Lake Charles Woodworkers Club, Inc. December 2010

Mentoring Program - If you have a project, a problem in any woodworking area, these members have volenteered to help. Give them a call. Jeff Cormier: 582-3278; George Kuffel: 478-2707; John Marcon: 478-0646; Chuck Middleton: 625-3134; Gary Rock: 433-1679; Eltee Thibodeaux: 436-1997; Dick Trouth: 583-2683. Each have years of experience and knowledge.

November Meeting Highlights

President Dick Trouth was our host for November at his compact shop. You knew it was compact when 25 or so people crowded in there. Thanks for hosting, Dick. We had some guests - Joey Verret, Pat Richard, John McCorquadale and Doug Trotti. Doug and Pat became new members.

J.W. Anderson led a discussion on saw safety, particularly with table saws. More than a few woodworkers have had at minimum, nicks from one of the blades of this beast. Please pay close attention to where your hands are located when sawing, never force the cut, watch out for kickback (always stand to the side of the in-feed) and always let the blade come to a compete stop before touching anything - no matter how long it takes.

Dick Trouth reminded us of both the Bring It Back and Show and Tell rules for winning either.

J. W. brought us a few of his collection (for Show & Tell) of old hand tools including a wood and brass brace and a molding plane that cuts groves with double cutters.

Mr. Thibodeaux had a candy dish and wooden P-40 airplane. Pie Sonnier had a lovely logging truck of mesquite, black walnut and maple. It was from a Peterbuilt design and included the logo.

Tom Bergstedt showed us a hollow form turning while new member, Doug Trotti had a cedar box and pen and very highly finished using a Penn State pen and pencil kit.

Irving Monroe showed off some of the bird houses he has built over the years for the USDA. These were of synthetic material as well as a billy club turned from cherry.

Don Elfert demonstrated the folding of a band saw. here are actually several techniques depending on how wide the blade. He also showed us a 57 year old laminated bowl of walnut that had a laquer finish.

Dr. Fey showed off a spalted sycamore piece that was so pecky, he used a pore filler (Benjamin Moore) to stabalize it. He used a gel stain and a urethane finish.

Jeff Cormier showed photos of a large chest with particularly nice raised panel drawers. Jeff also discussed the jig he used to bevel the drawer fronts. Ray Kebodeaux showed off a nice little clock from a kit from oak.

John Shipp brought us a three legged chair that was very nice and made of cypress with a polyurethane finish.

Joe Comeaux showed us some of the Christmas tree orniments he has recently turned as well as described the International Quliting Show he attended in Houston. While Joe is not a quilter, he did report that there are lots of great woodworking pieces on display at the show. He even brought a sample of some including some Tumbridge wear and described how it was produced by the seller.

Gary Rock had a small bird house, a few Christmas tree orniments or varius shapes. Plus a couple of hollow form items of sycamore and cherry.

Jim Couvillion showed an old bowl of laminated plywood turned by Ron Stowe back in the mid-1990s. Robin Richard showed photos of a great looking cedar truck he found on the Internet. That is, the entire vehicle body nd frame, were made of cedar.

Jim Gill has been modifying his truck (Suburban) as well and designed and built a great storage system for the car. We hope you had chance to go outside and see his wonderful work. It is used for hauling various items including the guns he has when he goes hunting..

Joey Verret showed us photos of carvings with military themes including the U.S. Marines.

Jack Stegal discussed again how he made those neat crosses he brought to the October meeting in some detail including what angle to set your scroll saw t be able to get the walnut to form into a three dimensional shape when finished with the sawing.

A reminder went out that this is the time to pay the dues for 2011. Joe Comeaux collected some, but in order to be up to date and attend the LC Woodworkers meetings, plus get the Newsletter, you need to give Joe an Andrew Jackson $20 or a check for the same amout at the Christmas meeting.

Coming Up ... Satuday December 11, 9:00 A.M., at the shop of Larry & Leddie Cooper. This is a great shop and we are certain that have added stuff since we were last there. If you want, you can bring a gift (wood related) to exchange with others or not or a White Elephant prize.

Merry Christmas - Here's Your New Tool

There's no better way to say "Merry Christmas, dear friend" than with a double-bevel compound miter saw or a heavy-duty 18V impact driver. But before you pick up a cordless tool for that special someone, keep a few things in mind. Don't buy a Lamborghini if you don't drive fast.

Cordless tools used to be heavy, unwieldy behemoths sporting fat nickel-cadmium batteries. But tool companies have slimmed their products down with sleek, longer lasting lithium-ion cells. Thing is, Li-ion tools are expensive. Which is why manufacturers still make the old NiCad tools.

If you're not too handy and plan on only using your power tools for the occasional shelf hanging or plywood cutting, you'll be just fine with NiCad batteries. They weigh a little more and they take a long time to charge (sometimes as much as 3 hours), but for most projects you're not likely to go through more than the two batteries most tools come with. And they cost a lot less: The same tool kit that might be $275 with Li-ion batteries would only be $150 with NiCad.

