

Manufacturers Reference No. for Application

ADO50T/61



F.I.A. Recognition No.

1095

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 Ltd.

Model Austin 7 Cooper/Morris Mini Cooper Year of Manufacture 1961

Chassis G/A2S7 & K/A2S4

Serial No. of

Engine 5R/3A/H

Type of Coachwork 2 door saloon

Recognition is valid from

16 JAN 1962

In category

Touring



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

Form: R.F.I.A.

General description of car:



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 below.



ENGINE

In line Yes
 No. of cylinders 4 in V -
 opposed -
 Cycle 4 stroke Firing order 1,3,4,2
 Capacity 997 c.c. Bore 62.43 m.m. Stroke 81.3 m.m.
 Maximum rebore 0.040" Resultant capacity 1029 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 218.4 m.m.
 Material of cylinder head Cast Iron Volume of one combustion chamber 23.2 c.c.
 Compression ratio 9.0:1
 Material of piston Aluminium alloy No. of piston rings 4
 Distance from gudgeon pin centre line to highest point of piston crown 31.54 m.m.
 Bearings { Crankshaft main bearings: Type Copper lead Dia. 44.47 m.m.
 Connecting rod big end: Type Copper lead Dia. 40.89 m.m.
 Weights { Flywheel 6.7 kg.
 Crankshaft 10.43 kg.
 Connecting rod .695 kg.
 Piston with rings .202 kg.
 Gudgeon pin .054 kg.
 No. of valves per cylinder 2 Method of valve operation Push rod & rockers
 No. of camshafts One Location of camshafts Crankcase
 Type of camshaft drive Roller chain
 Diameter of valves: Inlet 29.37 m.m. Exhaust 25.4 m.m.
 Diameter of port at valve seat: Inlet 27.127 m.m. Exhaust 23.09 m.m.
 Tappet clearance for checking timing: Inlet 0.38 m.m. Exhaust 0.38 m.m.
 Valves open: Inlet 24° BTDC Exhaust 59° BTDC
 Valves close: Inlet 64° ABDC Exhaust 29° ATDC
 Maximum valve lift: Inlet 8.128 m.m. Exhaust 8.128 m.m.
 Degrees of crankshaft rotation from zero to—
 Maximum lift: Inlet 150° Exhaust 150°
 ½ Maximum lift: Inlet 92° Exhaust 92°
 Valve springs: Inlet Type Coil Exhaust Type Coil
 No. per valve Two Two
 Carburettor: Type Semi down draught No. fitted 2
 (up or down draft, horizontal)
 Make SU Model HS2 or alternative H4
 Flange hole diameter 31.75 m.m. Choke diameter 31.75 m.m.
 Main jet identification No. 0.050" - standard needle G2

Make Austin/Morris Model Cooper F.I.A. Recognition No. _____

Manufacturers Reference No. of Application ADO50T/61

TRANSMISSION

Make of clutch B.M.C. Type Dry plate
 Diameter of clutch plate 161mm No. of plates One
 Method of operating clutch Hydraulic, to toggle lever, to direct ball thrust.
 Make of gearbox B.M.C. Type Synchromesh 2nd, 3rd, top
 No. of gearbox ratios 4 forward, 1 reverse
 Method of operating gearshift 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	$\frac{26}{20} \times \frac{32}{13}$	3.627:1	$\frac{28}{19} \times \frac{32}{13}$				
2.	1.916:1	$\frac{26}{20} \times \frac{28}{19}$	2.172:1	$\frac{26}{19} \times \frac{28}{19}$				
3.	1.355:1	$\frac{26}{20} \times \frac{24}{23}$	1.412:1	$\frac{26}{19} \times \frac{23}{24}$				
4.	1:1	Direct	1:1	Direct				
5.	3.2:1	$\frac{26 \times 18 \times 32}{20 \times 13 \times 18}$	3.627:1	$\frac{28 \times 18 \times 32}{19 \times 13 \times 18}$				

Type of final drive Single Helical spur gear
 Type of differential Bevel pinion
 Final drive ratio 3.765/1 Alternatives 3.444/1, 4.26/1, 4.786 4.133-1
 No. of teeth 17-64 18-62, 15-64, 67/14 (22074 + 220105)
 Overdrive ratio, if fitted _____

WHEELS

Type Disc, with safety ledge rim Weight 3.175 kg.
 Method of attachment 4 stud
 Rim diameter 254 m.m. Rim width 88.8 m.m.
 Tyre size: Front 5.20 x 10 Rear 5.20 x 10

BRAKES

Method of operation Hydraulic
 Is servo assistance fitted? Intensifier, operating on front brakes only
 Type of servo, if fitted Intensifier, Lockheed hydraulic
 No. of hydraulic master cylinders One Bore 19.05 m.m.

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 _____

Air filter: Type Pancake type No. fitted 2
 Inlet manifold:
 Diameter of flange hole at carburettor 38.1 m.m.
 Diameter of flange hole at port 33.4 m.m.



Exhaust manifold:

Diameter of flange hole at port 2 outer 23.07x27.7 centre 26.1x27.7 m.m.
 Diameter of flange hole at connection to silencer inlet pipe 42.06 m.m.

Photo



here.

Photo



here.

ENGINE ACCESSORIES

Make of fuel pump SU No. fitted one
 Method of operation Electrical
 Type of ignition system Coil & distributor coil or magneto
 Make of ignition Lucas Model D12
 Method of advance and retard Centrifugal & vacuum
 Make of ignition coil Lucas Model 11A12
 No. of ignition coils One Voltage 12
 Make of dynamo Lucas Model G40
 Voltage of dynamo 12 Maximum output 22 amps.
 Make of starter motor Lucas Model 335
 Battery: No. fitted One Voltage 12 Capacity 43 amp. hour
 Oil Cooler (if fitted) type - Capacity - pints

Optional equipment affecting preceding information:—

Twin fuel tanks, total capacity - 45 litres

Sump guard - ADO 34/64

Oil cooler - DEV 2769

Recirculatory or fresh air heater

Radio

Touring camshaft - Timing - I.O. 16° BTDC I.C. 56° ATDC
EX.O. 51° BTDC EX.C. 21° ATDC

Max. lift - 7.94mm.

Twin fuel pumps

Export radiator

Single valve springs