

Title (en)  
Bended heat exchanger

Title (de)  
Gebogener Wärmetauscher

Title (fr)  
Echangeur thermique cintre

Publication  
**EP 1770343 A1 20070404 (FR)**

Application  
**EP 06291424 A 20060908**

Priority  
FR 0509931 A 20050929

Abstract (en)  
The heat exchanger, especially for a diesel-engined motor vehicle EGR circuit and comprising a thin-walled outer sleeve containing a number of parallel tubes, has a twist in at least part of the tube bundle. The tubes are made from a suitably supple material, such as low-carbon austenitic stainless steel between 0.3 and 0.8 mm thick, to allow them to be shaped without special tools, and the sleeve can have one or more corrugated bellows zones, especially in its bends.

IPC 8 full level  
**F28D 7/02** (2006.01)

CPC (source: EP)  
**F02M 26/11** (2016.02); **F02M 26/29** (2016.02); **F28D 7/0041** (2013.01); **F28D 7/08** (2013.01); **F28F 1/08** (2013.01); **F28F 9/0236** (2013.01); **F28F 21/082** (2013.01); **F28D 21/0003** (2013.01)

Citation (search report)

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Designated contracting state (EPC)  
DE ES FR GB IT

Designated extension state (EPC)  
AL BA HR MK YU

DOCDB simple family (publication)  
**EP 1770343 A1 20070404**; **EP 1770343 B1 20081126**; DE 602006003831 D1 20090108; ES 2316026 T3 20090401; FR 2891355 A1 20070330; FR 2891355 B1 20071130

DOCDB simple family (application)  
**EP 06291424 A 20060908**; DE 602006003831 T 20060908; ES 06291424 T 20060908; FR 0509931 A 20050929