

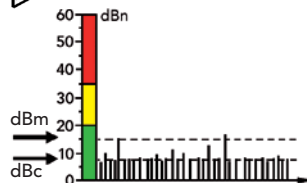
BearingChecker

Evaluation Guide

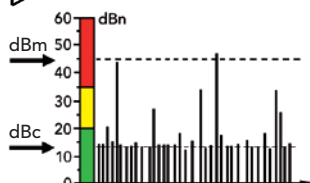


Overview

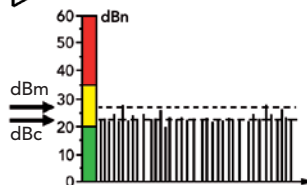
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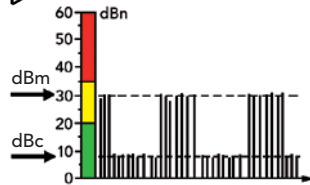
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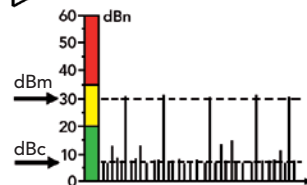
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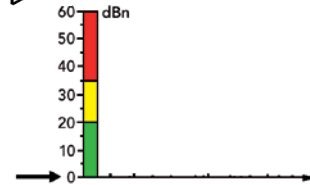
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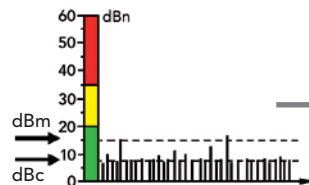
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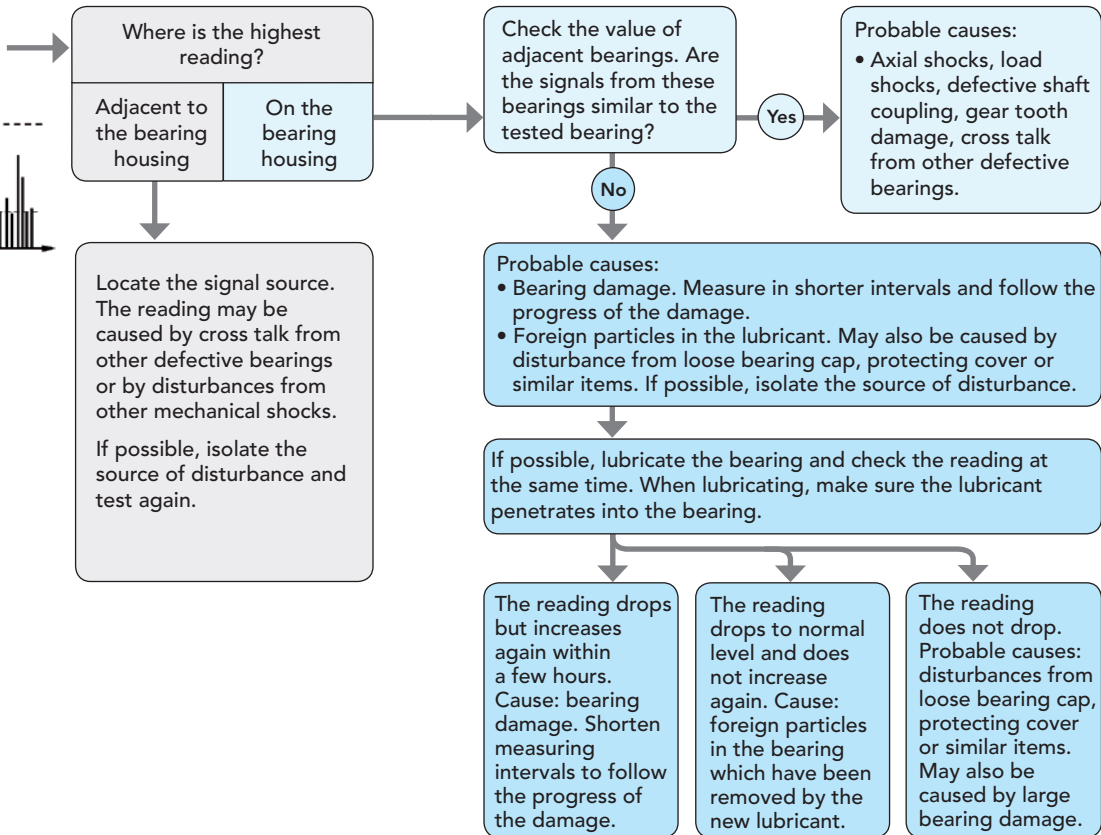
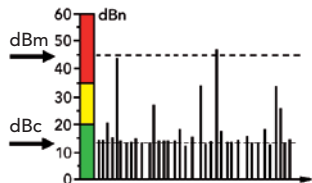


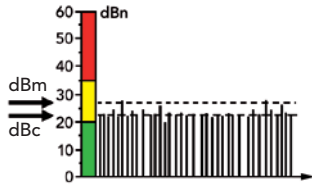
1



Good bearing condition, installation and lubrication.

