

Title (en)

CYLINDER ARRANGEMENT AND METHOD FOR COOLING THE CYLINDER ARRANGEMENT

Title (de)

ZYLINDERANORDNUNG UND VERFAHREN ZUM KÜHLEN DER ZYLINDERANORDNUNG

Title (fr)

ARRANGEMENT DE CYLINDRES ET PROCÉDÉ DE REFROIDISSEMENT DE L'ARRANGEMENT DE CYLINDRES

Publication

EP 3887663 A1 20211006 (DE)

Application

EP 19839314 A 20191127

Priority

- DE 102018009442 A 20181201
- DE 2019000304 W 20191127

Abstract (en)

[origin: WO2020108677A1] The invention, which relates to a cylinder arrangement (1) and a method for cooling the cylinder arrangement (1), addresses the problem of specifying a solution with which the heat transfer from a combustion chamber (6) of an internal combustion engine located in a cylinder liner (2) of the cylinder arrangement (1) into a region (7) surrounding the cylinder liner (2), such as a cylinder block or a cylinder crankcase, is controlled in a temperature-dependent manner. The arrangement solves said problem by virtue of the fact that a jacket (9), the expansion of which changes depending on temperature, is arranged between the cylinder liner (2) and the region (7) surrounding the cylinder liner (2). The method solves said problem by virtue of the fact that: the cylinder liner (2) is provided with a jacket (9), the expansion of which changes depending on temperature and which surrounds the cylinder liner (2); the jacket (9) forms a gap (10) between the jacket (9) and the region (7) in a first temperature range; and the jacket (9) forms no gap (10) between the jacket (9) and the region (7) in a second temperature range.

IPC 8 full level

F02F 1/14 (2006.01); **F01P 3/02** (2006.01)

CPC (source: EP US)

F01P 3/02 (2013.01 - EP); **F02F 1/02** (2013.01 - US); **F02F 1/14** (2013.01 - EP US); **F01P 2003/021** (2013.01 - EP)

Citation (search report)

See references of WO 2020108677A1

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)

DE 102018009442 B3 20200416; CN 113167191 A 20210723; EP 3887663 A1 20211006; US 11408366 B2 20220809; US 2022018307 A1 20220120; WO 2020108677 A1 20200604

DOCDB simple family (application)

DE 102018009442 A 20181201; CN 201980079250 A 20191127; DE 2019000304 W 20191127; EP 19839314 A 20191127; US 201917296219 A 20191127