

Title (en)  
AUSTENITIC HIGH-MANGANESE STAINLESS STEEL

Title (de)  
HOCHMANGANHALTIGER AUSTENITISCHER EDELSTAHL

Title (fr)  
ACIER INOXYDABLE AUSTÉNITIQUE À HAUTE TENEUR EN MANGANÈSE

Publication  
**EP 2924131 A1 20150930 (EN)**

Application  
**EP 14162191 A 20140328**

Priority  
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Abstract (en)  
The invention relates to an austenitic high-manganese stainless steel having high strength and ductility. The stainless steel which consists of in weight % 0,03 - 0,1 % carbon, 0,08 - 1,0 % silicon, 14 - 26 % manganese, 10,5 - 18 % chromium, less than 0,8 % nickel, 0,05 - 0,6 % copper, 0,1 - 0,8 % nitrogen and 0,0008 - 0,005 % boron, the rest being iron and inevitable impurities occurred in stainless steels, and the stainless steel is cold deformable utilizing the TWIP (TWinning Induced Plasticity) mechanism.

IPC 8 full level  
**C21D 6/002** (2006.01); **C21D 8/02** (2006.01); **C22C 38/00** (2006.01); **C22C 38/02** (2006.01); **C22C 38/06** (2006.01); **C22C 38/42** (2006.01); **C22C 38/44** (2006.01); **C22C 38/50** (2006.01); **C22C 38/54** (2006.01); **C22C 38/58** (2006.01)

CPC (source: CN EP KR US)  
**C21D 6/002** (2013.01 - CN); **C21D 6/005** (2013.01 - CN); **C21D 8/0205** (2013.01 - CN EP KR US); **C21D 8/0236** (2013.01 - CN EP KR US); **C22C 38/001** (2013.01 - CN EP KR US); **C22C 38/02** (2013.01 - CN EP KR US); **C22C 38/06** (2013.01 - CN EP KR US); **C22C 38/42** (2013.01 - CN EP KR US); **C22C 38/44** (2013.01 - CN EP KR US); **C22C 38/50** (2013.01 - CN EP KR US); **C22C 38/54** (2013.01 - CN EP KR US); **C22C 38/58** (2013.01 - CN EP KR US); **C21D 6/002** (2013.01 - EP US); **C21D 6/005** (2013.01 - EP US)

Citation (search report)  
• [X] FR 2071667 A5 19710917 - NISSHIN STEEL CO LTD  
• [X] EP 1069202 A1 20010117 - SCHOELLER BLECKMANN OILFIELD T [AT], et al  
• [A] DE 102010026808 A1 20120112 - UNIV FREIBERG TECH BERGAKAD [DE]  
• [A] EP 2465954 A1 20120620 - CRS HOLDINGS INC [US]  
• [A] DE 728159 C 19421121 - BOEHLER & CO AG GEB

Cited by  
CN113913693A; EP3705595A4; CN110103530A; EP3301197A1; EA039436B1; CN114686784A; US11352678B2; WO2018060454A1

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