

Rock breaker rebuild

Sandvik Rock Processing has completed a full OEM-standard refurbishment of a Sandvik BR3288i hydraulic breaker and a Sandvik BB8094R breaker boom for a major gold mine in Ghana, restoring a critical asset in the primary crushing circuit, significantly improving uptime and production.

At its well-equipped technical workshop in Kumasi, Sandvik Rock Processing recently completed a full refurbishment of critical rock-breaking equipment for a major gold mining customer in Ghana.

The large range Sandvik BR3288i hydraulic breaker, mounted on the Sandvik BB8094R breaker boom, is positioned at the mine's run-of-mine (ROM) grizzly, where it breaks large boulders after blasting to prevent blockages and to streamline the crushing process.

"This project restored a vital asset that plays a central role in the mine's primary crushing circuit," Amos Fordjour, Senior Service Technician at Sandvik Rock Processing, says. "Our extensive rebuild has returned the machine to OEM performance standards, significantly improving the mine's reliability and production continuity."

The rock breaker had been operating for more than five years and was due for its scheduled refurbishment. Fordjour explains that the work began on site, where Sandvik Rock Processing dismantled the 11-tonne boom assembly using the mine's cranes. The components were then transported to Sandvik Rock Processing's Kumasi facilities, a journey of over three hours.

"Once in the workshop, our technicians stripped the units completely, checking for critical components such as pins, bushings, cylinder seals and mounting brackets that required replacement," he says. "The boom was sandblasted and inspected for cracks, the hydraulic cylinders were rebuilt and

pressure-tested, and the hammer was fully refurbished."

According to Haqq Abdul Rahman, Graduate Technician at Sandvik Rock Processing, maintaining a robust inventory of components and spares is key to accelerating refurbishment projects. He notes that many mines struggle with oversized material arriving at the ROM grizzly, and temporary mobile breakers typically take far longer to process these rocks.

"It was important that we controlled the turnaround time on this project so the mine could put the equipment back to work as soon as possible," Rahman says. "This particular unit breaks oversized rocks much faster than the smaller mobile units that the mine had to rely on while this one was being refurbished."

The Sandvik BB8094R breaker boom, with an input power of 55 kW, offers a maximum reach of 12.7 m, a nominal horizontal reach of 9.8 m, a nominal vertical reach of 9 m and a 360° swing. The 2.3 tonne Sandvik BR3288i hydraulic breaker is built on an innovative operating principle that optimises stroke length, blow energy and Sandvik's idle blow protector. This allows the breaker to be adjusted for different applications while improving hydraulic efficiency and safety.

Fordjour emphasises that quality assurance underpins every stage of the rebuild process at Kumasi. "We follow strict operating procedures and standards in everything we do," he says. "This includes using only genuine Sandvik parts, which allows us to

guarantee the quality of both the components and the workmanship."

After the rebuild was completed, Sandvik Rock Processing returned to the site to install and commission the breaker. The three-week process required close coordination between Sandvik Rock Processing and the mine to manage crane access, electrical connections, equipment positioning and safety protocols.

"We work very closely with customers during removal, installation and commissioning," Fordjour notes. "In this case, the mine provided the cranes and support equipment, and we handled all the technical work; that collaboration is critical."

Rahman explains that the refurbished boom and hydraulic breaker now deliver several operational benefits. Restored OEM clearances and structural integrity ensure smoother swing and boom movement, more efficient energy transfer and high twist capacity, all of which contribute to improved durability under high-impact conditions.

"For the mine, the biggest impact is uptime and production," he says. "Without this breaker, their crushing circuit slows down considerably; now that it is back to full performance, production is consistent again."

Fordjour adds that Sandvik Rock Processing's support continues long after commissioning. The company conducts quarterly inspections to check pins, seals and overall structural condition, and the service team remains available for call-outs whenever required.

<https://www.rockprocessing.sandvik>



Left: Installation of the refurbished Sandvik BR3288i hydraulic breaker and BB8094R breaker boom has been completed, and the unit is now ready for testing in the primary crushing circuit. **Right:** Coupling of the main boom to the pedestal is underway as part of the Sandvik rock breaker installation.