But if you plan to spend every weekend this spring building that climate-controlled comic-book library, you're going to want to go Li-ion. The batteries charge in as little as 30 minutes, they last longer, and they weigh less. Which means your arms won't get tired as quickly. You can even choose between regular slim packs and longer-life fatties. Size matters

It's simple: the higher the volts, the higher the power. That means more torque for driving screws or miter sawing, more speed for jig sawing and sanding, more hammer action for impact driving. Unless you're a pro, you probably don't want anything bigger than an 18-volt tool. A good 18V drill will get you through big jobs like framing and deck building, and you can cut through a lot of plywood with an 18V circular saw (especially because cordless circular saws have thinner blades to make up for the lesser torque).

Don't discount the smaller tools, though. Outside of circular saws, every tool is replicated in a 12V version. The tools may look a little light, but they work just fine. Drill/drivers, in particular, are great performers with 12V batteries, able to sink drywall screws into framing or even do some smaller decking jobs.

Keep in mind, though, that there are still some tools you should buy with cords. If you need miter saws or circular saws to cut thick lumber, you really need the consistent power of a plug-in tools. Same with hard workers like reciprocating saws and grinders. Tool companies are like crack dealers.

Good news is, it pays to become an addict. Manufacturers inspire brand loyalty by selling tools both with batteries or without. That way, once you've bought your first tool-and its two included batteries-you can use them on all the other tools from that platform. But only on tools from that platform. It's a good idea, then, to make your buying decision based on everything a company sells tools you might need down the line.

So what to look for? Since the basic function of most power tools doesn't vary much from company to company, check out the accessories. You might fall in love with a quick-change chuck, a good LED light, or even a belt hook. Know what size blade or type of bit a tool takes and be sure that's what you want. Then there's price-you get what you pay for. A higher price point often reflects more money spent on innovation, ergonomic design, or durable materials. Retro is cool.

One way to save a bit of dough on new tools is to retrofit your old tools with new batteries. If you already own a set of NiCad tools, some companies, including DeWalt, Milwaukee, and Ryobi, have designed their Li-ion batteries to fit old models. A new extended life Li-ion battery costs about $100, but you can save a lot of money if you already have a whole suite of tools that can use it. There's a battery for every personality.

NiCad batteries lose power if left unused for a while, so they are good presents for careful planners. Impulsive tinkerers, however, may find their building buzz harsh by a mandated charging break. (On the plus side, they perform better in colder climates, so go for it, Canada!) They can also have memory problems, so they're better off left to drain before being recharged again.

Li-ion batteries, however, can be left plugged in at all times, and most chargers are designed to top off the tool once a week as needed. The biggest problem with Li-ion batteries is not knowing when they're dying. Manufacturers call this a "fade-free charge" but what it really means is you won't get the telltale slowdown as the batteries wear out. The tool will just stop. Barry Humphus from various sources.

How to prolong lithium-based batteries

Battery research is focusing heavily on lithium chemistries, so much so that one could presume that all portable devices will be powered with lithium-ion batteries in the future. In many ways, lithium-ion is superior to nickel and lead-based chemistries and the applications for lithium-ion batteries are growing as a result.

Lithium-ion has not yet fully matured and is being improved continuously. New metal and chemical combinations are being tried every six months or so to increase energy density and prolong service life. The improvements in longevity after each change will not be known for a few years.

A lithium-ion battery provides 300-500 discharge/charge cycles. The battery prefers a partial rather than a full discharge. Frequent full discharges should be avoided when possible. Instead, charge the battery more often or use a larger battery. There is no concern of memory when applying unscheduled charges.

Although lithium-ion is memory-free in terms of performance deterioration, batteries with fuel gauges exhibit

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what engineers refer to as “digital memory”. Here is the reason: Short discharges with subsequent recharges do not provide the periodic calibration needed to synchronize the fuel gauge with the battery’s state-of-charge. A deliberate full discharge and recharge every 30 charges corrects this problem. Letting the battery run down to the cut-off point in the equipment will do this. If ignored, the fuel gauge will become increasingly less accurate.

Aging of lithium-ion is an issue that is often ignored. A lithium-ion battery in use typically lasts between 2-3 years. The capacity loss manifests itself in increased internal resistance caused by oxidation. Eventually, the cell resistance reaches a point where the pack can no longer deliver the stored energy although the battery may still have ample charge. For this reason, an aged battery can be kept longer in applications that draw low current as opposed to a function that demands heavy loads – such as power tools. Increasing internal resistance with cycle life and age is typical for cobalt-based lithium-ion, a system that is used for cell phones, cameras and laptops because of high energy density. The lower energy dense manganese-based lithium-ion, also known as spinel, maintains the internal resistance through its life but loses capacity due to chemical decompositions. Spinel is what you have in your power tools.

The speed by which lithium-ion ages is governed by temperature and state-of-charge.

If someone asks how long we humans live, we would soon find out that the longevity varies according to life style and living conditions that exist in different countries. Similar conditions exist with the batteries, lithium-ion in particular. Longevity results may differ from manufacturer’ specifications. Let’s briefly look at the various living conditions of the lithium-ion battery.

