

**Omnitel 1000 km race, 2010  
Technical regulations**

**1. General**

These Regulations are made under these principles:

- 1.1. If there is no clear permission for a certain change presented in these Regulations, this change could not be done.
- 1.2. Amendments may be made to these Regulations.
- 1.3 These regulations may have additions. All changes you can find in special bulletins published on [www.promosportas.lt](http://www.promosportas.lt) .
- 1.4 The organizer may refuse the admission of a car without having to give reasons. The decision taken by the organizer is final.
- 1.5 In all classes, except X1 only solely closed touring cars and GT cars are generally admitted.
- 1.6 In all classes, except X1 minimum series height of 1.100 mm and a maximum series height of 1.600 mm. Cars with exposed wheels are not permitted. Cars with central driver seating position are not permitted.
- 1.7 All cars must have LASF (Lithuanian automobile sport federation) or FIA or his ASN technical passport. If the car is entered in class, where is compulsory correspond to homologation, this homologation form must be ready for presentation.
- 1.8 Cars with motorcycle engines are not permitted.

**2. Safety Prescriptions for all Cars**

- 2.1 All cars must comply with safety prescriptions for group "A" as specified in Article 253 of the Appendix J . X1 class cars according their type must comply FIA safety prescriptions prescribed for these type of cars.
- 2.2 The rollcage structure must comply with Article 253. Cars homologated before 2001 01 31 or made before 2001 12 31 must comply minimum requirements for cars homologated from 2002 01 01 to 2004.12.31. All other cars must fully comply FIA Appendix J Article 253 regulations according they class and homologation date. X1 class cars according their type must comply FIA safety prescriptions prescribed for these type of cars.
- 2.3 An FIA homologated minimum 5- point safety harness is compulsory for all cars. Their fixing must comply article 253-6.2 of the Appendix J.
- 2.4 It is compulsory to shield the side or door windows with a transparent safety film (not tinted).
- 2.5 An FIA homologated competition seat with supports in compliance with Article 253.16 of the Appendix J is compulsory for all cars. X1 class cars according their type must comply FIA safety prescriptions prescribed for these type of cars.
- 2.6 A general circuit breaker in compliance with Article 253.13 of the Appendix J is compulsory.
- 2.7 Fire extinguishers, extinguishing systems. For all cars manual extinguisher in compliance with the FIA Article 253.7.3 of the Appendix J regulations or fire extinguishing system homologated by the FIA is compulsory. A fire extinguishing system could be manually or automatically operated.
- 2.8 All cars of A,X1 and GT class must be equipped with an extinguishing system from technical list n°6 : "Extinguisher systems homologated by the FIA".
- 2.9 The attachments of any video cameras must be approved by the scrutineers in time of first scrutineering.
- 2.10 The use of a window-net on the driver's side is compulsory for all cars, mounted accordingly to the FIA regulations, Article 253 of the Appendix J.  
These nets must have the following characteristics :
  - Minimum width of the strips : 19 mm
  - Minimum size of the meshes : 25 x 25 mm.
  - Maximum size of the meshes : 60 x 60 mm.and must close up the window opening to the centre of the steering wheel.  
X1 class cars according their type must comply FIA safety prescriptions prescribed for these type of cars
- 2.11 Towing device. All cars will be equipped with a rear and front towing device.  
It will be clearly visible and painted in yellow, red or orange. It must allow the passage of a cylinder with a minimum diameter of 60 mm and maximum diameter of 100mm. It must allow the car to be towed on a dry surface (concrete or asphalt), by applying traction on a plane parallel to the ground, with an angle of plus or minus 15 degrees to the longitudinal centreline of the car.
- 2.12 Petrol tank.  
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 liquidproof protective device. If the petrol tank is located inside the drivers compartment it must be covered with fireproof and liquid proof container. The container ventilation is compulsory. All vented gases must come to the outside of the car.

13 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 a 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 used, and under each bolt, a counterplate at least 3 mm thick and with a surface of at least 20 cm<sup>2</sup> 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.

2.14 All cars must correspond requirements of FIA regulations, Article 252 of the Appendix J.

### **3. General prescriptions for all cars.**

3.1 Only drivers whose equipment is in compliance with FIA requirements will be eligible. If the equipment do not satisfy the requirements, officers of technical commission has the right to take it away and return only after the race is finished.

