

Title (en)

Drilling apparatus and downhole torque generator

Title (de)

Bohrvorrichtung und Drehmomentstütze für eine Bohrvorrichtung

Title (fr)

Appareil de forage et générateur de couple de fond de puits

Publication

**EP 0855490 A3 20000329 (DE)**

Application

**EP 98101099 A 19980122**

Priority

DE 19702533 A 19970124

Abstract (en)

[origin: EP0855490A2] A drill string (13) for making boreholes is driven with a drill (14) fixed to it. A pump (11) feeds a liquid flow along a line (12) to the drilling tool. In this new configuration, the pump has a flexible tube (15) fixed to the drill string, around which it is held in part-circular form, at constant spacing. The pump stator (30) is held against rotation against the wall of the borehole, as the drill string rotates relatively to it. The stator has an arm (32) extending radially, located between string and the flexible tube. This locally squeezes and runs over the tube as string and tube rotate together. Also claimed is the corresponding support which transfers torque from a drilling unit to the walls of a borehole. This support has a base with a central opening and bearing through which passes the drill string. At least three holders range radially from the base. These holders have rollers at their ends, rotating perpendicular to the drill string axis and tangential to its direction of rotation. A compression device pushes the holders radially out from the base.

IPC 1-7

**E21B 21/00**; **E21B 41/00**; **E21B 7/00**

IPC 8 full level

**E21B 3/00** (2006.01); **E21B 7/00** (2006.01); **E21B 10/26** (2006.01); **E21B 17/10** (2006.01); **E21B 21/00** (2006.01); **E21D 1/06** (2006.01); **E21D 9/13** (2006.01)

CPC (source: EP KR US)

**E21B 7/00** (2013.01 - EP KR); **E21B 21/015** (2013.01 - EP KR US); **E21D 1/06** (2013.01 - EP KR); **E21D 9/13** (2013.01 - EP KR)

Citation (search report)

- [A] EP 0308083 A2 19890322 - MANCHAK FRANK
- [A] US 3841420 A 19741015 - RUSSELL M

Cited by

EP2113632A1; AU2017242643B2; AU2009201456B2; KR101067726B1; WO2017167856A1; US8002051B2

Designated contracting state (EPC)

AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

**EP 0855490 A2 19980729**; **EP 0855490 A3 20000329**; CN 1198502 A 19981111; DE 19702533 A1 19980730; JP H10231675 A 19980902; KR 19980070790 A 19981026; SG 71749 A1 20000418

DOCDB simple family (application)

**EP 98101099 A 19980122**; CN 98105981 A 19980124; DE 19702533 A 19970124; JP 1271098 A 19980126; KR 19980002106 A 19980123; SG 1998000164 A 19980123