SYSTEM FOR VERTICAL CENTERING AND POSITIONING OF STEEL PLUNGE COLUMN IN TOP-DOWN CONSTRUCTION METHOD

ABSTRACT OF THE DISCLOSURE

A system for vertical centering and positioning of steel plunge column in top-down construction includes multiple hydraulic adjustment units spaced around a steel plunge column positioned in a foundation pile hole. Each hydraulic adjustment unit includes a base for pressing against a wall surface of the pile hole, and at least one push plate, at least one hydraulic-actuated extendable supporting arm and at least two pivoted arms pivotally connected to one another and the base, such that the push plate can be moved by the hydraulic-actuated extendable supporting arm to push against the steel plunge column for adjusting the latter to a vertically centered position in the foundation pile hole. Verticality of the steel plunge column is measured by an electronic inclinometer and shown on a monitor of a computerized digital positioning monitoring system to ensure real-time and precise adjustment of the vertical position of the steel plunge column.

Fig. 1A