

**TECHNICAL REGULATIONS FOR
ENGINES ELIGIBLE FOR
HILL CLIMB SUPER SPORTS CARS [S.13.6.]**



General

The proprietary components specified in the build standard below are the only components eligible for vehicles competing in the Hill Climb Super Sports category of Speed Events, **[S.13.6.]**

From time to time it may be necessary to approve alternative equivalent components. Only components approved as alternatives and published in official amendments to these regulations by Motorsport UK are eligible.

1. 1700 cc Ford Engines

Ford engines derived from the Kent series production pushrod engine.

The original number of valves per cylinder must be retained, but type, size and material is unrestricted.

Cylinder head and block must be derived from manufacturer's standard production and of the same material.

Subject to:

- (a) Side draught cylinder heads only
- (b) Maximum cylinder bore 83.5 mm
- (c) Maximum inlet valve diameter 40.3mm
- (d) The position of the valve stem centres both in relation to each other and to the cylinder head casting and the plane of operation of the valves must be maintained exactly to the original manufacturers standard production specification.

2. 2000 cc Vauxhall Engine

- 2.1 The core of the engine i.e. those components contained within and including the cam cover, cylinder head, cylinder block and sump is as defined below.
- 2.2 The addition of any material be it metal, plastic or composite etc., by any means, be it welding, bonding, encapsulation or encasement to any component is prohibited. However specific repair of castings may be allowed provided the original specification and dimensions of the manufacturer's part remains within the manufacturer's tolerances.
- 2.3 Balancing of reciprocating and rotating parts is permitted only by the removal of metal from locations provided by the manufacturer for that purpose.

- 2.4 The use of non standard replacement fasteners, nuts, bolts, screws, studs and washers which are not connected with or do not support any moving parts of the engine or its compulsory retained accessories is permitted.
- 2.5 Caskets are free except for cylinder head gasket which must be the standard Vauxhall part for the engine.
- 2.6 Any process of cleaning may be used on any component providing the surface finish, which must remain standard (other than specified in the build standard below) is not affected.
- 2.7 Miscellaneous- - the use of exotic materials for any component is prohibited. Competitors are reminded that only modifications or additions specifically covered by these regulations are permitted, any engine completely standard and unmodified. In cases of dispute on engines, reference will be made to Vauxhall Motor Company drawings in conjunction Motorsport UK.
- 2.8 Build Standard

The following is the specification of the manufacturer's parts which must be used in the engine, the only modifications allowed are those specifically defined below.

Engine Parts list Part number OLE 0001
Base engine 2.0 litre XE Part number OLE 0002
Bore 86.0mm - Stroke 86.0mm = Capacity 1998 cc.
Connecting rods must remain standard but can be machined for balance.
Big end bolts are free.

Crankshaft – the standard crankshaft must be used. Spot machining to achieve balance is permitted, polishing is prohibited. Crankshaft vibration damper, part number GM90298204, must be fitted.

Tuftriding, shot peening and shot blasting are permitted. It is not permitted to alter the number of bearings or to fit bearings less than the standard production width. Standard over and under size bearings are permitted.

2.9 Fuel System

Carburettors Type - Free
Choke tube maximum size of bore 38mm
Inlet manifold Type - Free
Fuel injection is prohibited and fuel metering other than that provided by conventional carburettors is prohibited.

Pump fuel must be used. The use of additives is prohibited.

Air cleaner/filter need not be fitted. If fitted type is free.

2.10 Cylinder head including valves and valve gear.

Valves must remain standard - no reprofiling is permitted. The original seat angle must be maintained.

Valve springs and retainers must remain standard but shimming of valve springs is permitted to allow fitted length to be within manufacturer's tolerances.

No machining of inlet and exhaust ports other than for the purposes of valve seat cutting.

Standard hydraulic cam followers must be retained.

Camshafts must remain standard as fitted to the base engine defined above, however camshaft timing can be optimised.

Camshaft pulleys are free.

Compression ratio must remain standard plus or minus 0.5 of a ratio.

2.11 Lubrication system

External to the engine is free, existing standard production oilways, linings or oil grooves may be enlarged or reduced but no additional ones are permitted.

Standard friction surfaces must remain unchanged, dry sump system is permitted and oil coolers are free.

Front cover assembly OLE 0005 must be fitted.

2.12 Cooling system

A liquid cooling system is mandatory but radiator and water pump are free.

2.13 Flywheel, clutch and starting equipment

These items are free provided that flywheel starter ring gear of the following dimensions is used - diameter 277 mm +/- 0.5mm.

Starter motor part number GM 90196710 is to be used in the standard mounting position.

The use of carbon metallic clutches is not permitted (Sintered bronze clutch discs are permitted).

2.14 Ignition system

Free

2.15 Exhaust

Exhaust manifold silencer are free however they must comply with the Motorsport UK Vehicle Regulations [J].

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