PHOTOGRAPHS BY KURT HERTZOG

Beware of the myths

Kurt Hertzog debunks the myths concerning woodturning and teaches you to trust your instincts and what the experts say, but don't believe everything you read!

Most woodturners coming to the craft are in a very precarious position. Their experience can range from none to having had a grade school class in woodshop somewhere in their past. Whether years ago or recent, the school experience doesn't often delve into the topic exhaustively. As a newcomer, their thirst for knowledge makes them very susceptible to less than accurate sources. Information available includes magazines, books, clubs, friends, forums, classes, videos and more. While for the most part everyone trying to impart knowledge is well intentioned, the lack of vetting presents materials that range from poor to excellent. Commercially available videos that are dated can be less than ideal. Time has a way of changing techniques, tools, and in particular, acceptable safety practices. Internet videos available can run the entire span from superb to extremely dangerous. Equipment, tools, techniques, safety practices and more are all often somewhat coloured by the time they reach the newbie. This issue is dedicated to trying to put some of the prevailing myths into perspective. Usually there is not a single 'right' answer, but often a generally accepted position. Shining a bit of thought on some of these myths will hopefully let decisions by the newcomer be a bit more objective.

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Modern safety equipment is a must for any woodturner. Depending on the project, proper eye- and face-protection products are available in the marketplace

Not only do face and eyes need protection. The lungs and hands need protection as well. Dust and chemicals can be very hazardous. Be smart about PPE!

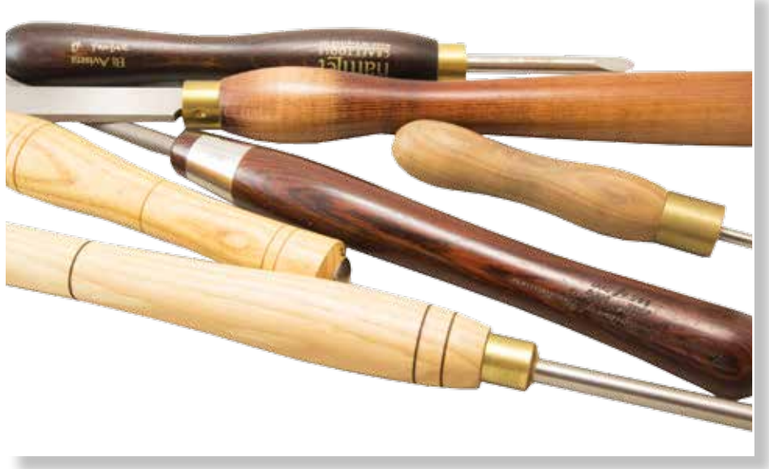
SAFETY EQUIPMENT IS FOR WIMPS

Depending on your mentor, a person, printed source, or a video, you can have personal protective equipment presented in a 'sensible should do' mode, the macho 'who needs it' mode, or somewhere in between. In days gone by, using safety glasses wasn't even widely practised. Now we know better with a wide range of eye/face protection, dust protection, chemical protection and good practices when turning. While I can't speak to your specific safety needs, I can assure you that injuries occur in a split second and lack of proper protective gear or a lapse in safe operating practices can cause injury from minor cuts up to fatalities. Do not take safety lightly! Use the gear that will provide you adequate protection based on what you are doing. If someone makes light of the need for safety precautions, you might do well to avoid them as a source of learning or expertise. They aren't providing sound advice in my opinion. Get the personal protective equipment – PPE – you need, maintain it, and make it your routine to always use it. When circumstances indicate different or additional needs, stop and get what is necessary prior to proceeding. The myth that safety equipment and practices are for the wimpy and are unnecessary is just plain wrong.

Dust-extraction equipment can be an asset but is not a replacement for dust masks. By the time dust is in the air to be extracted, you've already been breathing it

OLD STUFF ISN'T ANY GOOD NOW

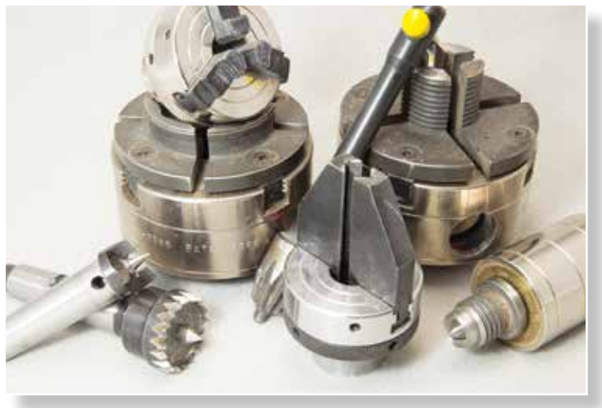
The excitement of a new hobby and the fun of shopping for gear put the newcomer into an awkward situation. With their limited knowledge, they sometimes are up-sold by merchants who can influence their purchases selling them tools or equipment that are far in excess of their needs and capabilities. Other times, the learning turner is led to falsely economise to be able to buy everything they think they'll need. Often they will be sorry about the quality of their purchase(s) later when their skills and experience tell them better. A quality and functional used lathe can often be better value than an economy new lathe. Maintained and not abused, a well-built lathe has little to go wrong and can be updated and repaired readily. Don't mistake these comments to mean avoid buying new. My statement is to clarify that a good-quality used lathe will serve you nicely and can be a better value, economically and functionally, to a bargain-



