

Title (en)

BEDROCK CRACKING APPARATUS USING ICE BOMB IN SHAPE OF POWDER KEG

Title (de)

FELSBODENAUFBRECHVORRICHTUNG ANHAND EINER EISBOMBE IN FORM EINES PULVERFASSES

Title (fr)

APPAREIL DE FISSURATION DE LIT ROCHEUX À L'AIDE D'UNE BOMBE À GLACE DE LA FORME D'UN BARIL DE POUDRE

Publication

EP 2907967 B1 20171115 (EN)

Application

EP 13844595 A 20130930

Priority

- KR 20120112376 A 20121010
- KR 2013008724 W 20130930

Abstract (en)

[origin: EP2907967A1] Disclosed is a bedrock crack apparatus using a powder keg type ice explosive wherein a via hole is formed at a bedrock using a via hole apparatus, and a sealed tube filled with water and a liquid nitrogen is inserted in the interior of the via hole, thus causing cracks in the bedrock based on the principle where volume expands when water is frozen and easily cracking the bedrock. The above bedrock crack apparatus may include a packer which is fixedly inserted in the mouth of a via hole formed at a bedrock; an inner tube which is disposed at the packer and is filled with water; an injection device which is connected to the packer; a nitrogen injection nozzle which is installed at the injection device and passes through the packer; and a supply unit which is connected to the injection device to supply liquid nitrogen.

IPC 8 full level

E21C 37/06 (2006.01)

CPC (source: EP KR)

E21C 37/06 (2013.01 - EP KR)

Cited by

EP2868863A3

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)

EP 2907967 A1 20150819; EP 2907967 A4 20161102; EP 2907967 B1 20171115; KR 101415124 B1 20140704; KR 20140046203 A 20140418; WO 2014058169 A1 20140417

DOCDB simple family (application)

EP 13844595 A 20130930; KR 20120112376 A 20121010; KR 2013008724 W 20130930