

"RECIPROCATING ELECTRICAL MOTOR"

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ABSTRACT

Today the demands of user friendly of interaction less power consumed products are increasing. This is done because of electrical energy and today. Energy is the most important objective because of the limited resources of fuel which is likely to be exhausted with few years. Also there is a rapid development in technology as well as in electrical, mechanical and any other fields. Due to this rapid change or development peoples prefer systems that work with less power and which has high speed that makes whole System compact, cost effective. Therefore no requirement of fuel means this type of system is useful to save natural fuel sources as well as foreign currency. Therefor by observing and considering problems of electricity as well as fossil fuel and etc. we decide to make a electrical system named "RECIPROCATING ELECTRICAL MOTOR" farther operation of this motor we are using readymade in two wheeler engine to which a power magnet connect and on the other hand opposite to permanent magnet a coil (electromagnetic) and magnetic switch fitted here for operation of motor i.e. for movement of motor of inner and other side of two wheeler engine were magnetic attraction and repulsion principle and by of electromagnetic coil and magnetic switch.

Keyword: - Reciprocating, faradays law

INTRODUCTION

1. Introduction

Today the demands of user friendly of interaction less power consumed products are increasing. This is done because of electrical energy and today . Energy is most important objective because of the limited resources of fuel which is likely to be exhausted with few years. Also there is rapid development in technology a well as in electrical, mechanical and any other fields. Due to this rapid change development peoples prefer systems that work with less power and which has high speed that makes whole.

System compacts, cost effective. Therefore no requirement of means this type of system is useful to save natural fuel sources as well as foreign currency. Therefore by observing and considering problems of shortage of electricity as well fossil fuel and etc. we decide to make a electrical system named "ELECTRICAL RECIPROCATING MTOR" farther operation of this motor we are using readymade in two wheeler engine to which a power magnet connect and on the other hand opposite to permanent magnet a coil (electromagnetic) and magnetic switch fitted here for operation of motor i.e. for movement of motor of inner and other side of two wheeler engine were using magnetic attraction and repulsion principle and by use of electromagnetic coil and magnetic switch. A reciprocating electric motor uses an alternating magnetic field to move its armature back and forth, rather than circularly as in a conventional electric motor. A single field coil may be placed at one end of armature's possible movement, or field may be used at each end.

2. WORKING

The armature may be a permanent magnet, in which case the coil or coils can exert both repulsive and attractive force on the armature. In this case the coil they will be wound and connected so that their like poles face each other, so that when (for example) the poles facing the armature are both negative, one pole will attract the armature's south pole while the other will repel its north pole. When the armature reaches the extreme of its movement, polarity to the coils is reversed.

The armature may instead be made of ferromagnetic material, as in an electromagnetic. In this case the current in the coils will alternate between on and off, rather than between polarities. A signal-coil motor with a non-magnetic armature would require a spring or some other "interrupt" cycle. An "interrupter" -style electromechanical buzzer operates on this same principle. A dual-coil motor would alternately energize the two coils. Where the motor is adapted to produce rotary motion, the return mechanism consists of a crankshaft and flywheel.

This is extremely simple motor, that demonstration models may be easily constructed for teaching purposes. As a practical motor it has several disadvantages. Magnetic field strength drops off rapidly with increasing distance. In the reciprocating electric motor the distance between armature and field coil must necessarily increase considerably over its minimum value; this reduces the motor's output power and starting force. Vibration is also an issue.

3. CONCLUSIONS

While concluding this report, we feel quite contented at having completed the project assignment well in time. We have enormous practical experiences on the fulfillment of the manufacturing schedules of the working project model. The co-ordinate planning and endeavor on our part served as very useful purpose. It helped us to achieve the preplanned target undoubtedly the joint venture has all the merits of the interest and zeal shown by all of us. The credit goes to the healthy co-ordination of our batch colleagues and mainly our project guide in bringing our a resourceful fulfillment of our assignment prescribed by the board.

After making this innovative system we conclude that this system totally operates on magnetic principle. Therefore no requirement of means this type of system is useful to save natural fuel sources as well as foreign currency. Also the use of system our two-wheeler can be used as an E-bike.

4. REFERENCES

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