



# **Annexe "J" au Code Sportif International**

**Classification, définition et spécifications des voitures**

# **Appendix "J" to the International Sporting Code**

**Classification, definition and specifications of cars**

# **Anhang "J" zum internationalen Automobil-Sportgesetz**

**Einteilung, Begriffsbestimmungen und Erläuterungen der Fahrzeuge**

# **Allegato "J" al Codice Sportivo Internazionale**

**Classificazione, definizione e caratteristiche delle vetture**

# Appendix J

## to the International Sporting Code 1971

### Classification, definition and specifications of cars

*Specifications in italics are interpretations or explanations given by the CSI since the introduction of the present Appendix "J" in 1966*

#### TITLE I

#### CLASSIFICATION OF CARS

**Art. 251.—Categories and groups:** cars competing in events shall be distributed into the following categories and groups:

**Category A:** recognized production cars (numbers between brackets are those of the required minimum production in 12 consecutive months).

- Group 1 : series-production touring cars (5,000).
- Group 2 : special touring cars (1,000).
- Group 3 : series-production grand touring cars (1,000).
- Group 4 : special grand touring cars (500).
- Group 5 : sports cars (25).

**Category B:** experimental competition cars.

- Group 6 : prototype-sports cars.

**Category C:** racing cars.

- Group 7 : two-seater racing cars.
- Group 8 : formula racing cars.
- Group 9 : formula libre racing cars.

#### TITLE II

#### DEFINITIONS AND GENERAL PRESCRIPTIONS

**Art. 252.—Definitions a) Recognized production cars:** cars of which the series-production of a certain number of identical (see definition of this word hereafter) cars, has been completed within a certain period of time, and which are meant for the normal sale (see below) to the individual purchaser. This period of time is of 12 consecutive months. The checking of the existing minimum production enables the ACN to apply to the FIA for recognition (see this word below).

**b) Experimental competition cars:** cars which have nothing or which have no more to do with a series-production vehicle, either that only one of the type has been built, or that the number of units which has been built is inferior to what is required for the group for which the minimum number of units annually produced is the smallest, or that although they originate from a series-production car, they have been modified or equipped with new accessories to the point that their series-production nature has been lost.

**c) Racing cars:** cars manufactured solely for speed races on a circuit or a

closed course. These cars are generally defined by the international racing formulae the specifications of which are fixed by the FIA for a certain period of time. Racing cars not being defined by any international formula are said to be "formule libre" and their specifications must in that case be set out in the supplementary regulations of the event.

**d) Identical:** by "identical" cars are meant cars belonging to one and the same fabrication series and which have the same coachwork (outside and inside), same mechanical components and same chassis (even though this chassis may be amalgamated with the coachwork in case of a unitary construction).

"Mechanical components" include all parts for the propulsion, suspension, steering and braking system and all accessories whether moving or not which are necessary for their normal functioning (such as for instance, electric accessories).

By chassis is meant the structure of the car which holds mechanical components and coachwork together, and includes any structural part which is located below the horizontal plane passing through the centre of the wheel hubs.

**e) Minimum production:** this minimum production, different for each group of cars, applies to cars which are identical, the manufacturing of which has been fully completed within a period of 12 consecutive months.

*By "minimum series" should be understood only a number of entirely finished cars, eg, cars in running condition and ready for delivery to the purchasers.*

**f) Normal sale:** means the distribution of cars to individual purchasers through the normal commercial channels of the manufacturer.

**g) Recognition:** is the official certification made by the FIA that a minimum number of cars of a specific model has been made on series-production terms to justify classification in group 1, 2, 3, 4, or 5 of these regulations. Application for recognition shall be submitted to the FIA by the ACN of the country in which the vehicle is manufactured and shall entail the drawing up of a recognition form (see below). It must be established in accordance with the special regulations, called "Regulations for Recognition", laid down by the FIA, and a manufacturer wishing to obtain the recognition of his model(s) must undertake to abide by their prescriptions. Recognition will only be granted to car-models which were still in production on 1st January 1969 or the production of which was started after that date. Recognition of a series-produced car will become void 4 years after the date on which the series-production of the said model has been stopped.

Recognition of a model may only be valid for one group. The transferring of a previously recognized model from one group to another will therefore nullify the effect of the said previous recognition.

#### *Definitive abandonment of the series-production*

*The series production is regarded as completely stopped if the monthly rate has decreased for more than four consecutive months to below 1/12th of the minimum figure required by the Appendix "J" for the minimum production of the group in which the model is recognized.*

#### *Definition of the term "model of car"*

*By "model of car" is meant all the cars belonging to a production series distinguishable by a specific conception and specific external general lines of the coachwork, and by an identical mechanical conception of the engine and the transmission to the wheels.*

*A model of car may exist in several variants (for example, different power or engine cylinder-capacity), which may possibly be the subject of separate recognitions.*

However, taking the Art. 252g as a basis, it must be pointed out that, if the Sub-Commission for Recognitions has the possibility, for practical reasons, to authorize the recognition of certain variants of a same car-model in different Groups of cars, the principle of a simultaneous recognition of variants of a same model in Groups 1 and 2 (Touring Cars) on the one hand, and in Groups 3, 4 and 5 (Grand Touring and Sport) on the other hand, remains forbidden.

**h) Recognition forms:** all cars recognized by the FIA shall be the subject of a descriptive form called recognition form on which shall be entered all data enabling identification of the said model.

To this effect only the standard recognition forms and standard additional form for "normal evolution of the type" and "variant" approved by the FIA shall be used by all ACNs.

The production of the forms at scrutineering and/or at the start may be required by the promoters who will be entitled to refuse the participation of the entrant in the event in case of non-production.

In case of any doubt remaining after the checking of a model of car against its recognition form, the scrutineers would have to refer either to the maintenance booklet published for the use of the make's distributors or to the general catalogue in which are listed all spare parts.

It will rest with the competitor to obtain the recognition form and, if need be, the additional forms concerning his car, from the ACN of the manufacturing country of the vehicle.

*Whenever the scrutinizing of a car shows the complete compliance of it with its recognition form, inasmuch as is required for the group in which it is admitted, there is no need to worry about its year of fabrication.*

*Therefore, the chassis and engine numbers which may be mentioned on the recognition form are not to be taken into consideration.*

**i) Cylinder-capacity classes:** the cars shall be distributed into the following 13 classes, according to their cylinder-capacity:

- |     |  |        |                          |          |   |   |   |   |          |
|-----|--|--------|--------------------------|----------|---|---|---|---|----------|
| 1.  | Cylinder-capacity inferior or equal to | 500 cc |                          |          |   |   |   |   |          |
| 2.  | Cylinder-capacity exceeding            | 500 cc | and inferior or equal to | 600 cc   |   |   |   |   |          |
| 3.  | "                                      | "      | "                        | 600 cc   | " | " | " | " | 700 cc   |
| 4.  | "                                      | "      | "                        | 700 cc   | " | " | " | " | 850 cc   |
| 5.  | "                                      | "      | "                        | 850 cc   | " | " | " | " | 1,000 cc |
| 6.  | "                                      | "      | "                        | 1,000 cc | " | " | " | " | 1,150 cc |
| 7.  | "                                      | "      | "                        | 1,150 cc | " | " | " | " | 1,300 cc |
| 8.  | "                                      | "      | "                        | 1,300 cc | " | " | " | " | 1,600 cc |
| 9.  | "                                      | "      | "                        | 1,600 cc | " | " | " | " | 2,000 cc |
| 10. | "                                      | "      | "                        | 2,000 cc | " | " | " | " | 2,500 cc |
| 11. | "                                      | "      | "                        | 2,500 cc | " | " | " | " | 3,000 cc |
| 12. | "                                      | "      | "                        | 3,000 cc | " | " | " | " | 5,000 cc |
| 13. | "                                      | "      | "                        | 5,000 cc |   |   |   |   |          |

Regulations intended for specific events may provide one or several sub-divisions of class 13. There shall be no sub-division of the other classes.

The above mentioned classification will apply only to non-supercharged engines.

Unless otherwise specified in special provisions set up by the FIA for a certain category of events, the organizers are not bound to include all the above mentioned classes in the supplementary regulations, and, furthermore they are free to group two or more consecutive classes, according to the particular circumstances of their events.

**j) Formulae of equivalence between reciprocating piston engines and special engines.**

**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.

**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 reciprocating piston engine expressed in cubic centimetres.

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.

Trans-sonic 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:

$$4.25 \times 1.15 \times 1.15 \times 1.15 \times 1.15 \times 1.15 \times 1.15 \text{ or } 4.25 \times 1.15^6.$$

The CSI 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.

**k) Supercharging:** if the engine of a car includes a separate device used for supercharging it, the nominal cylinder-capacity will be multiplied by 1.4 and the car will pass into the class corresponding to the fictive volume thus obtained. The new cylinder-capacity of the car shall always be considered as the real one. This shall particularly be the case for assigning the car to its cylinder-capacity class, and the car will be treated in all respects as if its cylinder-capacity thus increased was its real capacity. Especially in regard to its classification per cylinder-capacity class, its inside dimensions, its minimum number of seats, etc.

A dynamic air inlet for ducting the air from the atmosphere into the engine intake will not be considered as a supercharging device.

**l) Coachwork:** by coachwork is meant:

— externally: all parts of the car licked by the air-stream and situated above a plane passing through the centre of the wheel hubs.

— internally: all visible parts of the passenger compartment.

Coachworks are differentiated as follows:

- 1) completely closed coachworks,
- 2) completely open coachworks,
- 3) convertible coachworks: with a hood in either supple (drop-head) or rigid (hard-top) material.

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 recognized 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 recognition of the basic series, providing that both models have the following common characteristics:

- 1) a coachwork of similar shape, i.e. of which the general appearance is basically the same and which has not been modified beyond what is necessary to change from a four door version to a two door version (or vice-versa);
- 2) exactly identical mechanical parts;
- 3) the same wheelbase, track and number of seats;
- 4) at least the same weight;
- 5) an FIA decision to recognize this variant coachwork and to draw up an additional "variant" recognition form.

As far as convertible cars are concerned, these must comply in all respects with the specifications applying to closed cars if they run an event under this form, or with the specifications concerning open cars if they run with the hood down or the hardtop removed.

**m) Use of aerodynamic devices on cars of groups 5, 6, 7 and international racing formulae:** in interpreting Art 252(l), shall definitely be considered as coachwork all external parts of the car which extend above the highest point of either the front or rear wheels (with tyres) with the exception of units definitely associated with the functioning of the engine or transmission and the anti-roll bar.

