



TECHNICAL REQUIREMENTS TO CAN-AM X RACE

2018

Requirements to safety equipment and gear and technical requirements to ATV and SSV classes.

Blue highlights the changes that come into full force from 2018.

Green highlights the changes that come into full force from 2019.

Terms and definitions

All-terrain vehicle, further referred as ATV - factory-made off-road vehicle not intended for permanent usage on public roads that has the following attributes:

- The engine shall not be located behind the driver
- The driver shall seat on the top of the vehicle (motorcycle-type seating)
- Motorcycle-type handlebar
- No more than 2 seats

SSV (Side-By-Side Vehicle) - factory-made off-road vehicle not intended for permanent usage on public roads that has the following attributes:

- Side-by-side seating for the driver and passenger
- Automotive type steering wheel and seats
- Number of seats - from two to four
- Surrounding frame that protects the crew

Note: SSV vehicle can also be denoted as UTV (Utility Task Vehicle).

All ATV/SSV vehicles shall match the description in the official manufacturer's catalogue on the following parameters:

- Recognizable outside appearance, specified in manufacturer's catalogue
- The transmission of the vehicle shall match the technical specification of the transmission stated in manufacturer's catalogue

MANDATORY SAFETY EQUIPMENT AND GEAR

1. Protective gear for the ATV rider

- 1.1. It is mandatory to use helmets that are equipped with the chin protection system. The helmets with partial chin protection system can be used only on SSVs that are equipped with wind-protection windshield (full-size or low-profile). All helmets shall be labeled with one of the official signs in accordance with international standards, mentioned in the **Appendix 2**.
- 1.2. Use of protective goggles or visors for full-face helmets is mandatory. Visor shall not necessarily be the integral part of the helmet.
Eye and eyeglasses protection material shall be shatterproof. It is not allowed to use eye protection that has visible defects (cracks, scratches etc.). Tear-off system (visor/eye wear removable/tear-off protective film) is allowed.
It is mandatory to use motocross-type protective gear in ATV class: chest and back protection, neck protection, motorcycle-type boots - protective boots with high bootleg (Figure 1). Clothing - shirt, jacket, pants and gloves made from durable material.



Figure 1

2. Protective gear for SSV rider

- 2.1. Neck protection in SSV class is mandatory for both team members. Minimal requirement - carting-type neck protection (Figure 2).



Figure 2

- 2.2. It is recommended to use automotive-type FHR (Frontal Head Resistance) neck protection system for both team members (Figure 3).



Figure 3

- 2.3. Clothing - shirt, jacket, pants and gloves made from durable material. Boots from non-burning material. It is recommended to use non-burning gear (one-piece suit, base layers, gloves, boots) that matches RAF safety standards (Attachment 15 to C and TR).

3. First aid kit

- 3.1. Each ATV/ SSV vehicle shall be equipped with an automotive type first aid kit. First aid kit shall be placed in a readily accessible location and shall have reusable waterproof package (dry sack, waterproof container).
- 3.2. All components of the first aid kit shall be fresh with valid expiration dates and shall have visibly intact packing.

4. Fire extinguisher

- 4.1. Each ATV shall be equipped with an extinguisher that contains no less than 1 kg of fire suppressant.
- 4.2. Each SSV shall be equipped with one or two fire extinguishers with minimal capacity of 2 kg each. At least one of the fire extinguishers shall be placed in a readily accessible location for the first and second driver when they are seating at their seats buckled up with steering wheel installed.
- 4.3. Fire extinguishers shall be equipped with manometers. Expiration date shall be clearly labeled. Use of foam fire extinguishers is prohibited.
- 4.4. Fire extinguishers shall be placed in readily accessible locations (ATV storage area, SSV frame etc.). Fire extinguisher shall be mounted with the help of stationary mounting support or with a help of a cradle of the attached type (Figure 4).



Figure 4

Mounting - retaining metal stripes with quick detach system. The mounting of the fire extinguisher shall be reliable and should allow quick detachment of the fire extinguisher without any tools. It is prohibited to place fire extinguisher into the rack bag, pouch or SSV storage compartment.

- 4.5. It is allowed to use the automatic fire extinguishers in SSV class in case the following conditions are met:
- 4.5.1. Fire extinguisher system shall met the requirements of Appendix 6 of RAF C and TR.
- 4.5.2. The nozzles of the system shall not be directed at the team members

4.5.3. The extinguisher bottle shall be located along the transverse beam axle of the SSV vehicle.

5. Horn

5.1. Each ATV/SSV shall be equipped with electric or pneumatic horn with the level sound no less than 90 decibel (measured at 1 m distance). Switch-on device shall be located either on a handlebar (ATV) or at the location that is easily accessible by any team member (SSV) who is seating in his own seat, buckled up by the safety belts.

5.2. Horn shall be in working condition for the whole duration of the competition.

6. Additional equipment

6.1. It is allowed to use sand tracks to decrease SSV ground pressure.

6.2. No more than one spare wheel is allowed per SSV vehicle. The spare wheel shall be securely fastened to the frame of the vehicle.

6.3. All additional equipment, tools, additional gear at/in the ATV/SSV vehicle shall be securely fastened on the move.

6.4. It is mandatory to equip vehicles in SSV class with a safety hook knife. The knife shall be fastened at the location that is accessible by any team member (SSV), who is seating in his own seat, buckled up by the safety belt (Figure 5).



Figure 5

7. Additional identification equipment

7.1. Plate for the starting number

7.1.1. Each SSV shall be equipped with a vertical plate for starting number. The plate shall be installed at the middle of the roof along the front-back body axis of the SSV roof or on the side of the roof.

7.1.2. The size of the plate 250 X 250 mm.

7.1.3. The plate shall be attached to the roof with the help of bolts or rivets (no less than 4).

7.1.4. Recommended material - aluminum, plastic.

7.2. Flag/pennant

7.2.1. Each ATV/SSV shall be equipped with identification flag/pennant, attached to the flexible flagpole.

7.2.2. The height of the flagpole:

- ATV - no less than 1.5 m from the top of front or rear fender,
- SSV - no less than 1 m from the top of the roof in its highest point.

7.2.3. Flagpole material - fiberglass, duralumin. Diameter - no more than 8 mm.

7.2.4. Material of the flag/pennant - synthetic durable fabric, size no less than 200x200 mm.

7.2.5. Color of the flag/pennant - orange or red.

7.2.6. Pattern of the flag/pennant - at discretion of participants.

7.3. Rear visibility

7.3.1. The rear visibility shall be secured with the help of two external rear view mirrors (one from the right and one from the left side).

7.3.2. Each rear view mirror should have reflective surface no less than 90 cm².

7.3.3. ATV class - minimum 1 rear view mirror with 50 cm² reflective surface.

Technical rules for ATV class

1. DEFINITION

- 1.1. Factory-made off-road ATV vehicles with wheel base type 4x4 (4WD), produced in quantity of 2000 or more identical units.
- 1.2. Engine displacement – no more than 1 000cm³.
- 1.3. Transmission - CVT variator.
- 1.4. The responsibility to prove that an ATV in whole and its parts and components have been factory-built rests with the participant. It is allowed to compare the parts with serial parts or with manufacturer's catalog during the Technical Check.

2. THE LIMITS OF ALLOWED CHANGES

- 2.1. ATVs shall meet the requirements of the section "Mandatory safety equipment and gear" as well as requirements listed below.
- 2.2. **Any other changes and adaptations of the parts, components and systems with the exception of those listed in these requirements, ARE NOT ALLOWED.**
- 2.3. Any worn-out or broken part can be replaced only with the part, identical to the original one.
- 2.4. Any vehicle that is considered dangerous by the Technical Commission, will not be allowed to compete by the decision of Sport Commissioners before the start of the competition.

3. ENGINE

- 3.1. Engine crankcase – original.
- 3.2. Machined finish of the surfaces of cylinder head channels and manifolds is allowed.

3.3. INTAKE SYSTEM

- 3.3.1. Original air filter body.
- 3.3.2. Free choice of the replacement air intake filter element.
- 3.3.3. It is allowed to change the location of the air intake point to the air filter.

3.4. COOLING SYSTEM

- 3.4.1. It is allowed to change the OEM radiator for any other or (and) change the location of the cooling system from original place.
- 3.4.2. Additional radiator is allowed.
- 3.4.3. When changing the location of the radiator and cooling system hoses it is necessary to install protective plates (plastic or metal screens) that will protect the driver from coolant in the event of hose or radiator breakage.

