

Title (en)  
METHOD FOR ANCHORING AN ATTACHMENT ELEMENT

Title (de)  
VERFAHREN ZUM VERANKERN EINES BEFESTIGUNGSELEMENTS

Title (fr)  
PROCÉDÉ DESTINÉ À L'ANCRAGE D'UN ÉLÉMENT DE FIXATION

Publication  
**EP 2192261 A1 20100602 (DE)**

Application  
**EP 09175875 A 20091113**

Priority  
DE 102008044128 A 20081127

Abstract (en)  
The method involves drilling a borehole (7) in a constructional component (6) with a percussively-rotationally driven hollow drill (12). The produced drillings and drilling dust are aspirated with a vacuum source (26) e.g. vacuum cleaner, between an outer side of the hollow drill and a borehole wall during drilling of the borehole. The borehole is filled with a self-hardenable mortar immediately after formation of the suction-cleaned borehole. A fastening element e.g. threaded rod, is inserted into the self-hardenable mortar. An independent claim is also included for a method for forming a cleaned borehole in a constructional component for anchoring a fastening element in a constructional component with a self-hardenable mortar.

Abstract (de)  
Die Erfindung betrifft ein Verfahren zur Erstellung eines gereinigten Bohrlochs (7) in einem Bauteil (6) zur chemischen Verankerung eines Befestigungselementes (46) im Bauteil (6) unter Verwendung eines Hohlbohrers (12) und einer Vakuumpumpe (26) zur Absaugung des anfallenden Bohrkleins und Bohrmehls. Während dem Bohren des Bohrlochs (7) wird mit dem Hohlbohrer (12) mittels der Vakuumpumpe (26) das Bohrklein und Bohrmehl durch den Spalt zwischen der Aussenseite des Hohlbohrers (12) und der Wandung des Bohrlochs (7) abgesaugt.

IPC 8 full level  
**E21B 21/015** (2006.01); **E21D 20/00** (2006.01); **B23B 51/00** (2006.01); **B23Q 11/00** (2006.01); **B25D 17/18** (2006.01)

CPC (source: EP US)  
**E21B 21/015** (2013.01 - EP US); **E21D 20/003** (2013.01 - EP US); **Y10T 408/03** (2015.01 - EP US)

Citation (applicant)  
• DE 2912396 A1 19801009 - GUERGEN KARL HEINZ  
• DE 19810193 A1 19990916 - HILTI AG [LI]

Citation (search report)  
• [XY] US 4182424 A 19800108 - PREBENSEN SOREN P [SE]  
• [Y] US 3306051 A 19670228 - HOWLETT GEORGE H  
• [X] US 1969513 A 19340807 - KELLEY GEORGE S  
• [X] US 1930099 A 19331010 - KELLEY GEORGE S  
• [A] US 3511322 A 19700512 - BIXBY THOMAS G, et al  
• [A] CH 256190 A 19480815 - BALMHOLZ AG [CH], et al  
• [A] DE 102004035875 B3 20051222 - HILTI AG [LI]

Cited by  
CN106808434A; CN103470297A

Designated contracting state (EPC)  
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 SE SI SK SM TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**EP 2192261 A1 20100602; EP 2192261 B1 20180523; DK 2192261 T3 20180723; ES 2671373 T3 20180606; US 2010126112 A1 20100527**

DOCDB simple family (application)  
**EP 09175875 A 20091113; DK 09175875 T 20091113; ES 09175875 T 20091113; US 59252409 A 20091124**