

Title (en)

A rock drilling apparatus and a method of optimizing percussion rock drilling.

Title (de)

Gesteinbohrvorrichtung und Verfahren zum Optimieren von Schlagbohren.

Title (fr)

Appareil pour forer dans la roche, et procédé pour obtenir un forage par percussion de rendement optimal.

Publication

EP 0112810 A2 19840704 (EN)

Application

EP 83850339 A 19831219

Priority

SE 8207405 A 19821227

Abstract (en)

The impact velocity and impact frequency of the hammer piston of a percussion rock drill are varied in incremental steps in order to find the maximum penetration rate. The frequency and impact velocity are so varied that the impact power is kept substantially constant all the time. A micro-computer is used to control the process.

IPC 1-7

B25D 9/26; **E21C 5/16**

IPC 8 full level

B25D 9/12 (2006.01); **B25D 9/26** (2006.01); **B25D 17/10** (2006.01); **B25D 17/24** (2006.01); **E21B 19/08** (2006.01); **E21B 19/086** (2006.01); **E21B 44/02** (2006.01); **E21B 45/00** (2006.01)

CPC (source: EP)

B25D 9/12 (2013.01); **B25D 9/26** (2013.01); **B25D 17/245** (2013.01); **E21B 44/02** (2013.01); **E21B 45/00** (2013.01); **B25D 2250/221** (2013.01)

Cited by

JP2006510831A; US7051525B2; US4993504A; CN107543734A; FR2837523A1; EP0133254A3; EP0271359A3; EP0486898A1; FR2601764A1; DE4027021A1; CN1301826C; EP2081737A4; KR20160119074A; EP2257684A4; US7234548B2; US11448013B2; US6419031B1; US7114576B2; US6938702B2; US7654337B2; US5458207A; US2014140781A1; KR101410134B1; NO336944B1; US9498827B2; WO03078107A1; WO2004042193A1; US9511489B2; US7198117B2; US6557652B2; EP3328591A4; US6877569B2; US7762352B2; WO2008127173A1; WO03071096A1; WO03033216A1; US10456898B2; US8091652B2; US10370900B2; WO2006062460A1; WO02090057A1; WO2014104608A1; WO2014092387A1; WO2015122824A1; EP2140105B1

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)

EP 0112810 A2 19840704; **EP 0112810 A3 19850828**; JP S59150896 A 19840829; SE 8207405 D0 19821227; SE 8207405 L 19840628; ZA 839370 B 19840829

DOCDB simple family (application)

EP 83850339 A 19831219; JP 24498283 A 19831227; SE 8207405 A 19821227; ZA 839370 A 19831219