

Title (en)
INTERNAL COMBUSTION ENGINE WITH AN ARRANGEMENT FOR FEEDING BACK EXHAUST GAS AND SUPPLYING COOLED CHARGE AIR

Title (de)
BRENNKRAFTMASCHINE MIT EINER ANORDNUNG ZUR RÜCKFÜHRUNG VON ABGAS UND ZUFÜHRUNG VON GEKÜHLTER LADELUFT

Title (fr)
MOTEUR À COMBUSTION INTERNE COMPORTANT UN DISPOSITIF DE RECYCLAGE DES GAZ D'ÉCHAPPEMENT ET D'ALIMENTATION EN AIR DE SURALIMENTATION REFROIDI

Publication
EP 2785992 A1 20141008 (DE)

Application
EP 12790567 A 20121126

Priority
• DE 102011087256 A 20111128
• EP 2012073564 W 20121126

Abstract (en)
[origin: WO2013079427A1] The invention relates to an internal combustion engine (1): with an arrangement for feeding back exhaust gas and supplying cooled charge air to an internal combustion engine (1), wherein the internal combustion engine (1) comprises an exhaust gas supercharging system (6, 7) and an exhaust gas cooling system (16); with an exhaust gas cooling system (16) having a single or double stage exhaust gas cooler with a first cooling stage (20) and optionally a second cooling stage (21); with at least one bypass (17) for circumventing the first and/or the second cooling stage of the exhaust gas cooler (16); with at least one exhaust gas control valve (15); with at least one intercooler (25) and a bypass (30) for circumventing the first intercooler (25); and with a charge air control valve (28), wherein the components of the arrangement that come into contact with an acidic condensate produced in the exhaust gas cooler (16) and/or in the intercooler (25) previously undergo an immunising treatment such that they resist the condensate.

IPC 8 full level
F01N 13/00 (2010.01); **F01N 13/16** (2010.01); **F02B 37/00** (2006.01); **F02M 25/07** (2006.01)

CPC (source: EP)
F01N 13/16 (2013.01); **F02B 29/0443** (2013.01); **F02B 37/004** (2013.01); **F02B 37/013** (2013.01); **F02M 26/05** (2016.02); **F02M 26/11** (2016.02); **F02M 26/24** (2016.02); **F02M 26/28** (2016.02); **F01N 2240/02** (2013.01); **F01N 2510/08** (2013.01); **F01N 2530/02** (2013.01); **F01N 2530/18** (2013.01); **Y02T 10/12** (2013.01)

Citation (search report)
See references of WO 2013079427A1

Citation (examination)
DE 102004033476 A1 20060223 - NANOGATE COATING SYSTEMS GMBH [DE]

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)
DE 102011087256 A1 20130529; CN 204175395 U 20150225; EP 2785992 A1 20141008; WO 2013079427 A1 20130606

DOCDB simple family (application)
DE 102011087256 A 20111128; CN 201290001018 U 20121126; EP 12790567 A 20121126; EP 2012073564 W 20121126