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contents

Page 12



by SBC Staff

Page 18

BCMC SESSION PREVIEW



What to Know About Used Equipment

by Libby Maurer

Editor's Message 7
Readers React to Wood Issues 8
Technical Q&A 10
Parting Shots 22

The mission of Structural Building Components Magazine (SBC) is to increase the knowledge of and to promote the common interests of those engaged in manufacturing and distributing structural building components. Further, SBC strives to ensure growth, continuity and increased professionalism in our industry, and to be the information conduit by staying abreast of leading-edge issues. SBC's editorial focus is geared toward the entire structural building component industry, which includes the membership of the Structural Building Components Association (SBCA). The opinions expressed in SBC are those of the authors and those quoted, and are not necessarily the opinions of Truss Publications or SBCA.

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Editor's Message

The True Goal of Material Handling

by Steven Spradlin

A fresh take on handling material

t's a misnomer if you think about it. In my mind material handling is a bad thing. I don't want to handle material. I want to handle finished goods. Finished goods are the only way I make any money and keep my business going. Material handling is merely an expense that is part of the process of my throughput.

Several years ago we brought in a consultant from North Carolina who helped us take a look at our company's material handling. He made us think about how expensive it was to "handle" the materials from unloading trucks, storing raw materials, moving material to the saws, getting material away from the saws, staging material for production, moving material to the jigs, getting the material into the jigs, getting the finished products. All of the areas in some way, shape and form can be improved on a constant basis in anyone's plant—even Joe Hikel's at Shelter Systems in Maryland.

Our industry has adopted several solutions over the years that have helped in these areas. One of the most beneficial in my mind is the use of the live deck in front of the saw. Material handling in the cutting department is where we've made the most improvement I'd say. The saws have gotten so efficient in the last 15 years that most of us have gone from manual setup saws to saws that download over a wired connection. Saw setup times have gone from several minutes to a few seconds.

But even though there are many material handling solutions out there, it's common for one solution to actually become the next problem. For instance, upgrading to faster saws eventually created a tremendous bottleneck at the front of the saw, so live decks became the solution. Soon after, it became known that today's residential houses became more complex and required more truss types, which meant more setups at the saw. So getting the material to the live deck became an issue. I solved that problem with a linear picking line with a set of rollers down the middle. One drawback to the linear picking line is that it is limited in the species, sizes and grades of material you can place on it. We address the problem somewhat by stocking two grades of 2x4 and two grades of 2x6, which covers about 80 percent of the wood we need. Large cuttings are separated and placed on the live deck by forklift.

Once you get this much wood in front of the saw then you have to figure out how to get it all away from the saw. We put a live deck on the back side of the saw with a stacking rack. Then the issues became banding the materials and getting the product out of the building because the saw was so fast there was not time for any of it. We installed an autobander on a roller line that powered the wood out of the building and placed it on a roller line that allowed accumulation until picked up by a forklift.

When it is all said and done, our material handling labor entails: two people operating Cyber saws, two pickers, two catchers and one forklift driver at the end that loads materials into the roof lines. I believe that our improvement in material handling within our cutting operation has allowed us to be competitive with our competition, at least those who understand the pricing of their products. Yes, I had to throw that "jab!"

I hope you're spending less time handling materials than finished goods. I know I am! **SBC**

at a glance

- One of the most beneficial solutions is the use of the live deck in front of the saw.
- □ Saw setup times have improved dramatically.
- □ Even though there are many material handling solutions out there, it's common for one solution to actually become the next problem.

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Readers React to **Wood Issues**

We hope you had the opportunity to read the May issue of **SBC**. Gauging from the response to Ben Hershey's op-ed "Cost of Certified Wood Raises Concern," the industry is fired up about the topic.

