White Paper

Bearing Irregularities, Possible Causes & Measures in a Nutshell!!
<table>
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<th>Irregularities</th>
<th>Possible Causes</th>
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| **Noise** | • Abnormal load  
• Incorrect mounting  
• Insufficient or improper lubricant  
• Contact of rotating parts | • Improve the fit, internal clearances, preload, position of housing shoulder etc  
• Improve the machining accuracy and alignment of shaft and housing accuracy of mounting method  
• Replenish the lubricant or select another lubricant  
• Modify the seal etc |
| **Loud Metallic sound** | • Flaws, corrosions, or scratches on raceways  
• Brinelling  
• Flaking on raceway | • Replace or clean the bearing, improve seals and use clean lubricant  
• Replace the bearing and use care handling bearings  
• Replace the bearing |
| **Irregular sound** | • Excessive clearances  
• Penetration of foreign particles  
• Flaws or flaking on balls | • Improve the fit, clearance and preload  
• Replace or clean the bearing, improve the seal and use clean lubricant  
• Replace bearing |
| **Abnormal Temperature Rise** | • Excessive amount of lubricant  
• Insufficient or improper lubricant  
• Abnormal load  
• Incorrect mounting  
• Creep on fitted surface, excessive seal friction | • Reduce amount of lubrication select stiffer grease  
• Replenish lubricant or select a better one  
• Improve the fit, internal clearance, preload, position of housing shoulder.  
• Improve the machining accuracy and alignment of shaft and housing accuracy of mounting method  
• Correct the seal, replace the bearing, correct the fitting or mounting. |
| **Vibration (Axial run out)** | • Brinelling  
• Flaking  
• Incorrect mounting  
• Penetration of foreign particles | • Replace the bearing and use when handling bearing  
• Replace the bearing  
• Correct the squareness between the shaft and housing shoulder or side of spacer  
• Replace or clean the bearing, improve the seals |
| **Leakage or discoloration of lubricant** | • Too much lubricant, penetration by foreign matter or abrasion chip | • Reduce the amount of lubricant, select stiffer grease. Replace the bearing lubricant or lubricant. Clean the housing and adjacent parts. |