

EAST MEETS (& BUILDS) WEST

180 miles up the Yangtze River in the heart of China...

by Steve Zastera & Paul Harmon

When Jay Halteman of Wood Truss Systems in Yorktown, IN, first replied to the used-equipment inquiry off his web site, he didn't expect much to come of it. He certainly didn't expect, 18 months later, to be standing next to the Yangtze River in Nanjing, China, in front of some of the most elegant western-style homes he'd ever seen. And he most definitely didn't expect that he and his Midwestern company would be the hub of the equipment consortium that made it possible.

"It was an arduous journey, grueling wouldn't be exaggerating...and I'm not talking about the flights," Halteman reflected, "but, without a doubt, it's one of the most satisfying and educational journeys I'll ever take...I've never been party to something like this, something so momentous in every sense of the word."

Halteman explained that the Chinese had originally wanted used truss and wall panel equipment to embark upon a unique project—building Western-style "up-scale" homes in the heart of China, starting in Jiangsu Province. After communicating with them through an English-speaking representative, it became apparent to Halteman that they really shouldn't be buying old, manual equipment for what they were trying to do.

The clincher was when they told him their goal was to build 3,000 homes per year.

They needed highly automated equipment.

"Recommending state-of-the-art, high-speed automated equipment might sound odd, given that their labor rates are around a dollar a day," Halteman said, "but labor savings was not primarily what I was after. It became abundantly obvious to me that the hurdle these folks had to somehow jump was their lack of fundamental design and construction knowledge at all levels, when it came to building our type of structures. They needed to be able to see pictures and push buttons and get exactly the components and completed assemblies they needed."

Halteman explained that terms such as "web" and "chord" and "gable" were unknown to them, even if they could have communicated in the same language

(which they couldn't).

"That's not to say that they weren't intelligent or lacked any kind of ability, quite the opposite," Halteman emphasized, "I was absolutely amazed at what these folks pulled off—they are an amazingly capable and thoroughly devoted people. But there were no skilled sawyers, operators and assemblers available at any price. There were no design-engineers for what they wanted to do. Indeed, at the time, there weren't even building codes for what they wanted to do."

East "Leaps" West

By using computerized designs and design-engineering which downloaded directly to intelligent equipment, technology developed over the last 20 or 30 years in western society, they were able to bypass a huge educational step, Halteman explained. "They literally leaped over a generation or two of education and development that we had to go through in this country's building sector. They never had to learn how to put a home like this together manually—they didn't even have to learn the terminology."

Putting It All Together

Halteman designed the entire truss and panel plant for Jiangsu Jifco Holdings (operating under the trade name, Cogent Home Manufactory), specifying the building size and configuration, the equipment it should contain, and where most everything should be installed.

He worked closely with Dr. Du Hai, the company's chairman, and Liang Zhang, project coordinator (who soon became simply, "David").

Halteman selected proven reliable automated equipment from companies he believed to be the best suppliers available—it not only had to be the easiest to operate ("as intuitive and very simple to use as possible"), it had to keep operating ("all but bulletproof durability—it would be 4,500 miles away from the nearest technician"). He looked at essentially the same things when it came to design-engineering software and connector plates.

"I chose automated cutting and marking equipment," Halteman reflected, "because it's the easiest to use, is extremely reliable and durable, is compatible with any design software, and it pictures everything on its monitors. I emphasize 'marking' because system-applied markings would be the key to simple assembly—of both trusses and wall panels."

Halteman noted that while the component saws and Canadian lumber use imperial measurements and the design software would be in metric measurements, the equipment's extreme precision (thousandths of an inch) made comparable measurements more than acceptable.

Halteman chose design-engineering software and connector products for similar reasons; the company has offices in Australia, much closer to China than the United States.

Every piece of equipment selected was the best in the industry, in Halteman's judgment, and had companies behind them with a history of exceptional service and support—"every bit of which I would need to pull this off."

Available equipment and the manufacturers themselves are something Halteman has considerable knowledge of, having worked in the industry for over 30 years beginning with a part-time job building wall panels. His grandfather set the family's construction-career path in 1934 when he started building homes. In 1988, Jay Halteman and his father, Bob, formed Wood Truss Systems, Inc. in Yorktown, IN (right outside Indianapolis). Bob is semi-retired now, but has represented equipment for most every major manufacturer in the industry during his career. Jay Bunyard rounds out the

Wood Truss Systems group and, as it turns out, would also play a key roll (albeit in the background) in the China project.

