

Title (en)  
Drill string rod with strengthened spigot coupling

Title (de)  
Bohrstrangstange mit verstärkter Stutzenkupplung

Title (fr)  
Tiges de train de forage à couplage à ergot renforcé

Publication  
**EP 2845991 A1 20150311 (EN)**

Application  
**EP 13183491 A 20130909**

Priority  
EP 13183491 A 20130909

Abstract (en)  
A drill string rod (100) to form a part of a drill string having a threaded spigot end portion (108). The male spigot portion (108) is configured specifically to provide a robust coupling to withstand both bending moments and tensile loads and to minimise stress concentrations.

IPC 8 full level  
**E21B 17/042** (2006.01); **F16L 15/00** (2006.01)

CPC (source: EP)  
**E21B 17/042** (2013.01)

Citation (applicant)  

- US 4332502 A 19820601 - WORMALD PHILIP J, et al
- US 4398756 A 19830816 - DURET JEAN [FR], et al
- US 1926925 A 19330912 - WESCOTT BLAINE B
- US 5169183 A 19921208 - HALLEZ CHARLES P [BE]
- EP 1705415 A2 20060927 - INTELLISERV INC [US]
- GB 2321073 A 19980715 - BOART LONGYEAR INC [CA]
- US 4687368 A 19870818 - EKLOF AANGSTROEM KE T [SE], et al
- US 6767156 B1 20040727 - LARSSON KENNETH [SE]

Citation (search report)  

- [XY] US 4076436 A 19780228 - SLATOR DAMON T, et al
- [XDYI] EP 1705415 A2 20060927 - INTELLISERV INC [US]
- [Y] US 6030004 A 20000229 - SCHOCK WILLIAM H [US], et al
- [Y] CA 2634557 A1 20091107 - DOVER CORP CANADA LTD [CA]
- [XD] US 5169183 A 19921208 - HALLEZ CHARLES P [BE]

Citation (third parties)  
Third party : Tomi Salter, Boco IP Oy Ab  
EP 3298229 A1 20180328 - SANDVIK INTELLECTUAL PROPERTY [SE]

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EP3879065A1; WO2021180800A1; RU2714405C2; EP3741956A1; US10677054B2; US10627023B2; EP4047178A1; WO2020234259A1; WO2022175378A1; WO2023144377A1; EP3095954A1; CN107683363A; US2018135782A1; AU2016266604B2; US11162619B2; WO2016188862A1; EP3298229B1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2845991 A1 20150311; EP 2845991 B1 20151118; WO 2015032660 A1 20150312**

DOCDB simple family (application)  
**EP 13183491 A 20130909; EP 2014068124 W 20140827**