

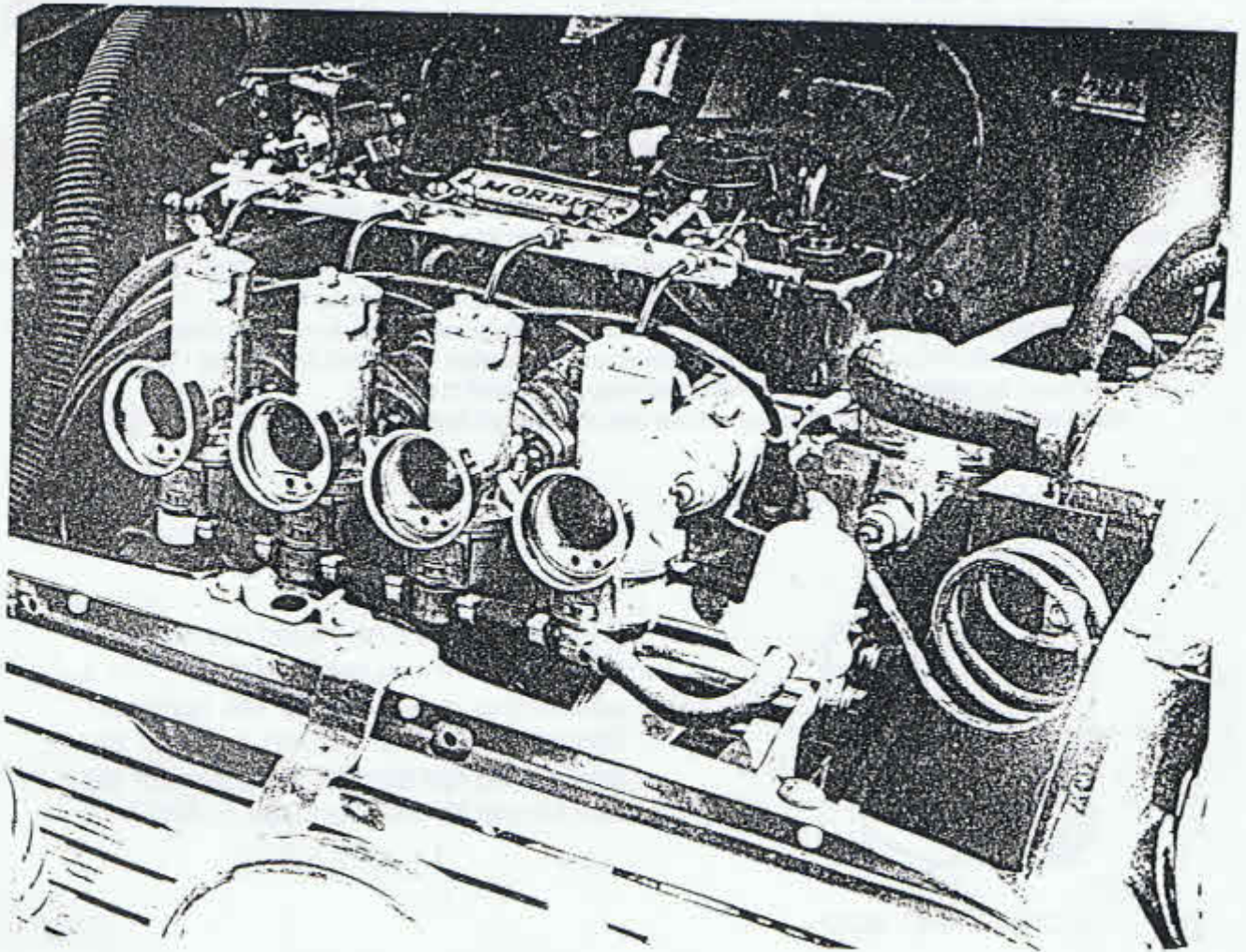


BLMC SPECIAL TUNING

NEWS

for the

1275GT and COOPER S



FITTING INSTRUCTIONS

Assemble cylinder head. Grind in and fit valves. Check cubic capacity of combustion chambers. If the chambers are incorrect the valves should be ground in further to increase the capacity or the cylinder head face ground to reduce the capacity. Thoroughly clean the cylinder head before final assembly. Check that the small circlip is in the correct position in the valve guide at a point where the guide protrudes through the cylinder head beneath the valve spring seat. Place the valve spring seating over the guide. Fit valve using anti scuffing paste. Fit rubber seal to valve stem, assemble inner and outer valve springs, valve cap and cotters.

Fit rocker pedestal, if used, and exhaust manifold studs. If the heater is not being used fit blanking plug 2A180 to water take off at the rear of the head. Use standard water outlet elbow 12G103 with joint GTG101.

The four extra long cylinder head studs should be fitted to the exhaust port side of the cylinder block. The head should be fitted using cylinder head gasket C-AHT188 and ensure there are no burrs at the base of the head studs.

