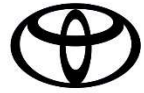


SPORTS REGULATION



Art. 1 - APTE TROPHY ORGANIZATION

The APTE (Associação Portuguesa de Trial Extremo), organizes a private sporting event, called TROFÉU APTE, which will be governed by the FIA International Sporting Code (CDI), the General Automobile and Karting Prescriptions (PGAK), the FPAK Contingency Plan (if applicable), the present Sporting Rules and Technical Regulations of the race/event.

The purpose of these Regulations is to establish the regulatory framework applicable to APTE Trophy races/events held in Portugal under the aegis of the Portuguese Automobile and Karting Federation (FPAK).

1.1 The Organizing Committee of the Trophy is thus constituted:

- Organizing Member: APTE
- Co-Organizing Members: Organizing clubs for each event

1.2 The Management of each event appointed by the organizing entity, is responsible for all activities and enforcement of the Regulations throughout the duration of the **event**.

1.3 Any particular regulation, which is not in accordance with the Sporting Regulations and the Technical Regulations, must be the subject of a separate request for authorization to the FPAK. After approval it will be the subject of an addition to the regulations of the particular race/event.

1.4 Included in the **APTE Trophy**, the following races are contested:

GLADIUS / NORTEX4 CHALLENGE/ Ciset4x44 COUÇO/CPTU4X4 BRAGANÇA/GRAF ADVENTURE SERIES/KING OF PORTUGAL

Art. 2 - POINTED TESTS

2.1 - According to the sporting calendar and chart below:

April 1-3, 2022	GLADIUS
May 27-29, 2022	NORTEX4 CHALLENGE
July 9, 2022	Ciset4x44 COUÇO
August 6, 2022	CPTU4X4 BRAGANÇA
September 28, 2022	GRAF ADVENTURE SERIES
October 5th to 8th 2022	KING OF PORTUGAL



Art. 3 - TERMINOLOGY

APTE TROPHY: Trophy composed of national races/events organized by APTE, under the aegis of the Portuguese Automobile and Karting Federation (FPAK).

TRIAL 4X4 Track: Closed course that includes a set of Trials integrated in the same circuit, which starts and ends in the same place, built especially for trials/events of vehicles admitted to the trophy in the different classes.

TRIAL: The most difficult obstacle point.

CLASS: Grouping of vehicles, determined by the diameter of the tires, structural changes, and other criteria foreseen in the Technical Regulations of the race.

BRIEFING: This must be organized between the end of the administrative and technical checks and the start of the race/event.

TECHNICAL PASSPORT: Document issued by the FPAK which identifies the vehicle presented. It must be presented whenever requested by the Technical Commissioners.

NEUTRALIZATION: Time during which the teams are stopped, by determination of the Race Direction.

REAGRUPEMENTS: A stop foreseen by the Organization, to allow, on one hand, the return to the theoretical schedule, and, on the other hand, the regrouping of the teams that are still in the race/event.

CLOSED PARK: Area in which no repairs or interventions are possible.

ADDITEMENT: Official information, which will be an integral part of the particular regulations of the race/event, destined to modify, clarify or complete the same. The amendments must be dated, signed and numbered.

CLASSIFICATION RACES: Closed Circuit Endurance Races.

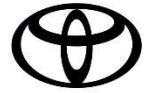
INFORMATION PANELS: Information transmitted through panels is not considered outside assistance or help.

COLLEGE OF SPORTS COMMISSIONERS: The College of Sporting Commissioners (CCD) - in all events/events of the APTE TROPHY will consist of 3 elements. The organizing club will be represented in the CCD by the Race Director.

Art. 4 - REGULATION, APPLICATION AND INTERPRETATION OF THE REGULATION

4.1An APTE Trophy Race/Event will be contested according to:

- CDI / PGAK
- APTE Trophy Sporting Rules
- Technical Regulations of the race/event



- Private Regulations of the race/event.

4.2 The Race Director is responsible for enforcing the regulations during the course of the event.

4.3 Any complaints about this application or any unforeseen cases will be reviewed by the College of Sport Commissioners of the event.

4.4 All modifications or supplementary provisions will be made known by dated, numbered and signed addenda. These additions will be official information that will be an integral part of the particular regulations of the race/event, intended to modify, clarify or complete the same, and will be posted on the Official Board of the Race/Event. The amendments will be made:

4.5 By the Organizing Committee until the day of the checks, submitted for prior approval by the FPAK or prepared and approved by the CCD after the start of the checks.

4.6 Any additions issued must be posted on the official Race/Event Board.

- They will also be communicated as soon as possible to all Competitors.

4.7 The particular regulations for each race/event shall be in accordance with the regulations: APTE Trophy Sport and the Technical Regulations of the race, and be approved by the FPAK.

4.8 No clause of these Regulations may be revoked or altered by a particular regulation of the race/event or its eventual additions.

4.9 Any complaint filed by a competitor will be forwarded to the college of sports commissioners (CCD) for review and decision.

4.10 All cases not foreseen by the particular regulations will be analyzed by the SSC, which has the sole power of decision.

Art. 5 - TEAMS

5.1 For correct interpretation of this text, the following words will be taken into consideration:

- "Competitor" used for the natural or moral person who registers the vehicle.
- "Team" used for the ensemble comprising Pilot 1/Driver and Pilot2/Navigator.
- "Team Sport Director" person in charge of the team. This function may be performed by Driver 1/Driver and Driver2/Sailor, or by a third person duly registered and duly licensed by the FPAK.
- "Driver 1/Driver" - is every person who drives a 4x4 Vehicle in a race/event, obligatorily holding a driver or competitor/driver license, issued by the FPAK.
- "Driver2/Navigator" - is every physical person, who accompanies a driver, during a race/event, mandatorily holding a driver/navigator license, respectively, by the FPAK and who may drive the vehicle in a Classification race.
- Assistance - is any physical person who provides help to the team.



5.2 All teams entered by a Competitor will be admitted. The team members will be designated as Driver1/Driver and Driver2/Navigator.

5.3 During the period of an Event, and whenever the Competitor is a moral person or in case he is not on board the vehicle, all his obligations and responsibilities shall be incumbent in full, jointly and severally and undivided upon the Driver/Driver declared on the entry form.

5.4 The team must remain complete for the duration of the event, however, and for reasons of force majeure one of the team members may be replaced provided that he/she is initially registered and with the communication to the Race Director and authorization of the CCD.

5.5 Any disloyal, incorrect or fraudulent attitude taken by a Competitor or a team member, including the Team Sporting Director, will be judged by the College of Sporting Commissioners, who will pronounce any possible penalty, which may go as far as disqualification of the team.

5.6 It is mandatory for Pilot1/Driver and Pilot2/Navigator to wear proper equipment in accordance with the Technical Regulations of the race.

5.7 Assurances

5.7.1 The Assistance teams may only intervene within the specific areas, or indicated/authorized for assistance, in mechanical support to the vehicles. If the competitor requests their intervention - due to breakdown, accident or withdrawal - during the race/event, they may only do so after requesting the authorization from the Pit Marshal or Race Director. The repair of the vehicles along the course can only be done by the Driver and Driver2/Navigator. Any external help leads to a penalty or even disqualification.

Art. 6 - RESPONSIBLE FOR RELATIONS WITH COMPETITORS

6.1 MAIN TASKS

6.1.1 According to Article 4.7 of the PGAK

Provide information to Competitors and maintain a consultation role with them. This mission should be entrusted to a person with a license issued by the FPAK minimum CDE, since it implies knowledge of the regulations. The Competitor Relations Officer may attend meetings of the College of Stewards in order to be informed of decisions taken.

6.1.2 To be easily identifiable by Competitors you should:

6.1.2.1 Having a clear identification

6.1.2.2 Be presented to the Competitors if a driver briefing is organized

6.1.2.3 Your photo should be published, either in the event rules or in an addendum

6.2 PRESENCE DURING THE EVENT

The Clerk of the Event should establish a plan of the respective attendances, which will be posted on the Official Board of the Race/Event and will obligatorily include:

- Presence at Technical Checks



- At the Race Office
- At the start of the race
- In the paddock
- On posting the Results

6.3 FUNCTIONS

- To provide, to all who need it, precise answers to the questions raised
- Give all the information and complementary precisions relative to the regulation and the unfolding of the race/event

6.4 CONCERTATION

- Prevent requests that can find a satisfactory solution through precise explanations from reaching the College of Sports Commissioners.
- Excluded from this action are cases of complaints (Example: providing clarification on disputed times, supported by information from controllers)
- The Competitor Relations Officer will refrain from any words, comments or actions likely to provoke protests.

Art.7 - APPLICATION FOR REGISTRATION

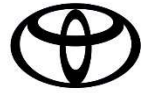
7.1 Participation in APTE Trophy events is open to teams made up of two elements, Driver 1 and Driver 2/Navigator, who must formalize their registration through the contacts provided in Article 10 of the present Sporting Regulations.

7.2 The organizer reserves the right to refuse entry to the event to any applicant, team, competitor, participant, or any other person for any reason whatsoever. In accordance with Art. 3.14 of the CDI, the organizing committee may refuse entry to a race/event, must inform the interested party as well as the FPAK within two days after the closing of entries and no later than five days before the race/event. This refusal must be justified.

7.3 The registration must be formalized before the deadline for the closing of entries. It must include in the registration form the names of the competitor, drivers and team sport director and team name, as well as the vehicle documentation.

7.4 No changes may be made to the Entry Form, except as provided in the Sporting and Technical Regulations. However, the Competitor may freely replace the vehicle indicated by another until the start of the Administrative/Technical Checks.

7.5 By signing the Entry Form, the Competitor, as well as all the elements that make up the team, submit to the provisions of the Sporting Regulations, Technical Regulations, Particular Regulations of the Race/Event and all the deliberations of the Event Management.



7.6 The registration application will not be accepted if it is not accompanied by the respective registration fee or proof of payment.

7.7 No substitution of a Contestant is allowed after the Official publication of the entry list.

7.7.1 Only team members (Pilot 1/Driver and Pilot2/Navigator) may be replaced, under the following conditions:

7.7.1.1 Before the start of the Administrative Checks, with the agreement of the Race Director.

Art. 8 - ACCEPTED CARS

The Trophy is reserved for Drivers and Navigators whose cars are in conformity with the Technical Regulations of each race.

Art. 9 - COMPETITORS, DRIVERS AND NAVIGATORS

National and international Competitors and Drivers will be admitted to this Trophy.

Art. 10 - ENROLLMENT IN THE APTE TROPHY/EVENT/REGISTRATION FEES

10.1 It must be, by filling out and delivering the respective "Entry Form" accompanied by payment of the entry fee (which includes liability insurance), in each Trophy race, according to the following table:

APTE TROPHY REGISTRATION

GLADIUS UNLIMITED/LEGEND 400
CHANGED/STOCK/UTV 350

NORTEX4 CHALLENGE to be defined in the RP

CISSET4X4 COUÇO to be defined in the RP

CPTU4X4 BRAGANCE to be defined in the RP

GRAF ADVENTURE SERIES to be defined in the RP

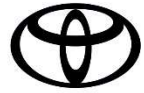
KING OF PORTUGAL to be defined in the RP

10.1.1 The amount of the entry fee for races/events shall be indicated in the Private Regulations of each race/event.

10.1.2 Registration fees will be fully refunded:

10.1.2.1 To candidates whose registration has been refused.

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- 10.1.2.2 In case the Event does not take place.
- 10.1.2.3 As defined in the PGAK.
- 10.1.2.4 In any other situation not foreseen in this regulation, no refund of registration fees will be made.

10.1.3 It is allowed to enroll a 3rd member in the team, upon payment of the amount shown on the Registration Form of each race/event.

10.2 Race/Event Insurance

Insurance will be made to the Portuguese Automobile and Karting Federation (FPAK) and in accordance with Art. 17 of the PGAK.

10.3 Trophy entry locations

Defined in the Private Regulations of each event.

Art. 11 IDENTIFICATION

11.1 Each vehicle must be properly identified according to the technical regulations of each race/event.

11.2 All team members will be identified by wristband.

11.2.1 In case of degradation of the respective wristband, the competitors must request its replacement at the event secretariat, returning the initial one.

Art. 12 - ORDER OF DEPARTURE/NUMBER

12.1 The assignment of numbers to competitors is made at the request of the competitor, however, if the number is already requested by another team, the organization may assign another number.

12.2 The competitor number must be the same for all APTE Trophy races.

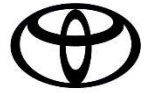
12.3 The starts will be given according to the Private Regulations of each race/event, thus forming the starting grid.

12.4 All teams must enter the starting area 30 minutes before the scheduled departure time. The starting grid will have to be formed 15 minutes before the scheduled departure time, and the teams that arrive after the formation of the starting grid will start from the last position of the grid.

12.5 The team with the best time in the Qualified Prologue will start in 1st place on the grid for the start of the race/event and so on.

12.6 The starts will be made by the Race Director or someone designated by him, and the team that makes a false start will be subject to a penalty of 15min.

Art. 13 - RACE MANUAL



13.1 All teams will receive the race manual containing a detailed description of the route that must be followed.

13.2 The race/event will be played in the direction stipulated in the Race Manual, and it is forbidden for the teams, under penalty of disqualification, to run in the opposite direction.

Art. 14 - ADVERTISING AND IDENTIFICATION

14.1 Teams are allowed to freely display advertising on their vehicles provided that:

- Be authorized by the Sporting, Technical and Private Regulations of the Event and the Portuguese legislation in force.
- Don't be contrary to good morals and customs.
- Do not collide with the places reserved for the organization.
- Do not impede the team's view through the windows.

Art. 15 - BRIEFING

15.1 During a Race/Event, a Briefing, with attendance sheet, will be compulsorily organized between the end of the administrative/technical checks and the start of the Race/Event.

15.1.1 This initial Briefing may be transcribed into a written document delivered to the Bidders and posted on the Official Board.

15.1.2 This must be done by the Race Director or Deputy Race Director.

15.1.3 The presence of at least one of the team members is mandatory. Failure to attend the Briefing will be subject to penalty.

Art.16 - EVENT DEVELOPMENT

16.1 The event begins with the administrative and technical checks in a closed park.

16.2 All competitors will receive a Race Manual with the respective Official Program, containing all the indications about the type of event to be held.

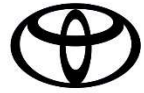
16.3 A briefing will be held, for a brief explanation about the development of the event, to clarify any doubts on the part of the teams.

16.4 Changes to the regulations are communicated by additions or transmitted during the Briefing, they complete the Private Regulations of the race/event. It is mandatory that all competitors sign a protocol that they have been informed of them.

16.5 Each stage of the race/event may have a minimum duration of 3 hours and a maximum of 6 hours, as established in the particular regulations of each event.

16.6 Each race/event may consist of two or more stages, as established in the particular regulations of each event.

16.7 Pilot 1 and Pilot 2 may alternate during the event.



16.8 During the event, help from the public or any other element is not allowed. The competitor will be held responsible for the external help and will imply disqualification.

16.9 Inter-helping of participating teams is allowed, as long as it does not jeopardize physical integrity. This type of help does not give rise to any type of bonus.

16.10 When encountering a course accident, rollover, breakdown, or damaged vehicle, all participants must make reasonable efforts to assess the condition of the competitors involved. Participants who are involved in one of the above situations must make every effort to signal their condition to passing other participants (e.g., thumbs up). If it is impossible to assess the condition of the occupants in the vehicle, participants must report the situation to the nearest Commissioner, mentioning the vehicle number. Any participant must pass a message to a Commissioner if requested to do so by another team that is stuck in a location.

16.11 In the event that a team finishes its race/event, it is prohibited from circulating on the track.

16.12 During the event, the team is allowed to request help from the organization, but will be subject to disqualification.

16.13 During the event, it is not allowed to intentionally block the passage of vehicles or prevent overtaking, under penalty of 1 hour.

16.14 During the race/event, if the track becomes impassable, or puts at risk the physical integrity of the participants or the public, it may be changed, being this decision the sole responsibility of the Race Director.

16.15 It is not allowed to ride on the outside of the vehicle. It is mandatory to circulate with the safety nets on the doors properly closed. In case of non-compliance they suffer a penalty of 15min.

16.16 The pilot 2 is allowed to accompany the development of the car outside, as long as it does not endanger his physical integrity.

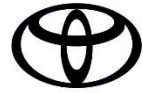
16.17 Riders must ride with all safety equipment, according to its rules of operation/use.

16.18 The team will not be allowed to continue in a competition/event endangering its physical integrity.

16.19 The Race Director reserves the right to remove any vehicle from the track, when it is immobilized and prevents the passage of other competitors, i.e., the normal course of the circuit.

16.20 The teams are obliged to follow the instructions of the commissioner, responsible for the selective sector, under penalty of penalty.

16.21 Throughout the event, any incorrect or disrespectful behavior towards the Race Director, the stewards, the assistants, by a team or identified elements of the same, will result



in a penalty that may go up to disqualification, and may also be subject to sanctions by the FPAK.

16.22 Drinking alcoholic beverages in the official technical inspection area, or closed park areas, pits, assistance points and pit-stops), on the track layout or in the surrounding areas is strictly prohibited for any person who is part of the entered team. The use of narcotics or other illegal or illicit drugs is prohibited. Any participant who appears to be under the influence of any of the above may be disqualified and subject to suspension from all APTE TROPHY events, and may also be subject to sanction by the FPAK.

16.23 Throughout the event, the teams must scrupulously respect the rules of environmental protection, specifically the prohibition of setting fires in forest areas, littering, deteriorating vegetation, not being allowed to spill lubricants and fuels. Failure to comply with the rules of respect for the environment will incur penalties.

16.24 At the end of the race, the vehicles that finish it, enter a Closed Park, where they must remain for 30min. This park will be in a place designated by the Race Director.

16.25 Team penalties will be communicated by the College of Sport Commissioners.

16.26 The prize-giving will take place as defined in the Private Regulations of the Event.

Art. 17 SIGNS / BANNS

17.1 Green Flag: free circulation on the track.

17.2 Blue Flag: Fastest competitor approaches (let faster car overtake).

17.3 Yellow Flag: Warning that a problem has occurred on the road (danger/no overtaking), and you should reduce speed and drive with caution.

17.4 Red Flag: race/event stoppage (cars must automatically be immobilized and/or sent to the pits by indication of the Race Director).

17.5 Black Flag: enter the pits on the next lap (accompanied by the car number).

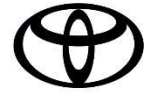
17.6 Checkered Flag: end of the race/event.

Art. 18 - Counting of infractions in each selective sector in the circuit

In each selective sector, the Postmaster must take note or record the infractions verified in his sector by the competitors, and the first infraction verified implies a warning to the team, and the second infraction implies the penalties provided in the Regulation. These penalties will be applied by the Stewards of the Meeting.

18.1 The verified infractions are in function of the following points:

- The non-use of mandatory safety equipment by pilot 1 and pilot 2.
- Touching or going over or under the winch cable when it is under tension.
- Pilots are not allowed to ride on the outside of the vehicle.
- Disrespect for flags.
- Pile toppling or intentional ribbon cutting.



- Vehicle off the track, when it purposely crosses the line of the markings with a wheel.
- The removal of fixed accessories of the vehicle voluntarily or by accident (bumpers, hood, mudguards, etc...) and / or visible mechanical problems that could endanger the competitors, implies that the vehicle must be moved to the pit. The competitor may do so at his own will or by indication of the Steward or Race Director. Failure to comply with this point implies the application of penalties.
- Circuit Infractions - failure to comply with the class course entitles to a one lap penalty or disqualification from the event.

Art.19 - RECOGNITION / PROLOGUE

19.1 Reconnaissance of the circuit is free to all competitors, provided it is not with the competition vehicle.

19.2 The duration of the Timed Prologue will be according to the timetable referring to the Program of the event or the particular Regulations of the race/event.

19.3 The Prologue will consist of one timed lap.

19.4 To establish the classification of the Timed Prologue, the best lap time will be taken into account.

19.5 The starting order for the Prologue in the race/event will be defined by a draw to be held at the briefing.

19.6 In case of a tie in best lap times a draw will be made between the tied teams.

19.7 Teams that by choice have not participated in the Timed Prologue or have not been able to obtain times, the position they will occupy on the starting grid will be last.

Art.20 - REAGREEMENTS

20.1 Regroupings may be done, at the proposal of the Race Director.

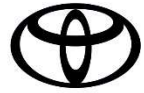
20.1.1 An Event may be stopped before the end of the Event for safety or other reasons. The Event may or may not restart. All decisions to be made in these circumstances will be discussed and reviewed by the College of Stewards of Sport.

ART. 21 - CLOSED PARK

21.1 The closed park will take place at the time and place according to the official program of the race/event.

21.2 After the end of the race/event, all vehicles must be moved to the closed park by the Driver1/driver. The driver and driver2/navigator must immediately leave the park, being prohibited from then on the entry to any of the team members.

21.3 After the end of the race/event, the vehicles will remain in a Closed Park regime for 30 min, forbidding any repair or refueling.



Art.22 - ADMINISTRATIVE AND TECHNICAL VERIFICATIONS

22.1 The administrative checks comprise the verification of documents:

- Sports Licenses
- Miscellaneous permissions, etc.
- FPAK Technical Passport (starting teams)

22.2 Only teams that have passed the administrative checks may present their vehicle at the technical checks.

22.3 The start will be refused to any vehicle that does not conform to the characteristics of the registration, that does not pass the administrative and technical checks, as well as does not comply with the safety standards of this regulation.

