

Title (en)  
INTERNAL COMBUSTION ENGINE AND STRADDLED VEHICLE HAVING THE SAME

Title (de)  
VERBRENNUNGSMOTOR UND SATTELFahrZEUG DAMIT

Title (fr)  
MOTEUR À COMBUSTION INTERNE ET VÉHICULE À ENFOURCHER LE COMPRENANT

Publication  
**EP 3674538 A1 20200701 (EN)**

Application  
**EP 19215976 A 20191213**

Priority  
JP 2018244931 A 20181227

Abstract (en)  
As viewed along a cylinder axial lineCAso that a center51Cof a first intake opening51Ais located leftward and upward of the cylinder axial lineCA,an axial line55Cof a plug hole55is inclined relative to the cylinder axial lineCAso as to diverge leftward of the cylinder axial lineCAwhile extending away from an ignition opening55Aalong the cylinder axial lineCA.The plug hole55is located between a first intake port51and a first exhaust port61.A water jacket10Aincludes a middle passage30including an inter-port passage31that is located between the first exhaust port61and a second exhaust port62and downward of the cylinder axial lineCA,and an extension passage32extending upward from the inter-port passage31to a position that is upward of the cylinder axial lineCA.

IPC 8 full level  
**F02F 1/24** (2006.01); **F02F 1/40** (2006.01)

CPC (source: EP)  
**F02F 1/242** (2013.01); **F02F 1/40** (2013.01)

Citation (applicant)  
• JP 2015010598 A 20150119 - YAMAHA MOTOR CO LTD  
• JP 2018155215 A 20181004 - SUZUKI MOTOR CORP

Citation (search report)  
• [XYI] DE 102016218707 A1 20180329 - BAYERISCHE MOTOREN WERKE AG [DE]  
• [IY] FR 2882791 A1 20060908 - RENAULT SAS [FR]  
• [X] JP 2005090297 A 20050407 - HINO MOTORS LTD  
• [Y] EP 3361065 A1 20180815 - YAMAHA MOTOR CO LTD [JP]

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 3674538 A1 20200701; EP 3674538 B1 20220831; JP 2020105969 A 20200709**

DOCDB simple family (application)  
**EP 19215976 A 20191213; JP 2018244931 A 20181227**