eolotec
bearing technology

Premesy – Preload Measurement System

The first preload measurement system for bearing assembly and continuous condition monitoring.

Benefits of Premesy

- Verification of calculations and assembly process
- Precise adjustment of bearing preload
- Quality assurance by tracking of assembly
- Monitoring of temperature influence on bearing preload during prototype period
- Condition monitoring of bearing preload
- Measuring of preload losses due to wear or setting
- System is adopted to customers' needs

Significant increase in reliability of the bearing system and the whole application!

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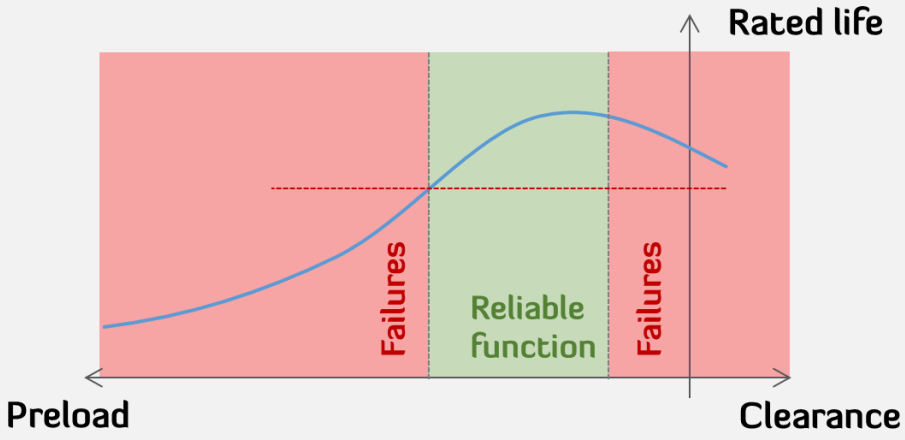
Premesy – Preload Measurement System

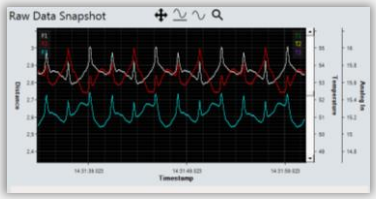
Why is it important to adjust and know exactly the real bearing preload?

Bearing preload is one of the most important parameters in bearing systems. On one hand, if the preload is too high, the rated life of the main bearing unit decreases significantly (failures due to fatigue) and in extreme cases the bearings can overheat. On the other hand, if the preload is too low, the smooth kinematic behavior of the rolling elements can be interrupted which will lead to premature failures such as wear, false brinelling or fatigue damage.



How does Premesy work?

Premesy is an indirect measurement system of bearing preload. Bearing load causes deflections inside the bearing system, which are measured by 3 inductive distance sensors. The sensors are equally distributed over 360° circumference. The relationship between deflection and bearing preload is calculated by FEM simulation in advance and is used for further evaluation.



Premesy applications:

- Determine bearing preload during assembly
- Prototype measurements on turbine
- Condition monitoring of bearing system preload

Do you want to know more about the Premesy system?
Please contact us for any further information.

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