

Title (en)
IRON-BASED SINTERED ALLOY VALVE SEAT

Title (de)
VENTILSITZ AUS EINER SINTERLEGIERUNG AUF EISENBASIS

Title (fr)
SIÈGE DE SOUPAPE EN ALLIAGE FRITTÉ À BASE DE FER

Publication
EP 2666981 A1 20131127 (EN)

Application
EP 12736573 A 20120120

Priority
• JP 2011009719 A 20110120
• JP 2012051191 W 20120120

Abstract (en)
A valve seat of an iron-based sintered alloy having high wear resistance in a wide temperature range, which can be used in direct injection engines with improved fuel efficiency, low emission and high power, is obtained by limiting the amount of a solid lubricant dispersed in the matrix of the valve seat of an iron-based sintered alloy, and dispersing at least two types of hard particles having different hardnesses in the matrix, thereby providing high strength and self-lubrication, as well as improved wear resistance under no lubrication in a wide temperature range.

IPC 8 full level
F01L 3/02 (2006.01); **B22F 1/00** (2006.01); **B22F 5/00** (2006.01); **C22C 27/04** (2006.01)

CPC (source: EP US)
B22F 5/008 (2013.01 - EP US); **C22C 27/04** (2013.01 - EP US); **C22C 33/0207** (2013.01 - EP US); **C22C 33/0221** (2013.01 - EP US); **C22C 33/0228** (2013.01 - EP US); **C22C 38/02** (2013.01 - EP US); **C22C 38/08** (2013.01 - EP US); **C22C 38/12** (2013.01 - EP US); **C22C 38/22** (2013.01 - EP US); **C22C 38/24** (2013.01 - EP US); **F01L 3/02** (2013.01 - EP US); **F01L 1/0532** (2013.01 - EP US); **F01L 1/143** (2013.01 - EP US); **F01L 2303/00** (2020.05 - EP US); **F01L 2800/18** (2013.01 - EP US); **F01L 2810/02** (2013.01 - EP US); **F01L 2820/01** (2013.01 - EP US)

Cited by
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