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I. Introduction

The characteristic feature of cranes used to lift and lower various loads above the ground, as well as of skip hoists used to lift and lower loads from the depth of a mine to the ground surface and contrariwise, is the availability of a rigidly bound (either directly or via a reducer) drive electric motor shaft to the electric drive system of a drum used to wind up or unwind the ropes which carry the cargo or empty/loaded skips that are to be lifted or lowered.

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crane, shaft skip hoist, inertia moment, load moment, DC drive electric motor, AC drive electric motor, mathematical model, differential equation, variable parameters

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