

Title (en)
HYDRAULIC SYSTEM

Publication
EP 0190431 A3 19870520 (DE)

Application
EP 85115425 A 19851205

Priority
DE 3503559 A 19850202

Abstract (en)
[origin: EP0190431A2] 1. Hydraulic system having at least two fixed displacement pumps (10, 11), to which a common working circuit with a plurality of consumers is allocated, and in each case having a directional control valve (23, 34) allocated to each consumer, which directional control valve has in one working position a plate orifice (33, 36) which measures the throughflow, and having a control line (30A - 30D) in which a changeover nonreturn valve (29, 35) allocated to each consumer circuit is situated, via which changeover nonreturn valve the highest pressure prevailing at one of the consumers is selected, characterized in that a pressure balance (14, 16) which is on the one hand stressed by the pressure prevailing in the common working circuit and on the other hand by the highest consumer pressure and by a regulating spring (40, 44) is allocated to each fixed displacement pump (10, 11), the regulating spring (40) for the first pressure balance (14) having a greater prestress than that for the second pressure balance (16) of the second fixed displacement pump (11), in that, at a certain pressure gradient at one of the plate orifices (33, 36) of the directional control valves, the second pressure balance adjusts itself so that the second fixed displacement pump also delivers into the working circuit, having previously been connected to the return (31), and in that the first fixed displacement pump (14) also has a connection to the return via the first pressure balance (14).

IPC 1-7
F15B 11/05

IPC 8 full level
E02F 9/22 (2006.01); **F15B 11/05** (2006.01); **F15B 11/16** (2006.01); **F15B 11/17** (2006.01)

CPC (source: EP)
E02F 9/2239 (2013.01); **E02F 9/2292** (2013.01); **F15B 11/162** (2013.01); **F15B 11/165** (2013.01); **F15B 11/17** (2013.01); **F15B 2211/20538** (2013.01); **F15B 2211/20576** (2013.01); **F15B 2211/30505** (2013.01); **F15B 2211/30525** (2013.01); **F15B 2211/3111** (2013.01); **F15B 2211/3144** (2013.01); **F15B 2211/31576** (2013.01); **F15B 2211/329** (2013.01); **F15B 2211/351** (2013.01); **F15B 2211/40515** (2013.01); **F15B 2211/41563** (2013.01); **F15B 2211/428** (2013.01); **F15B 2211/45** (2013.01); **F15B 2211/6054** (2013.01); **F15B 2211/71** (2013.01)

Citation (search report)
• [X] EP 0044065 A2 19820120 - EATON CORP [US]
• [A] US 4044786 A 19770830 - YIP JAMES K

Cited by
FR2903741A1; GB2390875A; CN104192709A; EP1515049A1; DE10114042B4; EP1243799A3; EP1471263A1; EP0236750A3; DE3608469A1; GB2406618A; GB2406618B; GB2387674A; GB2387674B; FR2705657A1; GB2279061A; EP1355067A3; EP1243799A2; US6907728B2; US7131453B2

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0190431 A2 19860813; EP 0190431 A3 19870520; EP 0190431 B1 19890308; DE 3503559 A1 19860807; DE 3568615 D1 19890413

DOCDB simple family (application)
EP 85115425 A 19851205; DE 3503559 A 19850202; DE 3568615 T 19851205