Those of you who have followed the actions of the U.S. Green Building Council (USGBC) throughout the last several years know that the organization's attempts to remedy the FSC-exclusive provisions in its LEED rating system have fallen short of satisfying the building community—including the SBC industry. In early June, USGBC announced yet another public comment period for its Forest Certification Benchmarks, a set of guidelines that if incorporated into the LEED programs, would determine which forest certification programs (SFI, CSA and ATF to name a few) qualify for LEED points. The Benchmarks have thus far been criticized for their slant toward FSC, and opponents believe that some of the language will make it difficult for SFI and other certified wood products to meet the requirements. This is USGBC's fourth comment period in two years (since August 2008) in an attempt to resolve the backlash from lumber buyers, like SBCA, and lumber product consumers who feel strongly that only allowing FSC certified wood is unfairly driving up the cost of the products they produce and use and therefore the overall cost for the consumer. With the construction market being so cost-sensitive, this essentially eliminates LEED points for the use of FSC certified wood.

We'd like to share some of your comments and invite you to continue sending your thoughts. Visit www.sbcmag.info to read the articles in the May issue or other past issues.

Hi Ben.

I was very impressed with your article "Cost of Certified Wood Raises Concern." We have the exact same scenario here with the Green Building Council of Australia (GBCA).

Cheers and keep up the good fight!

James Bowden • Editor, Timber & Forestry News

[Editor's Note: GBCA is not the same organization as the U.S. Green Building Council. GBCA was formed in 2002 and has developed its own green building rating system, partly based on LEED, called Green Star.]

Dear SBC.

I just completed reading and wanted to complement you on the May issue of SBC. The opinion piece by Ben Hershey is well written and reflects the frustration felt by many of us when dealing with the forest products industry. I particularly enjoyed the article on the Sacramento Habitat home; it demonstrates that LEED certification can be achieved without an owner being forced to use FSC certified wood.

Good job!

Bill Tucker • Florida Building Material Association

I was cleaning up my desk and decided to browse May's issue of **SBC**. I read your opinion on certification. Thank you! I hope someone that matters reads it and does something.

I'm working late tonight to clarify some details on a FSC truss project one of our customers did in November. The auditor rejected the LEED point for FSC certified wood.

Thanks you for putting in your valuable time to voice your opinion.

Respectfully.

Dennis Fahey • North Star Forest Materials

Mr. Hershey,

I just read your article in **SBC Magazine** and I have to say we share your frustration. I do hope it spurs the industry to respond to USGBC. I think by far and away the most frustrating fact is that USGBC does not hold concrete or steel, or any other building material for that matter, to the same level as it does wood. Our hope is that they begin to ask for some form of third party certification from the other building material producers and that they open their forest certification criteria.

I believe we can increase wood's share in non-residential construction with or without USGBC changing the certification criteria. However, if your efforts are successful and you do manage to spur on others in the forest industry to pressure the USGBC to change its rules on forest certification, I believe that will only help us be that much more successful for the forest products industry.

Good luck with your efforts and if there is anything we can do please let us know.

Dwight Yochim, RPF • National Director (U.S.), WoodWorks

One reader sounded off on the article about addressing lumber quality.

SBC.

I read with interest your article about lumber quality. I'm a very small component manufacturer in central Colorado and have faced these problems for the 15 years I've been in business. I long ago started buying "above grade" to acquire lumber suitable for my operation's quality standards. I experience the higher cull rate you mention for #2BTR through MSR 2100. While I used to have units of nearly perfect 2100, it is now no better than the stud grade of years past, sometimes worse.

I used to be able to pick certain mills with the knowledge that I could get consistent quality. No more. Many of today's mills I've never heard of and the old standbys no longer come through.

Despite what the producer may claim, quality today, in a word, stinks. Why do we manufacturers accept it?

At my operation's size I cannot buy carloads of lumber and sometimes not even full units. Culling means overbuying. Many times I don't have production that allows the use of the culled product in other areas. This drives my costs to the extreme.

While I'm not yet ready to claim a vast conspiracy to eliminate small operations such as mine. lumber quality along with the trend to more conservative engineering requirements is making the cost of producing a quality component very difficult and quite expensive.

