

Title (en)

Heat exchanger, especially radiator for combustion engines of commercial vehicles

Title (de)

Wärmetauscher, insbesondere Kühler für Verbrennungskraftmaschinen von Nutzfahrzeugen

Title (fr)

Echangeur de chaleur, spécialement radiateur pour machines à combustion interne de véhicules utilitaires

Publication

EP 0689022 B1 19970820 (DE)

Application

EP 95108894 A 19950609

Priority

DE 4421835 A 19940622

Abstract (en)

[origin: EP0689022A1] The fan cowl (7) is engaged with the tanks (3,4) of the finned-tube block by movement at right angles and then parallel to the front surface, being held in position by lugs (19-22) engaging in locking members. One or more hinge joints (14) are provided between the cowl and tanks, the lugs and members being so designed as to engage together during pivoting on th hinge axis. The hinge pin can be mounted on the bottom tank and one or more lugs on the top one. The pin can be on a lateral portion of the bottom tank and one lug at the middle of the top one, while there is a second lug on the bottom tank at the opposite side to the pin. <IMAGE>

IPC 1-7

F28D 1/03; **F28F 9/00**

IPC 8 full level

F28D 1/02 (2006.01); **F28D 1/03** (2006.01); **F28F 9/00** (2006.01)

CPC (source: EP US)

F28D 1/024 (2013.01 - EP US); **F28F 9/002** (2013.01 - EP US); **F28F 2280/105** (2013.01 - EP US)

Cited by

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Designated contracting state (EPC)

DE ES FR GB

DOCDB simple family (publication)

EP 0689022 A1 19951227; **EP 0689022 B1 19970820**; DE 4421835 A1 19960104; DE 59500524 D1 19970925; ES 2107272 T3 19971116; US 5522457 A 19960604

DOCDB simple family (application)

EP 95108894 A 19950609; DE 4421835 A 19940622; DE 59500524 T 19950609; ES 95108894 T 19950609; US 45864995 A 19950602