

## **Mannergute Mõõduvõtt: 2017 Technical regulations**

### **1. GENERAL**

- 1.1. It is allowed to drive M1 or N1 category vehicle with enclosed.
- 1.2. In case of doubt, the suitability must be checked with the organizer at [info@mannergutemooduvott.ee](mailto:info@mannergutemooduvott.ee)
- 1.3. The power to weight ratio cannot exceed 75kw to 1000kg and the vehicle cannot weigh more than 1500kg.
- 1.4. Turbo- or superchargers and chemically charged vehicles are not allowed.
- 1.5. All technical changes that are not explicitly allowed are forbidden.
- 1.6. It is advised to discuss all technical changes, to pimp up the vehicle, with the organizer before carrying out the build.
- 1.7. Car specification is taken off the chassis number and information in the vehicle documents.
- 1.8. The organizer can make exceptions in rules in case of especially interesting vehicles or highly motivated valid argumentation.

### **2. MODIFICATIONS AND IMPROVEMENTS**

#### **2.1. Engine**

- 2.1.1. It is not allowed to replace the engine with one from another manufacturer.
- 2.1.2. The vehicles with engines that have pessimistically evaluated power numbers by the manufacturer or optimistically tuned by the owners shall be under high surveillance by the organizer, which can lead to measures that will reduce the speed of the vehicle or the driver.
- 2.1.3. Exhaust manifold must be original and meant to be used on the given model by the manufacturer. It is allowed to use non-original exhaust after the manifold.
- 2.1.4. The vehicle noise level must be below 90db.
- 2.1.5. The exhaust must be in unbroken and without any leaks.
- 2.1.6. The intake system must be original and meant to be used on the given model by the manufacturer.
- 2.1.7. It is allowed to use an aftermarket intake air filter element and housing.

#### **2.2. Suspension**

- 2.2.1. Suspension is not counted as safety equipment, and shiny expensive sports details catch the eye of the organizer and can be considered as parts that raise the value of the vehicle.
- 2.2.2. The suspension type must remain original. It is not allowed to use adjustable and coilover type suspension, except when the organizer explicitly allows it.
- 2.2.3. Stabilizers, control arms and other suspension components must be original and meant to be used on the given model by the manufacturer.
- 2.2.4. It is allowed to modify springs by cutting.
- 2.2.5. All suspension and drivetrain components must be technically in order and without any play.

#### **2.3. Wheels and tires**

- 2.3.1. Only street legal tires with e-dot marking are allowed.
- 2.3.2. So-called "Track day" tires are not allowed.
- 2.3.3. Tread wear rating must be above 160. In case of doubt, consult the organizer for confirmation.

- 2.3.4. The tread depth must remain at minimum 1,6mm on at least 75% of the wear surface throughout the test.
- 2.3.5. Tires must not have any mechanical damages.
- 2.3.6. It is advised to use large alloy wheels for improving cooling and aesthetical beauty of the vehicle.

#### **2.4. Body and electrical system**

- 2.4.1. The bearing structure of the body and chassis cannot be modified.
- 2.4.2. Lightening and changes that are not explicitly allowed are forbidden.
- 2.4.3. The door and console upholstery that is surrounding the driver must be original and meant to be used on the given model by the manufacturer.
- 2.4.4. It is allowed to remove ceiling and floor upholstery, passenger seats, door cards (except drivers), parcel shelf, luggage compartment upholstery, if it is not explicitly prohibited by the organizer.
- 2.4.5. It is allowed modify the dashboard for adding switches and additional gauges.
- 2.4.6. As a result of any modifications, emerged possibly dangerous sharp corners and edges must be eliminated.
- 2.4.7. All glasses must be with E-, e- or DOT certificate, meant to be used on the given model by the manufacturer and according to Estonian road traffic law.
- 2.4.8. Security films can be used on the glasses, but it is not allowed to use tinted or visibility impairing foils on the rear window.
- 2.4.9. Aftermarket bonnet latches can be used if they are installed keeping in mind all the safety rules.
- 2.4.10. The vehicle must look aesthetically attractive. It should not have any visible accident or amortization marks that could interfere driving the vehicle or general safety of the event.
- 2.4.11. It is not allowed to make any changes in the electrical system of the car if it affects the performance of the car or safety.
- 2.4.12. All electrical connections must be well connected and isolated to avoid potential short circuits.
- 2.4.13. The position of the battery must remain original.
- 2.4.14. The battery must be separated liquid-proof from the cockpit.
- 2.4.15. It is allowed to use underneath protection, additional lights and other decorative elements that should not become dangerous.
- 2.4.16. The speedometer must be in a working order and accurate to keep the 50km/h and 30km/h speed limits.

#### **2.5. Brakes**

- 2.5.1. The braking system (all components that influence the braking action, from the pedal to brake discs) must be original and meant to be used on the given model by the manufacturer and in an excellent working order.
- 2.5.2. If the vehicle has originally an ABS system, this system can be switched off.
- 2.5.3. The brake hoses and lines cannot be cracked or rusty.
- 2.5.4. Brake discs, brake pads and hydraulic oil must be recently replaced and the braking system recently and thoroughly maintained.
- 2.5.5. The handbrake must be in working order.
- 2.5.6. It is allowed to add elements that improve brakes cooling.
- 2.5.7. It is allowed to use performance and aftermarket brake parts that are meant for the vehicle by the manufacturer.

