

Title (en)

Niobium containing steel and process for making flat products from this steel

Title (de)

Niobium enthaltender Stahl und Verfahren zur Herstellung von Flachprodukten aus diesem Stahl

Title (fr)

Acier au niobium et procédé de fabrication de produits plats à partir de celui-ci

Publication

EP 0870848 A1 19981014 (FR)

Application

EP 98200844 A 19980318

Priority

BE 9700270 A 19970327

Abstract (en)

Extra mild niobium steel is free of titanium and comprises no more than following by weight: 0.100% carbon, 1.000% manganese, 0.100% phosphorous, 0.020% sulphur, 0.080% aluminium, 0.012% nitrogen and 0.500% silicon, plus an amount of niobium stoichiometrically less than the N content and enough boron or zirconium to fix all the N which is not fixed by the Nb. The rest is iron plus any impurities. Also claimed is casting the steel into a slab at least 1000 degrees C, then hot rolling to form a strip with a final rolling temperature above Ar3, winding into a reel between 500 and 750 degrees C, cold rolling to the desired thickness, annealing to recrystallise and finally shaping the finished article.

Abstract (fr)

Acier au niobium, extra doux, calmé à l'aluminium et exempt de titane, pour produits plats laminés à froid et recuits, contenant une teneur en niobium stoechiométriquement inférieure à celle de l'azote et une teneur en bore ou en zirconium suffisante pour fixer l'azote non fixé, et procédé de fabrication de produits plats à base de cet acier.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

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Citation (search report)

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- [A] DATABASE WPI Section Ch Week 8434, Derwent World Patents Index; Class M24, AN 84-211090, XP002046097
- [A] DATABASE WPI Section Ch Week 8619, Derwent World Patents Index; Class M27, AN 86-121979, XP002046098
- [A] DATABASE WPI Section Ch Week 9246, Derwent World Patents Index; Class M14, AN 92-376689, XP002046099
- [A] DATABASE WPI Section Ch Week 8620, Derwent World Patents Index; Class M27, AN 86-127775, XP002046100
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