USING THE LAGRANGE EQUATIONS IN THE BRAKING DYNAMICS OF WHEELED TRACTORS

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Abstract: The paper devises a mathematical model to calculate the braking parameters of wheeled tractors by using Lagrange equations. This mathematical model can be used to graphically trace the evolution in time of the following parameters: braking acceleration, speed during braking and distance covered by tractor during braking. There are presented applications of this method for 5 values of the adhesion coefficient and for two values of the initial braking speed (speed prior to braking) for a tractor with a power of 52 kW.

Key words: tractor, braking, braking performance.

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