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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
23 February 2012 (23.02.2012)

PCT

(10) International Publication Number
WO 2012/024208 A2

(51) International Patent Classification:
E21B 43/11 (2006.01)

(21) International Application Number:
PCT/US2011/047727

(22) International Filing Date:
15 August 2011 (15.08.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/374,258	17 August 2010 (17.08.2010)	US
61/475,533	14 April 2011 (14.04.2011)	US
13/209,072	12 August 2011 (12.08.2011)	US

(71) Applicant *(for all designated States except US)*: **T-3 PROPERTY HOLDINGS, INC.** [US/US]; 140 Cypress Station, Suite 225, Houston, Texas 77090 (US).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **JAHNKE, Douglas** [CA/US]; c/o T-3 Property Holdings, Inc., 140 Cypress Station, Suite 225, Houston, Texas 77090 (US).

(74) Agent: **NELSON, D. Brit**; Locke Lord Bissell & Liddell LLP, 600 Travis Street, Suite 2800, Houston, Texas 77002-3095 (US).

(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, 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, PE, PG, PH, PL, PT, QA, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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).

Published:

— *without international search report and to be republished upon receipt of that report (Rule 48.2(g))*

(54) **Title**: BLOWOUT PREVENTER WITH SHEARING BLADES AND METHOD

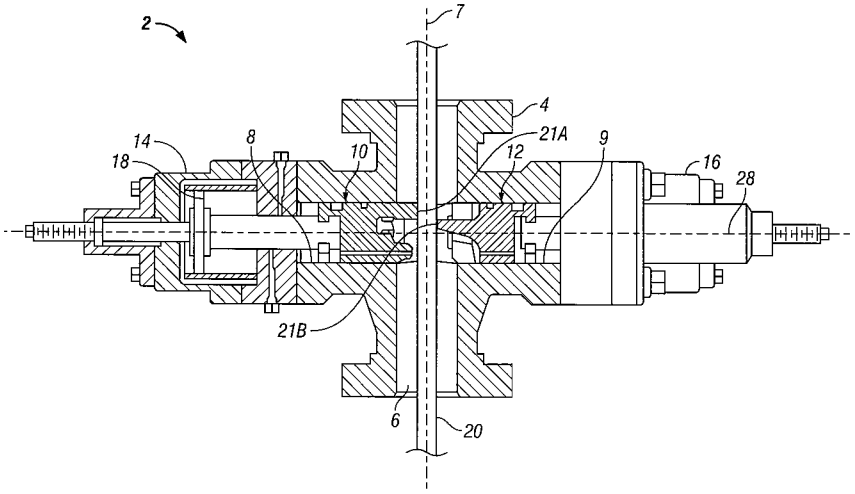

FIG. 1A

(57) **Abstract**: The disclosure provides a blowout preventer (BOP) system with a ram having a shear blade with a shear blade profile to shear a tubular member disposed in the BOP. The shear blade profile can include a stress concentrator and centering shaped surface. The stress concentrator and the centering shaped surface can be laterally offset from a centerline of ram travel and on opposite sides of the centerline. An opposing second shear blade can have a mirror image of the shear blade profile with the stress concentrator and centering shaped surface reversed to the orientation of the first shear blade. Further, the ram can include a mandrel with a mandrel profile for the tubular member to deform around during the shearing process and to reduce an overall lateral width of the sheared tubular member in the BOP through-bore to allow retrieval of the deformed sheared tubular member from the BOP.

WO 2012/024208 A2