

Title (en)
ENGINE, CYLINDER BODY MEMBER, AND VEHICLE

Title (de)
MOTOR, ZYLINDERKÖRPERELEMENT UND FAHRZEUG

Title (fr)
MOTEUR, ÉLÉMENT DE CORPS DE CYLINDRE, ET VÉHICULE

Publication
EP 3263876 A4 20180502 (EN)

Application
EP 15883324 A 20151104

Priority
• JP 2015033024 A 20150223
• JP 2015081064 W 20151104

Abstract (en)
[origin: EP3263876A1] An object of the present teaching is to provide an engine that is able to suppress generation of scuffs more effectively. The present teaching provides an engine including a piston part and a cylinder body part with a sliding surface on which the piston part is slidable. The cylinder body part is made of an Al alloy with an Si content of 16% by mass or more. The sliding surface has Si primary crystal grains and an Al alloy base material exposed thereon so as to be contactable with the piston part, the Si primary crystal grains having an average crystal grain diameter of 8 μm or more and 50 μm or less, the sliding surface having a plurality of substantially parallel linear grooves formed therein at such a pitch that a plurality of linear grooves exist between the Si primary crystal grains.

IPC 8 full level
F02F 1/00 (2006.01); **C22C 21/02** (2006.01); **C22F 1/00** (2006.01); **C22F 1/043** (2006.01); **F02F 1/20** (2006.01)

CPC (source: EP)
C22C 21/02 (2013.01); **C22F 1/043** (2013.01); **F02F 1/20** (2013.01); **C22F 1/00** (2013.01)

Citation (search report)
• [X] EP 2138695 A2 20091230 - YAMAHA MOTOR CO LTD [JP]
• [X] JP 2002221077 A 20020809 - NISSAN MOTOR
• [Y] DE 10046360 A1 20020404 - GEHRING GMBH & CO MASCHF [DE]
• [Y] JP 2005273654 A 20051006 - YAMAHA MOTOR CO LTD
• [Y] JP 2010274386 A 20101209 - TOYOTA CENTRAL RES & DEV, et al
• [Y] US 5891273 A 19990406 - RUECKERT FRANZ [DE], et al
• See references of WO 2016136034A1

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

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BA ME

DOCDB simple family (publication)
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EP 15883324 A 20151104; JP 2015033024 A 20150223; JP 2015081064 W 20151104; TW 104140199 A 20151201