New or old, modern or not so modern, quality and very serviceable used tools are available. Unless terribly abused, there is still good life left in skilled hands

OLD STUFF ISN'T ANY GOOD NOW (CONT.)

value lathe of lesser quality. The same ethos holds true when it comes to tools. Don't fall for the myth that old tools won't serve you well and that you need the latest in shapes, sizes and metallurgy. Other than the hard to find carbon steel tools, there isn't much that can be done to damage high-speed steel and beyond. Lathes, chucks, tools and other accessories can be bought new or used, depending on your needs and wallet. Don't get caught up in the myth of old is passé and isn't any good. Buy smart. New is nice but isn't always an improvement over the tried and true. Quality can be had whether new or old.



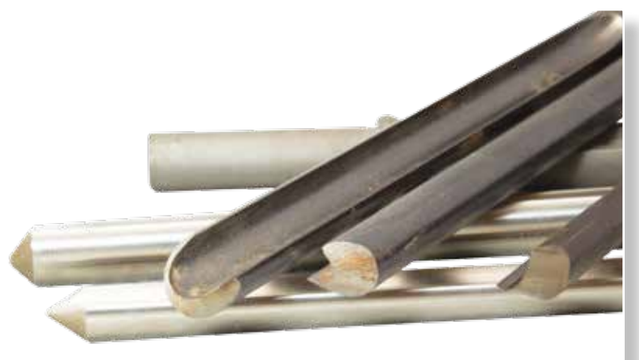
Turners are always upgrading or adding new tools to their kit. Quality chucks, tailcentres, drives and more can be available used for a fraction of their cost new

YOU NEED 'FILL IN THE BLANK' TOOL STEEL TOOLS

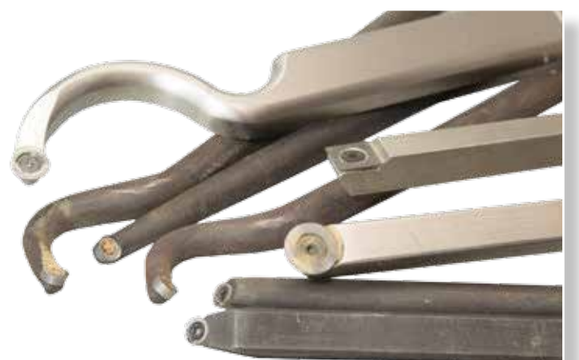
If you want to start a heated discussion, voice your opinion on which tool steel is best for turning tools. That will invoke as many differing opinions as high-speed versus low-speed grinders. I'm not a metallurgist but the ones that I know have given me what I think is sound advice. Carbon steel will accept the keenest edge of all of the tool steels we come into contact with in woodturning. They are a thing of the past in the woodturning tool world but sometimes old carbon steel turning tools can be found. They are susceptible to permanent damage with overheating on a grinder. Proper sharpening techniques allow these tools to be perfectly serviceable. A newcomer might not possess those sharpening skills so carbon steel might not be their best choice. It is also worth noting the cutting edge on carbon steel does not last as long as that of high speed steel. Steel chemistry is controlled at manufacture to create steel with whatever characteristics are desired.

For our purposes, the alterations to create high-speed steel – M2 and M4 for example – A2, D2, and more are tailored to increase the temperatures of operation, wear resistance, and 'toughness'. The goal in woodturning tool steels is usually to increase the amount of cutting service available between sharpening. Since there really isn't a truly free lunch, accept the fact that alteration in the base chemistry of any tool steel provides gains in one area while taking away in another. Don't fall prey to the notion that you need 'fill in the blank' tool steel tools. Some of the finest work ever produced on a lathe was done with carbon steel tools. Everything from carbon steel tools through to the latest powder metallurgy will be serviceable if sharp and correctly presented when cutting. Frequency of sharpening and keenness of edge will be a function of the steel used but all of the commonly used woodturning tool steels will work nicely with proper sharpening and care, so make sure that sharpening is part of your turning routine. Buy as you please but be an informed consumer. Make value judgements on how much you are willing to pay for the different steel available for the benefits offered.