3.2 One flexible pipe to bring the air to the brakes of each wheel is compulsory for cars build under 1000 km race special regulations, but its inside section must be able to fit into a circle with not less than 80mm and not more than 150 mm diameter. This diameter must be kept of at least 1/3 pipe distance. The air pipes must not go beyond the perimeter of the car, seen from above. For all other cars brakes cooling according homologation.

3.3 At least two low beam headlights must be operational at all times during the event. Maximum four additional lights may be mounted. Their reliability must be confirmed by the scrutineers. Rear brake lights and gabarit lights must also be operational at all times during the meeting. If any of the lights is out of order, the car must be immediately driven to the pits for repair.

3.4 During the race, practice sessions and qualifications participants must use commercial 95 or 98E fuel; diesels - commercial diesel. Refueling is permitted only in Orlen petrol station on the track.

3.5 It is authorized maximum two fuel tanks with total capacity up to 120 litres. Total capacity must comply with the requirements for class.

Fuel tanks could be:

- a) one or two tanks FT3 and higher type;
- b) one standard, original with original fixing and placed in the original location;
- c) standard (original with original fixing and placed in the original location) and additional FT3 type.
- d) FT3 and higher type fuel tanks validation must not be expired. It is forbidden to make any modifications for these type of fuel tanks.

In the case of two fuel tanks, a detailed scheme of fuel feed system must be presented to the technical commission. The FT3 and higher type tank must have a original identification label (in visible place) and original passport at manufacturer.

The hole for the leaked petrol elimination must be made inside the fuel tank compartment. If the filler hole is inside the car, the petrolproof wall must be made to protect the cabin.

3.6 The filler holes must be adapted to the standard taps of petrol pumps. If the car is adapted for fast fuelling systems (with no additional pressure) the fuelling could be made through the fuelling bottle. The bottle must be empty when connected to the car. In each case teams must receive personal stewards decision about fast fuelling systems usage.

3.7 Identification lights may be arranged, but to locate them on the top of the car is prohibited. It is unauthorized to mount any flashing, turning round (spinning) or otherwise moving identification lights.

3.8 Radio communication is authorized.

3.9 Video camera is authorized (fixation of it will be checked by technical commission).

3.10 The organizer has a right to mount video camera in any chosen car.

3.11 It is mandatory to shut down the engine during refueling. This rule does not concern turbo cars.

3.12 During refueling for mechanics is compulsory following equipment:

Flame resistable suit, balaclava;

Protection gloves;

Protection goggles;

It is recommended to use FIA homologated equipment

3.13 The minimum weight of the car with the driver and all liquids and equipment must be respected at any time during the event. Minimum weight of the car is as indicated in regulations + 80 kg. If the weight of the car must be completed by ballast to comply with the minimum weight as stipulated in the present Regulations and this weight cannot be achieved by corresponding permitted modifications inside or on the car (i.e. steel doors, steel roof, etc.), this ballast must be fixed inside the car as follows.

This ballast must during practice and race be fixed inside the car on the car floor panel. It must offer the possibility to fix seals. Fixation of the ballast – as described in FIA appendix J.

3.14 Noise limitation

The following limit values may not be exceeded:

For all classes: 110dBA at 3500 rpm according to the following sound test specification:

Measurements will be made at 0.5meter from the end of the exhaust pipe with the microphone at exhaust outlet level at an angle of 45degrees with the exhaust outlet.

3.15 In order to reach obligatory maximum fuel tank capacity, it is permitted to use special, FIA homologated, volume displacement balls and bladders for fuel tank capacity decreasing.

3.16 Coefficients applied to the cars:

for turbo - 1,7; compressor - 1,4.

3.17 Drum brakes are prohibited.

3.18 Air bags and cruise control system must be removed.

#### **4. Classes and subgroups**

Classes:

- A1600 (up to 1600 cm<sup>3</sup>)
- Super Production (FIA Super production, BaTCC Super Production and Super B2000)
- A2000 (up to 2000 cm<sup>3</sup>)
- A3000 (up to 3000 cm<sup>3</sup>)
- A3000+ (over 3000 cm<sup>3</sup>)
- GT (GT3 and GT2 cars with present or expired FIA homologation, all cars with engines with more then 6 cylinders. For GT2 cars individual restrictions will be set.
- X1 - Experimental cars
- D – diesel cars

Attention: at a request other classes could also be added. Cars adapted for rally or races of other type will be amalgamated to classes under the directions of the chief scrutineer.

