

عنوان مقاله:

Condition monitoring and prediction of erosion and destruction of trucks using clustering techniques

محل انتشار:

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خلاصه مقاله:

Oil analysis experiments are one of the tools for detecting and prognosis defaults in mechanical systems that save economies and prevent breakdowns. The interpretation of oil analysis results is a specialized process and varies in some equipment and machinery. In this paper, the results of the analysis of motor oil of Benz trucks have been studied using the k-means clustering technique. Based on clustering results, data is labeled and appropriate recommendations are provided to truck owners. One of the most effective methods for detecting abnormal erosion of equipment and mechanical systems is the use of oil analysis. This leads to high economic savings, since direct visits generally require demodulation and high costs, and even demounting itself will increase the damage. In this research, the erosion of truck motors has been studied with respect to viscosity, silicon, PQ and erosion parameters such as iron, aluminum, lead, copper, tin and chromium. The findings of the research indicate clusters of the status of different elements that can identify various defects.

کلمات کلیدی:

;Oil Analysis, Failure Prediction, Clustering, Preventive Maintenance, Condition Monitoring

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