

A Review on Gravity Power Generation

Mr. Rakesh S. Ambade¹, Mr. Roushan Prabhakar², Mr. Rupesh S. Tayade³

Asst. Prof., Department of Mechanical Engineering, J. D. I. E. T., Yavatmal, Maharashtra, India ¹

B. E. Student, Department of Mechanical Engineering, J. D. I. E. T., Yavatmal, Maharashtra, India ²

B. E. Student, Department of Mechanical Engineering, J. D. I. E. T., Yavatmal, Maharashtra, India ³

Abstract: Conserving energy has become the biggest issue in present scenario. Due to the development and modernization the electricity demand is increasing at high extent. To fulfil this demand globally which is without any harmful effect on environment is possible by using gravity power generation. The reason behind generating power by using gravity is that it is available all over the earth. Comparing to the other sources like chemical, thermal and other sources gravity is weak, is scalable. This weakness is due to uniformity, or steady state of our interactions with gravity. As gravity is weak as compared to the other sources, it cannot be efficiently converted into electrical energy or in the other form. The concept of gravity power generation is simple. The basic concept of gravity power generation mechanism is, when a body moves down from higher altitude to lower one its potential energy is converted into kinetic energy. This motion is converted into circular motion and that circular motion is converted into electricity by using a Mini DC generator.

Keywords: Gravitational Energy, Initial power, Mini DC Generator, Electrical Energy.

I. INTRODUCTION

Now a days due to the effects of pollution and global warming there is a need for generating power from renewable sources. Due to the availability of gravity all over the earth, abundant and consistent it is very suitable to generating power by using gravity. Energy demand is increasing day by day with rapid growth in industrialization as well as modernization. But the energy resources are gradually decreasing at high extent. Within a few years the energy resources will be finished and hence there will be lack of fuel (coal, wood, water, etc.) for power generation. The other renewable sources such as solar, wind, biomass etc are available only for a particular duration of time during the day and night. Therefore the gravity power generation is one of the method to generate power which fulfil energy demands and requirements of present time.

It is possible to deflect gravitational action away from an object so that the object is partially deviated. That effect makes it possible to extract energy from the gravitational field, which makes the generation of gravitational electric power technologically feasible.

Such plants would be near about similar to hydro-electric plants. Gravitational electric power plant has advantages over the hydro-electric plant, such as not needing of fuel and not polluting the environment. However, the gravitational electric plant would be much smaller than hydro-electric plants. The location of that plant would not be restricted to suitable water elevations and gravitational electric power plants and their produced energy would be much expensive. If the gravitational power electric generation comes under operation and working then it can replace all existing nuclear and fossil fuel plants and it would essentially solve the problem of global warming to the extent it is caused by fossil fuel used.

II. LITERATURE SURVEY

Sir Issac Newton had discovered the phenomenon of gravity near 400 years ago. London researches Martin Riddiford and Jim Reeves who have spent four years for developing gravity light as an off line project. They are using tried and tested manufacture who has the right knowledge to make gravity light. Gravity light is a revolutionary new approach to storing energy and creating illumination. It takes only three seconds to lift the weight which powers gravity light, creating 30 minutes light on its descent.

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Chun-chao Wang and Yuh-suiang Wang has successfully invents the concept of gravity power generation mechanism . In his concept, more simplified mechanism is used for the generation of the electricity. The primary objective of his invention is to provide gravity power generation mechanism which can provide a continuous and stable operation to continuously convert the gravity potential energy into the kinetic energy and then to convert the kinetic energy into electrical energy, so as to perform a long time, effective and stable energy output.

Russian Inventor, Mikhail Dmitriev to know about his gravity motor. He has apparently devised a mechanism whereby static gravitational pull can be harness to generate useful energy. He has worked for many years developing and testing gravity powered devices and he has been very successful in his work. His various designs is based on the principle of having weights attached to a wheel and arranging for those weights to be offset outwards when falling and offset inwards when rising. Because of the different lever arms involved, that gives a force imbalance which causes the wheel to rotate continuously and if the weights are of a considerable size, then the rotation is powerful and can be used to generate electrical energy.

III. METHODOLOGY

The apparatus consists of crank and pin arrangement bearing variable loads and supporting stand. The arrangement of pulley in such a way that diameter of upper pulley is large as compared to the bottom pulley and these two pulleys are aligned in a vertical plane. Variable loads are mounted on the belt as shown in the above figure and this belt is mounted on two variable pulleys by using nut and bolt. For the generation of electricity the Mini DC generator is used which is connected to the flywheel through pinion and this flywheel is attached to the bottom pulley. The flywheel is used in this arrangement for the load balance purpose.

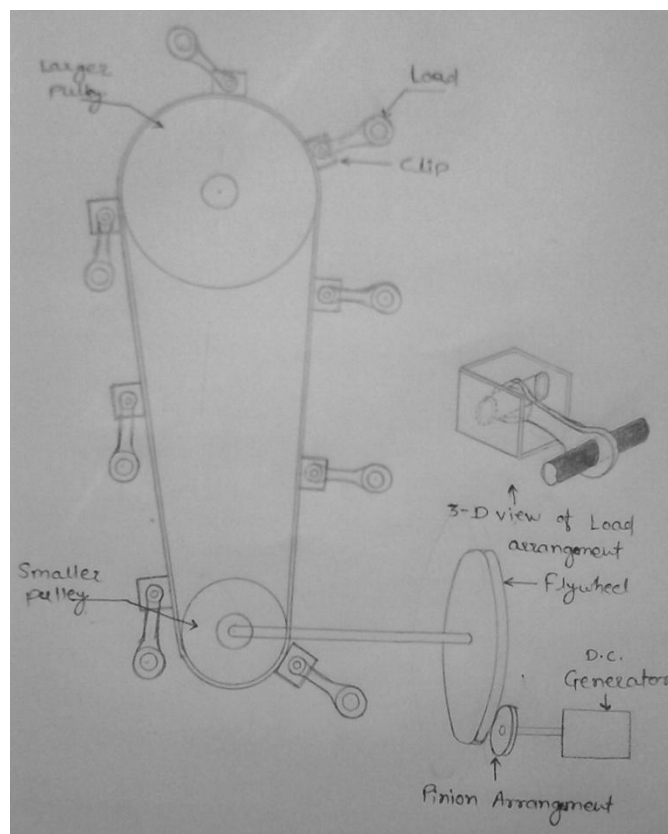


Fig. (1) Gravity Power Generation Mechanism

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The arrangement requires some initial force to rotate the variable loads in circular motion, after that it will work on gravitational force in which the loads from the higher altitude are fall down due to the gravitational energy and hence the lower loads are pulled up due to the movement of upper load and hence the chain will continue for some duration. The arrangement utilizes a gravity energy conversion unit to convert the gravity potential energy into the kinetic energy. The gravity energy conversion unit produces positive torques by adopting outward spreading single direction swing arms and reduces the negative torques by cooperating with the folding action of the single directional swing arms, so as to perform a long time, effective and continuous energy conversion of converting gravity potential energy into kinetic energy. Next, the kinetic energy will be transmitted to a power generating unit to perform another energy conversion of converting the kinetic energy into the electrical energy. And finally, a power supply system is used to transmit the electric energy out.

IV. CONCLUSION

By such arrangements, the gravity power generation mechanism not only has the advantages such as: more simplified structure, higher conversion ratio and more environment-friendly but only needs a little starting energy to perform a long time energy conversion and stable energy output. The other main advantage of the gravitational power generation mechanism is that it can independently generate electricity and it can be parallel connected to the wind power and the solar power generation systems to generate electricity.

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