

Title (en)
HIGH MANGANESE STEEL HAVING EXCELLENT OXYGEN CUTTING PROPERTIES, AND MANUFACTURING METHOD THEREFOR

Title (de)
MANGANREICHER STAHL MIT AUSGEZEICHNETEN SAUERSTOFFSCHNEIDEIGENSCHAFTEN UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
ACIER À HAUTE TENEUR EN MANGANÈSE AYANT D'EXCELLENTE PROPRIÉTÉS DE COUPE À L'OXYGÈNE ET PROCÉDÉ DE FABRICATION S'Y RAPPORTANT

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Application
EP 19876472 A 20191025

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Abstract (en)
[origin: EP3872214A1] The high manganese steel having excellent oxygen cutting properties, according to one aspect of the present invention, comprises 0.1-0.5 wt% of carbon (C), 20-26 wt% of manganese (Mn), 0.05-0.4 wt% of silicon (Si), at most 2.0 wt% of aluminum (Al), and at most 4 wt% of chromium (Cr), with the remainder being Fe and other unavoidable impurities, and has a cutting sensitivity (Sc), calculated according to [relational expression 1] below, of at least 430 and may comprise at least 95 area% of austenite as a microstructure. [Relational expression 1] Cutting sensitivity (Sc) = $1742 - 662*[C] - 19.2*[Mn] + 1.6*[Al] - 140*[Cr]$ (In [relational expression 1], [C], [Mn], [Al], and [Cr] represent the respective percentages by weight of C, Mn, Al, and Cr included in the steel and, if the elements concerned are not included, represent 0.)

IPC 8 full level
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Citation (search report)

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- [XI] JP S621823 A 19870107 - KOBE STEEL LTD
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- [A] US 4329172 A 19820511 - OUCHI CHIAKI, et al
- See references of WO 2020085855A1

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