

Title (en)

COMPRESSION SEALING OF TUBES WITHIN SHELL AND TUBE HEAT EXCHANGERS

Publication

**EP 0117821 B1 19871111 (EN)**

Application

**EP 84400378 A 19840224**

Priority

US 47080683 A 19830228

Abstract (en)

[origin: EP0117821A2] The invention relates to a sealing means for shell and tube heat exchangers which means uses only components which are external to the heat exchanger shell to mechanically compress a series of rubber type gaskets and metal tube sheets and thereby seal the tube to tube sheet joints and the tube sheet to shell joints.

IPC 1-7

**F28F 9/14**

IPC 8 full level

**F28F 9/02** (2006.01); **F28F 9/06** (2006.01); **F28F 9/14** (2006.01)

CPC (source: EP)

**F28F 9/14** (2013.01)

Cited by

EP3009783A1; CN108317885A; EP0176275A1; CN108387121A; US9630130B2; US9429365B2; US10113670B2; WO9319340A1; WO2013149230A1; WO2011138444A1; US8870230B2; US9869408B2

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

**EP 0117821 A2 19840905; EP 0117821 A3 19850123; EP 0117821 B1 19871111**; AT E30768 T1 19871115; AU 2507484 A 19840906; BR 8304341 A 19841106; DE 3467398 D1 19871217; DK 104984 A 19840829; DK 104984 D0 19840227; GR 79820 B 19841031; JP S59164894 A 19840918; NZ 207207 A 19861205; ZA 841420 B 19851030

DOCDB simple family (application)

**EP 84400378 A 19840224**; AT 84400378 T 19840224; AU 2507484 A 19840227; BR 8304341 A 19830812; DE 3467398 T 19840224; DK 104984 A 19840227; GR 840173894 A 19840222; JP 3548084 A 19840228; NZ 20720784 A 19840220; ZA 841420 A 19840227