22.4 At any time during the race/event, additional checks may be made on both team members and vehicles.

22.5 The Bidder is responsible at all times for the technical legality of his vehicle.

- Presenting a vehicle at the roadworthiness test is considered as an implicit statement of legality.

22.6 The Technical Verifications comprise the verification of all technical characteristics and safety equipment provided, as described in the Technical Regulations of each race.

- Following the technical checks and in the case of non-compliance of a vehicle, a time limit may be granted by the Technical Delegate and/or Chief Technical Commissioner to bring it back into compliance with the corresponding regulations.

- The presentation of a vehicle that does not conform to the technical characteristics of the class, implies refused participation and the impossibility of participating in the event.

Art.23 - CLASSIFICATION BY EVENT

23.1 The timing is the responsibility of the entity contracted for this purpose, being the same made official with the approval of the College of Sport Commissioners.

23.2 The classification will be established by class, according to the time and number of laps, and there is a pre-established number of laps and maximum race time (ex: the winner is the one who gives the expected number of laps in less time).

23.3 Penalties will be expressed in hours, minutes and seconds or in laps.

23.4 A separate classification will be established for all Trophy classes.

23.5 The provisional official classifications of the event will be posted on the official board after the end of the race/event.



23.6 Provisional Official Classifications will become Final Officials at least 30 minutes after the posting of the provisional classification.

23.7 The Classification must include the date, time, and the signature of the Stewards.

23.8 The location of this official board, which will be used to post all the information about the race/event, must be generally known by the competitors and the media.

Art. 24 - PENALTIES

24.1 Participation declined / impossibility to participate

24.1.1 Out of class tires

24.1.2 Lack of individual safety equipment foreseen in the Technical Regulation

24.1.3 The lack or misplacement of mandatory advertising

24.1.4 Vehicle not conforming to the registration characteristics, in administrative and technical checks

24.1.5 Non-use of safety nets for door side windows

24.2 Disqualification

24.2.1 The withdrawal of a team member or the admission of a third party, if no prior registration was made at the administrative checks

24.2.2 Unfair, incorrect or fraudulent behavior by a Competitor or team

24.2.3 Circulate voluntarily in the opposite direction of the route

24.2.4 No compulsory advertising during the race/event

24.2.5 Change of vehicle by the team

24.2.6 Help from outside the team, including the organization. Exceptions to this are when there is danger to the occupants of the vehicle, members of the organization and/or the public, or when the vehicle is impeding the normal operation of the circuit.

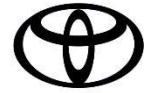
24.2.7 Not using the individual safety equipment during the test

24.2.8 Supply outside the specific locations for this purpose (ZA- Supply zone)

24.2.9 Violation of the Closed Park regime

24.3 Penalties

24.3.1 False start	1 lap
24.3.2 Lack of presence of the team at the Briefing	1 hour
24.3.3 Intentionally blocking the passage of vehicles or preventing overtaking	1 hour
24.3.4. riding without seat belts fastened	15 min
24.3.5. Disregard for the commissioner's instructions	15 min
24.3.6. incorrect or disrespectful behavior toward a	1 hour to disqualification



steward	
24.3.7 Failure to comply with the rules of environmental protection	1 hour
24.3.8. Non-use of protective nets for door side windows	10 min to 1st call. From the 3rd call 1 hour to disqualification
24.3.9. Failure to comply with the course set for the Class	1 lap disqualification
24.3.10. Abuse or excessive tailgating at a slower vehicle	15 min

Art.25 - TROPHY CLASSIFICATION

In each race/event of the APTE TROPHY, the competitors in the events mentioned in Art. 2, will obtain the following points, depending on their place in the final classification of their class.

25.1 Score Table

Classification	Score	Classification	Score
1º	25	11º	10
2º	23	12º	9
3º	21	13º	8
4º	19	14º	7
5º	17	15º	6
6º	15	16º	5
7º	14	17º	4
8º	13	18º	3
9º	12	19º	2
10º	11	20º	1

25.2 From the twenty-first runner-up on, everyone gets 0 points.

25.3 The final classification of each event is determined by the greatest number of laps predicted for the race in the shortest possible time, after exclusion of possible penalties.

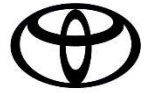
25.4 The finish will be signaled by the display of a checkered flag. The race will end, 2h30 after the start, when a car passes the finish line.

25.5 The timing will close, for all teams, when the stipulated time for each stage of each race ends, as defined in the Private Regulations.

25.6 For the Final Classifications of the **APTE TROPHY**, it will be considered:

25.6.1 The sum of the results obtained by each competitor in the events in which they participated.

25.6.2 After each event, the general classification will be updated, resulting from the accumulated sum of the events.



25.6.3 In case of a tie in the Final Classification of the APTE TROPHY, the one with the highest number of victories in the races (overall and prologue, in case of a second tie) will be declared the best classified.

Art. 26 - SECURITY

In all races/events integrated in the **APTE TROPHY**, it is mandatory to comply with the safety rules imposed by the Technical Regulations.

Art. 27 - PRIZES PER EVENT - DISTRIBUTION OF AWARDS

27.1 They must be distributed on the podium as follows.

27.1.1 APTE TROPHY Classifications, by Event/Event

- To the first 3 overall winners - personalized trophies.
- To the rest - participation trophy.
- There will be monetary prizes per event.
- Other particular prizes may be awarded.

27.2 The prize-giving will always take place at the end of each event. The presence of (Rider 1/Driver and Rider 2/Navigator) will be mandatory.

27.3 Any team that does not attend the awards ceremony will forfeit its right to the awards.

27.4 Prize per race/event - according to the particular regulation of the race/event.

Art. 28 - APTE TROPHY FINAL PRIZES

28.1 There will be monetary prizes to be distributed among the different classes of the TROPHY APTE

Art.29 - COMPLAINTS/APPEALS

29.1 Competitors, and only them, have the right of appeal granted to them by Article 14 of the PGAK. Any complaints or appeals must be made as defined by Article 14 of the PGAK.

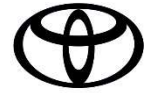
29.2 The amount of the claim fee set is €500.

29.3 Claims expenses - the guarantee deposit to cover expenses with the eventual disassembly, assembly whenever the tenor of the claim requires it, will be of:

Automobiles

- a) 1.000 € - Involving only a certain part of the vehicle;
- b) 3.000 Euros - Involving different parts of the vehicle;

29.4 Appeals - Competitors have the right of appeal granted to them by Article 15 of the CDI and Article 14 of the PGAK.



29.4.1 - National appeal fee - €2,500, regardless of costs or mode.

29.4.2 - Penalties without right of appeal - those penalties provided in the specific prescriptions and/or regulations of championships, cups, trophies, series, challenges or criteria that expressly establish it. As well as the penalties observed by the de facto judges, previously appointed.

Art. 30 - CONDITIONS/RENUANCE/RESPONSIBILITY

30.1 In accordance with Art. 3.14 of the CDI, the organizing committee may refuse to enter a race/event and must inform the interested party and the FPAK within two days after the closing date for entries and no later than five days before the race/event. This refusal must be justified.

30.2 The reader of these Rules and participant in the TROFÉUAPTE, agrees to waive, release, protect, hold harmless and defend the promoter and organizer of the TROFÉU APTE, and each of their heirs, successors, directors, officers, employees, agents, contractors, volunteers and all their respective insurance companies, successors in interest, commercial and corporate sponsors, agents, employees, representatives assignees, employees, directors and shareholders from any and all claims, liabilities, losses, costs or damages or expenses of any other loss or damage caused or alleged to have arisen, from any use of any information contained in these Rules or by reason of any misinformation, omission of information, or any negligent act or relating to these Rules.

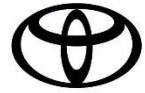
30.3 The reader of these Regulations, all participants in the APTE TROPHY, and any user of any safety device, assume all risks involved in using any information contained in the Regulations governing the APTE TROPHY to participate in this event and in operating a vehicle.

30.4 Nothing written in the various Regulations is intended to be professional, competent or qualified advice on how to design, build, manufacture, install or use any vehicle, component, part, device, system or equipment, including safety systems.

30.5 No warranty or representation is made as to the ability of any of the information contained in this rule set to protect any reader of these Regulations, any participant in the APTE TROPHY, or any user of any vehicle, part, system or safety device (whether or not mentioned herein) from injury, property damage or death.

30.6 By participating in any way in the APTE TROPHY event, means that all participants understand and agree that participating in an off-road event, installing or using any safety device and operating an off-road vehicle for any purpose, MAY BE DANGEROUS and presents a risk of property damage, injury or death.

30.7 All participants assume any and all risks associated with the use of any information published in these Regulations, whether those risks are known or unknown, inherent or not in participating in the TROFÉU APTE.



30.8 APTE is not responsible for decisions made by individuals or others using these Regulations.

30.9 APTE assumes no responsibility for delays, postponements, or cancellations of all or part of the APTE TROPHY for any reason, including inclement weather or unsafe course conditions.

30.10 APTE TROPHY participants and volunteers are not employees of APTE. Participants in the APTE TROPHY event assume all responsibility for all charges, premiums, and taxes due on monies, prizes, or other monies they may receive as a result of their participation in the event.

Art.31 - APPLICATION AND INTERPRETATION OF THE PRESCRIPTIONS

31.1 In the event of a dispute concerning the interpretation of these Prescriptions, only the FPAK is qualified to make a decision.

31.2 Any changes or additions to these Specific Prescriptions may be made at any time by the FPAK.

Art. 32 - OMISSIONS

All cases not foreseen in these regulations, as well as any doubts arising from its interpretation, will be analyzed and decided by the FPAK.

Art.33 - MODIFICATIONS

Any modification to the present regulations will be made according to art. 1.6.1 of the PGAK.

Art.34 - VALIDITY

This regulation will come into force after its publication on the FPAK website.

TECHNICAL REGULATION



1. INTRODUCTION/SUMMARY/DOCUMENTARY CONVENTIONS

- 1.1. These Regulations contain the rules, regulations, specifications and guidelines that govern the conduct of, and participation in, the **King of Portugal- Vimioso** event and its associated qualifying events.
- 1.2. Any modification not provided for in the regulations is prohibited. Any vehicle may be rejected and, consequently, will not be allowed to start.
- 1.3. All cases not provided for in these Technical Regulations are submitted to the College of Sport Commissioners (CCD), in accordance with the provisions of the International Sporting Code (ICD).
- 1.4. To participate in the King of Portugal all vehicles must comply with the present Technical Regulations.
- 1.5. Specifications and standards for equipment set forth in these Rules, especially the safety standards, are to be considered as minimum requirements. The rules, general or particular, specifications or standards set forth herein 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 Rules are intended by nature as a directive, no instruction, however comprehensive, can be applied in all conceivable circumstances. Nothing in these Rules, therefore, is intended to replace the requirement that all participants, at all times, exercise judgment based on common sense and embody a high level of sportsmanship, nor is it intended to replace the requirement that participants 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 phrase "must" is used to indicate that in accordance with, or in application of, a rule or procedure is mandatory.
 - 1.7.2. The word "shall" is used to indicate that in accordance with, or in application of, a rule or procedure is preferred or recommended, but not mandatory.
 - 1.7.3. Special attention has been given to clarifying the vocabulary used in this regulation. Terms, acronyms and abbreviations used in this regulation are defined in Annex A.

2. PRECEDENTS

- 2.1. In case of divergence within this Regulation, the organizer of the **King of Portugal- Vimioso**, Associação A Caminho da Aventura / Clube Nortex4, 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 organizer of the **King of Portugal- Vimioso**, 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 case of conflict between the documents mentioned here and the content of these Regulations, the latter must prevail.
- 2.4. In the event of any inconsistency between the contents of these Regulations (including any documents referred to herein) and any applicable laws and regulations of the Portuguese Republic, the latter shall prevail.
- 2.5. In case of conflict between the contents of these Regulations and the standards or specifications of any outside body sanctioning the co-promoted event, the more stringent standard or specification must prevail.

3. TECHNICAL RULES AND REGULATIONS

3.1. All vehicles must comply:

- 3.1.1. They have to be in good repair and working order;
- 3.1.2. All regulations must be respected and safety features must remain useful throughout the event and, if damaged during the event, must be repaired or replaced before the vehicle can continue in the event;
- 3.1.3. The CCD may request, at any time during the event, complementary technical verifications, for both the vehicles and the team members.
- 3.1.4. The installation of film cameras must be in accordance with the provisions of the following BOM:

https://fpak.pt/sites/default/files/ficheiros/2019-06/28704-camaras_de_filmar.pdf

4. TECHNICAL INSPECTION AND CLOSED PARK

- 4.1. It is the responsibility of the Driver/Competitor to ensure that his vehicle conforms to or complies with all **King of Portugal- Vimioso** regulations, technical standards and specifications.
- 4.2. The Rider/Competitor is responsible for providing the Chief Technical Commissioner with documentation and records regarding compliance with any and all rules specified herein.
- 4.3. The Organization reserves the right to limit the number of people allowed in any area or location where inspections are made or where vehicles are in enclosed parking.

- 4.4. The Organization reserves the right to close access to and/or place in closed park any participating vehicle.
- 4.5. The Organization is not responsible for vehicles in a closed park, but intends to make reasonable efforts to ensure their safety.
- 4.6. The Directors, Race Director and/or the Chief Technical Steward may place in closed park any vehicle or part of it, provided that authorized by the CCD after presentation of the report on the claim.
- 4.7. Any and all vehicles may be subject to a closed park after the race and to a second and more complete technical inspection, provided that authorized by the CCD after presentation of a report on the situation in question.
- 4.8. Any and all vehicles are subject to Closed Park.
- 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 entrant to possible disqualification. Any vehicle not directed directly to the inspection or closed park when requested by the Race Director or Chief Technical Commissioner will subject the entrant to possible disqualification upon decision of the CCD.
- 4.10. The Chief Technical Data Commissioner may confiscate any illegal parts or devices found on any vehicle, and must issue a report to the CCD about the fact of the retention of such parts. Any part or device retained by the Chief Technical Commissioner cannot be returned until the CCD decides otherwise, nor will there be any compensation made by the **King of Portugal- Vimioso** Organizer.
- 4.11. Failure of participants to report for registration and technical inspection, during the hours announced or listed on event information sheets, may result in the following penalties, at the discretion of the **King of Portugal- Vimioso** Organizer and Race Direction, but with the knowledge of the CCD.
 - 4.11.1. A no-show for the final registration call: DNS (DO NOT START)
- 4.12. The Associação A Caminho da Aventura / Clube Nortex4 reserves the right to apply identifying markers to any and all vehicles participating in its events. These must be kept intact and unaltered 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 make a new marker, if this is not possible, and with the knowledge of the PD 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 **King of Portugal - Vimioso** 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 previous inspection, in order to ensure that the preparation of the vehicle is being done according to the Regulation.
- 4.15. Tampering with the inspection marker is strictly prohibited. Any evidence of tampering requires re-inspection of the vehicle at an additional cost before said vehicle is allowed to race.

- 4.16. Failure to comply with the previous paragraph may result in disqualification of the vehicle and driver from future events organized by Associação A Caminho da Aventura / Clubenortex4, after report and with the knowledge of the CCD.
- 4.17. The personal protective equipment of all competitors will be checked at a technical inspection before the race, this includes, but is not limited to, helmets, first aid kits, fire extinguishers, seat belts, and nets. This does not mean that these items will be the only ones checked. The Chief Technical Commissioner, 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 to the SSC. Any retained items may or may not be returned and no compensation will be made by the Organization to any participant who has illegal or unsafe items impounded, and a report of infraction must be made to the SSC.
- 4.18. The pre-race closed-park will be at the discretion of the Organization. After the technical inspection, the vehicles will be directed to a park-closed area where they will remain until the time determined for their removal. Only the stewards designated by the Organization of the **King of Portugal - Vimioso** will be allowed to stay in the area after the entry of the vehicles in park-closed. All other stewards must receive special written authorization from the Race Director to enter the area.
- 4.19. The **King of Portugal - Vimioso** 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 the Chief Technical Commissioner. In post-event technical inspection, the Rider 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 Race Direction may require that a participating vehicle damaged in any incident related to the event submit to a post-incident inspection. If the owner or rider refuses, the vehicle and rider may be disqualified and suspended from future races organized by the Associação A Caminho da Aventura / Clube Nortex4 and its members. A report must be presented for technical confirmation with the CCD's knowledge.
- 4.21. The inclusion in the closed-park of all the vehicles that have finished the race will be at the discretion of the **King of Portugal- Vimioso** Organization. If included, the vehicles will be released no later than two hours after the official closing of the race. The vehicles involved in any kind of protest or complaint will be kept in park-closed until the deliberation of the CCD presents a conclusion about the protest or complaint.
- 4.22. Any refusal by a participant to abide by the decisions of the CCD will result in disqualification of the participant and suspension in events of the Associação A Caminho da Aventura / Clube Nortex4 and associates, 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 Discipline Committee, accompanied by the additional amount of 250 euros, non-refundable, for the opening of the process.

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

5.1. All necessary or suitable equipment, material, devices, safety equipment and components of the vehicle, as described in the **King of Portugal- Vimioso** Regulations (including any special rules or supplementary regulations), must be in good working order at the time of the technical inspection. 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 in the event, as specified in the Regulations and technical specifications.

5.2. **SAFETY EQUIPMENT** - Pilots and equipment manufacturers may request the inclusion of products that do not follow these guidelines. These products must demonstrate the ability to meet or exceed existing standards. All exceptions will be documented in an appendix in the Regulations.

5.2.1. **OCCUPANT RETENTION SYSTEMS** - All vehicles must have a 5-point H-point restraint system in accordance with FIA 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 permitted).

5.2.1.1 The restraint system must be in new or perfect condition, with no nicks, worn layers, chemical stains, or excessive litter, and must be in perfect flexible condition (i.e., the material cannot be rigid).

5.2.1.2 All systems must be mounted in accordance with article 283, point 6 of Annex J of the International Sporting Code (ISC).

5.2.1.3 The retention system must be in new or perfect condition, with no cuts, worn layers, chemical stains, or excessive litter, and must be in perfect flexible condition (i.e. the material cannot be rigid).

5.2.1.4 All restraint systems must display the name of the manufacturer and the month and year of manufacture. Every restraint system must be replaced 3 years after the date of manufacture or 5 years if it is FIA certified.

5.2.1.5 Additional restraint systems are not permitted.

5.2.1.6 In addition to compliance with the manufacturer's instructions, the installation of restraint systems must also comply with the following:

5.2.1.6.1 The restraint must be mounted on structural members that are capable of supporting the load placed on them in the event of an accident, without being damaged.

5.2.1.6.2 The mounting of the restraint systems must be combined with a well-built, well-installed seat firmly mounted on the chassis / roll-cage.

5.2.1.6.3 The restraint must be used with a seat that has the proper number of slots, in the proper location, for the belts. Seats cannot be modified to create belt slots.

5.2.1.7 Belts need to be as short as possible to minimize the stretching effect of the belt.

- 5.2.1.8 The alignment of the belts and straps must be done in such a way that their tightening movement is in a straight line with the anchor points.
- 5.2.1.9 Preferred anchoring is using double shear supports.
- 5.2.1.10 Retention systems must be assembled using high quality material appropriate for the installation. 1/2" (13mm) bolts with Grade 8 fine pitch threads and Grade 8 (or better) deformed pitch nuts are recommended.
- 5.2.1.11 Belts must not scrape on any surface that could cause them to break.
- 5.2.1.12 3-bar slides must be placed near the anchor plate, or if the *Wrap-around* mounting type was used, near the bar around which the belt is attached.
- 5.2.1.13 Belts using an unstitched anchor plate must be wound back a fourth time through the slide.
- 5.2.1.14 The *Wrap-around* type of mounting must be limited to the installation of the shoulder straps and must include a method of preventing lateral movement of the belts.
- 5.2.1.15 The belt tightening adjustments cannot be positioned in or near the seat slots.
- 5.2.1.16 Occupant restraint systems must be used properly fastened, by all occupants, at all times when the vehicle is in motion.

5.3 SAFETY NETS - Approved safety nets are mandatory on all vehicles and must cover the full 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 from the vehicle at any time when the occupant is properly engaged and secured in his or her normal driving position.

- 5.3.1 The nets must be tight, so that when subjected to force they do not shift. They must not be elastic.
- 5.3.2 The areas of the wind wing 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 fitted and secured in his normal driving position. Polycarbonate is not permitted.
- 5.3.3 The nets must be installed inside the structure to prevent them from being damaged or coming loose from in the event of a roll-over or side-slide.
- 5.3.4 Nets attached to the doorframe are allowed.
- 5.3.5 The nets have to be installed in such a way that the occupants can, without assistance, get in and out of the vehicle in any position.
- 5.3.6 For vehicles using factory, or factory-style doors, the polycarbonate on the side windows can be replaced with netting provided that secondary locking devices are used on the doors. Polycarbonate side windows must be mounted to allow quick removal in a situation where the door does not open.
- 5.3.7 The border, edge, and connections of the net must be made of material that is stronger than the net itself. Net connections must be a minimum of 6" (150mm). Acceptable fittings include, but are not limited to: steel hose clamps, instant fittings, point lifting, metal hooks, and steel bars. Nets must be tight so that when subjected to a push force of approximately 23kg, the net deflects less than 4" (100mm).

