

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
26 August 2004 (26.08.2004)

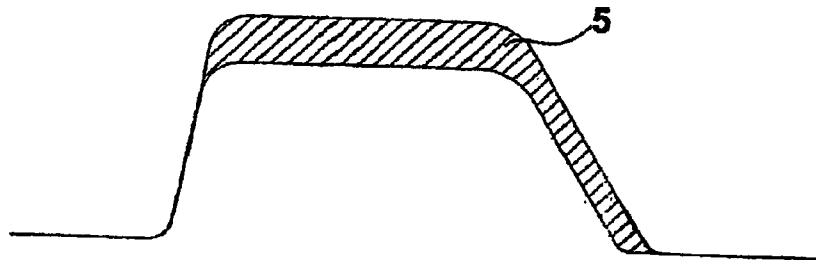
PCT

(10) International Publication Number
WO 2004/072533 A1

- (51) International Patent Classification⁷: **F16L 15/06**
- (21) International Application Number:
PCT/EP2004/001252
- (22) International Filing Date: 11 February 2004 (11.02.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
RM2003A000065 13 February 2003 (13.02.2003) IT
- (71) Applicant (for all designated States except US):
TENARIS CONNECTIONS AG [LI/LI]; Poststrasse
409, FL-9491 Ruggel (LI).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MOROTTI, Matteo** [IT/IT]; Via Angelo Goisis 38, 24124 Bergamo (IT). **DELL'ERBA, Diego** [AR/AR]; Pueyrredon 581, B2804GQE Campana (AR). **DELLA PINA, Giuseppe** [IT/IT]; Via delle Querce 7, 24048 Treviolo (IT).
- (74) Agent: **GERVASI, Gemma**; Notarbartolo & Gervasi S.p.A., Corso di Porta Vittoria, 9, I-20122 Milan (IT).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: A THREADED JOINT FOR TUBES



$$NVV[cm^3] \leq 4 \times OD[inch]$$

$$\frac{NVV[cm^3]}{OD[inch] \times \sqrt{Wt[mm]}} \leq 1 \quad (I)$$

$$g_T \leq 0.4mm^2 / pitch$$

(57) Abstract: Described herein is a threaded joint, in which the threads are coated with a layer of dry lubricant having a thickness of between 5 pm and 30 pm and in which the nominal void volume NW of the space (6, 7) between the thread of the male tube and the thread of the female tube, is sized by means of the following formulae (I), where OD is the nominal outer diameter and Wt is the thickness of the wall of the pipes.

WO 2004/072533 A1

**Declaration under Rule 4.17:**

- *of inventorship (Rule 4.17(iv)) for US only*

Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.