

Title (en)

ROLLING FRICTION OR SUSPENSION FRICTION IMPACT MINING METHOD AND WEAR-RESISTANT IMPACT MINING MACHINE USING SAID METHOD

Title (de)

PRALLABAUVERFAHREN MIT ROLLREIBUNG ODER SUSPENSIONSREIBUNG UND VERSCHLEISSFESTE PRALLABBAUMASCHINE UNTER VERWENDUNG EINES SOLCHEN VERFAHRENS

Title (fr)

PROCÉDÉ D'EXPLOITATION MINIÈRE À PERCUSSION À FROTTEMENT DE ROULEMENT OU À FROTTEMENT EN SUSPENSION, ET MACHINE D'EXPLOITATION MINIÈRE À PERCUSSION RÉSISTANT À L'USURE UTILISANT LEDIT PROCÉDÉ

Publication

EP 2818634 A4 20160817 (EN)

Application

EP 13751685 A 20130222

Priority

- CN 201210049847 A 20120224
- CN 201210049862 A 20120224
- CN 201210052521 A 20120224
- CN 201210049850 A 20120224
- CN 201210049877 A 20120226
- CN 201210155143 A 20120512
- CN 201210155148 A 20120512
- CN 201210155150 A 20120512
- CN 201210155166 A 20120512
- CN 201210155169 A 20120512
- CN 201210155146 A 20120512
- CN 201210155167 A 20120512
- CN 201210226673 A 20120624
- CN 201210226688 A 20120624
- CN 201210226655 A 20120624
- CN 201210226675 A 20120624
- CN 201210226780 A 20120628
- CN 201210222280 A 20120629
- CN 201210297181 A 20120806
- CN 201210297219 A 20120806
- CN 201210290393 A 20120813
- CN 201210293253 A 20120813
- CN 201210293049 A 20120813
- CN 201210290401 A 20120813
- CN 201210290392 A 20120813
- CN 201210293046 A 20120813
- CN 201210293237 A 20120813
- CN 201210297164 A 20120813
- CN 201210293169 A 20120813
- CN 201210290379 A 20120813
- CN 201210293236 A 20120813
- CN 201210293070 A 20120813
- CN 201210293192 A 20120813
- CN 201210347294 A 20120910
- CN 201210378528 A 20120911
- CN 201210346367 A 20120911
- CN 201210358982 A 20120914
- CN 201210391387 A 20121004
- CN 201210454532 A 20121107
- CN 201210454001 A 20121107
- CN 201210454125 A 20121107
- CN 201210454142 A 20121107
- CN 201210454531 A 20121107
- CN 201210597968 A 20121226
- CN 201210596479 A 20121228
- CN 2013000171 W 20130222

Abstract (en)

[origin: EP2818634A1] A rolling friction or suspension friction impact mining method and a wear-resistant impact mining machine using said method. The mining machine comprises a reciprocating impact part (3). The reciprocating impact part comprises an impact drive device (4), a rolling reciprocating device, and an impact head (6). The rolling reciprocating device comprises a rubbing body (38), a rubbing body support (39), an impact guiding element (5.1), and a position-limiting mechanism. The rubbing body (5.3) are disposed between the rubbing body support (39) and the impact guiding element (5.1), and inside of the position-limiting mechanism to form rolling guiding. The impact drive device is disposed with a damage-prevention mechanism, a rotary power buffer device, and a structural buffer device, such that the impact head reciprocatingly move and have rolling or suspending friction under the support of the impact guiding element, thereby preventing the damage-prevention force to damage a power drive device and a rolling channel guiding device, and preventing the impact vibration caused by the reciprocating impact part to affect the machine body and other parts. The overall stability is therefore enhanced, and the service life is extended

IPC 8 full level

E21C 27/28 (2006.01); **E21D 9/10** (2006.01)

CPC (source: EP US)

E21C 27/28 (2013.01 - EP US); **E21C 27/46** (2013.01 - US); **E21D 9/1026** (2013.01 - EP US); **E21D 9/106** (2013.01 - US)

Citation (search report)

- [A] US 5333937 A 19940802 - HOPKINS DAVID J [US]
- [A] US 5028092 A 19910702 - COSKI WILLIAM D [US]
- [A] US 3907366 A 19750923 - PENDER DAVID R
- [A] US 2730343 A 19560110 - SLOANE WILLIAM W
- [A] US 1834090 A 19311201 - CRAWFORD JOHN H
- [A] US 823351 A 19060612 - MORRIS EMERSON T [US]
- See references of WO 2013123828A1

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

DOCDB simple family (publication)

EP 2818634 A1 20141231; EP 2818634 A4 20160817; AU 2013224569 A1 20141002; AU 2016213877 A1 20160901;
AU 2018202775 A1 20180510; AU 2018202775 B2 20200305; CA 2865005 A1 20130829; CN 103291291 A 20130911;
CN 103291291 B 20150218; EA 026928 B1 20170531; EA 201491588 A1 20150331; US 2015130256 A1 20150514;
WO 2013123828 A1 20130829; ZA 201406879 B 20160831

DOCDB simple family (application)

EP 13751685 A 20130222; AU 2013224569 A 20130222; AU 2016213877 A 20160812; AU 2018202775 A 20180420; CA 2865005 A 20130222;
CN 2013000171 W 20130222; CN 201310057770 A 20130222; EA 201491588 A 20130222; US 201314380370 A 20130222;
ZA 201406879 A 20140919