

TECHNI/TIPS

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LEADERS IN LUBRICANTS

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GREASE TROUBLESHOOTING

Application	Symptom	Possible Causes	Check For
BEARINGS - Assumes that correct bearings are in service.			
Rolling Contact	Noise	Condition of Bearing	Worn or brinelled bearing.
	High Bearing Temperature	Overgreasing	Too frequent application. Bearing packed too full. Excessive grease charged per servicing
		Starvation	Insufficient application frequency.
	Excessive Leakage	Incorrect Product	Incorrect base oil viscosity. Deficient load-carrying ability (EP quality).
Seals		Mechanical damage. Incorrect installation.	
Frequent Bearing Replacement	Overgreasing	Too frequent application and excessive amounts applied.	
		Incorrect Product	Grease too soft for application or softening in service.
	Excessive Wear	Incompatibility of Grease	Admixture of greases.
		High Temperature Misalignment	Load-carrying ability of grease to handle shock loading (EP). Starvation. Contamination, dirt and rust. Normal bearing life exceeded. Grease too stiff, causing channeling. High operating temperature. Correct alignment.
Plain Type	Overheating	Improper Distribution in Bearing	Grease too stiff. Incorrect grooving.
	Excessive Wear	Starvation	Infrequent application. Defective/plugged lubricator.
		Incorrect Grease	Mechanical stability of grease in service. Infrequent application. Defective/plugged lubricator
		Starvation	Inadequate load-carrying ability of grease. Temperature range of grease.
GEARS			
Enclosed	Excessive Leakage	Grease too soft for application	Product penetration.
	Noisy Gearbox	Incompatibility of Grease	Milling down of product. Admixture of grease.
		Lack of Lubrication	Improper lubricant level. Grease too stiff.
	Overheating	Lack of Lubrication	Improper lubricant level. Grease too stiff.
Tooth Breakage	Churning	High grease level. Grease too stiff.	
	Pitting	Not usually lubricant related	While not generally lubricant related, a heavier grease or base oil may retard progression of pitting
Excessive Wear & Scoring		Mostly improper design and fatigue related	Improper lubricant level.
		Lack of lubrication	Consistency, EP quality and base oil viscosity.
		Incorrect product	Lubricant contamination.
		Abrasive wear	Not lubricant related.
		Alignment	

Application	Symptom	Possible Causes	Check For
Open	Gear Wear	Lack of lubrication Abrasive wear	Incorrect lubricant. Incorrect application frequency. Contamination with abrasive.
	Buildup on gears or in roots	Excessive lubricant	Frequency of lubrication. Proper type of lubricant. Airborne dirt.
Sliding	Non-uniform motion (slip stick)	Lack of lubrication	Frequency of application. Proper type of EP qualities or adhesiveness.
U-joints	Excessive wear	Insufficient lubrication	Lubricant EP and high temperature quality. Application frequency. Slumpability of grease.
Electric Motors	Electric malfunction high temperatures	Excessive grease leakage	Lubrication frequency and quantity applied.
Couplings	Dry coupling	Excessive grease leakage	Damaged seals. Consistency of grease. Keyway openings. Initial fill.
	Hardened grease Excessive wear	Centrifugal separation Incorrect grease	Proper grease quality. EP qualities of product.
Centralized	No grease to points of application	Depleted reservoir Pump malfunction Plugged metering blocks Airbound system	Fill with proper lubricant Air/electrical supply. Plugging and proper grease. Bleed as required.
	High system pressure	Plugged metering devices Malfunctioning relief valve Grease consistency too hard	Check and clean. Check and repair. Product recommendation.
Wet Applications	Noise-high wear	Lack of lubrication Washout of lubricant	Application frequency. Type of grease in service. Extended application frequency. Grease consistency. Incorrect thickener type.
	Excessive corrosion	Incorrect lubricant selection	Product's ability to absorb water. Inability to maintain structure. Rust inhibitor additives.
High Temperature	Noise-high wear Excessive leakage	Lack of lubrication Improper grease Incompatibility of grease Seals	Application frequency. Type of grease in service. Thickener type. Base oil viscosity. Consistency of grease. Admixture of greases. Not lubricant related (unless grease and seal are incompatible).
	Grease hardening	Improper grease Infrequent relubrication	Oxidation stability of grease. Thickener type. Frequency of relubrication.
Low Temperature	Component motion restricted	Incorrect grease	Grease with low torque quality. Base oil viscosity.
	Difficult application	Incorrect grease	Pumpability qualities. Base oil viscosity. Consistency.
	Freeze-up	Water in system	Water contamination. Lubricant's ability to absorb/shed water.

Note: Above excerpts provided by NLGI-Lubricating Grease Guide, published by National Lubricant Grease Institute, Kansas City, Missouri.



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