Any specific part of the car which has an aerodynamic influence on the stability of the vehicle must be mounted on the entirely sprung part of the car and shall be firmly fixed whilst the car is in motion.

Neither the safety roll bar, nor any of the units associated with the functioning of the engine or transmission shall have an aerodynamic effect by creating a vertical thrust.

All external projections swinging in a horizontal plane shall have a minimum radius of 1.5 cm. The leading edge of any aerofoil fixed to the front of the car shall not be sharp.

**n) Minimum weight:** is the real minimum weight of the empty car (without persons or luggage aboard) fully equipped and ready for delivery to the purchaser. It shall consequently include a spare-wheel equipped with a tyre similar to those mounted on at least 2 of the 4 wheels, and all the accessories normally mounted on the least expensive model of the series concerned being removed, except for the normally supplied repair kit (jack, tool-kit). All liquid tanks (of lubrication, cooling system, braking, heating system, if need be), except for the fuel tank, must be full.

The minimum weight of the car mentioned on the recognition form shall be

strictly respected. Any lightening of the car by removal or replacement of parts, aiming at reducing its weight, is prohibited.

**Art. 253.—Prescriptions common to all cars of categories A and B.**

**a) Chassis, ground-clearance, steering lock:** the car, supplied with enough fuel for starting the event, its oil and water tanks full, must be able to drive over—under the power of its engine and with its driver at the steering-wheel—a mass of 80×80 cm and 10 cm high.

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:** minimum inside dimensions and minimum number of seats: cars shall be equipped with a minimum of two seats or a minimum of four seats according to the group in which they seek recognition and, within a same group, according to their engine cylinder-capacity.

For each group specified in these regulations, the minimum number of seats is listed hereafter and the minimum inside dimensions for both cases are indicated in the following paragraphs.

**1st case** (see diagram 1): car equipped with 4 or (more) seats.

The height at the front (B) is measured between the lowest point of the front seat cushion compressed by a standard mass of 60 kgs (see diagram 2) and the ceiling (the padding if any, may be compressed). Should the backrest of the front seat(s) be inclined backwards, the protected height must also be measured at the same angle as the inclination of the backrest.

— If the front seats are separate, the measurement is made in the middle of the two seats. In case of adjustable front seats, the seats will be placed in medium position.

— If there is a common front seat, the measurement is made at 25 cm from the centre line of the car.

The height at the back (D) is measured between the cushion of the rear seat, compressed by the standard mass, and the ceiling (the padding, if any, may be compressed) at 25 cm from the centre line of the car. Should the backrest of the rear seat be inclined backwards, the protected height must also be measured at the same angle as the inclination of the backrest.

The width over the front seats (C) is measured along the vertical plane passing through the centre of the standard mass, 30 cm above the compressed seat, and between the upper strip of each front door.

The width over the back seats (E) is measured along the vertical plane passing through the centre of the standard mass, 30 cm above the compressed seat and between the upper strip of each back door, or at the same height as for the front seats when there are no rear doors.

**NB: Definition of the width C and E as from 1st January 1972.**

The two above paragraphs will be modified as follows as from 1st January 1972:

The width over the front seats (C) is measured along the vertical plane passing through the centre of the standard mass placed on the seat. The width must be freely maintained over a height of at least 25 cm.

The width over the rear seats (E) is measured along the vertical plane passing through the centre of the standard mass. The width must be freely maintained over a height of at least 25 cm.

The minimum dimensions (in centimetres) are the following:

Cylinder-capacity	B	C	D	E
Up to 700 cc	85	100		
From 700 to 2,000 cc	85	110	85	110
Over 2,000 cc	90	120	85	120

Moreover, in order to be considered as a four-seater, a model must fulfil certain conditions regarding its rear-seating capacity. These conditions are the following (see diagram 3):

- 1.—  $l$  must be at least 90% of  $L$ ;  
 $m$  must be at least 85% of  $M$ ;  
 $p$  must be at least 80% of  $k+m$ .

**NB:** This measure  $p$  will be raised to 85% of  $k+m$  as from 1st January 1972.

- 2.—  $k$  must measure at least 15 cm and the minimum measures for the foot-space of the rear passengers must be: 32 cm long, 5 cm high and (for each one of the two passengers) 25 cm wide.

- 3.— the space available for the rear passengers must meet the following condition:  $k+l+m=95$  cm minimum.

- 4.— cars in which the back of the rear seat(s) is inclined forward beyond the vertical cannot be considered as four-seaters.

The measuring of the above dimensions must be carried out under the following conditions:

— the front seat, if adjustable, must be placed in its normal driving position, i.e.:  $K+L+M$  must measure at least 120 cm.

— if the front or rear seats have reclining backrests (by means of either a mechanical device or chocks), these should be set at an inclination of 15° backwards.

—  $K$  is measured horizontally from the brake pedal (at rest) to the foremost point of the front seat;  $k$  is measured horizontally at a height equal to  $l$  from the back of the front seat to the foremost point of the rear seat.

$L$  and  $l$  are measured vertically from the highest point of the cushion of the seat to the floor of the car. At the front  $L$  must be measured at the usual resting-place of the driver's heels.

$M$  and  $m$  are measured horizontally from the foremost point of the seat to the backrest to be measured at a height of  $L$  ( $l$ ).

Two specific cases must be distinguished:

- 1) bucket-seats: the measuring must be taken on the centre line of each seat.
- 2) common seat: measuring must be carried out at 25 cm from the longitudinal axis of the vehicle.

However, for the rear seat(s) measuring must be made in the same vertical plane as for the front seats.

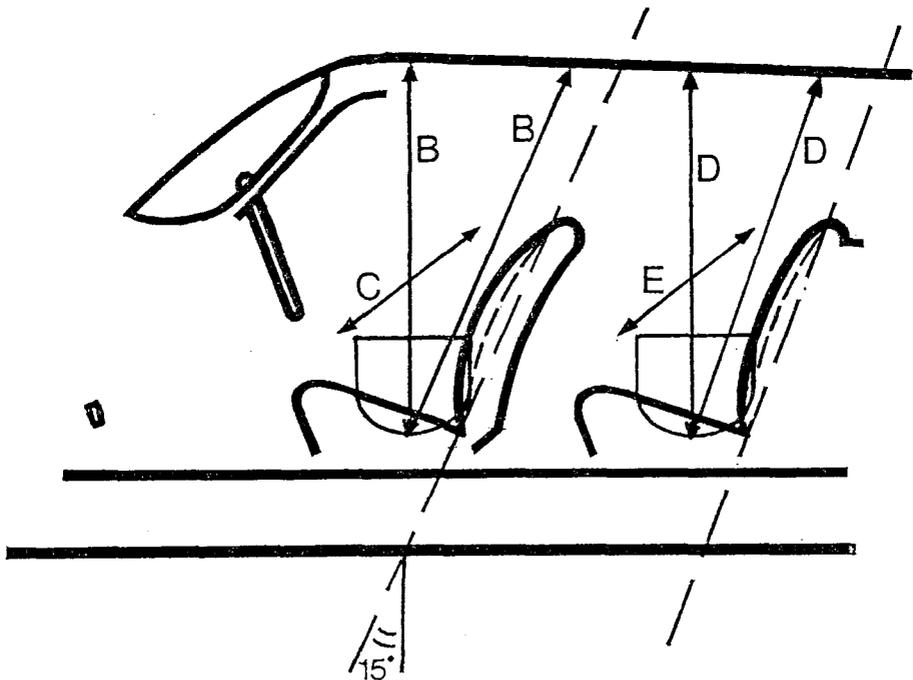
$p$  is measured (in the same vertical plane as  $m$ ) horizontally from the rear most point of the backrest of the front seat to the backrest of the rear seat.

The seating cushion, if adjustable in height, must be fixed at half the adjusting range.

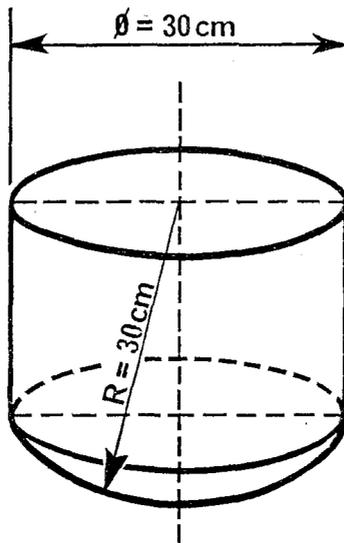
For the above-mentioned measurements, seats must not be occupied.

*Definition of the term "seat"*

— By seat is meant the two surfaces constituting the seating cushion and the seat back or backrest.

