





# NORTEX4/ULTRA4 TROPHY 2024 TECHNICAL REGULATIONS







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# 1. INTRODUCTION/SUMMARY/DOCUMENTARY CONVENTIONS

- **1.1.** These Regulations contain the rules, regulations, specifications and guidelines governing conduct and participation in the **NORTEX4 CHALLENGE / GLADIUS/ KING OF PORTUGAL** events and their associated qualifying races.
- **1.2.** Any modification not provided for in the regulations is prohibited. Any vehicle may be rejected and, consequently, will not be allowed to participate.
- **1.3.** All cases not provided for in these Technical Regulations will be submitted to the College of Sport Commissioners (CCD), in accordance with the provisions of the International Sports Code (CDI).
- **1.4.** To take part in the **NORTEX4 CHALLENGE / GLADIUS/ KING OF PORTUGAL** all vehicles must comply with these Technical Regulations.
- **1.5.** Specifications and standards for equipment set out in these Regulations, especially safety standards, shall be considered as minimum requirements. The rules, general or particular, specifications or standards set out in this document shall not restrict teams or participants from employing greater safety mechanisms or adhering to stricter safety standards than the minimum required, provided that this does not cause a conflict with other standards published in these Regulations.
- **1.6.** Although these Regulations are designed by nature as a guideline, no instruction, no matter how comprehensive, can be applied in every conceivable circumstance. Therefore, nothing in these Regulations is intended to replace the requirement for all participants, at all times, to exercise judgment based on common sense and embody a high level of sportsmanship, nor is it intended to replace the requirement for participants to be responsible for their own safety and behavior.
- **1.7.** The interpretation of the following words/expressions is provided to clearly define their meanings in the context of this regulation:
- **1.7.1.** The expression "must" is used to indicate that, in accordance with or in application of a rule or procedure, it is mandatory.
- **1.7.2.** The word "**Shall**" is used to indicate that, in accordance with or in application of a rule orprocedure, it is preferential or **recommended**, but not mandatory.
- **1.7.3.** Special attention has been paid to clarifying the vocabulary used in these regulations. The terms, acronyms and abbreviations used in this regulation are defined in Annex A.

## 2. PRECEDENTS

- **2.1.** In the event of a disagreement within the scope of these Regulations, the co-organizer of the **NORTEX4CHALLENGE/ GLADIUS/ KING OF PORTUGAL** should be contacted for clarification before the start of the race.
- 2.2. In the event of a major discrepancy, or the need for clarification after the start of the race, the coorganizer of the NORTEX4 CHALLENGE / GLADIUS / KING OF PORTUGAL, Associação A Caminho da Aventura / Clube Nortex4, will use the CCD after the race to determine the appropriate response. Such response must include, but is not limited to: making a decision, issuing a clarification, disciplinary action, or some other action deemed necessary by the CCD.







- **2.3.** In the event of a conflict between the documents mentioned herein and the content of these Regulations, the latter must prevail.
- **2.4.** In the event of any inconsistency between the content of these Regulations (including any documents referred to herein) and any applicable law and/or regulation of the Portuguese Republic, the latter must prevail.
- **2.5.** In the event of a conflict between the content of these Regulations and the standards or specifications of any outside body sanctioning the co-promoted event, the stricter standard or specification must prevail.

#### 3. TECHNICAL RULES AND REGULATIONS

- **3.1.** All vehicles must comply with:
- **3.1.1.** They must be in good repair and working order;
- **3.1.2.** All rules must be respected and safety equipment must remain serviceable throughout the event and, if damaged during the event, must be repaired or replaced before the vehicle can continue on the event;
- **3.1.3.** Complementary technical checks may be requested by the CCD at any time during the event, for both vehicles and team members;
- **3.1.4.** The installation of film cameras must comply with the provisions of the Technical Bulletin "Camcorders" on the FPAK website.

#### 4. TECHNICAL INSPECTION AND CLOSED PARK

- **4.1.** It is the responsibility of the Driver/Competitor to ensure that their vehicle complies with all **NORTEX4 CHALLENGE / GLADIUS/ KING OF PORTUGAL** regulations, technical standards and specifications.
- **4.2.** The Rider/Competitor is responsible for providing the e Chief Technical Commissioner with documentation and records relating to compliance with any and all rules specified herein.
- **4.3.** The Organizer reserves the right to limit the number of people allowed in any area or place where inspections are carried out or where vehicles are parked.
- **4.4.** The organizers reserve the right to bar access to and/or close any participating vehicle.
- **4.5.** The Organization is not responsible for vehicles in closed parking. However, it does intend to make reasonable efforts to ensure their safety.
- **4.6.** The Directors, the Race Director and/or the Chief Technical Commissioner may put any vehicle or part of a vehicle in a closed park, provided that they are authorized to do so by the CCD, after submitting report on the claim.
- **4.7.** Any vehicle may be subject to closed parking after the race and to a second, more thorough technical inspection, provided the CCD authorizes it after presenting a report on the situation in question.
- **4.8.** All vehicles are subject to Closed Parking.
- **4.9.** No vehicle may be removed from an inspection area or closed park without the permission of the Race Director or Chief Technical Commissioner and CCD. Any vehicle removed without proper permission will subject the participant to possible disqualification. Any vehicle not







directed directly to the inspection or closed park when requested by the Race Director (DP) or Chief Technical Commissioner will subject the participant to possible disqualification, following a decision by the CCD.

- **4.10.** The Chief Technical Commissioner may retain any illegal parts or devices found on any vehicle, and mustissue a report to the CCD on the fact of the retention of such parts. Any part or device retained by the Chief Technical Comissioner cannot be returned until otherwise decided by the CCD, nor will there be any compensation made by the Organizer of the **NORTEX4 CHALLENGE / GLADIUS / KING OF PORTUGAL**.
- **4.11.** The failure of participants to present themselves for registration and technical inspection, during the hours announced or listed on the event information sheets, may result in the following penalties, at the discretion of the **NORTEX4 CHALLENGE / GLADIUS / KING OF PORTUGAL** Co-Organizer and Race Direction, but with the knowledge of the CCD.
- **4.11.1.** Failure to appear for the final registration call: DNS (DID NOT START).
- **4.12.** The organizer reserves the right to apply identifying markers to any and all vehicles taking part in its events. These must be kept intact and unchanged throughout the racing season. If the marker is damaged or needs to be removed to facilitate repairs or modifications to the vehicle, then the Driver/Competitor must inform the Organization so that the Chief Technical Commissioner can remark it. If this is not possible, and with the knowledge of the DP and CCD, a new marker will be placed in the next race.
- **4.13.** Each vehicle must pass a technical inspection before being allowed to compete in the **NORTEX4 CHALLENGE / GLADIUS/ KING OF PORTUGAL** event. A designated marker will be placed on the vehicle after it has successfully passed the technical check.
- **4.14.** It is the responsibility of each Driver/Competitor to contact the Organization in advance for a preliminary inspection to ensure that the vehicle is being prepared in accordance with the Regulations.
- **4.15.** Tampering with the inspection marker is strictly forbidden. Any evidence of tampering requires the vehicle to be re-inspected at an additional cost, before said vehicle is allowed to race.
- **4.16.** Failure to comply with the above may result in the vehicle and driver being disqualified from future events organized by the A Caminho da Aventura Association / Clube Nortex4, following a report and with the knowledge of the CCD.
- **4.17.** Each competitor's personal protective equipment will be checked in a technical inspection before the race, including but not limited to helmets, neck protection, first aid kits, fire extinguishers, seat belts and nets. This does not mean that these items are the only ones to be checked. The Chief Technical Commissaire, or any of his assistants, may withhold any personal protective equipment that does not comply with the rules or is deemed unsafe, and must report it to the CCD. Any item retained may or may not be returned and there will be no compensation made by the Organization to any participant who has illegal or unsafe items seized, and an infringement report must be made to the CCD.
- 4.18. Parking before the race will be at the discretion of the organizers. After the technical inspection, the vehicles will be directed to a closed parking area where they will remain until the time determined for their removal. Only the commissioners designated by the NORTEX4 CHALLENGE / GLADIUS / KING OF PORTUGAL Organization will be allowed to remain in the area after the vehicles have entered the closed parking area. All other commissioners must receive special written authorization from the Race Director to enter the area.







