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August Meeting Highlights

Our host this month was J.W. Anderson at his home in DeRidder. The meeting facility was his shop rather than the great pavillion. The hot weather drove us inside the air conditioned shop. For those that didn't see the inside of his home, it is filled with great wood-working as is the porch with great benches and swings.

Theresa Wilfret won the Bring Back Item this month, a juniper bowl by Barry Humphus. George Kuffel won the raffle, a nice clamp set. I didn't think George needed any more clamps for his shop, but he claims that he does.

Jim Couvillon brought us an old Sears circular saw from the early 1950s. It felt like it weighed about 20 pounds and still runs but is quite loud. I'm certain that it was a real boon to house builders from that era and they likely didn't wear hearing protection.



Gary Rock had some new bowls to show including a nice one of pine, wormy magnolia, a cherry weed pot, a small juniper bowl, an ash box, a pecan bowl and a sweet gum vase. Tom Bergsteadt

brought photos of a gift he had recently made — a turned paper clip holder. Pie Sonnier showed off a fine antique car made of walnut, purple heart and bass wood.

Elwood Manual brought several small bowls and boxes he has turned. Most were of pecan and juniper from wood he got after Hurricane Rita. Jack Stegal builds wonderful boxes and he brought an especially nice one made of walnut and an unknown wood he got from a S. American palet he ran across. The wood was fine grained, straight grained and varied from a pinkish light brown to a redish brown and very dense. It seemed to contain a high silica content. While no one knew exactly what it was from first look, it could very likely be a Brazilian wood

called makore, commonly used in palet making, furniture, cabinetwork and turning in Brazil. Host J.W. Anderson showed us a spalted beech box. J.W also showed off a wonderful small table that he built.

Gary Rock talked about moving heavy objects in his monthly safety talk. The trick to lifting



anything, especially if it is heavy is to use your legs and not your back. I certainly know this as several years ago, I received an injury to my shoulder from lifting a heavy computer monitor incorrectly. These days, I show my students at Sowela how to move CRT displays the right way using leg rather

than back muscle.

John Perry discussed a new Festool product called the TS 55 that incorporates a fine circular saw with a rail system to guide it. The system brings the accuracy of a panel saw to a portable environment that allows the saw blade to retract into the housing to give you the option to start and end the cut anywhere in the work.

Annual LCWW BBQ

The LCWW Annual BBQ is coming up at the PPG Family Pavillion in Wewstlake. The BBQ will feature great food catered by Hollier's restaurant (they will be open soon) and the event will be on Wednesday, October 17th, 2007. Tickets are available from Gary Rock, Dick Hopes and Barry Humphus. Just call, email or see one of them at a meeting of the LCWW Club.

Next Meeting

September 15, 9:00 a.m. at the Shop of Jeff Cormier in Iowa where Jeff and others will show off their latest work. Call Jeff at 582-3278 for directions.

Refurbishing a Table Saw

Member Leonard Wilfret brought a Sears Craftsman 10" model 113.298240 contractor table saw to us recently and as he got it for free, it was a great deal. These were built by Emerson Electric for Sears (Emerson now manufactures the Ridged line for Home Depot) from the 1970s to the early 1990s. Looking at a new Ridged at J.W. Anderson's shop recently, I noted that the arbor support, motor support and many other parts were exactly like the older Craftsman. I'm guessing that Emerson got it right the first time and haven't needed to change the design. Note that the first three numbers in a Sears model number tell you who made the item. For power tools, you can look this up at www.owwm.com.

The problem with the saw was that it had a very rusted table and extensions, rusted under-carriage and arbor support, missing bolts, nuts, belt and manual. Leonard's request was that I refurbish this saw for use at the shop at his farm near Crowley.

The first task was to find out as much as I could about the machine. Going to the Sears.com web site was the first choice and if the product is new enough, you can likely find parts and accessories for the item. Another source is the Old Woodworking Tools web site. At www.owwm.com you can often get sources for older power tools, manuals, part suppliers and much more.

What I had to do was first clean up this table saw. This meant applying rust removal chemicals, removing as many parts as was reasonable and de-rusting them, finding a manual and a drive belt. The search was fairly easy and went to the Sears site to the Search for Sears Parts. Once there, I plugged in the model number and the web site came up with the table saw. Digging into the resulting pages, I found the parts (manual and belt) I needed.

