

TECHNICAL RULES HAMU 2019

1. Classification and Definitions for HR 2WD Class

1.1 Harrasteralli cars must be vehicles that are roadworthy, registered or eligible for a transfer license in accordance with Trafi's instructions. Drivers are obliged to prove this legality, if necessary, and to comply with these technical rules in all classes.

1.2 Classification of vehicles

The car need not be classified nationally or internationally.

1.3 Engine

In the case of the engine, the original engine may be replaced by the same manufacturer's serial production engine, the cylinder number to be kept original, the cubic capacity may increase by 25% of the largest model of the model.

Multi-valve cylinder head allowed, billet cylinder head or turbo use prohibited.

Cubic capacity by category below 1400cc, below 1650cc, below 2250cc and over 2250cc.

The engine cooler must be located in its original location.

The fuel used in cars is free, taking into account road traffic regulations.

1.4 Transmission and shafts

Transmission, clutch and drive shaft are free, the original type of rear axle must be retained.

Keep the rear axle in place.

The front axle must be original or categorized, strengthening allowed.

The reverse gear must work.

If the front / rear control arms are not original, the manufacturer must have pictorial documentation.

The front axle must be original or categorized, strengthening allowed.

Rear axle support rod fastening points in the body are free, restricted at the front edge of the rear seat, + 50 mm forward transfer allowed.

Wheel hubs free.



1.5 Body changes and towing points

Shock absorber housings free.

The expansion of the front of the drive shaft tunnel is permitted from the front to the rear 300mm, width 100mm and height 50mm.

Rear extension and extension for the front edge of the rear seat + 100mm.

Changes to the body required by the exhaust manifold and piping are permitted.

The exhaust pipe must end on the rear of the rear sand dirt.

Magnification of front / rear wheel housings allowed.

Body kits allowed.

Front fenders and hatches free, aluminum, fiberglass or similar material allowed.

The windscreen must correspond the same material as the original glass pane.

Other glasses free, polycarbonate 4mm, front windows must open or equipped with hatch. Not completely opening windows must be capable of being pressed in or removed without tools.

The position of the firewall between the engine compartment and the cab must not be changed. The firewall must be tight and protective between the cab and the engine compartment.

Towing points must be at front and at rear. The location of the towing points has to be clearly marked with a noticeable arrow.

1.6 Brakes

Brakes are free.

1.7 Steering

Steering is free, original type retained, power steering can be added or removed.

1.8 Suspension and shock absorption

Suspension / shock absorbers free.

1.9 Battery, location and attachment.

The battery is free when it is located in original location of the battery in the engine compartment or with a firewall closed trunk.

When the battery is in the cab or in a trunk without firewall, the battery must be drybattery or gel battery.

The battery plus (+) terminal must be protected.

The battery must be firmly attached to the basket in at least two of its metal brackets



point.

The gel / liquid battery must be encapsulated.

The master switch must be placed inside the cab and accessible to the driver and outside the car on the driver's side near the bottom of the windscreen. The master switch should break all the car's power sources. Mark with an appropriate blue triangle with white border with a side length of 12 cm and in the middle the triangle should be a red flash.

Updated 18.2.2019

1.10 Fuel system and fluid lines.

Liquid lines may pass through the cab, and may not have any connections.

Liquid lines must be protected against wear and shock.

The coolant line must not pass through the cab.

The lubricating oil line which passes through the cab must be made of aeroplane-quality steel beam material.

The original fuel tank can be replaced by a so-called "safety tank". If original or equivalent tank is replaced by the safety tank, it must be located in the trunk with firewall or it must encapsulate in a liquid impervious housing.

1.11 Heating

Heating is free.

1.12 Seats and their mounting

Seats intact, manufactured for racing, so-called cup seats, so-called earcap seats are recommended.

Mounting frames fastening to manufacturer's holes, material steel / aluminum

The original mounting points of the car can be used to mount the seat. If the seat mounting is made otherwise (seat mounting frames), material should be steel, minimum 35mm x 35mm x 2.5mm round or 20mm x 40mm x 2.5mm profile.

Attachment to the body with at least 40cm² x 3 mm mounting plates. Fastening to body with round-welding.

Floor mounting allowed. At the mounting points, the floor must be reinforced with 120 cm² and 3 mm steel plates, which are round-weld to the body.

1.13 Harnesses and their mounting.

Harnesses must be intact, 6-point harnesses approved for competition use.



The harnesses' mounting points to the body must be reinforced by 60 cm² and 3mm strong steel plates. The original mount can be used, but at a minimum of 60 cm² welded steel plates are recommended. Mounting of the rear harnesses to the roll cage or otherwise to the body with welded / bolted steel plate with minimum dimensions of 60 cm² x 3 mm.