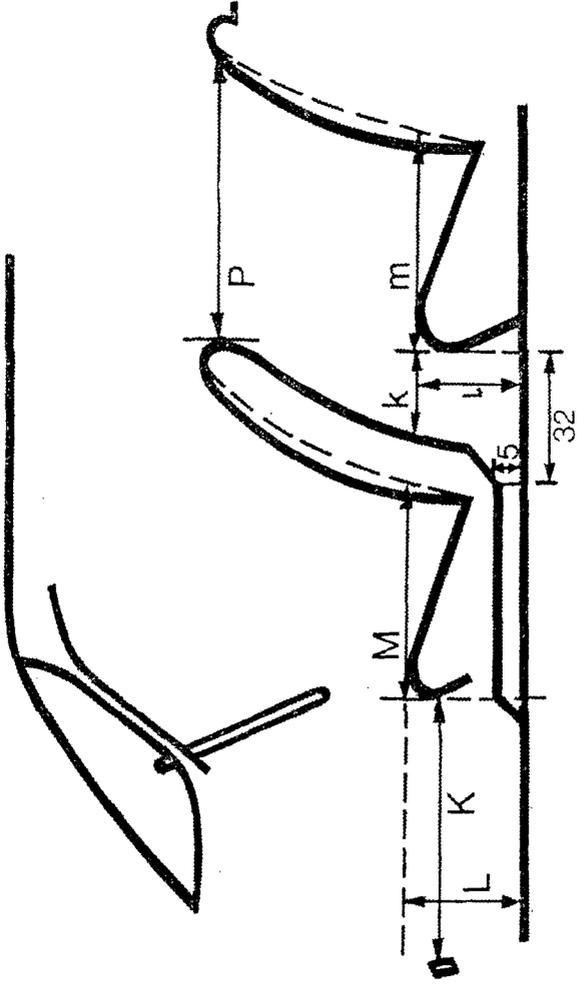


**Dessin/drawing No. 1**



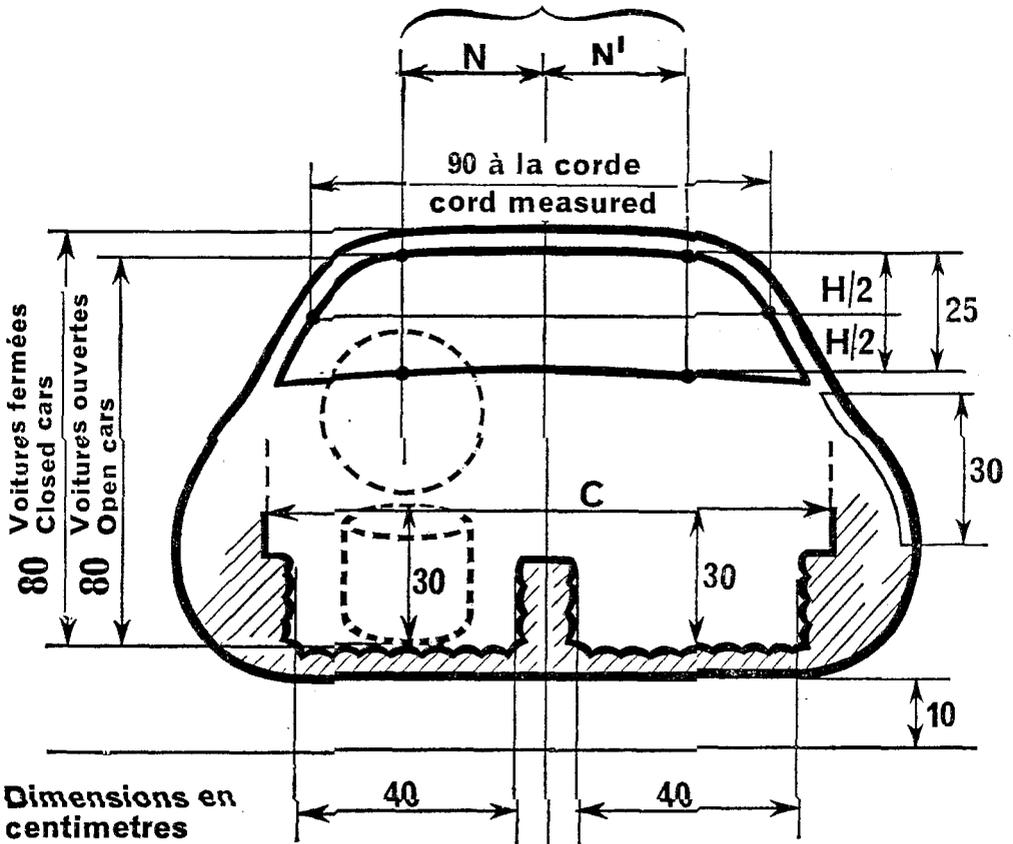
**Weight/tare = 60 kgs  $\pm$  200 grms.**

**Dessin/drawing No. 2**



Dessin/drawing No. 3

**Largeur sur laquelle la "hauteur protégée" doit être maintenue**  
**Width where the "protected height" must be maintained**



Dimensions en centimetres

Dimensions in centimetres

$N = N'$

$N + N' = 45 \text{ cm min}$

**Axe de la voiture**  
**Centre line of the car**

**Dessin/drawing No. 4**

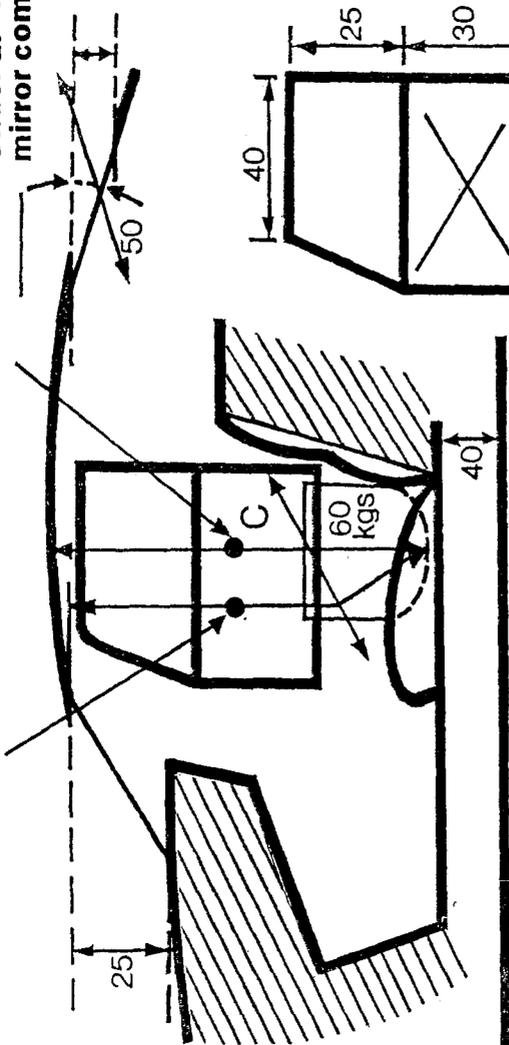
	0-700 cc	700- 2,000 cc	2,000+ cc
C	100	110	120

En dessous de 20° rétro-  
viseur extérieur  
obligatoire

Under 20° rear view  
mirror compulsory

80 Voitures ouvertes  
80 Open cars

80 Voitures fermées  
80 Closed cars



Dimensions en  
centimetres

Dimensions in  
centimetres

Dimensions portière  
Door dimensions

Dessin/drawing No. 5

— *By seat-back or backrest is meant the surface measured upwards from the bottom of the spine of a person normally seated.*

— *By seating cushion is meant the surface measured forwards from the bottom of the spine of the same person.*

*These two main parts of the seat must form an homogenous construction and be entirely covered with upholstery (for example, in natural or synthetical textiles).*

*When examining a specific car, the rear space reserved for passengers can only be considered as complying with the term "seat" if it offers comfort similar to that of the front seat, ie, the upholstery on it must have approximately the same thickness and the same flexibility as that of the front seats, or, in practical terms: during the measurement, the standard mass (60kg) must compress the seating cushion on the rear to approximately the same extent as on the front seats.*

**2nd case** (see diagrams 4 and 5): cars with a minimum of 2 seats.

The two seats must be distributed equally on either side of the longitudinal centre-line of the car and at the same level, regardless of their normal play for adjusting them to the size of the driver. The location provided for placing or housing the seats must have a minimum width of 40 cm maintained all along the depth of the seat.

The "protected height" shall be at least 80 cm measured from the cushion of the seat compressed by the standard mass (see diagram 2) to the ceiling (any existing padding being compressed) in cars with closed coachwork and 80 cm from the surface of the seat compressed by the standard mass (see diagram 2) to the upper edge of the windscreen (measured vertically through the centre of the standard mass) in case of open cars.

The minimum interior width over the front seats (see measurement C) shall be of 100 cm in cars with a cylinder-capacity inferior or equal to 700 cc, 110 cm in cars with a cylinder-capacity from 700 cc to 2,000 cc and 120 cm in cars with a cylinder-capacity exceeding 2,000 cc. The minimum width of foot-space (for each person) must be at least 25 cm measured perpendicularly to the centreline of the car, plumb with the pedals.

*The passenger's compartment and seat shall remain free throughout the competition and shall not be encroached upon by any element or equipment of the car except when Appendix J specifically provides otherwise. The passenger's compartment and seat of open cars shall not be covered by means of a tonneau cover of any type.*

**NB: As from 1st January 1972, the following additional paragraph will come into effect:**

The distance between the lengthwise centre-lines of the two seats should not be inferior to 50 cm. In case the two centre-lines should not be parallel, measurement should be done from the hollow of the seats.

**c) Windshield—Windshield wiper:** a windshield made of safety glass is compulsory. In all production cars it shall be made of the material originally provided by the manufacturer. It shall be equipped with at least one automatic wiper sweeping a sufficient area to enable the driver to distinctly see the road from his seat.

The windshield shall comply with the following requirements:

- 1) be placed symmetrically with regard to the centre-line of the car;
- 2) have a minimum height of 25 cm, maintained between two points symmetrically placed with regard to the centre-line of the car and of which one is determined by the vertical line passing through the centre of the steering-wheel. There must furthermore be at least 45 cm between the two said points (measure raised to 60 cm as from 1st January 1972);

3) have a minimum width of 90 cm; cord measured at half its vertical height (measure raised to 100 cm as from 1st January 1972).

Shall be considered as being the windshield, only the glass area through which one has an entirely free vision towards the front, without being limited by any outside opaque projection apart from the bulge of the mudguards which cover the front wheels.

**d) Mudguards:** shall be of permanent nature and firmly fixed.

They shall project over the wheels and provide efficient covering of at least one third of their circumference, and at least the width of the tyre.

In those cars where mudguards are entirely or partly overhung by the body structure, the combination mudguards-body or the body alone shall nevertheless meet the above protection requirements.

Mudguards must be solid with the body, there being no gap between them.

**e) Hood:** open or convertible cars shall be equipped with a hood fitting exactly, and without any intermediary device, to the windshield the door windows or side panels, and the rear of the coachwork.

The hood may not interfere with the opening of the doors. It shall include a rear window, the minimum dimensions of which are specified in the present article (see below "rear view").

It must be capable of being used during all or part of the event. The supplementary regulations may specify in which state convertible body cars must run (as closed cars or open cars, otherwise it shall be at the discretion of the entrant) but the hood if not fitted on the car must always remain aboard the car during the whole of the event. The hood may be replaced by a hard top subject to the same conditions as for a hood.

**f) Doors:** all vehicles shall be fitted with at least one rigid door on each side, with closing devices and hinges which may not be located on the rear-door post, nor on the door-sill. The dimensions of the lower door panel (the part which is normally opaque) must be such as to allow a rectangle of at least 50 cm wide and 30 cm high being inserted in it. The corners of this rectangle may be rounded to a maximum radius of 15 cm. Cars with sliding-doors will not be allowed unless they include a safety system enabling a quick and easy evacuation of the car's occupants in case of an accident.

