

Title (en)

Heat exchanger having a bundle of finned tubes immobilized with a header box

Title (de)

Wärmetauscher mit einer steifen Verbindung zwischen Rippenrohrbündel und einer Sammler-Wasserkartoneinheit

Title (fr)

Echangeur de chaleur comportant un faisceau de tubes à ailettes immobilisé par rapport à un ensemble collecteur-boîte à eau

Publication

EP 0567401 B1 19960710 (FR)

Application

EP 93401037 A 19930421

Priority

FR 9204861 A 19920421

Abstract (en)

[origin: EP0567401A1] The invention relates to a heat exchanger of the type comprising a bundle (10) of tubes (12) fitted with fins (14), in which the ends (16) of the tubes are mounted sealed in the holes of a manifold (20) onto which a header box (28) is fixed. The heat exchanger comprises at least one attached element (38) interposed between the bundle (10) and the manifold (20)-header box (28) assembly, including a first part (40) capable of bearing on the manifold-header box assembly and a second part (44) extending parallel to the direction of the tubes (12) of the bundle and capable of bearing on the longitudinal edges of a group of a plurality of fins adjacent to the manifold, so as to oppose relative movement, in particular pivoting or twisting, of the bundle (10) with respect to the manifold (20). Application in particular to motor vehicles. <IMAGE>

IPC 1-7

F28F 9/00; **F28F 9/02**

IPC 8 full level

F28D 1/053 (2006.01); **F28F 9/00** (2006.01); **F28F 9/02** (2006.01); **F28F 21/06** (2006.01)

CPC (source: EP US)

F28D 1/053 (2013.01 - EP US); **F28F 9/001** (2013.01 - EP US); **F28F 9/02** (2013.01 - EP US); **F28F 9/0226** (2013.01 - EP US); **F28F 21/067** (2013.01 - EP US); **F28F 2265/32** (2013.01 - EP US)

Cited by

FR2746178A1; DE20016331U1; US6769478B2; EP0777097A1; FR2742527A1; FR3056727A1; EP0708303A1; FR2726075A1; US5630472A; FR2975767A1; WO2018060607A1

Designated contracting state (EPC)

DE ES GB IT

DOCDB simple family (publication)

EP 0567401 A1 19931027; **EP 0567401 B1 19960710**; DE 69303535 D1 19960814; DE 69303535 T2 19961031; ES 2089750 T3 19961001; FR 2690230 A1 19931022; FR 2690230 B1 19940603; US 5355944 A 19941018

DOCDB simple family (application)

EP 93401037 A 19930421; DE 69303535 T 19930421; ES 93401037 T 19930421; FR 9204861 A 19920421; US 5067893 A 19930421