

Title (en)  
Cooling system

Title (de)  
Kühlsystem

Title (fr)  
Circuit de refroidissement

Publication  
**EP 2309114 B1 20120912 (DE)**

Application  
**EP 09166865 A 20090730**

Priority  
EP 09166865 A 20090730

Abstract (en)  
[origin: US2011023799A1] An internal combustion engine is disclosed that has a cylinder block with multiple cylinders, a bridge between adjacent cylinders, a cooling slot in the bridge, and a water jacket portion in the cylinder block. A cylinder head is coupled to the cylinder block which has a first cooling passage fluidly coupling the cooling slot and the water jacket portion in the cylinder block, a water jacket portion in the cylinder head, and a second cooling passage in the cylinder head fluidly coupling the cooling slot with the water jacket portion in the cylinder head. A cylinder head gasket is arranged between the cylinder head and the cylinder block which has a first orifice in the cylinder head gasket cooperating with the first cooling passage a second orifice in the cylinder head gasket cooperating with the second cooling passage.

IPC 8 full level  
**F02F 7/00** (2006.01); **F01P 3/02** (2006.01); **F02F 1/10** (2006.01); **F02F 1/14** (2006.01); **F01P 7/16** (2006.01)

CPC (source: EP US)  
**F01P 3/02** (2013.01 - EP US); **F02F 1/14** (2013.01 - EP US); **F02F 1/40** (2013.01 - EP US); **F01P 7/165** (2013.01 - EP US); **F01P 2003/027** (2013.01 - EP US); **F01P 2003/028** (2013.01 - EP US)

Cited by  
DE102016214224B4; DE102016214224A1; DE102016214226A1; DE102015109145B4; DE102014200054A1; US9243545B2; DE202016104442U1; DE102017206716A1; DE102018201645B3; US10550753B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)  
**US 2011023799 A1 20110203**; **US 8555825 B2 20131015**; CN 201891481 U 20110706; EP 2309114 A1 20110413; EP 2309114 B1 20120912; EP 2322785 A1 20110518; EP 2322785 B1 20180919; EP 2325453 A1 20110525; EP 2325453 B1 20120718

DOCDB simple family (application)  
**US 84626410 A 20100729**; CN 201020278638 U 20100729; EP 09166865 A 20090730; EP 10187421 A 20090730; EP 10187422 A 20090730