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ROPE LIFT ELECTRICITY GENERATOR

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ABSTRACT

This study has exhibited the advantage of electricity generation using rope lifting force and explained how it is effectively used. Rope is a drive source which can be used in electricity generation by using its lifting force. It is important that an electricity generating apparatus using gravity and buoyancy can curtail costs of power generation and prevent environmental pollution and prevent destruction of an ecosystem. The rope is an attractive solution for electricity generation where a large gravity flow exists. The wave conversion plant using buoyancy chambers is another solution for electricity generation using rope lifting force. There are a good many reasons that rope lifting force will be used in future at many ranges for electricity generation.

INTRODUCTION

Nowadays, we know that the LIFT used in building is used to lift the weight from ground floor to different floors, the lift while coming down energy is been wasted so, we are utilizing that energy and generating electricity. An elevator system, elevator providing a self-generating power source. The system converts kinetic energy of an elevator cab movement into electrical energy used to regulate the speed of descent. The elevator system can be structured in numerous ways and includes either a generator or a motor in generator mode, driven by a system to the elevator cab. The present invention relates to a self-powered for elevator systems. More particularly, the present invention pertains to the use of the kinetic energy of an elevator cab movement to generate electrical energy to regulate the speed level.

BACKGROUND OF THE INVENTION

Systems and controls use a wide variety of designs to achieve numerous objectives, and the basic principle of balancing an elevator cab against assembly driven by a motor. Building designers authorities have recognized the necessity of emergency power in buildings to ensure that elevator cabs. Moreover, most elevator systems currently require building power distribution systems to provide transfer switches and emergency feeders for elevators and main distribution emergency switchboards and emergency generators sufficiently large to cover elevator loads, all of which result in additional costs and inefficiencies. Thus, it would be advantageous to have an elevator system that during a power outage or any other occasion when needed accomplishes the controlled descent of the elevator cab without a battery or fossil fuel based generator to drive the elevator motor, but rather accomplishes the initial descent of the elevator cab due to gravitational forces and the heaviness of the elevator cab relative to an attached counterweight, and which then converts kinetic energy of the movement elevator cab into electrical energy used to control the speed of descent of the elevator cab.

MATERIALS AND METHODS

Materials

Rope, freewheel, alternator, battery, wood material for lift box, cycle chain



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Fig: ELECTRICITY GENERATING ROPE LIFT

RESULTS AND DISCUSSION

Electricity is generated by using recycling the electricity energy and it is time consuming.

CONCLUSION

By using this lift we can recycle the electricity and use this electricity for generation of batteries used in automobiles, and the batteries used in bikes or scooty.

REFERENCES

- 1. Gowreesh, S., Sreenivasalu Reddy, N. and Yogananda Murthy, NV. Convective Heat Transfer Analysis of a Aero Gas Turbine Blade Using Ansys, International Journal of Mechanics and Solids. 4, 2009, 39-46.
- 2. B. Deepanraj, P. Lawrence, G. Sankaranarayanan, Theoretical analysis of gas turbine blade by Finite element method, Scientific World, Vol. 9, No. 9, July 2011, 29-33