

Title (en)  
SKEW PLATE-TYPE HYDRAULIC ROTARY MACHINE

Title (de)  
HYDRAULISCHE SCHRÄGPLATTEN-ROTATIONSMASCHINE

Title (fr)  
MACHINE TOURNANTE HYDRAULIQUE À PLATEAU OSCILLANT

Publication  
**EP 2650538 A1 20131016 (EN)**

Application  
**EP 10860466 A 20101207**

Priority  
JP 2010007103 W 20101207

Abstract (en)  
A swash plate type hydraulic rotating machine (10) includes: a rotating shaft (3); a valve plate (4); a swash plate (15); a cylinder block (9) fitted to the outside of the rotating shaft (3), such that the cylinder block (9) is slidingly in contact with the valve plate (4); cylinders (11) provided in the cylinder block (9); pistons (13) inserted in the respective cylinders (11), such that the pistons (13) are movable in an axial direction (L) in a reciprocating manner; shoes (14) each fitted to the distal end of a respective one of the pistons (13); an annular keep plate (17) provided between the swash plate (15) and the cylinder block (9), the keep plate (17) supporting the shoes (14); a plain bearing (80) inserted within the inner periphery of the keep plate (17), the plain bearing (80) supporting the keep plate (17) in a manner to push the keep plate (17) toward the swash plate (15) side; and set springs (20) biasing the plain bearing (80) and the cylinder block (9) toward the opposite sides in the axial direction L. The swash plate type hydraulic rotating machine (10) is configured such that, when in an assembled state, a gap in the axial direction (L) between the cylinder block (9) and the plain bearing (80) is 0 or a fine gap.

IPC 8 full level  
**F04B 1/22** (2006.01); **F03C 1/22** (2006.01)

CPC (source: EP KR US)  
**F01B 3/108** (2013.01 - US); **F03C 1/0639** (2013.01 - EP US); **F04B 1/124** (2013.01 - KR); **F04B 1/126** (2013.01 - EP US); **F04B 1/128** (2013.01 - KR); **F04B 1/2035** (2013.01 - KR); **F04B 1/2042** (2013.01 - KR); **F04B 1/2078** (2013.01 - EP KR US); **F04B 1/2085** (2013.01 - EP US); **F04B 1/22** (2013.01 - EP US); **F04B 27/0882** (2013.01 - EP US); **F04B 27/0886** (2013.01 - EP US)

Citation (search report)  
See references of WO 2012077157A1

Cited by  
US9856851B2

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)  
**EP 2650538 A1 20131016**; CN 103069161 A 20130424; JP WO2012077157 A1 20140519; KR 20130030761 A 20130327; US 2013327208 A1 20131212; WO 2012077157 A1 20120614

DOCDB simple family (application)  
**EP 10860466 A 20101207**; CN 201080069003 A 20101207; JP 2010007103 W 20101207; JP 2012547597 A 20101207; KR 20127031763 A 20101207; US 201013882832 A 20101207