

Title (en)
CRYOGENIC AUSTENITIC HIGH-MANGANESE STEEL HAVING EXCELLENT CORROSION RESISTANCE, AND MANUFACTURING METHOD THEREFOR

Title (de)
KRYOGENER AUSTENITISCHER HOCHMANGANSTAHL MIT AUSGEZEICHNETER KORROSIONSBESTÄNDIGKEIT UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)
ACIER AUSTÉNITIQUE CRYOGÉNIQUE À HAUTE TENEUR EN MANGANÈSE AYANT UNE EXCELLENTE RÉSISTANCE À LA CORROSION ET PROCÉDÉ DE FABRICATION ASSOCIÉ

Publication
EP 3872212 A4 20210901 (EN)

Application
EP 19875923 A 20191025

Priority
• KR 20180128505 A 20181025
• KR 2019014197 W 20191025

Abstract (en)
[origin: EP3872212A1] The cryogenic austenitic high-manganese steel having excellent corrosion resistance, according to one aspect of the present invention, comprises 0.2-0.5 wt% of C, 23-28 wt% of Mn, 0.05-0.5 wt% of Si, 0.03 wt% or less of P, 0.005 wt% or less of S, 0.5 wt% or less of Al, and 3-4 wt% of Cr, with the remainder being Fe and other unavoidable impurities, also comprises at least 95 area% of austenite as a microstructure, and has Cr concentration sections continuously formed within an area of 50 µm in the thickness direction from the surface, wherein the Cr concentration sections comprise a high Cr concentration section having a relatively high concentration of Cr, and a low Cr concentration section having a relatively low concentration of Cr, and the high Cr concentration section may be distributed at 30 area% or less (but not 0%) relative to the whole surface area of the Cr sections.

IPC 8 full level
C22C 38/38 (2006.01); **C21D 6/00** (2006.01); **C21D 8/02** (2006.01); **C21D 9/46** (2006.01); **C22C 38/02** (2006.01); **C22C 38/06** (2006.01); **C22C 38/20** (2006.01); **C22C 38/32** (2006.01)

CPC (source: EP KR)
C21D 1/02 (2013.01 - EP); **C21D 6/00** (2013.01 - EP); **C21D 6/002** (2013.01 - EP); **C21D 6/005** (2013.01 - EP); **C21D 8/02** (2013.01 - EP); **C21D 8/0205** (2013.01 - EP); **C21D 8/0226** (2013.01 - EP KR); **C21D 8/0263** (2013.01 - EP KR); **C21D 9/46** (2013.01 - EP); **C22C 38/02** (2013.01 - EP KR); **C22C 38/06** (2013.01 - EP KR); **C22C 38/20** (2013.01 - EP KR); **C22C 38/32** (2013.01 - EP KR); **C22C 38/38** (2013.01 - EP KR); **C21D 2211/001** (2013.01 - EP KR)

Citation (search report)
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• See also references of WO 2020085864A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3872212 A1 20210901; EP 3872212 A4 20210901; CN 112912531 A 20210604; KR 102290109 B1 20210819; KR 20200047427 A 20200507

DOCDB simple family (application)
EP 19875923 A 20191025; CN 201980069600 A 20191025; KR 20190133780 A 20191025