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Foundry: Automatic Lubrication System Installation

Automating critical maintenance saves man-hours, reduces risk, and increases equipment uptime.

Introduction

This job story focuses on a simple solution to an ongoing maintenance problem that burned man-hours and put personnel at risk daily. The bearings on the head pulley shaft of the bucket elevator at a Pennsylvania foundry needed to be manually greased every day and to do so, maintenance personnel were put into the dangerous position of climbing ladders to get to the top of the sand silo.

Problem in more detail

The burden and risk associated with completing this task daily were significant. This required that a maintenance person climb a ladder, walk across a roof, and climb a second ladder to the penthouse of the foundry's sand silos. It had to be done no matter the weather. Not only did the maintenance person on the job need to scale the heights of the foundry's operations, but he also needed to do it while toting the tools and supplies required to do the job.

This maintenance was essential and unavoidable because the equipment is a crucial piece of the critical sand system. If a bearing on the bucket elevator were to fail, it would cause the entire foundry to shut down and halt operations until a repair could be made. This would be an extra cost to the foundry for repairs, along with the idle manpower while waiting to resume production.

Solution

An AIRMATIC Industry Specialist working with the foundry knew exactly what to recommend: A high-performing, point-of-use automatic grease lubricator. Specifically, the Titan II CL Cartridge Luber from ATS Electro-Lube. The reason this is the perfect solution is that the Titan II is a self-contained, microprocessor-controlled, motor-driven automatic lubricator. This device dispenses lubricant at pressures up to 900 PSI, enabling it to service single-point applications up to 30' away or multi-point applications up to 20' away. The grease output is not affected by temperature or altitude, so it can operate atop the sand silo without interference from harsh conditions and temperature fluctuations. AIRMATIC

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suggested the foundry also pair the new lubricator with a four-point distribution block, giving the maintenance team the ability to grease both bearings with one unit. The new setup allowed the foundry to trade in the cumbersome daily maintenance routine for a simple, bi-weekly check-up of the bearings.

Conclusion

The automatic lubricating system has worked perfectly for the foundry since installation, and no one misses the daily trips to the top of the sand silos. Foundries are sometimes resistant to adding products like this that reduce maintenance, for fear that personnel will stop checking bearings altogether, resulting in other failures. However, with a simple bi-weekly check-up, the Titan II will keep things running along perfectly between check-ins.