



## โรงไฟฟ้าไตรเอนเนอจี ราชบุรี

- The Machine is Cooling Tower
- The old system is Vibration Switches
- The switches sometimes work, sometimes not.
- The inspection team can't get the real vibration data from the gearbox and also can't analyze the root cause of the gearbox's problem
- The customer contacted us to propose a better vibration protection system which also provide a remote spectrum analysis to analyze the root cause
- We propose SENSONICS model DN2601 plus general vibration sensor with splash proof connector, all systems have to response the low frequency of the Fan Blade



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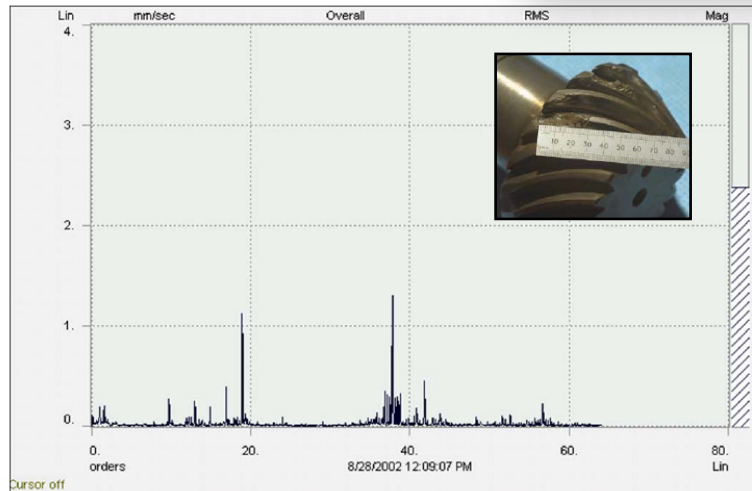
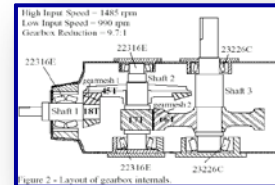
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## Tooth cracked at Bevel Gear in Cooling Tower's Gearbox

### DETAILED SPECTRUM EXCEPTION REPORT

**TRAIN :** TECO  
**MACHINE :** CT Fan  
**DIRECTION :** Axial  
**LOCATION :** Gear Box  
**UNITS :** mm/sec  
**SPEED :** 1500.  
**DATE/TIME :** 8/28/2002 12:09 PM



FREQUENCY	ORDER	AMPLITUDE	SEVERITY	LABEL	DESCRIPTION
1500.	1.695	4.87	Warning	Unbalance Coupling	1 X Motor / Pump
7500.	8.475	3.52	Normal	BPOR	Bearing Outer Race
12000.	13.56	2.91	Critical	Blade Pass Freq.	Blade Frequency
28320.	18.88	3.01	Normal	GMF-1	Gear Mesh Freq.
56640.	37.76	2.05	Normal	GMF-2	Gear Mesh Freq.

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