Part III Technical Rules - Prototype

Version 1 Jan, 2025. (All elder regulations are not valid). Only the version published on the www.eurotrial.eu website is valid.
These are technical rules and regulations for Eurotrial Championship for 2024 to 2028, and they are closed for this period of time.
In case of severe security risks, apparent errors in the regulation or unsportsmanship caused by a loophole of the rules, changes will be made by Eurotrial commitee.
Changes in the regulation is done in red color and underlined, old text that is not valid is with blue text with line through.

Those rules apply together with "Part III Technical rules – common".

3.8 TRIAL GROUP P "PROTOTYPE"

3.8.1 General information

Only vehicles with four-wheel drive, two axles and four air pressured tires are entitled to take part. A vehicle, whose construction seems to have certain dangers, can be excluded from the participation. Only diesel, ordinary petrol or leak proof batteries is allowed as fuel. Beyond this the following regulations apply:

3.8.2 Frame/body

3.8.2.1 Frame/chassie/wheelbase

Optional.

3.8.2.2 Body

The body must be of impeccable construction and must not present provisory elements. It may not have sharp edges and must offer a sufficient protection to the passengers. All rotary parts of the motor and propulsion shaft must be sufficiently protected. A protective wall must be present to protect driver and co-driver from engine, oil cooler, radiator and to prevent fire or fluid from spreading into the passenger area.

3.8.2.3 Dimension / Vehicle outline

Optional.

3.8.2.4 Window/window frame/mirror

The windscreen and the windscreen frame including its fastening parts may be removed.
In case a windscreen is used it must consist of laminated glass, Lexan/Polycarbonat or Makralon. Plexiglas is forbidden. Windscreens should not have damages, for safety reasons. Should damage occur the windscreen must be approved by technical control.
Mirrors of all kinds are allowed.

3.8.2.5 Body lift

Bodylift is permitted. This must be rigid.

3.8.2.6 Bumper
Optional.

3.8.2.7 Floor / firewall / transmissiontunnel
A floor plate made out of minimum 2mm thick aluminum or 1 mm thick steel has to be installed in case the original floor plate is not existing. Changes of the firewall and the transmission tunnel are allowed. Floor must be solid from front firewall to the rear firewall behind seats/inside drivers cabin to prevent fire or fluid from spreading into the passenger area.

3.8.2.8 Passenger area
A protective wall must be present to protect driver and co-driver from engine, oil cooler, radiator and to prevent fire or fluid from spreading into the passenger area.

3.8.2.9 Seats
The number of seats is optional. Seat of racing type with the possibility for 4-point harness must be present. The seats for the driver/codriver must be well secured, and if the seat is adjustable it should have a locking device at both sides. Seats must have head restraints that covers at least 2/3 height of the helmet.

3.8.2.10 Harness
Harness must at least be of type 4-point belts or so-called suspender belts (y-belts) or more, and they must be well attached to the body and/or rollcage according to harness manufacturer's specifications. Seat belts that are bolted, must be attached using 7/16 UNF or minimum M10 x1.25 fine thread. The harness must be in good condition and may not be modified.
Seat belt mounting points must be independent to the seat mounting points. The fastening of the belt must be in good condition, and must not be damaged by rust. If new mounting points are created in the body, a steel reinforcement plate with a surface area of at least 40 cm2 and a thickness of at least 3 mm must be used. The passengers must be buckled at all time in the section during driving or rescue. The belt system used is to be put on according to its regulation and may not be manipulated. Vehicles with active airbag or belt restrain systems must be marked at both doors with the “Airbag”-symbol. It´s allowed to remove the airbags.

3.8.2.11 Rollcage
A sixpoint rollcage is mandatory. The rollcage must consist of a Basic structure according to 3.2.7.4, doorbar 3.2.7.5, backstays, diagonal member 3.2.7.6 and roof reinforcement 3.2.7.7. There must be a space of at least five cm from inside the tubes in the rollcage to the drivers/codrivers shoulder arm in a normal position. If not, the car must be fitted with side nets to prevent injury to the driver/co-driver. External rollcage is allowed. See 3.2.7 for more info.

