

Title (en)  
METHOD OF HEAT TREATING RAILS

Publication  
**EP 0088746 B1 19870415 (DE)**

Application  
**EP 83890026 A 19830222**

Priority  
AT 93182 A 19820309

Abstract (en)  
[origin: EP0088746A1] 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.

IPC 1-7  
**C21D 9/04**

IPC 8 full level  
**C21D 1/60** (2006.01); **C21D 9/04** (2006.01); **C21D 1/63** (2006.01)

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

Cited by  
CZ299001B6; WO9745562A1; WO9402652A1; US6406569B1; US6547897B2; LT3008B

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DE FR GB IT LU SE

DOCDB simple family (publication)  
**EP 0088746 A1 19830914; EP 0088746 B1 19870415; AT 375402 B 19840810; AT A93182 A 19831215; CA 1205729 A 19860610; DE 3370972 D1 19870521; JP S58221229 A 19831222**

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