



LEAN Manufacturing.

In the last news letter we spoke about the need for pre -Lean awareness. Lean has earned itself an excellent name amongst many industries and amongst commercial undertakings too. Many banks and government bodies are as well versed in Lean as the top manufacturers are. To my knowledge, SARS., Standard Bank, and many others have this topic well covered. But what about the rest of us? Where and how do we start? Picking up one of the many books on the subject of Lean is well and good but there is more to this than meets the eye.

Asking ourselves why we want to go the Lean route is a good start. It is not a short haul and you will encounter challenges along the way so unless you have a good management team who are willing to devote time and energy to a new way of thinking, probably leave this for next year.

So why Lean? Here are some attractive benefits.

- Reduced time to customer.
- Lower WIP levels, therefore less scrap and reworks.
- Lower rate of obsolescence.
- Greater control over resources.

All this contributes to a lower cost of manufacture so a reason for going Lean is to save you some money.

Well then, what disciplines do we need in place in order to make a start? As far as I am aware, no one has authored any material on this subject and all assume we have the fundamentals in place. Even in the big automotive plants of this world, we will find at times, a flawed foundation upon which to lay down the Lean principles.

For example, Do we know the call-off rate our customers will demand of our products? A level load will make production much more efficient. So the sooner we can stabilise customer demands, the simpler it becomes. Try to forecast more intelligently by reading market trends and using software to ease off the peaks and valleys. At first, don't be too hasty to reduce working stock, rather carry sufficient wip in order to avoid letting customer down. Stock levels can be tweaked down later on. One company I worked with just recently has a sales force quite detached from their production unit although based on the same site. They just don't talk to one another never mind finding any sort of synergy. It is common to discover that sales expect every shape and size from production and production expect everything to be the same.

Do you know your process well enough to teach it to a new recruit? Processes change frequently and with this, constraints too. Are you intimately familiar with

the main constraint and is it being managed? Constraints will shift within the process depending on product mix and volumes. They are not static!

If there is uncertainty, regarding constraint management go back and read 'The Goal' or map your process using simple symbols for value and non-value added activities. Do this mapping on the floor following the actual process using pencil and paper rather than from your office, recording what you think is happening!

Nothing beats managing than by walk about. Many MD's who have come up along the ranks from manufacturing retain a memory of yesterdays process and even though they discuss product and process changes they forget that shop floor practice changes every time a new man walks into the factory.

Management allows workers to dictate the way in which activities and equipment are used. Seldom is this the best practice.

Do you know the cycle times for each activity and the frequency they are performed at? How were these set? When last were they updated? Do they align with the ILO and can you measure your resource efficiency with accuracy? Many companies have not yet established this data and attempting to install Lean with out it is going to be futile and costly. Attempting something the second time round is always going to be more challenging getting the buy-in.

In a recent Lean project none of the activities had been formally measured so, when asked what the various supervisors thought of their cycle time durations, it was'nt surprising to hear that variations between one opinion and another were op to 300%. Imagine setting targets and costings on these standards, decision making has no chance of being good.

Although it is a simplification, if it moves, measure it!

Do you know what the reject and rework rates are? When I walk about factories, I always make a point of looking inside scrap bins just to see how much benefit the scrap vendor is getting! However, onto more serious stuff. Supposing, you have a situation similar to one customer where the linear process of five sequential operations experiences a loss in capacity of 5% through scrap and rework. In ordinary circumstances, we may not be too concerned by such a small loss and could make this up in overtime easily enough.

In fact, the rollout effectiveness is really $95 \times 95 \times 95 \times 95 \times 95 = 77\%$, yielding a loss of 23%. That is of far greater concern when set out in process format. This is happening all the time and yet, many are not aware of it. What a great way to save energy too.

Do we know what the overtime is costing and how much of it is avoidable?

Overtime is very often a poor reason for increasing take home pay, it soon gets out of hand, and once there is difficult to reign in again. When shift targets are not achieved the second line of defence is overtime. To avoid this, measure the activities in the process and factor them with customers demand rates. Then engineer each activity with the equipment and labor to meet those demands.

You will still have to invent ways of getting around the power outages but that is another problem altogether.

Next time we will discuss the best way of going Lean.

Good luck with your efforts.

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