

Title (en)

CYLINDER HEAD FOR AN INTERNAL COMBUSTION ENGINE AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

ZYLINDERKOPF FÜR EINE BRENNKRAFTMASCHINE UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

CULASSE POUR MOTEUR À COMBUSTION INTERNE ET PROCÉDÉ DE FABRICATION DE CELLE-CI

Publication

EP 3847355 A1 20210714 (DE)

Application

EP 19761862 A 20190830

Priority

- DE 102018121723 A 20180906
- EP 2019073192 W 20190830

Abstract (en)

[origin: WO2020048883A1] The invention relates to a cylinder head (10) for covering a combustion chamber (12) of an internal combustion engine. The cylinder head (10) comprises at least one material recess (20) for heat isolation, which is formed in a main body (14) of the cylinder head (10) and is arranged between a fluid-guide channel (18) and a cooling channel (16). The material recess (20) can be produced e.g. directly during the shaping (e.g. casting or pressing) of the cylinder head (10) and/or thereafter. For example, in the event that exhaust gas is guided through the fluid-guide channel, a significantly lower heat input occurs from the hot exhaust gas into the cooling fluid. In addition, the thermal decoupling via the material recess (920) leads to the hot exhaust gas cooling to a lesser degree in the fluid-guide channel.

IPC 8 full level

F01N 13/10 (2010.01); **F02B 77/11** (2006.01); **F02F 1/42** (2006.01)

CPC (source: EP US)

F01N 13/102 (2013.01 - EP); **F02B 77/11** (2013.01 - EP); **F02F 1/36** (2013.01 - US); **F02F 1/4235** (2013.01 - US); **F02F 1/4257** (2013.01 - EP); **F02F 1/4264** (2013.01 - US); **F02F 1/4271** (2013.01 - EP); **F02F 2001/244** (2013.01 - US)

Citation (search report)

See references of WO 2020048883A1

Cited by

CN117552884A

Designated contracting state (EPC)

AL 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 RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2020048883 A1 20200312; BR 112020026772 A2 20210330; CN 112654770 A 20210413; DE 102018121723 A1 20200312; EP 3847355 A1 20210714; EP 3847355 B1 20220824; US 11835013 B2 20231205; US 2021348580 A1 20211111

DOCDB simple family (application)

EP 2019073192 W 20190830; BR 112020026772 A 20190830; CN 201980057876 A 20190830; DE 102018121723 A 20180906; EP 19761862 A 20190830; US 201917274144 A 20190830