

Manufacturers Reference No. for Application

ADO 50S/63



F.I.A. Recognition No. 1201

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 Type Year of Manufacture 1963

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

Engine 9F/SA/H

Type of Coachwork Saloon - 2 door

Recognition is valid from 9/5/63 In category Touring

Photo



not right.



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

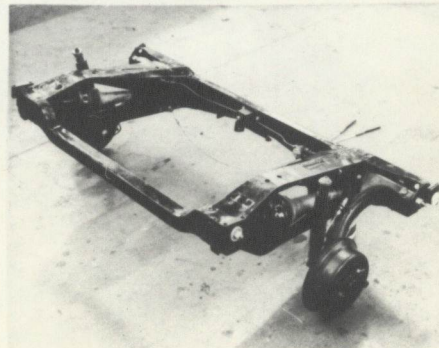
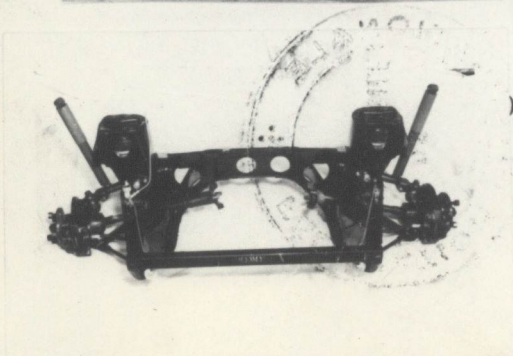
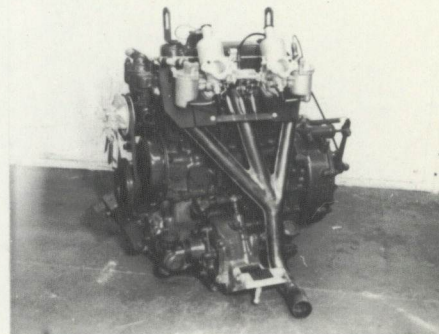
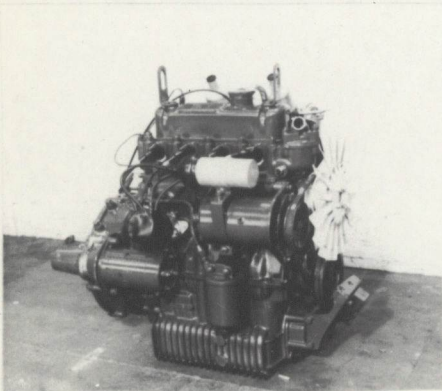
Form: R.F.I.A.

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



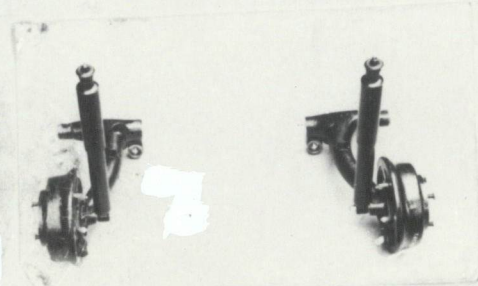
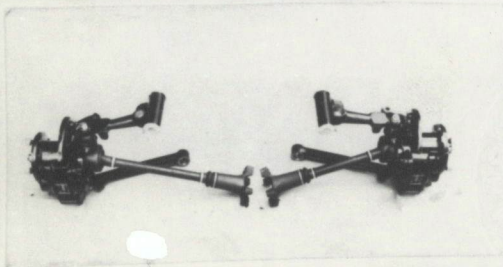
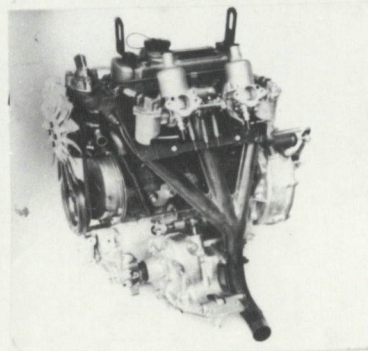
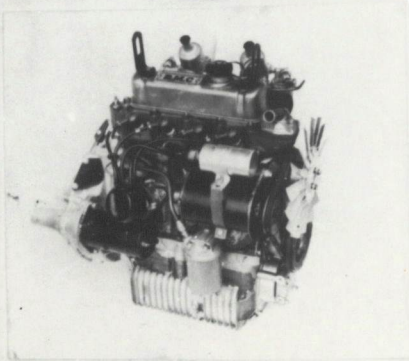
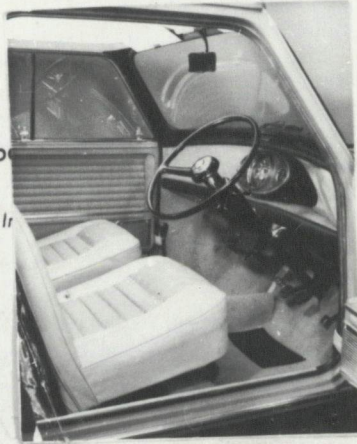
General description of car:

