Abstract (en)

[origin: EP0103042A1] 1. A fan comprising blades which can be automatically rotated about a longitudinal axis on an impeller hub of the fan, in order to avoid undesired rotation speeds, using centrifugal weights and two stop means, which are operative in different directions, characterized by the following features : a) first blades (2) are permanently arranged on the impeller hub (1) and the remaining blades (3) are mounted so as to be freely rotatable about their axes of gravity ; b) a first stop means (6) is provided which delimits the operating position of the remaining blades (3) and a second stop means (7) is provided against which the remaining blades (3) abut, in the event of a malfunction, in a position opposing the first blades (2) ; c) in an upstream region of the impeller hub (1) each of the remaining blades (3) is permanently connected to a counter-weight (5) ; d) at low starting speeds the remaining blades (3) are maintained solely by the counter-weight (5) - and at normal operating speeds additionally by the aerodynamic forces - in an operating position which is equivalent to the position of the first blades (2) (Fig. 1 to 4).

IPC 1-7

F04D 27/00; F04D 29/36

IPC 8 full level

F04D 27/02 (2006.01); F04D 29/36 (2006.01)

CPC (source: EP)

F04D 27/002 (2013.01); F04D 29/366 (2013.01)

Citation (examination)

FR 1553046 A 19690110

Cited by

US5742107A; CN106194832A; EP1967739A3; KR101383926B1; US7971519B2; WO2009135698A1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

EP 0103042 A1 19840321; EP 0103042 B1 19860813; AT E21438 T1 19860815; DD 217585 A5 19850116; DE 3272588 D1 19860918; DK 157147 B 19891113; DK 157147 C 19900416; DK 413983 A 19840315; DK 413983 D0 19830913

DOCDB simple family (application)

EP 82108470 A 19820914; AT 82108470 T 19820914; DD 25474583 A 19830912; DE 3272588 T 19820914; DK 413983 A 19830913