Title (en)

HYDRAULIC PERCUSSION DEVICE

Publication

EP 0070246 B1 19840822 (FR)

Application

EP 82420091 A 19820706

Priority

FR 8114043 A 19810710

Abstract (en)

[origin: EP0070246A1] 1. A percussion apparatus moved by a pressurised fluid, of the type comprising a mobile striking mass (2) in the form of a piston supplying a series of impacts on a tool (3), this piston being slidably mounted in a cylinder (4) which, provided in the body (5) of the apparatus and including ports (6, 7) connected by ducts (8, 9), serves additionally in the sliding of a distributor (10) connecting the chamber (11) situated above the piston alternately to a high pressure circuit (12), for enabling the piston to descend rapidly, and to a low pressure circuit (13) for effecting the return strocke of this piston, characterised in that it comprises, on the one hand, a non-return valve (22) enabling fluid to pass from the chamber (11) located above the strike piston towards the high pressure circuit (12) and, on the other hand, means ensuring that the distributor (10) is displaced sequentially in such a way that, starting from a position in which the chamber (11) located above the piston is connected to the high pressure (12), the distributor is displaced very rapidly as far as a position in which it interrupts the connection between the said chamber and the high pressure, then at a lower, controlled speed, so as to delay the connecting of the chamber (11) to the low pressure circuit (13), so as to enable the maximum amount of restorative energy to be recovered for the entire duration of the isolation of the chamber located above the piston with respect to the high pressure and low pressure circuits, by compressing the fluid isolated in the chamber for the passage of the latter into the high pressure circuit by means of the non-return valve.

IPC 1-7

B25D 9/12; B25D 9/20; B25D 9/16

IPC 8 full level

B25D 9/04 (2006.01); **B25D 9/12** (2006.01); **B25D 9/14** (2006.01); **B25D 9/16** (2006.01); **B25D 9/20** (2006.01)

CPC (source: EP)

B25D 9/12 (2013.01); **B25D 9/145** (2013.01); **B25D 9/20** (2013.01); B25D 2209/002 (2013.01); B25D 2209/005 (2013.01)

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GB2141657A; EP0134182A1; FR2550983A1; EP0214064A1; FR2595972A2; DE3443542A1; US4646854A; EP0256955A1; FR2602448A1; WO9314271A1; WO0078510A3

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