

HERO - the Historic Endurance Rallying Organisation
Eligibility and Specification Guidelines
for Post-1940 Cars on HERO Historic Events
Version 2.0 – effective 1 April 2004

Introduction

This Version of the Guidelines, published 1 September 2003, is effective from 1 April 2004. It is designed to be read in conjunction with HERO's Standard Regulations for Historic Reliability Trials and Regularity Rallies, which are also effective 1 April 2004.

These Guidelines apply to post-1940 vehicles only. Different criteria, based on those of the VSCC, apply to vehicles made up to 1940 - see article 16 below.

HERO, like most organisers of historic rallies (and the MSA), require participating cars to be of the correct period specification. In general, vehicles which have been 'modernised' in appearance or have updated major mechanical components - so that they combine classic looks with the performance or 'driveability' of more modern cars- are NOT eligible, as part of the purpose of our events is to replicate the challenges of driving older machinery and putting it to the test.

However, it is hard - probably impossible - to draw up a watertight set of firm regulations. Ingenious competitors will always find loopholes; and we have no wish to refuse participation in a friendly amateur sport to owners of cars which are appropriate, even if not correct in every technical detail.

HERO's solution is for scrutineers and organisers to judge whether each car is within the spirit of the event, in terms of period authenticity of its appearance, specification and performance.

To assist in this, we have produced this set of guidelines for competitors, organisers and scrutineers.

If this approach leads to some inconsistency from event to event, or from vehicle to vehicle, this will mainly occur in borderline cases, or where the competitor is not able to produce documentary evidence. It does no harm for owners of doubtful cars to be aware that they run the risk of not passing the eligibility scrutineer!

The Guidelines

1 **IMPORTANT NOTE:** these are GUIDELINES only. This means that the Clerk of the Course and/or the Chief Scrutineer may at their discretion allow cars to take part which do not comply in every respect, but whose non-complying items in their opinion do not materially and unfairly enhance the performance, reliability, handling or braking of the car beyond period standards, do not adversely alter the car's appearance, and are within the spirit of the event.

Competitors whose cars do not wholly comply with these Guidelines are advised to contact the Chief Scrutineer prior to the event, if they wish to minimise the risk of not passing scrutineering.

Officials' judgements are of course subjective. If your car does not wholly comply with the Guidelines and other regulations, it MAY be allowed to take part. If it does comply, it WILL.

Bear in mind, too, that a decision by the officials on one event does not bind the officials on the next event - they may not agree. Better to be safe than sorry!

2 **Eligible Vehicles:** for vehicles taking part in a competitive Reliability Trial or Regularity Rally, please study carefully the whole of Article 3 of the Standard Regulations for HERO Reliability Trials and Regularity Rallies. The provisions of that Article are REGULATIONS, not merely guidelines.

The eligibility rules for HERO's non-competitive touring events, such as LE JOG Touring Trial and the Scottish Malts Classic Car Tour, are slightly less stringent, and the cut-off dates will normally differ from the above - see the individual touring event Regulations.

3 **MSA Vehicle Regulations:** on UK events, all cars must comply with MSA Vehicle Regulations (attached as Appendix A) except where waivers have been applied for and granted by the MSA (which happens frequently - owners of cars affected are encouraged to apply).

4 **Period authenticity:** cars should be of correct period specification. This means that all elements should be of an appearance, design, materials and dimensions known to have been in use during the period of the Age Category for which the car is entered.

This does NOT necessarily mean that the car must be to original factory specification. Modifications and accessories are allowed if these are well known, or if the entrant can produce documentary evidence to show that they were available on the open market, or used in competitions of the kind entered - but purely race-specification modifications would not normally be allowed for rallies, except in cases where these modifications were made to that actual car in period, as supported by documentary evidence.

5 **Modifications and additions:** in respect of cars, or of elements of cars, which are not to original factory specification:

- (i) Modifications and accessories are permitted if they are well known and widespread period items, or if the competitor can produce documentary evidence that
 - cars of that model with the items or modifications in question existed in the period of the Age Category for which the car is entered, either for road or for rally use; and/or that
 - the particular items concerned were offered for sale for that model, or for general use, in the period of the Age Category for which the car is entered
 Equipment, components and accessories made at the time specifically for (and used only on) other models of car should not be not allowed.
- (ii) An FIA homologation form is accepted as evidence that modifications permitted on the form existed at the time at which it was issued.

