

F.I.A. Rec No. 5013
ADO 50/66 Group 1

ROYAL AUTOMOBILE CLUB

31, Belgrave Square, London, S.W.1.

Form of recognition in accordance with
Appendix J to the International Sporting Code of the

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

British Motor Corporation in	Cylinder-capacity..998.....cm ³ 60.96...in ³
Manufacturer in association with Cooper Model. Austin/Morris Mini Cooper.....	
Car Company KA2S4 & C/A2S7	Manufacturer. British Motor Corporation...
Serial No. of chassis.....KA2S4 & C/A2S7	Manufacturer. British Motor Corporation...
engine.....9FA & 9FD.....	Manufacturer. British Motor Corporation...
Recognition is valid from.....	List..14.....

1st Jan. 1966

The manufacturing of the model described in this recognition form was started on
November.....1963 and the minimum production of...5000.....identical cars,
in accordance with the specifications of this form was reached on...October....1964

Photograph A, $\frac{3}{4}$ view of car from front



F.I.A. Stamp

R.A.C. Stamp

B



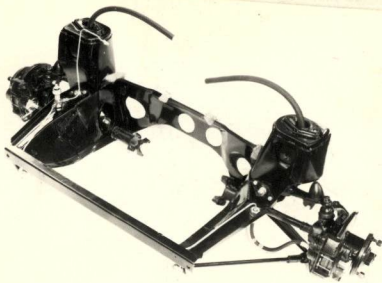
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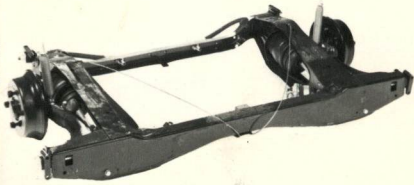


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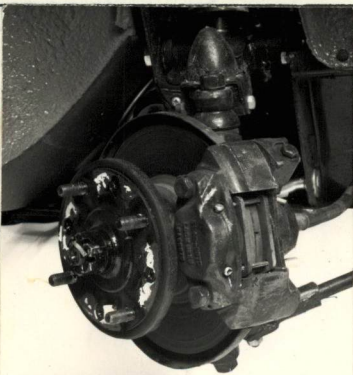
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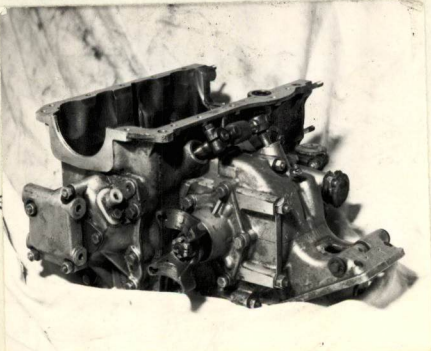
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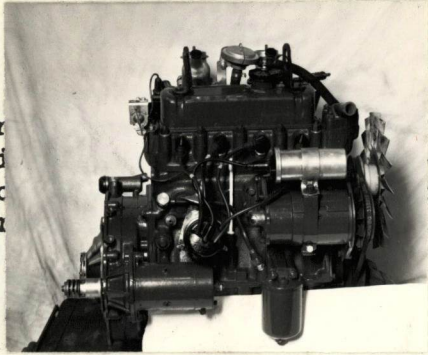
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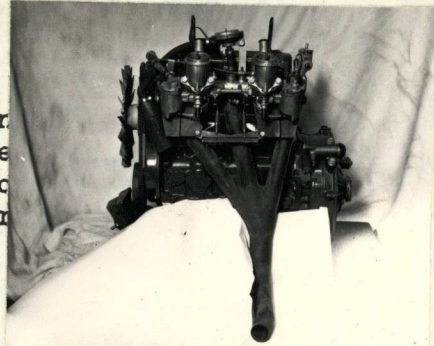
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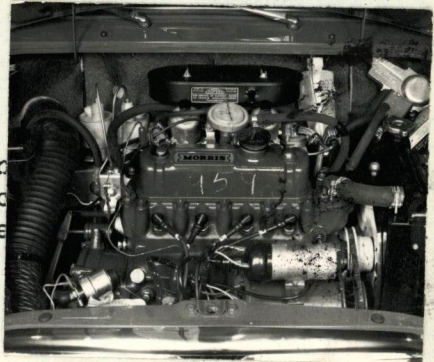
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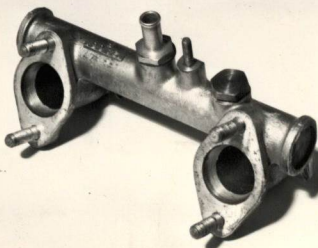
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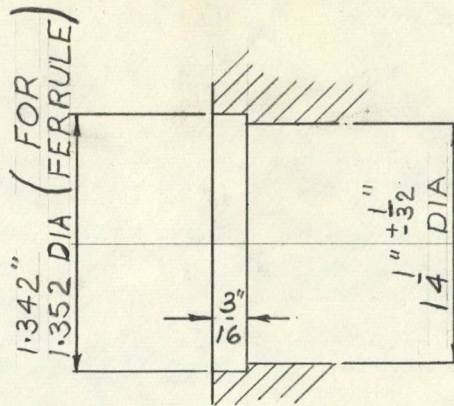


