

Manufacturers Reference No. for Application



F.I.A. Recognition No.

1299

# ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

## Federation Internationale de l'Automobile.

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

Manufacturer The BRITISH MOTOR CORPORATION in association with THE COOPER CAR CO. LTD.

Model Morris/Austin Mini Cooper 'S' 1000 Year of Manufacture 1964

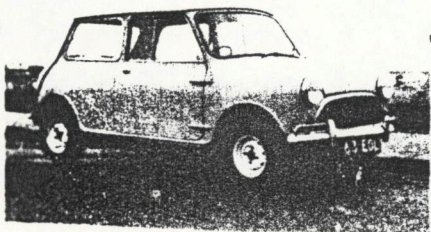
Serial No. of Chassis C/A2S7 & K/A2S4

Engine 9T/SA/X

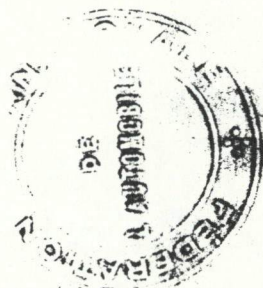
Type of Coachwork Saloon - 2 door

Recognition is valid from 11th April 1964 In category Tourisme

Photo



right



Stamp of F.I.A./R.A.C. to be  
affixed here.

Form: R.F.I.A.



Make Austin

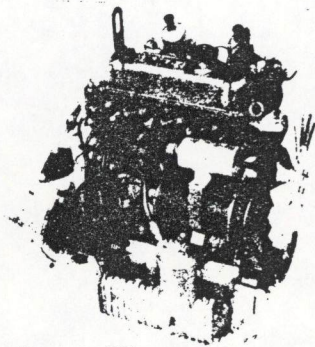
Model Cooper 'S' F.I.A. Recognition No. 1000

General description of car:

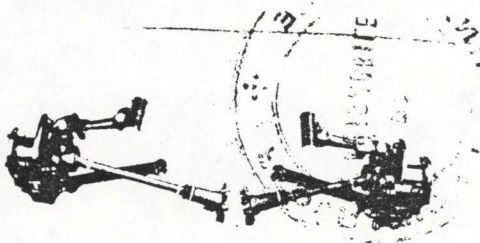
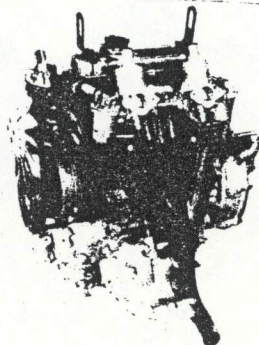
Specify here material/s of  
chassis/body construction

4 seater 2 door saloon of steel unitary  
construction powered by transverse engine  
in unit with gearbox and final drive,  
driving front wheels. Suspension - all  
independent via rubber cone springs.

Photographs to be affixed



ht.





# ENGINE

Model Cooper 35 F.I.A. Recognition No. 1000  
 in line yes Catalogued B.H.P. 68  
 in V - at R.P.M. 6500  
 opposed -

No. of cylinders 4

Cycle 4 stroke Firing order 1, 3, 4, 2

Capacity 970 c.c. Bore 70.63 m.m. Stroke 67.97 m.m.  
 Maximum rebore + 0.040" Resultant capacity 999.18 c.c.

Material of cylinder block cast iron Material of sleeves, if fitted -

Distance from crankshaft centre line to top face of block at centre line of cylinders 248.31/240.57 m.m.

Material of cylinder head cast iron/ polished finish Volume of one combustion chamber 19.4 c.c.

Compression ratio 11.0 or 10.0:1

Material of piston Aluminium alloy No. of piston rings 4

Distance from gudgeon pin centre line to highest point of piston crown 38.04 m.m.

Bearings { Crankshaft main bearings: Type Copper lead Dia. 50.82 m.m.  
 Connecting rod big end: Type Copper lead Dia. 41.3 m.m.

Weights { Flywheel 6.8 kg.  
 Crankshaft 10.8 kg.  
 Connecting rod 0.68 kg.  
 Piston with rings 0.29 kg.  
 Gudgeon pin 0.09 kg.

No. of valves per cylinder 2 Method of valve operation Pushrod & rocker  
 No. of camshafts 1 Location of camshafts Cylinder block

Type of camshaft drive Duplex chain

Diameter of valves: Inlet 35.58/35.71 m.m. Exhaust 30.84/30.96 m.m.  
 Diameter of port at valve seat: Inlet 33.22/33.73 m.m. Exhaust 28.47/28.98 m.m.