Shock pulse diagram (1) shows a pattern from a bearing in good condition: carpet value less than 10 dB_N and maximum value less than 20 dB_N. There is no point in evaluating such a reading. Interference, if there is any, cannot have a significant influence on the result.





Where is the highest reading?

Adjacent to the bearing housing

On the bearing housing

Newly installed bearing?

No

Yes

Locate the signal source. The reading may be caused by interference from other defective bearings, cavitation in pumps or mechanical rubbing. If possible, isolate the source of disturbance and test again.

Probable causes:

- Insufficient lubrication, possibly in combination with minor bearing damage.
- Cavitation in pumps
- Mechanical rubbing
- Gear tooth damage

If possible, lubricate the bearing and check the reading at the same time. When lubricating, make sure the lubricant penetrates into the bearing.

Probable causes:

- Incorrect bearing installation
- Insufficient bearing lubrication, possibly in combination with minor bearing damage
- Cavitation in pumps
- Mechanical rubbing
- Gear tooth damage

If possible, lubricate the bearing and check the reading at the same time.

When lubricating, make sure the lubricant penetrates into the bearing.

The reading drops but the dBm increases again within a few hours. Probable causes: insufficient lubrication which may have caused minor bearing damage.

The reading drops to normal level and does not increase again. Cause: insufficient lubrication.

The reading does not drop. Probable causes:

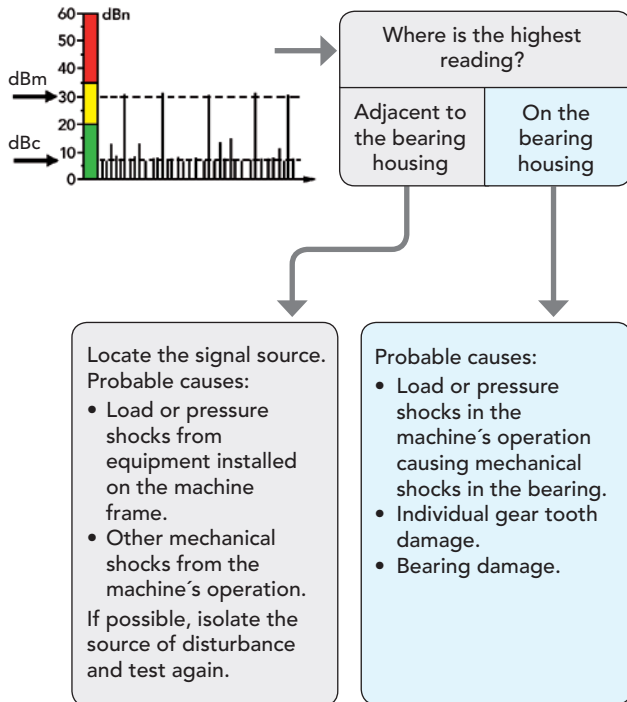
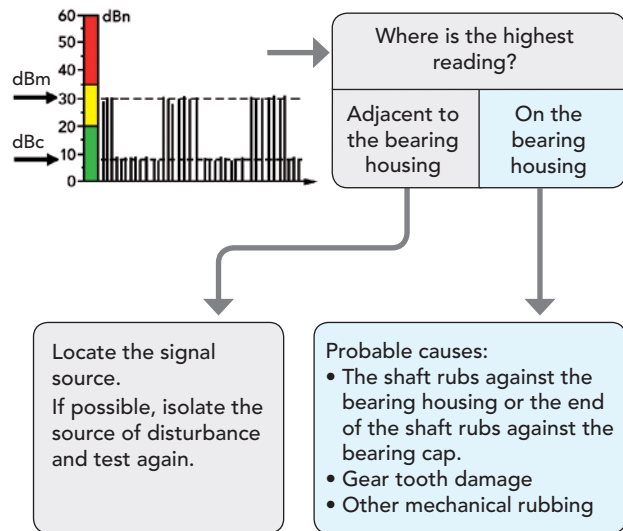
- Incorrect bearing installation
- Cavitation in pumps
- Mechanical rubbing
- Gear tooth damage

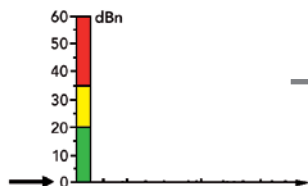
The reading drops but the max. value increases again within a few hours. Probable causes: insufficient lubrication which may have caused minor bearing damage.

The reading drops to normal level and does not increase again. Cause: insufficient lubrication.

The reading does not drop. Probable causes:

- Cavitation in pumps
- Mechanical rubbing
- Gear tooth damage





No signal or only a very low value can be obtained.

- Are the instrument and the transducer working ok?
- Is the chosen measuring point correct?
- Are the adapter and/or the transducer correctly installed?
- Is the machine in operation?

Have normal values previously been observed?
NOTE: Be suspicious when sudden drastic changes in readings occur.

Yes

Probable causes:

- The bearing's inner ring is slipping on the shaft.
- The bearing's outer ring is slipping in the housing.
- The reading has been taken just after lubricating a grease lubricated bearing.

SPM Instrument AB

Box 504 • SE-645 25 Strängnäs • Sweden
Tel +46 152 225 00 • Fax +46 152 15075
info@spminstrument.se • www.bearingchecker.com

