

Analysis of part jamming in a feeder of automatic machines

Abstract

Purpose - The purpose of this paper is to present an analysis and practical study of part jamming in the feeder of an automatic machine. Design/methodology/approach - The reliability of the feeder is derived by the probability and reliability theories that consider jamming of the part in a system feeder machine. Findings - The part jamming in the feeder depends on the deviations of the part and the feeder sizes and the part turn in the feeder, on velocity of part motion, and length of motion. Practical implications - Derived the methodology for calculating reliability of feeders. Originality/value - Originality is application of the probability and reliability theories for calculation of feeder's failing and connection with the machines work time.