



5TH CATEGORY - HISTORIC RACING

**GROUP Nb**

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 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 CAMS Manual of Motor Sport.

**Make of Car:** Austin / Morris  
**Model:** Mini Cooper "S" Mk 1  
**Period of Original Manufacture:** 1963 - 67  
**CAMS Historic Group:** Nb  
**Date of issue of this document:** September 2015  
**Specification changes introduced after 1/1/1965 are not eligible under Group Nb requirements**



Refer to CAMS Manual of Motor Sport, Vehicle Eligibility, Historic Touring Cars, General Requirements & Nb Regulations for permitted modifications.

## **SECTION 1 - CHASSIS**

### **1.1 CHASSIS FRAME**

**Description:** Uni – body  
**Period of Manufacture:** 1963 – 67  
**Manufacturer:** British Motor Corporation  
**Chassis no. from:** K/A2S4\*\*\*\* or C/A2S7\*\*\*\* or YK2S2\*\*\*\*  
**Chassis no. location:** Various  
**Material:** Steel

### **1.2 FRONT SUSPENSION**

**Description:** Independent, Upper & lower arms with lower castor bar.  
**Spring Medium:** Rubber cone  
**Damper Type:** Telescopic **Adjustable:** No  
**Anti-sway bar:** No  
**Suspension adjustable:** No  
**Comments:** Front suspension lower control arms and castor bars may be made adjustable.

### **1.3 REAR SUSPENSION**

**Description:** Independent, with trailing arms  
**Spring medium:** Rubber cone  
**Damper type:** Telescopic **Adjustable:** No  
**Anti-sway bar:** No  
**Suspension adjustable:** No

### **1.4 STEERING**

**Type:** Rack & pinion **Make:** BMC

### **1.5 BRAKES**

	<b>Front</b>	<b>Rear</b>
<b>Type:</b>	Disc, solid	Drum, single leading shoe
<b>Dimensions:</b>	190 x 9.5 mm	178 x 31.75 mm
<b>Material:</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>Caliper Material:</b>	Cast iron	
<b>Master cylinder make:</b>	Lockheed	<b>Type:</b> Single
<b>Adjustable bias:</b>	No	
<b>Servo Fitted:</b>	Yes	

## **SECTION 2 - ENGINE**

### **2.1 ENGINE**

<b>Make:</b>	BMC		
<b>Model:</b>	"A" series 9FSAY engine number prefix		
<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>	70.61 mm	<b>Max. allowed:</b>	72.11 mm
<b>Stroke - original:</b>	81.28 mm		
<b>Capacity - original:</b>	1273 cc	<b>Max. allowed:</b>	1328 cc *
<b>Cooling method:</b>	Liquid		
<b>Identifying marks:</b>	N/A		
<b>Comments:</b>	Blocks from a Mk 2 prefix 9FXEY & 1100 prefix 12 (usually) allowed. Belt drive of camshaft permitted when retained within original chain cover.		

\* Original stroke only. With reduced stroke, the bore is free and the max capacity is 1300 cc.

### **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>	Pushrod & rockers				
<b>Spark plugs/cylinder:</b>	One				
<b>Identifying marks:</b>	AEG163 or 126940, Eleven studs				

### **2.3 LUBRICATION**

<b>Method:</b>	Wet sump		
<b>Oil cooler standard:</b>	Fitted	<b>Location:</b>	Behind grille

### **2.4 IGNITION SYSTEM**

<b>Type:</b>	Coil & distributor
<b>Make:</b>	Lucas

### **2.5 FUEL SYSTEM**

<b>Carburettor Make:</b>	SU	<b>Model:</b>	HS2
<b>Carburettor number:</b>	Two	<b>Size:</b>	1 ¼ inch

## **SECTION 3 - TRANSMISSION**

### **3.1 CLUTCH**

**Make:** Borg & Beck  
**Type:** Diaphragm  
**Diameter:** 185 mm  
**Actuation:** Hydraulic  
**No. of Plates:** One

### **3.2 TRANSMISSION**

**Type:** Synchro – mesh, not on first\*  
**Make:** BMC  
**No. forward speeds:** Four  
**Gearbox location:** Below engine  
**Gear change type and location:** Remote, centre floor  
**Case material:** Alloy  
**Identifying marks:** 22G 333, 22A 1522  
**Comments:** Gearbox part numbers must be: 22G333, 22A1288 or 22G1128.  
**Comments:** **None Synchronesh internals allowed (dog box)**  
\* 22G1128 gearbox has synchro on first

### **3.3 FINAL DRIVE**

**Make:** BMC  
**Type:** Combined as transaxle  
**Model:**  
**Wheel drive method:** Front  
**Ratios:** Various  
**Differential type:** Open / free

### **3.4 TRANSMISSION SHAFTS (EXPOSED)**

**Number:** Two  
**Description:** Halfshaft with Hardy-Spicer or donut rubber universal joints

### **3.5 WHEELS & TYRES**

<b>Wheel type - Original:</b>	Disc	<b>Material - Original:</b>	Steel
<b>Allowed:</b>	Period cast	<b>Allowed:</b>	Alloy
<b>Fixture method:</b>	Studs	<b>No. studs:</b>	Four
<b>Wheel dia. &amp; rim width:</b>	<b>FRONT</b>		<b>REAR</b>
<b>Original:</b>	10 x 4.5 inch		10 x 4.5 inch
<b>Allowed:</b>	10 x 5.5 inch		10 x 5.5 inch
<b>Tyres original:</b>	450 – 10		450 – 10
<b>Tyres allowed:</b>	60% minimum aspect ratio, refer approved tyre list.		

## **SECTION 4 - GENERAL**

### **4.1 FUEL SYSTEM**

<b>Tank Location:</b>	Boot, LHR Qrt panel	<b>Capacity:</b>	25 litres
<b>Fuel pump type and location:</b>	Electric, rear sub frame	<b>Make:</b>	SU AUF 201
<b>Comments:</b>	Optional RHR Qrt panel fuel tank permitted.		

### **4.2 ELECTRICAL SYSTEM**

<b>Voltage:</b>	12	<b>Generator:</b>	Fitted
<b>Battery Location:</b>	Boot		

### **4.3 BODYWORK**

<b>Type:</b>	Closed touring	<b>Material:</b>	Steel
<b>No. of seats:</b>	Four	<b>No. doors:</b>	Two

#### **Comments:**

Mk1 body shell permitted if fitted with sliding window doors & windscreen wipers 'park' to the RH bottom of the windscreen.

Full Cooper "S" badge work & trim required.

Cut – outs on front apron below bumper bar are from July 1963.

Standard seats, if used require frame & mounting reinforcements.

Speedo aperture opening modifications

The firewall may be modified to allow for the insertion of a carburettor box. The box to be adequate sealed. The dimensions of the aperture shall not exceed 175 mm high and 215 mm wide.

The instrument binnacle may be moved to accommodate the carburettor box. Not to protrude beyond a line between the front face of the parcel shelf and window surround base.

### **4.4 DIMENSIONS**

<b>Track - Front:</b>	1233 mm	<b>Rear:</b>	1202 mm
<b>Wheelbase:</b>	2036 mm	<b>Overall length:</b>	3054 mm
<b>Dry weight:</b>	600 kg		

### **4.5 SAFETY EQUIPMENT**

***Refer applicable Group Regulations***