

Title (en)
METHOD FOR MAKING A HOT-ROLLED STEEL STRIP FOR SWAGING

Title (de)
VERFAHREN ZUM HERSTELLEN EINES WARMGEWALZTEN STAHLBLECHES ZUM TIEFZIEHEN

Title (fr)
PROCEDE DE FABRICATION D'UNE BANDE D'ACIER LAMINEE A CHAUD POUR EMBOUTISSAGE

Publication
EP 1070148 A1 20010124 (FR)

Application
EP 00900991 A 20000124

Priority
• BE 0000007 W 20000124
• BE 9900078 A 19990205

Abstract (en)
[origin: WO0046411A1] The invention concerns a method for making a hot-rolled steel strip for swaging which consists in: subjecting a steel slab at temperature higher than Ac3 to a rough-rolling in the austenitic phase and subsequently to a finish-rolling, applied to steel of the Ti-IF type containing at least 0.05 wt. % of titanium and 0.015 wt. % of niobium; performing the finish-rolling partially in the low temperature region of the steel austenitic phase, without lubricating the rolls and at a thickness reduction rate ranging between 30 % and 80 %, and partially in the steel ferritic phase, with lubricated rolls and at an initial ferritic rolling temperature ranging between 860 DEG C and 800 DEG C and a final ferritic rolling temperature ranging between 750 DEG C and 600 DEG C; then winding the strip at a temperature ranging between 650 DEG C and 500 DEG C and continuously annealing it at a temperature ranging between 800 DEG C and 850 DEG C for a time interval between 30 seconds and 2 minutes. The lubricating of the rolls during the steel ferritic phase rolling is performed with an ester-based oil. The steel austenitic phase is rough-rolled and the steel is subjected to accelerated cooling down to a temperature not less than the initial finish-rolling temperature.

IPC 1-7
C21D 8/04

IPC 8 full level
C21D 8/04 (2006.01); **C22C 38/12** (2006.01)

CPC (source: EP)
C21D 8/0426 (2013.01); **C22C 38/12** (2013.01); **C21D 8/0431** (2013.01)

Citation (search report)
See references of WO 0046411A1

Designated contracting state (EPC)
BE DE ES FR GB LU NL

DOCDB simple family (publication)
WO 0046411 A1 20000810; AU 2086900 A 20000825; BE 1012462 A3 20001107; DE 60028875 D1 20060803; DE 60028875 T2 20061130; EP 1070148 A1 20010124; EP 1070148 B1 20060621; ES 2265908 T3 20070301

DOCDB simple family (application)
BE 0000007 W 20000124; AU 2086900 A 20000124; BE 9900078 A 19990205; DE 60028875 T 20000124; EP 00900991 A 20000124; ES 00900991 T 20000124