

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

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Application

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Priority

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Abstract (en)

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>

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IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [AD] FR 2560368 A1 19850830 - VALEO [FR], et al
- [A] FR 2504251 A1 19821022 - SUEDEDEUTSCHE KUEHLER BEHR [DE]
- [A] GB 2086561 A 19820512 - CHAUSSON USINES SA
- [A] FR 2639099 A1 19900518 - VALEO CHAUSSON THERMIQUE [FR]

Cited by

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

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DOCDB simple family (application)

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