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"COSTS"

PERFORMANCE & COST - AN EQUAL CHALLENGE

Costs - why are we going to talk about costs? What are costs to us?

Well, costs are everything. The only reason we're here is to find out a way we can make a profit. How can we get the same function for 10-25-30-35% less cost? Isn't it as an important a job to cut the cost in half as to double the performance?

TO LOWER COSTS - KNOW COSTS

One of the most powerful things we have found in getting better costs is to have people know more costs. We don't have to tell you that because you know it. Time and again you've had to make decisions and you've not had the costs you needed to base the decision on and you didn't know how to get the costs; there wasn't any way you could get them. That's the reason we want to think with you a little about costs.

SHOP COST

What are the costs? What do they mean, anyway, when you do get them? How do you get them? What do you do when you can't get them? In General Electric costs are made up of materials, plus labor - that's the old-fashioned costs we used to hear about: prime costs. I hope you never hear about it any more. Folks now have learned that we can't make things from material and labor. But there are a few who don't know it yet, and if it's in your area you've still got work to do. It takes two more things to make products. It takes variable overhead - that is the sweeper; the fellow who brings the material in, and all of the variable expenses that you won't have if you don't make the part. Material, labor and variable overhead are called out-of-pocket cost! You can't make things for out-of-pocket cost, but it is used as an excuse to continue the status quo - to keep marginal non-profit operations in a factory. The other element of cost is fixed overhead - the buildings, the machines, the president's salary. They are set. They go on anyway, whether we make this part or not.

Now, if we want to know what the costs are, material, labor, variable overhead and fixed overhead - there is the shop cost. That does not pay for designing the part, but once it is designed that pays for making it.

OUT-OF-POCKET COST

Now, one more word about the dying out-of-pocket cost fallacy. In the past we have said that if we have the machine and the building we had better make parts on it or in it, if the out-of-pocket cost compares with the vendor's cost, because otherwise, our machine and building space will stand idle, anyway. Nowadays our management specifically says what we have to make in '61. We know it means new buildings, new machines, more space, so we do not have any excess space sitting around. Therefore, in our thinking on costs now - and we're speaking for most of the management - when an item with full costs will not stand on its feet, we don't want it in there cluttering up the machines; keeping every one busy at no profit. We want a profit from every square foot of floor and from every machine.

MANUFACTURING COST

Now, we've gotten up to shop cost. What's manufacturing cost? Add one more thing - engineering to shop costs, and you have manufacturing cost.

USE SHOP COST

Now, if we are considering whether to use our facilities to make a product or whether to buy it - if we have to engineer it, anyway, compare vendor cost with shop cost. If we can buy a good product of a good supplier that fits the job so our engineers do not have to engineer it, compare manufactured cost with purchased cost to decide what we should do, making some allowance for application engineering and other possible engineering charges. There, then, is the picture. Because we have to engineer most everything whether we make it or not, shop cost is the cost to use. Don't let any one give you a list of material and labor when you're supposed to know costs. It is meaningless; you can't compare it; you can't use a businessman's judgment.

A GASKET

Now, for a few examples. Here's what happens when we know the cost. We're looking at some gaskets, and you'll find some of them around over here - here was one about 10 in. square; a simple thing; 1/8 in. cork; nobody would look at it twice -- until you see the cost. What does it cost? \$4.15! Why? It shocked every one who saw the cost. With only 700 production, it saves \$2800 because a specialist provides it for 15¢ with no tool charge in lots of 50.

SMALL PINS

Another example - a job was running 50 per year. In it were some little pins used for a simple function. Made by a tool maker out of 1/4 in. bar. By machining a little head, then machining most of the rest of it away, and putting a little hole in. \$3.00 each! And you can buy any one of a half a dozen little devices that are on the market that will do the same job and none of them will cost you a nickel. Now, how do you get at it? By knowing the cost and not letting somebody keep the costs away from you.

COSTS DON'T MEAN ANYTHING -- OH?

Many times when you go to get costs you'll have a hard time. They'll say, "You have all the costs you need." Or, "Costs don't mean anything, anyway; costs are just averages - every machine has a different overhead." "Anything we give you might mislead you." "Well, if cost doesn't mean anything, anyway, we know one place we ought to start to cut out overhead." To solve this problem get to the head of the Cost Dept. and tell him what you need and that you expect him to give it to you. It's up to him to decide which costs "mean something" and give them to you. Then you've got something to work on.

THE COST TRUTH SOMETIMES HURTS

Just to show you how hard it sometimes is to get costs and how shocking actual costs sometimes are, here's a photograph - you can see it afterwards, if you want to. In one of our plants we were consistently losing money - top management provided new local management. They wanted to find out just what value was. So, they had one product taken apart and laid out on tables, and they arranged for some people to come and look at it. We were fortunate enough to be invited to look at it. The costs were on every part. But when we arrived somebody with a big, black ink pen had covered over every cost. Here's the picture of the whole thing, with all the costs blanked out; in our own Company; where our own people were going to study it. Why? Well, we know why. When they actually saw the costs of those individual simple parts, they thought were costing pennies - when they actually saw they were costing \$10-\$15 each, they were so ashamed of it they blanked it out. What did they say? Well, in this case the Cost Dept. decided "that the cost figures were inaccurate". The total wasn't inaccurate; there's no question about that they said yet many of those totals were five to ten times what they should have been.

YOU MUST GET COSTS

That's what you get into, and you know it. But now, when you ask for costs, you get them. Don't let any one talk you out of them. You can't analyze value without them. Getting them makes a good fight, sometimes, but a lot of us like to get into that kind of a fight. It makes the Company so much money. Get somebody to help you in your plant; if you're in a position so we could help, we'll be glad to. You have to have the costs. In order to help you know more costs, this slide rule is in your bag of tricks. You won't have any trouble figuring out how to use it.

THE BEST FRUIT IS THE HARDEST TO GET

Now, just remember this: the harder it is for you to get costs, the more fruitful it'll be when you get them. If something stops you from getting costs, it stops everybody else, and when you get them they will really be an eye-opener. So, "Get by that bottleneck - get them."

THINK CLEARLY - TAKE A FIRM STAND ON COSTS

We would like, then, to have you think in terms of realistic, realizable costs. Do not use labor and material. It means nothing, absolutely. Ordinarily, unless there is a reason to use something else, (and it might be manufacturing costs) use shop cost. In some of our areas you will have to work with out-of-pocket costs - but I don't think it will continue too much longer; Mr. Millham has come out very strongly in favor of using shop costs in comparisons, because then we don't have our factories filled up with waste operations that pay no dividends. More recently Mr. Cordiner has sent around to all General Managers an article on Creep. It deals with this very subject. We suggest you read it and show it to your management.