오더분석을 이용한 대형 수직 펌프의 진동 진단

Diagnosis for Vibration of Large Vertical Centrifugal Pump by Order Tracking Analysis

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ABSTRACT

The condition monitoring of rotating machinery such as turbines, pumps and compressors, determine what repairs are needed to avoid shutdown and disassembly of the machine in an industrial plant. If excessive faults are detected, the machine may be removed form service before it fails. Many diagnosis methods have been developed for use when the machine is running at steady state, the stationary condition. But much information can be gained about a rotor's condition during non-stationary conditions such as run-up and run-down. Order tracking analysis (hereafter called OTA) is a powerful tool for analyzing the condition of a rotating machine when its speed changes over time. Powerful OTA using digital signal processing developed. Using this algorithm, we found out the cause of the abnormal vibration of the pump results from the resonance of the pipe attached by pump.