3.8.2.12 Protective netting /~~Armstraps~~/Neck brace
Protection **window** nets ~~or armstraps~~ must be used. Net must cover the door/window area so the arm/hand cannot come outside the car. **Neck braces for driver and codriver recommended.**
~~This also applies to armstraps. If arm straps are used they must open together with the harness.~~

3.8.2.13 Body attachment
Hardtop, tarpaulin with linkages inclusive all locked mounting plates, tailgate, rear seats, spare wheel, spare wheel handle, mirror and mirror handle, side and back windows, side turn signals, door handles and doors may be removed. If doors are present, interior door panel must be present. Material free, however not paper, cardboard, fabric or similar. Doors/netdoors must be able to open

from the outside, or have a marking on the outside that shows where the opening is on the inside of the door.

3.8.2.14 Fluid tubes

A protection of the fluid tubes for the fuel -, oil-, and brake hoses outside of the body must be provided against damages (stones, corrosion, mechanical breaks etc..)
Inside the body the tubes must be protected from any fire risk and/or potential damage by rigid metal shield. Fuel/coolant-tube/pipe/hose going through the drivers cabin must be "seamless" (no connections/joints inside drivers cabin) to prevent fluid from spreading into the passenger area.
If the series arrangement is maintained, no additional protection is necessary.

3.8.2.15 Towing eye/hook

There must be either one towing eye or hook in the front and in the back with an inside diameter of at least 50 mm. They must be firmly embodied, easily accessible and have to be painted red, yellow or orange, so that the body of the vehicle contrast with the towing eye/hook.

3.8.2.16 Undershield

Undershield is optional.

3.8.3 Suspension

3.8.3.1 Spring

Optional. The vehicles must be fitted with spring axles. A rigid connection with the chassis is forbidden.

3.8.3.2 Spring pendants

Longer spring pendants are permitted.

3.8.3.3 Shock absorber

Optional.
Shock absorbers with external reservoir and/or filling valves for gas or oil, must have a rigid protection of connections at shock absorber, valves, hoses and external reservoirs to prevent oil or gas spurting on to driver, codriver or officials in case of damage by a rollover. Cover by roll cage or body is sufficient. Protection sock/sleeve for the hydraulic line(s) is recommended.

3.8.3.4 Bump stop

Optional.

3.8.3.5 Level control

Optional.

3.8.3.6 Torsion stick / Stabilizer bar

Optional.

3.8.4 Steering

3.8.4.1 Steering

Quick release / snap off steering wheel are allowed.

Frame-steering is not allowed, otherwise free. Only the driver is allowed to steer the vehicle in a section.

3.8.5 Brake

3.8.5.1 Brake

The brake assembly is optional, but there must be at least one brake at each wheel.
The braking force distribution for parking brakes or operating brakes at axles must be equal.
Brake tubes must be well attached. Brake tubes must be well attached. **Connections between brake pipe and brake hose, the brake hose must be attached solidly to the body/frame/wheel suspension using a welded bracket and brake hose clip, brake hose holding clip, threads and nut, banjo or directly to adistribution block. The bracket must be original, or at least 2 mm thick. See 3.2.5 for pictures.** ~~Brake tubing to brake hose transition points must be secured with rigid metal fasteners, of the type clip or nut.~~ Plastic stripes are not allowed.
Single wheel brakes are allowed.

3.8.5.2 Parking brake/emergency brake

A well functional parking brake must be present, operating on the brakes of one and the same axle, or the driveshaft to one axle. The control system of the parking brake can be operated electric, hydraulically or mechanically, and it must be mechanically independent of the main system.
The control system of the parking brake must be possible to engage with one hand or one foot, and it must automatically remain locked when engaged.
The vehicle must also be fitted with an emergency brake system. The emergency brake system can be shared with the parking brake, or be a total separate system, and it must be able to slow down the vehicle in case of failure of regular brakes. If the vehicle is equiped with a inline cutting-brake system of the "American" type, where each wheel is able to brake individually without using the foot brake pedal and it´s associated brake master cylinder, the brake system is approved as emergency brake system despite that brake lines, hoses and calipers are shared with the main brake system. See 3.2.5 for test procedure.

