

Title (en)

VALVE FOR OPENING AND CLOSING A LINE SYSTEM

Title (de)

VENTIL ZUM VERSCHLIEßEN UND ÖFFNEN EINES LEITUNGSSYSTEMS

Title (fr)

SOUPAPE DE FERMETURE ET D'OUVERTURE D'UN SYSTÈME DE CONDUITES

Publication

EP 3446006 A1 20190227 (DE)

Application

EP 17716859 A 20170407

Priority

- DE 102016107474 A 20160422
- EP 2017058466 W 20170407

Abstract (en)

[origin: WO2017182298A1] The invention relates to a valve for closing and opening a line system, comprising a valve body (24) which forms a valve seat (26); a line system (18) with a supply line (20) for supplying a fluid to the valve seat (26) and with a discharge line (22) for discharging the fluid from the valve seat (26), wherein the fluid is under a supply pressure (pV) in the supply line (20) and under a working pressure (pN) in the discharge line (22); a closing element (28) which interacts with the valve seat (26) in order to open and close the line system, said closing element (28) releasing a throttle cross-section (A) between the valve seat (26) and the closing element (28); a restoring element (32) which applies a restoring force to the closing element (28), the restoring force pressing the closing element (28) against the valve seat (26) in order to close the line system; and a pressure chamber (46) in which the fluid is under a closing pressure (pS) with which the fluid applies a closing force to the closing element (28) in order to close the line system (18). The valve (10) has means (52) with which the closing pressure (pS) in the pressure chamber (46) can be reduced below the supply pressure (pV) on the basis of the released throttle cross-section (A). The invention further relates to a vehicle comprising such a valve and to a method for operating such a valve.

IPC 8 full level

F16K 1/36 (2006.01); **F16K 31/06** (2006.01)

CPC (source: EP US)

F16K 1/36 (2013.01 - EP US); **F16K 31/0655** (2013.01 - EP US); **F16K 31/0686** (2013.01 - EP US); **G05D 16/107** (2018.12 - US)

Citation (search report)

See references of WO 2017182298A1

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)

WO 2017182298 A1 20171026; CN 109073095 A 20181221; DE 102016107474 A1 20171026; EP 3446006 A1 20190227; JP 2019515196 A 20190606; US 2019138036 A1 20190509

DOCDB simple family (application)

EP 2017058466 W 20170407; CN 201780025137 A 20170407; DE 102016107474 A 20160422; EP 17716859 A 20170407; JP 2018549486 A 20170407; US 201716091476 A 20170407