

PREPARED AND CONFIRMED:
Chairman of the LASF Technical regulation
Committee *Algirdas Gricius*

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APPROVED:
LASF Rally Committee,
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Chairman of the Committee *Ričardas Abelkis*

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2011 NATIONAL TECHNICAL REGULATIONS FOR GROUP “L”

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SAFETY EQUIPMENT

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1. GENERAL PROVISIONS

- 1.1. These regulations become effective on the 1st of January, 2011 and are valid till the official announcement of the changes.
- 1.2. The regulations present in the FIA International Sport Code (appendix J) are used only if there is a direct reference to specified article / section.
- 1.3. All the modifications which are not clearly allowed by the present regulations are expressly forbidden. An authorised modifications / reconstructions may not entail non-authorised modifications.

2. DEFINITIONS

- 2.1. Base model – a model of the car (including all of it's modifications), which is produced at a particular period and which has it's own production code (marking).
- 2.2. Homologated car – a modification of the car or it's implementation variant, which is present in the list of the cars homologated by FIA or ASN according to the officially approved complex of parameters. A car modification, which exceeds the valid Technical regulations, automatically transfers a car to the higher FIA group (eg. from Group N to Group A) or to Group L, if such modifications are not allowed by Technical regulations of any group defined in FIA Sport Code Appendix J.
- 2.3. Driving compartment – a space for a driver and passenger, designed by the manufacturer of series production car, which is separated from engine and luggage compartments by bulkheads (including a shelf under the rear window). The driving compartment of hatchback type car is joined with the luggage compartment.
- 2.4. Free – a part may be in any way processed, reformed or changed with other part. The regulations are also not applied to the material, shape of the parts as well as their number. A part may be removed.
- 2.5. Series production – such part which is installed by the manufacturer, without any changes, or which is supplied for car manufacturer by the producer of the parts. The origin of the original series production part should be able to be identified at any time.
- 2.6. Mechanical compounds – parts and elements which are necessary for car to move, wheel suspension work and normal work of the car, except the parts / elements of steering and braking systems.

3. VEHICLES ASSIGNED TO GROUP "L".

- 3.1. The vehicles, the homologation of which is ended, which were not homologated or homologated but do not comply with the regulations of present homologation, are assigned to Group "L". They must comply with the regulations of articles 252 and 253 of 2011 FIA Sport Code Appendix J.
- 3.2. The vehicles must comply with the legitimate regulations, which are required for the use of public roads.
- 3.3. The vehicles must have a Sport car technical passport issued by LASF. These passports should be submitted to Technical committee before the competition.

4. VEHICLES WHICH ARE NOT CONSIDERED TO BE THE VEHICLES OF GROUP "L"

- 4.1. The vehicles which do not comply with the provisions of the 3rd section of the Regulations.
- 4.2. The vehicles which were not made in series production before the 1st of January of current year.
- 4.3. The vehicles with the supercharged engines (turbo compressors, mechanical compressors, G compressors, COMPREX systems) the calculated cylinder capacity of which is up to 2000 cm³ (inclusive).
- 4.4. The vehicles in the construction or equipment of which technical commission or technical commissioners have found crucial drawbacks which can result in danger for the crew, third parties or their property.

5. DIVISION INTO CLASSES ACCORDING TO THE CUBIC CAPACITY

- 5.1. The cars of group "L" is divided into groups according to the cubic capacity as follows:

up to 1400 cm³
over 1400 cm³ up to 1600 cm³
over 1600 cm³ up to 2000 cm³
over 2000 cm³ up to 3500 cm³

* **An exception is made for Audi models with 5 cylinder engines 2226cm³**

- 5.2. In exceptional cases, due to the engine repair (series production repair size pistons), it is allowed to exceed the upper boundary of the geometrical cubic capacity of the corresponding class up to 1%. It is allowed only for those engines which have not the alternate sleeves. This should be coordinated with TRC and stated in LASF Sport car technical passport.
- 5.3. The dependence to the class of vehicles with supercharged engines is determined by the calculated cylinder capacity.