3.8.5.3 Steering brake

Optional. Only the driver is allowed to operate the steering brakes.

3.8.6 Wheels

3.8.6.1 Tire

Rubber tires filled with air, otherwise optional. The maximum height of tires is 1250mm. Spikes, chains and dual tires are not permitted.

3.8.6.2 Rim

Optional. Track widening/wheel spacers are allowed.
All kinds of bead lock system (internal and external) is allowed.

3.8.6.3 Wings

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3.8.7 Engine

3.8.7.1 Engine

Optional. Only one engine is allowed.
NOX-injection is not allowed.

3.8.7.2 Mixture preparation

If there is a defect with the gas control it must be ensured that the engine goes on idling (e.g.: by a spring at throttle valve shaft).

3.8.7.3 Cooling

Optional.
Radiator must not be placed in the passenger area. If the radiator is placed behind the passenger area, it must be covered with protective walls to prevent hot water from reaching driver/codriver at any angle. Even if the car has rolled over. The radiator, waterhoses and waterpipes should be securely fastened, and if water pipes and hoses go through the passenger area, they must be well protected to prevent the driver and codriver from scalding or burning. All tubes under the vehicle containing hot fluid (above 50° C) must be well protected, or painted bright red to warn the marshalls from scalding or burning in case of a roll-over.

3.8.7.4 Fueltank / fuelpipe

The fuel tank is optional. Fuel tank of racing type is recommended. It must be firmly joined in a sufficiently protected position and installed to the vehicle. It must not be in the passenger compartment. The fuel tank must be separated from the passenger compartment by a fireproof guard. The fuel tank has to be leak proof in any position of the car or the fuel tank.
If non serial tank is used there must be an anti-return breather valve fitted.

3.8.7.5 Exhaust

Optional. Exhaust pipes that may be touched from outside the vehicle must be covered with thermal protection. Exhaust pipes may not exceed laterally over the body. The rear of the exhaust system must be designed so that it´s possible to make a control of vehicle noise without problem. Noise limitation: The volume of the exhaust system may reach max. 98+2 decibel (DMSB near field measuring method)

3.8.8 Drivetrain

3.8.8.1 Gearbox

Optional, but no “Hydrostat engines”.
Vehicles with automatic gearboxes must be secured so that the engine only can be started in “Neutral” and/or “Park”.

3.8.8.2 Axle/axle ratio

Optional.

3.8.8.3 Diff-lock

Optional.

3.8.8.4 Disconnect of axle / drive system
Optional.

3.8.9 Electric
3.8.9.1 Battery
Optional. Electrical cables should be well protected.
The positive battery terminal has to be covered to prevent contact to other metal parts.

3.8.9.2 Main circuit breaker
A main circuit breaker is mandatory. The main circuit breaker must cut all electrical circuits, battery, alternator or dynamo, lights, ignition, electrical controls, etc. and must also stop the engine.
It is allowed to not break "memory" power supply to the engine control unit, gearbox control unit and similar electronic units in the car. The memory power supply line must be protected by a fuse mounted near the positive pole of the battery.
The main circuit breaker must be installed in front of the driver so that it is reachable from the inside and outside of the car, it must be clearly marked with a triangle to show the on/off position, a second breaker can be installed to achieve this. See 3.2.6 for picture.
Diesel engines which do not have an electrical "turn off"-solenoid must have a "stop the engine"-wire installed along with the main circuit breaker.

3.8.9.3 Lights
The choice of tail lights and head lights is optional.

3.8.9.4 Electronic support
It is not allowed to use electronic support like radios, cameras and sensors.