

Article 261 – 2010
国际汽联 (FIA) 场地赛超级量产车技术规则
Specific Regulations for Production Cars on
Circuits (Super-Production)

第 6.2 条款变更 发布于 16.12.2009	Modification of Article 6.2 published on 16.12.2009
<p>第 1 条：定义 大批量生产的小客车。</p> <p>第 2 条：注册 至少要在连续 12 个月内生产了 2500 辆整车，并且在国际汽联 (FIA) 以量产车 (N 组) 注册。</p> <p>对于有 A 组注册的车型，供应商变更注册 (VF) 在 N 组同样适用。</p> <p>所有的原型车产品变更注册 (VP) 在超级量产组 (SP 组) 都适用。</p> <p>对于 A 组车的选装变更注册 (VO)，如果没有达到最低产量，将不适用于超级量产组 (SP 组)，但有关下列项目除外：</p> <ul style="list-style-type: none">- 油箱；- 防滚架；- 座椅支架和固定点；- 安全带安装点	<p>ARTICLE 1: DEFINITION Large scale series production touring cars.</p> <p>ARTICLE 2: HOMOLOGATION At least 2500 fully identical units must have been produced in 12 consecutive months and homologated by the FIA in Production Cars (Group N).</p> <p>Supply Variants (VF) homologated in Touring Cars (Group A) are also valid in Production Cars (Group N).</p> <p>All Production Variants (VP) are valid in Super Production Cars (Group SP).</p> <p>Option Variants (VO) of the Touring Cars (Group A) form, without a minimum production, shall not be valid in Super Production Cars (Group SP), unless they refer to:</p> <ul style="list-style-type: none">- fuel tank;- safety cage;- seat supports and anchorages;- safety harness mounting points;- 2/4-door versions. <p>The use of tanks homologated in VO on</p>

- 2 门或 4 门版本;

如果使用 A 组车的 V0 注册油箱,还必须满足 A 组车技术规则(附录 J 第 255 款)第 5.9.2 条和附录 J 第 254 款 6.9 条款要求。

对于 N 组车的选装变更注册(V0),如果没有达到最低产量,将不适用于超级量产组(SP组)。

所有对 A 组车的车辆改型(ET)、竞赛套件注册(VK)和运动款改型(ES)的注册都不适用于量产车(N组)和超级量产车(SP)。

但是,1997 年 1 月 1 日之后对 A 组车的车辆改型(ET)和运动款改型(ES)的注册适用于 N 组。

第 3 条: 座位数量

量产车必须至少装配 4 个座位,以符合小客车的定义(A组)。

第 4 条: 允许或者强制进行的改装和配件

所有未在本规则中明确允许的改装都是禁止的。

一项规则允许的改装不可以导致一项未经允许的改装发生。

the Touring Car (Group A) form must be carried out under the conditions of Article 5.9.2 of the Touring Car (Group A) regulations, and Article 254-6.9.

Option Variants (VO) of the Production Cars (Group N) form, without a minimum production, shall not be valid in Super Production Cars (Group SP).

Evolutions of the type (ET), kit variants (VK) and sporting evolutions (ES) homologated in Group A are not valid in Production Cars (Group N), neither in Super Production.

Nevertheless, evolutions of the type and the sporting evolutions homologated in Group A as from 01.01.97 are valid in Group N.

ARTICLE 3: NUMBER OF SEATS

Cars must have at least four places, in accordance with the dimensions defined for Touring Cars (Group A).

ARTICLE 4: MODIFICATIONS AND ADJUNCTIONS ALLOWED OR OBLIGATORY

All modifications which are not explicitly allowed by the present regulations are forbidden.

An authorised modification may not entail a non-authorised modification.

The only work which may be carried out on the car is that necessary for its normal servicing, or for the replacement of parts damaged through wear or accident.

The limits of the modifications and

只允许对车辆进行必要的正常保养或更换因磨损或者事故损坏的零件。

所允许进行的改装和配件安装的限制将在下文详细列出。

除此之外,任何因磨损或者事故损坏的零件只可以用完全一样的原装零件替换。

车上的所有螺栓,螺母或螺钉都可以用同类材质、直径和螺纹的零件替换,并可以附加任何一种锁紧装置(垫片、自锁螺母等)。

车辆必须是可通过注册表数据严格识别的量产车型。

国际汽联附件 J 第 251 款、第 252 条款和 253 条款仍然适用,但本规则有所修改的条款优先。

除非规则中特别允许,否则禁止使用钛金属。

第 5 条: 最低重量

车辆的最低重量包括车手和他的全部装备,规定如下:

- 前驱车 1110 公斤
- 后驱车 1140 公斤

赛车必须在整个赛事期间符合最低车重限制,特别是通过终点线时。

允许在车内通过增加一个

fittings allowed are specified hereinafter. Apart from these, any part damaged through wear or accident can only be replaced by an original part identical to the damaged one.

Throughout the car, any bolt, nut or screw may be replaced by any other bolt, nut or screw, provided that they are made from the same family of material and have the same diameter and thread as the original part and have a locking device of any kind (washer, lock nut, etc.).

The cars must be strictly series production models identifiable from the homologation form data.

Articles 251, 252 and 253 of the FIA Appendix J remain applicable, but the articles modified in the present regulations have predominance.

The use of titanium is prohibited unless expressly authorised by the regulations.

ARTICLE 5: MINIMUM WEIGHT

The minimum weight of the car, including the driver and his full equipment, is:

- 1110 kg for a front-wheel drive car
- 1140 kg for a rear-wheel drive car

These minimum weights must be respected at all times during the event, in particular when the car crosses the finish line.

It is permitted to complete the weight of the car by one or several ballast, provided that they are strong and

或几个配重来达到最低重量,但是配重物必须足够牢固且整体安装,固定在驾驶舱底部或行李舱底部,可以由车检人员观察到且铅封。

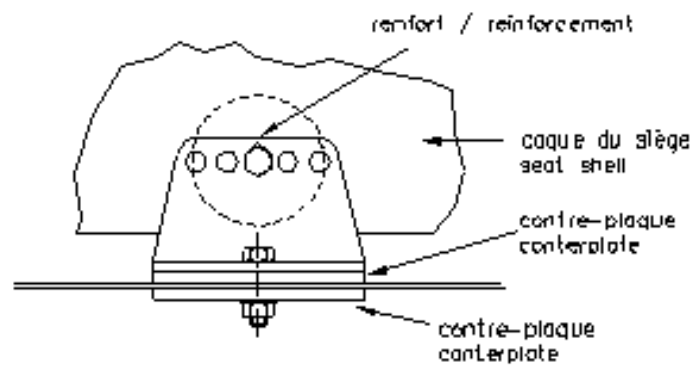
配重物必须使用 8.8 规格的螺栓固定在车架或车壳上,螺丝直径最小为 8mm,并且有安装板,见图 253-65。

每一个固定点处的车架和安装板的接触面积不得小于 40cm²。

unitary blocks, fixed by means of tools with the possibility of affixing seals, and placed on the floor of the cockpit or the luggage compartment, visible and sealed by the Scrutineers.

The ballast must be attached to the shell/ the chassis via 8.8 class bolts, with a minimum diameter of 8 mm and counterplates, according to Drawing 253-65.

The minimum area of contact between shell/chassis and counterplate is 40 cm² for each fixing point.



253-65

第 6 条: 安全规定

国际汽联运动总则附录 J 第 253 款列明的有关 N 组车的安全规定适用于本规则。

6.1 附加锁扣

必须在发动机舱和行李舱锁各安装两个安全锁扣。

ARTICLE 6: SAFETY PRESCRIPTIONS

The safety prescriptions for Group N cars, as specified in Article 253 of Appendix J, are applicable.

6.1 Additional fasteners

Two additional safety fasteners must be fitted for each of the bonnet and boot lids.

原装的发动机舱和行李舱锁系统必须拆除或使其失效。

6.2 赛员座椅

原装的座椅必须更换为国际汽联注册的比赛座椅(8855/1999 或 8862/2009 标准), 设有配备 5 条安全带的孔道。

对符合 8855/1999 标准的座椅的有效期限是 5 年, 从制造商标签上的日期算起。

这个期限还可以延长 2 年, 如果有制造商的授权, 同时必须有额外的标签标明。

对符合 8862/2009 标准的座椅其使用期限是从出厂日期算起 10 年。

座椅必须至少用 4 个 M8 型号, 质量不小于 10.9 的螺丝固定。

允许并推荐使用在防滚架扩展注册表中注册的座椅附件。

原装的座椅的安装支架可以拆除。

推荐使用与竞赛座椅配套注册的竞赛用座椅支架。

6.3 安全带

安全带必须配备有锁扣释放系统, 至少有 5 个连接点, 必须符合国际汽联运动规则附件

The original locking mechanisms must be rendered inoperative or removed.

6.2 Driver's seat

The original driver's seat must be replaced by an FIA-homologated competition bucket seat (8855/1999 or 8862/2009 standards) with five (5) passages for the safety harness straps.

For seats in compliance with 8855/1999 FIA standard, the limit for use of a seat is 5 years from the date of manufacture indicated on the mandatory label.

An extension of 2 further years may be authorised by the manufacturer and must be indicated by an additional label.

For seats in compliance with 8862/2009 FIA standard, the limit for use is 10 years from the year of manufacture.

The seat must be mounted by means of at least four (4) M8 bolts of at least 10.9 quality.

Seat attachments homologated on a safety cage homologation extension form are authorised and recommended.

The original seat mountings may be removed.

The use of the competition seat mountings homologated with the bucket seat is recommended.

6.3 Safety harness

A safety harness equipped with a turn buckle release system and having a minimum of five (5) anchorage points, homologated by the FIA in accordance with Article 253-6 of Appendix J, is compulsory.

J 第 253-6 条款的要求。

6.4 防滚架

防滚架须符合国际汽联运动总则附录 J 第 253-8 款的规定。

防滚架防护垫必须符合国际汽联运动总则附录 J 第 253-8.3.5 的规定。

6.5 灭火器-灭火系统

必须安装容量不小于 4kg, 符合国际汽联运动总则附录 J 第 253-7 款规定的且注册的手动灭火器。

允许并推荐安装符合国际汽联运动总则附录 J 第 253-7 款规定的且注册的自动灭火系统。

6.6 防护网

a) 网子:

必须安装防护网

安装防护网, 必须符合以下要求:

必须由至少 19mm 宽 (3/4 英寸) 的带子编制而成。

网眼的大小必须介于 25×25mm 和 60×60mm 之间。网子的材质必须是不可燃烧的且每个交叉点必须缝合。网子不可以是临时性的。

b) 固定:

6.4 Safety cage

A safety cage complying with Article 253-8 of Appendix J is compulsory.

Protective padding must comply with Article 253-8.3.5.

6.5 Extinguishers-extinguishing systems

Hand-operated extinguishers homologated in accordance with Article 253-7 of Appendix J, of a minimum capacity of four (4) kg, are compulsory.

