Q&A: Greased Up

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Interview with Tom Dibble, Plant Manager, Mighty Lube Systematic Lubrication, Inc.

Lubrication is one of the most important elements of a solid conveyor maintenance program. *IMPO* sat down with Tom Dibble, Plant Manager for Mighty Lube Systematic Lubrication, Inc., to discuss some common questions surrounding this critical area.

Q: How much lubricant should be used on a conveyor system, and how often should it be reapplied?

A: A number of factors determine how much lubricant and how often lubricant should be applied to a conveyor. These factors include type and size of the conveyor, load, type of lubricant, and environmental conditions. For example, a powder coating operation would likely have a conveyor running through a wash system and one or more ovens. The water and chemicals from the wash system, along with the heat from the oven, would remove the lubricant, sometimes requiring continual or daily lubrication. In contrast, a conveyor transferring parts through ambient temperatures would require comparatively infrequent lubrication, such as once per week.

The most effective method of conveyor lubrication is to initially set the amount and frequency of lubrication on the above factors and then adjust as needed. The goal is to prevent premature wear and downtime by maintaining lubrication at wear points without producing lubrication droplets on the bottom of the lube point.

Q: What types of new product developments in lubrication are addressing key customer issues?

A: Effective plant maintenance involves managing maintenance costs and working to eliminate downtime, and lubrication systems can play a key role by automatically lubricating wear points. Today's lubricator controllers allow users to create a lubrication program that matches the unique conditions within their facility, which can save labor and reduce lubricant consumption.

Another new product is conveyor monitoring systems. These systems are available in a variety of configurations, and Mighty Lube manufactures one that monitors chain link wear, lubrication cycles, drive amps, air take up pressures, and more. Because this information is available in real-time through a networked computer, authorized users can quickly identify potential maintenance issues before they become costly downtime. Mighty Lube and OPCO Lubrication Systems also manufacture monitoring systems to monitor chain link wear for a single line, and this can be a cost-effective option for plants with a small number of conveyors.

Q: What are some of the biggest mistakes relating to lubrication that you see industrial users make in regards to their conveyor systems?

A: One of the most common mistakes is over-lubrication. A properly lubricated chain will be wet on the inside and dry on the outside. Over-lubrication results in wasted lubricant as well as both safety and housekeeping issues. Also, conveyor lubricators can get damaged during plant operation, and customers following industry best practices have implemented a periodic maintenance program to inspect conveyor lubricators and the condition of conveyors. For instance, a broken trolley wheel could hit sensors or lubricant nozzles on a conveyor lubricator, and repairing this damage and readjusting the lubricator before premature conveyor wear and downtime occur is critical. To implement a periodic maintenance program, plants can utilize their own qualified staff or purchase a service contract from a company specializing in conveyor lubricators.

Lubricant and grease selection also requires consideration. While these products are sometimes viewed incorrectly as commodities to be sourced based on cost, they must be properly matched to the lubricator and the conditions. Some lubricators are designed to operate with low viscosity lubricants, and others are designed to operate with a range of higher viscosity lubricants. Incorrect matching here will cause poor lubrication results and may damage the lubricator. After determining the correct viscosity, plants should source lubricants with characteristics matching their application. For example, using a general purpose grease to lubricate sealed trolley wheels that convey parts through an oven may cause the grease to run out of the trolley wheels or to bake into a hard carbon material. Grease with the correct temperature rating may cost more than a general purpose grease, but it will provide proper protection against wear.

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