Tappet clearance for checking timing: Inlet 0.41 m.m. Exhaust 0.41 m.m.

Valves open: Inlet 50° BTDC Exhaust 75° BBDC

Valves close: Inlet 70° ABDC Exhaust 45° ATDC

Maximum valve lift: Inlet 10.01 m.m. Exhaust 10.01 m.m.

Degrees of crankshaft rotation from zero to—  
 Maximum lift: Inlet 152° Exhaust 152°  
 ¾ Maximum lift: Inlet 93° Exhaust 93°

Valve springs: Inlet - Exhaust -  
 Type Coil Coil  
 No. per valve 2 2

Carburettor: Type Semi-down draught No. fitted 2  
 (up or down draft, horizontal)

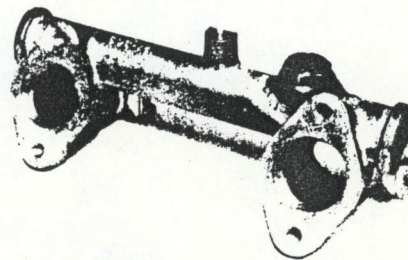
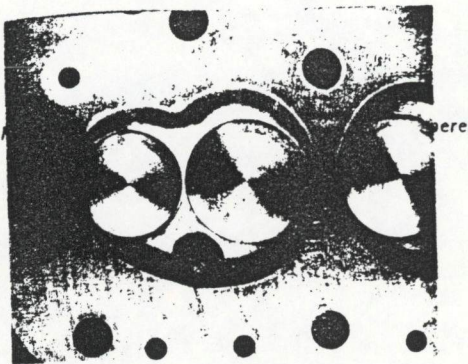
Make S.I. Model HS2 or 17  
 Flange hole diameter 31.75 m.m. Choke diameter Variable m.m.  
 Main jet identification No. 0.090"



Make Morris/Austin Model Cooper 'S' F.I.A. Recognition No. 1000

Air filter: Type Dry replaceable element No. fitted 1

Inlet manifold:  
Diameter of flange hole at carburettor 38.1 m.m.  
Diameter of flange hole at port 33.99/34.24 m.m.

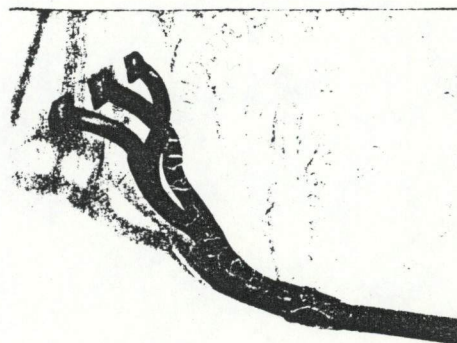


Exhaust manifold:  
Diameter of flange hole at port Outer 27.79 x 23.01 Centre 27.79 x 26.19 m.m.  
Diameter of flange hole at connection to silencer inlet pipe 42.06 m.m.

Photograph



shown here.



## ENGINE ACCESSORIES

|                              |                                    |                |                        |
|------------------------------|------------------------------------|----------------|------------------------|
| Make of fuel pump            | <u>S.U.</u>                        | No. fitted     | <u>1</u>               |
| Method of operation          | <u>Electrical</u>                  |                |                        |
| Type of ignition system      | <u>Coil</u>                        |                | <u>coil or magneto</u> |
| Make of ignition             | <u>Lucas</u>                       | Model          | <u>25D4</u>            |
| Method of advance and retard | <u>Centrifugal balance weights</u> |                |                        |
| Make of ignition coil        | <u>Lucas</u>                       | Model          | <u>HA12</u>            |
| No. of ignition coils        | <u>1</u>                           | Voltage        | <u>12</u>              |
| Make of dynamo               | <u>Lucas</u>                       | Model          | <u>G40</u>             |
| Voltage of dynamo            | <u>12</u>                          | Maximum output | <u>28</u> amps.        |
| Make of starter motor        | <u>Lucas</u>                       | Model          | <u>M35G</u>            |
| Battery: No. fitted          | <u>1</u>                           | Voltage        | <u>12</u>              |
|                              |                                    | Capacity       | <u>43</u> amp. hour    |
| Oil Cooler (if fitted) type  | <u>-</u>                           | Capacity       | <u>-</u> pints         |



