



**2015 NATIONAL TECHNICAL
REGULATIONS FOR STANDARD
VEHICLES (GROUP “SG”)**

APPROVED:
LASF Rally Committee,
Protocol No. 2014-11
24.11.2014

2015 NATIONAL TECHNICAL REGULATIONS FOR STANDARD VEHICLES (GROUP “SG”)

1. Definition

This group consists of the serial production cars, **which comply with these technical regulations.** During the scrutineering the car must be technically ordered i.e. it must have a document which proves the execution of the obligatory technical inspection and **sport car technical passport issued by LASF.**

2. Safety equipment

2.1. Additional fasteners

At least two additional safety fasteners may be fitted for each of the bonnet and boot lids.

2.2. Safety belts

Two shoulder straps and one lap strap is obligatory ; anchorage points on the shell: two for the lap strap, two for the shoulder straps, or one, symmetrical in respect of the seat. These belts must be homologated by the FIA and comply with 2015 year FIA standards.

During the rally two belt cutters must be carried on board. They must be easily accessible for the driver and co-driver when seated with their belts fastened.

The mounting of safety belts is described in 6.2 section of the article 253 (J appendix).

2.3. Extinguishers

Manual extinguishers are mandatory. Operational fire extinguishing system complying with regulations of article 253(FIA Code J Appendix) may also be installed.

Each extinguisher must be mounted in such way that it could withstand a deceleration of 25 g in any direction. Only quick-release **two** metal fastenings **with metal straps** are accepted. Extinguisher must be easily accessible for the driver.

Minimum quantity of extinguishant:

in case of powder, 2.25 litre for the following quantities.

2.3.1. Minimum quantity of extinguishant:

AFFF: 2.4 litres

FX G-TEC: 2.0 kg

Viro 3: 2.0 kg

Powder: 2.0 kg

2.3.2. All extinguishers must be pressurised according to the contents:

AFFF: in accordance with the manufacturer's instructions;

FX G-TEC ir Viro 3: in accordance with the manufacturer's instructions;

Milteliai: 8 bar min, 13.5 bar max

Furthermore, each extinguisher when filled with AFFF must be equipped with means of checking the pressure of the contents.

2.3.3. The following information must be visible on each extinguisher:

Capacity, type of extinguishant, weight or volume of the extinguishant, date the extinguisher must be checked, which must be no more than two years after either the date of filling or the date of the last check.

2.4. Safety cage

Safety cage is mandatory and must comply with **regulations of FIA Code article 253.8 (Appendix J)**.

2.5. Rear view

Rearward visibility must be ensured by two external rear-view mirrors (one on the right and one on the left). These rear-view mirrors may be standard.

An inside rear-view mirror - free.

2.6. Towing eye

Every car must be equipped with a rear and front towing-eye. They have to be painted in bright yellow, red or orange. They must be clearly visible that, in case of an accident, it would not be difficult to find them.

2.7. Windows

Only manufacturer made front, side and rear windows are allowed. The use of transparent film on all side windows is mandatory. Windows may be replaced by the equivalents of other manufacturers, however, the material cannot be changed i.e. it is not allowed to replace glass with plastic etc.

2.8. Fuel tank

Fuel tank **may** be original and remain at the original location provided by the manufacturer. **FT3 1999, FT3.5 or FT5 fuel tank may also be used if it is installed under the regulations of 9.6 point of article 252 and 14 point of article 253 (FIA Code Appendix J)**. A tank of calor and natural gas is prohibited. Fuel lines without joints are allowed inside the cockpit. They must comply with the regulations of article 253 (FIA Code Appendix J).

2.9. Battery

If the battery is 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 used, and under each bolt, a counter plate at least 3 mm thick and with a surface of at least 20 cm² beneath the metal of the bodywork. The battery, filled with liquid, 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, if the battery is filled with liquid, the protection box must include an air intake with it's exit outside the cockpit.

