

Title (en)  
Method of heat treating rails.

Title (de)  
Verfahren zur Wärmebehandlung von Schienen.

Title (fr)  
Procédé de traitement thermique de rails.

Publication  
**EP 0088746 A1 19830914 (DE)**

Application  
**EP 83890026 A 19830222**

Priority  
AT 93182 A 19820309

Abstract (en)  
1. Method of heat treating rails by quenching the rail or at least the rail head by means of a coolant, from a temperature in the austenitic range to a temperature at which the conversion of perlite is terminated, for obtaining a fine perlitic structure, comprising treating the rails made of steel consisting of 0,7 to 0,75% C, at maximum 0,8% Si and 1,2 to 1,3% Mn, remainder iron and unavoidable impurities, in a coolant containing water and a synthetic coolant additive in an amount of from 20 to 50% by volume related to the total coolant volume, the amount of coolant additive being increased on rising manganese content and constant carbon content and being decreased on rising carbon content and constant manganese content and the temperature of the cooling bath being held at 40 to 60 degrees C so that within said ranges of C and Mn contents constant wear-resistance properties and a Vickers hardness HV30 of from 340 to 380 are achieved.

Abstract (de)  
Zur Wärmebehandlung von Schienen zur Erzielung einer hohen Verschleissfestigkeit wird zumindest der Schienenkopf ausgehend von einer im Austenitbereich liegenden Temperatur mit einem Kühlmedium auf eine Temperatur, bei welcher die Perlitumwandlung abgeschlossen ist, gebracht, welches Kühlmedium 20 bis 60% Polyglykol enthält. Diese Behandlung betrifft im besonderen Stähle mit 0,65 bis 0,85% C und 0,5 bis 2,5% Mn. Es werden Vickers-Härten HV30 zwischen 340 und 380 erzielt.

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CPC (source: EP)  
**C21D 1/60** (2013.01); **C21D 9/04** (2013.01); **C21D 1/63** (2013.01)

Citation (search report)  
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