

Classification "4X4 EURO CHAMPIONSHIP"

Technical regulations for cars prepared for off-road (Group TR3) 2015-2016 year

In case of cars inadequacy for group TR3 by one or more parameters, which do not influences cars passability, security of crew and persons around, concerned person should submit application in written form to technical commission in order to be authorized to start in group TR3. All organizers of the competition must verify submitted authorization.

Category sport

1. Definition

Off-road car with wheel formula 4x4, free construction and original car's, corresponding technical demands for given group. Minimal produced car number is not limited.

2. Reinforcement

Every car part reinforcement is allowed with condition that reinforcement repeats part shape.

3. Number of seats

Car must have cockpit for at least two persons.

4. Car construction

If in one or other paragraph of these technical regulations there are list of allowed rebuilds, changes or upgrades, then all other changes, not mentioned in the list, are question less **forbidden**. If it is given list of forbids or limits, than any other technical changes not mentioned are question less **allowed**.

Cars must correspond safety demands.

All cars must be registered in traffic police institutions and allowed to participate in road traffic (must have ticket or mark that car has passed roadworthiness test).

5. Car weight

Car weight must not be less than 1200 kg and not more than 3500 kg. Decision about car weight check is on technical commission delegate.

Car weight must be checked "as car is" and the result compared with limits.

All tanks consisting fluids (oil, cooling, brake, heating and others) must be filled to normal level mentioned by producer. Exceptions: windscreen and light cleaner fluid tanks, brake cooling tanks, fuel tank, and water spray system tanks, those tanks must be empty during weight control.

6. Technical demands.

6.1. Wheel formula.

It is allowed to use units that realise special wheel formula 4x4, it is:

- Total wheel number touching ground must be four;
- Total number of driving wheels must be four.

Usage of any other wheel formula is strongly forbidden.

6.2. Engine

Allowed to adjust any engine.

Radiator must be separated from cockpit with fluid impenetrable screens and briers or moved out of it's bounds.

Allowed to use any exhaust system, providing sound level not higher than talked out in country laws, where competition is taking place.

Changes in exhaust system must not influence bodywork changes.

Maximum sound level is 90 Db. Forbidden to take air from cockpit.

6.3. Transmission

No limits in transmission.

Forbidden to adjust any rotating transmission parts in cockpit.

6.4. Suspension

Allowed to use any suspension types. Forbidden to adjust moving suspension parts into cockpit.

6.4.1. Springs

Spiral spring, damper, torsion, usage and number are not limited.

6.4.2. Axles

Allowed to adjust axles build on serial part basis.

Maximal clearance, measured from lower point of axle central speed-reducer, to flat horizontal ground where the car is standing on, must be not more than 500 mm. During clearance measuring on car must be adjusted competition tyres(see paragraph 6.4.) air pressure in tyres not less than 1,0 atm. If tyres changed this parameter must be remeasured.

Clearance is measured on both rear and front axle. Highest measure is taken in account.

For cars with independent suspension in front, clearance is measured on rear axle.

Allowed to use any differential gear with blocking system. Allowed to change any axle detail construction and parameters.

6.4.3. Suspension lift

Pads used for vertical change of suspension fixing points to frame must be firmly fixed (weld or bolts)

6.4.4. Wheel basis

No limits.

6.5. Wheels and tyres

Allowed to use pneumatic tyres, inter alia tyres from farm machines and special cars or route technique units, which diameter are not less than 815 mm and not bigger than 1043 mm – including, measured when pressure in tyre is 1,0 atm. Tyre diameter must be harmonized with car clearance (see 6.4.2.) Protector width is not limited.

Diameter is measured when tyre pressure is 1,0 atm., in straight diametric line traversing centre point of tyre, and is not vertical anent ground (during measurement tyre squeeze should not be taken in account). Measuring must be performed on every tyre (including spare wheels and other), going to use in competition.

Tyre bolt fastening could be changed with threaded studs, screw-nuts if number of fastening points and component thread diameter stays as was.

Forbidden to install any contra slip out equipment (e.g. chains, special framing, and other).

6.6. Two circuit **brake system** is allowed. The layout of brake lines may be changed. Additional protection of brake lines is allowed. All driven wheels must be equipped with brakes. Brake system must be in a sound condition.

6.7. Bodywork and framework

Allowed to change original stockcar bodywork, as well as remove or change any part shape. Allowed to interchange suspended body parts to analogical, made from lighter material, with condition that safety parameters are as they were. Allowed to adjust any reinforcing parts in framework. Allowed to reinforce framework. Forbidden to adjust joints in bodywork.

6.7.1. Exterior. No limits.

Roof:

Cars having soft roof coverage, must have metallic roof (protection) over crew, and in mean time width of firm part must be not less than upper part of every screen width and length not less than from upper part of every screen to back edge of crew seat or to main safety circle. Minimal metal thickness: 1mm – steel, 2mm – aluminium.

Allowed to use plastic roof, factory made.

Body protection:

Allowed to use additional protecting elements under body for protection.

Bumper and additional protecting equipment:

Bumper usage must not conflict countries, where competition is taking place, laws.

Windows:

Obligatory front screen presence.

Wings and tyre arch's. Arch extenders are obligatory.

Car must be equipped with wings and splashers behind all wheels. Allowed to install tyre arch extenders, installation must be safe. Wheels (tyres and discs) must be covered by arch or extender in all width, if watching from upper side.