All harnesses mountings must follow the harnesses manufacturer's instructions and in accordance with them.

1.14 Roll cage

The minimum pipe strengths on the main tube are 45 mm in diameter and 2.5 mm in wall thickness, other tubes with a minimum diameter of 38 mm and a wall of 2.5 mm seamless steel tube.

The fastening points of the roll cage to the body must be reinforced with 3 mm thick and 120 cm² steel plates welded to body.

Cars that had been racing in Hamu's races before 2019 were allowed to have earlier roll cage rules. The upgrade to 2019 rules should be done by 31 December 2023, when the seamed tube use ends in the use for roll cage.

Classified arches are allowed without any modification with classification certificate. If asked the certification must be showed.

Cars whose construction started before 2019 with the so-called "old rule" roll cage are allowed until December 31, 2023.

Roll cage 2019

These instructions should be followed / used from 2019 onwards if the roll cage is not classified. If classified roll cage is used, there must be a classification certificate.

Material: Cold drawn seamless pure carbon steel tube with a maximum carbon content of 0.3% (Min. tensile strength / breaking strength 350 N / mm²).

Dimensions:

Main tube and side main tube 45x2,5mm or 50x2,0mm

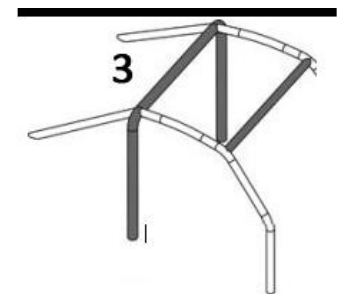
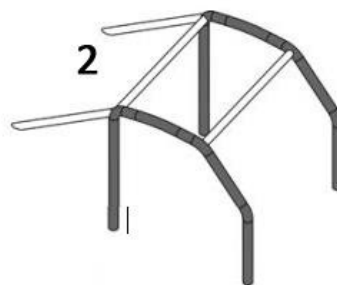
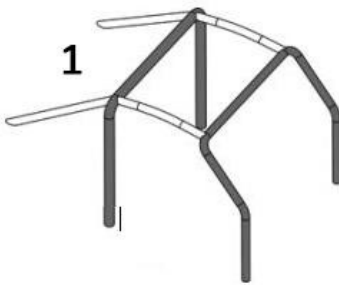
Half side tube and other tubes 38x2,5mm or 40x2,0mm

The roll cage must be symmetrical on both sides of the car and located between front and rear shock absorber's body mounting points. Roll cage must not be disproportionately block drivers leaving the car. The weld seams should be a good / high quality (the roll cage

is wrong practice area for welding) and cross the entire tube. The mounting points of the roll cage to the body must be reinforced 3 mm thick and 120 cm² steel plates round-welded to the body.

Basic infrastructure

The roll cage should consist of some of the following structures

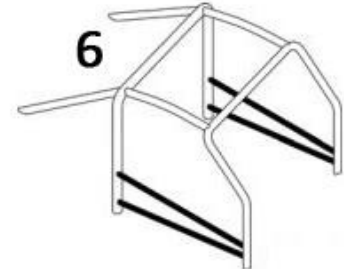
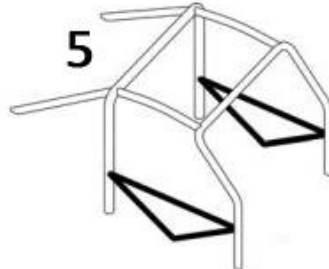
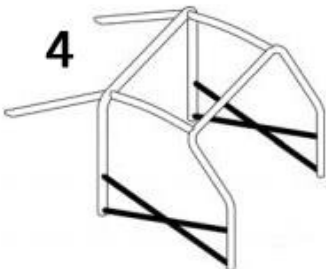


The basic structure should follow the car frame as close as possible. Mount the basic structure to floor / threshold at min. 4 points with 3 mm thick and 120 cm² welded steel plate, at the lower end of the rear supports 3mm thick and 60cm² welded steel plate.

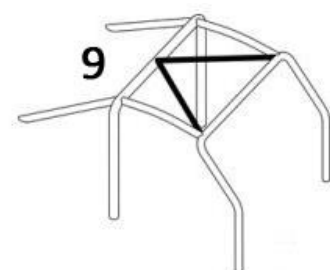
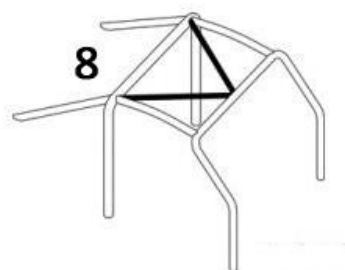
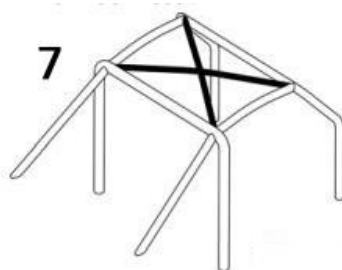
The basic structure is also attached from the top and bottom of the windshield to the A-pillar and the main tube from the upper corner to B-pillar at the bottom of the side window (main tube or door tube) by welding about 40mm length.

