

Title (en)
Fan shroud for radiator.

Title (de)
Lüfterzarge für Kühler.

Title (fr)
Capotage d'un ventilateur pour un radiateur.

Publication
EP 0367079 A1 19900509 (EN)

Application
EP 89119779 A 19891024

Priority
JP 27308688 A 19881031

Abstract (en)
A fan shroud is mounted on a radiator for guiding air flow around an axial fan of a liquid cooled internal combustion engine. The fan shroud includes a mouth portion (16) which extends coaxially with the central axis of the fan. A plurality of fin plates (18) are circumferentially disposed at regular intervals on the inside surface of the mouth portion. The fin plates project radially inwardly into the space between the fan and a core of the radiator. Within the space, irregular patterns of turbulent flow are controlled and transformed into regular patterns flying toward axial directions, whereby a volume of air flow increases and a fan noise per volume is diminished.

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F04D 29/54

IPC 8 full level
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CPC (source: EP KR)
F04D 29/54 (2013.01 - KR); **F04D 29/547** (2013.01 - EP)

Citation (search report)
• [Y] DE 1161481 B 19640116 - VOITH GMBH J M
• [Y] DE 2345506 A1 19740411 - FORD WERKE AG
• [X] PATENT ABSTRACTS OF JAPAN vol. 8, no. 47 (M-280)(1484) 02 March 1984, & JP-A-58 200097 (MITSUBISHI) 21 November 1983,

Cited by
DE10233859A1; US2019145427A1; FR3075324A1; US11009042B2; US11280348B2; US9074515B2; EP3657112A4; WO2019122764A1

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