A LIFT TRUCK OPERATED STACKING FORMWORK TABLE SYSTEM AND A METHOD OF OPERATION THEREOF

FIELD OF THE INVENTION

The invention relates generally to a ceiling formwork system for building and construction, and in particular to a formwork support system and the method of operation thereof in which a series of supported formwork tables are erected at a planned height in and adjacent manner for concreting of an intermediate floor.

PRIOR ART

The conventional method for erecting a formwork table involves several procedures. For example, to determine the position of supports holding up longitudinal and transverse carriers, complex calculation tables pertaining to material composition of formwork are used. Upon marking the position, supports are then erected. During the erecting of the supports, additional equipment is used to level the support. Upon erecting the supports, a formwork table is than placed on the support for concreting. The problem with such conventional methods is that such conventional methods are labour intensive and contribute to a large number of man-hours in the building construction. Apart from the problem mentioned, such conventional methods also pose safety threats, such as falling from heights, as workers need to climb higher to erect taller supports for higher ceilings which can be more than six meters in height.

Furthermore, formwork table are often reused. Specifically, after the ceiling at the first location is concreted, the formwork tables are transported to another location within the same level or to the next level. To detach the formwork table from the concreted ceiling, the formwork table has to be lowered by adjusting the screw jack near the leg of the support using a hammer which is time consuming and wherein the hammering also may decrease the lifetime of the support. For ease of transport to the platform where the crane will hoist the formwork table to the next location, tall supports with formwork table are then tilted using a chain block to replace the jack bases with castors. The tilting of tall formwork table exposes the risk of it toppling on the workers below. In addition, the transportation of formwork tables using castors requires 4 to 5 men to transport, which further adds additional man-hour to the construction. Pushing the tall formwork table may also endanger the 4 to 5 men transporting it should it fall due to uneven ground.

Improvements to the formwork system as describe above have been established in a couple of embodiments (US 2010/0025563, US 6,176,463). The later replaces conventional supports with a tripod supporting a stringer. Fixed positions are indicated on the longitudinal and transverse carriers for the supports which eradicate the use of complex tables. The later has basically simplified the formwork system and made the materials portable by trolleys and boxes. However, the later still