

Title (en)

Heat resistant, nickel free constructional steel and process for making plate from it

Title (de)

Feuerresistente nickelfreie Stähle für den Stahlbau und Verfahren zur Herstellung von Grobblech daraus

Title (fr)

Acier de construction réfractaire, exempt de nickel et procédé pour la fabrication de tôles épaisses en cet acier

Publication

EP 0882807 B1 20001122 (DE)

Application

EP 98110023 A 19980602

Priority

DE 19724051 A 19970607

Abstract (en)

[origin: EP0882807A1] A fire resistant nickel-free steel, which has a yield point (Re) of greater than 280 N/mm² and a yield point ratio (Re/Rm) of 0.4-0.6 and which is used especially in thick plate form for steel construction, has a composition (wt.%) comprising: 0.06-0.20 carbon; 0.20-0.30 silicon; 0.50-1.60 manganese; 0.020-0.045 soluble aluminium; 0.50-0.90 chromium; 0.10-0.40 molybdenum; 0.01-0.05 vanadium; and balance iron and impurities. Also claimed is the production of a 50 mm thick or less plate of the above steel by casting the steel to slabs by stationary or continuous casting, reheating to 1050-1200 degrees C, hot rolling to a finish temperature of 920-1000 degrees C, air cooling and normalising at 880-950 degrees C for NOTGREATER 30 minutes.

IPC 1-7

C22C 38/04; **C22C 38/22**; **C21D 8/02**; **C21D 1/28**; **C22C 38/24**

IPC 8 full level

C21D 1/28 (2006.01); **C21D 8/02** (2006.01); **C22C 38/04** (2006.01); **C22C 38/22** (2006.01); **C22C 38/24** (2006.01)

CPC (source: EP)

C21D 1/28 (2013.01); **C21D 8/0226** (2013.01); **C22C 38/04** (2013.01); **C22C 38/22** (2013.01)

Cited by

CN102912224A; CN102912223A; CN111471920A; DE10258114B4; EP1008667A1

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