Automatic extinguishers, homologated in accordance with Article 253-7 of Appendix J, are authorised and recommended.

6.6 Protective nets

a) Net :

A protective net is recommended.

If one is fitted, it must meet the following specifications :

The net must be made up of woven strips at least 19 mm (3/4") wide.

The meshes must be a minimum of 25 x 25 mm and a maximum of 60 x 60 mm.

The woven strips must be non-flammable and sewn together at each point of crossing. The net must not be of a temporary nature.

b) Fixation :

The net must be attached to the safety cage, above the driver's window, and be affixed by means of a rapid release system, even if the car turns over.

It must be possible to detach the net with one hand.

To this end, the handle or lever must have coloured markings (orange

防护网必须固定在防滚架上,在车手侧车窗上方,同时拥有迅速解除系统,在赛车翻车时也可使用。

防护网在单手操作的情况下即可解除。

解除防护网的把柄或者控制杆必须有颜色标记(橙色)。

允许使用按钮解除系统,但必须符合下面要求。

该按钮必须从外面可视,有明确的颜色,同时标明“按”。

只允许使用螺丝连接方式固定防护网及其在防滚架上的支撑件。

不允许对防滚架进行改装。

第 7 条: 发动机

7.1 汽缸工作容积

气缸工作容积不能超过 2000cm³

曲轴、连杆和缸套必须是原装或者超级量产组的选装变更(V0)注册的。

- 原装缸套:

对于汽缸内径(注册表中第 314 项),点火区域允许 0.05mm 制造公差,点火区域下面位置允许 0.1mm 磨损公差,但是总的工作容积不能超过 2000 cm³。

活塞,包括活塞环、销和固

"dayglo")。

A push button release system is authorised provided that it respects the prescriptions of this article.

The push buttons must be visible from the outside, be of a contrasting colour and be marked "press".

For the attachment of the net or of its safety cage support, only screw-in connections are authorised.

No modifications to the safety cage are authorised.

ARTICLE 7: ENGINE

7.1 Cylinder capacity

The cylinder capacity must not exceed 2000 cm³.

The crankshaft, connecting rods and sleeves must be original or homologated as a Super Production VO.

- Original sleeves :

With respect to the bore (Art. 314 of the Homologation form), a production tolerance of 0.05 mm at the level of the fire zone and a wear tolerance of 0.1 mm below the fire zone are authorised, provided that the total cylinder capacity does not exceed 2000 cm³.

The piston, including its rings, pin and fixation rings, is free, but its minimum weight must not be less than that of the piston homologated on the series vehicle (Article 317c of the homologation form).

If not original, the piston must have at least 2 rings (1 oil ring and 1

定卡圈不做限制,但是其最低重量不得小于注册的量产原型车的活塞的重量(注册表中第317c项)

如果不是原装活塞,则必须安装至少两个最小厚度为1.1mm的活塞环(1油环1气环)。

- 超级量产组 V0 注册的缸套:

活塞必须超级量产组 V0 注册。

7.2 点火系统

火花塞和点火线圈、转速限制和高压线的类型和厂商不限。

电控单元里的点火模块不限。

发动机转速限制为8500rpm。

必须由官方的数据记录仪系统(黑匣子)检查。

7.3 冷却系统

节温器改装不限,同样风扇的控制系统和开启温度也不限。

散热器盖及其锁止系统不限。

散热器及其附件的改装不限,但是必须安装在原位并且不能对车身有任何改动,上述要求同样适用散热器上游的风挡除雾和空调管路改装。

compression ring) of 1.1 mm minimum thickness.

- Sleeves homologated as a Super Production VO :

The piston must be homologated as a Super Production VO.

7.2 Ignition

The make and type of the spark plugs and ignition coils, rev limiter and leads are free.

The ignition components in the electronic control unit are free.

The engine speed is limited to 8500 rpm.

It must be checked through a "black box" type system.

7.3 Cooling system

The thermostat is free, as is the control system and the temperature at which the fan cuts in.

The radiator cap and its locking system are free.

Provided that they are fitted in the original location without any modification to the bodywork, the radiator and its attachments are free, as are the screens and the air cooling lines upstream of the radiator.

The original expansion chambers may be replaced by others provided that the capacity of the new chambers does not exceed 2 litres and that they are placed in the engine compartment.

The liquid cooling lines external to the engine block and their accessories are free.

可以更换水箱膨胀罐,但容积不得大于 2L 且必须安装在发动机舱内。

发动机缸体外的液体冷却管道及附件不作限制。

允许使用不同材质和口径的管道。

但是,上述自由改装不允许对下列系统产生抑制作用,例如:暖风系统、歧管预热系统或者进气预热系统。

这些管路的内径可以大于但在任何情况下都不能小于其原装尺寸。

散热器风扇改装不限。

机油散热器及其连接件不作限制,只要其不导致对车身的改动且安装在车身轮廓内部。

7.3.1) 暖风系统:

原装的暖风装置可以更换。

内部加热装置的供水管路可以切断以防止比赛中因事故导致热水喷出,但是须安装电动的或者类似的除雾系统。

7.4 供油和进气系统

原装的喷油系统必须保留。

燃油喷射电控单元不做限制。

只有原装的进气系统允许包含最多两个节气门。

Lines of a different material and/or diameter may be used.

However, this freedom does not allow for the suppression of systems, such as, for example, the heating system, the preheating of the manifold or the preheating of the feed system.

The internal diameter of these lines may be more than, but under no circumstances less than, that of the original.

The radiator fans are free.

The oil radiators and their connections are free, provided that they do not give rise to any modifications to the bodywork and are situated within the perimeter of the bodywork.

7.3.1) Heating system :

The original heating apparatus may be replaced by another.

The water feed of the internal heating device may be blocked off in order to prevent the spraying of water in the event of an accident, if an electric or similar demisting system is available.

7.4 Fuel and air feed

The original injection system must be retained.

The electronic injection control unit is free.

Only the original intake system comprising a maximum of two (2) throttle valves is authorised.

Variable intake systems are prohibited.

If the vehicle is originally equipped with such a system, it must be removed or

可变的进气系统禁止使用。
如果原装车型拥有此系统,那么必须被拆除或者不能工作。

可以更换油门拉线或者使用双股。

油门踏板和节气门之间须为直接机械连接。

如果注册的原型车辆使用的是电子节气门,必须使其失效,可以安装一个新的踏板。

喷油嘴的流量不限,但其数量,工作原理和位置必须与原装一致。

电控单元的传感器和执行器不限。

传感器齿圈的设计和制造以及改装不限,

必须至少安装一个氧传感器及其控制单元(*7.9)。

上述改装均不可对发动机进气量产生影响。

关于发动机转速(rpm)信号及其传输,只有发动机转速信号允许连接并传递到发动机控制单元。

7.5 空气滤清器

所有进入发动机的空气都必须经过滤清器。

空气滤清器上游及下游通往节气门的气道不做限制。

rendered inoperative.

The accelerator cable may be doubled or replaced by another.

Only a direct mechanical linkage between the throttle pedal and the throttle valve control is permitted.

If an electric throttle is homologated on the basic car, it must be rendered inoperative; a new pedal may be installed.

The flow rate of the injectors is free, but their original number, operating principle and position must be retained.

The sensors and actuators of the electronic control unit are free.

The design and production of the sound wheel for the sensors are free, as is the modification of any existing wheel.

At least one lambda probe and its control unit are compulsory.

None of these authorised modifications may have an effect on the quantity of air reaching the engine.

With regard to the engine rev (r.p.m.) signals and their transfer, only the engine speed signals may be transmitted and connected to the engine control unit.

7.5 Air filter

All the combustive air reaching the engine must pass through an air filter box.

The air lines upstream of the air filter box are free and the air lines downstream of the air filter box towards the throttles are free.

空气滤清器盒子改装不限，但必须满足下列条件：

- 只能有一个进气口，截面最大直径为 80mm 或者最大面积为 50cm²。

这个截面必须在进气管和空气滤清器盒子之间的至少一个剖面测量。

- 内部必须装有滤芯。

滤芯不限，只要能过滤灰尘颗粒。

- 所有进入发动机的空气必须通过此滤清器。

- 只允许有一个出气口。

- 可以由合成材料制成，但须是防火的。

空气滤清器盒子必须安放在发动机舱内，具体位置不限。

7.6 润滑系统

油底壳只允许通过在外部分增加材料进行强化，但加强材料须与原装材料相同且紧贴油底壳与其形状一致。

油底壳内允许安装导油板。

可以在油底壳的密封垫和发动机缸体之间安装一个导流板，但是由此产生的二者之间接触面距离增大不能超过 6mm。

原装发动机导流板可以被拆除。

The air filter box is free under the following conditions:

- One air intake only, of a max. diameter of 80 mm or a maximum surface of 50 cm² is authorised.

This surface must be measured in at least one plane between the air intake and the air filter box.

- There must be a filtering cartridge in the box.

This cartridge is free as long as it filters the dust particles;

- All the air admitted to the engine must pass through this air filter;

- One air outlet only is authorised.

- The use of fibreglass-based composite material is authorised, provided that it is fire-resistant.

The position of installation of the air filter box in the engine compartment is free.

7.6 Lubrication

The oil sump may be reinforced through the addition of material on its external surface only, and on condition that the type of material added is identical to that of the sump and that it follows its shape. The fitting of baffles in the oil sump is authorised.

An oil deflector may be fitted between the plane of the oil sump gasket and the engine block, provided that the distance separating the planes of their joints is not increased by more than 6 mm.

If the original engine has an oil deflector, it may be removed.

The fitting of an oil filter, or a cartridge,

必须安装一个机油滤清器且能正常工作,而且所有机油必须流过机油滤清器。

流量允许比原装增大。

机油滤清器及滤芯不作限制,但是必须与原装滤清器及滤芯可以互换。

机油集滤器改装不限但是原装数量不得改变。

机油尺不作限制,但必须安装且不能有任何其他功能。

可以在发动机的外部安装一个油气分离装置(最小容积为 1 L),如图 255-3 所示。

in working order is mandatory, and the entire oil flow must pass through this filter or cartridge.

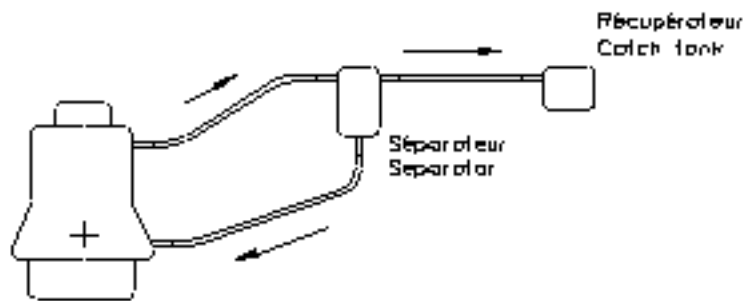
This flow may be greater than the original one.

