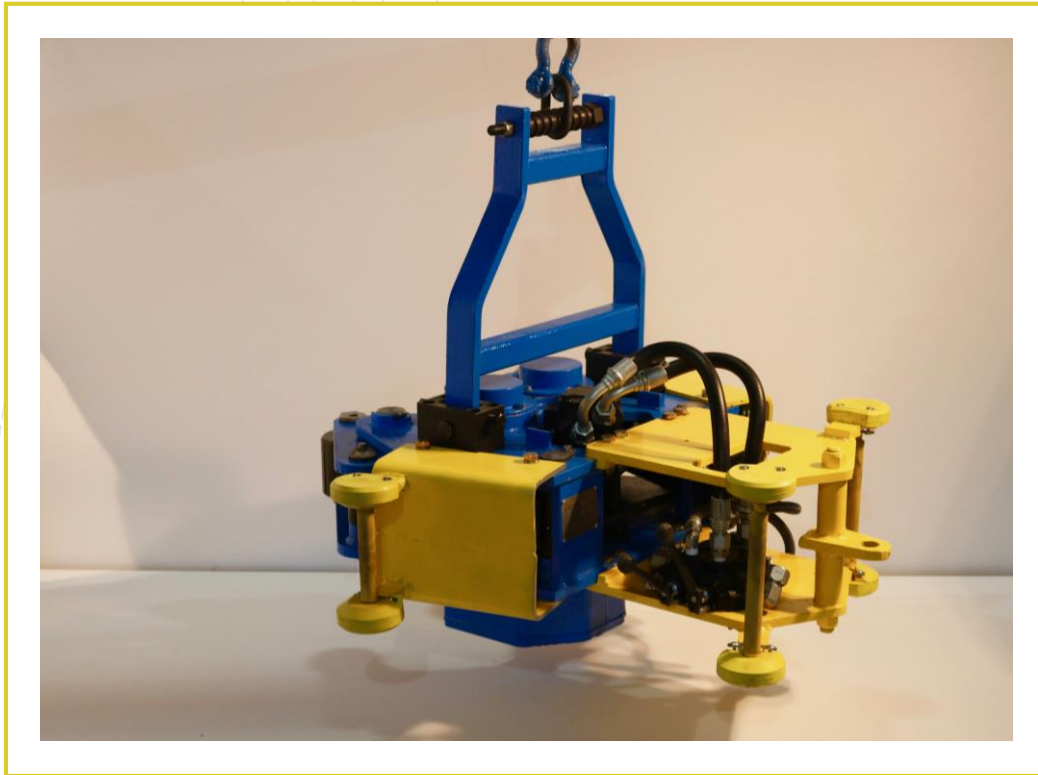


The background of the slide features a silhouette of an oil pumpjack against a sunset sky. The sky transitions from a deep blue at the top to a warm orange and yellow near the horizon. The pumpjack is a large, mechanical structure with a long, angled arm and a counterweight. Other smaller pumpjacks are visible in the distance to the right.

A Safer and More Efficient Drillpipe Spinner

Presented by Oilfield Products
International Inc.

Safety Has to Come first



- **We all know safety is crucial in this industry and finding ways to ensure safety for the men on the rig should always be at the forefront.**
- **As you can see, there are significant amounts of safety yellow with protective handles so the Pipe spinner operator knows exactly where to put their hands**
- **In addition, there are pinch point stickers attached**

Flexibility is Key

"I often tell people if I was going to build a 30 foot robot with two arms, the hands would be my pipe spinner."

95 % of this pipe spinner can be used directly to go into an iron roughneck simply by removing the rear Hawe mounting plate and the two section Hawe. The spinner hanger can be removed and the spinner is ready to be installed on an iron roughneck



Adaptability of the Spinner

We then attached two torque arrestors around the yellow vertical pipe spinner hanger, attached two hydraulic hoses and the spinner is ready to go to work on the Iron Roughneck.

