

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:	Austin Healey	Model:	Sprite Mark II
			Sprite Mark III
			Sprite Mark IV
Period of Original Manufacture:	Sprite Mark II – (948cc & 1098cc) – 1961 - 1962		
	Sprite Mark III – (1098cc – 1963) - 1966		
	Sprite Mark IV – (1275cc) 1966 –1974		
Motorsport Australia Historic Group:	Sb		
Date of Issue of this Document:	31/12/2024		





Update Log

30/6/2022	Document layout
31/12/2024	Inclusion of kerb and minimum racing weights

#### **SECTION 1 - CHASSIS**

# 1.1. CHASSIS

Description:	Unitary construction
Period of Manufacture:	Sprite Mark II – (948cc & 1098cc) – 1961 - 1962
	Sprite Mark III – (1098cc) – 1963 - 1966
	Sprite Mark IV – (1275cc) 1966 –1974
Manufacturer:	BMC - Austin – Healey
Chassis Number From:	Sprite Mark II – HAN6-101 to 24731
	Sprite Mark II – (1098cc) – HAN7-24732 to 38828
	Sprite Mark III – HAN8-38829 to 64755
	Sprite Mark IV – HAN9-64756 to 95286
Chassis Number location:	The Car Number and the Body Number are stamped on plates on the right-hand
	side of the firewall.
Material:	Steel
Comments	Bonnet must be steel

#### 1.2. FRONT SUSPENSION

Description:	Independent by w	Independent by wishbones				
Spring Medium:	Coil	Coil				
Damper Type:	Armstrong – lever	Armstrong – lever arm Adjustable: No				
Anti-sway bar:	No	No		N/A		
Suspension adjustable:	No	No <b>Method:</b> N/A				
Comments:	Spring rates and ride	Spring rates and ride heights may be adjusted.				
	Fitment of anti-sway	bar permitted				

## 1.3. REAR SUSPENSION

Description:	Live rear axle	Live rear axle				
Spring Medium:	Mark II & Mark	Mark II & Mark III - Quarter elliptic				
	Mark IV – semi -	Mark IV – semi – elliptic				
Damper Type:	Armstrong –	lever arm	Adjustable	No		
Anti-sway bar:	No		Adjustable:	N/A		
Suspension adjustable:	No	No Method: N/A				
Comments:	Spring rates ar	Spring rates and ride heights may be adjusted.				

#### 1.4. STEERING

Туре:	Rack and pinion	Make:	ВМС
Comments	None		

## 1.5. BRAKES

	Front	Rear			
Type – Mark II:	Drum	Drum			
Dimensions:	178 mm x 32 mm	177 mm x 32 mm			
Type – Mark III & IV:	Disc	Drum			
Dimensions:	210 mm mm	177 mm x 32 mm			
Material of drum/disc:	Cast iron	Cast iron			
No. cylinders/pots per wheel:	Two	One			
Actuation:	Hydraulic	Hydraulic			
Caliper make:	Lockheed				
Caliper type:	Fixed	Fixed			
Material:	Cast iron	Cast iron			
Master cylinder make:	Lockheed	Lockheed			
Туре:	Single				
Adjustable bias:	No				
Servo Fitted:	No	No			
Comments:	Dual or tandem master cylind	ders permitted.			
	Servo permitted				

#### **SECTION 2 - ENGINE**

## 2.1. ENGINE

Make:	Austin Healey		
Model:	"A" series		
No. cylinders:	Four	Configuration:	In line
Cylinder Block-material:	Cast iron	Two/Four Stroke:	Four
Bore – Original – M II (948cc):	62.94 mm	Max allowed:	64.58 mm
Stroke – original – Mk II (998cc):	76 mm	Max allowed:	76 mm
Capacity – original Mark II (998cc):	948 cc	Max allowed:	994 сс
Bore – Original – M II & Mk III (1098cc):	63 mm	Max allowed:	64.5 mm
Stroke – original – Mk II& Mk III (1098cc):	83.7 mm	Max allowed:	83.7 mm
Capacity – original Mk II & Mk III (1098cc):	1098 сс	Max allowed:	1149 cc
Bore – Original – Mk IV (1275cc):	70.7 mm	Max allowed:	72.1 mm
Stroke – original – Mk IV (1275cc):	81.3 mm	Max allowed:	81.3 mm
Capacity – original Mark IV (1275cc):	1275 cc	Max allowed:	1328 cc
Identifying marks:			
Cooling method:	Liquid		
Comments:	None		

