

Title (en)
LIFTING DEVICE

Title (de)
HUBVORRICHTUNG

Title (fr)
DISPOSITIF DE LEVAGE

Publication
EP 3319901 B1 20190821 (DE)

Application
EP 16762756 A 20160831

Priority
• EP 15183810 A 20150904
• EP 2016070457 W 20160831

Abstract (en)
[origin: WO2017037085A1] The invention relates to a lifting apparatus suitable for an industrial processing station, in particular a lifting table suitable for conveying a body shell in the series production of motor vehicles, wherein the lifting apparatus is designed to convey a workpiece on a top frame (8) moved in a purely vertical direction. In this case, the lifting apparatus has, as first vertical guide, at least one isosceles slider-crank mechanism (1, 2, 3, 4, 5) actuated by a motorized drive element (13+6, 7, 9, 12) In this case, the isosceles slider-crank mechanism, which consists of a fixed-bearing swing arm (6) with the swing-arm bearing (4) thereof, a control arm (3) with the control-arm guide (5) thereof, a control-arm central joint (2) and a fixed-bearing joint (1) connected to the top frame (8), is configured such that it is moved by the actuation of the tie rod (9) acting on the fixed-bearing swing arm (6). In particular the use of an isosceles slider-crank mechanism, which is also known in the literature as a "Scott-Russel mechanism", provides a simple and effective variant of a vertical guide system which allows low overall heights with minimum production outlay.

IPC 8 full level
B66F 7/06 (2006.01)

CPC (source: EP US)
B66F 7/065 (2013.01 - US); **B66F 7/0658** (2013.01 - US); **B66F 7/0691** (2013.01 - EP US)

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

DOCDB simple family (publication)
EP 3138807 A1 20170308; BR 112018003974 A2 20180925; BR 112018003974 B1 20220118; CN 107922176 A 20180417; CN 107922176 B 20190802; EP 3319901 A1 20180516; EP 3319901 B1 20190821; ES 2758103 T3 20200504; MX 2018002556 A 20180528; PL 3319901 T3 20200228; PT 3319901 T 20191014; US 10843911 B2 20201124; US 2018273362 A1 20180927; WO 2017037085 A1 20170309

DOCDB simple family (application)
EP 15183810 A 20150904; BR 112018003974 A 20160831; CN 201680048887 A 20160831; EP 16762756 A 20160831; EP 2016070457 W 20160831; ES 16762756 T 20160831; MX 2018002556 A 20160831; PL 16762756 T 20160831; PT 16762756 T 20160831; US 201615757206 A 20160831