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:**	Falcon XY (1) 500, (2) GT (3) GT HO Ph 3
Period of Original Manufacture:	1970 to 1971		
Motorsport Australia Historic Group:	Nc		
Date of issue of this document:	August 2019		

Update Log	
August 2020	Replacement Cleveland cylinder block 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:	Uni-body four door sedan
Period of Manufacture:	1970 – 1971
Manufacturer:	Ford Motor Co.
Chassis no. from:	JG33XXXXXXX
Chassis no. location:	ADR style I/D plate on left side of firewall Early models had body I/D number stamped on left side of radiator support panel later models had I/D stamped on L/H suspension tower. Orignal engine number stamped on L/H suspension tower early models, R/H suspension tower in later models
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:				

1.3 REAR SUSPENSION				
Description:	Live axle			
Spring medium:	Leaf			
Damper type:	Telescopic		**Adjustable:**	No
Anti-sway bar:	Only GTHO Phase 3		**Adjustable:**	No
Suspension adjustable:	Yes	**Method:**	By spring height	
Comment:	See Appendix A			

1.4 STEERING			
Type:	Recirculating ball	**Make:**	Ford
Comment:	Power steering permitted all models 16:1 ratio 20:1 ratio to be used on Model 500 unless power steering fitted Models GT and GTHO PH3 used Power steering		

1.5 BRAKES			
	Front		**Rear**
Type:	Disc, vented		Drum
Dimensions:	286 x 23.9 mm		254 x 44,57,63.5 mm*
Material:	Cast iron		Cast iron
No. cylinders/pots per wheel:	One		One
Actuation:	Hydraulic		Hydraulic
Caliper Make:	Kelsey Hayes / Ford		
Caliper Type:	Single piston, floating		
Caliper Material:	Cast		
Master cylinder make:	PBR	**Type:**	Tandem
Adjustable bias:	No		
Servo Fitted:	Yes		
Comment:	See Appendix A		

SECTION 2 - ENGINE

2.1 ENGINE			
Make:	Ford		
Model:	Cleveland 351 2V(500) and 351 4V (GT and GTHO Phase 3)		
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:	89.0 mm		
Capacity - original:	5766 cc	**Max. allowed:**	5937 cc
Cooling method:	Liquid		
Identifying marks:	Model 500 DOAZ – 6015 – D Models GT and GTHO Phase 3 DOAE – 6015 – J or G **Replacement Block See Appendix A**		
Comment:	ID marks located low on right side of block		

2.2 CYLINDER HEAD					
Make:	Ford				
No. of valves/cylinder:	Two (2)	**Inlet:**	One (1)	**Exhaust:**	One (1)
No. of ports total:	Eight (8)	**Inlet:**	Four (4)	**Exhaust:**	Four (4)
No. of camshafts:	One (1)	**Location:**	Block	**Drive:**	Chain
Valve actuation:	Pushrod & rocker				
Spark plugs/cylinder:	One				
Identifying marks:	DOAE 6090 H or R				
Comment:	ID located on unmachined area adjacent to head gasket surface (visible only with head removed Note: Inlet and Exhaust valves are in different plains, being 'canted' in US language.				

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

2.4 IGNITION SYSTEM	
Type:	Coil, points & distributor
Make:	Autolite
Comment:	Replacement distributors permitted but must points type (breaker less type not permitted) GTHO Phase 3 utilised electronic rev limiter regulations permit same on all models

2.5 FUEL SYSTEM				
Carburettor Make:	500 GT GTHO Phase 3	Autolite Autolite Holley	**Model:**	2100 D2V 4300C – 4V 4150C – 4V
Carburettor number:	One			
Comment:	Freedom of number and type of Carburettor is allowed subject to the carburettor being commercially available prior to 31/12/1972			

SECTION 3 – TRANSMISSION

3.1 CLUTCH			
Make:	Ford		
Type:	Diaphragm		
Diameter:	241.5 mm	**No. of Plates:**	Two
Actuation:	Hydraulic		
Comment:	None		

3.2 TRANSMISSION			
Type:	Synchromesh		
Make:	Ford	**Model:**	Top loader
No. forward speeds:	Four	**Gearbox location:**	Behind engine
Gear change type and location:	Remote, Floor		
Case material:	Cast iron	**Identifying marks:**	
Comment:	Two types of "Toploader" are used in these models See Appendix A		

3.3 FINAL DRIVE			
Make:	Ford	**Model:**	9 inch
Type:	Live axle		
Wheel drive method:	Rear		
Ratios:	3.25 or 3.5 to 1 Fitted however ratios are free		
Differential type:	500 Open or LSD, GT Traction-lok GTHO Ph 3 Detroit locker		
Comment:	The Detroit Locker fitted to GTHO Ph 3 was 31 Spline axles 500 and GT were 28 spline The correct assembly must be used in the appropriate model		

