

Title (en)  
Hydraulic drive

Title (de)  
Hydraulischer Antrieb

Title (fr)  
Dispositif de commande hydraulique

Publication  
**EP 1564414 B1 20170614 (DE)**

Application  
**EP 04029899 A 20030710**

Priority  
• DE 10235631 A 20020802  
• DE 10329067 A 20030627  
• EP 03015768 A 20030710

Abstract (en)  
[origin: EP1564414A1] The hydraulic drive is for a double-action cylinder (2) with two cavities (12, 16), one of which is supplied from a store (8). To charge the store, fluid can be passed through a bypass line (22) and a flow valve or a pressure reduction valve, to facilitate charging while the system is in use. The system includes two pumps (30, 32) of different swept volumes.

IPC 8 full level  
**B21D 5/02** (2006.01); **F15B 1/02** (2006.01); **F15B 1/027** (2006.01); **F15B 11/042** (2006.01); **F15B 15/14** (2006.01)

CPC (source: EP)  
**B21D 5/02** (2013.01); **F15B 1/024** (2013.01); **F15B 1/027** (2013.01); **F15B 11/0423** (2013.01); **F15B 11/0426** (2013.01); **F15B 15/1476** (2013.01); **F15B 2211/20515** (2013.01); **F15B 2211/20538** (2013.01); **F15B 2211/20569** (2013.01); **F15B 2211/20584** (2013.01); **F15B 2211/30505** (2013.01); **F15B 2211/40515** (2013.01); **F15B 2211/41536** (2013.01); **F15B 2211/473** (2013.01); **F15B 2211/50518** (2013.01); **F15B 2211/50536** (2013.01); **F15B 2211/5151** (2013.01); **F15B 2211/5153** (2013.01); **F15B 2211/55** (2013.01); **F15B 2211/6336** (2013.01); **F15B 2211/6651** (2013.01); **F15B 2211/7053** (2013.01); **F15B 2211/75** (2013.01)

Citation (examination)  
• US 4961316 A 19901009 - CORKE ANDREW [SE], et al  
• US 6379119 B1 20020430 - TRUNINGER ROLF [CH]

Cited by  
DE102009052531A1; CN111425469A; DE102011015903A1; DE102011015903B4; WO2011057773A2; US9044913B2

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)  
**DE 10329067 A1 20040212**; EP 1564414 A1 20050817; EP 1564414 B1 20170614; ES 2640347 T3 20171102

DOCDB simple family (application)  
**DE 10329067 A 20030627**; EP 04029899 A 20030710; ES 04029899 T 20030710