

Title (en)
Hydraulic circuit

Title (de)
Hydraulische Schaltungsvorrichtung

Title (fr)
Circuit hydraulique

Publication
EP 1106840 A3 20030917 (DE)

Application
EP 00126948 A 20001208

Priority
DE 19959560 A 19991210

Abstract (en)

[origin: EP1106840A2] A hydraulic switching system has at least two main switching controls (2, 3) each controlled by dedicated control switches and interlinked by AND and OR logic circuits to ensure a rapid switching between the different possible output states. The logic system ensures that if the first system is switched for forward pressure the second system is switched off and vice versa, while, when the first system is switched into the reverse setting the second system can be switched to either setting. The system ensures, for instance, that switching can be rapid without waiting for a lengthy motor reversing sequence.

IPC 1-7
F15B 11/16; F15B 11/20

IPC 8 full level
F15B 11/16 (2006.01); **F15B 11/20** (2006.01)

CPC (source: EP US)

F15B 11/16 (2013.01 - EP US); **F15B 11/20** (2013.01 - EP US); **F15B 2211/30505** (2013.01 - EP US); **F15B 2211/30515** (2013.01 - EP US);
F15B 2211/3052 (2013.01 - EP US); **F15B 2211/327** (2013.01 - EP US); **F15B 2211/40515** (2013.01 - EP US); **F15B 2211/428** (2013.01 - EP US);
F15B 2211/46 (2013.01 - EP US); **F15B 2211/50518** (2013.01 - EP US); **F15B 2211/5157** (2013.01 - EP US); **F15B 2211/7128** (2013.01 - EP US);
F15B 2211/7142 (2013.01 - EP US); **F15B 2211/76** (2013.01 - EP US); **F15B 2211/78** (2013.01 - EP US)

Citation (search report)

- [X] DE 19730685 A1 19980205 - APPLIED POWER INC [US]
- [X] DE 3629471 A1 19880303 - BOSCH GMBH ROBERT [DE]
- [DA] EP 0656274 B1 19971015 - APPLIED POWER INC [US]
- [A] EP 0941882 A1 19990915 - APPLIED POWER INC [US]
- [A] DE 3826789 A1 19900208 - DAIMLER BENZ AG [DE]
- [A] EP 0425156 A2 19910502 - WICKES MFG CO [US]
- [A] DE 19629065 A1 19970206 - HOERBIGER GMBH [DE], et al

Cited by
EP1972480A3; EP2799722A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1106840 A2 20010613; EP 1106840 A3 20030917; EP 1106840 B1 20050309; DE 19959560 A1 20010621; DE 19959560 C2 20030807;
DE 50009714 D1 20050414; US 2003033802 A1 20030220; US 6523344 B1 20030225

DOCDB simple family (application)

EP 00126948 A 20001208; DE 19959560 A 19991210; DE 50009714 T 20001208; US 73439800 A 20001211