

Title (en)

AUSTENITIC STEEL MATERIAL HAVING EXCELLENT HYDROGEN-EMBRITTLEMENT RESISTANCE

Title (de)

AUSTENITISCHES STAHLMATERIAL MIT HERVORRAGENDER BESTÄNDIGKEIT GEGEN WASSERSTOFFVERSPRÖDUNG

Title (fr)

MATÉRIAU EN ACIER AUSTÉNITIQUE PRÉSENTANT UNE EXCELLENTE RÉSISTANCE À LA FRAGILISATION PAR L'HYDROGÈNE

Publication

**EP 3395989 B1 20200715 (EN)**

Application

**EP 16879356 A 20161222**

Priority

- KR 20150184291 A 20151222
- KR 2016015085 W 20161222

Abstract (en)

[origin: EP3395989A1] Disclosed is an austenitic material having excellent hydrogen-embrittlement resistance, comprising, by weight, 0.1-0.5% of C, 5% or less (0% exclusive) of Cu, 1% or less (0% exclusive) of N, a content of Mn satisfying Mn #¥-10.7C+24.5, 10% or less of Cr, 5% or less of Ni, 5% or less of Mo, 4% or less of Si, 5% or less of Al, and a balance amount of Fe and inevitable impurities, with a T-EI 2 /T-EI 1 ratio of 0.5 or higher, wherein T-EI 1 is an elongation at break according to a tensile test at 25°C under an atmospheric condition of 1 atm and T-EI 2 is an elongation at break according to a tensile test at 25°C under a hydrogen condition of 70 MPa.

IPC 8 full level

**C22C 38/16** (2006.01); **C21D 6/00** (2006.01); **C21D 8/00** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/06** (2006.01); **C22C 38/08** (2006.01); **C22C 38/12** (2006.01); **C22C 38/38** (2006.01); **C22C 38/44** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR US)

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DOCDB simple family (publication)

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