



HOT HATCH RALLYCROSS TECHNICAL INFORMATION

General Description:

Hot Hatch is for four seater, hatchback cars that are less than ten years old, and 16v 1.6, and two wheel drive. Homologation Specials are not permitted.

In 2011, Vehicles must meet the definition of a Series Production Car before 31 December 2001, as defined in MSA Nomenclature and Definitions (2011 MSA Blue Book, Section B on page 62).

A wide range of vehicles are eligible which could include, Citroen Saxo VTS, Citroen C2, Peugeot 206, Renault Clio, Vauxhall/Opel Corsa, Volkswagen Polo Mk IV, Fiesta ST, VW Lupo. This list is not exhaustive and it is the competitors' responsibility to ensure their vehicle meets ALL the requirements of the class, particularly the age requirement.

The organisers reserve the right to equalise the performance of vehicles using weight and any other method. This could mean adding or decreasing weight to all vehicles.

Attached is an extract from the draft regulations. This document is for information purposes and does not have any judicial standing.



5.5.1 INTRODUCTION.

The following Technical Regulations are set out in accordance with the MSA specified format and it should be clearly understood that if the following texts do not clearly specify that you can make a modification you should work on the principle that you cannot.

5.5.2 GENERAL TECHNICAL REQUIREMENTS AND EXCEPTIONS.

5.5.2.a Cars must comply with the Technical Regulations published by the Organisers for the event throughout official practice, qualifying heats and finals.

5.5.2.b All cars must comply fully with the current MSA Yearbook regulations J and Technical regulations N6.1. to 6.14.3. and these supplementary regulations.

5.5.2.c No approved modification may give rise to an unapproved one.

5.5.2.d The use of magnesium alloy sheet is not permitted. Titanium sheet may only be used for heat shields.

5.5.3 SAFETY REQUIREMENTS.

5.5.3.a Minimum, Comply with current MSA Yearbook regulation N6.11 to 6.12.6. inclusive.

5.5.3.b Provided that the front bulkhead is not penetrated and that no part of the cage extends rearwards beyond the rear shock-absorber mounting points, optional bars as per K Appendix 2 Drawings 5 & 6 and 7 & 12 are permitted.

5.5.3.b(a) Cars described in 5.5.1.b (c) may fit optional bars as K Appendix 2 drawing 11.

5.5.3.c A Competition Seat with headrest is mandatory in accordance with K2.2, K2.3 and K13.

5.5.3.d Currently FIA Homologated Seat Belts are mandatory, with two separate fixing points for the shoulder straps.

5.5.3.e From a 'race ready' position with seat belts fastened, the driver must be able to vacate the car in 5 seconds.

5.5.3.f A fire extinguisher MUST be fitted; the minimum specification must be to current MSA Regulations. (K3.1.2. (b) or (c) not necessarily plumbed in)

5.5.4 CHASSIS and BODYWORK.

5.5.4.a The standard body shell MAY NOT be strengthened except for the following: -

- i) The fitting of the roll cage as 5.5.3.a & b
- ii) The reinforcing of the standard suspension mounting points may NOT extend to more than a radius of 100mm from the centre of the suspension point.
- iii) To prolong the life of the body shell it is permitted to carry out seam welding.

5.5.4.b The exterior of the car MUST remain as standard including mirrors, door handles and bumpers, although it is permitted to remove body mouldings, badges and the radio aerial. It is permitted to fit guards to engine sump and fuel tank. Any guards may protect but NOT strengthen.

It is NOT permitted to reinforce the bumpers or their mountings.

5.5.4.c Glass sunroofs MUST be replaced as per MSA Yearbook Regulation Q19.14.6.

5.5.4.d. The side and rear window glass must be replaced with Perspex having a minimum thickness of 4mm.

Consideration MUST be given to driver's compartment ventilation and for this purpose only, it is permitted to cut a maximum of 4 X 2-inch diameter holes in each of the rear side and tailgate windows. A vent hole may also be added to the driver's door large enough to accept the driver arm.

5.5.4.e The interior of the car MUST have the roof lining, carpets and all the seats, apart from the driver's (See 5.5.3.c), removed. It is also required that any audio equipment, spare wheel, tools and standard seat belts be removed. It is permitted to remove the door trim panels and the window regulators (the windows must then be fixed to prevent them opening). It is recommended that trim panels are replaced by aluminium or Kevlar panels.