- **4.19.** The **NORTEX4 CHALLENGE / GLADIUS / KING OF PORTUGAL** Organization reserves the right to submit any vehicle to a technical inspection after the event, at the discretion of the CCD, Race Director and/or Chief Technical Steward. In a post-race technical inspection, the Driver will be responsible for removing or preparing the items requested to be inspected, as indicated. Failure to comply will result in disqualification of the participant and may result in suspension.
- **4.20.** The CCD, or the Race Direction, may require a participating vehicle damaged in an incident related to the event to present itself for a post-incident inspection. If the competitor or driver refuses, the vehicle and driver may be disqualified and suspended from future events organized by Associação A Caminho da Aventura / Clube Nortex4 and its associates. A report must be submitted for technical confirmation with the knowledge of the CCD.
- **4.21.** The inclusion in the closed park of all vehicles that have finished the race will be at the discretion of the **NORTEX4 CHALLENGE / GLADIUS / KING OF PORTUGAL** Organization. If included, the vehicles will be released no later than two hours after the official closing of the race. Vehicles involved in any type of protest or complaint will be kept in a closed park until the CCD has reached a conclusion on the protest or complaint.
- **4.22.** Any refusal by a participant to comply with the decisions of the CCD will result in the disqualification of the participant and suspension from A Caminho da Aventura Association events. / Club Nortex4 and members, for a period of not less than one year.
- **4.23.** Any **protest** or **complaint** must be made in writing and addressed to the Ethics and Disciplinary Committee, accompanied by an additional non-refundable fee of **500 euros** to open proceedings.

# 5. VEHICLE REQUIREMENTS (ALL CLASSES), EQUIPMENT CONDITION AND FUNCTIONALITIES

- **5.1.** All necessary or convenient equipment, material, devices, safety equipment and vehicle components, as described in the **NORTEX4 CHALLENGE/GLADIUS/ KING OF PORTUGAL** Regulations (including any special rules or supplementary regulations), must be in good working order at the time of the technical inspection and throughout the event. Certain equipment and components must remain serviceable throughout the event and, if damaged during the event, must be repaired or replaced before the vehicle can continue racing, as specified in the regulations and technical specifications.
- **5.2. SAFETY EQUIPMENT** Pilots and equipment manufacturers can request the inclusion of products that do not follow the aforementioned guidelines. These products must demonstrate the ability to meet or exceed existing standards. All exceptions will be documented in an appendix to the Regulations.
- **5.3. OCCUPANT RETENTION SYSTEMS** All vehicles must have a **5-point H-restraint system**, in accordance with **FIA** standard **8853-2016**, for each occupant. The system must use a **T-type quick release buckle Latch-and-link** (P-type, push-button release is not allowed).
- **5.3.1.** The retention system must be in new or perfect condition, with no cuts, worn layers, chemical stains or excessive garbage, and it must be perfectly flexible (i.e. the material must not be rigid).
- **5.3.2.** All systems must be assembled in accordance with **article 283**, **point 6** of **Annex J** of **the International Sports Code (CDI).**







- **5.3.3.** All restraint systems must display the manufacturer's name and the month and year of manufacture. All restraint systems must be replaced 3 years after the date of manufacture or 5 years if certified by the FIA.
- **5.3.4.** Additional restraint systems are not permitted.
- **5.3.5.** In addition to compliance with the manufacturer's instructions, the installation of restraint systems must also comply with the following:
- **5.3.5.1.** The restraint system must be mounted on structural members capable of withstanding the load placed on them in the event of an accident, without being damaged.
- **5.3.5.2.** The mounting of the restraint systems must be combined with a well-built, well-installed and securely mounted seat on the chassis / roll-cage.
- **5.3.5.3.** The restraint system must be used with a seat that has the right number of slots, in the right location, for the belts. Seats cannot be modified to create belt slots.
- **5.3.5.4.** Belts should be as short as possible to minimize the stretching effect of the belt.
- **5.3.5.5.** The belts and straps must be aligned so that their tightening movement is in a straight line with the anchorage points.
- **5.3.5.6.** The preferred anchorage is using double shear supports.
- **5.3.5.7.** Retaining systems must be assembled using high quality material suitable for installation. 1/2" (13mm) bolts with grade 8 fine pitch threads and grade 8 (or better) deformed pitch nuts are recommended.
- **5.3.5.8.** Belts must not rub against any surface that could cause them to break.
- **5.3.5.9.** 3-bar slides must be placed near the anchor plate or, if the *Wrap-around* mounting type has been used, near the bar around which the belt is attached.
- **5.3.5.10.** Belts that use an unsewn anchor plate must be wound back through the slide a fourth time.
- **5.3.5.11.** The *Wrap-around* mounting type must be limited to the installation of the shoulder straps and m u s t include a method of preventing lateral movement of the belts.
- **5.3.5.12.** The belt tightening adjustments must not be positioned in or near the seat grooves.
- **5.3.5.13.** Occupant restraint systems must be used properly, by all occupants, at all times when the vehicle is in motion.
- **5.4. SAFETY NETS** Approved safety nets are compulsory on all vehicles and must cover the complete open area of the cab on both sides of the vehicle, to the extent that it is impossible for any limb or part of an occupant's body to protrude in relation to the vehicle at any time when the occupant is properly seated and secured in their normal driving position.
- **5.4.1.** The nets m u s t be tight, so that when subjected to force, they do not deflect. They must not be elastic.
- **5.4.2.** The wind wing areas located behind the A-pillar must be filled with safety net material if there is any chance that any limb or body part of any occupant could protrude in relation to the vehicle at any time when the occupant is properly seated and secured in their normal driving position. Polycarbonate is not permitted.
  - **5.4.3.** The nets have to be installed inside the structure to prevent them from being damaged or getting damaged or release in the event of a rollover or side slide.







