

Title (en)
DUPLEX STAINLESS STEEL HAVING EXCELLENT CORROSION RESISTANCE WITH LOW NICKEL

Title (de)
DUPLEXEDELSTAHL MIT HERVORRAGENDER KORROSIONSBESTÄNDIGKEIT MIT GERINGEM NICKEL

Title (fr)
ACIER INOXYDABLE DUPLEX PRESENTANT UNE EXCELLENTE RESISTANCE A LA CORROSION ET DOTE D'UNE FAIBLE TENEUR EN NICKEL

Publication
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Application
EP 05822027 A 20051222

Priority
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Abstract (en)
[origin: WO2006071027A1] Disclosed is duplex stainless steel that contains relatively low content of Ni, and limits constituents of Cr-Mo-Mn-N to make volume fraction of a and ? have about 50:50, thereby minimizing incidence of a edge crack to enhance a production yield and decrease a processing load, in which the alloy constituents includes Cr of 19.5 ~ 22.5%, Mo of 0.5-2.5%, Ni of 1.0-3.0%, Mn of 1.5-4.5%, N of 0.15-0.25%, Fe and unavoidable elements, and a constitution range of the alloy constituents are adjusted to make a CPT higher than 20°C depending on the constitution range of the alloy constituents. Thus, the contents of Cr, Mo and Ni is decreased and the content of Mn is increased a little, so that a production cost thereof is reduced; the corrosion resistance is secured to be better than the STS 304 steel and the 316L steel; the incidence of the edge crack is decreased while being hot-rolled, thereby decreasing a load on the following process; and the surface defective is decreased, thereby improving a production yield.

IPC 8 full level
C22C 38/18 (2006.01)

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C22C 38/001 (2013.01 - EP US); **C22C 38/18** (2013.01 - KR); **C22C 38/44** (2013.01 - EP US); **C22C 38/58** (2013.01 - EP US)

Citation (search report)
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• [X] JP H0382740 A 19910408 - SUMITOMO METAL IND
• [A] WO 0227056 A1 20020404 - AVESTAPOLARIT AKTIEBOLAG PUBL [SE], et al
• [A] EP 0314649 A2 19890503 - SANDVIK AB [SE]
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• See references of WO 2006071027A1

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