2.10. Seats

2.10.1. Driver and co-driver seats

If the original seat attachments or supports are changed, the new parts must either be approved by the seat manufacturer or must comply with the specifications mentioned below:

1) Supports must be attached to the shell/chassis via at least 4 mounting points per seat using bolts with a minimum diameter of 8 mm and counter plates, according to the drawing. The minimum area of contact between support, shell/chassis and counter plate is 40 cm² for each mounting point. If quick release systems are used, they must be capable of withstanding vertical and horizontal forces of 18000 N, applied non-simultaneously. If rails for adjusting the seat are used, they must be those originally supplied with the homologated car or with the seat.

2) The seat must be attached to the supports via 4 mounting points, 2 at the front and 2 at the rear of the seat, using bolts with a minimum diameter of 8 mm and reinforcements integrated into the seat.

Each mounting point must be capable of withstanding a force of 15000 N applied in any direction.

3) The minimum thickness of the supports and counterplates is 3 mm for steel and 5 mm for light alloy materials. The minimum longitudinal dimension of each support is 6 cm.

Seats must have valid FIA homologation.

2.10.2 Rear seats

Rear seats may be removed. If rear seats are removed from sedan type vehicle, a fireproof and liquid-proof bulkhead must be mounted instead of the rear seats.

2.10.3 General circuit breaker, complying with requirements of article 253.13 (FIA Appendix J), is mandatory.

2.11 *Electrical wires, fuel, brake fluid tubes*

2.11.1 Electrical wires and tubes must be fixed. If they are next to each other, they have to be additionally isolated. It is allowed to change wires, tubes and their position. It is allowed to locate tubes in the cockpit (except hot liquid tubes, if this is not provided by the manufacturer of base models). No joints of tubes in the cockpit are allowed.

2.11.2 If fuel tubes are located in the cockpit, they must be made of metal or rubber hose with metal protection. Only thread joints are allowed.

2.11.3 Edges of vents, where tubes cross transversal walls, must be covered by protective materials. The same requirements are true for electrical wires / wire strings.

2.11.4 Any wires/tubes between the safety cage and the bottom strut are prohibited

3. *Drivers' clothing*

3.1. For all 2015 LARC competitors the use of FHR – „frontal head restraint“ is mandatory. In 2015 all safety equipment and clothing in LARC must comply with 2015 FIA requirements.

3.2. In 2015 all LRSC competitors are allowed to use seats, safety belts, clothing (helmets, balaclava, underwear, socks, shoes, overalls) with 5 years expired FIA homologation. Their suitability for use in competition is approved by chief scrutineer. For all competitors in LRSC the use of FHR – „frontal head restraint“ is recommended.

4. *Modifications and adjunctions allowed or obligatory*

All modifications which are not allowed by the present regulations are expressly forbidden. The only work which may be carried out on the car is that necessary for its normal servicing, or for the replacements of parts worn through use or accident. The limits of the modifications and fittings allowed are specified hereinafter. Cars must be strictly series production and identifiable from the description of manufacturer representative or from Group “N” homologation form. It should consist of the following information:

weight of the car without load,

cylinder capacity,

compression ratio,

diameter of the cylinder,

stroke of the piston,

diameters of intake and exhaust valves,

strokes of intake and exhaust valves,

type and scheme of the ignition,

type and scheme of fuel supply system,

serial number of the electronic control unit (if such exists),

dimensions of the clutch disc,

gearbox ratio,

final drive ratio,

diameter of the rims,

diameters of front and rear brake discs,

overall dimensions of the bodywork,

dimensions of the ground clearance and the base.

If this information is not submitted, a vehicle may be not allowed to start.

Preparation of these cars for sport competition is normal maintenance, more accurate and careful adjustment, allowed modifications and adjunctions, mentioned in this section.

