

## Title (en)

Method for manufacturing a railway wheel and railway wheel so obtained

## Title (de)

Verfahren zur Herstellung eines Eisenbahnrades und so hergestelltes Eisenbahnrad

## Title (fr)

Procédé de fabrication d'une roue de chemin de fer en acier et roue de chemin de fer obtenue

## Publication

**EP 0884396 A1 19981216 (FR)**

## Application

**EP 98401042 A 19980429**

## Priority

FR 9706290 A 19970523

## Abstract (en)

A railway wheel, comprising a rim connected to a hub by a flange which is less thick in the axial direction than the rim, is made of steel containing less than 0.35% carbon and less than 5% in total of alloying elements has an Ms point above 270 degrees C. During manufacture it is tempered and then heated at over 550 degrees C, so that at least the outer surface of the rim has mechanical properties as follows: Rm=860-960 MPa, Rp 0.2 at least 700 MPa, K1c at least 80 MPa per square m. Also claimed is a wheel of this sort, made of steel containing by weight 0.2-0.24% carbon, 0.9-1.1% manganese, 0.9-1.1% silicon, 1-1.2% chromium and 0.2-0.25% molybdenum, the rest being iron and impurities. The wheel has the mechanical properties listed above which are not affected by braking equivalent to 540 degrees C maintained for one hour.

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## IPC 8 full level

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## CPC (source: EP)

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## Citation (search report)

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- [A] FR 2259158 A1 19750822 - JAPAN NATIONAL RAILWAY [JP]
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- [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 191 (C - 182) 20 August 1983 (1983-08-20)
- [A] K. FORCH: "15 Jahre Rad/Schiene-Forschungsprogramm des Bundesministeriums für Forschung und Technologie - Radwerkstoffe", THYSSEN TECHNISCHE BERICHTE, no. 2, 1985, DUISBURG, pages 228 - 232, XP002056189

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## Designated contracting state (EPC)

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**EP 0884396 A1 19981216**; **EP 0884396 B1 20030625**; AT E243772 T1 20030715; CZ 152198 A3 19990811; CZ 298116 B6 20070627; DE 69815758 D1 20030731; DE 69815758 T2 20040429; FR 2763601 A1 19981127; FR 2763601 B1 19990625

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