

Title (en)

Device for simultaneous application of force by hydraulic actuators arranged in series

Title (de)

Vorrichtung zur gleichzeitigen Kraftausübung mittels hydraulisch hintereinandergeschalteter hydraulischer Stelleinheiten

Title (fr)

Dispositif pour l'application simultane d'une force par des actuateurs hydrauliques arrangées en série

Publication

EP 0778191 A3 19990519 (DE)

Application

EP 96440107 A 19961206

Priority

DE 19545784 A 19951208

Abstract (en)

[origin: EP0778191A2] The force application device has a hydraulic pressure distribution system with a pump (P), a hydraulic fluid reservoirs (FB) and hydraulic setting devices (Z1,Z2), for simultaneous application of a given force at a number of spaced points (P1,P2). A controlled valve (V3), which is open when the device is inoperative, couples the intermediate line (L3) between successive setting devices to the hydraulic fluid reservoir for preventing uncontrolled movement of the setting devices caused by temperature-dependent pressure fluctuations.

IPC 1-7

B61L 5/04; F15B 21/04

IPC 8 full level

F15B 21/045 (2019.01); **B61L 5/04** (2006.01); **F15B 11/22** (2006.01)

CPC (source: EP)

B61L 5/04 (2013.01); **F15B 21/045** (2013.01)

Citation (search report)

- [XY] EP 0559474 A1 19930908 - MONARCH HYDRAULICS INC [US]
- [Y] EP 0542127 A1 19930519 - BUTZBACHER WEICHENBAU GMBH [DE]
- [Y] EP 0480303 A2 19920415 - SASIB SPA [IT], et al
- [A] FR 2066300 A5 19710806 - INT STANDARD ELECTRIC CORP
- [A] US 4428552 A 19840131 - FRANK EARL E [US], et al
- [A] US 3433123 A 19690318 - JONES CORDIS W, et al
- [X] "GRUNDLAGEN DER HYDRAULISCHEN SCHALTUNGSTECHNIK", OLHYDRAULIK UND PNEUMATIK, vol. 37, no. 11/12, 1 November 1993 (1993-11-01), pages 830 - 832, 835, XP000413834

Cited by

BG65297B1; AU750225B2; CZ298927B6; WO2008027662A1; WO2011127875A3; US6402095B1; US8302915B2; WO9951480A1

Designated contracting state (EPC)

AT DE IT SE

DOCDB simple family (publication)

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DOCDB simple family (application)

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