MECHANICAL ENGINEERING – BALL BEARINGS

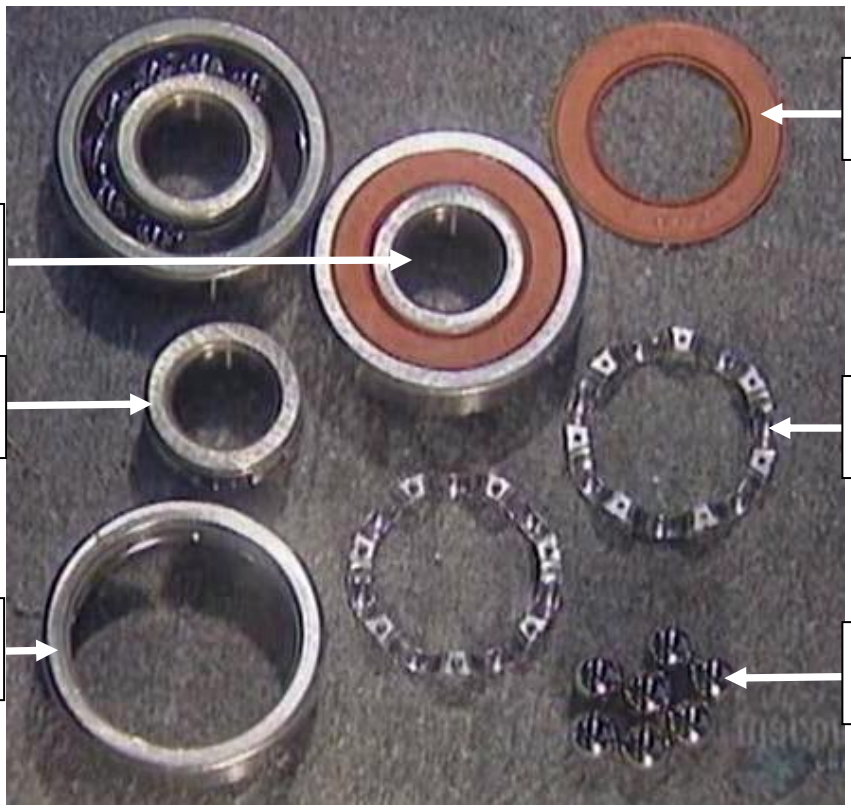
1) Why do machine parts need ball bearings?

……

2) Can you quote products containing ball bearings?

……

3) Write the name of the bearing parts:



A bearing fully assembled

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……

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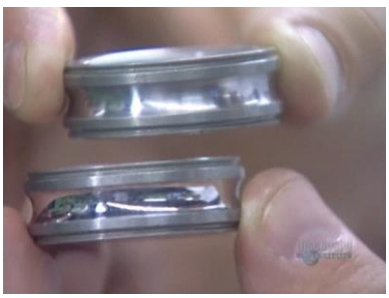
4) What is the name of the surfaces where the balls are rolling?

……

Why do race ways are grinded and polished until you can see reflexion?

……



5) Why do we test new ball bearings?

……

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6) Which kind of lubricant is used in ball bearing?

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7) Why do we add a rubber seal?

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8) What can you read on a ball bearing ring?

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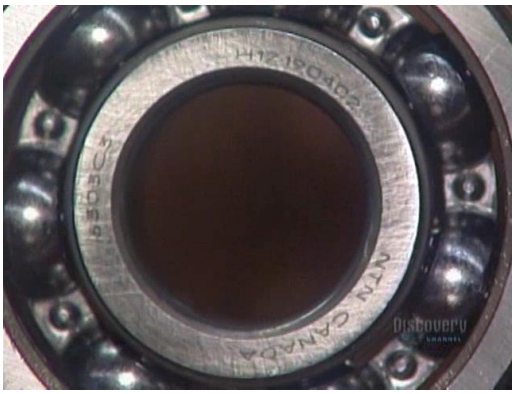

Vocabulary

ball bearing	/ˈbeə.rɪŋ/ US /ˈber.ɪŋ/	a small metal ball or several of these arranged in a ring to make particular parts of a machine move more easily	roulement à billes
steel ball	/stiːl/ /bɔːl/ US /bɑːl/	noun a strong metal which is a mixture of iron and carbon, and which is used for making things which need a strong structure, especially vehicles and buildings:	bille d'acier
Inner ring			Bague intérieure
Outer ring			Bague extérieur
Ball cage			Cage à billes
Rubber seal	/ˈrʌb.əʳ/ US /-ɚ/ /siːl/	noun **1** something fixed around the edge of an opening to prevent liquid or gas flowing through it	joint en caoutchouc
The grinder	/ˈgraɪn.dəʳ/ US /-dɚ/	a machine used to rub or press something until it becomes a powder	La rectifieuse

Types of bearings

There are many types of rolling-element bearings, each tuned for a specific kind of load and with specific advantages and disadvantages.

For example: ***A ball bearing, A roller bearing, A needle roller bearing, Tapered roller bearing, Spherical roller bearings, Thrust bearing***
Put the good name above each image

<table>
<tr><td>.....

spheres</td><td>.....

cylinders of slightly greater length than diameter</td><td>.....
.....
very long and thin cylinders</td><td>.....
.....
conical rollers that run on conical races</td></tr>
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rollers that are thicker in the middle and thinner at the ends</td><td>.....
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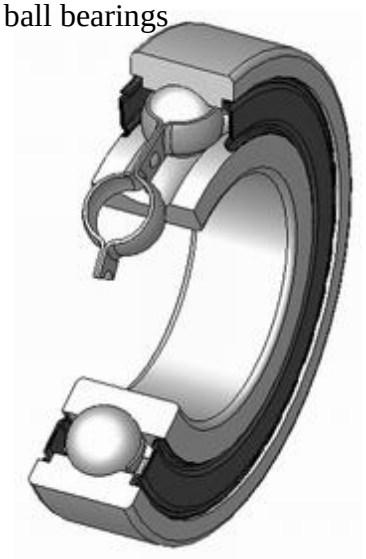
used to support axial loads</td><td colspan="2" rowspan="2">Caged radial ball bearings
  </td></tr>
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