



5TH CATEGORY - HISTORIC RACING

GROUP Nc

APPROVED VEHICLE SPECIFICATION

This form details the approved specifications of individual vehicle models in the 5th Category Historic car group. To be issued with a Historic Log Book, cars need to comply with these specifications, the physical appearance shown in the illustrations and the general historic rules as detailed in the current CAMS Manual of Motor Sport.

Make of Car:	Ford	Model:	Mustang
Period of Original Manufacture:	1968		
CAMS Historic Group:	Nc		
Date of issue of this document:	Nov 2017		



Refer to CAMS Manual of Motor Sport, Vehicle Eligibility, Historic Touring Cars, General Requirements & Nc Regulations for permitted modifications.

SECTION 1 - CHASSIS

1.1 CHASSIS FRAME

Description: Uni – body
Period of Manufacture: 1968
Manufacturer: Ford Motor Co
Chassis no. from: 8(F,R or T)01(A,C,D,F or K)000001 Eg 8F01D00001
Chassis no. location: LHF inner front fender
Material: Steel

1.2 FRONT SUSPENSION

Description: Independent with upper wishbone, lower control arm & tension rod
Spring Medium: Coil
Damper Type: Telescopic **Adjustable:** No
Anti-sway bar: Fitted **Adjustable:** No
Suspension adjustable: No

1.3 REAR SUSPENSION

Description: Live axle
Spring medium: Semi – elliptical leaf
Damper type: Telescopic **Adjustable:** No
Anti-sway bar: No
Suspension adjustable: No

1.4 STEERING

Type: Recirculating ball & nut **Make:** Ford
Comments: For fitment of a collapsible steering column refer to the Appendix

1.5 BRAKES

	Front	Rear
Type:	Disc, vented	Drum, twin leading shoe
Dimensions:	287 x 21 mm	254 x 63.5 mm
Material:	Cast iron	Cast iron
No. cylinders/pots per wheel:	Four	Two
Actuation:	Hydraulic	Hydraulic
Caliper Make:	Kelsey Hays	
Caliper Type:	Fixed	
Caliper Material:	Cast iron	
Master cylinder make:	Kelsey Hays / Girling	Type: Tandem
Adjustable bias:	No	
Servo Fitted:	Yes	

SECTION 2 - ENGINE

2.1 ENGINE

Make:	Ford	Configuration:	Vee
Model:	302	Two/Four Stroke:	Four
No. cylinders:	Eight	Max. allowed:	103.1 mm
Cylinder block material:	Cast iron	Max. allowed:	76.2 mm
Bore - Original:	101.6 mm	Max. allowed:	5089 cc
Stroke - original:	76.2 mm		
Capacity - original:	4942 cc		
Cooling method:	Liquid		
Identifying marks:	N/A		

Comments:

Ford M-6010-BOSS 302 block with a rev limit of 7500rpm as a replacement for the Windsor 289 or 302 block is approved for use. Log book endorsed and the engine sealed required.

2.2 CYLINDER HEAD

Make:	Ford	Inlet:	One	Exhaust:	One
No. of valves/cylinder:	Two	Inlet:	Four	Exhaust:	Four
No. of ports total:	Eight	Location:	Block	Drive:	Chain
No. of camshafts:	One				
Valve actuation:	Pushrod & rocker				
Spark plugs/cylinder:	One				
Identifying marks:	302 cast into the head adjacent to rocker stud boss				

Comments:

Tunnel Port heads allowed if using factory 4 bolt engine block or approved HC substitute

After market Cylinder head use is allowed upon individual application.

- Approved cast iron cylinder heads are: Dart Iron Eagle No. 1330008, RHS Pro Action Small Block Ford No. 35305 & World Products Windsor Junior
- The heads to be in the manufactured state, save for refacing the cylinder gasket face and matching the inlet ports by not more than 12mm from the port face
- Sealing procedure for engines using the substitute cylinder head is at end of specification sheet.
- Dart Iron Eagle require the use of a MSD Soft Touch rev limiter Part No 8728 with a 7500 RPM limit. The limiter will be subject to testing at race meetings. The limiter will be located in an easily accessible position within the engine bay.

Once approval, endorsement and the engine seal numbers will be recorded in the log book.

2.3 LUBRICATION

Method:	Wet sump
Oil cooler standard:	No

2.4 IGNITION SYSTEM

Type:	Coil & distributor
Make:	Autolite

2.5 FUEL SYSTEM

Carburettor Make:	Holly	Model:	4V
Carburettor number:	One	Size:	N/A

SECTION 3 - TRANSMISSION

3.1 CLUTCH

Make: Ford
Type: Diaphragm
Diameter: 267 mm
Actuation: Hydraulic
No. of Plates: One

3.2 TRANSMISSION

Type: Borg Warner or Ford
Make: T10 or top loader
No. forward speeds: Four
Gearbox location: Attached to engine
Gear change type and location: Centre / floor
Case material: Cast iron or alloy
Identifying marks: N/A

3.3 FINAL DRIVE

Make: Ford
Model: 9 inch
Type: Live rear axle
Wheel drive method: Rear
Ratios: Various
Differential type: LSD

3.4 TRANSMISSION SHAFTS (EXPOSED)

Number: One
Description: Tubular steel open tailshaft

3.5 WHEELS & TYRES

Wheel type - Original:	Disc	Material - Original:	Steel
Allowed:	Period Style	Allowed:	Alloy
Fixture method:	Studs	No. studs:	Five
Wheel dia. & rim width	FRONT		REAR
Original:	14 x 7 or 8 inch		14 x 7 or 8 inch
Allowed:	15 x 8 inch		15 x 8 inch
Tyres original:	N/A		N/A
Tyres allowed:	60% minimum aspect ratio, refer approved tyre list.		

