RECOMMENDATIONS FOR MEASURING THE EFFICIENCY QUOTIENT IN THE TWO-STAGE MECHANICAL OSCILLATOR OF VELJKO MILKOVIC

This document has been written as a response to questions about the paper "Precise Measuring of Input and Output Energy…" by Jovan Bebic (http://www.veljkomilkovic.com/Images/Jovan_Bebic_Precise_input-output_energy_measurement.pdf). During public discussion, questions have frequently been addressed to Mr. Veljko Milkovic (www.veljkomilkovic.com) as to why not calculate input energy of the raised pendulum by using the simple formula for potential energy $Ep = mgh$.

I have also found that this formula is easy to use and recommended it in my previous paper ″Keys of Understanding Gravity Machines of Veljko Milkovic″ (http://www.veljkomilkovic.com/Images/Jovan_Marjanovic_Key_of_Gravity_Machines.pdf).

However, over time, two problems using this simple formula were found:

1) Once the pendulum starts swinging and moving the lever arm up and down, its starting angle (position 1 or position 5 in Fig. 3, see below) will go down each new period. The Pendulum will not be able to move the lever arm until the end of its swing. It will stop moving the lever arm once its starting angle comes close to position 2 or 4, see below. Then it will continue swinging in vain, one hour or more. This means that the pendulum has spent around half of its potential energy on moving the lever arm and the other half as friction loses while swinging in vain. This ratio could be even worse, depending on the oscillator.

2) The second problem is, that each new pendulum period would diminish the amplitude of the lever arm. This would complicate measuring of the output energy by any chosen method.

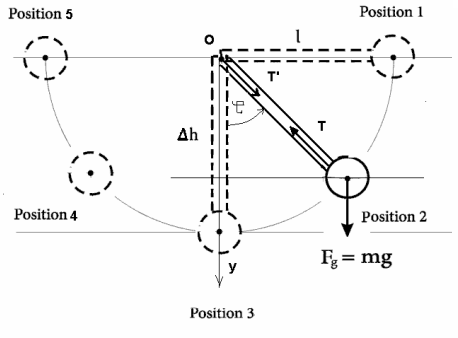

Fig. 3

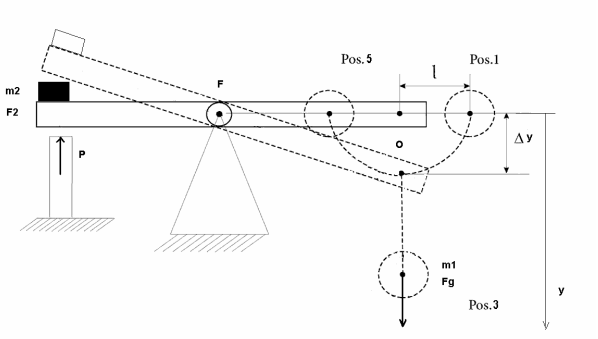

Figure 4.

The method chosen by Jovan Bebic has solved both these problems. That is, to keep adding energy to the pendulum once its starting angle was in position 1 at all times. Thus the amplitude of the lever arm, as well as the output energy on the generator is constant and easy to measure.

Note that using this method, energy spent on raising the pendulum to position 1 has been disregarded. This will not corrupt quotient calculation, as the goal of measuring was to measure the ratio of invested energy and energy received. If the oscillator is intended for long term usage (and it is) then the initial energy for raising the pendulum up can be easy disregarded. For short term usage it can not.

For short term usage of the oscillator, formula $Ep = mgh$ can be used, but the height of pendulum position 1 or 5 must also be carefully measured, once it stops moving the lever arm. Then height '*h*' in the formula must be calculated as the difference between the two starting positions.

In my previous work, I had explained the problem of the calculation of output energy by measuring the amplitude of the lever arm and using formula for potential energy (http://www.veljkomilkovic.com/Images/Jovan_Marjanovic_Key_of_Gravity_Machines.pdf#page=9). The problem was the variable magnitude of the total force on the lever arm. If amplitude and force can not be measured at the same time (and force must be measured all the time along level arm's path, as it is variable) than calculation of output energy will be wrong.

Because of everything said above, I do recommend the method chosen by Jovan Bebic.

Also, Mr. Veljko Milkovic has always had an opinion that the efficiency of the oscillator is in the fact that it is necessary to invest less energy to keep the pendulum swinging than the energy received from the lever arm. Using a formula for potential energy would be the same as measuring the efficiency of an engine before it reached its working temperature. But, because I did not do any measuring I can not really comment on this opinion.

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