

Title (en)  
DRILL HEAD FOR ELECTRO-PULSE-BORING

Title (de)  
BOHRKOPF FÜR ELEKTROPULSBOHREN

Title (fr)  
TÊTE DE FORAGE POUR PERÇAGE PAR ÉLECTRO-IMPULSION

Publication  
**EP 3739163 A1 20201118 (EN)**

Application  
**EP 19175222 A 20190517**

Priority  
EP 19175222 A 20190517

Abstract (en)  
The invention relates to a drill head (1) for electro-pulse-boring. The drill head comprises a high-voltage pulse generator enclosed in a hermetically sealed container (10) and a drill bit (20) mechanically coupled to the container. The drill bit (20) comprises an electrode assembly (40) being electrically coupled to the high-voltage pulse generator. The drill head comprises a supply pipe (31) for supplying drill liquid to the drill bit such that when in operation a borehole bottom portion is filled with drill liquid so as to immerse the drill bit with drill liquid. The drill head is characterized in that it comprises an circumferential seal (50) for separating drill liquid in the borehole bottom portion from a stabilisation liquid (80) that is filling up the borehole up to a surface. At least a portion of the circumferential seal is surrounding a circumferential wall (11) of the container. The drill head further comprises one or more return pipes (32a, 32b) for evacuation of excavated matter mixed with drill liquid from the borehole bottom portion, and wherein the one or more return pipes are mechanically coupled to the container.

IPC 8 full level  
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CPC (source: EP)  
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Citation (applicant)  
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• EP 1711679 A1 20061018 - UNODRILL AS [NO]  
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**EP 19175222 A 20190517**; CN 202080036556 A 20200516; EP 2020063742 W 20200516