

Title (en)  
Cylinder head structure for direct-injection diesel engine

Title (de)  
Zylinderkopfstruktur für Dieselmotor mit Direkteinspritzung

Title (fr)  
Structure de culasse pour moteur diesel à injection directe

Publication  
**EP 1808597 B1 20110914 (EN)**

Application  
**EP 07100140 A 20070105**

Priority  
JP 2006006462 A 20060113

Abstract (en)  
[origin: EP1808597A2] The peripheral region (10a) of each injector hole (14) in the top surface of a cylinder head (10) and the peripheral region (20a) of an associated insertion hole (injector insertion hole) (24) in the bottom surface of a cam holder (20) face each other with an annular clearance (5) left therebetween and a seal (60) is disposed between the insertion hole (24) and an associated injector (40). The seal (60) includes a seal body (61) and first to third sealing parts (62-64). The first sealing part (62) is engaged against the injector (40), the second sealing part (63) protrudes downward beyond the insertion hole (24) and is engaged against the peripheral region (10a) of the injector hole (14), and the third sealing part (64) is expanded in diameter and engaged against the inner periphery of the insertion hole (24) by compressively deforming the second sealing part (63).

IPC 8 full level  
**F02M 61/14** (2006.01); **F01L 1/04** (2006.01); **F02F 1/24** (2006.01)

CPC (source: EP)  
**F01L 1/047** (2013.01); **F02F 1/242** (2013.01); **F02M 61/14** (2013.01); **F01L 2001/0476** (2013.01); **F02F 2001/247** (2013.01); **F02M 2200/858** (2013.01)

Cited by  
EP3276155A1; DE202008014950U1; DE102015105848B4; US8814174B2

Designated contracting state (EPC)  
DE

DOCDB simple family (publication)  
**EP 1808597 A2 20070718; EP 1808597 A3 20090401; EP 1808597 B1 20110914; JP 2007187105 A 20070726; JP 4471933 B2 20100602**

DOCDB simple family (application)  
**EP 07100140 A 20070105; JP 2006006462 A 20060113**