The most common tool steel used in the modern woodturning tool arena is high-speed steel. It is almost always laser marked somewhere on the tool as HSS



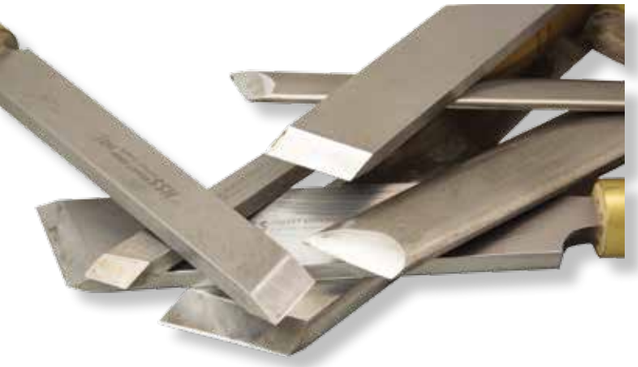
With high-speed steel being the most prevalent, there is no shortage of specialty steels available touting their benefits. With their added benefits comes added price



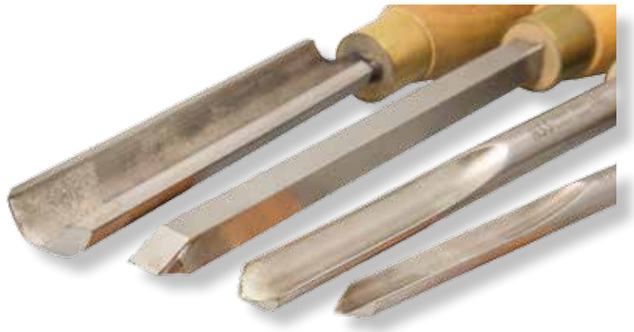
The replaceable cutter tools have been making inroads lately. The carbide cutter is rotated as needed to provide a sharp edge and replaced when totally spent

REAL WOODTURNERS ROLL BEADS WITH A SKEW CHISEL

Much like a right of passage, many turners will insist that you really haven't arrived until you master the skew chisel. As a user and big fan of the tool, I believe the skew chisel can be mastered by anyone willing to learn the few inviolate rules of the skew and put in some practice along the way. That said, in my opinion, those who equate skew use with being a 'real turner' are doing woodturners, and especially the newcomer, a disservice. While the skew does many cuts superbly, almost every cut can be accomplished with a different tool. If you never had a skew chisel in your kit, you would be able to do everything needed in your turning tasks with tools that newcomers tend to master more easily. Remember that wood is stupid! It isn't aware of what tool you are using to cut with provided it is sharp and presented properly. Will your turning friends embarrass you if you turned your beads with a spindle gouge or beading & parting tool? Will they be able to tell what tool you used if you execute the beads well? If you present a well-turned final result and don't tell anyone which tools you used, it will still be a well-turned result regardless of this fact. Don't ruin your work because you're told that only real turners roll their beads with a skew chisel. I encourage you to learn the skew chisel if you wish and enjoy the many cuts it does extremely well. But don't let the myth of skew mastery indicating turning prowess fool you into unhappy results. You will be able to live your turning life quite nicely without a skew chisel in your tool rack.



Skew chisels are available in all sizes, shapes and types. A versatile tool with many cuts it excels at, it is well worth mastering if possible but certainly not crucial



The spindle roughing gouge, beading & parting tool, spindle gouge and special grind spindle gouge can fill in quite nicely for the skew chisel and are far easier to master

A SLOW-SPEED GRINDER IS NEEDED TO PREVENT TOOL DAMAGE

Putting a sharp edge on their tools will be an ongoing need for every woodturner. Most turners use a grinder but there are belt systems available that also work quite nicely. The user can choose either method based on their preference and availability of equipment. Belt systems will yield a flat grind while grinders will create a hollow ground edge. Either will work to create a cutting edge very serviceable for woodturning. The most common method is a bench grinder. The myth that comes along with the grinder is that a slow-speed grinder is needed. The slow speed, 1,725rpm on 60 cycle power, is believed to be more forgiving for the newcomer to learn how to sharpen. Perhaps this is a holdover from the days of carbon steel and damaging the temper with overheating at the grinder. Regardless of the origin, be assured that a high-speed or a low-speed grinder will do a fine job of sharpening and with modern tool steels, there isn't a need to be concerned with overheating and damage. Proper sharpening skills will be an asset to your woodturning and are worth mastering quickly, but don't fall prey to the belief that you must have a low-speed grinder to prevent damage to your tools. When you are learning, a high speed grinder will make quick results whether good or bad. It won't take long to get past that and be able to work well with a high- or low-speed grinder. The next issue will be dedicated to sharpening, sharpening systems, tool angles and more sharpening myth busting.