## 2.2. CYLINDER HEAD

Make:	Austin Healey BMC "A" series					
No. of valves/cylinder:	Two	Two Inlet: One Exhaust: One				
No. of ports total:	Five	Inlet:	Two	Exhaust:	Three	
No. of camshafts:	One	Location:	Block	Drive:	Chain	
Valve actuation:	Pushro	Pushrod and rockers				
Spark plugs/cylinder:	One					
Identifying marks:						
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:	Oil cooler allowed		

## 2.4. IGNITION SYSTEM

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

#### 2.5. FUEL SYSTEM

Carburettor Make:	SU	Model:	Hs2	
Carburettor Number:	Two			
Size:	1.125"			
Fuel injection Make:	N/A	Type:	N/A	
Supercharged:	No	Type:	N/A	
Comments:	Carburet	Carburettor bore sizes are free.		
	Single W	Single Weber DCOE45 13 permitted.		

#### **SECTION 3 - TRANSMISSION**

#### 3.1. CLUTCH

Make:	Borg and Beck
Type:	Mk II - Coil spring
	Mk III – Coil spring
	Mk IV - Diaphragm
Diameter:	Mk II - 156 mm
	Mk III – 184 mm
	Mk IV – 159 mm
No. of Plates:	One
Actuation:	Hydraulic
Comments:	Clutch and method of actuation are free

#### 3.2. TRANSMISSION

Type:	4 speed syncromesh
Make:	BMC 'A' series
Gearbox location:	Behind engine
No. forward speeds:	Four
Gearchange type and location:	Central Floor
Case material:	Aluminium
Identifying marks:	
Comments:	Ratios are free

#### 3.3. FINAL DRIVE

Make:	BMC	Model:	BMC 'A' series
Ratios:	Various		
Differential type:	Free		
Comments:	Limited slip differential permitted.		
	Ratios free		

# 3.4. TRANSMISSION SHAFTS (EXPOSED)

Number:	One
Location:	Gearbox to final drive
Description:	Tubular with universal joints
Comments:	None

#### 3.5. WHEELS & TYRES

J.J. WIILLIJ & TINLIJ				
Wheel type - Original:	Disc	Material - Original:		Steel
	Wire			
Wheel type - Allowed:	Period alloy	Materia	l - Allowed:	Steel
				Period alloy
Fixture method:	Studs	No. stud	ls:	Four
	Knock off			
Wheel dia. & rim width	FRONT		REAR	
Original:	Disc - 3.5" x 13"		Disc - 3.5" x 13"	
	Wire – 4" x 13"		Wire – 4" x 13"	
Allowed	5" x 13"			5" x 13"
Tyre Section:				
Original:	5.20 x 13" 5		5.20 x 13"	
Allowed:	165 x 13" 1		165 x 13"	
Aspect ratio - minimum:	60% minimum aspect ratio.			
Comments:	Refer approved tyre list.			
	Alloy wheels to be "Minilite" style			

#### **SECTION 4 GENERAL**

## 4.1. FUEL SYSTEM

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

## 4.2. ELECTRICAL SYSTEM

Voltage:	Twelve	Alternator fitted:	Mk II, Mk III - Generator
			Mk IV - Alternator
Battery Location:	Between engine and scuttle		
Comments:	None		

#### 4.3. BODYWORK

Type:	Open 2 seater	Material:	Steel
No. of seats:	Two	No. doors:	Two
Comments:	None		

## 4.4. DIMENSIONS

Track - Front:	1160 mm	Rear:	1140 mm
Wheelbase:	2030 mm	Overall length:	3490 mm
Approved Manufacturer's	714 kg		
kerb weight:			
Approved minimum racing	637 kg		
weight:			
Comments:	None		

## 4.5. SAFETY EQUIPMENT

Refer applicable Group Regulations	
herer applicable droup regulations	

# Appendix