

Title (en)

HEAT EXCHANGER WITH TUBES BOLTED TO THE HEADER BOX

Publication

EP 0099806 A3 19840328 (FR)

Application

EP 83401402 A 19830707

Priority

ES 51408882 A 19820716

Abstract (en)

[origin: EP0099806A2] 1. Heat exchanger with tubes locked to the tube end plate comprising fins (2) engaged on the tubes (1) which are themselves engaged into resilient material collars (5) placed into the tube passages of a tube end plate (3), characterized by stop members (7) having at least one hole (8) of a diameter smaller than outer diameter of the tubes, said stop members being forcibly engaged on the end protruding in the tube end plate of at least some of the tubes to which it is connected.

IPC 1-7

F28F 9/14; F28F 9/02

IPC 8 full level

F28F 9/14 (2006.01)

CPC (source: EP)

F28F 9/14 (2013.01); **F28F 2265/32** (2013.01); **F28F 2275/065** (2013.01)

Citation (search report)

- [X] FR 2214876 A1 19740819 - SUEDDEUTSCHE KUEHLER BEHR [DE]
- [Y] DE 2004860 A1 19700806
- [Y] DE 3004837 A1 19810820 - LANGBEIN & ENGELBRECHT [DE]
- [A] GB 1255479 A 19711201 - FT PRODUCTS LTD [GB]
- [A] FR 2389306 A7 19781124 - SUEDDEUTSCHE KUEHLER BEHR [DE]
- [A] FR 2484071 A1 19811211 - VALEO [FR]
- [A] FR 2380488 A1 19780908 - HAMON SOBELCO SA [BE]
- [A] CH 468608 A 19690215 - SULZER AG [CH]
- [A] GB 2082312 A 19820303 - IMI RADIATORS
- [A] DE 2036398 A1 19710204

Cited by

DE3247502A1; EP0393221A1; FR2578968A1; CN106705703A; FR2636130A1; US7712327B2

Designated contracting state (EPC)

BE DE GB IT

DOCDB simple family (publication)

EP 0099806 A2 19840201; EP 0099806 A3 19840328; EP 0099806 B1 19850703; BR 8303785 A 19840221; DE 3360352 D1 19850808;
DE 99806 T1 19840927; FR 2530328 A1 19840120; FR 2530328 B1 19870605

DOCDB simple family (application)

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