- **5.4.4.** Nets attached to the door frame are permitted.
- **5.4.5.** The nets must be installed in such a way that occupants can enter and exit the vehicle in any position without assistance.
- **5.4.6.** For vehicles using factory or factory-style doors, the polycarbonate on the side windows can be replaced with mesh, provided that secondary locking devices are used on the doors. Polycarbonate side windows must be fitted in such a way as to allow quick removal in a situation where the door does not open.
- **5.4.7.** The edge, edge and connections of the net must be made of stronger material than the net itself. Net connections must be a minimum of 6" (150mm). Acceptable fittings include, but are not limited to: steel hose clamps, snap fittings, point lifting, metal hooks and steel bars. Nets must be tightened so that, when subjected to a pushing force of approximately 23kg, the net deflects less than 4" (100mm).
- **5.5. SEATS-All** seats must be made by a recognized manufacturer specializing in seats for racing applications and be of an appropriate type for the event.
- **5.5.1** All seats must be solidly mounted to the vehicle's chassis and the supports must be adequately reinforced to prevent the seat from moving in relation to the structure. The seats must comply with FIA 8855-1999, FIA 8862-2009 or FIA 8855- 2021.
- **5.5.2** Adjustable seat mats must be securely mounted to the vehicle frame to prevent lateral or vertical movement between the seat and the frame.
- **5.5.3** Head restraints are required to be at least 2" (50mm) thick, resiliently filled and have an area of approximately 232 square centimeters. Seats must have appropriate slots to properly accommodate occupant restraint systems.
- **5.5.4** Folding seats are not permitted.
- **5.5.5** Adjustable supports are not permitted.
- **5.6 EXTINGUISHERS** Each vehicle must carry an EU-approved ABC chemical class portable fire extinguisher of **2kg or more**. The extinguisher must have an indicator, be fully charged and **easily accessible from inside the vehicle** (accessible by all occupants). An **additional 2kg** or larger ABC chemical class extinguisher must be mounted in a position accessible from **outside** the vehicle by people unfamiliar with the vehicle. All extinguishers must be mounted in a way that allows them to be removed and used without the use of tools.
- **5.6.1 On-board fire suppression systems** are highly recommended in addition to portable **fire** extinguishers. In the case of a vehicle equipped with on-board extinguishing/fire suppression systems, the vehicle still has to meet the requirements regarding portable fire extinguishers.
- **5.6.2** Associação A Caminho da Aventura / Clube Nortex4 **recommends** that fire extinguishers have a capacity of **2kg**.
- **5.6.3** All extinguishers and suppression systems must have a current (**less than one year old**) inspection seal and label attached.
- **5.7 HORNS** All vehicles must have a horn. The sound must be clearly audible from a distance of 30 meters in front of the vehicle. The use of sirens in addition to the horn is permitted during the race. Compressed air horns are not an acceptable method of meeting this requirement.







- **5.8 REFLECTORS** All vehicles must have two red reflective strips 5cm wide and 20cm high, or two round red reflectors 5cm in diameter (rear lenses of production cars meet this requirement), placed at the rear-most portion of the vehicle, at each corner. The reflective strips or reflectors must be clearly visible from the rear.
- **5.9 FIRST AID KIT** A weatherproof first aid kit must be present in every vehicle at all times and must contain at least the basic first aid items. The kit must be easily accessible within the occupants' area, without the need to remove any body, panel or equipment from the vehicle. Occupants withspecial medical needs must highlight these needs in an easily visible place on their fire suit or helmet.
- **5.10 VEHICLE IDENTIFICATION** Every vehicle in competition must be identified with the correct **competitor number**.
- **5.10.1 Participant numbers** will be made up of a **combination of digits from 0 to 9** only. They will have to be manufactured and applied by themselves.
- **5.10.2** The team number is **chosen during the registration process**.
- **5.10.3** Teams that have previously taken part in events belonging to Championships / Trophies for which the **NORTEX4 CHALLENGE / GLADIUS / KING OF PORTUGAL** scores must keep the number used previously, with these being priority 1.
- **5.10.4** Seniority based on the date the driver first competed in the events organized by Associação A Caminho da Aventura / Clube Nortex4 and associates is priority 2.
- **5.10.5** If the previous points do not apply, the team will be assigned the number on a first come first served basis.
- **5.10.6** All vehicles must use a "Shark's Fin" plate, located behind the B-pillar. They must also have a plate at the front and one at the rear with the number. The plate and number must follow the color code described below:
- **5.10.6.1** UNLIMITED: White background, Black number;
- 5.10.6.2 LEGEND: Yellow background, black number;
- 5.10.6.3 CHANGED: Fluorescent orange background, Black number;
- 5.10.6.4 STOCK AND UTV: Fluorescent blue background, Black number;
- **5.10.7** Associação A Caminho da Aventura / Clube Nortex4 reserves the right to request a change in the color of the number and/or background.
- **5.10.8** Associação A Caminho da Aventura / Clube Nortex4 is not responsible for any problems that may arise from vehicles with unrecognizable identification. It is the driver's responsibility to keep the identification in a recognizable condition.
- **5.11 GENERAL VEHICLE COMPONENTS** Vehicle occupants must be able to get in and out of the vehicle by themselves, in any position, quickly and easily. A fire wall or bulkhead must separate the driving compartment from any fuels, engine fluids and acids.
- **5.11.1** Oil coolers, transmission coolers and radiators placed at the front of the vehicle must have a fire wall which, in the event of a rupture or leak, will prevent liquids from reaching the occupants.
- **5.11.2** All vehicles with operational doors must have a positive locking mechanism on the doors and must have a permanently docked secondary positive locking mechanism.







- **5.11.3** All vehicles must have a metal fire wall separating the occupant compartment from the fire hazard from the engine and fuel supply.
- **5.11.4** A minimum wall must be able to contain the liquids and extend from one side of the bodywork to the other. If the engine is mounted at the rear, the wall must be able to contain the liquids and extend from the height of the driver's shoulder to the floor of the vehicle and from side to side. If the fuel cell is mounted at the rear and is above the occupants' shoulder height, the wall between the driver and the fuel cell must extend at least 2" (50mm) above the top of the fuel cell. The hood is considered an extension of the fire wall in front-engined vehicles. Any holes made in the wall, for structural members, lines, etc., must be kept to a minimum. Holes should have no more than 0.0625" (1.6mm) of space around items passing through it. Metal tape must be used to seal the hole between the wall and the item passing through it. Rear-mounted engines are not required to have a fitted hood.
- **5.11.5** The floor is compulsory on all vehicles and, if it is not an integral part of the body or chassis, it must be secured by a minimum of 6 of 0.25" (6.4mm) bolts per side. No fasteners or quick-release mechanisms will be allowed. The floor must cover the entire area from the front of the pedal assembly to the area behind the seat(s), and from the outer edge to the opposite edge of the vehicle. The construction must be such as to provide maximum protection for the occupants from debris.
- **5.11.6** All vehicles must start the race with a fully functional electrical system: generator or alternator, fan, water pump (water-cooled vehicles). Air-cooled vehicles are allowed.
- **5.11.7** Safety front and rear bumpers are required on all vehicles. No protruding or protruding objects are allowed. The edges must be trimmed and rounded to avoid any sharp edges. Bumpers must be designed in a way that reasonably minimizes the chance of two vehicles becoming entangled.
- **5.11.8** The bumpers must, both front and rear, prevent the tires from colliding and rising above each other in the event of a collision.
- **5.11.9** A rear-view mirror is compulsory in all vehicles. The mirror must have at least **40** square centimeters of reflective surface. The mirror must provide a reasonably unobstructed view of the area behind the vehicle.
- **5.11.10** Protection / skid plates designed to add a reasonable degree of protection to the front suspension, steering, and braking components are recommended on all vehicles. They must be securely attached.
- **5.11.11** All spare parts and extra equipment carried in the vehicle must be securely fastened or stowed in such a way as to prevent movement during the competition. All spare parts and extra equipment must be transported in a manner that minimizes the risk of injury to vehicle occupants.
- **5.11.12** All parts of the vehicle must be kept in the vehicle (except in the case of accidental damage) for the duration of the event.
- **5.12 ROLL-BAR / ROLL CAGE** It is the responsibility of each competitor to present a safe vehicle for technical inspection before the race. Competitors must maintain their safety equipment, including the integrity of the roll bar/rollcage. The Associação A Caminho da Aventura / Clube Nortex4 reserves the right not to allow the inclusion of all roll-bar/rollcage projects that, in the opinion of the Chief Technical Commissioner, are not suitable for the competition, and must submit a report to the CCD.







