

Title (en)  
HYDRAULICALLY-DRIVEN DOWNHOLE DRILL

Publication  
**EP 0022865 B1 19840801 (EN)**

Application  
**EP 79900104 A 19800701**

Priority  
• EP 79900104 A 19800701  
• JP 7800057 W 19781215

Abstract (en)  
[origin: EP0022865A1] A hydraulically driven downhole drill is provided with a drill connector (51) for simplifying both hydraulic circuits of a drill head (1) and a connecting rod (60) and adapting the hydraulic circuit arrangement of the drill head (1) with the other hydraulic circuit arrangement of the connecting rod (60). Use of this drill connector results in simplification of the circuit arrangement at the connecting portion between the drill head and connecting head. This downhole drill is further provided with an automatically-operated hydraulic pressure shut-off valve (65) at a connecting portion between the connecting rods (60) to prevent oil from leaking upon engagement and disengagement of the rods (60). The drill head (1) has a mechanism for reciprocating a piston (8) controlled by a valve (20) in the cylinder, and the piston (8) has a hydraulic circuit (50) for removing chips. The connecting rods (60) each have a high-pressure hydraulic circuit (30) formed along the central axis and a low pressure hydraulic circuit (40) formed coaxially with the hydraulic circuit (30) around its outer periphery. A pressure compensator can be mounted at the connecting portion of the drill head with the connecting rod and at the connecting portions of the connecting rods with each other.

IPC 1-7  
**E21B 4/02**; **E21B 17/02**; **E21B 4/14**

IPC 8 full level  
**E21B 4/14** (2006.01); **E21B 17/18** (2006.01); **E21B 21/12** (2006.01)

CPC (source: EP)  
**E21B 4/14** (2013.01); **E21B 17/18** (2013.01); **E21B 21/12** (2013.01)

Cited by  
EP0808987A3; DE4027414C1; FR2481183A1; CN107152252A; EP0088705A1; FR2523202A1; EP0171374A1; EP0187637A3; CN113445902A; AU685570B2; DE3807321C1; EP0331978A3; CN113445903A; GB2383059A; GB2383059B; CN110306932A; US6752222B2; KR20160054601A; CN105683490A; AU2014323060B2; RU2679208C2; WO9620330A1; WO2011102785A1; US10808476B2; WO2015040196A3

Designated contracting state (EPC)  
DE FR

DOCDB simple family (publication)  
**EP 0022865 A1 19810128**; **EP 0022865 A4 19810128**; **EP 0022865 B1 19840801**

DOCDB simple family (application)  
**EP 79900104 A 19800701**