

ABSTRACT**METHOD OF SURFACE TREATMENT OF A STEEL PART BY NITRIDING OR
NITROCARBURIZING, OXIDATION THEN IMPREGNATION**

- 5 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 ϵ and/or γ' , an oxidising step suitable for generating a layer of oxides with a
- 10 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
- 15 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%.