Summary

The big application in various fields of the industry was received by the shaking conveyors applied to transportation of hot, poisonous, chemical aggressive cargoes by the supplement of complete tightness of their relocation, and also for transportation of the metallic cuttings damped with emulsion and oil, hot earth which has been beaten out from casting forms, small casting, foundry fusion mixture, etc. The shaking conveyor represents the chase hanged or supported to the fixed section. The chase commits oscillating motions hereupon the cargo which is in the chase, migrates concerning to the chase. The nature of the flow and its parameters are determined by the nature of the oscillating committed by the chase. Shaking conveyors on the conditions of the chase flow and nature of cargo movement are subdivided on inertial (with variable and constant stress of cargo to the chase) in which cargo under the influence of inertia force glides on the chase, and on vibrating in which cargo tears off the chase and migrates along the chase. The vibrating conveyors are widely applied owing to a number of advantages in these latter days. The questions of the kinematic and dynamic study of the vibrating feeder intended for dosing of the fusion mixture loading of the melting furnaces of foundry production are considered in the presented work. The principle of operation of the vibrating conveyor is described, and it is devoted the kinematic analysis of the action. The differential equation of the link move of the reduction of the vibrating conveyor is considered in the difference method (the approximate method) solutions of the equation of move of the vibrating conveyor is resulted. It is devoted to the analysis of the equations solutions of conveyor move. Here tables of the results and relocation drawing and velocity of the leading link depending on time are resulted.