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Summary:

Predictive maintenance involves using observation, data, and reasoning to forecast equipment failure and preserve assets. It emphasizes judgment over tools, focusing on proactive upkeep and efficiency.

What do we mean by Predictive Maintenance?

If we consult an authority, Merriam Webster Collegiate dictionary, we find the word predictive meaning "to declare or indicate in advance; especially: foretell on the basis of observation, experience, or scientific reason." It is from the Latin pre (before) and diction also from the Latin dicare "to proclaim."

This fits closely with the maintenance concept of predictive. The word 'maintenance' is somewhat more problematic since most of the definitions use the word, maintain. The third definition "the upkeep of property or equipment" works but does not shed much light. When we look up the word 'maintain' we hit pay dirt. For the word 'maintain,' Merriam Webster Collegiate dictionary starts with "to keep in an existing state (as of repair, efficiency, or validity): preserve from failure or decline."

One of the other definitions takes a different stab at maintain as in "to sustain against opposition or danger: uphold and defend" Our goal in maintenance is to keep our physical assets in an existing state. Prediction is a declaration in advance that something is going to happen.

From the dictionary 'Predictive Maintenance' is a proclamation or declaration in advance based on observation to preserve (something) from failure or sustain it against danger. From this definition we can see at a very basic level that:

1) Any inspection activity on the PM task list is predictive. The reasoning is that at its basis all inspections look at an asset and evaluate if there is wear going on that will result in impeding failure. The inspector then declares that such and such bearing is squealing and is going to fail. That is clearly predictive by this definition.

2) Predictive Maintenance is a way to view data and does not necessarily require buying a bunch of equipment. The definition does not mention the means used. In fact it seems to be oriented toward reasoning and experience being applied to an observation. The important thing is the conclusion based on observation, judgment and reasoning that determines if an act is predictive.
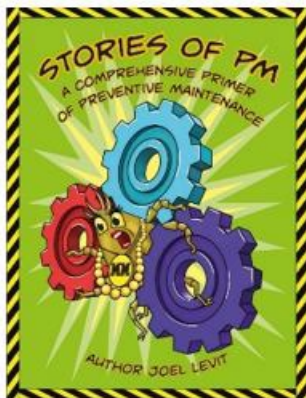
In modern terms we would say this is a data issue. How we reason from the data determines the predictive nature. By common agreement in our usage of the phrase 'predictive maintenance' we mean maintenance activity that includes some instrument or technology. Properly any instrument

can be used for predictive maintenance; if it is indeed used predictively (predictive maintenance is about how you use the data). Why go through this dictionary exercise? Its simple, I want to clear up the confusion about Predictive Maintenance. Predictive maintenance is not something you buy. Predictive Maintenance is a state of mind!

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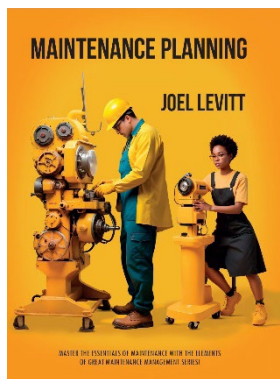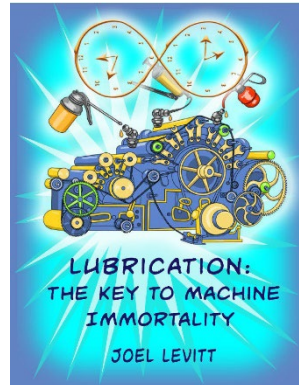

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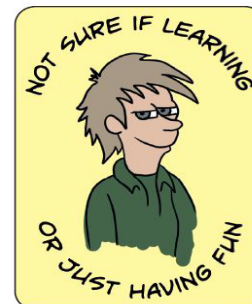

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