

Title (en)

Lifting device for an operating station in a packaging machine

Title (de)

Hubeinrichtung für eine Arbeitsstation einer Verpackungsmaschine

Title (fr)

Dispositif de levage pour une station d'opération d'une machine d'emballage

Publication

EP 0895933 B2 20070307 (DE)

Application

EP 97113794 A 19970808

Priority

EP 97113794 A 19970808

Abstract (en)

[origin: EP0895933A1] The workstation, at a packaging machine, has a lifting mechanism to close the tools together, and a further lifting system to give an additional and final closing movement. The additional lifting system has a drive (23) and a mechanical reduction system (55,80,90,61), with a constant force development. The further closing movement action is triggered on meeting a resistance.

IPC 8 full level

B65B 31/02 (2006.01); **B65B 59/00** (2006.01); **B65B 65/02** (2006.01)

CPC (source: EP US)

B65B 31/021 (2013.01 - EP US); **B65B 65/02** (2013.01 - EP US)

Cited by

DE10351567B4; EP2241508A3; DE102009008452B3; CN108688901A; EP2522581A1; EP2522580A1; EP3130546A1; EP3838769A1; DE102019219833A1; US9567124B2; US9248929B2; WO2023117860A2; US11713152B2; WO2007090652A1; WO2005042349A1; WO2016180587A1; US10807752B2; EP2218575A1; EP4019415A1; DE102020134816A1; EP3294636B1

Designated contracting state (EPC)

DE ES FR GB IT SE

DOCDB simple family (publication)

EP 0895933 A1 19990210; **EP 0895933 B1 20030416**; **EP 0895933 B2 20070307**; DE 59709858 D1 20030522; ES 2197273 T3 20040101; ES 2197273 T5 20071101; JP 3041606 B2 20000515; JP H11147512 A 19990602; US 6006505 A 19991228

DOCDB simple family (application)

EP 97113794 A 19970808; DE 59709858 T 19970808; ES 97113794 T 19970808; JP 22587998 A 19980810; US 12647498 A 19980730