

ABSTRACT

In a suspended type crane having a travel device for driving a trolley car for traveling and a hoisting device, an equation of condition for the damping of the swing of a load is derived as a function of an operational speed command for the travel device, a signal from a detector for detecting the speed of the load in the traveling direction thereof, and a measured value of the length of the rope hoisting the load, and the traveling speed of the trolley car is controlled in accordance with a traveling speed command signal corrected so that a positional error signal calculated from a function of the positional error of the trolley car from the optimal position for stopping swing obtained from the equation of condition. Thus, the periodic swing of the load is sufficiently suppressed to stop the load at a desired position with high positional accuracy and less swing.

This makes it possible to suppress the swinging motion of the rope caused by acceleration and deceleration of the trolley car and to automatically operate the crane with a high traveling speed of the trolley car maintained.