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SUBSTANTIATION OF ENERGY-SAVING TEMPERATURE REGIME OF HYDRAULIC CONSTRUCTION MACHINES

The research proved that rational (by the criterion of useful maximum power) value of temperature (viscosity) of the working liquid depends on technical condition of the pump. The biggest useful power can be achieved by optimization of the ratio of pressure losses and internal leakage in hydraulic drive components to the power consumption of the cooling system in order to provide rational temperature of the working liquid. Using rational temperature mode is a reasonable and unused reserve of energy saving and increasing efficiency of running hydraulic drives of mobile machines.

Keywords: *construction machine, hydraulic drive, energy saving, useful power, rational temperature regime.*