

Title (en)

DOWNHOLE PUMP WITH ANTI-GAS LOCK ORIFICE

Title (de)

BOHRLOCHPUMPE MIT ANTIGASVERRIEGELUNGSÖFFNUNG

Title (fr)

POMPE DE FOND DE TROU À ORIFICE DE VERROUILLAGE ANTI-GAZ

Publication

EP 3755877 B1 20240320 (EN)

Application

EP 19707097 A 20190219

Priority

- BR 102018003152 A 20180219
- GB 2019050445 W 20190219

Abstract (en)

[origin: WO2019158952A1] The present invention relates to a downhole pump for producing volumes of liquids from an oil well, comprising: an extension wall; a barrel that extends vertically to the interior of the extension wall; a gas separating chamber delimited by the barrel and the interior surface of the extension wall; and a piston comprising a travelling valve in its lower portion, wherein the piston is configured to slide vertically in the barrel to the interior of the separating chamber between an upper end of stroke position and a lower end of stroke position; wherein the piston comprises at least one venting orifice, wherein the at least one venting orifice is configured to provide communication between the interior of the piston and the gas separating chamber when the piston reaches the lower end of stroke position, wherein, in the lower end of stroke position, the venting orifice is positioned below the barrel.

IPC 8 full level

E21B 43/12 (2006.01); **E21B 43/38** (2006.01); **F04B 47/02** (2006.01)

CPC (source: EP US)

E21B 43/126 (2013.01 - EP US); **E21B 43/127** (2013.01 - US); **E21B 43/38** (2013.01 - EP US); **F04B 47/02** (2013.01 - EP); **F04B 47/026** (2013.01 - US); **F04B 53/10** (2013.01 - US); **F04B 53/14** (2013.01 - US); **E21B 2200/04** (2020.05 - US)

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 2019158952 A1 20190822; AU 2019221823 A1 20200910; BR 102018003152 A2 20190910; BR 102018003152 B1 20210803; CA 3091553 A1 20190822; CN 112105794 A 20201218; CN 112105794 B 20230314; EP 3755877 A1 20201230; EP 3755877 B1 20240320; MX 2020008621 A 20210115; US 2020386087 A1 20201210

DOCDB simple family (application)

GB 2019050445 W 20190219; AU 2019221823 A 20190219; BR 102018003152 A 20180219; CA 3091553 A 20190219; CN 201980026724 A 20190219; EP 19707097 A 20190219; MX 2020008621 A 20190219; US 201916970905 A 20190219