

# UNOFFICIAL TRANSLATION FOR THE FINNISH NATIONAL RALLY GROUP F (2019)

## 1. DEFINITION

Only group 1,2 or A homologated cars are allowed. Group A homologated cars are allowed, if the homologation has been internationally expired 2007 or earlier. All eligible cars are marked with letter f in the list of homologated cars ("XVI Ryhmiin N ja A luokitellut autot") which can be found from [www.autourheilu.fi/saannot>Tekniikka>XVII...](http://www.autourheilu.fi/saannot/Tekniikka/XVII...)

Cars with a national homologation are valid also (see the list in XVIII "AKK:n kansallisesti luokittelemat autot". Articles 251, 252 and 253 are valid in group F.

## 2. CLASSES AND MINIMUM WEIGHT

max cc	max. 2 valves /cylinder	over 2 valves /cylinder
1050	670 kg	720 kg
1450	800 kg	840 kg
1650	850 kg	920 kg
2050	930 kg	1000 kg
2250	970 kg	1030 kg
2550	1030 kg	1080 kg
3050	1110 kg	1150 kg

The group A rally cylinder capacity limitation is not valid but the maximum cylinder capacity is 3050cm<sup>3</sup>.

## 3. MODIFICATIONS AND ADJUNCTIONS ALLOWED OR OBLIGATORY

In addition to the modifications and adjunctions permitted for group A the following applies. Also the use of VO ja VF pages of group 1 or 2 homologation is permitted. The use of homologated bodysshell changes or VO cylinder heads for group 1 or 2 is not permitted.

The use of VK pages of the homologation are not permitted except on those parts where group F regulations allow more freedom than this part has.

### 3.1 Engine

**3.1.1** Original cylinder block may be changed with following terms:

- The material of the cylinder block may not be changed

- The homologated cylinder head must be possible to fit on the new block without any changes

- The homologated crankshaft must be possible to fit to the new block without any changes

- Cylinder block must be delivered by the same car manufacturer

The mounting points to the bodyshell may be changed or added.

**3.1.2** If the original cylinder block is not used, the stroke may not be changed. Otherwise it is permitted to modify the original cylinder capacity freely by boring, sleeving, resleeving, and by decreasing cylinder stroke.

**3.1.3** Original cylinder stroke must not be increased but otherwise crankshaft is free. Connecting rods are free.

**3.1.4** Type and amount of crankshaft bearings must be maintained, otherwise they are free.

**3.1.5** Cylinder head is free except as follows:

A) Only 2 valves per cylinder are allowed except with those group A cars that are homologated with a multi-valve engine. Max amount of valves is 4 valves/cylinder or as homologated. Valve size and shape is free.

B) Multi-valve cylinder head can be replaced with a cylinder head that has max. same amount of valves/cylinder as the original one.

C) Cylinder head (heads) must be from a series production car

D) Whenever a multi-valve cylinder head (even the homologated one) is used, adding material to cylinder head (compared to the original one) is prohibited except the repair welding.

E) If 2 valves/cylinder cylinder head is used, adding material only to inlet and exhaust channels (to the area between the valve seat insert and the manifold port level in that particular channel including the seat insert), combustion chamber, water channels and possible cam brackets is allowed

F) Intake manifold connection to the cylinder head must remain in original place but channel ports on that particular level can be changed according to regulations above. Intake manifold joint to cylinder head and possible manifold gasket must be planar (no inside – or outside measures in the joint) or original according to the cylinder head. Resurfacing is allowed.

G) When using cylinder head that is not homologated to this car model, the competitor is responsible to prove the car make and model where it comes from. When asked, the competitor must be able to prove (authenticate) the original mounting described in clause F.

**3.1.6** Inlet air charging is not permitted, the charger may be removed. Intake and injection system and air filter are without limitation.

**3.1.7** The connection between throttle pedal and the throttle valves must be mechanical.

**3.1.8** Exhaust manifold is free, exhaust system must comply with road use legislation and article 252.3.3 (AKK-Motorsport technical regulations). The catalyzer is recommended.

**3.1.9** Lubricating system is free. Oil cooler can be mounted outside the bodywork only when it is located under the horizontal level through the wheel hubs. Oil cooler may not be outside of the car perimeters when it is looked from the top-view. Oil cooler is not allowed to be installed into the cockpit.

