

Title (en)
COLD ROLLING APPARATUS AND METHOD FOR COLD ROLLING

Title (de)
KALTWALZMASCHINE UND KALTWALZVERFAHREN

Title (fr)
APPAREIL DE LAMINAGE À FROID ET PROCÉDÉ DE LAMINAGE À FROID

Publication
EP 2500114 A4 20130612 (EN)

Application
EP 09851110 A 20091109

Priority
JP 2009069064 W 20091109

Abstract (en)
[origin: EP2500114A1] Disclosed are cold-rolled material manufacturing equipment and a cold rolling method by which a high efficiency, a high yield and a high investment cost-effectiveness are realized in a small- to medium-scale plant with a capacity of about 300,000 to 600,000 tons of product per year. A strip of a coil 101a unwound from an unwinding device 2 is guided directly to a cold rolling mill 1 to be rolled and then wound onto a winding/unwinding device 4. Upon arrival of the tail end of the coil 101a at a joining device 5, the coil 101a and the leading end of a coil 101b subsequently unwound from the unwinding device 2 are joined. Subsequently, rolling and joining for the coil 101b and following coils are repeated to perform first-pass rolling by the cold rolling mill 1 and joining by the joining device 5, thereby forming a plurality of coils into one buildup coil 102. The buildup coil 102 is subjected to reversible rolling a predetermined number of times until a desired product strip thickness is reached. In the final pass, the buildup coil 102 is cut by a cutting device 6a or 6b, to form a plurality of coils 103.

IPC 8 full level
B21B 1/36 (2006.01); **B21B 15/00** (2006.01); **B21B 37/18** (2006.01); **B21B 37/32** (2006.01); **B21B 37/38** (2006.01); **B21B 41/00** (2006.01)

CPC (source: EP KR)
B21B 1/36 (2013.01 - EP KR); **B21B 15/00** (2013.01 - KR); **B21B 37/18** (2013.01 - KR); **B21B 37/32** (2013.01 - KR); **B21C 47/18** (2013.01 - EP); **B21B 15/0085** (2013.01 - EP); **B21B 2015/0057** (2013.01 - EP); **B21B 2015/0064** (2013.01 - EP)

Citation (search report)
[X] WO 2005056206 A1 20050623 - SMS DEMAG AG [DE], et al

Cited by
CN112969540A; US11400497B2; CN103447313A; CN105964688A; US10016799B2; US10259027B2

Designated contracting state (EPC)
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 SE SI SK SM TR

DOCDB simple family (publication)
EP 2500114 A1 20120919; EP 2500114 A4 20130612; EP 2500114 B1 20151014; BR 112012010890 A2 20200825; CN 102612414 A 20120725; CN 102612414 B 20160120; JP 4864173 B2 20120201; JP WO2011055458 A1 20130321; KR 101428895 B1 20140808; KR 20120060913 A 20120612; WO 2011055458 A1 20110512

DOCDB simple family (application)
EP 09851110 A 20091109; BR 112012010890 A 20091109; CN 200980162372 A 20091109; JP 2009069064 W 20091109; JP 2011533442 A 20091109; KR 20127011545 A 20091109