

Title (en)

POWER TOOL FOR GENERATING AN INSTANTANEOUS TORQUE

Title (de)

ELEKTROWERKZEUG ZUR ERZEUGUNG EINES UNMITTELBAREN DREHMOMENTS

Title (fr)

OUTIL ÉLECTRIQUE DESTINÉ À GÉNÉRER UN COUPLE INSTANTANÉ

Publication

EP 4021683 A4 20230503 (EN)

Application

EP 19942829 A 20190827

Priority

CN 2019102722 W 20190827

Abstract (en)

[origin: WO2021035512A1] A power tool (10) including a transmission mechanism (12), an output shaft (14) driven by the transmission mechanism (12), and a hydraulic unit (16) filled with a working fluid. The hydraulic unit (16) is disposed coaxially with the output shaft (14), and defines a rotatively driving mechanism (18), a first fluid chamber (20), and a second fluid chamber (22). The first fluid chamber (20) is in intermittently fluid connection with the second fluid chamber (22) via a fluid channel (28). A relative rotation between the hydraulic unit (16) and the output shaft (14) causes the rotatively driving mechanism (18) to axially compress or expand a volume of the second fluid chamber (22) for raising or decreasing a fluid pressure of the second fluid chamber (22), generating a pressure difference between the first fluid chamber (20) and the second fluid chamber (22) to cause an instantaneous torque to the output shaft (14).

IPC 8 full level

B25B 21/02 (2006.01)

CPC (source: EP)

B25B 21/026 (2013.01)

Citation (search report)

- [XAI] EP 1454715 A2 20040908 - INGERSOLL RAND CO [US]
- [XAI] EP 1454714 A2 20040908 - INGERSOLL RAND CO [US]
- [A] WO 2018054311 A1 20180329 - POSITEC POWER TOOLS SUZHOU CO LTD [CN]
- See references of WO 2021035512A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

WO 2021035512 A1 20210304; CN 216067235 U 20220318; EP 4021683 A1 20220706; EP 4021683 A4 20230503; EP 4021683 B1 20231220; EP 4021683 C0 20231220

DOCDB simple family (application)

CN 2019102722 W 20190827; CN 201990001317 U 20190827; EP 19942829 A 20190827