

5TH CATEGORY - HISTORIC RACING  
**GROUP S**  
 APPROVED VEHICLE SPECIFICATION

This form details the approved specifications of individual vehicle models in the 5th Category Historic car group. To be issued with an 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 Motorsport Australia Manual.

<b>Make of Car:</b>	Shelby	<b>Model:</b>	GT350
<b>Period of Original Manufacture:</b>	1965 – 1967		
<b>Motorsport Australia Historic Group:</b>	Sc		
<b>Date of Issue of this Document:</b>	30/6/2022		



- 1965



- 1966

**Update Log**

30/6/2022	Document layout

## SECTION 1 - CHASSIS

### 1.1. CHASSIS

<b>Description:</b>	Uni body
<b>Period of Manufacture:</b>	1965 - 1967
<b>Manufacturer:</b>	Ford Motor Company
<b>Chassis Number From:</b>	I/D Plate "Mustang GT350"
<b>Chassis Number location:</b>	LHF inner front fender
<b>Material:</b>	Steel
<b>Comments</b>	

### 1.2. FRONT SUSPENSION

<b>Description:</b>	Independent with upper wishbone, lower control arm & tension rod		
<b>Spring Medium:</b>	Coil		
<b>Damper Type:</b>	Telescopic	<b>Adjustable:</b>	No
<b>Anti-sway bar:</b>	Fitted	<b>Adjustable:</b>	No
<b>Suspension adjustable:</b>	No	<b>Method:</b>	N/A
<b>Comments:</b>	Refer to Appendix A		

### 1.3. REAR SUSPENSION

<b>Description:</b>	Live axle		
<b>Spring Medium:</b>	Semi-elliptical leaf		
<b>Damper Type:</b>	Telescopic	<b>Adjustable</b>	No
<b>Anti-sway bar:</b>	No	<b>Adjustable:</b>	N/A
<b>Suspension adjustable:</b>	No	<b>Method:</b>	N/A
<b>Comments:</b>	Refer to Appendix A		

### 1.4. STEERING

<b>Type:</b>	Recirculating ball & nut	<b>Make:</b>	Ford
<b>Comments</b>	For fitment of a collapsible steering column refer to Appendix B		

### 1.5. BRAKES

	Front	Rear
<b>Type:</b>	Disc, vented	Drum, twin leading shoe
<b>Dimensions:</b>	287 mm x 21 mm	254 mm x 63.5 mm
<b>Material of drum/disc:</b>	Cast iron	Cast iron
<b>No. cylinders/pots per wheel:</b>	Four	Two
<b>Actuation:</b>	Hydraulic	Hydraulic
<b>Caliper make:</b>	Kelsey Hayes	
<b>Caliper type:</b>	Fixed	
<b>Material:</b>	Cast iron	
<b>Master cylinder make:</b>	Kelsey Hayes/Girling	
<b>Type:</b>	Tandem	
<b>Adjustable bias:</b>	No	
<b>Servo Fitted:</b>	No	
<b>Comments:</b>	None	

## SECTION 2 - ENGINE

### 2.1. ENGINE

<b>Make:</b>	Ford Windsor		
<b>Model:</b>	289		
<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 - original:</b>	72.898 mm	<b>Max allowed:</b>	72.898 mm
<b>Capacity - original:</b>	4728 cc	<b>Max allowed:</b>	4869 cc
<b>Identifying marks:</b>	N/A		
<b>Cooling method:</b>	Liquid		
<b>Comments:</b>	Ford replacement block for the Windsor engine, part number M-6010-BOSS302 is approved for use. See Appendix C.		

### 2.2. CYLINDER HEAD

<b>Make:</b>	Ford		
<b>No. of valves/cylinder:</b>	Two	<b>Inlet:</b>	One
<b>No. of ports total:</b>	Eight	<b>Inlet:</b>	Four
<b>No. of camshafts:</b>	One	<b>Location:</b>	Block
<b>Valve actuation:</b>	Pushrod and rocker		
<b>Spark plugs/cylinder:</b>	One		
<b>Identifying marks:</b>	289 or 302 cast into heads adjacent to rocker stud boss		
<b>Comments:</b>	Note that inlet valves and exhaust valves are in the same plain in the Windsor engine. For Replacement Windsor head see Appendix C.		

### 2.3. LUBRICATION

<b>Method:</b>	Wet sump	<b>Oil tank location:</b>	N/A
<b>Dry sump pump type:</b>	N/A	<b>Location:</b>	N/A
<b>Oil cooler standard:</b>	No	<b>Location:</b>	N/A
<b>Comments:</b>	None		

### 2.4. IGNITION SYSTEM

<b>Type:</b>	Points, Coil and Distributor		
<b>Make:</b>	Autolite		
<b>Comments:</b>	None		

### 2.5. FUEL SYSTEM

<b>Carburettor Make:</b>	Holley	<b>Model:</b>	4V
<b>Carburettor Number:</b>	One		
<b>Size:</b>	715 CFM		
<b>Fuel injection Make:</b>	N/A	<b>Type:</b>	N/A
<b>Supercharged:</b>	No	<b>Type:</b>	N/A
<b>Comments:</b>	None		

**SECTION 3 - TRANSMISSION**

**3.1. CLUTCH**

<b>Make:</b>	Ford
<b>Type:</b>	Diaphragm
<b>Diameter:</b>	267 mm
<b>No. of Plates:</b>	One
<b>Actuation:</b>	Hydraulic
<b>Comments:</b>	None

