

# (12) International Application Status Report

**Received at International Bureau:** 02 August 2018 (02.08.2018)

**Information valid as of:** 15 January 2019 (15.01.2019)

**Report generated on:** 19 October 2019 (19.10.2019)

**(10) Publication number:**

WO2019/024966

**(43) Publication date:**

07 February 2019 (07.02.2019)

**(26) Publication language:**

English (EN)

**(21) Application Number:**

PCT/DK2018/050189

**(22) Filing Date:**

02 August 2018 (02.08.2018)

**(25) Filing language:**

English (EN)

**(31) Priority number(s):**

62/540,610 (US)

**(31) Priority date(s):**

03 August 2017 (03.08.2017)

**(31) Priority status:**

Priority document received (in compliance with PCT Rule 17.1)

PA 2017 70607 (DK)

08 August 2017 (08.08.2017)

Priority document received (in compliance with PCT Rule 17.1)

**(51) International Patent Classification:**

**B23C 5/04** (2006.01); **B23C 5/18** (2006.01)

**(71) Applicant(s):**

VESTAS WIND SYSTEMS A/S [DK/DK]; Hedeager 42 8200 Aarhus N (DK) *(for all designated states)*

**(72) Inventor(s):**

HAIGHT, Jeremy; 5845 Urban St Arvada, Colorado 80004 (US)

**(54) Title (EN):** MILL BIT FOR THE MANUFACTURE OF A WIND TURBINE BLADE AND METHOD OF FORMING SAME

**(54) Title (FR):** TRÉPAN POUR LA FABRICATION D'UNE PALE D'ÉOLIENNE ET SON PROCÉDÉ DE FORMATION

**(57) Abstract:**

**(EN):** A mill bit for the manufacture of a wind turbine blade includes an elongate based body having a proximal end, a distal end, an outer surface, and an internal bore that defines an inner surface, one or more flutes formed on the outer surface that defines one or more teeth, and an abrasive coating on at least a portion of the outer surface, wherein the one or more flutes are free of the abrasive coating. An abrasive coating may be selectively applied on the inner surface to provide flutes on the inner surface. Additionally, porting bores may be provided through the mill bit to fluidly connect the outside and inside of the mill bit. A method of making a mill bit is also described.

**(FR):** Trépan pour la fabrication d'une pale d'éolienne comprenant un corps allongé ayant une extrémité proximale, une extrémité distale, une surface externe et un alésage interne qui définit une surface interne, une ou plusieurs cannelures formées sur la surface extérieure qui définit une ou plusieurs dents, et un revêtement abrasif sur au moins une partie de la surface extérieure, la ou les cannelures étant exemptes du revêtement abrasif. Un revêtement abrasif peut être appliqué de manière sélective sur la surface interne pour fournir des cannelures sur la surface interne. De plus, des alésages de portage peuvent être ménagés à travers le trépan pour relier de manière fluide l'extérieur et l'intérieur du trépan. L'invention concerne également un procédé de fabrication d'un trépan.

**International search report:**

Received at International Bureau: 29 October 2018 (29.10.2018) [EP]

**International Report on Patentability (IPRP) Chapter II of the PCT:**

Not available

**(81) Designated States:**

AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA,

PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

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

African Intellectual Property Organization (OAPI) : BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG

African Regional Intellectual Property Organization (ARIPO) : BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW

Eurasian Patent Organization (EAPO) : AM, AZ, BY, KG, KZ, RU, TJ, TM