



(11) **EP 1 664 474 B8**

(12) **CORRECTED EUROPEAN PATENT SPECIFICATION**

- (15) Correction information:
Corrected version no 1 (W1 B1)
Corrections, see
Bibliography INID code(s) 72, 73
- (48) Corrigendum issued on:
19.09.2012 Bulletin 2012/38
- (45) Date of publication and mention of the grant of the patent:
15.08.2012 Bulletin 2012/33
- (21) Application number: **04781490.0**
- (22) Date of filing: **18.08.2004**
- (51) Int Cl.:
E21B 10/40 (2006.01) E21B 10/36 (2006.01)
- (86) International application number:
PCT/US2004/026807
- (87) International publication number:
WO 2005/019593 (03.03.2005 Gazette 2005/09)

(54) **DRILLING APPARATUS, METHOD, AND SYSTEM**
BOHRVORRICHTUNG, -VERFAHREN UND -SYSTEM
DISPOSITIF, PROCEDE ET SYSTEME POUR LE FORAGE

- (84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR
- (30) Priority: **20.08.2003 US 496379 P**
17.08.2004 US 919271
- (43) Date of publication of application:
07.06.2006 Bulletin 2006/23
- (73) Proprietor: **Raytheon Company**
Waltham, MA 02451-1449 (US)
- (72) Inventors:
 - **HILL, John L., III, Woodbridge, VA 22192 (US)**
 - **BRENNAN, Michael, A. Bristow, VA 20136 (US)**
 - **SHENHAR, Joram Fairfax, VA 22030 (US)**
- **KOCH, David Fredericksburg, VA 22407 (US)**
• **LOMBARDO, Mark, A. Arlington, VA 22201-2863 (US)**
• **DOLGIN, Benjamin Newington, VA 22122 (US)**
• **GIRALDO, Luis, B. Fairfax, VA 22031 (US)**
- (74) Representative: **Johnstone, Helen Margaret Potter Clarkson LLP**
Park View House
58 The Ropewalk
Nottingham
NG1 5DD (GB)
- (56) References cited:
EP-A2- 1 277 887 CN-U- 2 087 690
US-A- 4 161 132 US-A- 5 575 593
US-A- 5 641 027

EP 1 664 474 B8

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).