

Title (en)
EQUIPMENT FOR PREHEATING A CONTINUOUSLY MOVING STEEL STRIP

Title (de)
AUSRÜSTUNG ZUR VORERWÄRMUNG VON KONTINUIERLICH BEWEGLICHEM BANDSTAHL

Title (fr)
INSTALLATION DE PRÉCHAUFFAGE D'UNE BANDE D'ACIER EN DÉFILEMENT CONTINU

Publication
EP 2513582 B1 20180502 (FR)

Application
EP 10715131 A 20100325

Priority
• EP 09290941 A 20091215
• EP 2010053908 W 20100325
• EP 10715131 A 20100325

Abstract (en)
[origin: WO2011072883A1] The invention relates to equipment and a method for preheating a continuously moving steel strip, in particular before feeding same into a continuous annealing or hot-dip galvanizing furnace. The preheating equipment involves the continuous movement of the steel strip in a preheating chamber including a preheating circuit consisting of at least one preheating tube, the inner surface of which is in contact with externally-recovered burnt gases (e.g. from the furnace). A portion of the outer surface of the preheating tube is arranged directly opposite a surface of the strip in order to provide a first preheating mode by irradiating heat onto the strip and the walls of the chamber, and a second preheating mode, mainly by means of convection, of a gas constituting a controlled atmosphere in the preheating chamber.

IPC 8 full level
F27B 9/28 (2006.01); **C21D 9/56** (2006.01); **F23C 3/00** (2006.01); **F27D 99/00** (2010.01)

CPC (source: EP US)
C21D 9/56 (2013.01 - EP US); **C21D 9/561** (2013.01 - EP US); **C21D 9/562** (2013.01 - EP US); **F27B 9/28** (2013.01 - EP US); **F27D 99/0035** (2013.01 - EP US)

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)
WO 2011072883 A1 20110623; BR 112012014451 A2 20170307; BR 112012014451 A8 20170321; BR 112012014451 B1 20180424; CN 102686965 A 20120919; CN 102686965 B 20160217; EP 2513582 A1 20121024; EP 2513582 B1 20180502; TR 201807600 T4 20180621; US 2012264073 A1 20121018; US 9631867 B2 20170425

DOCDB simple family (application)
EP 2010053908 W 20100325; BR 112012014451 A 20100325; CN 201080056815 A 20100325; EP 10715131 A 20100325; TR 201807600 T 20100325; US 201013516327 A 20100325