

Title (en)

Fan-shaped exhaust manifold for multi-cylinder internal combustion engines

Title (de)

Fächerartiger Abgaskrümmer für mehrzylindrige Brennkraftmaschinen

Title (fr)

Collecteur d'échappement en forme d'éventail pour moteurs à combustion interne multicylindre

Publication

EP 0733789 B1 19981209 (DE)

Application

EP 96101165 A 19960129

Priority

DE 19510602 A 19950323

Abstract (en)

[origin: DE19510602C1] The exhaust system is branched to collect the exhaust gases of a multicylinder IC engine. The individual pipe sections (1,2,3,4) on the first collection level (16) are equal in cross-section and in angle. The second stage pipes (5,6) have Y-sections at their top to integrate two of the first pipes into one second stage pipe, the joint achieved via a fillet weld (15). One of the second stage pipes has a further Y-section to join the second stage into the single third stage pipe (18). The other second stage pipe (6) is inserted into this larger dia. Y-section (11) and again sealed via a fillet weld around the circumference.

IPC 1-7

F01N 7/08; **F01N 7/10**; **F01N 7/18**

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); **Y10T 29/49398** (2015.01 - EP US); **Y10T 137/87571** (2015.04 - EP US)

Cited by

RU178747U1; EP0933509A1

Designated contracting state (EPC)

ES FR GB IT

DOCDB simple family (publication)

DE 19510602 C1 19960411; AR 001361 A1 19971022; BR 9601112 A 19980106; EP 0733789 A2 19960925; EP 0733789 A3 19961030; EP 0733789 B1 19981209; ES 2127579 T3 19990416; JP 2832883 B2 19981209; JP H08260955 A 19961008; US 5816045 A 19981006

DOCDB simple family (application)

DE 19510602 A 19950323; AR 33581296 A 19960319; BR 9601112 A 19960325; EP 96101165 A 19960129; ES 96101165 T 19960129; JP 9184896 A 19960322; US 61559696 A 19960313