While checking dimensions of parts (in case there are no manufacturer drawings), it is not allowed to exceed the deviations of nominal dimensions:

| | | |
|---|---------|---------|
| processed parts, except the diameter of the cylinder and stroke of the piston | + 0.2% | - 0.2% |
| unprocessed castings and extrusion positions | + 4% | - 2% |
| height of the camshaft lug | + 1% | |
| weight of parts | + 7% | - 3% |
| wheel base | + 1% | - 1% |
| width of the wheel rut | + 25 mm | - 25 mm |
| width of the vehicle in front and rear axes | + 1% | - 0.3% |

In order to compare the allowed deviations, the dimensions of original unprocessed parts and units may be used.

Apart from these, any part worn through use or accident can only be replaced by an original part identical to the damaged one.

5. Engine

An engine must remain provided by the manufacturer, produced for a particular model of the car. (eg. it is not allowed to mount Golf III or Passat engines into Golf II GTI).

In order to estimate the cylinder capacity of supercharged engines, the 1.7 coefficient is applied.

The maximum allowed cylinder capacity for engines with 2 valves in one cylinder is 3000 cm³, while for engines with more than 2 valves in one cylinder or supercharged engines – 2500 cm³.

Engine: provided by the manufacturer.

Cylinder head: standard. **A mechanical treatment of unprocessed head channel surfaces is allowed if it does not exceed +4% of nominal dimension.**

Gas distribution mechanism: distribution cylinders - standard.

Ignition: provided by the manufacturer.

Cooling system: provided by the manufacturer.

Carburettor: provided by the manufacturer.

Air filter and it's housing - free.

Injection: provided by the manufacturer.

Supercharging: All supercharged cars must be fitted with a restrictor fixed to the compressor housing. All the air necessary for feeding the engine must pass through this restrictor which must respect the following: the maximum internal diameter of the restrictor is 33 mm, maintained for a minimum distance of 3 mm measured downstream of a plane perpendicular to the rotational axis situated at a maximum of 50 mm upstream of a plane passing through the most upstream extremities of the wheel blades. This diameter must be complied with, regardless of the temperature conditions. The external diameter of the restrictor at its narrowest point must be less than 38 mm, and must be maintained over a distance of 5 mm to each side. The mounting of the restrictor onto the turbocharger must be carried out in such a way that two screws have to be entirely removed from the body of the compressor, or from the restrictor, in order to detach the restrictor from the compressor. The heads of the screws must be pierced so that they can be sealed. The restrictor must be made from a single material and may be pierced solely for the purpose of mounting and sealing, which must be carried out between the mounting screws, between the restrictor (or the restrictor/compressor housing attachment), the compressor housing (or the housing/flange attachment) and the turbine housing (or the housing/flange attachment). In case of an engine with two parallel compressors, each compressor must be limited to a maximum intake diameter of 22.6 mm.

Lubrication: The fitting of baffles in the oil sump is authorised.

Engine mounting: There are no limitations for the material of elastic parts used for engine mounting, except for the number and place of engine mounting points.

Exhaust system: It may be modified. It is allowed to modify the exhaust from the first silencer to the exit, the maximum external diameter of the duct being that of the pipe situated upstream of the first silencer. If two inlets exist in the first silencer, the section of the modified duct must be less than or equal to the total of the two original sections. These liberties must not entail any bodywork modifications. The catalytic converter is considered as a silencer. **The noise level must not exceed 103 dB for an engine rotation speed of 3500 rpm. A noise level is measured according to the FIA method.**

Cylinder head gasket: The material is free, but not the thickness (provided by manufacturer).

6. Transmission

Clutch: discs are free, with the exception of the number.

Reduction gear: **Limited slip differentials are allowed.**

7. Suspension:

Springs: The spring seats may be adjustable if the adjustable structural part is a part of the spring seat and is separated from the original suspension parts/bodywork.

Coil springs: free.

Leaf springs: free.

Torsion bars: free.

Shock absorbers: free. Shock absorbers with any expansion reservoirs are prohibited.