5-A The minimum weight of the car according to:

- 5-A.1. A car must comply with the set minimum weight at any time of the competition, except when a car is in the service park.

In rallies:

up to 1400 cm³ 840 kg
over 1400 cm³ up to 1600 cm³ 920 kg
over 1600 cm³ up to 2000 cm³ 1000 kg
over 2000 cm³ up to 2500 cm³ 1080 kg
over 2500 cm³ up to 3000 cm³ 1150 kg
over 3000 cm³ up to 3500 cm³ 1230 kg

In other competitions:

up to 1400 cm³ 760 kg
over 1400 cm³ up to 1600 cm³ 850 kg
over 1600 cm³ up to 2000 cm³ 930 kg
over 2000 cm³ up to 2500 cm³ 1030 kg
over 2500 cm³ up to 3000 cm³ 1110 kg
over 3000 cm³ up to 3500 cm³ 1200 kg

- 5-A.2.** The minimum weight of the car with four-wheel drive and normally aspirated engines, the cylinder capacity of which is from 1600 to 3000 cm³, or with the supercharged engines, which have a restrictor complying with the regulations of 255.5.1.8.3 article (Appendix J), the equivalent capacity is less or equal 3000 cm³, is 1230 kg.
- 5-A.3.** The minimum weight of the car is defined as follows: this is the real weight of the car without driver and co-driver, without their equipment, and with a maximum of one spare wheel. When two spare wheels are carried in the car, the second spare wheel must be removed before weighing. At no time during the event may a car weigh less than this minimum weight. In case of a dispute during weighing, the full equipment of the driver and co-driver will be removed; this includes the helmet, but the headphones external to the helmet may be left in the car. In case of doubt, and except in Rallies, the Scrutineers may drain the tanks containing consumable liquids to check the weight.
- 5-A.4.** Before weighting it is forbidden to pour liquids to the car or empty the reservoirs of the car (including fuel).
- 5-A.5.** The use of ballast is permitted provided that it is safely fixed (by screws) to the floor of driving or luggage compartment and it should be made of smooth strong material. It is mandatory to project the places for fixing the seals of the ballast. In rallies the carrying of tools and spare parts for the car in the cockpit and/or inside the engine bay and/or inside the boot only will be allowed under the conditions laid down in Article 253.
- 5-A.6.** In rallies the minimum weight of the car with the crew (driver + co-driver + their equipment) can be: minimum weight + 150 kg.

6. SUPERCHARGED AND ROTARY (WANKEL) ENGINES. DIVISION INTO CLASSES

- 6.1.** In case of supercharging, the geometrical cylinder-capacity will be multiplied by 1.7 for petrol engines and by 1,5 for diesel engines.
- 6.2.** In case of rotary (Wankel) engines, the cylinder capacity is calculated as follows:
 $1.5 \times (\text{maximum chamber capacity minus minimum capacity}) \times \text{number of chambers.}$
- 6.3** To calculate the cylinder capacity, $\pi = 3,1416$.
- 6.4** The injection of compressed air in the engines with the cylinder capacity less than 2000 cm³ is not allowed.

7. ENGINE

- 7.1.** The engine block of the car must be original i.e. the same as in the homologated variant or in series production, with the same or less number of cylinders, not exceeding the maximum allowed cylinder capacity of the series production model.
- 7.2.** The cylinder capacity can be modified by increasing or decreasing the diameter of the cylinder and/ or the stroke. It is allowed to add other cylinder sleeves, even if there were no cylinder sleeves before.
- 7.3.** Crankshaft: free, however, it is mandatory to retain the number and type of the main bearings.
- 7.4.** Other parts of flywheel - connecting-rod mechanism, pistons, their rings: free.
- 7.5.** Lubrication system: free. However, the fitting of an oil radiator outside the bodywork is only allowed below the horizontal plane passing through the hub in such a way that it does not protrude beyond the general perimeter of the car seen from above and provided that they do not give rise to any modifications to the bodywork.
 The fitting of the oil radiator in the driving compartment is also prohibited.

