

Title (en)  
DRILL STRING APPLICATIONS TOOL

Title (de)  
WERKZEUG FÜR BOHRSTRANGANWENDUNGEN

Title (fr)  
OUTIL D'APPLICATIONS DE TRAIN DE TIGES

Publication  
**EP 3759307 A4 20220316 (EN)**

Application  
**EP 19760746 A 20190227**

Priority  
• US 201815908028 A 20180228  
• US 2019019723 W 20190227

Abstract (en)  
[origin: WO2019168896A1] An apparatus and system for generating pressure pulses for enhancing and completing a well bore within a pipe or coiled tubing operation including: a valve longitudinally and axially positioned within the center of a pulser section, a gearbox, and an impeller. The main fluid flow is interrupted by the main valve which is operated by a controlled pilot fluid stream. The pilot fluid stream is controlled by a determined rotation of a gearbox driven by an impeller located centrally and axially and connected to the gearbox. Most specifically, the system utilizes pulse technology to improve weight transfer in horizontal wells by modulating flow, pressure and weight on the bit. The system can be used to overcome coiled tubing (CT) drill out challenges by overcoming friction forces that impede the downhole reach.

IPC 8 full level  
**E21B 28/00** (2006.01); **E21B 21/10** (2006.01); **E21B 34/10** (2006.01); **E21B 47/18** (2012.01)

CPC (source: EP)  
**E21B 28/00** (2013.01); **E21B 47/18** (2013.01)

Citation (search report)  
• [X] US 2013048379 A1 20130228 - MACDONALD ROBERT [US], et al  
• [A] US 2010157735 A1 20100624 - ALLAN VICTOR LAING [GB], et al  
• [A] WO 2006041499 A2 20060420 - KUSKO DAVID [US], et al  
• See also references of WO 2019168896A1

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 2019168896 A1 20190906**; CA 3131963 A1 20190906; EP 3759307 A1 20210106; EP 3759307 A4 20220316

DOCDB simple family (application)  
**US 2019019723 W 20190227**; CA 3131963 A 20190227; EP 19760746 A 20190227