

Title (en)  
METHOD FOR PRODUCING AUSTENITIC STAINLESS STEEL

Title (de)  
VERFAHREN ZUR HERSTELLUNG EINES AUSTENITISCHEN EDELSTAHL

Title (fr)  
PROCÉDÉ DE PRODUCTION D'ACIER INOXYDABLE AUSTÉNITIQUE

Publication  
**EP 2737961 A4 20150603 (EN)**

Application  
**EP 12819669 A 20120726**

Priority

- JP 2011166361 A 20110729
- JP 2012068905 W 20120726

Abstract (en)  
[origin: EP2737961A1] It is possible to securely produce high Si-containing austenitic stainless steel having corrosion resistance usable in a highly-concentrated nitric acid environment at a high temperature without generating scabs by heating and hot-rolling a slab of stainless steel at a heating temperature during the hot rolling, and subsequently, carrying out heat treatment to heat the hot-rolled stainless steel at a temperature of 1100 to 1160°C, and thereafter, to cool this stainless steel at cooling rate of at least 100°C/min. , wherein the slab of stainless steel has a chemical composition containing: C: at most 0.04% ; Cr: 7 to 20%, Ni: 10 to 22%, Si: 2.5 to 7%, Mn: at most 10% , sol. Al: at most 0.03% , P: at most 0.03% , S: at most 0.03% ; N: at most 0.035% , a total amount of one or more types of elements selected from Nb, Ti, Ta, and Zr: 0.05 to 0.7%; and the remainder being Fe and impurities, and the heating temperature during the hot rolling is defined as T h in which #T of Formula (1):  $T_h = 1135 - 90Si - 2.9Cr + 40Ni - \#T$  is at least 30°C.

IPC 8 full level  
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Citation (search report)

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- [A] JP S6365058 A 19880323 - NISSHIN STEEL CO LTD
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- [A] MATSUDA, TAKAOKI: "Application of stainless steels in nitric acid environment", NIPPON SUTENRESU GIHO, vol. 23, 1 January 1988 (1988-01-01), pages 73 - 97, XP009183870, ISSN: 0288-092X
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