

Title (en)
HYDROSTATIC DRIVE SYSTEM FOR CIVIL ENGINEERING AND CONSTRUCTION MACHINERY

Publication
EP 0059471 B1 19860528 (EN)

Application
EP 82101590 A 19820302

Priority
• JP 2855682 A 19820224
• JP 2932081 A 19810303
• JP 8755381 A 19810609

Abstract (en)
[origin: EP0059471A2] A hydraulic drive system (2) for civil engineering and construction machinery in which at least first and second hydraulic circuits (8 and 10) having at least first and second hydraulic pumps (4 and 6), respectively, are provided for driving a plurality of actuators such as left and right travelling actuators (56 and 58), a boom actuator (50) and an arm actuator (52). The first circuit has in its first valve group (16) a first travelling directional control valve (32) for one of the left and right travelling actuators, a first boom directional control valve (26) for the boom actuator and a first arm directional control valve for the arm actuator (52), the first boom and arm valves being connected to the first pump in a position upstream of the first travelling valve so as to be able to receive a hydraulic fluid supply from the first pump by taking priority over the first travelling valve. The second circuit has in its second valve group (18) a second travelling directional control valve (38) for the other of the left and right travelling actuators and a second boom directional control valve (44) for the boom actuator and/or a second arm directional control valve (40) for the arm actuator, the second travelling valve being connected to the second pump in a position upstream of the second boom valve and/or the second arm valve so as to be able to receive hydraulic fluid supply from the second pump by taking priority over the second valves. A bypass circuit (62) having a bypass line (60) extending between the second pump and the one travelling actuator is arranged whereby a hydraulic fluid supply from the second pump can be received by the first travelling valve when at least one of the valves of the first group upstream of the first travelling valve (32) which include the boom and arm valves (26, 28) is actuated.

IPC 1-7
E02F 9/22; **F15B 11/16**

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

CPC (source: EP)
E02F 9/2239 (2013.01); **E02F 9/2292** (2013.01); **F15B 11/17** (2013.01); **F15B 2211/20576** (2013.01); **F15B 2211/30565** (2013.01); **F15B 2211/30595** (2013.01); **F15B 2211/3116** (2013.01); **F15B 2211/324** (2013.01); **F15B 2211/40507** (2013.01); **F15B 2211/45** (2013.01); **F15B 2211/455** (2013.01); **F15B 2211/7142** (2013.01)

Cited by
EP0439166A1; FR2694604A1; EP0235545A3; US4768339A; US6029446A; EP0798422A3; US5673558A; EP0667421A4; EP0087748A1; EP0874090A4; EP1447482A3; EP1447483A3; US6244048B1; WO2007043953A1

Designated contracting state (EPC)
DE FR

DOCDB simple family (publication)
EP 0059471 A2 19820908; **EP 0059471 A3 19830921**; **EP 0059471 B1 19860528**; DE 3271311 D1 19860703; KR 830009399 A 19831221; KR 870000505 B1 19870312

DOCDB simple family (application)
EP 82101590 A 19820302; DE 3271311 T 19820302; KR 820000920 A 19820302