

Title (en)  
Percussive core barrel

Title (de)  
Schlagkernbehälter

Title (fr)  
Tube carottier à percussion

Publication  
**EP 0990765 A1 20000405 (EN)**

Application  
**EP 99400428 A 19990223**

Priority  
GB 9821048 A 19980928

Abstract (en)  
The invention relates to an equipment for boring large diameter holes into rocks. The equipment comprises a cylindrical core tube (12) having a vertical axis, an upper end (12a) and a lower end (12b), a plurality of hammer (14) provided with percussive bits (14b) for penetrating into the rock, each hammer being secured to the outer face of the core tube close to the lower end thereof so that the bits project beneath the free end (12c) of the tube, pressure fluid means (22) for operating said hammer, pressure fluid feed means for supplying pressure fluid in the vicinity of the bits of said hammer, driving means (16) connected to the upper end (12a) of said core tube for rotating said core tube about the vertical axis thereof and exhaust means (24) connected to said core tube for collecting the pressure fluid supplied in the vicinity of the bits and the rock cuttings transported by said pressure fluid from the bottom of the hole to the ground surface. <IMAGE>

IPC 1-7  
**E21B 4/16**; **E21B 10/02**; **E21B 25/00**; **E21B 21/12**; **E21B 21/14**; **E21B 4/14**

IPC 8 full level  
**E21B 4/14** (2006.01); **E21B 4/16** (2006.01); **E21B 10/02** (2006.01); **E21B 21/12** (2006.01); **E21B 21/14** (2006.01); **E21B 25/00** (2006.01)

CPC (source: EP)  
**E21B 4/14** (2013.01); **E21B 4/16** (2013.01); **E21B 10/02** (2013.01); **E21B 21/12** (2013.01); **E21B 21/14** (2013.01); **E21B 25/00** (2013.01)

Citation (search report)  
• [A] US 4526242 A 19850702 - MATHIEUE HANS [DE], et al  
• [A] DE 3915538 A1 19901115 - HARTFUSS MICHAEL [DE]  
• [A] GB 2181473 A 19870423 - TONE BORING CO  
• [A] FR 2745031 A1 19970822 - BONIFACE ANDRE [FR]  
• [A] DE 388463 C 19240114 - KOENIG WILHELM  
• [A] GB 1062671 A 19670322 - INGERSOLL RAND CO  
• [A] DE 2602550 A1 19770728 - PREUSSAG AG

Cited by  
EP2050923A1; EP3980622A4; KR100980895B1; EP2626505A3; EP2673450A4

Designated contracting state (EPC)  
AT BE DE DK ES FR GB IT MC NL PT

DOCDB simple family (publication)  
**EP 0990765 A1 20000405**; **EP 0990765 B1 20040421**; AT E264988 T1 20040515; DE 69916546 D1 20040527; GB 9821048 D0 19981118; HK 1026933 A1 20001229

DOCDB simple family (application)  
**EP 99400428 A 19990223**; AT 99400428 T 19990223; DE 69916546 T 19990223; GB 9821048 A 19980928; HK 00106090 A 20000926