Oil condition monitoring reduces unexpected failures in engines

RESULTS

- Detect small changes in viscosity in real-time, even as low as .25% fuel dilution
- Avoid bearing damage in between lab analyses
- Incorporate temperature compensation to adjust for normal temperature effects on viscosity readings
- Expand lab testing intervals
- Extend periods between oil changes
- Best technology available for detecting fuel dilution

The VISCOpro 2000 is the only technology that accurately measures all of the most common fuel problems, including fuel dilution, which is difficult for other technologies to detect.

APPLICATION

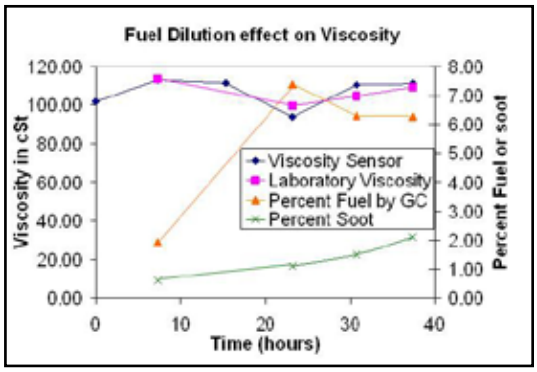
Oil condition monitoring in engines and rotating equipment

CHALLENGE

Engine breakdowns are often caused when the bearings in rotating parts fail. Bearing failures can frequently be traced to viscosity breakdown as a result of fuel dilution, additive oxidation, soot, water, various other contaminants or thermal degradation.

SOLUTION

PAC, with its Cambridge Viscosity VISCOpro 2000 oil condition sensor, monitors the viscosity of the lubricating oil to prevent viscosity breakdown. Because viscosity is an indicator of oil health, real-time, dynamic viscosity measurements and trending can provide an early warning of oil and equipment failures.



By providing data that can be used for immediate intervention, the VISCOpro 2000 helps to prevent serious problems. Typically, maintenance personnel regularly send samples to off-site laboratories for analysis or change the oil on a scheduled basis. The VISCOpro 2000 reduces the amount of laboratory sampling that is necessary, and the continuous online monitoring allows operators to catch a problem with the lubricant before it becomes critical and leads to failure. Also, it allows operators to increase the interval between laboratory checks and lubricant changes.

The VISCOpro 2000 is particularly good at detecting fuel dilution, which is a critical parameter, and difficult to measure with any other technology. The VISCOpro is the only sensor available that can detect all the parameters of fuel problems, like fuel dilution, additive oxidation, soot, and water.

It is a rugged, accurate, and repeatable technology, even in environments with heavy vibration. The motion of the piston monitors the fluid viscosity and keeps the sensor's measurement chamber free of debris, so the sensor doesn't require operator intervention. It includes a temperature detector, allowing the capture of both temperature and viscosity in each measurement.

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