

Title (en)

METHOD FOR PROVIDING FLAT TUBE DESIGNS FOR AN AUTOMOTIVE HEAT EXCHANGER

Title (de)

VERFAHREN ZUR AUSLEGUNG VON FLACHROHREN FÜR KRAFTFAHRZEUG-WÄRMETAUSCHER

Title (fr)

PROCÉDÉ POUR LA CONFIGURATION DE TUBES PLATS POUR ÉCHANGEUR DE CHALEUR DE VÉHICULE AUTOMOBILE

Publication

EP 1608928 A1 20051228 (EN)

Application

EP 04721949 A 20040319

Priority

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Abstract (en)

[origin: GB2399623A] A flat tube heat exchanger comprises tubes 1 having a plurality of non-circular cross-sectional shaped flow channels 2 extending in a longitudinal direction of the tubes 1. Tubes 1 maybe extruded aluminium, extend between headers and stacked in rows with fins in thermal contact with adjacent spaced tubes for the passage of air to increase heat transfer. Channels 2 may communicate high pressure carbon dioxide refrigerant and maybe triangular and arranged in tessellating relationship, rectangular, or rectangular with a waist portion mid way along its width (fig 5). The shape of the tubes 1 reduces the weight of the heat exchanger, increases heat transfer conductance of the heat exchanger using a high pressure refrigerant and also offers good strength characteristics.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

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