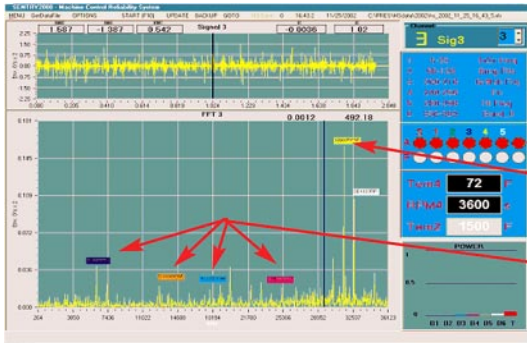


Quality Control Testing
 Detection of Motor/Gearbox problems with the
Sentry System
 integrated condition monitoring system



Bearing Defect

Spectrum and Waveform of motor with bearing defect including Harmonics and excitation of GMF (Gear Mesh Frequency)

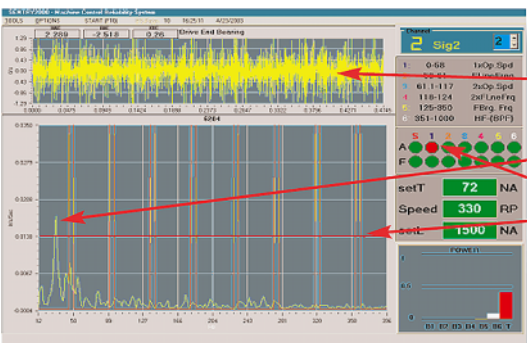
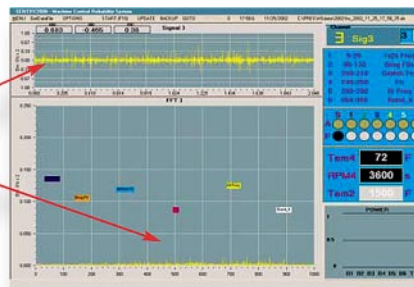
Red indicates in alarm

GMF (Gear Mesh Frequency), 1/2 x5th order. Side bands at 1x or Approx. 1033 RPM

Bearing BPF I Detects 1x, 2x, 3x, & 4x

Good Bearing

Spectrum and Waveform of motor within acceptable range for bearings



Motor

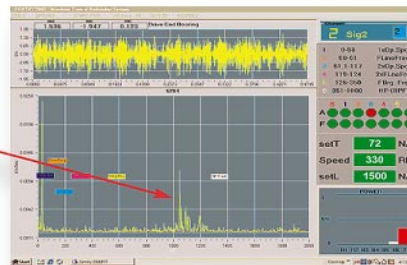
High Motor Waveform Vibration

1st Order bearing Harmonics Motor Knock

NOTE: The vibration peak exceeds specified level and activates an alarm

Motor

Motor with HF Spectrum peak attributed to Rotor bar failure



This facility currently tests every motor/gearbox unit using vibration in order to isolate and repair defective units prior to shipping

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