**4.1 "A" class – includes cars which satisfy the requirements of: Super2000, Diesel 2000, BaTCC Super 1600, DMSB 24h Special or Omnitel 1000 km race special technical regulations for race cars.**

##### Minimum weights for "A" class:

Over 1200 cm <sup>3</sup> up to 1300 cm <sup>3</sup>	710 kg
Over 1300 cm <sup>3</sup> up to 1400 cm <sup>3</sup>	740 kg
Over 1400 cm <sup>3</sup> up to 1600 cm <sup>3</sup>	800 kg
Over 1600 cm <sup>3</sup> up to 1800 cm <sup>3</sup>	900 kg
Over 1800 cm <sup>3</sup> up to 2000 cm <sup>3</sup>	950 kg
Over 2000 cm <sup>3</sup> up to 2500 cm <sup>3</sup>	1000 kg
Over 2500 cm <sup>3</sup> up to 3000 cm <sup>3</sup>	1050 kg
Over 3000 cm <sup>3</sup> up to 3500 cm <sup>3</sup>	1130 kg
Over 3500 cm <sup>3</sup> up to 4000 cm <sup>3</sup>	1200 kg
Over 4000 cm <sup>3</sup>	1250 kg

##### **4.1.1 1000 km race special technical regulations for other (not FIA S2000, Diesel 2000, BaTCC Super 1600, DMSB 24h Special, GT) race cars**

4.1.2 Any torn and worn or damaged in the accident part may be replaced only by original identical part.

4.1.3 minimum weights same as A class weights.

4.1.4 Engine

It is permitted to replace the standart engine block (crankcase and cylinder) as well as the cylinder head by another standart engine block and/or standart cylinder head of the same manufacturer. Engine block and cylinder block may be modified through the removal of material but the original shape and the original marking must remain.

The engine must remain inside the original engine compartment and the crankshaft axle (longitudinal or transverse) must be retained.

Other engine components such as connecting rods, piston valves, fuel mixture, auxiliary assemblies, iduction systems, radiators etc. are free.

Intake and exhaust manifold are free.

A supercharging is permitted provided that it was used with standart engine.

In case of turbo the coefficient will be - 1,7.

For cars with mechanical superchargers (compressors) the factor for the cylinder capacity will be - 1,4.

The supercharging system must remain original. This means that a naturally aspirated engine must remain a naturally aspirated engine, an exhaust-gas turbocharger engine must remain an exhaust-gas turbocharger engine. To replace it by compressor or other supercharger is forbidden.

The manufacturer for mechanical supercharger is free (a Garrett supercharger can for example be replaced by a KKK supercharger and vice versa).

Intercooler is free.

The lubrication system is free.

The fuel and air feed as well as auxiliary devices and radiators are free.

#### 4.1.5 Exhaust system

The exhaust system is free, but must satisfy these regulations.

The orifice(s) of the exhaust pipe must be at the rear of the car or at the car's side. The orifice of an exhaust pipe directed to the side must be located behind the centre of the wheelbase (nearly back wheels).

Any part of exhaust system can not protrude beyond the perimeter of the car's bodywork. The system must be situated less than 10 cm from this perimeter in relation to the external edge of the bodywork. The exhaust system must be a separate component (it can not be a part of bodywork or chassis) and be located outside the bodywork.

#### 4.1.6 Transmission and gear box

Four-wheel drive is only permitted as an original equipment in the model concerned. Clutch and all transmission elements (driveshafts, prop-shaft.) free, on condition that they remain in the original location (for example in front of or behind the engine, the driving axle, etc.).

Gearbox, differential are free provided that they remain located originally.

Pumps of gearbox, differential and radiators are free.

For cars originally equipped with a permanent four-wheel drive, one driving axle may be disconnected.

#### 4.1.7 Wheels and tyres:

The upper part of the complete wheel must be covered by the bodywork, when measured vertically over the wheel centre.

Wheel fixation systems are free.

