

Title (en)  
METHOD FOR MANUFACTURING SEAMLESS STEEL PIPE

Title (de)  
HERSTELLUNGSVERFAHREN FÜR NAHTLOSES STAHLROHR

Title (fr)  
PROCEDE DE FABRICATION D'UN TUBE EN ACIER SANS SOUDURE

Publication  
**EP 1284167 A4 20051109 (EN)**

Application  
**EP 02705439 A 20020322**

Priority

- JP 0202756 W 20020322
- JP 2001090890 A 20010327
- JP 2002040741 A 20020218

Abstract (en)

[origin: EP1284167A1] The present invention proposes a production method for seamless steel pipe having excellent inner plane and inside thick wall properties. More specifically, the means for solving the problem comprises using, as the raw material, a round billet having a center segregation zone partition ratio W (%) as defined by equation below of 20 % or higher. Where, W (%) = ( DELTA w/D) x 100 (wherein, W: center segregation zone partition ratio (%), DELTA w: separation width of the center segregation zone at the center of thickness direction of round billet (mm), and D: total thickness of round billet (outer diameter) (mm)). After heating the round billet to a predetermined temperature, pierce rolling is performed to obtain a hollow raw pipe, to which stretch rolling or further draw rolling is applied to obtain a steel pipe of desired dimension. The continuously cast slab for use in the invention is preferably cast by using steel melt whose superheating degree is set in a range of 25 to 65 DEG C, and, while casting, the quantity of the secondary cooling water at the central portion in the width direction of the slab is set larger than that at the peripheral portion in the width direction of the slab and the secondary cooling water ratio until complete solidification is adjusted within a range of from 1.2 to 2.0 l/kg-steel. <IMAGE>

IPC 1-7  
**B22D 11/00**; **B22D 11/12**; **B22D 11/124**; **B21B 19/04**

IPC 8 full level  
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**B21B 19/04** (2013.01); **B22D 11/00** (2013.01); **B22D 11/124** (2013.01); **B21B 19/06** (2013.01)

Citation (search report)

- [A] US 3908737 A 19750930 - MATSUNAGA HISASHI, et al
- [A] FR 2039129 A1 19710115 - ARMCO STEEL CORP
- [A] PATENT ABSTRACTS OF JAPAN vol. 015, no. 289 (C - 0852) 23 July 1991 (1991-07-23)
- See references of WO 02076654A1

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**EP 1284167 A1 20030219**; **EP 1284167 A4 20051109**; **EP 1284167 B1 20071226**; BR 0204681 A 20030610; DE 60224243 D1 20080207; DE 60224243 T2 20080508; JP 2002361384 A 20021217; JP 4045813 B2 20080213; MX PA02011715 A 20030327; WO 02076654 A1 20021003

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**EP 02705439 A 20020322**; BR 0204681 A 20020322; DE 60224243 T 20020322; JP 0202756 W 20020322; JP 2002040741 A 20020218; MX PA02011715 A 20021127