Rotary Blasthole Drills **Product Line**





Built-In Integrity

Caterpillar allows nothing less than the finest workmanship and the best business practices to go into the products we make. Our rotary blasthole drills are no exception. Today, they are one of the most trusted drilling systems in surface mining operations worldwide due to the integrity we build right in.

Blasthole Drills

In 1952, Bucyrus introduced the first commercially-accepted electric rotary blasthole drill, changing mining productivity forever. Caterpillar has continued to improve upon that technology and design to offer the most reliable, productive and cost-effective means of blasthole drilling. A synergy of robust structures, long-lasting systems and innovative technology, the Cat® line of rotary blasthole drills have proven their effectivenesss and longevity in a variety of mining environments, including both soft- and

hard-rock applications, as well as extreme temperature and high-altitude locations. Equipped to supply rotary blasthole drills of various sizes and configurations, Caterpillar has the drilling tool that delivers the correct amount of bit load, rotary torque and onboard air to ensure your targeted penetration rates.

A World Leader

Today, Cat drills represent more than half of the large blasthole drill population around the world.

Bucyrus earned its reputation as the world leader in blasthole drills on its ability to introduce new products with leading-edge technology, and Caterpillar will carry that legacy into the future.

We have been designing and manufacturing high-quality blasthole drills and OEM support parts for well over 50 years. The customized drill designs have a proven ability to withstand the elements and rigors of any mining application while providing increased productivity and decreased maintenance.

Machine Service & Support

Caterpillar factory-trained service engineers are available throughout the world to provide our customers with the support necessary for meeting their production requirements. Our service engineers have the knowledge and experience to bring a successful result to the most demanding projects. In addition, they are backed by Caterpillar's team of engineers, who have design-based knowledge not available from other sources.

Customized Training

Caterpillar provides customized on-site and/or classroom training for rotary blasthole drill operators and mine operation supervisors with the goal of developing internal training competency for the customer. The comprehensive training package is designed in module form to target key production issues specific to a given customer's operation.

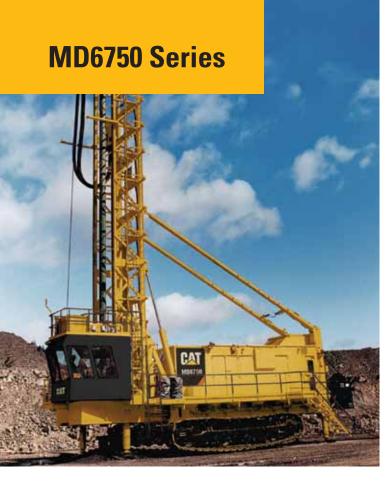
Cat product trainers have years of experience with handson and classroom training, offering the necessary skills to implement changes on all aspects of operation, machine management and maintenance. In addition, Caterpillar utilizes cutting-edge technologies to improve knowledge retention, increase training efficiency and create a safer learning environment via machine simulation.

Around the world, Caterpillar provides total training solutions and support.

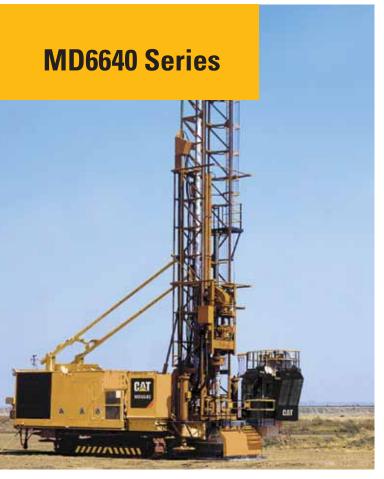


Safety

Our goal is to provide a safe workplace while producing products that exceed the needs of our customers and shareholders. As a responsible corporate citizen, we commit to the safe manufacture, installation and operation of our products. We will accomplish this goal through coordinated efforts and accountability at all levels of our organization. Cat rotary blasthole drills improve the safety of mine operations in many ways, such as reducing opportunity for injury during pipe change out via the hydraulically operated break-out wrench and providing a safe, environmentally controlled operator cabin.



