

Title (en)

Heat exchanger tank

Title (de)

Wasserkasten für Wärmetauscher

Title (fr)

Boîte collectrice pour échangeur de chaleur

Publication

EP 1004841 A3 20000913 (EN)

Application

EP 99123593 A 19991126

Priority

- JP 33712798 A 19981127
- JP 35868498 A 19981217
- JP 30348499 A 19991026

Abstract (en)

[origin: EP1004841A2] A tank of heat exchanger (100) comprises a tank body (102) and a pipe member (106). The tank body (108) is made of clad metal and shaped like a channel member with a base wall (102c) and two opposed side walls (102a,b). The pipe member (106) is first spot welded with its flange (110) to the tank body (102) and then finally brazed in a furnace. <IMAGE>

IPC 1-7

F28F 9/04

IPC 8 full level

F28F 9/00 (2006.01); **F28F 9/02** (2006.01); **F28F 9/04** (2006.01)

CPC (source: EP)

F28F 9/002 (2013.01); **F28F 9/0224** (2013.01); **F28F 9/0246** (2013.01)

Citation (search report)

- [X] EP 0821213 A2 19980128 - CALSONIC CORP [JP]
- [X] EP 0863376 A2 19980909 - SANDEN CORP [JP]
- [A] US 2639899 A 19530526 - YOUNG FRED M
- [A] US 1572916 A 19260216 - GAMBLE WILLIAM J
- [A] GB 2098313 A 19821117 - IMI RADIATORS
- [XY] GB 1387673 A 19750319 - CHAUSSON USINES SA
- [Y] US 5662162 A 19970902 - FUKUOKA MIKIO [JP], et al
- [XA] EP 0860676 A2 19980826 - SANDEN CORP [JP]
- [XA] EP 0854346 A2 19980722 - SANDEN CORP [JP]
- [YA] FR 2681421 A1 19930319 - BEHR GMBH & CO [DE]
- [YA] GB 1095731 A 19671220 - ASS ENG LTD
- [A] EP 0825404 A2 19980225 - CALSONIC CORP [JP]
- [A] EP 0718580 A1 19960626 - NIPPON DENSO CO [JP]
- [A] PATENT ABSTRACTS OF JAPAN vol. 006, no. 249 (M - 177) 8 December 1982 (1982-12-08)
- [A] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 10 31 October 1996 (1996-10-31)

Cited by

DE10343634A1; CN102284757A; EP1391676A2; US6971445B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 1004841 A2 20000531; EP 1004841 A3 20000913; EP 1004841 B1 20030709; DE 69909408 D1 20030814; DE 69909408 T2 20040519

DOCDB simple family (application)

EP 99123593 A 19991126; DE 69909408 T 19991126