

---

# Investigation of energy characteristics of the hydraulic drive with throttle control

© V.N. Pilgunov

Bauman Moscow State Technical University, Moscow, 105005, Russia

*Techniques to control output link velocity of a reciprocal drive are considered. An analysis of the primary and secondary regulation is carried out. A comparative evaluation of friction force in hydraulic cylinder depending on load velocity of piston for direct and backward stroke is given. Energy efficiency of primary and secondary regulation is given via comparison of pump power and hydraulic drive efficiency.*

**Keywords:** *hydraulic drive, throttle control, primary regulation, secondary regulation, direct stroke, backward stroke.*

**Pilgunov V.N.** (b. 1941) graduated from Bauman Moscow Higher Technical School in 1964. Ph. D., Assoc. Professor of the Hydromechanics, Hydraulic Machines and Hydraulopneumatics Department of Bauman Moscow State Technical University. Author of more than 60 publications in the field of fluid mechanics and hydraulopneumatics automation. e-mail: vnp41@yandex.ru