

Title (en)
HEAT EXCHANGER

Title (de)
WÄRMETAUSCHER

Title (fr)
ECHANGEUR DE CHALEUR

Publication
EP 0828980 A1 19980318 (DE)

Application
EP 96909112 A 19960322

Priority
• DE 19519740 A 19950602
• EP 9601252 W 19960322

Abstract (en)
[origin: DE19519740A1] The proposal is for a heat exchanger, especially an oil cooler for internal combustion engines. It consists of a plurality of mutually parallel tubes to convey the heat exchange medium and blade-like heat exchange elements (11) arranged perpendicularly to the tubes. The heat exchange elements (11) are firmly secured to the tubes and also bent at the outer edges and are superimposed in the manner of scales. The medium to be cooled is fed in via pipes arranged perpendicularly to the heat exchange elements. Said pipes open into a distributor plate (13) having a liquid inlet (15) and a liquid outlet (20). The inlet (21) and/or the outlet (22) for the coolant is also fitted in the distributor plate (13).

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F28D 9/00

IPC 8 full level
F01P 11/08 (2006.01); **F28D 9/00** (2006.01); **F28F 3/08** (2006.01); **F28F 9/04** (2006.01)

CPC (source: EP KR US)
F28D 9/00 (2013.01 - KR); **F28D 9/005** (2013.01 - EP US); **F28F 9/0246** (2013.01 - EP US); **F28F 9/0253** (2013.01 - EP US); **F28D 2021/0089** (2013.01 - EP US); **F28F 2280/06** (2013.01 - EP US); **Y10S 165/906** (2013.01 - EP US); **Y10S 165/916** (2013.01 - EP US)

Citation (search report)
See references of WO 9638699A1

Cited by
KR20170097156A; KR101868306B1; EP1522811A2; US7533717B2

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DE ES FR GB IT SE

DOCDB simple family (publication)
DE 19519740 A1 19961205; **DE 19519740 B4 20050421**; BR 9608420 A 19981229; DE 59606144 D1 20001221; EP 0828980 A1 19980318; EP 0828980 B1 20001115; ES 2153956 T3 20010316; JP 3878671 B2 20070207; JP H11506532 A 19990608; KR 100390235 B1 20031023; KR 19990022246 A 19990325; US 5964283 A 19991012; WO 9638699 A1 19961205; ZA 964398 B 19961209

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