3.5. FUEL SYSTEM

- 3.5.1. Original fuel system.

3.6. EXHAUST SYSTEM

- 3.6.1. It is allowed to use silencers from accessory catalogue with the sound level not exceeding 115 decibel. (Attachment 1).

3.6.2. The silencer shall not exceed the dimensions of the ATV on the back. The silencing end of the silencer shall be located horizontally to the surface of the road ($\pm 10^\circ$ deviation is allowed). All sharp external sides shall be smoothed out with a minimal radius of 2 mm.

4. TRANSMISSION

4.1. It is allowed to modify or change primary and secondary pulleys and drive belts under the condition that original variator case is used.

4.2. It is allowed to change propeller shafts and brake hoses.

5. SUSPENSION, STEERING

5.1. FRAME

5.1.1. It is allowed to reinforce the frame with reinforcing elements that follow the original contour of the reinforced element.

5.2. SUSPENSION

5.2.1. Parts and components of the suspension (with the exception of shocks) - original.

5.2.2. It is allowed to reinforce parts of suspension with the elements that follow the original contour of the element.

5.2.3. Free choice of shocks - under the condition that the number of shocks will not be changed (one shock per wheel). Original top and bottom mounting points shall be kept unchanged.

5.2.4. Free choice of shock length and travel.

5.3. STEERING

5.3.1. It is allowed to install a handlebar from accessory catalogues. In case original handlebar is replaced it is mandatory to install soft energy-absorbing pad in the middle section that shall cover the mounting brackets of the handlebar. **Handlebars from composite materials (carbon, kevlar etc.) are prohibited.**

5.3.2. It is allowed to install a handlebar riser from accessory catalogues. Requirements to the handlebar riser:

- material - steel, aluminum
- the riser shall be attached to the handlebar using the mounting method defined by manufacturer
- the height of the riser shall not exceed 200 mm.

5.3.3. It is allowed to install the damper (shock) of the steering system.

5.3.4. It is allowed to replace the steering arms with reinforced ones under the condition that the material and design of the original arms are kept unchanged.

6. WHEELS AND TYRES

6.1. It is allowed to use wheels from accessory catalogues for this specific model.

6.2. Maximum diameter of the wheel disk shall not exceed 14".

6.3. It is allowed to use tires only from accessory catalogues for this specific model.

6.4. It is prohibited to use wheels made from plastic or compound materials.

6.5. Additional locking of the tire sidewall to the wheel (beadlock) is allowed.

6.6. Spare wheel is allowed under the condition that it is identical to the wheels installed on the ATV and safely attached to the vehicle.

7. UNDERBELLY PROTECTION, BUMPER AND STYLING KITS

7.1. Free choice of style and mounting type of underbelly protection.

7.2. Free choice of style and mounting type of bumper.

7.3. Free choice of style and mounting type of safety bars.

7.4. All external protective and styling kits elements shall not have sharp cutting edges. Sharp extending elements shall be protected with safety cups.

7.5. All external safety elements shall have only protective function and shall not be used for any other purpose (no mounting, no coolant and oil transfer etc.).

7.6. It is allowed to remove storage platforms under the condition that they are not an integral structural part of frame.

7.7. **It is prohibited** to install cargo boxes from non-flexible material to the back rack.

7.8. **Use of titan and titan alloys for underbelly protection, bumper and styling kit is prohibited.**

8. ELECTRIC EQUIPMENT

8.1. BATTERY

8.1.1. Free choice of battery brand and capacity.

8.1.2. Original battery installation location shall not be changed.

8.2. ELECTRIC HARNESS

8.2.1. Original electrical cables and covers shall be used.

8.2.2. It is allowed to use additional relays and fuses in electric circuits for additional lighting equipment and navigation systems.

8.2.3. Ignition circuit breaker. All ATVs shall be equipped with ignition circuit breaker from ATV accessories catalogue that stops the engine. The ignition circuit breaker shall be attached to the rider's gear with the spiral cable no more than 1 m long.

8.3. LIGHTING EQUIPMENT

8.3.1. Main lights - original, designed for this model by manufacturer.

8.3.2. All lighting equipment shall be maintained in working condition during the whole duration of the competition. Headlights and tail/brake lights shall always be on when the vehicle is moving along the Special Stage in the competition mode.

8.3.3. Each ATV shall be equipped with one more two red lights that can function as tail lights and brake lights. Taillights and stop tail lights shall be equipped with incandescent lamp or LED lamps with the following parameters:

- The wattage of the incandescent lamp shall be no less than 20W
- The wattage of the LED lamp shall be no less than 2 W

- Luminous flux shall be no less than 250 lm
- The total surface of each light shall be no less than 35 cm².

Additional taillights can be combined in one casing under the condition that the surface of each optical element is no less than 35 cm².

It is prohibited to install additional taillights of different color or taillights with stroboscopic effect.

Additional tail/brake lights shall always be on when the vehicle is moving along the Special Stage in the competition mode.

8.3.4. Additional lighting equipment is not regulated.

8.4. WINCH AND ADDITIONAL EQUIPMENT

8.4.1. No more than one winch can be installed.

Technical rules for SSV STANDARD

1. DEFINITION

- 1.1. Factory-made SSVs with side-by-side seating, manufactured in a series no less than 2000 identical units.
- 1.2. Engine - gasoline, naturally aspirated
 - 1.2.1. Engine displacement – no more than 1 000cm³.
 - 1.2.2. Transmission - 4x4 (4WD) - continuously variable CVT variator.
 - 1.2.3. SSV width measured at the wheelbase - up to 1700 mm inclusive.
 - 1.2.4. The responsibility to prove that an SSV in whole and its parts and components have been factory-built rests with the participant. It is allowed to compare the parts with serial parts or with manufacturer's catalog during the Technical Check.

2. THE LIMITS OF ALLOWED CHANGES

- 2.1. SSVs shall meet the requirements of the section "Mandatory safety equipment and gear" as well as the requirements listed below.
- 2.2. **Any other changes and adaptations of the parts, components and systems with the exception of those listed in these requirements, ARE NOT ALLOWED.**
- 2.3. Any worn-out or broken part can be replaced only with the part, identical to the original one.
- 2.4. Any vehicle that is considered dangerous by the Technical Commission, will not be allowed to compete by the decision of Sport Commissioners before the start of the competition.

3. ENGINE

- Only original factory-built engines designed for this model are allowed.
- It is allowed to make compression adjustments and machine finish the surfaces of cylinder head channels and manifolds.

3.1. INTAKE SYSTEM

- 3.1.1. Original air filter body.
- 3.1.2. Free choice of the replacement air intake filter element.

3.2. COOLING SYSTEM

- 3.2.1. It is allowed to change the OEM radiator for any other or (and) change the location of the cooling system from original place. Additional radiator is allowed.
- 3.2.2. Relocated (additional) radiator and cooling system hoses shall not be located within the area, limited by the main safety cage bars (space designed for team members).
- 3.2.3. When changing the location of the radiator and cooling system hoses or installing the additional one it is necessary to install protective plates (plastic or metal screens) that will protect both team members from coolant in the event of hose or radiator breakage.

3.3. FUEL SYSTEM

- 3.3.1. Original fuel system.

3.3.2. In case the filler neck is located on the open surface in the direction of vehicle travel, the gas tank cap shall be equipped with additional protective element that cuts out accidental opening on impact.

3.4. EXHAUST SYSTEM

3.4.1. It is allowed to alter the exhaust system.

3.4.2. It is allowed to use silencers from accessory catalogue with the sound level not exceeding 115 decibel. (Attachment 1).

3.4.3. The silencing end of the silencer shall be located horizontally to the surface of the road ($\pm 10^\circ$ deviation is allowed). The exhaust gases shall be directed behind or to the side of the vehicle, but they shall not raise a dust, soil the tires or braking system or disturb the driver. All sharp external sides shall be smoothed out with a minimal radius of 2 mm.

3.4.4. The exhaust pipe outlet shall be located within the perimeter of the vehicle and not further than 10 cm away from this perimeter. In case the vehicle has side exit the exhaust pipe shall be located inside the vertical plane going through the center of the wheelbase.