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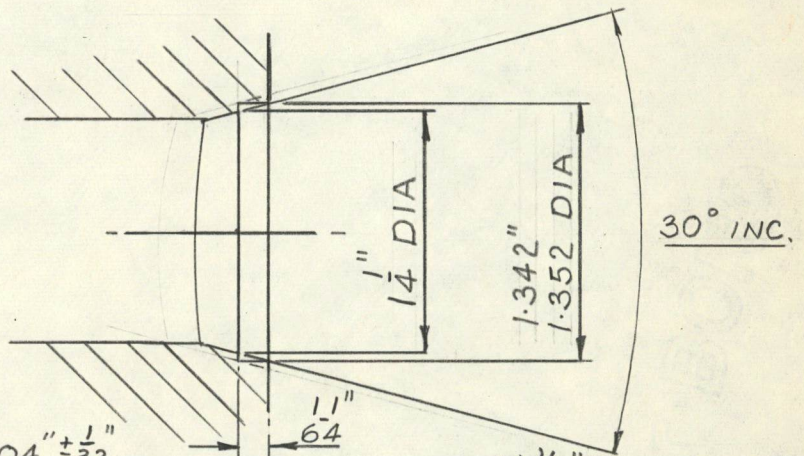


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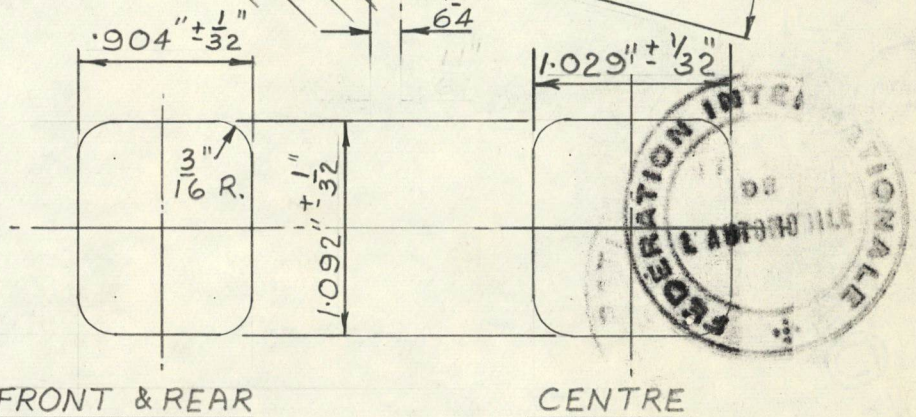
Drawing inlet manifold ports, side of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



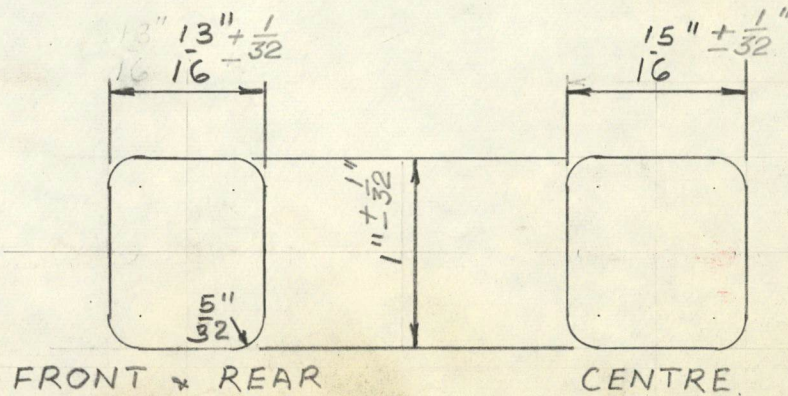
Drawing of entrance to inlet port of cylinder-head. Indicate scale or dimensions and manufacturing tolerance.