- 5.4 SEATS / SEATS** - All seats must be made by a recognized manufacturer that specializes in seats for racing applications and be of a type appropriate for the event.
- 5.4.1 All seats must be solidly mounted to the vehicle chassis and the brackets must be adequately strengthened to prevent the seat from moving relative to the frame. Seats must comply with FIA 8855-1999, FIA 8862-2009, or FIA 8855-2021.
- 5.4.2 Adjustable seat tracks must be securely mounted to the vehicle frame to prevent lateral or vertical movement between the seat and the frame.
- 5.4.3 Head restraints constructed of at least 2" (50mm) thick, resiliently filled, and having an area of approximately 232 square centimeters are required. Seats must have appropriate grooves to properly accommodate occupant restraint systems.
- 5.4.4 Folding seats are not allowed.
- 5.4.5 Adjustable brackets are not allowed.
- 5.5 FIRE EXTINGUISHERS** - Each vehicle must carry an EU-approved ABC chemical class, 2kg, or larger, portable fire extinguisher. The extinguisher must have an indicator, be fully charged and easily accessible from inside the vehicle (accessible by all occupants). An additional extinguisher of 2kg or greater, chemical class ABC, must be mounted in a position that is accessible from outside the vehicle by persons unfamiliar with the vehicle. All extinguishers must be mounted in a manner that allows them to be removed and used without the use of tools.
- 5.5.1 On-board integrated 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.
- 5.5.2 The Associação A Caminho da Aventura / Clube Nortex4 **recommends** that the capacity of the extinguishers be 2kg.
- 5.5.3 All extinguishers and suppression systems must have a current (less than one year old) inspection seal and label attached.
- 5.6 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. Air horns are not an acceptable method of meeting this requirement.
- 5.7 REFLECTORS** - All vehicles must stop two 5cm wide, 20cm high red reflector strips, or two 5cm diameter round red reflectors (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.
- 5.8 FIRST AID KIT** - A weatherproof first aid kit must be present in each 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 removing any body, dashboard, or equipment



from the vehicle. Occupants with special medical needs must highlight those needs in an easily visible place on their fire suit or helmet.

5.9 SIGNALING TRIANGLE - All vehicles must have a signal triangle to be used when the vehicle is stationary within tapes.

5.10 VEHICLE IDENTIFICATION - All vehicles in competition must be identified with the correct competitor number.

5.10.1 The participant numbers will consist of a combination of digits from 0 to 9 only. They will have to be manufactured and applied by the participants themselves.

5.10.2 The team number is chosen in the registration process.

5.10.3 Teams that have previously participated in events belonging to Championships / Trophies for which the King of Portugal scores must keep the number previously used, these being priority 1.

5.10.4 Seniority based on the date the driver first competed in events organized by the Associação A Caminho da Aventura / Clube Nortex4 and associates is priority 2.

5.10.5 If the previous points do not apply, the number will be assigned to the team on a first-come-first-served basis.

5.10.6 All vehicles must use a "Shark Fin" type plate, located behind the B-pillar. They must also have a plate in front and one behind with the number. For the plate and number they must follow the color code described below:

5.10.6.6 UNLIMITED: White Background, Black Number;

5.10.6.7 LEGEND: Yellow background, black number;

5.10.6.8 CHANGED: Fluorescent Orange background, Black number;

5.10.6.9 STOCK AND UTV: Fluorescent Blue Background, Black Number;

5.10.7 The 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 The Associação A Caminho da Aventura / Clube Nortex4 is not responsible for problems that may arise from vehicles with unrecognizable identification. It is the responsibility of the driver 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 should separate the driving compartment from any fuels, engine fluids, and acids.

5.11.1 Oil coolers, transmission coolers, and radiators placed in the front of the vehicle have a fire wall that, in case of rupture or leakage, will prevent liquids from getting near the occupants.

5.11.2 All vehicles with operational doors must have a positive locking mechanism on the doors and have a secondary positive locking mechanism permanently docked.

- 5.11.3 All vehicles must have a metal fire wall that separates 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 body to the other. If the engine is rear-mounted, the wall must be able to contain the liquids and extend from driver's shoulder height to the floor of the vehicle and from side to side. If the fuel cell is rear mounted and is above occupant 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 on front engine vehicles. Any holes drilled 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 clearance 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 hood mounted.
- 5.11.5 Treads are mandatory on all vehicles and, if not an integral part of the body or chassis, must be secured by a minimum of six 0.25" (6.4mm) bolts per side. No fasteners or any 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 outside edge to the opposite edge of the vehicle. The construction must be made to provide maximum protection for occupants, 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 Front and rear safety bumpers are required on all vehicles. Protruding or protruding objects are not permitted. 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 coupled.
- 5.11.8 The bumpers must, both in the front and in the rear, prevent the tires from riding up and over each other in the event of a collision.
- 5.11.9 A rear-view mirror is mandatory on 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 Guard/slide plates designed to add a reasonable degree of protection for the front suspension, steering, and braking components are recommended on all vehicles. These must be affixed in a secure manner.
- 5.11.11 All spare parts and extra equipment carried in the vehicle must be securely fastened or stowed to prevent movement during 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 it (excluding in case of an accidental damage) during the entire event.
- 5.12 ROLL-BAR / ROLL CAGE** - It is the responsibility of each competitor to present a safe vehicle for technical inspection prior to the race. The competitor must maintain his safety equipment, including the integrity of the roll-bar/rollcage. The Associação A

Caminho da Aventura / Clube Nortex4 reserves the right to not allow the inclusion of all roll-bar/rollcage projects, that in the opinion of the Chief Technical Commissioner, are not fit for the competition, and must 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. Roll-bar/rollcage means a 6-point connected structure that surrounds and protects the occupants of the vehicle.
- 5.12.1 All vehicles must be equipped with a safety structure that must meet Art. 283-8 of Annex J of the International Sporting Code (ISC).
- 5.12.2 All vehicles must be equipped with a roll-bar/rollcage made of 1020 or better mild steel mechanical tubing (higher carbon or alloy steel content), and seamless, cold-striped tubing.
- 5.12.3 All roll-bar/rollcage components (rims, folds, stiffeners, etc.) must have a minimum of 3" (76mm) clearance from any vehicle occupant's helmet when the occupant is seated in normal driving / riding position. All roll-bar/rollcage components that may come in contact with vehicle occupant helmets must be padded. Air conditioning and other coverings are not recommended, the use of material listed in the Technical List # 23 is recommended
https://www.fia.com/sites/default/files/l23_roll_cage_padding_8.pdf
- 5.12.4 The roll-bar/rollcage must be securely mounted to the frame, chassis or body. The end ends of the roll-bar/rollcage must be secured to a structural member that will withstand maximum impact without breaking or causing those ends to move. The roll-bar/rollcage outside the cab must sandwich the frame to the cab.
- 5.12.5 All vehicles, including those with production (stock) doors, must have at least one side bar to protect the vehicle's occupants from side impacts. These bars must be made of the same tube and material as the rest of the roll-bar/rollcage, must be as parallel as possible to the ground, and must be welded to the front and rear arch of the roll-bar/rollcage. The location of the side rails must not cause difficulty in entering or exiting the vehicle.
- 5.12.6 They must be mounted against stiffeners 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.
- 5.12.7 The roll-bar/rollcage must be fixed at 6 points around the occupants.
- 5.12.8 The roll-bar/rollcage area immediately above the occupants should be filled with at least 1mm sheet metal or at least 3.2mm aluminum sheet and should be welded or bolted to the roll-bar/rollcage frame.

5.13 ENGINEERING

- 5.13.1 **Option 1:** Follow the rules explained in section 5.12;
- 5.13.2 **Option 2:** the competitor can provide a certified engineering design drawing to be reviewed by the engineering consultant of the Associação A Caminho da Aventura /

Clube Nortex4, and sent to the FPAK (Technical Department) who will give final approval. The Chief Technical Commissioner will have to in the field confirm and validate the configuration against the design. All findings will be confidential between the competitor and the Associação A Caminho da Aventura / Clube Nortex4 and FPAK.

5.13.3 **Option 3:** The Associação A Caminho da Aventura / Clube Nortex4 proposes the projected chassis project, sending a copy of it to the FPAK and makes all records public. The final check will be made by the Chief Technical Commissioner at the time of the initial technical checks to confirm and approve this project.

5.14 ENGINE - The engine must be free of leaks.

5.14.1 The motor openings must run to 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 rearward and outward 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 swap 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 leak-free.

5.15.1 All vehicles must have 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 transfer box openings must run to a liquid containment system.

5.16.2 All vehicles must be capable of transmitting power to all four wheels (rim/tire), and must be equipped with gearboxes. Reducers are defined as a gear ratio smaller (numerically greater) than 1:1.

5.17 OUTPUT SHAFT

5.17.1 Cardan joints must be covered with a minimum of 1mm aluminum, or 0.8mm steel, or 0.8mm expanded metal, or 3mm polycarbonate, such 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 drive shaft 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 should be connected to a fluid containment system that prevents the fluid from leaking onto the floor.
- 5.18.3 All hydraulic steering lines must be in good working condition and free of cracks, defects or leaks. The hydraulic lines must be executed in a way that protects them from possible damage.

5.19 SUSPENSION

- 5.19.1 There has to be at least one absorption buffer per wheel.
- 5.19.2 The 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 brake all four wheels (rim/tire). Brakes must be in safe working condition with no leaks throughout the event. If brake system problems have occurred 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 one 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, hand or foot controlled, must hold at least one return spring of sufficient rigidity to close the accelerator pedal instantly when the accelerator is released. Carburetor vehicles must hold at least two accelerator return springs, at least one of which must be attached to the carburetor. All vehicles must have at least one accelerator return spring on the accelerator pedal and one on the accelerator control (pedal or hand control). Computer controlled controllers (electronic throttle control systems) are exempt from the need 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 stop or positive throttle system must be used to prevent the throttle linkage from being in an open position.
- 5.21.2 Adaptive controls may be used as required. Hand throttles must meet the same requirements as a foot throttle and must meet the Organization's approval.

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 Gasoline and Diesel for sale at fuel pumps and service stations;

5.22.1.1.2 Gasoline for racing, as originally produced;

5.22.1.1.3 Alternative fuels, including biodiesel, under the approval of the Organization;

5.22.1.2 Alcohol and nitro-methane are not allowed, as is LPG (Gas) according to article 6.3.1 of the PGAK.

5.22.1.3 Commercially produced, nationally advertised fuel additives can be used.

5.22.2 FUEL: STORAGE

5.22.2.1 It is recommended that all classes of vehicles be equipped with a fuel tank that meets Art. 283-14 of Annex J of the International Sporting Code (ISC), however they may be equipped with the original tank, provided that it is completely protected from damage by rocks or other vehicles.

5.22.2.2 Both custom steel and polyurethane tanks are acceptable. ALL aluminum tanks must be bladder-type without exception.

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

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

5.22.2.5 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.

5.22.2.6 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 built into the surface of the container and bonded to the container surface as an integral part of the tank or mechanically sealed by a flat gasket or *O-ring* and counter-ring systems. Interior partitions are mandatory in all fuel cells. Foam is an acceptable form of interior partition. The bladder construction should be *Nylon* or *Dacron* fabric impregnated and coated with a fuel resistant elastomer. Rotational molded polymer cells are acceptable, when encapsulated in a container constructed of 0.8mm steel or 1.5mm aluminum.

5.22.2.7 Fuel storage tanks are allowed within the following parameters: they must be constructed of aluminum or 3mm steel, must be mounted to the chassis using rubber insulation, and must have a capacity of no more than 1 liter.

5.22.2.8 No jerrycans or other portable fuel containers are 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.

5.22.3 FUEL: INSTALLATION, FILLING AND VENTILATION

- 5.22.3.1 The design and installation of fuel tank and related components (piping) must prevent fuel from escaping if the vehicle is partially or completely inverted. Fuel isolation valves are required from the fuel supply line, return line, and vent line. Fuel isolation valves must be located so that, with the vehicle in any position, they can be closed quickly to restrict the continued flow of fuel to the ground in the event of a fuel line rupture.
- 5.22.3.2 The accumulators have stop supply inlet, supply outlet, return, and outlet connections with isolation valves.
- 5.22.3.3 The fuel tank must be refilled from, and vented to the outside of, the occupant compartment.
- 5.22.3.4 Non-vented fuel filler lines and positive retention fuel filler caps must be located and secured so as to prevent them from being knocked over or opened during vehicle movement, rollover or accidental impact. *Monza / flip-type* caps are strictly prohibited.
- 5.22.3.5 All fuel fill points attached to the frame or body panel must be connected to the tank using flexible couplers. All fuel fill 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 check valve must be placed at the fuel fill points on all fuel cells in case of rollover. It is highly recommended that removable fuel filler caps have a strap or flexible chain to secure them to the vehicle.
- 5.22.3.6 The fuel vent lines have to stop 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.
- 5.22.3.7 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 bottom of the belly of the vehicle or 76mm below the fuel cell, whichever is smaller.
- 5.22.3.8 The fuel vent line has to be routed 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 near the top of the fuel cell and then be routed to a point 76mm below the lowest point of the fuel cell.
- 5.22.3.9 Fuel mats are required for all refueling. No vehicle may be refueled outside of the appropriate locations for this purpose. Fuel storage in the pits must consider safety as the top priority. The Adventure Path Association / Nortex4 Club highly recommends the use of safety tape and "No Smoking / No Open Flame" signs in the area surrounding fuel storage and transfer locations. Fuel towers must be located at least 508 mm from the course. All towers must use only one supply hose that incorporates a spring loaded dead man's type valve that automatically closes the supply hose when the handle is released. All towers must use only one fueling hose that incorporates a break point that seals the tank/fuel hose if the fueling hose is disassembled (for example, in the event that the vehicle drives away with the hose still attached to the

vehicle). See the ENVIRONMENT section for more information and rules and considerations regarding environmental issues.

5.23 BOLTS

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

5.24 ELECTRICAL SYSTEM

5.24.1 CURRENT CURRENT

5.24.1.1 All vehicles must be equipped with a chain cutter that must meet Art.283-13 of Annex J of the International Sporting Code (ISC). A chain stop must be accessible to all occupants of the vehicle and outside the vehicle.

5.24.1.2 A highly visible, easily distinguishable and colorful main power switch must be located in the instrument panel area of the vehicle and clearly labeled. The switch must be capable of disconnecting the entire vehicle electrical system. The switch must shut off the engine when in the off position. The power supply for the winch and secondary low-current electrical equipment that requires an uninterruptible power supply can bypass this option. It is highly recommended that *heavy-duty* marine-style batteries be used, capable of supporting the full load of the vehicle (including winch) and be wired so that the entire electrical system can be disabled 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** - every vehicle must have an ignition on / off device. The switch must be labeled "*Ignition ON / OFF*" and be located within a short distance of 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 highly recommended that electric fuel pumps are not independently switched.

5.24.3 **BATTERIES** - batteries must be securely mounted with metal brackets, metal clamps, or fastened in a manner that prevents displacement in the event of a rollover. All acid batteries must be in a box or enclosure capable of holding 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 there is no barrier between the battery and the occupants. All batteries must be of the sealed type. Gel type batteries are highly recommended.

5.24.4 **LIGHTS** - working headlights 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 stop lights and a yellow rear-facing light. The original rear lights, if equipped, are allowed if they remain on whenever the vehicle's ignition is turned on.

5.24.4.2 The yellow rear light must be installed on all vehicles.

5.24.4.3 All rear-facing lights must be protected against damage that could be caused by rollover. Rear lights must be at least 76mm in diameter, or be approved by the Organization, and must be mounted so as to be clearly visible from the rear of the vehicle.

The rear-facing yellow light, and blue light if required, must illuminate with a brightness that is at least equivalent to a 12V watt40 car bulb, but no brighter than the equivalent of a 12V watt55 car bulb. LED lamps of appropriate brightness are permitted.

The yellow lens must be a deep coverage yellow color, no other colors are allowed.

The blue lens must be a medium coverage blue color, no other colors are allowed. The yellow light, and the blue light if required, must be mounted a minimum of 1219mm from the ground and must be clearly visible without obstruction (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, and the blue light if required, must be placed so as not to impair the vision of another rider approaching from 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 turned on.

5.24.4.4 If, during the duration of the test, any required light does not work, the light must be repaired or replaced at the next service before the vehicle can continue in the test.

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, no dual wheels.

5.24.6.2 The use of wheel covers of any kind is not permitted.

5.24.6.3 All factory tires built by any manufacturer are allowed.

5.24.6.4 Tires must be visually checked for condition and should not be deemed obviously unsafe by the Chief Technical Commissioner.

5.24.6.5 Tires with nails, screws, or with any other items added to the tires are not permitted. Buffing or other modifications involving the removal of material from the tire are permitted.

- 5.24.6.6 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 not exceeding 27" will be permitted. Vehicles can and will be tested at any time. First time non-compliance, entitles to race disqualification. Second time, suspension for the entire season, after submission of the report and by decision of the SSC.
- 5.24.6.7 The requirement for *DOT Street Legal tires* in the limited classes is implicit in all "sticky" racing tires, regardless of their DOT Stamp. For example, *Maxxis Trepadors* racing tires that have to have a DOT Seal.
- 5.24.6.8 Vehicles can and will be tested at any time.

5.24.7 VEHICLE WEIGHT

- 5.24.7.1 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 on the vehicle. The official weight will be the weight as shown on the official scales of the Organization. The vehicle must be able to run on and off the scales under its own power with all mechanical systems complete and ready to compete.

6 SAFETY DEVICES

- 6.1 All riders and copilots must wear Approved Suit according to FIA 8856-2000 or FIA 8856-2018.
- 6.1.1 One-piece fire suits are mandatory. Two-piece suits are not permitted. Suits must cover from the neck to the ankles to the wrists. Suits must have no holes, no tears, and must not be worn. They must also be free of any sign of petroleum-based contamination. All suits must be made of fire-resistant material with the manufacturer's fire-resistance rating label attached. Suit with a minimum of two fire-resistant layers, gloves, and fire-resistant footwear is highly recommended. The Adventure Path Association / NorthX4 Club recommends that each suit be labeled on the upper right chest with the wearer's full name, blood type, allergies, and any other important medical information.
- 6.1.2 All underwear must meet the same standards.
- 6.2 The use of fire-retardant gloves and footwear by vehicle occupants is recommended. The Associação A Caminho da Aventura / NorteX4 Club recommends that each suit be labeled on the upper right chest with the wearer's full name, blood type, allergies and any other important medical information.
- 6.2.1 All occupants must wear gloves while using the winch and/or during vehicle repair processes.
- 6.3 Helmets must conform to the standards in Technical List #25 of Annex J of the International Sporting Code (ISC):



6.3.1 Helmets must meet one of the following standards: FIA 8860-2010, FIA 8859-2015 or FIA 8860-2018.

6.3.1 All helmets, in addition to the stamp with the homologation, have an expiration date, which cannot have been exceeded.

6.3.2 Occupants of open vehicles should wear full-face helmets.

6.3.3 Primary fastener and Velcro fasteners are not allowed.

6.3.4 Quick openings and Velcro can be used as a means of protecting the loose ends of the helmet straps.

6.3.5 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).

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

6.5 Neck protectors are mandatory for all competitors. Neck protectors must provide adequate support and have a fire-resistant cover in good condition.

6.5.1 The use of a head restraint device contained in FIA BOM #36 is recommended.

6.5.2 If the device used is HANS, it can only be used with a compatible helmet included in the FIA Technical List #29.

6.5.3 Foam neck and neck protection is allowed.

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 vendors to showcase their products while teams compete in a class for real drivers with very approximate versions of vehicles that can be driven on public roads. The driver will be required to prove legal any part of their vehicle, including, but not limited to: Engine / Transmission, frame length, suspension setup.

7.1.2 **ELIGIBLE VEHICLES** - Any and all production-based four-wheel drive motor vehicles are eligible for competition, provided they comply with all rules and regulations specified herein and with the following limitations and exceptions:

- A minimum of one thousand (1000) units have been 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 in vehicles produced for different regions/markets must not be combined in any vehicle if doing so would violate any rules or regulations specified herein.

- Also admissible are "Sydebysyde", hereafter called UTV. A UTV is defined as a standard side-by-side production vehicle with 2 or more seats and an engine of 1000 CC or less with *powersports-based* drivetrain systems.

7.1.3 FRAME AND BODY - The frame of reference (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 shaped or reshaped with the following limitations and exceptions:

7.1.3.1 The rear frame and rear cross member 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 metal sheets, doors, hood, fenders, grille, etc.) is required.

7.1.3.3 Holes may be drilled anywhere in the body for the sole and exclusive purpose of allowing cage tubes and the transmission / transfer case to be passed through the body. Open holes must be kept within 12 mm of the diameter of any pipe or joint passing through the body, with additional restrictions relating to holes in firewalls.

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 bolted panels are not allowed.

7.1.5 Stock windows (glass) are not required, but are permitted, provided they meet 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 in full compression.

7.1.7 The outer part of the wheel arches (flaps) can be replaced by any other part 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 necessary as determined by, and at the sole discretion of, the Chief Technical Inspector.

7.1.9 Stock body mounts may 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 other than to 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 should be functional.

7.1.11 Factory bumpers are not required and can be modified or eliminated.

7.1.12 **ENGINE** - The stock engine must be kept, but may be replaced with any available make / model / year. Any modification is allowed, with the following limitations and exceptions: The stock engine block must be retained, as originally manufactured. Forced Induction of all types is not allowed unless factory equipped.