- **5.12.1** Participants are responsible for the safety features of their vehicle, including the design, manufacture, quality, execution, maintenance and repair of the roll-bar/rollcage structure. A roll-bar/rollcage is a structure connected at 6 points that surrounds and protects the occupants of the vehicle.
- **5.12.2** All vehicles must be equipped with a safety structure that complies with Art. 283-8 of Annex J of the International Sports Code (CCD).
- **5.12.3** All vehicles must be equipped with a roll-bar/rollcage made from 1020 or better mild steel mechanical tubing (higher carbon or alloy steel content) and seamless, cold-drawn tubing.
- **5.12.4** All roll-bar/rollcage components (rims, folds, reinforcements, etc.) must have a minimum of 3" (76mm) clearance from the helmet of any vehicle occupant when the occupant is seated in normal driving conditions / riding position. All roll-bar/rollcage components that may come into contact with vehicle occupants' helmets must be padded. Air conditioning and other covers are not recommended. It is compulsory to use the material listed in Technical List no. 23

https://www.fia.com/sites/default/files/l23\_roll\_cage\_padding\_8.pdf

- **5.12.5** The roll bar/rollcage must be securely mounted to the frame, chassis or body. The terminal ends of the roll bar/rollcage must be fixed to a structural member that can withstand a maximum impact without breaking and without causing these ends to move. The roll bar/rollcage outside the cab must sandwich the structure to the cab.
- **5.12.6** All vehicles, including those with stock doors, must have at least one side bar to protect the vehicle's occupants from side impacts. These bars must be made from the same tube and materialas the rest of the roll bar/rollcage, be as parallel as possible to the ground and welded to the frontand rear arch of the roll bar/rollcage. The location of the side bars must not cause difficulty in entering or exiting the vehicle.
- **5.12.7** They must be mounted against reinforcements in all places where isolated weld fractures could affect occupant safety. They must be made of the same material as the entire roll bar/rollcage.
- **5.12.8** The roll bar/rollcage must be fixed at 6 points around the occupants.
- **5.12.9** The area of the roll bar/rollcage immediately above the occupants must be filled with metal sheet of at least 1mm or aluminum sheet of at least 3.2mm. and must be welded or bolted to the roll bar/rollcage frame.
- **5.12.10** All vehicles, including those with production doors, must have at least one side bar to protect the vehicle's occupants from side impacts. These bars must be made from the same tube and material as the rest of the roll bar/rollcage, be as parallel to the ground as possible and welded to the front and rear arch of the roll bar/rollcage. The location of the side bars must not cause difficulty in entering or exiting the vehicle.

#### **5.13 ENGINEERING**

- **5.13.1 Option 1:** Follow the rules explained in point 5.12.;
- **5.13.2 Option 2:** the competitor can provide a drawing of a certified engineering project to be reviewed by the engineering consultant of Associação A Caminho da Aventura / Clube Nortex4, and sent to FPAK (Technical Department) who will give final approval. The Chief Technical Commissioner will have to confirm and validate the configuration in relation to the project. All findings will be confidential between the competitor and the Associação A Caminho da Aventura / Clube Nortex4 and the FPAK.







- **5.13.3 Option 3:** Associação A Caminho da Aventura / Clube Nortex4 proposes the chassis design, sending a copy of it to FPAK and making all records public. The final check will be carried out by the Chief Technical Commissioner during the initial technical checks to confirm and approve this design.
- **5.14 ENGINE** The engine must be free of leaks.
- **5.14.1** The motor openings must run into a **liquid containment system** and **the rods must be of the locking type**.
- **5.14.2** Approved flame arresters or suppressors are mandatory on all vehicles. The exhaust outlet system must extend at least 30cm past the rear of the occupant compartment. It must be directed rearwards and away from the body/frame, away from the occupants, fuel cells and tires, and be placed in such a way as to minimize dust production.
- **5.14.3** No participant may change a complete engine during the event. It is considered an engine swap if the block is replaced.
- **5.15 TRANSMISSION SYSTEM (Gearbox)** The transmission system must be free of leaks.
- **5.15.1** All vehicles must stop in functional reverse gear.
- **5.15.2** The transmission system must have approved dispersion protection or an approved ground between the occupants and the transmission.
- **5.16 TRANSFER BOX** The transfer box must be free of leaks.
- **5.16.1** The openings in the transfer box must run into a liquid containment system.
- **5.16.2** All vehicles must be capable of transmitting power to all four wheels (rim/tyre) and must be equipped with gearboxes. Gearboxes are defined as a transmission ratio smaller (numerically larger) than 1:1.

# 5.17. DRIVE SHAFT

- **5.17.1** The cardan joints must be covered with a minimum of 1mm of aluminum, or 0.8mm of steel, or 0.8mm of expanded metal, or 3mm polycarbonate, in such a way that the parts are deflected away from the occupants in the event of a cardan joint failure. The material only needs to be installed between the occupants and the driveshaft cardan joints.
- **5.17.2** A cylindrical drive shaft support is recommended.
- 5.18. DIRECTION
- **5.18.1** Power steering systems must be leak-free.
- **5.18.2** Power steering ventilation pipes must be connected to a fluid containment system that prevents liquid from leaking onto the floor.
- **5.18.3** All power steering lines must be in good working order and free from cracks, defects or leaks. Hydraulic lines must be constructed in such a way as to protect them from possible damage.
- 5.19. SUSPENSION
- **5.19.1** There must be at least one absorption damper per wheel.
- **5.19.2** Suspension pivot points and connection points must be free of cracks and in good physical condition, as determined by the Chief Technical Commissioner or his deputy.
- **5.19.3** The shock absorbers must be free of leaks.







#### 5.20 BRAKES

- **5.20.1** The brakes must be able to apply adequate force to stop all four wheels (rim/tyre). The brakes must be in safe working order and leak-free for the duration of the event. If problems occur in the braking systems during the event, they must be repaired before continuing in competition.
- **5.20.2** The foot brake pedal fitted must be able to operate all the brakes with a single foot.
- **5.20.3** Each vehicle must have a means of applying continuous braking pressure while the vehicle is parked with the occupant(s) outside the vehicle.