#### **2.6. Fuel system**

- 2.6.1. Fuel system(all components from the fuel tank cap to the cylinder head) must be original and meant to be used on the given model by the manufacturer.
- 2.6.2. It is only allowed to use fuel (petrol and diesel e.g 95E, 98E, D) that is possible to buy in retail on Estonian territory.

## **2.7. Steering**

- 2.7.1. The steering system must be original and meant to be used on the given model by the manufacturer.
- 2.7.2. Removing the steering lock is strongly recommended and other mechanical anti-theft devices is mandatory
- 2.7.3. It is allowed to replace the steering wheel with a smaller sports steering wheel.
- 2.7.4. If the vehicle is equipped with a steering lock, the ignition key must be attached to the dashboard in a way that it is only possible to take key away from the vehicle by using excessive force.

## **2.8. Other equipment**

- 2.8.1. Towing eye is mandatory in front and back.
- 2.8.2. If the towing hook breaks or is missing during towing, the towing device will be attached to the vehicle in the most simple and reasonable way. Organizer shall not guarantee but does all that reasonably possible not to damage the vehicle while towing.
- 2.8.3. Safety cage is allowed. All materials and installations must be carried out according to FIA International sporting code Appendix J article 253.
- 2.8.4. Bucket seats with fixed backrest position and safety harness is allowed only with existence of a safety cage.
- 2.8.5. Bucket seats and safety harness must be installed according to FIA International sporting code Appendix J article 253. The safety equipment must be with no signs of damage. Homologation can be expired.
- 2.8.6. All modifications that are not described in the technical regulations must be separately agreed with the organizer.

## **3. SAFETY REGULATIONS**

- 3.1. There must be an FM-radio and loudspeaker(s) or ear-plugs that can transmit information loudly and clearly at any time of the event from the Head Judge.
- 3.2. The organizer's decisions about the compliance and usage of safety equipment shall not be contested. Ignoring whatever safety rule will lead to immediate removal from the test until the fault has been eliminated.
- 3.3. There cannot be any loose objects in the vehicle.
- 3.4. The battery must be attached with original fastening or with metal bracket and two minimum 8mm bolts.
- 3.5. The plus terminal of the battery must be covered.
- 3.6. All doors of the vehicle must be openable from both inside and outside throughout the event.
- 3.7. The windows and sunroof must be closable. Driver's window must be closed during the test, except when using a safety net approved by FIA.
- 3.8. Bonnet opening mechanism must be original or replaced with aftermarket bonnet latches.
- 3.9. The drivers must wear a racing or moto-helmet.
- 3.10. The helmets must be shown to the technical inspection before the start of the event.
- 3.11. The helmet must have clearly readable, undamaged and understandable E-marking, DOT-marking or FIA Homologation (can be outdated).

- 3.12. The helmet must be clean, without cracks or tears and cannot be re-painted. Technical inspection has the right not to allow helmets that fully or partly does not meet these requirements.
- 3.13. Fire extinguisher in the vehicle is not mandatory. When there is an extinguisher in the car, it must be fastened to the car car body with minimum two 6mm bolts and a special metal bracket. The extinguisher must be fastened to the bracket with two metal straps.
- 3.14. Safety equipment must be attached to the vehicle with fasteners made for the purpose in a manner that excludes all possibilities equipment loosening during the test.
- 3.15. All safety equipment must be easily reachable.
- 3.16. Driving overalls must be made out of non-melting material with long sleeves and legs. Shoes must be closed and using gloves is highly advised. Overalls that are designed for working can be used.
- 3.17. Seats and safety belts must be original and meant to be used on the given model by the manufacturer.
- 3.18. It is not allowed to use seats that do not have headrests or manufacturer has not intended headrests. Seat fastening must be original and meant to be used on the given model by the manufacturer.
- 3.19. It is allowed to use helmets that are according to one of the following standards: - Snell Foundation 1995-SA, 2000-SA ja 2005-SA - SFI Foundation, SFI spec 31.1A ; 31.1 ; 31.2A; 31.2 - British Standard Institution BS-6658-85 type A/FR, type A ;FIA 8860-2004;FIA 8860-2010; Snell SA 2010; Snell SAH 2010;Snell M 2000;Snell M 2005;Snell M 2010

#### 4. OTHER TERMS

- 4.1. All vehicles must have a three-digit test vehicle/team number that is chosen during the online registration.
- 4.2. Numbers must be placed on both sides of the car in a way that it is readable at a minimum distance of 30m and clearly identifiable from the background. The minimum height of the number on the side of the car is 30cm. (See drawing below)
- 4.3. Additional number must be placed in the passenger side, top corner of the windshield and top center of the rear window. The minimum height of the number is 20cm.
- 4.4. Each driver shall pick a marking letter (A; B; C; D; E; F) during registration. This letter must be placed on the right side of the vehicle and change the letter according to the person who is currently driving. The minimal size of the letter is A5. (See drawing below)

