

Title (en)
ADJUSTABLE-LENGTH CONNECTING ROD, RECIPROCATING PISTON ENGINE, AND VEHICLE

Title (de)
LÄNGENVERSTELLBARES PLEUEL, HUBKOLBENMASCHINE SOWIE FAHRZEUG

Title (fr)
BIELLE À LONGUEUR RÉGLABLE, MOTEUR À PISTONS ALTERNATIFS ET VÉHICULE

Publication
EP 3791055 A1 20210317 (DE)

Application
EP 19727922 A 20190508

Priority
• AT 503822018 A 20180508
• AT 508772018 A 20181008
• AT 2019060156 W 20190508

Abstract (en)
[origin: WO2019213683A1] The invention relates to an adjustable-length connecting rod for a reciprocating piston engine, to a reciprocating piston engine and to a vehicle, wherein an effective connecting rod length of the connecting rod can be changed, and the connecting rod has a hydraulic length adjustment device which has a hydraulic working chamber, a hydraulic duct (11B), a valve recess with a valve recess longitudinal axis (L2), and a valve device (14B) which is arranged in the valve recess and has a valve chamber (31B), wherein the valve device (14B) is configured for opening and/or shutting of a hydraulic medium outflow from the hydraulic working chamber, and wherein the hydraulic duct (11B) opens into the valve recess at an orifice opening in an inner wall section (27B) of the valve recess. Here, the valve device (14B) has at least one closed outer wall section (25B) which lies opposite the orifice opening and surrounds the valve chamber (31B) of the valve device (14B) at least partially, wherein the outer wall section (25B) of closed configuration of the valve device (14B) configures a flow duct together with that inner wall section (27B) of the valve recess which surrounds the orifice opening, wherein the flow duct is configured to divert hydraulic medium, which exits from the hydraulic duct (11B) with a first flow direction (S1) and enters into the valve recess, at least partially in a second flow direction (S2) which is different from the first flow direction before the entry into the valve chamber (31B) of the valve device (14B).

IPC 8 full level
F02B 75/04 (2006.01); **F16C 7/06** (2006.01); **F16K 11/00** (2006.01)

CPC (source: EP US)
F02B 75/04 (2013.01 - EP); **F02B 75/045** (2013.01 - EP US); **F16C 7/06** (2013.01 - US); **F16K 11/07** (2013.01 - EP);
F16K 11/0704 (2013.01 - EP); **F16K 15/044** (2013.01 - EP); **F16C 7/06** (2013.01 - EP); **F16C 2360/22** (2013.01 - US); **F16K 15/044** (2013.01 - US)

Citation (search report)
See references of WO 2019213683A1

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)
WO 2019213683 A1 20191114; CN 112204236 A 20210108; CN 112204236 B 20220909; EP 3791055 A1 20210317;
US 11512629 B2 20221129; US 2021164390 A1 20210603

DOCDB simple family (application)
AT 2019060156 W 20190508; CN 201980030949 A 20190508; EP 19727922 A 20190508; US 201917053704 A 20190508