

Title (en)
VARIABLE DISPLACEMENT PUMP REGULATOR

Title (de)
VERSTELLPUMPENREGLER

Title (fr)
RÉGULATEUR DE POMPE À DÉPLACEMENT VARIABLE

Publication
EP 2933490 A4 20160824 (EN)

Application
EP 13861695 A 20131125

Priority
• JP 2012270475 A 20121211
• JP 2013006898 W 20131125

Abstract (en)
[origin: US2015226190A1] A regulator includes a feedback lever configured to move a compensating sleeve in an axial direction of a compensating spool. The compensating spool and the compensating sleeve form: a self-pressure introduction chamber, into which a self-pressure of a pump is introduced; and a pressure adjuster configured to output a control pressure from the self-pressure introduction chamber to a large-diameter pressure receiver of a servo piston. The compensating sleeve includes a stepped portion, to which a pressure in a direction in which a control spring urges the compensating spool is applied when the self-pressure is introduced into the self-pressure introduction chamber.

IPC 8 full level
F04B 1/29 (2006.01); **F04B 49/00** (2006.01)

CPC (source: EP KR US)
F04B 1/26 (2013.01 - KR US); **F04B 1/295** (2013.01 - EP US); **F04B 9/10** (2013.01 - US); **F04B 13/00** (2013.01 - US); **F04B 15/02** (2013.01 - US); **F04B 49/002** (2013.01 - EP US); **F04B 49/08** (2013.01 - KR); **F04B 2205/05** (2013.01 - EP US)

Citation (search report)
• [XY] JP 2003227459 A 20030815 - KAWASAKI PRECISION MACH LTD
• [YA] GB 1212609 A 19701118 - LINDE AG [DE]
• [A] US 4189921 A 19800226 - KNAPP KENNETH K [US]
• [A] US 4245962 A 19810120 - UEHARA KAZUO, et al
• [A] US 4599050 A 19860708 - ISHIZAKI NAOKI [JP], et al
• See references of WO 2014091690A1

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 2015226190 A1 20150813; CN 104411973 A 20150311; CN 104411973 B 20160420; EP 2933490 A1 20151021; EP 2933490 A4 20160824; JP 2014114911 A 20140626; JP 5918688 B2 20160518; KR 20150003366 A 20150108; WO 2014091690 A1 20140619

DOCDB simple family (application)
US 201314423628 A 20131125; CN 201380034598 A 20131125; EP 13861695 A 20131125; JP 2012270475 A 20121211; JP 2013006898 W 20131125; KR 20147032770 A 20131125