

Title (en)

HEAT EXCHANGER WITH WATER HEADERS MADE OF PLASTICS AND WITH METAL WATER TUBES, AND A METHOD FOR ITS MANUFACTURE

Publication

**EP 0000189 B2 19890322 (DE)**

Application

**EP 78100228 A 19780623**

Priority

DE 2728827 A 19770627

Abstract (en)

[origin: EP0000189A1] 1. A heat exchanger, in particular for motor cars with a one-piece connector chamber subdivided into an entrance chamber and a back-flow chamber and a one-piece header chamber of synthetic material, which are connected one with the other via a nest of water pipes of metal held together by air-guiding fins, the ends of the pipes being sealable fixed via a hardenable synthetic material introduced into groove-shaped recesses on the outside of the bottoms of the water chambers flaring out into the pipe apertures, characterised in that the outsides of the bottoms (8, 9) of the water chambers (1, 2) are provided with a plurality of pipe sockets (10) surrounded at a distance from the latter by annular lands (11), the hardenable synthetic material (5) being disposed in the axially open annular grooves (12) formed between the pipe sockets (10) and the annular lands (11), into which material the ends (13) of the pipes, slidable over the pipe sockets (10), can be sunk with their salient collars (14).

IPC 1-7

**F28F 9/16**; **B29C 27/30**

IPC 8 full level

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CPC (source: EP)

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Cited by

FR2777645A1; DE2934106A1; FR2499234A1; EP0590945A1; US4872504A; US4735261A; US6082439A; EP0845650A3; DE4000727A1; GB2228982A; GB2228982B; FR2914411A1; CN1079727C; EP0164327A1; DE102016207319A1; WO2008025617A1

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