5.5.4.f An interior mirror of a minimum of 50 sq. cm. MUST be fitted. The original dashboard MUST be retained although instruments may be replaced. Dashboard may be modified to allow fitment of roll cage.

5.5.5 ENGINE.

5.5.5.a The engine and gearbox must be as originally fitted as original equipment to the car and be in the original location.

5.5.5.b Pistons must be unmodified standard production or approved replacement pistons subject to a maximum oversize of +0.5mm. (even if this increases the capacity beyond 1400/1600) Competition pistons are prohibited. Stroke must comply with Manufacturer's original specification. Material may be removed from the skirt area only for balancing purposes. In this case ONE piston must remain unmodified.

5.5.5.c Lightening of crankshaft or con rods is prohibited. Balancing may be carried out by pin drilling only.

5.5.5.d Camshaft must be standard as originally supplied for type of engine used. It may not be machined or reprofiled. Original timing gear must be used. Offset keys or adjustable vernier drives may not be used, unless fitted to the original engine.

5.5.5.e Cylinder head must be standard as originally fitted to the type of engine used. No gas flowing or polishing is allowed. The original terrain must be visible in the inlet & exhaust ports and in combustion chambers. Heads may be skimmed for maintenance purposes only and may not be less than Manufacturer's minimum dimension.

5.5.5.f Competition flywheels are not permitted. The standard unit may not be lightened or machined.

5.5.5.g It is permitted to baffle the standard sump and modify the oil pick up pipe. Dry sumping is not allowed.

5.5.5.h It is permitted to fit an oil cooler within the engine compartment.

5.5.5.i It is permitted to remove/replace the original air filter and filter housing with a performance filter or induction kit. Where engine breather pipes cannot be refitted to the induction system, breather pipes must go to a breather catch tank of adequate size.

It is permitted to change carburettor jets or injectors. It is NOT permitted to modify the inlet manifold system including the throttle mechanism, carburettor, fuel pressure regulators, and throttle body apart from fitting an additional external throttle spring

5.5.5.j The standard ignition/engine management system MUST be retained but it is permitted to fit a modified "chip". Rev. limiters may be fitted or removed. Spark plugs and ignition leads are free.

It is NOT permitted to add additional ignition systems.

5.5.5.k All water radiator and hoses are free but the original radiator location MUST be retained. Heater may be removed and pipe work blanked off or linked together in the engine compartment.

5.5.5.l To allow for scrutineers seals at least two adjacent sump bolts and two adjacent rocker/cam cover bolts must have suitable sized holes drilled.

5.5.6 TRANSMISSION.

5.5.6.a The standard gearbox casing and all internals MUST be retained. Gear ratios & final drive ratios must be the same as originally supplied for that model of car. Torque bias and limited slip differentials are not permitted even if fitted as original equipment.

5.5.6.b Torque bias and limited slip differentials must be replaced by a normal differential with the correct ratio.

5.5.6.c Any form of traction control or launch control is not permitted. 3D management systems are not permitted.

5.5.6.d Standard drive shafts must be retained.

5.5.6.e The clutch drive plate and cover may be up rated by a standard pattern type. It must fit without any modification to the flywheel. Friction material is free providing it is to the original configuration.

5.5.7 SUSPENSION and STEERING.

5.5.7.a It is permitted to fit non-standard shock absorbers and springs provided that they mount onto the body at the standard suspension mounting points. Any shock absorber units may only have a single method of damping adjustment. Multi-adjustable and/or remote reservoir types are prohibited

5.5.7.b The ride height may be altered. Adjustable spring platforms are permitted

5.5.7.c It is permitted to fit up rated bushes to the suspension (No rose type joints permitted)

5.5.7.d It is permitted to fit, remove or up rate anti-roll bars. (No rose type joints permitted)

5.5.7.e It is not permitted to have adjustable suspension geometry. I.E. Camber, Caster unless fitted as standard to the original car, the car MUST retain the type of suspension fitted as original equipment. Camber must at all times be no more than 1 degree more or less than the original manufacturers specified figure. Competitors must be able to provide manufacturers data to prove the original camber of their car.