Drawing of exhaust manifold ports, side of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.



Drawing of exit to exhaust port of cylinderhead. Indicate scale or dimensions and manufacturing tolerance.

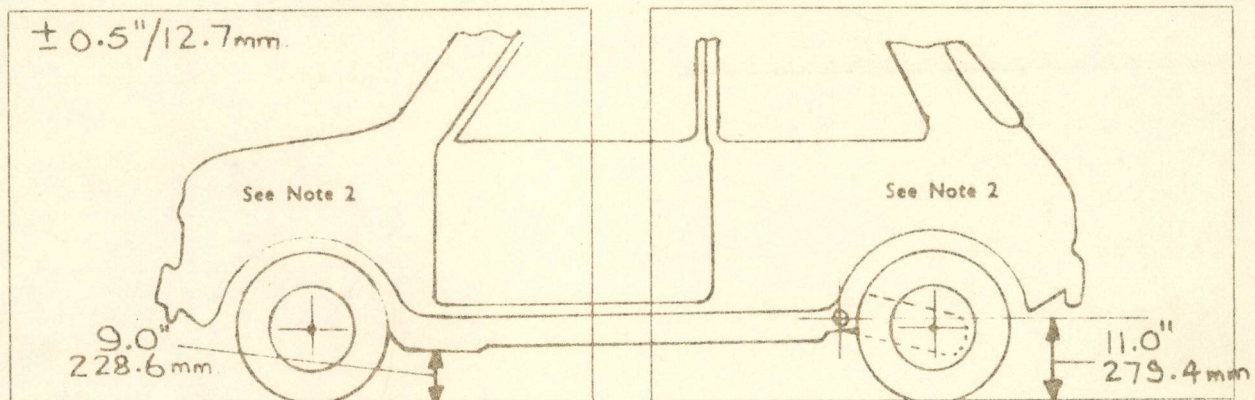


NOTE 1.

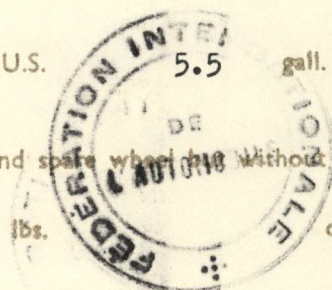
All dimensions must be given in two measuring systems, see Note 3.

CAPACITIES AND DIMENSIONS

1. Wheelbase		2036.	mm.	80.15	inches
2. Front track					
	1207.0	mm.	47.44	inches	
3. Rear track		1164.0	mm.	45.87	inches



4. Overall length of the car		305.5	cm.	120.25	inches
5. Overall width of the car		141.0	cm.	55.5	inches
6. Overall height of the car		135.0	cm.	53.0	inches
7. Capacity of fuel tank (reserve included)		25	ltrs.		
				5.5	gall. U.S.
					gall. Imp.
8. Seating Capacity.	4				
9. Weight. Total weight of the car with normal equipment, water, oil, and spare wheel and without fuel or repair tools:		635	kg.	1400.	lbs.
					cwts.



NOTE 2.

Differences in track caused by the use of other wheels with different rim widths must be stated when recognition is requested for the wheels concerned. Specify ground clearance in relation to the track and give drawing of two easily recognisable points at front and rear at which measurements are taken. These ground clearance dimensions are only for information when checking the track and can in no way affect the eligibility of the car.

NOTE 3.

CONVERSION TABLE

1 inch/pouce	—	2.54	cm.	1 quart US	—	0.9464	ltrs.
1 foot/pied	—	30.4794	cm.	1 pint (pt)	—	0.568	ltrs.
1 sq. inch/pouce carre	—	6.452	cm. ²	1 gallon Imp.	—	4.546	ltrs.
1 cubic inch/pouce cube	—	16.387	cm. ³	1 gallon US	—	3.785	ltrs.
1 pound/livre (lb)	—	453.593	gr.	1 hundred weight (cwt.)	—	50.802	kg.

