

Title (en)  
Boring ram.

Title (de)  
Rammbohrgerät.

Title (fr)  
Mouton de forage.

Publication  
**EP 0301287 A2 19890201 (DE)**

Application  
**EP 88110828 A 19880707**

Priority  
• DE 3724619 A 19870725  
• DE 3735018 A 19871016

Abstract (en)  
[origin: JPS6443694A] PURPOSE: To perform a given direction change through arbitrary regulation of a deviation of an impact tip and to prevent the occurrence of a deviation in a direction by a method wherein an impact tip is radially adjusted in a housing through two eccentric rings. CONSTITUTION: A ram boring machine 1 comprises an impact tip 4 formed as a stepped front head part 3 protruding from a housing 2, and a rod 5 supported through a spherical disc 13 by eccentric rings 11 and 12 rotatable in directions opposite to each other. When a deviation in a direction occurs to the tip 4, inflow of hydraulic fluid is effected by operating a pressure pipe system with a coupling joint for a feed coupled to the eccentric rings 11 and 12 through a hydraulic pipe system, the eccentric rings 11 and 12 are regulatable. Further, many pistons, preferably three regulation pistons, are rotatably disposed in a radial plane at the periphery of the nod 5.

Abstract (de)  
Ein druckmittelbetriebenes Rammbohrgerät (1) für Erdbohrungen mit einer von einem im Gerätegehäuse (2) hin- und herbewegten Schlagkolben (10) beaufschlagten Schlagspitze (4), bei dem die Schlagspitze (4) radial verstellbar im Gehäuse (2) angeordnet ist, ermöglicht gezielte Richtungsänderungen.

IPC 1-7  
**E21B 4/14**; **E21B 7/06**; **E21B 7/26**

IPC 8 full level  
**E21B 1/38** (2006.01); **E21B 4/14** (2006.01); **E21B 7/06** (2006.01); **E21B 7/26** (2006.01)

CPC (source: EP US)  
**E21B 4/145** (2013.01 - EP US); **E21B 7/068** (2013.01 - EP US)

Cited by  
EP0462821A3; DE19859367C2; EP0657006A4; EP0955443A1; US6352128B1; EP2474703A1; WO2012095625A1; US9546519B2

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