

Title (en)

APPARATUSES AND METHODS FOR SUPPLYING ELECTRICAL POWER TO AN ELECTROCRUSHING DRILL

Title (de)

VORRICHTUNGEN UND VERFAHREN ZUR VERSORGUNG EINES ELEKTROZERKLEINERUNGSBOHRERS MIT STROM

Title (fr)

APPAREILS ET PROCÉDÉS PERMETTANT DE FOURNIR DE L'ÉNERGIE ÉLECTRIQUE À UN DISPOSITIF DE FORAGE PAR ÉLECTROCONCASSAGE

Publication

EP 3656970 A1 20200527 (EN)

Application

EP 20151105 A 20130705

Priority

- US 201261668304 P 20120705
- US 201261738837 P 20121218
- US 201261739172 P 20121219
- EP 19157771 A 20130705
- EP 13812863 A 20130705
- US 2013049466 W 20130705

Abstract (en)

Methods and apparatuses for directly charging capacitors in a down-hole pulsed power system used for electrocrushing drilling. An above ground power supply is directly connected to the capacitors. The power supply can be a switching power supply, a DC supply, or an AC supply. Capacitor voltage is monitored and controlled. The system reduces noise caused by coupling control signal cables and the power cable, and does not have the ground swing control problems of other charging schemes. The power may alternatively be provided by microwave transmission.

IPC 8 full level

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CPC (source: EP US)

E21B 7/15 (2013.01 - EP US); **E21B 17/003** (2013.01 - EP US); **E21B 41/0085** (2013.01 - EP)

Citation (applicant)

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DOCDB simple family (publication)

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US 201313935995 A 20130705; AU 2013286589 A 20130705; BR 112015000141 A 20130705; CA 2877788 A 20130705; EP 13812863 A 20130705; EP 19157771 A 20130705; EP 20151105 A 20130705; US 2013049466 W 20130705; ZA 201500803 A 20150204