7.1.12.1 If equipped with a water-cooled engine, the radiator must remain within 152 mm 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 allowed, with the following limitations and exceptions: stock transmission cases must be kept 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 allowed, provided they meet all the additional rules and regulations specified here.

7.1.15 **TRANSMISSION AXLE** - Any and all drive shafts are allowed, provided they meet all the additional rules and regulations specified here.

7.1.16 **AXLES** - Any and all sets of axles are allowed, 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 maintain some type of mechanical steering linkage (e.g., full hydraulic steering is not permitted unless factory equipped), and said linkage must be capable of controlling the steering of the steering wheel/Wheels (Rim/Tire) without the benefit of any additional hydraulic steering aids. The steering gear (or rack, if so equipped) must remain within 101mm of the storage location. No part of the steering linkage shall be oriented so as to be partially or substantially parallel to the frame rails or any part of 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 a 76mm margin of stock, as originally manufactured.
- 7.1.18.2 The suspension configuration should remain stock as originally manufactured (meaning that coil springs should remain as coil springs, torsion bars should remain as torsion bars, etc.).
- 7.1.18.3 Leaf springs can be replaced with any leaf springs and can be installed in any location and orientation, with the following limitations and exceptions: Blade springs must be connected directly to the shaft assembly unless otherwise factory equipped. Links / joints may be installed, but the blade 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 the use of dual shackles (at the front and rear spring mounting points on the chassis) are not allowed unless factory installed.
- 7.1.18.4 Coil springs and their suspension may be modified or eliminated and replaced with any coil springs and joints, and may 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 mounted in any way to produce any kind of mechanical advantage unless factory equipped. Coil springs may not be replaced with any type of *coilover* unless factory equipped (if so equipped they may be replaced with aftermarket *coilovers*).
- 7.1.18.5 Secondary suspension is not allowed unless factory equipped (secondary suspension is considered a means or method of supporting any part of the vehicle's weight and/or affecting the primary spring rate at any time). Thus, springs of all types, air suspension, and air / nitrogen charged hydraulic beats are not allowed. Compressible stops made of rubber, foam or other similar materials are allowed, with the following limitations and exceptions: The stops cannot have any effect on any aspect of vehicle performance after 50mm 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 the following limitations and exceptions: Only one shock absorber is allowed per wheel (rim/tire) (except spare wheels). Shock absorbers must not have a diameter greater than 67mm (outside diameter of shock absorber body) and cannot be capable of more than 355mm of travel. Position sensitive systems (including *Bypass* of all types) are not allowed. Shock absorbers must be connected directly to the axle assembly and the chassis and may not be mounted in any way to produce any kind of mechanical advantage unless factory fitted (systems which limit vertical opening progression are not considered a mechanical advantage).
- 7.1.18.6 Manual suspension controls (e.g. forced hydraulic systems) are not allowed.

7.1.19 **WHEELS AND TIRES** - All manufacturer's tire types are allowed. 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 supplemental 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 this regulation except:

7.1.20.1 The rollbar / rollcage used can be the stock 5-point with an aftermarket extra that creates the 6-point.

7.1.20.2 You have to use 5-support restraint systems.

7.1.20.3 They must have doors, but these may not open.

7.1.20.4 Factory fuel cells can be used, provided they are mounted in their original location.

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 at the engine mounting location (engine mounting location should be the same as factory) all the way to behind the rear of the occupant seats. The balance of the frame must remain, however, there are exceptions for suspension mounting.

7.2.1.1 The stock frame must be kept, however, aftermarket and custom frames are allowed. Aftermarket and custom 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 driving height, the bottom of the frame rails cannot 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 during 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 must be complete with the following limitations and exceptions: Modifications to the body for performance and/or space are allowed, but must preserve the appearance of the stock body as originally manufactured.

7.2.1.7 For the purpose in 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 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, provided it meets all the additional rules and regulations specified here.

7.2.4 **TRANSFER BOX** - Any transfer box is allowed, provided it meets all the additional rules and regulations specified here.

7.2.5 **TRANSMISSION AXLE** - Any drive shaft is allowed, provided it meets all the additional rules and regulations specified here.

7.2.6 **AXLES** - Any and all sets of axles are allowed, provided they meet all the additional rules and regulations specified here.

7.2.7 **STEERING** - All vehicles must maintain some form of mechanical steering linkage (e.g. full hydraulic steering is not permitted unless factory equipped), and said linkage must be capable of controlling the steering wheel/wheel (rim/tire) without the benefit of any additional hydraulic steering aids.

7.2.8 **SUSPENSION** - Any and all suspension components and configurations are allowed, provided they meet all additional rules and regulations specified herein.

7.2.8.1 Shock absorbers of any make / model / type are allowed 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 (rim/tyres). Shock absorbers must not be larger than 67mm in diameter (outside diameter of shock body) and must not be capable of more than 355mm of travel. Shock absorbers must be connected directly to the axle assembly and

chassis and must not be mounted in such a way as to produce any kind of mechanical advantage, unless they are factory supplied (mounting shock absorbers out of vertical is allowed and should not be considered mechanical advantage), or fitted with any kind of independent suspension (and then shock absorbers can only be mounted in such a way as to produce a mechanical advantage on wheels / (rim / tires) that are independently suspended).

7.2.8.1.2 Manual suspension controls (e.g. forced hydraulic systems) are not allowed.

7.2.9 **WHEELS AND TIRES** - All manufacturer's tire types are allowed. 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 supplemental 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 has to be forward.

7.3.2 It has to have 2 seats, side by side.

7.3.3 Only one shock absorber is allowed per wheel.

7.3.4 It has to be rigid axle.

7.3.5 All manufacturer's tire types are allowed. Tires must be DOT/CE approved and non-sticky, with a maximum outside diameter of 37" (or equivalent) and will be checked at each event using a gauge unless otherwise specified in supplemental regulations covering special events. Tire compounds will be verified using the markings/identification provided by the manufacturer on the tire, if this is no longer visible, it is the responsibility of the driver to provide.

7.3.6 All safety and technical rules apply.

7.4 UNLIMITED CLASS

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

7.4.2 **TRANSMISSION** - Any transmission is allowed, provided it meets all the additional rules and regulations specified here.

7.4.3 **TRANSFER BOX** - Any transfer box is allowed, provided it meets all the additional rules and regulations specified here.

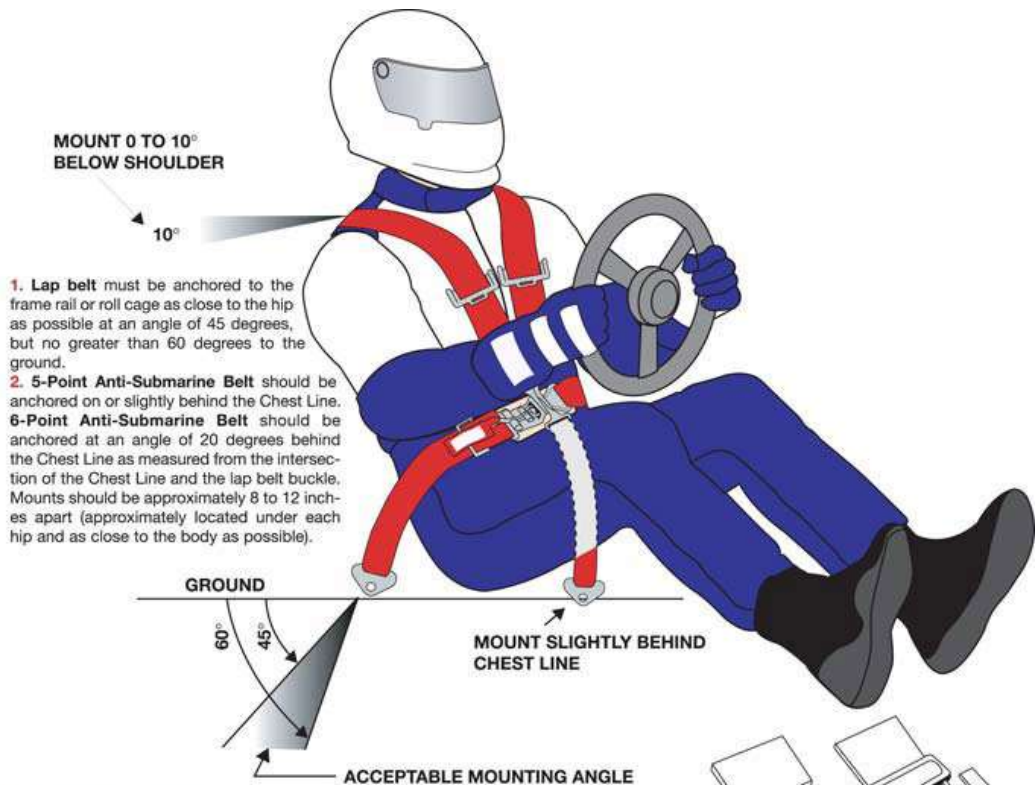
7.4.4 **TRANSMISSION AXLE** - Any drive shaft is allowed, provided it meets all the additional rules and regulations specified here.



- 7.4.5 **AXLES** - Any and all sets of axles are allowed, 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 additional rules and regulations specified herein. Rear wheel steering is permitted.
- 7.4.7 **SUSPENSION** - Any and all suspension components and configurations are allowed, provided they meet all additional rules and regulations specified herein.
- 7.4.7.1 Shock absorbers of any make / model / type are allowed and can be installed in any location and orientation.
- 7.4.7.1.1 Manual suspension controls (e.g. forced hydraulic systems) are allowed.
- 7.4.8 **WHEELS AND TIRES** - Any and all tires are allowed, provided they meet all the additional rules and regulations specified here.

8 ANNEXES

8.1 ANNEX A - Clarifications about the retention system and its placement



MOUNTING BRACKETS

Mounting brackets should be installed at an angle that is compatible with the direction of pull on the webbing under full load. Preferred mount is in a double shear with allowance for the bolt-in bracket to pivot and align toward the direction of the load as shown in Figure 1.

FIGURE 1



FIGURE 2



FIGURE 1 AND FIGURE 2

All mounting brackets should be attached directly to the frame or chassis of the car and installed to limit the driver's body travel both upward and forward. Do not weld around or near belts or belt hardware.

Minimum specification for bolts and washers to attach the seat belts, harnesses and anti-submarine belt hardware are Grade 8.

"LOCKING" the 3-bar Slide Adjuster shown in Steps 1 through 4 is **VERY IMPORTANT**. The 3-Bar Slide Adjuster must be located as close as possible to the Bolt-in bracket or Roll Bar (In Wrap Around design).



WARNING

THIS ARTICLE IS SOLD WITHOUT WARRANTY EXPRESSED OR IMPLIED. NO WARRANTY OR REPRESENTATION IS MADE AS TO THIS PRODUCT'S ABILITY TO PROTECT THE USER FROM ANY INJURY OR DEATH. THE USER ASSUMES THAT RISK. THE EFFECTIVENESS, WARRANTY AND LONGEVITY OF THIS EQUIPMENT ARE DIRECTLY RELATED TO THE MANNER IN WHICH IT IS INSTALLED, USED AND/OR MAINTAINED. THE USER ASSUMES THE RISK. NO WARRANTY OR REPRESENTATION IS MADE AS TO ITS ABILITY TO PROTECT AGAINST SERIOUS INJURY OR DEATH WHICH MIGHT RESULT FROM CIRCUMSTANCES BEYOND THE CONTROL OF

Art. 283 - EQUIPAMENTO DE SEGURANÇA DAS VIATURAS DE TODO TERRENO

Artigo modificado	Data da aplicação	Data da publicação
8	01.01.2021	17.03.2019

Art. 1

Uma viatura cuja construção pareça apresentar perigo poderá ser excluída pelos Comissários Desportivos

Art. 2

Se um dispositivo é facultativo, ele terá, no entanto, de ser montado de acordo com os regulamentos.

Art. 3 - CANALIZAÇÕES, BOMBAS DE COMBUSTÍVEL E CABOS ELÉTRICOS

3.1 - Todos os grupos

Corte automático de carburante - é aconselhado que todas as canalizações de alimentação de carburante que abasteçam ou retornem do motor sejam equipadas com válvulas de corte automático situadas directamente junto ao reservatório desse carburante e que fechem automaticamente todas as canalizações de carburante sob pressão, caso uma delas sofra uma rotura ou perda.

As canalizações de respiro têm também de estar equipadas com uma válvula activada por gravidade, para o caso de capotamento.

Todas as bombas de carburante, têm de funcionar apenas quando o motor está em funcionamento ou durante o arranque.

3.2 - Grupo T2 - as canalizações de combustível têm de ser trocadas por canalizações tipo aeronáutico, sendo livre o seu percurso.

Têm de cumprir com os parágrafos itens seguintes, abaixo, no que lhes dizem respeito.

Protecções suplementares são autorizadas no interior, para protegerem do risco de incêndio ou da projecção de líquidos.

3.3 - Grupos T1, T3-Protótipo, T3-Sérir e T4 - as montagens têm de ser fabricadas de acordo com as especificações indicadas a seguir.

3.3.1 - As canalizações de combustível (excepto as ligações aos injectores e o radiador de arrefecimento montado no circuito de retorno ao reservatório) têm de suportar uma pressão de ruptura mínima de 70 bar (1000 psi) a uma temperatura operacional mínima de 135 °C (250 °F).

As canalizações de óleo de lubrificação têm de suportar uma pressão de ruptura mínima de 70 bar (1000 psi) a uma temperatura mínima de 232 °C (450 °F).

Se forem flexíveis, as canalizações têm de ter ligações de aparafusar e uma protecção exterior resistente à fricção e às chamas (não entrando em combustão).

No caso das canalizações de gasolina, as partes metálicas que se encontrem isoladas do corpo da viatura por peças ou partes não condutoras, terão de ser ligadas electricamente (ligação à massa).

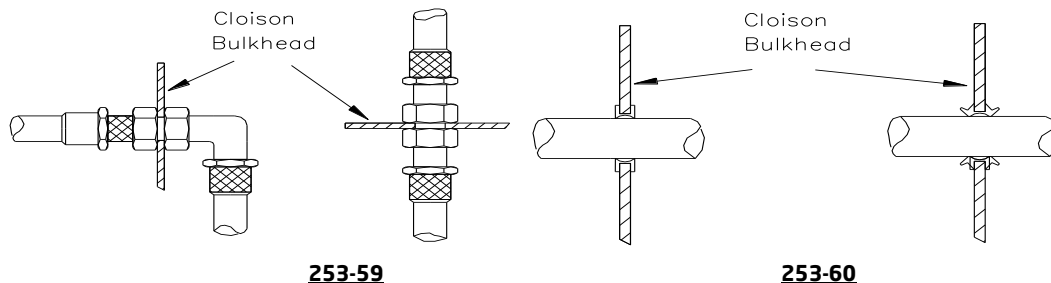
3.3.2 - As canalizações que contêm fluidos hidráulicos sob pressão, têm de suportar uma pressão de ruptura mínima de 280 bar (4000 psi) a uma temperatura mínima de 232 °C (450 °F).

Caso a pressão de funcionamento de um sistema hidráulico seja superior a 140 bar (2000 psi), a pressão de ruptura mínima será de pelo menos duas vezes superior.

Se forem flexíveis, estas canalizações têm de ter ligações de aparafusar e uma protecção exterior que resista ao atrito e às chamas (não entrando em combustão).

3.3.3 - As canalizações de água de arrefecimento ou de óleo de lubrificação têm de ser exteriores ao habitáculo. As canalizações de combustível e de fluído hidráulico podem passar pelo habitáculo ou pela cabine, mas sem apresentarem ligações ou ligações auto-obturantes, salvo nas paredes dianteira e traseira de acordo com os desenhos 253-59 e 253-60 e sobre o circuito de travagem (excepto para T4). Somente será aceite dentro do habitáculo, o reservatório da bomba principal dos travões, qualquer outra reserva de fluído hidráulico é aí proibida.

Os reservatórios de líquido de travões têm de ser fixados solidamente e ser protegidos contra os líquidos e as chamas.



3.3.4 - As bombas e torneiras de combustível têm de ser exteriores ao habitáculo.

3.3.5 - Só as entradas, saídas e canalizações destinadas a ventilar o habitáculo são autorizadas no habitáculo.

3.3.6 - São autorizadas em todas as canalizações, excepto nas do circuito de travagem, as ligações rápidas auto-obturantes.

Art. 4 - SEGURANÇA DO SISTEMA DE TRAVAGEM

4.1 - Duplo circuito comandado pelo mesmo pedal - a acção do pedal tem de exercer-se normalmente em todas as rodas; em caso de fuga num ponto qualquer da canalização ou de uma falha qualquer na transmissão da travagem, a acção do pedal tem de continuar a exercer-se pelo menos em duas rodas.

Um travão de mão de estacionamento actuando sobre os travões dum mesmo eixo e mecanicamente independente do comando principal tem de equipar o veículo (hidráulico ou mecânico).

Art. 5 - FIXAÇÕES SUPLEMENTARES

5.1 - No mínimo dois fechos de segurança têm de estar montados em cada um dos capots.

Essa medida também se aplica a portas traseiras, mas não a portas da frente.

As fechaduras de origem podem ser tornadas inoperantes ou suprimidas.

Estes fechos serão obrigatoriamente do tipo *americano*, uma baioneta atravessando o capot, travada por um anel preso ao capot.

No caso de peças ou elementos plásticos têm de ser previstos reforços metálicos que impeçam o arrancamento. têm de ser previstos.

Os objectos transportados a bordo dos veículos (tais como roda de reserva, *kit* de ferramentas, etc.) têm de estar solidamente fixados.

Art. 6 - CINTOS DE SEGURANÇA

6.1 - Cintos

6.1.1 - Cintos conforme Norma segurança FIA 8853/98 - é obrigatória a sua utilização até 31.12.2020.

6.1.2 - Cintos conforme Norma segurança FIA 8853-2016 - recomendados.

Obrigatórios a partir de 01.01.21

6.1.3 - Dois corta-cintos têm de estar permanentemente dentro da viatura.

Têm de ser colocados num local acessível ao piloto e ao co-piloto, quando sentados e com os cintos colocados.

Recomenda-se ainda que, para as competições que contém percursos em estrada aberta, o sistema de desengate (abertura) seja do tipo *botão de carregar*.

As ADN poderão homologar pontos de fixação situados na armadura de segurança, no momento da homologação dessa armadura sob a condição de serem submetidos a ensaio.

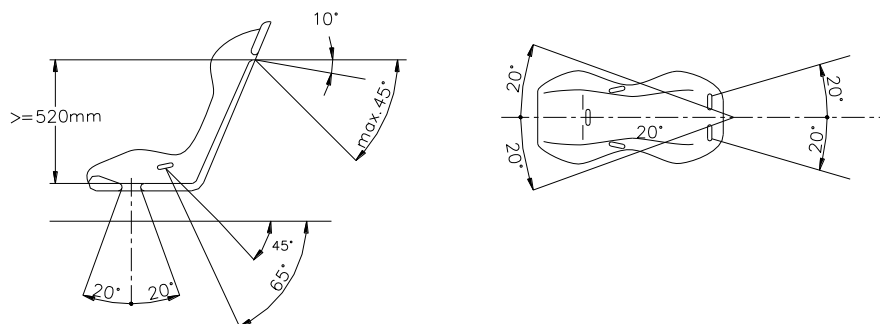
6.2 - Instalação - é proibido fixar os cintos de segurança aos bancos ou aos seus suportes.

Os pontos de fixação nas viaturas de série (grupos T2 e T4) têm de ser os de origem.

Se a montagem nestes pontos for impossível, podem ser instalados outros à carroçaria monobloco ou ao chassis ou à cabine, um independente para cada faixa, e o mais para trás possível do eixo traseiro para as faixas dos ombros.

É importante que os cintos não fiquem a roçar em arestas vivas.

As localizações geométricas recomendadas para os pontos de fixação estão representadas no desenho 253 - 61.



253-61

As faixas dos ombros têm de dirigir-se para trás e para baixo com um ângulo de 10° a 45° em relação à horizontal, e desde o bordo superior do banco, (20° a partir dos ombros do piloto em T4) sendo aconselhado um ângulo que não ultrapasse os 10°.

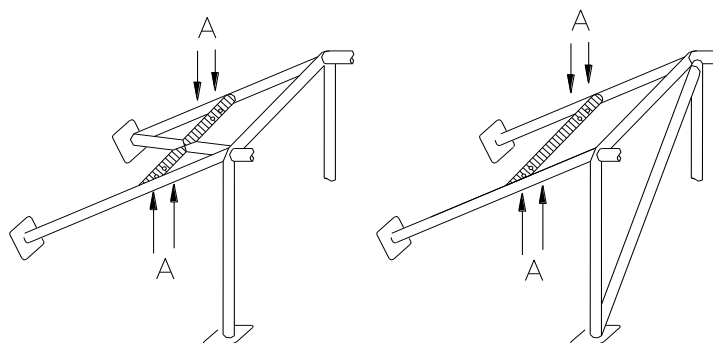
O ângulo máximo em relação ao eixo do banco é de 20° (divergente ou convergente, medidos em projecção horizontal).

Caso seja possível, deve ser mantida a fixação prevista pelo construtor para o montante C.

Pontos de fixação que envolvam ângulos maiores em relação ao plano horizontal não poderão ser utilizados.

Caso a montagem nos pontos de origem não seja possível, os cintos dorsais poderão ser fixados ou apoiados numa barra transversal traseira, fixada ao arco de segurança ou aos pontos de fixação superiores dos cintos traseiros.

