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SEPTEMBER MEETING HIGHLIGHTS

The September meeting brought us to the innovative shop of Aaron Andrepont. Aaron's favorite woodworking is at the scroll saw and the images we have on the LCWW web site testify to his skill and dedication. Aaron's former employer for many years was Stine Lumber. Aaron frequently goes 'dumpster diving' at a Stines location and picks up all kinds of useful things for his shop, especially retail product racks and shelving equipment. He also goes to the library. At the library he found a large oak card catalog that is perfect for small tools, nuts, bolts and screws plus anything else that will fit into a 5" x 9" x 3" area. We really appreciated the sweetrolls by Mrs. Andrepont.

The safety feature this month was about personal dust protection equipment. Wood dust in general can be a nuisance and can be toxic to many people. Toxicity depends on the sensitivity of the individual and the concentration of dust. All wood dust (including dust from composites like chipboards and fibre boards etc.) is hazardous to health: it can affect the nose, the respiratory system and the skin.

The common disposable dust mask is not the answer to any exposure to wood dust except for very brief times. Even the disposable masks from 3M labeled as OSHA approved are adequate only for house dusting, not woodworking. At minimum, you should purchase a half-face respirator with dust cartridges. It was pointed out that these almost always come with chemical cartridges that are not dust rated. You'll have to look for the dust carts to be sure you are safe.

There's more on wood dust safety in an article found later in the Newsletter.

The Bring It Back (a box made by J.W. Anderson) item was won by Jimmy Everett this month. Remember that you have two meetings to return the item or make something to replace it. Jimmy Everett also won the door prize (clamps). Maybe we should get Jimmy to pick our Lotto numbers as well!

There was a discussion on polyurethane glues coupled with joint design and joint failure. Several manufacturers have entered the market made famous

in the US by the Gorilla Glue folks. Gorilla Glue also makes a tape product they claim will stick to almost any surface. It appears to be 'duct tape' with a slightly better adhesive. In any case, a couple of members reported a fairly short shelf life for the polyurethane glues. The recommendation is to purchase GG in small containers.

Dick Trouth mentioned that CPH International (makers of StarBond cyanoacrylate glue) has great bulk prices and a 20 month shelf life. This means that you don't have to spend a fortune on those .5 gram capsules of superglue. For more info, see their web site at www.starbond.com or call 800-900-4583. Starbond comes in at least five levels of viscosity and also sells a couple of different accelerators.

Gary Rock and Dick Trouth recently attended a wood turners meeting in Lafayette. The Lafayette group is new and has about the same number of members as the LCWWs but they hold their meetings in the evening. As an incentive to go, they serve dinner! We tried to get Dick to serve us breakfast at our upcoming meeting, but once again, all we get is donuts and coffee (I only get donuts once a month, so this is still a treat).

Show and Tell brought a beach wood box from J.W. Anderson while Mr. Eltee had a mini school desk plus a small cherry and walnut box.

Pie Sonnier show off his latest vehicle — a four-wheeler in oak, walnut, purpleheart and ebony. Aaron had a tree ornament turned on an old Craftsman lathe and a neat glue bottle holder. Jimmy Everett had a collection of canes, one of which had a deer antler head he carved.

Dick Trouth reminds us that if you want a LCWW wooden name tag, please let him know at the October meeting. He needs to get together enough to make an order at Classic Doors (who give us a great price if we bring them at least six to do).

Coming Up . . . Saturday, 14 October, 9:00 a.m. at the Shop of Dick Trouth where we'll get donuts and coffee, lots of S&T and always interesting discussions.

COMPOUND SLIDING MITER SAWS

Recently, Andy Beasley of Fine Woodworking Magazine reviewed several of the popular compound sliding miter saws on the market. I've had a first generation Delta model for several years and use it for almost every project.

In his article, Beasley says, "The ability to miter, bevel, crosscut wide material, make compound cuts, and even plow dados makes the 10-in. sliding compound-miter saw a perfect fit for many shops. But some saws achieve the compromise between performance and price better than others." Andy reviewed six 10-in. sliders currently on the market, focusing on smoothness, accuracy, power, and ease of use.

