

Title (en)

Process for heat treating hot rolled steel rod or wire for prestressing concrete

Title (de)

Verfahren zur Wärmebehandlung von warmgewalzten Spannstählen in Form von Stäben oder Drähten

Title (fr)

Procédé de traitement thermique d'aciers laminés à chaud sous forme de barres ou de fils pour béton précontraint

Publication

EP 0172544 B2 19960605 (DE)

Application

EP 85110316 A 19850817

Priority

DE 3431008 A 19840823

Abstract (en)

[origin: ES8609490A1] To produce threaded steel tension members, steel is used with a C-content of 0.50 to 0.80%, preferably 0.75%, a Si-content of 0.20 to 0.50%, preferably 0.25%, and a Mn content of 0.30 to 0.80%, preferably 0.60%. Exiting from the rolling heat at the outlet side of the finishing stand after hot rolling, the tension member or rod is subjected to surface quenching by a cooling medium, preferably water, so that the steel in a rim zone R1 is transformed immediately and completely into martensite, while the heat content remaining in the core zone K1 does not effect a tempering of the martensite rim zone during the subsequent cooling beyond the range of the intermediate stage. Steel tension members of this type have a high ductility and toughness at a high yield limit and high strength, they are corrosion-resistant to a great degree and have a wear resistant surface which makes them particularly suitable for threaded tension rods in which the threads are produced either by a cold forming operation or hot rolled ribs.

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CPC (source: EP US)

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Cited by

CZ307645B6; EP0260717A1; US4923528A; EP0306887A1; DE4224222A1; EP0307680A1; WO9428182A1; WO8802031A1; EP0172544A2

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