Make **Austin/Morris**

Model **Mini Cooper**

F.I.A. Rec.no. **5013**

CHASSIS AND COACHWORK (Photographs A, B and C)

20. Chassis/body construction : ~~separate~~ / unitary construction

21. Unitary construction, material(s) **All steel**

SEPARATE CONSTRUCTION - MATERIALS

22. Chassis

23. Coachwork

24. Number of doors **2**

Material(s) **All steel**

25. Bonnet **Steel**

26. Boot Lid **Steel**

27. Rear Window **Safety glass**

28. Windscreen **Toughened or laminated glass**

29. Front door windows **Safety glass**

30. Rear door windows

31. Sliding system of door windows **Horizontal channels**

32. Material(s) of rear-quarter light **Safety glass**

ACCESSORIES AND UPHOLSTERY

38. Interior heating : **yes** - ~~no~~

39. Air conditioning : ~~yes~~ - **no**

40. Ventillation : **yes** - ~~no~~

41. Front seats, type of upholstery **Leather cloth**

42. Weight of front seat(s), complete with supports and rails, out of the car:

7.27 kg. **16.0** lbs. each

43. Rear seats, type of upholstery **Leather cloth**

44. Front bumper, material(s) **Steel**

Weight **2.15**

kg. **4.75** lbs.

45. Rear bumper, material(s) **Steel**

Weight **2.15**

kg. **4.75** lbs.

WHEELS

50. Type **Pressed Steel**

51. Weight (per wheel, without tyre)

3.175

kg. **6.98** lbs.

52. Method of attachment **4 stud**

53. Rim diameter

254.0

mm. **10.0** ins.

54. Rim width

88.8

mm. **3.5** ins.

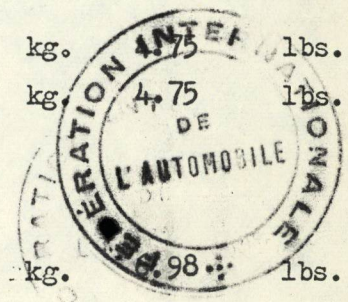
STEERING

60. Type **Rack and Pinion**

61. Servo-assistance : ~~yes~~ - **no**

62. Number of turns of steering wheel from lock to lock **2.33**

63. In case of servo-assistance.



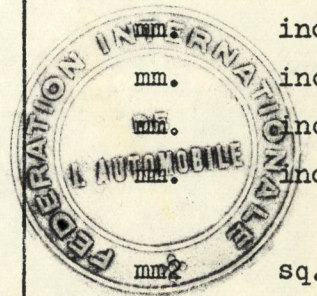
SUSPENSION

- 70. Front suspension (photograph D), type **Independent**
- 71. Type of spring **Hydrolastic displacer**
- 72. Stabiliser (if fitted)
- 73. Number of shock absorbers **2** 74. Type **Incorporated in displacer**
- 78. Rear suspension (photograph E), type **Independent**
- 79. Type of spring **Hydrolastic displacer**
- 80. Stabiliser (if fitted)
- 81. Number of shock absorbers **2** 82. Type **Incorporated in displacer**

BRAKES (photographs F and G)

- 90. Method of operation **Hydraulic**
- 91. Servo-assistance (if fitted), type
- 92. Number of hydraulic master cylinders **1**

	FRONT		REAR	
93. Number of cylinders per wheel	2		1	
94. Bore of wheel cylinder(s)	41.27 mm.	1.625 inches	15.87 mm.	0.625 inches
Drum Brakes				
95. Inside diameter	mm.	inches	77.8 mm.	7.0 inches
96. Length of brake linings	mm.	inches	71.5 mm.	6.75 inches
97. Width of brake linings	mm.	inches	31.75 mm.	1.25 inches
98. Number of shoes per brake	mm.	inches	2 mm.	inches
99. Total area per brake	mm ²	sq.in.	10887. mm ²	16.8 sq.in.
Disc Brakes				
100. Outside diameter	178.0 mm.	7.0 inches		inches
101 Thickness of disc	6.35 mm.	0.25 inches		mm. inches
102 Length of brake linings	approx 58.42 mm.	2.3 inches		mm. inches
103 Width of brake linings	approx 40.64 mm.	1.5 inches		mm. inches
104 Number of pads per brake	2			
105 Total area per brake	4452. mm ²	6.9 sq.in.		mm ² sq.in.