The two section Howe valve bank can be used as well by simply adding 5 more valve sections to it for the roughneck functions.

The OPI Iron Roughneck can be used horizontally and in about in any other angle you want to manipulate it into.



Efficient Design



- The OPI Spinner is a single gear box design and with speed adjust capabilities to turn 5 “ Drillpipe as fast as 160 rpm’s. The spinner is self adjusting that can adjust from 2-3/8” to 8-1/2”
- The above feature prevents you from having to adjust for pipe size and has been documented to save **10 HOURS PER WELL which equates to cost savings of \$10 to \$15,000 PER WELL!!!**
- The gear box uses 5 quarts of 90 weight gear oil and we use the ”ONE EYE” rare earth high strength gear pan plug that assists in keeping the gear oil clean
- **Also helps in detecting premature pipe spinner failures**

Footprint of 24" x 24" and Torque up to 3,000 Ft/Lbs.

- With the drive rollers having a knurled roller design, this achieves maximum gripping ability.
- Easy Maintenance: each roller can be cleaned in 15 minutes
- If the entire spinner needs to come back to shop for rebuilding, the spinner can be exchanged out on the rig in less than an hour
- Can be Rebuilt in LESS THAN 8 HOURS
- Has an Eyebolt in the Center for Easy Lifting



A Little Bit about How we got here....

FIRST LOOK

OPI Solves Pipe Makeup Problems On HDD Crossing

In early 2003, Janco Directional Drilling, Iowa, L.A., was awarded a contract to install an 18-inch steel casing using horizontal directional drilling under the Hoboken River for Cannon Industries Inc. The project called for a 30-inch hole to be opened through multiple pre-reams to reach the 4,560-foot borehole for final pull-in of the steel casing that would ultimately serve as a center pipe for 31 inner shafts.

Janco's President Paul Klein said the project presented a number of interesting challenges, including the route of the planned drill. It originated at the Staten Island Ferry landing in Manhattan and exited just over 4,500 feet away on the New Jersey shore. To complicate matters further, the route of the planned crossing paralleled the Lincoln Tunnel that runs between Weehawken, NJ, and midtown Manhattan.

Since we would be drilling within 400 feet of the Lincoln Tunnel, it was imperative that the operator be aware at all times of the drillbit location," Klein said. "Any deviation that would put us in close proximity to the tunnel could have a devastating impact."

Prior to actually beginning the project, Janco had selected an American Auger 220-C drilling unit to complete the drill. The machine develops 220,000 pounds of pullback and 40,000 foot-pounds of torque.

"On a job like this we like to have a comfortable work zone," Klein said. "However, at this site the entry location was at the Staten Island Ferry landing. That meant that the drilling rig, driller's cabin, mud system, trackhoes, etc., all had to be set up



line pull-in, the workers would be at risk during pipe makeup. To help with the problem, Janco contacted O'Neil Products, International Inc. (OPI), La Marque, TX. Klein points out that Janco's success with OPI's remote breakout unit on two previous jobs encouraged them to seek their help. "If we relied on conventional pipe makeup

Specifically designed to eliminate worker contact with the pipe, the operator can control the unit while standing 15 to 20 feet away from the connection as it is being torqued or while spinning in or out. The hydraulically-operated unit can handle drillpipe diameters from 2 7/8- to 8 1/2-inch O.D. and offers a maximum makeup torque of 63,000 foot-pounds and a maxi-

- 40 years of Experience Goes into the Making of the Pipespinner: Developed horizontal makeup and breakout with spinning capabilities for the Horizontal Boring Industry for exit side pipe applications . In 2003, a customer of OPI was performing a 4500 foot horizontal bore, 400 ft from the Lincoln tunnel meaning safety was of the utmost important.