The rim width, in relation to the cubic capacity of the car, can not exceed the following:

Up to 1400 cm <sup>3</sup>	8,5"
Over 1400 cm <sup>3</sup> up to 1600 cm <sup>3</sup>	9,0"
Over 1600 cm <sup>3</sup> up to 2000 cm <sup>3</sup>	10,0"
Over 2000 cm <sup>3</sup> up to 2500 cm <sup>3</sup>	10,5"
Over 2500 cm <sup>3</sup> up to 3000 cm <sup>3</sup>	11,5"
Over 3000 cm <sup>3</sup>	14,0"

The rim diameter is free.

Minimum height of the car:

No part of the car, except the rims and/or tyres, must touch the ground when 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 must be removed. It must be done without passengers. This test must be carried out on a relatively flat surface. The participant can remove the tyres from the rims before checking the height.

#### 4.1.8 Braking system

The braking system must be dual-circuit operated by the same pedal. The pedal must effect on the front and back wheels simultaneously.

Carbon fibre parts (brake pads not included) in the braking system are prohibited. The rest of the system is free.

A handbrake is recommended.

#### 4.1.9 Steering

Power steering may be disconnected and/or removed.

The steering wheel fixation may be replaced by another one.

#### 4.1.10 Suspension

The suspension parts are free. In the case of an oil-pneumatic suspension, lines and valves connected to the spheres are free.

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. The distance between a suspension attachment point and an anchorage point of the bar may not be more than 100 mm, unless the bar is a transversal strut homologated with the rollbar, or unless it is an upper bar attached to a MacPherson suspension or similar. In the latter case, the maximum distance between an anchorage point of the bar and the upper articulation point will be 150 mm. See appendix "J" 255.4 and 255.2.

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

Strengthening of the mounting points of suspension parts, by adjunction of material, is allowed.

Anti-roll bars are free.

The suspension mounting points may be modified, though, the position of the centre of the articulation must not be changed (See FIA appendix "J" 255-5).

#### 4.1.11 Cockpit

The passenger seats and rear seats must be removed.

All trims and soundproofing material may be removed from the doors.

Dashboard is free but it must not have any sharp edges.

Door trims at the driver's and codriver's sides must be present. This trim may be original or be made of a metal sheet with a thickness of minimum 0,5 mm or of another material (fireproof) with a minimum thickness of 2 mm (certificate must be presented). Doors-side trims must cover the door hinges, locks, winders and other mobile parts.

It is permitted to replace electric winders with manual ones.

Operation equipment and parts must carry out the serial function. Modifications for more comfortable use are authorized, for example lengthening of the handbrake handle.

The steering wheel is free.

It is permitted to place adapters between the steering wheel and the steering column. The anti-theft steering-lock device must be made inoperable. The vertical installation angle of the steering column may be modified in the area of the dashboard through the fixation of adapters.

The steering can be on either the right or left provided that it is a question of a simple inversion of the steered wheels, laid down and supplied by the manufacturer without any other mechanical modifications except those made necessary by the inversion.

Air pipes:

air pipes may only pass through the cockpit if these are intended for ventilation of the cockpit.

Additional accessories:

all those which have no influence on the car's behavior are allowed, for example equipment which improves the aesthetics or comfort of the car interior (lighting, radio etc.). In no case may these accessories increase the engine power or influence the steering, transmission, brakes, or road holding not even in an indirect fashion.

Also allowed:

1. Measuring instruments may be installed or removed. The speedometer may be removed.
2. The horn (may be changed or removed).
5. A handbrake fixation mechanism (it can be removed).
6. Additional compartments may be added to the glove compartment etc.
7. The rear of the dashboard may be removed.
8. The trimmings situated below the dashboard and which are not a part of it may be removed.

#### 4.1.12 Electrical system

The nominal voltage of the electrical system including that of the supply circuit of the ignition must be retained.

It is permitted to install additional relays and fuses. Lengthening or addition of electric cables is allowed. Electric cables and their sleeves are free.

Battery:

The producer and capacity - free. It must be possible every moment to start the engine with energy of the battery. Each battery must be securely fixed and covered 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 (see FIA appendix "J" 255.10 and 255.11).

For attaching these clamps, bolts with a diameter of at least 10 mm must be used, and under each bolt, a conterplate at least 3 mm thick and with a surface of at least 20 cm<sup>2</sup> beneath the metal of the bodywork.

