

Top 5 Reasons Companies Experience Equipment Failures



By Ricky Smith CMRP

Reason 1: Work orders do not capture all emergency work. Many companies have rules such as, “A work order will be written only if the equipment is down for more than one hour.” This rule does not make sense. Let us say for example, a circuit overload on a piece of equipment trips 15 times in a month. Many times, small problems lead to major equipment failure, but no one seems to know this is occurring.

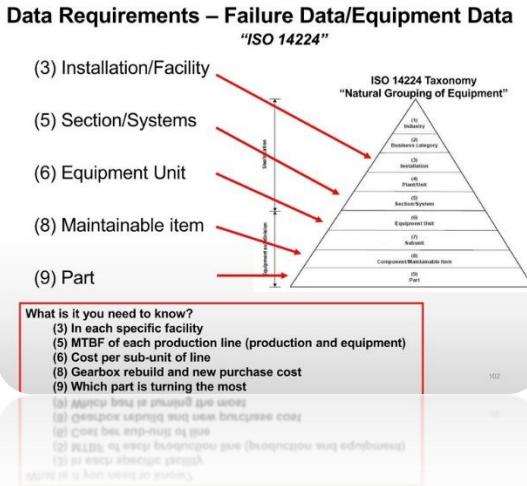
Solution: “ALL” Maintenance work / actions must be tracked with a work order which assigned to a specific asset.

WO # 12033		Asset # 12332 – Conveyor	
Job Description: Bearing Failure	Date 11/14/2020		
Possible Cause	Unknown		
Craft Hours: Production Downtime:	2 Mech x 4.0 hrs. 5 hrs.		
Originator: Owner: Approval:	Bill Hill Maintenance Dept RAS	Version #:	1.0
Part # (Stores ID)	Part Description	Quantity	Quantity Description
C-1395	Bearing	4	Each
Consumables Needed: Lint Free Towels			
Special Tools Required: Single Pump Grease Gun - Type 237 (Synthetic Grease Gun)			
Mobile/Special Equipment: None			
Departmental Coordination: Maintenance stayed with Production until line was running to rate with no problems			
Condition (As Found): (Required)  Bearing Seized, production down			
Condition (As Left): (Required) Cleaned area, production running to rate			
Comment(s) or Follow-up required: (Not Optional) Need to review PM Procedures and adjust if needed			
Maintenance Tech Signature: <i>Ricky D</i> Production Signature: <i>Mary Smith</i>			

Reason 2: Not every asset is loaded into the CMMS/EAM. This is a problem that makes writing an emergency work order impossible. If you are not tracking every asset down to the component level, you cannot possibly identify any true reliability issue.

Think about it this way: if 20% of your assets eat up 80% of your resources, wouldn't you want to identify that 20%, the bad actors? Ensure all of your assets in your CMMS/EAM, track the MTBF and the bad actors will become obvious.

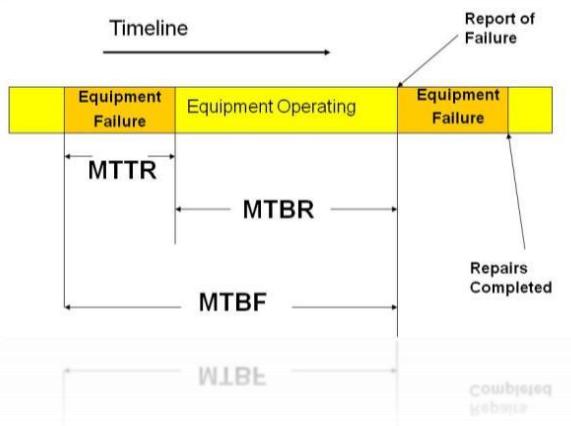
Asset Hierarchy is critical to managing equipment reliability mitigating failures using ISO 14224.



Solution: Walk down your assets and identify

Reason 3: It isn't important to measure MTBF because other metrics provide equivalent value. Yes, you can get asset reliability from other metrics, but keep it simple by using MTBF.

Count the number of breakdowns (the number of emergency work orders) for an asset during a given time interval. That is all it takes to learn how long the equipment runs (on average) before it fails.



Reason 4: The maintenance organization is in such a reactive mode that there's no time to generate any metrics. They are constantly scrambling merely to react to the latest crisis. But, taking a small step in the right direction — tracking just one measure of reliability — will reveal the 20% of the assets that are burning 80% of the resources. If you start with the worst actor, you will be surprised at how quickly you can rise out of the reactivity quagmire.

For example, a plant manager who recently measured the MTBF for what he called his “Top 10 Critical Assets” was shocked at the results. He expected the combined MTBF for these assets would be around eight hours to nine hours. In the first month of this initiative, he found that the actual MTBF was 0.7 hours. You may find yourself in the same situation. You will never know the true reliability status on your plant floor until you begin measuring it.



Reason 5: There are too many other problems to worry about right now without being pressured to measure reliability, too. I have heard this many times and what it tells me is that the organization is in total reactive mode. This organization deals only with the problem of the hour.

If 20% of your assets are taking 80% of your resources, dig yourself out of the problem by attacking the assets that cause the most pain — the high-payoff assets that will respond to a reliability improvement initiative. We have got to stop fighting fires. The characteristics of adept firefighters include:

- High turnover of personnel (mostly in production)
- Maintenance costs that continue to rise.
- Maintenance costs that are capped before the month ends (“Don’t spend any more money this month, We’re over budget)
- Every day is a new day of problems and chaos.
- Maintenance is blamed for missing the production goals.

It is not easy to fight fires and initiate reliability improvement at the same time, but it can be done. Start measuring MTBF and attack the high-payoff assets (top 20%). You cannot change a company’s culture from reactive to proactive overnight, but you can eliminate reliability problems one major system at a time. That is where you will find a rapid return on investment. Change people’s activities and behaviors slowly and you will transition to a proactive culture.

Asset reliability is the key to keeping a company profitable, increasing its capacity, and reducing its maintenance cost.

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