

Title (en)
VALVE GUIDE MADE FROM SINTERED ALLOY, AND METHOD FOR PRODUCING SAME

Title (de)
VENTILFÜHRUNG AUS SINTERLEGIERUNG UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)
GUIDE DE SOUPAPE EN ALLIAGE FRITTÉ ET SON PROCÉDÉ DE PRODUCTION

Publication
EP 3026141 A1 20160601 (EN)

Application
EP 14829838 A 20140722

Priority
• JP 2013155336 A 20130726
• JP 2014069284 W 20140722

Abstract (en)
To provide a sintered alloy valve guide having high thermal conductivity and excellent wear resistance, which can be used in engines subjected to a large thermal load due to downsizing, direct injection and supercharging, the sintered alloy has a composition comprising by mass 10-90% of Cu, 0-10% of Cr, 0-6% of Mo, 0-8% of V, 0-8% of W, and 0.5-3% of C, the balance being substantially Fe and inevitable impurities, the total amount of Cr, Mo, V and W being 2% or more, and a structure comprising an Fe-based alloy phase, a Cu or Cu-based alloy phase, and a graphite phase.

IPC 8 full level
B22F 1/02 (2006.01); **B22F 1/10** (2022.01); **B22F 5/00** (2006.01); **C22C 1/04** (2006.01); **C22C 9/00** (2006.01); **C22C 33/02** (2006.01); **C22C 38/00** (2006.01); **F01L 3/08** (2006.01); **B22F 1/17** (2022.01)

CPC (source: EP US)
B22F 1/10 (2022.01 - EP US); **B22F 3/16** (2013.01 - US); **B22F 5/008** (2013.01 - EP US); **C22C 1/0425** (2013.01 - EP US); **C22C 9/00** (2013.01 - EP US); **C22C 30/02** (2013.01 - EP US); **C22C 33/0278** (2013.01 - EP US); **C22C 37/00** (2013.01 - EP US); **C22C 37/06** (2013.01 - EP US); **C22C 38/00** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/20** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **C22C 38/36** (2013.01 - EP US); **F01L 3/08** (2013.01 - EP US); **B22F 1/17** (2022.01 - EP US); **B22F 2301/10** (2013.01 - US); **B22F 2301/35** (2013.01 - US)

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)
EP 3026141 A1 20160601; **EP 3026141 A4 20170329**; CN 105452507 A 20160330; CN 105452507 B 20181106; JP 2015025169 A 20150205; JP 5658804 B1 20150128; US 2016160700 A1 20160609; WO 2015012249 A1 20150129

DOCDB simple family (application)
EP 14829838 A 20140722; CN 201480042148 A 20140722; JP 2013155336 A 20130726; JP 2014069284 W 20140722; US 201414906209 A 20140722