

Jerry Glaser

Turner, Innovator, Toolmaker

By Alan Lacer

You may be lucky enough to own a Glaser tool. What you probably don't know is that Jerry Glaser is one heck of a woodturner, too.

Perhaps one of the most influential yet humble personalities in the woodturning field is a mystery to most. Few know that his woodturnings appeared in major shows in the late 1950s and early 1960s. Even those aware of Jerry Glaser's name barely know of his contributions to woodturning tools, chucks, and jigs.

The man

Although he lived most of his adult life in California, Jerry grew up on the west side of Chicago, where his father owned a Czech restaurant. Early influences there guided him to woodturning and engineering.

Jerry first tasted woodturning



during a 1934 shop class at Farragut Junior High. Those bowls—turned more than 70 years ago—would be well received even today at most AAW chapter meetings and exhibits.

As a teenager in the late 1930s,

Jerry attended an exhibition of Swedish crafts at Marshall Field's in downtown Chicago. In that show, he saw bowls with sculpted rims—evocative of natural-edge bowls that his friend Bob Stocksdale would make famous years later. "What impressed me were the turned bowls that had the undulating curved form on the edges," Jerry recalls. "I tried to incorporate this shape in my work much later on."

Jerry's engineering background gave him a solid foundation in understanding metals, and therefore, woodturning tools. His technical training as an engineer was at the Armour Institute of Technology (now the Illinois Institute of Technology).



In 1963, Jerry Glaser turned this 6×11½" teak bowl, which was featured in *Wood Turning in North America since 1930*. Jerry's work included a sculpted rim, a textured exterior, and carved feet—features that woodturners “discovered” decades later.

During WWII, Jerry worked in a Cleveland engine laboratory on the challenges of oil consumption in long-range bombers. Following the war, Jerry moved to California to accept a job with Northrop Aircraft Inc., where he specialized in gas turbine engines. Jerry later designed jet engines for General Electric, then landed at AiResearch, where he spent the last 28 years of his engineering career before retiring in 1987.

Make that retirement from engineering. He spent another 15 years developing woodturning tools. Now 86, Jerry only recently sold his firm to CryoSteel Engineering & Technology Inc.

Jerry continues to consult for the Los Angeles-based company.

The woodturner

Close your eyes and imagine a bowl with a sculpted rim, a finely textured outside, and carved feet. Although this sounds contemporary, now imagine this piece featured in a major California art show in 1962. But that gets ahead of the story about Jerry as a woodturner.

In the early 1950s, Jerry returned to woodturning. After purchasing an Oliver lathe for \$75 at an auction and finding a California supplier of exotic hardwoods, Jerry was set to pursue turning in a serious manner.

Jerry was an invited artist in a number of West Coast shows. The “California Design Eight” in 1964 chronicles Jerry’s stature. This

I think that the real advance in turning tools since the 1960s came with the use of high-speed steel and the development of the deep bowl gouge by Peter Child. High-speed steel and the improvements made by the use of high vanadium content steels have made a big difference in the edge holding of turning tools as compared to the plain high-carbon steels of years ago.

—Jerry Glaser

“Jerry’s work was as good as anyone else around at the time. If he had stayed with woodturning, he would have gone all the way. He made a decision to go a different direction so we would all have good tools to work with.”

—Sam Maloof, furnituremaker



Jerry turned this 6"-diameter rosewood bowl in 1970. The wall thickness is 1/8".

Opposite: This 1989 sketch shows a Glaser concept for a rotating cutter for an ornamental lathe. “Jerry’s drawings and penmanship are a direct reflection of his genius,” says Paulo Marin, whose firm purchased Glaser Engineering in late 2005.

Early tools

The first tools Jerry made for Bob Stocksdale were formed from square material that was milled to approximate the look of the hot forged tools Bob was using (they looked a lot like the British long and strong spindle gouges). It wasn’t long until Jerry realized there was a lot of wasted effort to only achieve a “look.”

After those initial tools, Jerry switched to milling the tools from round bar stock.

There was an event from this period that is worth noting. Jerry was a full-time engineer and a serious woodturner. Thinking that toolmaking was a direction

show included five pieces from Jerry, six Bob Stocksdale turnings, and several Sam Maloof furniture pieces. Prices tell a story: A Glaser cocobolo bowl was priced at \$50, a Stocksdale lignum vitae bowl went for \$18, and a Maloof side table had a \$350 price tag.

Jerry’s work from that period looks like it could fit comfortably into a 2006 exhibition. The sculpted rims, bowls with texture on the outside—shallow carved scallops to add interest—and the carved feet all can be seen in work being done today. The carved feet were Jerry’s solution to screws from his lathe chuck. “I just carved away the area with the holes, and what was left became feet,” Jerry recalls.

