



Common causes for noisy bearings

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The cause of noise in bearings can be a challenge to determine. Many times bearing noise is blamed on manufacturing defects within the bearing. The probability of manufacturing defects from most major bearing manufacturers is very low. Most manufacturers typically have noise or vibration testing built into their manufacturing process to eliminate defects. Knowing some of the more common causes for noise can help with the detective work needed to determine the cause(s).

General Cause	Specific Causes
Manufacturing Defects	Damaged rolling elements or raceways
Lubrication Related	Noise characteristics of grease
	Inadequate grease level
	Impurities in grease
	Wrong grease
Contamination	Foreign particles in grease
	Corrosive agents entering the bearing
Mounting Conditions	Housing - out of round, undersized
	Failure to clean mounting surfaces
	Rotating shields or seals rubbing stationary parts
	Improper shaft or housing fits
	Bearing raceway or rolling elements damaged during mounting
	Bearing cocked during mounting
Application Related	Housing pounded out by bearing
	Unbalanced load
	Harmonic frequency of bearing components
	Cage noise or vibration - steel vs plastic retainer
	Vibration of bearing while stationary

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