

Title (en)
VARIABLE REACH CRANE JIB WITH AUTOMATIC COUNTERBALANCING DEVICE

Publication
EP 0110786 B1 19880309 (FR)

Application
EP 83402277 A 19831125

Priority
FR 8219842 A 19821126

Abstract (en)
[origin: US4867321A] The invention provides a system for automatically balancing the jib of cranes of the type with articulated arms or telescopic arms depending on the variation of the reach of this jib. The annular section chambers of the hydraulic cylinder controlling the auxiliary arm of the crane and of the hydraulic cylinder controlling the pivoting arm carrying the counterweight are connected in series by a duct. The full section chambers of the hydraulic cylinders are connected selectively, by actuation of a valve, either to the pressure line or to the return line. In the right-hand position of the valve, the counterweight is pivoted and the arm is raised simultaneously, whereas in the opposite position of the valve the arm is lowered and the counterweight is raised.

IPC 1-7
B66C 23/76; **E02F 9/18**

IPC 8 full level
B25J 19/00 (2006.01); **B66C 23/68** (2006.01); **B66C 23/72** (2006.01); **B66C 23/76** (2006.01); **E02F 9/18** (2006.01)

CPC (source: EP US)
B66C 23/72 (2013.01 - EP US)

Cited by
FR2836466A1; CN104528553A; FR2653108A1; EP1103512A1; FR2801576A1; US4630796A; AT385259B; GB2258445A; GB2258445B; EP2447156A1; FR2966802A1; US8915466B2; EP0970915A2; WO2014188189A1; US10183848B2; US10336589B2; US11884522B2; US10179722B2; US10457530B2; US11208303B2; US11261064B2

Designated contracting state (EPC)
AT BE DE GB IT NL SE

DOCDB simple family (publication)
EP 0110786 A1 19840613; **EP 0110786 B1 19880309**; AT E32868 T1 19880315; DE 3375903 D1 19880414; FR 2536733 A1 19840601; FR 2536733 B1 19860307; JP H0411477 B2 19920228; JP S59143893 A 19840817; US 4867321 A 19890919

DOCDB simple family (application)
EP 83402277 A 19831125; AT 83402277 T 19831125; DE 3375903 T 19831125; FR 8219842 A 19821126; JP 22136583 A 19831124; US 17059988 A 19880316