As faixas dos ombros também podem ser fixadas à armadura de segurança ou a uma barra transversal anti-aproximação por uma volta de cinto, como aos pontos superiores dos cintos traseiros, ou apoiar ou ser fixado sobre um reforço transversal soldado às peças traseiras da armadura de segurança. (ver desenho 253-66) ou em reforços transversais tubulares de acordo com os desenhos 253-18, 253-26, 253-27, 253-28 e 253-30.



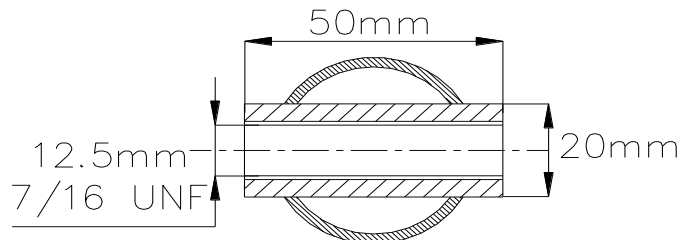
Ⓐ trous de montage pour harnais
mounting holes for harness

253-66

Neste caso este reforço terá de obedecer ao seguinte:

- O reforço transversal será um tubo de pelo menos 38 mm x 2.5 mm ou 40 mm x 2 mm em aço carbono estirado a frio sem costura, com uma resistência mínima à tracção de 350 N/mm².
- A altura do reforço tem que ser tal que as faixas dos ombros se dirijam para trás e para baixo com um ângulo de 10° a 45° (20° para T4) em relação à horizontal, e desde o bordo superior do banco (ou dos ombros do piloto para T4), sendo aconselhado um ângulo próximo dos 10°.

- Os cintos abdominais e entre-pernas, não podem passar por cima dos lados do banco mas através dele, com o objectivo de contornar e apoiar a região pélvica na maior superfície possível.
- Os cintos abdominais têm que se adaptar o mais possível entre a zona pélvica e o ponto mais alto da coxa. Em nenhuma circunstância os cintos podem ser utilizados sobre a região abdominal.
- A fixação das faixas por volta de cinto (*como por parafusos*) é autorizada, mas neste último caso tem de soldar um reforço para cada ponto de parafuso (desenho 253-67 para as medidas).



253-67

Estes reforços têm de ser situados no reforço e as faixas fixadas com parafusos tipo M12 8.8 ou 7/16 UNF.

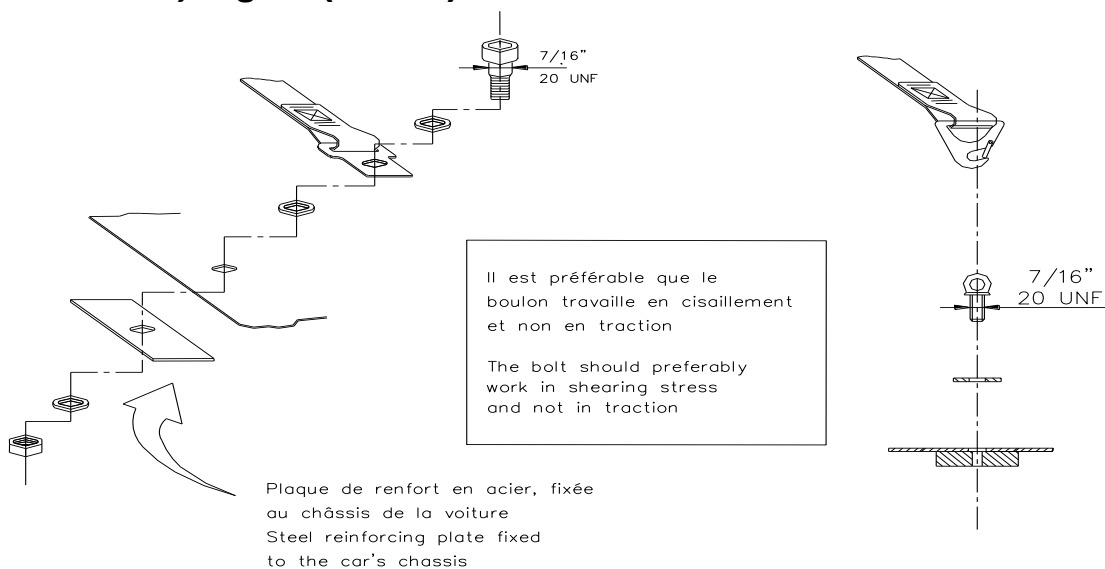
Cada ponto de fixação tem de resistir a uma carga de 1470 daN ou 720 daN para os cintos de segurança entre-pernas.

No caso de um ponto de fixação para dois cintos (proibido para as faixas dos ombros), a carga considerada será a soma das 2 cargas requeridas.

Para cada novo ponto de fixação criado, tem de ser usada uma placa em aço de reforço de pelo menos 3 mm de espessura e pelo menos 40 cm² de área.

Princípios de fixação ao chassis-coque (desenhos):

1 - Sistema de fixação geral (253-62)

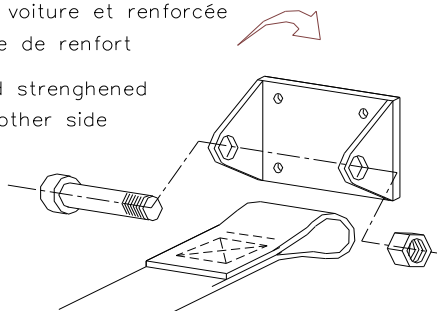


253-62

2 - Sistema de fixação para cintos dorsais (253-63)

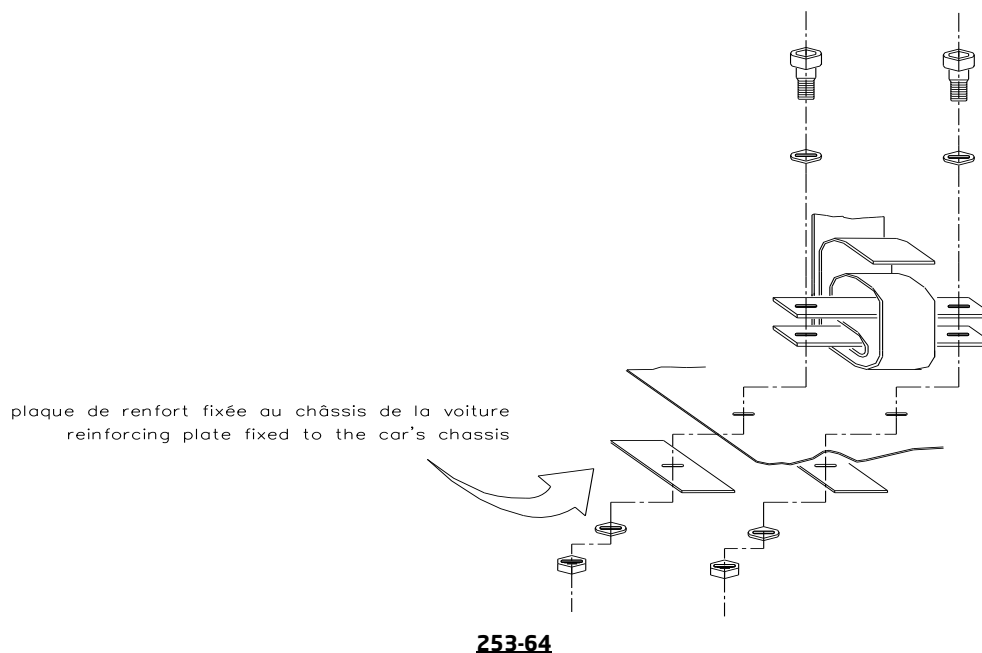
plaque fixée au châssis de la voiture et renforcée de l'autre côté par une plaque de renfort

plate fixed to the chassis and strengthened by a reinforced plate on the other side



253-63

3 - Sistema de fixação para cintos entre-pernas (253-64)



6.3 - Utilização - um sistema de cintos de segurança tem de ser usado conforme a homologação, sem modificações ou supressão de peças, e em conformidade com as instruções do fabricante.

A eficácia e a duração dos cintos de segurança, estão directamente ligadas à forma como são instalados, utilizados e conservados.

Os dispositivos elásticos presos faixas dos ombros são proibidos.

Os cintos de segurança têm de ser substituídos após uma forte colisão e se eles forem cortados ou estiverem esgaçados ou ainda em caso de perda de qualidades por acção do sol ou produtos químicos.

É igualmente necessário substituir as partes metálicas ou fechos, caso estejam deformados ou corroídos. Todos os sistemas de cintos que não se apresentem nas melhores condições, terão de ser substituídos.

Nota: É proibido combinar elementos de cintos de proveniências diferentes. Só pode ser utilizado um conjunto completo, tal como é homologado e fornecido.

Art. 7 - EXTINTORES - SISTEMA DE EXTINÇÃO

A utilização dos seguintes produtos é proibida: BCF, NAF.

7.1 - Sistemas instalados

7.1.1 - Cada viatura (camião) tem de estar equipada com um sistema de extinção em conformidade com a norma FIA para Sistemas de Extinção (vulgo extinção automática) canalizados instalados nas viaturas de competição (1999) salvo indicação contrária abaixo.

Os Sistemas de Extinção em conformidade com a norma FIA 8865-2015 (lista técnica nº 52) são obrigatórios:

- Obrigatório para as viaturas dos Grupos T1, T2 e T4
- Recomendados para as viaturas dos Grupos T3 Protótipo e T3 Série.

O Sistema tem de ser utilizado em conformidade com as instruções do fabricante e pelas listas técnicas nº 16 ou nº 52.

7.1.2 - Cada botija de extintor tem de estar protegida de maneira adequada e instalada dentro do habitáculo.

A botija pode também estar situada dentro do compartimento das bagagens desde que esteja a pelo menos 300 mm do perímetro exterior da carroçaria em qualquer direcção, horizontalmente.

Ela tem de ser fixada por pelo menos duas cintas metálicas bloqueadas por parafusos e o sistema de fixação tem de resistir a uma desaceleração de 25g.

São necessárias abas de bloqueio anti-torpedo.

O material do sistema de fixação tem de funcionar numa faixa de temperatura de -15 °C a + 80 °C.

Todo o sistema extintor tem de ser à prova de fogo.

As canalizações em plástico são proibidas e as canalizações em metal obrigatórias (a menos que especificado de outro modo).

7.1.3 - O piloto e o (s) co-piloto (s), normalmente sentados, com os cintos apertados e o volante colocado, têm de ser capazes de disparar manualmente o sistema de extintores.

O dispositivo de disparo exterior tem de ser indicado por um símbolo **E** vermelho dentro de um círculo branco de 10 cm de diâmetro, com bordo vermelho.

Grupos T1, T2, T3-Protótipo e T3-Série - dois dispositivos de disparo exterior terão de estar situados perto dos interruptores de corta-circuitos e não combinados com eles.

Grupo T4 - um dispositivo de disparo exterior terá de estar situado perto do interruptor corta-circuitos e não combinado com ele.

7.1.4 - Este sistema tem de funcionar em qualquer posição da viatura.

7.1.5 - Os bicos de repartição do produto extintor, têm de ser adequados para o extintor e têm de ser instalados de tal forma que não sejam diretamente apontados para as cabeças dos ocupantes.

7.2 - Extintores manuais

7.2.1 - Cada viatura tem de estar equipada com um ou dois extintores, em conformidade com os Art. 7.2.2 a 7.2.5 abaixo.

Cada camião tem de estar equipado com dois extintores, em conformidade com os Art. 7.2.2 a 7.2.5 abaixo.

Em todo o caso, os Extintores manuais conformes com a Norma FIA 8865-2015 (lista técnica nº 52) são recomendados (neste caso os Art. 7.2.2 a 7.2.5 abaixo não se aplicam)

7.2.2 - Agentes extintores autorizados: AFFF, FX G-TEC, Viro3, pó ou qualquer outro agente homologado pela FIA.

7.2.3 - Quantidade mínima de agente extintor:

AFFF - 2,4 litros

FX G-TEC - 2,0 Kg

Viro3 - 2,0 Kg

Zero 360 - 2,0 Kg

Pó - 2,0 Kg

7.2.4 - Todos os extintores têm de ser pressurizados em função do conteúdo como segue:

AFFF - conforme as instruções do fabricante ou 12 bar.

FX G-TEC ou Viro3 - conforme as instruções do fabricante.

Zero 360 - conforme as instruções do fabricante.

Pó - 8 bar mínimo, 13,5 Bar máximo

Além disto, no caso dos AFFF, os extintores têm de estar equipados com um sistema que permita verificar a pressão do conteúdo.

7.2.5 - As informações seguintes têm de figurar visivelmente em cada extintor:

- Capacidade

- Tipo de produto

- Peso ou volume do produto

- Data de verificação do extintor, que não pode ser superior a dois anos desde a carga inicial ou recargas seguintes ou a data limite de validade que lhe corresponda.

7.2.6 - Cada botija de extintor terá de estar protegida de forma eficaz.

Em qualquer caso, as suas fixações terão de ser capazes de resistir a uma desaceleração de 25 G.

Além disto, apenas serão aceites como fixação, as cintas metálicas de desengate rápido.

São necessárias abas de bloqueio anti-torpedo.

7.2.7 - Pelo menos um dos extintores terá de estar colocado em lugar de fácil alcance do piloto e do (s) co-piloto (s), normalmente sentados, com os cintos de segurança colocados e o volante colocado.

7.2.8 - Para os camiões, em substituição de um dos dois extintores, é autorizada a montagem de um sistema de extinção mencionado na Lista técnica nº16 ou na Lista Técnica nº 52.

Art. 8 - ARMADURA DE SEGURANÇA

Para T1, T2, T3-Protótipo e T3-Série apenas, para T4 ver Art. 287.3

Para as viaturas dos Grupos T1, T3-Protótipo e T3-Série, a referência à data de Homologação será entendida como a primeira data de emissão do passaporte técnico FIA.

Os Art. 8.1 a 8.3 a seguir aplicam-se apenas às armaduras de segurança de viaturas **homologadas a partir de 01.01.2017.**

Para as armaduras de segurança de viaturas **homologadas antes de 01.01.2017**, consulte os Art. 283-8 do Anexo J 2016.

8.1 - Generalidades - a montagem de uma armadura de segurança é obrigatória.

Salvo disposição em contrário dos regulamentos técnicos aplicáveis, ela pode ser:

a) construída de acordo com as exigências abaixo (a partir do Art. 283-8.2);

b) homologada ou certificada por uma ADN de acordo com o regulamento de homologação FIA para armadura de segurança;

Qualquer armadura de segurança homologada por uma ADN tem de ser identificada individualmente por meio de uma placa de identificação aposta pelo fabricante;

Esta placa de identificação não pode ser nem copiada nem movida (isto é, embutida, gravada, placa metálica).

A identificação terá de indicar o nome do construtor, o n.º de homologação ou de certificação da ficha de homologação ou certificado da ADN e o n.º de série único do construtor.

Uma cópia autêntica do documento de homologação ou certificado com os mesmos números, aprovado pela ADN e assinado por técnicos qualificados que representam o fabricante, tem de ser apresentado aos comissários técnicos da competição.

c) homologada pela FIA de acordo com o regulamento de homologação FIA para armadura de segurança.

Para o Grupo T2, unicamente

Tem de ser objecto de uma extensão à homologação do veículo homologado pela FIA.

A identificação do fabricante tem de estar conforme o especificado na extensão.

Os compradores têm de receber um certificado numerado correspondente.

Qualquer modificação feita numa armadura de segurança homologada ou certificada é proibida.

É considerada como modificação qualquer operação efectuada na armadura, por maquinação, soldadura, que implique uma modificação permanente do material ou da estrutura da armadura.

Qualquer reparação de uma armadura de segurança homologada ou certificada, danificada como resultado de um acidente terá de ser efectuada pelo construtor da armadura ou com a sua aprovação.

É proibida a cromagem de toda, ou parte da armadura de segurança.

Os tubos das armaduras de segurança não podem servir para canalizar fluidos ou seja o que for.

As armaduras de segurança não podem dificultar a entrada e saída do piloto e do co-piloto.

Dentro do habitáculo é proibida a passagem, entre as partes laterais da carroçaria e a armadura de segurança, os seguintes elementos:

- cabos eléctricos
- tubos que transportem líquidos (exceto líquido de limpa vidros)
- tubos do sistema de extinção

Alguns elementos podem ocupar espaço reservado aos ocupantes quando atravessam o tablier, os forros ou os bancos traseiros.

8.2 - Definições

8.2.1 - Armadura de segurança - estrutura multitubular instalada no habitáculo o mais perto possível da coque e cuja função é a de limitar uma deformação significativa da coque (chassis) em caso de acidente.

8.2.2 - Arco de segurança - estrutura tubular formando um arco, com dois pés de implantação.

8.2.3 - Arco Principal (desenho 253-1) - arco tubular mono peça transversal e sensivelmente vertical (inclinação máxima +/- 10° em relação à vertical) situado transversalmente na viatura imediatamente atrás dos bancos dianteiros.

O eixo desse tubo terá de estar contido num só plano.

8.2.4 - Arco Dianteiro (desenho 253-1) - idêntico ao arco principal, mas cuja forma segue os montantes do pára-brisas e o seu bordo superior.

A parte inferior do pilar tem de estar sensivelmente na vertical, com um ângulo máximo de 10° em relação à vertical para a retaguarda.

Ao nível do ponto de ancoragem, o tubo não pode ficar para atrás do ponto mais à frente do arco de segurança.

8.2.5 - Arco Lateral (desenho 253-2) - arco tubular monopeça, sensivelmente longitudinal e sensivelmente vertical situado do lado direito e do lado esquerdo da viatura, cujo montante dianteiro

acompanha o montante do pára-brisas e o montante traseiro é sensivelmente vertical (inclinação máxima de $\pm 10^\circ$ em relação à vertical) e situado imediatamente atrás dos bancos dianteiros.

O montante traseiro tem de ser rectilíneo quando visto de lado.

A parte inferior do pilar tem de estar sensivelmente na vertical, com um ângulo máximo de 10° em relação à vertical para a retaguarda.

Ao nível do ponto de ancoragem, o tubo não pode ficar para atrás do ponto mais à frente do arco de segurança.

8.2.6 - Semi-arco lateral (desenho 253-3) - idêntico ao arco lateral, mas sem montante traseiro.

8.2.7 - Elemento longitudinal - tubo monopeça sensivelmente longitudinal que liga as partes superiores do arco dianteiro e do arco principal.

8.2.8 - Elemento transversal - tubo monopeça sensivelmente transversal que liga as partes superiores dos semi-arcos laterais ou dos arcos laterais.

8.2.9 - Elemento diagonal

Tubo transversal que liga:

Um dos cantos superiores do arco principal, ou uma das extremidades do elemento transversal no caso de um arco lateral, ao pé de ancoramento inferior oposto do arco de segurança.

Ou

A extremidade superior de um tubo de apoio traseiro ao pé de ancoragem inferior do outro tubo de apoio traseiro.

8.2.10 - Elemento removível - elementos de uma armadura de segurança que podem ser removidos.

8.2.11 - Reforços de Armadura - elementos acrescentados à armadura de segurança para lhe melhorar a resistência.

8.2.12 - Pé de ancoramento - placa soldada à extremidade de um tubo de um arco que permite que ela seja aparafusada à coque / chassis, geralmente sobre uma placa de reforço.

Esta placa pode ser soldada à coque / chassis como complemento aos parafusos.

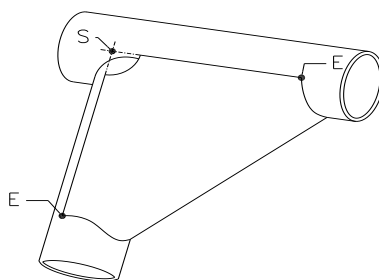
8.2.13 - Placa de reforço - placa metálica fixada à coque/chassis, sob um pé de ancoragem do arco.

8.2.14 - Esquadro (Desenho 253 - 34) - reforço de canto ou de junção, em chapa dobrada em forma de U (desenho 253-34), cuja espessura não poderá ser inferior a 1,0 mm.

As extremidades deste reforço (ponto E) têm de estar situadas a uma distância do topo do ângulo (ponto S) entre 2 a 4 vezes o diâmetro exterior do maior dos tubos que se unem.

É autorizado um corte no canto do ângulo, mas o seu raio (R) não pode ser maior do que 1,5 vezes o diâmetro exterior do maior dos tubos unidos.

As faces planas do esquadro podem conter um orifício cujo diâmetro não seja maior do que o diâmetro do maior dos tubos unidos.