Removing rust from large items can be tricky. The table is 20" x 27" steel and was completely rusted on top and inside the miter guides as well as the sides. The anti-kickback and blade guard support mechanism were also very rusted. The 10" x 27" extensions were also rusted but not as badly. Fortunately, the table was not badly pitted so I chose a chemical product to remove most of the damage.

I found a product called "Right Stuff De-Ruster 3000" that not only removes surface rust but leaves a patina coating that limits rust formation in the future. You can get the product at auto supply stores such as Auto Zone in half gallon containers for under \$8.00. There are other products as well such as the classic Navel Jelly. But "Right Stuff" is easier to use, reusable and does a great job. For small parts (nuts, bolts and other smaller items), just remove and place them in a plastic container. Pour in enough of the product to completely cover the items. After the rust is removed in about an hour, wash them off with water and then coat them with a light oil such as WD-40 or preferably, automatic transmission fluid. For larger items, first coat the product, leave it for about an hour then and wipe down and sand off. Be certain to coat the surface with light oil and then wax (such as a table surface) as needed.

For items that are difficult to sand off, you may have to use an electrolysis method. This consists of a large plastic

container, water and a tablespoon or so of sodium carbonate (use Oxyclean or baking soda (much cheaper) per gallon of water – either will work) plus a battery charger. If you have any questions about how to do this, please give me a call as you have to do it right or it will not work.

Removing rust from a table saw top is nasty. But you can do this quickly. First spread on a generous coating of mineral spirits (paint thinner) and wipe down with paper towels. Next get out your random orbit sander and put on an 80-100 grit sand paper. Sand the entire surface, going over it several times. After sanding, re-coat with mineral spirits and wipe down with paper towels. If the result seems satisfactory, coat with light oil (preferably ATF), wipe down with paper towels and put on a coat of Johnson's paste wax and you are done. You can speed up the process by coating with "Right Stuff" first (mentioned above) and then sand and coat with oil and a paste wax. Note that Right Stuff is slightly caustic, so always wear disposable nitrile (not latex as these will dissolve) gloves and wash up after use.

For badly pitted surfaces, you need to use a surface grinder, chemical de-ruster and a neutralizer (such as white vinegar), but always re-surface with a sander, mineral spirits plus light oil and follow with a paste wax coating.

Refurbishing the 115/230 reversible Emerson Electric motor was not difficult in this case. It had oil points and I could remove the shaft and lubricate the bearings to get it to smooth operating condition. It should be good for many years of use. Of course, an alternative would be to replace the motor. I suggested that the best thing to do was to configure this motor to 230v operation as that would provide much better power for any work that he might do. However, Leonard only has 115v at his farm shop, so this was not a possibility.

Once the manual and belt came in, I tuned the saw by making certain that the blade and the miter guilds were exactly true then tested the saw by cutting a few oak boards. What I found was that the table saw had a very slight off run out. The off run out is the difference between the miter gauge track of the table and a mounted blade. In this case, it is 1/64th inch rear. That is, the rear of the blade was 64th of an inch closer to the miter gauge track than the front of the blade. I felt that this was so small (1/8th of the 1/8th inch kerf width of the blade), given the likely use of the saw, that it would make no difference in the result. If you were doing surgery or sending rockets to the moon, I would be concerned. Less than that, don't worry. In fact, if you are using the fence, this difference can be compensated for and generally will not make a significant difference in the resulting work. You should just be aware of it when making very precision cuts.

The way to adjust the run out is to loosen the bolts of the table from the arbor support after setting up the measuring devices, tap and re-tap the table with a hammer and read the results until it is correct. The problem with this is that if you change the blade, it can change the run out. So I thought that the run out was acceptable for the use intended.

We think Leonard will be happy as the saw will serve him well for many years, plus didn't cost very much to refurbish and put right. *Barry Humphus.*

Selecting a Belt Sander

Member Ray Kebodeaux asked me about belt sanders recently and I thought it would be a good time to review what is on the market and report this to the LCWWs.

Belt sanders come from a variety of manufacturers and have differing capacities. The most common belt sander is a 3" x 21" belt system. While there are other widths and lengths, these do the most work for most of us, are commonly available and reasonably priced. So let's review what is available.

Belt sanders come in two basic configurations: aggressive and gentle. But there are a few that do both jobs. An obvious difference between the sanders is whether the motor is mounted transversely or in line with the belt. Traditionally configured tools — transverse sanders such as the Hitachi or the Porter-Cable — have the axis of their motors perpendicular to the belt. In-line machines, such as the Bosch, Craftsman and the Ryobi, have the motor's axis parallel to the belt. Because the drive pulleys of the transverse sanders are off to one side, some people find these machines to be unbalanced. But some folks never notice a problem.