Beasley found that the Bosch 10 inch was "The best saw in our review of sliding compound miter saws from five manufacturers has many features that make it exceptionally easy and enjoyable to use." But at \$510.00, it is pricey. It has an adjustable, four position grip that is great for use with either hand, up-front controls convenient for permanent mounting and the large workpiece clamp operates like a bench holdfast. He said it is the easiest to position. In addition to a miter-detent override, the saw features a microadjustment knob for fine tuning a cut 2° on either side of a detent. That's good, because the miter scale and its chubby pointer aren't all that precise (though the detents are). The laser cutting guide aligns with only the left edge of the blade but is too blurry for really accurate work.

Note that Bosch rates the motor at 3 hp at 15 amps. That is a lie. You cannot suck 3 hp through a 120 volts at 15 amp circuit. This violates the laws of physics. So they are really saying 3 hp "peak" at best.

Beasley's second test slider was from Chicago Electric, those wonderful folks in China that we can get through the local Harbor Freight store. He says, "This tool's many flaws led to extremely poor cutting results. Although performance improved dramatically with the Forrest blade, it still wasn't good enough to justify buying a blade that costs more than the saw itself. The saw-head spring is too strong; struggling against its resistance made all operations jerky and imprecise. With left-handed use, the retracting blade guard struck the fingers." At \$100 it is a bargain but you pay for what you get. At least they rate the hp at 1.75, just a bit of a cheat.

Hatachi came next and Beasley says, "This is a good saw with some drawbacks. The trigger lock is best used with the right thumb, so left-handed operation is, well, unhandy; the rear blade guard must be adjusted rearward when mitering and it can strike the fences during some compound cuts; the tiny right fence isn't too helpful, but the excellent left-side fence smoothly flips out of

the way for bevels. The miter and bevel scales are cluttered but very precise."

At \$500 it is costly, rated at 12 amps and high cut accuracy with a 5 year warranty.

Makita is a well established producer of wood-working power tools. Their 10 inch slider is very good. Beasley says, "This saw pairs superb cutting performance with an innovative design. The left fence swings away for beveling, and an optional height extension is available for the undersize right fence. Because the miter scale rotates with the table, I found it awkward to get a straight view of the side-mounted angle pointer. Additionally, this saw was the most susceptible to angle errors caused by sloppy miter detents. The blurry laser guide required a lot of patience to adjust from one side of the blade to the other." Like the other top brands, it is in the \$500 range. It comes with a 10 inch, 70 tooth carbide blade and a laser sight that is adjustable.

Metabo is a new player in the power tool market. In the past, they have focused on the abrasives market. Their idea is to move slowly and carefully into the power tool arena, but at a higher price than the general market for sliders at \$570 and a 1 year warranty. Beasley says that, "The soft-start motor is nice, but the blade takes longer to stop than the others. The manual gives no guidance for adjusting the bevel stops, and selecting angles near the miter detents was a chore—the cast scale is imprecise, and there's no override to overcome the tension of the detents. The auxiliary fences are excellent and a huge improvement over the small ones fixed to the saw. The horizontal handle is perfect for either hand."

Milwaukee is a brand that you know. They make some of the biggest, most powerful hand tools in the market. At \$430 and a 5 year warranty, they are a good choice for a slider. Beasley suggests that, "A lot of features make this saw the best value: the top-mounted bevel lock; the large flip fence on the left side; a great arbor lock for quick blade changes; and a detent-override lever for angles near the detents. The workpiece clamp is good, but its short reach keeps it far from the blade. The fence height is adequate; the left side can be quickly unclamped and flipped for bevel cuts."

The slider I have is discontinued and like the units above, can cut up to 12-1/8" in the base but has no laser (but this can be added as an after-market item). Apparently Delta decided to get out of the slider business. However, if you want a standard 12" compound miter saw, it is one of the best with dual lasers and a 8-1/2' base cut. All Delta saws have a two year warranty and can be serviced locally. *Barry Humphus*

PERSONAL DUST PROTECTION

What is dust? Sounds easy to define but it has a couple of categories that relate to personal dust protection (PDP) equipment.

