

Safety Lessons and Table Saws

To the Editor:

I have been a fire medic for 27 years and work part-time building custom homes, so I often view articles on safety with a dark sense of humor. I read the article in *JLC* ("Safety Lessons," 8/03) and plan to pass on the story of the trench rescue to our area special rescue teams. I also read *JLC's* "disclaimer" about relying on "actual job-site photos," which I appreciate because I enjoy seeing how others set up.

This brings me to my point. After reading the safety article, I turned the page to the picture introducing the portable table saw review. Tell me how many concrete blocks are sitting on the other end of those 2x10s. Or maybe it's the rest of the crew taking a coffee break every time he has to make a cut? Sixty pounds of table saw cantilevered out 4 feet from a plastic sawhorse?

I'd like to see the video of what happened when coffee break was over. It would be great to watch that teeter-totter send everything a-flying. Have you ever seen the Red Green show when he sent the table saw running out of the room upside down propelled on its spinning blade?

Now let's go back and talk about safety lessons.

Dave Linn
Chardon, Ohio

Fire Protection for Foam

To the Editor:

Your article on spray-foam insulation (8/03) did not speak to code requirements dealing with encapsulation of foam by sheetrock or other approved materials, even in attics and crawlspaces. All foam insulation is not created equal. Some of it has been tested and approved for installation without a thermal barrier, but many kinds have not been. As the horrible

events at the Great White concert in Rhode Island demonstrated, certain types of foam produce extremely toxic products of combustion.

Unfortunately, we have encountered a number of spray-foam insulation contractors who are not prepared to provide documentation that their foam does not have to be encapsulated. They have sold this material to home builders and installed it without seeking prior approval from the building official. I would caution general contractors to make sure you gain the approval of your local building official before insulating a house with spray foam.

Joe Basilone
Chief Building Inspector
James City County, Va.

Deck Ledger Accounting

To the Editor:

I enjoy reading articles like "Attaching Deck Ledgers" (8/03) and am very interested in the engineering behind building. I also want to commend your magazine for publishing meaningful articles, both on technical and business issues. However, I was horribly dismayed with this article. My company builds 40 to 50 decks per year, and our ledgers are attached with two 1/2x4-inch lag screws per 16 inches. This is based on my own research of applicable codes, as well as shear and pullout values of fasteners. This is also superior to all local contractors I've seen, who use one lag bolt every 16 inches, if lags are used at all. But in 20 years, I haven't heard of a deck ledger failing in my immediate area. This doesn't mean much, other than that in the real world nails alone can and do hold a ledger up for years (not that this isn't shoddy work).

On a 16-foot joist span, the authors recommend a lag screw every 5.4 inches directly to the band or a 1/2-inch bolt every 2.4 inches. Are

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Letters

they kidding? That is “ridiculously close,” as the article states. On a 20-foot-wide deck, that’s 100 hex bolts — again, laughable and ridiculous.

Come on. It would be just great if some know-it-all inspector with no real-world experience got ahold of your article and decided to implement your ridiculous and impossible-to-do suggestions. I’m glad you at *JLC* took on this issue, but don’t any carpenters proofread these things?

Kyle Kazak
Expert Construction
Cleveland, Ohio

Don Jackson responds: Thanks for your letter. Yes, carpenters do read this stuff before it goes out the door. We make every attempt to present details that can be practically and affordably executed in the field in the normal course of construction. At the same time, we can’t ignore the code, and that’s what this article is about — using ledger-to-band-joist connections that can carry the design loads.

The examples you mention — a lag screw every 5.4 inches (Detail 1) vs. a bolt every 2.4 inches (Detail 3) — represent two very different conditions. The lag screw schedule in Detail 1 is right out of the book — the NDS, which the International Residential Code cites as the wood structural design guide to be used for details not found in the code itself. Like it or not, that bolting schedule is accurate for the loads involved. Detail 3 shows a drainage space and a layer of 1/2-inch sheathing (or an inch of foam sheathing) between the ledger and the band joist — essentially cantilevering the bolt, which greatly reduces the load it can carry without bending. As the article points out, this is definitely not a carpenter-friendly bolting schedule. On the other hand, the numbers are correct, given available design methods.

The good news is that there is another way to meet code besides design, and that is to use tested performance-based

details. Authors Frank Woeste and Joe Loferski recognized the limits of the design-based fastener schedules and have undertaken tests of the various ledger attachment details in the wood science lab at Virginia Tech. We hope to be able to publish the results soon.

Floating Deck Better

To the Editor:

I agree that attaching ledger boards (“Attaching Deck Ledgers,” 8/03) directly to the rim joist by whatever means — nails, lags, or through-bolts — creates a recipe for disaster. If you attach a ledger to a rim joist, you will have water infiltration and leaks over time. But researchers have no business giving advice on how to attach ledger boards. Detail 4 is a prime example: Most new foundations should have proper drainage systems to funnel water away from the foundation, not create more ways for water to damage the foundation walls. Through-bolting into your foundation? Burying 6x6 PT wood? And a 3-foot 6-inch minimum depth to the top of the footing? All counties have local building codes; check with yours for proper depth. Never bury any wood product in the ground; there are many companies out there that make concrete-to-wood connectors just for that purpose.

As a carpenter for over 20 years, I have built many a deck, always trying to find ways of improving on design and function. The solution is simple: Create a “floating” deck. Basically, mimic the outside girder 12 to 24 inches away from the foundation, making sure to leave room for your decking to tuck under the siding. If you are in an area that gets a lot of rain or snow, you might also want to consider adding pitch away from the house.

Gregory Sloane
South Lake Tahoe, Calif.

Don Jackson responds: The free-standing deck is a great idea, as long as the posts are braced against lateral swaying movement. That’s the intent of the 3-foot 6-inch embedment of the post shown in Detail 4. (Frost depth is another issue.) As the deck gets higher, the embedment would need to get deeper, or some other kind of x-bracing would be needed.

Not everyone would agree with your opinion on burying pressure-treated wood. I recently pulled out some deck posts that had been underground for 15 years and had only minor surface decay. The label indicating .60 retention, which code requires, was still stapled to the uncut bottom end. Also, there are many large post-frame buildings that have had posts in the ground for decades. Still, I appreciate your caution and agree that if you can keep the wood out of the ground, why not do it? Just don’t overlook the lateral bracing.

Contact Info

Two of the companies listed in the article on spray-foam insulation (8/03) have new numbers. The phone number for Demilec USA is 817/640-4900; the web address is www.sealection500.com.

The number for BioBased Systems is 800/803-5189; the web address is www.biobased.net.

KEEP ‘EM COMING!

Letters must be signed and include the writer’s address. *The Journal of Light Construction* reserves the right to edit for grammar, length, and clarity. Mail letters to *JLC*, 186 Allen Brook Ln., Williston, VT 05495; or e-mail to jlc-editorial@hanley-wood.com.