3.4 TRANSMISSION SHAFTS (EXPOSED)	
Number:	One
Description:	Single piece steel with Hardy-Spicer type (Cardan)Universal joints
Comments:	

3.5 WHEELS & TYRES			
Wheel type - Original:	Pressed steel or alloy	**Material:**	Steel or alloy
Allowed:	Period Alloy	**Allowed:**	Aluminium
Fixture method:	Studs	**No. studs:**	Five
Wheel dia. & rim width:	**FRONT**		**REAR**
Original:	6 x 14"/ 15 x 7" in alloy		6 x 14"/15 x 7" in alloy
Allowed:	8 x 15"		8 x 15"
Tyres allowed:	60% minimum aspect ratio, refer approved tyre list.		
Comment:	None		

SECTION 4 - GENERAL

4.1 FUEL SYSTEM				
Tank Location:	Boot floor	**Capacity:**	500 GT GTHO Phase3	73 litres 164 litres* 164 litres*
Fuel pump type and location:	Mechanical on block	**Make:**	Ford	
Comment:	Optional*			

4.2 ELECTRICAL SYSTEM			
Voltage:	12	**Alternator:**	Fitted
Battery Location:	Engine bay, RHF		
Comment:	None		

4.3 BODYWORK			
Type:	Sedan	**Material:**	Steel
No. of seats:	Five	**No. doors:**	Four
Comments:	See Appendix B		

4.4 DIMENSIONS				
Track - Original	**Front:**	1510 mm 14” wheel 1534 mm 15” wheels	**Rear:**	1487 mm 14” wheel 1534 mm 15” wheels
Track - Allowed:	**Front:**	1560 mm 14” wheel 1584 mm 15” wheels	**Rear:**	1537 mm 14” wheel 1584 mm 15” wheels
Wheelbase:	2820 mm		**Overall length:**	4690 mm
Dry weight:	1444 kg			
Comment:	None			

4.5 SAFETY EQUIPMENT
Fire Extinguisher required
Seat Belt required
ROPS required
Electrical isolator required

Appendix A

Cylinder Block

Aftermarket replacement block for the Cleveland engine:

The ARROW Ford 351 Cleveland Small Block

- Must be in conjunction with MSD Soft Touch rev Limiter Part no 8728 with a 7500 RPM limit.
- Must be in an easily accessible position within the engine bay.
- The limiter will be subject to testing at race meetings,

Front Suspension

- Anti-sway bar diameter may be changed
- Dampers are free subject to original mounting and period correct technology

Rear Suspension

- Trailing links, Panhard rod or Watts linkage permitted
- Addition of Rear anti – sway bar on 500 and GT permitted
- Change of diameter of the Rear anti – sway bar on GTHO Phase 3 Permitted
- Dampers are free subject to original mounting and period correct technology

Brakes

- Rear drum width on the 3 models must be respected*
- Components from other touring cars manufactured prior to 31/12/72 may be used subject to swept area limitation
- Twin master cylinders permitted subject to no structural modification of the bodyshell.
- Brake Bias adjustment permitted, adjustment by driver in normal driving position not permitted

Gearbox

- Models 500 and GT used a Gearbox with a 28-spline output shaft and 2.78:1 first gear
- GTHO Phase 3 used a close ratio Gearbox with 2.32:1 First gear and a 31-spline output shaft, this shaft was approx. 105 mm longer allowing the tail shaft to be shortened by corresponding amount.
- Freedom of gear ratios is permitted however the correct type of gearbox must be used according to model of Car

Appendix B

Bodywork

It is essential that detail of external bodywork and interior trim correspond with original production form of model concerned.

Summarising:
GTHO Phase 3 must be fitted with:

- Front air dam
- driving lights,
- bonnet locking pins of 'hairpin' type with pins attached by bowden cable,
- Shaker air intake,
- stainless capping on rear window weather seal and GT strip across boot.
- Internally 'full' instrumentation is required including 8000 rpm Tacho
- trim must be 'Fairmont' level - material of door trims comes up to window glass level and there are two courtesy lights on 'c' pillar in addition to roof light.

GT As per GTHO Phase 3 except the following may not be used:

- Front air Dam
- Rear wing
- 8000 rpm tacho

500
None of the above options are permitted if the Car is presented as a "base 500 model" Door trims were shorter leaving 100 mm metal exposed below the window glass
Standard instruments were:

- Speedometer
- Fuel gauge
- Temperature gauge:

The base model could be optioned with:

- Fairmont trim as per GT this included decorative strips on the wheel arches that were not included on the GT.
- GS Rally pack which included full instrumentation (not 8000 RPM Tacho)