The filter, or the cartridge, is free provided that it is interchangeable with the original filter or cartridge.

The pump strainer is free but the number must remain original.

The oil gauge is free, but must be present at all times and have no other function.

An air/oil separator may be mounted outside the engine (minimum capacity 1 litre) in accordance with Drawing n° 255-3.



255-3

机油必须依靠自身的重力从集油罐 (oil catch tank) 流向发动机。

机油蒸汽必须通过进气系统再次吸入发动机。

为安装机油温度传感器(在

The oil must flow from the oil catch tank towards the engine by the force of gravity alone.

The vapours must be re-aspirated by the engine via the intake system.

In order to allow the fitting of lubrication temperature sensors (gearboxes, differential casing, etc.), holes or

变速箱、差速器等等)，允许在相关壳体上开的最大直径为14mm的孔或者螺孔。

发动机缸体或者缸盖内的润滑油路可以通过加装可拆除部件的办法部分或者全部阻断，但是不能通过焊接或者粘接的办法。

- 机油泵：

机油泵的传动比和内部构造不作限制。

机油的流量可以增加。

油泵室以及油泵在室内的安装位置不得改动，但是油泵室内部可以机械加工。

7.7 气缸盖

缸盖密封垫的材质和厚度不作限制。

缸盖可以刨平加工。

注册的缸盖最低高度(注册表第 321c 项) 必须保持。

气门弹簧及其支座不限，但是弹簧必须是钢质的且支座材料必须与原装一样。

缸盖的进出气口、进气歧管，可以根据国际汽联运动总则附录 J 第 255-5 款进行改装，且其尺寸要与注册表一致。

threaded orifices of a max. diameter of 14 mm may be made in the respective casings.

The oil lines in the engine block and the cylinder head may be completely or partly blocked off through the addition of removable elements without welding or gluing.

Oil pump :

The driving ratio and the internal parts are free.

The flow rate may be increased relative to the original part.

The housing and the position of the pump inside the housing must be original, but the inside of the housing may be machined.

7.7 Cylinder head

The material and thickness of the cylinder head gasket are free.

The cylinder head may be adjusted by planing.

The measurements of the minimum height of the cylinder head (point 321c of the homologation form) must be retained.

The valve springs and their retainers are free but the springs must be made of steel and the retainers made of an identical material to the original.

The intake and outlet ports in the cylinder head, as well as the ports in the intake manifold, may be machined in conformity with Art. 255-5 of Appendix J, as long as the dimensions on the homologation form are respected.

The valve seats are free, as are the

气门座和气门导管不作限制,但是气门轴线的角度须保持不变。

7.7.1) 压缩比:

压缩比率可以进行调整但是不能超过 11:1。

如果注册赛车的压缩比率更高,那么必须做出调整到不大于 11:1。

7.7.2) 凸轮轴

凸轮轴驱动轮不作限制,但必须使用原装正时皮带或链。

凸轮轴不作限制,但凸轮轴的数量不得改变。

轴承的数量和直径必须保持不变。

可变的凸轮轴系统(包括改变正时或者凸轮轴本身)禁止使用。

如果车辆注册时为此类型,须拆除或使其不能工作。

气门升程,如在注册表第 326e 项规定的,可以改装,但不能超过 10mm (这是没有间隙的最大值)。如果注册的原型车气门升程过大,那么凸轮轴须进行改装以满足上述条件。

如果原装正时系统含有气

valve guides, but the respective angles of the valve axes must be retained.

7.7.1) Compression ratio :

The compression ratio may be modified but must not exceed 11/1.

If the car is homologated with a higher ratio, it must be amended so as not to exceed 11/1.

7.7.2) Camshaft :

The pulleys for driving the camshaft are free provided that the original timing belts and/or chains are used.

The camshaft(s) is/are free, but the number of camshafts must remain unchanged.

The number and diameter of the bearings must remain unchanged.

Variable camshaft systems (variation in the timing of the camshafts) are prohibited.

If the vehicle is homologated with such a system, it must be rendered inoperative through dismantling or blocking.

The valve lift, as defined in Article 326e of the homologation form, may be modified, but must not exceed 10 mm (this is a maximum with no tolerance). If the car is homologated with greater lift, the camshaft must be modified so that the lift does not exceed 10 mm.

If the original timing includes a hydraulic play recovery system, this may be neutralised mechanically.

7.7.3) Balancing shafts :

If the original engine includes balancing shafts, these and their drive systems may be removed.

门间隙自动调节液力装置, 可以使用机械方式使其失效。

7.7.3) 平衡轴:

如车辆原装发动机安装了平衡轴, 平衡轴及其驱动系统可以拆除。

7.7.4) 正时皮带或链条:

如果原装发动机正时皮带或链条装有自动张紧装置, 可对其进行机械固定。

7.8 飞轮

飞轮最低重量为 5000g。

允许通过去除材料的方法对原装飞轮进行减重, 但是原装飞轮仍要被识别。

原装起动齿环不允许改动

如果原装车辆装有双体飞轮, 可以用一个单体飞轮替换, 但是起动齿环参数 (齿数、齿顶齿根直径, 齿宽) 须保持不变。

在任何情况下, 离合器摩擦盘的外径不能小于 183mm

7.9 排气系统

排气系统在缸盖下游部分不作限制, 但在国际汽联噪音测试方式下 4500rpm 时噪音不超过 100dB (A)。

可变排气系统禁止使用, 如

7.7.4) Belt and chains

If the original engine is fitted with automatic belt (or chain) tensioners, it is permitted to lock them in a given position by means of a mechanical device.

7.8 Flywheel

The minimum weight of the flywheel is 5000 g.

The original flywheel may be lightened to comply with the authorised weight through the removal of material only, provided that the original flywheel may still be identified.

The starter crown may not differ from the original.

If the original vehicle is fitted with a double type flywheel, this flywheel may be replaced by a single flywheel, provided that the starter crown keeps the same characteristics as the original one (number of teeth, head and foot diameter, width of the teeth).

In all cases, the external diameter of the friction disc of the clutch mechanism must not be less than 183 mm.

7.9 Exhaust system

The exhaust system is free downstream of the cylinder head provided that the prescribed sound levels of 100 dB(A) at 4500 r.p.m. measured in conformity with the FIA noise-measuring method are not exceeded.

Variable exhaust systems are prohibited. If the vehicle is originally equipped with such a system, it must be rendered inoperative.

果原车型装有此类系统,必须拆除或使其不能工作。

排气歧管视为排气系统的一部分。

氧传感器可以拆除,但是其外壳须封闭(*7.4)。

所有车辆必须安装注册的催化转换器,位置不作限制。

尾气在任何时候必须通过催化转换器。

催化转换器的安装位置必须在车底部用颜色标记。

排气管须安装在车辆后部,在车辆的轮廓线以内,且离轮廓线外沿少于 10 cm。(参见附图-1)

尾气消声器或者催化转换器的横截面必须是圆形或者椭圆形。

7.10 发动机及变速箱支架
在保证发动机和变速箱位置不变的前提下,发动机支架的弹性部分可以更换,材料和形状不限。

7.11 材料

禁止使用钛、镁、陶瓷以及合成或强化纤维材料,除非与原装材料一致。

The exhaust manifold is part of the exhaust system.

The lambda probe may be removed but its housing must be sealed.

All vehicles must be equipped with a homologated catalytic converter the position of which is free.

The exhaust gases must, at all times, pass through the catalytic converter.

The position of the catalytic converter must be indicated by coloured markings on the underbody of the car.

The exit of the exhaust pipe must be situated at the rear of the car, within the perimeter of the car, and be less than 10 cm from this perimeter (figure n° 1).

The section of the exhaust silencers or of the catalyst itself must always be round or oval.

7.10 Engine and gearbox mountings

The elastic components of the engine mountings may be replaced by others, regardless of their material, provided that they have the same dimensions as the original ones and that the position of the engine and of the gearbox remains unchanged.

7.11 Materials

The use of titanium, ceramics, magnesium, or composite or reinforced fibre materials is prohibited, unless it corresponds exactly to the original material.

The use of fire-resistant, fibreglass-based composite material, is authorised only for deflectors and air ducts for radiators and engine.

只允许在散热器导流板或者发动机进气管使用不可燃的玻璃纤维合成材料。

对于这些部件,也可以使用碳纤维或者凯夫拉材料,条件是只使用一层纤维结构且粘贴于部件的可视表面。

第 8 条: 传动系统

8.1 变速箱

只允许使用超过 2500 年产量的注册车型的原装变速箱,最多可有 5 个前进档,1 个后退档,且能够正常工作。

如果原装变速箱有超过 5 个前进档位,从第 6 个开始不能工作,且拆除齿轮。

原装的壳体内部不作限制,但只有钢或铝合金材质的部件可以使用,除了轴承和换档叉可以是铜或者铜合金材质。

允许安装传动系统润滑油散热器,但不可增加压力。

油压在进入变速箱前测量。

原装变速箱壳体上可以安装 2 个润滑油循环接口。

这两个孔的唯一用途只能是连接润滑油循环的进出口。

换档操纵机构改装不限。禁

For these parts, the use of carbon or kevlar is also authorised on condition that only one layer of fabric is used and is affixed to the visible face of the part.

ARTICLE 8: TRANSMISSION

8.1 Gearbox

Only the original gearboxes homologated on the vehicle at 2500 units, comprising a maximum of five (5) engageable forward gears and one (1) engageable reverse gear, and in working order, are authorised.

If the series gearbox has more than five (5) forward gears, the gear wheels as from the sixth (6th) ratio must be rendered inoperative by the removal of the teeth of the gear wheels concerned.

The inside of the original housing is free but only steel or aluminium alloy parts may be used, except for the bearings and gearshift forks which may be made from bronze or from copper-based alloy as well.

Oil radiators, as well as a system for circulating the oil without generating pressure, are authorised.

The pressure will be measured at the entry to the gearbox circuits.

The original gearbox housing may be equipped with two (2) oil circuit connections.

The sole purpose of these orifices must be to connect the outflow and inflow lines of the oil circuit.

The gearshift control is free; sequential gearboxes are prohibited.

Modifications to the bodywork for the

止使用序列式变速箱。

允许为安装新的换挡机构而改变车身,前提是不与本规则中的其他条款冲突。

换挡控制必须通过机械方式完成。

变速箱档位设置和换挡杆位置必须注册。

传动装置支架可以改装或更换,材质不限,但其安装位置须保持不变。

禁止安装由于测量车速的光学传感器,无论在何位置。

8.1.1) 传动比:

原装的传动比必须保留小数点后两位,涉及第三位四舍五入(1.044=1.04, 1.045=1.05)。允许 $\pm 3\%$ 的公差。

例: $1.044=1.04\pm 3\%$,
 $1.045=1.05\pm 3\%$

作为补充,厂商只可以为每个注册表号码一次注册一套包括五个前进档齿轮和一个倒档齿轮(包括传动比和齿数),以及是否包括同步器。

注册表或者选装变更注册(V0)递交之后的12个月内,只接受一次对两个邻近传动比

passage of the new gearshift control are authorised only if they are not at variance with other points of these regulations.