#### 5.21 CONTROLS

- 5.21.1 All accelerators, whether hand-controlled or foot-controlled, must have at least one return spring of sufficient stiffness to instantly close the accelerator pedal when the throttle is released. Vehicles with carburetors must have at least two throttle return springs, at least one of which must be attached to the carburetor. All vehicles must have at least one throttle return spring on the accelerator pedal and one on the throttle control (pedal or hand control). Computer- controlled controllers (electronic throttle control systems) are exempt from the requirement to have a return spring in the throttle body, but must have a return spring in the throttle control (pedal or hand control) or keep the system stock. A positive stop or throttle system must be used to prevent the throttle linkage from sticking in the open position.
- **5.21.2** Adaptive controls can be used as required. Hand throttles must meet the same requirements as a foot throttle and must meet the approval of the Organization.

#### 5.22 FUEL SYSTEMS

#### 5.22.1 FUEL: TYPES

- 5.22.1.1 Any of the following commercially available fuels can be used:
- 5.22.1.1.1 Petrol and diesel for sale at petrol stations and service stations;
- 5.22.1.1.2 Racing gasoline, as originally produced;
- 5.22.1.1.3 Alternative fuels, including biodiesel, under the approval of the Organization;
- 5.22.1.1.4 Alcoholand nitro-methane are not allowed, as well as LPG (Gas) according to article 6.3.1 of the PGAK
- 5.22.1.3 Commercially produced, nationally advertised fuel additives can be used.

# 5.22.1.4 FUEL: STORAGE

It is recommended that all classes of vehicle be equipped with a **fuel tank that complies with Art. 283-14 of Annex J of the International Sports Code** (CDI). However, they may be equipped with the **original tank, provided that it is completely protected from damage by stones or other vehicles**.

Customized steel and polyurethane tanks are acceptable. ALL aluminum tanks must be of the *bladder* type, without exception.

Auxiliary fuel tanks can be used. They must also be fuel safety cells.

5.22.1.5 There must be a substantial fire barrier between the fuel tank and the occupants.







- 5.22.1.6 Fuel tanks must be mounted in such a way as to protect the tank from damage due to a rear-end collision, impact, debris or rocks under the vehicle, damage due to rollover, or due to bending of the chassis.
- 5.22.1.7 Fuel safety cells must consist of a *bladder* enclosed in a deformable container. The container must be made of 0.8mm steel, 1.5mm aluminum or 3mm *Marlex*. The container must be firmly attached to the vehicle with steel bolts or straps. All fittings must be incorporated into the container surface and connected to the container surface as an integral part of the tank ormechanically sealed by a ring and counter-ring systems by flat gasket or *O-ring*. Interior partitions are mandatory in all fuel cells. Foam is an acceptable form of interior partition. The bladder construction should be made of *Nylon* or *Dacron* fabric impregnated and coated with a fuel- resistant elastomer. Rotationally molded polymer cells are acceptable when encapsulated in a container constructed from 0.8mm steel or 1.5mm aluminum.
- 5.22.1.8 Fuel accumulator tanks are permitted within the following parameters: they must beconstructed of aluminum or 3mm steel, they must be mounted to the chassis using rubber insulation and they must have a capacity of no more than 1 liter.
- 5.22.1.9 **Jerrycans** or other portable fuel containers are not allowed in the vehicle during the event. The use of jerrycans or other portable fuel containers will subject the participant to a penalty or disqualification.

# 5.22.2 FUEL: INSTALLATION, FILLING AND VENTILATION

- 5.22.2.1 The design and installation of the fuel tank and related components (pipes) must prevent fuel from escaping if the vehicle is partially or completely reversed. Fuel isolation valves are required from the fuel supply line, the return line and the vent line. The fuel isolation valves must be located in such a way that, with the vehicle in any position, they can be quickly closed to restrict the continuous flow of fuel to the ground in the event of a rupture in the fuel line.
- 5.22.2.2 The accumulators must have a supply inlet, supply outlet, return and outlet connections with isolation valves.
- 5.22.2.3 The fuel tank must be refilled from the outside and vented to the outside of the occupant compartment.
- 5.22.2.4 Unvented fuel filler lines and fuel filler caps with positive retention must be located and protected in such a way as to prevent them from being knocked off or opened during vehicle movement, rollover or accidental impact. *Monza / flip-type* caps are strictly prohibited.
- 5.22.2.5 All fuel filler points attached to the frame or body panel must be connected to the tank using flexible couplers. All fuel filler points must be surrounded by a splash guard (the body panel is acceptable as a splash guard if it is sealed). The splash guard must direct fuel leakage out of the vehicle and away from the occupant compartment, engine and exhaust. A non-return valve must be fitted to the fuel filling points on all fuel cells in case of rollover. It is highly recommended that removable fuel filler caps have a flexible strap or chain to secure them to the vehicle.
- 5.22.2.6 The fuel vent lines must have a rollover check valve built into the fuel cell and must breathe out of the occupant compartment and be directed away from the engine and exhaust systems.







- 5.22.2.7 The fuel vent line must follow one of the following parameters: the fuel vent line must extend to the highest point of the roll bar/rollcage closest to the fuel cell; across the width of the vehicle; to the underside of the belly of the vehicle or 76mm below the fuel cell, whichever is smaller.
- 5.22.2.8 The fuel vent line has to run above the fuel cell to a point that is 101mm above the top of the fuel cell. From there, it has to be wrapped a complete *loop* around the outside of the fuel cell nearthe top of the fuel cell and then be routed to a point 76mm below the lowest point of the fuel cell.
- 5.22.2.9 Fuel mats are required for all refueling. No vehicle may be refueled outside the appropriate locations. Fuel storage in the pits must consider safety as the top priority. Associação A Caminho da Aventura / Clube Nortex4 highly recommends the use of safety tape and "No smoking" signs. / No Open Flame" in the area surrounding the fuel storage and transfer sites.

#### 5.23 SCREWS

**5.23.1** It is recommended that all components of the vehicle's steering, suspension, chassis, steering and running gear be secured with *S.A.E. grade 8* bolts or higher, or metric equivalent. Malethreaded bolts must be secured with: locking nuts, lock washers, bolts or safety wire and must have at least one complete thread showing through the nut.

#### 5.24 ELECTRICAL SYSTEM

## **5.24.1 POWER CIRCUIT BREAKER**

- 5.24.1.1 All vehicles must be equipped with a chain breaker which must comply with Article 283-13 of Annex J of the International Sports Code (CDI). A chain breaker must be accessible to alloccupants of the vehicle and on the outside of the vehicle.
- 5.24.1.2 A highly visible, easily distinguishable and colored main power circuit breaker must be located in the vehicle's dashboard area and clearly labeled. The switch must be capable of shutting down the vehicle's entire electrical system. The switch must turn off the engine when in the off position. The power supply for the winch and low-current secondary electrical equipment, which requires an uninterruptible power supply, can bypass this option. It is highly recommended that heavy-duty marine-style batteries are used, capable of carrying the full load of the vehicle(including winch) and are wired in such a way that the entire electrical system can be deactivated with the switch
- 5.24.1.3 The power cut-off switch must be accessible to all occupants of the vehicle.
- **5.24.2 IGNITION** each vehicle must have an ignition on/off switch. The switch must be labeled "*Ignition ON / OFF*" and be located a short distance from the driver and accessible from outside the vehicle. All electric fuel pumps with independent switches must be labeled "*Fuel ON / OFF*" and be easily accessible to the driver and from outside the vehicle. It is strongly recommended that electric fuel pumps are not switched on independently.
- **5.24.3 BATTERIES** Batteries must be securely mounted with metal brackets, metal clamps, or tightened in a way that prevents displacement in the event of a rollover. All acid batteries must be in a box or casing capable of containing the amount of acid in the battery. Batteries must not be located in the occupant compartment. Batteries are considered to be in the occupant compartment if they are not







there must be a barrier between the battery and the occupants. All batteries must be of the sealed type. Gel batteries are highly recommended.

