

Title (en)

HEAT CARRIER AND METHOD FOR THE PRODUCTION THEREOF

Title (de)

WAERME-UEBERTRAGER UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)

ECHANGEUR THERMIQUE ET SON PROCEDE DE PRODUCTION

Publication

EP 1509739 B1 20100120 (DE)

Application

EP 03735361 A 20030507

Priority

- DE 10221457 A 20020515
- EP 0304762 W 20030507

Abstract (en)

[origin: WO03098142A1] The invention relates to a heat carrier comprising at least one collector pipe (1) for receiving the ends of flat pipes (10a), especially for a CO₂ air conditioning unit for motor vehicles. The collector pipe (1) is formed by an open hollow profiled section (7) with edges (8, 9) forming a continuous longitudinal slit extending in a longitudinal direction and the ends of the flat pipes (10a), which are twisted at an angle of 90 DEG, are received in a fluidically tight manner in the longitudinal slot. According to the invention, the edges (8,9) partially abut, forming a separating joint (4) and are partially rolled back, forming receiving openings for the ends of the flat pipes (10a). The receiving openings are produced by plastic deformation.

IPC 8 full level

F28F 9/02 (2006.01); **B21C 37/08** (2006.01); **B21C 37/29** (2006.01); **B21D 22/02** (2006.01); **B21D 53/08** (2006.01); **B21J 5/10** (2006.01); **F28D 1/053** (2006.01); **F28F 1/02** (2006.01); **F28F 9/18** (2006.01); **F28F 9/26** (2006.01)

CPC (source: EP US)

B21C 37/0803 (2013.01 - EP US); **B21C 37/292** (2013.01 - EP US); **B21J 5/10** (2013.01 - EP US); **F28D 1/05366** (2013.01 - EP US); **F28F 1/025** (2013.01 - EP US); **F28F 9/0243** (2013.01 - EP US); **F28F 9/182** (2013.01 - EP US); **Y10T 29/49364** (2015.01 - EP US)

Cited by

US9265723B2

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)

WO 03098142 A1 20031127; AT E456018 T1 20100215; AU 2003236852 A1 20031202; BR 0304868 A 20040817; CN 100342201 C 20071010; CN 1653311 A 20050810; DE 10221457 A1 20031127; DE 50312361 D1 20100311; EP 1509739 A1 20050302; EP 1509739 B1 20100120; JP 2005525530 A 20050825; US 2005150108 A1 20050714

DOCDB simple family (application)

EP 0304762 W 20030507; AT 03735361 T 20030507; AU 2003236852 A 20030507; BR 0304868 A 20030507; CN 03811047 A 20030507; DE 10221457 A 20020515; DE 50312361 T 20030507; EP 03735361 A 20030507; JP 2004505621 A 20030507; US 51341504 A 20041104