EXERCISES

Wear



1. Which components of a rolling bearing can suffer from wear?

- a) Outer ring
- b) Inner ring
- c) Rolling elements
- d) Generally, only the rings suffer from wear

2. How can you recognise worn surfaces?

- a) They are very smooth
- b) Scratches
- c) Increased roughness
- d) Blackening

3. Why does wear occur with insufficient lubrication?

- a) Increased friction
- b) Overloading
- c) External vibrations
- d) Increased vibrations

4. What operating conditions lead to worn components?

- a) External vibrations
- b) Overloading
- c) Incorrectly selected viscosity
- d) Excessive load fluctuations

5. Which assembly errors can lead to increased wear?

- a) Wrong choice of fit
- b) Chamfering
- c) Improper fastening
- d) Excessive load fluctuations

6. What are the characteristics of abrasive and adhesive wear?

- a) Adhesive wear occurs with the presence of hard particles
- b) With abrasive wear, the surface may appear matt or polished
- c) In abrasive wear, material is transferred between two surfaces
- d) Adhesive wear can lead to the formation of cracks

7. Which terms can be used in relation to adhesive wear?

- a) Seizing
- b) Lubrication
- c) Matting
- d) Smearing

8. Which large bearings are susceptible to adhesive wear at low loads?

- a) Spherical roller bearing
- b) Angular contact ball bearing
- c) Cylindrical roller bearing
- d) Tapered roller bearing



Wear



9. Which of the following measures are suitable for the prevention of wear?

- a) Correct lubricant quantity
- b) Increased load
- c) Ensuring appropriate misalignment
- d) Selecting a floating bearing