- **5.24.4 LIGHTS** working lights are only needed at events where any part of the event takes place between sunset and sunrise.
- 5.24.4.1 All vehicles must have a minimum of two rear lights, two brake lights and a rearward-facing yellow light. The original rear lights, if fitted, are permitted if they remain on whenever the vehicle's ignition is switched on.
- 5.24.4.2 The yellow rear light must be fitted to all vehicles.
- 5.24.4.3 All rear-facing lights must be protected against damage that could be caused by a rollover. Rear lights must be at least 76mm in diameter, or approved by the Organization, and must be mounted in such a way as to be clearly visible from the rear of the vehicle.

The rear-facing yellow light must illuminate with a brightness that is at least equivalent to a 40- watt 12V car bulb, but no brighter than the equivalent of a 55-watt 12V car bulb. LED bulbs of appropriate brightness are permitted.

The yellow lens must be yellow with deep coverage, no other color is allowed.

The yellow light must be mounted a minimum of 1219mm from the ground and must be clearly visible, unobstructed (i.e. not mounted behind any translucent object), from any position in an imaginary arc from the 5 o'clock position to the 7 o'clock position of the vehicle.

The yellow light must be positioned so as not to impair the vision of another rider approaching the rear of the vehicle. All rear-facing lights must be connected to the ignition switch or directly to a switch on the main battery, so that they remain on whenever the ignition is switched on.

- 5.24.4.4 If, during the duration of the race, any of the required lights do not work, the light must be repaired or replaced at the next service before the vehicle can continue in the race.
  - **5.24.5 STARTING** all vehicles must be able to start using an on-board electric starter.

#### 5.24.6 WHEELS AND TIRES

- 5.24.6.1 All vehicles must have exactly 4 wheels, each with exactly one tire, and double wheels are not allowed. The use of wheel caps of any kind is not permitted.
- 5.24.6.2 All factory tires, built by any manufacturer, are allowed.
- 5.24.6.3 Tires must be checked visually to certify their condition, with the CTC defining their conformity in a written report.
- 5.24.6.4 Tires with nails, screws or any other item added to the tires are not allowed. Thinning or other modifications that involve removing material from the tire are permitted.
- 5.24.6.5 Inflation systems that retain the tire profile in the event of a puncture are not permitted. *Tire liner* type products with a functional outer diameter of no more than 27" will be permitted. Vehicles can and will be tested at any time. Failure to comply for the first time will result in disqualification from the race. Second time, suspension for the entire season, after presentation of the report and by decision of the CCD.







- 5.24.6.6 The requirement for *DOT Street Legal* tires, in the limited classes, is implicit in all "sticky" racing tires, regardless of their DOT label. For example, *Maxxis Trepadors* racing *tires* have a DOT label.
- 5.24.6.7 The vehicles can and will be tested at any time.

# 5.25 VEHICLE WEIGHT

**5.25.6.1** The official vehicle weight is the empty dry weight of the vehicle. The empty dry weight is measured without fuel, spare tires, tools, spare parts or occupants in the vehicle. The official weight will be the weight as shown on the Organization's official scales. The vehicle must be able to run on and off the scales under its own power with all mechanical systems complete and readyto compete.

# **6** SAFETY EQUIPMENT

#### 6.1 SUITS

**6.1.1** All riders and co-drivers must wear **a suit that is homologated and valid** according to FIA 8856-2000 or FIA 8856-2018. (FIA technical list no. 27 and 74)

https://www.fia.com/sites/default/files/I27\_approved\_clothing\_materials\_84.pdf
https://www.fia.com/sites/default/files/I74\_approved\_clothing\_materials\_8856-2018\_74.pdf

- **6.1.2** One-piece fire suits are compulsory. Two-piece suits are not allowed. The suits must cover from the neck to the ankles and up to the wrists. The suits must be free of holes, tears and wear. They must also be free of any signs of petroleum-based contamination. All suits must be made of fire-resistant material with the manufacturer's fire-resistance rating label attached. Suits with a minimum of two fire-resistant layers, fire-resistant gloves and fire-resistant footwear are highly recommended.
- **6.1.3** All underwear must meet the same standards.
- **6.1.4** It is recommended that vehicle occupants wear fire-retardant gloves and footwear. Associação A Caminho da Aventura / Clube NorteX4 recommends that each suit be labeled on the upper right side of the chest with the wearer's full name, blood type, allergies and any other important medical information.
- **6.1.5** All occupants must wear gloves when using the winch and/or during vehicle repairs.

#### 6.2 HELMETS

- 6.2.1 Helmets must comply with the standards set out in Technical List no. 25 of Annex J of the International Sports Code (CDI): Helmets must comply with one of the following standards: FIA 8860-2010, FIA 8859-2015 or FIA 8860-2018 and FIA Technical List No. 25 https://www.fia.com/sites/default/files/I25\_standards\_for\_helmets\_6.pdf
- **6.2.2** All **helmets**, in addition to the **seal with the approval**, **have an expiration date**, which must not be exceeded.
- **6.2.3** Occupants of open vehicles must wear full-face helmets.
- **6.2.4** Quick-release and Velcro primary fastenings are not permitted. Velcro fasteners may be used as a means of protecting loose ends of helmet straps.
- **6.2.5** The inside and outside of the helmet must be free of defects (i.e. the padding must be in good condition and the outside of the helmet free of damage).







#### 6.3 EYE PROTECTION

Shatter-resistant eye protection is mandatory for all competitors in the event.

#### 6.4 NECK PROTECTORS

- **6.4.1** Neck protectors are compulsory for all competitors. Neck protectors must provide adequate support and have a fire-resistant cover in good condition.
- **6.4.2** It is recommended to use a head restraint device listed in the FIA Technical List no. 36. https://www.fia.com/sites/default/files/regulation/file/L36 Frontal Head Restraint 4.pdf
- **6.4.3** If the device used is **HANS**, it can only be used with a **compatible helmet** included in FIA Bill of Material No. 29.
  - https://www.fia.com/sites/default/files/I29\_approved\_fhr\_systems\_32.pdf
- **6.4.4** The use of **foam neck and neck protectors is** permitted.

# 7 CLASSES IN COMPETITION

#### 7.1 STOCK AND UTV CLASS

- **7.1.1** The spirit of the Stock class is to allow factory vehicles and component sellers to showcase their products while teams compete in a class for real drivers with very close versions of vehicles that can be driven on public roads. The driver must prove the legality of any part of their vehicle, including but not limited to: Engine / Transmission, frame length, suspension configuration.
- **7.1.2 ELIGIBLE VEHICLES** Any four-wheel drive vehicle based on a production vehicle is eligible for competition, provided it complies with all the rules and regulations specified herein and with the following limitations and exceptions:

A minimum of one thousand (1000) units were produced by the original manufacturer for a given year / model, for a given market / region.