6 Deemed Year of Manufacture: the Organisers may at their discretion permit a vehicle to have major components (engine type and capacity, carburettors/injection system, gearbox/number of speeds, size/type of brakes, bodywork) later than the date of manufacture but which can be shown by the Competitor to have been fitted to that model or later variants of it during the event's eligibility period. The date at which the most recent of these elements was first fitted to that model or variant will determine the competing vehicle's "deemed year of manufacture", and thus the Age Category in which it must run. For example, a 1959 Volvo PV544 with a 1.8 litre engine, first fitted to this model in 1962, will be deemed a "1959/62" vehicle, and will run in Age Category E.

7 Specific items: particular attention should be paid to the following:

- (i) **Chassis or body shell:** this should be the main determinant of the car's identity, date and authenticity, and should be the original item, of correct period date. Replacement chassis or shells should normally be permitted only where a car has been rebuilt with substantially the other original components of that vehicle - modern replica vehicles are NOT permitted. Strengthening and modifications should be permitted only if correct to the period. Wheelbase and track should be correct.
- (ii) **Non-structural body components:** these may be replacements of any date of manufacture, but should be correct in terms of appearance, materials and weight. If they are not to the original specification (and especially if they are aluminium or fibreglass instead of steel), the competitor should be required to produce evidence that cars with such components in that material existed in the period. Wheel arch widening or extensions should be allowed only if correct to period. All external body trim (such as radiator grill and bumpers) should be in place, unless cars without these items can be shown to have been used in period.
- (iii) **Engine:** the block should be an original period item of the correct type, correctly mounted in the engine bay. All engine dimensions and components should be correct, especially in terms of overall cubic capacity; bore and stroke; materials and weight of pistons, conrods, crankshaft, valve gear and other components; camshaft design; valve size and lift; compression ratio; etc. Any components whose metallurgy is different from original factory specification should be mentioned on the Declaration of Vehicle Specification.
- (iv) **Carburation:** the carburation system should be correct, especially in terms of method of induction; number, size, make and type of carburettors; design of inlet manifold; size of inlet ports; etc.
- (v) **Exhaust system:** the exhaust manifold, and other parts of the exhaust system, should be of a specification used in period.
- (vi) **Transmission:** all transmission components should be of correct period design and specification. Limited slip differentials are permitted only if of a type used in period.
- (vii) **Brakes:** the braking system used (disc or drum), the size of brakes, and the design and materials of the main components should be correct to period.
- (viii) **Suspension:** springs may be uprated, but should be of the same type as the original (coil, leaf, etc), and mounted on the original mounting points. Shock absorbers may be changed, but should be mounted on the original points. Spring and shock absorber mounting points may be strengthened.
- (ix) **Wheels:** this is a particularly sensitive item. Wheels of more recent design or greater width (especially cast alloy ones) are perhaps the commonest but also the most displeasing non-period feature. They should be of correct appearance and style; materials; diameter; and rim width.
- (x) **Tyres:** MSA Regulations for historic rallies run wholly in the UK stipulate a tyre profile (aspect ratio) of 70%. FIA rules state that vehicles built before 1 January 1972 must use tyres with a minimum tyre profile (aspect ratio) of 70%. For those cars built after this date, the minimum tyre profile (aspect ratio) is 60%.
- (xi) **Seats and interior trim:** these may be replacements of original equipment, to correct period appearance and specification. Driver's and co-driver's front seats may be replaced with modern items. All other trim should be in place unless the competitors can produce documentary evidence that cars of that model were produced or rallied without the items of trim concerned during the period of the Age Category entered. Additional items of trim, such as padding, stowage, etc, are permitted.
- (xii) **Electrics and lighting:** these should be of correct period kind, specifically with regard to type of ignition system (e.g coil, distributor, points). Exceptions are:

- alternators: permitted on all cars in Age Categories D, E and F; and on earlier cars if permitted by the event's Regulations (which may stipulate a penalty).
- halogen bulbs: permitted on all cars in Age Categories D, E, and F; and on earlier cars if permitted by the event's Regulations (which may stipulate a penalty).
- upgraded voltage: upgrading from 6v to 12v is permitted.

