Title (en)

DRILLING OPERATION CONTROL USING MULTIPLE CONCURRENT HYDRAULICS MODELS

Title (de)

BOHRVORGANGSSTEUERUNG MIT MEHREREN GLEICHZEITIGEN HYDRAULIKMODELLEN

Title (fr)

COMMANDE D'OPÉRATION DE FORAGE À L'AIDE DE MULTIPLES MODÈLES HYDRAULIQUES SIMULTANÉS

Publication

**EP 2809878 A1 20141210 (EN)**

Application

**EP 12877289 A 20120525**

Priority

US 2012039586 W 20120525

Abstract (en)

[origin: WO2013176677A1] A control system for drilling a subterranean well can include multiple concurrently running hydraulics models, each of the hydraulics models outputting a pressure setpoint, in real time during a drilling operation. A method of controlling a drilling operation can comprise concurrently running multiple hydraulics models during the drilling operation, and switching between outputs of the multiple hydraulics models to control the drilling operation, the switching being performed during the drilling operation. Another method of controlling a drilling operation can include controlling operation of at least one flow control device, thereby maintaining a pressure at a pressure setpoint, and selecting the pressure setpoint from among outputs of multiple concurrently running hydraulics models.

IPC 8 full level

**E21B 44/06** (2006.01); **E21B 4/02** (2006.01); **E21B 21/08** (2006.01); **E21B 21/10** (2006.01); **E21B 33/08** (2006.01); **E21B 44/00** (2006.01); **G01V 11/00** (2006.01)

CPC (source: EP US)

**E21B 21/08** (2013.01 - EP US); **E21B 21/10** (2013.01 - EP US); **E21B 33/085** (2013.01 - EP US); **E21B 34/025** (2020.05 - EP US); **E21B 41/00** (2013.01 - EP US); **E21B 44/00** (2013.01 - EP US); **E21B 44/005** (2013.01 - US); **E21B 47/06** (2013.01 - US); E21B 21/085 (2020.05 - EP 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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2013176677 A1 20131128**; AU 2012381021 A1 20140911; AU 2012381021 B2 20151022; BR 112014029345 A2 20170627; CA 2868760 A1 20131128; EP 2809878 A1 20141210; EP 2809878 A4 20151111; MX 2014010766 A 20150309; MX 361253 B 20181130; RU 2014148526 A 20160720; US 2015083401 A1 20150326

DOCDB simple family (application)

**US 2012039586 W 20120525**; AU 2012381021 A 20120525; BR 112014029345 A 20120525; CA 2868760 A 20120525; EP 12877289 A 20120525; MX 2014010766 A 20120525; RU 2014148526 A 20120525; US 201214380713 A 20120525