

Title (en)
Reinforced exhaust manifold

Title (de)
Verstärkter Abgaskrümmer

Title (fr)
Collecteur d'échappement renforcé

Publication
EP 2031205 B1 20160518 (FR)

Application
EP 08162824 A 20080822

Priority
FR 0757313 A 20070903

Abstract (en)
[origin: EP2031205A1] The manifold has a wall (10) having thickness at a level of a sealing surface of a foundry of a fastening clip (30) of the manifold. A reinforcement element (13) includes an outer wall (10') incorporated into the wall (10) of the manifold. The outer wall and an inner wall (14) of the element are separated from each other by an insulation layer (15), where the element is molded by casting with the manifold. The insulation layer is opened on the fastening clip.

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

CPC (source: EP)
F01N 13/102 (2013.01); **F01N 13/1861** (2013.01)

Designated contracting state (EPC)
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DOCDB simple family (publication)
EP 2031205 A1 20090304; EP 2031205 B1 20160518; FR 2920473 A1 20090306; FR 2920473 B1 20150529

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