- Minimized vibration by the use of proven programmed drill control option with the optional cushioned centralizer and shock sub
- Rack-and-pinion system for constant bit pressure and rotary drive system with increased torque
- Quick drill pipe changes with a drillstring changeout system
- · Range of mast sizes
- . Angle hole drilling to 25° in 5° increments
- Efficient and comfortable cab for maximum operator productivity
- · Easy access to components
- Mainframe, crawler frame and mast structures designed for maximum longevity
- Gear trains, including mast machinery, are engineered for strength and durability
- Hydraulic system designed for easy access with lines and valves marked for quick identification
- Reliable electrical system that performs in all weather conditions
- Proven diagnostic system
 (Additional options/features to meet customer needs)



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- · Proven diagnostic system
- Vibration is minimized by the use of proven programmed drill control option
- Rack-and-pinion system for constant bit pressure and rotary drive system with increased torque
- Quick drill pipe changes with a drillstring changeout system
- · Wide range of mast sizes
- Angle hole drilling to 25° in 5° increments
- Efficient and comfortable ergonomic cab for maximum operator productivity

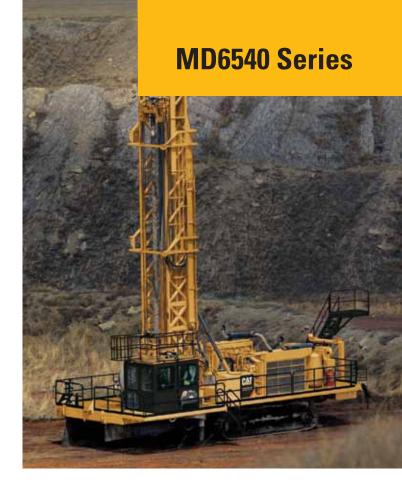
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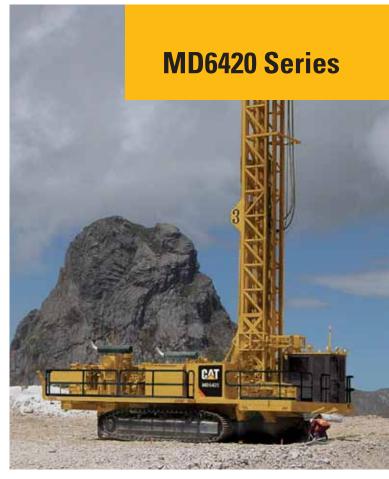
- Single, double-acting cylinder, cable pull-down system produces up to 54 000 kg (119,050 lb) bit load
- Cat one-touch auto-drill system optimizes the drilling process, so drilling is efficient and excessive equipment wear is prevented
- Auto cable tensioning, powered by two hydraulic cylinders, maintains constant force on pull-down and hoist ropes for efficient energy transfer and accurate head alignment
- Unique, three-stage, twin hydraulic mast-raise cylinders positioned away from mast pivot, minimizing loads on the mast and main frame
- Advanced frame design with sculpted box section main frame constructed of ASTM A500 Grade B steel, which varies the steel depth from 508 to 1 080 mm (20 to 42.5 in) for a strong and efficient frame for long life
- 102 m³/min (3,600 cfm) single-stage rotary screw compressor provides ample air for large-hole and high-altitude drilling
- Cat one-touch auto-level feature for improved drill hole quality and consistency
- Rapid pipe changing achieved with Cat hydraulically-operated break-out wrench and highly effective deck wrench – both are industry firsts

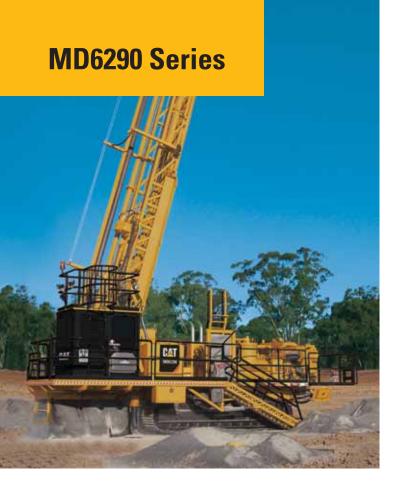
(Additional options/features to meet customer needs)

- Closed-loop cable pull-down system produces up to 42 000 kg (92,594 lb) bit load
- Pull-down/hoist system cylinder rod is fixed on both ends with a moving barrel, providing high efficiency and reducing feed system wear and maintenance
- Heavy-duty frame is comprised of ASTM A500 Grade B steel and 203 x 406 x 12.7 mm (8.0 x 16 x 0.5 in) rectangular steel tubing, and is heavily cross-braced and reinforced in higherstress areas
- Rapid pipe changing achieved with Cat hydraulically-operated break-out wrench and highly effective deck wrench – both are industry firsts
- Heavy-duty, reliable drill heads that include a 140 mm (5.5 in) bull-shaft connection to the drill string
- Rotary head carriage includes adjustable steel guides with replaceable Nylatron[™] pads for even travel on the main chords
- Mast designed with pull-down and hoist cables instead of chains for more predictable wear profile and greater reliability
- Auto cable tensioning, powered by two hydraulic cylinders, maintains constant force on pull-down and hoist ropes for efficient energy transfer and accurate head alignment – available on select models