I would think that most quality-minded manufacturers would pay a reasonable price for the quality wood of the past if we could get it. But then, this might expose the lumber producer to their "gasoline shortage" tactics. The wood is there, sell it to us.

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ECHNICAL Technical Q & A

Lifting Truss Assemblies

by Ryan J. Dexter, P.E.

BCSI recommendations for handling and installing large assemblies

ollowing the issue's theme of material handling, we recently received the following question from a component manufacturer.

A local contractor contacted me looking for information on lifting truss assemblies in place. He is working on a job where he would like to build a roof truss assembly on the ground and lift into place as a single unit. Is there general information available that we could provide to the contractor?



Answer

BCSI provides guidelines for handling and installing a set of trusses by constructing an assembly on the ground and lifting it into place using the Alternate Installation Method. BCSI states that the contractor should be sure to install all top chord, web member, and bottom chord lateral restraint and bracing prior to lifting the assembly. (See photo at left.)

Truss assemblies are typically "picked" or lifted from approximately the one-third points of the truss span, but additional locations may be required for long-span trusses and odd truss or roof configurations. Because there are many variables involved in this process, BCSI states that the contractor should "be sure to get the proper Professional Engineering guidance to lift the entire system into place safely and efficiently." This is an important step as there may be additional restraint and bracing required to safely lift the truss units into place. (See photos at right.)

The number of trusses that can be assembled and lifted at one time depends on several factors including the capacity of the crane, the availability and type of hoisting equipment and jobsite space and conditions, to name a few.

at a glance

- □ BCSI recommends using the Alternate Installation Method for lifting and setting truss assemblies.
- ☐ The top chord, bottom chord and webs should be braced prior to lifting the trusses.
- ☐ Always consult a Professional Engineer when setting an assembly with long-span trusses.

Tips for building a set of long-span trusses into a stable base unit on the ground and then lifting into place is also provided. A few years back, **SBC Magazine** printed "Developing a Strategy for Long Span Truss Installation" in which the trusses were installed this way: www.sbcmag.info/2004 longspan.pdf

The number of trusses that can be assembled and lifted at one time depends on several factors including the capacity of the crane, the availability and type of hoisting equipment and jobsite space and conditions, to name a few. If the structural sheathing for this roof assembly is 4'x8' sheets of OSB or plywood and the trusses are to be spaced at 2' on center, then the number of trusses in each module will be a multiple of 4 or 5 depending on the layout pattern for the sheathing. However, as you will see from the bottom photo on the facing page, much larger modules can be installed. SBC

To pose a question for this column, call the SBCA technical department at 608/274-4849 or email technicalga@sbcmag.info



Ground Bracing for truss assembly being built on the ground.



reinforcement) and Bottom Chord Permanent Lateral Restraint and Diagonal Bracing as required.



Sheathing and bracing was applied before hoisting this assembly of more than 20 trusses



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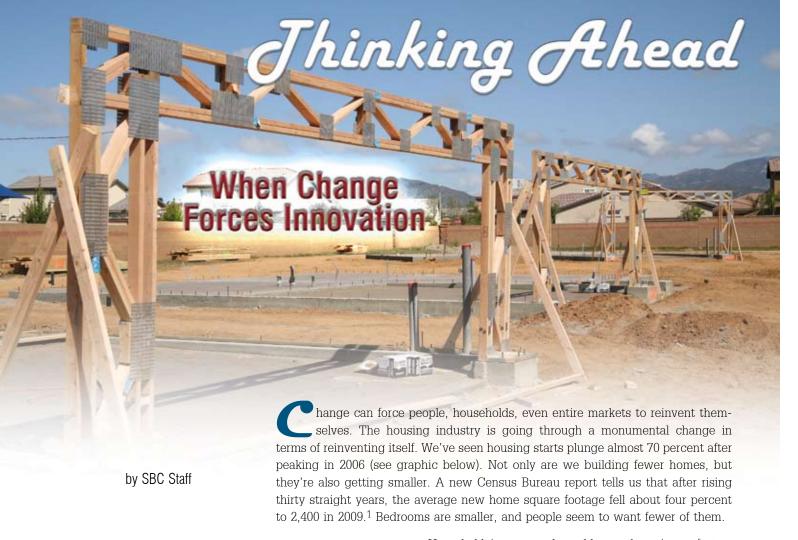