5.5.7.f Strut braces are permitted and their design and material are free, but they must not connect to any part of the front bulkhead.

5.5.7.g The steering lock must be removed

5.5.8 BRAKES.

5.5.8.a The standard braking system must be retained.

5.5.8.b Friction material is free.

5.5.8.c Standard pattern after market ferrous discs and drums may be used.

5.5.8.d It is not permitted to use cross-drilled or grooved brake discs/drums.

5.5.8.e Brake lines may be re-routed. It is recommended that flexible braided brake lines be installed.

5.5.8.f It is permitted to replace/add a brake pressure-limiting valve. Any such valve must not be able to be adjusted by the driver while driving the car. It must comply with MSA Yearbook Regulation N6.8.2.

5.5.8.g It is permitted to remove or deform brake back plates and add additional ducting to aid brake cooling.

5.5.9 WHEELS.

5.5.9.a Wheels MUST retain standard diameter and offset and be of maximum rim width of 5.5", unless the standard rim width of the model is greater. Non-standard wheels may be fitted but standard diameter and offset must be retained.

5.5.9.a(1) Where a control tyre of correct dimension is not made, the organisers may, at their discretion authorise a wheel with a different diameter and/or width.

5.5.9.b The length of the wheel stud or wheel bolt is free. Wheel fixings are free but must match the wheels.

5.5.10 TYRES.

5.5.10.a List 1A or 1B unless specified in Championship Regulations.

5.5.10.b Tyres must be road legal in every respect.

5.5.10.c The use of tyre heating/heat retention devices, tyre treatments and compounds are prohibited.

5.5.10.d No alteration to the tyre from the manufacturer's specification is permitted.

5.5.10.e Re-cutting, re-grooving or in any way modifying the tread pattern is not permitted.

5.5.10.f All the manufacturer's data must be clearly visible. Buffing of the sidewalls to remove data is prohibited

5.5.11 ELECTRICS.

5.5.11.a The type of battery is free but it must retain the original manufacturer's location and be secured.

5.5.11.b The battery must be capable of repeatedly starting the engine.

5.5.11.c It is recommended that all lights are removed and similar shaped covers are fitted to the resulting holes.

5.5.11.d Two high-level brake lights MUST be fitted to the inside of the rear window in accordance with the MSA yearbook regulation N6.7.2.

5.5.11.e A high intensity rear light must be fitted in accordance with MSA Yearbook regulations K5.

5.5.11.f Both charging and starting circuits must be as standard and function efficiently.

5.5.12 WEIGHT.

5.5.12.1 A minimum weight, including driver, is set for individual makes and models of eligible cars.

When a make/model is entered for which a minimum weight is not specified in these regulations the weight will be **900kg** and assessed at first event at which the car participates. The organisers reserve the right to alter the weight during the first event.

The specified minimum weights will be regularly reviewed. Any adjustments will be published by championship bulletin a minimum of 7 days prior to the next championship round.

MG	
ZR (on 16" wheels only)	910
Peugeot	
106 XSI	875
Volkswagen	
Golf Gti 1.6	845

Lupo	900
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	Kg
Citroen	
Saxo VTS	900
C2	900
Ford	
Fiesta	900
Peugeot	
106	900
Volkswagen	
Lupo	900

It should be noted that inclusion on this list is not prove that any vehicle is permitted – and conversely, any vehicle not included is not prove that it is not eligible.

5.5.13 FUEL TANK and FUEL.

5.5.13.a The fuel pump, filter and fuel lines are free.

5.5.13.b Cold start systems may be disconnected or removed.

5.5.13.c Only Pump Fuel as defined in section B of the MSA yearbook is permitted

5.5.13.d The original fuel tank may be replaced by another provided it is located in the original location

5.5.13.e If the fuel tank is located inside the car, a safety, currently FIA homologated FT3 type must be fitted if the standard tank is not used.

5.5.13.f An alloy fuel tank, maximum capacity 5 litres, fitted with fuel tank foam may be fitted inside the engine compartment.

5.5.14 EXHAUST and SILENCING.

5.5.14.a The standard exhaust manifold **MUST** be retained.

5.5.14.b The exhaust system beyond the existing manifold is free but it **MUST** exit from the rear of the car

5.5.14.c Exhaust gas recirculatory systems may be removed.