

Title (en)

Plate heat exchanger, especially oil cooler.

Title (de)

Plattenwärmetauscher, insbesondere Öl/Kühlmittel-Kühler.

Title (fr)

Echangeur de chaleur à plaques, en particulier refroidisseur d'huile.

Publication

EP 0623798 A3 19950628 (DE)

Application

EP 94107014 A 19940504

Priority

DE 4314808 A 19930505

Abstract (en)

[origin: EP0623798A2] The invention relates to a plate heat exchanger, especially an oil/coolant cooler having trough-shaped heat exchanger plates which are stacked one above the other and whose circumferential rims bear against one another and are sealingly soldered to one another. All the heat exchanger plates are of the same shape. As a result of using specially designed shapes in which turbulence-generating elevations or sealing stampings are worked into the heat exchanger plates, the number of inserts (internals), e.g. turbulence inlays or sealing washers, is reduced further.
<IMAGE>

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F28D 9/00

IPC 8 full level

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CPC (source: EP)

F28D 9/005 (2013.01); **F28F 3/044** (2013.01); **F28D 2021/0089** (2013.01)

Citation (search report)

- [X] US 4708199 A 19871124 - YOGO TAKEJI [JP], et al
- [A] WO 9004749 A1 19900503 - PACKINOX SA [FR]
- [A] US 4470454 A 19840911 - LAUGHLIN ROBERT M [US], et al
- [A] EP 0347961 A1 19891227 - ITT [US]
- [AP] GB 2270971 A 19940330 - CALSONIC CORP [JP]
- [A] DE 1601157 A1 19700716 - ROSENBLADS PATENTER AB
- [A] FR 2405454 A1 19790504 - ALFA LAVAL AB [SE]
- [A] FR 2362355 A1 19780317 - HITACHI LTD [JP]

Cited by

DE102008007916A1; DE102015209858A1; DE102014008426A1; EP1176380A3; US6039112A; DE20010816U1; DE19654365A1; DE19654365B4; CN111750079A; DE19712637B4; CN106482556A; DE19519740A1; US5964283A; DE19750748A1; DE19750748C2; GB2299397A; US5931219A; GB2299397B; US5927394A; DE19711396B4; CN103499227A; GB2355300A; GB2355300B; CN113834368A; EP2138793A3; EP3598051A1; US2017184347A1; JP2017120131A; CN106958472A; US10228192B2; US6843311B2; US10680296B2; DE102009041526A1; US10900716B2; CN104395685A; CN110332833A; WO2018051786A1; WO2016184687A1; US11274884B2; WO2011006825A2; US9528773B2; EP2088299A2; EP1522811B1; EP1065463B1; US6182746B1; WO2013020828A1; DE102011080828A1; US9863715B2; US8181695B2; WO2013020823A1; DE102011080824A1; US8544532B2; US10048013B2; EP1500895A2; EP1308685A2; US6681846B2; DE102009035239A1; EP2557383A2; DE102011080829A1; US9933215B2; US10222138B2; US10775114B2; EP1560097B2

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