

Right Number of People in Maintenance?

By Joel Levitt

A new manager asked one of the simplest questions you can ask. The question goes to the core of an operation. The question was, do we have the right number of people for the amount of vehicles? This particular manager was responsible for a fleet operation among other things but was not a fleet professional herself.

Of course there are several ways to calculate the workload of a maintenance facility. I've seen formulas that take the number of vehicles by type and equate that to a number of mechanics in the shop (for example 1 mechanic for every 50 automobiles, 1 for every 15-20 Class 8 tractors etc.).



Be sure that people are trained for the tasks. Do you see certificates of training hung on the walls? A critical number of personnel should be trained in the equipment you operate. With a critical number even the untrained ones are covered because there's always someone in an adjacent bay has been trained and know what to do. Good shops display the certificates.

If a facility seems busy and people seem to be working at a normal pace then there is another way to see if the workload matches the crew size. But before you try to analyze the numbers look around. Are there rows of parked vehicles waiting servicing? Are there complaints that customers cannot get a slot for a PM that is overdue? Are minor jobs missed when a vehicle comes in for service because there isn't time? Are jobs interrupted to service other, more urgent jobs? Given adequate training and skill levels these are symptoms of inadequate crew size or inadequate facility size.

If work comes in and goes out and the customers are not complaining (too much) then for now you can operate from the assumption that there is a large enough crew to handle the workload. But we don't know if the crew is oversized for the demand.

Ask your payroll department to print out the hours for the shop personnel. Exclude people on vacation or people that were absent more than a few days during the period.

Using the CMMS (Computerized Maintenance Management System) print a report showing the repair order hours reported for the same group. The two numbers should be close. If all work is accounted for, as I mentioned in the last column, then the RO hours should be within 90% of the payroll hours.

If the numbers are exactly the same or the repair orders are all rounded to even hours then the data in the CMMS is probably being faked. Usually this means that people are

waiting until the end of the day and filling in the paperwork to make 8 hours. If this is the case then nothing can be learned from the data in the CMMS (garbage in garbage out). In my view I'd like to see the hours data purged, otherwise they will mislead you while making decisions.

When the payroll hours and the repair order hours are close then two things are known. The first level of CMMS integrity is in place (jobs are being typed into the system). You also know (with some confidence) that everyone is gainfully employed. The conclusion is then the shop is somewhat balanced to the workload.

If the two numbers are not close and before you jump to conclusion make sure there are no repair orders floating around. Sometimes repair orders fall behind the desk or get stuck in toolboxes. Use the CMMS checkbook function (to see if all the numbers have been accounted for) and have been closed out. Another thing that will look bad is to take the measurement right before a holiday when the maintenance crews might be pulled off to decorate trees, service floats for parades or volunteer in the community on company time. Also see that there were no large jobs accumulating hours without being reported to the CMMS.

Back to our manager, let's answer the question. Do we have the right number of people? The payroll hours for the month were 3540. The CMMS showed Repair Order hours of 3320. Repair order hours were within 90% of the payroll hours. When we walked around there were not an excess of vehicles in the yard and the customers were not complaining (too much) about service slots. Conclusion- There seemed to be a balance between the work and the crews. She could concentrate in other areas for now.

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