

Title (en)

Exhaust manifold with sheet metal inlet pipes

Title (de)

Abgaskrümmer mit blechgeformten Einlassrohren

Title (fr)

Collecteur d'échappement à tuyaux d'entrée formés en tôle

Publication

**EP 0748928 B1 19991229 (DE)**

Application

**EP 96108835 A 19960601**

Priority

DE 19521849 A 19950616

Abstract (en)

[origin: EP0748928A1] The exhaust manifold (1) has inlet tubes (2, 3, 4), forged from a sheet, and leading from an engine's cylinder head outlets (5, 6, 7) to a common exhaust pipe (8). It includes bent inlet tubes (2, 4) which themselves consist of at least two single bent tubes (2a, 2b, 4a, 4b). These single tubes may be of varying cross section along their length, with continuous transition. The overall cross section of the single tubes in each longitudinal sector is basically the same as that of the corresponding inlet tube. The bends in the single tubes are of about 90 degrees .

IPC 1-7

**F01N 7/10**

IPC 8 full level

**F01N 13/10** (2010.01); **F01N 13/18** (2010.01)

CPC (source: EP US)

**F01N 13/10** (2013.01 - EP US); **F01N 13/1883** (2013.01 - EP US)

Cited by

DE102011101947A1; WO2012156454A1; DE102011101947B4; US9650945B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

**EP 0748928 A1 19961218; EP 0748928 B1 19991229**; DE 19521849 A1 19961219; DE 59604008 D1 20000203; US 5809778 A 19980922

DOCDB simple family (application)

**EP 96108835 A 19960601**; DE 19521849 A 19950616; DE 59604008 T 19960601; US 65482796 A 19960529