The negative terminal of the battery should be yellow or clearly marked with yellow tape. Master cut-off switches (internal and external) may be fitted.

8 **Tripmeters and clocks:** see Article 3.5 of the HERO Standard Regulations.

9 **Prohibited equipment:** see Article 3.6 of the HERO Standard Regulations.

10 **Compulsory and recommended equipment:** see Article 3.7 of the HERO Standard Regulations.

11 **Pre-1941 cars:** any car is eligible if it is authenticated by an identity document issued by any of the following: FIA, FIVA, VSCC (buff or blue form), any FIA ASN or FIVA ANF, or any recognised and reputable classic or one-make car club. A photocopy of the relevant document (with clearly visible photos) must accompany the entry form, along with the Declaration of Vehicle Specification. Other vehicles may be accepted at the Clerk of the Course's sole discretion.

12 **Sports specials** based on chassis made before 1960 may be accepted, at the Clerk of the Course's discretion. These may have more recently made bodywork provided that

- (i) the chassis is the original item and the make of chassis forms part of the car's name e.g. 'Bentley Mk VI Special' or 'Bloggs Ford Special'
- (ii) the bodywork is of appropriate period appearance, materials, construction and character
- (iii) the axles, engine, carburation, exhaust, steering gear, brakes, and all other main mechanical components are of the correct period in specification and appearance (not necessarily from the same type of car). Disc brakes are not permitted except where these were fitted to the original chassis, and are of the original kind (make, type, size).
- (iv) the road wheels, headlights and other external details are of period design and appearance (e.g. not modern alloy wheels)
- (v) a photograph is submitted with the entry form; the Organisers reserve the right to request further photos
- (vi) the competitor accepts the risk that the vehicle may be declared ineligible at scrutineering

13 **Replicas:** HERO historic car events are not normally open to replica cars, unless these are themselves historic, i.e. the date of completion of the replica in its present form (not the date of manufacture or registration of a donor vehicle) was within the period for the event entered. The car must then be entered under the name of the replica's actual constructor, plus the make of the actual engine in the car. Thus (for example), a replica of an AC Cobra is eligible if (i) the actual replica was constructed prior to the cut-off date for the event in question; (ii) it is entered as (e.g.) a Dax-Ford. For legal reasons and to preserve the authenticity and integrity of the event, HERO will not accept any replica entered under the make or model name of the car of which it is a copy.

HERO reserve the right to make an exception to this rule in the case of replicas of historic vehicles of exceptional interest which are completely faithful and accurate copies of the original, in terms of design and materials.

14 **HERO Declaration of Vehicle Specification:** every competitor is required to submit a copy of the HERO Declaration of Vehicle Specification with his entry form. If a car is modified from normal production specification in any way, this must include details of all significant variations from standard.

15 **MoT Test Certificate:** crews of UK registered vehicles must make available for inspection at scrutineering a current MoT Test Certificate. If there is an equivalent test in the country of registration of non-UK vehicles, then a certificate proving compliance with this test must be available for inspection at scrutineering.

16 **Cars which fail eligibility scrutineering** but which are not judged unroadworthy may, at the sole discretion of the Clerk of the Course, be allowed to take part in the event but not to be classified, nor to be eligible for awards unless there is a special class for such 'refused' cars.

Club Chief Scrutineer: eligibility queries should in the first instance be addressed to HERO's Club Chief Scrutineer, Peter Elliott, an MSA-licensed National A Scrutineer, at 147 Toft Hill, Bishop Auckland, Co Durham, DL14 0JB, telephone and fax 01388 833778.

JB/s 1.09.

Appendix A - MSA 2004 Vehicle Regulations for Historic Road Rallies in the UK

To assist competitors, we reproduce below the relevant extracts from the 2004 MSA Vehicle Regulations for Historic (pre 1968) and Post-Historic (1968 - 1974) cars taking part in Historic Road Rallies in the UK. Changes for 2004 are indicated by a side bar. Regulations in plain type refer to all cars. Regulations in italic type refer only to Post-Historic cars. Please note that the MSA may at their discretion grant waivers for Post-Historic Road Rally cars in respect of K 22.2.1, K22.2.2 and K 22.2.3. Standard Production cars are exempt from K22.2.2, K22.2.3 and K22.2.4. If your car does not comply with these Regulations, please let us know as soon as possible.