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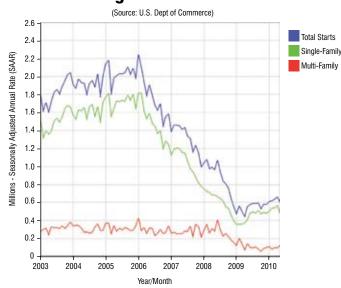
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U.S. Housing Starts 2003 - Current



Housing starts plunged almost 70 percent after peaking in 2006.

Household income and wealth are the primary factors influencing current homebuilding trends. According to a report by the Joint Center for Housing Studies of Harvard University, real household wealth² declined from \$526,000 in 1999 to \$486,000 in 2009. The study continues, "If incomes do not bounce back quickly, Americans will have to choose whether to cut back on the size and features of their homes or allocate larger shares of their incomes to housing." Today's home buyer is less interested in owning the largest home on the block, much more concerned with costs. Consumers are more focused on preserving their money, protecting themselves in case they lose their jobs, cutting costs, reducing energy consumption and realizing a shorter commute.

"Builders know it's much more difficult to control the quality and waste when you're putting the pieces together on the jobsite. That's why the more ways we can find to get components into a house, the better."

Our industry has had to respond to the reduction in starts and the smaller homes through dramatic changes to their business models. While several hundred component manufacturers did not have the capital, stable markets or customer relationships to survive these unprecedented changes, those making it through this period will emerge facing a far different competitive landscape, what many are calling a "new normal."

According to Ken Cloyd, President of California Truss Company, the changes in the housing industry give component manufacturers a tremendous opportunity to innovate. "Tough times are when you push harder to come up with creative ways to make money and get new products into the market," he says. Cloyd, together with Barry Dixon, brought the message of the changing homebuilding industry to BCMC 2009 in a three-part presentation.

Diversifying products and services for builders, says Cloyd, is the way to profit in our new reality. What was at one time a \$12 billion a year industry has been cut at least in half, which automatically means fewer jobs and less opportunity to make a profit. Cloyd believes the only way to supplement sales is for component manufacturers to figure out how to turn more of the house into components.

Following up their BCMC presentation with an online session for SBCA's Annual Workshop & Conference in June, Dixon told attendees the key to turning the downturn into dollars is figuring out how builders' needs have shifted. To that end, his Jacksonville, FL-based company looks for example at how it can leverage Building Information Modeling (BIM), an emerging software technology, to supplement sales.

Here's how two companies in two of the hardest hit housing markets have begun to define reinvention.

Busting Out of the Box in California

Cloyd understands creating new opportunities to serve his customers. He began working on his company's new line of metal plated connected shear wall frames called Smart Components $^{\text{TM}}$ in 2000. The frames or "portals" are engineered to resist any type of lateral and gravity forces applied to a building. They are manufactured using typical dimension lumber, metal connector plates and patented concentric hold-down connectors. According to Cloyd, "Their design provides architects and engineers with a substantial increase in window or door opening flexibility, while also being able to meet the high lateral load capacities engineers are requiring for seismic and high-wind markets."

They brought the product to market in 2009, in time to gain the attention of builders gearing back up for growth. Cal Truss Director of Business Development Jerry Vulgaris says, "The amount of dollars available to us per job is less and less. The industry's revenues have come way down, fewer homes are being built and homes are smaller. The solution is to offer the builder more value-added products that reduce material and labor costs, and increase margins. That's how businesses will stay alive in this climate," he says.

