

Title (en)  
HYDRAULIC DRIVE DEVICE OF WORKING MACHINE

Title (de)  
HYDRAULISCHE ANTRIEBSVORRICHTUNG FÜR EINE ARBEITSMASCHINE

Title (fr)  
DISPOSITIF D'ENTRAÎNEMENT HYDRAULIQUE D'ENGIN DE CHANTIER

Publication  
**EP 2677180 A4 20180214 (EN)**

Application  
**EP 12747270 A 20120209**

Priority  
• JP 2011028940 A 20110214  
• JP 2012052977 W 20120209

Abstract (en)  
[origin: EP2677180A1] To provide a hydraulic drive system for a working machine, which can realize the assurance of good operability in normal operation and precision operation and a reduction in energy loss in the precision operation. A controller (31) is provided with a pump delivery rate control unit (40) and a center bypass valve control unit (50). The pump delivery rate control unit (40) performs control processing to output, to a control terminal of a solenoid-operated proportional reducing valve (21), a control signal to make a displacement of a variable displacement hydraulic pump (10) smaller than a displacement corresponding to normal operation when a working element control device is in a manipulation mode considered to correspond to precision operation. The center bypass valve control unit (50) performs control processing to output, to a control terminal of a proportional solenoid valve (23), a control signal to make a center bypass valve (22) have a relatively large opening amount despite the center bypass valve (22) is in a switched state between a fully open position and a fully closed position when the working element control device is in a manipulation mode considered to correspond to the precision operation and a load pressure on a working element actuator is in a low state.

IPC 8 full level  
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CPC (source: EP KR US)  
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Citation (search report)  
• [XY] JP H06280810 A 19941007 - HITACHI CONSTRUCTION MACHINERY  
• [Y] US 5970709 A 19991026 - TOHJI YUTAKA [JP]  
• [A] JP H06159312 A 19940607 - HITACHI CONSTRUCTION MACHINERY  
• [A] EP 1764515 A2 20070321 - VOLVO CONSTR EQUIP HOLDING SE [SE]  
• [A] US 6282892 B1 20010904 - ARAI SEIGO [JP]  
• See references of WO 2012111525A1

Cited by  
WO2019179596A1; US11566400B2

Designated contracting state (EPC)  
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