While knowing equipment and manufacturers was one thing, putting together the necessary logistics and financing while satisfying a sea of confusing regulations was another. Halteman sought government assistance at both state and federal levels. He found that the U.S. Department of Com-

Continued on page 56



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—Jay Halteman (right), pictured with members of the installation team & Mr. Xu Shao Gui, Project Manager

at a glance

- ❑ East met West when Chinese Jiangsu Jifco Holdings went equipment shopping for a new truss and wall panel manufacturing facility in the U.S.
- ❑ Even though there were no skilled sawyers, operators, assemblers, or truss technicians available in China, Jay Halteman (Wood Truss Systems) was amazed at the Chinese's capability and devotion to the project.
- ❑ For the new plant in China, Halteman chose what he believed to be the most reliable automated equipment that was also the easiest to operate and had extreme durability.

East Meets (& Builds) West

Continued from page 55

merce, a federal agency with (fortunately) a field-office in Indianapolis, was extremely helpful. Likewise, the Export/Import Bank of the United States, the U.S. Consulate, and the Small Business Administration all were responsive, prompt and very supportive.

"We're all accustomed to working with government agencies at the consumer level, like the Motor Vehicle Department,

While knowing equipment and manufacturers was one thing, putting together the necessary logistics and financing while satisfying a sea of confusing regulations was another.

and coming away unsatisfied if not insulted," Halteman remarked. "But that was not my experience at the federal level at all...to the person, they were knowledgeable, prompt, and do-whatever-it-takes folks."

With their help, and the help of others they recommended, Halteman was able to put in place the necessary Letters of Credit, satisfy "Harmonized Tariffs," arrange for freight and the necessary documentation to accompany it. The total sale was about \$1.25 million.

Early on, Halteman could see that this project would consume the majority of his time if he were to hope to bring it to a successful conclusion. So he turned over all his domestic work to Bunyard who, Halteman remarked, "somehow kept everything cooking without a hiccup."

The Work Bears Fruit

The contract was in place, the shipments were made, and Halteman and his team of suppliers' technicians—a total of 11—were there in Nanjing for installation and operator training. It was difficult at times. Communication was limited even with the help of their interpreter.

"There was a lot of signing and face gesturing, but we made it work," Halteman explained, "The equip-

ment all got set up as planned and the operators adequately trained and in place."

"There was a little disappointment with the robotic component saw though," Halteman remarked, "My customer's help opened the shipping containers and didn't find the robots they were expecting."

Things went slow at first, but once they hit their stride—probably within a week, Halteman estimated—they were

Continued on page 58

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East Meets (& Builds) West
Continued from page 56

"cranking out" trusses and wall panels as well as their American counterparts would. And the structures they built were "simply magnificent."

Halteman was awestruck. "If you look at what they're building and where it is—and when you consider these are the first homes like this that they've ever built and they can't even speak our language, let alone read the truss design drawings—you can't help but be amazed. It is, genuinely, awesome to see."

A Look Inside a Chinese Model Home—Really Inside

The Chinese do not typically sell new homes with fixtures and appliances in place. The hookups are there—plumbing and electrical—but all else is the homebuyer's responsibility.

Cogent Homes, the company selling the new structures, built a model home to display their construction quality, including the quality of their electrical and plumbing work. Instead of sheetrock, a section of an interior wall was covered with Plexiglas to show prospective buyers the quality and engi-



While this new construction might look like a typical Western home from the outside, the Chinese do not sell homes with fixtures and appliances in place. These are the responsibility of the homebuyer.

neering in wood components.

As of August 2005, Cogent Homes had built over 250 homes.

The company is developing a demand for their western-style homes in the region and recently participated in a Shanghai trade exposition that indicated strong promise in other regions. There is little question now that the plant and its equipment are performing well and, indeed, that the Wood Truss Systems' recommendations were sound. The relationship remains

strong and Halteman stays in communication.

"A lot of difficulties, a lot of frustrations, a lot of holding your breath," Halteman reflected, "but without all that, we wouldn't have received such a great measure of satisfaction."

"Besides, should I ever need a place to live in China, I know just where to go." **SBC**

*Steve Zastera & Paul Harmon are partners in Harmon & Associates, Lakeville, MN. For a listing of equipment selected by Halteman for the Cogent Home Manufactory in Nanjing, PR China (Jiangsu Province), visit **Support Docs** at www.sbcmag.info.*

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