

Title (en)
High gas inlet temperature EGR system

Title (de)
EGR-System mit hoher Gaseintrittstemperatur

Title (fr)
Système de recirculation de gaz d'échappement à température d'entrée de gaz élevée

Publication
EP 2570646 B1 20160511 (EN)

Application
EP 12173479 A 20080811

Priority
• EP 08788275 A 20080811
• GB 0715891 A 20070815

Abstract (en)
[origin: GB2451862A] An exhaust gas re-circulation (EGR) system for an internal combustion engine comprises a first EGR cooler 806 a second EGR cooler 807 connected in series, an outlet of said second cooler 807 being connected to an inlet of the internal combustion engine. The first cooler may cool the exhaust gas from a maximum inlet temperature of 1100 degrees to a maximum outlet temperature of 700 degrees. Inlet air may be compressed by a compressor 803 and/or a turbocharger 204. A high pressure EGR system takes high-pressure exhaust gases via pipes 808 and 809 without passing through the compressor 803 or turbocharger 204. An alternative low pressure system takes the exhaust gas from downstream of the turbocharger 204 to upstream of the compressor 803. A flow control valve may be provided between the coolers or downstream of the second cooler. A bypass may be provided around the second cooler. The first cooler may comprise inner and outer corrugated tubular members. Further modifications are described.

IPC 8 full level
F28F 1/08 (2006.01); **F02M 26/00** (2016.01)

CPC (source: EP)
F02M 26/32 (2016.02); **F28D 7/06** (2013.01); **F28D 7/106** (2013.01); **F28D 7/16** (2013.01); **F28F 1/08** (2013.01); **F02M 26/24** (2016.02); **F02M 26/25** (2016.02); **F28F 9/0219** (2013.01); **F28F 2265/26** (2013.01)

Cited by
KR20180074739A; EP3163243A1; CN106969546A; US10359235B2; WO2017068139A1

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)
GB 0715891 D0 20070926; **GB 2451862 A 20090218**; EP 2215346 A1 20100811; EP 2215346 B1 20121121; EP 2570646 A1 20130320; EP 2570646 B1 20160511; WO 2009022113 A1 20090219

DOCDB simple family (application)
GB 0715891 A 20070815; EP 08788275 A 20080811; EP 12173479 A 20080811; GB 2008002704 W 20080811