More than one woodturner has pointed out he or she has seen examples of Jerry’s turning in books printed in the late ‘50s through the ‘70s. Design books, exhibition catalogues, and technique books have examples of

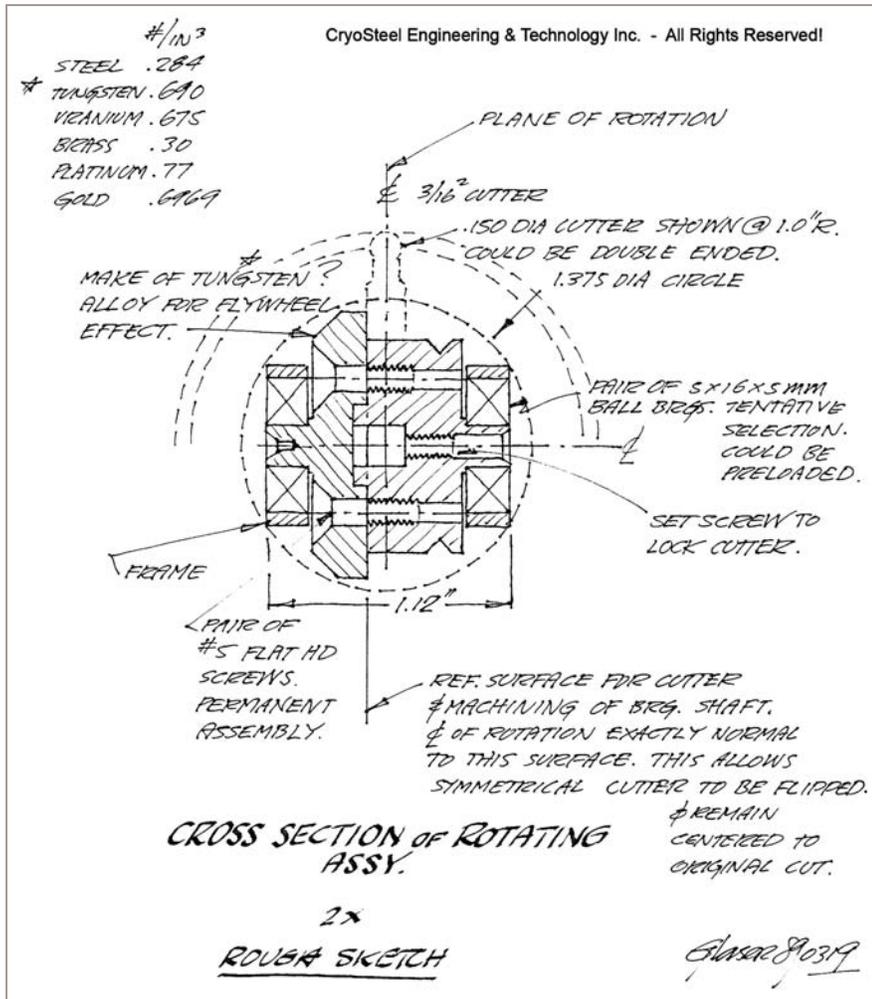
Jerry’s woodturning.

At this early stage of modern woodturning, Jerry appeared poised to become widely known as a turner. However, due to one small piece of steel, Jerry would become known for his huge contribution to the woodturning arena: a maker of fine tools.

The toolmaker

While sharing the stage with the likes of Bob Stocksdale and Sam Maloof, it did not take too long to develop friendships .

On one of the early trips from Jerry’s home in the LA area up to Bob’s in Oakland, Bob remarked about a great scraper he had made from a special piece of steel—and wondered if Jerry could make a gouge from such a steel. Having noticed a name on the steel, it was an easy task for Jerry to determine the type of steel—M2 high-speed steel (HSS) developed during World War II.



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that others should pursue, in 1966 Jerry sent a sample of the M2 high-speed steel to a leading British toolmaker. The suggestion was made that they should develop woodturning tools from such steel. The outcome: Jerry never received a reply, and British tools were not made at this early date in high-speed steel. The more significant outcome was for Jerry to develop a line of high-speed steel (HSS) tools independent of other makers.

Timing is everything

As more woodturners incorporated artistic expression in the late 1960s, there was a void:

"Jerry Glaser is bright as a button. You would not believe the details in his drawings from decades ago—ideas he never got around to executing. He has an incredible mind."

—Stuart Batty

Glaser's turning-tool milestones

What is remarkable about Jerry's investigations and tools were the early dates. If Jerry was not the first, he was certainly an early pioneer in these innovations.

- 1966** Introduces commercially available high-speed turning tools
- 1966** Introduces milled turning gouges from round stock rather than stamped or hot-forged
- 1966** Introduces first commercially available tools truly sharpened and hand-honed ready for use
- 1975** Introduces commercially available particle-metal turning tools
- 1980s** First to offer turning tools in an array of specialty steels, including M2, M4, A11, 15V*
- 1980** First to introduce commercially available American-made deep gouge
- 1982** Develops commercially available grinding jig with holding and manipulation features
- 1985** Introduces interchangeable turning tools with single handle
- 1985** Introduces commercially made metal turning tool handles loaded with lead shot to dampen vibration
- 1985** Introduces multiple-based screw chuck (three different bases on the same chuck). This was the basis for many chuck designs that followed.
- 1988** Develops double articulating hollow turning/boring tool
- 1989** Develops first bowl skew
- 1995** Introduces cryogenically treated steel at -300°F for extra toughness

*Many of these are particle-metal technology—something emphasized today by other toolmakers as a recent innovation.

