

Title (en)

HYDRAULIC CONTROL SYSTEM FOR A VARIABLE COMPRESSION RATIO ENGINE

Title (de)

HYDRAULISCHES STEUERUNGSSYSTEM FÜR EINEN MOTOR MIT VARIABLEM VERDICHTUNGSVERHÄLTNIS

Title (fr)

SYSTEME HYDRAULIQUE DE COMMANDE POUR UN MOTEUR A TAUX DE COMPRESSION VARIABLE

Publication

**EP 4069959 A1 20221012 (FR)**

Application

**EP 20841973 A 20201204**

Priority

- FR 1913798 A 20191205
- FR 2020052280 W 20201204

Abstract (en)

[origin: WO2021111088A1] The invention relates to a hydraulic control system (3) for a variable compression ratio engine, comprising: - a control cylinder (30) comprising a piston (30a), a body (30b) in which two hydraulic chambers (31, 32) with equivalent sections are defined on either side of the piston (30a) and a return device (34) arranged in one of the chambers (31), - a hydraulic control circuit (37) comprising: - at least one duct (37b, 37c) connecting the two chambers (31,32) to each other, and a controlled fluid discharging device (372) for establishing or blocking a fluid communication between the chambers, - at least one duct (37d) connecting one of the chambers (32) to a low-pressure oil supply (60), and a refill valve (373), - at least one duct (37e) connecting an oil outlet (70) to at least one of the chambers (32), and a relief valve (374).

IPC 8 full level

**F02D 15/02** (2006.01); **F02B 75/04** (2006.01); **F15B 15/14** (2006.01)

CPC (source: EP US)

**F02B 75/045** (2013.01 - EP US); **F02B 75/048** (2013.01 - EP); **F02D 15/02** (2013.01 - EP US)

Citation (search report)

See references of WO 2021111088A1

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 2021111088 A1 20210610**; CN 114930006 A 20220819; EP 4069959 A1 20221012; FR 3104209 A1 20210611; FR 3104209 B1 20220603; US 2023018219 A1 20230119

DOCDB simple family (application)

**FR 2020052280 W 20201204**; CN 202080091997 A 20201204; EP 20841973 A 20201204; FR 1913798 A 20191205; US 202017756952 A 20201204