4. TRANSMISSION

4.1. Transmission - original.

4.2. It is allowed to modify or change primary and secondary pulleys and drive belts under the condition that original variator case is used.

5. FRAME, SUSPENSION, STEERING

5.1. It is allowed to reinforce the frame with reinforcing elements that follow the original contour of the reinforced element.

5.2. Suspension parts - original.

5.3. It is prohibited to reinforce or alter suspension system.

5.4. Free choice of shocks - under the condition that the number of shocks will not be changed (one shock per wheel). Original top and bottom mounting points shall be kept unchanged.

5.5. It is allowed to install a handlebar from sport accessories catalogue.

5.6. It is allowed to install certified steering wheel riser, including quick-attach riser.

5.7. It is allowed to reinforce or change tie rods. Replaced tie rods shall be industrially manufactured specifically for this SSV model and shall be installed into the original mounting points.

6. WHEELS AND TYRES

6.1. Only standard wheels specified by the manufacturer of the SSV are allowed.

6.2. Only standard tires specified by the manufacturer of the SSV are allowed.

6.3. Additional locking of the tire sidewall to the wheel (beadlock) is allowed.

6.4. It is prohibited to use wheels made from plastic or compound materials.

6.5. Spare wheel - no more than one allowed.

Spare wheel shall be identical to the wheels installed on the SSV. Attachment point shall be located outside the cabin. Spare wheel shall be securely fastened with mounting support.

7. SAFETY CAGE

7.1. Original safety cage reinforced in accordance with current Rules or safety cage homologated by Russian Automotive Federation (RAF) is mandatory.

7.2. The reinforcer of the main tube.

It is mandatory to install two additional diagonal elements crossing the main tube from top corners to the base of the original SSV security cages. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 6)

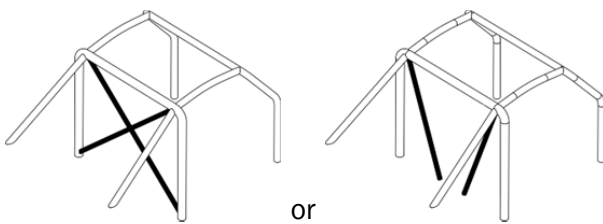


Figure 6

7.3. Roof reinforcement.

It is mandatory to install two additional diagonal elements to the standard safety SSV cage crossing the main tube top corners from one corner to the diagonal one. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 7)

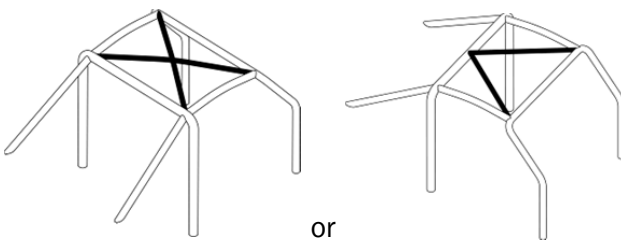


Figure 7

7.4. Reinforced safety windshield bars.

It is mandatory to install to the standard safety SSV cage the vertical bars that will cross the side gap of the cage from the top front corner to the lower point of the windshield support bar. Up to 20° bend in transverse plane is allowed. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 8)

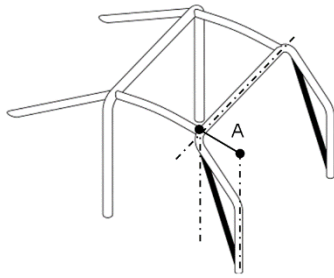


Figure 8

7.5. Door protection elements

From each side the SSV shall be equipped with at least one dilatational tube going from the back bar of the cage to the windshield bar. Up to 15 ° downward angle of the protective element is allowed in relation to the back mounting. The tube shall be extended to the external parts of the main safety cage. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 9)

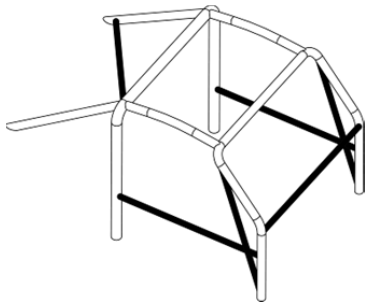


Figure 9

7.6. Top door gap reinforcer

From each side the SSV shall be equipped with the diagonal reinforcing element in the top back side of the door gap. The mounting points of the element shall be located at least 200 mm away from the corner of the door gap. Tube specification - cold-tensioned steel, diameter 45 mm, 2.5 mm thick, steel grade 20. (Figure 10)

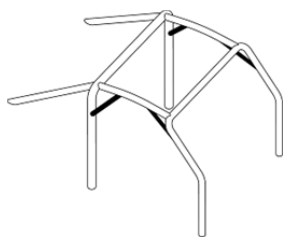


Figure 10

7.7. Safety belt mounting.

It is mandatory to attach transversal bar to the main bar to mount the sport safety belts (in SSV models not equipped with such bar). Mounting type - welding, terminal mounting. It is prohibited to bore holes in the main tubes of the original cage to install the diagonal elements and transversal bar. It is prohibited

to use titan and titan alloys as a material for safety cage elements. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20.

7.8. Additional elements.

It is allowed to reinforce the original security cage with additional elements (spacer bars, brace struts, backup bars) that improve safety of the team.

7.9. Team protection.

It is recommended to install protective covers from elastic non-burning material in the areas where body parts of team members and their protective helmets can contact the safety cage.

7.10. Windshield.

It is allowed to install polycarbonate windshield that covers with its lower part the front opening of the safety cage or full-size windshield (polycarbonate, shatterproof glass). Windshield shall be mounted with the help of factory-made brackets.

7.11. Side nets.

All SSVs shall be equipped with the protective nets, attached to the side openings on each side of the SSV. When looking at the side of the vehicle, the nets shall go from the plane of the steering wheel to the seat.

The nets shall have the following characteristics:

- Minimal width of the stripes: 19 mm
- Minimal loop size: 25 X 25 mm.
- Maximal loop size: 60 X 60 mm.
- Stripe material - nylon, polyester.
- Top mounting - non-removable
- Bottom mounting - quick attach.
- Fastex type plastic fastenings with a width of no less than 30 mm are recommended.

7.12. Roof.

SSV shall be equipped with a rigid roof (protection) above the team compartment. The roof shall cover the length from the front tube of the safety cage to the main tube of the cage. The width of the roof shall be no less than the width of the top part of the main tube of the cage. It is prohibited to bore the main tubes to install the roof. Recommended mounting method - steel clamps.

Roof material:

- Plastic - original rood from manufacturer catalogue.
- Steel - no less than 1.0 mm thick

- Aluminum - no less than 2.0 mm thick

7.13. Doors

It is mandatory to install factory-made metal doors designed for this SSV model.

7.14. It is allowed to remove external storage platforms under the condition that they are not an integral structural part of frame.

8. UNDERBELLY PROTECTION, BUMPER AND STYLING KITS

8.1. Free choice of style and mounting type of underbelly protection.

8.2. Free choice of style and mounting type of bumper.

8.3. Free choice of style and mounting type of safety bars.

8.4. All external protective and styling kits elements shall not have sharp cutting edges. Sharp extending elements shall be protected with safety cups.

8.5. All external safety elements shall have only protective function and shall not be used for any other purpose (no mounting, no coolant and oil transfer etc.).

8.6. Use of titan and titan alloys for underbelly protection, bumper and styling kit is prohibited.

9. BATTERY

9.1. Free choice of battery brand and capacity.

9.2. Original battery installation location shall not be changed.

10. LIGHTING EQUIPMENT

10.1. Main lights - original, designed for this model by manufacturer. All main lighting equipment shall be maintained in working condition during the whole duration of the competition.

10.2. Headlights and tail/brake lights shall always be on when the vehicle is moving along the Special Stage in the competition mode.

10.3. Additional lighting equipment is not regulated.

10.4. An SSV shall be equipped with turn signals/hazard lights.

10.5. Additional taillights.

Each SSV shall be equipped with:

- two red lights functioning as taillights
- two additional stop tail red lights
- The wattage of the incandescent lamp shall be no less than 20W / The total wattage of the LED lamp shall be no less than 2W
- Luminous flux shall be no less than 250 lm
- The total surface of each light shall be no less than 50 cm².