Gear changes must be made mechanically.

The gearbox selection grid and the position of the gear lever must be those homologated.

The transmission supports may be replaced by other parts, regardless of the material, provided that the position of the transmission parts remains unchanged.

Whatever their positions, optical sensors for measuring the vehicle's speed are forbidden.

8.1.1) Ratios :

The original ratios must be kept as far as the 2nd decimal point, rounded up or down following the arithmetic rule (1.044=1.04, 1.045=1.05) in relation to the 3rd decimal point, with a tolerance of + or - 3%.

e.g. $1.044=1.04\pm 3\%$ and
 $1.045=1.05\pm 3\%$

In addition to the previous paragraph, the manufacturer may homologate, one time only per homologation form number, a series of five additional forward gears and one reverse gear (ratio and number of teeth), with or without synchronisation.

Only one erratum will be accepted, on two consecutive ratios, within the 12 months following the homologation date of the form or of the option variant.

的注册数据勘误。

必须有一个始终倒档,且车手在座椅上系好安全带后可以进行操作。

8.2 离合器

离合器片除了数量外改装不限。

禁止使用碳素材质的摩擦片。

压力总成不作限制,但是以下几点不可更改:

- 原装的类型
- 工作原理
- 原装弹簧类型

压盘的外径可以小于但是不能大于原装直径。

固定飞轮的螺栓的数量和位置不作限制。

离合器的控制系统不作限制,但须与原装类型一致。

离合器上的自动缩紧装置可由机械装置代替,反之亦然。

离合器分离轴承不作限制。

8.3 差速器

只允许使用量产 2500 辆的注册车型的原装差速器。

原装的壳体内部不作限制,但只有钢质的部件可以使用,除

A reverse gear must always be present and selectable by the driver sitting in his seat with harness attached.

8.2 Clutch

The clutch disc is free, with the exception of the number.

Carbon discs are prohibited.

The pressure assembly is free, provided that the following points are not modified:

- original type;
- operating principle;
- original spring type;

The external diameter of the pressure plate may be smaller than the original one but not greater.

The number of the fixation bolts and their position on the flywheel are free.

The control system of the clutch is free but it must remain of the same type as the original.

An automatic tightening device on the clutch control may be replaced by a mechanical device and vice-versa.

The clutch stop is free.

8.3 Differential

Only the original differentials homologated on the vehicle at 2500 units are authorised.

The inside of the original housing is free but only steel parts may be used, except for the bearings which may be made from bronze or from copper-based alloy.

Oil radiators, as well as a system for circulating the oil without generating pressure, are authorised.

The pressure will be measured at the

了轴承可以是铜或者铜合金材质。

允许安装差速器润滑油散热器,但不可增加压力。

油压在进入差速器前测量。

原装差速器壳体上可以安装 2 个润滑油循环接口。

这两个孔的唯一用途只能是连接润滑油循环的进出口。

只允许使用注册的主减速比。

厂商可以向国际汽联注册原装数据之外的 4 套主减速比,并可每年申请修订。

除上述条件外,差速齿轮的设计(材料和齿形)不限。

在原装差速器壳体内,机械式防滑装置不限。

所谓机械防滑装置,是指纯由机械原理工作的系统,也就是没有的液压或电子辅助系统。粘性离合系统不被视为机械系统。

原装的防止车轮打滑系统必须拆掉控制单元使其失效。

8.4 驱动轴

位于差速器和车轮之间的驱动轴不作限制,但其与车轮的连接原理不得更改。

entry to the differential circuits.

The original differential housing may be equipped with two (2) oil circuit connections.

The sole purpose of these orifices must be to connect the outflow and inflow lines of the oil circuit.

Only the homologated final drive ratios are authorised.

The manufacturer may submit an application to the FIA to obtain, besides the series final assembly, the homologation of a maximum of four (4) additional final drive ratios, to be revised annually.

Apart from this condition, the design (material and type of teeth) of the gears is free.

A mechanical limited slip differential, in the original differential housing, is free.

Mechanical limited slip differential" means any system which works purely mechanically, i.e. without the help of a hydraulic or electric system. A viscous clutch is not considered to be a mechanical system.

An original anti-wheel spin control system must be rendered inoperative by the removal of its control unit.

8.4 Drive shafts

The drive shafts between the differential and the wheel are free provided that the technological principle of the original homocinetic joints on the wheel side is retained.

8.5 Traction control

All forms of traction control are

8.5 牵引力控制

禁止任何形式的牵引力控制系统。

禁止在车轮、驱动轴和差速器上安装任何传感器。

(作为例外)为测量车速,只允许在一个驱动轮上安装一个传感器。

这个传感器必须只连接在速度显示表上而不能连接发动机控制单元。

第9条: 悬架系统

9.1 前悬架系统

连接可以更换材料(例如硬无声连接, 铝制连接, 非球头连接等)。

旋转支撑点的旋转轴线位置最多可以从原轴线移动20mm。

原装悬架部件只允许进行下列改装: 加工安装限位装置的环槽, 安装防止偏心衬套旋转的锁紧装置(平头螺丝, 销子, 螺栓等); 为安装球头连接将锥形套筒加工成柱形套筒, 但是其内径要与圆锥形的最大内径一致。

这意味着, 拆除新的连接件后, 原装悬架连接件仍可以安装

prohibited.

All sensors on the wheels, drive shafts and differential are prohibited.

For measuring the speed of the car, the use of only one sensor on a driven wheel is permitted.

This sensor must only be connected to the speed display and must have no connection with the engine control unit.

ARTICLE 9: SUSPENSION

9.1 Front running gear

The joints may be of a different material from the original ones (e.g. harder silent blocks, aluminium, Uniball joints, etc.).

The position of the rotational axis of the pivot points may be moved by a maximum of 20 mm in relation to the original position of the rotational axis.

The original suspension part may not undergo any modifications, with the exception of the making of circular grooves for the fitting of stops, the fitting of spin locking devices (grub screws, pins, bolts or similar) for the eccentric bushes and the machining of the tapered bores for the fixing of the ball joints to transform them into cylindrical bores, the diameter of which corresponds to the largest diameter of the original tapered bore.

This means that, after removing the new joint of the suspension part, an original suspension joint can be fitted and that the original operation of the suspension part can be restored.

If the original housing of a joint is

上并且能够工作。

如果原装的连接套是非柱形的，允许将其加工成为圆柱形。

如果原装悬架的一个连接是压缩或者卷曲放入的，那么拆掉新的连接后，原装连接件必须仍然可以放入连接套中。

但是，不需要在事先进行恢复原装件工作的操作。

悬架下三角摆臂车轮一侧的球头关节可以随意更换，只要其在摆臂上的固定点没有改装。

新的旋转点的位置最多可以从原始位置起沿所有轴线方向移动 20mm。

实现这项改装可以通过下述办法：加工摆臂或者下三角臂车轮一侧的末端，增加可拆除的装置，改装位置要距连接点 100mm 之内。

这个装置不可以焊接在摆臂或者下三角臂上。

转向拉杆、球头及其连接件不限，但是必须用铁质材料。

对于麦克弗逊式前悬架，其上连接点改装不限，但是车身上的原始安装点必须保留，悬架上

non-cylindrical, the machining of this housing so as to obtain a cylindrical shape is permitted.

In the case of an original crimped joint in a suspension part, it must be possible, after removing the new joint, to fit the original joint in its housing.

However, it is not necessary for the initial operation of the suspension part to be restored.

The suspension ball-and-socket joints situated on the arms at the lower triangle on the wheel side may be freely replaced, provided that the fixation points on the arms are not modified.

The position of the new rotational point may be moved by a maximum of 20 mm, following all the axes in relation to the initial rotational point.

This may be achieved by modifying the extremity of the arm or lower triangle on the wheel side, through adding a removable system, within 100 mm of the anchorage point.

The welding of such a system onto the arm or lower triangle is forbidden.

The steering rods the steering joints and their connecting parts are free but must be made from ferrous material.

The upper joints of McPherson suspension parts of the front running gear are free provided that the original mounting points, on the bodyshell side, are retained and that the adjustment of the mounting point of the suspension part involves a maximum displacement

安装点的最大调整位移是沿所有轴线方向 20mm。

这意味着悬架上安装点, 不论是否是可调节的, 相对其原始位置可有一个最大 20mm 的偏移。

对车身的改装是不允许的, 但是可以在安装减震器的塔顶上打三个最大 10.5mm 直径的孔用以安装减震器上连接点的支座, 如果原装的车身上没有这些合适的安装孔。

如果一个原装的麦克弗逊式悬架是通过螺栓安装到车轮立柱的话, 前轮外倾角可以通过连接螺栓进行调节。

可以在原装的车身、吊架或者前副车架上的固定位置打孔以安装悬架支座。

在与车身横轴垂直和平行的方向上, 这些孔到原装固定位置的最大距离为 10mm。

助力转向系统:

液压助力转向泵的驱动轮不作限制。

液压助力转向泵可以由电力助力转向泵替换, 但电力助力转向泵须为在市场上出售且安

of 20 mm following all the axes.

This means that the upper joints, adjustable or non-adjustable, may assume an eccentric position of a maximum of 20 mm in relation to the original articulation point.

Modifications to the bodyshell are not authorised, but three (3) holes of a maximum diameter of 10.5 mm may be bored in the upper bell housing of the shock absorber for the mounting of the upper joint support if, in the original bell housing, there are no, or not as many, fixation holes.

If an original McPherson part is bolted on to the wheel uprights, the wheel camber of the front running gear may be adjusted by this bolted connection.

Holes for the mounting of suspension parts may be made at the anchorage points of the bodyshell, of the cradle or the front cross member, if these are original parts.

In relation to the original articulation points, these holes must be situated at a maximum distance of 10 mm at right angles to and parallel to the transversal axis of the vehicle.

Power-steering:

The driving pulley of a hydraulic power-steering pump is free.

A hydraulic power-steering pump may be replaced with an electric power-steering pump, provided that this electric pump is fitted on any series vehicle and is commonly on sale.

装在任意一款量产车辆上。

9.2 后悬架系统

连接可以更换材料(例如硬无声连接, 铝制连接, 非球头连接等)。

新的安装支座或者旋转轴安装位置必须距离原装位置20mm之内。

原装悬架部件只允许进行下列改装: 加工安装限位装置的环槽, 安装防止偏心衬套旋转的锁紧装置(平头螺丝, 销子, 螺栓等)。

9.2.1) 多连杆后悬架系统:

可以在原装的车身、吊架或者后副车架上的固定位置打孔以安装悬架支座。

在与车身横轴垂直和平行的方向上, 这些孔到原装固定位置的最大距离为10mm。

9.2.2) 单连杆后悬架系统:

允许对原装的悬架部件进行改装以调节车轮外倾角和前束角。

增加的材料必须沿着原装部件形状并与其保持接触。

弹簧和减震器的结合以及

9.2 Rear running gear

The joints may be of a different material from the original ones (e.g. harder silent blocks, aluminium, Uniball joints, etc.).

