

Title (en)
PROCESS FOR MANUFACTURING ROLLED STEEL PRODUCTS, IN PARTICULAR HELICALLY RIBBED PRESTRESSED STEEL RODS

Publication
EP 0172544 A3 19871028 (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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IPC 8 full level
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Citation (search report)
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• [Y] DE 2439784 A1 19750403 - QUALITAETS UND EDELSTAHL KOM V
• [A] BE 874535 A 19790618 - CENTRE RECH METALLURGIQUE
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• [A] IRON AND STEEL ENGINEER, Band 61, Nr. 3, März 1984, Seiten 53-57, Pittsburgh, Pennsylvania, US; P. SIMON et al.: "Tempcore: a new process for the production of high-quality reinforcing bars"

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