

## عنوان مقاله:

Research on Reliability of Rotary Drill machines

## محل انتشار:

اولین کنفرانس ملی فناوریهای معدنکاری ایران (سال: 1391)

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## خلاصه مقاله:

Blasting operation is one of the most expensive stages in mine extraction. Drilling is a first operation in mine blasting. With regard to production continuity, high capacitance rate and investment in open pit mining, accessing the mining machine during mine operation is necessity. Any type of failure in drilling machines, make stop the correlative machines and finally mining operation. Operation of a drilling system is usually evaluated by experiences and engineering judgments which empirical methods. The aim of this paper is to introduce an approach to evaluate reliability of drilling unit in the open pit mine. The method is based upon using the failure rate time to determine the probability of the failure of an active drilling machine and also the repair rate time to determine the probability of repairing the out of work ones. In this paper, after modeling the probability of the failure and the repairing of the drilling machine in Sarcheshme copper mine in Iran as a stochastic process, the probability of replacing each failed drilling machine with a repaired drill is estimated using Markov Chains theory. Finally, the reliability of drilling unite is evaluated

## کلمات کلیدی:

Reliability, Drilling Machine, Stochastic Process, Open Pit Mines

## لینک ثابت مقاله در پایگاه سیویلیکا:

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