Title (en)

Method and apparatus for adjusting the percussion parameters of the impacting piston of a non compressible fluid-actuated device.

Title (de)

Verfahren und Vorrichtung zum Einstellen der Schlagparameter des Schlagkolbens einer von einem nicht zusammendrückbaren Fluid angetriebenen Vorrichtung.

Title (fr)

Procédé de régulation des paramètres de percussion du piston de frappe d'un appareil mû par un fluide incompressible sous pression, et appareil pour la mise en oeuvre de ce procédé.

Publication

EP 0256955 A1 19880224 (FR)

Application

EP 87420203 A 19870727

Priority

FR 8611710 A 19860807

Abstract (en)

[origin: US4800797A] A hydraulic percussion device comprises a housing defining a longitudinal cylinder, a piston longitudinally reciprocal in the cylinder and subdividing same into a front compartment and a rear compartment, and a tool engageable longitudinally with the piston at the front compartment. The compartments are alternately and oppositely hydraulically pressurized to move the piston forward to strike the tool while traveling at an end speed and to move the piston backward away from the tool, the rate of alternation being a frequency parameter and the speed being a force parameter. A controller varies at least one of the parameters by detecting how much the piston rebounds from the tool after striking same and operating the control means in accordance with how much rebound is detected. How much the piston rebounds can be detected by sensing the pressure in one of the compartments immediately after the piston strikes the tool. As rebound increases the pressure in the rear compartment increases relative to a set point or pressure in the front compartment decreases relative to a set point, and vice versa. Rebound can also be detected by sensing the pressure in one of the compartments and at one of the sides of the source and operating the control means in accordance with the differential between these sensed pressures.

Abstract (fr)

Ce procédé est destiné à un appareil à percussion mû par un fluide incompressible sous pression, comprenant deux chambres haute et basse ménagées dans le cylindre dans lequel se déplace le piston et délimitées pour partie par le piston, et équipé de dispositifs de commande des paramètres de percussion, tels que pression d'alimentation et course de frappe. Selon l'invention il est caractérisé en ce qu'il consiste à agir sur les paramètres de percussion en fonction des variations de pression dans la chambre haute (13) ou dans la chambre basse (40) consécutives à l'effet de rebond éventuel du piston de frappe sur l'outil (1).

IPC 1-7

B25D 9/26

IPC 8 full level

B25D 9/14 (2006.01); **B25D 9/26** (2006.01); **F15B 11/15** (2006.01)

CPC (source: EP US)

B25D 9/145 (2013.01 - EP US); **B25D 9/26** (2013.01 - EP US)

Citation (search report)

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