Title (en)

VARIABLE STROKE MECHANISM FOR INTERNAL COMBUSTION ENGINE

Title (de)

VARIABLER HUBMECHANISMUS FÜR EINEN VERBRENNUNGSMOTOR

Title (fr)

MÉCANISME À COURSE VARIABLE POUR MOTEUR À COMBUSTION INTERNE

Publication

EP 2893166 A4 20160601 (EN)

Application

EP 12884040 A 20120907

Priority

IB 2012001882 W 20120907

Abstract (en)

[origin: WO2014037758A1] A mechanism for varying the stroke length of an internal combustion engine during each cycle of operation includes a gear set with a first gear non-rotatably mounted to the engine block and a second gear having teeth formed on an inner surface thereof meshing with the first gear to achieve a uniform mechanical crank arm and a variable cam arm for producing a varying length of piston reciprocation throughout the overall stroke cycle of the engine. The orientation of the crank arm and the cam arm relative to the axis of piston reciprocation is selected for causing the crank arm and the cam arm to cooperatively produce a positive torque on the crankshaft at the top dead center position of the piston. The gear set is also selectively configured and dimensioned to achieve a predetermined ratio of the length of the cam arm to the length of the crank arm.

IPC 8 full level

F02B 75/32 (2006.01); **F02B 41/04** (2006.01); **F02B 75/04** (2006.01); F01B 9/04 (2006.01)

CPC (source: EP KR RU)

F02B 41/04 (2013.01 - EP KR RU); **F02B 75/048** (2013.01 - EP RU); **F02B 75/32** (2013.01 - KR RU); F01B 2009/045 (2013.01 - EP); F02B 75/32 (2013.01 - EP); Y02T 10/12 (2013.01 - EP)

Citation (search report)

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- [Y] DE 1902428 A1 19700813 - JUNG WILHELM, et al
- [A] US 2011226199 A1 20110922 - MOHTASHEMI BAHMAN [US]
- [A] WO 2011006537 A1 20110120 - DE GOOIJER LAMBERTUS HENDRIK [NL], et al
- See references of WO 2014037758A1

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)

WO 2014037758 A1 20140313; **WO 2014037758 A8 20150219**; CN 104685187 A 20150603; CN 104685187 B 20171003; EP 2893166 A1 20150715; EP 2893166 A4 20160601; JP 2015529296 A 20151005; JP 5904686 B2 20160420; KR 101650818 B1 20160824; KR 20150032591 A 20150326; RU 2580191 C1 20160410

DOCDB simple family (application)

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