Cars with closed or convertible coachwork shall have doors equipped with moveable windows of the material provided by the manufacturer for the considered model, liable to be opened over at least one third of their surface in order to provide for ventilation, each window having a minimum width of 40 cm and a minimum height of 25 cm.

When opened, the doors must give free access to the seats. They must be made in such a way that they never restrict the lateral view of the driver.

*By door should be understood the part of the coachwork opening to give access to the seats.*

**g) Rear view:** 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. 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, when the car complies with the same specifications as those required for checking the ground-clearance (see art. 253), the rear view must be efficiently obtained by other means (two outside mirrors or any other system of equivalent efficiency).

**h) Luggage trunk:** a covered space shall be provided which is an integral part of the coachwork but outside the space occupied by the passenger seats.

This space shall be such as to enable to carry without special difficulty a number of suit-cases, sheltered from rain or dirt which varies according to the cylinder-capacity of the engine equipping the car (see below), of the following minimum dimensions: 60 cm×40 cm×20 cm.

Cylinder-capacity inferior or equal to 2,000 cc: 1 suit-case,  
Cylinder-capacity superior to 2,000 cc: 2 suit-cases.

However, in cars having inside dimensions which are inferior to the minima laid down in article 253 b to allow classification as a four-seater, but which contain a compartment behind the front seats liable to receive passengers, this compartment may be taken into account as luggage space whether or not it has been equipped for this purpose but without modifying any of the original parts.

**i) Starting:** cars must be equipped with a device and its source of power for automatically starting the engine and able to be actuated by the driver sitting at the wheel.

**j) Fuel tanks:** the total capacity of the fuel tanks (main and additional) must not exceed the following limits:

Cars up to 700 cc of engine cylinder-capacity :	60 l.
Cars from 700 cc to 1,000 cc cylinder-capacity:	70 l.
"    "    1,000 cc to 1,300 cc        "    "    :	80 l.
"    "    1,300 cc to 1,600 cc        "    "    :	90 l.
"    "    1,600 cc to 2,000 cc        "    "    :	100 l.
Cars from 2,000 cc to 2,500 cc        "    "    :	110 l.
Cars over 2,500 cc                        "    "    :	120 l.

Will be considered as a fuel tank any container holding fuel which can flow out by any method either to the main-tank or directly to the engine.

The filling-port(s) (and vents) of each tank must always be outside the passenger-compartment and be entirely leak-proof.

### **Safety type fuel tanks**

*The FIA has followed with great interest the introduction on the car accessory market of safety type fuel tanks, generally in the form of a tank in normal sheet steel with a layer of rubber inside (so called "bladder" type tanks) but sometimes also entirely made of synthetic material.*

*In order to promote the use of these tanks which are a considerable improvement in the drivers' safety, and to avoid any kind of administrative complications (conformity of the cars with their recognition forms, etc.), the use of safety type fuel tanks will be allowed and even recommended for all groups of cars of Appendix J and in all motor sport events.*

*Nevertheless, for cars of groups 1 and 3 of Appendix J, the fitting of safety tanks will be allowed only if the manufacturer of the car has recognized them as such and provided they do not exceed the capacity of the original tanks as stated on the recognition form.*

**Location of fuel tanks:** *The emplacement foreseen by the manufacturer for the fuel tank(s) and the feeding system towards the engine, constitutes one of the principles of series-production, and this implies that no change can be made, unless an authorization is explicitly stated in Appendix J.*

*However, a derogation to the above rule shall be made for cars in which the manufacturer has placed the fuel tank inside the passenger compartment, and close to the occupants.*

*In this specific case, and for the sake of safety, it will be possible, whatever the group of cars, to mount a leak-proof protective barrier between the tank and the passengers,*

*or to change the place of the tank and, if necessary, its accessory parts (filling port, petrol pump; outlet tube).*

**k) Spare-wheels:** all cars shall be equipped with at least one spare wheel with its tyre occupying the position provided for by the manufacturer which may not encroach upon the space provided for luggage.

The spare wheel must be equipped with a tyre of the same dimensions as those fitted on at least two wheels of the car.

**l) Silencer (muffler) and exhaust system:** even when the specific provisions for a group allow replacement of the original muffler, cars competing in an open road event shall always be equipped with an exhaust muffler complying with the road regulations of the country(ies) through which the event is run.

For events run exclusively on closed circuits, the supplementary regulations may authorize modification, replacement or removal of the exhaust muffler.

The outlet pipes of the muffler shall be directed either rearwards or sideways. If the outlet pipes are pointing rearwards, their orifices shall be placed at a height neither superior to 45 cm nor below 10 cm; they shall not protrude by more than 15 cm beyond the overall length of the car. If the exhaust pipes are directed sideways, their orifices must be located aft of a vertical line passing through the wheelbase centre and may not project in any way beyond side of the coachwork. Adequate protection shall be provided in order to prevent heated pipes from causing burns.

**m) Safety devices:** for all cars competing in events entered on the FIA International Sporting Calendar:

- a supplementary locking device for engine bonnet, boot lid, and any other important objects carried on board of the vehicle, such as spare wheel, tool set, etc;
- a supplementary protection 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);
- anchor fittings for safety harness;
- a windscreen of safety glass of the laminated type;
- during the event, the car shall carry a dry chemical fire-extinguisher of at least 1 kg capacity. It may be located in the space provided for the passenger.
- the fitting of a safety roll-bar or cage in compliance with the following prescriptions.

### **Cars of Groups 1 to 4**

It is compulsory to fit a safety roll-bar or cage for all speed events (circuits or hill-climbs).

For regularity events (rallies), the fitting is compulsory for special cars (Groups 2 and 4), and optional for series-production cars (Groups 1 and 3). However, should the organizers of a rally 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 event.

The attention of racing drivers is drawn to the fact that a safety roll-bar can be efficient only if the driver is firmly maintained in his seat by a safety harness. In the opposite case, the safety roll-bar, instead of protecting the driver, constitutes a dangerous obstacle inside the passenger compartment.

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.

### **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.

However, for practical reasons, the fitting of such a cage is made compulsory only for cars of which the weight declared on the recognition sheet is superior to 1,200 kg. For the cars under 1,200 kg the windscreen hoop is not compulsory. The general designing must comply with drawings 6 and 7.

The safety roll-bar or cage must be conceived in such a way as not to obstruct the access of the front seats and not to encroach on the space provided for the driver and its passenger. On another 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.

### **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 locally reinforced by means of a steel-plate—2 mm thick at least—welded on the shell, with a prolongation along a vertical member of the chassis (for example: door pillar—see drawing 8). 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 realized with at least 3 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 9).

### **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 10, 11 and 12.

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

### **Waiver**

If, owing to the original conception of the car, it is not possible to fit a safety roll-bar with the regular implantation and structure, the manufacturer may indicate a variant on the recognition sheet and submit it to the CSI for approval.

### **Open Cars**

Conception and realization identical to those prescribed for closed cars. Moreover, the main hoop behind the front seats must be symmetrical about the length-wise centre-line of the car and comply with the following figures (see drawing 14):

**Height:** the top of the roll-bar must be at least 5 cms (2") 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 cms (8") measured at 60 cms (23") above the driver's and passenger's seats (on the line perpendicular to the driver's vertebrae from the length-wise 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.

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.

### Specifications of the tubes utilized

	Closed Cars		Open Cars	
	<1200 kg	≥ 1200 kg	<1200 kg	≥ 1200 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 CD4 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 standardized tubes (International standards ISO R 64).

In the case of cars weighing more than 1200 kg, the dimension figures prescribed for cars weighing less than 1200 kg may be used for tubular elements other than the main hoop located behind the front seats.

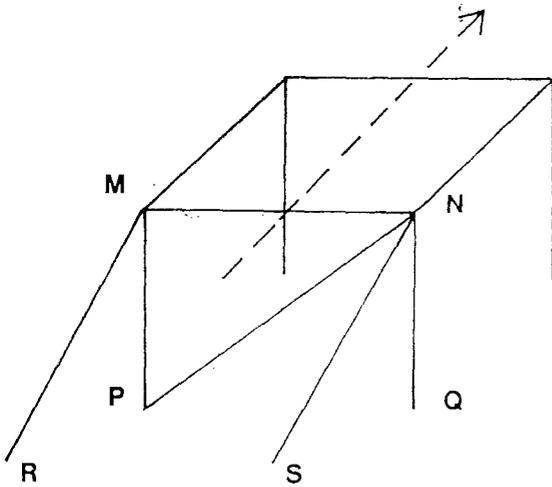
### Cars of Groups 5 and 6 (open and closed)

Compulsory fitting, for speed events as well as for rallies. Manufacturing of roll-bars, in conformity with the following table and drawings 13 and 14. (International Standards ISO R 64 except for  $\varnothing$  35 × 2), and to previous specifications concerning the removable connections and the general considerations of Art. 296 n.

However, recognized 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 for Formulae cars, ie, 7.5 G vertically, 1.5 G laterally, and 5.5 G lengthwise, in both directions (see Art. 296 n).

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

**n) General circuit breaker:** all cars participating in speed races on closed circuits or in hill-climbs must be equipped with a general electric circuit breaker,



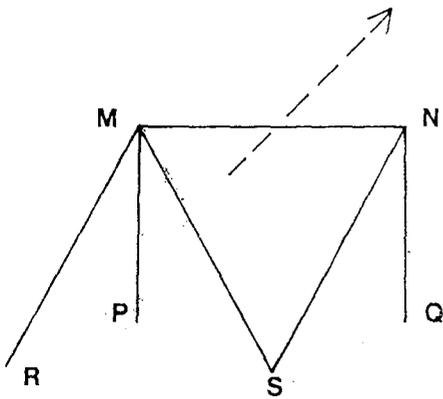
**Dessin/drawing No. 6**

**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 6 comme un exemple.)

**Groups 1 to 4**

Fitting of a diagonal strut is compulsory. The various authorized alternatives are: MQ, MS, NP, NR. (NP is shown on drawing 6 as an example.)



**Dessin/drawing No. 7**

**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 7 comme un exemple.)

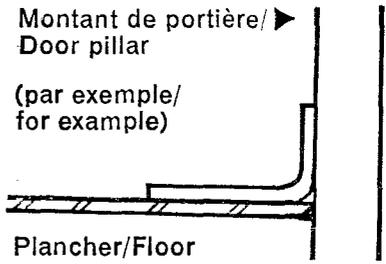
**Groups 1 to 4**

Fitting of a diagonal strut is compulsory. The various authorized alternatives are: MQ, MS, NP, NR. (MS is shown on drawing 7 as an example.)

