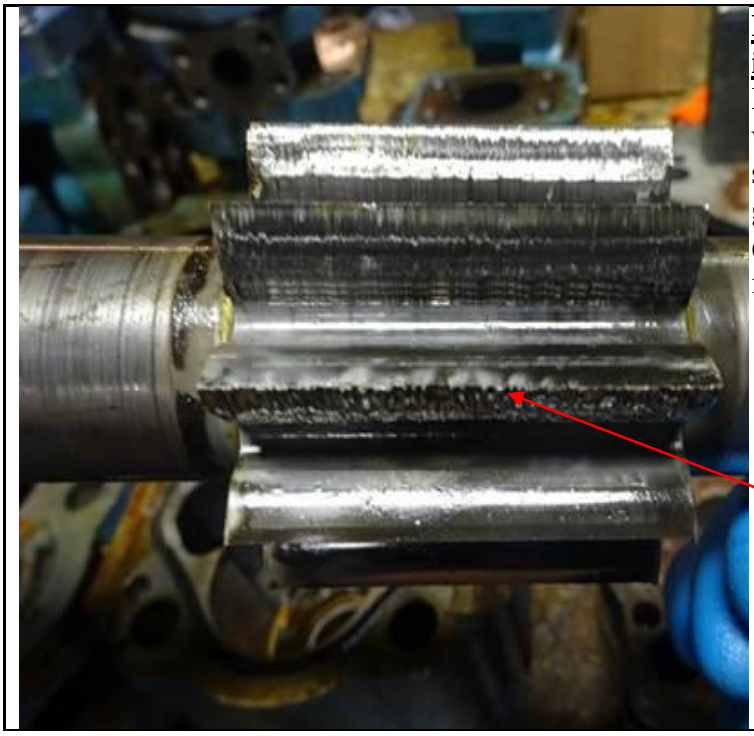
Possible Causes of Failure-
Rotor -Tech Positive Displacement Rotary Gear Pumps

Below is a general cause of failure list. This list is not all encompassing, and only should be used as a general guide. Please note opening a pump in the field will void any possibility of a limited warranty claim. If you have any questions, concerns, or comments please contact Rotor-Tech field service or engineering.

	**Fine Grit/Trash in Glycol** Lack of filtration will cause striations in the gears result in early pump failure.	We recommend 50 -75 Micron Filter elements on the suction side of the pump.

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	**<u>High Heat</u>** Our pumps are rated for fluid Temperatures up to 200 degrees F or a minimum viscosity of 4cp. This is because the viscosity of the glycol at temperatures above 200 degrees drops below what is suitable for our pump. Our pumps rely on the fluid being pumped for lubrication.	We recommend keeping the temperature below 200 °F. Check heat exchanger for any blockage or insure that you have plenty of fluid exchange coming from your contactor.
	**<u>Improper Start-up-</u>** (please see Rotor-Tech start-up procedures)	