Cloyd's product has similar benefits to builders and consumers as traditional components, making it a natural fit into the company's existing products. For instance, they're made in a controlled environment with third party inspections resulting in a better quality built product. They're delivered as you would panelized components—on trucks and set with cranes, with no on-site assembly required. "Builders know it's much more difficult to control the quality and waste when you're putting the pieces together on the jobsite. That's why the more ways we can find to get components into a house, the better," says Vulgaris. Despite slower home sales and fewer starts, builders are still looking for manufacturers to process lumber in highly efficient ways with their design software and automated equipment.

Continued on page 14



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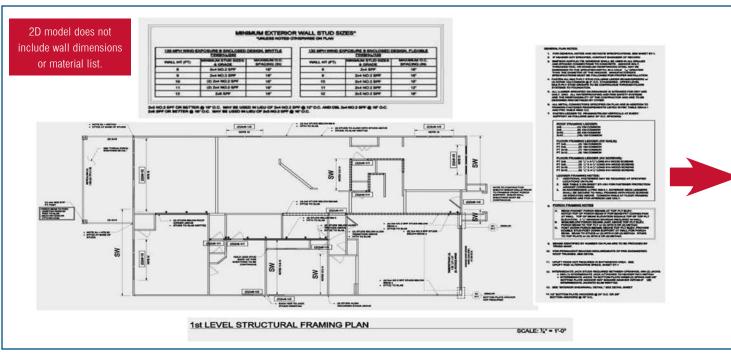


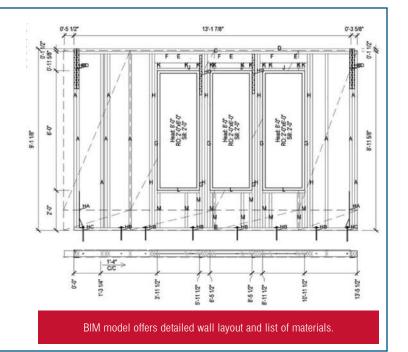
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12 August 2010 Structural Building Components Magazine www.sbcmag.info August 2010 Structural Building Components Magazine www.sbcmag.info

¹ Source: National Association of Home Builders, www.nahb.org/news_details.aspx?newsID=10898, June 14, 2010.

² The U.S. Census Bureau says household wealth is comprised of main home equity; other real estate; a farm or private business; automobiles, motor homes, or boats; checking and saving accounts, stocks, bonds, retirement accounts and other investment vehicles; the cash value of life insurance; and valuable collections.





Harris says like traditional wall, roof and floor components, its plated headers, corners and other rough openings offer builders and framers tremendous value in many areas.

Thinking Ahead • Continued from page 13

Raising Margins in Multi-Family

Offering wall rough openings is a natural way for component manufacturers to increase margins. Companies like Trussway Manufacturing provide plated door and window openings as add-on products to increase the dollar amount of each sale. "Although no sale is simple these days, it's much easier to sell additional products to an existing customer than it is to win over a new customer who isn't buying from you," says VP of Sales Tony Harris.

Harris says like traditional wall, roof and floor components, its plated headers, corners and other rough openings offer builders and framers tremendous value in many areas. The Houston-

based supplier of primarily multi-family projects says the products have allowed them to capitalize on themes like reducing jobsite waste and theft while increasing quality and cycle time. "Any time openings are cut in the field, there's a higher chance of error. Our product ensures a consistent rough opening without the error. It also cuts down on the waste factor you have with traditional loose framing packages," Harris says. Perhaps more importantly, limiting waste saves on cost. "Cutting openings in the field can easily result in as much as a 20% waste factor. That's significant, especially when lumber prices are high." Lessening the risk of jobsite theft is another huge benefit of componentizing more of the structure. "People can easily walk off with 2x4s and other loose lumber, but not many people have use for a wall section designed for a specific job."

"About the only incentive is getting the cheapest mechanicals or concrete or other material." What's more, no one trade is in charge of the design-build process at the level of detail necessary to optimize material use and keep costs in line. The net result is cutting costs and competing on the market price of components, essentially pitting component manufacturers against each other. This means component manufacturers are generally cutting out the value added services, losing margins without any bargaining chips left.