Montant de portière/ Door pillar

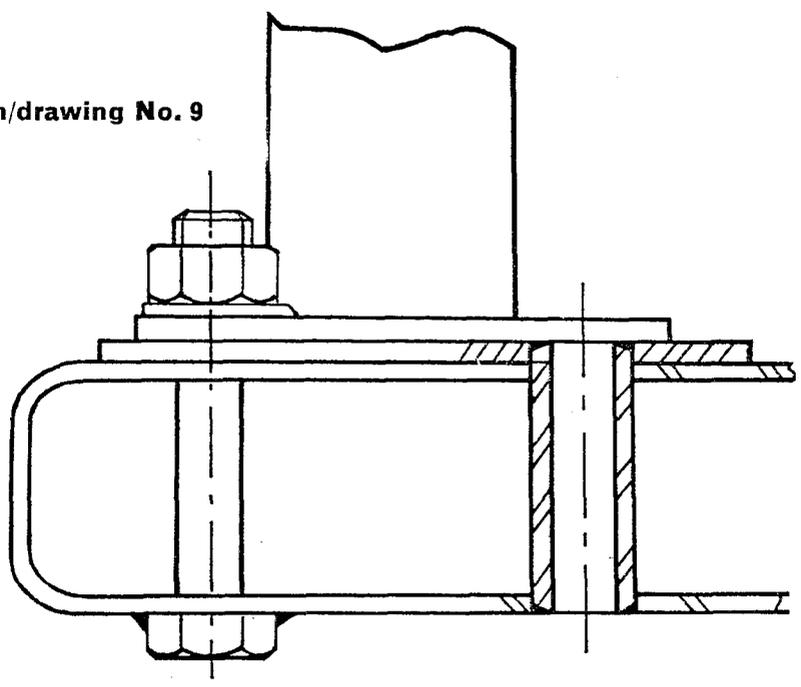
(par exemple/ for example)

Plancher/Floor

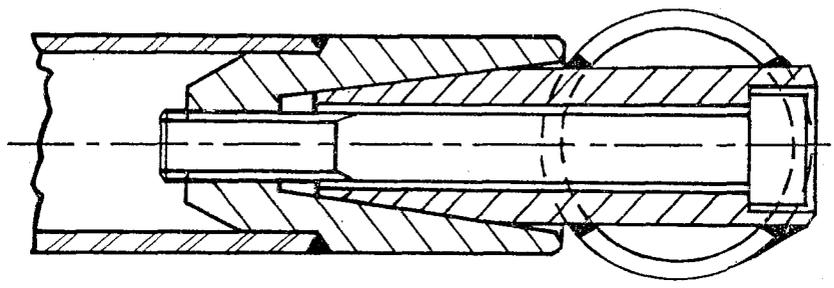


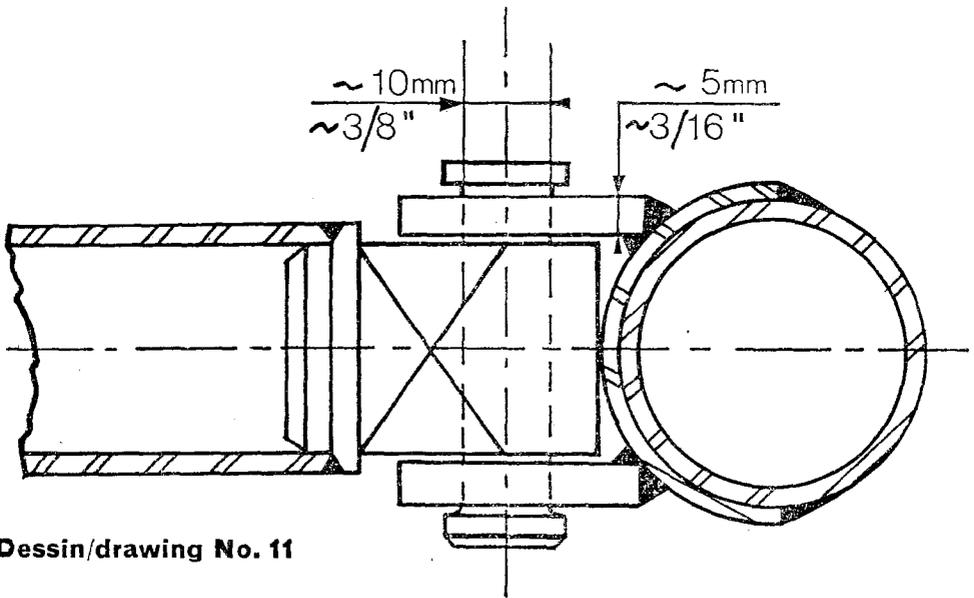
Dessin/drawing No. 8

Dessin/drawing No. 9

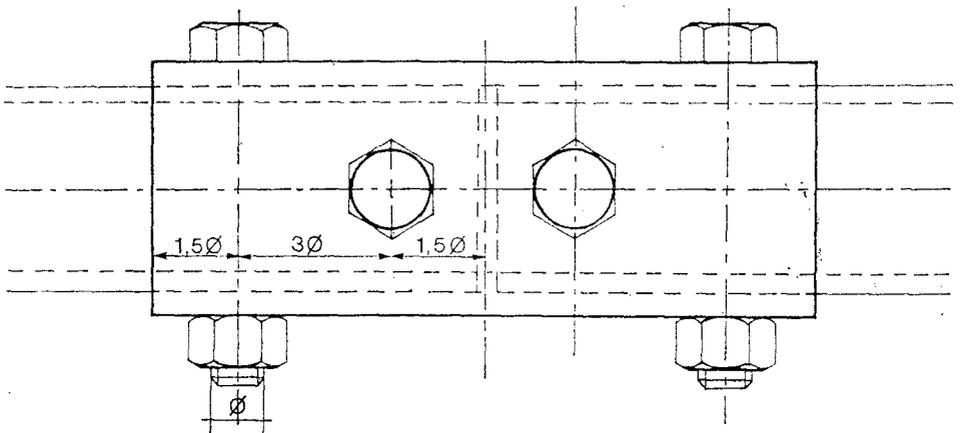


Dessin/drawing No. 10



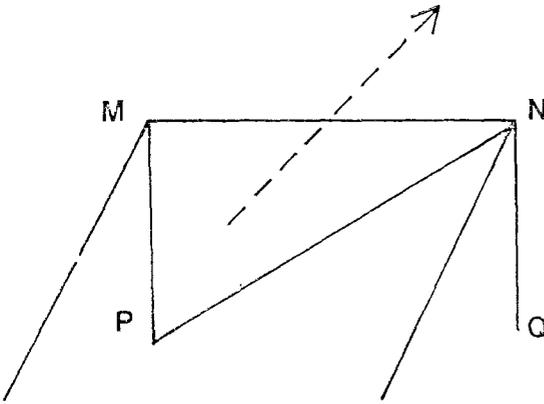


**Dessin/drawing No. 11**



**Dessin/drawing No. 12**

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



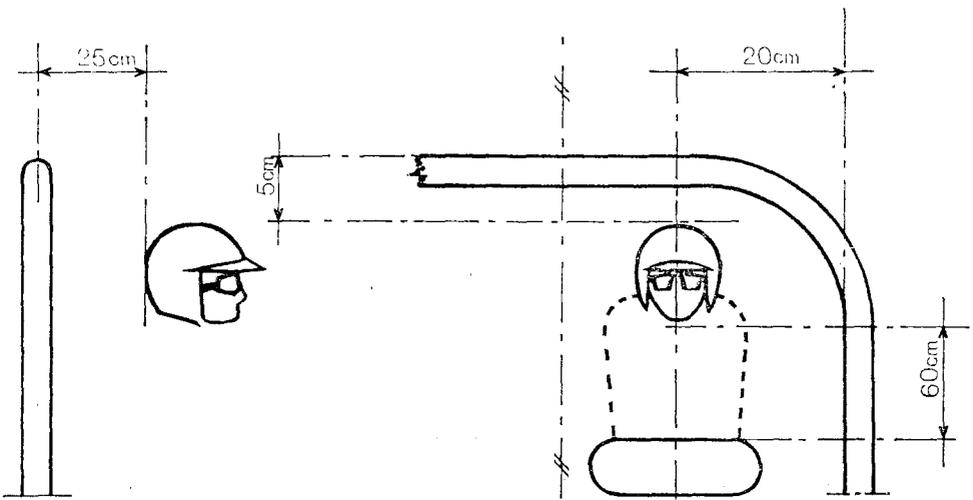
**Dessin/drawing No. 13**

**Groupes 5 et 6**

Le montage d'un renfort diagonal est obligatoire. Les 2 variantes autorisées sont MQ et NP. (NP est indiqué sur le dessin no 13 comme un exemple.)

**Groups 5 and 6**

Fitting of a diagonal strut is compulsory. The 2 authorized alternatives are MQ and NP. (NP is shown on drawing 13 as an example.)



**Dessin/drawing No. 14**

which must be clearly marked. Closed cars must be fitted with two circuit breakers, one in the driver's compartment and one outside the vehicle in an easily detectable location. The fitting of such circuit breakers which is compulsory for speed events on circuits and hill-climbs is authorized and even recommended for rallies.

**o) 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.

**p) Minimum lighting equipment:**

- for all types of races, cars must be equipped with two "Stop" lights. In addition for events run during the night, cars must be fitted with at least two headlights as effective as those normally fitted on FIA homologated Touring or Grand Touring cars and two direction indicators mounted at the rear.
- for events run on open roads (rallies), cars must comply with the legal requirements of the country of the event; cars from other countries must comply in this respect with the Convention on international road traffic.

**q) Limits of authorized modifications:** certain modifications to the original parts, certain additions and/or removal of accessories normally mounted by the manufacturer of the model concerned, are explicitly authorized by the present regulations. The limits of these modifications are set out for each of the 6 groups of categories A and B. All those not explicitly mentioned as permissible for the group in which the car claims classification and which affect, even secondarily, the mechanical efficiency of the engine, the steering, the transmission, the road-holding and/or the braking, will imply the exclusion of the car from its group.

If these modifications or additions have been the subject of a previous statement by the entrant, the car may be allowed to compete in the event in one of the other groups provided in the supplementary regulations and with the prescriptions of which it complies. Should there be however an obvious case of wilful misrepresentation, the entrant should not be authorized to start or should be stopped if he had already started, with request to the ACN concerned to pronounce his suspension for at least 12 months.