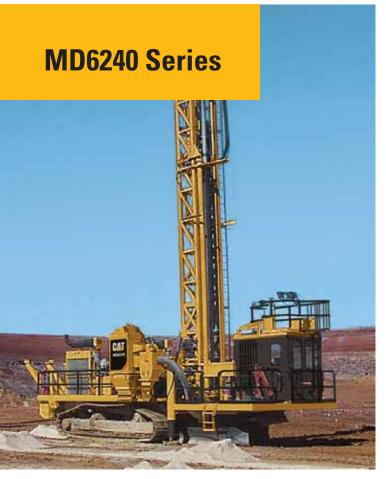
(Additional options/features to meet customer needs)







- Closed-loop cable pull-down system produces up to 29 000 kg (63,934 lb) bit load
- Fast-setup angle drilling in 5° increments up to 25° (standard)
- Heavy-duty frame is comprised of ASTM A500 Grade B steel and 203 x 406 x 12.7 mm (8.0 x 16 x 0.5 in) rectangular steel tubing, and is heavily cross-braced and reinforced in higherstress areas
- Rapid pipe changing achieved with Cat hydraulically operated break-out wrench and highly effective deck wrench – both are industry firsts
- Mesabi coolers feature open passages that allow dirt and debris to blow through field-replaceable cores, facilitating easy maintenance of the cooling system
- Heavy-duty, reliable drill heads that include a 140 mm (5.5 in) bull-shaft connection to the drill string
- Rotary head carriage includes adjustable steel guides with replaceable Nylatron™ pads for even travel on the main chords
- Mast designed with pull-down and hoist cables instead of chains for more predictable wear profile and greater reliability
 (Additional options/features to meet customer needs



- Closed-loop cable pull-down system produces up to 24 000 kg (52,911 lb) bit load
- Pull-down/hoist cylinder rod is fixed on both ends with a moving barrel, providing high efficiency and reducing feed system wear and maintenance
- Heavy-duty frame is comprised of ASTM A500 Grade B steel and 203 x 406 x 12.7 mm (8.0 x 16 x 0.5 in) rectangular steel tubing, and is heavily cross-braced and reinforced in higherstress areas
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Model	Bit Load	Hole Diameter	Single Pass Hole Depth	Multi-Pass Hole Depth	Working Weight
MD6750 Series	up to 75 000 kg (up to 165,3457 lb)	273 – 445 mm (10.8 – 17.5 in)	18.3 m (60 ft)	Up to 39.6 m (130 ft)	183 500 kg (404,548 lb)
MD6640 Series	up to 64 000 kg (up to 141,096 lb)	244 – 406 mm (9.6 – 16 in)	18.3 – 21.3 m (60 – 70 ft)	Up to 85.3 m (280 ft)	154 000 kg (339,512 lb)
MD6540 Series	up to 54 000 kg (up to 119,050 lb)	229 – 381 mm (9.0 – 15 in)	16.5 – 20.0 m (54.1 – 65.6 ft)	Up to 85 m (279 ft)	131 000 kg (288,806 lb)
MD6420 Series	up to 42 000 kg (up to 92,594 lb)	229 – 311 mm (9.0 – 12.3 in)	10.3 – 16.5 m (33.8 – 54 ft)	Up to 74.4 m (244 ft)	91 500 kg (201,723 lb)
MD6290 Series	up to 29 000 kg (up to 63,934 lb)	152 – 270 mm (6.0 – 10.6 in)	8.6 – 11.0 m (28.2 – 36.1 ft)	Up to 52.7 m (173 ft)	54 500 kg (120,152 lb)
MD6240 Series	up to 24 000 kg (up to 52,911 lb)	152 – 270 mm (6.0 – 10.6 in)	12.8 – 15.8 m (42 – 52 ft)	Up to 55.5 m (182 ft)	62 500 kg (138,891 lb)

Rotary Blasthole Drills – Product Line

For more complete information on Cat products, dealer services, and industry solutions, visit us on the web at mining.cat.com and www.cat.com

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