Wind-Generator with Rotating Sails

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ABSTRACT

Present paper studies the motion of windwheel with arbitrary number of rotating sails in the air flow. The wind wheel together with plates and the plates separately can rotate around their rotation axes. Is supposed, that from the rotation axes of sails to the rotation axis of the model such transmission exists, which guarantees the plates angular velocity two times less of the angular velocity of the model. The sails are loaded by air flow pressure. It was found, that under considered loading the angular velocity of windwheel increases monotonously and quickly reaches the small oscillation near constant value.

Keywords: THEORETICAL MECHANICS, DYNAMICS OF SYSTEM OF A RIGID BODIES, ELECTRIC GENERATOR DRIVERS

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