

Title (en)
INTERNAL COMBUSTION ENGINE

Title (de)
BRENNKRAFTMASCHINE

Title (fr)
MOTEUR À COMBUSTION INTERNE

Publication
EP 4187062 A1 20230531 (EN)

Application
EP 22203960 A 20221026

Priority
JP 2021191879 A 20211126

Abstract (en)
[Object]To provide an internal combustion engine capable of suppressing vibration and deformation of a chain casing.[Solution]A chain casing 20 includes a cylindrical intake side cylinder portion 23 bulging in a crank shaft direction and allowing an intake hydraulic control valve 15 to be inserted thereinto, a cylindrical exhaust side cylinder portion 24 bulging in the crank shaft direction and allowing an exhaust hydraulic control valve 16 to be inserted thereinto, and an intake side fastening boss portion 25 and an exhaust side fastening boss portion 26 arranged below a bulging portion 21 and attaching the chain casing to a cylinder head 3. A lower portion of the bulging portion 21 is connected to upper portions of the intake side cylinder portion 23 and the exhaust side cylinder portion 24. An upper portion of the intake side fastening boss portion 25 is connected to a lower portion of the intake side cylinder portion 23. An upper portion of the exhaust side fastening boss portion 26 is connected to a lower portion of the exhaust side cylinder portion 24.

IPC 8 full level
F01L 1/02 (2006.01); **F01L 1/344** (2006.01); **F01L 1/348** (2006.01)

CPC (source: EP)
F01L 1/022 (2013.01); **F01L 1/344** (2013.01); **F01L 1/348** (2013.01); **F01L 2001/34426** (2013.01); **F01L 2001/3443** (2013.01); **F01L 2001/34433** (2013.01); **F01L 2001/34436** (2013.01); **F01L 2001/3444** (2013.01); **F01L 2250/02** (2013.01); **F01L 2810/03** (2013.01)

Citation (applicant)
JP 4340908 B2 20091007

Citation (search report)
• [XY] US 2008216783 A1 20080911 - ANDO SATOSHI [JP]
• [Y] US 2013068191 A1 20130321 - TAKEUCHI KENSUKE [JP], et al
• [Y] US 8511268 B2 20130820 - HOSHITO KATSUNI [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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4187062 A1 20230531; JP 2023078648 A 20230607

DOCDB simple family (application)
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