

Title (en)

METHOD FOR COATING A VALVE OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VERFAHREN ZUM BESCHICHTEN EINES VENTILS EINER BRENNKRAFTMASCHINE

Title (fr)

PROCÉDÉ DE REVÊTEMENT D'UNE SOUPAPE D'UN MOTEUR À COMBUSTION INTERNE

Publication

EP 3307926 A1 20180418 (DE)

Application

EP 16718679 A 20160426

Priority

- DE 102015210552 A 20150609
- EP 2016059295 W 20160426

Abstract (en)

[origin: WO2016198205A1] The invention relates to a method for coating a valve (1) of an internal combustion engine (2), in particular a place on a valve stem (5) of the valve (1), in which - the valve (1) is immersed, at least at the place that is to be coated, in a bath of just nickel (Ni) as a bonding agent, - the valve (1) is immersed, at least with the place that is to be coated, in a bath comprising nickel (Ni) and boron carbide (B₄C) or in a bath comprising nickel-tungsten (Ni-W) or nickel-iron (Ni-Fe) and boron carbide (B₄C), - the valve (1) is reworked, at least at the place that is to be coated. This particularly allows a previously chromium-containing wear-resistant layer to be replaced.

IPC 8 full level

C25D 15/00 (2006.01); **C23C 18/16** (2006.01); **C23C 18/32** (2006.01); **C23C 18/50** (2006.01); **C25D 3/12** (2006.01); **C25D 3/56** (2006.01); **C25D 5/14** (2006.01); **F01L 3/04** (2006.01)

CPC (source: EP US)

C23C 18/1651 (2013.01 - EP); **C23C 18/1653** (2013.01 - EP); **C23C 18/1662** (2013.01 - EP); **C23C 18/32** (2013.01 - EP); **C23C 18/50** (2013.01 - EP); **C25D 3/12** (2013.01 - EP); **C25D 3/562** (2013.01 - EP); **C25D 5/14** (2013.01 - EP US); **C25D 5/611** (2020.08 - EP US); **C25D 15/00** (2013.01 - EP US); **F01L 3/04** (2013.01 - EP); **F01L 2301/00** (2020.05 - EP); **F01L 2301/02** (2020.05 - EP); **F01L 2303/00** (2020.05 - EP); **F01L 2820/01** (2013.01 - EP)

Citation (search report)

See references of WO 2016198205A1

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

DOCDB simple family (publication)

DE 102015210552 A1 20161215; EP 3307926 A1 20180418; WO 2016198205 A1 20161215

DOCDB simple family (application)

DE 102015210552 A 20150609; EP 16718679 A 20160426; EP 2016059295 W 20160426