

CORRECTED VERSION

(19) World Intellectual Property Organization International Bureau



(10) International Publication Number WO 2014/014535 A8

(43) International Publication Date 23 January 2014 (23.01.2014)

- (51) International Patent Classification: F01D 5/06 (2006.01) F01D 25/08 (2006.01)
(21) International Application Number: PCT/US2013/038330
(22) International Filing Date: 26 April 2013 (26.04.2013)
(25) Filing Language: English
(26) Publication Language: English
(30) Priority Data: 61/639,429 27 April 2012 (27.04.2012) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): 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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, 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.
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (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), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

[Continued on next page]

(54) Title: AIR ACCELERATOR ON TIE ROD WITHIN TURBINE DISK BORE

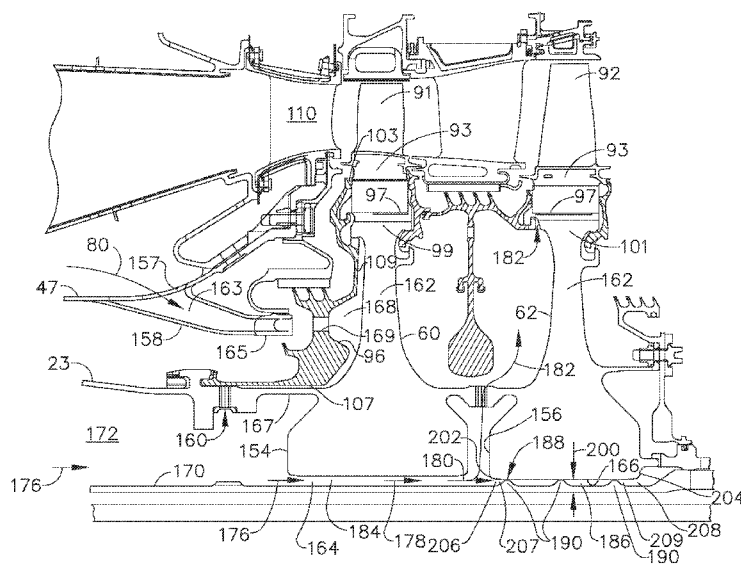


FIG. 3

(57) Abstract: Gas turbine engine high pressure rotor (12) first and second high pressure turbine stages (55, 56) include first and second stage disks (60, 62) having first and second stage disk bores (164, 166) and a single tie rod (170) therethrough. First and second bore annular flowpaths (184, 186) are radially located between first and second stage disk bores (164, 166) and tie rod (170). A means for increased cooling and/or heating in second stage disk bore (166) is axially located within second stage disk bore (166). The means may include an airflow accelerator (188) such as one or more annular ribs (190) on the tie rod (170). A bore annular cross-sectional flow area (200) between second stage disk hub (156) and ribs (190) may be substantially smaller than between second stage disk hub (156) and tie rod (170). An axially unobstructed inlet (206) into second bore annular flowpath (186) allows fully axially flowing and axially unobstructed flowing of second stage bore cooling air (180) into inlet (206).



WO 2014/014535 A8



— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

(48) Date of publication of this corrected version:

6 November 2014

Published:

— *with international search report (Art. 21(3))*

(15) Information about Correction:

see Notice of 6 November 2014

(88) Date of publication of the international search report:

20 March 2014