Make **Austin/Morris**

Model **Mini Cooper**

F.I.A. Rec.no. **5013**

ENGINE (photographs J and K)

130. Cycle **4 stroke** 131. Number of cylinders **4**
132. Cylinder Arrangement **In line**
133. Bore **64.58** mm. **2.543** in. 134. Stroke **76.2** mm. **3.0** in.
135. Capacity per cylinder **249.5** cm³ **15.24** cu.in.
136. Total cylinder capacity **998** cm³ **60.96** cu.in.
137. Material(s) of cylinder block **Cast iron**
138. Material(s) of sleeves (if fitted)
139. Cylinder head, material(s) **Cast iron** Number fitted **1**
140. Number of inlet ports **2** 141. Number of exhaust ports **3**
142. Compression ratio **9.0:1**
143. Volume of one combustion chamber ($\pm .5$) **28.29** cm³ **1.73** cu.in.
144. Piston, material **Aluminium Alloy** 145. Number of rings **4**
146. Distance from gudgeon pin centre line to highest point of piston crown
33.96/34.09 mm. **1.375/1.378** in.
147. Crankshaft : ~~moulded~~ / **Stamped** 148. Type of crankshaft : **integral/. Yes ...**
149. Number of crankshaft main bearings **3**
150. Material of bearing cap **Die cast BS 1452-14**
151. System of lubrication : ~~dry-sump~~ / **oil in sump**
152. Capacity, lubricant **5.06** ltrs. **9.0** pts. **Quarts U.S.**
153. Oil cooler : **yes** / no 154. Method of engine cooling **Pressurised water**
155. Capacity of cooling system **3.57** ltrs. **6.25** pts. **quarts U.S.**
156. Cooling fan (if fitted) dia. **26.5** cm. **10.4** in.
157. Number of blades of cooling fan **16**

Bearings

158. Crankshaft main, type **Lead Indium** Dia. **44.46** mm. **1.75** in.
159. Connecting rod, big end **Lead Indium** Dia. **41.28** mm. **1.62** in.

Weights

160. Flywheel (clean) **6.69** kg. **14.71** lbs.
161. Flywheel with clutch (all turning parts) **11.23** kg. **24.71** lbs.
162. Crankshaft **9.5** kg. **19.8** lbs. 163. Connecting rod **0.68** kg. **1.496** lbs.
164. Piston with rings and pin **0.237** kg. **0.521** lbs.



FOUR STROKE ENGINES

170. Number of camshafts **1** 171. Location **Cylinder block**
 172. Type of camshaft drive **Chain**
 173. Type of valve operation **O.H.V. pushrod**

INLET (see page 4)*

180. Material(s) of inlet manifold **Aluminium Alloy**
 181. Diameter of valves **30.86 mm. 1.218 ins.**
 182. Max. valve lift **8.1 mm. 0.318 in.** 183. Number of valve springs **2 per valve**
 184. Type of spring **Coil** 185. Number of valves per cylinder **1**
 186. Tappet clearance for checking timing (cold) **0.53 mm. 0.021 ins.**
 187. Valves open at (with tolerance for tappet clearance indicated) **16° B.T.D.C.**
 188. Valves close at (with tolerance for tappet clearance indicated) **56° A.B.D.C.**
 189. Air filter, type **Replaceable paper element**

EXHAUST (see page 4)

195. Material(s) of exhaust manifold **Pressed steel**
 196. Diameter of valves **25.4 mm. 1.0 ins.**
 197. Max. valve lift **8.1 mm. 0.318 in.** 198. Number of valve springs **2 per valve**
 199. Type of spring **Coil** 200. Number of valves per cylinder **1**
 201. Tappet clearance for checking timing (cold) **0.53 mm. 0.021 ins.**
 202. Valves open at (with tolerance for tappet clearance indicated) **51° B.B.D.C.**
 203. Valves close at (with tolerance for tappet clearance indicated) **21° A.T.D.C.**

CARBURETION (photograph N)

210. Number of carburettors fitted **2** 211. Type **Variable choke**
 212. Make **S.U.** 213. Model **HS2**
 214. Number of mixture passages per carburettor **1**
 215. Flange hole diameter of exit port(s) of carburettor **31.75 mm. 1.25 ins.**
 216. ~~Minimum diameter of venturi~~/minimum diam, with piston at maximum height **22.22 mm. 0.875 ins.**

INJECTION (if fitted)

220. Make of pump 221. Number of plungers
 222. Model or type of pump 223. Total number of injectors
 224. Location of injectors
 225. Minimum diameter of inlet pipe mm. ins.

