

Title (en)

Heat exchanger with holding means of anti-vibration bars inserted between the bundle tubes

Title (de)

Wärmetauscher mit Haltevorrichtung für zwischen die Rohre eingelegte Dämpfungsstangen

Title (fr)

Echangeur de chaleur comportant des moyens de maintien de barres antivibratoires intercalés entre les tubes du faisceau de l'échangeur

Publication

EP 0639741 B1 19961211 (FR)

Application

EP 94401848 A 19940811

Priority

FR 9310158 A 19930820

Abstract (en)

[origin: EP0639741A1] The heat exchanger comprises at least one metal arch (20) having a shape similar to the shape of the arched parts (5b) of the tubes of the bundle, fixed at each of its ends on the bracing plate (10a) situated closest to the arched parts (5b) of the tubes, in the continuation of two stay rods (14), inserted between two successive tubes of a plane sheet of tubes (18) and comprising means (22) for fixing the assembly of anti-vibration bars (13) inserted between two adjacent sheets of tubes. <IMAGE>

IPC 1-7

F22B 37/20; F28F 9/00

IPC 8 full level

F22B 1/16 (2006.01); **F22B 37/20** (2006.01); **F28D 7/06** (2006.01); **F28F 9/00** (2006.01); **F28F 9/013** (2006.01)

CPC (source: EP KR US)

F22B 37/206 (2013.01 - EP KR US); **F28D 7/06** (2013.01 - EP KR US); **F28F 9/0132** (2013.01 - EP KR US)

Cited by

CN103659169A; EP2003416A4; EP0731328A1; FR2731508A1; EP1061320A3

Designated contracting state (EPC)

BE DE ES GB SE

DOCDB simple family (publication)

EP 0639741 A1 19950222; EP 0639741 B1 19961211; CA 2130491 A1 19950221; CN 1102500 A 19950510; DE 69401103 D1 19970123; FR 2709174 A1 19950224; FR 2709174 B1 19951117; JP H07151487 A 19950616; KR 950006417 A 19950321; US 5447191 A 19950905

DOCDB simple family (application)

EP 94401848 A 19940811; CA 2130491 A 19940819; CN 94109103 A 19940819; DE 69401103 T 19940811; FR 9310158 A 19930820; JP 19703794 A 19940822; KR 19940020465 A 19940819; US 29282494 A 19940819