

ENGINE TUNING DATA

Model: MINI-COOPER (998 c.c.)

Year: 1964-69

ENGINE

Type	..	..	..	..	..	..	..	9FA.	
Capacity	..	..	..	..	..	..	..	998 c.c. (60.96 cu. in.).	
Compression ratio:	High compression							9 : 1.	
	Low compression							7.8 : 1.	
Firing order	..	..	..	..	..	..	..	1, 3, 4, 2.	
Compression pressure:	High compression							165 lb./sq. in. (11.6 kg./cm. ²).	
	Low compression							150 lb./sq. in. (10.5 kg./cm. ²).	
Idling speed	..	..	..	..	..	..	..	500 r.p.m.	
Fast idle speed	..	..	..	..	..	..	..	900 r.p.m.	
Ignition timing:								<i>High compression</i>	<i>Low compression</i>
Static	..	..	..	..	..	..	..	5° B.T.D.C.	5° B.T.D.C.
								(91 to 96 octane fuel).	
*Stroboscopic at 600 r.p.m.	..	..	..	..	..	..	..	7° B.T.D.C.	7° B.T.D.C.
Timing marks	..	..	..	..	..	..	..	Dimples on timing wheels, marks on flywheel.	
Valve rocker clearance (cold)	..	..	..	..	..	..	..	.012 in. (.305 mm.).	

* Crankshaft degrees and r.p.m.

DISTRIBUTOR

Make/type	..	..	..	..	..	..	..	Lucas 24D4.	
Rotation of rotor	..	..	..	..	..	..	..	Anti-clockwise.	
Dwell angle	..	..	..	..	..	..	..	60° ± 3°.	
Contact breaker gap	..	..	..	..	..	..	..	.014 to .016 in. (.35 to .40 mm.).	
Condenser capacity	..	..	..	..	..	..	..	.18 to .24 mF.	
Serial No.	..	..	..	..	..	..	..	40955, 41032.	40958, 41031.
Centrifugal advance								<i>High compression</i>	<i>Low compression</i>
Decelerating check*†	..	..	..	..	..	..	..	30° to 34° at 6,000 r.p.m.	28° to 32° at 5,500 r.p.m.
								28° to 32° at 5,400 r.p.m.	26° to 30° at 4,400 r.p.m.
								24° to 28° at 4,200 r.p.m.	22° to 26° at 2,200 r.p.m.
								18° to 22° at 2,300 r.p.m.	16° to 20° at 1,800 r.p.m.
								12° to 16° at 1,800 r.p.m.	3° to 9° at 1,000 r.p.m.
								1° to 5° at 800 r.p.m.	0° to 3° at 600 r.p.m.
No advance below	..	..	..	..	..	..	..	300 r.p.m.	400 r.p.m.
Vacuum advance									
Starts	..	..	..	..	..	..	..	3 in. (7.62 cm.) Hg.	3 in. (7.62 cm.) Hg.
Finishes†	..	..	..	..	..	..	..	14° at 8 in. (20.32 cm.) Hg.	16° at 7 in. (17.7 cm.) Hg.

* Vacuum pipe disconnected.

† Crankshaft degrees and r.p.m.

SPARKING PLUGS

Make	..	..	..	..	..	..	..	Champion.	
Type	..	..	..	..	..	..	..	N5.	
Gap	..	..	..	..	..	..	..	.025 in. (.625 mm.).	

IGNITION COIL

Make/type	..	..	..	..	..	..	..	Lucas HA12.	
Primary resistance at 20° C. (68° F.)	..	..	..	..	..	..	..	3.0 to 3.4 ohms. (cold).	
Consumption—ignition on	..	..	..	..	..	..	..	3.9 amps.	

CARBURETTORS

Make/type	..	..	..	..	..	..	..	Twin S.U. Type HS2.	
Piston spring	..	..	..	..	..	..	..	Blue.	
Jet size	..	..	..	..	..	..	..	.090 in. (2.29 mm.).	
Needle: Standard	..	..	..	..	..	..	..	GY.	
Rich	..	..	..	..	..	..	..	M.	
Weak	..	..	..	..	..	..	..	GG.	