

Title (en)

Cylinder block, internal combustion engine, transportation apparatus, and method for producing cylinder block

Title (de)

Zylinderblock, Verbrennungsmotor, Beförderungsvorrichtung und Verfahren zur Herstellung eines Zylinderblocks

Title (fr)

Bloc de cylindre, moteur à combustion interne, appareil de transport, et procédé de production de bloc de cylindre

Publication

**EP 2138695 A2 20091230 (EN)**

Application

**EP 09006877 A 20090522**

Priority

JP 2008168687 A 20080627

Abstract (en)

The cylinder block according to the present invention is a cylinder block composed of an aluminum alloy containing silicon, the cylinder block including a cylinder wall having a slide surface. The cylinder block according to the present invention includes a plurality of silicon crystal grains on the slide surface, such that the ten point-average roughness Rz JIS of the slide surface and the load length ratio Rmr(30) of the slide surface at a cut level of 30% are larger in the upper 1/4 portion of the slide surface than in the lower 1/4 portion of the slide surface.

IPC 8 full level

**F02F 1/20** (2006.01)

CPC (source: EP)

**F02F 1/20** (2013.01); **F05C 2201/021** (2013.01); **F05C 2201/903** (2013.01); **F05C 2203/06** (2013.01); **F05C 2253/08** (2013.01)

Citation (applicant)

- JP 2885407 B2 19990426
- JP 2007329164 A 20071220 - SUMITOMO ELECTRIC INDUSTRIES
- JP 2004268179 A 20040930 - NIPPON MICRO COATING KK
- US 6205836 B1 20010327 - YAMAGATA HIROSHI [JP], et al

Cited by

US9644738B2; EP3263877A4; EP3263876A4; CN112189085A; EP3263878A4

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)

**EP 2138695 A2 20091230; EP 2138695 A3 20100217; BR PI0901936 A2 20100413; CN 101629529 A 20100120; JP 2010031840 A 20100212**

DOCDB simple family (application)

**EP 09006877 A 20090522; BR PI0901936 A 20090617; CN 200910139616 A 20090626; JP 2009119020 A 20090515**