

Title (en)

ENGINE COOLING AND EXHAUST GAS TEMPERATURE CONTROLS FOR DIESEL AFTER-TREATMENT REGENERATION

Title (de)

MOTORKÜHLUNGS- UND ABGASTEMPERATURSTEUERUNGEN ZUR DIESELNACHBEHANDLUNGSREGENERATION

Title (fr)

RÉGULATIONS DE TEMPÉRATURE DE REFROIDISSEMENT DU MOTEUR ET DE GAZ D'ÉCHAPPEMENT POUR UNE RÉGÉNÉRATION POST-TRAITEMENT DE DIESEL

Publication

**EP 2235333 A1 20101006 (EN)**

Application

**EP 07840114 A 20071214**

Priority

US 2007061778 W 20071214

Abstract (en)

[origin: WO2009078847A1] System, methods, and strategies for regulating charge air temperature in an intake manifold of an internal combustion engine (50) by controlling the flow rate and temperature of liquid engine coolant flowing through a liquid flow path of a charge air cooler (72) that is in heat exchange relationship with charge air entering the intake manifold over a range that provides for the charge air to be selectively heated and cooled by liquid engine coolant. The invention provides flexible control that is useful in controlling exhaust gas temperature for regeneration and/or efficiency restoration of exhaust after-treatment devices (66) as well as improved engine performance.

IPC 1-7

**F01N 7/06**

IPC 8 full level

**F01N 9/00** (2006.01); **F01N 3/023** (2006.01); **F01N 13/06** (2010.01); **F02B 37/013** (2006.01)

CPC (source: EP GB)

**F01N 3/02** (2013.01 - GB); **F01N 3/023** (2013.01 - EP); **F01N 3/0871** (2013.01 - EP); **F01N 9/002** (2013.01 - EP); **F01N 13/06** (2013.01 - GB);  
**F02B 29/0412** (2013.01 - EP); **F02B 29/0443** (2013.01 - EP); **F02M 26/28** (2016.02 - EP); **F01P 7/165** (2013.01 - EP);  
**F01P 2060/02** (2013.01 - EP); **F02B 3/06** (2013.01 - EP); **F02B 29/0493** (2013.01 - EP); **F02D 9/04** (2013.01 - EP); **F02M 26/08** (2016.02 - EP);  
**F02M 26/10** (2016.02 - EP); **Y02T 10/12** (2013.01 - EP); **Y02T 10/40** (2013.01 - EP)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK RS

DOCDB simple family (publication)

**WO 2009078847 A1 20090625**; AU 2007362594 A1 20090625; BR PI0722329 A2 20140408; CN 101932801 A 20101229;  
EP 2235333 A1 20101006; EP 2235333 A4 20111026; GB 201009935 D0 20100721; GB 2467291 A 20100728

DOCDB simple family (application)

**US 2007061778 W 20071214**; AU 2007362594 A 20071214; BR PI0722329 A 20071214; CN 200780102272 A 20071214;  
EP 07840114 A 20071214; GB 201009935 A 20071214