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How can equipment BOMs make Maintenance more efficient?

Most CMMS systems have the ability to create Bills of Materials (BOMs) for equipment or assets. Equipment BOMs include the components needed for a piece of equipment. All types of asset-intensive industries, from oil drilling and automotive manufacturing to food and pharmaceutical manufacturing, can benefit from equipment or asset BOMs.

Perhaps, like me, you've experienced life without BOMS. To find parts you either had to use cheat sheets or had to refer to the machine builder drawings in order to find a manufacturer's part number. I can recall being called out of bed in the middle of night because a piece of equipment was down and the spare part could not be located because the manufacturer's part number could not be found. You had to look in drawings, schematics and catalogs to find a part number. In the early days not everyone had access to the documentation, especially the nightshift. Everyone had their own lists, which varied from person to person. I'm not sure these personal lists were ever updated, but we all lived by them. And there was always the *go-to guy* when you couldn't find a part. "Hey, go see Johnny. I'm sure he has the correct part number."

How can good equipment BOMs increase the efficiency of your maintenance program?

Equipment BOMs can help the maintenance planner plan a task or job faster. The planner does not have to spend time looking in drawings, manuals or catalogs to find part numbers that could be right at their fingertips. BOMs can be created for certain PM tasks, shutdowns or redundant tasks. Yes, it does take time to create good equipment BOMs and there is some responsibility for maintaining them. If BOMs are not maintained correctly this creates confusion and wastes time for all end users.

Equipment BOMs can help reduce downtime. Do you have craftsmen working on back shifts, weekends or nights? Having equipment BOMs will reduce equipment downtime because in the middle of the night the right parts can be identified and procured quickly.

Using a good BOM system can help manage system sub-components. Do you have sub-components with replacement parts that are hard to identify? For example, you may have a conveyor that uses lifts, curves, different length belts or widths, gearboxes with motors, even a hoist that is made of several components. These sub-components' items can be broken out into their own BOMs and be a part of a sub-BOM for a conveyor system. I have set up BOMs for a process like injection molding. We had more than 20 different mold types. We found it easy to set up a BOM for each mold type. The technician could check the storeroom's balances, see what was out for repair and what was coming in, and min and max balances. We had more than 200 different inserts.

Using equipment BOMs helps manage your spare parts inventory.
When a piece of equipment or asset is decommissioned and removed from the shop floor, the associated spare parts can sit in the storeroom for years, taking up valuable space. With equipment BOMs, the task of identifying which spare parts belonged to the decommissioned piece of equipment is a simple task. A little cross-checking to ensure the parts are not used on

some other equipment and you're almost done, except for removing the items from the CMMS and storeroom. This helps reduce the total dollar amount of your spare parts inventory.

All types of industries can benefit from using equipment BOMs. I am not saying that equipment BOMs are easy to set up and maintain. It does take time to decide what items need to be maintained on BOMs. But you will no longer waste time looking for part numbers in drawings, catalogs, and schematics. When BOMs have been set up correctly, maintained correctly, and everybody knows how to access them you'll have a lot fewer headaches and less equipment down time.