

CPMS Newsletter

“As the Wrench Turns”

Special Edition

May 2016

How to master your Master Schedule

One of the biggest challenges a plant faces is to build a proper PM schedule. And, although you may have enough properly trained mechanics, you may not have enough available equipment down time to perform all of the necessary preventive and predictive maintenance tasks. The goal is to have the Master Schedule reflect what needs to be done, keeping in mind what can be done, to keep your equipment running properly.

Prerequisite

- Make sure that your Equipment list matches your plant. Perform a physical inventory and add, change, and delete equipment numbers as necessary.
- This project is not complete until all of the equipment in your plant which needs PM is in the Master Schedule. In order to see what you may have missed, go to Supervisor, Data Base Analyzer, Self Audit, and click “Equipment not in the Master Schedule”. To make the report more accurate, go to the Equipment record and uncheck the “In Service” box for equipment numbers which do not require PM.

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Fine tuning your Master Schedule is an ongoing task as a result of events like new or upgraded equipment, personnel changes, or equipment failures. Equipment reliability will dramatically improve if the Master Schedule is always correct and complete.

Bring up the Master Schedule screen form for one of your major pieces of equipment. Then look at the red circled areas on the following pages to check if you have completed each entry properly.

The form pulls data in from five different tables: Equipment, the Description Table, Employees, Mechanics Handbook, and of course, the Master Schedule. Make sure and use the “Help” button frequently for guidance. For example, as a prerequisite, you should have already completed the Equipment, Description, and Employee tables.

The goal is to have a form that is comprehensive without being complicated. But, since all of your scheduling activities take place here, it will take awhile for you to be able to take advantage of all of the features provided on this two part screen form.

Step by step instructions for setting up your PM's

Unfortunately, there is no finish line for the Maintenance Department. Every day you are responsible for trying to prevent and also correct problems in your plant. And, even if you have *completed* your Master Schedule, as we go through this screen form you will see items which should be changed.

Master Schedule

Equipment Number: 2-1-530
Description: OVEN
Procedure Number: 2-1-530
Description Ident: Change B WEEKLY
Last Done: 7/19/2014
Increment: 7
Due Next: 07/26/14 Saturday

Skills Required: []
Scheduled Shift: []
Start Time: 16:00
Employee: 10896 BELL, JEREMY

Minutes/Cost: 45 \$0.00

- 1 INSPECT AND NOTE ANY MAINT NEEDS.
- 2 CHECK CHAIN CLEANING BRUSHES FOR CORRECT OPERATION. CLEAN AREA.
- 3 CHECK OILER FOR CORRECT OPERATION. CLEAN OILER CATCH PAN AS NEEDED.
- 4 CHECK CONDITION OF CENTER GUIDE ALIGNER DURING OPERATION.
- 5 RECORD OVEN RUNNING HOURS.
- 6 RECORD GAS METER READING EVERY SATURDAY
- 7 INSPECT CONDITION OF ALL CENTER GUIDES,GRIDS, ECT.
- 8 CHECK TAKE UP PRESSURE SETTING 30-35 PSI. RECORD SETTING.
- 9 CHECK FOR ANY METAL TO METAL WEAR REPAIR AS REQUIRED.
- 10 CHECK TAKE UP CURVE. OIL SLIDING TUBE SECTIONS & ROLLERS. WIPE UP EXCE
- 11 CHECK FOR BROKEN - CRACKED GLASS, CERAMIC OR PLASTIC REPAIR AS NEEDED

As you use this form, behind the scenes CPMS is validating your entries. When you type in the equipment number, the equipment description is displayed on the next line. You will see “**Not in Service**” if the In Service box in the Equipment record is unchecked.

Use the Procedure Number to identify equipment which should use the same Equipment Number for the PM instructions from the Mechanics Handbook. Go to Print, Standard Reports, Mechanics Handbook (Expanded) to see which equipment and employee are sharing the same Procedure Number (Book Number).

The Description Ident is used to determine the PM Frequency and it must be in the Task Description table. The combination of the Procedure Number and Description Ident determine a unique entry in the Master Schedule. When adding new entries, if there is no PM for this combination, the message “**Not in Book**” is displayed.



It is best to have just one person identified as your PM Planner. They are the king (or queen) of PM scheduling and responsible for changes made to the Master Schedule.

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The Last Done date plus the Increment (in days) determines the Due Next date. We recommend a weekly PM Work Card and all assignments scheduled for the first day of the work card week.

Use the Last Done date to balance your PM work load. In order not to overload any one mechanic, a balanced schedule should have half of the Bi-Weekly PM's this week and the other half next week. Likewise, one quarter of the Monthly PM's in Week 1, one quarter in Week 2, etc. Week 1 monthly PM's will appear again in Week 5.