**r) Fuel:** for speed races on circuit and hillclimbs: the fuel defined under Art. 298 hereafter.

For rallies: a commercial fuel freely sold in the country(ies) traversed by the event. If in one of the countries the standards of the best commercial fuel are inferior to the fuel having the lowest octane number in one of the three following countries: France, Great Britain, Italy, a special waiver may be granted to the promoters with the approval of the CSI.

Upper-cylinder or two-stroke engine lubricants are authorized on condition there is no increase of the fuel octane number.

**s) Application of general prescriptions:** the general prescriptions must be complied with if the particular specifications of groups of cars of categories A and B do not mention them or do not provide for any stricter prescription.

**Art. 254.—Rule for changing from one group to another and authorized 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 prescription of which it complies and under the following conditions:

- Group 1 passes into group 2.
- Group 3 passes into group 4.
- Group 4 (or 3+4) passes into group 5.
- Group 5 (or 3+4+5) passes into group 6.

### TITLE III

#### **SERIES PRODUCTION TOURING CARS (Group 1)**

**Art. 255.—Definition:** touring cars built on large series production terms. These cars shall compete in an event without having undergone any preparation likely to improve their performances or their conditions of use. The only working authorized is normal maintenance or the replacement parts damaged through wear or accident and the modifications and additions explicitly authorized hereafter under article 257. Except for what is explicitly authorized any part damaged through wear or accident may only be replaced by an original part which must be exactly the same as the one for which it is substituted.

**Art. 256.—Minimum production and number of seats:** series-production touring cars shall have been manufactured in a quantity of at least 5,000 identical units and offer at least 4 seats, except if their engine cylinder-capacity is inferior or equal to 700 cc. In which case the manufacturer may deliver them as two-seaters.

#### **Art. 257.—Mountings and modifications authorized:**

**a) Lighting devices:** all lighting and signalling devices must comply with the legal requirements of the country of the event; cars from abroad must comply in this respect with the Convention on international road traffic.

Lighting devices which are part of the standard equipment must remain those foreseen by the manufacturer and must comply as far as is concerned their functioning with what the manufacturer has foreseen for the considered model. Thus, if changing from a road beam to a passing beam is produced by merely deflecting the beam inside one same reflector, this system may not be altered.

Freedom is granted with regard to the frontal glass, the reflector and the bulbs.

The mounting of additional headlights is authorized provided that a total of 6 headlights is not exceeded (parking lights not included). Extra headlights may, if necessary, be fitted into the front part of the coachwork or into the radiator grille, but such openings as needed in this case must be completely filled by the additional headlights. Shall be considered as a headlight any lighting-device throwing a beam towards the front (dipped-beam, long range lamp, anti-fog lamp).

The fitting of reverse-lights is authorized, if necessary by embedding into the coachwork, but provided it will only switch on when engaging the reverse-gear, and provided the police regulations are respected.

The mounting of manoeuvrable search-lights on the roof or elsewhere is forbidden.

Waivers may be granted to these specifications on condition that they be explicitly provided for in the supplementary regulations of the event.

*To comply with legal requirements of certain countries, it is permissible to rearrange the casing of front signalling devices in order to house both traffic indicators and parking lights.*

*The make of the lighting devices is free.*

**b) Fuel and oil tanks:** must be those normally provided by the manufacturer for the model concerned, the capacities of which are specified on the recognition form. If, for the same model, tanks of different capacities are normally provided, only those mounted on the required number of cars necessary for recognition will be authorized.

The location and type of filling port for the fuel tank(s) may not be changed.

The use of a fuel tank with a larger capacity may be authorized by the ACN with the FIA's agreement, in the case of events organized under particular climatic conditions (on desert or tropical courses for instance).

**c) Cooling circuit:** if, for the same model, radiators of different capacities are normally provided, only those mounted on the required number of cars necessary for the recognition will be authorized. The addition of a radiator screen is authorized.

The use of a radiator with a larger capacity may be authorized by the ACN with the FIA's agreement, in the case of events organized under particular climatic conditions.

Make and type of thermostat are free, but it may not be removed nor its position changed.

*The radiator screen may be a rigid plate fixed behind the grille.*

**d) Induction:** the carburettor(s) or fuel injector pump(s) normally mounted on the recognized model and described on the recognition form may not be changed or removed.

The elements which control the quantity of fuel fed in the engine may be changed, but not those which control the quantity of air.

**e) Electrical equipment:** the tension (voltage) of the electrical equipment may not be changed.

The make and capacity (amperage) of **battery** and **generator** are free. The manufacturer may provide for one same minimum series the use either of a dynamo or of an alternator on condition that this is explicitly mentioned on the basic recognition form or on an additional "variant" form.

The original battery may be replaced—by the manufacturer or the entrant himself—by another one of larger capacity provided however that the location remains unchanged. By location of the battery is meant the coachwork compartment in which the battery is originally mounted.

**Ignition coil, condenser, distributor and regulator** are free; subject to the ignition system remaining the same as that provided by the manufacturer for the model concerned, and the replacement of the said accessories do not entail any modification of the attachment system provided by the manufacturer for the model concerned.

**Spark plugs:** make and type free.

*In case of an electric circuit under a 12 volt tension, this may be produced either by a 12 volt battery or by two 6 volt batteries connected in series on condition the batteries remain in their original location and that there is no reduction of weight as compared with the original system provided by the manufacturer.*

**f) Transmission:** for one same series of 5,000 cars the following possibilities are given on the express condition that they are those of the series-production and that they are normally sold to the purchaser and entered on the recognition form.

### **Gear-box:**

- either two gear-boxes with the same number of ratios but different in their staging,
- or two gear-boxes with a different number of ratios and different in staging provided that 50% of the required minimum number of cars have been equipped with either one of the gear-boxes.

The fitting of an overdrive system in addition to the existing gear-box is authorized.

### **Final drive: two different ratios.**

Should the manufacturer have provided a greater number of gear-box ratios and/or rear axle ratios, he must, to obtain recognition, prove that he has achieved the required minimum production of the car as many times as he has submitted two different gear-boxes and two different rear-axle ratios. An automatically controlled gear-box is not taken into consideration. The use of it and of its particular rear-axle ratio will always be authorized in addition to the set of two manually controlled gear-boxes.

The gear-box lever must be located as provided by the manufacturer and mentioned on the recognition form. Form and length are free.

*The use of an automatic gear-box is authorized but on condition this gear-box is foreseen by the manufacturer and mentioned on the recognition form. No minimum production is required.*

*It is recalled that, in a basic series of 5000 models a manufacturer may recognize two gear-boxes and two final drive ratios.*

*For each additional series of 5000 models, the manufacturer therefore has the possibility of requesting recognition for two new gear-boxes and two final drive ratios, if he is able to certify that, in each series the required minimum number of cars has effectively been delivered with the equipment object of the recognition.*

**g) Shock absorbers:** the make and type are free. However, no addition is allowed, and neither their original purpose nor their number, nor their system of operation may be modified. By system of operation is meant: hydraulic, friction, telescopic, or lever type. The original supports may not be changed in any way.

**h) Wheels and tyres:** wheels must be those provided by the manufacturer for the considered model. They are defined by their diameter, the width of their rim and the track they determine. Wheels which differ by their shape or dimensions may be recognized subject to the following conditions:

- that there are enough cars equipped with such wheels to justify recognition.
- that they are mounted in compliance with the specifications of paragraph "mudguards" of Art. 253.

In any case, the four wheels of a car must always belong to one and the same recognized set of wheels.

Tyres are free (make and type) on condition they are tyres provided by their manufacturer to be fitted on the wheels without any intermediary device. All special or additional non-skid devices for snow or ice may also be fitted.

**i) Brakes:** must be those provided by the manufacturer. The replacement of worn linings is authorized and their system of attachment is free, provided the dimensions of inner friction surfaces remain unchanged. Servo-assistance is only permitted when duly recognized as fitted on a number of identical cars equal at least to that required for recognition.

It is permissible to fit a dual braking system on condition that it be of the same make as that of the hydraulic master cylinder or provided by the manufacturer of the vehicle.

*The material of the brake linings is free provided the dimensions of friction surface of the new linings are the same as the original ones.*

*The same applies to the clutch linings.*

*If a servo-assistance is normally provided for on a car, the servo device may not be disconnected.*

*A pressure limiting valve between the front and the rear brakes cannot be added if the manufacturer has not provided for its fitting in the series-production.*

**j) Supplementary accessories not included in the recognition:** are authorized without restriction provided they have no influence whatsoever on the behaviour of the car, such as those concerning the aesthetics or the inside comfort (lighting, heating, radio, etc.) or those enabling an easier or safer driving of the car (speed-pilot, windscreen washer, etc.) provided they do not affect, even indirectly the mechanical performance of the engine, the steering, the transmission, the road holding and the braking.

All controls and their functions must remain those provided by the manufacturer, but it is permissible to arrange them in such a way as to make them accessible and easier to use, i.e. lengthening of the handbrake-lever, fitting of additional pads to the brake-pedal, etc. The position of the steering-wheel may be indifferently on the left or on the right, provided this only results in a simple transposition of the steering-system linkages as provided and supplied by the manufacturer and without any other mechanical alteration (manifolds, etc.).

*The following is authorized:*

- 1) The windshield may be replaced by a windshield of same material but with a heater-defroster device incorporated.*
- 2) The original heater may be replaced by another one provided by the manufacturer and mentioned in his catalogue as available on request.*
- 3) An electric water thermometer may be replaced by one of capillary type and a standard manometer by another one of high precision type.*
- 4) The hooter may be changed or an extra one may be added at the disposal of the passenger if wished.*
- 5) The mechanism of the handbrake lever may be adapted for obtaining an instantaneous unbolting (fly-off handbrake). All electric switches may be freely changed, inasmuch as is concerned their purpose, their location and—in case of the adding of extra accessories—their number.*
- 6) Extra relays and fuses may be added to the electric circuit, battery wires may be lengthened, pipes of the braking circuit may be protected by an armoured casing (metallic or other). The original accelerator cable may be replaced by another one, whether supplied or not by the manufacturer.*
- 7) The original speedometer may be replaced by another one provided it fits exactly in the housing of the original one.*
- 8) Seat brackets may be altered and any kind of seat-covers may be added, even those which constitute a bucket-seat.*
- 9) Jacking points may be strengthened, their location may be changed or extra ones may be added*
- 10) Head-light covers may be fitted provided they do not influence the streamlining of the car.*
- 11) Complete freedom is left with regard to the location and appearance of registration number plates, in consideration of the great differences between legal requirements from one country to another.*
- 12) Safety fasteners (such as straps) may be fixed to the lids of the engine compartment and the luggage boot. The latter may be adapted for better accommodation of the equipment carried (straps for fixing a tool-box, protection of a*

supplementary fuel-tank, of an additional spare-wheel etc). The attachment system of the standard spare-wheel may be altered provided its original location is not changed.

