



Junjin America's Rock Commander JD 1400E track drill.

rod changer weighs less and holds more rods than linear models, the boom extension can reach farther and drill deeper while maintaining stability. Holes can be drilled within 24 in. (610 mm) of the high-wall, which is 50% closer than with a linear rod changer.

A recent entry into the North American hydraulic track drill market is newly formed **Junjin America**, which offers its Rock Commander line of rock drills. The rigs are available from Larmee Equipment & Supply, of Louisville, Kentucky, USA through a partnership with Junjin CSM of Seoul, South Korea. The JD 1400E Rock Commander, according to the vendor, is the first in a series of dependably built, simply designed drills with proven components and low technology for a reliable, low-cost drilling application.

The JD 1400E is claimed to be capable of drilling holes from 3.5 in. to 5 in. diameter at high penetration rates, with low maintenance requirements. It's powered by a Cummins QSC8.3-C engine. Major components include a GHH Rand air compressor, proven YH135 drifter, and a simple carousel-type rod changer.

Rod System is a Plus

Sandvik just released its new +Range of surface mining drill rods and tubes, featuring a unique steel alloy designed to extend service life and reduce rod changes, while improving safety and cutting costs.

+Range rock tools are based around an exclusive premium grade steel alloy developed by Sandvik Material Technology, which the company said contributes to service life increases well over 30%. The result is fewer rod changes, lower operat-

ing, capital and logistics costs, and reduced operator handling requirements.

Designed for bench drilling applications, including production blasthole and pre-split drilling, the +Range is compatible with current industry-standard drilling products. Sizes available include T38+, T45+, T51+ and GT60+, along with top-hammer MF (male/female) rods and drill tubes.

Extensive in-mine tests of the new +Range in Australia, Africa, Europe and the Middle East have shown service life increases of at least 30%—and in many cases significantly more, according to Craig Johnston, Sandvik's business line manager—rock tools. "This increased service life results from Sandvik's new steel alloy, which is far more resistant to heat and thread wear," Johnston said. "With drill rods and tubes representing a significant part of tool cost in bench drilling, a 30% plus increase in tool life allows customers to drill more meters every shift, and reduce drill costs per meter."

Suppliers Expand DTH Bit Horizons

Rockmore International, which manufactures rock drilling tools for DTH and TH drill rigs, planned to introduce its new ROK 250—a 2-in.-class DTH hammer—in March, labeling it as a "breakthrough" for DTH drilling technology. The ROK 250 model, according to the vendor, is considered to be the first DTH hammer in its class to operate under air pressure levels of 350 PSI (24 bar) or more. With a 2.6-in. (66-

mm) wear sleeve diameter, the ROK 250 is designed to drill 3- to 3.5-in.-diameter (76- to 89-mm) holes at high penetration rates.

Rockmore said traditional 2-in. DTH hammers suited to drilling 3-in. holes are not designed to withstand higher operating air pressures and are often limited to 145 PSI (10 bar). The low energy values at such pressure levels result in poor hammer performance and low penetration rates, thus increasing overall drilling costs and adversely affecting hole diameter selection. The company said the ROK 250 exhibits excellent drilling performance in DTH applications for smaller diameter blastholes and other applications that demand high drilling efficiency and faster drilling rates by using larger compressors rated up to 350 PSI (24 bar) and beyond.

The ROK 250 incorporates Rockmore's patented SonicFlow technology, which optimizes airflow in the hammer by simplifying and streamlining air paths to minimize back flow and turbulence, resulting in maximum energy to the piston. This optimized energy level is transferred to the bit and rock formation to promote enhanced high-performance hammer characteristics, according to the company.

Boart Longyear also expanded its DTH bit options more than a year ago when it introduced 18 new product configurations that it said were compatible with over 26 third-party DTH hammers. Those additions added to an extensive list of Boart Longyear percussive bits that can fit third-party DTH hammers.

The DTH bit body incorporates premium hardened steel alloy, which improves shank wear resistance and manages bit body wash. Multiple tungsten carbide button insert designs provide exceptional durability by allowing for multiple re-sharpening while delivering optimized penetration rates.

The new DTH bit shaft configurations offer a combination of different spline counts, diameters and lengths. Optional foot valves can be added when required.

Multiple face designs, including flat, recessed and dome, can be changed to match the various ground conditions for improved productivity. Boart Longyear has developed bits with a wide range of gauge diameters and flushing hole geometries to provide the right design for the application.

"We designed the new DTH bits after receiving an increase in requests for our technology to fit multiple DTH hammers that have recently come into the market," said Jay Klinko, senior product manager.



Sandvik's +Range drill rods.