



October, 2009 - Lubrication Know-How

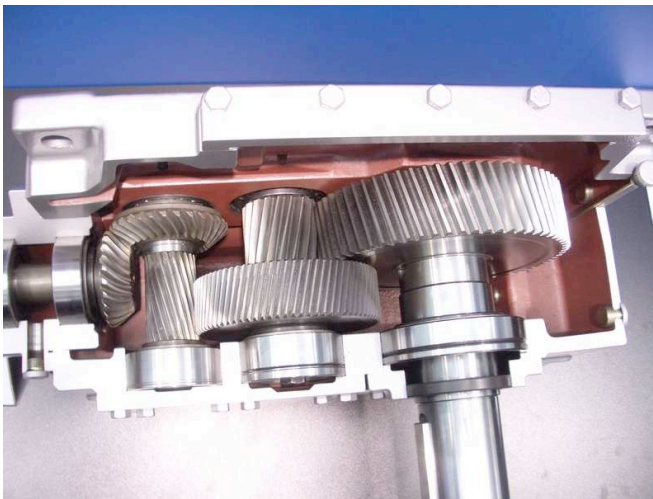
ProBusS Presents
News about skilled trades, maintenance, and manufacturing

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Don't grind your gears!

Chances are you're too busy managing maintenance to spend time examining the intricacies of many gearboxes. But you should know that today's gearboxes are smaller, lighter, more powerful, and more in need of proper lubrication than ever before.



Higher temperatures in gearboxes speed up the oxidation process, which means sludge forms faster, and that shortens the life of both the oil and the gearbox components. It also means potentially more repair work, more downtime, and higher costs.

The difference between the right lubrication products and applications, for gearboxes, bearings, valves, and many more critical friction points, can be the difference between up-and-running and "down again." How well you know lubrication can help you and your plant in

a big way. Take our 2-minute quiz and gauge your "lube know-how," now.

Test your "lube know-how" in 5 questions

1. **What percentage of bearing failures are due to ineffective lube practices?**
a. 20% b. 30% c. 50% d. 70%
2. **Up to what temperature can you use silicone, synthetic, and other high temp greases?**
a. 130° C b. 140° C c. 180° C d. 260° C
3. **True or False: grease does *not* dissipate heat or remove wear particles from the friction point.**
4. **How much water does it take (in *parts per million*) to dramatically shorten the life of roller element bearings?**
a. 100 b. 500 c. 1,000 d. 1 jillion
5. **Lube a bearing with too much grease or oil, and what can happen?**
a. higher energy consumption
b. shorter lubricant life
c. thinning oil film thickness
d. all of the above



Lube quiz answers

1. Answer: d. Bad lubrication is responsible for up to 80 percent of all mechanic and electromechanical failures. In other words, a recurring yet very controllable maintenance process dramatically affects your plant's reliability.
2. Answer: d. Lithium greases can be used up to 130° C, while silicon and other synthetic greases can be used to up 260° C. To give you an idea of how hot that is, solder melts at about 183° C, and 260° C is about as hot as a pizza oven (500° F).
3. Answer: true. Oil dissipates heat and removes small particles from the friction point, but grease does not. Grease does, however, remain at the friction point for a longer time, kind of like a pesky in-law.
4. Answer: b. It doesn't take much water to send bearings to an early scrap heap: less than 500ppm will do it.
5. Answer: d. All of those things can happen. In fact, more motors have bearing failures from over-greasing than under-greasing. And that's no joke.



"Lube dudes" to the rescue

How did you do on the quiz? Lubrication can be tricky. It's serious business that may require professional attention. Equipment manuals (if you can find them) often lack detailed information about proper lubrication. Your lubricant sales rep can easily make product recommendations, but can't ensure proper application. Plus, he isn't around during lube work to make important preventative inspections that can help you avoid breakdowns, downtime, and big-time headaches.

Trust your lubrication work to our maintenance technicians, the ProBusS "lube dudes." They know lubrication and how to make sure it's done properly. They know, for example, that when you drain the old oil from a sump or reservoir, it's important to check for both sludge and bottom sediment. They understand which lubricants and what viscosities are appropriate for different applications. ProBusS technicians will make sure your plant's hundreds of machine parts are properly lubricated:

- valves
- seals
- roller bearings
- gears
- cylinders
- chains
- threaded connections
- switches
- shaft/hub connections
- ropes
- contacts
- screws
- plain bearings



One call to ProBusS and your lubrication work is done.

GMR is close to a home

Green Mountain Recycling, the industrial plastics recycling and remanufacturing company that ProBusS is helping to launch, has narrowed the search for a manufacturing home to a few sites in West Michigan. ProBusS is assisting in the search, and will complete the plant layout and equipment specifications once the site has been secured..

GMR will begin contracting with post-industrial plastic waste suppliers after the first of the year.

If you have any questions, drop GMR a note at info@greenmountainmichigan.com, or call 616-726-8046. Visit the GMR web site [here](#).