The sharpening system most commonly used is the bench grinder. A slow-speed grinder is more forgiving but modern tool steel isn't damaged with heat from a grinder

JIGS AND FIXTURES ARE CHEATING

Another of the common woodturning myths is that you need to be able to sharpen your tools freehand. There is no shame in using jigs or fixtures to sharpen tools if it aids in creating the desired edge. Many watch the professionals who freehand sharpen and equate that free-hand sharpening with being accomplished. A professional will likely sharpen more tools in a day than the hobbyist will in a month. Time spent using jigs and fixtures is time that can't be used producing saleable turnings so professionals will usually develop their freehand sharpening skills to minimise the time needed to freshen an edge. Also, if they are a travelling demonstrator, they won't know what they will have available where they demo so they need to be able to work totally without aids. The hobbyist has no comparable time constraints so using any jig or fixture that makes sharpening successful and repeatable is of value. Jigs and fixtures will help provide better and repeatable results for the sharpening process.

JIGS AND FIXTURES ARE CHEATING (CONT.)

The use of jigs and fixtures can not only make the process easy and repeatable but can also let the newcomer focus on the many other learning needs

Regardless of your sharpening skills, some tools really benefit from using a jig to sharpen them. The time taken to set and use the jig is well rewarded

A well-equipped sharpening system will have quality toolrests and also provisions to accommodate jigs and fixtures for either regular use or those special needs

YOUR TOOL NEEDS TO BE 'XXX' ANGLE

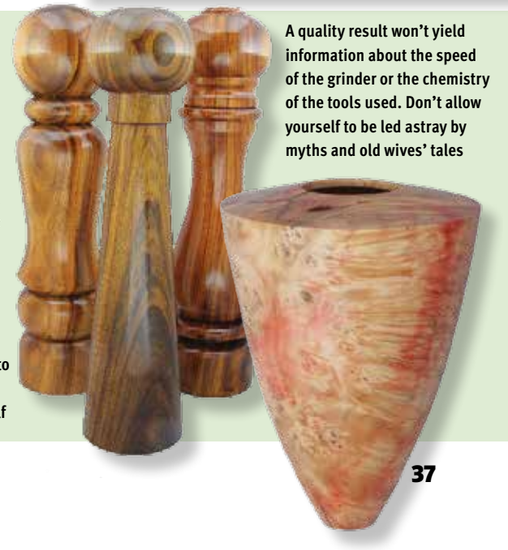
Depending on your turning projects, experience, selection of tools and materials, you'll have different needs for tools. Depending on whom you listen to, there is a specific grind angle for each of the different tools. For those who believe that your bowl gouges need to be ground to 'xx°' and your spindle gouges need to be ground to 'yy°', I'd like to offer a different thought. If you are going to position the tool, ride the bevel and then slightly lift the tool handle to create a clearance angle facilitating the cut, does the wood know what the tool grind angle is? I'd suggest that the wood is oblivious to the tool grind angle other than the clearance to access tight places and perhaps track an inside curve properly. As I think of cutting edges, the included angle is a balance between keenness and toughness. Contrast a razor blade and an axe. The razor blade has an extremely keen edge yet is not very tough or durable. An axe, in contrast, is not extremely keen by comparison but has a far tougher and more durable edge. The difference in the included angle creates the difference in the properties of keenness and toughness. I suggest a balance between keenness and toughness chosen by the user. Will the edge keenness or durability be dramatically different between 35, 40 and 45°. I think not. Other than tools ground specifically for a clearance need or to work properly in special applications, such as around the bottom curve in a bowl, choose your own angles based on your needs. Somewhere in the middle of the range such as 45° is a good start. Vary these angles as you need based on your experience and rather than someone selling you a brass gauge or convincing you on a tool grind angle that must be adhered to.

My general use tools have a middle-of-the-road grind angle. I've never measured but it appears to be about 45°. My balance between keenness and toughness

Having a common angle for all but my special needs tools allows for a toolrest to be set for fast and easy sharpening. Jigs and fixtures deal with the special needs

CONCLUSION

As you move down the path of learning about woodturning, you'll have opportunities to learn from many sources. Learn everywhere you can but be aware that just because it is written, said or presented on video, that doesn't make it true. The sources you trust should be able to explain why they are steering you a certain way. It should be clear and make sense to you. Beware of those who can't or dismiss your curiosity for explanation. There is no magic or voodoo in woodturning. Everything involved from the materials, tools, equipment and process can be explained with physics. As you progress, your opinion of things might change but still should be couched in facts and physics. Don't allow yourself to be led on any path that doesn't make sense to you. I recommend that you seek out additional information if you aren't satisfied with the source(s) you have. It is a long journey without an end so you will be continually learning. Do it in a fun yet safe manner based on facts, not tales. ●



When you present your work, no one will be able to tell if your work was done on a used lathe or with which brand of tools. The work will speak for itself

A quality result won't yield information about the speed of the grinder or the chemistry of the tools used. Don't allow yourself to be led astray by myths and old wives' tales