Other mandatory tubes

Door tubes minimum 2pcs. on both sides e.g.

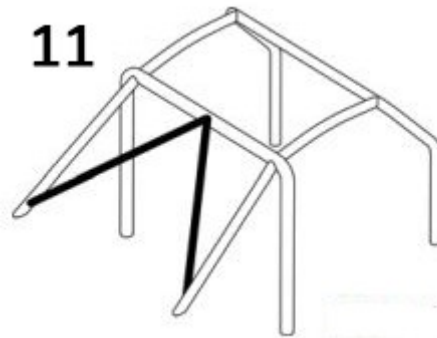
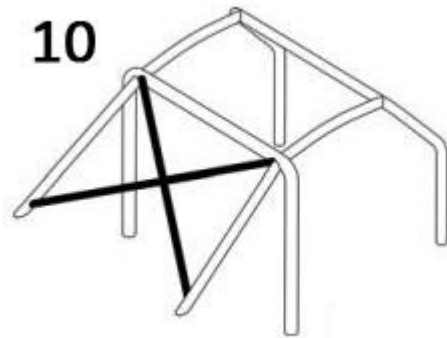


Roof tubes 2pcs. e.g.



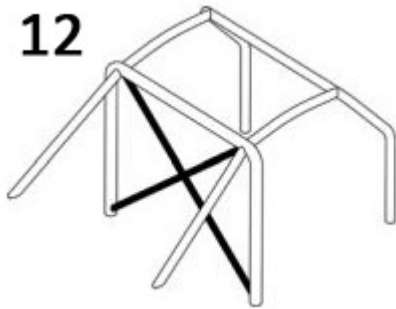
Joints at max. 100mm of the joints of the basic structure (except the tip of V).

Rear diagonal tubes 2pcs



Joints at max. 100mm of the joints of the basic structure (except the tip of V).

Additional support for main tube



or

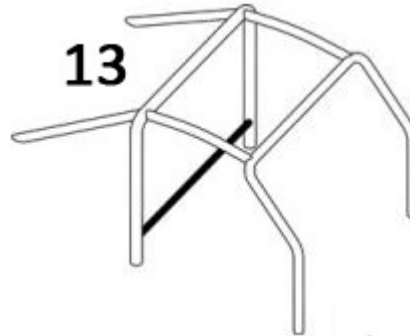
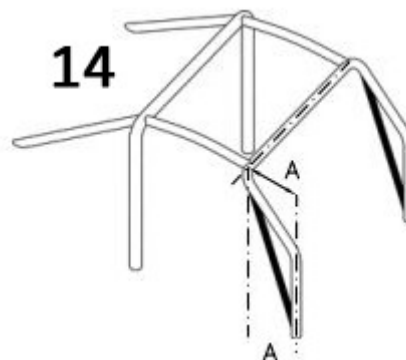


Figure 12: Joints at maximum 100mm of the basic structure joints.

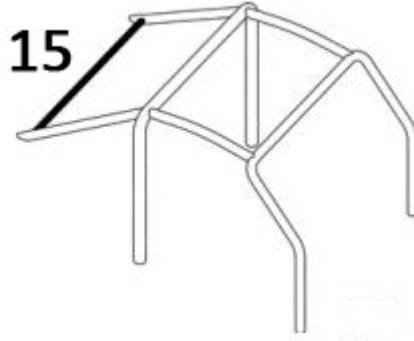
Figure 13: Minimum material thickness 45x2.5mm

"WRC" support

'WRC' support is mandatory if dimension A is greater than 450mm (vertical tube from the front / horizontal dimension of the windscreen)



Additional tubes should be installed freely, and a "harnesses mounting tube" is recommended, taking into account the harnesses' manufacturer's instructions (Figure 15). Roll bar paddings are recommended.



1.15 Tires

Summer tires are free.

The total length of the stud used for winter tires is 20 mm, diameter 9 mm, a diameter of at least 2.5 mm in the tip portion, circular in cross section. Number of pins 20 pcs per square inch of tire tread.

1.16 Fire extinguisher

One 2 kg mandatory, two recommended. Fire extinguishers must have approved fire extinguisher maintenance, inspection entry up to one year old.

The attachment of the fire extinguisher to the bracket must be done with two mounting straps, recommended by the manufacturer own fastening bases.

The bracket for the fire extinguisher must be securely attached to the body.

One of the fire extinguishers must be positioned near the crew that they can easily reach it without removing the harnesses.

