

Title (en)

HYDRAULIC VALVE ACTUATOR FOR RECIPROCATING ENGINE

Title (de)

HYDRAULISCHES VENTILSTELLGLIED FÜR HUBKOLBENMOTOR

Title (fr)

ACTIONNEUR HYDRAULIQUE DE SOUPAPES POUR MOTEUR A PISTONS

Publication

**EP 1543221 B1 20060412 (FR)**

Application

**EP 03750820 A 20030718**

Priority

- FR 0302271 W 20030718
- FR 0209323 A 20020723

Abstract (en)

[origin: US2006102117A1] A hydraulic valve actuator for reciprocating engine includes at least a hydraulic cylinder ( 3 ) for opening at least one valve ( 2 ) via at least one valve opening selector ( 11 ) with at least one hydraulic positive displacement pump ( 4 ) whereof the hydraulic fluid supplied at the output can be forced into a high pressure circuit ( 10 ) by at least one pump outlet closure ( 8 ), the valve ( 2 ) capable of being maintained opened by an opening non-return valve ( 24 ), then of being reseated by a valve closing selector ( 25 ) which directs the hydraulic fluid contained in the hydraulic cylinder ( 3 ) in the hydraulic positive displacement pump ( 4 ) input by co-operating with a pump input non-return valve ( 26 ).

IPC 8 full level

**F01L 1/34** (2006.01); **F01L 9/10** (2021.01); **F02M 59/06** (2006.01)

CPC (source: EP US)

**F01L 1/047** (2013.01 - EP US); **F01L 1/34** (2013.01 - EP US); **F01L 9/10** (2021.01 - EP US); **F01L 1/024** (2013.01 - EP US); **F01L 2001/0473** (2013.01 - EP US); **F01L 2001/0535** (2013.01 - EP US); **F01L 2009/2126** (2021.01 - EP US); **F01L 2013/0052** (2013.01 - EP US); **F02M 59/06** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

**US 2006102117 A1 20060518; US 7162982 B2 20070116**; AT E323217 T1 20060415; AU 2003269033 A1 20040216; AU 2003269033 B2 20081127; CA 2492844 A1 20040205; CA 2492844 C 20101019; DE 60304589 D1 20060524; DE 60304589 T2 20070208; EP 1543221 A1 20050622; EP 1543221 B1 20060412; ES 2261965 T3 20061116; FR 2842867 A1 20040130; FR 2842867 B1 20041008; JP 2005533962 A 20051110; JP 4260743 B2 20090430; WO 2004011780 A1 20040205

DOCDB simple family (application)

**US 52173905 A 20051003**; AT 03750820 T 20030718; AU 2003269033 A 20030718; CA 2492844 A 20030718; DE 60304589 T 20030718; EP 03750820 A 20030718; ES 03750820 T 20030718; FR 0209323 A 20020723; FR 0302271 W 20030718; JP 2004523855 A 20030718