The battery must be covered by a leak proof plastic box, attached independently of the battery. Its' location - 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 FIA appendix "J" 255.10).

Fuses:

The fuses in the electrical circuit and the fuse carriers are free.

Generator:

Free, but neither the position nor the driving system of the generator may be modified.

Voltage regulator: its' position may be changed but it may not be placed in the cockpit unless it was placed there originally.

Lighting:

All lighting and signaling devices must comply with the legal requirements of the country of the event or with the International Convention on Road Traffic.

The operating system of the headlights, as well as its energy source, may be modified provided that headlight includes frontal glass, the reflector and bulb. Maximum four headlights may be added, but their fixing reliability must be considered by the head steward. At least one headlight is obligatory. Lights, if necessary, may be fitted in the front part of the coachwork or in the radiator grille, but such openings as needed in this case must be completely filled by the headlights.

Identification lights may be arranged, but to locate them on the top of the car is prohibited (because there will be lighting mounted on SC and rescue cars' roofs). It is unauthorized to mount any twinkling, turning round (spinning) or otherwise moving identification lights.

Radio communication is authorized.

Video camera is authorized (fixation of it will be checked by technical commission in time of prescrutineering).

4.1.13 It is allowed to use aerodynamical devices but they must be with highest safety standarts. The scrutineers can not allow such devices if they found them unsafe and unstable.

The passenger side and rear doors, bonnet and boot cover can be made of composite materials.

It is allowed to change back and side windows in to safe polycarbonate windows (certificate must be presented ir requested by scrutineers). Such polycarbonate windows must be glued to the body and clinched by not more than 4 clinches (3mm diameter). Window raisers could be removed if it does not affect door structure stiffness. The driver's side window must be closed during the runs. In this context, must be other ways to ensure adequate ventilation of the driver compartment.

4.2 **Super Production class** – Cars complying with Baltic and Lithuanian championship Super Production regulations and FIA super production regulations. Max fuel tank – 120 L. Weight – according Super Production regulations. Weight is calculated with the driver and his full equipment.

4.3 **"D" class** - includes cars with alternative fuel - diesel. In some cases another alternative fuel may be used (the fuel must be authorized by organizer). Maximum fuel tank capacity -120 l.

Minimum weights for "C" class (calculated with no coefficients for turbo or compressor applied):

Up to 2000 cm <sup>3</sup>	950 kg
Over 2000 cm <sup>3</sup> up to 2500 cm <sup>3</sup>	1000 kg
Over 2500 cm <sup>3</sup> up to 3000 cm <sup>3</sup>	1100 kg
Over 3000 cm <sup>3</sup>	1200 kg

In case of multiple entry, the class could be devided in two classes: D2000 and D2000+

All other regulations – according regulations for A class.

4.4 **"X1" class** – experimental open or closed racing cars, built for the sole purpose of taking part in races on closed circuits. Organizer takes a right to use additional requirements for these cars, for example: reduce fuel tank capacity, air restrictors, additional weight. In all cases participant must give to organizer technical specifications of the car: power output, weight, body or frame construction scheme or images until 1 july 2010.

4.5 **GT class.** All GT3 and GT2 cars with valid or expired FIA homologation, all cars with engines with more then 6 cylinders. For GT2 cars individual restrictions will be set. Minimal weights:

Over 2000 cm <sup>3</sup> up to 2500 cm <sup>3</sup>	1000 kg
Over 2500 cm <sup>3</sup> up to 3000 cm <sup>3</sup>	1050 kg
Over 3000 cm <sup>3</sup> up to 3500 cm <sup>3</sup>	1150 kg
Over 3500 cm <sup>3</sup> up to 4000 cm <sup>3</sup>	1200 kg
Over 4000 cm <sup>3</sup>	1250 kg

All cars must comply with competing series specific regulations and/or homologation. If the car is not homologated and not competing in any special series, then Omnitel 1000 km race special technical regulations for other race cars will be mandatory.

## **5. Homologation**

Drivers are responsible for using only valid FIA homologated equipment (for international events) and other safety means. Recommended use of the HANS. It is planned that from 2011 HANS will be compulsory for X1, GT, A3000 and A3000 + classes.