(11) **EP 1 382 927 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: **14.09.2005 Bulletin 2005/37**

(51) Int Cl.⁷: **F28D 7/00**, F28F 9/02

(43) Date of publication A2: 21.01.2004 Bulletin 2004/04

(21) Application number: 03077306.3

(22) Date of filing: 18.07.2003

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HU IE IT LI LU MC NL PT RO SE SI SK TR
Designated Extension States:

AL LT LV MK

(30) Priority: 19.07.2002 NL 1021111

(71) Applicant: Bloksma B.V. 1332 AB Almere (NL)

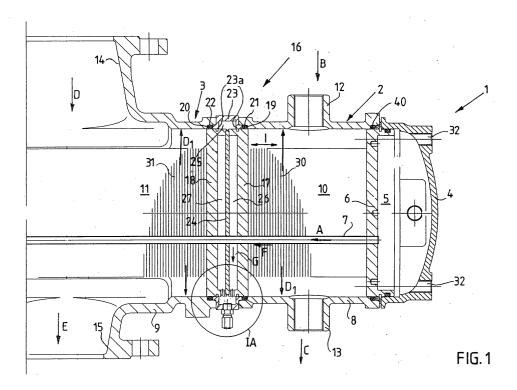
(72) Inventor: Bloksma, Walter 1332 AB Almere (NL)

(74) Representative: Ferguson, Alexander
 Octrooibureau Vriesendorp & Gaade B.V.
 P.O. Box 266
 2501 AW Den Haag (NL)

(54) Cooling device

(57) Cooling device (1) comprising at least one gas or air cooling chamber (3) and at least one fluid cooling chamber (2), particularly oil cooling chamber, positioned adjacently, as well as one or more tubes (7) for passage of coolant, which tubes (7) extend through both the air cooling chamber (3) and the fluid cooling chamber (2),

in which between the adjacently placed walls of the air cooling chamber and the fluid cooling chamber, a separation chamber (26,27) is placed through which the tubes (7) extend, in which in the separation chamber means (24) are placed which are in stationary contact with the outer surface of the tubes (7) for intercepting a fluid flow past said outer surface.





EUROPEAN SEARCH REPORT

Application Number EP 03 07 7306

| Category | Citation of document with indi of relevant passage | | Relevant to claim | CLASSIFICATION OF THE APPLICATION (Int.CI.7) | |
|--|---|---|--|--|--|
| Х | EP 0 205 205 A (DOW 17 December 1986 (19 * column 9, line 47 figures 1,2 * | | 1,2,9 | F28D7/00 F28F9/02 | |
| A | GB 2 024 401 A (FUNK 9 January 1980 (1980 * page 1, line 106 - | | 1 | | |
| A | US 2002/036078 A1 (J. AL) 28 March 2002 (2 * page 2, paragraph | | 1,9,14 | | |
| A | FR 1 128 665 A (CIBO 9 January 1957 (1957 * the whole document | -01-09) | 1,9,14 | | |
| A | US 4 214 443 A (HERE 29 July 1980 (1980-0 * column 5, line 51 figure 5 * | 7-29) | 19 | TECHNICAL FIELDS SEARCHED (Int.Cl.7) F28D F28F | |
| | The present search report has been Place of search | en drawn up for all claims Date of completion of the search | 1 | Examiner | |
| | The Hague | 22 July 2005 | Mod | otz, F | |
| CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document | | T : theory or princip E : earlier patent do after the filing da D : document cited i L : document cited f | T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document oited for other reasons &: member of the same patent family, corresponding document | | |

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 03 07 7306

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

22-07-2005

| | atent document d in search report | | Publication date | | Patent family member(s) | | Publication date |
|------|--------------------------------------|----|------------------|----------------------|---|---------|--|
| EP | 0205205 | Α | 17-12-1986 | NL EP | 8501514 0205205 | | 16-12-1986 17-12-1986 |
| GB : | 2024401 | A | 09-01-1980 | DE FR IT JP | 2829121 2430586 1122007 55038492 | A1 B | 17-01-1980 01-02-1980 23-04-1980 17-03-1980 |
| US | 2002036078 | A1 | 28-03-2002 | AU WO | 9657501 0227256 | | 08-04-2002 04-04-2002 |
| FR | 1128665 | Α | 09-01-1957 | NONE | | | |
| US | 4214443 | Α | 29-07-1980 | NONE | | | |

FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82