

Title (en)
PERCUSSION DEVICE

Title (de)
SCHLAGVORRICHTUNG

Title (fr)
DISPOSITIF DE PERCUSSION

Publication
EP 2852474 B1 20190306 (DE)

Application
EP 13722975 A 20130405

Priority

- DE 102012010094 A 20120523
- DE 102012013409 A 20120705
- DE 2013000178 W 20130405

Abstract (en)
[origin: WO2013174359A1] The invention relates to a percussion device comprising a percussion mechanism housing which has a receiving bore in which a percussion piston is mounted such that it is movable along the longitudinal axis, wherein at least one percussion mechanism guide surface having an inner diameter is formed in the receiving bore and at least one percussion piston guide surface having an outer diameter is formed on the percussion piston. In order to avoid radial contact between the percussion piston and the percussion mechanism housing as far as possible, to reduce the volume of oil leakage through the gap of the guide surface and to prevent wear on the guide surfaces and on the lands between the seals, according to the invention the percussion mechanism guide surface has, at least in some regions, an inner diameter that increases non-linearly in the axial direction and/or the percussion piston guide surface has an outer diameter that decreases non-linearly in the axial direction.

IPC 8 full level
B25D 9/02 (2006.01); **B25D 9/18** (2006.01); **E21B 4/14** (2006.01)

CPC (source: EP US)
B25D 9/02 (2013.01 - EP US); **B25D 9/14** (2013.01 - US); **B25D 9/18** (2013.01 - EP US); **E21B 1/38** (2020.05 - EP US); **E21B 4/14** (2013.01 - EP US); **B25D 2217/0019** (2013.01 - EP US); **B25D 2217/0023** (2013.01 - EP US); **B25D 2250/231** (2013.01 - EP US)

Citation (examination)

- US 6073706 A 20000613 - NIEMI ILKKA [FI]
- GB 161761 A 19210421 - GEORGE HENRY TURTON RAYNER, et al

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)
DE 102012013409 A1 20131128; AU 2013265752 A1 20140918; AU 2013265752 B2 20170112; BR 112014024898 A2 20170711; BR 112014024898 B1 20211214; CN 104220217 A 20141217; CN 104220217 B 20170829; EP 2852474 A1 20150401; EP 2852474 B1 20190306; JP 2015520682 A 20150723; KR 20150012239 A 20150203; US 2015068782 A1 20150312; WO 2013174359 A1 20131128

DOCDB simple family (application)
DE 102012013409 A 20120705; AU 2013265752 A 20130405; BR 112014024898 A 20130405; CN 201380019997 A 20130405; DE 2013000178 W 20130405; EP 13722975 A 20130405; JP 2015513015 A 20130405; KR 20147027324 A 20130405; US 201314376019 A 20130405