

{Abstract}

LIFT-CONVEYOR CONTROL DEVICE, MECHANICAL PARKING APPARATUS,
AND LIFT-CONVEYOR CONTROL METHOD

An object is to reduce the time required to raise and lower a lift conveyor having a vehicle placed thereon. A lift-conveyor control device (30) included in a mechanical parking apparatus that uses a raising and lowering motor (36) to raise and lower a lift conveyor that goes up and down with the vehicle placed thereon estimates the weight of the vehicle placed on the lift conveyor when loading the vehicle and derives an acceleration, deceleration, and maximum speed at which the lift conveyor is raised and lowered based on the estimated vehicle weight. Then, a motor control section (38) included in the lift-conveyor control device (30) controls the raising and lowering motor (36) so as to accelerate the lift conveyor that has the vehicle placed thereon and is at a standstill based on the derived acceleration and decelerate the lift conveyor based on the derived deceleration after the derived maximum speed is reached, thus causing the lift conveyor to stop at a pre-specified floor.

FIGURE 2