- 7.6. Cylinder head: free. If more than two valves are used in the cylinder, the homologated or series production cylinder head is used. In any case it is mandatory to retain the position of camshafts in the engine.
- 7.7. Gas allocation mechanism: free, according to this condition:
 - the position and number of shafts (except interaxial distance) is retained.
- 7.8. All supercharged cars must be fitted with a restrictor mounted before the injection valve of the compressor. The maximum internal diameter of the restrictor is 34 mm, maintained for a minimum distance of 3 mm. It must be fixed according to the FIA regulations for group "A" (FIA J Code, article 255-5.1.8.3 b)). The mounting parts of the restrictor must be sealed.
- 7.9. Supply system: free. However, it is forbidden to install an air filter or air injection vent in the driving compartment
- 7.10. Ignition system: free.
- 7.11. Cooling system: free. However, it's compound parts, except cockpit heating equipment, are not allowed to be mounted inside the driving compartment. It is authorised to remove or modify heating system, however, it is obligatory to assure the protection from the sweat for the front and side windows. The water cooled intercooler is authorised.
- 7.12. Other parts of the engine, not mentioned above: free.

8. *EXHAUST SYSTEM AND EXHAUST NOISE*

- 8.1. Exhaust gas manifold: free.
- 8.2. All exhaust gas must pass into the main exhaust pipe.
- 8.3. The exit of the exhaust pipe must be situated at the rear or at the side of the car. In the latter case it should be at the rear part of the car, behind the middle line of the wheel base.

- 9.5.** For the class up to 2000 cm³ – only two wheel drive is allowed..
- 9.6.** Cardan shafts and it's joints: free, however, it is forbidden to make them of compound materials. Half-shafts: free. It is forbidden to use transversal and longitudinal shafts made of titanium alloys.
- 9.7.** Rear wheel drive: free.
- 9.9.** Central differential and others: free.
- 9.10.** A reconstruction from two wheel drive to all wheel drive and vice versa is authorised. However, it is mandatory to administer all necessary document in order to register a car and use it on public roads.

10. BRAKING SYSTEM

- 10.1.** The brake discs and drums can be changed with any other with following conditions:
- All cars must be fitted with double circuit braking system, which operates on front and rear wheels at the same time and it is controlled by one pedal.
- 10.2.** The ABS systems of non homologated brakes are prohibited. A handbrake which operates on two wheels of one axle is compulsory. It can be complemented with hydraulic or mechanical control. A mechanical handbrake may be changed with the hydraulic system.
- 10.3.** The fixation functions of the handbrake can be removed.
- 10.4.** Other parts of braking system: free. It is allowed to install an equipment which regulates the braking force ratio between the axles. A braking pedal, it's axis and the parts of the inlet of the main brake cylinder must be made of steel. The parts made of light metals must have the documents which confirm the origin of the metals.
- 10.5.** Brake discs: free.
- 10.6.** In any case of the failures of the brake system, a brake pedal must control not less than two wheels.

11. STEERING SYSTEM

- 11.1.** The locking system of the steering wheel must be removed.
- 11.2.** It is allowed to install, disengage or remove a power steering and all parts related with it.
- 11.3.** Steering mechanism, articulate joints must be of series production.
Other parts of steering mechanism: free.

12. WHEEL SUSPENSION

- 12.1.** It is mandatory to retain the operation principle of all wheel suspensions, which comply with the base model / homologated variant.
- 12.2.** An inter-axle distance can be changed $\pm 3\%$ from the size of the base model or homologated variant.
- 12.3.** Springs, shock-absorbers, anti-roll bars: free. Auxiliary springs are authorised if the type and operation principle of the main spring of the base model. The shock-absorbers which can be adjusted from the cockpit are prohibited.
- 12.4.** The joints of suspension parts must be made of series production. The position, where the suspensions join the bodywork, is free, including McPherson suspension struts. It is allowed to attach additional parts to the suspensions and change bodywork according to these changes, however, the changes must not reduce the durability of the structural parts of the bodywork.

