



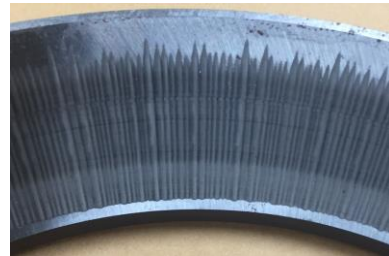
Issue 8: Bud's Take on EASA Accreditation and Bearing Analysis I

Most of us have all heard of Ford Q1 and ISO 9001. Some of us have heard of TS16949 and ISO14001. In quick summary these are all quality management systems (QMS.) The objective of these systems is to develop a method to check processes used in an operation to determine reliability, repeatability and to determine any possible improvements or shortcomings.

The before mentioned QMS were developed for the automotive industry. ISO 9001 is often manipulated to work in other industries. The new EASA Accreditation Program incorporates many of the ISO9001 requirements and methods.



Picture 1: Vibration or Fluting?



Picture 2: Vibration or Fluting?

At this point you may be asking, "What does this have to do with bearing analysis?"

The EASA Accreditation Program was written with a specific focus on the best practices in electric motor repair. According to the IEEE (Institute of Electrical and Electronics Engineers) over 50% of motor failures are bearing related. The high percentage of failures due to the bearings resulted in the requirement to visually inspect bearings for failure mode. The EASA program specifically calls out fretting, fluting, frosting, scoring, or other damage.

This task can't be taken lightly. If the failure mode is ignored, the failure will occur again. This is an extremely difficult task. In many cases the obvious damage is secondary and masks the root cause.

I have spent more than 15 years reviewing and performing bearing failure analysis, and to this day I still find unique failures that force me to go back to the books.



"KNOWLEDGE THROUGH EXPERIENCE"