Title (en)
FLAT RADIATOR

Publication
EP 0176997 A3 19861029 (DE)

Application
EP 85112346 A 19850928

Priority
DE 8429260 U 19841005

Abstract (en)
[origin: EP0176997A2] A flat radiator consists of at least two sheet-steel plates (1, 2) which are arranged in parallel with one another and have a panel-shaped basic shape, which, forming flow ducts (13, 14, 15) for the heating medium, are brought into mutual rest against one another by moulded-in beads (5, 5') area by area between their mutually facing inner broad sides and are welded to one another. A convector plate (16) of aluminium is directly bonded by means of a heat-resistant adhesive to the outer broad side of one (2) of the two sheet-steel plates (1, 2) in the area of flow ducts (14, 15) for the heating medium. The bonding of the convector plate (16) represents a very simple type of joint. At the same time, better conditions have been created for the heat transfer from heating medium to the convector plate. <IMAGE>

IPC 1-7
F28D 1/03; F28F 3/02

IPC 8 full level
F28D 1/03 (2006.01); **F28F 3/02** (2006.01)

CPC (source: EP)
F28D 1/0308 (2013.01); **F28F 3/025** (2013.01); **F28F 3/046** (2013.01); F28F 2275/025 (2013.01)

Citation (search report)
- [X] DE 3329291 A1 19840223 - VOGEL & NOOT AG [AT]
- [Y] DE 2921770 A1 19801204 - FERON ALBERT
- [Y] GB 1273141 A 19720503 - GLACIER CO LTD
- [Y] DE 2539856 A1 19770317 - SCHAEFER WERKE KG
- [Y] FR 2371643 A1 19780616 - ALUSUISSE [CH]
- [A] FR 2170836 A1 19730921 - FONDERIE SOC GEN DE [FR]

Cited by
DE102015208479A1; CN111037066A; GB2519510A; EP0263454A3; EP0353499A1; EP1826495A3; DE3838513A1; EP0319738A3; EP3064879A1

Designated contracting state (EPC)
AT CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0176997 A2 19860409; **EP 0176997 A3 19861029**; BE 901049 A 19850301; DE 8429260 U1 19850103; ES 289280 U 19860301; ES 289280 Y 19861001

DOCDB simple family (application)
EP 85112346 A 19850928; BE 214003 A 19841114; DE 8429260 U 19841005; ES 289280 U 19850927