

Title (en)

AERODYNAMIC DEVICE OF A ROTOR BLADE OF A WIND TURBINE

Title (de)

AERODYNAMISCHE VORRICHTUNG EINER ROTORSCHAUFEL EINER WINDTURBINE

Title (fr)

DISPOSITIF AÉRODYNAMIQUE D'UNE PALE DE ROTOR D'UNE ÉOLIENNE

Publication

EP 3146201 A1 20170329 (EN)

Application

EP 15716486 A 20150410

Priority

- EP 14169666 A 20140523
- EP 2015057802 W 20150410

Abstract (en)

[origin: WO2015176868A1] The invention relates to a rotor blade (20) for a wind turbine (10), the rotor blade (20) comprising a rotor blade body (31) and an aerodynamic device (32). The aerodynamic device comprises a first portion (321) by which the aerodynamic device (32) is attached to the rotor blade body (31), and a second portion (322) which is movable with regard to the rotor blade body (31). The aerodynamic device (32) is configured such that if load on the aerodynamic device (32) exceeds a predetermined value, a torque is generated on the second portion (322) of the aerodynamic device (32) such that the second portion (322) is passively deflected; and due to the deflection of the second portion (322) of the aerodynamic device (32), the airflow flowing from the leading edge section (24) to the trailing edge section (23) of the rotor blade (20) is deviated such that load on the rotor blade (20) is alleviated. The rotor blade (20) is characterized in that the first portion (321) and the second portion (322) of the aerodynamic device (32) are located at different spanwise positions of the rotor blade (20). Furthermore, the invention is related to a wind turbine (10) comprising at least one of such a rotor blade (20).

IPC 8 full level

F03D 1/06 (2006.01)

CPC (source: EP)

F03D 1/0675 (2013.01); **F05B 2240/132** (2013.01); **F05B 2240/305** (2020.08); **F05B 2240/311** (2013.01); **F05B 2260/96** (2013.01); **Y02E 10/72** (2013.01)

Citation (search report)

See references of WO 2015176868A1

Citation (examination)

EP 2937558 A1 20151028 - SIEMENS AG [DE]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2015176868 A1 20151126; EP 3146201 A1 20170329

DOCDB simple family (application)

EP 2015057802 W 20150410; EP 15716486 A 20150410