

Title (en)

Hydraulic control apparatus for work machine

Title (de)

Hydraulische Steuervorrichtung für eine Arbeitsmaschine

Title (fr)

Appareil de contrôle hydraulique de machine de travail

Publication

EP 2479349 A1 20120725 (EN)

Application

EP 12152038 A 20120123

Priority

JP 2011012690 A 20110125

Abstract (en)

A hydraulic control apparatus for a work machine exchangeably mountable a standard front attachment (6a) and a long front attachment (6b) includes a front type detecting unit (200) for work machine. The front type detecting unit includes a primary side coupler (30) with which driving power is provided from a main body side of the work machine and a secondary side coupler (31,32) to be coupled to the primary side coupler. The secondary side coupler is disposed at the front attachment side. The hydraulic pressure circuit includes a control valve (150) and a variable relief valve (141,142) which switches a relief pressure for a driving actuator (10) of a front attachment. When the long front attachment (6b) is mounted to the work machine body, an operating state of the switching valve (130) is changed, and the variable relief valve (141,142) is switched to the low pressure side. Thus, the amount of movement of the spool in the control valve is (150) limited.

IPC 8 full level

E02F 3/36 (2006.01); **E02F 3/96** (2006.01); **E02F 9/22** (2006.01)

CPC (source: EP)

E02F 3/3654 (2013.01); **E02F 3/963** (2013.01); **E02F 9/2225** (2013.01); **E02F 9/2267** (2013.01); **E02F 9/2275** (2013.01); **E02F 9/2282** (2013.01); **E02F 9/2285** (2013.01); **E02F 9/2296** (2013.01)

Citation (applicant)

JP 2010001613 A 20100107 - HITACHI CONSTRUCTION MACHINERY

Citation (search report)

- [YA] WO 2010116816 A1 20101014 - HITACHI CONSTRUCTION MACHINERY [JP], et al & EP 2418328 A1 20120215 - HITACHI CONSTRUCTION MACHINERY [JP]
- [Y] JP 2010101004 A 20100506 - HITACHI CONSTRUCTION MACHINERY
- [Y] US 2003233773 A1 20031225 - MIEGER ROLF [DE], et al
- [A] EP 0866177 A2 19980923 - CLARK EQUIPMENT CO [US]
- [A] EP 1925825 A2 20080528 - KOBELCO CONSTR MACHINERY LTD [JP]

Cited by

GB2619089A; CN112292492A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2479349 A1 20120725; EP 2479349 B1 20180411; JP 2012154383 A 20120816; JP 5631762 B2 20141126

DOCDB simple family (application)

EP 12152038 A 20120123; JP 2011012690 A 20110125