

Title (en)  
Pneumatic boring ram.

Title (de)  
Pneumatisches Rammbohrgerät.

Title (fr)  
Mouton de forage pneumatique.

Publication  
**EP 0263281 A1 19880413 (DE)**

Application  
**EP 87112220 A 19870822**

Priority  
DE 3634579 A 19861010

Abstract (en)  
[origin: US4840234A] A pneumatic ram boring machine (12) has an air-permeable hollow cylinder (2) with a sound absorbing and/or oil separating packing (9, 11) arranged in the exhaust air stream of the machine.

Abstract (de)  
Ein pneumatisches Rammbohrgerät (12) weist einen im Abluftstrom des Geräts angeordneten luftdurchlässigen Hohlzylinder (2) mit einer schalldämpfenden und/oder einer ölabscheidenden Füllung (9, 11) auf.

IPC 1-7  
**B25D 17/12**; **E21B 4/14**; **E21B 7/26**; **E21B 7/20**; **E21B 21/00**; **F01N 1/10**

IPC 8 full level  
**E21B 11/02** (2006.01); **B25D 17/12** (2006.01); **E21B 4/14** (2006.01); **E21B 7/20** (2006.01); **E21B 7/26** (2006.01); **E21B 21/00** (2006.01); **F01N 1/08** (2006.01); **F01N 1/10** (2006.01)

CPC (source: EP US)  
**B25D 17/12** (2013.01 - EP US); **E21B 4/145** (2013.01 - EP US); **E21B 7/206** (2013.01 - EP US); **E21B 21/002** (2013.01 - EP US); **F01N 1/082** (2013.01 - EP US); **Y10S 173/02** (2013.01 - EP US)

Citation (search report)

- [X] US 4424883 A 19840110 - MUSIANI FRANCO [IT]
- [X] CA 1155400 A 19831018 - WILLIAMS GEORGE H
- [X] US 4134472 A 19790116 - TRAINOR JOHN B
- [X] CH 351921 A 19610131 - GANZ RUDOLF [CH]
- [X] CH 378820 A 19640615 - SIG SCHWEIZ INDUSTRIEGES [CH]
- [A] US 4196783 A 19800408 - LOF STIG U [SE]
- [A] DE 14978 C
- [A] US 4144941 A 19790320 - RITTER LESTER L

Cited by  
EP0694675A1; FR2659111A1; US5377551A; FR2659112A1; WO9112987A1

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DOCDB simple family (publication)  
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