

Title (en)

High chromium cast steel for high-temperature pressure container and method for the thermal treatment thereof.

Title (de)

Hochchromhaltiger Gussstahl für ein Hochtemperaturdruckgefäß und Verfahren zu seiner thermischen Behandlung.

Title (fr)

Acier de coulée à teneur élevée en chrome pour récipient sous pression à haute température et procédé pour son traitement thermique.

Publication

EP 0188995 A1 19860730 (EN)

Application

EP 85730139 A 19851011

Priority

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- JP 21632384 A 19841017

Abstract (en)

A high chromium steel for high-temperature, pressure container consisting of, in weight percent, 0.08-0.12% of carbon, up to 0.7% of silicon, up to 0.8% of manganese, 0.4-0.7% of nickel, 9-11% of chromium, 0.65-1.00% of molybdenum, 0.13-0.20% of vanadium, 0.03-0.07% of niobium, 0.03-0.07% of nitrogen, optionally, up to 0.7% of cobalt, the balance being iron and inevitable impurities, is described. A method for the thermal treatment of this cast steel is also described, according to which the cast steel is heated to a temperature of 1000-1100 DEG C and normalized, cooled down to a temperature not higher than 250 DEG C, followed by tempering once in a temperature range of 550-750 DEG C and cooling down to a temperature under 150 DEG C. The resulting steel is finally tempered at 680-750 DEG C.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

C22C 38/001 (2013.01); **C22C 38/44** (2013.01); **C22C 38/46** (2013.01); **C22C 38/48** (2013.01)

Citation (search report)

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- [A] EP 0083254 A2 19830706 - HITACHI LTD [JP]
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- [A] BE 855896 A 19771017 - CENTRE RECH METALLURGIQUE
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