

Title (en)
NOZZLE, WELLBORE TUBULAR AND METHOD

Title (de)
DÜSE, BOHRLOCHROHR UND VERFAHREN

Title (fr)
BOUSE, MATÉRIEL TUBULAIRE POUR TROU DE FORAGE ET PROCÉDÉ

Publication
EP 3084117 A4 20171213 (EN)

Application
EP 14870818 A 20141218

Priority
• US 201361919111 P 20131220
• CA 2014051236 W 20141218

Abstract (en)
[origin: WO2015089669A1] A wellbore tubular comprising: a base pipe including a wall; a port through the wall providing access between an inner diameter of the base pipe and an outer surface of the base pipe; a nozzle in the port, the nozzle including an orifice including a bend therein.

IPC 8 full level
E21B 41/00 (2006.01); **E21B 43/12** (2006.01); **E21B 43/24** (2006.01)

CPC (source: EP US)
E21B 34/06 (2013.01 - US); **E21B 41/0078** (2013.01 - EP US); **E21B 43/12** (2013.01 - EP US); **E21B 43/2406** (2013.01 - EP US)

Citation (search report)
• [X] WO 2013106162 A1 20130718 - BAKER HUGHES INC [US], et al
• [X] WO 2012106804 A1 20120816 - KLIMACK BRIAN K [CA], et al
• [X] US 2012060624 A1 20120315 - DYKSTRA JASON D [US]
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• [A] US 2004112645 A1 20040617 - EPPINK JAY M [US], et al
• [A] US 2008264628 A1 20081030 - CORONADO MARTIN P [US], et al
• See references of WO 2015089669A1

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)
WO 2015089669 A1 20150625; BR 112016014480 A2 20170808; CA 2934369 A1 20150625; EP 3084117 A1 20161026; EP 3084117 A4 20171213; RU 2016129473 A 20180125; SG 11201605045P A 20160728; US 2016326843 A1 20161110

DOCDB simple family (application)
CA 2014051236 W 20141218; BR 112016014480 A 20141218; CA 2934369 A 20141218; EP 14870818 A 20141218; RU 2016129473 A 20141218; SG 11201605045P A 20141218; US 201415106251 A 20141218