

Title (en)

MULTIPLE-PASS HEAT EXCHANGER, IN PARTICULAR FOR MOTOR VEHICLE

Title (de)

MEHRFACHDURCHGANG-WÄRMETAUSCHER, INSBESONDERE FÜR KRAFTFAHRZEUG

Title (fr)

ECHANGEUR DE CHALEUR A PASSES MULTIPLES, EN PARTICULIER POUR VEHICULE AUTOMOBILE

Publication

EP 1558887 A2 20050803 (FR)

Application

EP 03786005 A 20031110

Priority

- FR 0303344 W 20031110
- FR 0214042 A 20021108

Abstract (en)

[origin: FR2847031A1] The heat exchanger has a collector (18) receiving the ends of multiple tubes (12,14). A collector box (20) covers the collector, and has a longitudinal wall (40) in contact with the collector defining first (50) and second (52) compartments into which the tubes open. The collector has a hollow region (56) facing the wall (40) to allow communication between the first and second compartments.

IPC 1-7

F28D 1/053

IPC 8 full level

F28D 1/053 (2006.01); **F28F 9/02** (2006.01); **F28F 21/06** (2006.01); **F28F 27/02** (2006.01)

CPC (source: EP)

F28D 1/05391 (2013.01); **F28F 9/0214** (2013.01); **F28F 9/026** (2013.01); **F28F 21/067** (2013.01)

Cited by

CN105333649A; WO2012065999A2; US10161686B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

FR 2847031 A1 20040514; **FR 2847031 B1 20050211**; AT E400783 T1 20080715; AU 2003295013 A1 20040603; AU 2003295013 A8 20040603; DE 60322090 D1 20080821; EP 1558887 A2 20050803; EP 1558887 B1 20080709; ES 2309381 T3 20081216; JP 2006505759 A 20060216; WO 2004044513 A2 20040527; WO 2004044513 A3 20040624

DOCDB simple family (application)

FR 0214042 A 20021108; AT 03786005 T 20031110; AU 2003295013 A 20031110; DE 60322090 T 20031110; EP 03786005 A 20031110; ES 03786005 T 20031110; FR 0303344 W 20031110; JP 2004550763 A 20031110