

Title (en)

Variable geometry guide vanes and turbocharger with these vanes

Title (de)

Leitgitter variabler Geometrie und Turbolader mit einem solchen Leitgitter

Title (fr)

Aubes de guidage variables et turbosoufflante avec ces aubes

Publication

**EP 1398463 B1 20060712 (DE)**

Application

**EP 02020412 A 20020910**

Priority

EP 02020412 A 20020910

Abstract (en)

[origin: EP1398463A1] The variable geometry guide grill for a motor vehicle internal combustion engine turbocharger housing has a crown of guide vanes (7) around the casing central axis (R) and pivotably around an axis (8). A vane bearing ring (6) is axially spaced from a plate (29) with a central opening (53). The plate central opening is movable with respect to the central outlet stub of the casing to allow the grill to be inserted.

IPC 8 full level

**F01D 17/16** (2006.01); **F02B 37/24** (2006.01); **F01D 25/24** (2006.01)

CPC (source: EP US)

**F01D 17/165** (2013.01 - EP US); **F05D 2220/40** (2013.01 - EP US)

Cited by

DE102012001603B4; EP2302175A1; DE102004023282A1; EP1722073A1; DE102004023280A1; DE102007010840A1; DE102009008531A1; DE102004033884A1; EP1574673A1; DE102004023279A1; EP1635040A1; CN103016070A; DE102004023284A1; DE102004023283A1; DE102004023284B4; US7600969B2; WO2006133793A1; DE102008000849A1; US8747058B2; WO2012000980A1; WO2007121843A1; WO2006122596A1; DE102009007663A1; US8459938B2; US8033109B2; US8464528B2; EP3009637A1; EP3009638A1

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

**EP 1398463 A1 20040317**; **EP 1398463 B1 20060712**; DE 50207509 D1 20060824; JP 2004132367 A 20040430; JP 4755393 B2 20110824; US 2004081567 A1 20040429; US 6916153 B2 20050712

DOCDB simple family (application)

**EP 02020412 A 20020910**; DE 50207509 T 20020910; JP 2003312620 A 20030904; US 65978603 A 20030910