

Title (en)

Exhaust gas recirculation for large internal combustion engines

Title (de)

Abgasrückführung für große Verbrennungsmotoren

Title (fr)

Recirculation de gaz d'échappement pour de grands moteurs à combustion interne

Publication

**EP 2647821 A1 20131009 (EN)**

Application

**EP 12163335 A 20120405**

Priority

EP 12163335 A 20120405

Abstract (en)

An internal combustion engine may comprise an exhaust gas recirculation line (80, 82, 84, 86) with a high temperature cooler (50), an exhaust gas compressor (70), a low temperature cooler (55), and a control unit (60). The control unit (60) may be configured to control the cooling performance of the high temperature cooler (50) in accordance with a cooling performance/engine operation mode information such that a temperature of the extracted exhaust gas at an exit of the high temperature cooler (50) may be maintained at a temperature above a dew point of sulphuric acid independently of the engine operation mode. For low sulphur fuel operation of the engine, operating the high temperature cooler (50) in the proposed manner allows handling severe fouling and blocking issues primarily in the low temperature cooler (55).

IPC 8 full level

**F02M 25/07** (2006.01)

CPC (source: EP)

**F02M 26/05** (2016.02); **F02M 26/24** (2016.02); **F02M 26/28** (2016.02); **F02M 26/33** (2016.02); **F02M 26/34** (2016.02); **F02M 26/47** (2016.02)

Citation (applicant)

WO 2011066871 A1 20110609 - CATERPILLAR MOTOREN GMBH & CO [DE], et al

Citation (search report)

- [YDA] WO 2011066871 A1 20110609 - CATERPILLAR MOTOREN GMBH & CO [DE], et al
- [XY] US 5732688 A 19980331 - CHARLTON STEVE J [US], et al
- [A] US 2003192516 A1 20031016 - BRUNEMANN GEORGE [US], et al
- [A] EP 0740065 A1 19961030 - DAF TRUCKS NV [NL]

Cited by

US9719454B2

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)

**EP 2647821 A1 20131009; EP 2647821 B1 20150520**

DOCDB simple family (application)

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