13. WHEELS AND TYRES

- 13.1.** Wheels and tyres must comply with the FIA regulations of group “A” (Appendix J, articles 252, 255.5.4 and 256.5.)
- 13.2.** The spare wheel is compulsory and it must be safely fixed either in the position provided by the manufacturer or (if the position is changed) at the rear part of the car behind the middle stand of the roof.

14. BODYWORK AND CHASSIS

- 14.1.** Series bodywork and / or chassis must comply with the regulations of articles 251.2.5.2. and 2.5.1. (Appendix J). Respectively, they can be strengthened or lightened according to the following regulations.
- 14.2.** The parts which are necessary for the fixation of the engine, transmission, steering system, breaking system and wheel suspension can be strengthened but can not be lightened.
- 14.3.** The external form of the base model must be retained and must be recognizable.
- 14.4.** It is prohibited to cut out big parts of the bodywork, except the upper part of the bulkhead between the engine compartment and the cockpit, which does not separate an engine compartment from the cockpit. The main bulkhead between the mentioned compartments must be retained, except the changes related to the 9 section of these regulations.
- 14.5.** It is allowed to remove all inner sound-proofing material and decorative trim. It is allowed to change inner trim door panels which must be made of metal sheeting at least 1 mm thick, of carbon fibre at least 1 mm thick or from another solid and non-combustible material at least 2 mm thick. A gap of the sunroof must be covered by the welded steel sheeting, the minimum thickness of which is not less than thickness of roof tin. It is allowed to remove all the decorative parts from the outside of the bodywork.
- 14.6.** Front decorative grille may be modified or changed, however, they are mandatory.
- 14.7.** It is allowed to change the appearance of the bumpers if it does not endanger for the audience and does not change in essence the external silhouette of the car.
- 14.8.** The floor of the car may be changed in order to attach a changed exhaust system, transmission agents and suspensions, however, the height of the floor can not be greater than the upper edge of the door step of the base model bodywork. A position of the spare wheel may be deepened, when mounting an exhaust system. This deepening can be removed by covering the hole with the welded or riveted steel sheeting. An exhaust pipe may be taken out through the rear mudflap.
- 14.9.** It is allowed to add metal or plastic protections at the bottom of the bodywork. Elastic materials (eg. gum etc.) for the protection of exhaust system.
- 14.10.** It is allowed to change the front panel in the cockpit in order to install additional switches and gauges. It is allowed to remove the central console.
- 14.11.** For the ventilation of the cockpit, it is allowed to install ventilation devices (gaps, windows) on the roof on condition that their construction protects from any direct access of the things or water on the driver or co-driver, fastened with belts and sitting in the seats.

15. DOORS, BONNET, BOOT

- 15.1.** The construction of front doors must remain original. The coatings of front doors cavities must cover all parts present in the doors: pivots, joints, locks, window lifting mechanism and inlet. The coatings of other doors cavities may be removed. Bonnets and boots, rear doors and

front fenders (if they are attached in series production by bolts) may be changed with the armoured plastic of 1.5- 2.5 mm thick or aluminium of 1.0-1.5 thick.

- 15.2.** It is allowed to modify lock / unlock mechanism of the door, but it is compulsory to leave original locking mechanisms.
- 15.3.** Original safety fasteners of the bonnet must be removed during the competition.
- 15.4.** Additional holes may be made only in the hood, however, the overall area of them can not exceed 500 cm². Moreover, the holes must be covered by the grille. The maximum size of the eye of that grille is 5×5 cm and they can not rise over the engine hood by more than 35 mm.
- 15.5.** All doors of the car should be able to be opened.