Vehicles produced for foreign markets may be imported for competition, but features and/or components found on vehicles produced for different regions/markets must not be combined on any vehicle if this would violate any rules or regulations specified in this document.

Sydebysyde", hereafter referred to as UTVs, are also admissible. A UTV is defined as a standard production side-by-side vehicle with 2 or more seats, with *powersports-based* transmission systems.

- **7.1.3 FRAME AND BODY** The reference frame (the frame is considered the main frame rail and all permanent factory members) must be maintained and must be complete and unmodified. No material may be removed for any reason and no section of the frame may be molded or reshaped with the following limitations and exceptions:
- **7.1.3.1** The rear of the frame and rear crossmember can be removed or trimmed for the sole purpose of installing an aftermarket rear shock absorber.
- **7.1.3.2** Frames can be reinforced by adding material. Stock body (the body is considered to be the complete cab, including all internal and external sheet metal, doors, hood, fenders, grille, etc.) is required.
- **7.1.3.3** Holes can be drilled in any part of the body for the sole and exclusive purpose of allowing the cage tubes and transmission/transfer case to be passed through the body. The holes drilled must be kept within 12 mm of the diameter of any pipe or tube.







joint that passes through the body, with additional restrictions relating to holes in fire walls.

- **7.1.4** Stock doors can be modified to create half-doors and/or can also be replaced with tubular doors. Doors must open and close and screwed panels are not permitted.
- **7.1.5** Stock windows (glass) are not required, but are permitted, provided they comply with public road regulations. Alternatives to traditional safety glass may be allowed, subject to approval by the Organization.
- **7.1.6** The inside of the wheel arches must be complete and unmodified, with the following limitations and exceptions: the wheel arches may be trimmed for the sole and exclusive purpose of allowing tire movement. Modifications must preserve the appearance of the stock wheel arches as originally manufactured and must not be trimmed excessively (no more than a 50 mm gap) between any part of the outer plate and the tire at full compression.
- **7.1.7** The outer part of the wheel arches (flaps) can be replaced with any other that can be driven on public roads (fiberglass is allowed).
- **7.1.8** Extensive damage to any part of the frame or body (prior to the start of the race) may be considered illegal modifications, and repairs may be required as determined by, and at the sole discretion of, the Chief Technical Commissioner.
- **7.1.9** The stock body mounts can be modified or eliminated, with the following limitations and exceptions: The chassis body must remain within 25mm of the stock configuration as originally manufactured. The body mounts may not be modified or eliminated for any reason that would not allow any part of the rollbar / rollcage to pass through the body to be securely attached to the chassis.
- **7.1.10** Factory headlights are necessary and must be functional.
- **7.1.11** Factory bumpers are not required and can be modified or removed.
- **7.1.12 ENGINE** The stock engine must be retained, but may be replaced with any available make/model/year. Any modification is permitted, with the following limitations and exceptions: The stock engine block must be retained, as originally manufactured. Forced induction of all types is not permitted, unless factory fitted.
- **7.1.12.1** If equipped with a water-cooled engine, the radiator must remain within 152mm of the original location, as originally manufactured.
- **7.1.13 TRANSMISSION** The stock transmission must be retained, but may be replaced with any available make/model/year. Any and all modifications are permitted, with the following limitations and exceptions: stock gearboxes must be retained as originally manufactured. Auxiliary transmissions (e.g. secondary transmissions, *under/over-drives*, etc.) are not allowed.
- **7.1.14 TRANSFER BOX** Any and all transfer boxes are permitted, provided they comply with all additional rules and regulations specified herein.
- **7.1.15 TRANSMISSION AXLE** Any and all drive axles are permitted, provided they meet all the additional rules and regulations specified here.
- **7.1.16 AXLES** Any and all axle assemblies are permitted, provided they meet all the additional rules and regulations specified here.
- **7.1.17 STEERING** Steering components may be modified or eliminated and steering/articulation components may be installed in any location and orientation, with the following limitations and exceptions: All vehicles must retain some form of steering linkage







mechanical (e.g. full hydraulic steering is not permitted unless factory fitted), and said linkage must be capable of controlling the steering wheel/wheels (rim/tyre) without the benefit of any additional hydraulic steering aids. The steering box (or rack, if so equipped) must remain within 101mm of the storage location. No part of the steering linkage must be oriented so as to be partially or substantially parallel to the frame rails or any part of the suspension linkage, with the exception of the *drag-link* and *track-bar* (if so equipped, and unless otherwise equipped as originally manufactured). Rear-wheel steering is not permitted.

#### 7.1.18 SUSPENSION

- **7.1.18.1** The wheelbase must remain within 76mm of stock, as originally manufactured.
- **7.1.18.2** The suspension configuration must remain stock, as originally manufactured (which means that the coil springs must remain as coil springs, the torsion bars must remain as torsion bars, etc.).
- 7.1.18.3 Leaf springs can be replaced with any leaf spring and can be installed in any location and orientation, with the following limitations and exceptions: Leaf springs must be connected directly to the axle assembly, unless otherwise factory fitted. Links / joints can be installed, but leaf springs must be able to locate the axle assembly relative to the chassis in any direction without the use of such links / joints. As such, elliptical springs, transverse leaf springs and theuse of double shackles (at the front and rear spring mounting points on the chassis) are not permitted unless they are factory fitted.
- **7.1.18.4** Coil springs and their suspension can be modified or eliminated and replaced with any coil springs and joints, and can be installed in any location and orientation, with the following limitations and exceptions: Coil springs must be connected directly to the axle assembly and chassis and must not be fitted in any way to produce any kind of mechanical advantage, unless factory fitted. *Coil* springs may not be replaced by any type of *coilover*, unless they come factory fitted (if so fitted they may be replaced by aftermarket *coilovers*).
- **7.1.18.5** Secondary suspension is not permitted unless factory fitted (secondary suspension is considered to be a means or method of supporting any part of the vehicle's weight and/or affecting the rate of the primary spring at any time). Thus, springs of all types, air suspension and air/nitrogen charged hydraulic bump stops are not permitted. Compressible bump stops made of rubber, foam or other similar materials are permitted, with the following limitations and exceptions: The stops must have no effect on any aspect of the vehicle's performance after50mm of vertical wheel movement (under compression). Shock absorption systems of any make / model / type are permitted and may be installed in any location and orientation, with thefollowing limitations and exceptions: Only one shock absorber is allowed per wheel (rim/tyre) (except spare wheels). Shock absorbers must not have a diameter greater than 67mm (outer diameter of the shock absorber body) and must not be capable of more than 355 mm of travel. Position-sensitive systems (including *Bypass* of all types) are not permitted. Shock absorbers must be connected directly to the axle assembly and chassis and may not be mounted in any way to produce any kind of mechanical advantage, unless fitted at the factory (systems that limit vertical opening progression are not considered a mechanical advantage).
- 7.1.18.6 Manual suspension controls (e.g. forced hydraulics) are not permitted.







