

Top 3 Lubrication Fallacies that are Affecting Your Production

My career has allowed me to travel to many different manufacturing facilities ranging from the steel industry to food and beverage and everything in between. At many of these plants there are some key misconceptions worth noting as they have extreme consequences on production and yet they are easily remedied. Armed with a simple awareness of the truth and concise game plan, the rewards that can be reaped are incredible.

Fallacy #1

Lubricating Industrial Equipment is Simple and Easy

This misconception is deeply rooted in culture. It's easy to see why this misconception is so commonly held. There is an old saying that "oil is oil and grease is grease." This couldn't be further from the truth. There are an endless amount of possibilities for lubricant formulations and each one is slightly different and effects the machine in its own peculiar way. Aside from proper selection of lubricant (are we even putting the right stuff in there) is the actual application. How hard is hitting a few fittings with a grease gun? The "rights" of lubrication spell it out — put the right lubricant, in the right place, in the right volume, at the right frequency, and using the right procedure. While this may sound simple, it isn't when you consider the sheer volume, variety, and complexity of tasks it takes to keep industrial machinery properly lubricated.

Start by asking the right questions. Consider how many pieces of equipment you have in your plant. Next, look at how many separate components each one contains that involve lube-related tasks (e.g., motors, gearboxes, shaft bearings, couplings, filters, etc.). How many individual lube tasks are associated with each of these components? Keep in mind that some components may require many different tasks that go beyond simple application of grease, such as checking fluid levels in reservoirs, monitoring filters and seals or taking oil

samples. In addition, many of these tasks must be conducted at varying intervals (e.g., daily, weekly, bi-weekly, monthly, annually, etc.). Across several thousand lube points, the multiple tasks at varying frequencies add up fast.

If you haven't done this sort of assessment in your facilities, the yearly totals can be a real eye-opener. It is not uncommon for a properly set up lubrication program to have hundreds of thousands and potentially in the millions of individual tasks over the course of a year.

So maybe it doesn't sound so simple after all. But let's say you're still not convinced. Perhaps you're in the camp that says, "Lube tasks are lube tasks," so what could possibly go wrong? Plenty. The wrong lubricant could be specified or applied at the wrong interval. Or maybe the lube tech simply uses too much, too little or the wrong lubricant. Let's not forget contamination, blown seals, etc. The list of what could go wrong is endless. It only takes one step in the task to miss the mark and the entire system comes crashing down.

Then there's the skill level of lube personnel. The best lube techs are rapidly aging out, and their replacements may not have the same level of knowledge or experience. According to a survey done by the International Council for Machinery Lubrication, only 12 percent of lubrication personnel from all industrial sectors are professionally certified. How well do today's lube techs really know their jobs? More to the point, how well is management supporting them? Do they have access to the right knowledge and tools?

Fact #1: In contrast to the common misconception that it's simple, lubricating industrial equipment is actually highly detailed and complex.

Fallacy #2

Lubricated Industrial Equipment is of Little Consequence

This misunderstanding says that the role lubrication plays in industrial facilities is relatively minor and therefore doesn't warrant special attention. What does research tell us? We know that the average maintenance budget allocates only 1-3% on lubrication depending on the industry. Studies suggest that while we only spend a small amount on lubricants and lubrication, it has a much greater effect on the overall performance of our plants. Dr. Ernest Rabinowicz, professor emeritus at the Massachusetts Institute of Technology, estimated that repairing the effects of friction and mechanical wear on industrial equipment costs the equivalent of 6 percent of the gross domestic product (GDP). Applying that calculation to last year's GDP results in losses of more than \$1 trillion. Would you consider that a minimal? Researchers and manufacturers agree that the primary cause of friction and mechanical wear is poor lubrication. In fact, according to the OEM's of machine components, improper lubrication leads to 43 percent of mechanical failures, 54 percent of bearing failures, 50 percent of roller bearing damage and 70 percent of equipment failures.

Industrial lubrication is not only a common problem, but a severe one. Whatever the total losses may be worldwide, the more immediate concern is how much inadequate lubrication is costing your organization. Among the factors to consider are your annual spending on bearings, how many replacement bearings are needed in a given year, the cost to replace just one bearing, and the costs involved in replacing your motors and gearboxes. You should also determine expenses from unplanned downtime, repetitive cycles of time-intensive reactive maintenance, lost production, safety issues, environmental impacts and higher energy costs. Added together, these costs are more than likely out of control.

Fact #2: Lubricating industrial equipment has a significant impact on operational excellence.



Fallacy #3

Lubricating Industrial Equipment is Cost to the Organization

Maintenance budgets remain on the chopping block. Everyone is trying to do more with less. Staffing levels are way down. Skilled positions are being lost to attrition. Instead, wouldn't it be great if you could just do more with what you already have? That's precisely the opportunity that a properly setup and managed lubrication program provides.

With lubrication best practices and appropriate management tools, industrial facilities are able to reduce unplanned downtime and reactive maintenance, eliminate the primary cause of equipment failure at its source, achieve higher productivity from existing equipment assets and personnel, and minimize oil waste and environmental costs.

All of these "costs" could be seen as an opportunity and investment in moving them towards world class will have a significant return. Unbelievable returns have been generated in many of the world's most successful programs. These returns eclipse the 1000% mark and what makes it even more remarkable is the payback period which usually falls below the six-month mark.

Fact #3: Lubricating industrial equipment offers a substantial financial opportunity.

Lubrication Excellence: The Key to Driving Operational Excellence and Profitability

Which lubrication misconceptions are hurting your operations? It's well worth your time to find the answers. Addressing lubrication issues can provide any industrial facility with significant financial opportunities and a rapid return on investment. Contact ATS today to discuss how they are helping their partners realize the benefits of proper lubrication and maintenance.