New Directions:
OPI and the HIRE Project:
Horizontal Iron Roughneck Equipment

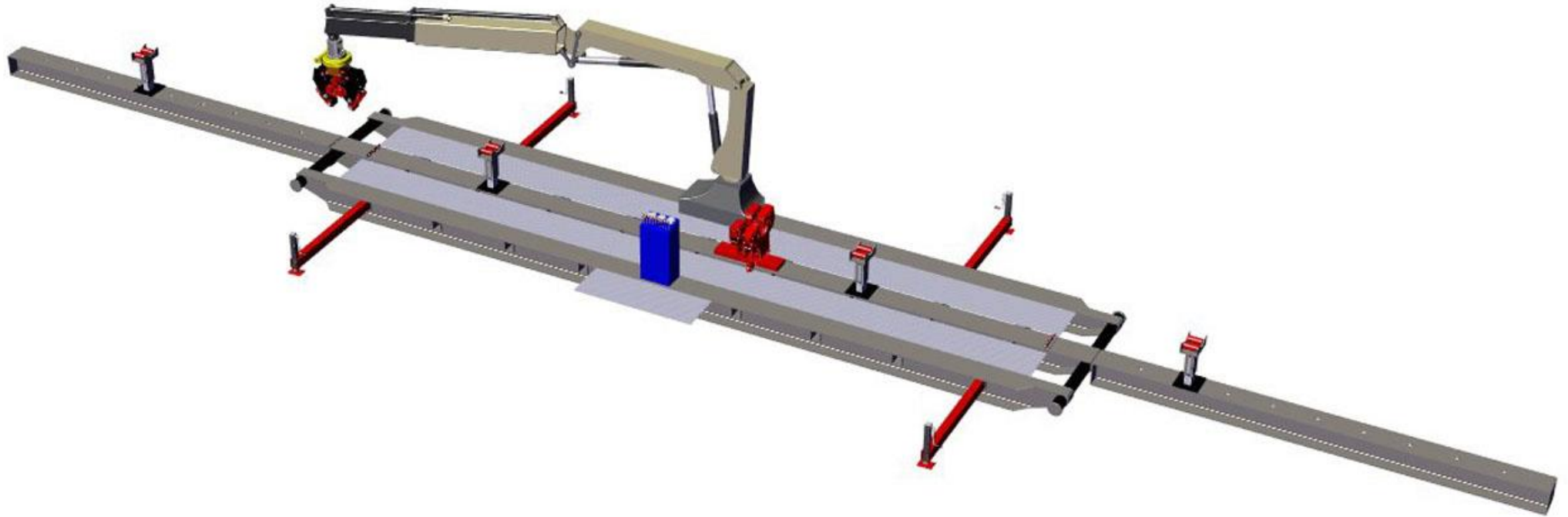
H.I.R.E. Project

Presented by Oilfield Products International Inc.



HIRE

A mobile self-contained hydraulic vise system to assemble and disassemble bottom hole assemblies onsite with accurate torque logging capabilities.

