



<b>5TH CATEGORY - HISTORIC RACING</b> <b>GROUP S</b> <b>APPROVED VEHICLE SPECIFICATION</b>
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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.

<b>Make of Car:</b>	Austin Healey	<b>Model:</b>	Sprite Mark 1
<b>Period of Original Manufacture:</b>	1958 –1962		
<b>Motorsport Australia Historic Group:</b>	Sa		
<b>Date of Issue of this Document:</b>	30/6/2022		



***Update Log***

30/6/2022	Document layout

## SECTION 1 - CHASSIS

### 1.1. CHASSIS

<b>Description:</b>	Steel Monocoque
<b>Period of Manufacture:</b>	1958 – 1962
<b>Manufacturer:</b>	Austin – Healey
<b>Chassis Number From:</b>	AN5 501 (English manufacture) YHAN 1/8/23058/501
<b>Chassis Number location:</b>	(Australian assembled) Firewall alongside L/H door hinge
<b>Material:</b>	Steel
<b>Comments</b>	Bonnet must be steel

### 1.2. FRONT SUSPENSION

<b>Description:</b>	Lower wishbone, Top link integral with shock absorber		
<b>Spring Medium:</b>	Coil		
<b>Damper Type:</b>	Armstrong – lever arm	<b>Adjustable:</b>	No
<b>Anti-sway bar:</b>	Yes	<b>Adjustable:</b>	No
<b>Suspension adjustable:</b>	No	<b>Method:</b>	N/A
<b>Comments:</b>	Spring rates and ride heights may be adjusted. Negative camber trunnions (2 degrees)		

### 1.3. REAR SUSPENSION

<b>Description:</b>	Live axle with quarter elliptic springs and upper radius		
<b>Spring Medium:</b>	Quarter elliptic		
<b>Damper Type:</b>	Armstrong – lever arm	<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>	Spring rates and ride heights may be adjusted.		

### 1.4. STEERING

<b>Type:</b>	Rack and pinion	<b>Make:</b>	BMC
<b>Comments</b>	None		

### 1.5. BRAKES

	Front	Rear
<b>Type:</b>	Drum	Drum
<b>Dimensions:</b>	177 mm x 32 mm	177 mm x 32 mm
<b>Material of drum/disc:</b>	Cast iron	Cast iron
<b>No. cylinders/pots per wheel:</b>	Two	One
<b>Actuation:</b>	Hydraulic	Hydraulic
<b>Caliper make:</b>	Lockheed	
<b>Caliper type:</b>	Fixed	
<b>Material:</b>	Cast iron	
<b>Master cylinder make:</b>	Lockheed	
<b>Type:</b>	Single bore in tandem with clutch	
<b>Adjustable bias:</b>	No	
<b>Servo Fitted:</b>	No	
<b>Comments:</b>	Increase in Brake drum size (using period componentry) allowed. Dual or tandem master cylinders permitted. Servo permitted	

## SECTION 2 - ENGINE

### 2.1. ENGINE

<b>Make:</b>	BMC		
<b>Model:</b>	"A" series		
<b>No. cylinders:</b>	Four	<b>Configuration:</b>	In line
<b>Cylinder Block-material:</b>	Cast iron	<b>Two/Four Stroke:</b>	Four
<b>Bore - Original:</b>	62.94 mm	<b>Max allowed:</b>	64.58 mm
<b>Stroke - original:</b>	76.2 mm	<b>Max allowed:</b>	76.2 mm
<b>Capacity - original:</b>	948 cc	<b>Max allowed:</b>	998 cc
<b>Identifying marks:</b>	950 cast on manifold side of block		
<b>Cooling method:</b>	Liquid		
<b>Comments:</b>	Capacity 998 allowed due to commercial availability of pistons		

### 2.2. CYLINDER HEAD

<b>Make:</b>	BMC		
<b>No. of valves/cylinder:</b>	Two	<b>Inlet:</b> One	<b>Exhaust:</b> One
<b>No. of ports total:</b>	Five	<b>Inlet:</b> Two	<b>Exhaust:</b> Three
<b>No. of camshafts:</b>	One	<b>Location:</b> Block	<b>Drive:</b> Chain
<b>Valve actuation:</b>	OHV - Pushrod		
<b>Spark plugs/cylinder:</b>	One		
<b>Identifying marks:</b>	2A629, 12G295, 12G202		
<b>Comments:</b>	1275cc type heads (casting no 12G940, 12G938) not allowed		