Additional taillights shall be installed on both top corners of the SSV safety cage roof and shall be visible from the back (minimal mounting height 1.25 m.).

Additional taillights can be combined in one casing under the condition that the surface of each optical element is no less than 50 cm³.

It is prohibited to install additional taillights of different color or taillights with stroboscopic effect.

Additional tail/brake lights shall always be on when the vehicle is moving along the Special Stage in the competition mode.

The crew with non-working additional taillights will not be allowed to start the Special Section.

11. SEAT BELTS AND SEATS

- 11.1.** It is prohibited to use 3-point seat belts with anti-cinch.
- 11.2.** SSV shall be equipped with at least 5-point factory-made seat belts for all team members.
- 11.3.** Shoulder straps shall be directed downwards and backwards and shall be attached with an angle of no more than 10°. (Figure 11).

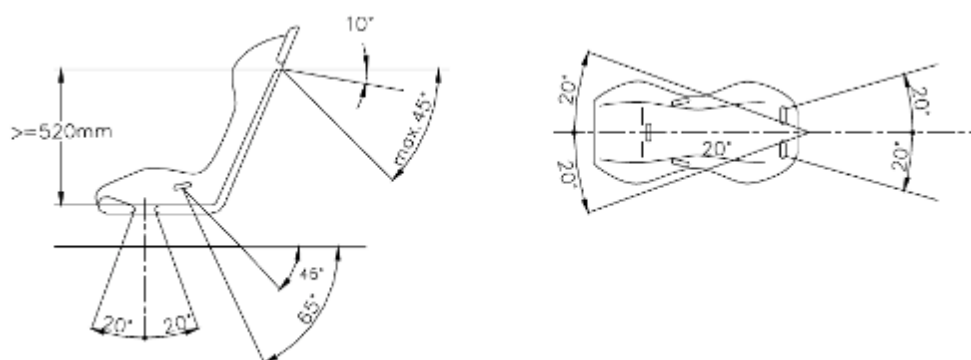


Figure 11

- 11.4.** It is prohibited to mount the safety belts to the elements of quick-release seats.
- 11.5.** It is allowed to install seats from sport accessories catalogue.

In case these seats are installed the following conditions shall be met:

- The brackets shall be mounted to frame/chassis at least in 4 mounting points for each seat using the bolts with diameter no less than 8mm and reinforcement plates.
- Minimal contact surface between the bracket, frame/chassis and reinforcement plate shall be no less than 40 cm² for each mounting point.
- The seat shall be mounted to the brackets in 4 points, 2 in front and 2 behind the seat, using the bolts with diameter no less than 8mm. The mounting points shall be reinforced with the reinforcement plates, integrated into the seat. Each mounting point shall be able to withstand the force of 15000N, applied to any direction.
- Minimum thickness of the bracket and reinforcement plates shall be 3 mm for steel and 5 mm for lightweight alloy elements.
- It is recommended to install FIA homologated seats (8855/1999 or 8862/2009 standards) for all crew members. In this case it is mandatory to use brackets that are homologated to be used with this seat.

12. WINCH AND ADDITIONAL EQUIPMENT

- 12.1.** No more than one winch can be installed.
- 12.2.** It is prohibited to install the winch in the cabin.

Technical rules for SSV SPORT

1. DEFINITION

1.1. Factory-made SSVs with side-by-side seating, manufactured in a series no less than 2000 identical units.

1.2. Engine - gasoline, naturally aspirated, gasoline turbocharged

1.2.1. Engine displacement – no more than 1 050cm³.

1.2.2. SSV width measured at the wheelbase - up to 1700 mm inclusive.

The responsibility to prove that an SSV in whole and its parts and components have been factory-built rests with the participant. It is allowed to compare the parts with serial parts or with manufacturer catalog during the Technical Check.

2. THE LIMITS OF ALLOWED CHANGES

2.1. SSVs shall meet the requirements of the section "Mandatory safety equipment and gear" as well as the requirements listed below.

2.2. Any other changes and adaptations of the parts, components and systems with the exception of those listed in these requirements, ARE NOT ALLOWED.

2.3. Any worn-out or broken part can be replaced only with the part, identical to the original one.

2.4. Any vehicle that is considered dangerous by the Technical Commission, will not be allowed to compete by the decision of Sport Commissioners before the start of the competition.

3. ENGINE

- Only original factory-built engines designed for this model are allowed.
- It is allowed to make compression adjustments and machine finish the surfaces of cylinder head channels and manifolds.
- It is allowed to use modified or non-original injection management systems.

3.1. INTAKE SYSTEM

3.1.1. Free choice of intake system.

3.2. COOLING SYSTEM

3.2.1. It is allowed to change the OEM radiator for any other or (and) change the location of the cooling system from original place. Additional radiator is allowed.

3.2.2. Relocated (additional) radiator and cooling system hoses shall not be located within the area, limited by the main safety cage bars (space designed for team members).

3.2.3. When changing the location of the radiator and cooling system hoses or installing the additional one it is necessary to install protective plates (plastic or metal screens) that will protect both team members from coolant in the event of hose or radiator breakage.

3.3. FUEL SYSTEM

3.3.1. It is allowed to use fuel system in accordance with Article 283 of FIA Technical rules.

3.3.2. In case the filler neck is located on the open surface in the direction of vehicle travel, the gas tank cap shall be equipped with additional protective element that cuts out accidental opening on impact.

3.4. EXHAUST SYSTEM

3.4.1. It is allowed to alter the exhaust system.

3.4.2. It is allowed to use silencers from accessory catalogue with the sound level not exceeding 115 decibel. (Attachment 1).

3.4.3. The silencing end of the silencer shall be located horizontally to the surface of the road ($\pm 10^\circ$ deviation is allowed). The exhaust gases shall be directed behind or to the side of the vehicle, but they shall not raise a dust, soil the tires or braking system or disturb the driver. All sharp external sides shall be smoothed out with a minimal radius of 2 mm.

3.4.4. The exhaust pipe outlet shall be located within the perimeter of the vehicle and not further than 10 cm away from this perimeter. In case the vehicle has side exit the exhaust pipe shall be located inside the vertical plane going through the center of the wheelbase.

4. TRANSMISSION

4.1. Transmission - CVT variator, mechanical transmission.

4.2. It is allowed to modify or change primary and secondary pulleys and drive belts under the condition that original variator case is used.

5. FRAME, SUSPENSION, STEERING

5.1. It is allowed to use surrounding frame built in accordance with the requirements of Articles 283, 286 of FIA Technical Rules.

5.2. It is allowed to reinforce the standard frame with reinforcing elements that follow the original contour of the reinforced element.

5.3. Suspension parts - free choice.

5.4. Free choice of shocks - under the condition that the number of shocks is kept unchanged (one per wheel).

5.5. It is allowed to install a steering wheel from sport accessories catalogue.

5.6. It is allowed to install certified steering wheel riser, including quick-attach riser, from sport accessories catalogue.

5.7. It is allowed to reinforce or change tie rods.

6. BRAKE SYSTEM

6.1. Free choice of brake system under the condition that:

- the system is activated and controlled only by the driver
- the system has at least 2 independent loops that are activated by one pedal.

6.2. Brake calipers shall be taken from a factory-built car/SSV or from the spare parts catalog for sport cars, maximum allowed number of brake pistons in the caliper - no more than 4.

6.3. Brake discs can be taken from the factory-built car/SSV or the from spare parts catalog for sport cars.
Maximal allowed diameter of the brake discs no more than 330 mm.

7. WHEELS AND TYRES

7.1. It is allowed to use wheels from accessory catalogues for this specific model.

7.2. Maximum diameter of the wheel disk shall not exceed 14”.

7.3. It is allowed to use tires only from accessory catalogues for this specific model.

7.4. Additional locking of the tire sidewall to the wheel (beadlock) is allowed.

7.5. **It is prohibited to use wheels made from plastic or compound materials.**

7.6. Spare wheel - no more than two allowed.

Spare wheels shall be identical to the wheels installed on the SSV. Attachment point shall be located outside the cabin. Spare wheels shall be securely fastened with mounting support.

8. SAFETY CAGE

8.1. Original safety cage reinforced in accordance with current Rules or safety cage homologated by Russian Automotive Federation (RAF) is mandatory.

