



Lloyd Electric's Newsletter for the industrial Community MAINTENANCE "MATTERS"

**OUR STRENGTH IS
THE STAFF OF LLOYD ELECTRIC**

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The Concept

After talking to our sales staff and our outside technicians, we realized that many maintenance managers and their staff are too busy doing either predictive & preventive maintenance work or repairing equipment to look at trade journals, surf the internet or talk to a sales support person to discuss new ideas and technologies.

As an electrical after market service company we must continually acquaint ourselves with the latest concepts and technologies in order to train our staff and offer only the viable new technical services to our ever growing customer base.

We thought that while we are gathering this information why not make it available to our customers? So we came up with the idea of distributing a newsletter by hand or e-mail every two months.

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

Please contact us at sales@lloydelectric.net

Gary Crawford



Gary has been a member of the Lloyd Electric staff for over 35 years. As the senior outside service technician, Gary's smiling face has been seen in many of our customers facilities.

TECH TALK Motor Storage



This is an area of "Motor Management" which is often overlooked or ignored. We have all heard horror stories of extended production downtime because the critical "spare" motor taken out of storage failed soon after it was installed due to a bearing or winding failure. Here are a few tips on storing these critical motors.

- 1: The motors should be tested prior to storing them to make sure they are "production ready"
- 2: Motors should be stored in a suitable location with a controlled environment condition, not necessarily air conditioned, but free of contaminated air.
- 3: The storage area should be far enough away from the production floor to eliminate damaging vibration influences. If this is not possible the motors or palletes should be cushioned with rubber blocks.
- 4: Each stored "production ready" motor should be "megger" tested and have its shaft rotated on a scheduled basis to avoid "false brunelling of the bearings". The results should be recorded on a report sheet.
- 5: The storage area should be laid out to accommodate the testing in Item #4 and provide a dedicated location code. Having a well organized and effective "spare motor storage" program will insure that the spare motors are in a "production-ready" condition and available when needed

Lloyd Electric has a "motor storage" facility in Salem VA where we store and continually monitor many of our customers critical motors

An Overview of one of the
Predictive & Preventative
on-site Maintenance
Technologies
available today

#1 Vibration Analysis



Bearing failures are the major cause of unscheduled and catastrophic failures in all rotating equipment. To establish a trending tool to assist the maintenance staff in detecting these failures before they shut down the production prematurely, we strongly suggest that any company that relies on rotating electrical or mechanical equipment for its production, schedule periodic "Vibration analysis surveys" for all rotating equipment, not just motors. All the data can be collected while the equipment is running. The analysis can be carried out by a skilled technician off-site. The report format can be customized to the individual company. The results of the Vibration analysis survey allows the maintenance team to schedule machine overhauls, thereby minimizing the impact of unscheduled production shutdowns and avoiding damage that results from running machines until a catastrophic failure occurs. The effectiveness of "trending" diminishes as the amount of time between the survey's is increased. When the frequency exceeds approximately 30-40 days between Vibration analysis surveys the "trending"



"Any other experience apart from being the life of the Christmas party?"
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aspect of the analysis is negated or less viable. Quarterly surveys are still valid but only as a basic condition monitoring exercise.