

Title (en)

VANE PUMP HAVING HOLLOW PIVOT PIN WITH FASTENER

Title (de)

FLÜGELZELLENPUMPE MIT HOHLZAPFEN MIT BEFESTIGUNGSMITTEL

Title (fr)

POMPE À PALETTES AYANT UNE BROCHE DE PIVOT CREUSE AVEC ÉLÉMENT DE FIXATION

Publication

**EP 3903003 A4 20220907 (EN)**

Application

**EP 19904774 A 20191121**

Priority

- US 201862785960 P 20181228
- IB 2019060050 W 20191121

Abstract (en)

[origin: US2020208630A1] Disclosed is a vane pump including a housing, a pivot pin having a hollow portion mounted within the housing, a control slide displaceable about the pivot pin within the housing between a first slide position and a second slide position to adjust displacement of the pump through an outlet, and a cover attached to the housing via a fastener passing through the pivot pin such that the control slide rotates about the pivot pin with respect to the housing and the cover. In an example, the fastener passes through to the engine mount. The pivot pin does not create a fluid path through the hollow portion.

IPC 8 full level

**F04C 2/344** (2006.01); **F01C 21/10** (2006.01); **F04C 14/22** (2006.01)

CPC (source: CN EP KR US)

**F01C 21/10** (2013.01 - EP); **F04C 2/344** (2013.01 - CN US); **F04C 2/3442** (2013.01 - EP KR); **F04C 14/00** (2013.01 - CN); **F04C 14/226** (2013.01 - EP KR US); **F04C 15/00** (2013.01 - CN); **F16N 13/20** (2013.01 - CN); **F04C 2240/20** (2013.01 - KR); **F04C 2240/30** (2013.01 - KR US); **F04C 2240/805** (2013.01 - EP KR)

Citation (search report)

- [X] JP H0693979 A 19940405 - UNISIA JECS CORP
- [X] WO 2017195150 A1 20171116 - STACKPOLE INT ENGINEERED PRODUCTS LTD [CA]
- [A] US 2015110659 A1 20150423 - SAGA KOJI [JP], et al
- [A] US 2011123379 A1 20110526 - SAGA KOJI [JP], et al
- See also references of WO 2020136471A1

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)

**US 2020208630 A1 20200702**; CA 3124923 A1 20200702; CN 111379695 A 20200707; CN 211623706 U 20201002; EP 3903003 A1 20211103; EP 3903003 A4 20220907; JP 2022516609 A 20220301; KR 20210108424 A 20210902; MX 2021007721 A 20210930; WO 2020136471 A1 20200702

DOCDB simple family (application)

**US 201916668175 A 20191030**; CA 3124923 A 20191121; CN 201911169443 A 20191126; CN 201922073000 U 20191126; EP 19904774 A 20191121; IB 2019060050 W 20191121; JP 2021537706 A 20191121; KR 20217022758 A 20191121; MX 2021007721 A 20191121