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.

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

- **1965**

- **1966**

Update Log

30/6/2022	Document layout

SECTION 1 - CHASSIS

1.1. CHASSIS

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

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	**Method:**	N/A	
Comments:	Refer to Appendix A			

1.3. REAR SUSPENSION

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

1.4. STEERING

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

1.5. BRAKES

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

SECTION 2 - ENGINE

2.1. ENGINE

Make:	Ford Windsor		
Model:	289		
No. cylinders:	Eight	**Configuration:**	Vee
Cylinder Block-material:	Cast iron	**Two/Four Stroke:**	Four
Bore - Original:	101.6 mm	**Max allowed:**	103.1 mm
Stroke - original:	72.898 mm	**Max allowed:**	72.898 mm
Capacity - original:	4728 cc	**Max allowed:**	4869 cc
Identifying marks:	N/A		
Cooling method:	Liquid		
Comments:	Ford replacement block for the Windsor engine, part number M-6010-BOSS302 is approved for use. See Appendix C.		

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 and rocker				
Spark plugs/cylinder:	One				
Identifying marks:	289 or 302 cast into heads adjacent to rocker stud boss				
Comments:	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

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

2.4. IGNITION SYSTEM

Type:	Points, Coil and Distributor
Make:	Autolite
Comments	None

2.5. FUEL SYSTEM

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

3.1. CLUTCH

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

3.2. TRANSMISSION

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

3.3. FINAL DRIVE

Make:	Ford	**Model:**	
Ratios:	Various		
Differential type:	Limited slip, Detroit locker		
Comments:	None		

3.4. TRANSMISSION SHAFTS (EXPOSED)

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

3.5. WHEELS & TYRES

Wheel type - Original:	Disc	**Material - Original:**	Steel
Wheel type - Allowed:	Period style	**Material - Allowed:**	Alloy
Fixture method:	Studs	**No. studs:**	Five
Wheel dia. & rim width	**FRONT**		**REAR**
Original:	6” x 15”		6” x 15”
Allowed	7” x 15”		7” x 15”
Tyre Section:			
Original:	N/A		N/A
Allowed:			
Aspect ratio - minimum:	60% minimum aspect ratio.		
Comments:	Refer approved tyre list.		

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SECTION 4 GENERAL

4.1. FUEL SYSTEM

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

4.2. ELECTRICAL SYSTEM

Voltage:	Twelve	**Alternator fitted:**	Alternator
Battery Location:	Boot		
Comments:	None		

4.3. BODYWORK

Type:	Closed touring	**Material:**	Steel
No. of seats:	Four	**No. doors:**	Two
Comments:	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. Quarter panel styling, foreground is 1966 (plexiglass quarter window & side scoop). Background is 1965 (quarter window louvers, no side scoop) 		

4.4. DIMENSIONS

Track - Front:	1448 mm	**Rear:**	1448 mm
Wheelbase:	2743 mm	**Overall length:**	4570 mm
Dry weight:	1270 kg		
Comments:	None		

4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations

Appendix A

Suspension

Front

Spring height adjustment permitted.

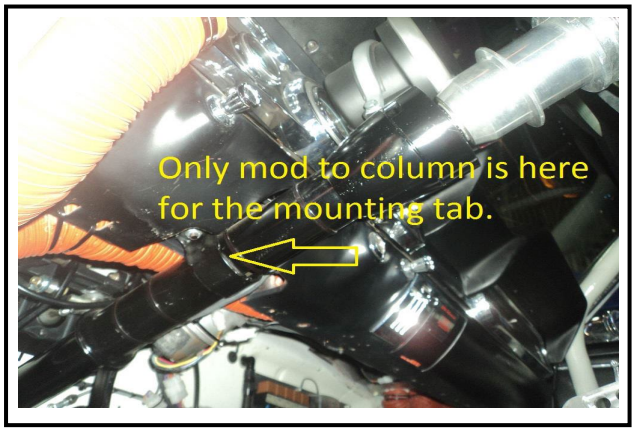
Rear

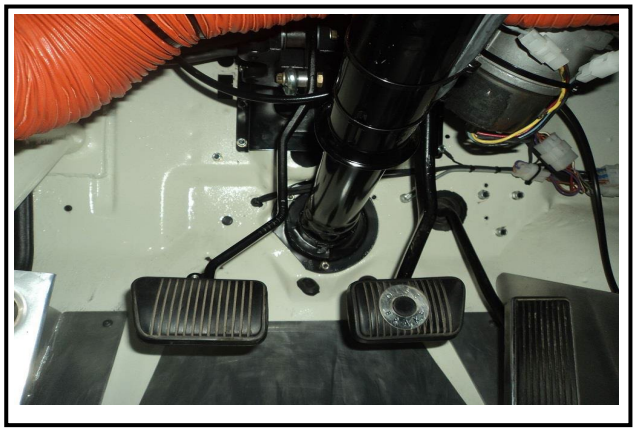
Spring height adjustment permitted.

Appendix B

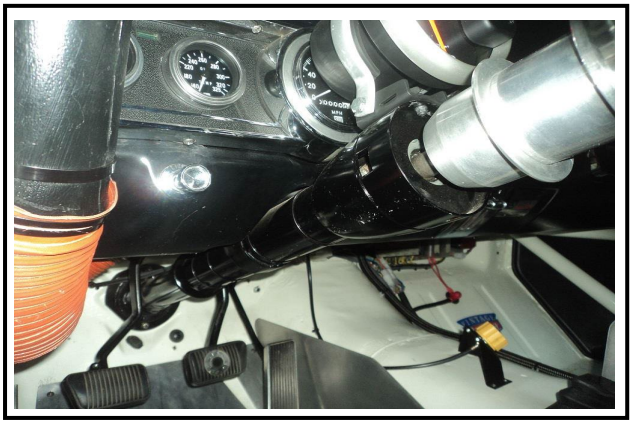
Replacement of solid steering column with collapsible type.

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:

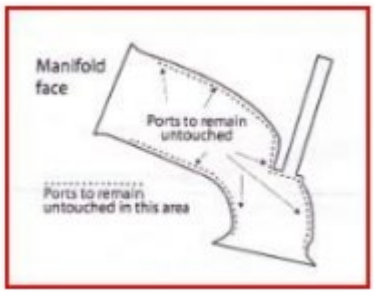
- Dart Iron Eagle No. 1330008 *
- RHS Pro Action Small Block Ford No. 35305
- World Products Windsor Junior.

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 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.