

## Kelly Tractor Co. Builds a Comprehensive Approach to Serving the Foundation Drilling Industry

by Donald Grant, Kelly Tractor Co.

*The following comes to us from Donald Grant with ADSC Associate Member firm Kelly Tractor Co., Miami, Florida. It is part of an ongoing series of articles that focus on new developments in equipment and materials in the drilled foundation and anchored earth retention industries. Members of the ADSC's Associate Committee provide this information. Foundation Drilling magazine greatly appreciates the support it receives from the ADSC's Associate Members. (Editor)*

Improvements to the North American electric energy transmission grid along with the boom in natural gas, and an increase in the loads placed on traditional foundations, have created an unprecedented need for drilled foundation equipment. Almost singlehandedly, these big



business drivers have created an expansion within the foundation drilling industry.

New and innovative improvements to foundation drilling equipment have posi-

tioned hydraulic drill rigs as a critical component for drilling natural gas wells and expanding transmission lines in rough terrain environments.

To begin meeting these demands, IMT (Industria Meccanica Trivelle) hydraulic drill rigs, with their exceptional track record for working in hard rock and harsh environments, were introduced to the U.S. market by Kelly Tractor Co. fifteen years ago.

"IMT, an Italian made, high-performance hydraulic drill manufacturer was a natural choice for Kelly Tractor Co.," said Bruce Budd, Crane and Foundation Group Manager, Kelly Tractor Co. Kelly Tractor has been successful in integrating IMT into the Caterpillar nationwide service network in order to provide support for the IMT Caterpillar hydraulic excavator power base wherever a rig is working.

The IMT drill rigs, known as the "AF" series, drill shafts from 16 to 118 inches in diameter, up to 295 feet deep. There are eight different "AF" models, each with a patented automatic interlocking kelly bar. Kelly Tractor also offers rigs in low overhead configuration (LCA), as well for continuous flight auger applications (CFA).

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IMT drill rigs were initially introduced to the U.S. through Kelly's nationwide sales organization. The value of service through the Caterpillar network became apparent as IMT drill rigs began to become a staple in the U.S. market for use in energy and gas projects in remote locations. With the advent of Tier 4 gas emissions requirements for equipment on government supported projects, Caterpillar's early commitment to Tier 4 research and development helped pave the way for contractors to make an easy transition.

A few years ago, Link-Belt telescopic crawler cranes in the 45 to 110 ton capacities, were added as a companion product to the IMT product line in order to meet lifting needs in rough terrain environments. "The introduction of the Link-Belt TCC is consistent with our commitment to assist foundation drilling contractors challenged by difficult projects," said Budd.

In recent years, the accelerated pace of new energy and gas projects has highlighted the strategic importance of offering a quality hydraulic drill rental program. Being able to rent Tier 4 or specialty rigs for specific jobs has allowed foundation drilling contractors to expand their reach. Short-term rentals provide contractors the ability to augment their owned fleet of equipment to bid jobs in cases where they might not have this class of machinery as part of their core equipment group.

Given the extreme working conditions, drill rigs sometimes fail. "With the largest hydraulic drill rig rental fleet in the U.S. operating in very harsh environments, things 'wear out and break,' particularly common high-wear parts such as racks and stems," said Budd. "To keep our rigs and our competitors' rigs running, we maintain a fabrication and repair facility which allows us to service and support the kelly bar portion of any drill rig." The facility is equipped with the necessary tooling, CAD/CAM design using SolidWorks, and a full-scale computerized CNC mill machine with the capability of designing and fabricating stock replacement parts for any kelly bar. Fabrication and welding procedures, along with



proper metals analysis ensure work is performed to specification in carrying out kelly bar repairs and re-builds.

New equipment and new operators require training and education. Meeting the needs of the industry's expansion requires highly skilled operators and work crews to operate the rigs under difficult and potentially dangerous conditions. Kelly Tractor Co. offers onsite training and education to assist novice as well as seasoned operators in adapting to new, unfamiliar equipment.

"We have a large capacity in our fabrication and repair facility, but we hate to see broken equipment come into the shop," said David Williams, Kelly Tractor IMT General Service Manager. "Sometimes our education outreach is as simple as assisting an operator in what to look for when doing an equipment inspection each morning. Most likely, the crack which had to be there before the kelly bar was driven to failure could have been seen. Fix it in the field by an expert welder and the rig keeps running."

A well-built drill rig such as an IMT still needs support. Kelly Tractor Co., which has been in the construction equipment business since 1933, and the foundation drilling equipment business

for fifteen years, has built a team that understands what is needed to support and sustain high-performance construction machines.

"In conjunction with IMT, we have built our own service and support organization that really understands the machine," said Budd. "It is a distinct advantage for our customers using IMT machines, including the latest Tier 4 emissions compliant drill rigs, in owned and rental applications spread across the U.S. The Caterpillar dealer network services the Caterpillar power base, and our own people maintain the drill portion. This partnering approach reduces downtime and overall servicing costs of the rig."

The combination of good drilling and lifting equipment, with proven service have provided contractors multiple options and the ability to be nimble in responding to potential projects. "For Kelly Tractor Co.," says Budd, "taking care of 'all of the above' for contractors whose task is to 'punch holes in the ground', is all in a day's work."

