

Title (en)
Hydraulic circuit of construction machine

Title (de)
Hydraulikkreislauf für Baumaschinen

Title (fr)
Circuit hydraulique pour engin de construction

Publication
EP 1193400 B1 20050202 (EN)

Application
EP 01302602 A 20010321

Priority
JP 2000274757 A 20000911

Abstract (en)
[origin: EP1193400A2] To provide a way to prevent sharp decrease in the speed of main body actuators by ensuring a sufficient amount of hydraulic fluid to be fed to the main body actuators even if the pressure in the attachment circuit of a hydraulic shovel approaches the relief pressure. When the pressure in an independent attachment circuit 37, which is adapted to control an attachment of a hydraulic shovel, approaches a given relief pressure in the course of operating the attachment together with other main body actuators, a controller 71 detects the increase of the pressure by means of a pressure sensor 66 and shifts an electromagnetic selector valve 68 to the channel-communicating position so that priority hydraulic fluid branching off from a pressure compensation flow dividing valve 38 to an external channel 67 flows through the electromagnetic selector valve 68 into a tank 39. As a result, the discharge rate of a pump 33 is increased by the amount equivalent to the decrease in the discharge pressure so that a greater amount of hydraulic fluid is fed from the independent attachment circuit 37 into a main circuit 36 of the main body actuators. Therefore, sharp decrease in the speed of the main body actuators is prevented. <IMAGE>

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

IPC 8 full level
E02F 9/22 (2006.01); **F15B 11/16** (2006.01); **F15B 11/17** (2006.01); **F15B 13/06** (2006.01)

CPC (source: EP)
E02F 9/2228 (2013.01); **E02F 9/2253** (2013.01); **E02F 9/2285** (2013.01); **E02F 9/2292** (2013.01); **F15B 11/162** (2013.01); **F15B 11/17** (2013.01); **F15B 2211/20576** (2013.01); **F15B 2211/40515** (2013.01); **F15B 2211/4053** (2013.01); **F15B 2211/426** (2013.01); **F15B 2211/428** (2013.01); **F15B 2211/45** (2013.01); **F15B 2211/455** (2013.01); **F15B 2211/50563** (2013.01); **F15B 2211/528** (2013.01); **F15B 2211/57** (2013.01); **F15B 2211/6313** (2013.01); **F15B 2211/6355** (2013.01); **F15B 2211/6654** (2013.01); **F15B 2211/7142** (2013.01); **F15B 2211/781** (2013.01)

Cited by
CN102071717A

Designated contracting state (EPC)
DE FR IT

DOCDB simple family (publication)
EP 1193400 A2 20020403; **EP 1193400 A3 20031112**; **EP 1193400 B1 20050202**; DE 60108695 D1 20050310; DE 60108695 T2 20060504; JP 2002089511 A 20020327; JP 3511504 B2 20040329

DOCDB simple family (application)
EP 01302602 A 20010321; DE 60108695 T 20010321; JP 2000274757 A 20000911