that, should pressures exceed 0.2 kg/cm^2 or be inferior to 0.2 kg/cm^2 , the excess of pressure may escape and permit a balance between the inside and outside pressures.

6. The minimum relation *in volume* between gas and extinguishing liquid is the following:

30 litres of extinguishing liquid for 100 litres of gas.

7. Physical characteristics of the extinguishing liquid:

Minimum ebullition temperature, under a pressure of 1 kg/cm^2 : 45° C .

Note: In case this specification of fuel tanks would be used for cars of Groups 6-7 (F1 and F2), the fitting of crushable structure would become optional.

Application of the different specifications

Cars of Groups 5-6-7-8: Compulsory fitting of a FT3 or FTA fuel tank in all events.

Cars of Groups 1-2-3-4: The cars of Groups 1 to 4 may be equipped with a safety fuel tank, on condition that the necessary internal modifications do not affect the structural parts and the suspension mountings.

g) General circuit breaker: The general circuit breaker must cut all electrical circuits (battery, alternator or dynamo, lights, hooters, ignition, electrical controls, etc). It must be of a spark-proof model, and will be accessible from inside and outside the car. As for the outside, the triggering system of the circuit breaker will compulsorily be situated at the lower part of the windscreen mounting on the driver's side for closed cars, at the lower part of the main hoops of the roll-bar, *indifferently* on the right or the left, for open cars. It will be marked by a red spark in a white-edged blue triangle with a base of at least 12 cm.

Application: Compulsory fitting for all cars taking part in speed events on circuits or hill-climbs. The fitting is recommended for other events.

h) Oil catch tank: When cars are running in events which are entered on the FIA Sporting Calendar and when their lubrication system includes an open type sump breather, they must be equipped in such a way as to prevent oil from spilling on the track. In cars of a cylinder-capacity inferior or equal to 2,000 cc, the oil catching device shall have a minimum capacity of 2 litres and of 3 litres for cars with a cylinder-capacity exceeding 2,000 cc. The container shall either be made out of translucent plastic or include a transparent panel.

i) Rear view:

Cars of Groups 1-2-3-4-5: This shall be provided by an inside mirror commanding a rear window measuring at least 10 cm vertically, maintained along a width of at least 50 cm (see drawing No 15). However, if the straight line connecting the upper and lower edges of the rear window opening makes an angle inferior to 20° with the horizontal, the rear view must be efficiently obtained by other means (two outside mirrors or any other system of equivalent efficiency). Furthermore, all these cars should be equipped with two outside mirrors for circuit events.

Cars of Groups 6-7 and 8: The mirrors must give the driver a rear visibility on either part of the car.

j) Braking safety system: 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.

Application: Compulsory fitting on all cars of Groups 2-4-5-6-7 and 8.

k) Towing-eye: All cars will be equipped with a rear and front towing-eye for all events. This towing-eye will only be used if the car can move freely and it will be avoided to use it to lift the car.

Application: Cars of Groups 1-2-3-4-5 and 6.

l) Safety fixing devices for windshields: Such devices may be used freely for all cars having a windscreen, without recognition. They are however not compulsory.

Art 253: Safety devices/Art 254: Rules for changing groups/Art 255: Prescriptions Groups 1 to 6

m) Windshield: A windshield made of laminated glass is compulsory.

Application: Groups 1-2-3-4 and 5.

n) Red warning light: A rearward facing red warning light of at least 15 watts should be mounted as high as possible on the centre-line of the car and be clearly visible from the rear. The warning light must be switched on by order of the clerk of the course.

Application: Cars of Groups 7 and 8.

o) 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.

Application: Groups 7 and 8.

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.

Application: Groups 6-7-8.

p) Life support system: A life support system composed of a medical air bottle connected to the driver's helmet by a flame-resistant pipe is recommended for all single seaters.

Application: Group 7, Formulae 1 and 2 only.

TITLE 4—GENERAL PRESCRIPTIONS

Art 254—Rule for changing from one group to another, and authorised amalgamation of groups: Cars originally belonging to a certain group, but which have been subject to duly declared modifications and/or additions that exceed the limits specified for the group concerned, may pass into a higher group, provided for in the supplementary regulations, with the prescriptions of which it complies and under the following conditions:

Group 1 passes into Group 2 }
Group 3 passes into Group 4 } or eventually in Group 5
Groups 2 and 4 pass into Group 5

Art 255—Prescriptions common to all cars of Groups 1 to 6:

a) Chassis, ground-clearance, steering lock: No part of the car should touch ground when one of its tyres is deflated.

The maximum steering radius shall be 6.75 m which means that the car must be able to make a complete turn in both directions without the wheels going beyond two parallel lines drawn on the ground 13.50 m apart.

b) Coachwork:

Conditions for recognition: Coachworks of one same minimum series shall be identical with the only exception of a 'sun roof'.

However, if a model has its coachwork equipped with a specific number of doors and has been recognised on the basis of a given minimum series, similar recognition may be granted to another coachwork with a different number of doors when its minimum production reaches 50% of the figure necessary for