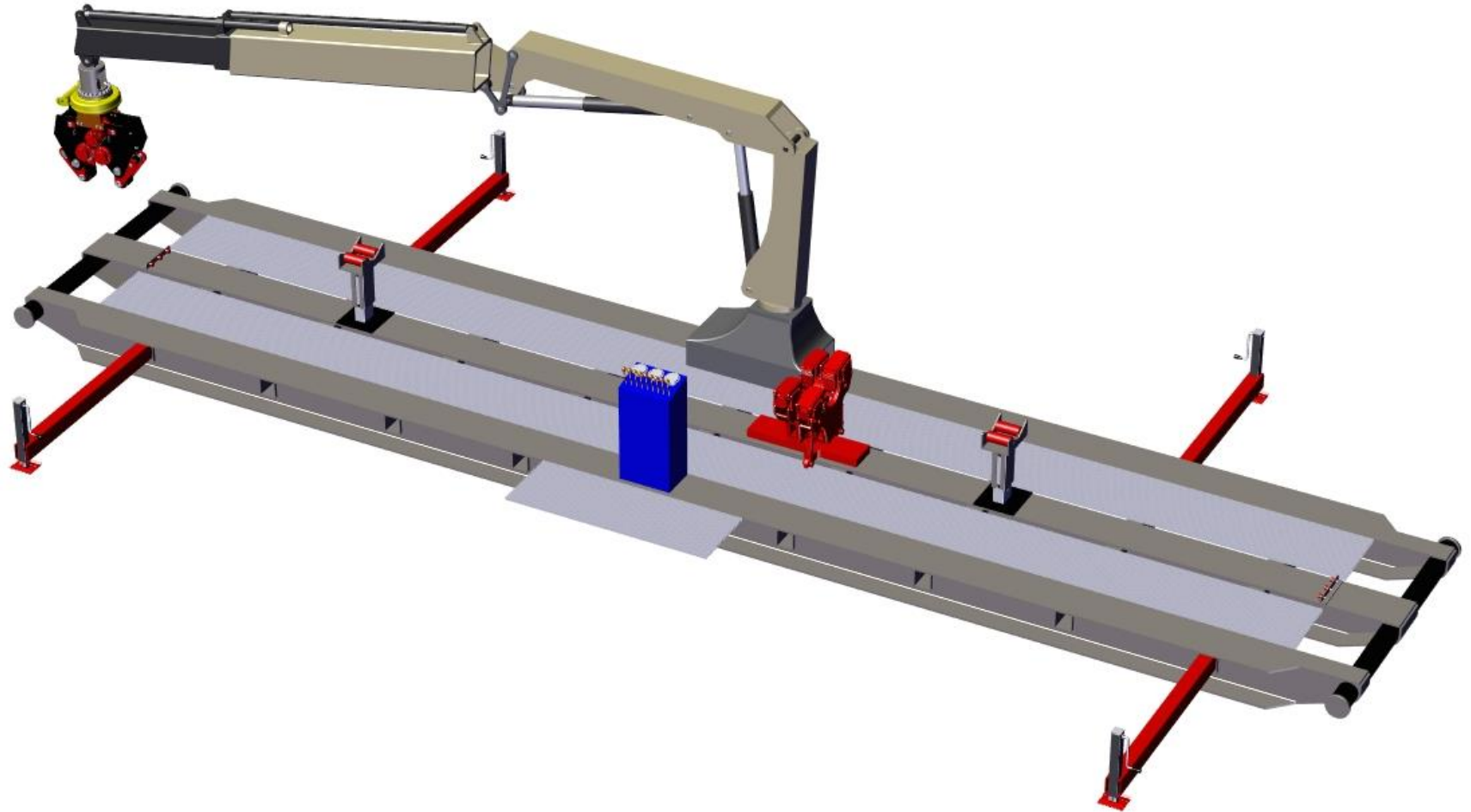


Powered by the rig hydraulic system or optional 5000 PSI/20 GPM Hydraulic Power Unit powered by either diesel or electric motor.

Skid is 40-foot by 8-foot with two 20-foot beams that extends each end for supporting long assemblies.

