

Title (en)
DISTORTION CALCULATION METHOD AND ROLLING SYSTEM

Title (de)
VERZERRUNGSBERECHNUNGSVERFAHREN UND WALZANLAGE

Title (fr)
PROCÉDÉ DE CALCUL DE DÉFORMATION ET SYSTÈME DE LAMINAGE

Publication
EP 2737963 A4 20150401 (EN)

Application
EP 12877083 A 20121003

Priority
JP 2012075706 W 20121003

Abstract (en)
[origin: EP2737963A1] A distortion computation method, the method including: detecting a profile of a steel sheet rolled by a rolling mill; computing from the detected profile second distortion indicating distortion appearing in an undulation on a surface of the steel sheet; determining third distortion from correlation between a threshold value of the third distortion indicating distortion corresponding to internal stress of the rolled steel sheet and a wavelength of a rolling-direction component of a profile determined from the detected profile, and the wavelength of the rolling-direction component of the detected profile, wherein the correlation is computed by buckling analysis from a boundary condition determined from the detected profile, thickness of the steel sheet, width of the steel sheet, tensile strength of the steel sheet, and distribution pattern of the third distortion; and adding the second distortion to the third distortion so as to compute first distortion indicating difference between distortion corresponding to stress applied to the steel sheet and desired distortion.

IPC 8 full level
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CPC (source: EP)
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Citation (search report)

- [A] JP 2005153011 A 20050616 - NIPPON STEEL CORP & JP 4262142 B2 20090513
- [A] JP H05172560 A 19930709 - KAWASAKI STEEL CO, et al
- [A] US 7823428 B1 20101102 - MALIK ARIF S [US], et al
- See references of WO 2014054140A1

Cited by
US10307806B2; US11281818B2; WO2020072864A1

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

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BA ME

DOCDB simple family (publication)
EP 2737963 A1 20140604; **EP 2737963 A4 20150401**; **EP 2737963 B1 20160518**; CN 103842107 A 20140604; CN 103842107 B 20150930; JP 5257559 B1 20130807; JP WO2014054140 A1 20160825; KR 101454147 B1 20141022; KR 20140066752 A 20140602; WO 2014054140 A1 20140410

DOCDB simple family (application)
EP 12877083 A 20121003; CN 201280025252 A 20121003; JP 2012075706 W 20121003; JP 2013505018 A 20121003; KR 20147009650 A 20121003