8.2. The reinforcer of the main tube.

It is mandatory to install two additional diagonal elements crossing the main tube from top corners to the base of the original SSV security cages. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 6)

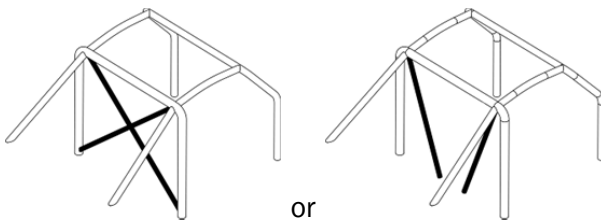


Figure 12

8.3. Roof reinforcement

It is mandatory to install two additional diagonal elements to the standard safety SSV cage crossing the main tube top corners from one corner to the diagonal one. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 7)

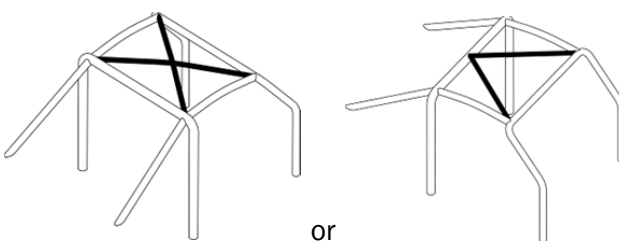


Figure 13

8.4. Reinforced safety windshield bars.

It is mandatory to install to the standard safety SSV cage the vertical bars that will cross the side gap of the cage from the top front corner to the lower point of the windshield support bar. Up to 20° bend in transverse plane is allowed. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 8)

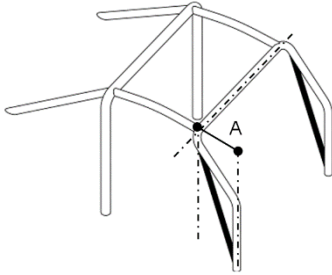


Figure 14

8.5. Door protection elements

From each side the SSV shall be equipped with at least one dilatational tube going from the back bar of the cage to the windshield bar. Up to 15° downward angle of the protective element is allowed in relation to the back mounting. The tube shall be extended to the external parts of the main safety cage. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 9)

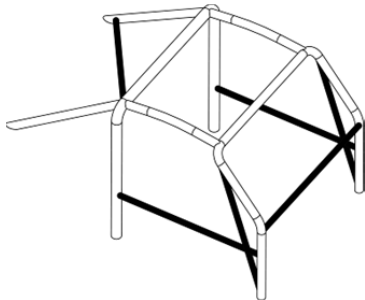


Figure 15

8.6. Top door gap reinforcer

From each side the SSV shall be equipped with the diagonal reinforcing element in the top back side of the door gap. The mounting points of the element shall be located at least 200 mm away from the corner of the door gap. Tube specification - cold-tensioned steel, diameter 45 mm, 2.5 mm thick, steel grade 20. (Figure 10)

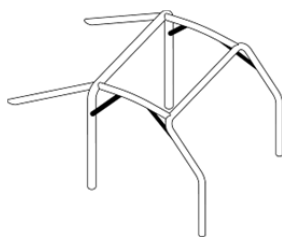


Figure 16

8.7. Safety belt mounting.

It is mandatory to attach transversal bar to the main bar to mount the sport safety belts (in SSV models not equipped with such bar). Mounting type - welding, terminal mounting. It is prohibited to bore holes in the main tubes of the original cage to install the diagonal elements and transversal bar. It is prohibited to use titan and titan alloys as a material for safety cage elements. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20.

8.8. Additional elements.

It is allowed to reinforce the original security cage with additional elements (spacer bars, brace struts, backup bars) that improve safety of the team.

8.9. Team protection.

It is recommended to install protective covers from elastic non-burning material in the areas where body parts of team members and their protective helmets can contact the safety cage.

8.10. Windshield.

It is allowed to install polycarbonate windshield that covers with its lower part the front opening of the safety cage or full-size windshield (polycarbonate, shatterproof glass). Windshield shall be mounted with the help of factory-made brackets.

8.11. Side nets.

All SSVs shall be equipped with the protective nets, attached to the side openings on each side of the SSV. When looking at the side of the vehicle, the nets shall go from the plane of the steering wheel to the seat.

The nets shall have the following characteristics:

- Minimal width of the stripes: 19 mm.
- Minimal loop size: 25 X 25 mm.
- Maximal loop size: 60 X 60 mm.
- Stripe material - nylon, polyester.
- Top mounting - non-removable
- Bottom mounting - quick attach.
- Fastex type plastic fastenings with a width of no less than 30 mm are recommended.

8.12. Roof.

SSV shall be equipped with a rigid roof (protection) above the team compartment. The roof shall cover the length from the front tube of the safety cage to the main tube of the cage. The width of the roof shall be no less than the width of the top part of the main tube of the cage. It is prohibited to bore the main tubes to install the roof. Recommended mounting method - steel clamps.

Roof material:

- Plastic - original roof from manufacturer catalogue.
- Steel - no less than 1,0 mm thick
- Aluminum - no less than 2.0 mm thick

8.13. Doors

8.13.1. It is mandatory to install factory-made metal doors designed for this SSV model.

8.13.2. It is allowed not to install doors only on the models that are equipped with frames with side protection elements (in accordance with Article 282 of FIA Technical Rules).

8.14. It is allowed to remove external storage platforms under the condition that they are not an integral structural part of frame.

9. UNDERBELLY PROTECTION, BUMPER AND STYLING KITS

9.1. Free choice of style and mounting type of underbelly protection.

9.2. Free choice of style and mounting type of bumper.

9.3. Free choice of style and mounting type of safety bars.

9.4. All external protective and styling kits elements shall not have sharp cutting edges. Sharp extending elements shall be protected with safety cups.

9.5. All external safety elements shall have only protective function and shall not be used for any other purpose (no mounting, no coolant and oil transfer etc.).

9.6. Use of titan and titan alloys for underbelly protection, bumper and styling kit is prohibited..

10. BATTERY

10.1. Free choice of battery brand and capacity.

10.2. In case the location of the battery is changed new mounting location shall meet the following conditions:

- the battery shall be located on the metal tray with flanges that will straddle the battery from both sides
- the battery shall be mounted with the help of at least one steel strap with isolating pads with the dimensions no less than 20 x 0.8 mm that shall straddle the battery. Battery shall be mounted with the help of bolts with diameter no less than 10 mm.
- the vehicle body shall be reinforced in the strap mounting points with the help of metal plates with the surface no less than 20 cm² and no less than 2 mm thick.

11. LIGHTING EQUIPMENT

11.1. Main lights - original, designed for this model by manufacturer. All main lighting equipment shall be maintained in working condition during the whole duration of the competition.

11.2. Headlights and tail/brake lights shall always be on when the vehicle is moving along the Special Stage in the competition mode.

- 11.3. Additional lighting equipment is not regulated.
- 11.4. An SSV shall be equipped with turn signals/hazard lights.
- 11.5. Additional taillights.

Each SSV shall be equipped with:

- two red lights functioning as taillights
- two additional stop tail red lights
- The wattage of the incandescent lamp shall be no less than 20W / The total wattage of LED lamps shall be no less than 2-3W
- Luminous flux shall be no less than 250 lm
- The total surface of each light shall be no less than 50 cm².

Additional taillights shall be installed on both top corners of the SSV safety cage roof and shall be visible from the back (minimal mounting height 1.25 m.).

Additional taillights can be combined in one casing under the condition that the surface of each optical element is no less than 50 cm³.

It is prohibited to install additional taillights of different color as well as lights with a stroboscopic effect.

Additional tail/brake lights shall always be on when the vehicle is moving along the Special Stage in the competition mode.

The crew with non-working additional taillights will not be allowed to start the Special Section.

12. SEAT BELTS AND SEATS

- 12.1. It is prohibited to use 3-point seat belts with anti-cinch.
- 12.2. SSV shall be equipped with at least 5-point factory-made seat belts for all team members.
- 12.3. Shoulder straps shall be directed downwards and backwards and shall be attached with an angle of no more than 10°. (Figure 13).