16. AUXILIARY AERODYNAMIC EQUIPMENT

- 16.1.** Auxiliary aerodynamic devices (spoilers) attached lower than a plane, going through the centre of all wheels: free. At the front and at the end of the car (looking from the side), the spoiler with the reinforcement must contain to the square of 20×20 cm. An exception is the spoilers of series production of the ase model and homologated spoilers.
- 16.2.** Looking horizontally from the front and vertically from the top, the spoilers must conform to the bodyshell profile of the base model. An exception is made for spoilers of serial production of base model or homologated spoilers.
- 16.3.** Any aerodynamic equipment of series production (base model) may be removed.
- 16.4.** Any additional aerodynamic devices must be securely fixed. They must not be dangerous for drivers and audience. Moreover, they can not be adjusted from the cockpit if this is not provided in the homologation documents.

17. WINDOWS

- 17.1.** The front window of the car must be multilayer, glued (triplex type).
- 17.2.** Side and rear windows can be homologated by series production or made of “security” type tempered secure glass, pasted up by transparent protective film according to the article 253. 11 (FIA Appendix J). They can also be changed with secure certificated polycarbonate.
- 17.3.** Plastic windows can be attached to the bodywork only by glues. They can also be additionally attached by four joint-pins of the maximum 3 mm diameter.

18. ELECTRICAL WIRES, FUEL, BREAK FLUID

- 18.1.** 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 the tubes in the cockpit (except hot liquid tubes, if this is not provided by the manufacturer of base models). No joints of the tubes in the cockpit are allowed.
- 18.2.** If the fuel tubes are located in the cockpit, they must be made of metal or rubber hose with metal protection. Only the thread joints are allowed.
- 18.3.** The edges of the vents must be covered by the protective materials where the tubes cross transversal walls. The same requirements are made for electrical wires / wire strings.
- 18.4.** Any wires between the safety cage and the bottom strut are prohibited.

19. LIGHTING AND ELECTRICAL EQUIPMENT

- 19.1.** The main lighting equipment of the car must comply with the legal requirements of the country of the event.

- 19.2.** It is allowed to attach additional projectors at the front of the car. The maximum number of the projectors is 6. A maximum of 8 front headlights are allowed.
- 19.3.** Generator, battery cells and starter: free. If the battery is transferred from the original position, it must be attached to the floor with metal seat and two metal rings with the isolating coating by bolts and nuts. For the strength of these rings, the bolts of minimum 10 mm diameter should be used. Under the each bolt a spacer of minimum 3 mm thick, of the minimum 20 cm² surface must be used and it is attached to the metal of the bodywork. A battery, swamped with the water, must be covered by the liquid-proof plastic box, fixed independently to the battery. The position of it: free, however, in cockpit it should be placed behind the front seats. In this case, if the battery is swamped with water, a safety box should have an air leakage vent, out of the profile if the bodyshell. (pic.255-10 and 255-11)
- 19.4.** It is allowed to use any switches, relays and other auxiliary equipment.

20. FUEL TANK AND FUEL SYSTEM

- 20.1.** Only air may be mixed with the fuel as an oxidant.
- 20.2.** A fuel tank and fuel system must be protected at the maximum of the possible damage in case of an accident.
- 20.3.** Electric fuel pumps can be turned on only when the engine is running or during the barring.
- 20.4.** A fuel tank of the base model, which is placed in the luggage compartment, can be moved or changed with another, if the protection of it increases. In such case, only series production fuel tank can be used and it must be fixed by at least two steel straps the width of which is not less than 40 mm and thickness - 1,5 mm.
- 20.5.** A hole for fuelling must not exceed the outer profile of the bodyshell.
- 20.6.** FIA FT3, FT5 and new FT3.5 type fuel tank fuelling holes must not compulsory comply with article 253.14.5. However, in such case the ventilation system and overpressure / vacuum valve present in the construction of the tank must be switched on.

