



5TH CATEGORY - HISTORIC RACING GROUP S APPROVED VEHICLE SPECIFICATION
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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:	Tornado	Model:	Talisman
Period of Original Manufacture:	1961 - 1964		
Motorsport Australia Historic Group:	Sb		
Date of Issue of this Document:	30/6/2022		



Update Log

30/6/2022	Document layout

SECTION 1 - CHASSIS

1.1. CHASSIS

Description:	Tubular ladder frame
Period of Manufacture:	1961 - 1964
Manufacturer:	Tornado
Chassis Number From:	TO/TA/1877/61 - TO/TA/2063/64
Chassis Number location:	Firewall
Material:	Mild steel
Comments	None

1.2. FRONT SUSPENSION

Description:	Independent front suspension – twin wishbones		
Spring Medium:	Coil		
Damper Type:	Tubular	Adjustable:	No
Anti-sway bar:	Yes	Adjustable:	No
Suspension adjustable:	No	Method:	N/A
Comments:	Spring rates and ride height are free		

1.3. REAR SUSPENSION

Description:	Independent rear suspension, lower wishbone, fixed length driveshafts		
Spring Medium:	Coil		
Damper Type:	Tubular	Adjustable	No
Anti-sway bar:	No	Adjustable:	N/A
Suspension adjustable:	No	Method:	N/A
Comments:	Spring rates and ride height are free		

1.4. STEERING

Type:	Rack and pinion	Make:	Alford and Alder
Comments	None		

1.5. BRAKES

	Front	Rear
Type:	Disc	Drum
Dimensions:	228.6 mm	178 mm
Material of drum/disc:	Cast iron	Cast iron
No. cylinders/pots per wheel:	One	One
Actuation:	Hydraulic	Hydraulic
Caliper make:	Girling	
Caliper type:		
Material:	Cast iron	
Master cylinder make:	Girling	
Type:	Single	
Adjustable bias:	No	
Servo Fitted:	No	
Comments:	Tandem master cylinder allowed Servo allowed.	

SECTION 2 - ENGINE

2.1. ENGINE

Make:	Ford		
Model:	109E 116E		
No. cylinders:	Four	Configuration:	In line
Cylinder Block-material:	Cast iron	Two/Four Stroke:	Four
Bore – Original – 109E:	80.96 mm	Max allowed:	82.46 mm
Stroke – original – 109E:	65.08 mm	Max allowed:	65.08 mm
Capacity – original – 109E:	1340 cc	Max allowed:	1390 cc
Bore – Original – 116E:	80.96 mm	Max allowed:	82.46 mm
Stroke – original – 116E:	72.75 mm	Max allowed:	72.75 mm
Capacity – original – 116E:	1498 cc	Max allowed:	1554 cc
Identifying marks:			
Cooling method:	Liquid		
Comments:	Any 7.78" height deck block with the following Engine Casting Block number: 116E-6015BA, 118E-6015BA, 120E-6015, 120E-6015BA, 2731-6015BA, 3020-6015BA, 681F-6015BA, 701M-6015BA, as well as new Ford Motorsport block Part number M-6010-16L.		

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:	Overhead valve		
Spark plugs/cylinder:	One		
Identifying marks:	N/A		
Comments:	None		

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:	Lucas		
Comments:	None		

2.5. FUEL SYSTEM

Carburettor Make:	Weber	Model:	40DCOE
Carburettor Number:	Two		
Size:	40 mm		
Fuel injection Make:	N/A	Type:	N/A
Supercharged:	No	Type:	N/A
Comments:	Bore size unrestricted		

SECTION 3 - TRANSMISSION

3.1. CLUTCH

Make:	Borg and Beck
Type:	Diaphragm
Diameter:	184 mm
No. of Plates:	One
Actuation:	Hydraulic
Comments:	None

3.2. TRANSMISSION

Type:	Synchromesh
Make:	Ford – Type 2000E with remote shifter (118E is the stamp number) Refer Appendix A
Gearbox location:	Behind engine
No. forward speeds:	Four
Gearchange type and location:	Remote shifter
Case material:	Cast iron
Identifying marks:	N/A
Comments:	Ratios free

3.3. FINAL DRIVE

Make:	Triumph Herald	Model:	
Wheel drive method:	Rear		
Ratios:	4.1:1		
Differential type:	Hypoid bevel - Free (Open)		
Comments:	Ratios free. Limited slip differential allowed		

3.4. TRANSMISSION SHAFTS (EXPOSED)

Number:	Two
Location:	Halfshafts
Description:	Solid shafts with universal joints
Comments:	None

3.5. WHEELS & TYRES

Wheel type - Original:	Disc	Material - Original:	Steel
Wheel type - Allowed:	Cast alloy	Material - Allowed:	Aluminium alloy
Fixture method:	Bolt on	No. studs:	Four
Wheel dia. & rim width	FRONT		REAR
Original:	4" x 13 4.5" x 13"		4" x 13 4.5" x 13"
Allowed	6" x 13"		6" x 13"
Tyre Section:			
Original:	590 x 13"		590 x 13"
Allowed:	185 x 13"		185 x 13"
Aspect ratio - minimum:	60% minimum aspect ratio.		
Comments:	Refer approved tyre list. Rim size and tyre size limited to combination that will fit under standard wheel arch. Alloy wheels should be Minilite type.		

SECTION 4 GENERAL

4.1. FUEL SYSTEM

Tank Location:	Under boot	Capacity:	41 litres
Fuel pump, type:	Electric	Make:	SU
Comments:	None		

4.2. ELECTRICAL SYSTEM

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

4.3. BODYWORK

Type:	Fixed head Coupe	Material:	Glass fibre
No. of seats:	2 + 2	No. doors:	Two
Comments:	None		

4.4. DIMENSIONS

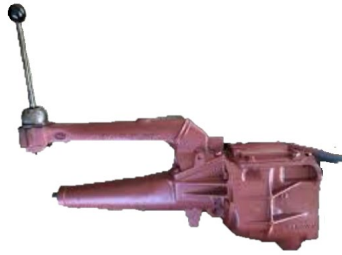
Track - Front:	1320 mm	Rear:	1320 mm
Wheelbase:	2440 mm	Overall length:	3800 mm
Dry weight:	612.5 kg		
Comments:	None		

4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations

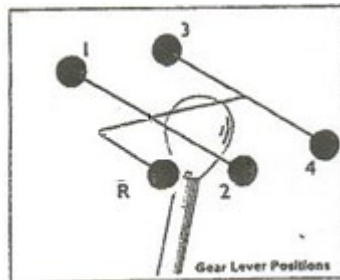
Appendix
Gearboxes

Type 2000E with remote shifter



Features:

- Console must be fitted to cover remote shifter.
- Aluminium drive line components Homologated for MK 1 Lotus Cortina`s are not legal for other models.
- Three rail
- Reverse is next to second



- Case and tail housing are cast iron
- Starter motor on driver's side
- 7/8" x 20 spline input shaft