

Title (en)  
Cylinder head for an internal combustion engine

Title (de)  
Zylinderkopf für Brennkraftmaschinen

Title (fr)  
Culasse pour un moteur à combustion interne

Publication  
**EP 0849463 B1 20011024 (DE)**

Application  
**EP 97120815 A 19971127**

Priority  
DE 19653909 A 19961221

Abstract (en)  
[origin: DE19653909C1] The cast cylinder head has a gas exchange channel with machining allowance. A circumferential flat V-shaped compensation groove (9) is located in the area of the allowance. The sides (10) of the groove merge at an acute angle into the groove base (11), they are convex, and curved for good flow. The compensation groove is located in a convex channel wall section, relative to the direction of flow in the gas exchange channel. The groove is at a distance (a) to the top edge of the aperture (20) for a valve seat ring, or above the valve seat in the valve opening (3), which corresponds to approx. 20 - 30% of the inner valve opening diameter. The groove base is outside the ideal path (21) of the inner surface, so that the actual inner channel surface has a local excess allowance.

IPC 1-7  
**F02F 1/42**; **B22D 19/00**

IPC 8 full level  
**B22D 19/00** (2006.01); **F02F 1/42** (2006.01); **F02F 1/24** (2006.01)

CPC (source: EP US)  
**B22D 19/0018** (2013.01 - EP US); **F02F 1/4285** (2013.01 - EP US); **F02F 2001/245** (2013.01 - EP US); **F02F 2200/06** (2013.01 - EP US)

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