

Title (en)

Process for manufacturing joining structural parts from a fully austenitic Cr-Mn steel.

Title (de)

Verfahren zur Herstellung von Verbindungselementen aus einem vollaustenitischen Cr-Mn-Stahl.

Title (fr)

Procédé de fabrication d'éléments d'assemblage en acier Cr-Mn ayant une structure complètement austénitique.

Publication

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Application

EP 90120990 A 19901102

Priority

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Abstract (en)

[origin: EP0432434A1] The invention relates to the processes for the production of a corrosion-resistant fully austenitic steel containing, in % by weight: max. 0.12% of C 0.20 to 1.00% of Si 17.50 to 20.00% of Mn max. 0.05% of P max. 0.015% of S 17.50 to 20.00% of Cr max. 5.00% of Mo max. 3.00% of Ni 0.80 to 1.20% of N, the remainder being iron and conventional impurities from the smelting process, in which an electrode is produced for electroslag remelting, the nitrogen content of the steel is adjusted in a pressure electroslag remelting process with melting of this electrode for the addition of nitrogen-containing materials, the steel block solidifying under pressure is then drawn out and/or rolled out to an intermediate product of 5 to 150 mm diameter, the intermediate product is then cold-worked with a reduction in total cross-section of at least 60% to give an end product of 0.5 to 90 mm diameter and the end product is then aged at temperatures of 300 to 500 DEG C for 20 minutes to 5 hours.

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