Title (en)

ENGINE BLOCK AND INTERNAL COMBUSTION ENGINE PROVIDED WITH SAME

Title (de)

MOTORBLOCK UND VERBRENNUNGSMOTOR DAMIT

Title (fr)

BLOC-MOTEUR ET MOTEUR À COMBUSTION INTERNE LE COMPRENANT

Publication

EP 3214294 A4 20180926 (EN)

Application

EP 15854472 A 20150330

Priority

- JP 2014218309 A 20141027
- JP 2015059915 W 20150330

Abstract (en)

[origin: EP3214294A1] A technique capable of decreasing deformation of an oil pan attaching portion with good weight efficiency is provided. The oil pan rail portion (34) includes a first rail portion (34a) and a second rail portion (34b). A rail height of the first rail portion (34a) is formed higher than a rail height of the second rail portion (34b). A connecting portion (134b) between the first rail portion (34a) and the second rail portion (34b) is connected to a third journal supporting wall (27c) having the highest rigidity among the crank journal supporting walls (27). The rigidity of the first rail portion (34a) becomes larger than the rigidity of the second rail portion (34b) by such a reasonable structure, thus reasonably improving the rigidity of the first rail portion (34a) which tends to be structurally deformed easily. Further, weight increase can also be minimized, because the rail height of the oil pan rail portion (34) is not increased over the entire region along the cylinder row direction.

IPC 8 full level

F02F 1/00 (2006.01); **F02F 7/00** (2006.01)

CPC (source: EP)

F02F 7/0068 (2013.01); F02F 7/0007 (2013.01)

Citation (search report)

- [X] US 4473042 A 19840925 - KIKUCHI KAZUHIRO [JP]
- [X] JP S5573539 U 19800521
- [X] JP S63164544 U 19881026
- [X] JP H02108835 A 19900420 - HONDA MOTOR CO LTD
- See references of WO 2016067654A1

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

DOCDB simple family (publication)

EP 3214294 A1 20170906; **EP 3214294 A4 20180926**; **EP 3214294 B1 20200513**; CN 107155338 A 20170912; CN 107155338 B 20191101; JP 6408026 B2 20181024; JP WO2016067654 A1 20170803; MX 2017004085 A 20170707; WO 2016067654 A1 20160506

DOCDB simple family (application)

EP 15854472 A 20150330; CN 201580058805 A 20150330; JP 2015059915 W 20150330; JP 2016556382 A 20150330; MX 2017004085 A 20150330