New mounting and rotational points must be situated at a maximum of 20 mm from the original mounting and rotational points.

The original suspension part may not undergo any modifications, with the exception of the making of circular grooves for the fitting of stops and the fitting of spin locking devices (grub screws, pins, bolts or similar) for the eccentric bushes.

9.2.1) Multi-Link rear suspension :

Holes for the mounting of suspension parts may be made at the anchorage points of the bodyshell, the cradle or the rear cross member, if these are original parts.

In relation to the original articulation points, these holes must be situated at a maximum distance of 10 mm at right angles to and parallel to the transversal axis of the vehicle.

9.2.2) Single-Link rear suspension :

The original suspension parts may be modified in order to allow the adjustment of the camber and the toe.

The addition of material must be done by using a material which follows the shape of the original part and is in contact with it.

The combination and the standard fitting of the spring and of the shock absorber,

安装基座, 悬架旋转轴心到车轮立柱轴心线的原始距离都不可以改变。

9.2.3) 后悬架-通用:

除上述允许的对后悬架的改装外, 其他任何对车身的改装都是禁止的。

9.3 其他规定

9.3.1) 几何形状:

在这些规则列出的原装调节范围内, 悬架的几何形状在不作限制。

9.3.2) 横向稳定杆:

横向稳定杆替换, 替换的稳定杆设计不限, 但是原装位置必须保留(前轮轴线之前, 后轮轴线之后)。

横向稳定杆必须由含铁的材料制成, 同时从驾驶室内不可调整。

新的悬架稳定杆安装支架不能有任何其他的功能。

9.3.3) 轮距:

轮距不作限制。

可以安装轮距延长部件, 但是其必须固定安装在轮毂上。

9.3.4) 加强:

允许通过附加材料来加强

as well as the original distance between the rotational axis of the running gear and the central axis of the wheel upright, may not be modified.

9.2.3) Rear running gear – General :

Any other modifications to the bodyshell, apart from those modifications authorised to the rear running gear, are prohibited.

9.3 Other Provisions

9.3.1) Geometry :

The geometry of the running gear is free within the limits of the original adjustment possibilities set out in these regulations.

9.3.2) Stabilisers :

The original stabilisers may be replaced by stabilisers of free design, but they must remain in their original position (ahead of the front wheel centre line, behind the rear wheel centre line).

The stabilisers must be made from ferrous material and must not be adjustable from the cockpit.

The new mountings of the stabilisers must not have any other function.

9.3.3) Track :

The tracks are free.

Track extenders may be used if they are immovably attached to the wheel hubs.

9.3.4) Reinforcements :

Strengthening of the suspension parts and the suspension mounting points through the addition of material is allowed provided that the material used follows the shape of the original part and

悬架及其安装点,但附加的材料必须与原装部分形状一致并与其保持接触。

悬架系统的加强件不能产生空架结构亦不可使两个独立的部件连接在一起成为一个部件。

9.3.5) 车轮轴承:

车轮轴承可以用增强型的轴承替换,但类型以及内径须和原装一致。

为了能够安装更大的轴承,轴承座孔径最大可以增加 3mm。

其他方面不限,只要符合 9.1 款的规定。

9.3.6) 无声链接-关节:

安装吊架或者副车架支座的无声链接可以用不同的材料制作(例如更硬的无声连接,铝制连接,尼龙衬套等),但其吊架或者副车架的安装位置在三维坐标方向都不得更改。

不能因上述更改而对吊架或副车架和车身以及原装的支座安装点进行任何方式的改装。

原装的悬架部件不能进行任何改装,除了为安装限位装置开的环槽。

is in contact with it.

The suspension reinforcements must not create hollow sections and must not allow two separate parts to be joined together to form one.

9.3.5) Wheel bearing :

The wheel bearings may be replaced by strengthened bearings of the same type and inside diameter as the original ones.

In order to enable the fitting of larger bearings, the bore of the bearing cages may be increased by a maximum of 3 mm.

In all other respects they are free, provided that they comply with Article 9.1.

9.3.6) Silent block – Articulation :

The silent blocks for the mounting of the cradles and/or the cross members may be of a different material from the original (e.g. harder silent blocks, aluminium, nylon rings) as long as the position of the cradle and/or cross members in relation to the bodyshell remains identical to that of the original following the three (3) axes of reference.

The cradles and/or cross members, the bodyshell and the original mounting points may in no way be modified by this action.

The original suspension part may not undergo any modifications, with the exception of the making of circular grooves for the fitting of stops.

This means that once the free mounting

这意味着改装的支座部件一旦被拆除，原装的支座部件（如原装的无声链接）可以装回且吊架或者副车架可以装回车架或车身上的原装位置。

9.3.7) 悬架移动限制：

每一个悬架允许安装带子或缆索以限制悬架的位移。为此可在车体一端和悬架的一端分别钻一个最大直径为 8.5mm 的安装孔。

9.4 弹簧

9.4.1) 螺旋弹簧：

螺旋弹簧只要满足下列条件其他改装不作限制：

- 数量不限，但是要彼此安装在同一轴线上，且类型与原装弹簧一致。

- 弹簧支座的形状、尺寸以及材料不限。

- 弹簧支座可以制成可调节的，但是调节装置是构成支座的一部分且明显区分于原装的悬架和车身部件（可以被拆除）。

对车身的改装的不允许的，但是可以在安装减震器的塔顶上打三个最大 10.5mm 直径的孔用以安装减震器上连接点的支

parts have been removed, the original mounting parts (for example the original silent blocks) may be refitted and that the cradles and/or cross members may then be remounted on the chassis or the bodyshell in their original locations and resume their original position.

9.3.7) Suspension travel limiter :

A strap or cable for limiting the suspension travel may be affixed to each suspension. To this end, holes of a maximum diameter of 8.5 mm may be bored on the bodyshell side and on the suspension side.

9.4 Springs

9.4.1) Coil springs :

Coil springs are free, provided that they fulfil the following conditions :

- Their number is free, provided that they are mounted in line with one another and that their type corresponds to the original type of spring.

- The shape, dimensions and material of the spring seats are free.

- The spring seats may be made adjustable if the adjustable part forms part of the seats and is distinct from the other original parts of the suspension and the chassis (it may be removed).

Modifications to the bodyshell are not authorised, but three (3) holes of a maximum diameter of 10.5 mm may be bored in the upper bell housing of the shock absorber for the mounting of the upper joint support, if there are no, or fewer than three (3), fixation holes (see

座,如果原装的车身上没有这些合适的安装孔(参见 9.1 条关于麦克弗逊悬架的顶点安装)。

无论原装弹簧在什么位置,都可以用与减震器同轴的弹簧替换。

9.4.2) 钢板弹簧:

长度、宽度、厚度以及曲度不作限制。

9.4.3) 扭杆弹簧:

扭杆弹簧可以被替换,但是其材质必须是实心钢材制造。其直径必须超过注册直径的 80%。

对于配备了悬架扭杆的车辆,可以在其相关转轴上增加螺旋弹簧,但必须与减震器同轴。

9.4.4) 其他:

允许安装防止弹簧从其安装点移出的装置。

9.5 减震器

不可改变减震器的数量、类型(伸缩或转臂)和工作原理(液力、摩擦、混合等)以及安装点,其他改装不限。

充气减震器视同液力减震器。

减震器阻尼罐可以安装在未经改装的车身上,但是不能导

Article 9.1 for the upper joint of a Mc Pherson suspension).

Whatever the position of the original springs, it is allowed to replace them with concentric coil springs on shock absorbers.

9.4.2) Leaf springs :

The length, width, thickness and vertical curve are free.

9.4.3) Torsion bars :

Torsion bars may be replaced but the replacements must be made from steel. Their diameter must exceed 80 % of the homologated diameter.

For vehicles with torsion bars, coil springs may be added on the axle concerned, provided that they are concentric to the shock absorbers.

9.4.4) Miscellaneous :

Parts for preventing the springs from moving in relation to their mounting points are authorised.

9.5 Shock absorbers

Free, provided that their number, their type (telescopic, arm, etc.), their working principle (hydraulic, friction, mixed, etc.) and their attachment points remain unchanged.

Gas-filled dampers will be considered as hydraulic dampers.

The damper tanks may be attached on to the unmodified shell of the car, provided that this does not result in modifications which are not authorised by these regulations.

If, in order to change the damping

致未经本规则允许的其他改装。

如果要更换一个麦克弗逊式或者同类型悬架的减震元件, 必须更换整个麦克弗逊悬架的立柱, 而且替换件必须机械的等同于原装部件且拥有相同的安装点。

对于麦克弗逊式悬架, 弹簧支座的形状、尺寸和材料不限而且是允许调节的。

对于油气混合型减震器, 储气瓶的形状、尺寸和材料可以更改, 但是数量不可以。

允许在储气瓶上安装一个在车外可调节的放气螺丝。

无论任何类型的减震器, 都禁止使用球头轴承和线性滑槽。

9.6 加强

允许在车辆纵轴的两侧安装从悬架支座到同轴的车身或车架的加强杆, 条件是它们是用螺栓连接到车身或车架上的并且可以拆除。

从悬架安装点到加强杆安装点的距离不得超过 100mm, 除非这个加强杆是防滚架的一个横向管柱, 或者除非其为麦克弗逊或类似悬架的顶部加强杆。

element of a McPherson suspension, or a suspension operating in an identical manner, it is necessary to replace the entire McPherson strut, the replacement parts must be mechanically equivalent to the original ones and have the same mounting points.

In the case of a McPherson suspension, the shape, dimensions and material of the spring seats are free and they may be adjustable.

In the case of an oil-pneumatic suspension, the spheres may be changed as regards their dimension, shape and material, but not their number.

A tap, adjustable from the outside of the car, may be fitted on the spheres.

Whatever the type of the shock absorbers, the use of ball bearings with linear guidance is prohibited.

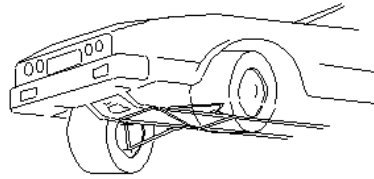
9.6 Reinforcement

Reinforcement bars may be fitted on the suspension mounting points to the bodyshell or chassis of the same axle, on each side of the car's longitudinal axis, provided that they are removable and that they are bolted to the bodyshell or chassis.

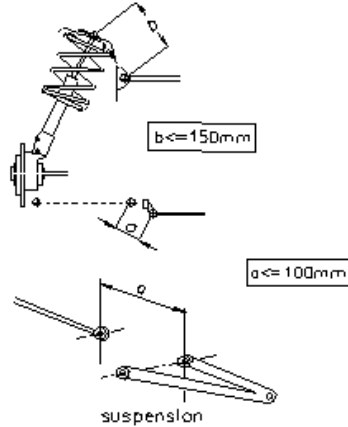
The distance between a suspension attachment point and an anchorage point of the bar cannot be more than 100 mm, unless the bar is a transversal strut homologated with the safety cage, or unless it is an upper bar attached to a McPherson suspension or similar.

