

## Walk, baby, walk: New rig drills, then moves

By **MONICA HATCHER** Copyright 2010 Houston Chronicle  
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Julio Cortez: Chronicle

GES offered a demonstration of its existing QuickSilver rig Friday at its manufacturing facility in northwest Houston. It also unveiled a rig design with a walking system.

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In what sounds a little like something in a science fiction movie, a Houston manufacturer has unveiled the next generation of land drilling rigs that walk.

The newly designed rig from Global Energy Services doesn't have feet, exactly, but does wear "hydraulic shoes."

It uses a novel four-axis walking system that lifts and incrementally slides the heavy-duty equipment from a stationary base.

GES, which designs and manufactures land drilling rigs, introduced its Ultra Drilling System to the oil and gas market on Friday at its manufacturing facility in northwest Houston, along with a demonstration of its existing QuickSilver rig.

The company, which has 34 rigs in operations around the world, said QuickSilver is used widely in North American shale drilling.

Ultra exists for now only in detailed designs, but GES says it can build the rig in under a year, at a price close to the \$15 million of a QuickSilver rig.

Michael Stansberry, GES chief operating officer, said the "rig walking" system allows the drilling machinery to move up to 120 feet at 40 feet per hour.

That contrasts with conventional drill rigs that must be dismantled to move even a few dozen feet, a process that can take up to five days and tens of thousands of dollars in lost day rates and additional costs, Stansberry said.

### 45-degree movement

While other rig walking systems exist, they typically use skidding beams for movement in a straight line or "Y" direction.

The new four-axis system adds 45-degree movement, the company said, allowing contractors to cover more ground and drill more wells in less time.

"The more time you got weight on the bit, the more efficient you are going to be, the operator is going to like it more and you're going to make more money," Stansberry said.

GES' new system is being launched at a time when drilling in natural gas shale plays is ramping up across North America and bringing drilling activity closer to urban areas.

As a result, contractors are increasingly looking to decrease their footprint on the environment and operate less conspicuously in smaller areas.

"More and more, there's a higher priority on doing more on less space and on smaller pads, especially in areas that are typically not drilling areas," said Rusty Ritz, a drilling engineer with Houston-based HTK Consultants, who said he was not familiar with the GES technology.

"Conserving space is a becoming a priority, which means you have to put many wells in a smaller space," he said.

### Important feature

John Morrison, president of Crown Drilling in Washington, Pa., who attended the GES event Friday, said walking technology was a key part of new rig packages.

"Working up in the eastern U.S. and in the Marcellus play, everybody is looking to make minimal rig moves up there because the terrain is so challenging and it makes more sense," Morrison said. He added that moving from well to well without having to "rig down" is becoming the ideal.

The mobility of the Ultra system lets a contractor bring in a well completion rig while the Ultra is walking to drill up to 10 other wells, Stansberry said.

He also touted a safety feature — that the Ultra can be assembled and dismantled from the ground, without using cranes.

The rig system also has expanded drill pipe racking capacity of 19,500 feet compared with the typical 14,500, yet can be moved with 24 truckloads versus the 36 loads usually needed for transporting rigs. That cuts down on emissions and trucking costs, as well as the annoyance to communities along the route.

"They don't like our great big rigs going up there, tearing up their farms, knocking down their power lines and the edges off their houses," Stansberry said.

### Higher efficiency

Also, new software and monitoring equipment have improved energy efficiency on the Ultra by 25 percent, GES said.

The rig also has a remote diagnostic system, allowing GES engineers in Houston to identify and fix problems more quickly.

The only thing the rig needs now is a buyer.

"It's completely designed and ready to build," Stansberry said. "If we get an order today we can get the first one out the back door in nine months."

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