EXERCISES

Structure and function

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1. What are the main components of a rolling bearing?
a) Groove
b) Seal
c) Balls
d) Rolling elements

2. What can the inner ring of a rolling bearing be mounted on?
a) Axle
b) Outer ring
c) Seal
d) Shaft

3. In which shapes do rolling elements appear?
a) Ball shapes
b) Cube shapes
c) Roller shapes
d) Cuboid shapes

4. Where is the raceway located?
a) On the outside of the inner ring and the outside of the outer ring
b) On the outer ring
c) On the inside of the inner ring
d) On the inside of the outer ring

5. Which statements apply to the structure of a rolling bearing?
a) Rolling bearings must be lubricated with grease or oil
b) The cage in the rolling bearing serves to ensure that the rolling elements touch each other
c) Cages are always made of plastic so that the bearing is particularly light
d) The rolling elements move on the raceway surface

6. What is the best way to minimise friction on the bearing raceway?
a) Reduce the weight that the bearing has to carry
b) Pay attention to the cage material
c) Install rolling elements that are as small as possible
d) Apply the correct amount and type of lubrication to the bearing raceways

7. Which statements apply to axial and radial forces?
a) The contact angle is higher for radial bearings than for axial bearings
b) With axial loads, the force runs vertically along the axis
c) The terms „axial“ and „radial“ are related to the words „axis“ and „radius“
d) The contact angle for radial bearings is between 0° and 45°

Solution: 1. d; 2. a, d; 3. a, c; 4. c, d; 5. a, d; 6. d; 7. c, d