- 13) Extra compartments may be added to the glove-box and extra lateral pockets to the doors.
- 14) Plates of insulating material may be added in all places where they may be necessary to protect those carried aboard the car from a risk of fire.
- 15) An oil-catch or a water-tank may be fitted.
- 16) The radiator filler cap may be locked by any means.

**k) Coachwork:** none of the normal elements of the coachwork (dashboard, all inside quiltings whatever their location), and none of the accessories normally mounted by the manufacturer on the lowest priced model may be removed or replaced.

However, the modifications deriving from the fitting of the supplementary accessories authorized in the preceding paragraph, such as those necessitated by the addition of a windscreen washer (drilling of a hole into the bonnet) or of a rev. counter (housing in the dashboard), will be allowed.

The same minimum series may comprehend various materials for seats, upholstery and inside quilting (cloth, leather, plastics, etc.) and two different types of front seats (bench type or separate seats). These variants must be stated on the recognition form and in particular the different weights resulting from the mounting of different seats must be specified.

Transparent parts must, in case of damages, be replaced by others made of a material identical to the original one listed on the recognition form. They shall be completely interchangeable with those originally fitted. They must be mounted on the original supports and their original opening system (if any) must be maintained.

*Nuts and bolts may be freely exchanged and locked by pins or wires.*

*Bumper overrides may be removed.*

*When the regulations of an event allow the fitting of an undershield, the fuel and brake system pipes may be protected by all means.*

*On the contrary, the following modifications are prohibited:*

- 1) to change the rake of the steering column,
- 2) to remove wheel-spats which are part of the coachwork,
- 3) to add an extra bolting system of the doors,
- 4) to add extra parking lights,
- 5) to change the location of the opening handle of the bonnet,
- 6) to replace the grille bolts by others of "quick-release" type.

**l) Bumpers, embellishers, streamlining:** bumpers are compulsory on all cars for which the manufacturer has normally provided them. For speed-events on circuit and for hill-climbs, the supplementary regulations may authorize the bumpers of a car to be removed. Failing such an authorization the bumpers must remain. For rallies, any car, normally delivered with bumpers and the recognition form of which shows such an equipment, must retain them.

Wheel embellishers may be removed. The addition of any protective device underneath the car is forbidden unless such a device is mentioned on the recognition form of the model in question or is authorized or made compulsory by the supplementary regulations of the event.

#### TITLE IV

### SPECIAL TOURING CARS (Group 2)

**Art. 258.—Definition:** cars of limited series-production which may be sub-

mitted to certain modifications aimed at making them better suited to competition. The list of the modifications and additions explicitly authorized is given hereafter under Art. 260.

Moreover in this group may be classed cars of group 1 which have been the subject of modifications and/or additions exceeding the limits of group 1. These cars will then enjoy the same freedom as provided for group 2.

**Art. 259.—Minimum production and number of seats:** touring cars shall have been manufactured in a quantity of at least 1,000 units and be equipped with at least 4 seats; however if their cylinder-capacity is equal or inferior to 700 cc, they may be delivered as two-seaters.

**Art. 260.—Modifications and additions authorized:** all those already authorized in group 1, plus the following ones:

**a) Modifications of the original mechanical parts:** the original mechanical parts having undergone all the normal machining operations foreseen by the manufacturer for series-production, except those for which the present article provides a freedom of replacement, may be subject of all perfecting operations by means of finishing or machining, but not replacement. In other words, provided the origin of the series-production part may always be ascertained undoubtedly, this part may be rectified, balanced, lightened, reduced or modified in its shape through machining, to the exclusion of any addition of material, mechanical extension or treatment which would entail a change in the molecular structure or the surface of the metal.

**b) Engine—cylinder-heads and valves:** besides the modifications which can be carried out on the cylinder-head as specified under paragraph a) here-above, complete freedom is left as regards the valves, valve-guides and valve-seats. The number of valves per cylinder cannot be modified.

*A dual ignition cylinder-head necessitating a new casting can only be recognized under the conditions enumerated in Art. 260 aa). However, if it is possible to fit a second sparking plug on each combustion chamber, on an original cylinder-head having gone through all the manufacturing sequences provided for by the manufacturer for the series-production, and in full compliance with Art. 260 a), dual ignition is obviously authorized.*

*It is allowed to add washers to the valve-spring assembly.*

**c) Engine—induction system and elements:** the induction system is free. Yet direct injection may only be used on an engine for which the fitting of a direct injection system has been originally provided for in the manufacturing. Ditto for supercharging.

*By the term "originally provided for in the manufacturing" is meant: normally fitted on cars delivered to purchasers, and mentioned on the recognition form or the manufacturer's catalogue.*

**d) Engine—reboring:** the reboring or replacement of sleeves of the engine is allowed up to the limit of the cylinder-capacity class to which the model belongs.

**e) Engine—exhaust manifold, piping and mufflers:** free. Yet, for events run on open roads, the efficiency of the mufflers must remain, in all cases, within the limits specified in the police regulations of the country of the event.

**f) Engine—bearings:** plain or roller bearings may be replaced by others of the same type, provided the crankshaft and the original bearing caps are retained.

**g) Gaskets:** gaskets may be replaced by others or suppressed.

**h) Engine—lubricating system:** the oil sump may be modified or replaced by another one of different shape and capacity. The oil pump may be modified or replaced by another one. Yet, the number of oil pumps originally fitted cannot be changed. Oil filters and oil coolers are free (type, number and capacity).

*The fitting of an oil-cooler exterior to the coachwork is only permitted below the horizontal plane passing through the centre of the wheel-hubs. In no case, such a fitting of an oil-cooler may result in the addition of an aerodynamical enveloping structure.*

**i) Engine—camshafts and valve gear:** free. Yet the location, number and driving system of the camshaft(s) cannot be changed. There is no restriction as regards the number and type of valve springs provided the necessary modifications of the mechanical parts do not go beyond those specified under the previous paragraphs.

**j) Piston, piston pin and piston rings:** free.

**k) Engine—other elements:** Mountings are free. The cooling fan and water-pump may be modified, replaced or suppressed.

There is no restriction for the fuel pump as regards number, type, location and capacity. Nevertheless, it must never be located in the passenger compartment.

*The switch of the electrical fuel-pump (if provided for) may be fixed inside the cockpit.*

*The inclination and the position of the engine inside the engine compartment are free, providing however that the implied modifications do not go beyond what is allowed in Art. 260 a), k), l) and m).*

**l) Transmission—gearbox.** Mountings are free. The number of speeds of the gearbox cannot be modified. The ratios are free. The location and type of the gear lever are free.

*Freedom for the scale of ratios implies the faculty of changing the primary and secondary shafts, as well as the gear and the bearings.*

**m) Transmission—differential.** Mountings are free. The differential ratios are free. A limited-slip differential, but not with a constant and complete locking effect, may be fitted provided it can be located in the casing without entailing a modification beyond that allowed under paragraph a)

The transmission shaft between the gearbox and the differential is free.

**n) Suspension:** it is allowed to modify the original parts of the suspension in compliance with the specifications of Art. 260 a) hereabove. The addition of a stabilizer is allowed, or the original one may be replaced by another one.

In the case of a rigid axle rear suspension it is allowed to add locating arms and their mounting brackets.

The fitting of joints and attachment points of a different type and/or material is authorized.

*The replacing of a stabilizer is allowed even if this stabilizer serves other purposes in the suspension. It is also allowed to increase the number of stabilizers per suspension.*

**o) Suspension—springs and shock-absorbers:** complete freedom is left as regards springs provided the main type of spring is not changed. Yet, the fitting of other springs must not result in a modification of the mechanical parts beyond the limits fixed under Art. 260 a), and neither a change or a modification of the coachwork or the chassis. It is allowed to add auxiliary springs. According to the definition given under Art. 252 for chassis and coachwork, it is allowed to modify the non-visible parts of the coachwork.

Complete freedom is also left as regards their number, type and fitting, provided no mechanical part be modified beyond the limits fixed under Art. 260 a). Nevertheless, mounting brackets may be added to the chassis and suspension elements.

**p) Steering:** the steering-ratio is free, provided that the original steering box be kept.

**q) Wheels and rims:** complete freedom is left, provided their fitting can be carried out in full conformity with Art 253 d).

Moreover, the four wheels of a car must always have the same diameter.

*By wheel is meant disc + rim. Therefore, not including the tyre. However, as regards Art. 253 d)—Mudguards, it is recalled that the said Article specifies the measurement of the wheel equipped with its tyre.*

*The location of the spare-wheel is free, provided that it is not placed inside the cockpit and that the external aspect of the coachwork is not modified.*

#### **Strength Guarantees**

*The attention of the FIA has been drawn to numerous accidents caused by wheel failures. The total freedom allowed, especially in Groups 2 and 4, has too often resulted in amateur construction of rims, which do not possess an adequate manufacturing quality and fatigue resistance.*

*Therefore, it is recommended to each National Sporting Authority to draw up a list of wheel manufacturers of its own country, whose product presents all necessary guarantees of safety.*

*Every National Sporting Authority, having so proceeded at a national level, will be authorized to require from the competitors that they use wheels produced by one of the manufacturers having obtained recognition from the National Sporting Authority concerned or any other one.*

**r) Electrical system—lighting equipment:** free. Yet, for events on open roads, the vehicle must be in compliance with the police regulations of the country where the event is run or with the International Convention on road traffic. The location of the battery is free, as long as it is not placed in the passenger compartment.

*The liberty given for the lighting devices concerns their replacement or modification, but does not allow their pure and simple suppression. The number of headlights is free.*

*In case the battery is placed inside the cockpit of a car in the normal series production, it may remain there.*

**s) Electrical system—engine accessories:** it is allowed to replace a dynamo by an alternator. The mounting brackets and crankshaft pulley are free.

