



Damage diagnostic of ball Bearing using vibration analysis

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Abstract.

Maintenance of any machinery is very important in view of downtime of machinery. The bearing sector is one of the examples without which not single rotating machinery work, Our work is devoted first to a study of static behavior by determining the stress, strain and displacement, then dynamic behavior by determining the first four natural frequencies. Secondly the dynamic analysis of the Bearing with defect as a function of crack size and location. Finally, the analysis of the results obtained in terms of residual parameters, allow us to draw a roadmap for the diagnosis and maintenance of bearings.

Keywords:

Ball Bearing, frequency, cracking, diagnosis, fatigue life