

Title (en)
SNAP-ON LINER RETENTION DEVICE

Title (de)
EINRAST-RÜCKHALTEVORRICHTUNG FÜR AUSKLEIDUNG

Title (fr)
DISPOSITIF DE RETENUE DE REVÊTEMENT ENCLIQUETABLE

Publication
EP 3278052 A4 20181010 (EN)

Application
EP 16774375 A 20160401

Priority
• US 201562142099 P 20150402
• US 2016025725 W 20160401

Abstract (en)
[origin: WO2016161376A1] A shaped charge retainer ring for use in containing the liner of a shaped charge and the explosive material. Generally, when completing a subterranean well for the production of fluids, minerals, or gases from underground reservoirs, several types of tubulars are placed downhole as part of the drilling, exploration, and completions process. These tubulars can include casing, tubing, pipes, liners, and devices conveyed downhole by tubulars of various types. Each well is unique, so combinations of different tubulars may be lowered into a well for a multitude of purposes.

IPC 8 full level
F42B 1/028 (2006.01); **E21B 7/00** (2006.01); **E21B 29/02** (2006.01); **E21B 43/117** (2006.01); **E21B 43/119** (2006.01); **F42B 1/02** (2006.01); **F42B 1/036** (2006.01); **F42B 3/08** (2006.01)

CPC (source: EP US)
E21B 43/119 (2013.01 - EP US); **F42B 1/02** (2013.01 - EP US); **F42B 1/028** (2013.01 - EP US); **F42B 1/036** (2013.01 - EP US); **F42B 3/08** (2013.01 - US); **E21B 43/117** (2013.01 - US); **F42D 3/04** (2013.01 - US)

Citation (search report)
• [XAY] US 7752971 B2 20100713 - LOEHR JOHN D [US]
• [XAY] US 4885993 A 19891212 - HANCOCK MICHAEL P [US], et al
• [XA] EP 0773423 A1 19970514 - GIAT IND SA [FR] & DE 69610395 T2 20010308 - GIAT IND SA [FR]
• [XA] US 8677902 B1 20140325 - ROCK THOMAS MICHAEL [US], et al
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• [A] WO 0039519 A2 20000706 - OWEN OIL TOOLS INC [US]
• See also references of WO 2016161376A1

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

DOCDB simple family (publication)
WO 2016161376 A1 20161006; CA 2980931 A1 20161006; EP 3278052 A1 20180207; EP 3278052 A4 20181010; EP 3278052 B1 20191225; EP 3627092 A1 20200325; PL 3278052 T3 20200629; US 2018094910 A1 20180405; US 2021131770 A1 20210506

DOCDB simple family (application)
US 2016025725 W 20160401; CA 2980931 A 20160401; EP 16774375 A 20160401; EP 19208507 A 20160401; PL 16774375 T 20160401; US 201615563816 A 20160401; US 202017118604 A 20201211