

Title (en)

Method to increase the strength of an element for percussive drilling.

Title (de)

Verfahren zur Erhöhung der Festigkeit eines Schlagbohrbauteiles.

Title (fr)

Méthode pour augmenter la résistance d'un élément utilisé pour le forage à percussion.

Publication

**EP 0381648 A1 19900808 (EN)**

Application

**EP 90850025 A 19900119**

Priority

SE 8900358 A 19890202

Abstract (en)

The present invention relates to a method to increase the strength of an element for percussive drilling, said element being made of hardened steel and transferring impact energy in its axial direction, said method involving deep rolling of the surface layer of the element, at least in certain sections. The invention also refers to an element worked in accordance with the method of the invention. Fatigue cracks in elements of the above mentioned kind are initiated in areas having an intensive dislocation motion. Such areas are originated near notches and parts having sharp-edged corners. The aim of the present invention is to remedy the influence that "poor surfaces" have upon the fatigue strength. The main characterizing feature of the invention is that said deep rolling of elements for percussive drilling creates a surface finish  $\leq$  Ra 1.0.

IPC 1-7

**C21D 7/08**

IPC 8 full level

**B25D 17/06** (2006.01); **B24B 39/04** (2006.01); **C21D 7/08** (2006.01); **E21B 10/56** (2006.01)

CPC (source: EP)

**C21D 7/08** (2013.01); **E21B 10/56** (2013.01)

Citation (search report)

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AT401630B; NL1023342C2

Designated contracting state (EPC)

AT DE FR GB SE

DOCDB simple family (publication)

**EP 0381648 A1 19900808**; AU 4860790 A 19900809; BR 9000355 A 19901204; CA 2009179 A1 19900802; FI 900532 A0 19900202; JP H02298478 A 19901210; SE 8900358 D0 19890202; SE 8900358 L 19900803

DOCDB simple family (application)

**EP 90850025 A 19900119**; AU 4860790 A 19900118; BR 9000355 A 19900129; CA 2009179 A 19900202; FI 900532 A 19900202; JP 2053890 A 19900201; SE 8900358 A 19890202