



Lloyd Electric's Newsletter for the industrial Community

MAINTENANCE "MATTERS"

Maintenance Planning and Scheduling
"Cut costs & increase profits".

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Thank You

Thank you once again for the positive response we received from the first four issues of this newsletter.

We would appreciate any comments and ideas to make this newsletter more informative and interesting.

Please contact me at
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**OUR STRENGTH IS
OUR PEOPLE**

Stanley Fringer



Stanley, one of our Driver Sales Representatives, has been servicing his customers in many areas of Virginia and North Carolina for over 10 years. Before joining Lloyd Electric, he was a valued customer for many years.

In the bad "old days" the maintenance department and its technicians were viewed as a "necessary evil." We were the expensive blue collar workers who did nothing but wait in the shop for equipment to fail.

In today's high tech world, that's far from the truth, what with the new tools and technologies such as vibration analysis, infrared thermography, acoustic testing and other preventative maintenance concepts we are busy all the time trying to help the company save time and money by minimizing downtime.

But is that enough? In today's competitive industrial marketplace we in the maintenance arena can be even more profitable by proper Maintenance Planning and Scheduling. We can do more to help the company's profitability by not allowing these hard earned profits to fly out the window by poor planning. In addition

to identifying potential failures we can try to correct them before the failure occurs.

Chris Hykins of International Paper explains Planning and Scheduling as follows: "it is a disciplined approach for utilizing your existing maintenance resources to reduce downtime and minimize the overall production costs. This can be accomplished through:

- Prioritizing work
- Developing the physical steps to complete the work
- Procuring necessary equipment, materials & technologies (this may mean outsourcing some special operations like Vibration analysis & infrared scanning)
- Scheduling the work to be done
- Making sure the work is completed.
- Recording and Filing written documentation for equipment history."

There are many examples of the maintenance department being a "Profit Center" instead of a "Cost Center."

Conclusion: The concepts of an effective planning & scheduling system have been around for many years. The charge today, in this highly competitive industrial market, is to successfully develop a system that will become your company's proactive approach to maintenance today and for the foreseeable future.



An Overview of one of the
Predictive & Preventative

on-site Maintenance
Technologies
available today



Oil And Grease Analysis

Oil and Grease analysis is not only a essential part of a good predictive & preventative maintenance program, it is also a proactive maintenance procedure. It can be used to find and eliminate the root cause of failures.

• All industrial equipment relying on rotating or sliding surfaces for their operation must be lubricated in some way. The lubricant in most equipment is either oil or grease.

• Proper oil and grease analysis coupled with vibration analysis has been proven to be excellent tools for forecasting probable catastrophic failures in all types of mechanical and electrical rotating equipment and thereby saving thousands of dollars in unscheduled expensive downtime.

• Most electric motors have friction bearings of some sort, The most common are ball or roller bearings. These are lubricated with some type of grease. Many bearings are sealed with pre-packed grease while others are not sealed and need fresh grease applied on a regular scheduled basis.

• Many 3600 rpm motors have babbitt bearings. These are lubricated using oil either forced fed oil or with oil rings in an oil reservoir.

Whether you use an off-site lab or a on-site mini lab it is important to get good samples and test for the following

- 1) Abrasive wear particles (dirt and hard particles that damage bearing surfaces)
- 2) Fatigue wear particles (which may indicate mechanical misalignment, improper assembly or imbalance.
- 3) Adhesive wear particles (high load, low viscosity, poor lubrication system.
- 4) Corrosive wear particles (corrosive liquids such as water or chemicals used in the production process.



"Do you have any electrical maintenance experience apart from changing batteries in your IPOD?"