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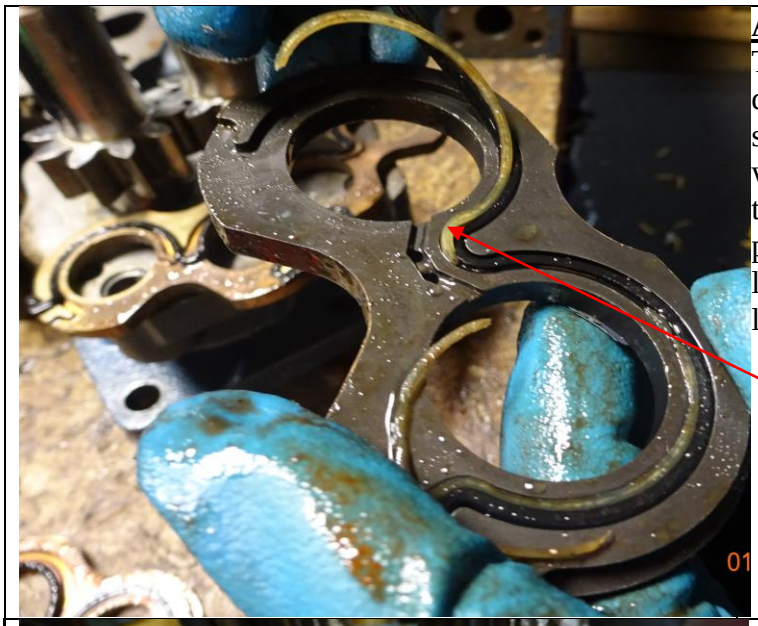
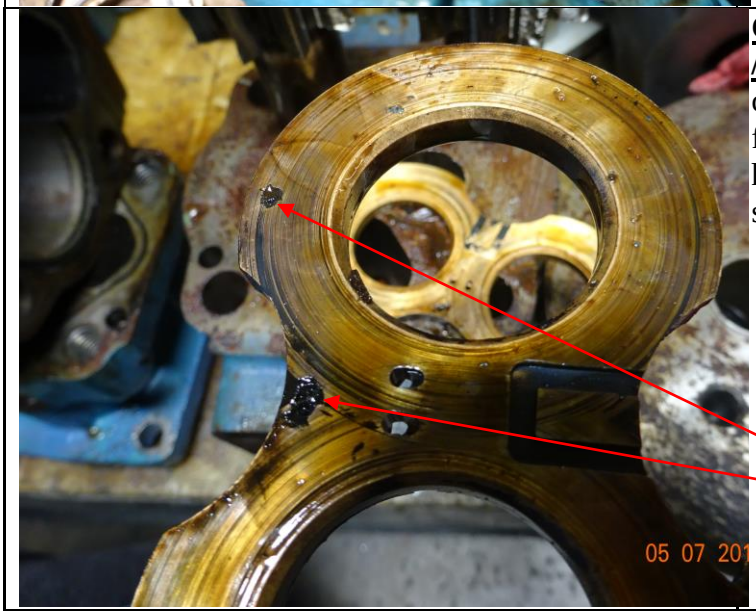
	**<u>Acidic glycol-</u>** This can cause damage to the seals of the pump which can cause the pump to paddle (produce low or no flow) or leak.	Please maintain the PH of the glycol between 7-7.5
	**<u>Cavitation /Implosion-</u>** This can be caused by foaming or not having flooded suction.	Please maintain flooded suction.

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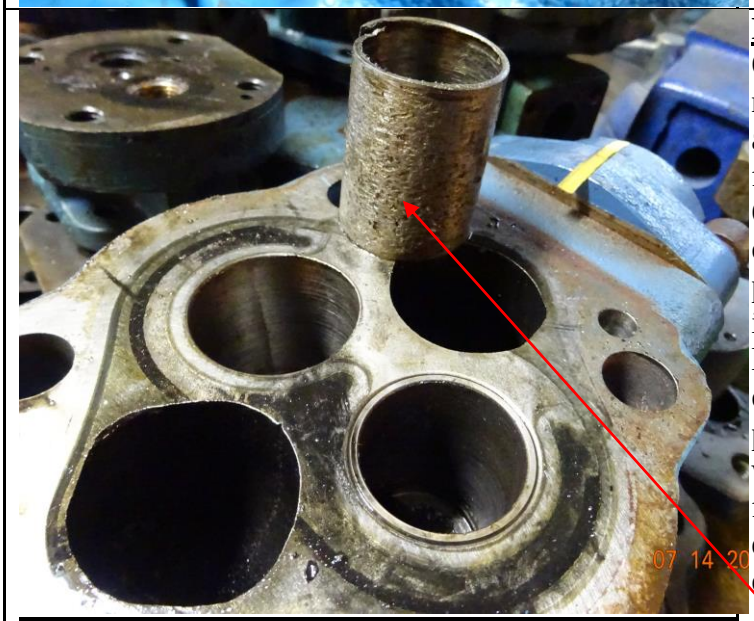
	**<u>Miss-alignment</u>-** Our pumps have very tight clearances. If the hard pipe on the suction or discharge are under stress it can cause alignment issues and uneven wear leading to early pump failure.	We recommend installing flexible hoses with a minimum of 12'' for each 1'' in pipe diameter for both the suction and discharge lines.
	**<u>Pump Ran Dry</u>**- Our pumps are rated for atmospheric flooded suction. Our pumps rely on the fluid being pumped for internal lubrication during operation. If the pump is operated without adequate fluid internal damage will occur.	Please maintain flooded suction.

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