

Title (en)

VARIABLE DISPLACEMENT METERING PUMP SYSTEM WITH MULTIVARIATE FEEDBACK

Title (de)

DOSIERPUMPENSYSYSTEM MIT VARIABLER VERDRÄNGUNG MIT MULTIVARIATER RÜCKKOPPLUNG

Title (fr)

SYSTÈME DE POMPE DE DOSAGE À DÉPLACEMENT VARIABLE DOTÉ D'UNE RÉTROACTION MULTIVARIÉE

Publication

**EP 4092268 A1 20221123 (EN)**

Application

**EP 22171646 A 20220504**

Priority

US 202117324014 A 20210518

Abstract (en)

A metering pump system includes a variable displacement pump (12) having an inlet (14) and an outlet (16), a flow sensing valve (20) fluidically connected to the outlet of the variable displacement pump (12), and an actuator (30) mechanically coupled to a displacement mechanism (18) of the variable displacement pump (12). The metering pump system also includes an electronic engine controller (50) in communication with the flow sensing valve (20). An electrohydraulic servo valve (60) is electrically connected to the electronic engine controller (50) and hydraulically connected to the actuator (30). The electrohydraulic servo valve (60) is configured to hydraulically drive the actuator (30) to move the displacement mechanism (18) to change displacement of the variable displacement pump (12).

IPC 8 full level

**F04B 13/00** (2006.01); **F04B 17/05** (2006.01); **F04B 49/00** (2006.01)

CPC (source: EP US)

**F04B 1/146** (2013.01 - US); **F04B 1/295** (2013.01 - US); **F04B 13/00** (2013.01 - EP US); **F04B 17/05** (2013.01 - EP); **F04B 49/002** (2013.01 - EP); **F04B 49/06** (2013.01 - US); **F04B 49/225** (2013.01 - US); **F04B 1/324** (2013.01 - EP); **F04B 2201/06062** (2013.01 - US); **F04B 2205/09** (2013.01 - US); **F04B 2205/11** (2013.01 - US)

Citation (applicant)

US 2010251814 A1 20101007 - BAKER CARTHEL C [US], et al

Citation (search report)

- [XDY] US 2010251814 A1 20101007 - BAKER CARTHEL C [US], et al
- [Y] US 2011182752 A1 20110728 - FRANK JOSEF [AT], et al
- [A] US 2020125123 A1 20200423 - ANDERSON EVAN W [US], et al
- [A] US 6443705 B1 20020903 - MUNOZ JOSE [US]
- [A] US 2018340501 A1 20181129 - NI WEISHUN WILLAIM [US], et al

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 4092268 A1 20221123**; US 2022372968 A1 20221124

DOCDB simple family (application)

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