

Title (en)  
Exhaust manifold

Title (de)  
Abgaskrümmer

Title (fr)  
Tubulure d'échappement

Publication  
**EP 2636865 A1 20130911 (EN)**

Application  
**EP 13001126 A 20130306**

Priority  
JP 2012051413 A 20120308

Abstract (en)  
An exhaust manifold (2) includes a head flange member (20), a plurality of branch pipe parts (3a-3d) and a collector pipe part (3e). The head flange member (20) has a flange main body portion (2a) and a cylinder head (1a) mounting surface configured and arranged to be attached to a cylinder head (1a) of an engine (1). Each of the branch pipe parts (3a-3d) has an upstream end portion with respect to an exhaust gas flow fixed to one side of the head flange member (20) that is opposite from the cylinder head (1a) mounting surface. The collector pipe part (3e) is connected to a downstream end portion with respect to the exhaust gas flow of each of the branch pipe parts (3a-3d). An area of the cylinder head (1a) mounting surface is smaller than a cross sectional area of the head flange main body portion (2a) taken along a plane substantially parallel to the cylinder head (1a) mounting surface.

IPC 8 full level  
**F01N 13/10** (2010.01); **F01N 13/18** (2010.01)

CPC (source: EP US)  
**F01N 3/00** (2013.01 - US); **F01N 13/10** (2013.01 - EP US); **F01N 13/1805** (2013.01 - EP US)

Citation (applicant)  
JP 2004052715 A 20040219 - CALSONIC KANSEI CORP

Citation (search report)

- [X] JP H10110618 A 19980428 - YUTAKA GIKEN CO LTD
- [X] WO 9705370 A1 19970213 - RENAULT [FR], et al
- [A] DE 10038558 A1 20010208 - IWK REGLER KOMPENSATOREN [DE]

Cited by  
CN103470888A

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 2636865 A1 20130911**; CN 103306796 A 20130918; JP 2013185498 A 20130919; US 2013232959 A1 20130912

DOCDB simple family (application)  
**EP 13001126 A 20130306**; CN 201310074191 A 20130308; JP 2012051413 A 20120308; US 201313785719 A 20130305