

Title (en)  
Shell and tube heat exchanger.

Title (de)  
Rohrbündelwärmetauscher.

Title (fr)  
Echangeur de chaleur tubulaire.

Publication  
**EP 0259895 A1 19880316 (EN)**

Application  
**EP 87113723 A 19840327**

Priority  
• US 47923483 A 19830328  
• US 58297584 A 19840223

Abstract (en)  
A heat exchanger comprising a generally tubular shell (12), a pair of end assemblies (14, 16) coupled to the axially opposed ends of the shell (12) and a plurality of multi-walled tubes (75) having inner and outer walls (57, 96) and extending axially between the end assemblies (14, 16). Each end assembly (14, 16) comprising a tube sheet (40, 42) for receiving an outer wall (96) of a tube (75) and a center flange (32, 34) for receiving an inner wall (57) of the tube (75). At least in one end assembly (14) the outer wall (96) and the inner wall (57) of each multi-walled tube (75) are supported by the tube sheet (40) and the center flange (32) with an axially movable relationship, respectively, the center flange (32, 34) is disposed in an axially spaced relationship to the tube sheet (40, 42), and sealing means are provided between the tube sheet (40, 42) and the center flange (32, 34) for sealing the outer wall (96) of each tube (75) in an axially movable relationship to the tube sheet (40, 42) and for sealing the inner wall (57) of each tube (75) in an axially movable relationship to the center flange (32, 34).

IPC 1-7  
**F28F 1/00**; **F28F 9/02**; **F28F 9/04**

IPC 8 full level  
**F28D 7/16** (2006.01); **F28F 1/00** (2006.01); **F28F 1/08** (2006.01); **F28F 9/02** (2006.01); **F28F 9/22** (2006.01)

CPC (source: EP)  
**F28D 7/1638** (2013.01); **F28F 1/003** (2013.01); **F28F 1/08** (2013.01); **F28F 9/0219** (2013.01); **F28F 9/0229** (2013.01); **F28F 9/22** (2013.01); **F28F 2275/20** (2013.01)

Citation (search report)  
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Designated contracting state (EPC)  
BE DE FR GB IT NL SE

DOCDB simple family (publication)  
**EP 0259895 A1 19880316**; **EP 0259895 B1 19900718**; CA 1264735 A 19900123; DE 3479153 D1 19890831; DE 3482777 D1 19900823; DK 168684 A 19841109; DK 168684 D0 19840327; EP 0120497 A2 19841003; EP 0120497 A3 19851023; EP 0120497 B1 19890726

DOCDB simple family (application)  
**EP 87113723 A 19840327**; CA 450745 A 19840328; DE 3479153 T 19840327; DE 3482777 T 19840327; DK 168684 A 19840327; EP 84103378 A 19840327