CATERPILLAR®

Press Release

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New Cat[®] 6020B Hydraulic Mining Shovel Features Innovative Designs for Safe, Efficient and Simple Operation and Maintenance

The Cat[®] 6020B Hydraulic Mining Shovel is a brand new model in the extensive line of Cat hydraulic mining shovels. The clean-sheet design features a 22-tonne (24-ton) payload and 224-tonne (247-ton) operating weight and teams with the Cat 777G Off-Highway Truck for optimized loading and hauling.

Announced last year and, after extensive field testing, soon to be commercially available, the 6020B is designed for simplicity and reliability without compromising safety. "Voice-ofcustomer drove the requirements of the machine. Every decision, every design detail was based on the hundreds of comments we received during our customer research," explains Anita Russwurm, New Product Introduction Manager for the 6020B. "While reviewing this customer input, three common themes emerged. Customers wanted a machine that is safe, simple and reliable. That's what we designed and what can be seen throughout the machine."

The 6020B features a new, state-of-the-art cab and operator station with class-leading visibility provided by the large floor window and expansive windshield and side windows. Unrestricted lines of sight to the crawler tracks and pit floor aid the operator when repositioning the shovel and when loading trucks. The innovative cab design also includes two additional seats for a trainer and an observer. The three-seat cab design is the first in this size class of shovels.

"All the mining company operators working with our three test machines—in three different countries—adapted to the 6020B very quickly, regardless of their previous experience on other equipment," says Steve Maloney, Caterpillar Operator Trainer. "The three-seat cab design allowed me to train two operators at the same time, making operator training more efficient.

And the elevated trainer's seat provides an unobstructed view of the digging area, which is crucial when training operators on new equipment."

Designed for high production and easy service

Modular construction with a walk-through power module enables easy access to components and superior serviceability. Additionally, modular design facilitates shipping and field assembly of the 6020B. The single-engine configuration also simplifies maintenance. The 778-kW (1,043-hp) Cat C32 ACERT[™] engine powers advanced hydraulics, which deliver industry-leading system efficiency.

Innovative, patent-pending dedicated pump-flow allocation technology governs hydraulic pump utilization to reduce energy losses and increase fuel savings. Additionally, dedicated pumps move hydraulic oil through the cooling circuit when needed to maintain optimum oil temperature and keep the machine working even in the most demanding climates and applications.

"This is a flexible, fast machine," says Real Moreau, Assistant General Foreman, Rosebel Gold Mine, Suriname. The mine has been testing a pre-production version of the 6020B. "It gives us high performance and provides the production we want. Cost efficiency, fuel efficiency, full power—this is what we get from the 6020B."

The 6020B also features an automatic lubricant system to reduce service time and to help ensure durability. The hydraulically driven pump supplies grease to the swing bearing, the swing gearbox bearing and all pivot points of the attachment.

The 6020B is configured as a backhoe and delivers superior digging forces for high productivity. It handles a standard bucket size of 12.0 cubic meters (15.7 cubic yards). Cat MultiPlusTM rock buckets are suited for standard rock and soil applications, and high abrasion rock buckets are more heavily guarded for use in dense rock and aggressive digging conditions. A coal bucket also is available. Cat hammerless bucket teeth are designed specifically for the 6020B and optimize performance. A simple 180-degree turn locks and unlocks each tooth for safe and fast installation and removal.

"When working in a continuous three-shift environment, reliability is the most important factor, and productivity is the second most important factor. This machine does look like it will fulfill these criteria and will be a good machine for us," says Arto Hartikainen, Managing Director, E. Hartikainen Oy, Finland. The mining contractor has been field testing a pre-production model of the 6020B.

Machine management technology

The 6020B is designed to accept four of the capability sets of Cat MineStar[™] System—the most comprehensive suite of technologies available for the mining industry. The Detect capability set includes cameras and more advanced sensing technologies to enhance operator awareness, and Terrain provides loading guidance. Fleet provides tracking, assignment and production reporting, and Health reports machine condition and provides diagnostic tools.

In addition to being MineStar ready, the 6020B is equipped with standard diagnostic capabilities and troubleshooting functions through its Board Control System, which uses sensors throughout the machine to monitor operating data, record faults, and notify the operator audibly and visually. This promotes the earliest possible detection of faults and allows for timely maintenance planning and assistance for speedy repair.

For more information about Cat hydraulic mining shovels, contact your local Cat dealer or go to: <u>https://mining.cat.com/products/surface-mining/hydraulic-shovels</u>

6020B Hydraulic Shovel Specifications

Engine	Cat C32 ACERT TM
Power	778 kW (1,043 hp)
Payload	22 tonnes (24 tons)
Std. bucket volume	$12.0 \text{ m}^3 (15.7 \text{ yd}^3)$
Operating weight	224 tonnes (247 tons)
Tearout force	630 kN (141,580 lb)
Breakout force	730 kN (154,050 lb)

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