New heavy-lifting system goes where derrick barges can't fit.

By Stephen Stuart *Staff Writer*

BELLE CHASSE HEAVY-LIFTING company Versatruss Americas recently completed its first major job using its new lifting system, which can boost giant oil and gas platforms into place offshore when standard derrick barges encounter shallow waters or tight places.

Versatruss installed three Chevron platforms, each weighing 4,700 to 6,300 tons, in Lake Maracaibo in Venezuela. Chevron tapped the firm for the project when it found that the platforms wouldn't have fit underneath a bridge near the mouth of the lake if they had been hoisted by derrick barges.

Versatruss's new lifting system installing a Chevron platform.

The company says the late-August Chevron project has drawn several inquiries from other possible customers for the lifting system. The 12-employee firm operates independently from its parent company, Versabar Inc., which has 57 employees and has provided heavy-lifting equipment, such as slings and riggings, to the energy industry and others since 1981.

Versatruss developed the system to perform niche projects such as the Chevron installation, rather than to replace derrick barges, which use mammoth boom cranes to lift all or parts of oil and gas platforms. The system also gives companies the ability to install larger platforms all in one piece, inventor and Versabar President Jon Khachaturian says.

The company says studies have shown the lifting system could install structures weighing up to 20,000 tons. The largest derrick barge lift on record is about 10,000 tons.

For 6,000-ton oil and gas platforms, the savings comes not just from avoiding high rental rates for derrick barges, which can run about $200,000 per day, but in starting production much sooner, Khachaturian says. Gargantuan platforms sometimes must be installed in pieces, leading to months of delays. "When you can save the kind of time that this (system) saves, it can be very attractive," Khachaturian says.

The Versatruss system involves two barges with three 70-foot trusses each that hook into pins installed on the platform's sides. Underneath the platform, the two sets of trusses are connected by horizontal tension bars. High powered winches, the most expensive part of the $10 million to $12 million system, then pull the two barges together, causing the trusses to push up and lift the platform off its transport barge.

Suspended in midair, the platform is guided over its jacket, or foundation on the water's surface, and set down in place. Khachaturian says the barges, which are rented for the job, require no sophisticated mooring systems or unconventional equipment.

The lifting of the trusses is synchronized by computer, and the platform's weight is distributed evenly among the six trusses. A small computer control room with two monitors and a basic lever governs the lifting.

The process is the same to remove platforms that have outlived their usefulness and must be refurbished or scrapped, Khachaturian says.

Versatruss' lifting process also creates a smaller draft—Chevron's platforms pushed the barges just 11 feet into the water—while a derrick barge could face more than 20 feet of draft, Khachaturian says. This allows Versatruss to access shallow waters that would have to be dredged for derrick barges. Khachaturian adds that Versatruss' stable structure minimizes the effect of weather, as

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when a fierce storm blew up during the Venezuela installation. "It just didn't even faze it," he says.

Versatruss also ties up to the platform's jacket, eliminating the need for anchors. Also eliminated are unpleasant surprises, such as the snapped cable that sunk part of Texaco's Petronius platform several months ago, Versatruss says. Versatruss can test the strength of the lift beforehand and also start and stop at any time during the operation, it says.

Khachaturian says he came up with the idea for Versatruss about 10 years ago, making an early model out of some toy building blocks. But the concept stayed on the shelf until Mobil approached him to handle a 200-ton deck in the summer of 1996.

The following year, Amoco used the Versatruss system to remove a 1,300-ton platform from the Gulf of Mexico and tow it back to Morgan City to be decommissioned.

Chevron followed the Amoco project closely, Khachaturian says, and offered the Belle Chasse firm the chance to perform its Venezuelan work.

After about six months of developing and assembling Versatruss, the company lifted and installed Chevron's three platforms in about two weeks ending Sept. 3. McDermott International Inc.'s yard in Amelia built the jackets and made adjustments for the Versatruss equipment.

Khachaturian says he has received much interest in future work for Versatruss but has concentrated on the Chevron project as the first major test of the system. He says the patented lifting system will help his company in the long term.

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Crowley Marine Services Inc., a Seattle contractor for Chevron which used Versatruss as a subcontractor on the Venezuelan job, found that the transportation and installation of the platforms did not pose new challenges, says Steven Balaski, project planner. The main advantage was allowing the platforms to be installed all in one piece, he says. ●