The great American turning tool companies no longer existed (such as Swan, White, Witherby, and the older Buck Brothers companies). Thus, many turners of the time made their own tools or had them made.

With Jerry's love of turning, his engineering background, the lack of innovative woodturning tools on the market, and the dawn of contemporary woodturning, the stage was set for someone to fill the niche. Jerry shifted his energies from making woodturnings to making fine tools for others.

In the early 1970s, Jerry entered a partnership with Billy Auvenshine to form the Turnmaster line of tools. These had wooden handles and were of two types: the $\frac{9}{16}$ "-diameter "Stocksdale Gouge" and a 1" scraper to complete the bowl-turning set. Soon, the set was expanded to include deep-fluted bowl gouges.

The handles were based on a sample sent by Bob Stocksdale to Jerry: first roughed on an automatic lathe, then fitted with ferrule and finished off. Each one was completed by Jerry's hand.

In the mid-1980s, the partnership of Turnmaster ended, and the company became Glaser Engineering. About the same time, Jerry moved from wooden handles to the shock-absorbing metal handles filled with lead shot. The line of tools expanded to include a double articulating hollowing tool, grinding jig, screw chuck, and a wider variety of tools and specialty steels as described on *page 21*.



Jerry Glaser turned this classic 5½"-diameter walnut bowl in a junior high shop class in 1934.

One of these devices from the 1980s is worth commenting on. Jerry discovered the problem of repeatability in grinding tools that were on the market. After noting a jig for sharpening knives in the cutlery trade (a clamp on a long rod that reached the floor), Jerry created a sharpening jig that was a forerunner to the gouge grinding jigs that have followed.

The jig held the tool securely, and the pivoting action created a side grind on bowl gouges or detail gouges with ease. The belief that the support should reach the floor was based on the notion that most of the weight would be borne by the floor rather than the jig itself.

Garage machine shop

In a crowded two-car garage tucked under his home near the Los Angeles International Airport, Jerry has assembled and ground all of his innovative tools.

The actual making of the tools had a number of steps. First,

"Other than my marriage, working with Jerry's tools is the best thing that has ever happened to me. They are the only tools I use. And it is a good thing that I have enough of them to last me the rest of my life."

—Hans Weissflog,
German box maker

Jerry acquired the specialty steels from several different U.S. manufacturers. He then delivered the steel to Paul Romeo, a California machinist that Jerry



Right: Some of the earliest tools Jerry made in the 1960s for his friend Bob Stocksdale. The bottom prototype gouge was machined from rectangular bar stock.



worked with since 1987.

Jerry wrote the specifications for the milling and shaping and then tested the final results. Next, the completed steel was sent for heat treating and topped off with cryogenics, where the specialized steel is taken to -300°F to improve the toughness.

Back in his garage, Jerry personally fit the tools into his readily identifiable style metal handles—complete with lead shot to dampen vibration. The last step was for Jerry to sharpen each tool, finished off with hand honing of both sides of the cutting edge. No assistants, no outsourcing—just Jerry and his garage grinder.

What never made it to market

If you push the envelope, there are bound to be failures.

“I’ve tried a number of things to improve my tools,” Jerry recalls. “The first one that didn’t work out was a ceramic cutter.

I contacted a firm in Japan and had them make me some $1\frac{1}{2}\times\frac{9}{16}$ ” shallow blades that I could mount in a special holder I made for this purpose. They didn’t last as long as I thought they should. And you couldn’t sharpen them at all.

“At that time I had a customer, Mike Shuler, who did and still does a lot of turning of glued-up bowls. The abrasive action of the glue joints was so severe that it required a lot of sharpening of the best steel tools I had to offer.

“The solution to this problem was to make him some tungsten-carbide tools. These worked much better than the steel ones, and my thinking was that the ceramic ones would do even better.

“I also made a boring bar with an articulated head for a while that was five feet long, made out of $1\frac{1}{2}$ ”-square tubing, and filled with lead shot. The trouble with this was that it was a real effort to package and ship it. So that lasted only a couple of years.”

No name is his trademark

There is one thing that is striking when you look at Jerry’s tools, jigs, and chucks: Nowhere does his name or the name of his company appear. I honestly can’t think of another company in the turning field where this occurs. When asked why, Jerry responded, “I just felt I never needed to.”

On Jerry’s setup bench where he put together each tool lies a strange-looking tool: It almost looks like a Glaser gouge with its metal handle and flute design, but it clearly is not. There’s a great story to tell about this gouge.

Years ago, Jerry was approached to sell his business, but he refused. His suitors decided to copy his tools and introduced similar metal handles, similar-looking gouge design, and likewise no identifying name on the tool. I had to ask Jerry why he looks at this tool almost every time he works in the shop: “It reminds me just how bad a copy can be.”