Dixon says his company has a plan to regain their sense of direction and reclaim value through design. In the future, he says, component manufacturers must have more control over the course the industry travels.

detail and dimensions, all this critical information is in one place. The same house modeled in a BIM program shows actual wall stud layout and dimensions. "You can actually start placing various products into walls, see how the loads need to flow through the assembly, etc. Now we can get into analyzing the house by adding or taking away certain materials and determining your ROI on that change." The end result is the ability to generate a complete bill of materials or BOM. The BIM-BOM—that's key for the builder.

Suddenly BIM software makes expanding your services into areas—like hardware sales or complete framing packages a snap. Other possibilities include becoming a full-service building material supplier, providing electrical Continued on page 16



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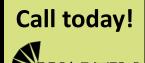
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Builders' focus is primarily on land devel-

Long Way Down in Florida

The downturn hit Florida early and hard. So Dixon's True House and sister residential engineering firm, Apex, have taken a new view of its role between the building and customer in the marketplace. "Currently, the homebuilding industry is like riding a bike with no sense of direction—we're out of control. No one knows who is steering or what direction it's going in. We've decided to change that," he told attendees.

opment and acquisition, scheduling, and marketing and sales. Dixon says as the industry emerges from the downturn, builders want more for less every day, and there's no real reason for them to collaborate with their material suppliers.

BIM Is the BOM

One way to tie processes together is an emerging building design technology that allows 3D modeling and analysis. Building Information Modeling, or BIM for short, is starting to replace traditional 2D building design software as the norm in the market. This is a more sophisticated primarily CAD-based tool that provides an efficient way to ensure all the dimensions and planes are correct, while making it easy to execute a full material take-off. "We're currently in a 2D design world. Plans are very notes-driven and complicated. They don't tell you the exact location of windows, wall length or stud locations. We have to keep going back to architectural drawings for that kind of detail," Dixon says.

But with BIM's capacity to visually depict



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August 2010 Structural Building Components Magazine www.sbcmag.info August 2010 Structural Building Components Magazine www.sbcmag.info



A "Smart Portal" installed in a California residence. Turning more of the house into components is the key to regaining market share, says Cloyd.

Thinking Ahead • Continued from page 15

services, framing services and HVAC. Dixon's company has been experimenting with BIM software for several years, and says the more they understand the technology, the more opportunity they uncover. "It's incredible the possibilities we have."

Reinvent—The Smart Way

Since reinvention requires creativity, it shouldn't have limitations. But Cloyd and Dixon offer some tips.

Dixon says companies learning to use BIM, the best piece of advice he can give is to define a scope of work (SOW). "That's the very first step. It's also the hardest part," he says, noting it often takes a completely different mindset. BIM technology is so powerful, he says, that all of a sudden you are faced with a ton of opportunities. You want to make sure you're going in a direction that fits naturally into your and your customers' business model.



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The Power of Collaboration

Cloyd takes his hat off to truss plate and software suppliers in particular for providing technology and intellectual property to help our industry grow. The development of engineering software has been an important step to moving us closer the industry to a BIM tool that component manufacturers can take to the next level—whole house take-offs and eventually integrated whole house design. Cloyd says software suppliers have invested significant dollars to keep the truss industry on this cutting edge. "We need to continue to articulate what our customers want us to engineer and componentize so software suppliers can further enhance engineering software."

There's strength in working together, he says, especially when you can leverage a trade association like SBCA. "The SBCA connections and dialogue are very powerful tools to use to advance our businesses and industry's best interests."

One of Cloyd's sticking points in inventing new product lines: Be resourceful, meaning avoid investing in something that doesn't have carry-over value to existing product lines. For example, the Smart Components product line uses the same type of materials you'd find in a component manufacturing shop (lumber and steel connector plates), and they can be assembled with standard equipment—component saws, jigs

and roller press. "Everybody's got machines that can build twice as many trusses as we have orders for today. We have the best saws, the best equipment out there. We've got to find ways to use it." he said.

