



(51) International Patent Classification:

E21B 33/05 (2006.01) *E21B 23/00* (2006.01)
E21B 17/08 (2006.01)

(21) International Application Number:

PCT/CA2012/000472

(22) International Filing Date:

16 May 2012 (16.05.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

13/109,339 17 May 2011 (17.05.2011) US
2,740,740 24 May 2011 (24.05.2011) CA

(71) Applicant (for all designated States except US):

KLIMACK HOLDINGS INC. [CA/CA]; Box 7, Site
210, RR2, Tofield, Alberta T0B 4J0 (CA).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KLIMACK, Brian,
K.** [CA/CA]; Box 7, Site 210, RR#2, Tofield, Alberta T0B
4J0 (CA). **KLIMACK, Jesse** [CA/CA]; 10226-162 Street,

Edmonton, Alberta T5P 3L9 (CA). **FOUILLARD, Ed-
mond** [CA/CA]; R.R.#1, Thorsby, Alberta T0C 1P0 (CA).

(74) Agent: **SHOHINI, Bagchee**; Field LLP, 2000, 10235 101
Street, Edmonton, Alberta T5J 3G1 (CA).

(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, 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,

[Continued on next page]

(54) Title: CEMENT HEAD WITH HAMMER UNION

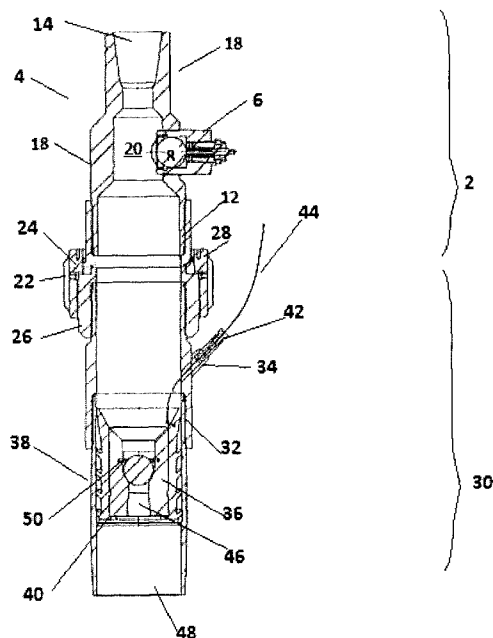


Figure 3

(57) Abstract: A top drive-pumpable cement head is provided for cementing a casing into a wellbore comprising a top sub portion with a top drive connection connectable to a top drive shaft to receive cement and impart translational and rotational forces to the casing simultaneously during cementing, and a ball launching assembly for housing and launching one or more launching balls. A bottom sub portion comprises a casing sleeve for housing one or more hollow wiper plugs and a tattle tale wire. The cement head also comprises a hammer union. The ball launching assembly is pre-loadable with the launching balls, the bottom sub is pre-loadable with the one or more hollow wiper plugs and a tattle tale wire and the top sub and the bottom sub are connectable via the hammer union for storage, prior to cementing operations. A method is also provided for assembling a cement head for completing a casing in a wellbore.



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).

— *of inventorship (Rule 4.17(iv))*

Published:

Declarations under Rule 4.17:

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

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