

Title (en)

METHOD OF DEVICE FOR CONVERTING ROTARY MOTION TO RECIPROCATING PERCUSSION MOTION AND DEVICE FOR CONVERTING ROTARY MOTION TO RECIPROCATING PERCUSSION MOTION THAT IMPLEMENTS THE METHOD

Title (de)

VERFAHREN FÜR EINE VORRICHTUNG ZUR UMWANDLUNG VON DREHBEWEGUNGEN IN WIEDERHOLTE SCHLAGBEWEGUNGEN SOWIE VORRICHTUNG ZUR UMWANDLUNG VON DREHBEWEGUNGEN IN WIEDERHOLTE SCHLAGBEWEGUNGEN DURCH DURCHFÜHRUNG DIESES VERFAHRENS

Title (fr)

PROCÉDÉ D'UTILISATION D'UN DISPOSITIF POUR LA CONVERSION D'UN MOUVEMENT ROTATIF EN UN MOUVEMENT DE PERCUSSION ALTERNATIF ET DISPOSITIF DE CONVERSION D'UN MOUVEMENT ROTATIF EN UN MOUVEMENT DE PERCUSSION ALTERNATIF POUR LA MISE EN OEUVRE DU PROCÉDÉ

Publication

**EP 2860345 A1 20150415 (EN)**

Application

**EP 13790626 A 20130510**

Priority

- CN 201210155143 A 20120512
- CN 201210155167 A 20120512
- CN 201210155148 A 20120512
- CN 201210155150 A 20120512
- CN 201210155169 A 20120512
- CN 201210226673 A 20120624
- CN 201210226675 A 20120624
- CN 201210226688 A 20120624
- CN 201210226655 A 20120624
- CN 201210226780 A 20120628
- CN 201210297219 A 20120806
- CN 201210297181 A 20120806
- CN 201210293192 A 20120813
- CN 201210293046 A 20120813
- CN 201210293237 A 20120813
- CN 201210290393 A 20120813
- CN 201210290392 A 20120813
- CN 201210293070 A 20120813
- CN 201210290401 A 20120813
- CN 201210290379 A 20120813
- CN 201210293169 A 20120813
- CN 201210293236 A 20120813
- CN 201210293049 A 20120813
- CN 201210293253 A 20120813
- CN 201210297164 A 20120813
- CN 201210347294 A 20120910
- CN 201210346367 A 20120911
- CN 201210378528 A 20120911
- CN 201210454532 A 20121107
- CN 201210454142 A 20121107
- CN 201210454531 A 20121107
- CN 201210454001 A 20121107
- CN 201210454125 A 20121107
- CN 201210596479 A 20121228
- CN 201310020905 A 20130106
- CN 201310058064 A 20130222
- CN 201310058071 A 20130222
- CN 201310058073 A 20130222
- CN 201310058074 A 20130222
- CN 201310058117 A 20130222
- CN 201310058085 A 20130222
- CN 201310058118 A 20130222
- CN 201310058119 A 20130222
- CN 201310058138 A 20130222
- CN 201310058084 A 20130222
- CN 201310078655 A 20130304
- CN 201310100163 A 20130313
- CN 201310118683 A 20130323
- CN 201310158415 A 20130412
- CN 201310158412 A 20130412
- CN 2013000551 W 20130510

Abstract (en)

A method and device for converting rotary motion to reciprocating percussion motion. The device comprises a machine body (4), a travel portion (7), and a reciprocating percussion portion (5). The reciprocating percussion portion (5) comprises a percussion drive mechanism (2), a rocker arm (6), and a percussion head (1). The percussion drive mechanism (2) comprises a percussion power source member (11), a transmission component, and a crankshaft (10). The percussion power source member (11) comprises a motor, and the motor comprises a power output shaft (14). The transmission component comprises a power gear (13) and a transmission gear (12). The power gear (13) is mounted on the power output shaft (14). The transmission gear (12) drives the crankshaft (10). The transmission component comprises a transmission shaft. The power output shaft (14) is perpendicular to the rocker arm (6), and is parallel to the transmission shaft and the crankshaft (10) so that the transmission gear (12) drives the crankshaft (10) to convert rotary motion to reciprocating motion; or the power output shaft (14) is parallel to the rocker arm (6), the crankshaft (10) is driven to convert rotary motion to reciprocating motion after the power direction is changed by a power bevel gear and a transmission bevel

gear. The crankshaft (10) drives the percussion head (1) to perform reciprocating percussion. The travel portion (7) drives the machine body to travel. The machine body (4) drives the reciprocating percussion portion (5) to move and work continuously. The device applies to the mining field or mechanical engineering field, and has advantages such as strong structural strength and a small amount of maintenance.

IPC 8 full level

**E21C 27/12** (2006.01); **E21B 1/02** (2006.01)

CPC (source: EP US)

**E21C 27/12** (2013.01 - EP US); **E21C 27/28** (2013.01 - US)

Cited by

CN108204928A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2860345 A1 20150415; EP 2860345 A4 20161102**; AP 2014008131 A0 20141231; AU 2013262354 A1 20150122; AU 2013262354 B2 20160728; CA 2873246 A1 20131121; CN 103498673 A 20140108; CN 103498673 B 20171205; EA 201492063 A1 20150430; MX 2014013783 A 20151116; US 2015322784 A1 20151112; WO 2013170627 A1 20131121

DOCDB simple family (application)

**EP 13790626 A 20130510**; AP 2014008131 A 20130510; AU 2013262354 A 20130510; CA 2873246 A 20130510; CN 2013000551 W 20130510; CN 201310181238 A 20130510; EA 201492063 A 20130510; MX 2014013783 A 20130510; US 201314400602 A 20130510