253-34

8.3 - Especificações

8.3.1 - Estrutura de base

A estrutura de base tem de ser feita de acordo com um dos seguintes desenhos:

• **Estrutura de base 1 (Desenho 253-1)**

- 1 arco principal
- 1 arco dianteiro
- 2 membros longitudinais
- 2 membros de prolongamento traseiro
- 6 pontos de fixação

• **Estrutura de base 2 (Desenho 253-2)**

- 2 arcos laterais
- 2 membros transversais

2 membros de prolongamento traseiro

6 pontos de fixação

● **Estrutura de base 3 (Desenho 253-3)**

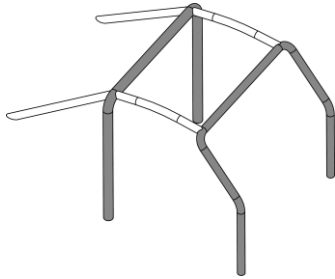
1 arco principal

2 semi-arcos laterais

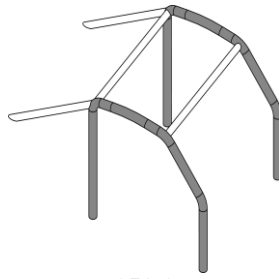
1 membro transversal

2 membros de prolongamento traseiro

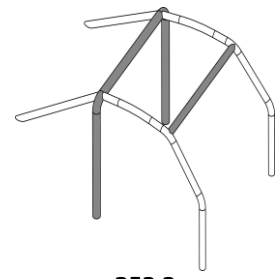
6 pontos de fixação



253-1



253-2



253-3

A parte sensivelmente vertical do arco principal (ou o montante traseiro do arco lateral) terá de estar o mais próxima possível dos painéis laterais interiores da coque e não pode comportar mais que uma curva. O montante do arco dianteiro (ou o montante frontal de um arco lateral ou um meio arco lateral) tem de seguir o mais perto possível o contorno do pára-brisas e não pode ter curvas adicionais abaixo daquelas onde deixa de seguir o pilar do pára-brisas.

As seguintes ligações têm de estar situadas ao nível do tecto:

- Membros longitudinais para as barras laterais dianteira e principal
- Elementos transversais às barras laterais do arco
- Meio-arco lateral em relação ao arco principal

Em qualquer caso não pode haver mais de quatro (4) ligações desmontáveis ao nível do tejadilho.

Os membros de prolongamento traseiro têm de ser fixados ao nível do tejadilho e próximo dos ângulos superiores exteriores do arco principal, dos dois lados da viatura (ligações removíveis permitidas).

Elas terão de formar um ângulo de pelo menos 30° com a vertical dirigir-se para trás e ser rectilíneas, ficando o mais perto possível dos painéis laterais interiores da coque.

8.3.2 - Conceção - uma vez a estrutura de base esteja definida, esta terá de ser completada por elementos e reforços obrigatórios (ver Art. 283-8.3.2.1) aos quais podem ser acrescentados reforços facultativos (ver Art. 283-8.3.2.2).

Excepto se explicitamente autorizado e apenas no caso das ligações desmontáveis serem utilizadas conforme indicado no Art. 283-8.3.2.4, todos os elementos e reforços tubulares têm de ser monopeça.

8.3.2.1 - Elementos e reforços obrigatórios

8.3.2.1.1 - Elementos diagonais-

a) Arco Principal:

A armadura de segurança tem de ter um dos membros diagonais definidos por:

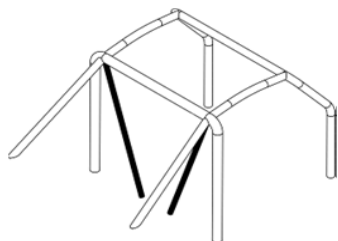
- Desenhos 283-8 (só para os Grupos T1, T3-Protótipo e T3-Série) e 253-7.

No caso do desenho 283-8, a distância entre as duas fixações na carroçaria / chassis não pode ser superior a 400 mm.

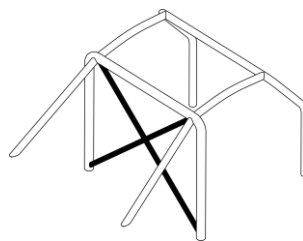
Esses elementos têm de ser rectilíneos e podem ser desmontáveis.

A extremidade superior da diagonal tem de encontrar o arco principal a menos de 100mm da sua junção com os prolongamentos traseiros. **ou os prolongamentos traseiros a menos de 100mm da junção com o arco principal.**

A extremidade inferior da diagonal tem de encontrar o arco principal **ou os prolongamentos traseiros** não mais de 100mm do seu pé de fixação (excepto no caso do desenho 283-8) (ver desenho 253-52 para a medida)



283-8



253-7

8.3.2.1.2 - Elementos das portas - um ou mais elementos longitudinais têm de ser montados de cada lado da viatura, em conformidade com os desenhos 283-9 ou 253-9.

O(s) tubo(s) que constituem esse reforço têm de ser integrado(s) na armadura e os seus ângulos relativamente ao tubo horizontal não podem ser superiores a 15° (inclinado para baixo e para a frente)

Os desenhos podem ser combinados entre eles.

A concepção tem de ser idêntica para os dois lados.

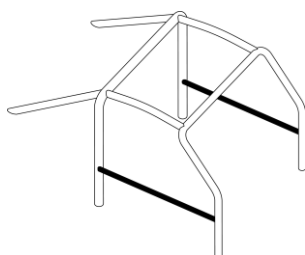
Para as competições sem co-piloto, os elementos que constituem a protecção das portas podem ser montados unicamente do lado do condutor e não é obrigatório que o desenho seja idêntico em ambos os lados.

A protecção lateral terá de ser tão alta quanto possível, a pelo menos 10 cm relativamente ao fundo do banco, no caso do desenho 283-9, mas os seus pontos de fixação superior não podem ultrapassar a metade da altura da abertura da porta, quando medida desde a sua base.

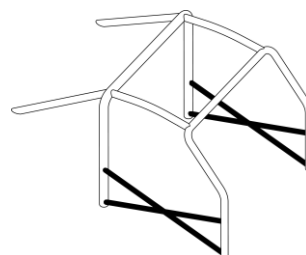
Caso os pontos de ancoragem superiores se situem adiante ou atrás da abertura de porta, esta limitação de altura aplica-se à intersecção correspondente do elemento e a abertura da porta (vista de lado).

No caso do desenho 253-9, recomenda-se que os pontos de ancoragem inferiores das barras sejam fixados directamente sobre o membro longitudinal da carroçaria / chassi e que pelo menos uma parte do "X" seja uma barra de peça única.

A ligação dos reforços das portas ao montante dos reforços de pára-brisas é autorizada (conforme desenho 253-15)



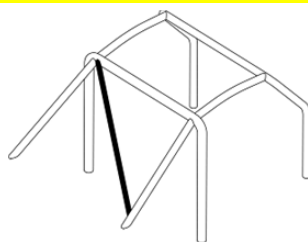
283-9



253-9

b) Prolongamentos traseiros:

A instalação de um membro diagonal de acordo com o desenho 253-20 é obrigatória para viaturas homologados a partir de 01.01.2020.



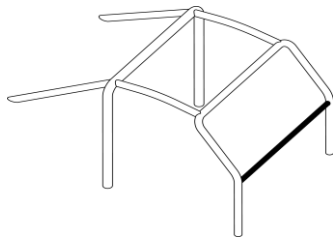
253-20

8.3.2.1.3 - Reforço transversal (desenho 253-29) .

Ele terá de ser rectilíneo.

Ele pode ser colocado o mais alto possível, mas seu bordo inferior não pode estar mais alto do que o ponto mais superior do tablier.

Não pode estar posicionado abaixo da coluna de direcção.



253-29

8.3.2.1.4 - Reforço de tejadilho

A parte superior da armadura de segurança tem de estar reforçada em conformidade com um dos desenhos 253-12, 253-13 e 253-14.

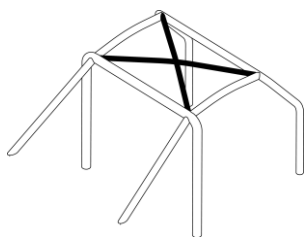
Estes reforços podem seguir a curvatura do tejadilho.

Para as competições sem co-pilotos, no caso do desenho 253-12 apenas, pode ser montado um único membro diagonal mas a sua ligação frontal tem de estar do lado do condutor.

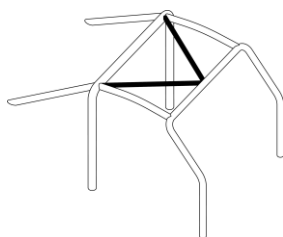
As extremidades dos reforços têm de ficar a menos de 100mm das junções do arco principal com os outros elementos, excepto no caso do vértice do V (não aplicável ao topo do V formado por reforços nos desenhos 253-13 e 253-14).

Junção dos tubos no vértice do V

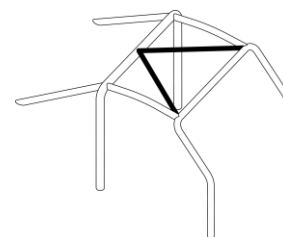
Se os tubos não se juntarem, a distância entre eles não pode ser superior a 100 mm ao nível da sua junção com o arco principal ou o transversal dianteiro.



253-12



253-13



253-14

8.3.2.1.5 - Reforço do montante do pára-brisas

Terá de ser montado de cada lado do arco dianteiro (desenho 253-15).

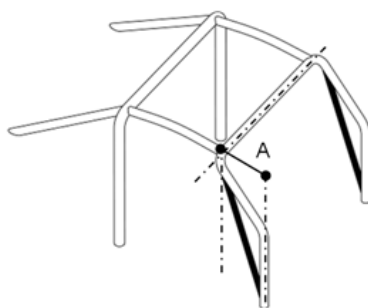
Ele pode ser curvo, desde que seja rectilíneo quando visto lateralmente, e que o ângulo da sua curva não seja superior a 20°.

A sua extremidade superior tem de estar situada a menos de 100mm da junção entre o arco dianteiro (lateral) e o elemento longitudinal (transversal)

A sua extremidade inferior tem de estar situada a menos de 100mm do pé de fixação (da frente) do arco dianteiro (lateral). (ver desenho 253-52 para a medida).

Para viaturas homologadas a partir de 01.01.2018:

Se existir intersecção entre este reforço e os reforços de protecção das portas, ele tem de ser dividido em várias partes



253-15

8.3.2.1.6 - Reforços de ângulos e junções

Os reforços entre:

- os elementos diagonais do arco principal
 - os reforços de tejadilho (configuração do desenho 253-12 unicamente)
 - os reforços de porta (configuração do desenho 253-9 unicamente)
 - os reforços de porta e reforços do montante do pára-brisas (desenho 253-15)
- têm ser reforçados pelo menos por dois esquadros de acordo com o Art. 283-8.2.14.

Caso os reforços de porta e o do montante do pára-brisas não se situem no mesmo plano, podem ser reforçados por placas metálicas soldadas desde que respeitem as dimensões indicadas no Art. 283-8.2.14.

8.3.2.2 - Elementos e reforços facultativos - excepto as outras indicações dadas no Art. 283-8.3.2.1 os elementos representados nos desenhos 253-16 a 253-21, 253-23 a 253-28 e 253-30 a 253-33 são facultativos.

Os tubos de reforço terão de ser rectilíneos.

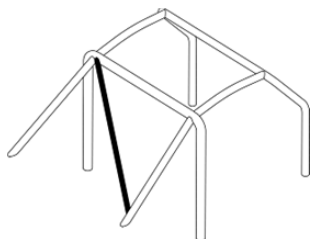
Têm de ser soldados ou instalados com ligações amovíveis (ver Art. 283-8.3.2.4).

Todos os reforços acima mencionados podem ser utilizados separadamente ou combinados entre si.

8.3.2.2.1 - Diagonais de prolongamentos longitudinais traseiros (des. 253-20 a 253-21 2) -

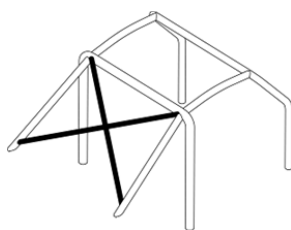
~~A configuração do desenho 253-22 é obrigatória se for utilizado um reforço de tejadilho conforme com o desenho 253-14.~~

As configurações dos desenhos 253-21 e 253-22 podem substituir o desenho 253-20.

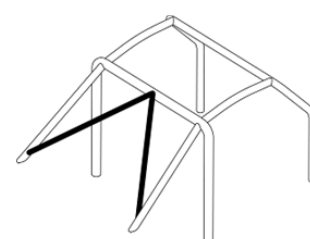


253-20

Opcional apenas para viaturas homologadas antes de 01/01/2020



253-21



253-22

Obrigatório quando é usada um reforço de tejadilho de acordo com o desenho 253-14

8.3.2.2.2 - Pontos de ancoragem da suspensão dianteira (desenho 253-25) - as extensões terão de estar fixadas aos pontos de ancoragem superior da suspensão dianteira.

8.3.2.2.3 - Elementos transversais (desenhos 253-26 a 252-28 e 253-30) - os elementos transversais que integram o arco principal ou os prolongamentos traseiros podem ser utilizados para montar os cintos de segurança, conforme Art. 283-6.2 (a utilização das ligações desmontáveis é proibida neste caso).

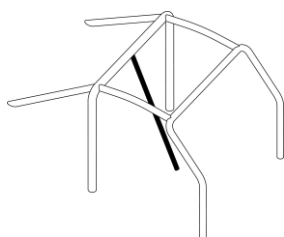
Para os elementos representados nos desenhos 253-26 e 253-27 o ângulo entre o elemento central e a vertical têm de ser pelo menos de 30°.

8.3.2.2.4 - Reforços de ângulos ou de junções (desenhos 253-31 a 253-33) - os reforços têm de ser constituídos por tubos ou por chapas dobradas em U conforme o Art. 283-8.2.14.

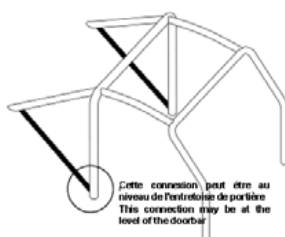
A espessura dos elementos que compõem um reforço não podem ser inferiores a 1,0 mm.

As extremidades dos reforços tubulares não podem estar localizadas na metade inferior ou na metade mais longe dos elementos a que são fixados, excepto os que dizem respeito à junção do arco dianteiro, que podem ir até à junção do elemento vertical /reforço de porta.

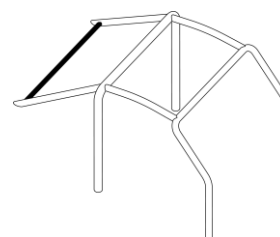
8.3.2.2.5 - Fixação de macacos - para as viaturas dos Grupos T1, T3-Protótipo e T3-Série, os macacos podem ser fixados à armadura de segurança



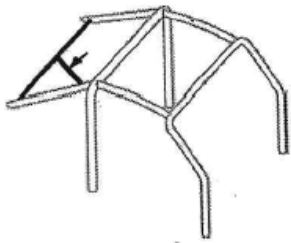
253-16



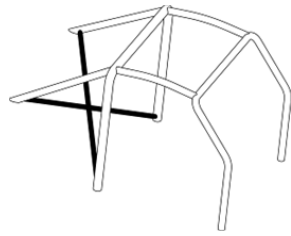
253-17



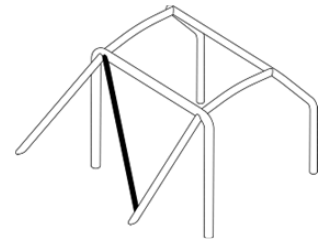
253-18



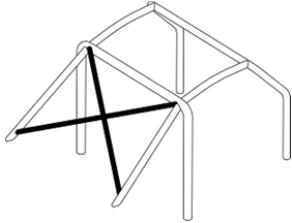
253-18 B



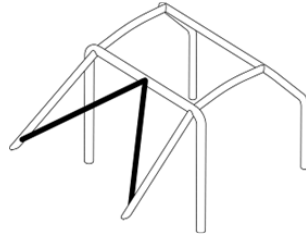
253-19



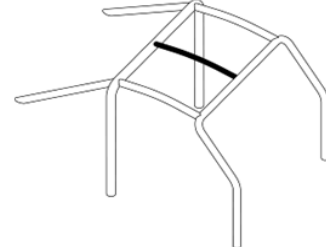
253-20



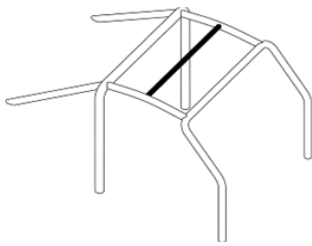
253-21



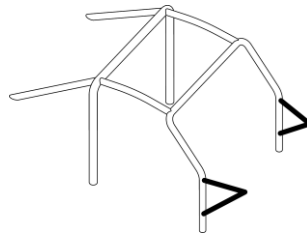
253-22



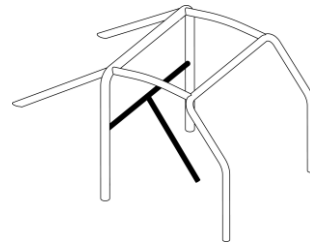
253-23



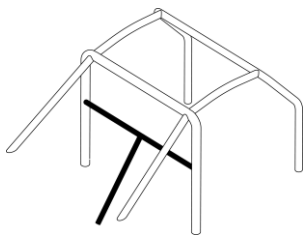
253-24



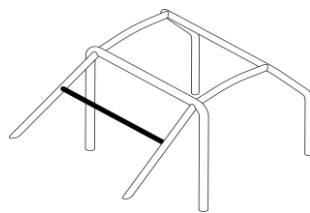
253-25



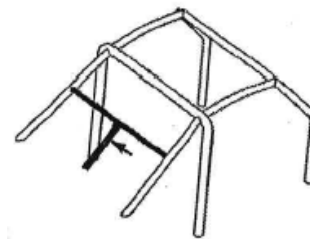
253-26



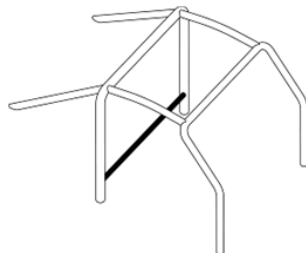
253-27



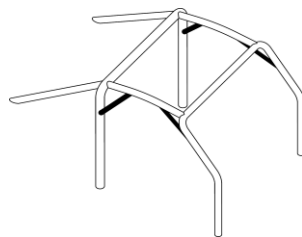
253-28



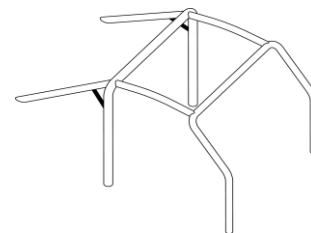
253-28 B



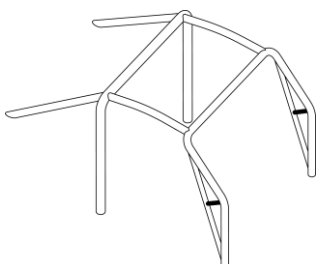
253-30



253-31



253-32



253-33

8.3.2.3 - Configuração mínima da armadura de segurança:

A configuração mínima de uma armadura de segurança é definida da seguinte maneira:

COM O PILOTO	SEM COPILOTO
Desenho 283-1	Desenho 283-2 ou simétrico

A estrutura de base pode variar de acordo com o Art.283-8.3.1.

O elemento diagonal pode ser diferente conforme descrito no Art.283-8.3.2.1.1.

Os reforços de tejadilho podem ser diferentes, conforme descrito no Art.283-8.3.2.1.4.

No caso de uma equipa de três pessoas, a armadura de segurança terá de estar em conformidade com o desenho 283-3 com um segundo arco principal perto dos encostos do banco traseiro.

Para as viaturas tipo Pick-up cujo habitáculo, por falta de espaço, não permita a montagem da armadura de segurança de base obrigatória, será possível instalar um arco de segurança conforme um dos desenhos 283-4 a 283-7.

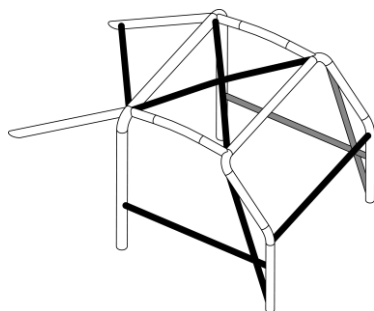
Esta possibilidade está reservada aos Pick-up, excluindo qualquer outro tipo de carroçaria e a implantação terá de estar conforme em todos os pontos às prescrições dos outros parágrafos (incluindo as prescrições de materiais do Art. 283-8.3.3).

Desenho 283-4 - uma diagonal obrigatória.

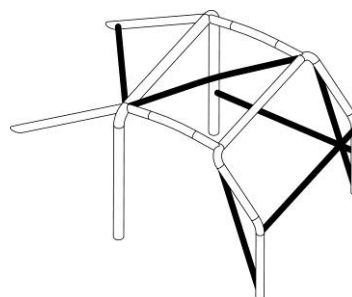
Desenho 283-5 - duas diagonais obrigatórias, uma diagonal para a armadura de 4 pontos no interior do habitáculo (em conformidade com o Artigo 283-8.2.1.1), uma diagonal para a armadura de 4 pontos exterior (conforme desenho 253-20 ou Artigo 283-8.3.2.1.1).

Desenho 283-6 - uma diagonal obrigatória (conforme desenho 253-20 ou Artigo 283-8.3.2.1.1).

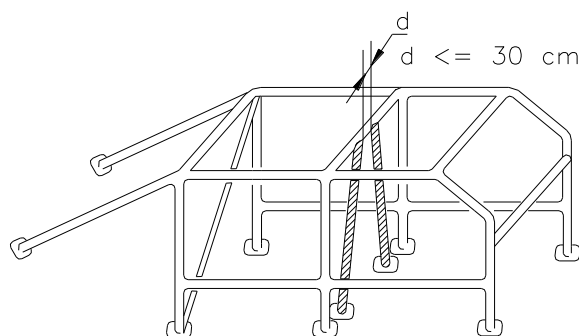
Desenho 283-7 - duas diagonais obrigatórias, uma para a armadura de 4 pontos interior, uma para a armadura de 6 pontos exterior.