- **7.1.19 WHEELS AND TIRES** All types of manufacturer's tires are permitted. Tires must be DOT / CE approved, with a maximum outside diameter of 35 "(or equivalent), and will be checked at each event using a gauge, unless otherwise specified in supplementary regulations covering special events. Tire compounds will be checked using the markings / identification provided by the manufacturer on the tire, if this is no longer visible, it is the responsibility of the driver / competitor to provide it.
- **7.1.20 UTV Safety** must follow all the safety rules in these regulations except:
- **7.1.20.1** The rollbar / rollcage used can be the 5-point stock with an aftermarket extra that creates point 6.
- **7.1.20.2** They must use 5-leg restraints.
- **7.1.20.3** They have to stop doors, but they may not open.
- **7.1.20.4** The factory fuel cells can be used, as long as they are mounted in their original place.

#### 7.2 MODIFIED CLASS

- **7.2.1 FRAME AND BODY** The frame is considered the main rail used to mount the axles, engine, transmission and body (chassis). It can start from the engine mounting location (engine mounting location must be the same as factory) to behind the rear of the occupant seats. The balance of the frame must remain, however, there are exceptions for mounting the suspension.
- **7.2.1.1** The stock frame must be kept, however, after-market and customized frames are allowed. After-market and customized frames must have a box-type design with minimum dimensions of 38 mm x 76 mm x 3 mm.
- **7.2.1.2** At static ride height, the bottom of the frame rails must not be higher than the top of the tire.
- **7.2.1.3** At no time should the frame rails be less than 406 mm apart, measured horizontally.
- **7.2.1.4** The frame rails must remain within 101 mm of vertical alignment with respect to each other for the entire length of the frame.
- **7.2.1.5** The body is considered to be the exterior of the cab, doors, hood, front/rear fenders, grille, etc.
- **7.2.1.6** All vehicles must resemble a stock production vehicle and the body m u s t be complete with the following limitations and exceptions: Body modifications for performance and/or space are permitted, but must preserve the appearance of the stock body as originally manufactured.
- **7.2.1.7** For the purpose of the Modified Class, a Production Vehicle is defined as any vehicle that has a minimum of 250 chassis/body combinations sold to the public.
- **7.2.2 ENGINE** Any and all engines are permitted, provided they meet all the additional rules and regulations specified herein and with the following limitations and exceptions: The rear of the engine block must be located in front of the farthest part of the driver's seat, unless otherwise equipped as originally manufactured.
- **7.2.2.1** Free mounting of the radiator.
- **7.2.3 TRANSMISSION** Any transmission is allowed, as long as it complies with all the additional rules and regulations specified here.
- 7.2.4 TRANSFER BOX Any transfer box is allowed, as long as it meets the following requirements







to all the additional rules and regulations specified here.

- **7.2.5 TRANSMISSION AXLE** Any transmission axle is permitted, provided it meets all the additional rules and regulations specified here.
- **7.2.6 AXLES** Any and all axle assemblies are permitted, provided they meet all the additional rules and regulations specified here.
- **7.2.7 STEERING** All vehicles must retain some form of mechanical steering linkage (e.g. full hydraulic steering is not permitted unless factory fitted), and said linkage must be capable of controlling steering wheel/wheel (rim/tyre) direction without the benefit of any additional hydraulic steering aids.
- **7.2.8 SUSPENSION** Any and all suspension components and configurations are permitted, provided they comply with all additional rules and regulations specified herein.
- **7.2.8.1** Shock absorbers of any make / model / type are permitted and can be installed in any location and orientation, with the following limitations and exceptions:
- **7.2.8.1.1** Only two shock absorbers are allowed per wheel / (rim/tyre) (not including spare wheels (rims/tyres)). Shock absorbers must be connected directly to the axle assembly and the chassis and must not be mounted in such a way as to generate any kind of mechanical advantage, unless they are factory supplied (mounting shock absorbers outside the vertical is permitted and must not be considered a mechanical advantage), or fitted with any kind of independent suspension (and then shock absorbers may only be mounted in such a way as to produce a mechanical advantage on wheels / (rim/tyres) that are independently suspended).
- **7.2.8.1.2** Manual suspension controls (e.g. forced hydraulics) are not permitted.
- **7.2.9 WHEELS AND TIRES** All types of manufacturer's tires are permitted. Tires must be DOT/CE approved, with a maximum outside diameter of 37" (or equivalent), and will be checked at each event using a gauge, unless otherwise specified in supplementary regulations covering special events. Tire compounds will be checked using the markings/identification provided by the manufacturer on the tire, if this is no longer visible, it is the driver's responsibility to provide it.

# 7.3 LEGEND CLASS

- **7.3.1** The engine must be front-mounted.
- **7.3.2** There must be two seats, side by side.
- **7.3.3** Only one shock absorber is allowed per wheel.
- **7.3.4** It has to be a rigid axle.
- **7.3.5** All types of manufacturer's tires are permitted. Tires must be DOT/CE approved, with a maximum outside diameter of 37" (or equivalent) and will be checked at each event using a gauge, unless otherwise specified in supplementary regulations covering special events. Tire compounds will be checked using the markings/identification provided by the manufacturer on the tire, if this is no longer visible, it is the rider's responsibility to provide it.
- **7.3.6** All safety and technical rules apply.

# 7.4 UNLIMITED CLASS

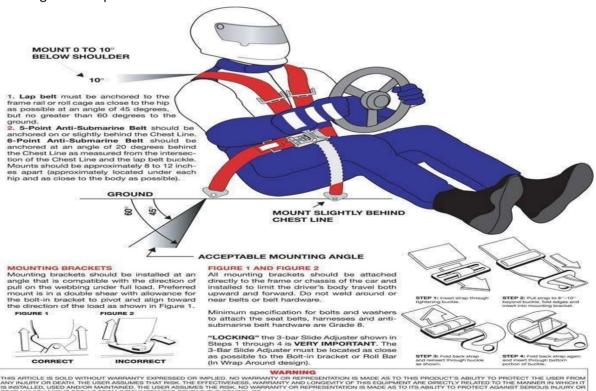
**7.4.1 ENGINE** - Any and all engines are permitted, provided they meet all the additional rules and regulations specified herein.







- **7.4.2 TRANSMISSION** Any transmission is allowed, as long as it complies with all the additional rules and regulations specified here.
- **7.4.3 TRANSFER BOX** Any transfer box is allowed, as long as it meets all the additional rules and regulations specified here.
- **7.4.4 TRANSMISSION AXLE** Any transmission axle is permitted, provided it meets all the additional rules and regulations specified here.
- **7.4.5 AXLES** Any and all axle assemblies are permitted, provided they meet all the additional rules and regulations specified here.
- **7.4.6 STEERING** Any and all steering systems are permitted, provided they meet all the additional rules and regulations specified here. Rear-wheel steering is permitted.
- **7.4.7 SUSPENSION** Any and all suspension components and configurations are permitted, provided they meet all additional rules and regulations specified herein.
- **7.4.7.1** Shock absorbers of any make / model / type are permitted and can be installed in any location and orientation.
- **7.4.7.1.1** Manual suspension controls (e.g. forced hydraulics) are permitted.
- **7.4.8 WHEELS AND TIRES** Any and all tires are permitted, provided they meet all the additional rules and regulations specified here.



#### 8 ANNEXES

8.1 ANNEX A - Explanations on the restraint system and its fitting







# 8.2 ANNEX B - Annex J to the CDI (International Sports Code)

Art. 283 - ALL-ROUND VEHICLE SAFETY EQUIPMENT

https://www.fia.com/sites/default/files/283\_2022\_wmsc\_2021.12.15.pdf

