

Title (en)
Loader control system.

Title (de)
Steuersystem für einen Lader.

Title (fr)
Système de commande pour un chargeur.

Publication
EP 1640512 B2 20150225 (EN)

Application
EP 05020754 A 20050923

Priority
• GB 0421499 A 20040928
• GB 0421495 A 20040928
• GB 0421497 A 20040928

Abstract (en)
[origin: EP1640512A2] A damping system for an implement support system in which a bucket 10 is mounted on a pair of support arms (12) which are pivoted relative to a tractor by a pair of hydraulic lift cylinders (15) controlled by electrically actuated hydraulic valve means (16) in response to commands (22) from a vehicle operator and/or an electrical control unit (21). The damper system includes a pressure level control loop having a pressure sensing means (15a) for sensing the pressure in the lift cylinders (15) due to a load currently carried in the bucket (10), storing means (21) for storing this sensed lift cylinder pressure as a reference value, the pressure sensing means also monitoring the lift cylinder pressure as the load is transported, and control means (21) for actively adjusting the pressure in the lift cylinders using the electrically actuated hydraulic valve means (16) if said pressure varies outside a predetermined deadband (r,s) either side of the reference value (P) in order to return the lift cylinder pressure to within said deadband and to maintain the support arm carrying position (Q). There is also disclosed a particularly useful joystick (22) control arrangement and a visual display (32) of current bucket orientation etc.

IPC 8 full level
E02F 9/20 (2006.01); **E02F 9/22** (2006.01)

CPC (source: EP)
E02F 9/2004 (2013.01); **E02F 9/2207** (2013.01); **E02F 9/2228** (2013.01)

Cited by
WO2018070918A1; EP2028320A1; CN104160097A; CN112709283A; GB2445165A; CN112601867A; FR2967011A1; ITBO20100659A1; GB2485439B; US9803335B1; US8862340B2; US7729835B2; US8430621B2; US9345204B2; US10863671B2; US11174621B2; WO2021001101A1

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 LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1640512 A2 20060329; **EP 1640512 A3 20070530**; **EP 1640512 B1 20101117**; **EP 1640512 B2 20150225**; AT E488649 T1 20101215; DE 602005024754 D1 20101230

DOCDB simple family (application)
EP 05020754 A 20050923; AT 05020754 T 20050923; DE 602005024754 T 20050923