

THE DEGRADATION OF THE AMERICAN MACHINIST

by Terry D. Coffman

It isn't often that I get on my soapbox to speak out, but this is just one of those times. While reading the Sunday paper and drinking a cup of coffee waiting for the wife to get ready for church, I saw the following ad in the Help Wanted section. The words "Master Machinist" caught my eye. I have never really considered myself a master machinist; however I can hold my own. A true and blue machinist went through a four-year apprenticeship and then spent the rest of his career learning his trade. My interest started later in life as a hobby, and only then did I realize that I had missed my calling. I worked twice as hard to get there half as fast.

I read over the requirements to see if I even qualified as a MASTER MACHINIST. Two years experience in a general maintenance position, experience in operating lathes, milling machine, shop equipment and various hand tools, welding experience, basic knowledge of electricity and electronics, plumbing and facility maintenance experience required. Willing to work any shift including 24/7 schedule and overtime. What the????????? A master machinist would have at least ten years experience in a machine shop.

As my eyes read the job description, confusion set in. What and who were they looking for? A master machinist? A machinist? A millwright? An electrician? A welder? A plumber? Or a handyman? Plus someone who is at their beck and call with the dreaded 24/7 shift and overtime. In other words, whenever we want you; you will not have a life outside our plant. I decided to call.

With the help of a contact, I found out what they were willing to pay, \$9- 15.00 per hour depending on experience. Less than half what a master machinist is worth. Darn! I thought to myself, "Do these people even know what a master machinist is?????" I called and talked to a lady in the HR department. According to your ad, I explained, you need a master machinist. Are you looking for a master machinist, a machinist, a millwright, an electrician, a welder, a plumber or a handyman? A sore spot must have been found as she bluntly told me they were looking for a master machinist, but they wanted someone who could fix anything in the building. Do you even know what a master machinist is? I asked. This question only rubbed the sore spot. I tried in vain to explain to her that you do not call a master machinist to fix a stopped up commode in the ladies room. The phone call was cut short.

"Oh well" I thought as I meandered out to my shop. Pausing at the door I put my tattered old denim shop apron on. The sights and smell of my small home machine shop filled my senses. The dollars it brought in sure help the old budget out. If only there were more people needing machine work done. Walking over to my bench, I scooped up a sleeping Mr. Paws (the shop cat) and gently dropped him to the floor out of my old draftsman chair and sat down. Like a spring Mr. Paws jumped, catching his claws in my apron and pulling himself onto my lap to finish his nap. I leaned forward trying not to disturb the cat and unlatched the latches on the old Gerstner toolbox. As I opened the lid, my eyes tried to focus on a bald and tired man in the mirror. Do these people even have a clue?

A master machinist would be at the apex of his trade. Admired by all from the plant manager to the floor sweep hoping for the chance one day to follow in his footsteps. A man whose work was never questioned, who knew more than most engineers, an encyclopedia of mechanical

knowledge, slow to anger and quick to praise. A man whose every move was deliberate and exacting, not like a wild woman making a mad rush to the outhouse on a cold night in January. Working from detailed prints, a sketch on the back of a napkin or just a suggestion from a workman on the floor, he is able to produce a finished part or tool. An answer box that always seemed to be available for whatever the question.

As I glanced at the tools lying in the top of the box, always keeping an eye out for the first sign of rust, the old hammer and center punch caught my eye. I bought the hammer from an old toolmaker many years ago. It was handmade and used when he bought it. No telling how old it was. The beautiful old hardened head showing only a trifle bit of mushrooming after decades of use. The feel and balance is like no other hammer. It was made by a master toolmaker. The old center punch that has marked countless holes lies by its side. No telling what some company unknowingly paid for some toolmaker to make it. It was hex stock upset in the center, tapered to the ends with the hexes offset and overlapping by 30 degrees. The ends were then carefully turned round and ground to a perfect point. The heat-treating was close to perfect as to this day the point is hard but the head resists mushrooming and chipping. It was a spare time project to show off his skill, no doubt. There is nothing wrong with store bought tools, but the stuff made by the old toolmakers is in a class all by itself. The hammer and center punch are among my favorite, most prized tools and see the most use in layout work.

Opening drawer after drawer, my eyes survey the tools carefully laid out before me. So organized as to make each as assessable as possible and yet store twenty pounds in a two-pound can. I notice the names: Starrett, Brown & Sharpe, Lufkin, Tumico, Union, Athol Machine Co., etc. How many of the younger guys have ever heard of the name? No Chinese tools here putting another American out of work. Old toolmakers, and even I, had made some the items for specific jobs. It is a wonder the old Gerstner doesn't bulge at the seams. Eleven drawers of tools and memories spread over many years just asking to be used.

Like so many others, due to layoffs as American jobs move overseas, I find myself looking for work. But when you are over fifty, doors simply do not open for you. The companies won't tell you "you are too old," but they want the young guys with degrees in machining technology that can program the Computer Numerically Controlled (CNC) machines. In today's market, the machine operator loads parts into a turning or machining center with names most of us cannot even pronounce. Sure the labor is cheaper overseas with no environmental controls or OSHA regulations, but what is the true cost? Corporate America is looking to make a larger profit with more and more sophisticated machines that do not required highly skilled labor to run.

The pick and place robot has been replaced by the pick, place and punch robot. Load, punch the start button, and unload the part when the cycle stops. Soon, all we will do is unlock the door to the plant and turn the machine on. Just think how many more jobs are being eliminated as you read this. I do not recommend going back to all manual machines, but someone needs to remember who built the first prototype of anything. A computer didn't think it up and build it, a man did.

Eli Whitney, inventor of the cotton gin, is credited with building the first milling machine just to manufacture muskets faster with interchangeable parts, even though this is in question by some who think he copied the milling machine and improved it. Regardless, after Mr. Whitney had

that one brilliant idea, the industrial revolution shifted into high gear and is still gaining momentum. We have won wars with technology and productivity, put a man on the moon, developed an artificial human heart, built the first computer and so on. I wonder who the machinist was that made the prototype for the artificial heart? Much of this work was done by hand with pencil and paper or a slide rule. Remember, Kelly Johnson built the U-2 spy plane and SR-71 "Blackbird" with a slide rule and a small-handpicked group of craftsmen. The fastest and highest flying aircraft were built in the 1950s and 60s without AutoCAD or AutoCAM.

Mr. Paws stretches, almost falling out of my lap. I put him on the floor, but it doesn't do any good. He is back in my lap before I can blink. I slide the front back in place and gently close the lid on the old Gerstner. Standing up, I put the cat back on the chair to finish his daylong nap and lock up the shop.

I go back in the house, fix some lunch and get ready for work. I put on my blue vest with all the buttons and tags on it and practice my line "Good morning, welcome to Wal-Mart".

Nope, there just isn't room for a pipe wrench.

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