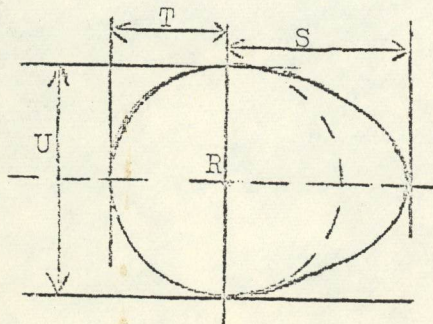
* For additional information concerning two-stroke engines and super-charged engines, see page 13.

ENGINE ACCESSORIES

- 230. Fuel pump : ~~mechanical and/or~~ electric.
- 231. No.fitted **1**
- 232. Type of ignition system **H.T. coil**
- 233. No. of distributors **1**
- 234. No. of ignition coils **1**
- 235. No. of spark plugs per cylinder **1**
- 236. Generator, number fitted **1**
- 237. Method of drive **Wedge belt**
- 238. Voltage of generator **12** volts.
- 239. Battery, number **1**
- 240. Location **Luggage compartment**
- 241. Voltage of battery **12** volts

ENGINE AND CAR PERFORMANCES (as declared by manufacturer in catalogue)

- 250. Max. engine output **55** (type of horsepower: **BHP**) at **5800** rpm
- 251. Max. rpm **6250** output at that figure **54**
- 252. Max torque **57 lbs. ft.** at **3000** rpm
- 253. Max speed of the car **km/hour** **miles/hour**



R = centre of camshaft.

Inlet cam

S =	20.56	mm.	0.809	inches
T =	13.78	mm.	0.542	inches
U =	27.66	mm.	1.089	inches

Exhaust cam

S =	20.56	mm.	0.809	inches
T =	13.78	mm.	0.542	inches
U =	27.66	mm.	1.089	inches



DRIVE TRAIN

CLUTCH

- 260. Type of clutch **Diaphragm spring**
- 261. No of plates **1**
- 262. Dia. of clutch plates **18.1 cm. 7.125 ins..**
- 263. Dia. of linings, inside **13.34 cm. 5.25 ins.**
- outside **18.1 cm. 7.125 ins.**
- 264. Method of operating clutch **Hydraulic**

GEAR BOX (photograph H)

- 270. Manual type, make **B.M.C.**
- 271. No. of gear-box ratios forward **4**
- 272. Synchronized forward ratios **3**
- 273. Location of gear-shift **Central floor lever**
- 274. Automatic, make **type**
- 275. No. of forward ratios **276. Location of gear shift**

277.	Manual		Automatic		Alternative manual / automatic			
	Ratio	No.teeth	Ratio	No.teeth	Ratio	No.teeth	Ratio	No.teeth
1	3.2	$\frac{26}{20} \times \frac{32}{13}$			2.57	$\frac{23}{22} \times \frac{32}{13}$		
2	1.916	$\frac{26}{20} \times \frac{28}{19}$			1.72	$\frac{23}{22} \times \frac{28}{17}$		
3	1.355	$\frac{26}{20} \times \frac{24}{23}$			1.25	$\frac{23}{22} \times \frac{24}{20}$		
4	1.0				1.0			
5								
6								
re-verse	3.2	$\frac{26}{20} \times \frac{18}{13} \times \frac{32}{18}$			2.57	$\frac{23}{22} \times \frac{18}{13} \times \frac{32}{18}$		

- 278. Overdrive, type
- 279. Forward gears on which overdrive can be selected
- 280. Overdrive ratio

FINAL DRIVE

- 290. Type of final drive **Helical spur gear**
- 291. Type of differential **Bevel pinion**
- 292. Type of limited slip differential (if fitted)
- 293. Final drive ratio **3.765:1**
- Number of teeth **17/64**



IMPORTANT - The conformity of the car with the following items of the present recognition form is to be disregarded during the scrutineering, when the vehicle has been entered in group 2 (Touring cars) or 3 (Grand Touring cars): 41, 72, 80, 91, 142, 143, 144, 145, 146, 153, 156, 157, 160, 161, 162, 163, 164, 182, 184, 186, 187, 188, 189, 199, 201, 202, 203, 212, 213, 215, 216, 222, 225, 230, 250, 251, 252, 253, and photographs I, M and N.

