Title (en)
  MODULAR ROLLING MILL

Title (de)
  MODULARES WALZWERK

Title (fr)
  LAMINOIR MODULAIRE

Publication
  EP 2846939 A1 20150318 (EN)

Application
  EP 13720733 A 20130426

Priority
  • US 201213465382 A 20120507
  • US 2013038419 W 20130426

Abstract (en)
  [origin: WO2013169500A1] A modular rolling mill has a mill pass ling along which products are rolled in a rolling direction. The rolling mill comprises first gear units arranged along a first line parallel to the mill pass mill line. Each first gear unit is driven individually by a motor and has a pair of mechanically interconnected first shafts. Second gear units are arranged along a second line between and parallel to both the first line and the mill pass line. Each second gear unit has a pair of mechanically interconnected second shafts. Rolling units are arranged in succession along the mill pass line. Each rolling unit is driven by an input shaft and has a pair of mechanically interconnected roll shafts carrying work rolls. First couplings connect the first shafts of each first gear unit to second shafts of two successive gear units, and second couplings releasably connect the second shafts of the second gear units to the input shafts of two successive rolling units. At least some of the first couplings comprise clutches that may be selectively disengaged to accommodate removal of selected rolling units from the pass line.

IPC 8 full level
  B21B 1/18 (2006.01)

CPC (source: CN EP RU)
  B21B 1/18 (2013.01 - CN EP); **B21B 35/02** (2013.01 - CN EP); B21B 1/18 (2013.01 - RU)

Citation (search report)
  See references of WO 2013169500A1

Citation (examination)
  DE 69906606 T2 20040212 - MORGAN CONSTRUCTION CO [US]

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)
  WO 2013169500 A1 20131114; BR 112014027498 A2 20170627; CN 104284740 A 20150114; CN 104284740 B 20171031; EP 2846939 A1 20150318; IN 7709DEN2014 A 20150515; JP 2015519202 A 20150709; JP 6250038 B2 20171220; KR 20150013153 A 20150204; RU 2014149213 A 20160627; RU 2639198 C2 20171220; TW 201406481 A 20140216; TW I610729 B 20180111

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  US 2013038419 W 20130426; BR 112014027498 A 20130426; CN 201380024225 A 20130426; EP 13720733 A 20130426; IN 7709DEN2014 A 20140916; JP 2015511504 A 20130426; KR 20147030964 A 20130426; RU 2014149213 A 20130426; TW 102116013 A 20130506