

Title (en)

VALVE ASSEMBLY FOR A HYDRAULIC CIRCUIT AND AN OIL PUMP CONTROL SYSTEM

Title (de)

VENTILVORRICHTUNG FÜR EINEN HYDRAULIKKREISLAUF SOWIE ÖLPUMPENREGELANORDNUNG

Title (fr)

DISPOSITIF DE DISTRIBUTION POUR UN CIRCUIT HYDRAULIQUE ET SYSTÈME DE CONTRÔLE DE POMPE A HUILE

Publication

**EP 2852783 A1 20150401 (DE)**

Application

**EP 13719113 A 20130429**

Priority

- DE 102012104456 A 20120523
- EP 2013058885 W 20130429

Abstract (en)

[origin: WO2013174624A1] The invention relates to a valve device for a hydraulic circuit, comprising an actuator unit (10) having an electromagnetic circuit (14), a valve unit (12) having a first opening (56), a second opening (58) used as an outlet, a first valve closing body (62), which is connected to the armature (22) and is loaded by means of a spring element (40) in the direction of a first valve seat (60) arranged between the first opening (56) and the second opening (58), a third opening (66), which is formed at the end of the valve unit (12) opposite the actuator unit (10), and a second valve closing body (70), which is loaded by hydraulic pressure in the direction of a second valve seat (68) formed between the first opening (56) and the third opening (66) and which can be lifted from the second valve seat (68) by means of the first valve closing body (62), is known. In order to ensure actuation by the spring force, and to avoid adhesive forces due to cohesion, a cylindrical stop element (42) having a passage opening (44) extending in the extension direction is arranged in the passage hole (34) of the core (20) in such a way that a gap (46) is present between the core (20) and the armature (22) when the actuator unit (10) is actuated.

IPC 8 full level

**F01M 1/16** (2006.01); **F16K 27/02** (2006.01); **F16K 31/06** (2006.01)

CPC (source: EP US)

**F01M 1/16** (2013.01 - EP US); **F04C 2/24** (2013.01 - US); **F04C 14/24** (2013.01 - US); **F16K 1/443** (2013.01 - US); **F16K 11/24** (2013.01 - US); **F16K 15/1823** (2021.08 - US); **F16K 27/029** (2013.01 - EP US); **F16K 31/0631** (2013.01 - US); **F16K 31/0634** (2013.01 - EP US); **F16K 31/0675** (2013.01 - EP US); **F01M 2001/0246** (2013.01 - EP US); **Y10T 137/88054** (2015.04 - EP US)

Citation (search report)

See references of WO 2013174624A1

Citation (examination)

DE 102008060889 A1 20100610 - PIERBURG GMBH [DE]

Cited by

CN105179783A

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)

**DE 102012104456 B3 20130529**; EP 2852783 A1 20150401; US 2015139840 A1 20150521; WO 2013174624 A1 20131128

DOCDB simple family (application)

**DE 102012104456 A 20120523**; EP 13719113 A 20130429; EP 2013058885 W 20130429; US 201314402689 A 20130429