在后一种情况下,这个加强杆安装点到悬架铰接的最大距离为 150mm (参见图 255-2 和 255-4)。

In the latter case, the maximum distance between an anchorage point of the bar and the upper articulation point will be 150 mm (Drawings 255-2 and 255-4).



255-2



255-4

为安装上述顶部横向加强杆,允许在两侧车身上打 3 个最大直径为 10.5mm 的安装孔。

For the fixation of a transversal strut between two upper points of the bodyshell, a maximum of three (3) holes on each side, of a maximum diameter of 10.5 mm, will be authorised.

该顶部横向加强杆的安装衬圈可以焊接在车身上。

The mounting rings of the upper transversal struts may be welded to the bodyshell.

除了上述情况,不可以在车身或其他机械部件上安装顶部加强杆。

Apart from these points, the upper bar must not be mounted on the bodyshell or the mechanical parts.

第 10 条: 车轮与轮胎

ARTICLE 10: WHEELS AND TYRES

10.1 车轮总成

10.1 Complete wheel

车轮最大尺寸 7" × 15" (轮圈+轮辋), 最低重量为

The maximum dimensions of the wheels (rims + flanges) are 7" x 15" and their weight must not be less than 5 kg.

<p>5kg。</p>	<p>The complete wheel inflated to a pressure of 2 bars must fit into a box of a diameter of 580 mm and a thickness of 223 mm.</p>
<p>在轮胎压力为 2bar 状态下，整个车轮总成应能放进 580mm (直径) × 223mm (高度) 的箱子内。</p>	<p>The diameters measured at the level of the inner and outer rim edges of a wheel must be identical, with a tolerance of +/- 1.5 mm.</p>
<p>轮圈的内外侧直径必须相同，误差不得超过 1.5mm。</p>	<p>In all other respects the wheels are free provided that they are made of metal and that they are made in a single unit.</p>
<p>车轮必须用金属材料制造，且是单体结构。</p>	<p>Wheel fixations by bolts may be freely changed to fixations by pins and nuts provided that the number of fixation points and the diameter of the threaded parts remain unchanged.</p>
<p>固定车轮的螺栓可以自由更换为螺柱螺母形式，但是固定点数量以及螺纹直径不得改变。</p>	<p>The fitting of air extractors on the wheels is prohibited.</p>
<p>禁止在车轮上安装放气装置。</p>	<p>The upper part of the of the complete wheel (flange + rim + tyre), located vertically over the wheel hub centre, must be covered by the bodywork when measured vertically.</p>
<p>当车轮安装在车上时，从垂直方向测量，车轮轴心上部（轮圈、法兰和轮胎）必须在车身覆盖。</p>	<p>Foam or any other system enabling the car to be driven without air in the tyres is prohibited.</p>
<p>禁止使用泡沫或者任何其他使汽车可以在轮胎内没有气体情况下行驶的系统。</p>	<p>All pressure regulations systems are prohibited.</p>
<p>禁止使用任何气压调节系统。</p>	<p>10.2 Spare wheel It is forbidden to carry a spare wheel on board.</p>
<p>10.2 备胎 车上禁止携带胚胎。</p>	<p>ARTICLE 11: GROUND CLEARANCE No part of the car, with the exception of</p>

第 11 条：离地间隙

把一侧的轮胎气压放为零，除了轮圈和轮胎不能有任何零部件接触地面。

为进行此项检查，需要将车辆一侧车轮的气门嘴拆除。

这项检查应在平坦的表面上进行。

第 12 条：制动系统

前制动不限，只要其装在原装安装点上并符合下列描述：

- 如果与原装不同，整个前后制动系统包括制动总泵必须在 FIA 注册，没有最小产量限制。

- 每个车轮不得超过 4 个活塞。

- 刹车盘直径不得超过 296.5mm。

- 刹车盘必须用铁质材料。

后刹车卡钳可以更换但是每个车轮不得多于 2 个活塞。

所有卡钳部件必须用弹性系数不超过 75GPa 的铝制材料制成。

the rims or tyres, must touch the ground when all the tyres situated on the same side of the car are deflated.

In order to check this point, the air valves of the tyres on the same side of the car will be removed.

This test shall be carried out on a flat surface.

ARTICLE 12: BRAKES

The front brakes are free, provided that they are mounted on the fixation points of the original brakes and that they comply with the following prescriptions:

- if it is different from the original, the complete front and rear braking system, including the master cylinder, must be homologated, without a production minimum, by the FIA;

- the maximum number of pistons per wheel is four (4);

- the maximum diameter of the brake disc is 296.5 mm;

- the brake discs must be made from ferrous metallic material.

The rear brake calipers may be replaced but must not have more than two (2) pistons per wheel.

All parts of the brake calipers must be made from aluminium materials with a modulus of elasticity no greater than 75 GPa.

The internal parts of the brake calipers may be made from steel or titanium.

卡钳内部的部件可以钢或者钛制造。

下列描述适用于整个制动系统：

- 制动管路及其安装方式不限。

- 原装手制动可以拆除或者更换为一个由赛车直接操作的液压阀。

- 如果原装车型装有伺服制动装置，该装置可以被隔断或者拆除，但是制动总泵和踏板箱必须保留在原装的舱体内。

允许对车身进行改装，仅限为了安装制动总泵和踏板的功能。

这些必须进行选装变更注册 (VO)，但没有最小产量限制。

车手对前后制动力分配的调节只能通过下列方式：

- 直接操纵前后制动回路液压泵的连接杆接点中心的操纵杆。

- 直接操纵一个分配阀，在这个阀体内后制动回路的输入

The following prescriptions apply to the complete braking system:

- the brake lines and their fitting method are free;

- the original handbrake may be removed or replaced by a hydraulic valve operated manually and without any intermediate system by the driver;

- if, in its original version, a car is equipped with servo brakes, this device may be disconnected or removed, but the master cylinder and/or the pedal box must remain in their original compartment.

Modifications to the body shell are authorised provided they have no other function than to allow the fixing of the master cylinder and/or the pedal box.

They must be homologated as a Variant Option without a minimum production.

The balance of the braking forces between the front and rear axles may only be adjusted by the driver through :

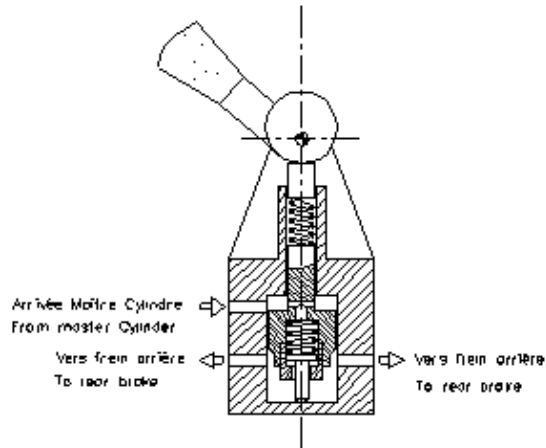
- direct intervention on the position of the centre of the joint, on the linkage lever of the hydraulic pumps of the front and rear circuits.

- direct intervention on a proportional valve, in which the intake pressure of the rear circuit is adjusted through a pre-loaded spring, variable according to the position of the manual linkage system (see the Drawing of the principle

压力通过一个预装的弹簧调节，
随手动连接系统的位置变化(原
理图参见 263-9)。

263-9).

Only one of these two systems is
permitted.



263-9

其他任何系统,包括惯性机
械系统都禁止使用。

All other systems are prohibited,
including inertial mechanical systems.

- 如果原装车型配备制动
防抱死系统,其控制单元必须拆
除。

- if, in its original version, a car is
equipped with an anti-lock braking
system, the control unit must be
removed.

除此之外所有防抱死系统
的部件也要拆除,但是要符合国
际汽联运动总则附录J第253-4
款的规定。

Moreover, all the parts of the anti-lock
system must be removed, provided that
the prescriptions of Article 253-4 of
Appendix J are respected;

- 制动管路的安装位置不
限,但是要符合国际汽联运动总
则附录J第253-3款的规定。

- the location of the brake lines is free
provided that the prescriptions of Article
253-3 of Appendix J are respected.

制动管路可以用航空管路
替代,可以自由连接双回路。

The brake lines may be replaced by
aircraft-quality lines. The connection of
the dual braking circuit is free;
- for each brake, one cooling line with a
maximum internal diameter of 10 cm, or

- 每个刹车系统允许安装一个最大内径 10cm 的冷却管, 或者两个最大内径 7cm 的管路。该最大内径必须在保持至少 2/3 从进口到出口的长度。

- 刹车冷却管进气口必须安装在下列位置:

使用车身原装开口, 例如雾灯。可以用于刹车冷却管进气。

连接到车身上原装进气孔气道不受限制, 条件是这些进气孔没有改动。

如果赛车没有原装的进气口, 可以在前保险杠上开两个最大直径 10cm 的孔。

制动盘保护片可以拆除或改变形状。

第 13 条: 车身

13.1 外观

只有量产 2500 以上的注册原型车上牢固安装且允许上路行驶的空气动力学件允许使用。

车轮装饰罩必须拆除。

翼子板边缘如果在车轮室内突出, 钢制的可以卷起, 塑料的可以切除。

轮拱内的塑料隔音部件可以拆除。

这些合成材料元件可以更换为同样形状的铝制或者塑料

two circular lines with a maximum internal diameter of 7 cm, are allowed. This diameter must be maintained over at least 2/3 of the distance between its entrance and exit;

- only the following mounting points are authorised for the fixation of the lines to bring the cooling air to the brakes :

. original apertures in the bodywork, e.g. for fog lamps, may be used to bring the cooling air to the brakes;

. the connection of the air lines to the original apertures in the bodywork is free provided that these apertures remain unchanged;

. if the car does not have any original apertures, two (2) circular apertures of a maximum diameter of 10 cm may be made in the front bumper;

the disc protection plates may be removed or their shape modified.

ARTICLE 13: BODYWORK

13.1 Exterior

Only the aerodynamic elements homologated on the vehicle produced in 2500 units, securely fixed to the car and authorised for road use, are allowed.

Wheel embellishers must be removed.

It is permitted to fold back the steel edges or reduce the plastic edges of the wings if they protrude inside the wheel housing.

The plastic soundproofing parts may be removed from the interior of the wheel arches.

These elements made from synthetic materials may be changed for aluminium or plastic elements of the same shape.

