



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 Fastback 351  
**Period of Original Manufacture:** Nov. 1968 to Nov. 1969  
**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:** Un-body two door coupe  
**Period of Manufacture:** 1968 – 69  
**Manufacturer:** Ford Motor Co.  
**Chassis no. from:** 9(F,R or T) 02H - 100001  
**Chassis no. location:** Left side of firewall  
**Material:** Steel

## 1.2 FRONT SUSPENSION

**Description:** Independent, upper wishbone, lower arm with track rod.  
**Spring Medium:** Coil  
**Damper Type:** Telescopic **Adjustable:** No  
**Anti-sway bar:** Fitted **Adjustable:** No  
**Suspension adjustable:** Yes **Method:** Caster, camber and toe, spring height

## 1.3 REAR SUSPENSION

**Description:** Live axle  
**Spring medium:** Leaf  
**Damper type:** Telescopic **Adjustable:** No  
**Anti-sway bar:** None  
**Suspension adjustable:** Yes **Method:** Spring height

## 1.4 STEERING

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

## 1.5 BRAKES

	Front	Rear
<b>Type:</b>	Disc	Drum
<b>Dimensions:</b>	287 x 23.8 mm	254 x 44.4 mm
<b>Material:</b>	Cast iron	Cast iron
<b>No. cylinders/pots per wheel:</b>	One	One
<b>Actuation:</b>	Hydraulic	Hydraulic
<b>Caliper Make:</b>	Kelsey Hayes – Ford	
<b>Caliper Type:</b>	Floating	
<b>Caliper Material:</b>		
<b>Master cylinder make:</b>	Ford	<b>Type:</b> Tandem
<b>Adjustable bias:</b>	No	
<b>Servo Fitted:</b>	Yes	

## **SECTION 2 - ENGINE**

### **2.1 ENGINE**

<b>Make:</b>	Ford		
<b>Model:</b>	Windsor 351		
<b>No. cylinders:</b>	Eight	<b>Configuration:</b>	Vee
<b>Cylinder block material:</b>	Cast iron	<b>Two/Four Stroke:</b>	Four
<b>Bore - Original:</b>	101.6 mm	<b>Max. allowed:</b>	103.1 mm
<b>Stroke:</b>	88.9 mm		
<b>Capacity - original:</b>	5766 cc	<b>Max. allowed:</b>	5937 cc
<b>Cooling method:</b>	liquid		
<b>Identifying marks:</b>	C90E- 6015B		

### **2.2 CYLINDER HEAD**

<b>Make:</b>	Ford		
<b>No. of valves/cylinder:</b>		<b>Inlet:</b> One	<b>Exhaust:</b> One
<b>No. of ports total:</b>		<b>Inlet:</b> Four	<b>Exhaust:</b> Four
<b>No. of camshafts:</b>	One	<b>Location:</b> Block	<b>Drive:</b> Chain
<b>Valve actuation:</b>	Pushrod & rocker		
<b>Spark plugs/cylinder:</b>	One		
<b>Identifying marks:</b>	D00E-351 or C90E -351 are the only acceptable original heads.		

#### **Comments:**

**Upon individual application with the log book endorsed and the engine sealed.**

Cast iron heads

The World Products Windsor Senior cylinder head (200cc runner and 64cc chamber) may be used.

**The Dart "Iron Eagle 180" Cylinder head part no 13310010 may be used.**

Subject to the heads being in the manufactured state. Save for refacing of the cylinder gasket face and matching of the inlet ports by not more that 12mm from the port face.

### **2.3 LUBRICATION**

<b>Method:</b>	Wet sump
<b>Oil cooler standard:</b>	No

### **2.4 IGNITION SYSTEM**

<b>Type:</b>	Points, coil & distributor
<b>Make:</b>	Autolite

### **2.5 FUEL SYSTEM**

<b>Carburettor Make:</b>	Autolite	<b>Model:</b>	43004V
<b>Carburettor number:</b>	One		

## **SECTION 3 - TRANSMISSION**

### **3.1 CLUTCH**

**Make:** Ford  
**Type:** Diaphragm  
**Diameter:** 254 mm                      **No. of Plates:** One  
**Actuation:** Hydraulic

### **3.2 TRANSMISSION**

**Type:** Synchromesh  
**Make:** Ford, top loader  
**No. forward speeds:** Four                      **Gearbox location:** Behind engine  
**Gear change type and location:** Remote floor shift  
**Case material:** Cast iron                      **Identifying marks:** N/A

### **3.3 FINAL DRIVE**

**Make:** Ford    **Model:** 9 inch  
**Type:** Live axle  
**Wheel drive method:** Rear  
**Ratios:** Various  
**Differential type:** LSD "Traction-lok" or "Detroit Locker"

### **3.4 TRANSMISSION SHAFTS (EXPOSED)**

**Number:** One  
**Description:** Open tail shaft

### **3.5 WHEELS & TYRES**

<b>Wheel type - Original:</b>	Disc	<b>Material - Original:</b>	Steel
<b>Allowed:</b>	Cast	<b>Allowed:</b>	Aluminium alloy
<b>Fixture method:</b>	Studs	<b>No. studs:</b>	Five
<b>Wheel dia. &amp; rim width:</b>		<b>FRONT</b>	<b>REAR</b>
<b>Original:</b>		6 x 15 inch	6 x 15 inch
<b>Allowed:</b>		8 x 15 inch	8 x 15 inch
<b>Tyres:</b>	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 & Electrical      **Make:** Ford

### **4.2 ELECTRICAL SYSTEM**

**Voltage:** 12      **Alternator:** Fitted  
**Battery Location:** Engine compartment

### **4.3 BODYWORK**

**Type:** Closed touring      **Material:** Steel  
**No. of seats:** Four      **No. doors:** Two

### **4.4 DIMENSIONS**

**Track - Front:** 1486 mm      **Rear:** 1486 mm  
**Wheelbase:** 2743 mm      **Overall length:** 4760 mm  
**Dry weight:** 1305 kg

### **4.5 SAFETY EQUIPMENT**

*Refer applicable Group Regulations*

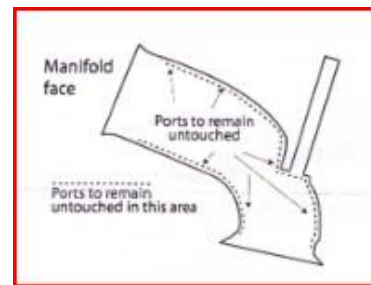


## **Sealing procedure for engines using the substitute cylinder head**

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 of the correct diameter for the inlet, and 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. 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.
4. Valve seat cutting/grinding is allowed, but the original valve sizes of inlet and exhaust must be retained. No machining is permitted under the valve seat.
5. 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.



## 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.

