

ABSTRACT

CARGO HANDLING PATH SETTING METHOD AND APPARATUS FOR CRANE

A cargo handling path setting method and apparatus determine arbitrary hoisting and lowering speeds of a suspended load and the times required for hoisting and lowering to set hoisting and lowering speed patterns, determine an arbitrary traversing speed of the suspended load and the time required for traversing to set a traversing speed pattern, set the positions and heights of obstacles present around the cargo handling path based on data from stacked load sensors, and further set an arbitrary waiting time for traversing and an arbitrary waiting time for lowering; then conduct a theoretical simulation test based on these set conditions to compute a cargo handling path, and if it is determined that the suspended load passing along the cargo handling path will collide with the obstacles, repeat the procedure of revising the set conditions and conducting a theoretical simulation test again. Thus, an optimum cargo handling path is set by which the suspended load can be carried to a predetermined place in the shortest time required by its simultaneous winding/traversing operation without its collision with the obstacles.

FIGURE 7