<p>元件。</p> <p>隔音和防腐蚀材料可以被去除。</p> <p>可以拆除车身轮廓周边高度小于 25mm 的装饰条。</p> <p>高度超过 25mm 的装饰条只有比赛号码位置附近的可以拆除。</p> <p>保险杠安装架不限,只要车身以及保险杠的形状位置没有改动。</p> <p>车身上的原装开孔可以用于冷却空气通过。</p> <p>所谓原装开孔定义为在注册的车身上就有的,露出或者被可拆卸部件部分或全部遮盖的开孔(例如雾灯、空挡板、百叶窗、格栅等)。</p> <p>为了让冷却空气通过,可以拆除或者打开可拆卸遮盖件,但是原装部件总体形状没有改变。</p> <p>连接到车身上原装进气孔气道不受限制,条件是这些进气孔没有改动。</p> <p>不允许安装底盘护板。</p> <p>允许使用气动千斤,并可以连接在防滚架上。</p> <p>允许为使用气动千斤开尽可能小的孔。</p> <p>压缩空气的接入口必须位</p>	<p>The soundproofing material or the material for the prevention of corrosion may be removed.</p> <p>The removal of external decorative strips, following the contour of the car and less than 25 mm high, is authorised. Decorative strips more than 25 mm high may only be removed near the areas reserved for the competition numbers.</p> <p>The bumper mountings as free as long as the bodywork and the shape and position of the bumpers remain unchanged.</p> <p>The original apertures in the bodywork may be used for the passage of the cooling air.</p> <p>Original apertures are defined as existing apertures in the homologated bodywork which are open or partially or completely covered by removable parts (e.g. fog lamps, blanking panels, louvres, grills, etc.).</p> <p>To allow the passage of the cooling air, the removable parts may be removed, or opened provided that the general appearance of the original part is not modified.</p> <p>The connection of the air ducts to the original apertures in the bodywork is free as long as these apertures remain unchanged.</p> <p>The fitting of underbody protection is prohibited.</p> <p>Pneumatic jacks are authorised and may be attached to the safety cage.</p> <p>Minimum openings allowing the use of air jacks are authorised.</p> <p>The connector for the feeding of compressed air must be situated</p>
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于后轮轴线以后而且不能突出于车身表面。

允许对车身上最大 100cm^2 的面积部分进行改装,用于制造这个安放接入口的凹腔。

风挡雨刷可以更换,后雨刷和马达可以拆除。

赛车两侧必须拥有外后视镜。

其形状不限但是反射面积不得小于 90cm^2 ,可以用边长 6cm 的正方形套过。

允许加强车架和车身的弹性部件,但附加的材料必须与原装部分形状一致并与其保持接触。

上述加强包括用焊接或者增加材料的方法对车身进行加固。

可以再做一个安装悬架的车身塔顶焊接在原塔顶上,只要其与原装件形状一致并与其保持接触。

所谓“悬吊件”是指所有被车轮悬架缓冲的部件,或者说所有在悬架旋转点到车轮轴线之间的悬架部件。

不使用的附件或者装饰件(例如备胎、隔热罩等)的支架可以拆除。

rearward of the rear axle centreline and must not protrude beyond the surface of the bodywork.

The bodywork may be modified over a maximum area of 100cm^2 as to create a housing for this connector.

The windscreen wiper blades may be replaced by others.

The cars must have an external rear-view mirror on the left-hand side and on the right hand side.

Their shape is free but each mirror must have a reflecting surface of at least 90cm^2 , able to enclose a 6cm -sided square.

Strengthening of the sprung parts of the chassis and bodywork is allowed provided that the material used follows the original shape and is in continuous contact with it.

The above strengthening of the sprung parts authorises for example the reinforcement of the bodywork by welding or by the addition of material.

A second suspension bell housing may for example be placed above and soldered to the original, provided that it follows the original shape and that it is in contact with it.

The term 'suspended parts' means all the parts dampened by the wheel suspension, in other words all parts situated within the rotational points and axes of the suspension parts.

Unused supports for accessories or trims (e.g. spare wheel, heat shield...) situated on the chassis / bodywork can be removed.

These modifications must be

这些改装必须超级量产组 VO 注册。

侧窗和后窗以及后视镜必须贴一层无色透明的厚度不超过 100 微米的膜,以避免事故中玻璃碎片的脱落和飞溅。

13.2 驾驶舱

副驾座椅和后座椅必须拆除。

可以拆除车内的绝缘隔音材料,同样包括原装安全带和地毯。

车门和后部的内饰板不可以被拆除。

这些内饰板允许更换为 0.5mm 厚的金属板或 1mm 厚的碳纤维板或 2mm 厚的其他不易燃固体材料。

装饰板必须完全覆盖车门内部,包括把手、锁和摇窗装置。

电动窗可以改为手摇窗。

后车窗升降结构不限。

对于两门车型,允许将后电动窗更换为机械式或者更换为固定窗,只要其能像原装件一样使用。

对于车辆性能没有影响的附属装置,例如那些使车内更加美观舒适的装置,(灯、加热器、收音机等)可以拆除,前提是它

homologated as a Super Production VO.

The side and rear windows, as well as the rear-view mirrors, must be covered with a transparent and colourless safety film with a maximum thickness of 100 microns in order to avoid the shattering and spraying of glass in the event of an accident.

13.2 Cockpit

The passenger seat and the rear seat(s) must be removed.

The removal of any insulating or soundproofing material, as well as of the original safety belts and carpeting, is authorised.

Neither the front and rear door panels nor the rear side panels may be removed.

These may be the original ones or be made from metal sheeting at least 0.5 mm thick, from carbon fibre at least 1 mm thick or from another solid and non-combustible material at least 2 mm thick.

The panels must totally cover the door, its handles, locks and window winding mechanisms.

It is permitted to replace electric winders with manual ones.

The rear window winders are free.

It is permitted to replace a rear electric window winder in a two-door car with a mechanical one, or to replace a swivelling rear window with a fixed one, if it is available as an original part.

Additional accessories which have no effect on the car's behaviour, such as those which render the interior of the car

们对发动机、转向、传动、制动以及行驶性能没有任何影响,即使是次要的影响也没有。

原装的空调系统允许被拆除。

左右舵车型都允许使用,前提是改装车与注册车相同且相关部件功能与厂商定义的完全一致。

只有地板上的不使用的支座可以拆除。

厂商提供的所有驾驶控制部件必须存在。

这些部件可以改装以使其更方便操作,例如安装手刹加长柄,或者加宽制动踏板。

下列部件改装是允许的:

- 喇叭不限;

- 座椅支架改装要符合国际汽联运动总则附录 J 第 253-16 款规定。

- 座椅护罩不限,包括桶形座椅的。

- 方向盘不限制但是不能有开口。方向盘的防盗锁止系统必须拆除。

- 推荐使用可以快速拆卸式方向盘。

快速拆卸装置必须由一个与方向盘同轴的法兰盘构成,通

more aesthetic or comfortable, (lighting, heating, radio, etc.) are authorised provided that they do not influence, even in a secondary manner, the performance of the engine, steering, transmission, brakes or road-holding.

The original air-conditioning system may be removed.

Left-hand drive versions and right-hand drive versions are authorised, provided that the original car and the modified car are mechanically equivalent and that the function of the parts remains identical to that defined by the manufacturer.

Unused supports situated only on the floor may be removed.

All the driving control parts must be those supplied by the manufacturer.

These may be adapted in order to facilitate their use or accessibility; for example, the fitting of an extension to the handbrake lever or the widening of the brake pedal.

The following parts are authorised:

- the horn is free;

- the seat supports may be modified in accordance with Article 253-16 of Appendix J.

Seat covers, including those creating bucket seats, are free;

- the steering wheel is free, but it must be closed. The locking system of the anti-theft device must be rendered inoperative;

- a removable steering wheel is recommended.

The quick release mechanism must consist of a flange concentric to the steering wheel axis, coloured yellow

过阳极氧化或者其他方式处理成不褪色的黄色,安装在方向盘后面的转向管柱上。

快速拆卸装置操作方式必须是沿着方向盘轴线方向拉动法兰盘。

13.3 仪表台

安装在仪表台下方且不是其组成部分的装饰件可以拆除。

允许拆除中控台上不包括暖风出口和仪表的部件。(参见图 255-7)。

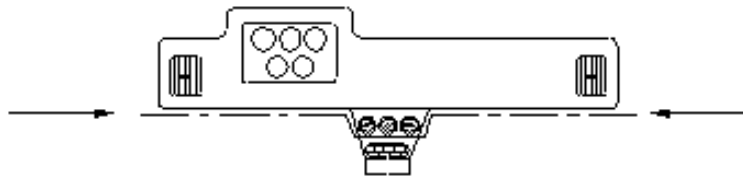
through anodisation or any other durable yellow coating, and installed on the steering column behind the steering wheel.

The release must be operated by pulling the flange along the steering wheel axis.

13.3 Dashboard

The trimmings situated below the dashboard and which are not a part of it may be removed.

It is permitted to remove the part of the centre console which contains neither the heating nor the instruments (see Drawing 255-7).



255-7

仪表的改装不限,但安装不能造成任何危险。

标准的开关可以更换为不同设计的开关,并且可以安装在仪表台或者中控台的其他位置上。

任何因改装造成的的开口必须覆盖。

转向灯控制杆必须保留在原位。

13.4 发动机舱和行李舱

The instruments are free. However, the installation should not present any risk.

Standard switches may be replaced by switches of different design and may be fitted at different locations on the dashboard or on the centre console.

Any openings that result from this must be covered.

The turn signal control must remain in its original location.

13.4 Luggage and engine compartments

The soundproofing materials and trim in the luggage compartment may be

行李舱的隔音装饰材料和
可以拆除。

发动机罩上的隔音材料和
周边装饰材料可以拆除。

不使用的电池和备胎架可
以拆除,如果其没有被焊接在车
身上。

发动机舱下方整流板可以
拆除或者剪切改装。

第 14 条: 电子系统

14.1 线束

发动机线束不限。

其他线束只要符合下面条
件改装也不限。

14.2 蓄电池

蓄电池的厂商和容量不限。

在任何时候必须能用车上
的蓄电池的能量启动发动机。

每块蓄电池必须用下列方
式可靠安装,以避免短路和泄
露。

蓄电池数量必须与出厂时
一致。

如果蓄电池没有安装在原
始位置,则必用安装在一个金属
的支座里,并有两个金属卡子固
定,且安装绝缘盖子。支座须用
螺栓从底部固定在车体上。

为安装卡子,必须使用至少

removed.

The soundproofing materials of the
engine cover and the decorative
materials surrounding the engine may
be removed.

Unused battery and spare wheel
supports may be removed if they are not
welded to the bodyshell.

The lower fairing of the engine
compartment may be removed or
modified only by cutting.

ARTICLE 14: ELECTRICAL SYSTEM

14.1 Cables

The electric cable assembly of the
engine is free.

The other electric cable assemblies are
free provided that they respect the
following conditions.

14.2 Battery

The make and capacity of the
battery(ies) are free.

It must be possible at all times to start
the engine with the energy of the battery
transported on board the vehicle.

