

Title (en)

Two-member connecting device, in particular for a multi-boom hydraulic excavator

Title (de)

Zweiteilige Verbindungsvorrichtung, insbesondere für einen mehrere Ausleger aufweisenden Hydraulikbagger

Title (fr)

Dispositif de connexion à deux éléments, en particulier pour une excavatrice hydraulique multi-flèche

Publication

**EP 2233643 A3 20140924 (EN)**

Application

**EP 10155361 A 20100303**

Priority

JP 2009079628 A 20090327

Abstract (en)

[origin: EP2233643A2] Left and right upper centering members (33) and lower centering members (34) are provided at positions respectively opposing left and right second brackets (14), (15) in an extension boom (5B). As engaging groove portions (33C) of the upper centering members (33) are engaged with left and right upper connecting pins (16), (17), the left and right upper connecting pins (16), (17) can be centered with respect to left and right upper second pin insertion holes (14A), (15A), and can be smoothly inserted into these left and right upper second pin insertion holes (14A), (15A). In addition, as abutting groove portions (34C) of the lower centering members (34) are abutted against left and right lower connecting pins (18), (19), the left and right lower connecting pins (18), (19) can be centered with respect to left and right lower second pin insertion holes (14B), (15B), and can be smoothly inserted into these left and right lower second pin insertion holes (14B), (15B).

IPC 8 full level

**B66C 23/70** (2006.01); **E02F 3/36** (2006.01); **E02F 3/38** (2006.01); **E02F 3/96** (2006.01); **E04G 23/08** (2006.01)

CPC (source: EP KR)

**B66C 23/26** (2013.01 - KR); **B66C 23/64** (2013.01 - KR); **E02F 3/369** (2013.01 - EP); **E02F 3/38** (2013.01 - EP); **E02F 3/965** (2013.01 - EP); **E02F 9/14** (2013.01 - KR)

Citation (search report)

- [XY] US 2006157605 A1 20060720 - RAMUN JOHN R [US], et al
- [Y] JP 2001288769 A 20011019 - CATERPILLAR MITSUBISHI LTD
- [A] US 2009008490 A1 20090108 - RAMUN JOHN R [US], et al

Cited by

CN107178340A; CN107178339A; EP2581500A4; CN105731276A

Designated contracting state (EPC)

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 SE SI SK SM TR

Designated extension state (EPC)

AL BA ME RS

DOCDB simple family (publication)

**EP 2233643 A2 20100929**; **EP 2233643 A3 20140924**; **EP 2233643 B1 20170531**; CN 101845833 A 20100929; CN 101845833 B 20140903; JP 2010230113 A 20101014; JP 4806049 B2 20111102; KR 101656743 B1 20160912; KR 20100108258 A 20101006

DOCDB simple family (application)

**EP 10155361 A 20100303**; CN 201010143200 A 20100326; JP 2009079628 A 20090327; KR 20100026694 A 20100325