

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

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Application
EP 19875923 A 20191025

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Abstract (en)
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 μ m 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.

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