What We're Going Through is Natural

"Does anyone ever really want to change? No. It's something no one ever wants to admit, but it's necessary," says Cloyd. That's

why, he says, it's best to look at it as a reinvention. "All products go through natural evolution cycles. That's what you're doing when you reinvent," he says.

Dixon says the key to surviving the unforgiving market is to find small ways to make more sales. "It's almost impossible to make money if you're a component manufacturer right now, unless you're the only person in your market."

Cloyd encouraged attendees to "bust out of the box," but cautions against going too far outside the scope of what they know best. "People tend to think 'oh we gotta completely change what we do.' They look for something brand new to do. I say let's look at what we already do, stick to what we know—building components." **SBC**

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BCMC SESSION PREVIEW

by Libby Maurer

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Thinking about equipment upgrades? Consider buying used!

he market for used component manufacturing equipment continues to be filled with inventory from shop closures and consolidation. Component manufacturers looking for tips on how to score good deals, make the best decision on used machines and learn how to develop a preventative maintenance program can get tips at a BCMC session this year in Charlotte. At "Buying and Selling Used Equipment" and "No Maintenance, No Problem" on Wednesday, September 29, a panel of seven brokers, resellers and original equipment manufacturers will address trends and tips about today's used equipment market. Here's a preview of the sessions.

What Are the Current Trends?

Eide Machinery Sales is one of the participants on the panel. The company has been selling new, used and rebuilt equipment for three generations. Vice President Tom Hoy says the availability of used equipment from shop closures or auctions seems to come in waves, so it's not always easy to predict trends. "Most recently it seems that the late model equipment market is starting to dry up. Some of the less automated machines are becoming more prevalent."

Panelist Wayne Masengill (Masengill Machinery Co.) believes as the recession passes, component manufacturers will be making a push to replace their older, less automated machines. He says computerized sawing technology—lineal and feed through saws—is still very prevalent on the used market. "Now's an ideal time to upgrade if you have the need for it." Masengill Machinery was established in 1963 as a full service company selling new and used machinery to the woodworking/manufacturing industries.

The panel plans to talk to attendees about one of the critical mistakes buyers tend to make—not fully assessing their needs. "Sometimes what you think you need and what you actually need are two very different things. This is the first conversation I have with prospective buyers...it's important to talk through the intended purpose of the machine," says Hoy. Another costly mistake: buying because it's a good deal. "Just because you see a good deal doesn't mean it's the right piece for you and your operation."

Buyer Beware of Live & Online Auctions

Structural Building Components Magazine

The panel will urge attendees to be cautious when purchasing used equipment at auctions—online auctions especially. They say the key to a smooth and favorable transaction is homework, homework, and more homework.

Panelist Mark Presley of Eagle Metal Products says component manufacturers should be wary of online auctions, regardless of their convenience. "They're a shot in the dark—you never know what you're getting. It's much more advantageous if you can attend it in person—you might actually see the machine run," says Presley. Eagle is an original equipment manufacturer, but it will also buy, refurbish and sell used equipment.

Masengill says in some cases buyers may think they are getting an excellent deal at an auction, but they aren't aware of a major defect or that they may be purchasing a discontinued machine. "You may not be able to find replacement parts or technical support. That's a problem."

Although auction pricing can be very attractive to shoppers on a budget, Hoy warns buyers to consider the big picture costs in addition to the final sale price. "Don't forget about the buyer's premium, de-installation, freight, and reassembly costs." Often buyers make the mistake of underestimating the full cost of buying at auctions. "The buyer's premium alone

can sometimes run you between 10 and 15 percent of the purchase price. That's a pretty significant amount," he says.

Maintenance Programs

The panel will also present "No Maintenance, No Problem" on Wednesday, September 29, offering tips on how to develop a preventative maintenance program, tools to keep maintenance in check, and what to consider when scheduling breakdowns.

