

Title (en)

MAGNETIC PROPULSION SYSTEM AND/OR COUNTER HOLD FOR A DRILLING SYSTEM

Title (de)

MAGNETISCHES ANTRIEBSSYSTEM UND/ODER ZÄHLERHALTEN FÜR EINE BOHRANLAGE

Title (fr)

SYSTÈME DE PROPULSION MAGNÉTIQUE ET/OU CONTRE-PRISE POUR UN SYSTÈME DE FORAGE

Publication

EP 3228813 A1 20171011 (EN)

Application

EP 16164119 A 20160406

Priority

EP 16164119 A 20160406

Abstract (en)

The invention relates to a magnetic propulsion system (6) to exert a forward thrust and/or a counter hold on the drill components of a drilling system, wherein the drill components are or can be tightly coupled to a tubular member (604) and an inner pipe (606) which is provided inside the tubular member (604), wherein an annular chamber (609) is formed between the outer surface of the inner pipe (606) and the inner surface of the tubular member (604), wherein the annular chamber (609) is filled with a preferably fluid medium, such as hydraulic oil, the annular chamber (609) is or can be sealed tightly on one end, preferably by the drill components, and the annular chamber (609) is sealed on its other end by an axially displaceable inner annular plug (605) encircling the inner pipe (606), and the inner annular plug (605) can be magnetically coupled to an outer magnetic source providing arrangement, preferably an outer annular plug (601), surrounding the tubular member (604) in such a way that an axial force and/or displacement of the outer annular plug (601) can translate into an axial force and/or displacement of the inner annular plug (605) or vice versa. The invention further relates to the use of such a magnetic propulsion system in a drilling system, and a drilling system with such a magnetic propulsion system.

IPC 8 full level

E21B 23/04 (2006.01); **E21B 4/18** (2006.01); **E21B 7/06** (2006.01); **E21B 17/10** (2006.01)

CPC (source: EP)

E21B 4/18 (2013.01); **E21B 7/067** (2013.01); **E21B 17/10** (2013.01)

Citation (search report)

- [X] WO 2010079403 A1 20100715 - GRADIDGE ROBERT CHARLES [ZA], et al
- [A] US 2008111431 A1 20080515 - DOREL ALAIN P [US]
- [A] US 2011120725 A1 20110526 - DOWNTON GEOFFREY C [US], et al
- [A] US 2008202768 A1 20080828 - HANSEN HENNING [ES]

Cited by

CN110500047A

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)

EP 3228813 A1 20171011; WO 2017174488 A1 20171012

DOCDB simple family (application)

EP 16164119 A 20160406; EP 2017057820 W 20170403