



SLT 09 – Vibration Analysis of Rolling Element Bearings

Ver 1.1

Topics Covered

Basics of Vibration – Bearing vibration, variable compliance vibration – Geometrical imperfections and SEE (Spectral Emitted Energy) – Random Ultrasonic frequencies, Natural frequencies of bearing components – Spike Energy Measurements, Rotational Defect frequencies – Case Studies - Do's and Don'ts – Practical Tips – Exercise.

The significance

Rolling element bearings are designed to have a long and useful life. Assuming the application is correct to begin with, maximizing longevity means bearings must be properly installed, lubricated and maintained. Poor operating environments, particularly moist or contaminated areas and improper handling practices invite premature Bearing failure. Condition monitoring of rolling element Bearings using Vibration Analysis can prevent majority of problems and failures. This SLT gives a never before in-depth overview of vibration analysis to find out the exact problems of bearing during operation, methods of reducing in the stoppage of machinery and methods of increasing the life of machine/ bearing.