

Kushnir, O. O.

The first failure of a highly reliable system of two elevators. (English. Ukrainian original)

Zbl 0958.60084

Theory Probab. Math. Stat. 59, 113-120 (1999); translation from Teor. Jmorvirn. Mat. Stat. 59, 110-116 (1998).

Asymptotic of the distribution function of time to failure for a system of two lifts were investigated by *A. N. Korlat, V. N. Kuznetsov, M. M. Novikov* and *A. F. Turbin* ["Semi-Markov models of renewal systems and queueing systems" (1991; Zbl 0778.60064)]. In this paper an analogous limit theorem is proved by another method under more general conditions. A uniform limit theorem is formulated in this case. Upper estimates for distribution function of time to failure of a highly reliable system of two lifts are given. Highly reliable systems with protection were investigated by the author [Theory Probab. Math. Stat. 55, 121-128 (1997); translation from Teor. Jmolvirn. Mat. Stat. 55, 117-124 (1996; Zbl 0923.60092)].

Reviewer: *A.V.Swishchuk* (Kyïv)

MSC:

- 60K10 Applications of renewal theory (reliability, demand theory, etc.)
- 90B25 Reliability, availability, maintenance, inspection in operations research
- 60K20 Applications of Markov renewal processes (reliability, queueing networks, etc.)

Cited in 1 Document

Keywords:

upper estimations; two lifts' system; time to failure