

Title (en)
Reversible boring ram

Title (de)
Umsteuerbares Rammbohrgerät

Title (fr)
Mouton de forage réversible

Publication
EP 0805258 A3 20000412 (DE)

Application
EP 97106977 A 19970426

Priority
DE 19617603 A 19960502

Abstract (en)
[origin: EP0805258A2] Connected with the control air conduit (19) is a regulating chamber. Connected with the control tube is a forward flow chamber. The control casing (10) is fitted with an inner collar (13) between two outer collars (11,12) of the control tube (4). In the control tube in the area of the one outer collar (11) is a control air channel (16) and in the area of the other outer collar (12) is an operating air hole (20). The control air channel is connected with a control air conduit running in the control tube.

IPC 1-7
E21B 4/14

IPC 8 full level
E21B 4/14 (2006.01)

CPC (source: EP US)
E21B 4/145 (2013.01 - EP US)

Citation (search report)

- [AD] EP 0484839 A2 19920513 - CHARLES MACHINE WORKS [US]
- [A] US 4708211 A 19871124 - SHEMYAKIN EVGENY I [SU], et al
- [A] GB 1540344 A 19790207 - INST GOR DELA SIBIR OTDEL AN S

Designated contracting state (EPC)
CH FR GB LI

DOCDB simple family (publication)
DE 19617603 C1 19970918; AU 1994597 A 19971106; AU 720846 B2 20000615; CA 2204230 A1 19971102; EP 0805258 A2 19971105; EP 0805258 A3 20000412; EP 0805258 B1 20031029; PL 183735 B1 20020731; PL 319720 A1 19971110; US 5954145 A 19990921

DOCDB simple family (application)
DE 19617603 A 19960502; AU 1994597 A 19970501; CA 2204230 A 19970501; EP 97106977 A 19970426; PL 31972097 A 19970428; US 84104097 A 19970429