

Title (en)

ARRANGEMENT, DRILLING MACHINE AND METHOD TO CONTROL THE MOVEMENT SPEED OF A PERCUSSIVE ELEMENT OF A DRILLING MACHINE

Title (de)

ANORDNUNG, BOHRMASCHINE UND VERFAHREN ZUR STEUERUNG DER BEWEGUNGSGESCHWINDIGKEIT EINES KOPFELEMENTS EINER BOHRMASCHINE

Title (fr)

AGENCEMENT, MACHINE DE FORAGE ET PROCÉDÉ POUR COMMANDER LA VITESSE DE DÉPLACEMENT D'UN ÉLÉMENT DE PERCUSSION D'UNE MACHINE DE FORAGE

Publication

EP 3938614 A1 20220119 (EN)

Application

EP 20723576 A 20200309

Priority

- SE 1950321 A 20190314
- SE 2020050255 W 20200309

Abstract (en)

[origin: WO2020185149A1] Herein is described an arrangement to control the movement speed of a percussive element (6) which is arranged to move in a housing (1) of a drilling machine, where the percussive element (6) comprises a brake surface (13), wherein the housing (1) comprises a damping chamber (11) configured to contain a fluid provided to dampen the movement speed of the percussive element (6) in the housing (1) and a conduit (15) configured to lead fluid from the damping chamber (11), wherein the arrangement is configured to control the movement speed of the percussive element (6) by adapting the pressure by which the fluid in the damping chamber (11) affects the brake surface (13) of the percussive element (6) by leading fluid from the damping chamber (11) only when a predetermined reference point (17) of the percussive element (6) is located ahead of a predetermined first position (19) along an axial elongation (E) of the damping chamber (11). Herein is also described a drilling machine comprising the arrangement and a method to control the movement speed of a percussive element (6) which is arranged to move in a housing (1) of a drilling machine.

IPC 8 full level

E21B 4/14 (2006.01); **B25D 9/14** (2006.01); **B25D 17/24** (2006.01); **E21B 6/00** (2006.01)

CPC (source: EP SE)

B25D 9/145 (2013.01 - EP SE); **B25D 9/26** (2013.01 - EP SE); **E21B 4/14** (2013.01 - EP SE); **E21B 6/00** (2013.01 - EP SE)

Citation (search report)

See references of WO 2020185149A1

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 2020185149 A1 20200917; EP 3938614 A1 20220119; EP 3938614 B1 20230607; EP 3938614 C0 20230607; SE 1950321 A1 20200915; SE 543394 C2 20201229

DOCDB simple family (application)

SE 2020050255 W 20200309; EP 20723576 A 20200309; SE 1950321 A 20190314