

PARTICULARITIES OF THE DYNAMIC STABILITY OF FORK LIFT TRUCKS

Simion POPESCU¹

Abstract: *The paper presents the equivalent dynamical model of the fork lift truck, specifying the exterior forces acting in the most difficult work situations: descending on a slope braking of the vehicle in translatory motion and acceleration of the fork while lifting the load. Based on the equivalent dynamical model, are elaborated the mathematical models describing the dynamical behaviour of the fork lift truck during moving or working. These models deliver the criteria for the overturning stability. By computer simulation of the mathematical models the longitudinal stability of the forklift truck is analysed with application for a constructive model of fork lift truck.*

Key words: *road vehicle; forklift; dynamical model; mathematical model.*

¹ Dept. of Food and Tourism, Transilvania University of Braşov.