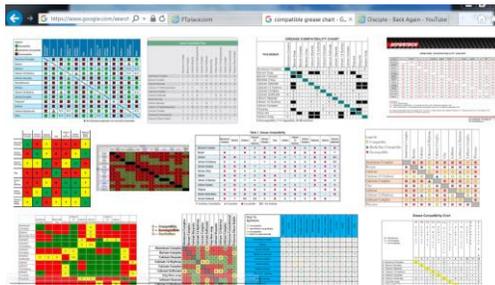




Issue 14: Bud's Take on Grease Compatibility

Compatible Grease?

If you do an internet search for compatible grease charts you'll happily find there are hundreds of options available. You find a chart that that says grease A & B are compatible then head off to your expensive piece of equipment and add grease.



Pic 1: Internet Search on Compatible Grease Chart.

A few months later you have heat issues or a bearing failure and analysis points to mixing of incompatible grease. How can this happen when you verified grease compatibility?

Was the Chart Wrong?

The quick answer is no, the chart is not wrong.

This leads to another question: Is the supplier of this chart reputable and are the charts accurate?

Yes to both. If you dig into the charts you'll find that they are released by all the major bearing manufacturers, oil and grease manufacturers and so on. I can't imagine that these reputable companies would supply an inaccurate chart.

Bud's Take (or opinion)

To this point I have been as clear as mud. I will do my best to explain my thinking which is based on my years of experience doing failure analysis and common sense.

When I reviewed about 25 different charts, all called "Grease compatibility charts," I noticed that these charts were not evaluating the same components. The charts were evaluating base oil, thickener, or grease. I do not claim to be a chemist, but these items are very different. To create an industrial oil or grease, you must mix additives to the base oil.



Pic 2: Base oil (left) and Thickener (right.)

Common additives include: antioxidants, rust-inhibitors, stabilizers, anti-foaming agents, oil film strengtheners, etc.

I have always questioned if all the different additives are compatible? The response that I have received is that most of these items are inert, meaning they won't react. To me the key word is "most," this is a red flag.

Controllable Item

There are very few items we can control in the electric motor and pump repair industry. We have the ability to ensure we only buy from authorized distribution, maintain our storage areas, and use the correct fitting practice.

I believe we can add mixing incompatible grease to the list of controllable items. Although these charts are accurate and from reputable companies there are too many variables and the results could be interpreted as slightly misleading. Simply do not mix grease or oil and this problem goes away.

Conclusion

It's my opinion that these charts should only be used in a "worst case scenario." I also believe these charts were not created to cause confusion. They were a result of a customer request. I am a firm believer in "Do Not Mix Grease" period, problem solved!



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