**3.2. TRANSMISSION**

<b>Type:</b>	Borg Warner
<b>Make:</b>	T10
<b>Gearbox location:</b>	Behind engine
<b>No. forward speeds:</b>	Four
<b>Gearchange type and location:</b>	Centre/floor
<b>Case material:</b>	Cast iron or Alloy
<b>Identifying marks:</b>	N/A
<b>Comments:</b>	None

**3.3. FINAL DRIVE**

<b>Make:</b>	Ford	<b>Model:</b>	
<b>Ratios:</b>	Various		
<b>Differential type:</b>	Limited slip, Detroit locker		
<b>Comments:</b>	None		

**3.4. TRANSMISSION SHAFTS (EXPOSED)**

<b>Number:</b>	One
<b>Location:</b>	Gearbox to final drive
<b>Description:</b>	Open tailshaft with twin uni joints
<b>Comments:</b>	Steel

**3.5. WHEELS & TYRES**

<b>Wheel type - Original:</b>	Disc	<b>Material - Original:</b>	Steel
<b>Wheel type - Allowed:</b>	Period style	<b>Material - Allowed:</b>	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"		6" x 15"
<b>Allowed:</b>	7" x 15"		7" x 15"
<b>Tyre Section:</b>			
<b>Original:</b>	N/A		N/A
<b>Allowed:</b>			
<b>Aspect ratio - minimum:</b>	60% minimum aspect ratio.		
<b>Comments:</b>	Refer approved tyre list.		

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## SECTION 4 GENERAL


### 4.1. FUEL SYSTEM

<b>Tank Location:</b>	Boot floor	<b>Capacity:</b>	75 litres
<b>Fuel pump, type:</b>	Mechanical/engine	<b>Make:</b>	
<b>Comments:</b>	None		

### 4.2. ELECTRICAL SYSTEM

<b>Voltage:</b>	Twelve	<b>Alternator fitted:</b>	Alternator
<b>Battery Location:</b>	Boot		
<b>Comments:</b>	None		

### 4.3. BODYWORK

<b>Type:</b>	Closed touring	<b>Material:</b>	Steel
<b>No. of seats:</b>	Four	<b>No. doors:</b>	Two
<b>Comments:</b>	<p>Should the original front bumper bar be removed, the Shelby GT350R type front bar may be used, made of period correct materials. The use of modern materials such as carbon fibre is not permitted in the replacement bar.</p> <p>Quarter panel styling, foreground is 1966 (plexiglass quarter window &amp; side scoop). Background is 1965 (quarter window louvers, no side scoop)</p> 		

### 4.4. DIMENSIONS

<b>Track - Front:</b>	1448 mm	<b>Rear:</b>	1448 mm
<b>Wheelbase:</b>	2743 mm	<b>Overall length:</b>	4570 mm
<b>Dry weight:</b>	1270 kg		
<b>Comments:</b>	None		

### 4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations
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## Appendix A

### Suspension

#### Front

Spring height adjustment permitted.

#### Rear

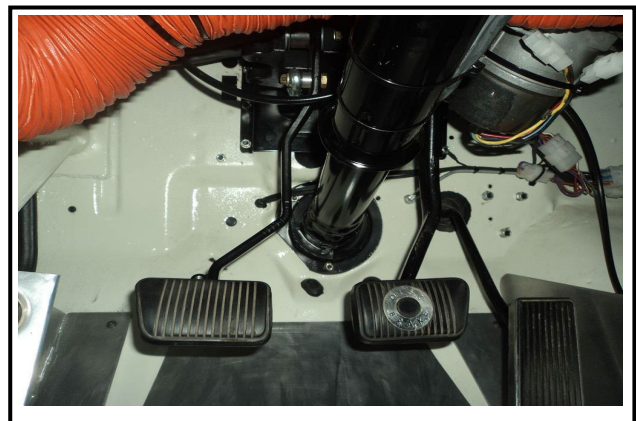
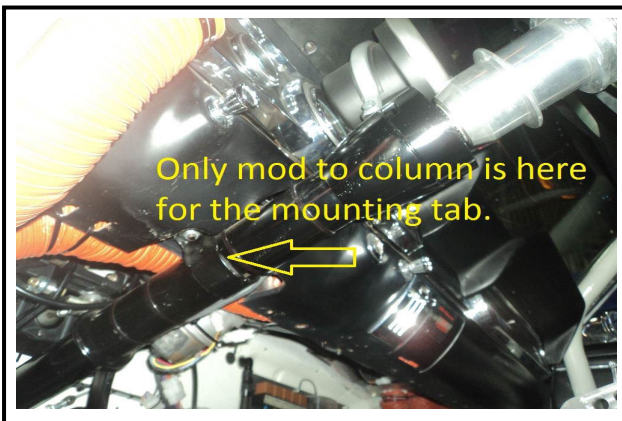
Spring height adjustment permitted.

## Appendix B

### 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.

## Appendix C

### Block

Ford replacement block for the Windsor 289 engine, part number M-6010BOSS302 is approved for use. Logbook endorsed and the engine sealed required.

### Cylinder Heads

Approved cast iron cylinder heads are:

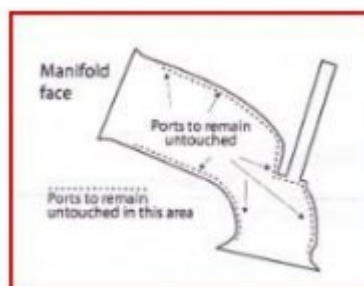
- Dart Iron Eagle No. 1330008 \*
- RHS Pro Action Small Block Ford No. 35305
- World Products Windsor Junior.

The heads are 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.

- \* 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.

### 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. i.e. 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.



### Sealing procedure for engines with substitute heads

1. Engine to be assembled 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.