**3.1.10** Camshaft(s) and valve gear are free except as follows:

- Camshaft with variable-timing is allowed only if it is homologated
- Variable rocker arms and tappets are allowed only if they are homologated
- Valve spring type and working method must be kept as original
- The location of the camshaft may not be changed from the cylinderhead to the block or vice versa.

**3.1.11** Cooling of the engine; fan, water pump, radiator and their fixations are free in terms that the original location is retained.

**3.1.12** Flywheel is free

**3.1.13** No limitations for the ignition system.

## **3.2 Transmission**

All transmission data logging systems are forbidden.

**3.2.1** Clutch is free except as follows

- The number of disks may be maximum 2
- Clutch operation shall be controlled only by drivers foot unless other type of control system is homologated

**3.2.2** Gearbox is free except as follows

- Original place must be kept
- Only mechanical transmission that the driver controls mechanically, is allowed
- In homologated gearboxes the number of forward gears must be retained
- In the non-homologated gearboxes max. 6 gears forward is allowed.
- Reverse gear must be functional

**3.2.3** Only one driven axle is allowed. 4-wheel drive must be changed to the 2-wheel drive

**3.2.4** Transmission shafts are free.

**3.2.5** Drive gear with casing and differential are free. Differential is compulsory (100% slip limitation is forbidden).

**3.2.6** Rear axle is free. The type of the axle must be retained. The rear hub may be changed to the one which is mentioned for the same axle mass.

**3.2.7** All kind of traction control is forbidden.

## **3.3 Suspension**

**3.3.1** Suspension arms may be changed as follows:

- Suspension type must be retained (rigid axle or independent suspension)

- Only factory-made suspension arms designed for that particular model can be used.

According to the instructions of "Trafic", the part may be seen as a factory part when it is produced in series production and manufactured by a company which can be seen to have knowledge to produce this kind of products.

- When a non-original suspension arms are used, the certificate from the part manufacturer including the information of manufacturer and the make and model of the car where it is mentioned, must be available.

- Wheelbase may be changed max 30mm, as well as hub position in longitudinal direction

- The front hub may be changed to another one which is coming from the car which has minimum the same axle mass. Also the VK homologated hubs may be used but the VK must be for this same car.

**3.3.1** The mounting points of suspension parts may be modified and additional supports may be added. Only the necessary modifications for the bodyshell may be done.

**3.3.2** The type and working principle of the springs is free.

**3.3.3** Active suspension and dynamic suspension are forbidden; otherwise shock absorbers are free.

**3.3.4** Stabilizers may be removed, added or changed without limitation, even if they would be part of the suspension

**3.3.5** Steering ratio is free, but the housing of steering ratio must be kept as original. Power steering can be either added or removed. The method of the steering pump may be chosen freely. The electrical power steering fitted to the steering axle may be added.

**3.3.6** Wheels and tyres must comply with the group A and the supplementary regulations of the event.

Rim size is free (Note! Diameter max 18 inches and the complete wheel (tire + rim) max 650 mm) It is forbidden to use so-called mousse inserted tires (ATS tires). When using broaden pieces between wheel and hub, must these pieces be firmly mounted to the hub or to the rim and the original way of centering the wheel must not be changed. Maximum thickness of these plates is 25,4 mm.

## **3.4 Bodywork**

**3.4.1** Bodywork must be made of steel. Only the basic homologated other materials are permitted. 2 and 4 door versions are allowed. Lightening or modifications of the bodywork are forbidden unless allowed by these rules. Reinforcing the car body is allowed, even if reinforcing material would not follow the original form. However, the removal of the original bodysell is not permitted.

**3.4.2** If the original inside door trim is not kept, the trim must be replaced with 1 mm aluminum, carbon fiber or other non flammable material. All other sound-proofing and insulating material can be removed. Glove compartment may be removed.