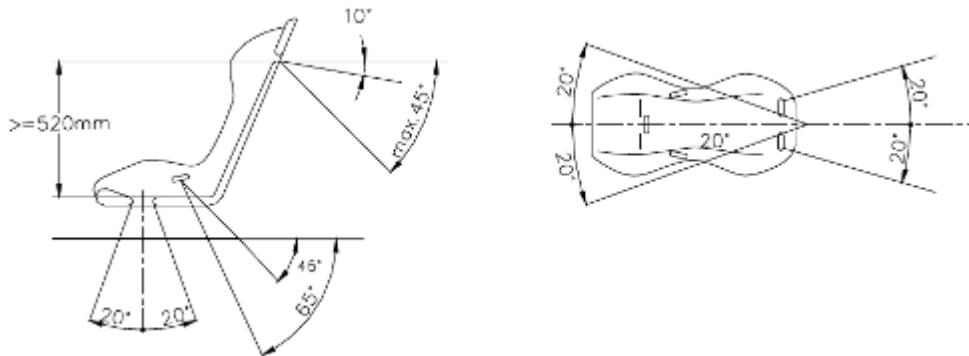


Figure 17

- 12.4. It is prohibited to mount the safety belts to the elements of quick-release seats.
- 12.5. It is allowed to install seats from sport accessories catalogue.

12.5.1. In case these seats are installed the following conditions shall be met:

- The brackets shall be mounted to frame/chassis at least in 4 mounting points for each seat using the bolts with diameter no less than 8mm and reinforcement plates.
- Minimal contact surface between the bracket, frame/chassis and reinforcement plate shall be no less than 40 cm² for each mounting point.
- The seat shall be mounted to the brackets in 4 points, 2 in front and 2 behind the seat, using the bolts with diameter no less than 8mm. The mounting points shall be reinforced with the reinforcement plates, integrated into the seat. Each mounting point shall be able to withstand the force of 15000N, applied to any direction.
- Minimum thickness of the bracket and reinforcement plates shall be 3 mm for steel and 5 mm for lightweight alloy elements.
- Minimal longitudinal size of each bracket - 6 cm.
- It is recommended to install FIA homologated seats (8855/1999 or 8862/2009 standards) for all crew members. In this case it is mandatory to use brackets that are homologated to be used with this seat.

13. WINCH AND ADDITIONAL EQUIPMENT

13.1. No more than one winch can be installed.

13.2. It is prohibited to install the winch in the cabin.

Technical rules for SSV SUPER SPORT

1. DEFINITION

1.1. Factory-made SSVs with side-by-side seating, manufactured in a series no less than 2000 identical units.

1.2. Engine - gasoline, naturally aspirated, gasoline turbocharged

1.2.1. Engine displacement – no more than 1 050cm³.

1.2.2. SSV width measured at the wheelbase - up to 2000 mm inclusive.

The responsibility to prove that an SSV in whole and its parts and components have been factory-built rests with the participant. It is allowed to compare the parts with serial parts or with manufacturer's catalog during the Technical Check.

2. THE LIMITS OF ALLOWED CHANGES

2.1. SSVs shall meet the requirements of the section "Mandatory safety equipment and gear" as well as the requirements listed below.

2.2. **Any other changes and adaptations of the parts, components and systems with the exception of those listed in these requirements, ARE NOT ALLOWED.**

2.3. Any worn-out or broken part can be replaced only with the part, identical to the original one.

2.4. Any vehicle that is considered dangerous by the Technical Commission, will not be allowed to compete by the decision of Sport Commissioners before the start of the competition.

3. ENGINE

- Only original factory-built engines designed for this model are allowed.
- It is allowed to make compression adjustments and machine finish the surfaces of cylinder head channels and manifolds.
- It is allowed to use modified or non-original injection management systems.

3.1. INTAKE SYSTEM

3.1.1. Free choice of intake system.

3.2. COOLING SYSTEM

3.2.1. It is allowed to change the OEM radiator for any other or (and) change the location of the cooling system from original place. Additional radiator is allowed.

3.2.2. Relocated (additional) radiator and cooling system hoses shall not be located within the area, limited by the main safety cage bars (space designed for team members).

3.2.3. When changing the location of the radiator and cooling system hoses or installing the additional one it is necessary to install protective plates (plastic or metal screens) that will protect both team members from coolant in the event of hose or radiator breakage.

3.3. FUEL SYSTEM

3.3.1. It is allowed to use fuel system in accordance with Article 283 J of FIA Technical rules.

3.3.2. In case the filler neck is located on the open surface in the direction of vehicle travel, the gas tank cap shall be equipped with additional protective element that cuts out accidental opening on impact.

3.4. EXHAUST SYSTEM

3.4.1. It is allowed to alter the exhaust system.

3.4.2. It is allowed to use silencers from accessory catalogue with the sound level not exceeding 115 decibel. (Attachment 1).

3.4.3. The silencing end of the silencer shall be located horizontally to the surface of the road ($\pm 10^\circ$ deviation is allowed). The exhaust gases shall be directed behind or to the side of the vehicle, but they shall not raise a dust, soil the tires or braking system or disturb the driver. All sharp external sides shall be smoothed out with a minimal radius of 2 mm.

3.4.4. The exhaust pipe outlet shall be located within the perimeter of the vehicle and not further than 10 cm away from this perimeter. In case the vehicle has side exit the exhaust pipe shall be located inside the vertical plane going through the center of the wheelbase.

4. TRANSMISSION

4.1. Transmission - CVT variator, mechanical transmission.

4.2. It is allowed to modify or change primary and secondary pulleys and drive belts under the condition that original variator case is used.

5. FRAMCE, SUSPENSION, STEERING

5.1. It is allowed to use surrounding frame built in accordance with the requirements of Articles 283, 286 of FIA Technical Rules.

5.2. It is allowed to reinforce the standard frame with reinforcing elements that follow the original contour of the reinforced element.

5.3. Suspension parts - free choice.

5.4. Free choice of shocks - under the condition that the number of shocks is kept unchanged (one per wheel).

5.5. It is allowed to install a steering wheel from sport accessories catalogue.

5.6. It is allowed to install certified steering wheel riser, including quick-attach riser.

5.7. It is allowed to reinforce or change tie rods.

6. BRAKE SYSTEM

6.1. Free choice of brake system under the condition that:

- the system is activated and controlled only by the driver,
- the system has at least 2 independent loops that are activated by one pedal.

6.2. Brake calipers shall be taken from a factory-built car/SSV or from the spare parts catalog for sport cars, maximum allowed number of brake pistons in the caliper - no more than 4.

- 6.3. Brake discs can be taken from the factory-built car/SSV or the from spare parts catalog for sport cars.
Maximal allowed diameter of the brake discs no more than 330 mm.

7. WHEELS AND TYRES

- 7.1. It is allowed to use wheels from accessory catalogues for this specific model.
7.2. Maximum diameter of the wheel disk shall not exceed 14".
7.3. It is allowed to use tires from accessory catalogues for this specific model.
7.4. Additional locking of the tire sidewall to the wheel (beadlock) is allowed.
7.5. **It is prohibited to use wheels made from plastic or compound materials.**
7.6. Spare wheel - no more than two allowed.

Spare wheels shall be identical to the wheels installed on the SSV. Attachment point shall be located outside the cabin. Spare wheels shall be securely fastened with mounting support.

8. SAFETY CAGE

- 8.1. Original safety cage reinforced in accordance with current Rules or safety cage homologated by Russian Automotive Federation (RAF) is mandatory.
8.2. The reinforcer of the main tube.

It is mandatory to install two additional diagonal elements crossing the main tube from top corners to the base of the original SSV security cages. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 6)

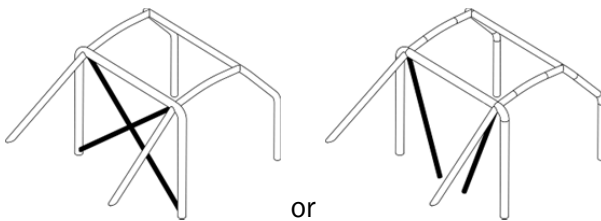


Figure 18

- 8.3. Roof reinforcement.