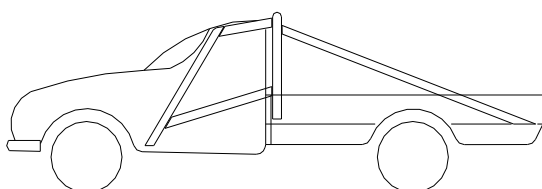
283-1



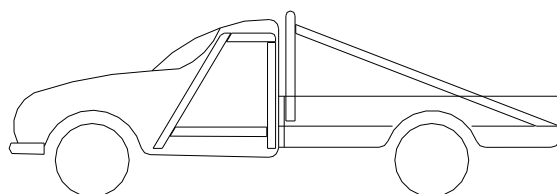
283-2



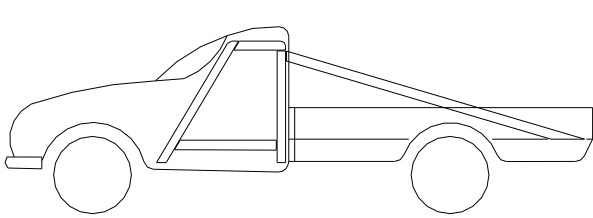
283-3



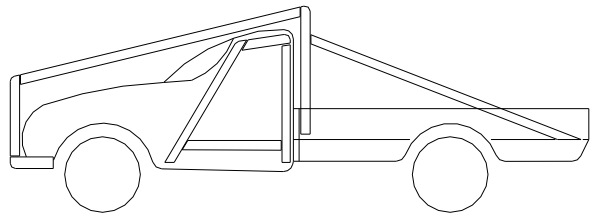
283-4



283-5



283-6



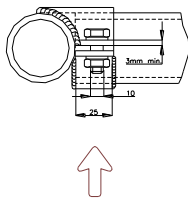
283-7

8.3.2.4 - Elementos amovíveis - caso se utilizem elementos amovíveis na construção da armadura de segurança, as ligações desmontáveis têm de ser conformes com o presente regulamento, estas ligações desmontáveis a utilizar têm de cumprir a um tipo aprovado pela FIA (desenhos 253-37 a 253-47).

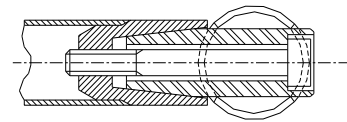
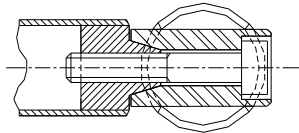
As ligações desmontáveis têm de ser montadas no prolongamento do eixo dos tubos e não desalinhadas. Após a montagem, não podem ser soldadas.

As porcas e parafusos têm de ter qualidade mínima 8.8 (Norma ISO).

As ligações desmontáveis conforme os desenhos 253-37, 253-40, 253-43, 253-46 e 253-47 estão reservadas à aplicação de elementos e reforços facultativos descritos no Art. 283-8.3.2.2 e são proibidas para fazer a ligação das partes superiores do arco principal, do arco dianteiro, dos arcos laterais e dos semi-arcs laterais.



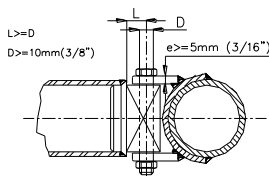
Direction d'application de la charge
Direction of applied load



253-37

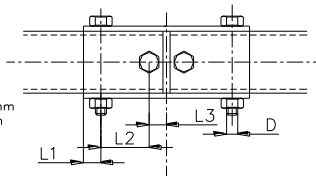
253-38

253-39



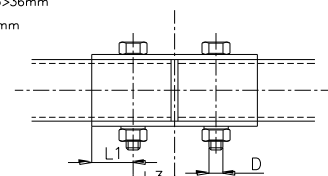
253-40

L1=L3>18mm
L2>=36mm
D=8mm

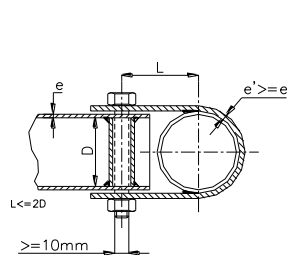


253-41

L1=L3>36mm
D=10mm

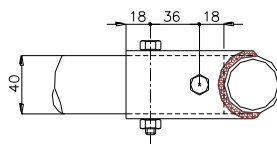
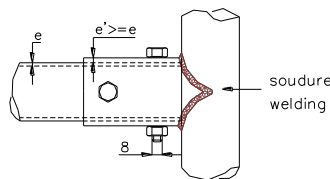


253-42

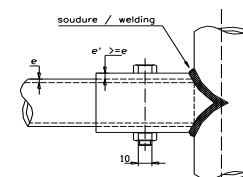


L doit être minimum
La largeur de la potte doit être d'au moins 25mm

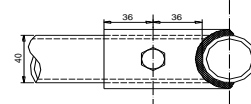
253-43



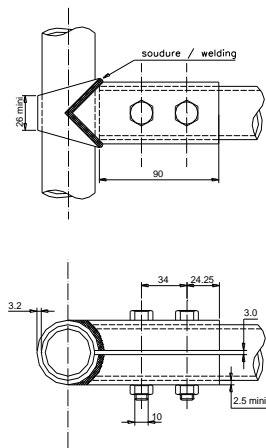
253-44



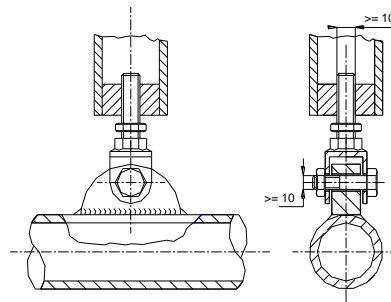
Dessin / Drawing N° 253-35



253-45



253-46



253-47

8.3.2.5 - Obrigações suplementares -

As armaduras de segurança completas têm de estar inteiramente situadas, longitudinalmente, entre os limites seguintes:

- 200 mm à frente do eixo das rodas dianteiras
- Eixo das rodas traseiras

No entanto, os prolongamentos traseiros podem ultrapassar este plano, para serem fixadas ao chassis.

Os prolongamentos traseiros nos chassis monocoque podem prolongar-se para além das fixações da suspensão traseira, desde que sejam fixadas ou soldadas a um corpo oco do chassis monocoque.

A face traseira do apoio de cabeça que esteja submetido à carga regulamentar, definirá a posição do tubo do arco principal que não poderá ultrapassar em projecção vertical.

A distância entre os capacetes dos ocupantes e os tubos da armadura de segurança situados à frente dos encostos dos bancos não pode ser inferior a 80 mm.

8.3.2.6 - Fixação das armaduras de segurança à coque / chassis - as armaduras de segurança terão de ser ligadas directamente sobre a coque em aço ou sobre o chassis principal, ou seja, sobre a estrutura à qual as cargas de suspensão são transmitidas (incluindo, se necessário a junção de reforços de ligação entre o chassis e os pés do arco).

Os pontos de fixação mínimos são:

- Um para cada montante do arco principal
- Um para cada montante do arco dianteiro
- Um para cada montante dos arcos laterais ou semi-arcos laterais
- Um para cada montante dos prolongamentos traseiros

Para obter uma fixação eficaz à coque / chassis, os forros interiores de origem podem ser modificados junto à fixação dos arcos, por corte ou deformação.

Esta modificação não permitirá desmontar peças inteiras dos forros ou revestimentos.

Caso necessário, a caixa dos fusíveis pode ser deslocada para permitir a montagem da armadura de segurança.

Pontos de fixação do arco principal, arco dianteiro e dos arcos laterais ou semi-arcos laterais -

Cada ponto de fixação (pé) terá de ser fixado por pelo menos três parafusos a uma placa de reforço em aço, soldada à coque, com uma espessura mínima de 3 mm e uma superfície mínima de 120 cm² (superfície de contacto entre a placa de reforço e a coque).

Exemplos de acordo com os desenhos 253-50 a 253-56.

Para o desenho 253-52 a placa de reforço não tem necessariamente que estar soldada à coque.

No caso do desenho 253-54, os lados do ponto de ancoragem podem ser fechados por uma placa soldada.

Os parafusos de fixação terão de ter pelo menos o diâmetro M8 e uma qualidade mínima 8.8 (Norma ISO).

As porcas terão de ser autofrenantes ou ter anilhas de pressão.

O ângulo entre dois parafusos (medido em relação ao eixo do tubo ao nível da base conforme desenho 253-50) não poderá ser inferior a 60°.

Pontos de fixação dos elementos diagonais do arco principal (Desenho 283-8 unicamente):

Têm de ser fixados em placas de reforço como definido acima.

Pontos de fixação dos prolongamentos traseiros - cada prolongamento traseiro terá de ser fixado por pelo menos dois parafusos de qualidade M8 com pés de ancoragem com uma superfície de pelo menos 60 cm² (desenho 253-57), ou fixado por um parafuso em duplo esforço (desenho 253-58) desde que a sua secção seja adequada e que um casquilho seja soldado ao tubo do prolongamento traseiro. Os seus pontos de fixação terão de ser reforçados por placas.

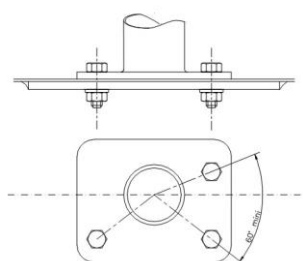
Estas exigências são mínimas - para além disto, podem utilizar-se fixações suplementares, as placas de apoio aos pés de arco podem ser soldadas às placas de reforço, a armadura de segurança (tal como definida no artigo 283-8.3.1) podem ser soldadas à coque / chassis.

Caso particular - no caso de viaturas com chassis tubular ou semi-tubular (Grupos T1, T3-Protótipo e T3-Série) a armadura de segurança terá de ser soldada ao chassis ou fazer parte integrante dele. Os pontos de ancoramento dos pés dos arcos principal, dianteiro, laterais e semi - laterais, terão de situar-se no mínimo ao nível do piso do habitáculo.

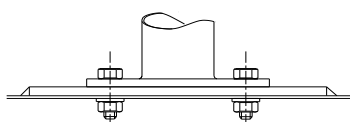
Pelo menos um tubo da mesma secção e qualidade terá de prolongar o pé do arco para baixo.

Uma diagonal suplementar é recomendada, bem como um tubo horizontal ao nível do piso.

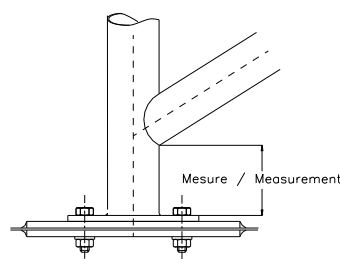
Para as coque / chassis de outro material que o aço, qualquer soldadura é proibida entre a armadura e a coque / chassis, sendo apenas autorizada a colagem entre a placa de reforço e a coque / chassis.



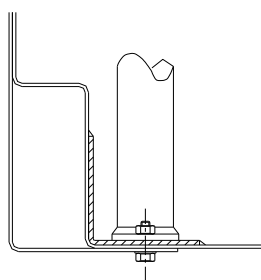
253-50



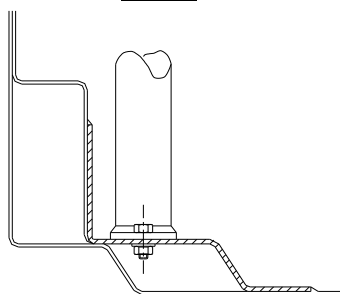
253-51



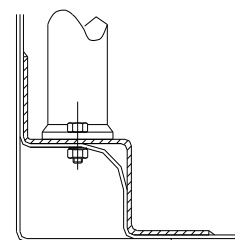
253-52



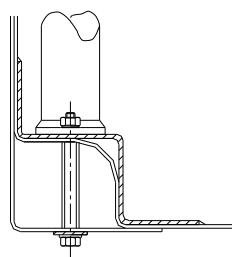
253-53



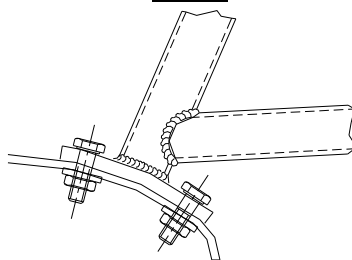
253-54



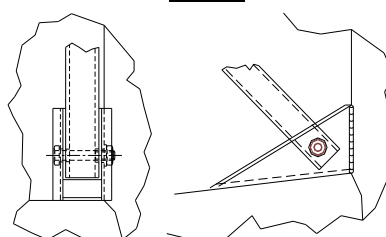
253-55



253-56



253-57



253-58

8.3.3 - Especificação dos materiais

Apenas serão aceitáveis os tubos de secção circular.

Especificação dos tubos a utilizar:

Atenção: para carros do grupo T1, T3-protótipo e série T3, artigos 285-2, 286-2 e 286A-2 são predominantes para dimensões.

Material	Resistência mínima à tracção	Dimensões mínimas (mm)	Utilização
----------	------------------------------	------------------------	------------

Aço carbono não de liga (ver abaixo) estirado a frio sem costura contendo no máximo 0.3 % de carbono	350 N/mm ²	45 x 2.5 (1.75"x0.095") ou 50 x 2.0 (2.0"x0.083")	Arco principal (desenhos 253-1 e 253-3) ou Arcos laterais e barra transversal traseira (desenho 253-2)
		38 x 2.5 (1.5"x0.095") ou 40 x 2.0 (1.6"x0.083")	Semi-arcos laterais e outros elementos da armadura de segurança (Salvo indicações contrárias descritas nos artigos acima)

Nota: Para o aço sem liga, o teor máximo de aditivos é de 1,7% para o manganês e de 0,6% para os outros elementos.

Estes valores representam os mínimos autorizados.

Quando se escolhe o aço, ter-se-á de ter em atenção em obter boas qualidades de alongamento e uma correcta aptidão para a soldadura.

Os tubos terão de ser dobrados a frio, com um raio de curvatura (medido relativamente ao eixo), de pelo menos três vezes o seu diâmetro.

Caso o tubo fique ovalizado após esta operação, a relação entre o diâmetro maior e o menor terá de ser de pelo menos 0,9.

A superfície ao nível das curvas terá de ser lisa e uniforme, e desprovida de ondulações ou fissuras.

8.3.4 - Indicações para a soldadura

A soldadura será feita em todo o perímetro de contacto dos tubos.

Todas as soldaduras terão de ser da melhor qualidade possível e de uma penetração total (de preferência soldadura sob protecção de gás).

Quando se utilizam aços tratados termicamente, as indicações especiais dos fabricantes terão de ser respeitadas (eléctrodos especiais e soldadura sob gás protector).

8.4 - Forros de protecção

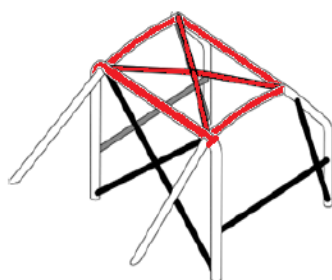
Nos locais onde o corpo dos ocupantes possa contactar com a armadura de segurança, têm de ser colocadas protecções não inflamáveis.

Todos os tubos da armadura de segurança identificados a vermelho no desenho 253-68 e todos os reforços de tejadilho têm de estar equipados com protecções em conformidade com a norma FIA 8857-2001 tipo A (ver lista técnica n.º 23).

Cada protecção tem de ser fixada ao tubo para que não exista qualquer deslocação ou posicionamento em relação ao mesmo.

Aplicação - Para todas as categorias

Para competições sem copiloto, as protecções são obrigatórias unicamente no lado do piloto.



253-68

Art. 9 - RETROVISORES

9.1 - A visão para trás tem de ser assegurada de uma maneira eficaz, por no mínimo, dois retrovisores exteriores (um de cada lado da viatura).

Art. 10 - ANEL DE REBOQUE

10.1 - Pelo menos um anel de reboque tem de ser montado à frente e à retaguarda da viatura.

Este anel de reboque tem de estar bem fixo e não pode ser utilizado para levantar o carro.

Este anel terá de estar claramente visível e pintado de amarelo, encarnado ou laranja e tem de estar situado no interior do perímetro da viatura.

Diâmetro interior mínimo: 50 mm.

Cada camião tem de estar equipado à frente e atrás, com um dispositivo capaz de atrelar um reboque.

A sua dimensão e solidez tem de permitir rebocar a viatura ao longo do percurso da prova.

Terá de ser pintado com uma cor contrastante (amarelo, vermelho ou laranja) para ser identificado facilmente e ser utilizado rapidamente em caso de necessidade.

Não poderá ser saliente à face dianteira dos pára-choques.

Art. 11 - PÁRA-BRISAS, VIDROS, ABERTURAS

11.1 - Pára-Brisas e Vidros - é obrigatório um pára-brisas de vidro laminado, em que figure claramente essa indicação.

Pode ser equipado com uma ou mais películas transparentes (com a espessura máxima de 400 microns) e incolor sobre a superfície exterior, excepto se isso for proibido pela regulamentação rodoviária dos países atravessados pela prova.

Todos os outros vidros têm de ser constituídos de vidro de segurança do tipo homologado.

Uma banda pára-sol é autorizada para o pára-brisas (Ver Anexo L), desde que permita aos ocupantes ver a sinalização rodoviária (sinais verticais, semáforos, etc.)

Em caso de ausência do pára-brisas à partida de uma etapa, o capacete integral com viseira ou óculos de motocross ou um capacete de face descoberta e óculos de motocross será obrigatório para todos os ocupantes, sob pena de a partida da etapa ser recusada.

Durante as etapas as equipas terão de ter permanente, no habitáculo, óculos de motocross para utilização, no caso de quebra do vidro para-brisas.

Na sequência de um acidente, caso a deformação da carroçaria não permita a substituição do para-brisas de origem, é autorizada a sua substituição por um para-brisas em policarbonato, com uma espessura mínima de 5 mm.

No caso de o para-brisas ser colado, terá de ser possível, do interior do habitáculo, partir os vidros das portas dianteiras ou retirar-os sem ajuda de ferramentas.

As janelas laterais e traseira, quando são transparentes, têm de ser de material homologado ou em policarbonato de uma espessura mínima de 3 mm.

É obrigatória a utilização de películas antideflagrantes transparentes e incolores na face interior dos vidros laterais, do vidro traseiro, do vidro do tecto de abrir e dos vidros dos retrovisores exteriores (unicamente para peças feitas em vidro). A sua espessura não poderá ser superior a 100 microns e terá de existir um indicador que mostre a presença da película.

Os vidros das janelas das portas da frente podem ser equipados com uma ou várias películas transparentes e incolores (espessura total máxima de 400 microns).

A utilização de vidros/películas escurecidas é autorizada para os outros vidros laterais e para o vidro traseiro. Nesse caso uma pessoa situada a 5 metros da viatura tem de poder ver os ocupantes e o que se encontra no interior da viatura.

Redes de protecção - todas as viaturas cujas portas dianteiras estejam equipadas com vidros descendentes ou janelas fixas em vidro, têm de ser equipadas com redes de protecção fixadas a essas portas por um sistema de desengate rápido na sua parte inferior.

As fixações da rede na parte superior não podem ser desmontáveis sem o auxílio de ferramentas.

Estas redes terão de obedecer às seguintes características:

Largura mínima das cintas: 19 mm

Dimensão mínima das aberturas: 25 x 25 mm

Dimensão máxima das aberturas: 60 x 60 mm

Cobrir a abertura do vidro e estender-se-ão quando vistas lateralmente, desde do centro do volante até o ponto mais recuado do banco do lado em questão.

Art. 12 - FIXAÇÕES DE SEGURANÇA NO PÁRA-BRISAS

Estas fixações podem ser usadas livremente.

Art. 13 - CORTA-CIRCUITOS

O dispositivo anti-roubo do comutador principal de ignição (tipo *Neiman*) de origem tem de ser suprimido.

O corta-circuitos geral têm de cortar todos os circuitos eléctricos (bateria, alternador ou dínamo, luzes, buzina, ignição, avisadores eléctricos, etc.) e tem igualmente de parar o motor.

Para motores a Diesel que não possuam injectores controlados electronicamente, o corta-circuitos tem de estar acoplado a um dispositivo de estrangulamento (para abafar) da admissão do motor.

Este corta-circuitos tem de ser de modelo anti-deflagrante e poderá ser accionado tanto do interior (pelo piloto ou co-piloto, enquanto tem os cintos apertados), como do exterior da viatura.

As viaturas do Grupo T1, T2, T3-Protótipo e T3-Série terão de estar equipadas com dois comandos exteriores, estando um de cada lado na parte inferior do pára-brisas.

Será claramente indicado por um relâmpago encarnado num triângulo azul debruado a branco, com um mínimo de 12 cm de base.



Os camiões têm de estar equipados com um corta-circuitos e/ou um dispositivo que permita abafar o motor e a alimentação pela bateria de todos os circuitos eléctricos (com excepção da alimentação do sistema de extinção automática).

Será claramente indicado por um relâmpago encarnado num triângulo azul debruado a branco, sendo o interruptor pintado de amarelo.

A sua posição terá de ser assinalada por uma indicação visível, com pelo menos 20cm de largura.

O corta-circuitos e dispositivo abafador têm de ser colocados no exterior, ao centro da face frontal da cabine, sob o pára-brisas.

O corta-circuitos geral tem de ser facilmente acessível em qualquer momento, mesmo com a viatura deitada sobre o lado ou capotada.

Além disto, um interruptor principal do motor tem de estar presente no interior da cabine, sendo as posições ligado/desligado, claramente indicadas.

Terá de ser accionado pelo condutor sentado ao volante com os cintos apertados. (pelo piloto ou co-piloto, enquanto tem os cintos apertados). Tal interruptor tem também desligar as bombas eléctricas de alimentação de combustível.