### 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>	Oil cooler allowed		

### 2.4. IGNITION SYSTEM

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

### 2.5. FUEL SYSTEM

<b>Carburettor Make:</b>	SU	<b>Model:</b>	H1
<b>Carburettor Number:</b>	Two		
<b>Size:</b>	1.125"		
<b>Fuel injection Make:</b>	N/A	<b>Type:</b>	N/A
<b>Supercharged:</b>	No	<b>Type:</b>	N/A
<b>Comments:</b>	Carburettor bore sizes are free.		

**SECTION 3 - TRANSMISSION**

**3.1. CLUTCH**

<b>Make:</b>	Borg and Beck
<b>Type:</b>	Coil spring
<b>Diameter:</b>	156 mm
<b>No. of Plates:</b>	One
<b>Actuation:</b>	Hydraulic
<b>Comments:</b>	Clutch and method of actuation are free

**3.2. TRANSMISSION**

<b>Type:</b>	4 speed syncromesh
<b>Make:</b>	BMC 'A' series
<b>Gearbox location:</b>	Behind engine
<b>No. forward speeds:</b>	Four
<b>Gearchange type and location:</b>	Floor remote
<b>Case material:</b>	Aluminium
<b>Identifying marks:</b>	"Smooth case"
<b>Comments:</b>	Ratios are free

**3.3. FINAL DRIVE**

<b>Make:</b>	BMC	<b>Model:</b>	BMC 'A' series
<b>Ratios:</b>	3.7: 3.9: 4.2: 4.875: 5.125: 5.325		
<b>Differential type:</b>	Hypoid bevel		
<b>Comments:</b>	Limited slip differential permitted. Ratios free		

**3.4. TRANSMISSION SHAFTS (EXPOSED)**

<b>Number:</b>	One
<b>Location:</b>	Gearbox to final drive
<b>Description:</b>	Tubular with universal joints
<b>Comments:</b>	None

**3.5. WHEELS & TYRES**

<b>Wheel type - Original:</b>	Disc	<b>Material - Original:</b>	Steel
<b>Wheel type - Allowed:</b>	Period alloy	<b>Material - Allowed:</b>	Steel Period alloy
<b>Fixture method:</b>	Bolt on	<b>No. studs:</b>	Four
<b>Wheel dia. &amp; rim width</b>	<b>FRONT</b>		<b>REAR</b>
<b>Original:</b>	3.5" x 13"		3.5" x 13"
<b>Allowed</b>	5" x 13"		5" x 13"
<b>Tyre Section:</b>			
<b>Original:</b>	5.20 x 13"		5.20 x 13"
<b>Allowed:</b>	175 x 13"		175 x 13"
<b>Aspect ratio - minimum:</b>	60% minimum aspect ratio.		
<b>Comments:</b>	Refer approved tyre list.		

## SECTION 4 GENERAL

### 4.1. FUEL SYSTEM

<b>Tank Location:</b>	Under boot floor	<b>Capacity:</b>	27.3 litres
<b>Fuel pump, type:</b>	Mechanical	<b>Make:</b>	AC
<b>Comments:</b>	Fuel pumps are free		

### 4.2. ELECTRICAL SYSTEM

<b>Voltage:</b>	Twelve	<b>Alternator fitted:</b>	Generator
<b>Battery Location:</b>	Between engine and scuttle		
<b>Comments:</b>	None		

### 4.3. BODYWORK

<b>Type:</b>	Open Sports roadster	<b>Material:</b>	Steel
<b>No. of seats:</b>	Two	<b>No. doors:</b>	Two
<b>Comments:</b>	Hardtop allowed. Bonnet may be hinged from front. Bonnet must be steel.		

### 4.4. DIMENSIONS

<b>Track - Front:</b>	1160 mm	<b>Rear:</b>	1140 mm
<b>Wheelbase:</b>	2030 mm	<b>Overall length:</b>	3370 mm
<b>Dry weight:</b>	635 kg		
<b>Comments:</b>	None		

### 4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations
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**Appendix**