

Title (en)

Milling head,drilling device and method for underwater drilling

Title (de)

Fräskopf, Bohrvorrichtung sowie Vorrichtung und Verfahren zum Meeresbodenbohren

Title (fr)

Tête de fraisage, dispositif de forage et procédé de forage sous-marin

Publication

EP 0819819 B1 20031001 (DE)

Application

EP 97112092 A 19970715

Priority

- DE 19628661 A 19960716
- DE 19635916 A 19960904

Abstract (en)

[origin: EP0819819A1] A novel cutting head, especially taking seabed sample drillings, has two or more counter-rotating, coaxial cutting wheels. To form an approximately round borehole cross section, the wheel diameter reduces to one side. Preferably, the cutter is implemented as a full-width cutter. The cutters are oppositely-rotating, frustrated-conical wheels. Four such wheels (2) are arranged in pairs on drive plates (6), with drive motors above. Spacer plates on the head (1), co-operating with the cutter wheel teeth (5), reduce the drillings to defined maximum grain size. A suction casing extracts the particles through a suction line. Also claimed are: the drilling equipment used, including the shipboard rig; and the corresponding method of seabed drilling.

IPC 1-7

E21B 10/16; E21B 7/128; E02F 3/92; E02F 3/90; E21B 10/12

IPC 8 full level

E02F 3/90 (2006.01); **E02F 3/92** (2006.01); **E21B 7/128** (2006.01); **E21B 10/12** (2006.01); **E21B 10/16** (2006.01); **E21B 19/00** (2006.01); **E21B 49/02** (2006.01)

CPC (source: EP US)

E02F 3/905 (2013.01 - EP US); **E02F 3/9212** (2013.01 - EP US); **E21B 7/128** (2013.01 - EP US); **E21B 10/12** (2013.01 - EP US); **E21B 10/16** (2013.01 - EP US); **E21B 19/002** (2013.01 - EP US); **E21B 49/025** (2013.01 - EP US)

Cited by

EP2251491A1; DE102005017093B4; CN102220841A; DE10243747A1; DE10243747B4; EP1626127A1; US7363990B2

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

EP 0819819 A1 19980121; EP 0819819 B1 20031001; AU 2868497 A 19980122; CA 2210442 A1 19980116; CA 2210442 C 20040504; US 5931235 A 19990803

DOCDB simple family (application)

EP 97112092 A 19970715; AU 2868497 A 19970716; CA 2210442 A 19970715; US 89502597 A 19970716