

Title (en)

STEEL SURFACE DECARBURIZING METHOD FOR FINISHING THE SURFACE OF STEEL PARTS WITH SMOOTHING

Title (de)

VERFAHREN ZUR ENTKOHLUNG VON STAHL OBERFLÄCHEN ZUR ENDBEARBEITUNG VON STAHLTEILEN MIT GLÄTTUNG

Title (fr)

PROCÉDÉ DE DÉCARBURATION DE SURFACE D'ACIER POUR LA FINITION DE LA SURFACE DE PIÈCES EN ACIER AVEC LISSAGE

Publication

EP 4308737 A1 20240124 (EN)

Application

EP 21964917 A 20211116

Priority

LV 2021050011 W 20211116

Abstract (en)

[origin: WO2023090986A1] The invention relates to the mechanical engineering industry and can be used for the production of articles as a finishing operation in order to achieve the smoothness of the steel surface of the articles, increase the resistance to wear and corrosion. The method of decarburization a hardened steel surface for finishing surface of steel articles with smoothing, comprises the steps of (i) providing one or more steel surfaces, at least of which is to be treated; (ii) introducing a decarburization agent between two contacting surfaces, at least of which is to be treated; (iii) compressing said surfaces together and moving them relative to each other, resulting in decarburization and smoothening of the treated steel surface. An introduction of the decarburization agent between the two contacting surfaces at the step (ii) can be made gradually or at once. The decarburization agent can be introduced between the two contacting surfaces at the step (ii) so that the surfaces to be treated are entirely covered with the decarburization agent. According to the preferred embodiment the force applied to compress the surfaces together at the step (iii) can be selected in the range of 0.5-2.5 kg/cm².

IPC 8 full level

C21D 3/04 (2006.01)

CPC (source: EP)

C21D 1/26 (2013.01); **C21D 3/04** (2013.01); **C21D 7/04** (2013.01); **C21D 2201/03** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2023090986 A1 20230525; EP 4308737 A1 20240124

DOCDB simple family (application)

LV 2021050011 W 20211116; EP 21964917 A 20211116