# CLAIMS

[Claim 1]

A pile press-in construction method using a pile press-in device that is provided with a saddle, a clamp device that is provided at the bottom of the saddle and grasps an upper end of an existing pile that has been pressed into the ground, a mast erected in a turnable manner on the saddle, a raising and lowering device, and a chuck device that is supported by the mast via the raising and lowering device and holds a pile, the pile press-in device generating a reaction force by griping, with the clamp device, the upper end of the existing pile that has been pressed into the ground, holding the pile by the chuck device, pressing the pile into the ground by operating the raising and lowering device, and successively pressing in piles while moving on a pile row including the existing pile to thereby extend the pile row on the ground,

the pile press-in construction method comprising:

employing, as the pile press-in device, the pile press-in device in which the chuck device is tiltable about a chuck tilting axis that intersects with the mast and is in a direction in which the mast and the chuck device line up; and

pile supplying including causing the chuck device to be laid sideways and to project outward to a side of the pile row as viewed from an axial direction of the existing

pile by turning the mast and tilting the chuck device, laying the pile sideways, supplying the pile, inserting the pile into the chuck device, and causing the chuck device to grasp the pile.

[Claim 2]

The pile press-in construction method according to claim 1, wherein, in the pile supplying, the pile is inserted into the chuck device from behind in a direction in which the pile row extends.

[Claim 3]

The pile press-in construction method according to claim 1, wherein, in the pile supplying, the pile is inserted into the chuck device from in front in a direction in which the pile row extends.

[Claim 4]

The pile press-in construction method according to one of claims 1 to 3, wherein

the pile press-in device includes a slide base that is horizontally movable on the saddle,

the mast is erected on the slide base in a turnable manner, and

in the pile supplying, an insertion length of the pile into the chuck device is increased upon a stroke of the slide base.

[Claim 5]

The pile press-in construction method according to claim 4, wherein

the raising and lowering device of the pile press-in device is tiltable about the chuck tilting axis together with the chuck device, and

in the pile supplying, an insertion length of the pile into the chuck device is increased upon a stroke of the raising and lowering device.

[Claim 6] The pile press-in construction method according to claim 2 or 3, wherein

the pile press-in device in which the mast is tiltable such that the chuck device moves up and down is employed as the pile press-in device, and

in a part or all of the inserting of the pile into the chuck device in the pile supplying, the mast is caused to tilt such that a height of a grasping central axis of the chuck device in a laid-sideways state is adjusted.

[Claim 7]

The pile press-in construction method according to claim 1, in which one complete pile formed by a plurality of divided piles being connected in a longitudinal direction is pressed into the ground, the pile press-in construction method comprising:

connecting a next divided pile by holding, with a holding chuck attachment that clamps an upper end of an existing pile and is secured to the existing pile, an upper end of one of the divided piles that is a leading pile at a time of pressing in.

[Claim 8]

The pile press-in construction method according to claim 1, wherein

the chuck device has a plurality of grasping members that perform a gathering/dispersing operation with respect to the pile, and

the pile having a grasped dimension smaller than a grasped dimension that the chuck device can grasp is grasped and pressed in with a grasping attachment unit, the grasping attachment unit having a plurality of grasping attachments and a bracket, the plurality of grasping attachments being mounted to grasping surfaces of the grasping members and

performing a gathering/dispersing operation together with the grasping members, the bracket restricting movement of at least one of the grasping attachments that is on one side around a grasping central axis into a dispersion direction in the gathering/dispersing operation upon the grasping central axis being laid horizontally, the bracket releasing restriction of movement in the dispersion direction upon the grasping central axis being erected.