Each battery must be securely affixed
and covered in such as way as to avoid
any short-circuiting or leaks.

The number of batteries laid down by
the manufacturer must be retained.

Should the battery be moved from its
original position, it must be attached to
the body using a metal seat and two
metal clamps with an insulating
covering, fixed to the floor by bolts and
nuts.

For attaching these clamps, bolts with a
diameter of at least 10 mm must be

10mm 的螺栓, 且每个螺栓在车身下方要使用厚度大于 3mm 面积大于 20cm² 的安装垫片。

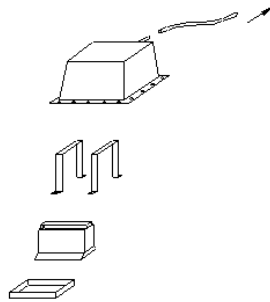
蓄电池必须有独立的防泄露塑料盒子覆盖。

安装位置不限。但是, 如果在驾驶舱内则只能放在前座后方。此种情况下, 电池防护盒必须有一个通气管连通到驾驶舱外。如图 255-10, 255-11 所示。

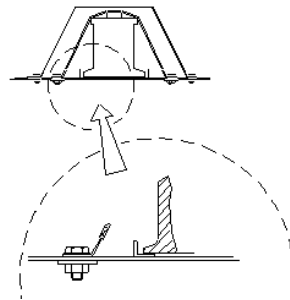
used, and under each bolt, a counterplate at least 3 mm thick and with a surface of at least 20 cm² beneath the metal of the bodywork.

The battery must be covered by a leak-proof plastic box, attached independently of the battery.

Its location is free; however, if in the cockpit it will only be possible behind the front seats. In this case, the protection box must include an air intake with its exit outside the cockpit (see Drawings 255-10 and 255-11).



255-10



255-11

如果安装在驾驶舱内的蓄电池是干式的, 则必须用一个盖子完全罩起来。

禁止使用除发动机以外的任何其他装置充电。

14.3 发电机

可以更换更大功率的发电机。

发电机驱动轮和皮带也可更换。

If the battery situated in the cockpit is a dry battery, it must be protected electrically by a lid which covers it completely.

Any energy-recuperating system other than that provided by the engine is prohibited.

14.3 Alternator

A more powerful alternator may be fitted.

The driving pulley as well as the belt may be replaced.

14.4 Lighting

<p>14.4 灯光</p>	<p>The original lighting system must be retained, with the exception of the fog lamps, and must be operational at all times during a meeting.</p>
<p>除雾灯外原有的灯光系统必须保留,并且能够在整个赛事期间正常工作。</p>	<p>The headlights must have a road homologation for all countries (ECE, DOT, etc.).</p>
<p>大灯必须符合参赛国家的道路交通法规。</p>	<p>The upper and lower edges of the headlights may be covered by adhesive tape.</p>
<p>大灯的上下边缘可以被胶带覆盖。</p>	<p>However, a strip of at least 4 cm following a plane parallel to the transversal axis of the car and symmetrical in relation to the centre of the bulb must remain free over the entire width of the headlight.</p>
<p>但是以灯泡为中心贯穿整个大灯宽度的至少 4cm 宽的水平带状区域必须露出。</p>	<p>The fog lamps may be removed.</p>
<p>雾灯可以拆除。</p>	<p>The apertures may be used in accordance with Articles 10 and 11. If this is not the case, they must be hermetically sealed.</p>
<p>雾灯的开口可以按照本规则第 10、11 款要求使用。</p>	<p>A reversing light may be fitted provided that it will only switch on when the reverse gear is engaged and that the laws in force in this respect are observed.</p>
<p>如果没有使用,开口必须完全封闭。</p>	<p>14.5 Fuses</p>
<p>倒车灯可以安装,但必须仅在使用倒档的时候打开,并且要遵守相关法律。</p>	<p>Fuses may be added to the electrical circuit.</p>
<p>14.5 保险</p>	<p>The fuse box may be moved or removed.</p>
<p>可以增加保险丝。</p>	<p>ARTICLE 15: FUEL FEED SYSTEM</p>
<p>保险盒可以移动或拆除。</p>	<p>15.1 Petrol tank</p>
<p>第 15 条: 供油系统</p>	<p>The original petrol tank may be kept.</p>
<p>15.1 油箱</p>	<p>FT3 1999, FT3.5 or FT5 petrol tanks meeting the FIA specifications are authorised.</p>
<p>原装油箱可以保留。</p>	
<p>可以使用国际汽联认证的 FT3 1999, FT3.5 或者 FT5 油箱。</p>	
<p>推荐在使用上述油箱时填充 MIL-B-83054 或者 D-Dtop 型</p>	

安全海绵。

油箱必须安装在行李箱或者其原装位置

更换油箱位置不能导致任何减重或者加强,除非符合国际汽联运动总则附录 J 第 255-5.7.1 款规定,但是原装油箱移出后留下的开口必须安装挡板封闭。

对于耐力赛(赛中要加油)的车辆,加油口必须在驾驶舱外部。

对于短程赛(不需加油)的车辆,加油口必须符合国际汽联运动总则附录 J 第 253. 款规定。

加油口的位置不限,但不可在车窗上,且不能凸出车身轮廓。

如果加油口不被使用,必须将其密封。

原装的油箱通风碳罐及其控制装置可以拆除。

可以安装一个最大容积为 1 升的辅助油箱。

其安装不得对车辆安全有任何影响。

所有油箱的总容积不得超过 100 升。

连接加油口和油箱通风口

It is recommended that the FT3 1999, FT3.5 or FT5 tank be filled with MIL-B-83054 or D-Stop type safety foam.

They must be placed in the luggage compartment or in their original location. Changes of the position of the tanks may not give rise to any lightening or reinforcement other than as provided for under Article 255-5.7.1 of the FIA prescriptions, but the opening remaining after the removal of the original tank may be closed by the installation of a panel.

For endurance races (with refuelling), the filler hole must be situated outside the cockpit.

For sprint races (without refuelling), the filling of the tank must be carried out in conformity with Article 253 of Appendix J.

The location of the filler holes is free, apart from in the window panels, and they must not protrude beyond the perimeter of the bodywork.

If the filler hole is not used, it must be sealed.

An original carbon filter in the tank air vent, as well as its control unit, may be removed.

An auxiliary tank of a maximum capacity of one litre is authorised.

It must be situated such that it does not affect the safety of the vehicle in any way.

The total capacity of all the tanks may not exceed 100 litres.

的部分必须用防火和防渗漏装置保护。

如果油箱安装在行李舱内并且安装了挡板,则油箱必须有一个防火防泄露的防护装置。

如果更换了国际汽联认证的 FT3 1999, FT3.5 或者 FT5 油箱,新的总成不能产生一个空气动力学表面或者向下突出原装油箱。

在任何情况下,驾驶舱和行李舱之间必须有防火防渗漏的隔板。

如果油箱安装在车身底板下方,则必须装在一个密闭的防火箱子里,并且不能增加空气动力学特性也不能有任何其他机械功能。

这个箱子的所有表面必须含有可压碎的结构,并且必须用两个至少 30 mm x 3 mm 规格的卡子可靠安装。卡子要用螺栓螺母固定在车身底版上。

为固定这些卡子,必须使用至少 10mm 的螺栓,且每个螺栓子在车身底板上放要使用厚度大于 3mm 面积大于 20cm 的安装垫片。

可压碎的结构必须是蜂窝

The connections between the filler holes and the tank ventilation holes must be shielded by a fireproof and liquid-proof protective device.

If the petrol tank is located in the luggage compartment of a car with a tailgate, the tank must be shielded by a fireproof and liquid-proof protective device.

If the original tank is replaced with an FT3 1999, FT3.5 or FT5 tank, the new assembly must not generate an aerodynamic surface or protrude further below the vehicle than the original tank.

In all cases, there must be a fireproof and liquid-proof bulkhead between the cockpit and the luggage compartment.

In the case of a fuel tank being fitted below the floor of the car, it must be contained in a close-fitting flameproof housing that adds no aerodynamic advantage and has no other mechanical function.

This housing must include a crushable structure on all external surfaces, and be secured by using a minimum of two metal clamps 30 mm x 3 mm fixed to the floor pan by bolts and nuts.

For attaching these clamps, bolts with a diameter of at least 10 mm must be used, and under each bolt a counter plate at least 3 mm thick and with a surface of at least 20 cm² above the metal of the floor pan.

The crushable structure must be a honeycomb sandwich construction based on a fire-resistant core of a

夹层结构,内层是最小抗压强度为 18N/cm² (251b/in²)。

该内层可以有水管穿过,但是燃油、润滑油管和电线不可以。

该夹心结构必须包括两层 1.5mm 厚的外皮,其抗拉强度最小为 225 N/cm² (14 tons/in²)。

夹心层结构的最小厚度为 1cm。

原装油箱移出后留下的开口可以用与油箱相同尺寸挡板封闭。

15.2 燃油管

必须使用航空安全油管。

油管的安装不限,只要符合国际汽联运动总则附录 J 第 253-3. 款规定

15.3 燃油泵

燃油泵不限,允许在出注册的数量之外再安装三个油泵。

油泵必须用有防火防泄漏保护装置且与驾驶舱隔开。

第 16 条: 冰

整个赛事期间,禁止在赛车内外使用冰块或者干冰。

第 17 条: 遥控数据采集

除了双工电台通信,任何形式的从运动的车辆上传输数据

minimum crushing strength of 18N/cm² (251b/in²).

It shall be permitted to pass water pipes through this core, but not fuel, lubricating oil or electrical lines.

The sandwich construction must include two skins of 1.5 mm thickness having a tensile strength of minimum 225N/mm² (14 tons/in²).

The minimum thickness of the sandwich construction must be 1 cm.

The opening remaining after the removal of the original tank may be closed by the installation of a panel of the same dimensions as the fuel tank aperture.

15.2 Petrol lines

The petrol lines must be of aviation quality.

The installation of petrol lines is free provided that the prescriptions of Article 253-3 of Appendix J are respected.

15.3 Petrol pumps

Free; three others petrol pumps in addition to the number homologated are authorised.

The pumps must be separated from the cockpit by a fireproof and liquid-proof protective device.

ARTICLE 16: ICE

The transporting and/or use of natural or chemical ice, whether inside or outside the car, is prohibited throughout the entire duration of the meeting.

ARTICLE 17: TELEMETRY

All forms of data transmission from the moving car are forbidden, apart from

的方式都是禁止的

计时用的脉冲发射器可以使用,但必须与发动机控制没有任何连接。

允许安装一个不带加速计的车载数据记录系统,

第 18 条: 语言

发生争议时,本规则的官方语言为法语。

two-way radio communication.

Impulse generators giving information on timing are authorised, provided that they are separate parts which have no connection with the control of the engine.

An on-board data recording system, without an accelerometer, is authorised.

ARTICLE 18: LANGUAGE

The French version of these regulations shall be considered as the authentic text in the event of a dispute.