

ACADEMY OF SCIENCES, CULTURES AND ARTS OF VOJVODINA Zmaj Jovina 14, 21000 Novi Sad, Serbia Phone/fax: +381 21 472 51 16, +381 21 424 733 e-mail: akademija.nauka@gmail.com Date: March 04, 2014 Number: 18/2014

Veljko Mikovic Research & Development Center Bulevar cara Lazara 56 21000 Novi Sad, Serbia

OPINION ON THE MODEL OF A TWO-STAGE PENDULUM DRIVING A PUMP

The group of collaborators, who helped Veljko Milkovic in the realization of his patented idea of a two-stage mechanical pendulum configured to drive a pump, have created a model of this mechanism. This is described in detail in Veljko Milkovic's book "*Gravitational Machines: From Leonardo da Vinci to the Latest Discoveries*", Novi Sad: VEMIRC, 2013.

The movement of the physical pendulum is transmitted to the piston pump, by a lever that causes the piston of the pump to move. This mechanical transmitter of power and movement uses the change of kinetic energy in order to achieve mechanical work. Namely, the pendulum is removed from the equilibrium position, and is left to oscillate freely, thus transmitting the movement to the pump through the lever.

Due to the action of resistance forces, the oscillations are damped and reduced. When these oscillations reach their minimal value there is insufficient energy to overcome all the resistance forces and to perform the required work; it then becomes necessary to add a new impulse. At the present time there is still a problem with the control and management of the oscillations, as well as the drive, that has not been solved. In order for the prototype to be completed, further effort is necessary – scientific as well as financial.

Considering that the construction of the device is very simple, but still very efficient in performing the necessary work, there is a need for it to be finalized and improved with adequate driving and managing systems. Only then it will be possible to show the advantages of this model in comparison to common ones, and to determine the quotient of the efficiency.

Novi Sad, Serbia	Prof. Lidija Cveticanin, Ph.D.
March 04, 2014	
	Academician Prof. Milorad Miloradov. Ph.D.