Presley says the most commonly overlooked aspect of preventative maintenance is housekeeping. "People seem to overlook cleanliness of their work spaces." He says when dust accumulates in machine bearings, it may eventually lead to a host of maintenance problems. This is the case no matter if you're working with electric or hydraulic powered equipment.

Masengill says it's unfortunate that preventative maintenance is too often forgotten when machines are working properly. "The whole point is to prevent a major breakdown. It's that old farm instinct: if you don't take care of your tractor, it won't take care of you."

Hoy says it seems there isn't much middle ground when it comes to companies' preventative maintenance programs. "Equipment tends to either be in terrific shape or very poor shape," he says. The good news, Hoy says, is original equipment manufacturers have vastly improved their maintenance recommendations, so component manufacturers have much better tools at their disposal. "They're getting far better guidelines about how to take care of their machines nowadays."

Items that should be at the top of a regular scheduled maintenance list include checking oil levels in hydraulic systems, addressing leaks in hydraulic or air Continued on page 20

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BCMC Session Preview

Continued from page 19

systems, draining water traps and filling lubricators in air systems, and lubricating drive chains. Even taking 20 minutes a day to clean up and perform manufacturer-recommended daily maintenance checks will increase production efficiency substantially and improve the longevity of your equipment, Preslev says. **SBC**

For these and more tips about buying used equipment and preventative maintenance, join us for BCMC 2010 in Charlotte. Find a complete list of educational sessions in the BCMC Attendee Brochure or on the BCMC website. Online registration is now open at www.bcmcshow.com.

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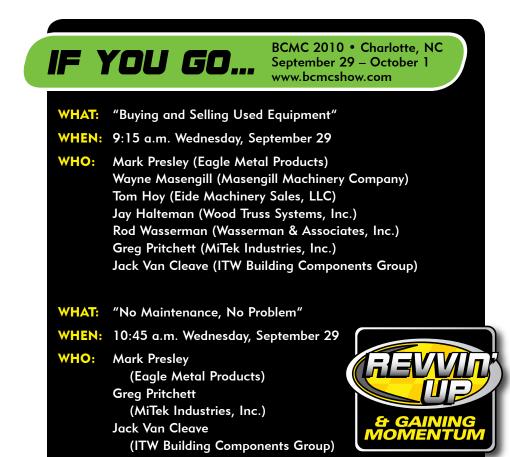






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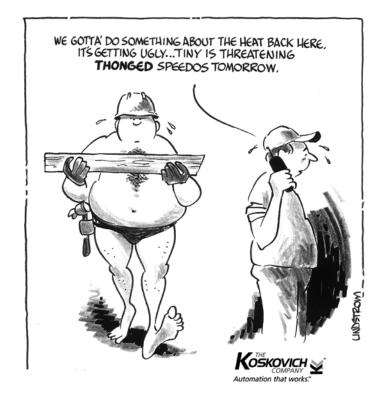


Pioneer Truss Co. Contributes to 300th Ronald McDonald House

In early 2010, staff and volunteers broke ground on the 300th worldwide Ronald McDonald house in Creve Coeur, a suburb of St. Louis, MO. In April, Pioneer Truss based in Owensville delivered the trusses for the home. The project cost an estimated \$4.5 million.

Mark Lenauer designed the roof system for the 10,500 sq. ft., 20-room building. Lenauer said the trickiest part of the process was accounting for the nonfunctioning brick and mortar chimney sitting on top of the roof for aesthetics. "It measures 3' x 7' x 3.5' tall and weighs about 3,500 lbs. So the roof trusses had to be designed to withhold that weight," he said. Lenauer worked with the building designer to come up with the total load of the brick, mortar and related materials (like sheets of plywood), and then defined the load path to the foundation.

This isn't the first time the company has done work on a Ronald McDonald project. In 2004, Pioneer supplied the trusses for its first McDonald home at Barnes Children's Hospital, also in St. Louis. **SBC**





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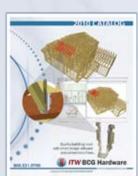


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