Make Morris/Austin Model Cooper 'S' F.I.A. Recognition No. 1000  
 Manufacturers Reference No. of Application AD050/9/64

## TRANSMISSION

Make of clutch Borg & Beck Type Diaphragm spring  
 Diameter of clutch plate 184.0 mm No. of plates 1  
 Method of operating clutch Hydraulic  
 Make of gearbox B.G. Type Synchro 2nd, 3rd, top  
 No. of gearbox ratios 4 forward 1 reverse  
 Method of operating gearshift manual  
 Location of gearshift central between front seats  
 Is overdrive fitted? no  
 Method of controlling overdrive, if fitted -

|     | GEARBOX RATIOS |                                                           | ALTERNATIVE RATIOS |                                                           |        |                                                           |        |                                                           |
|-----|----------------|-----------------------------------------------------------|--------------------|-----------------------------------------------------------|--------|-----------------------------------------------------------|--------|-----------------------------------------------------------|
|     | Ratio          | No. of Teeth                                              | Ratio              | No. of Teeth                                              | Ratio  | No. of Teeth                                              | Ratio  | No. of Teeth                                              |
| 1.  | 3.2:1          | $\frac{26}{20} \times \frac{32}{13}$                      | 3.07:1             | $\frac{25}{20} \times \frac{32}{13}$                      | 2.56:1 | $\frac{24}{23} \times \frac{32}{13}$                      | 2.57:1 | $\frac{23}{22} \times \frac{32}{13}$                      |
| 2.  | 1.916:1        | $\frac{26}{20} \times \frac{28}{19}$                      | 1.875:1            | $\frac{25}{20} \times \frac{27}{18}$                      | 1.78:1 | $\frac{24}{23} \times \frac{29}{17}$                      | 1.72:1 | $\frac{23}{22} \times \frac{28}{17}$                      |
| 3.  | 1.357:1        | $\frac{26}{20} \times \frac{24}{23}$                      | 1.307:1            | $\frac{25}{20} \times \frac{23}{22}$                      | 1.24:1 | $\frac{24}{23} \times \frac{25}{21}$                      | 1.25:1 | $\frac{23}{22} \times \frac{24}{20}$                      |
| 4.  | 1.0:1          |                                                           | 1.0:1              |                                                           | 1.0:1  |                                                           | 1.0:1  |                                                           |
| AR. | 3.2:1          | $\frac{26}{20} \times \frac{18}{13} \times \frac{32}{18}$ | 3.07:1             | $\frac{25}{20} \times \frac{18}{13} \times \frac{32}{18}$ | 2.56:1 | $\frac{24}{23} \times \frac{18}{13} \times \frac{32}{18}$ | 2.57:1 | $\frac{23}{22} \times \frac{18}{13} \times \frac{32}{18}$ |

Type of final drive Helical spur gear  
 Type of differential Bevel pinion  
 Final drive ratio 3.765:1 Alternatives 3.938:1, 4.133:1, 4.26:1, 4.35, 4.7  
 No. of teeth 11/64 16/63, 15/62, 15/64, 15/65, 67/14  
 Overdrive ratio, if fitted -

## WHEELS

Type Disc Weight 3.52 or 4.65 kg.  
 Method of attachment 4 studs and nuts  
 Rim diameter 254.0 m.m. Rim width 114.3 m.m.  
 Tyre size: Front 145 x 10 Rear 145 x 10

## BRAKES

Method of operation Hydraulic  
 Is servo assistance fitted? yes  
 Type of servo vacuum  
 No. of hydraulic master cylinders 30re



Make Morris/Austin Model Cooper 'S' F.I.A. Recognition No. 1000

|                                                                                                                           | Front             | Rear              |
|---------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|
| No. of wheel cylinders                                                                                                    | <u>4</u>          | <u>2</u>          |
| Bore of wheel cylinders                                                                                                   | <u>44.45</u> m.m. | <u>15.88</u> m.m. |
| Inside diameter of brake drums                                                                                            | <u>-</u> m.m.     | <u>177.8</u> m.m. |
| No. of shoes per brake                                                                                                    | <u>-</u>          | <u>2</u>          |
| Outside diameter of brake discs                                                                                           | <u>190.5</u> m.m. | <u>-</u> m.m.     |
| No. of pads per brake                                                                                                     | <u>2</u>          | <u>-</u>          |
| Dimensions of brake linings per shoe or pad (if all shoes or pads in each brake are not of same dimensions, specify each) |                   |                   |