During the scrutineering of cars entered in group 4 (sportscars) only the following items of the present recognition form are to be taken into consideration: 1,2,3,9,20, 21, 22, 23, 24, 25, 26, 70, 71, 78, 79, 90, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 147, 148, 149, 150, 158, 159, 170, 171, 172, 173, 185, 200, 270, 271, 274, 275, 290, 291, 292 and photographs A, B, D, E, F, G, H, J, K and O.

The vehicle described in this form has been subject to the following amendments:

on.....19.. rec.no.....List.....on.....19.. rec.no.....List.....
on.....19.. rec.no.....List.....on.....19.. rec.no.....List.....
on.....19.. rec.no.....List.....on.....19.. rec.no.....List.....
on.....19.. rec.no.....List.....on.....19.. rec.no.....List.....
on.....19.. rec.no.....List.....on.....19.. rec.no.....List.....

Optional equipment affecting preceding information. This to be stated together with reference number.

293. Final drive ratio - 4.133:1

Number of teeth - 15/62



ADDITIONAL INFORMATION FOR CARS FITTED WITH TWO-CYCLE ENGINES

System of cylinder scavenging

Type of lubrication

Size of inlet port :

Length measured around cylinder wall mm.

Height mm. Area mm2

Size of exhaust port:

Length measured around cylinder wall mm.

Height mm. Area mm2

Size of transfer port:

Length measured around cylinder wall mm.

Height mm. Area mm2.

Size of piston port:

Length measured around piston mm.

Height mm. Area mm2

Method of pre-compression

Bore and stroke of pre-compression cylinder, if fitted mm.

Distance from top of cylinder block to lowest point of inlet port mm.

Distance from top of cylinder block to highest point of exhaust port mm.

Distance from top of cylinder block to highest point of transfer port mm.

Drawing of cylinder ports

Supercharger, if fitted

Make

Model, or Type No.

Type of Drive

Ratio of Drive

Fuel Injection, if fitted

Make of Pump

Model or Type No.

Make of injectors

Model or Type No.

Location of injectors



MOTOR SPORT DIVISION
The Royal Automobile Club,
31 Belgrave Square, London, S.W.1

Manufacturer B.M.C.
Model Mini-Cooper 998
F.I.A. Recognition No. 5013 1/ET
Amendment No. 1

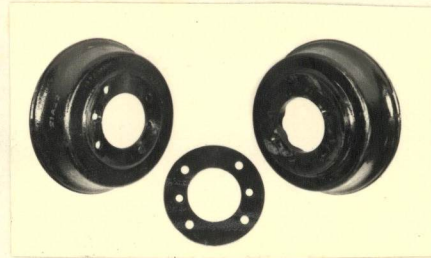
Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No. | Reference No.

EVOLUTION

1. | 3. ^{with} ~~Optional extra for~~ SP tyres distance piece (Part No. 21A/1292) fitted with rear brake drums to increase rear track from 45.97 ins to 46.87 ins.



2. | 3. From 21.2.67 (Austin Mini-Cooper chassis nos. CA257/981485 (RHD), CA257/98414 (HD) and Morris Mini-Cooper chassis nos. KA254/979618 (RHD), KA254/986469 (LHD) Mini Moke brake drums fitted on rear (Part No. 21A 1457) to increase rear track from 45.87 ins to 46.87 ins.

Date amendment is valid from

1st July 1967
with 16/4



Stamp of F.I.A./R.A.C.



MOTOR SPORT DIVISION
The Royal Automobile Club,
31 Belgrave Square, London, S.W.1

Manufacturer BMC
Model Mini Cooper
F.I.A. Recognition No. 5013/2/1V
Amendment No. 2

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No.

Variant - Group 2

Wing Extension Kit - C-AJJ 3316



Rear



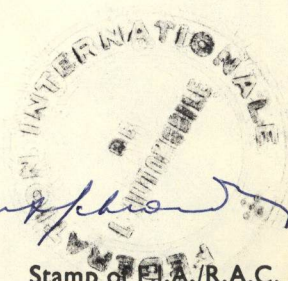
Front

Fuel tank - supplementary, Part No. 21A1317

7. Capacity - 25.0 litres/5.5 gallons

Date amendment is valid from

1st March 1968
hist 1968/4



Stamp of F.I.A./R.A.C.



