

Title (en)  
Heat exchanger.

Title (de)  
Wärmetauscher.

Title (fr)  
Echangeur de chaleur.

Publication  
**EP 0617249 A3 19950405 (FR)**

Application  
**EP 94400628 A 19940324**

Priority  
US 3632493 A 19930324

Abstract (en)  
[origin: EP0617249A2] A heat exchanger (2) comprises an end tank (6) which defines, in this apparatus, a fluid inlet (16) via which fluid enters the heat exchanger during operation, and a fluid outlet (20) via which fluid leaves the heat exchanger (2) during operation, a plurality of heat-exchanger tubes (8) having end portions (10) by which the heat-exchanger tubes are connected to the said end tank (6), a plurality of heat-exchanger fins (12) connected to the heat-exchanger tubes (8), a plurality of end adapters (28) provided on the said end tank (6), extending outwards therefrom and defining passages in the said end tank, the said end portions (10) of the heat-exchange tubes being dimensioned to receive the said end adapters (28), wherein the end adapters (28) are each provided with two annular grooves (29) spaced axially on their external surface, an O-ring seal (30) being placed in each annular groove (29) in order to make a leaktight joint between the heat-exchanger tubes (8) and the end adapters (28). <IMAGE>

IPC 1-7  
**F28D 7/06**; **F28F 9/04**; **F28F 9/02**; **F28F 1/32**

IPC 8 full level  
**F28D 7/06** (2006.01); **F28F 1/32** (2006.01); **F28F 9/00** (2006.01); **F28F 9/02** (2006.01); **F28F 9/06** (2006.01)

CPC (source: EP US)  
**F28D 7/06** (2013.01 - EP US); **F28F 1/32** (2013.01 - EP US); **F28F 9/001** (2013.01 - EP US); **F28F 9/0217** (2013.01 - EP US); **F28F 9/06** (2013.01 - EP US)

Citation (search report)  
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DE FR GB IT

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**EP 0617249 A2 19940928**; **EP 0617249 A3 19950405**; US 5467818 A 19951121

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