

Title (en)

Device for antivibrationally securing tubes of a heat exchanger and use thereof

Title (de)

Vorrichtung für schwingungsneutralisierendes Festsetzen von Wärmetauscherrohren und seine Verwendung

Title (fr)

Dispositif de calage antivibratoire de tubes d'un échangeur de chaleur et utilisation

Publication

EP 0654636 B1 19980513 (FR)

Application

EP 94402249 A 19941006

Priority

FR 9312514 A 19931020

Abstract (en)

[origin: EP0654636A1] The securing device comprises sets of antivibratory bars (25, 25') interposed between sheets of tubes (24) of the bank of the steam generator, in the upper part of the bank known as the tube-bend region. The antivibratory bars (25, 25') comprise parts (25b, 25'b) which project in relation to the tube-bend region and the securing device comprises means of connecting the end parts of the antivibratory bars which comprise aligned openings. The connecting means comprise a screw (21), the head (21a) of which is intended to come to bear against a first antivibratory bar (25) and the threaded shank (21b) of which is screwed into a distance piece (22). The distance piece (22) is fixed either in a second distance piece, or in a tapped fixing element (23), via a threaded part (22b). The threaded parts (21b) of the screw and (22b) of the distance piece pass through the antivibratory bars (25, 25') through the aligned openings. <IMAGE>

IPC 1-7

F22B 37/20; F28F 9/013

IPC 8 full level

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

CPC (source: EP KR US)

F22B 37/206 (2013.01 - EP US); **F28D 7/06** (2013.01 - EP US); **F28F 9/00** (2013.01 - KR); **F28F 9/0132** (2013.01 - EP US)

Designated contracting state (EPC)

BE DE GB SE

DOCDB simple family (publication)

EP 0654636 A1 19950524; EP 0654636 B1 19980513; CN 1076462 C 20011219; CN 1104321 A 19950628; DE 69410215 D1 19980618; DE 69410215 T2 19981029; FR 2711419 A1 19950428; FR 2711419 B1 19960202; KR 100358820 B1 20030205; KR 950012027 A 19950516; TW 279233 B 19960621; US 5514250 A 19960507

DOCDB simple family (application)

EP 94402249 A 19941006; CN 94117179 A 19941019; DE 69410215 T 19941006; FR 9312514 A 19931020; KR 19940026791 A 19941020; TW 83110301 A 19941105; US 32466094 A 19941018