

Title (en)
USE OF A HEARTH ROLL IN A METHOD FOR HEAT TREATING A VARIETY OF METAL STRIPS IN A VERTICAL HEAT TREATING FURNACE INCLUDING HEARTH ROLLS

Title (de)
VERWENDUNG EINER HERDROLLE IN EINEM VERFAHREN ZUM WÄRMEBEHANDELN VERSCHIEDENER METALLBÄNDER IN EINEM VERTIKALEN DURCHLAUFOFEN

Title (fr)
UTILISATION D'UN ROULEAU DE SOLE DANS UN PROCEDE DE TRAITEMENT THERMIQUE DE DIVERSES BANDES METALLIQUES DANS UN FOUR VERTICAL

Publication
EP 1158059 B1 20050727 (EN)

Application
EP 00304408 A 20000524

Priority
• EP 00304408 A 20000524
• CA 2308641 A 20000517
• CN 00108736 A 20000531
• US 57244900 A 20000517

Abstract (en)
[origin: CA2308641A1] A vertical heat treating furnace for passing a metal strip, therethrough for heat treatment and a hearth roll applied to a heating/soaking furnace of the vertical heat treating furnace are disclosed. The hearth roll can be configured such that the taper angle of each of first taper sections continuous to a flat section at a central portion of the hearth roll from a roll axial direction is larger than the taper angle of each of second taper sections continuous to each of the first taper sections from the roll axial direction. The length L_c (mm) of the flat section and the length L_1 (mm) of the first taper section can satisfy the following relationships: $0.5 W_{min} \leq L_c \leq W_{min}$ and $W_{min} \leq L_c + 2 \times L_1 \leq W_{max} - 400$, where W_{min} is the minimum width (mm) of the metal strip, and W_{max} is the maximum width (mm) of the metal strip.

IPC 1-7
C21D 9/56

IPC 8 full level
C21D 9/56 (2006.01); **F27B 9/14** (2006.01); **F27B 9/28** (2006.01); **F27D 3/02** (2006.01)

CPC (source: EP)
C21D 9/563 (2013.01); **F27B 9/14** (2013.01); **F27B 9/28** (2013.01); **F27D 3/026** (2013.01)

Cited by
CN102021309A; WO2008150205A1

Designated contracting state (EPC)
AT BE DE FR GB IT

DOCDB simple family (publication)
CA 2308641 A1 20011117; **CA 2308641 C 20080708**; CN 1318614 C 20070530; CN 1326007 A 20011212; EP 1158059 A1 20011128; EP 1158059 B1 20050727

DOCDB simple family (application)
CA 2308641 A 20000517; CN 00108736 A 20000531; EP 00304408 A 20000524