(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 July 2004 (22.07.2004)

PCT

(10) International Publication Number
WO 2004/061262 A1

(51) International Patent Classification[7]: E21B 19/16, F16D 41/06

(21) International Application Number:
PCT/GB2003/005677

(22) International Filing Date:
24 December 2003 (24.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0300244.1 7 January 2003 (07.01.2003) GB

(71) Applicant *(for all designated States except US)*: **BSW LIMITED** [GB/GB]; Engineering House, Lune Industrial Estate, New Quay Road, Lancaster LA1 5QP (GB).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **TAYLOR, Richard, James** [GB/GB]; 3 Fellside Court, Kendal, Cumbria LA9 4HP (GB).

(74) Agent: **HARRISON GODDARD FOOTE**; Orlando House, 11c Compstall Road, Marple Bridge, Stockport SK6 5HH (GB).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, 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, 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.

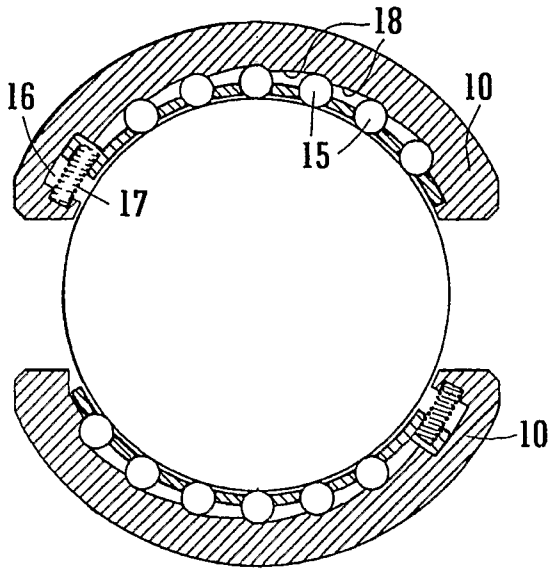
(84) Designated States *(regional)*: ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:
— *of inventorship (Rule 4.17(iv)) for US only*

Published:
— *with international search report*

[Continued on next page]

(54) Title: A TOOL FOR GRIPPING A PIPE OR ROD



(57) Abstract: A tool for gripping the circumferential outer surface of a pipe or rod (11) and comprising a pair of diametrically opposed arcuate shoes (10) each with a ball cage (14) having a plurality of balls retained by the cage. The shoes (10) have ramped surfaces upon which the balls will run so that when the shoes (10) are rotated about the central longitudinal axis of the pipe or rod (11) the balls become trapped between the ramp surfaces (18) and the surface of the pipe or rod, to grip same. Reverse rotation releases the tool. The rolling action imposed by the balls (15) on the pipe or rod (11), whilst gripping same, avoids the creation of sharp burrs on the surface of the pipe or rod thus helping to prevent corrosion.

WO 2004/061262 A1

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.