Title (en)

ELECTRICALLY OPERATED CIVIL ENGINEERING MACHINE AND METHOD FOR OPERATING THE MACHINE

Title (de)

ELEKTRISCH BETRIEBENE TIEFBAUMASCHINE UND VERFAHREN ZU DEREN BETRIEB

Title (fr)

ENGIN ÉLECTRIQUE DE GÉNIE CIVIL ET PROCÉDÉ ASSOCIÉ DE SON UTILISATION

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2023174679A1] The invention relates to an electrically operated civil engineering machine comprising: a mobile support apparatus; at least one civil engineering tool; at least one electric motor, which is designed to drive an actuation unit in a drive mode and to generate electrical energy in a recuperation mode; at least one internal rechargeable battery unit for storing electrical energy and for providing electrical energy to the at least one electric motor; a supply device for supplying electrical energy from an external energy source in order to electrically operate the civil engineering machine; and a circuit arrangement by means of which the at least one electric motor, the at least one battery unit and the supply device are interconnected by lines. According to the invention, the circuit arrangement has an intermediate circuit with voltage-controlled power regulation and the power regulation is decentralised. Associated in each case with the at least one electric motor, the at least one battery unit and the supply device is a stand-alone regulation component which, in each case independently of a voltage in the intermediate circuit, regulates the supply or release of electrical energy out of or into the intermediate circuit.

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