

Title (en)
HAND-HELD POWER TOOL, TOOL AND HAND-HELD POWER TOOL SYSTEM WITH A DETERMINED SPEED/IMPACT POWER RATIO

Title (de)
HANDWERKZEUGMASCHINE, WERKZEUG UND HANDWERKZEUGMASCHINENSYSYSTEM MIT BESTIMMTEM DREHZAHL-SCHLAGLEISTUNGS-VERHÄLTNIS

Title (fr)
OUTIL ÉLECTRIQUE PORTATIF, OUTIL ET SYSTÈME D'OUTIL ÉLECTRIQUE PORTATIF AYANT UN RAPPORT VITESSE/FORCE D'IMPACT DÉTERMINÉ

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Abstract (en)
[origin: WO2022012785A1] The invention relates to a hand-held power tool (12), in particular a hammer drill, comprising a tool holder (16), a striking mechanism (32) and a rotary drive (34), wherein the hand-held power tool (12) is designed to rotate a tool (18) accommodated in the tool holder (16) about a longitudinal axis (L) of the tool (18) at a rotational speed n and to drive same along the longitudinal axis (L) with a striking movement at a stroke frequency f , wherein the striking mechanism (32) is designed as a direct electromechanical, electro-pneumatic or electromagnetic striking mechanism. The hand-held power tool is characterised in that the ratio of the rotational speed n to the striking frequency f , at least at a working point of the hand-held power tool (12), is max. 5.0 U/Min./Hz, or, at least at the working point of the hand-held power tool (12), the rotational speed n is max. $(0,2 \cdot (f/\text{Hz}-22)^2+80)$ U/Min according to the striking frequency f , in particular for striking frequencies f in the region of 20 to 60 Hz. The invention also relates to a tool (18) and a hand-held tool system (10). It allows for a particularly effective and efficient processing of e.g. rocks.

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