NOTA: No caso de viaturas com um interruptor de motor mecânico, um dispositivo interruptor pode ser montado no exterior se for separado do corta-circuitos eléctrico. No entanto, tal dispositivo tem de ser montado junto ao corta-circuitos, ser claramente identificado e dispor de instruções para o seu manuseamento (ex. puxar a alavanca para parar o motor).

Art. 14 - RESERVATÓRIOS DE SEGURANÇA APROVADOS PELA FIA

14.1 - Especificações FIA FT3 1999, FT3.5 ou FT5 - somente estas especificações são aceites pela FIA

As especificações técnicas destes depósitos estão disponíveis no Secretariado da FIA, contra simples pedido.

14.1.1- Marcação e validade dos depósitos de segurança

Cada reservatório (depósito) tem de ter a rotulagem (marcação) com as seguintes informações:

- Nome da norma FIA
- Número de Registo FIA
- Nome do fabricante
- Número de série
- Data do final da validade

Nenhum depósito pode ser usado mais de cinco (5) anos após a data de fabricação, a não ser que inspecionados e certificados pelo fabricante por um período de até dois (2) anos.

Uma janela estanque em material não inflamável, facilmente acessível e desmontável, apenas com ferramentas, terá de estar instalada na caixa de proteção dos reservatórios para permitir a verificação da data de fim de validade.

14.2 - Aplicação destas especificações e Instalação de depósitos

Ver regulamentos técnicos do Grupo correspondente.

O uso de espuma de segurança nos tanques FT3-1999, FT3.5-1999 ou FT5-1999 é recomendado.

Os depósitos com capacidade inferior a 1 litro são de construção livre. O seu número é limitado ao dos depósitos principais que equipam o veículo.

Terão de ser previstos orifícios no chão para permitir a saída do combustível em caso de fuga.

Nas viaturas, nas quais o construtor não previu nenhum local específico para as bagagens (que faça parte integrante da carroçaria), o depósito suplementar poderá ser colocado no interior do habitáculo atrás do assento mais recuado.

Em qualquer caso, o depósito e os respectivos tubos têm de estar totalmente isolados, por meio de separações ou de uma caixa não inflamável e estanque que impeçam a infiltração do combustível no habitáculo e todo o contacto desta com o tubo de escape.

No caso de o reservatório ser instalado no compartimento das bagagens, este terá de ser separado do habitáculo por um material ou uma caixa que resista às chamas e aos líquidos.

Os depósitos têm de estar protegidos de forma eficaz e solidamente fixados à coque ou ao chassis da viatura.

O local e a dimensão do orifício de enchimento bem como da tampa, podem ser mudados com a condição da nova instalação não sair fora da carroçaria e apresentar todas as garantias contra as fugas de combustível para os compartimentos interiores da viatura.

Estes orifícios podem estar colocados nos locais previstos para os vidros laterais ou traseiros.

O orifício de enchimento e a sua saída de ar (ventilação) têm de estar situados no exterior do habitáculo sobre uma parte metálica.

Se o orifício de enchimento se encontrar no interior da carroçaria, este tem de estar colocado num receptáculo com evacuação para o exterior.

O tubo de ventilação tem de sair perto do tecto da viatura, ou dar uma volta o mais alto possível, e depois sair por baixo da viatura, do lado oposto à sua inserção no reservatório.

Estes tubos de ventilação, têm de terminar numa válvula auto-obturante.

14.3 - Reservatórios com tubo de enchimento - todas as viaturas equipadas com reservatórios de combustível cujo tubo de enchimento atravesse o habitáculo, terão de incorporar uma válvula anti-retorno de modelo homologado pela FIA.

Tal válvula terá de ser do tipo *um ou dois batentes* mas terá de estar instalada no tubo de enchimento, do lado do reservatório.

Entenda-se por *tubo de enchimento* o meio utilizado para unir o bocal de enchimento ao reservatório propriamente dito.

14.4 - Reabastecimento - antes de qualquer reabastecimento, é necessário estabelecer um contacto de ligação à massa, comum à viatura e ao dispositivo de reabastecimento.

14.5 - Ventilação dos depósitos

O reservatório terá de estar equipado com uma ventilação conforme descrita no Art. 283-14.2.

15 - PROTECÇÃO CONTRA INCÊNDIO

Uma protecção eficaz terá de ser colocada entre o motor e os bancos dos ocupantes para evitar a propagação directa das chamas em caso de incêndio.

16 - EQUIPAMENTO LUMINOSO

Tem de estar de acordo, em todos os pontos, com a convenção internacional sobre circulação em estrada. Cada viatura tem de dispor, no mínimo de:

- 2 farolins à frente
- 2 faróis (combinando máximos e códigos)
- 2 luzes traseiras e luz na placa de matrícula
- 2 luzes de Stop
- 2 Piscas indicadores de mudança de direcção à frente e atrás
- Luzes de emergência

Dois faróis suplementares podem ser acrescentados, desde que se situem acima de uma linha colocada a no máximo 250mm da base do para-brisas, tais faróis podem ser alojados nos suportes dos retrovisores laterais.

Cada farolim de *stop* tem de ter uma superfície mínima de 50 cm².

Os dois faróis (máximos / código) e os projetores adicionais têm de estar colocados à frente do eixo das rodas da frente à altura máxima correspondente à linha do capot/baixo do pára-brisas (oito projectores no máximo).

Todos os faróis situados à frente, com uma superfície de mais de 32cm² têm de estar protegidos adequadamente e incluir, para o caso de quebra, uma grelha ou um painel adicional transparente.

Cada viatura tem de estar igualmente equipada com duas luzes suplementares vermelhas na traseira, ditas de nevoeiro, ao lado ou acima das luzes de *Stop* adicionais.

Cada um destes dois farolins terá a aprovação conforme à norma de estrada ECE R38 (ou norma equivalente de outro país) ou aprovada pela FIA (Lista técnica nº19).

Estarão situados, no mínimo, a 1,25 m do solo, visíveis de traseira e fixados no exterior.

Têm de estar fixados nas duas extremidades traseiras da viatura e no caso das Pick-up nos ângulos superiores da parte traseira da cabina.

Estas luzes terão de estar constantemente acesas durante o desenrolar dos sectores selectivos, em caso de decisão do director da prova.

Todo o equipamento luminoso terá de ser mantido em perfeito estado de funcionamento durante toda a prova.

A partida poderá ser recusada a uma equipa caso o circuito eléctrico apresente falhas constantes.

Art. 17 - BUZINA

Cada viatura tem de estar equipada com uma buzina potente, em bom estado de funcionamento durante a realização da prova.

Art. 18 - RODAS e PNEUS

O equipamento de cada viatura tem de compreender no mínimo duas rodas sobressalentes iguais às que equipam a viatura, solidamente fixadas, durante toda a duração da prova.

Os sistemas de controlo de temperatura e/ou pressão dos pneus, são permitidos desde que sejam independentes de qualquer outro sistema.

Art.19 - PALAS DE PROTECÇÃO

Palas de protecção transversais são aceites nas seguintes condições:

- Serem de material flexível
- De cobrir, no mínimo, a largura de cada roda, mas no mínimo um terço da largura da viatura (ver desenho 252-6) estar livre atrás das rodas dianteiras e das rodas traseiras
- No mínimo 20 cm de intervalo entre a pala direita e a pala esquerda à frente das rodas traseiras
- A parte mais baixa das palas tem de estar no mínimo a 10 cm do solo quando a viatura está parada sem pessoas a bordo
- Estas palas não podem ultrapassar a projecção vertical da carroçaria

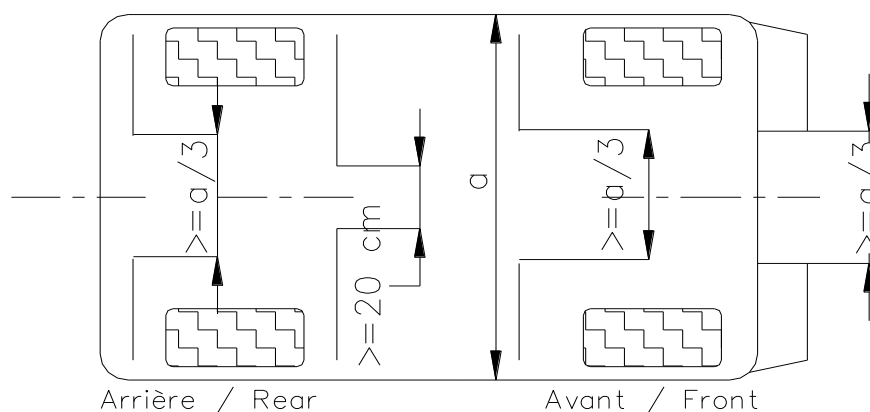
Estas palas, são obrigatórias, atrás das rodas mais atrás, e atrás das rodas motrizes.

Têm de ser em plástico, ou borracha maleável (espessura mínima de 5 mm) e não podem apresentar folgas em relação à carroçaria.

Palas contra projecções frontais, em material mole, podem ser montadas na frente do veículo.

Elas não podem ultrapassar a largura total da viatura, nem ultrapassar em mais de 10 cm o seu comprimento original, e no mínimo um terço da largura da viatura tem de estar livre à frente das rodas dianteiras.

Para as viaturas com mais de 4 rodas motrizes, apenas serão consideradas as rodas mais atrás dos eixos dianteiros e traseiros.



252-6

1. Bancos

Todos os bancos dos ocupantes têm de ser homologados pela FIA (normas 8855/1999 ou 8862/2009) e não modificados.

• Bancos conformes à Norma FIA 8855/1999

O banco será utilizado de acordo com as instruções do fabricante do banco e com a Lista Técnica nº 12.

O limite de utilização é de 5 anos a partir da data de fabricação mostrada na etiqueta obrigatória.

Uma extensão de aceitação de 2 anos pode ser concedida pelo fabricante, e mencionada numa etiqueta suplementar.

No caso de utilização de uma almofada entre o banco homologado e o ocupante, a espessura máxima desta almofada é de 50 mm.

• Bancos conformes à Norma FIA 8862/2009

O banco tem de ser utilizado de acordo com as instruções do fabricante do banco e com a lista técnica nº 40.

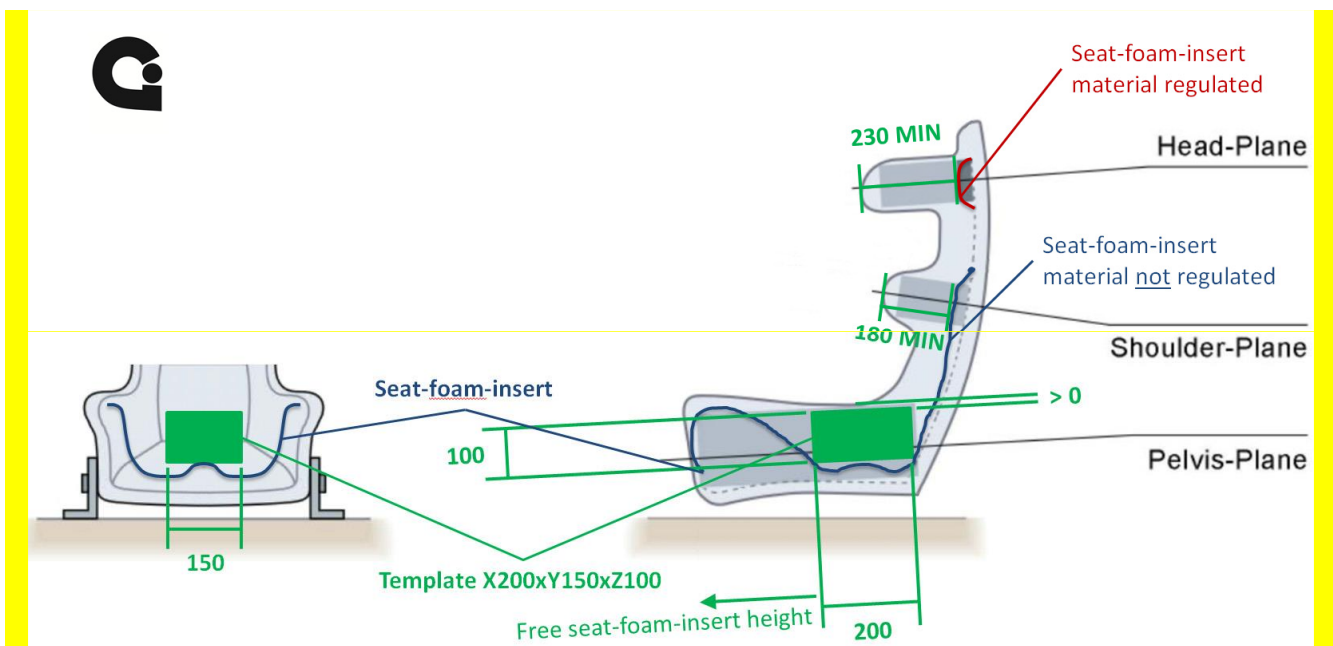
O limite de utilização é de 10 anos a partir da data de fabrico.

A utilização de suportes homologados com o banco e em conformidade com a Lista Técnica nº 40 é obrigatória.

Se uma inserção de espuma é utilizada entre o piloto e o banco homologado, um suporte lateral mínimo à cabeça do piloto, ombros e bacia tem de ser garantido de acordo com o seguinte:

- 230 mm min. no suporte lateral da cabeça segundo o plano da cabeça.
- 180 mm min. no suporte lateral dos ombros segundo o plano dos ombros.
- 100 mm min. de altura no suporte lateral da bacia do banco segundo o plano da bacia e ao longo de 200 mm min. de comprimento.

Esta exigência tem de ser verificada pela utilização de um gabarito paralelepípedo de dimensões X 200 x Y 150 x Z 100 mm.



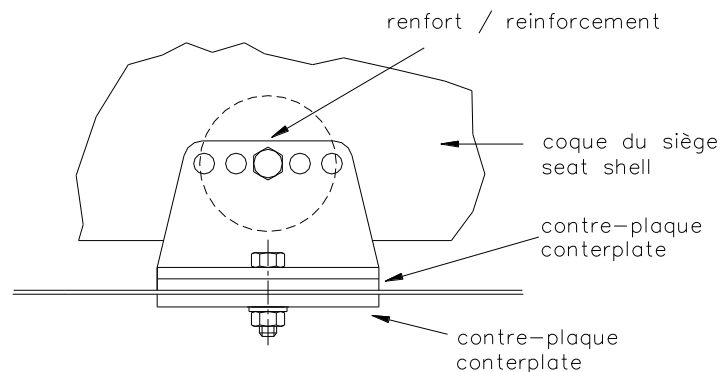
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Drawing taken from "GT_Seat_Foam_Inserts_Regulation_Proposal_for_8862_Seats_v1.4.pptx" 2016.10.20

2. Pontos de fixação para instalação dos suportes dos bancos

Em T1, T3-Protótipo e T3-Série, as fixações têm de estar de acordo com as seguintes especificações. Em T2 e T4, se as fixações ou suportes de origem são modificados e/ou substituídos, essas peças têm de estar de acordo com as especificações seguintes. Em qualquer caso o sistema deslizante de origem tem de ser suprimido ou bloqueado definitivamente.

ESPECIFICAÇÕES DAS FIXAÇÕES DOS BANCOS (ver desenho 253-65):



253-65

As fixações na coque / chassis têm de compreender, no mínimo, 4 pontos de fixação, por assento, utilizando parafusos com o diâmetro mínimo de 8 mm com contraplacas de acordo com o desenho, e estar em conformidade com as indicações mencionadas na Lista Técnica aplicável ao banco utilizado (cf. "suportes a utilizar").

Todos os componentes têm de ser de aço.

As superfícies mínimas de contacto entre suporte, coque/chassis e contraplaca é de 40 cm² para cada ponto de fixação.

Se existirem sistemas de abertura rápida, eles têm de ser capazes de resistir a forças horizontais e verticais de 18 000 N, não aplicadas em simultâneo.

3. Fixação dos suportes dos bancos aos bancos

A fixação entre o assento e os suportes terá de ser formada por 4 pontos de fixação, 2 à frente e 2 atrás do assento, utilizando parafusos com um diâmetro mínimo de 8 mm e reforços integrados nos assentos.

Cada ponto de fixação terá de resistir a uma carga de 15 000 N, qualquer que seja a sua direcção.

4. Dimensões dos suportes e contra placas

A espessura mínima dos suportes e das contraplacas será de 3 mm para o aço e de 5 mm para os materiais em liga leve.

A dimensão longitudinal mínima de cada suporte será de 6 cm.

Art. 21 - AIR BAG DE SEGURANÇA

Qualquer sistema de Air-Bag terá de ser desactivado ou retirado.

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Decisão do WMSC de 07.03.2019

O ARTIGO 283-8 SERÁ SUBSTITUÍDO, A SEGUIR, PELO SEGUINTE:

Art. 8 - ARMADURA DE SEGURANÇA

Apenas para T1, T2, T3-Prototype e T3-Series, consulte o Artigo 287.3 para T4.

Para os carros do grupo T1, T3-Prototype e T3-Series, a referência à data de homologação será entendida como a data em que o passaporte técnico da FIA foi emitido pela primeira vez.

Os artigos 8.1 e 8.2 a seguir aplicam-se apenas a armaduras de segurança para viaturas **homologadas a partir de 01.01.2021.**

Para as armaduras de segurança das viaturas homologadas antes de 01.01.2021, consultar os artigos do 283-8 do Anexo J de 2020.

Para as armaduras de segurança das viaturas homologadas antes de 01.01.2017, consultar os artigos do 283-8 do Anexo J de 2016.

8.1 - Generalidades

A montagem de uma armadura de segurança é obrigatória.

Salvo disposição em contrário dos regulamentos técnicos aplicáveis, ela pode ser:

a) Homologado ou certificado por uma ADN de acordo com os regulamentos de homologação da FIA para armaduras de segurança;

Uma cópia autêntica do documento ou certificado de homologação com os mesmos números, aprovada pela ADN e assinada por técnicos qualificados representando o fabricante da armadura de segurança, tem de ser apresentada aos Comissários Técnicos da competição.

A armadura de segurança tem de ser identificada individualmente por uma placa de identificação em conformidade com a que figura na cópia autêntica entregue pela ADN.

Essa placa não pode ser movida e não pode ser fixada de forma temporária ou provisória na armadura de segurança.

b) Homologado pela FIA de acordo com os regulamentos de homologação da FIA para armaduras de segurança.

Apenas para o grupo T2.

Tem de ser descrito ou ser objeto de uma extensão da ficha de homologação da viatura homologada pela FIA.

Os compradores têm de receber do fabricante da viatura um certificado numerado correspondente.

8.2 - Utilização

Qualquer modificação feita numa armadura de segurança homologada ou certificada é proibida.

É considerada como modificação qualquer operação efetuada na armadura, por maquinação, soldadura, que implique uma modificação permanente do material ou da estrutura da armadura.

Qualquer reparação de uma armadura de segurança homologada ou certificada, danificada como resultado de um acidente terá de ser efetuada pelo construtor da armadura ou com a sua aprovação.

É proibida a cromagem de toda, ou parte da armadura de segurança.

Os tubos das armaduras de segurança não podem servir para canalizar fluidos ou seja o que for.

As armaduras de segurança não podem dificultar a entrada e saída do piloto e do co-piloto.

Dentro do habitáculo é proibida a passagem, entre as partes laterais da carroçaria e a armadura de segurança, os seguintes elementos:

- cabos elétricos
- tubos que transportem líquidos (exceto líquido de limpa vidros)
- tubos do sistema de extinção

Alguns elementos podem ocupar espaço reservado aos ocupantes quando atravessam o tablier, os forros ou os bancos traseiros.

Todas as ligações desmontáveis usadas na armadura homologada não podem ser soldadas depois de montadas.

Para obter uma fixação eficaz à coque / chassis, os forros interiores de origem podem ser modificados junto à fixação dos arcos, por corte ou deformação.

Esta modificação não permitirá desmontar peças inteiras dos forros ou revestimentos.

Caso necessário, a caixa dos fusíveis pode ser deslocada para permitir a montagem da armadura de segurança.

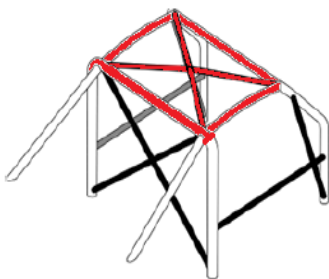
Nos locais onde o corpo dos ocupantes possa contactar com a armadura de segurança, têm de ser colocadas proteções não inflamáveis.

Todos os tubos da armadura de segurança identificados a vermelho no desenho 253-68 e todos os reforços de tejadilho têm de estar equipados com proteções em conformidade com a norma FIA 8857-2001 tipo A (ver lista técnica n.º 23).

Cada proteção tem de ser fixada ao tubo para que não exista qualquer deslocação ou posicionamento em relação ao mesmo.

Aplicação - Para todas as categorias

Para competições sem copiloto, as proteções são obrigatórias unicamente no lado do piloto.



253-68

NOTA: TODO ESTE TEXTO, É UMA TRADUÇÃO DO TEXTO PUBLICADO PELA FIA. EM CASO DE DIVERGÊNCIA DE INTERPRETAÇÃO ENTRE OS TERMOS DAS DIVERSAS TRADUÇÕES DOS REGULAMENTOS OFICIAIS, APENAS O TEXTO FRANCÊS FARÁ FÉ.