SECTION 4 - GENERAL

4.1 FUEL SYSTEM

Tank Location:	Boot floor	Capacity:	75 litre
Fuel pump type and location:	Mechanical / engine	Make:	AC

4.2 ELECTRICAL SYSTEM

Voltage:	12	Generator or Alternator:	Alternator
Battery Location:	Engine bay		

4.3 BODYWORK

Type:	Closed touring	Material:	Steel
No. of seats:	Four	No. doors:	Two
Comment:	1967 body permitted when modified (indicator recesses are added) to match 1968 configuration and external cosmetics.		

4.4 DIMENSIONS

Track - Front:	1526 mm	Rear:	1519 mm
Wheelbase:	2743 mm	Overall length:	4663 mm
Dry weight:	1188 Kg		

4.5 SAFETY EQUIPMENT

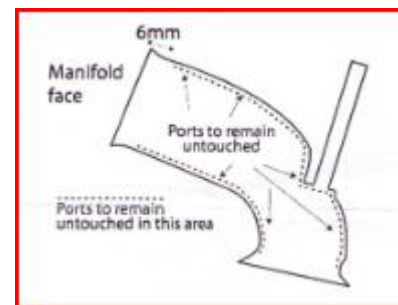
Refer applicable Group Regulations

Sealing procedure for engines using the substitute cylinder head (289 or 302)

1. Engine to be assemble to short motor without sump.
2. Heads to be assembled ready to be fitted to engine.
3. 2 sump bolts/studs to be drilled. 2 top timing case bolts/studs to be drilled.
4. The sealer will pick two valves from one cylinder of either head to be removed to check that under the valve head and the ports are unmodified and that the valve heads are 1.94" in diameter for the inlet, and 1.6" for the exhaust.
5. Check the inlet and exhaust ports are unmodified except for the allowance allowed, from the manifold faces, into the port for manifold alignment.
6. Combustion chambers are to be as per above.
7. Measure bore and stroke.
8. Note whether 2 bolt or 4 bolt block.
9. Fit sump and fit seal. Seal timing case.
10. Fit heads and drill holes in appropriate positions in the corners of the block and heads to enable wire and seals to be fitted.
11. Seal heads to block. Note seal numbers. Competitor gets a signed sealers document.
Note: If the heads are removed they must be re-sealed following the above points 4, 5, 10 and 11.

Allowances

1. Surfacing of the head face is allowed to achieve required combustion chamber volume or restore the cylinder head from engine failure damage and/or overheating.
2. K Line .030" bronze valve guide inserts are allowed if required and to recondition to standard size from excessive wear.
3. Port match inlet and exhaust ports to manifold to a maximum of the allowed depth from the manifold face. Inlet and exhaust ports must be left completely untouched from under the valve seats to within allowed depth from the manifold face.
4. Machining is allowed of the valve spring pad and valve guide outside diameter and length as well as pushrod holes. This will enable spring locators, valve springs, stem seals, valve spring installation height and pushrod clearance to be correctly set up and fitted.
5. 289 and early 302 Windsor 2 bolt block engines require the drilling of steam water passage holes in the cylinder head face to match the engine block. This is outlined in the World Products assembly guide headed "Machine Shop Specs".
6. Valve seat cutting/grinding is allowed, but the original valve sizes of 1.94" inlet and 1.6" exhaust must be retained. No machining is permitted under the valve seat.
7. No machining is permitted in the combustion chamber. Combustion chambers must be left completely untouched except for original machining by the manufacturer.
ie. No machining, no hard or soft wire brushing, no coarse or fine grinding either by hand, machine or high speed grinder etc, no shot peening, no sand blasting, no glass bead blasting, no water blasting, no hand scraping, no filing, no emery wheels or stones, no acid etching, no chiselling, no hammering or pneumatic peening, no flexi honing, no spark eroding, no removal of any metal by milling machine.
The only exception is the metal between the inlet valve head and the exhaust valve head which may be rounded in case it creates a hot spot.



Replacement of solid steering column with collapsible type.

The original steering column main outer tube and steering shaft is replaced with a collapsible steering column main outer tube and steering shaft from an Australian XA to XC Ford Falcon.

The Ford Falcon main tube is modified by removing the spot welded Ford Australia mount and drilling a hole in the column for the Ford USA mount that bolts into the dashboard.



The Ford Falcon main outer tube will locate in the original lower firewall mount. An original Ford Australia coupler can then be used to join the collapsible inner shaft to the original steering box.



The original Ford USA steering column top and switches can then be mounted on the top of the Collapsible column to retain the original look and functions.

