

Title (en)
Exhaust gas cooling module for a combustion engine

Title (de)
Abgaskühlmodul für eine Verbrennungskraftmaschine

Title (fr)
Module de refroidissement de gaz d'échappement pour un moteur à combustion interne

Publication
EP 2378104 B1 20120523 (DE)

Application
EP 11159365 A 20110323

Priority
DE 102010014842 A 20100413

Abstract (en)
[origin: EP2378104A1] The module has a valve (10) comprising an actuator (28) for operating exhaust gas reconducting flaps (12, 14) arranged in a valve housing (2), where the valve controls exhaust gas return channels (16, 18). A waste-gas heat exchanger (6) is connected with the housing. A coolant channel (34) is formed in the housing and connected with a coolant channel (44) of the exchanger. A coolant inlet (46) and a coolant outlet (52) of the housing are fluidically connected with a coolant inlet (50) and a coolant outlet (56) of the exchanger over communicating passages (48, 54) i.e. straight tubes, respectively.

IPC 8 full level
F02M 25/07 (2006.01); **F28D 7/16** (2006.01)

CPC (source: EP)
F02M 26/28 (2016.02); **F02M 26/73** (2016.02); **F28D 7/1607** (2013.01); **F28D 21/0003** (2013.01)

Cited by
US10422305B2; WO2016180717A1

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

DOCDB simple family (publication)
EP 2378104 A1 20111019; **EP 2378104 B1 20120523**; CN 202091059 U 20111228; DE 102010014842 A1 20111013;
DE 102010014842 B3 20110922; ES 2386121 T3 20120809

DOCDB simple family (application)
EP 11159365 A 20110323; CN 201120104693 U 20110412; DE 102010014842 A 20100413; ES 11159365 T 20110323