Abstract

Rotating machinery are machine who change electrical to mechanical(cyclic),this machine are commonly use in manufacturer proces. Machine whose use in this research are interdab 190. There are four pump with 4 different conditions,normal,unbalance,misalignment,bearing defect. Sound are vibrations who can be hear by us, acoustic signal and vibrations signal will be tranform to frequency domain by use of fast fourier transform. From here we searh identical factor who can bridge the use of vibrations signal analysis to acoustic signal. After looking in 3 different fault with acoustic and vibrations approach,there are found some identical factor in both who can bridge them. In bearing defect commonly found frequency with low amplitude in floor of high frequency in x axis. In misalignmnet fault found constanta 0.067 as cross factor in which vibrations analysis can be porting to acoustic analysis. To prove this result, pump with unbalance fault use to validated. With math,frequency which fault happen should be 973,65 but in real plant are 1015,so there are an error 4%

Key word : Rotating machinery,pump,frequency,sound pattern