

Title (en)  
METHOD FOR SURFACE TREATMENT OF A STEEL COMPONENT BY NITRIDING OR NITROCARBURISING, OXIDISING AND THEN IMPREGNATING

Title (de)  
VERFAHREN ZUR OBERFLÄCHENBEHANDLUNG VON STAHLWERKSTÜCKEN MITTELS NITRIERUNG ODER NITROCARBURIERUNG, OXIDIERUNG UND FOLGENDER IMPRÄGNIERUNG

Title (fr)  
PROCÉDÉ DE TRAITEMENT SUPERFICIEL D'UNE PIÈCE EN ACIER PAR NITRURATION OU NITROCARBURATION, OXYDATION PUIS IMPRÉGNATION

Publication  
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Application  
**EP 15821125 A 20151215**

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• FR 1463252 A 20141223  
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Abstract (en)  
[origin: WO2016102813A1] The invention relates to a method for surface treatment of a steel component in order to grant same high resistance to wear and corrosion, including a step of nitriding or nitrocarburising suitable for forming a compound layer with a thickness of at least 8 micrometres made up of iron nitrides having phases  $\epsilon$  and/or  $\gamma'$ , an oxidising step suitable for generating a layer of oxides with a thickness of 0.1 to 3 micrometres, and a step of impregnating by soaking in an impregnation bath during at least 5 minutes at room temperature, said bath being made up of at least 70 wt %, plus or minus 1%, of a solvent made up of a mixture of hydrocarbons formed by a C9 to C17 alkane fraction, 10 to 30 wt %, plus or minus 1%, of at least one paraffin oil formed by a C16 to C32 alkane fraction, and at least one additive such as a synthetic phenolic additive with a concentration of 0.01 to 3 wt %, plus or minus 0.1%.

IPC 8 full level  
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CPC (source: CN EP KR US)  
**C21D 1/06** (2013.01 - CN); **C23C 8/02** (2013.01 - CN EP US); **C23C 8/34** (2013.01 - CN EP KR US); **C23C 8/58** (2013.01 - CN EP KR US); **C23C 8/80** (2013.01 - CN EP KR US); **C21D 1/06** (2013.01 - EP US)

Citation (search report)  
See references of WO 2016102813A1

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