

Title (en)
Heat exchanger with adapter

Title (de)
Wärmetauscher mit Adapter

Title (fr)
Echangeur de chaleur avec adaptateur

Publication
EP 0762072 A3 19980204 (EN)

Application
EP 96306434 A 19960905

Priority
• US 52597995 A 19950907
• US 69014596 A 19960731

Abstract (en)
[origin: EP0762072A2] The lack of flexibility in selecting locations for inlets or outlets or crossovers for a heat exchange fluid in a heat exchanger can be minimized in a heat exchanger construction including first and second spaced, generally parallel, tubular headers (10,12) having opposed ends with a plurality of tubes (20) in parallel and spaced from one another which extend between and have their ends in fluid communication with the interior of the headers (10,12). An adapter (90) in fluid communication with the interior of the headers (10,12) is fixed to the exterior of the heat exchanger to place the heat exchanger in communication with fluid conduits that may be disposed in a variety of locations in relation to the heat exchanger.

IPC 1-7
F28F 9/04; **F28D 1/03**

IPC 8 full level
F28F 9/02 (2006.01); **F28D 1/053** (2006.01); **F28F 9/04** (2006.01)

CPC (source: EP KR)
F28D 1/05391 (2013.01 - EP KR); **F28F 9/0246** (2013.01 - KR); **F28F 9/0253** (2013.01 - EP)

Citation (search report)
• [A] US 5327959 A 19940712 - SAPERSTEIN Z PHILIP [US], et al
• [A] DE 9309741 U1 19930826 - MANN & HUMMEL FILTER [DE]
• [A] EP 0625686 A2 19941123 - ZEXEL CORP [JP]
• [A] US 5042577 A 19910827 - SUZUMURA KEIJI [JP]
• [A] PATENT ABSTRACTS OF JAPAN vol. 017, no. 635 (M - 1514) 25 November 1993 (1993-11-25)

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FR2962800A1; EP1795847A3; FR3034183A1; EP3879217A4; US9651317B2; US12000657B2; US9885432B2; EP1314946A1; EP2660550A4; WO2012007133A1; WO2011124A1; WO2016151082A1

Designated contracting state (EPC)
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EP 96306434 A 19960905; AR 10427396 A 19960906; AT 96306434 T 19960905; AU 6448496 A 19960905; CA 2184647 A 19960903; CN 96112609 A 19960906; DE 69613918 T 19960905; ES 96306434 T 19960905; JP 24099296 A 19960826; KR 19960038419 A 19960905