

Trelleborg Wear Liners Reduce Downtime, Down Under

Trelleborg's engineered products operation in Australia has assisted in reducing unplanned downtime at the Tropicana Gold Mine, 330 kilometers east-northeast of Kalgoorlie, Australia, by improving the wear life of the High Pressure Grinding Rolls (HPGR) discharge pulping boxes.

The high pressure grinding roll (HPGR) that handles wet composite for gold mining, was facing unacceptable shutdown rates due to the large amount of wear that was taking place on the discharge side of the two discharge pulping boxes. Engineering Consultant, Mintrex, was appointed to design a new box and called upon Trelleborg's expertise to ensure that the lining and layout of the box would be robust and durable.

Hien Ngo from Mintrex comments: "Our brief was to design a pulping box that would not only last at least 12 months between services, but would allow for the maintenance of the pulping box or the changeover (rotatable spare), to be completed within 24 hours of shutdown. It was imperative that the new design would ensure optimal material mixing and distribution to the screen to reduce screen wear, as well as delivering a high performance lining solution with a low wear rate. Our collaboration with Trelleborg ensured a solution that would help to manage levels of wear to an acceptable level."

Trelleborg's flexibility allowed for the accommodation of proposed improvements to the design of the box during the execution of the project. In total, Trelleborg delivered three boxes between January and June 2017. Two boxes will be installed, while the third will be kept as a standby unit.

Colin Turnbull, General Manager Mining for Trelleborg's engineered products operation, says: "Within the grinding mill area, it's very important to consider the effects of fine grinding and particle abrasion, as it can be very harsh on the wear liners. We provided a total package solution consisting of the design and fabrication of a premier lining system. This included our 40 duro RedFine+ rubber and our 32mm thick ceramic Battletough liners. With excellent mechanical properties including tensile strength and tear resistance, our lining system is incredibly durable."

Since receiving two new boxes in January and June this year, the Tropicana Gold Mine has logged significantly fewer incidences of unplanned downtime, and production rates are once again being optimized.

For more information about Trelleborg's engineered products operation, or any of its products and solutions, please visit the [Trelleborg Engineered Products website](#).

Tropicana is owned by AngloGold Ashanti Australia Ltd (70% and manager) and Independence Group NL (30%).