

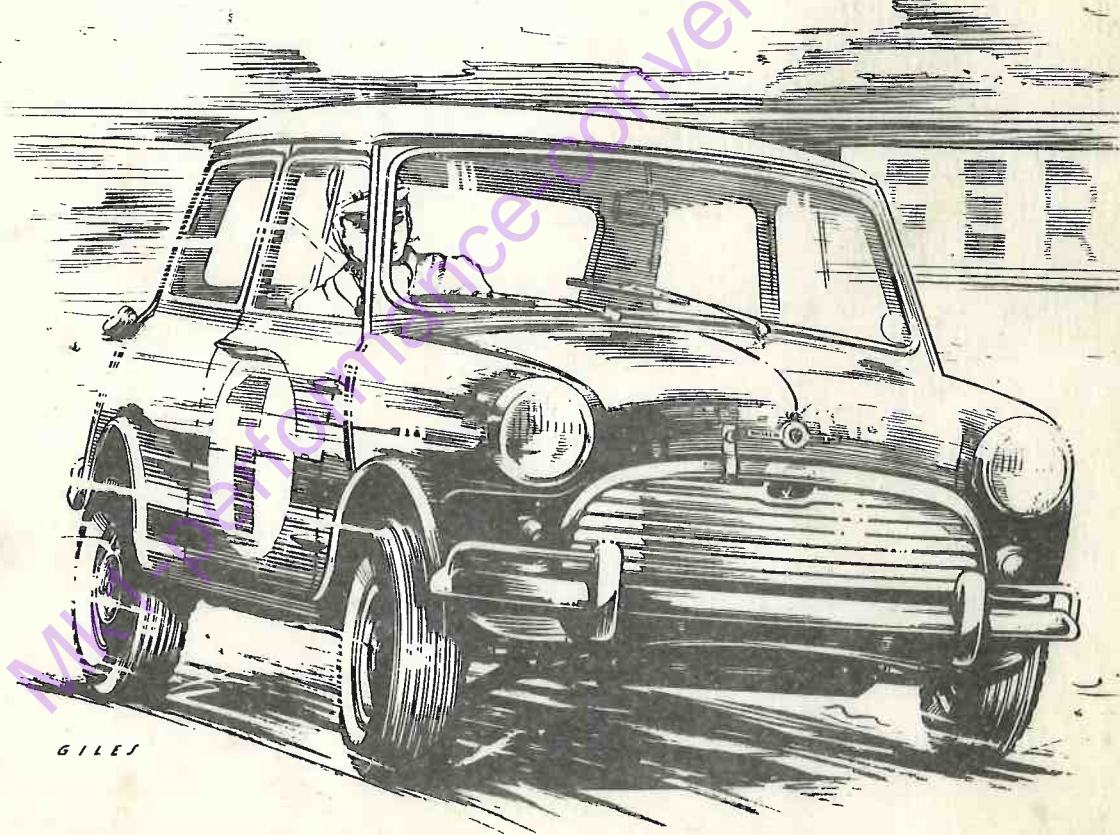
# **BMC**

## **SPECIAL TUNING**

FOR THE

# **MINI-COOPER 'S'**

**970, 1071 & 1275 c.c.**



Issued by:  
THE B.M.C. SPECIAL TUNING DEPARTMENT  
THE M.G. CAR CO. Ltd., ABINGDON-ON-THAMES, ENGLAND

# Special Tuning

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THE M.G. CAR CO. Ltd., ABINGDON-ON-THAMES, ENGLAND

Model AUSTIN & MORRIS COOPER 'S'  
970cc. 1070cc. 1275cc.

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## ENGINE TUNING

These engines are tuned to a fairly high degree in standard form but greater power can be obtained as follows, at the expense of some tractability at lower speeds.

Remove all frazes from the combustion chambers and valve ports and lightly polish.

Raise the compression ratio as follows:

- |        |   |  |
|--------|---|--|
| 970cc  | - | Machine the cylinder head face to give a combustion chamber capacity of 18.9ccs. (0.012" removed from the cylinder head face reduces the capacity by 1cc. approx.). This gives a compression ratio of 11:1 |
| 1070cc | - | Fit flat top pistons C-AEG 190<br>Compression ratio 11:1   |
| 1275cc | - | Fit flat top pistons AEG 430 (8G 2432)<br>Compression ratio 12:1   |

Fit camshaft C-AEA 648 which has a cam lift of .315" and is identified by the forging number AEA 649.

The valve timing is: Inlet opens 50° B.T.D.C. closes 70° A.B.D.C.  
Exhaust opens 75° B.B.D.C. closes 45° A.T.D.C.

When using this camshaft use longer (1½") tappet adjusting screws C-AEA 692 set to give 0.015" clearance, or machine 0.050" from the base of the rocker shaft brackets and use the standard screws.

The standard valve springs may be used to avoid undue load on the valve gear but stronger ones with suitable bottom locating cups are available which will increase the valve crash speed to 8,400 rpm.

Valve spring inner - C-AEA 652  
Valve spring outer - C-AEA 524  
Cup-locating-bottom - C-AEA 654

To avoid damage to the dynamo at high speed it is advisable to fit the larger dynamo pulley C-AEA 535 together with the longer fan belt C-AEA 756. The coil should be remounted on the wing panel at the rear of the engine to reduce the load on the dynamo brackets.

P.T.O.

**IMPORTANT:** Tuning of the kind described on this sheet is expressly excluded by the terms of the Warranty of the vehicle manufacturer.



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GILES

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