For McPherson suspensions, the shape of the spring seats is free.

The reinforcing of the structural parts of the suspension and its anchorage points by the addition of material is allowed.

Any modifications in steering mechanism and its transmissions are prohibited.

8. Wheels and tyres

Wheels made from forged magnesium are forbidden. Wheels must be covered by wings.

Wheels fixations by bolts may be changed to fixations by pins and nuts.

The spare wheel is compulsory. The spare wheel may be brought inside the driving compartment, on condition that it is firmly secured there and that it is not installed in the space reserved for drivers.

Minimum tread depth is 2 mm. From the 10th of November to the 1st of April minimum tread depth is 3 mm.

SLIK type tyres are prohibited. **It is allowed to use touring tyres intended to be used for roads in Europe (tyres should consist of "E" mark and the code of homologated country).**

The requirements for studded tyres are indicated in Supplementary regulations.

Sport tyres for gravel roads are allowed.

9. Braking system

It is allowed to use only original braking system and standard units of the system.

Brake linings are free, provided that the contact surface of brakes is not increased.

In the case of a car fitted with servo-assisted brakes, this device may be disconnected. The same applies for anti-lock braking systems.

Brake lines may be changed for aviation type lines. Brake lines without joints are allowed inside the cockpit according to the regulations of article 253 (FIA Code Appendix J). Any wires or tubes between safety cage and bottom strut are prohibited.

Other brake master cylinder from other vehicle of the same model is allowed.
It is permitted to install a mid-axis breaking system regulator and hydraulic hand break.

10. Bodywork

10.1. Exterior

Hubcaps must be removed. The fitting of underbody protections is authorised.

10.2. Interior

All the accessories which improve the aesthetics or comfort of the car interior (lighting, heating, radio, etc.), are allowed without restriction.

Original inside door trims may be replaced by the door panels made from metal sheeting at least 0.5 mm thick, from carbon fibre at least 1 mm thick or from another non-combustible (certificated) material at least 2 mm thick. Carpets and roof trims may be removed.

All controls must retain the role laid down for them by the manufacturer. They may be adapted to facilitate their use and accessibility, for example a longer handbrake lever, an additional flange on the brake pedal, etc.

The following is allowed:

Additional measuring instruments, counters, etc. may be installed without restrictions.

The horn is mandatory, but it is free.

Handbrake lever free.

Additional compartments to the glove compartment and additional pockets in doors may be added.

It is permitted to replace an electric window lift by a manual lift, using parts designed for the same model.

The steering wheel is free. The locking system of the anti-theft steering lock may be rendered inoperative.

10.3. Reinforcements

Body reinforcements are authorised on condition that material following the original shape and in contact with it is used.

The lightening of the bodywork is prohibited.

10.4. Underbody protections

Free.

11. Electric system

Generator: May be replaced by a more powerful one.

Lights: The mounting of additional six headlights is authorised provided that the total number of headlights equipping on the car does not exceed 8 (parking lights and rear lights are not included). Additional lights may protrude the perimeter of the car, however, they must not cover the light flow of the main lights. Front and other exterior lights must always be external.

Fuses: they may be added to the electrical system.

12. Minimum weight of the vehicles according to the class

12.1. At any time during the event, except the service zone, a car must comply with the minimum weight.

- up to 1400 cm³ - 820 kg;
- more than 1400 cm³ up to 1600 cm³ – 900 kg;
- more than 1600 cm³ up to 2000 cm³ – 1000 kg;
- more than 2000 cm³ – 1200 kg.

12.2. Minimum weight of the car is measured as follows: the real weight of the car, with neither driver nor co-driver nor their equipment and with a maximum of one spare wheel. At no time during the event may a car weigh less than indicated in this article.

This document is applicable on 01.12.2014.

CONCERTED:

LASF Technical Regulation Comitee

Protocol No 2014-04

27.11.2014