It is mandatory to install two additional diagonal elements to the standard safety SSV cage crossing the main tube top corners from one corner to the diagonal one. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 7)

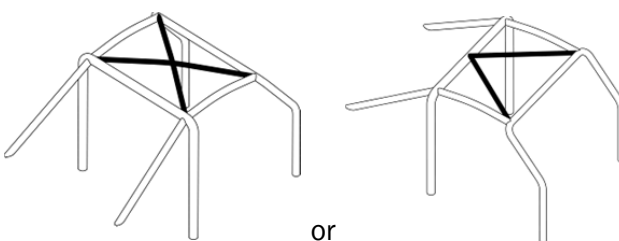


Figure 19

8.4. Reinforced safety windshield bars.

It is mandatory to install to the standard safety SSV cage the vertical bars that will cross the side gap of the cage from the top front corner to the lower point of the windshield support bar. Up to 20° bend in transverse plane is allowed. Mounting type - welding. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 8)

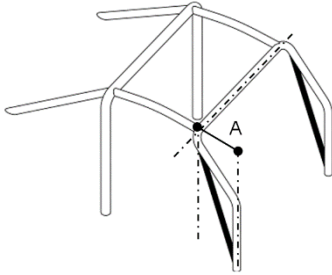


Figure 20

8.5. Door protection elements

From each side the SSV shall be equipped with at least one dilatational tube going from the back bar of the cage to the windshield bar. Up to 15° downward angle of the protective element is allowed in relation to the back mounting. The tube shall be extended to the external parts of the main safety cage. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20. (Figure 9)

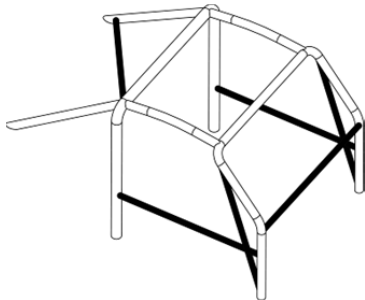


Figure 21

8.6. Top door gap reinforcer

From each side the SSV shall be equipped with the diagonal reinforcing element in the top back side of the door gap. The mounting points of the element shall be located at least 200 mm away from the corner of the door gap. Tube specification - cold-tensioned steel, diameter 45 mm, 2.5 mm thick, steel grade 20. (Figure 10)

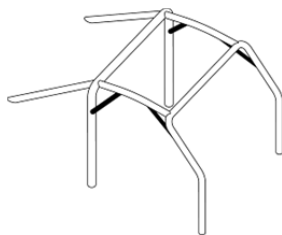


Figure 22

8.7. Safety belt mounting.

It is mandatory to attach transversal bar to the main bar to mount the sport safety belts (in SSV models not equipped with such bar). Mounting type - welding, terminal mounting. It is prohibited to bore holes in the main tubes of the original cage to install the diagonal elements and transversal bar. It is prohibited to use titan and titan alloys as a material for safety cage elements. Tube specification - cold-tensioned steel, diameter 38 mm, 2.5 mm thick, steel grade 20.

8.8. Additional elements.

It is allowed to reinforce the original security cage with additional elements (spacer bars, brace struts, backup bars) that improve safety of the team.

8.9. Team protection.

It is recommended to install protective covers from elastic non-burning material in the areas where body parts of team members and their protective helmets can contact the safety cage.

8.10. Windshield.

It is allowed to install polycarbonate windshield that covers with its lower part the front opening of the safety cage or full-size windshield (polycarbonate, shatterproof glass). Windshield shall be mounted with the help of factory-made brackets.

8.11. Side nets.

All SSVs shall be equipped with the protective nets, attached to the side openings on each side of the SSV. When looking at the side of the vehicle, the nets shall go from the plane of the steering wheel to the seat.

The nets shall have the following characteristics:

- Minimal width of the stripes: 19 mm
- Minimal loop size: 25 X 25 mm.
- Maximal loop size: 60 X 60 mm.
- Stripe material - nylon, polyester.
- Top mounting - non-removable
- Bottom mounting - quick attach.
- Fastex type plastic fastenings with a width of no less than 30 mm are recommended.

8.12. Roof.

SSV shall be equipped with a rigid roof (protection) above the team compartment. The roof shall cover the length from the front tube of the safety cage to the main tube of the cage. The width of the roof shall be no less than the width of the top part of the main tube of the cage. It is prohibited to bore the main tubes to install the roof. Recommended mounting method - steel clamps.

Roof material:

- Plastic - original rood from manufacturer catalogue.
- Steel - no less than 1,0 mm thick
- Aluminum - no less than 2.0 mm thick

8.13. Doors

It is mandatory to install factory-made metal doors designed for this SSV model.

8.14. It is allowed to remove external storage platforms under the condition that they are not an integral structural part of frame.

9. UNDERBELLY PROTECTION, BUMPER AND STYLING KITS

9.1. Free choice of style and mounting type of underbelly protection.

9.2. Free choice of style and mounting type of bumper.

9.3. Free choice of style and mounting type of safety bars.

9.4. All external protective and styling kits elements shall not have sharp cutting edges. Sharp extending elements shall be protected with safety cups.

9.5. All external safety elements shall have only protective function and shall not be used for any other purpose (no mounting, no coolant and oil transfer etc.).

9.6. Use of titan and titan alloys for underbelly protection, bumper and styling kit is prohibited..

10. BATTERY

10.1. Free choice of battery brand and capacity.

10.2. In case the location of the battery is changed new mounting location shall meet the following conditions:

- the battery shall be located on the metal tray with flanges that will straddle the battery from both sides
- the battery shall be mounted with the help of at least one steel strap with isolating pads with the dimensions no less than 20 x 0.8 mm that shall straddle the battery. Battery shall be mounted with the help of bolts with diameter no less than 10 mm.
- the vehicle body shall be reinforced in the strap mounting points with the help of metal plates with the surface no less than 20 cm² and no less than 2 mm thick.

11. LIGHTING EQUIPMENT

11.1. Main lights - original, designed for this model by manufacturer. All main lighting equipment shall be maintained in working condition during the whole duration of the competition.

11.2. Headlights and tail/brake lights shall always be on when the vehicle is moving along the Special Stage in the competition mode.

11.3. Additional lighting equipment is not regulated.

11.4. An SSV shall be equipped with turn signals/hazard lights.

11.5. Additional taillights.

Each SSV shall be equipped with:

- two red lights functioning as taillights
- two additional stop tail red lights
- The wattage of the incandescent lamp shall be no less than 20W / The total wattage of LED lamps shall be no less than 2-3W
- Luminous flux shall be no less than 250 lm
- The total surface of each light shall be no less than 50 cm².

Additional taillights shall be installed on both top corners of the SSV safety cage roof and shall be visible from the back (minimal mounting height 1.25 m.).

Additional taillights can be combined in one casing under the condition that the surface of each optical element is no less than 50 cm².

It is prohibited to install additional taillights of different color as well as lights with a stroboscopic effect.

Additional tail/brake lights shall always be on when the vehicle is moving along the Special Stage in the competition mode.

The crew with non-working additional taillights will not be allowed to start the Special Section.

12. SEAT BELTS AND SEATS

12.1. It is prohibited to use 3-point seat belts with anti-cinch.

12.2. SSV shall be equipped with at least 5-point factory-made seat belts for all team members.

12.3. Shoulder straps shall be directed downwards and backwards and shall be attached with an angle of no more than 10°. (Figure 17).

