

Title (en)

Shell and tube heat exchanger.

Title (de)

Gehäuse- und Röhrenwärmetauscher.

Title (fr)

Echangeur de chaleur à enveloppe et tubes.

Publication

**EP 0120497 A2 19841003 (EN)**

Application

**EP 84103378 A 19840327**

Priority

- US 47923483 A 19830328
- US 58297584 A 19840223

Abstract (en)

The heat exchanger of the shell-and-tube type includes end assemblies for venting fluid from the safety gaps of a plurality of multi-walled vented tubes. A telescoping arrangement of fluid flow tubes and inner sleeves associated with the end assemblies provides reliable sealing thereof. Baffling arrangements within the end assemblies and within a heat transfer chamber create an advantageous multi-pass contraflow between the heat exchange fluids.

IPC 1-7

**F28D 7/00**; F28F 9/02; F28F 9/22; F17D 5/04

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)

Cited by

US5004042A; US4870734A; EP0245465A4; EP0428920A1; CN117470000A

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