K.22.1 BODY: cars should

K.22.1.1 Have *BODYWORK* which represents the manufacturer's original profile and which may include any optional extras available directly from that manufacturer. Bumpers must be fitted. Paintwork must be one colour or manufacturer's original colour scheme. No primer is to be visible.

K.22.1.2 Must not have *WHEEL ARCH* extensions, unless fitted by the manufacturer as a standard manufacturing item to the body shape.

K.22.1.3 All major *INTERNAL TRIM* as fitted to the body type by its original manufacturer when offering it for sale must be retained. This trim will include headlinings, inside door panels, carpets and rear seats. Front seats may be improved or replaced.

K 22.2/K 22.18: ENGINE: cars should

K.22.2.1 Have a maximum of four *CYLINDERS*.

K.22.2.2 Have a maximum of two *CARBURETTOR CHOKES* (two single or one double).

K.22.2.3 Have a maximum of one *CAMSHAFT* per bank of cylinders.

K.22.2.4 Not have *FORCED INDUCTION*.

K.22.2.5 *FUEL INJECTION* may be fitted where it was standard equipment by the manufacturer for that engine type and where the original plenum chamber and throttle body is retained for that engine type.

K.22.2.6 A standard Wankel unit will be considered as three cylinders - twin Wankel units are prohibited.

K.22.2.7 Comply with the silencing levels E.12.17

K 22.2.8 Have *INDUCTION AIR/FILTER* elements fitted that ensure the vehicle complies with noise regulations E 12.17.

K 22.18.1 Forced induction is permitted if by means of a mechanically driven supercharger, or by an exhaust driven turbocharger if fitted as original equipment by the vehicle manufacturer. Such cars will be classified as having an engine capacity increased by one third.

K 22.18.2 Induction air filter elements must be fitted that ensure the vehicle complies with noise regulations E 12.17. Exceptionally, and with the permission of the Chief Scrutineer, those cars where 5000 rpm is inappropriate may be tested at 3/4 of maximum rpm.

K 22.3/K 22.19: WHEELS, TYRES AND BRAKES: cars should

K 22.3.3 Have all *SPARE WHEELS* securely fastened in position.

K 22.3.4 Not be fitted with *SPIKED* or *STUDDED TYRES* or any no-skid attachments, other than chains if permitted by SRs.

K 22.19.1 Must be fitted with tyres that are always legal for use on the public highway.

K 22.19.2 The size of the wheel may not differ from that originally fitted by more than 10% on nominal diameter and by 1 inch (25.4mm) on nominal width. The resultant track measurement shall not differ from the original by more than 1 inch. Rims shall not exceed 6 inches.

The minimum diameter permitted is 15 inches, unless a smaller diameter was fitted as original equipment. The tyre section, as marked on the side wall in millimetres or inches, shall not differ by more than 1 inch (25.4mm) from that originally fitted.

K 22.19.3 The fitting of tyres with an aspect ratio of less than 70% is prohibited.

K 22.19.4 The fitting of a dual master cylinder or any other type of device providing a simultaneous action on all four wheels and divided action on two wheels is permitted, provided that the original brake pedal and pivot point are used and they cannot be adjusted to affect brake balance by either the driver or the co-driver when normally seated in the car.

K 22.4 ELECTRICAL SYSTEMS: cars should

K 22.4.1 Have a maximum of four *FORWARD FACING BEAMS* as well as to side and indicator and indicator lights, unless further restrictions are specified in SRs. Light pods are not permitted.

K 22.4.2 Not use any *AUXILIARY LIGHTS* in neutral sections except in conditions of fog or falling snow as permitted by law.

K 22.4.3 Have all *LIGHTS* fitted and used in accordance with motor vehicle lighting regulations.

K.22.4.4 *External NAVIGATIONAL/MARSHAL LIGHTS* are not permitted.

