

ABSTRACT OF THE DISCLOSURE**METHOD OF REPAIRING A CYLINDER HEAD
HAVING COOLING WATER PASSAGES**

A method of repairing a cylinder head of a water cooled internal combustion engine that has damage to the boundary wall between a cooling water passage and the combustion chamber. According to the method, the boundary wall B located between a cooling water passage and a combustion chamber and including a crack is cut away from a cylinder head until the cut reaches a depth of one half the cross section of the cooling water passage. Then, a half-pipe portion, having a semicircular cross section that is equal in size to one-half the cross section of the cooling water passage is fixed in the cylinder head from which the boundary wall B has been removed such that an inner surface of the half-pipe may serve to form a cooling water passage after repair. With the use of the above method, the repair operation is completed easily with a low cost because the boundary wall B has only to be cut away to a shallow depth. Further, the use of a half-pipe portion, together with the remainder of the original cooling water passage ensures that the cooling water passage will be restored to its original state.

Fig. 8