

Title (en)

Heat exchanger unit for a combustion engine

Title (de)

Wärmeübertragungseinheit für eine Verbrennungskraftmaschine

Title (fr)

Echangeur de chaleur pour un moteur à combustion interne

Publication

**EP 2031336 B1 20121205 (DE)**

Application

**EP 08104442 A 20080617**

Priority

DE 102007041338 A 20070831

Abstract (en)

[origin: EP2031336A2] The unit for the cooling of exhaust gases has a surface is arranged between a cooling fluid and a flow channel (2) having bounding walls (6, 10) in a first section (9) which is greater than in a second section (12). Ribs (14) provided over the length of the channel (2) are distributed so that a cross-section of the flow channel are less than or equal to the flow channel cross section in the second section (12).

IPC 8 full level

**F28F 3/04** (2006.01); **F02M 25/07** (2006.01); **F28D 7/10** (2006.01); **F28D 9/00** (2006.01); **F28F 13/08** (2006.01); **F28F 13/14** (2006.01)

CPC (source: EP US)

**F02M 26/32** (2016.02 - EP US); **F28D 7/106** (2013.01 - EP US); **F28D 9/0031** (2013.01 - EP US); **F28F 3/048** (2013.01 - EP US); **F28F 13/08** (2013.01 - EP US); **F28F 13/14** (2013.01 - EP US); **F28D 21/0003** (2013.01 - EP US)

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 MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

**DE 102007041338 B3 20081211**; EP 2031336 A2 20090304; EP 2031336 A3 20110518; EP 2031336 B1 20121205; US 2009056321 A1 20090305; US 8245767 B2 20120821

DOCDB simple family (application)

**DE 102007041338 A 20070831**; EP 08104442 A 20080617; US 20272708 A 20080902