

Table 1 Matrix of Damage

Name of damage		Damage characteristics											
		Fatigue	Wear		Corrosion			Electric corrosion	Plastic deformation		Destruction (crack)		Seizure
Probable cause		Flaking Pitching	Abrosive Wear	Pseudo burninell pressure	Moisture corrosion	Fratching (frictional corrosion)	Stress corrosion cracking	Electric Froutings	Buninel pressure	Pressure due to foreign matter	Forced destruction	Fatigue failure	
Lubrication	Insufficient lubrication	●	●	●	●	●				●		●	●
	Too much lubrication												
	Improper viscosity	●	●	●		●							●
	Poor quality	●	●		●								●
	Pollution	●	●		●					●			●
Driving conditions	Excessive speed	●	●			●							●
	Excessive load	●	●	●		●			●		●	●	●
	Repeated fracture load	●	●						●		●	●	
	Vibration	●	●	●		●					●	●	
	Energized	●						●					
Embedded	Poor insulation	●						●					
	Poor embedded	●							●		●		
	Bad baking temperature		●										●
	Misalignment	●	●									●	●
	Poor preload	●	●						●		●	●	●
	Impact		●						●		●		
	Poor fixation	●	●			●					●		●
	Poor mounting surface	●	●			●	●				●		
	Poor fit	●	●			●							
Design modification	Poor selection of bearings					●	●				●		●
	Faulty peripheral parts					●				●	●		
	Poor storage				●								
Manufacturing	Vibration during transportation					●			●				
	Heat treatment failure	●	●										
	Poor grinding												
	Poor surface finish	●	●										
Material	Poor part accuracy	●	●								●		
	Material tissue defects	●	●								●	●	
	Material combination selection						●						