

Title (en)
PROCESS FOR PRODUCING HIGH-Cr SEAMLESS PIPE

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES NAHTLOSEN ROHRS MIT HOHEM CHROMGEHALT

Title (fr)
PROCEDE DE PRODUCTION D'UN TUYAU SANS SOUDURE A TENEUR ELEVEE EN Cr

Publication
EP 1990107 A4 20120530 (EN)

Application
EP 07737596 A 20070301

Priority
• JP 2007053916 W 20070301
• JP 2006054240 A 20060301

Abstract (en)
[origin: EP1990107A1] A billet containing, by mass%, 8.0 to 16.0% of Cr with a value represented by the formula of "Cr + 4Si - (22C + 0.5Mn + 1.5Ni + 30N)" of not more than 9.0%, wherein the symbols of the elements represent the contents, by mass%, of the elements in the steel, is heated by means of a heating furnace conditioned so as to have a soaking temperature of 1100 to 1800°C and an in-furnace time (min) of not less than "0.5 × Diameter of the billet (mm)". Thereafter, by means of a centering machine capable of forming a center hole having a diameter of not less than "0.34 × Diameter of the billet (mm)" at one end face of the said billet where piercing starts by punch of 60 to 110° punching angle, a center hole is formed at the said face of the billet, followed by piercing and rolling by an inclined roll type piercing mill of not more than 8.0% plug tip draft rate. The thus-produced high-Cr seamless pipe or tube has excellent internal surface properties with minimized internal surface defects.

IPC 8 full level
B21B 19/04 (2006.01); **B21B 23/00** (2006.01); **C21D 9/00** (2006.01); **C22C 38/00** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01)

CPC (source: EP US)
B21B 19/04 (2013.01 - EP US); **B21B 23/00** (2013.01 - EP US); **C21D 8/105** (2013.01 - EP US); **C21D 9/08** (2013.01 - EP US); **C22C 38/002** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/04** (2013.01 - EP US); **B21B 3/02** (2013.01 - EP US); **B21B 25/00** (2013.01 - EP US); **B21B 45/004** (2013.01 - EP US)

Citation (search report)
• [Y] WO 2005115650 A1 20051208 - SUMITOMO METAL IND [JP], et al
• [Y] JP H01181905 A 19890719 - KAWASAKI STEEL CO
• [Y] JP S59174203 A 19841002 - SUMITOMO METAL IND
• [A] JP S5372763 A 19780628 - NIPPON STEEL CORP
• [A] MATVEEV B N: "IMPROVEMENT OF HIGH-ALLOY STEEL TUBE PRODUCTION", STEEL IN TRANSLATION, ALLERTON PRESS, NEW YORK, NY, US, vol. 30, no. 3, 1 January 2000 (2000-01-01), pages 64 - 68, XP001110441, ISSN: 0967-0912
• See references of WO 2007100042A1

Designated contracting state (EPC)
DE FR IT

DOCDB simple family (publication)
EP 1990107 A1 20081112; **EP 1990107 A4 20120530**; CN 101394943 A 20090325; CN 101394943 B 20100609; JP WO2007100042 A1 20090723; US 2009000709 A1 20090101; WO 2007100042 A1 20070907

DOCDB simple family (application)
EP 07737596 A 20070301; CN 200780007204 A 20070301; JP 2007053916 W 20070301; JP 2008502840 A 20070301; US 23049708 A 20080829