

Title (en)  
TEMPER ROLLING METHOD FOR COLD-ROLLED STEEL SHEET

Title (de)  
NACHWALZVERFAHREN FÜR KALTGEWALZTES STAHLBLECH

Title (fr)  
PROCÉDÉ DE LAMINAGE À FROID POUR TÔLE D'ACIER LAMINÉE À FROID

Publication  
**EP 4094854 A1 20221130 (EN)**

Application  
**EP 20922979 A 20201120**

Priority  
• JP 2020037602 A 20200305  
• JP 2020043311 W 20201120

Abstract (en)  
The present invention provides a method for performing temper rolling on a cold rolled steel sheet, the method being designed to prevent the occurrence of problems such as jumping; the method relates to wet temper rolling and addresses changes in a concentration of a temper rolling liquid and changes in a load, and the method is applicable to both a rolling mill with a single stand and a rolling mill with multiple stands. A method for performing temper rolling on a cold rolled steel sheet, the temper rolling including wet temper rolling, the cold rolled steel sheet being an annealed cold rolled steel sheet, the method including setting a tension  $T$  (kgf/mm<sup>2</sup>) per unit cross-sectional area of the steel sheet for the temper rolling, based on a carbon content  $C$  (mass%) of the cold rolled steel sheet.

IPC 8 full level  
**B21B 1/22** (2006.01); **B21B 37/48** (2006.01)

CPC (source: EP KR)  
**B21B 1/28** (2013.01 - KR); **B21B 37/48** (2013.01 - KR); **B21B 37/56** (2013.01 - EP); **C21D 8/0242** (2013.01 - EP); **C21D 9/46** (2013.01 - KR); **B21B 1/22** (2013.01 - EP); **B21B 37/16** (2013.01 - EP); **B21B 37/48** (2013.01 - EP); **B21B 45/0251** (2013.01 - EP); **B21B 2001/221** (2013.01 - KR); **B21B 2001/228** (2013.01 - EP); **B21B 2261/04** (2013.01 - EP); **B21B 2261/06** (2013.01 - EP); **B21B 2261/14** (2013.01 - EP); **B21B 2265/02** (2013.01 - EP)

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4094854 A1 20221130**; **EP 4094854 A4 20230614**; **EP 4094854 B1 20240529**; CN 115210009 A 20221018; JP 7063415 B2 20220509; JP WO2021176777 A1 20210910; KR 20220129627 A 20220923; TW 202133958 A 20210916; TW I766459 B 20220601; WO 2021176777 A1 20210910

DOCDB simple family (application)  
**EP 20922979 A 20201120**; CN 202080097858 A 20201120; JP 2020043311 W 20201120; JP 2021510240 A 20201120; KR 20227029171 A 20201120; TW 109141955 A 20201130