The ignition system is free as long as its replacement or modification does not alter the mechanical parts beyond what is allowed under Art 260 a).

*The generator may be put out of use or removed. However, the minimum lighting devices must remain in normal working order during the whole race. Besides, it is recalled that, in almost all races, the starting of the engine must be effected without any external help.*

**t) Fuel tanks and water radiators:** the capacity of fuel tanks is free up to the limit specified under Art. 253 j). The location and dimensions of the filler orifice as well as those of the filling cap may be changed provided the new fitting does not protrude beyond the coachwork line and provides against fuel leakage into the inside compartments of the car.

Should the tank and its filler be located in the luggage compartment, an outlet at the lowest point must be provided for the fuel accidentally spilled in this compartment.

There is complete freedom as regards the water radiator and its capacity. Its location may be changed provided no modification is entailed either to the outside or to the inside (cockpit) of the coachwork.

**u) Braking system:** the mounting of a double pump (master cylinder) or of any device which produces simultaneous action on the four wheels and a separate action on two wheels is allowed.

The discs and drums may be replaced by others provided the area of the friction surface is not modified. Linings are free. The backing plates may be modified and fitted with air openings. Protection shields may be modified or suppressed. Cooling air-ducts may be added provided they do not entail a modification of the coachwork.

The addition of brake servos is allowed.

*It is forbidden to replace drum brakes by disc brakes and vice-versa, except if this modification is duly recognised in conformity with Art. 260 bb).*

**v) Cables and pipes:** it is allowed to entirely modify the arrangement, location and materials of all cables and pipes providing for the passage of fluid elements (air, water, fuel, electric currents, etc, including the suspension system).

**w) Springs:** any spring that can be found on a car may be modified or replaced by another one.

**x) Coachwork elements:** the steering-wheel and the front seats may be replaced, provided seats of at least the same weight as the original ones be substituted to them.

*In case of the original seats being changed the two new ones must weigh at least the weight as entered on the recognition form for the original ones, but it is not mandatory that they both weigh the same weight.*

*The non-visible parts of the doors, of the engine bonnet and of the trunk may be removed or lightened.*

*By "visible parts of the coachwork" is meant all non-structural elements licked by the air-streams and located above the horizontal plane passing through the wheel-hubs, as well as the visible parts of the passengers' compartment.*

*Non-visible insulating material may be removed.*

*Trimmings of the passengers' compartment, of the door panels, of the cover of the glove-box, etc, which are normally provided for cars of the series-production, must not be removed.*

**y) Options—definitions:** a variant of the series-production. Accessories or equipment delivered on express request of the customer. By option is therefore meant any equipment supplied in supplement to or in place of the basic model available on request, even if this equipment is normally fitted on some series-production cars as is the case, for example, on cars for export.

**z) Recognition of an option:** the recognition of an option will be granted only if the optional equipment is available freely at the manufacturer's or his dealers' for any one wishing to purchase it. It must be mentioned in the manufacturer's catalogue of spare parts for the model concerned and properly identified.

**aa) Optional equipment which may be recognized with a minimum production of 100 units per year to equip 100 cars:**

— Reinforced suspension elements, provided they are absolutely interchangeable with the original part and that the mounting points to the chassis remain in their original location.

*A rigid rear axle is considered as being a part of the suspension. Consequently a reinforced axle can be recognised as a variant on the basis of an annual production of at least 100 of the part in question.*

— Reinforced auxiliary chassis members.  
*It is specified that by "auxiliary chassis" is meant:*

a) *Any element of the chassis fixed by means of bolts or rivets to the chassis or the body, and which may therefore be removed or replaced by a reinforced element without cutting or welding.*

b) *Any supplementary reinforcing element fixed to the chassis or the body, whatever the means of fixation (welding, bolts, etc), but without the obligation of cutting out any integrant part of the original chassis or body.*

- Gearboxes including those with a different number of speeds.
- Overdrive systems.
- Different steering cases.
- Different transmission shafts and half-shafts with joints.
- Connecting rods but not in a different basic material.
- Different clutch and different flywheel—type and dimensions—provided their fitting is possible, within the limits of Art. 260 a).
- Clutch housings, differentials and gearboxes (extension housing included) of a different basic material.
- Cylinder head of a different shape and/or material, provided that the position and number of camshafts, and the number of valves per cylinder, remain unchanged. By position is meant either in the block or in the head.
- Crankshafts of a same basic material provided the type and diameter(s) of the bearings remain those specified on the recognition form. Nevertheless, this optional crankshaft must retain the original stroke.
- Different bearing caps.
- Equipment for dry-sump lubrication.
- Lightweight coachwork elements, such as aluminium doors, plexiglass lateral windows, glass fibre engine bonnets, etc. Nevertheless, the basic weight of the car mentioned on the recognition form shall not be modified. The recognition of lightweight elements is only meant to compensate the manufacturing tolerances and the fitting of some optional equipment which results in an increase of the basic weight.

**bb) Optional equipment which may be recognized without a minimum production:**

- Different dashboard.
- Protection shields under the car provided they do not decrease in a significant way the aerodynamic drag of the car.
- Wing extensions, aesthetically acceptable, provided they do not entail an increase of the width of the wings of more than 5 cm on each side of the car. Measurement is to be done at the vertical going through the centre of the wheel hubs.
- Brakes of different type and/or dimensions, which may include larger hubs and spindles.

**cc) Any other option** affecting directly or indirectly the performance of the car cannot be recognized unless 1,000 identical cars equipped with this option have been manufactured in 12 consecutive months.

*In case this Article would be applied within Group 4 (Special GT), the minimum production would obviously be 500 cars and not 1,000.*

**NB:** On account of the important modifications brought to the present group 2 in 1970, scrutineers are requested to disregard the note 'Important' mentioned on the International recognition form and specifying which numbers are to be retained for the technical verification.

## TITLE V

### **SERIES—PRODUCTION GRAND TOURING CARS (Group 3)**

**Art. 261.—Definition:** cars manufactured on a limited series-production scale for the drivers who seek the best possible performances and/or the greatest comfort without a special concern about the cost.

**Art. 262.—Minimum production and number of seats:** grand touring cars must have been manufactured in a quantity of at least 1,000 units identical in all respects (unless authorizations, listed hereafter under Art. 263 specify otherwise) and be equipped with at least two seats.

**Art. 263.—Modifications and/or additions authorized:** exactly the same as those authorized for group 1 (Series-production touring cars) (see Art. 257).

## TITLE VI

### **SPECIAL GRAND TOURING CARS (Group 4)**

**Art. 264.—Definition:** At least two-seater cars manufactured on a small series-production scale, and which may be subject to modifications in order to be more particularly adapted to sporting competition. This group also includes cars derived from those recognized in group 3 (Series-production GT cars) and modified beyond the limits allowed for group 3.

**Art. 265.—Minimum production and number of seats:** the Special Grand Touring cars must have been manufactured in a quantity of at least 500 units and be equipped with at least two seats.

**Art. 266.—Modifications authorized:** exactly the same as those authorized for Group 2—Special Touring cars (see Art. 260).

## TITLE VII

### **SPORTS CARS (Group 5)**

**Art. 267.—Definition:** high performance cars which must nevertheless include all equipment normally provided and legally required for vehicles using public roads.

**Art. 268.—Manufacturing:** 25 ex/year minimum—number of seats: 2 minimum.

**NB:** In 1971, the organizers shall have to admit, for events opened to Gr 5, cars complying with the technical specifications hereunder, even if they are not FIA recognized on the basis of 25 ex/year.

**Art. 269.—Conditions required for recognition:** the 25 cars shall be identical as regards the following points:

a) **Coachwork:** general line, materials of construction, shape of wings and bonnet, number of doors. Small modifications will be allowed when made necessary by the different uses of the car (circuit or road events), or by the mounting of supplementary equipments authorized by the present regulations.

b) **Chassis:** wheelbase and track.

*It is understood that the 25 identical cars needed for recognition in group 5 must*



**Art. 270.—Modifications and additions authorized :**

**a) Coachwork**

**Modifications made by the competitors themselves:** taking the car such as it is recognized on the basic form, the competitors may make all coachwork modifications required by the different uses, such as:

- Fitting of aerodynamic devices in compliance with the following Art. 271.
- modification of the wings in order to allow the fitting of larger wheels.
- opening of air vents in the coachwork, in order to ensure better cooling of the brakes, radiators, etc.
- modifications in view of the mounting of extra headlights.

**Recognition of coachwork variants:** a same basic series of 25 cars may include open cars and closed cars. In that case, the recognition form must mention both variants.

If the recognition form contains only one of the two above variants the other may be recognized at a later date as a mere option.

**b) Engine**

A manufacturer may apply for the recognition of optional cylinder heads provided the number of cylinder heads manufactured is sufficient to equip 25 cars, and provided the conception of the cylinder head, ie, the number of valves, type of combustion chamber, etc, is not modified.

The adoption of a dual ignition system is not considered as a change in the conception of the cylinder head.

**c) Gearbox**

An optional gearbox with a number of ratios different from that of the gearbox on the basic recognition form may be recognized as a mere variant provided it is freely available.

**Art. 271.—Supplementary prescriptions concerning the use of aerodynamic devices:** the highest point of any forward facing gap in the coachwork shall not be situated above a horizontal plane, 80 cm above the lowest point of the entirely sprung structure of the car.

The maximum width of the coachwork shall not exceed by more than 20 cm the maximum width measured between the two vertical planes tangent to the outer face of the front or rear wheels.

**Art. 272.—Safety fuel tanks:** cars competing in speed events on circuits shall be equipped with a safety fuel tank complying with one of the three sets of specifications approved by the FIA (see Art. 297).

Fuel cells must be filled with safety foam conforming to the American military specifications Mil-B-83054 (Baffle material).

**NB** As from 1.1.1972 cars with a cylinder-capacity exceeding 2,000 cc, participating in speed races on circuits in one or more heats of 100 kms each, must be equipped with tanks conforming to norms FIA/Spec/FT3 (see Art. 297).

As from 1.1.1973 the above prescription becomes valid for cars of 2,000 cc or less cylinder-capacity.

**Art. 273.—Extinguishers:** Cars must be equipped with a fire-extinguishing system of at least 5 kg extinguishing capacity. This system must include a manual triggering device which can be operated by the driver on board as well as by any helper outside the vehicle. The triggering device must be indicated by a red circle with the letter E.