Fit the push rods, special carbon fibre push rods of the correct length C-AEG583 are available (.220" longer) which must be used with C-AHT438 roller rocker set. Fit the high-lift competition rocker assembly, either C-AHT436 which utilises the latest forged lightweight arms fitted with bushes or the roller tipped variety C-AHT446 or fully roller rockered high-lift set C-AHT438 which has roller bearings on a special rocker shaft. Longer adjusting screws are available as C-AEA692 which fit all rocker sets except C-AHT438. Alternatively the standard forged rocker gear can be fitted with slight power loss, but will require end pedestals C-AHT387. These fit in place of the split pin and washer on each end of the rocker shaft. Forged rockers may require machining on the sides to ensure they are central over the valve stems (check all rocker gear) and valve rocker spacers should have a minimum gap of .002".

Check that all valve train is functioning correctly and valves not hitting pistons on modified blocks. 10mm spark plugs are required for this head. C8E for road use or C9E for race.

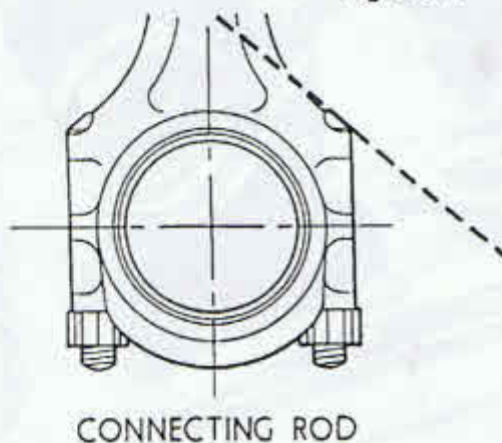
Amal carburettor kit C-AJJ4083 is complete with four carbs, inlet manifolds and linkage is suitable for this cylinder head. Exhaust manifold C-AHT343 will be required. If fitting twin webers use C-AHT507 short inlet manifolds or C-AHT508 long inlet manifold. Fuel injection system with electronic ignition management with choice of camshaft is C-AJJ4065.

Owing to the head having a non standard valve sequence, number two and four connecting rods may foul the camshaft. To overcome this, top edge of connecting rod or bolt should be chamfered as per figure 1. to produce adequate clearance. Valve clearances can not be set as per standard five port sequence. Turn engine over until one pair of valves are rocking, then adjust it's opposite pair (with cylinder four pair rocking, adjust cylinder one pair and vice versa, and same for two and three).

The cylinder head is produced with (a nominal) approximately 16cc combustion chamber and purposely left unmodified to enable advance ideas on combustion shape and finish to be incorporated or undertaken by specialists to suit the particular requirements of the engine.

Valve and seat material specification allows use of unleaded fuel.

Figure 1.



Owing to the 8 port head having a non standard valve sequence, number 2 and 4 connecting rods may foul the camshaft. To overcome this the top edge of the connecting rod big end of the head of the bolt should be chamfered as shown.

CONTENTS OF C-AJJ 4064 ARDEN 8 PORT CYLINDER HEAD

CYLINDER HEAD (BARE)	C-AHT 346	1 OF
VALVE GUIDE SET	C-AHT 364	8 OF
VALVE GUIDE CIRCLIP	C-AHT 365	8 OF
INLET VALVE	C-AHT 376	4 OF
EXHAUST VALVE	C-AHT 377	4 OF
VALVE SPRING, ANTI COILBIND (ROAD)	C-AEA 526	1 SET*
VALVE SPRING, DUAL RATE (RACE)	C-AEA 527	1 SET*
VALVE SPRING SEAT FOR C-AEA 526	C-AHT 378	8 OF *
VALVE SPRING SEAT FOR C-AEA 527	C-AHT 378A	8 OF *
VALVE SPRING TOP CAP STEEL	AEA 653	8 OF *
VALVE SPRING TOP CAP ALLOY	C-AEA 528	8 OF *
VALVE COTTERS	88G 459	16 OF
VALVE GUIDE SEAL	AEG 327	8 OF
ROCKER END PEDESTAL WITH BOLTS (if required)	C-AHT 387	2 OF *
GASKET-INLET MANIFOLD	C-AHT 379	4 OF
GASKET-EXHAUST MANIFOLD	C-AHT 380	1 OF
FRONT BLOCK STUD	51K 282	4 OF

