

Title (en)

Down-the-hole pneumatic hammer.

Title (de)

Im Bohrloch angeordneter pneumatischer Schlagantrieb.

Title (fr)

Marteau pneumatique du type "fond-de-trou".

Publication

**EP 0088705 A1 19830914 (FR)**

Application

**EP 83400495 A 19830311**

Priority

FR 8204077 A 19820311

Abstract (en)

1. Down-the-hole pneumatic drilling hammer, which comprises a tubular body (1) supplied with compressed air and carrying a drilling bit (3) and in which a ramming piston (21) is made to perform a reciprocating movement inside an internal sleeve (7) forming a casing by means of a mechanism for distributing compressed air alternately above and below the ramming piston in such a way that it cyclically strikes the bit and rises again, characterised in that the hammer has two separate sources (16, 18) of compressed air, a high-pressure one and a low-pressure one respectively, the distribution mechanism ensuring alternately the supply of high-pressure air to the upper chamber (51) above the piston (21) so as to project the latter towards the bit, while the lower chamber (50) allows the air to escape, and the supply of low-pressure air to the lower chamber (50) so as to cause the piston (21) to rise again, while the upper chamber (51) allows the air to escape.

Abstract (fr)

Marteau pneumatique de perforation, du type "fond de trou", comportant un corps tubulaire (1) alimenté en air comprimé et un piston frappeur (21) en mouvement alternatif dans une chemise (7) sous l'effet d'une distribution d'air comprimé, pour venir cycliquement frapper sur le taillant (3). Le marteau comporte deux alimentations séparées (16, 18) en air comprimé respectivement à haute et basse pression. L'air haute pression n'est utilisé que dans la chambre (51) pour projeter le piston (21) vers le taillant; l'air basse pression n'est utilisé que dans la chambre (50) pour faire remonter le piston (21).

IPC 1-7

**E21B 4/14**

IPC 8 full level

**E21B 4/14** (2006.01); **E21B 21/12** (2006.01); **E21B 21/14** (2006.01)

CPC (source: EP)

**E21B 4/14** (2013.01); **E21B 21/12** (2013.01); **E21B 21/14** (2013.01)

Citation (search report)

- [A] EP 0022865 A1 19810128 - FURUKAWA KOGYO KK [JP]
- [A] FR 2371573 A1 19780616 - MIRALLES VALLE CHARLES [ES]
- [A] FR 2340444 A1 19770902 - REED TOOL CO [US]
- [A] FR 2375434 A1 19780721 - LISTER WILLIAM [AU]
- [A] FR 2424408 A1 19791123 - STENUICK FRERES [BE]
- [AD] FR 2044939 A5 19710226 - STENUICK FRERES

Cited by

US5662180A; US5957220A; US7040417B2

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

**EP 0088705 A1 19830914; EP 0088705 B1 19851211**; AT E16954 T1 19851215; DE 3361460 D1 19860123; FR 2523202 A1 19830916;  
FR 2523202 B1 19840413

DOCDB simple family (application)

**EP 83400495 A 19830311**; AT 83400495 T 19830311; DE 3361460 T 19830311; FR 8204077 A 19820311