In-line sanders are more symmetrical and perhaps more evenly balanced. They're certainly lighter, which can be an advantage especially if you're sanding overhead. Their flat tops also make it easy to clamp them upside down to the bench for use as stationary sanders (something I've done for years with an old Craftsman belt sander). For normal bench use, however, the greater weight of the transverse sanders means you don't have to lean on the machine to hasten stock removal.

Most belt sander users change between rough-grit and fine-grit belts. The grit (from as low as 40 to as high as 180 do the real work). So the belt-release lever on the sander gets a workout. The release lever moves the front roller of the sander toward the rear of the machine, releasing the tension on the belt and allowing its removal. The lever must be capable of standing up to the stress of repeated belt changes. It's obvious that an easier belt change is a better solution. My old Craftsman is always a bear when it comes to belt changing.

The tracking mechanism on a belt sander steers the front roller to keep the belt in the middle of the platen. If the belt is too far in, it rubs against the frame. Most modern sanders have a stop to keep the belt from damaging them, but the belt will fray and fail prematurely if it rides against this stop for any length of time. If the tracking is adjusted too far outward, the belt can come off completely.

Tracking is adjusted by turning a knob near the front roller. Some of the adjusters are too coarse, and a small movement of the knob moved the belt disproportionately far. On other sanders, the adjustment is too fine. It can take numerous turns of the knob to see any movement of the belt. My strongest recommendation is to get your dealer to show you how they work. That way, when you leave the store, you should know what to expect.

Weight, balance and handle placement all affect the ease with which a belt sander is controlled. Handles that are too close put your hands too close together to steer the tool easily. Conversely, in-line sanders can be a bit too long with almost 12 in. between their handles. But comfort and control

are subjective terms. What feels good in my hands when I'm sanding at the bench may mean nothing to you sanding something else while standing on a ladder.

The platen backs up the belt where it contacts the work. The platen's flatness affects sanding quality. The Bosch graphite platen and Porter-Cable (with an after-market graphite platen) platen is about the only flat unit I would recommend. All the other sanders have warped metal platens which must be flattened to make them usable.

Nothing affects the quality of the sanding job done by a belt sander more than the platen. Nearly all belt sanders come with a metal platen cushioned by a layer of cork (which you can replace with ease). The cork cushions the belt and without this cushion, the belt tends to take divots. To check the platen on your belt sander, unplug the sander and hold a straightedge on the platen, parallel to the belt direction, with and without a belt on the sander. Chances are you'll see a crown in the belt exactly where it should be dead flat. If this is the case, you can correct the problem by removing the platen that comes with the tool and replacing it with a graphite after-market platen (again, see below).

Most stroke sanders and edge sanders, heavy-duty stationary machines, use graphite-impregnated heavy canvas for the platen. The graphite not only reduces friction but also conforms to the bottom of the sander. An added bonus is that with the reduced friction, a given machine can deliver more power to the belt.

The Klingspor Company (800-228-0000 or at www.klingspor.com) sells graphite-platen material that replaces metal platens. A 3-in. by 3-ft. roll costs \$2.36, plus shipping. Replace the graphite periodically.

Noise and vibration plays into the comfort of using any machine, especially if you're using it for prolonged periods. Most manufacturers measure the noise produced by a sander with a decibel meter set on a tripod and positioned about the same distance from the sanders that your ears would be when using the tools. The noise levels of common sanders vary from 92 db. to 104 db. This doesn't seem like a huge spread until you realize that 100 db. is ten times louder than 90 db. In other words, always ear hearing protection when using a belt sander. **THEY ARE LOUD!**

Most current sanders' dust-collection systems work well, capturing most of the dust created by the sander. To increase dust-collection efficiency, hook a vacuum hose to the sander in place of the bag.

My current belt sander is an old Craftsman (George Kuffel has one of these as well). It has a dust collection bag that can be adapted to a shop vacuum, can be mounted upside down (with a jig), can be locked on, but has only one speed plus a less than easy belt changing system. An older Craftsman should not be your main belt sander.

Given the choices, the Porter-Cable 352VS, with a graphite platen installed in place of the metal one would be a first pick. That sander has good overall quality of workmanship, a metal case, variable speed, comfortable handles, good dust pickup and plenty of power. I think the look and feel of the P-C sander are important, and this machine seems just right to me. *Barry Humphus.*