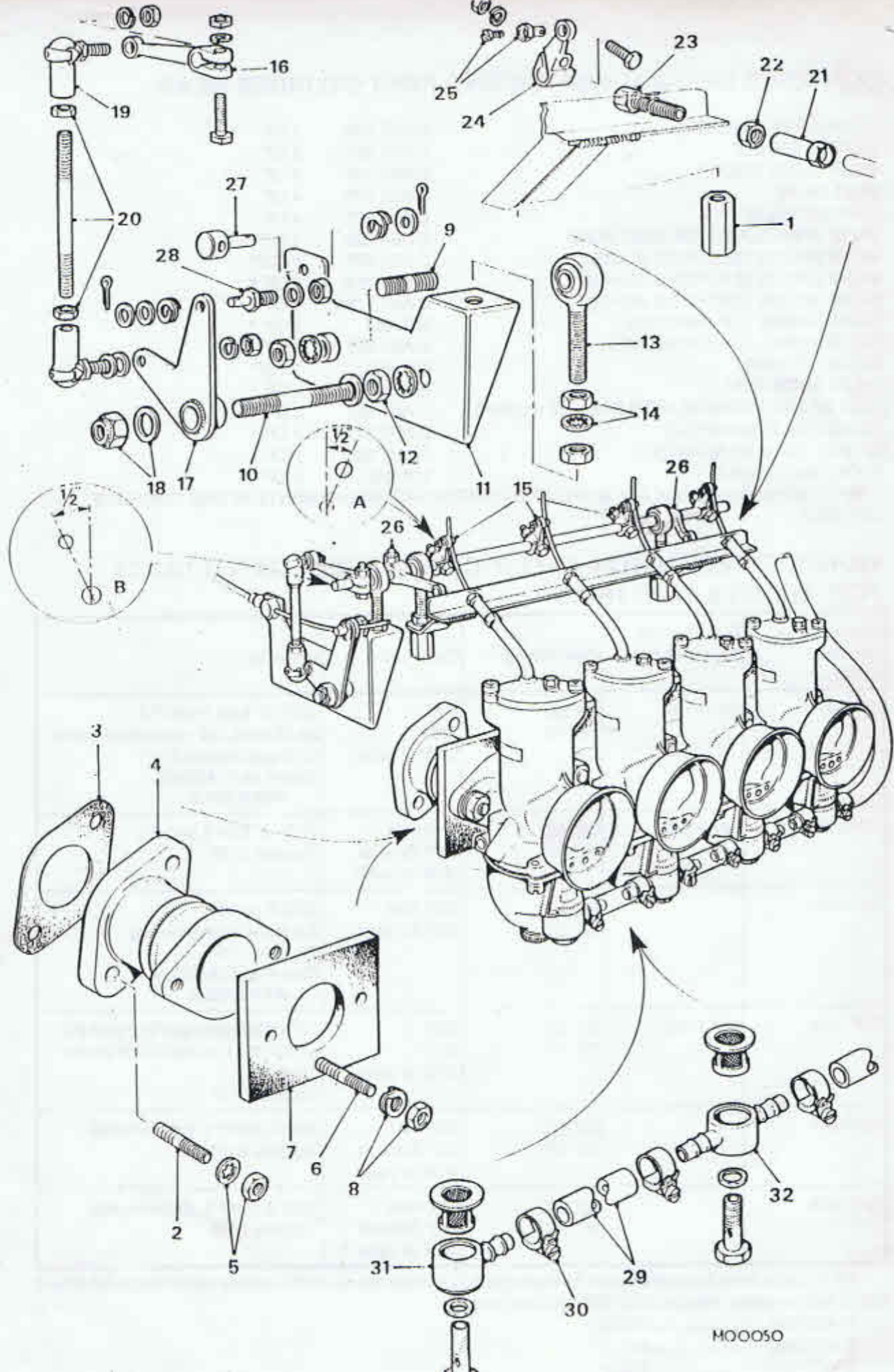
* PARTS WITH AN ASTERISK ARE SUPPLIED TO CUSTOMERS REQUIREMENTS AS ONE COMPLETE SET ONLY.

WORKS EXPERIMENTAL SPECIFICATION SHEET DATED 10.3.71 FOR ARDEN 8 PORT HEAD

Exp. Part No. Camshaft Complete	Exp. Part No. Camshaft Bare	Cam Timing	Cam Period	Remarks
707-1017	707-1018	50° 45° 70° 75°	300° 300° .016" at valve	1275 'S' type 8 port P.I. as AEA648, but transposed cams on 2 and tappets .015" Known as C-AEG636 AVAILABLE
707-1035	707-1036	60° 45° 80° 75°	320° Inlet 300° Exhaust .016" at valve	1275 'S' type 8 port P.I. Tappets .015"
707-1246		60° 55° 80° 85°	320° Inlet 320° Exhaust	1275 8 port P.I. (Le Mans Healey Sprite) Tappets .015" Known as C-AEG599 AVAILABLE
707-1149	707-1150	50° 45° 70° 75°	300° 300° .016" at valve	1275 (Sprite/Midget/S) 8 port P.I. as 707-1017 except for oil pump drive. Tappets .015"
707-1241		60° 45° 80° 75°	320° Inlet 300° Exhaust .016" at valve	1275 8 port P.I. Experimental Tappets .015"
707-1428		60° 65° 80° 95°	320° Inlet 340° Exhaust .016" at valve	1275 8 port P.I. Experimental Tappets .015"

Three cams have been developed for Fuel Injection with the same characteristics as the Megadyne Kent Cams, but the prefix changes to C-AEG for 8 port use.

C-AEG286 ROAD
C-AEG296 RALLY
C-AEG310 RACE



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