|                      | Front                         | Rear                           |
|----------------------|-------------------------------|--------------------------------|
| Length               | <u>69.4</u> m.m.              | <u>171.45</u> m.m.             |
|                      | <u>-</u> m.m.                 | <u>-</u> m.m.                  |
| Width                | <u>45.5</u> m.m.              | <u>31.75</u> m.m.              |
| Total area per brake | <u>5575</u> m.m. <sup>2</sup> | <u>10887</u> m.m. <sup>2</sup> |

#### SUSPENSION

|                        | Front                      | Rear                |
|------------------------|----------------------------|---------------------|
| Type                   | <u>Transverse wishbone</u> | <u>Trailing arm</u> |
| Type of spring         | <u>Rubber cone</u>         | <u>Rubber cone</u>  |
| Is stabiliser fitted?  | <u>No</u>                  | <u>No</u>           |
| Type of shock absorber | <u>Telescopic</u>          | <u>Telescopic</u>   |
| No. of shock absorbers | <u>2</u>                   | <u>2</u>            |

#### STEERING

Type of steering gear Rack and pinion

Turning circle of car 9.45 m., approx.

No. of turns of steering wheel from lock to lock 2 1/2

#### CAPACITIES AND DIMENSIONS

Fuel tank 25 or 50 litres Sump 4.5 litres

Radiator 3.5 litres

Overall length of car 209.0 cm. Overall width of car 141.0 cm.

Overall height of car, unladen (with hood up, if appropriate) 134.6 cm.

Distance from floor to top of windscreen:

Highest point 105.0 cm. Lowest point 102.0 cm.

Width of windscreen:

Maximum width 112.0 cm. Minimum width 105.0 cm.

\*Interior width of car 116.8 cm.

No. of seats 4

Track Front 120.7 or 121.1 cm. Rear 111.6 or 121.3 ± .5 cm.

Wheelbase 111.2 cm. Ground clearance 101.0 m.m.

\* (To be measured at the immediate rear of the steering wheel, and the width quoted to be maintained in a vertical plane of not less than 25 cms.)

Overall weight with water, oil and spare wheel, but without fuel 675 kgs.



Optional equipment affecting preceding information:—

Oil cooler - ARA 167

Fuel tank - 21A1468

Sump guard - 2A1340

Fresh air heater

Export radiator

Export fan - 2A997

Timing Equipment:-

Crankshaft

I.O.  $5^{\circ}$  BTDC Ex. O.  $51^{\circ}$  ABDC

I.C.  $45^{\circ}$  ABDC Ex. S.  $27^{\circ}$  ATDC

Maximum valve lift - 3.08 mm.

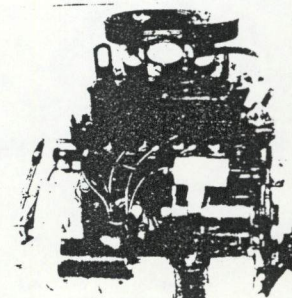
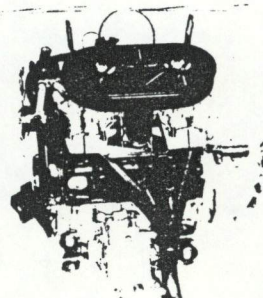
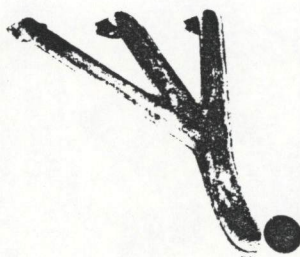
Degrees crankshaft rotation from zero to:-

Max. lift - Inlet  $110^{\circ}$  ATDC  
Exhaust  $105^{\circ}$  BTDC

$\frac{3}{4}$  max. lift - Inlet  $62\frac{1}{2}^{\circ}$  ATDC  
Exhaust  $157^{\circ}$   $36^{\circ}$  BTDC

Exhaust manifold - Part No. 12A271

Closed Circuit Breathing System





# ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

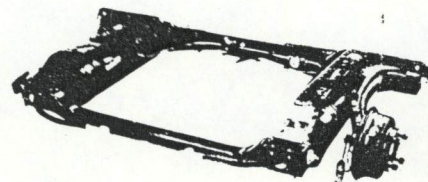
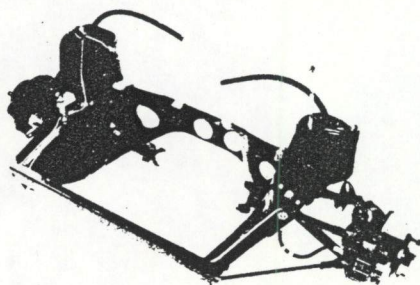
## Federation Internationale de l'Automobile.

