

Mechanism for Elimination/Reduction of Dragging Force in Generator V (無阻力發電系統概念 V)

(A Mechanism for elimination of the Drag Force in the generating process by application of physical/electrical compensation mechanism.)

Date :02/04/06

Inventor: Euler Cheung

Background/Development of Idea:

In MEDFG system, we resolve the problem of drag force in the direction of either eliminating or preventing the drag force from happen without interfere the electrical power generating process. Another direction we haven't attempt so far is to compensate the effect of the drag force via a physical or electrical mechanism. If there is a way to 'compensate' the effect of drag force, then from the perspective of the whole generating process the drag force is also effectively neutralized.

Summary & Discussion:

The most critical in any MEDFG system is the device and mechanism to compensate the effect that non-constant drag force has created. The reason that non-uniformity of drag force is demanded is to give time for the compensation mechanism to react against the effect that drag force has created (by producing an opposite effect that drag force has created). For instance, if the effect of drag force is to rotate the object clockwise/anti-clockwise, then the compensate mechanism should react to this effect by producing a restoration force or potentiality for force (tension) acting against this torque. The reaction of the compensation mechanism is calculated to be enough for neutralizing the effect of the drag force (with a time lag). As a consequence there would be some non-uniformity in the pattern of output, but the process as a whole would produce an output relative to the input as though the drag force was never present.

In the instance we just discuss, we could use two springs that is in equilibrium position when no drag force has effected. And when drag force is taking its effect, the equilibrium would be distort and extra kinetic energy enter into the system to restore the balance. The drag force is thus enter into an oscillating system as initialization energy. Thus the drag force instead of acting against the movement of the object experiencing the drag force, it is acting in the process of eliciting kinetic energy from another system to overcompensate its own effect.

One method of implementation could be a spring carrying the object experiencing the drag force in rotation. The effect of drag force would appear as tension in the spring thus the variation of it would become variation of tension. This variation in tension of the spring would cause the spring to oscillate with the frequency equal to the number of variation, supplying extra kinetic energy into the system. Although the extra pattern of oscillation depend on the parameters of the spring and the variation, but the spring would tend to compress when the tension is decrease thus bringing the object forward. Thereby compensating the lose of kinetic energy by the generation of drag force. It is also possible to calculate the optimum pattern of variation of tension to achieve the best effect of relieving individual drag force pattern.

Another method of implementation is by connected the object experience the drag force with another object rotating without the effect of drag force by spring. Thus as the non-dragging object rotate, the object that experience drag force would lag behind the former. As a result tension is building up in the spring, and the tension varies as the pattern of the drag force varies. With the similar reasoning of above

two examples, the tension is enter as initialization energies into an oscillation system which produce extra kinetic energies into neutralized the effect of the drag force.

Generically speaking, the purpose for the design of the whole system is to redirect drag force into an kinetic-energy storage system which will react to change that the drag force created by producing restoration force or potentiality for force to work against the effect which the drag force created, or any mechanical/electrical component that would react to the change caused by the drag force by generate an antagonist effect on the object affected by the drag force.

Claim: The system in its entirety with at least all its essential components each for the purpose stated above and together as a whole for the purpose of reduction/elimination of Dragging force during the Electrical energy generation process without affecting the output of electrical energy.

Related Claims:

Applications:

Non-Dragging Generator

Advantages:

1. The output of electrical energy is no longer relevant to the inputting kinetic energy, thus no upper limit for output.

Technicalities:

1. The relationship between pattern of restoration forces and pattern of stress maybe complicated.
2. The effect of the component(s) providing the restoration force subject to prolong stress.