

Title (en)

METHOD FOR THE PRODUCTION OF THIN-WALLED STEEL COMPONENTS AND COMPONENTS PRODUCED THEREFROM

Title (de)

VERFAHREN ZUR HERSTELLUNG VON DÜNNWANDIGEN BAUTEILEN AUS STAHL UND DANACH HERGESTELLTE BAUTEILE

Title (fr)

PROCEDE POUR PRODUIRE DES PIECES EN ACIER A FAIBLE EPAISSEUR DE PAROI, ET PIECES AINSI PRODUITES

Publication

EP 1263540 A1 20021211 (DE)

Application

EP 01900129 A 20010105

Priority

- DE 10011758 A 20000313
- EP 0100088 W 20010105

Abstract (en)

[origin: US2003029530A1] The invention relates to a method for the production of thin-walled steel components and similar components, comprising an inner core layer (B) and an external boundary layer (A). Said layers are, at least partly, differently annealed. According to the invention, the disadvantages of conventional roll-cladding and case-hardening processes may be overcome by the following methodology: bonding core and boundary layers made from differently annealed steel alloys, in a casting process to give a combined material with flat alloy gradients on the boundary surfaces, moulding the composite material to the dimensions of the thin-walled components, annealing the components by heat treatment, whereby the layers made from the differently annealed steel alloys obtain different annealing properties.

IPC 1-7

B22D 11/00

IPC 8 full level

B22D 11/00 (2006.01)

CPC (source: EP US)

B22D 11/008 (2013.01 - EP US); **Y10S 428/924** (2013.01 - EP US); **Y10S 428/925** (2013.01 - EP US); **Y10S 428/926** (2013.01 - EP US); **Y10S 428/94** (2013.01 - EP US); **Y10T 428/12458** (2015.01 - EP US); **Y10T 428/12472** (2015.01 - EP US); **Y10T 428/12958** (2015.01 - EP US); **Y10T 428/12965** (2015.01 - EP US); **Y10T 428/12986** (2015.01 - EP US)

Cited by

US12031613B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

US 2003029530 A1 20030213; **US 6953627 B2 20051011**; AT E270163 T1 20040715; AU 2372701 A 20010924; BR 0109190 A 20030527; BR 0109190 B1 20110405; CA 2404361 A1 20010920; CA 2404361 C 20070306; CZ 20023038 A3 20030618; CZ 303019 B6 20120229; DE 10011758 A1 20010927; DE 10011758 C2 20031016; DE 50102738 D1 20040805; EP 1263540 A1 20021211; EP 1263540 B1 20040630; ES 2223770 T3 20050301; HU 225711 B1 20070628; HU P0300086 A2 20030428; MX PA02008871 A 20041014; SK 13272002 A3 20030701; SK 286356 B6 20080805; WO 0168293 A1 20010920

DOCDB simple family (application)

US 22153402 A 20020913; AT 01900129 T 20010105; AU 2372701 A 20010105; BR 0109190 A 20010105; CA 2404361 A 20010105; CZ 20023038 A 20010105; DE 10011758 A 20000313; DE 50102738 T 20010105; EP 0100088 W 20010105; EP 01900129 A 20010105; ES 01900129 T 20010105; HU P0300086 A 20010105; MX PA02008871 A 20010105; SK 13272002 A 20010105