

Title (en)
STEEL PLATE MANUFACTURING EQUIPMENT AND METHOD OF MANUFACTURING

Title (de)
AUSRÜSTUNG ZUR HERSTELLUNG EINER STAHLPLATTE UND HERSTELLUNGSVERFAHREN

Title (fr)
EQUIPEMENT ET PROCÉDÉ DE FABRICATION DE PLAQUE D'ACIER

Publication
EP 2412455 A4 20130529 (EN)

Application
EP 10756268 A 20100323

Priority
• JP 2010055497 W 20100323
• JP 2009073994 A 20090325
• JP 2010006722 A 20100115

Abstract (en)
[origin: EP2412455A1] A facility is provided for manufacturing a steel plate excellent in steel plate shape and mechanical property while setting low cooling-water spraying performance in a descaling step and achieving uniform cooling in a cooling step. Specifically, a hot rolling mill 3, a first hot leveler 5, a descaler 4, and cooling equipment 6 are arranged in that order from the upstream side in a conveying direction. A pressure P [MPa] at the point of impact of cooling water sprayed from the descaler to each surface of a steel plate 1 is greater than or equal to 1.5 MPa.

IPC 8 full level
B21B 45/02 (2006.01); **B21B 39/00** (2006.01); **B21B 45/08** (2006.01)

CPC (source: EP KR US)
B21B 39/00 (2013.01 - KR); **B21B 45/02** (2013.01 - KR); **B21B 45/08** (2013.01 - EP KR US); **B21B 39/08** (2013.01 - EP US);
B21B 45/0218 (2013.01 - EP US)

Citation (search report)
• [Y] JP 3796133 B2 20060712
• [Y] JP H10113713 A 19980506 - KOBE STEEL LTD
• [Y] JP 2004066308 A 20040304 - JFE STEEL KK

Cited by
EP3187275A4; EP3195946A4; EP4066956A4; EP2979770A4; WO2014023753A1; EP2882542B1

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 2412455 A1 20120201; **EP 2412455 A4 20130529**; **EP 2412455 B1 20180314**; CN 102361704 A 20120222; CN 102361704 B 20150325;
JP 2010247228 A 20101104; JP 5614040 B2 20141029; KR 101563206 B1 20151026; KR 20110115163 A 20111020;
KR 20140004265 A 20140110; US 2012017660 A1 20120126; WO 2010110473 A1 20100930

DOCDB simple family (application)
EP 10756268 A 20100323; CN 201080013386 A 20100323; JP 2010006722 A 20100115; JP 2010055497 W 20100323;
KR 20117020996 A 20100323; KR 20137034747 A 20100323; US 201013256288 A 20100323