

## Work Orders – Who’s Got Time for Paperwork?

*“Listen: I’m a mechanic, not a clerk. Do you want me to do the work or fill out these work orders? If I wasted all that time filling in those silly blanks on your paperwork, I’d never get caught up! Besides, I don’t know why we need ‘em anyway. Let’s just do the work like we’ve always done it.”*

Sound familiar? Maintenance work orders are often seen as an extra burden to the maintainers as well as those who are requesting the work to start with. “Paperwork. Needless paperwork. That’s all it really is anyway. I just want to call the mechanic and get this work done fast!” But without a work order history, the maintenance organization is at risk and equipment problems will likely get worse.

Why do we need maintenance work orders? Imagine this. On the production side of the operation, people are charged with producing something: thousands of widgets, tons of paper, kilowatts of electricity, gallons of juice, tons of ore, ounces of gold, feet of tubing, cubic feet of gas, barrels of oil, cases of cookies, gallons of water, and the list goes on and on. Or assembly operations assemble and finish a variety of sub-components into finished products: gear boxes, lawn mowers, compressors, cars, and trucks. And distribution centers unpack, sort, repack, label, and ship all sorts of goods in cartons and cases. They all use production tracking and reporting paperwork.

How do these businesses know how much they produced and shipped? How many sub-components are needed for a finished product? How much is sold? How much is damaged or wasted as defective or scrap? How much is off quality? When to stop and changeover to another product? The answer: Production records such as shift logs, day sheets, job tickets, and other paperwork used in every business to quantify the amounts and types of production. These reports also keep track of downtime reasons and downtime duration as “non-productive time.” And in most cases, this paperwork is completed by those closest to the work being done. Sometimes, the “paperwork” is not actually paper but rather direct entry into a computer program.

What if the operators didn’t want to do the paperwork to keep track of what they produced or keep track of downtime? Don’t you suppose that they use the production rates of the various machines, production lines, and processes to help figure out how many people they need in operations job roles? It’s quite likely that they measure worker productivity in terms of units produced per employee, per hour, per shift, per day and downtime hurts productivity. When line staff says, “We need more operators,” they can prove it by using the data in the production reports. Or when top management says, “We need to cut back in operations,” they are looking at the production reports compared to customer orders and sales forecasts. Production records and reports are vital parts of operations management, efficiency, productivity, profit and loss.

Maintenance work orders are the maintenance equivalent of production records: They document what work was accomplished and who did it. Without this kind of information, how else can staffing level decisions in maintenance be determined? Sure, time cards keep track of the hours worked, but what kind of work? I am often approached by people in the plants I visit with a request: “Tell them we need more maintenance people here.” I then ask, “Can you prove it?” Oftentimes, they can’t.

In these economically trying times, maintenance is going to be looked at for possible cutbacks. In many businesses, maintenance is seen as an overhead expense, and the longer we avoid work order documentation, the more vulnerable we are.

At a minimum, maintenance work orders should define the following:

- Asset name, identification, location
- Date of request and requestor
- Description of the requested work (or PM)
- Priority, date needed (or PM due date)
- Special tools required
- Reference to standard work instructions (if available)
- Completed date
- Hours worked by named employees
- Parts and supplies used
- Actual problem description, cause, and corrective action taken
- Maintainer comments
- Requestor sign-off and maintainer sign-off

Given this detailed information in a completed work order, we can accurately prove “what our maintenance people are doing.” We also have valid information to identify and correct chronic equipment problems, do root cause analyses, identify high maintenance cost areas of the plant, determine proper parts inventory levels, and so forth. We can compare production downtime reports to work order histories to determine the causes of unacceptable amounts of downtime and eliminate the causes of the problem. Maintenance work histories allow us to look for opportunities to improve, or develop, standard maintenance job plans and procedures.

We recently performed several work order and work history reviews in plants where there was a stated need to improve maintenance productivity. What we found was typical: Some maintenance work being done with no work orders, repairs made and parts installed with no labor hours (self-installing gearboxes?), hours logged but no description of the work, or the work orders from hell: “Pump broke. Fixed it.”

Another finding in work order history review points to the fact that maintenance work is not always “maintenance work.” In addition to preventive maintenance (PMs), repairs, and corrective work, we found that maintenance mechanics, technicians, electricians and others were logging their valuable time doing who-knows-what under a blanket work order and doing “project work” that had nothing to do with maintaining the plant, facility, or the equipment. In fact, the “project work” was getting in the way of scheduled maintenance work and PMs because the projects were “priority projects” for the plant manager, the Lean Team, or kaizen group. Project work that could have been better performed by a contractor is often assigned as a top priority to the already resource constrained maintenance department.

Here is how maintenance requests should work: Maintenance work requests submitted by “requestors” get evaluated and turned into planned or unplanned work orders that can be performed in a scheduled manner or placed in the “backlog” of maintenance work to be activated when the maintenance resources are available. Maintenance work orders are “prioritized,” planned, and scheduled by a maintenance planner in collaboration with the requestors – not all number one

priority work can be accomplished immediately. Emergency repairs are documented in a work order after-the-fact to add to the maintenance history of the equipment. This simple system then allows maintenance management to not only plan and schedule maintenance work but to determine if the proper amount of maintenance resources are available to perform the amount of work in any given period of time.

Maintenance work orders help define the work to be done and document the completed work. Work orders with “due dates” or “date needed” rather than “priority” rankings allow logical scheduling or maintenance workload planning. Describing estimated hours and parts needed on the work orders helps plan daily and weekly workloads. Actual hours worked coupled with complete descriptions of the work accomplished lead to more accurate estimates. Parts used listed on the work orders help in the search for better, more cost effective and more reliable parts and help establish stocking levels.

Gone are the days of “fixers” in modern maintenance. And if your plant has fixers, now is the time to make the shift to managed maintenance on your path to improving plant performance and reliability. If maintenance work orders are not used properly, it becomes extremely difficult or impossible to justify maintenance budgets and headcount. Maintenance work order histories allow you to prove the need.

So, next time you hear, “Do you want me to do the repairs or fill out these work orders?” — your answer is “Yes, both.” While maintenance work orders might seem like an extra burden to maintainers and supervisors, this simple paperwork must become part of the job just like locking and tagging for safety. Make your lives easier by doing this little extra paperwork. Without it, you cannot improve.

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