



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 Logbook, cars need to comply with these specifications, the physical appearance shown in the illustrations and the general historic rules as detailed in the current Motorsport Australia Manual.

Make of Car:	Ford	Model:	Mustang Fastback 351
Period of Original Manufacture:	Nov. 1968 to Nov. 1969		
Motorsport Australia Historic Group:	Nc		
Date of issue of this document:	July 2020		



Update Log	
July 2020	Substitute Steering column removed
July 2020	Bodywork photos added

Refer to Motorsport Australia Manual, 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
Comment:	none

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
Comment:	none		

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
Comment:	none		

1.4 STEERING			
Type:	Recirculating ball	Make:	Ford
Comment:	none		

1.5 BRAKES			
	Front	Rear	
Type:	Disc	Drum	
Dimensions:	287 x 23.8 mm	254 x 44.4 mm	
Material:	Cast iron	Cast iron	
No. cylinders/pots per wheel:	One	One	
Actuation:	Hydraulic	Hydraulic	
Caliper Make:	Kelsey Hayes – Ford		
Caliper Type:	Floating		
Caliper Material:			
Master cylinder make:	Ford	Type:	Tandem
Adjustable bias:	No		
Servo Fitted:	Yes		
Comment:	none		

SECTION 2 - ENGINE

2.1 ENGINE			
Make:	Ford		
Model:	Windsor 351		
No. cylinders:	Eight	Configuration:	Veel
Cylinder block material:	Cast iron	Two/Four Stroke:	Four
Bore - Original:	101.6 mm	Max. allowed:	103.1 mm
Stroke:	88.9 mm	Max. allowed:	88.9 mm
Capacity - original:	5766 cc	Max. allowed:	5937 cc
Cooling method:	liquid		
Identifying marks:	C90E- 6015B		
Comment:	See Appendix A		

2.2 CYLINDER HEAD					
Make:	Ford				
No. of valves/cylinder:	Two	Inlet:	One	Exhaust:	One
No. of ports total:	Eight	Inlet:	Four	Exhaust:	Four
No. of camshafts:	One	Location:	Block	Drive:	Chain
Valve actuation:	Pushrod & rocker				
Spark plugs/cylinder:	One				
Identifying marks:	D00E-351 or C90E -351 are the only acceptable original heads.				
Comment:	See Appendix A				

2.3 LUBRICATION			
Method:	Wet sump		
Oil cooler standard:	No		
Comment:	none		

2.4 IGNITION SYSTEM	
Type:	Points, coil & distributor
Make:	Autolite
Comment:	none

2.5 FUEL SYSTEM			
Carburettor Make:	Autolite	Model:	43004V
Carburettor number:	One		
Comment:	none		

SECTION 3 - TRANSMISSION

3.1 CLUTCH			
Make:	Ford		
Type:	Diaphragm		
Diameter:	254 mm	No. of Plates:	One
Actuation:	Hydraulic		
Comment:	none		

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
Comment:	none		

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"		
Comment:	none		

3.4 TRANSMISSION SHAFTS (EXPOSED)	
Number:	One
Description:	Open tail shaft
Comment:	none

3.5 WHEELS & TYRES			
Wheel type - Original:	Disc	Material - Original:	Steel
Allowed:	Cast	Allowed:	Aluminium alloy
Fixture method:	Studs	No. studs:	Five
Wheel dia. & rim width:	FRONT		REAR
Original:	6 x 15 inch		6 x 15 inch
Allowed:	8 x 15 inch		8 x 15 inch
Tyres:	60% minimum aspect ratio, refer approved tyre list.		
Comment:	none		

SECTION 4 - GENERAL

4.1 FUEL SYSTEM			
Tank Location:	Boot floor	Capacity:	75 litre
Fuel pump type and location:	Mechanical & Electrical	Make:	Ford
Comment:	none		

4.2 ELECTRICAL SYSTEM			
Voltage:	12v	Alternator:	Fitted
Battery Location:	Engine compartment		
Comment:	none		

4.3 BODYWORK			
Type:	Closed touring	Material:	Steel
No. of seats:	Four	No. doors:	Two
Comment:	See Appendix B		

4.4 DIMENSIONS			
Track - Front:	1486 mm	Rear:	1486 mm
Wheelbase:	2743 mm	Overall length:	4760 mm
Dry weight:	1305 kg		
Comment:	none		

4.5 SAFETY EQUIPMENT			
<i>Refer applicable Group Regulations</i>			

Appendix A

Cylinder Heads

Upon individual application with the logbook endorsed and the engine sealed.

The following replacement cast iron heads may be used:

- World Products Windsor Senior cylinder head (200cc runner and 64cc chamber).
- The Dart "Iron Eagle 180" Cylinder head part no 13310010.

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 than 12mm from the port face.

Block

Ford replacement block, part number M-6010BOSS35195 is approved for use, in conjunction with MSD Soft Touch rev Limiter Part no 8728 with a 7500RPM limit. The limiter will be subject to testing at race meetings and will be located in an easily accessible position within the engine bay.

Appendix B



The rear spoiler is to meet the specifications and dimensions of the original Ford part number C9ZZ-6344210-K.

The spoiler will have an overall length of 57.5" and be 4.75" in height with 36" centre to centre between the mountings.



The front spoiler is to meet the specifications and dimensions of the original Ford part number C9ZZ-63001A74-A. The spoiler will be of high impact flexible plastic with the outside of the longest part on the corners 58-1/2" in length. The total width in the centre including the bottom lip 5". The total length at the centre before it turns corners (front part before turn) 50".

1969 Mustang Mach 1 hood scoop permitted. The hood scoop is to meet the specifications of the original Ford part No C9ZZ-16C630-A. The scoop will have an overall length of 27.5 inches, 15.5 inches wide, 2.25 inches high



Rear quarter panel fake scoops should not be used.



Repeater lights on lower front guards and rear quarter panels must be installed.



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.

