

Title (en)

STEEL, SOLID WHEEL, AND TIRE FOR RAIL VEHICLES AND METHOD FOR PRODUCING PARTS OF THIS TYPE

Title (de)

STAHL, VOLLRAD UND RADREIFEN FÜR SCHIENENFAHRZEUGE UND VERFAHREN ZUR HERSTELLUNG DERARTIGER BAUELEMENTE

Title (fr)

ACIER, ROUE MONOBLOC ET BANDAGE DE ROUE POUR VEHICULES FERROVIAIRES ET PROCEDE DE PRODUCTION DE CE TYPE D'ELEMENTS

Publication

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Application

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Abstract (en)

[origin: WO03070995A1] The invention relates to a steel material for producing parts, which are stressed while rolling, for rail vehicles. This steel material meets the high demands placed thereon when in use even when subjected to high thermal stress. This steel contains (in wt. %): C: 0.33 - 0.49 %, Si: 0.85 - 1.00 %, Mn: 0.25 - 0.40 %, Cr: 0.85 - 1.00 %, Mo: 0.10 - 0.20 %, Cu: ≤ 0.10 %, Ni: ≤ 0.10 %, P: ≤ 0.009 %, S: ≤ 0.005 % and optionally contains one or more alloy elements selected from the group consisting of: V: 0.06 - 0.10 %, Nb: 0.010 - 0.015 %, B: 0.0015 - 0.0030 %, Ti: ≤ 0.01 %, Al: 0.010 - 0.015 %, N: 0.005 - 0.010 %, whereby the remainder consists of iron and unavoidable impurities. The inventive method enables the production of rail wheels and similarly stressed parts from the inventive steels. These rail wheels and similarly stressed parts have a property distribution that is optimal for the stresses occurring when in use.

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