**3.4.3** If needed, modifications to the dashboard can be done in order to install electronical switches or other instrumentation. The parts located behind or below the dashboard, may be removed

**3.4.4** Spoilers that are located under the hubs are free. Spoilers can be removed. One non-homologated aerodynamic device may be installed with the following restrictions:

- From top and front view the spoilers are not allowed to cross the car perimeters
- Spoiler must fit into a box of 20cm x20cm square including the supports when it is measured at from the side

**3.4.5** Widening the wheel houses is allowed by hammering. Also additional wheel arches are allowed. The material of arches is free. The car must not widen anywhere more than 10 cm. The original wheel house material can be removed underneath the additional arch. The wheel liner can be modified in order to get more wheel space. The fender must cover the wheel minimum of 50degrees backwards and 30degrees forward measured from the hub vertical pane. The original fender may be removed under the additional arches maximum 12cm from the original edge from the wheel arch, anyway maximum is up to the inner wheel liner.

**3.4.6** Bumpers may be removed if they are not integrated parts of the car bodywork. If bumpers are removed, also the supports must be removed.

Integrated bumper is f.ex. the plastic bumper, which clearly change the measurements of the car or change the outfit of the car with holes or sharp edges.

The bumpers may be changed to another ones. The outer material may be changed and the look of the

bumber may vary but the length of the car may be changed maximum +-1%

The safety constructions under the bumpers on the bodyshell and/or on the supports must retain original.

Otherwise the fixation of the bumper is free

The openings for the foglights may be used for guiding the cooling air to the brakes

**3.4.7** Front grill may be changed or modified but it must not be removed.

**3.4.8** Spare wheel housing may be removed. This opening must be covered with structure that is of the same strength. Same opening can also be used for installing fuel tank. On this case the opening may be changed to fit the fuel tank. Tank can be embedded maximum so that the bottom of the tank is on the same level as the bottom of the spare wheel housing. The form must not create aerodynamical structures.

**3.4.9** A hole for exhaust pipe is allowed to be done to rear end plate of the car.

**3.4.10** The side windows and the rear window may be changed to the clear polycarbonate (minimum thickness 3,8mm). Front side windows must be possible to remove without the use of tools. If the window lifting mechanism will be removed, a sliding window must be fitted to the front side windows, The hole of the sliding window must be minimum 130mm x 130mm.

## **3.5 Brakes**

**3.5.1** Non-homologated anti-lock brake system is forbidden. Homologated ABS may be made unoperative.

**3.5.2** Handbrake is compulsory

**3.5.3** If the original system is not used, minimum dual circuit brakes are compulsory.

**3.5.4** The maximum amount of the brake cylinder pistons in the homologated brakes are 6 per wheel and with the non-homologated brakes 4 per wheel. Otherwise brakes are free

## **3.6 Other equipment**

**3.6.1** Cable and wire arrangement, placement and material can be changed (this concerns air, water, fuel, etc. pipes, suspension system and electronic wires). Fluid pipes can go through the cockpit, but there must not be any joints in the cockpit. All pipes including hot fluids must not be mounted into the cockpit, unless they exist there also in series production cars; if such exist, they must be efficiently protected.

**3.6.2** The removing or changing of the heating system is allowed if alternative defrosting to the windscreen and to the front side glasses is assured.

**3.6.3** Fuel tank may be changed to a safety fuel tank described in art 253.14 national amendment. Fuel

tank can also be changed to a fuel tank from a different car or to a fuel tank which is made of aluminium or steel and is filled with the safety foam, but this is allowed only to cars that have been registered before 01.01.1981.

The fuel containers which are made for transporting the fuel are not permitted as a fuel tank.

The location of the tank can be changed, but it is forbidden to be inside the cockpit.

In 2-volume cars also the safety fuel tank must be covered with the firewall or housing (including the filler neck). If in 3-volume car the fuel tank is in the luggage compartment, this compartment must be insulated from the cockpit with the leakage-proof firewall.

**3.6.4** Filler hole for the tank must be outside the car unless FIA/FT3/FT5 safety tank is used.

**3.6.5** Electronic system: the location of the alternator is free

**3.6.6** Pedal assembly: The homologated or specially for competition purpose built pedal assembly manufactured by the company which is manufacturer of the brake parts, may be used.

### **3.7 Special regulations**

**3.7.1** The aerodynamic of the car may not be changeable during driving, unless this type of system is homologated and the whole homologated system is used.

**3.7.2** The non-homologated ceramic mechanical parts shall not be used

**3.7.3** The non-homologated titanium or carbon fiber reinforced mechanical parts shall not be used (does not apply to door trims, valves, valve guides, valve seats or valve spring caps)