Specify here material/s of chassis/body construction

4 seater 2 door saloon of steel unitary construction. Transverse engine, with unit gearbox and final drive mounted forward and driving front wheels. Suspension - Independent all round via rubber cone springs.



hs to be affixed b

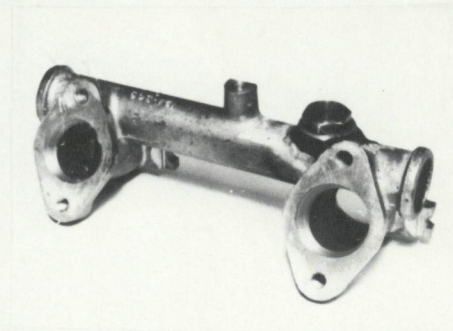
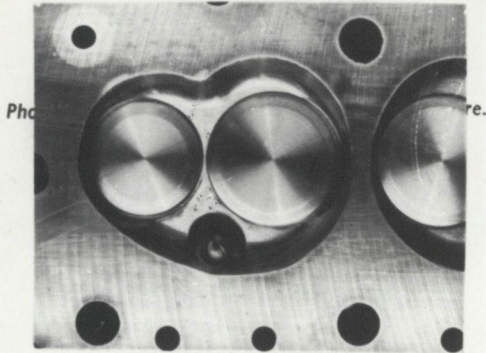


ENGINE

in line Yes
 No. of cylinders 4 in V _____
 opposed _____
 Cycle 4 stroke Firing order 1,3,4,2
 Capacity 1071 c.c. Bore 70.64 m.m. Stroke 68.26 m.m.
 Maximum rebore 1.2mm Resultant capacity 1101.8 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 218.31/218.57 m.m.
 Material of cylinder head Cast Iron / polished finish Volume of one combustion chamber 21.4 c.c.
 Compression ratio 11.0:1 or 9.0:1 or concave _____
 Material of piston Aluminium alloy/flat top No. of piston rings 3
 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. 41.30 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 Push rod & rocker
 No. of camshafts 1 Location of camshafts Cylinder block
 Type of camshaft drive Chain
 Diameter of valves: Inlet 35.58/35.71 m.m. Exhaust 30.84/30.96 m.m.
 Diameter of port - blended & polished at valve seat: Inlet 33.22/33.73 m.m. Exhaust 28.47/28.98 m.m.
 Tappet clearance for checking timing: Inlet 0.305 m.m. Exhaust 0.305 m.m.
 Valves open: Inlet 5° BTDC Exhaust 51° BBDC
 Valves close: Inlet 45° ABDC Exhaust 21° ATDC
 Maximum valve lift: Inlet 8.08 m.m. Exhaust 8.08 m.m.
 Degrees of crankshaft rotation from zero to—
 Maximum lift: Inlet 110° ATDC Exhaust 105° BTDC
 $\frac{3}{4}$ Maximum lift: Inlet 62 $\frac{1}{2}$ ° ATDC Exhaust 157° 36' BTDC
 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.U. Model HS2
 Flange hole diameter 31.75 m.m. Choke diameter Variable m.m.
 Main jet identification No. 0.090"

Air filter: Type Pancake No. fitted 2

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

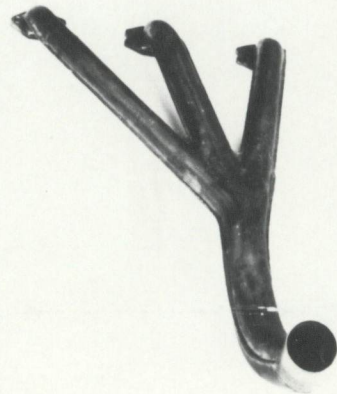


Exhaust manifold:

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 11.0:1 9.0:1 m.m.



Photo



ENGINE ACCESSORIES

Make of fuel pump S.U. No. fitted 1
Method of operation Electrical
Type of ignition system Coil coil or magneto
Make of ignition Lucas Model 25D4
Method of advance and retard Centrifugal balance weights
Make of ignition coil Lucas Model HA12
No. of ignition coils 1 Voltage 12
Make of dynamo Lucas Model C.40
Voltage of dynamo 12 Maximum output 19 amps.
Make of starter motor Lucas Model M35G
Battery: No. fitted 1 Voltage 12 Capacity 43 amp. hour
Oil Cooler (if fitted) type _____ Capacity _____ pints

Make Austin/Morris Mini ^{Cooper} Model S F.I.A. Recognition No.

