

Title (en)
MULTILAYER MECHANICAL PARKING SYSTEM

Title (de)
MECHANISCHES PARKSYSTEM MIT MEHREREN EBENEN

Title (fr)
SYSTÈME MÉCANIQUE DE PARKING À PLUSIEURS ÉTAGES

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EP 2749717 A4 20151014 (EN)

Application
EP 12825996 A 20120822

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• KR 2012006686 W 20120822

Abstract (en)
[origin: EP2749717A2] The present invention relates to a multilayer mechanical parking system, and more particularly, to a novel parking system in which a mechanical parking system is unitized to allow for easy installation and maintenance. To this end, the multilayer mechanical parking system of the present invention comprises: a vehicle loading unit which has, in the lower portion thereof, a conveyor belt-type transfer structure capable of conveying, in left and right directions, a vehicle loaded thereon; a vehicle transfer unit which elevates, in the vertical direction, a vehicle loaded thereon to be parked; a control unit which controls the horizontal and vertical movements of the vehicle loading unit and the vehicle transfer unit, and an entry and exit of the vehicle; and a collapsible multilayer elevator (5000) including an entry and exit control unit (A) for controlling the entry and exit and a horizontal movement operation of the vehicle, a horizontal movement and loading unit (B) connected to an output shaft of the entry and exit control unit (A) so as to horizontally move the loaded parked vehicle to left and right vehicle loading units (3000), an inter-layer distance adjusting unit (C) which has a vertical distance adjusting bar (805) installed at an extended portion protruding from the front surface of the entry and exit control unit (A) so as to adjust the distance between the entry and exit control unit (A) and the horizontal movement and loading units (B) arranged in multiple layers during vertical elevation, a vertical elevation adjusting unit (D) linked to the extended portion of the entry and exit control unit (A) located at the top of the inter-layer distance adjusting unit (C) so as to enable the vertical elevation of the collapsible multilayer elevator (5000), and a travel adjusting unit (E) which receives power from the vertical elevation adjusting unit (D) so as to enable the horizontal forward and backward movement of the collapsible multilayer elevator (5000). The vehicle loading units (3000), which have bottom surfaces provided with horizontally movable conveyor belt-type transfer devices, are symmetrically arranged, and a vertical and horizontal entry and exit unit (1500) is arranged to enable the collapsible multilayer elevator (5000) to move in horizontal and vertical directions between the symmetrically arranged vehicle loading units (3000).

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Citation (search report)
• [AD] KR 100403484 B1 20031030
• [A] WO 9825839 A2 19980618 - COSMO RIGO MOACIR [BR]
• [A] US 5304026 A 19940419 - LIAW ROBERT [TW], et al
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• See references of WO 2013028014A2

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CN105604369A

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EP 2749717 A2 20140702; **EP 2749717 A4 20151014**; BR 112013032589 A2 20170117; BR 112013032589 B1 20210406;
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