The worst condition is keeping a fully charged battery at elevated temperatures, which is the case with running laptop batteries or power tool batteries stored in the heat (AKA, Southwest Louisiana). If used on main power, the battery inside a laptop or power tool will only last for 12-18 months. I must hasten to explain that the pack does not die suddenly but begins with reduced run-times.

The voltage level to which the cells are charged also plays an important role to longevity. For safety reasons, most lithium-ion cannot exceed 4.20 volts per cell. While a higher voltage boosts capacity, the disadvantage is lower cycle life.

There are no remedies to restore lithium-ion once worn out. A momentary improvement in performance is noticeable when heating up the battery. This lowers the internal resistance momentarily but the condition reverts back to its former state when the temperature drops. Cold temperature will increase the internal resistance. settings. After battery is replaced, the PC should again be operational.

If possible, store the battery in a cool place at about a 40% state-of-charge. Some reserve charge is needed to keep the battery and its protection circuit operational during prolonged storage. Avoid keeping the battery at full charge and high temperature. This is the case when placing a cell phone or spare battery in a hot car. While the battery is kept fully charged, the inside temperature during operation rises to about 113°F.

Removing the battery from a laptop when running on fixed power protects the battery from heat. With the concern of the battery overheating and causing fire, a spokesperson for the U.S. Consumer Product Safety Commission advises to eject the battery of affected laptops and to run the machines on a power cord. It should be noted that on a power outage, unsaved works will be lost. The question is often asked, should the laptop be disconnected from the main when not in use? Under normal circumstances, it should not matter with lithium-ion. Once the battery is fully charged, no further charge is applied. However, there is always the concern is malfunction of the AC adapter, the laptop or the battery. The same holds for power tool batteries. Once they are fully charged, remove them from the charger.

A large number of lithium-ion batteries for cell phones are being discarded under the warranty return policy. Some failed batteries are sent to service centers or the manufacturer, where they are refurbished. Studies show that 80%-90% of the returned batteries can be repaired and returned to service.

Some lithium-ion batteries fail due to excessive low discharge. If discharged below 2.5 volts per cell, the internal safety circuit opens and the battery appears dead. A charge with the original charger is no longer possible.

Batteries live longer if treated in a gentle manner. High charge voltages, excessive charge rate and extreme load conditions will have a negative effect and shorten the battery life. This also applies to high current rate lithium-ion batteries as well, such as used with power tools like drills and saws.

Not only is it better to charge lithium-ion battery at a slower charge rate, high discharge rates also contribute the extra wear and tear.

Battery experts agree that the life of lithium-ion depends on other factors than charge and discharge rates. Even though incremental improvements can be achieved with careful use of the battery, our environment and the services required are not always conducive to achieve optimal battery life. The longevity of a battery is often a direct result of the environmental stresses applied. Barry Humphus.

Have a Safe Holiday

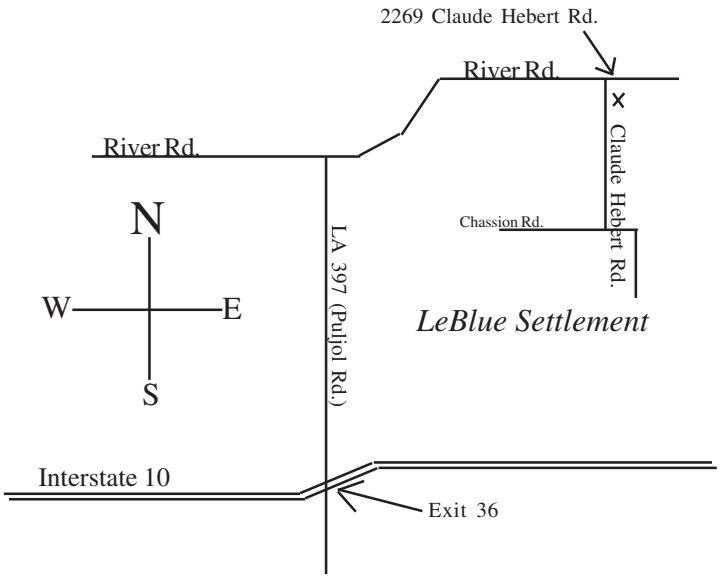
Don’t drink and do anything but sit on the couch. No driving, no woodworking. Hope every member, their family and friends have a wonderful and safe holiday.

December Meeting Location

Larry & Leddie Cooper will be our host this December. Thee have a great shop - very large and was still getting more equipment and tools the last time we saw it.

To get to Larry & Leddie's shop, take I-10 East from Lake Charles to the LA 397 exit (Exit 36) and go north to River Road, were it ends. Turn right onto River Rd. Follow River Rd. to Claude Hebert Rd on your right and turn right onto Claude Hebert Rd..

Larry's home and shop are at 2269 Claude Hebert Rd. on your left. The shop is the green metal building. If you need further directions, give Larry a call at 515-3391 or at home - 582-6516.



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