HIRE

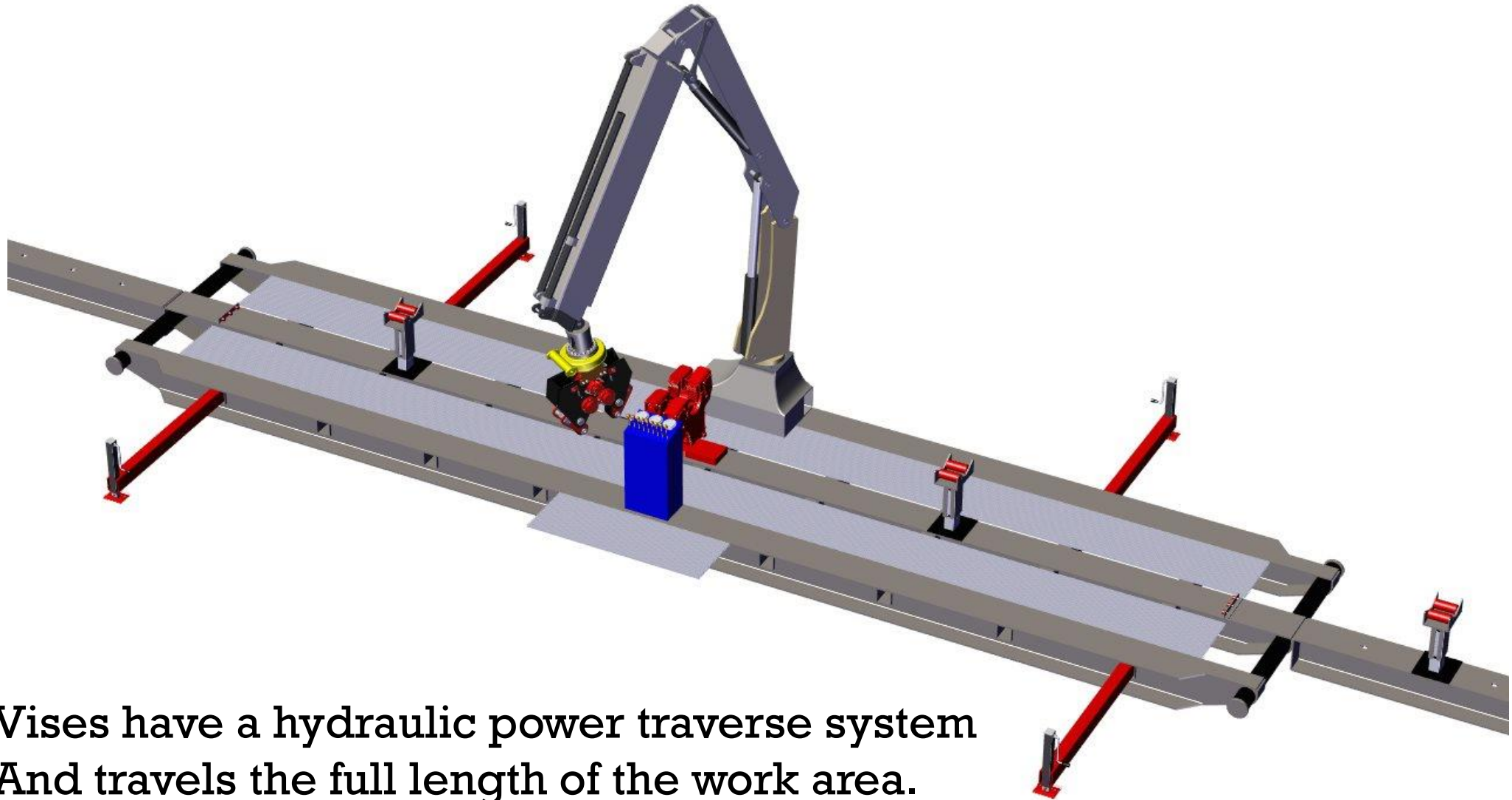
The unique aspect of this unit is the hydraulic grapple/spinner that enables you to place the part and thread it up in the same operation.



It is capable of a 33-foot reach and lifts 5000 lbs. fully extended. Complete with a hydraulic rotating grapple for accurate placement. All jacks are hydraulic lift capable of 14,000 lbs. on rollers.

HIRE

One operator controls the crane, vices and jacks from the console.



