

Title (en)

METHOD FOR PREPARING A SURFACE FOR APPLYING A THERMALLY SPRAYED LAYER

Title (de)

VERFAHREN ZUM VORBEREITEN EINER OBERFLÄCHE ZUM AUFBRINGEN EINER THERMISCH GESPRITZTEN SCHICHT

Title (fr)

PROCÉDÉ POUR PRÉPARER UNE SURFACE À L'APPLICATION D'UNE COUCHE PAR PROJECTION À CHAUD

Publication

EP 2279279 B1 20170614 (DE)

Application

EP 09735658 A 20090420

Priority

- EP 2009054670 W 20090420
- DE 102008019933 A 20080421

Abstract (en)

[origin: WO2009130184A1] The invention relates to a method for preparing a surface, previously roughed in a mechanical manner and comprising sharp-edged ridges and recesses, on metal workpieces (1) for applying a thermally sprayed layer. The roughened layer (2) is machined by hammer or percussion brushes with a rapidly rotating hammer or percussion brush (3) having a plurality of resilient percussion wires (4) that are oriented in a radially outward manner, such that the edges of the ridges are broken in order to improve the adhesion of the subsequently applied thermally sprayed layer or are at least curved forming rear sections. The brush (3) rotates at a high rotational speed of approximately 3000 - 6000 rotations per minute and is displaced laterally with its rotational axis (13) being at a parallel distance that remains constant in relation to the surface (2) of the workpiece (1) such that percussion wires (4) distributed on the periphery of the brush (3) impact with the ends thereof (5) of the surface areas adjacent to the workpiece (1) at an oblique angle that is less than 90° in rapid succession. The brush (3) consists of an essentially cylindrical rotationally symmetrical brush body (7) having a plurality of support bars (11) that are parallel to the axis, that are mounted on the periphery of the brush between front-sided brush disks (9, 10) and which support a plurality of percussion wires (4) that are arranged close to each other in the axial direction of the brush (3). Said support bars (11) have a round cross-section such that the percussion wires (4) are mounted in a freely rotating manner on said support bars (11) in the rotational direction (6) of the brush.

IPC 8 full level

C23C 4/02 (2006.01)

CPC (source: EP US)

A46B 3/08 (2013.01 - EP US); **A46B 7/06** (2013.01 - EP US); **A46B 7/10** (2013.01 - EP US); **A46B 9/02** (2013.01 - EP US); **A46B 9/12** (2013.01 - EP US); **C23C 4/02** (2013.01 - EP US); **A46B 2200/3093** (2013.01 - EP US); **Y10T 29/4506** (2015.01 - US); **Y10T 29/47** (2015.01 - US); **Y10T 428/12208** (2015.01 - US)

Designated contracting state (EPC)

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 SE SI SK TR

DOCDB simple family (publication)

DE 102008019933 A1 20091022; CN 102016098 A 20110413; EP 2279279 A1 20110202; EP 2279279 B1 20170614; US 2011030663 A1 20110210; US 8752256 B2 20140617; WO 2009130184 A1 20091029

DOCDB simple family (application)

DE 102008019933 A 20080421; CN 200980114059 A 20090420; EP 09735658 A 20090420; EP 2009054670 W 20090420; US 93567109 A 20090420