1.17 Harnesses' Cutter

There must be two pieces of harnesses' cutter positioned near the crew that the driver and co-driver receives the cutter without opening the harnesses.

1.18 First aid kit, SOS and OK sign

The first aid kit must be suitable for car use. The competitor pair is responsible for the kit's first aid equipment listed in the bag contents list.

The first aid kit must be secured behind the seat of another driver. There must be a sign on rear side window for marking the place of the kit.

1.19 Oil absorption mat

The oil absorption mat must be placed in the racing car so that it is ready for use in case of liquid leakage.



1.20 Warning triangle

There must be two pieces of warning triangles well attached and easily accessible places.

The warning triangle must be used in the event of an outbreak or damage. Another triangle should be placed in the immediate vicinity of the car and the other 100-150 meters from the car to the same side of the road where the car is.

2. Proto class

2.1. Rules

The rules are the same as those in the HR 2WD class with the releases below.

2.2 Engine

The engine is free, the cylinder number must be retained as original (for example 4 cylinders), except for the car models that the car manufacturer has alternatively produced with other cylinder figures (e.g. 5-6 cyl.).

The engine can be moved backwards.

Turbo allowed.

The sprints and race tracks there is no limitations for engine.

2.3 Drive shaft tunnel and firewall

Drive shaft tunnel front extension permitted from front to rear 300mm, width 100mm and height 50mm.

In Sprints and race tracks the transfer of the firewall between the engine compartment and the cab is allowed when engine installation requires it.

2.4 Axle masses

The maximum load on the front and rear axles stated by the car manufacturer must not be exceeded.

2.5 Rear axle

The rear axle is free.

3. Classes

3.1 Classic vehicles and rating

The car must be classified as 1, 2, 4, N, A Rating before 1990.

The car must comply with the classification certificate, except for the exemptions below.



Groups / categories:

- group 1 under 1350
 - under 1650
 - over 1650
- group 2/4 under 1050
 - under 1350
 - under 1650
 - over 1650
- group N / A below 1350
 - under 1650
 - over 1650
 - four-wheel drive

3.2 Special exemptions

You can use the body kits.

Front fenders and hatches free, aluminum, fiberglass or similar material allowed.

The windscreen must be of the same material as the original glass.

Other glasses free, polycarbonate 4mm, front windows open or with hatch. Not completely opened windows must be capable of being pressed in or removed from the door, without any tools.

The FIA Annex J freedoms are allowed.

Updated 18.1.2019

3.3 Brakes

Can be replaced with another brand, dimensions and type must retain conforming to the classification certificate. The tolerance of the thickness of the brake discs / drums / plates is + - 2mm.

3.4 Transmission

Oblique or straightforward, otherwise conforming to the classification certificate.

3.5 Radiator

The material of the radiator is free. Radiator must be located in its own place.

3.6 Other special exemptions

You can apply for a difference from Hamu's technology group, which handles them on a case-by-case basis.



4. V-Class

4.1. V-1600

Rules are the same as at present in national competitions in Finland. Year model free.

5. Class H-2050

5.1 Classification

The car does not have to be classified, there is no annual limit, cubic capacity max 2050cc.

5.2 Exemptions:

Bodywax welding is allowed for carcass blanks, reinforcement blades must follow the original shape. Reinforcement of the front and rear axle support arms is allowed, the original shape must be maintained.

The fastening points for the body must be kept constant.

5.3 Shock absorption

One-adjustable. The operating mode, number, type and attachment points must be kept constant. Absorption must not have additional tank, springs are free.

5.4 Rim

Maximum rim diameter 16 ”.

5.5 Brakes

Standard brakes, Booster / ABS systems can be removed, Brake pads free. Bedalbox or pressure control valve is permitted. Pedals free.

5.6 Engine

Standard engine, the carburettor / injection systems must remain original. ECU is free, intake system must be kept constant, alignment permitted. Exhaust manifold and exhaust free.

The electronic throttle can be replaced by mechanical and the clutch plate can be replaced by another. Flywheel and clutch are free.

The fuel to be used is a petrol that is freely available from the service station.

5.7 Differential

Differential lock is allowed, rear transmission free.

5.8 Transmission

The original gearbox shells must be kept constant, gear ratio and strollers free. 6-speed transmission can be replaced with the same car's 5-speed gearbox. Gear shift joints free.



5.9 Battery according to the HR rule

5.10 Interior

Remove all combustible material in the cab **except of dashboard**. Doors and side window's underside interior can be replaced 1mm aluminum or 2mm carbon fiber.

Updated 1.7.2019

5.11 Spoilers

Can be installed. Do not exceed the outline of the car. Car manufacturer kits made for this model are allowed.

6. 4WD/LiteR

Free, choke and fuel free.