K 22.5 MISCELLANEOUS: cars should

K 22.5.1 Be currently registered and taxed as a Private Car.

K 22.5.2 Comply with all *STATUTORY REGULATIONS* as to the Construction and Use of vehicles (especially regarding brakes, lighting, tyres, warning devices, rear view mirror, silencer, speedometer, wings and windscreens).

K 22.5.3 Not use racing style *NUMBERS* unless otherwise stated in SRs

K 22.5.4 Not have any *ADVERTISING* except for event sponsor decals which must be incorporated within the rally plate.

K 22.5.5 Be equipped with an effective method of stopping *FUEL SUPPLY*, operable by the driver when normally seated. (NB the ignition switch would normally cover this requirement.)

K 22.5.6 Use *PUMP FUEL*.

K 22.16 PERMITTED MODIFICATIONS

K 22.16.1 Only period modifications are permitted for both Historic and Post Historic Rally Cars. Modifications are allowed only if they were available prior to 1.1.68 in the case of Historic Rally Cars and prior to 1.1.75 in the case of Post Historic Rally Cars.

E 12.16 EXHAUSTS: cars should

E12.16.1 Have the *EXHAUST SYSTEM* isolated from the driver/passenger compartment (e.g. beneath the floor or secured in casings of solid material).

E 12.16.2 Have no part of the *EXHAUST SYSTEM* protruding to the rear of the bodywork more than 15cm.

E 12.16.6 Have all *EXHAUST OUTLETS* terminating behind the mid-point of the wheelbase of the vehicle and outside the bodywork periphery in plain view. Side exhausts not to protrude more than 4cm. Cars built before 1961 are exempt from these requirements.

E 12.17 SILENCING

E 12.17 The reason for Silencing (*SOUND CONTROL*) is to reduce environmental impact and to keep Motor Sport running. Recent Environmental Protection legislation has increased the pressure on activities generating noise and Local Authorities have the power to suppress any noise source deemed to be causing a nuisance. Our system of control is acceptable to most Environmental Bodies and must be considered as part of *ELIGIBILITY* to Compete in events.

E.12.17.5 Temporary silencers, by-pass pipes or the inclusion of temporary parts to achieve silencing requirements are prohibited. Officials may refuse to carry out Sound Checks on vehicles utilising temporary parts in exhaust systems. Organisers are empowered to exclude in such situations.

E 12.17.8 Sound test requirements. Measurements will be made at 0.5m from the end of the exhaust pipe with the microphone at exhaust outlet level at an angle of 45° with the exhaust outlet. Where more than one exhaust outlet is present, the test will be repeated for each exhaust and the highest reading will be used. In circumstances where the exhaust outlet is not immediately accessible, the test may be conducted at 2.0m from the centre line of the vehicle at 90° to the centre line of the vehicle, with the microphone 1.2m above the ground. Measurements should be made outdoors with no *LARGE* reflecting objects (e.g. walls etc.) within 3.0m (in the 0.5m test) or within 10.0m (in the 2.0m test). Background sound levels should be at least 10dB(A) below the measured level.

With distances from 2.0m to 8.0m it is necessary that there be a minimum of 20.0m radius open flat space around the vehicle.

Where possible measurements should be taken as close as possible to the vehicle, at the defined distances, to avoid background noise.

Generally it is impracticable to take measurements over 8.0m as the background noises create problems with accurate and steady readings.

Pre-1939 cars should run engines at two thirds maximum rpm.

The 8m and 16m locations of the microphone, for practical purposes, can be considered to be 7m and 15m from saloon car bodywork. This measurement can be made from either side of the car. The highest reading registered being the one needing to comply with the *MAXIMUM NOISE* requirements.

E 12.17.9 Sound testing should be carried out *BEFORE* taking part in any competition. The time and location of sound testing should be advised to competitors prior to the event.

E 12.17.10 It is stressed that all participants in motor sport, competitors, officials, marshals, etc. should be aware of, and protect themselves from, noise.

Here are the maximum readings, at 4,500 rpm, for the tests described above:

0.5 metres, 98 dB(A)

2.0 metres, 86 dB(A)

8.0 metres, 74 dB(A)