

Title (en)

LIFT SYSTEM USED TO LIFT AND LOWER AND/OR DISPLACE HEAVY LOADS

Title (de)

HUBSYSTEM ZUM ANHEBEN UND ABSSENKEN UND/ODER VERSCHIEBEN GROSSER LASTEN

Title (fr)

SYSTEME DE LEVAGE SERVANT A LEVER ET ABAISSER ET/OU DEPLACER DE GROSSES CHARGES

Publication

EP 1699727 B1 20090311 (DE)

Application

EP 04803767 A 20041211

Priority

- EP 2004014126 W 20041211
- DE 10361807 A 20031230

Abstract (en)

[origin: WO2005066062A1] The invention relates to a lift system which is used to lift and lower and/or displace heavy loads, comprising a plurality of individually controllable hydraulic lift cylinders (11) of which several can be activated at the same time, said lift cylinders respectively comprising a piston (18) which forms a unilateral moveable limit for a drive pressure chamber (19), which impinges pressure enabling the piston (18) to be displaced in order to carry out a working lift in relation to the housing (17) of the cylinder (11), when the pressure thereof is relieved, the piston (18) can be displaced in a counter direction in order to carry out a return movement into a base position, wherein each lift cylinder (11) is fitted with a path sensor (79) which emits output signals which can be evaluated in units of the piston lift. Each lift cylinder (11) is fitted with a separate pressure supply unit (12) and a separate electrohydraulic lift control unit (14). The lifting cylinder (11), the pressure supply unit (12) including the storage tank thereof (48), and the electrohydraulic control unit (14) are embodied as a compact lift module (10), whereby it is functionally controlled exclusively by electric control signals. The pressure supply unit (12) which comprises a high pressure pump (13), an electric motor (15) driving said pump, a pressure limiting valve (52) and the storage tank (48) and the electric hydraulic control unit (14) are embodied as a module which can be mounted laterally on the lift cylinder housing (17), whose extension when measured in the direction of the central longitudinal axis (22) of the lift cylinder (F) is less than the minimal height thereof hmin thereof which is measured between the support planes (81 and 82) of the lift cylinder.

IPC 8 full level

B66F 3/24 (2006.01); **B66F 3/46** (2006.01); **F15B 11/036** (2006.01); **F15B 15/14** (2006.01); **F15B 15/18** (2006.01)

CPC (source: EP)

B66F 3/24 (2013.01); **B66F 3/46** (2013.01); **F15B 11/036** (2013.01); **F15B 15/1466** (2013.01); **F15B 15/18** (2013.01); **F15B 2211/20515** (2013.01); **F15B 2211/20538** (2013.01); **F15B 2211/30505** (2013.01); **F15B 2211/30525** (2013.01); **F15B 2211/327** (2013.01); **F15B 2211/40515** (2013.01); **F15B 2211/411** (2013.01); **F15B 2211/413** (2013.01); **F15B 2211/41581** (2013.01); **F15B 2211/428** (2013.01); **F15B 2211/45** (2013.01); **F15B 2211/473** (2013.01); **F15B 2211/50536** (2013.01); **F15B 2211/5151** (2013.01); **F15B 2211/55** (2013.01); **F15B 2211/6313** (2013.01); **F15B 2211/6336** (2013.01); **F15B 2211/6651** (2013.01); **F15B 2211/6653** (2013.01); **F15B 2211/7055** (2013.01); **F15B 2211/775** (2013.01)

Cited by

IT202200019797A1; WO2014166738A1; WO2024069384A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

WO 2005066062 A1 20050721; AT E425117 T1 20090315; DE 10361807 A1 20050728; DE 502004009163 D1 20090423; EP 1699727 A1 20060913; EP 1699727 B1 20090311

DOCDB simple family (application)

EP 2004014126 W 20041211; AT 04803767 T 20041211; DE 10361807 A 20031230; DE 502004009163 T 20041211; EP 04803767 A 20041211