When the going gets tough

When the going gets tough, MTU’s Electric Drilling Package (EDP) is a turnkey genset built for oil and gas production – one of the most demanding applications that exist.

Generators for the oil and gas industry

MTU Report 02/10

IM TU Report 02/10
The MTU EDP represents a quantum leap in drilling technology by providing an integrated solution for the drilling rig. The gensets are the culmination of MTU's decades of experience in oil and gas applications.

Rainer Breidenbach, Tognum COO with responsibility for the Engines Division, says studies have shown that “roughnecks” – a slang term of honor for the skilled labor of the oil and gas industry – have to drill deeper than ever before in order to tap new reserves and optimize production at existing ones. Today, oil and gas drilling contractors have to drill deeper than ever before, says Eastham, who, after learning the family business from the bottom up, eventually took over Big E Drilling Company of Houston, Texas (USA).

The MTU EDP, offers a powerful, self-contained, turnkey solution specifically designed to meet the requirements and challenges of the drilling industry.

Meeting a drilling contractor’s need was an entirely new experience for the team of MTU engineers: “There was a great amount of interaction between the specialists involved in developing the system, including those with expertise in engines, electric drive systems, automation, drilling, and production technology,” explains David Oliphant, Director of Oil & Gas sales and Sales Engineering for MTU Detroit Diesel, noting that the new drilling technology, though highly successful in optimizing conventional well drilling, is also important for the high run times and harsh operating conditions of the drilling industry.

The new EDP represents a quantum leap in drilling technology by providing an integrated solution for the drilling rig. The gensets are the culmination of MTU's decades of experience in oil and gas applications. EXPERTS can only obtain minimum performance from models and natural processes in the Earth's crust. But on our prodigious surface, the surface mining is the growing threat to the environment and the future of mankind. The environmental impact of the oil and gas industry has never been more severe. The Tognum EDP Package. The EDP represents a major leap compared to the conventional engine and generator sets in the market today. The EDP is a powerful, self-contained, turnkey solution specifically designed to meet the requirements and challenges of the drilling industry.

“...increasingly, one of the most difficult challenges drillers face when seeking to expose more of the production zone of an underground oil or gas field. ‘Deep horizontal drilling is a growing practice around the world,’ says David Oliphant, Director of Oil & Gas sales and Sales Engineering for MTU Detroit Diesel.

The EDP EDP is a powerful, self-contained, turnkey solution specifically designed to meet the requirements and challenges of the drilling industry.

MTU engineers have developed a package for the oil company and our reputation is on the line.”

The EDP is like a mini-power station – it provides the power needed for the electric motors, which in turn keep the individual components of the rig running,” explains Eastham. Depending on the power requirement, several EDPs can be interconnected. If the diesel engine on one EDP needs servicing, the others keep going to power the electric motors.

Each self-contained package consists of a diesel engine, generator, radiator and control panel mounted on a rigid base frame. The generator is L'Orange offers greater precision and superior fuel economy. It has been specifically designed for the oil and gas market and is perfectly adapted for the high run times and harsh operating environment of the drilling industry.

MTU’s EDP represents a quantum leap in drilling technology by providing an integrated solution for the drilling rig. The gensets are the culmination of MTU’s decades of experience in oil and gas applications.
The job of a "roughneck" is a gruelling one. On an oil rig, only the diesel engine capable of generating 1,105 kW (1,500 PS), plus 10 percent overload capacity at 1,200 rpm.

The stresses on these diesel engines and drills are extreme.

Lyle Eastham talks about the demands placed on modern drill rigs, and why he was among the first U.S. customers to choose the new MTU Electric Drilling Package.

What are the advantages of purchasing a self-contained EDP, sold and supported by a single source?

I wouldn’t have entered into the test phase if I didn’t intend to purchase the MTU Electric Drilling Package… there’s no doubt in my mind that the engines will perform as well as the MTU engines have on our rig #4.

What are the unique demands placed on drilling rigs?

You know when your hours start from the engine, generator and the radiator. All three of those components play their part in the package and they’re all very important. In the past, we’ve had to keep up with the different maintenance and overhaul intervals.

You acquired the new MTU EDP for your drill rig #5, on a trial basis. What are the results so far?

MTU has single-source responsibility for the entire system, a unique and valuable asset for the drilling industry. There’s no doubt in my mind that drillers demand peace of mind that drillers demand. Because we have virtually nonstop power virtually nonstop. It’s also extremely critical for the engine to perform consistently, because it’s a ten million dollar well you’re drilling. If the engines break down and we can’t come out of the hole and if our standby engine doesn’t perform, there’s a lot of money at stake for the oil company, and our reputation is on the line.

Single-source responsibility is peace of mind at almost any level in the oil & gas industry, but we really have a big responsibility as a supplier of equipment to the oil rig industry. We’ve been involved with offshore oil drilling for some time now, but have only recently been certified and involved in the land drilling industry.

MTU engineers have designed the EDP to be a presence in the land drilling industry… there’s no doubt in my mind that the engines will perform as well as the MTU engines have on our rig #4. What are your experiences with the new MTU EDP thus far?

Our new drilling package is easy to use and service. It’s also extremely critical for the engine to perform consistently, because it’s a ten million dollar well you’re drilling. If the engines break down and we can’t come out of the hole and if our standby engine doesn’t perform, there’s a lot of money at stake for the oil company, and our reputation is on the line.

The stresses on these diesel engines and drills are extreme.

What are the unique demands placed on drilling rigs?

You know when your hours start from the engine, generator and the radiator. All three of those components play their part in the package and they’re all very important. In the past, we’ve had to keep up with the different maintenance and overhaul intervals.

You acquired the new MTU EDP for your drill rig #5, on a trial basis. What are the results so far?

MTU has single-source responsibility for the entire system, a unique and valuable asset for the drilling industry. There’s no doubt in my mind that drillers demand peace of mind that drillers demand. Because we have virtually nonstop power virtually nonstop. It’s also extremely critical for the engine to perform consistently, because it’s a ten million dollar well you’re drilling. If the engines break down and we can’t come out of the hole and if our standby engine doesn’t perform, there’s a lot of money at stake for the oil company, and our reputation is on the line.

Single-source responsibility is peace of mind at almost any level in the oil & gas industry, but we really have a big responsibility as a supplier of equipment to the oil rig industry. We’ve been involved with offshore oil drilling for some time now, but have only recently been certified and involved in the land drilling industry.

MTU engineers have designed the EDP to be a presence in the land drilling industry… there’s no doubt in my mind that the engines will perform as well as the MTU engines have on our rig #4. What are your experiences with the new MTU EDP thus far?

Our new drilling package is easy to use and service. It’s also extremely critical for the engine to perform consistently, because it’s a ten million dollar well you’re drilling. If the engines break down and we can’t come out of the hole and if our standby engine doesn’t perform, there’s a lot of money at stake for the oil company, and our reputation is on the line.

The stresses on these diesel engines and drills are extreme.

What are the unique demands placed on drilling rigs?

You know when your hours start from the engine, generator and the radiator. All three of those components play their part in the package and they’re all very important. In the past, we’ve had to keep up with the different maintenance and overhaul intervals.