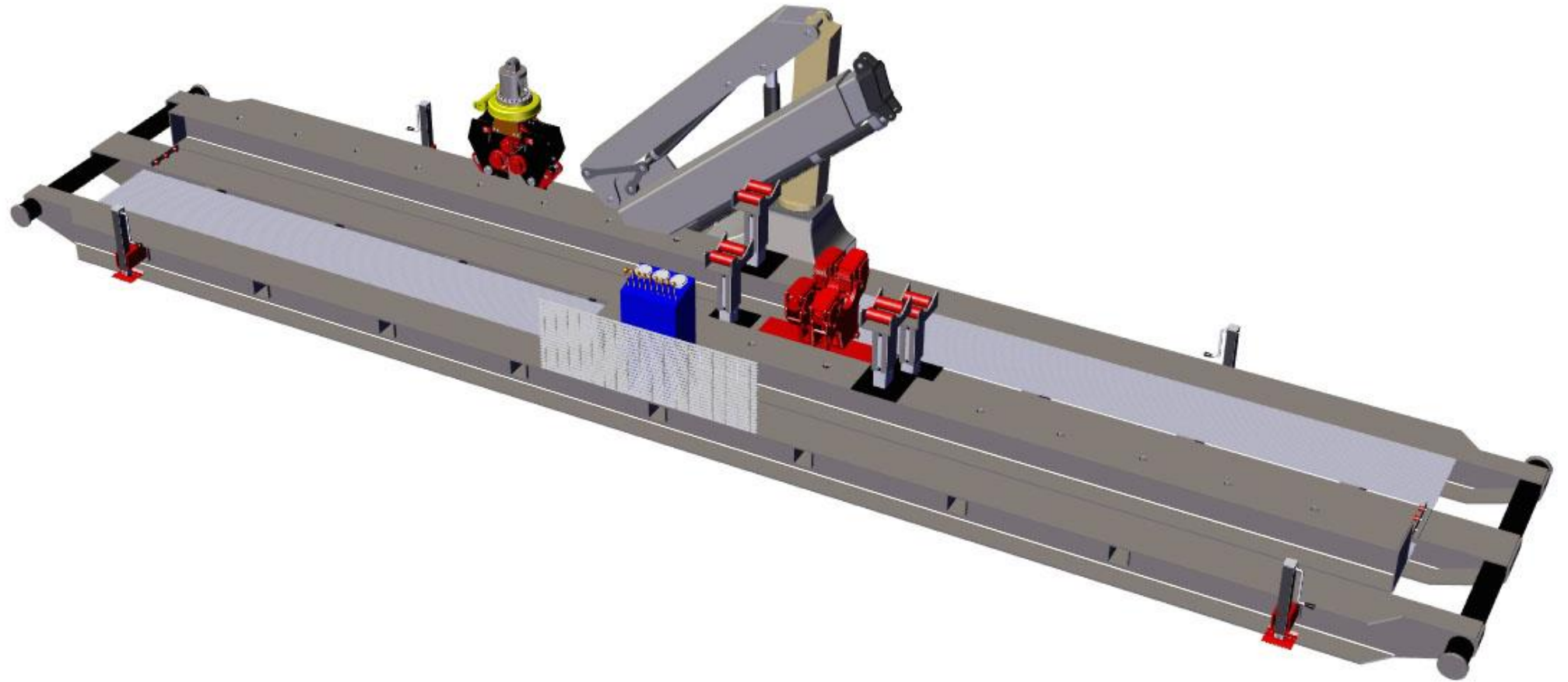
Vises have a hydraulic power traverse system
And travels the full length of the work area.

Outriggers shown are manual operation. Hydraulic operation is an available option. Additional jacks can be added as well.



HIRE

The unit can be ready to ship in just a short time simply by removing a few pins and hydraulic quick disconnects.



All components retract and store conveniently and securely on the skid so there is only one piece to move.



Final Thoughts and Future Directions

We at OPI see the future of drilling operations going from making up triples vertically to horizontally on land Operational Drilling

By performing the operation horizontally rather than vertically there will be additional time savings in the drilling operation along with a safer operation

Other application could be integrated into the pipespinner application in a horizontal application such as applying the pipe dope in a spray nozzle application mounted under the pipe spinner.



"Take it from experience, it will pay for itself in one run on the rig"

"Cut my trip time down by 40%"

"The OPI Single Motor Spinner will change your life as far as Iron Roughnecks Go"

"Easy to Maintain on the Rig"

"What the Rigs have to Say"