

Title (en)

STEP TUBE ROD, AND DRILLING MACHINE

Title (de)

ABGESTUFTES ROHR UND BOHRMASCHINE

Title (fr)

TIGE TUBULAIRE A ETAGES ET MACHINE DE FORAGE

Publication

EP 1382794 A1 20040121 (EN)

Application

EP 02720600 A 20020425

Priority

- JP 0204149 W 20020425
- JP 2001130084 A 20010426
- JP 2001130085 A 20010426

Abstract (en)

In the present invention, in a drill rod for a boring machine, a rod outside diameter is large so as to be approximately equal to a bore diameter, external threads are provided at one end and internal threads are provided at the other end, and at least one small-diameter portion is formed near an internally threaded portion. This step tube rod can reduce a bore bend. <??>Also, for the boring machine using this step tube rod, the drill rod can be positioned easily, so that the connection and recovery work can be performed efficiently and safely. <IMAGE>

IPC 1-7

E21B 17/042

IPC 8 full level

E21B 17/042 (2006.01); **E21B 19/24** (2006.01)

CPC (source: EP KR US)

E21B 17/00 (2013.01 - KR); **E21B 17/0426** (2013.01 - EP US); **E21B 19/24** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR

DOCDB simple family (publication)

US 2003132035 A1 20030717; CA 2411253 A1 20021028; CN 1460145 A 20031203; EP 1382794 A1 20040121; EP 1382794 A4 20050720; JP WO2002088511 A1 20040819; KR 20040002377 A 20040107; WO 02088511 A1 20021107

DOCDB simple family (application)

US 27676302 A 20021119; CA 2411253 A 20020425; CN 02800916 A 20020425; EP 02720600 A 20020425; JP 0204149 W 20020425; JP 2002585777 A 20020425; KR 20027014169 A 20021022