Dust particles are measured in microns, or thousandths of a millimeter. Larger dust particles — over 100 microns or so — are heavy enough to fall to the floor quickly. They're part of the mass of debris that collects with such alarming speed on the floor under and around your woodworking tools. Fine dust particles, on the other hand, don't have enough mass to be pulled quickly to the floor and can float through the air in your shop for a surprising length of time. Once a 5 micron wood dust particle is stirred up, for example, it will stay aloft for 30 minutes or longer depending on the air movement it encounters.

Dust particles under 10 microns are what constitute the respiratory health risk to woodworkers. They're easily stirred up, stay aloft for a long time, and worse, penetrate easily into the deepest reaches of the lungs, where they are reported to cause problems ranging from mild allergic reactions to severe and chronic respiratory ailments. While the seriousness of the health effects of long-term small particle fine wood dust exposure remains under debate, more and more woodworkers, convinced by the evidence of serious health risks that currently exists, are beginning to take fine wood dust exposure seriously.

Respirable dust refers to those dust particles that are small enough to penetrate the nose and upper respiratory system and deep into the lungs. Particles that penetrate deep into the respiratory system are generally beyond the body's natural clearance mechanisms of cilia and mucous and are more likely to be retained. The size of these particles are generally between .1 and 5 microns.

Inhalable dust is that size fraction of dust which enters the body, but is trapped in the nose, throat and upper respiratory tract. These size particles average about 10 microns. To give you an idea of this, a red blood cell is about 8 microns in size.

Dust collectors commonly used in small shop dust collection systems are sometimes called "chip collectors." That's because they are really designed to do their best work at collecting chips, shavings and large dust particles. Many dust collectors are equipped with a filter designed to stop only large particles and let the fine particles associated with respiratory health problems pass through. Because dust collectors move substantial quantities of dust laden air, a dust collector that lets minute dust particles pass through its filter becomes, in effect, a "dust pump," filling the air around it with clouds of fine dust.

So the next stage is a dust filter. These can be purchased from many sources (about \$250) or you can build your own (see LCWW Newsletter January, 2001) that will filter 95% of the dust down to about .5 microns.

If your shop is not set up for one on these, you can use a PDP. The minimum should be a half-face respirator with either two or three stage filtration. Make sure it fits your face. Be certain to get a set of dust cartridges (they come with only vapor cartridges) and expect to pay \$40 to \$50. Power respirators are much better with Rockler's half-face until at \$64 a bargain.

You can also use a disposable mask. Disposable masks or "dust masks" are economical and convenient forms of personal respiratory protection. Disposable masks are best suited to very short term exposure to fine dust, and less effective and comfortable in long sessions in a dusty shop. A good disposable mask will filter fine dust particles, but because they are generally molded to fit the contours of an "average" face, even the best disposable masks tend to be less comfortable over the long haul and, in general, provide less of the all important air seal between your face and the mask, which is what prevents fine dust particles from circumventing the mask's filter material and passing directly into the lungs. Expect to pay \$10-12 for a 10-pack. A newer product is the washable cloth type. They come in small, medium and large to fit various faces and are completely washable and re-usable. Expect to pay \$40 each for these.

Barry Humphus

GARY ROCK'S TRIP

Had a good trip and brought back another load of mountain wood to put on the lathe. I know that it would be a rare thing to happen in a wood shop, but it can happen. With the right mixture of saw dust in the air and a ignition point (spark from a electric motor starting, grinding a sharp edge on a tool or just plain static electricity) an dust explosion can happen.

Always expect the unexpected to happen and always be thinking about your work in the shop, before entering and turning on the equipment to do the job at hand. Work safe and be safe in the shop so at the end of the day, you will close the shop with all fingers, hands and everything else in one peace. Bubba Cherie tested the sharpness of his table saw with his thumb. He lost some meat off the end, but still has all ten fingers. Always be aware of where your hands are in respect to any running saw blades, jointers, drill presses and any other rotating equipment. Again be careful.

Also if you haven't done it, you still need to write a bio on your self on "How you came to be a Woodworker," and send, give, mail it to Barry Humphus or me to be placed in our newsletter. *Gary Rock*