Manufacturers Reference No. of Application ADO50S/63

TRANSMISSION

Make of clutch BMC Type Dry Plate
 Diameter of clutch plate 181.0mm No. of plates 1
 Method of operating clutch Hydraulic
 Make of gearbox BMC Type Synchromesh
 No. of gearbox ratios 4 forward 1 reverse
 Method of operating gearshift Manual (remote control)
 Location of gearshift Through floor just forward of seat
 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	$\frac{26}{20} \times \frac{32}{13}$	2.567:	$\frac{24}{23} \times \frac{32}{13}$				
2.	1.916:	$\frac{26}{20} \times \frac{28}{19}$	1.78:1	$\frac{24}{23} \times \frac{29}{17}$				
3.	1.357:	$\frac{26}{20} \times \frac{24}{23}$	1.242:	$\frac{24}{23} \times \frac{25}{21}$				
4.	1.0:1		1.0:1					
5.								

Type of final drive Helical spur gear
 Type of differential Bevel gears
 Final drive ratio 3.765:1 Alternatives 3.44:1, 4.133:1
 No. of teeth 17/64 18/62, 15/62
 Overdrive ratio, if fitted

WHEELS

Type Disc Weight 3.52 or 4.65 kg.
 Method of attachment 4 studs & nuts
 Rim diameter 254 m.m. Rim width 88.9 or 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, if fitted Diaphragm servo
 No. of hydraulic master cylinders 1 Bore 15.875 m.m.

	Front		Rear
No. of wheel cylinders	4		4
Bore of wheel cylinders	44.45	m.m.	15.88
Inside diameter of brake drums		m.m.	177.8
No. of shoes per brake			2
Outside diameter of brake discs	190.5	m.m.	
No. of pads per brake	2		
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	69.4	m.m.	171.45
		m.m.	
Width	45.5	m.m.	31.75
Total area per brake	5575	m.m. ²	10887
			m.m. ²

SUSPENSION

	Front		Rear
Type	Transverse wishbone		Trailing arm
Type of spring	Rubber cone		Rubber cone
Is stabiliser fitted?	No		No
Type of shock absorber	Telescopic		Telescopic
No. of shock absorbers	2		2

STEERING

Type of steering gear Rack & pinion

Turning circle of car 9.45 m., approx.

No. of turns of steering wheel from lock to lock 2 $\frac{1}{3}$

CAPACITIES AND DIMENSIONS

Fuel tank 25 or 50 litres Sump 4.5 litres

Radiator 3.5 litres

Overall length of car 305.5 cm. Overall width of car 141 cm.

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

Distance from floor to top of windscreen:

Highest point 105 cm. Lowest point 102 cm.

Width of windscreen:

Maximum width 112 cm. Minimum width 105 cm.

*Interior width of car 116.8 cm.

No. of seats 4

Track: Front 120.73 or 123.27 +0.32 m. Rear 117.63 or 120.17 +0.32 cm.

Wheelbase 203.5 cm. Ground clearance 162 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 588 kgs.

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.....m.m.

Height.....m.m. Area.....m.m.²

Size of exhaust port:

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.²

Size of transfer port:

Length measured around cylinder wall.....m.m.

Height.....m.m. Area.....m.m.²

Size of piston port:

Length measured around piston.....m.m.

Height.....m.m. Area.....m.m.²

Method of pre-compression.....

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

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

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

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

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.....

Optional equipment affecting preceding information:—

- 21A.1317 - Additional fuel tank - $5\frac{1}{2}$ gallons (25 litres) - Total 50 litres.
- ARA.167 - Oil cooler
- 21A.1340 - Sump guard
- 2A.997 - Export fan
- Export radiator
- Twin fuel pumps
- Touring equipment
- Exhaust manifold - AEG.228



5.9.63

Engine No: 9F/SA/H-19903. Clutch modification, Borg & Beck D.S. Type, dry plate; Diameter of clutch plate 165 mm.; Number of plates, one; method of operating clutch, hydraulic. Alternative overall gear ratio of 4-786 to 1.

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F.I.A. Recognition No. 1201 B

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Amendment to Form of Recognition

Manufacturer THE BRITISH MOTOR CORPORATION in association with

Model MORRIS/AUSTIN MINI COOPER 'S' TYPE THE COOPER CAR CO. LTD

Add to optional equipment

Carburettor SU H4



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

Date amendment is valid from 4th November 1963

Form: R.F.I.B.

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F.I.A. Recognition No.

1201

/c/v

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THE COOPER CAR CO. LTD.

Model MORRIS/AUSTIN MINI COOPER 'S' TYPE

Amendment. CAMSHAFT. Page 3.

Valves open	Inlet 50° B.T.D.C.
	Exhaust 75° B.T.D.C.
Valves close	Inlet 70° A.T.D.C.
	Exhaust 45° A.T.D.C.
Minimum valve lift	Inlet 10 m.m.
	Exhaust 10 m.m.
Tappet clearance for checking timing	Inlet .381 m.m.
	Exhaust .381 m.m.



Subsignature

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

13 JANV 1964

Date amendment is valid from

Form: R.F.I.B.