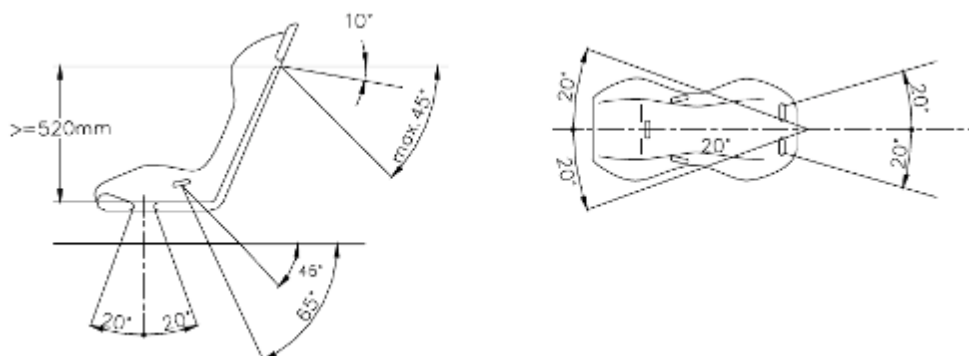


Figure 17

12.4. It is prohibited to mount the safety belts to the elements of quick-release seats.

12.5. It is allowed to install sport-type seats with lateral support.

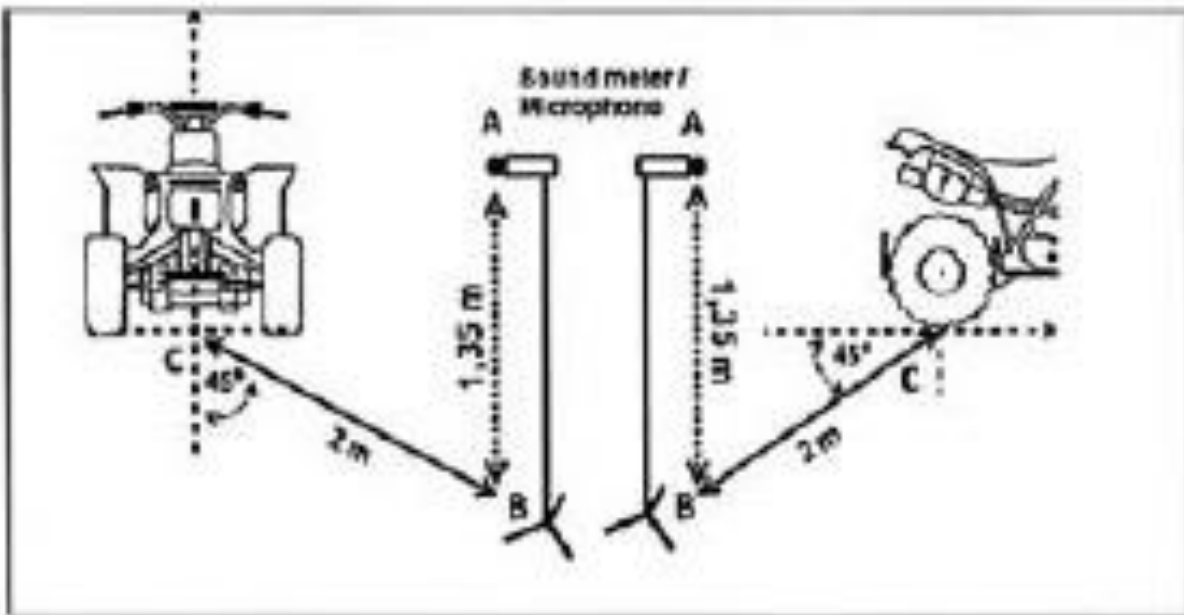
12.5.1. In case these seats are installed the following conditions shall be met:

- The brackets shall be mounted to frame/chassis at least in 4 mounting points for each seat using the bolts with diameter no less than 8mm and reinforcement plates.
- Minimal contact surface between the bracket, frame/chassis and reinforcement plate shall be no less than 40 cm² for each mounting point.
- The seat shall be mounted to the brackets in 4 points, 2 in front and 2 behind the seat, using the bolts with diameter no less than 8mm. The mounting points shall be reinforced with the reinforcement plates, integrated into the seat. Each mounting point shall be able to withstand the force of 15000N, applied to any direction.
- Minimum thickness of the bracket and reinforcement plates shall be 3 mm for steel and 5 mm for lightweight alloy elements.
- Minimal longitudinal size of each bracket - 6 cm.
- It is recommended to install FIA homologated seats (8855/1999 or 8862/2009 standards) for all crew members. In this case it is mandatory to use brackets that are homologated to be used with this seat.

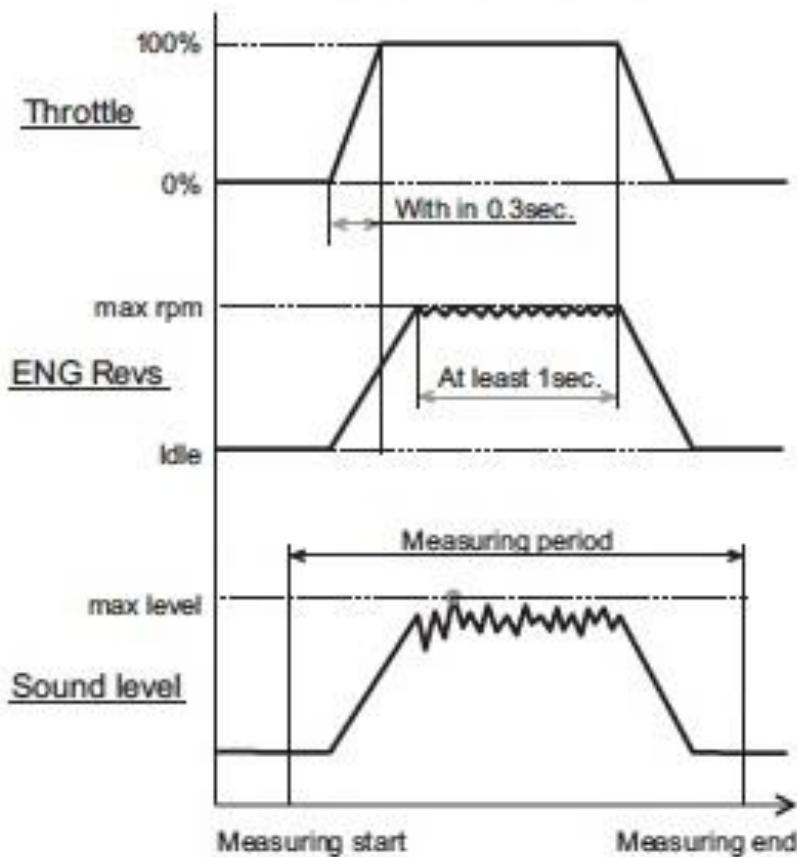
13. WINCH AND ADDITIONAL EQUIPMENT

- 13.1.** No more than one winch can be installed.
- 13.2.** It is prohibited to install the winch in the cabin.

Attachment 1. Exhaust noise measurement plan.



THE IMAGE OF THE SOUND MEASUREMENT PROCEDURE



1. The Inspector shall open the throttle until full open throttle within 0.3 seconds.
2. And keep at the max rpm (at rpm limiter) at least 1 second. Then, release the throttle quickly.
3. The sound level is measured in the all period and the maximum level shall be recorded in any case. (automatically by the sound meter).

Attachment 2. International certification of helmets.

01.70 INTERNATIONALLY RECOGNIZED HELMET LABELLING

Europe ECE 22-05 'P', 'NP' or 'J'

Japan JIS T 8133: 2007 (c 01.01.2010)

US SNELL M 2010 (c 01.01.2010)

(please see also International Helmet Standards at the diagram),

INTERNATIONAL HELMETS STANDARDS

NORMES INTERNATIONALES DES CASQUES

General(e) Section

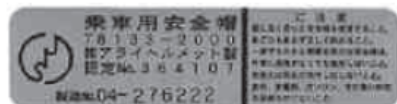
ECE 22 - 05 "P" (EUROPE)

The ECE mark consists of a circle surrounding the letter E followed by the distinguishing number of the country which has granted approval.



E1 for Germany, **E2** for France, **E3** for Italy, **E4** for Netherlands, **E5** for Sweden, **E6** for Belgium, **E7** for Hungary, **E8** for Czeck Republic, **E9** for Spain, **E10** for Yugoslavia, **E11** for UK, **E12** for Austria, **E13** for Luxembourg, **E14** for Switzerland, **E15** (- vacant), **E16** for Norway, **E17** for Finland, **E18** for Denmark, **E19** for Roumania, **E20** for Poland, **E21** for Portugal, **E22** for the Russian Federation, **E23** for Greece, **E24** for Ireland, **E25** for Croatia, **E26** for Slovenia, **E27** for Slovakia, **E28** for Bielo Russia, **E29** for Estonia, **E30** (- vacant), **E31** for Bosnia and Herzegovina, **E32** for Letonie, **E34** for Bulgaria, **E37** for Turkey, **E40** for Macedonia, **E43** for Japan, **E44** (- vacant), **E45** for Australia, **E46** for Ukraine, **E47** for South Africa, **E48** New Zealand.

Below the letter **E**, the **approval** number should always begin with 05. Below the approval number is the serial production number. (Label on retention system or comfort interior).



(JAPAN) JIS T 8133 : 2007
(Label affixed inside the helmet).



(USA) SNELL M2010
(Label affixed inside the helmet).

For more details consult the F.I.M. Technical Rulebook