Amendment to Form of Recognition

Manufacturer... The British Motor Corporation in association with The Cooper Car Company

Model... Morris/Austin Mini Cooper "S" 1000

### Introduction of Hydrolastic Suspension



#### Suspension

#### Front

#### Rear

##### Type

Transverse wishbone

Trailing arm

##### Type of spring

Hydrolastic Displacer

Hydrolastic Displacer

##### Is stabilizer fitted?

No

No

##### Type of shock absorber

Incorporated in Displacer

Incorporated in Displacer



Date amendment is valid from

16 Nov. 1964  
Form: R.F.I.B.



ADO. 50/9/64



F.I.A. Recognition No.

1299

11/ET

# ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

## Federation Internationale de l'Automobile.

Amendment to Form of Recognition

Manufacturer The British Motor Corporation in association with The Cooper Car Company

Model Morris/Austin Mini Cooper "S" 1000

Optional Extra - Page 8.

Oil Cooler - ARO.9809

Capacity 0.53 pints

Closed-Circuit Breathing System

Introduced intermittently to suit North American market requirements.

See  
Photographs

Page 3

Carburettor - details omitted from original Form of Recognition

Make S.U. Model HS2 or H4

Flange Hole diam. 31.74 or 38.0mm Choke diam. Variable

Capacities and Dimensions - explanation.

Fuel tank 25 or 50 litres with supplementary 25 litre tank fitted.

Stamp of F.I.A./R.A.C. to be  
affixed here.

Date amendment is valid from

16 Nov. 1964

Form: R.F.I.B.



Manufacturers Reference No. for Application

ALO 50/8/64.



F.I.A. Recognition No. 1299 2/ET

# ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

## Federation Internationale de l'Automobile.

*Amendment to Form of Recognition*

Manufacturer The British Motor Corporation in association with

Model Morris/Austin Mini Cooper "S"1000

The Cooper Car Co. Ltd

Add to optional equipment

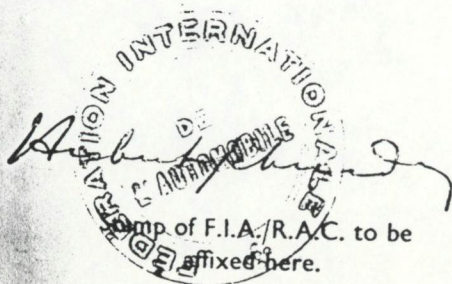
High Traction Differential

Steel Flywheel

Part No. C/AJJ 3303

Part No. AEG 421.

Weight 5.03 kg.



Date amendment is valid from 1st April 1965.

Form: R.F.I.B.



Manufacturers Reference No. for Application

ADO 50/9/64



F.I.A. Recognition No. 1299

13/6

# ROYAL AUTOMOBILE CLUB

PALL MALL, LONDON, S.W.1.

## Federation Internationale de l'Automobile.

Amendment to Form of Recognition

Manufacturer The British Motor Corporation in association with The Cooper Car Co. Ltd.

Model Morris/Austin Mini Cooper "S" 1000

### Optional Extra:-

Cooling Fan - 6 blade - 2A.998



Stamp of F.I.A./R.A.C. to be affixed here.

Date amendment is valid from

24 June 1965

Form: R.F.I.B.





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

Manufacturer B.M.C.  
Model Mini Cooper 'S' 1000.  
Amendment No. 1  
F.I.A. Recognition No. 1299

Amendment to Form of Recognition

FEDERATION INTERNATIONALE DE L'AUTOMOBILE

No. Reference No.

OPTIONAL EQUIPMENT

1. Sump guard C-AJJ.3320  
21A.1675  
""A.437

*Handwritten signature*  
Stamp of F.I.A./R.A.C. to be affixed here

Date amendment is valid from 1st May, 1966