

Title (en)
STACKED PLATE/FIN-TYPE HEAT EXCHANGER

Publication
EP 0136481 A3 19860226 (EN)

Application
EP 84109442 A 19840808

Priority
US 53824883 A 19831003

Abstract (en)
[origin: EP0136481A2] A stacked plate heat exchanger 10 which employs two types of finned plates for providing cross-flow of fluids, especially for cooling a hot liquid flow by a gas flow. The first plate 12 has a flat bottom 16 and a peripheral wall 26 on the top side. The central region of the plate 12 supports upstanding spaced fins 20 forming channels 22 the ends of which are contiguous with internal manifolds 24 at the end regions of the plate 12. A manifold port 28 is formed through the plate 12 in each end region. The second plate 14 has a flat bottom 34 and spaced fins 20 min forming channels 22 min in the central region extending downwardly from the top surface 36 of the plate 14. The end regions each have a manifold port 28 min extending therethrough in the same locations as the manifold ports 28 of the first plate 12 so that interior manifolds are formed thereby when the plates are stacked. The top surfaces of the fins 20 and peripheral wall 26 of the first plate 12, and of the fins 20 min and the end regions of the second plate 14, form flat planes.

IPC 1-7
F28F 3/08

IPC 8 full level
F28D 9/00 (2006.01); **F28F 3/04** (2006.01); **F28F 3/08** (2006.01)

CPC (source: EP)
F28D 9/0075 (2013.01); **F28F 3/048** (2013.01); **F28F 3/083** (2013.01)

Citation (search report)
• [Y] US 4347896 A 19820907 - ROSMAN IRWIN E, et al
• [Y] FR 95666 E 19710416 - SNECMA [FR]
• [Y] FR 1345815 A 19631213 - PARSONS C A & CO LTD
• [Y] FR 2132666 A1 19721124 - LEYBOLD HERAEUS VERWALTUNG
• [A] GB 732637 A 19550629 - MACHF BOLNES VOORHEEN J H VAN
• [A] GB 1178113 A 19700121 - ROOTES MOTORS LTD [GB]
• [A] DE 216789 C
• [A] FR 437925 A 19120503 - UNIT ENGINEERING COMPANY LTD [GB], et al
• [A] DE 2109346 A1 19711014 - APV CO LTD

Cited by
EP1757887A1; FR2595981A1; EP0183008A1; CN104748605A; EP0212878A1; AU693694B2; US2014262175A1; US10458725B2; FR2755217A1; EP4303519A1; US7549464B2; US7637112B2; WO0169157A3; WO2008108724A3; WO9638700A1

Designated contracting state (EPC)
BE CH DE FR GB LI NL SE

DOCDB simple family (publication)
EP 0136481 A2 19850410; **EP 0136481 A3 19860226**; DK 442284 A 19850404; DK 442284 D0 19840917; JP S6096891 A 19850530; NO 843967 L 19850409

DOCDB simple family (application)
EP 84109442 A 19840808; DK 442284 A 19840917; JP 20643884 A 19841003; NO 843967 A 19841002