SAFETY EQUIPMENT

21. SAFETY CAGE

- 21.1.** All cars must be equipped with safety cages which comply with the regulations of article 253.8 (FIA Appendix J) or the regulations of the national federation
- 21.2.** All cars, independently of the manufacturer of the safety cage, must get a LASF passport of safety cage. This passport must be submitted to the technical commission at each competition.
- 21.3.** Where the occupants' bodies could come into contact with the safety cage, the padding must be provided for protection. This material must comply with the requirements of article 253 (FIA appendix J).

22. SAFETY BELTS, SEATS AND EQUIPMENT

- 22.1.** In rallies it is mandatory to use safety belts, which comply with the valid FIA regulations, and which are installed according to the regulations of article 253.6 (FIA Appendix J). In rallies, two belt cutters must be carried on board at all times. They must be easily accessible for the driver and co-driver when seated with their harnesses fastened.

- 22.2.** The safety belts, which have visible damage on the material or joints, and the homologation of which is expired.
- 22.3.** It is mandatory to install special sport seats complying with the valid regulations of article 253.16 (FIA Appendix J) including the requirements for the material and size of seat supports.
- 22.4.** A crew must use overalls, socks, underwear, liners, shoes and gloves of the minimum FIA 1986 standard. The gloves for the co-driver are not needed. The helmets - according to the FIA technical page No. 25.

23. EXTINGUISHING EQUIPMENT

- 23.1.** The cars can be fitted with the extinguishing system complying article 253.7.1 (FIA Appendix J) and must be fitted with manual extinguishers complying with the article 253.7.3 (FIA Appendix J). Only extinguishing agent approved by FIA are authorised.
- 23.2.** The extinguishing system can be either automatic or manual. However, only the sprayers approved by FIA are authorised. Only metal pipes and joints, as well as plastic compounds approved by FIA are authorised. The allocation of extinguishing agents between engine compartment and the cockpit must be 1 : 1.
- 23.3.** The extinguishing agent situated in the car must have a manometer in order to control their state. An agent(s) must be safely fixed with the metal straps to the cockpit.

24. FIREPROOF BULKHEADS

- 24.1.** Fireproof and liquid-proof metal bulkheads must separate the cockpit from the engine compartment and the cockpit from the luggage compartment (if the fuel tank and battery is situated in it).
- 24.2.** If the fuel tank and / or the battery is situated in the cockpit of two volumes, each of them must be covered with the container, which complies with the regulations present at the article 253 (Appendix J). The inner space of the container must be ventilated i.e. joined to the external atmosphere.

25. GENERAL (CENTRAL) CIRCUIT BREAKER

- 25.1.** The general circuit breaker must cut all electrical circuits and must also stop the engine. No devices should operate after turning it off.
- 25.2.** The general circuit breaker must be easy to reach for a crew (sitting normally with fastened safety belts) and also from outside.
- 25.3.** As for the outside, the triggering system of the circuit breaker should compulsorily be situated at the lower part of the windscreen mountings.
- 25.4.** Outside the car the position of the general circuit breaker should be marked by a red spark in a white-edged blue triangle with a base of at least 12 cm.

26. OIL SUMP VENTILATION

- 26.1.** If the oil sump vent system is changed with respect of the base model (taken out to the atmosphere), it must be brought into the oil separation tank not less than 2 litres. This reservoir can be placed only in engine compartment.

27. TOWING-EYE

- 27.1.** All cars in all competitions must have front and rear towing-eye. These towing-eyes are used only when a car can not move on it's own. They must be clearly visible and painted in yellow, orange or red colour. A towing-eye can be made of flexible material which is strong enough.
- 27.2.** On the outside of the car there should be visible signs which show where the towing-eyes are.

28. REAR-VIEW MIRRORS

- 28.1.** 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 as standard. Each rear-view mirror must have a reflecting surface of at least 90 cm².
- 28.2.** An inside rear-view mirror is optional.

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Prepared by:
Chairman of the LASF Technical regulation Comitee Algirdas Gričius
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