

Title (en)

CYLINDER LINER, METHOD FOR THE PRODUCTION THEREOF AND A COMBINED

Title (de)

ZYLINDERLAUFBUCHSE, VERFAHREN ZU IHRER HERSTELLUNG SOWIE VERBUNDTTEIL

Title (fr)

BOITE DE GLISSEMENT DE CYLINDRE, PROCEDE DE FABRICATION ET ELEMENT COMPOSITE

Publication

**EP 1627144 A1 20060222 (DE)**

Application

**EP 04729862 A 20040428**

Priority

- EP 2004004450 W 20040428
- DE 10324279 A 20030528

Abstract (en)

[origin: WO2004106721A1] The invention relates to a cylinder liner made of grey cast iron, aluminium or ceramic material for the engine unit of an internal combustion engine. The inventive cylinder liner comprises on the wearable side thereof a thermo-injected low-alloyed iron layer or an adhesive layer made of a nickel-aluminium alloy containing 80-95 mass % nickel and 5-20 mass % aluminium and a tribological surface-contact layer arranged on the adhesive layer. Said invention also relates to a method for producing said cylinder liner and a combined element consisting of an engine unit for an internal combustion engine and at least one inventive liner. The invention makes it possible to carry out low-cost repairing of the liners for worn-out cylinders without adjusting new pistons.

IPC 1-7

**F02F 1/10**; **F02B 77/02**; **C23C 4/08**

IPC 8 full level

**C23C 4/02** (2006.01); **C23C 4/04** (2006.01); **C23C 4/08** (2006.01); **C23C 4/12** (2006.01); **C23C 4/16** (2006.01); **F02F 1/16** (2006.01); **F02F 1/20** (2006.01)

CPC (source: EP KR US)

**C23C 4/02** (2013.01 - EP US); **C23C 4/04** (2013.01 - EP US); **C23C 4/08** (2013.01 - EP KR US); **C23C 4/131** (2016.01 - EP US); **C23C 4/16** (2013.01 - EP US); **F02B 77/02** (2013.01 - KR); **F02F 1/10** (2013.01 - KR); **F02F 1/16** (2013.01 - EP US); **F02F 1/20** (2013.01 - EP US); **Y10T 29/49233** (2015.01 - EP US); **Y10T 29/49272** (2015.01 - EP US)

Citation (search report)

See references of WO 2004106721A1

Designated contracting state (EPC)

FR GB IT

DOCDB simple family (publication)

**WO 2004106721 A1 20041209**; DE 10324279 A1 20041223; DE 10324279 B4 20060406; EP 1627144 A1 20060222; JP 2007533889 A 20071122; KR 20060029610 A 20060406; US 2007000129 A1 20070104

DOCDB simple family (application)

**EP 2004004450 W 20040428**; DE 10324279 A 20030528; EP 04729862 A 20040428; JP 2006529716 A 20040428; KR 20057022650 A 20051128; US 55824906 A 20060222