MOTOR SPORT DIVISION
 The Royal Automobile Club,
 31 Belgrave Square, London, S.W.1

Manufacturer British Motor Corporation
 Model Austin/Morris Mini Cooper
 F.I.A. Recognition No. 5013
 Amendment No. 3/2E

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No.

Evolution - Group 1

Austin/Morris Mini Cooper MK II

Chassis Serial Nos:- K-A2S6 & C-A2SB

A.



B.



C.



Date amendment is valid from

1st May 1968
List 1968/6

Stamp of F.I.A./R.A.C.

Hubert [Signature]



MOTOR SPORT DIVISION
 The Royal Automobile Club,
 31 Belgrave Square, London, S.W.1

Manufacturer BMC
 Model Mini Cooper 998 cc
 F.I.A. Recognition No. 5013
 Amendment No. 4/2V

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No.

Variant - Group 2

- 1. 50. Road wheel - Steel
 Part No. C-AHT 182
- 51. 4.54 kg./10.0. lbs.
- 52. 4 studs and nuts
- 53. 254.0 mm/10.0 inches
- 54. 114.4 mm/4.5 inches
- 2. Front track - 1251 mm/49.625 inches
- 3. Rear track - 1220.8 mm/48.065 inches



} ± 6.35 mm/0.25 inches

- 2. Thermostat blanking insert - Part No. 11G176

Date amendment is valid from 1st Jan. 1969

hist 1969/1

Stamp of F.I.A./R.A.C.



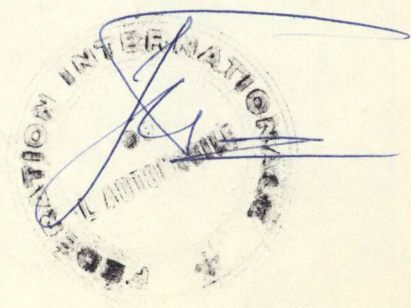
MOTOR SPORT DIVISION
 The Royal Automobile Club,
 31 Belgrave Square, London, S.W.1

Manufacturer BMC
 Model Mini Cooper 998 cc
 F.I.A. Recognition No. 5013 | 5/3E
 Amendment No. _____

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.	Reference No.
	<u>Evolution - Group 1</u>
1.	Gearbox - 4 speed synchromesh
271.	No. of forward ratios - 4
272.	Synchronised forward ratios - 4
	Introduced at Engine Nos. 9FD/Xe/H101 9FD/Xe/L 101



Date amendment is valid from 1/4/69
Liste 69/2

Stamp of F.I.A./R.A.C.



MOTOR SPORT DIVISION
The Royal Automobile Club,
31 Belgrave Square, London, S.W.1

Manufacturer BMC
Model Mini Cooper 998 cc
F.I.A. Recognition No. 5013
Amendment No. 6/4E

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.

Reference No.

Group I

Amendment

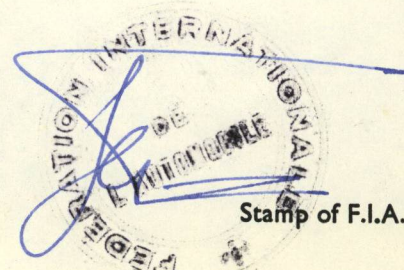
Camshaft timing Page 9

- 187. Inlet valve opens 5° BTDC
- 188. Inlet valve closes 45° ABDC
- 202. Exhaust valve opens 51° BBDC
- 203. Exhaust valve closes 21° ATDC

The figures on Page 9 of the original Form of Recognition are incorrect.

Date amendment is valid from

1st July 1969
last 1969/5



Stamp of F.I.A./R.A.C.



MOTOR SPORT DIVISION
The Royal Automobile Club,
31 Belgrave Square, London, S.W.1

Manufacturer..... British Leyland
Model..... Mini Cooper 998 cc.
F.I.A. Recognition No. 5013
Amendment No. 7/5E

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No.	Reference No.
	<u>EVOLUTION GROUP 1</u>
1.	156. Cooling Fan - Plastic Dia. 26.51 cm/10.44"
	157. No. of Blades - 11.

Date amendment is valid from.....

Stamp of F.I.A./R.A.C.