

*Austin Healey*

**100 SIX**



## **A NEW SIX PORT CYLINDER HEAD ON THE 'C' TYPE B.M.C. ENGINE**

Extra power, and consequently an even livelier performance, for the latest Austin Healey "100-Six" is the result of a new development in the production of its power unit. From experience gained at Bonneville Salt Flats, when a modified "100-Six" took all records in its class, a new type cylinder head and solid skirt, flat topped pistons are fitted to an otherwise unaltered "C" type B.M.C. engine.

The combustion chambers of the head have been slightly modified to accommodate larger inlet and exhaust valves and the heat-resisting qualities of the exhaust valves have also been increased by the use of KE965 steel. The compression ratio has also been stepped-up from 8.25 : 1 to 8.5 : 1, and both inlet and exhaust ports have been re-shaped to provide an extremely efficient gas-flow.

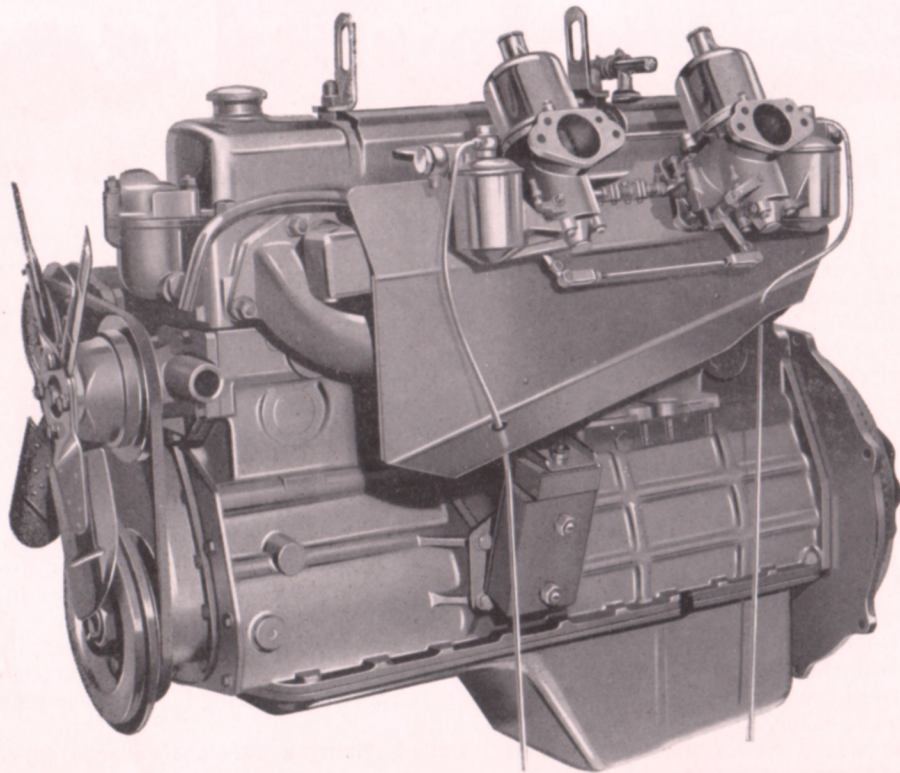
Previously an integral part of the cylinder head, the inlet manifold is now a separate aluminium casting. Here the effect is to increase the distance between the valve head and the carburetters by  $2\frac{1}{2}$  inches, the total port length now being  $5\frac{1}{2}$  inches. Cross sectionally, the area of the new detachable manifold goes up by some 25% and is square rather than circular as that of its predecessor. Two S.U. HD6 carburetters with  $1\frac{3}{4}$  inch throats replace the S.U. H4 type used on the normal "C" type engine, and they are now inclined in a semi-down-draught position at an angle of  $35^\circ$  from the horizontal.

Heat exchange is localised to two pairs of hotspots, the transfer of heat to the float chambers being restricted by a sheet steel baffle between the manifolds and the carburetters. Twin exhausts carried through to the rear of the car take care of the increased gas-expansion, the front three ports being fed into one pipe and the rear three ports into the other.

On the ignition side a new type distributor is installed, giving a different advance curve to suit the characteristics of these modifications.

In general, all this adds up to an increase of 15 b.h.p., the new maximum rating being 117 b.h.p. gross (115 nett) at 4,750 r.p.m. Maximum torque too, benefits by 7 lb. ft. and now stands at 149 lb. ft. at 3,000 r.p.m.

**THE 'C' TYPE B.M.C. ENGINE WITH SIX PORT CYLINDER HEAD AS FITTED TO THE AUSTIN HEALEY 100-SIX**



**THE AUSTIN MOTOR COMPANY LTD.  
LONGBRIDGE - BIRMINGHAM**



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