

Title (en)  
IMPROVEMENTS IN HOT BAND IN HIGH STRENGTH STEEL ALLOYS

Title (de)  
VERBESSERUNGEN AM WARMBAND BEI HOCHFESTEN STAHLLEGIERUNGEN

Title (fr)  
AMÉLIORATIONS APPORTÉES À UNE BANDE CHAUDE DANS DES ALLIAGES D'ACIER À HAUTE RÉSISTANCE

Publication  
**EP 4100552 A4 20240221 (EN)**

Application  
**EP 21750872 A 20210203**

Priority  
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Abstract (en)  
[origin: WO2021159142A1] Advanced high strength steel alloys are disclosed with a combination of toughness and a Directional Toughness Ratio (DTR). A combination of yield strength and a Tensile Squareness Ratio (TSR) can be achieved by rolling of the hot band at ambient or identified elevated temperatures.

IPC 8 full level  
**C21D 6/00** (2006.01); **C21D 1/26** (2006.01); **C21D 8/02** (2006.01); **C21D 8/04** (2006.01); **C21D 9/46** (2006.01); **C21D 9/48** (2006.01); **C22C 38/02** (2006.01); **C22C 38/20** (2006.01); **C22C 38/34** (2006.01); **C22C 38/38** (2006.01); **C22C 38/42** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP KR)  
**C21D 1/26** (2013.01 - EP KR); **C21D 6/002** (2013.01 - EP KR); **C21D 6/004** (2013.01 - EP KR); **C21D 6/005** (2013.01 - EP KR); **C21D 6/008** (2013.01 - EP KR); **C21D 8/0226** (2013.01 - EP KR); **C21D 8/0263** (2013.01 - EP KR); **C21D 8/0426** (2013.01 - EP KR); **C21D 8/0463** (2013.01 - EP KR); **C21D 9/46** (2013.01 - EP KR); **C21D 9/48** (2013.01 - EP KR); **C22C 38/02** (2013.01 - EP); **C22C 38/20** (2013.01 - EP); **C22C 38/34** (2013.01 - EP); **C22C 38/38** (2013.01 - EP KR); **C22C 38/42** (2013.01 - EP); **C22C 38/58** (2013.01 - EP KR)

Citation (search report)  
• [I] US 2019003003 A1 20190103 - BRANAGAN DANIEL JAMES [US], et al  
• [I] US 2016145725 A1 20160526 - BRANAGAN DANIEL JAMES [US], et al  
• [A] CHEN SHANGPING ET AL: "Current state of Fe-Mn-Al-C low density steels", PROGRESS IN MATERIALS SCIENCE, PERGAMON PRESS, GB, vol. 89, 31 May 2017 (2017-05-31), pages 345 - 391, XP085137131, ISSN: 0079-6425, DOI: 10.1016/J.PMATSCI.2017.05.002  
• See also references of WO 2021159142A1

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