Print the Standard Report for the Master Schedule to validate PM assignments (Frequency, Last Done and Due Next date) for each employee.

Note: In the center of the screen form is an area where you *can* schedule based on running hours (Meter Scheduling). But, virtually all of our customers have found that using a calendar for scheduling is a lot easier to manage. Part of the reason is that most of our plants are operating seven days a week.

This is where the employee information is added. Actually, when you popup the employee list and choose an employee, the Skills, Shift and hourly rate are automatically filled in. In this example they are blank because they are not in the Employee record.

We recommend that the actual hourly rate, or an arbitrary value, be entered for all employees. This will provide a number (other than zero) which can be used for work history cost analysis. When building your PM's, include a best guess as to how many minutes the PM Duties (listed on the bottom half of the form) should take. As PM work cards are turned in with actual times, you can change your estimated minutes to a more accurate number.

When you feel your PM schedule is in reasonably good shape, and you have entered a best guess for the number of minutes the PM Duties should take, you are ready to run the Work Load Balancing utility. You can generate a temporary schedule for the next three months (13 weeks) to evaluate your PM's. Make sure and click Help on the Work Load Balancing screen form.

Here is where the “rubber meets the road”. Enter the PM Duties, one line at a time, in the order that you want the mechanic to perform these tasks.

The number (1-99) in the left column determines the order they are displayed and printed on the Work Card. You can move lines up or down by changing the line number. If you delete or add lines, change line numbers, or have duplicate or incorrect line numbers, just click the “Renumber PM duties” button on the right hand side. This will sort all of the PM Duties using their current line number and then renumber all the lines.

A PM Duty should begin with an action word (Inspect, Check, Lubricate, etc.). The second word should answer the question “What?” Check **Oiler**..., Check **Chain**, etc. The remainder of the line provides the necessary information to complete the task properly. You may also ask the mechanic to write on the sheet. For example:
CHECK TAKE-UP PRESSURE (30-35 PSI) RECORD _____

Entering the PM duties should be done in the same way you make your products. Consistency! Use the same words to describe the same actions.

As you add your PM's, and before typing a new line, put your cursor on the blank line and double click. You will be prompted to enter a key word such as “BELT”. A popup list will show all your PM's with that word for you to make a selection. Use the list to find spelling errors and standardize the same task spelled a little differently.

Also use this option to see how you worded the PM task previously or to check the existing line. For example, in order to see how you entered the instructions to check the “take up pressure” just double click on the duty line and type in “TAKE UP PRESSURE”. The key word search shows that you entered it two different ways.

Message

Enter Key Word

TAKE UP PRESSURE

OK Cancel

Key Word Search

CHECK TAKE UP PRESSURE SETTING 30-35 PSI. RECORD SETTING

CHECK TAKE UP PRESSURE. 30-35 PSI. RECORD SETTING

Double click (or Enter) on the desired line. You can use this feature to locate redundant or erroneous PM Duties and correct them individually or all at once in the Mechanics Handbook using Supervisor Query/Edit. This feature is a great time saver when you are building your Master Schedule and entering all of your PM Duties.

All the buttons on the lower right side of the form (circled to the right) are very useful. Note that the first one is not a raised button and just lets you know about double clicking any PM Duty line as discussed in the preceding paragraphs.

The next two buttons are Copy PM Duties TO or FROM another Equipment. This allows you to copy over PM Duties which are similar and then make changes. This is different from the Procedure Number where all the entries share the same list of the PM Duties.

Master Schedule

Equipment Number: 2-1-530 Skills Required: []

Description: OVEN Scheduled Shift: []

Procedure Number: 2-1-530 Start Time: 16:00

Description Ident: Change B WEEKLY Employee: 10896 BELL, JEREMY

Last Done: 7/19/2014 Skills: []

Increment: 7 Shift: []

Due Next: 07/26/14 Saturday Minutes/Cost: 45 \$0.00

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Buttons: Double click PM Duty for Key Word search, Copy PM duties TO another Equipment, Copy PM duties FROM another Equipment, Delete PM duties, Renumber PM duties, Manufacturer's PM Date, Reference #

The last two buttons are Delete and Renumber PM duties. Instead of deleting duties one at a time, use the Delete PM duties button. The Renumber button will use your existing numbers to renumber all duties beginning with one.

At the bottom is the option to reference the Manufacturer’s PM. Please refer to CPMS Help.

And the Winner is...

No one sent in the right answer to our last CPMS Quiz: How to let a Guest User know you are not accepting their Work Request. The answer is to reply using the Message box for their request displayed on the Work Request screen form.

CPMS Quiz

For \$100

When Generating or Processing PM’s, what are all the date “rules” for the Start and End dates?

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