

Title (en)
ENGINE WITH SLIDER-CRANK MECHANISM

Title (de)
MOTOR MIT KURBELTRIEBMECHANISMUS

Title (fr)
MOTEUR AVEC MÉCANISME DE MANIVELLE-COULISSEAU

Publication
EP 3904637 A4 20220126 (DE)

Application
EP 20836684 A 20200114

Priority

- UA A201907567 A 20190705
- UA 2020000002 W 20200114

Abstract (en)
[origin: WO2021006855A1] An engine with a slider-crank mechanism, comprising a housing (1), containing a shaft (2) with a crank (3), and at least two cylinders (4, 5) with pistons (6) mounted on rods (7), the ends of which extend from the pistons (6) through guide bushings (8) of the cylinders (4, 5) and are connected to one another by means of a yoke assembly. A housing (11) of the yoke assembly is configured in the form of a frame having a rectangular cross-section and inner guiding surfaces (12) for a block slider (13) mounted with freedom of movement between said surfaces and with freedom of rotation on the crank (3) of the shaft (2). The block slider (13) is comprised of two connected halves with grooves (14) for lubricating an outer sliding surface (15). The housing (11) of the yoke assembly is mounted such that its lateral surfaces (16), provided with lubricating grooves (17), are disposed between guiding surfaces (18) inside the engine housing (1) and such as to have freedom of movement along the axis of the cylinders (4, 5) with pistons (6), and the lubricating grooves (14) on the block slider (13) do not extend beyond the outer sliding surface (15) in the frame of the yoke assembly.

IPC 8 full level
F01B 1/08 (2006.01); **F01B 9/02** (2006.01); **F02B 75/24** (2006.01); **F02B 75/28** (2006.01); **F02B 75/32** (2006.01)

CPC (source: EP US)
F01B 1/08 (2013.01 - EP US); **F01B 9/023** (2013.01 - EP US); **F02B 75/24** (2013.01 - EP); **F02B 75/246** (2013.01 - US);
F02B 75/28 (2013.01 - US); **F02B 75/32** (2013.01 - EP US); **F02B 2075/027** (2013.01 - US); **F02B 2075/1808** (2013.01 - US)

Citation (search report)

- [X] DE 19617207 A1 19971106 - WAGENER UDO [DE]
- [X] WO 8703039 A1 19870521 - KIM DONG MYUNG
- [X] US 5493952 A 19960227 - DANIEL MICHAEL R L [GB], et al
- [X] US 4884536 A 19891205 - NEALE MICHAEL J [GB], et al
- [I] US 2004255879 A1 20041223 - ZAYTSEV IGOR [UA]
- See also references of WO 2021006855A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 3904637 A1 20211103; EP 3904637 A4 20220126; CN 114072568 A 20220218; US 2022243650 A1 20220804;
WO 2021006855 A1 20210114

DOCDB simple family (application)
EP 20836684 A 20200114; CN 202080049093 A 20200114; UA 2020000002 W 20200114; US 202017617647 A 20200114