

Title (en)
HEAT EXCHANGER.

Title (de)
WÄRMETAUSCHER.

Title (fr)
ECHANGEUR DE CHALEUR.

Publication
EP 0653043 A1 19950517 (DE)

Application
EP 94918832 A 19940601

Priority
• DE 9309741 U 19930630
• EP 9401788 W 19940601

Abstract (en)
[origin: US5810071A] A heat exchanger, in particular an oil cooler for internal combustion engines, composed of several parallel tubes (19) for the heat exchange medium and of lamellar, plate-like heat exchange elements (10) arranged perpendicular to the tubes and fixed thereto. The heat exchange elements (10) are bent at their outer edges (11) and are nested on top of each other. An adapter element (13) is provided for supplying the medium to be cooled. The adapter element (13) has liquid inlet (15), a liquid outlet (18) and a mounting member (14) for the heat exchanger.

IPC 1-7
F28D 9/00; F01M 5/00

IPC 8 full level
F28F 3/08 (2006.01); **F01M 5/00** (2006.01); **F28D 9/00** (2006.01); **F28D 9/02** (2006.01); **F28F 3/10** (2006.01); **F28F 9/04** (2006.01); **F28F 27/00** (2006.01)

CPC (source: EP US)
F01M 5/002 (2013.01 - EP US); **F28D 9/005** (2013.01 - EP US); **F28D 9/0075** (2013.01 - EP US); **F28F 9/0246** (2013.01 - EP US); **F28F 27/00** (2013.01 - EP US); **F28D 2021/0089** (2013.01 - EP US); **F28F 2280/06** (2013.01 - EP US); **Y10S 165/916** (2013.01 - EP US)

Citation (search report)
See references of WO 9429659A1

Citation (third parties)
Third party :
Installation Manual for CB units

Cited by
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Designated contracting state (EPC)
AT DE ES FR GB IT

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US 5810071 A 19980922; AT E246794 T1 20030815; BR 9405416 A 19990908; CZ 23995 A3 19950614; CZ 293255 B6 20040317; DE 59410313 D1 20030911; DE 9309741 U1 19930826; EP 0653043 A1 19950517; EP 0653043 B1 20030806; JP H09500710 A 19970121; WO 9429659 A1 19941222

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US 75141896 A 19961118; AT 94918832 T 19940601; BR 9405416 A 19940601; CZ 23995 A 19940601; DE 59410313 T 19940601; DE 9309741 U 19930630; EP 9401788 W 19940601; EP 94918832 A 19940601; JP 50127094 A 19940601