Doors:

Front door must be firm and it should open/close and has to be equipped with lock device which excludes door self opening. It is allowed to add firmly fixed parts in door aperture in stead of doors, then distance from seat level to upper part of fixed part must be not less than 30 cm.

Additional front engine cover lock:

Front engine cover must have additional lock mechanism, preventing from self opening during car movement.

6.7.2. Passengers convenience

Forbidden to adjust rotating engine, transmission, suspension, steering trapezium parts into cockpit.

6.7.3. Seats

Allowed to adjust any car seats. Seats must be firmly fixed.

6.7.4. Spare wheel

Spare wheels can be moved into cockpit, if they are safely fixed.

6.7.5. Towing eyes

Car must be equipped with towing eyes: Car must have at least one towing-eye in front and one in back side of car, and towing-eyes must be demonstratively marked.

This towing-eye must be very firmly fixed to cars body if there is no frame, otherwise to frame. It will be clearly visible and painted in yellow, red or orange. Allowed to adjust original "hook" towing eye.

6.8. Electrical system

All wires and wire joints must be insulated. **Battery:**

Type, capacity and cables for battery connections are not limited. Allowed to install not more than three batteries. Batteries must be safely fixed. In case the battery is located in cockpit it must be in hermetic partition and as obligatory is ventilation system ensuring ventilation system which can conduct steam out of battery partition, and it must lead to outside of car.

Lighting system:

Lighting elements are not limited, but must correspond country laws, the competition is taking place. Present lighting elements must be in working order in moment of technical commission.

Main electrical equipment switch:

Car must be equipped with main electrical equipments switch (battery, generator, lighting elements, alarm system, ignition, starter and other). It must work with out sparking and must be in reachable area for pilot and copilot. Turning off all electrical equipment must be followed by engine stop apart from it's type (diesel or petrol).

6.9. Fuel circuit.

Allowed to use original fuel tanks and to change them.

Fuel tank

Fuel tanks must be separated from cockpit with flame-proof material. Forbidden to lead out fuel tank ventilation into cockpit.

Filling neck and cap must not be put out of car body. As fuel tank cap can be used every lock system which can provide accidental cap opening in case of hit or incomplete lock.

Fuel pipes:

Allowed to interchange, replace, move and reinforce fuel pipes, taking in account that in cockpit it must be in entire metallic piece. Any fuel pipe joints in cockpit are forbidden except pairs metal-metal, metal – homologued fuel pipe.

6.10 Jack

Hi-jacks, an jacking points are not limited.

Forbidden use of stationary adjusted, jacking systems of any type (mechanical, pneumatic, hydraulic and other).

Number of jacks is not limited.

6.11. Winch and additional equipment

Car must be equipped with at least one winch (one not manual winch), traction parameters must exceed car weight at least 1,4 times. Allowed to use winch of any type.

Allowed wheel spools.

To ensure car safety it must be equipped with rope dampener.

To avoid tree damaging during winch usage, car must be equipped with flat, corrosion-resistant sling (minimal wide 50 mm).

Winch rope, rope extenders, sling, fixing hooks, rope loop, blocks for usage with winch must stand load at least two times more than maximal winch power. Winch rope, rope extenders, sling, fixing hooks, rope loop, blocks, dampener must be safely fixed during car movement.

6.12.Safety cage

It is allowed to adjust interior and exterior safety cage. Cars must be equipped with main safety rollbar. Construction of main safety rollbar can be seen in attachment No. 2, or is factory produced. All parameters and ways of making main safety rollbar must correspond attachment No. 2 or be homologued.

Cars having original metallic roof must have steel safety frame over crew heads with at least four fixing points to car frame.

Cars not having metallic roof must have steel safety cage, consisting main rollbar and front rollbar and at least 6 fixing points to frame.

Recommended to use FIA certificated cages.

6.13.Safety belts

Car must have at least three point car safety belts, factory produced, for all crew members. Third or side seat must be equipped with at least four point seat belt factory produced.

6.14.Exting Windows:

Obligatory front screen presence.

Wings and tyre arch's. Arch extenders are obligatory.

Car must be equipped with wings and splashers behind all wheels. Allowed to install tyre arch extenders, installation must be safe. Wheels (tyres and discs) must be covered by arch or extender in all width, if watching from upper side.

6.15. Extinguisher

In car must be extinguisher, factory made, it must contain not less than 4 kg (2+2) extinguish structure (Freon-12, bromethylen, carbonic acid, extinguishing powder), concentrated in one or two bottles.

Usage of foam extinguisher is forbidden.

Extinguisher must be easily reachable for pilot and co-pilot. It must be safely fixed, and must ensure quick and easy removal without using any tool. On bottle must be shown: net weight, extinguisher weight, and bottle weight.

7.Additional equipment

Additional equipment must be as given in attachment No.1.

Obligatory additional devices

1. First aid kit

Car has to be fitted with special first aid kit. All kit components must be with legal period of use and with no visible damage of wrapping. First aid kit must be in easy reachable place, and have waterproof package. In first aid kit must be:

2. Communications

To ensure safety, and temporary medical assistance, it is **recommended** to equip car with radio station MW-diapason (27 MHz). As intermedia can be used any radio station using other diapason, radio, cellular and satellite phones.