

Title (en)  
Heat exchanger and method of making heat exchangers.

Title (de)  
Wärmetauscher und Verfahren zu dessen Herstellung.

Title (fr)  
Echangeur de chaleur et procédé pour sa fabrication.

Publication  
**EP 0683372 A1 19951122 (EN)**

Application  
**EP 95303180 A 19950511**

Priority  
JP 12469194 A 19940516

Abstract (en)  
A heat exchanger (20) comprises a first tank (21) and a second tank (22) spaced from the first tank (21). The first tank (21) and the second tank (22) include a plurality of connection holes aligned in rows. The heat exchanger further includes a plurality of pipe portions (25) aligned in a row and fluidly interconnected between the first tank and the second tank, and at least one connecting portion (26,27) connected with the plurality of pipe portions (25). The plurality of pipe portions (25) are simultaneously inserted into the connection holes of the first and second tanks (21,22) so that the at least one connecting portion (26,27) contacts either the first tank (21) or the second tank (22). <IMAGE>

IPC 1-7  
**F28F 9/013**; F28D 1/053; B21D 53/08

IPC 8 full level  
**F28F 1/00** (2006.01); **B21D 53/08** (2006.01); **F28D 1/053** (2006.01); **F28F 9/013** (2006.01); **F28F 9/02** (2006.01)

CPC (source: EP)  
**B21D 53/08** (2013.01); **F28D 1/05341** (2013.01); **F28F 9/013** (2013.01); **F28F 9/0202** (2013.01)

Citation (search report)  
• [XY] EP 0572187 A2 19931201 - CESARONI ANTHONY JOSEPH [CA]  
• [Y] EP 0539638 A1 19930505 - INST FRANCAIS DU PETROLE [FR]  
• [A] DE 1926187 A1 19701126 - SCHOELL DR ING GUENTER  
• [A] US 4657069 A 19870414 - EASTON DAVID J [US]

Designated contracting state (EPC)  
DE FR GB IT SE

DOCDB simple family (publication)  
**EP 0683372 A1 19951122**; CN 1123907 A 19960605; JP H07310992 A 19951128

DOCDB simple family (application)  
**EP 95303180 A 19950511**; CN 95107101 A 19950516; JP 12469194 A 19940516