REPAIR & SERVICES

MINING

CASE STUDY

MAINTAINING EFFICIENCY FOR A DIAMOND MINE

SUMMARY

A diamond mine operates in the remote Canadian Artic powered by large diesel generators. Three generators run continuously in an N+2 configuration during winter to supply electricity and heat to the mine and its 420-person camp. One main diesel generator suffered a catastrophic failure, causing extensive engine damage. Some replacement parts were unavailable and delayed for over three months, risking the unavailability of standby power generation capacity and possible production slowdown if one or more additional diesel generators failed or went under maintenance at the same time.

Our TechCan Repair & Service Centre quickly sourced drawings, fabricated replacement brackets and delivered them within seven days. This enabled the mine to reduce the risks that may have caused significant and irreversible delays to engine repair timelines.

BACKGROUND: SUPPLYING POWER FOR MINING OPERATIONS

One of the world's leading diamond companies operates a mine in a remote area of the Canadian Artic. They rely on large diesel generators to power their operations, including a 420-person work camp and infrastructure. To supply enough electricity and heat to the mine during winter months, three generators must be operating at all times.

THE CHALLENGE: ENGINE FAILURE AND EXTENDED LEAD TIMES

One of the mine's main Powerhouse diesel generators experienced a catastrophic failure, resulting in damage to the oil pan, oil pan brackets, cylinder packs, engine block and more. After an exhaustive search, the mine was unable to source replacement brackets from their distributors or other suppliers.

The mine's engine manufacturer also could not provide replacement parts for over three months. Without this generator in operation, the mine would be forced to run without any standby diesel generators. This created a risk for reduced electricity generation and could have resulted in a minor production curtailment.

OUR SOLUTION: FABRICATING REPLACEMENT BRACKETS

The mine reached out to our team to see if we could help. While we were unable to locate replacement parts, our internal specialist network created a plan to fabricate these parts. With the assistance of our TechCan Repair & Service Centre in Nisku, Alberta, our team was able to source drawings, fabricate replacement brackets and ship the product to the mine in just seven days.

Motion's Greg Peters (left) in the powerhouse at the customer's mine.

RESULTS: PRODUCTION UPTIME AND COST SAVINGS

The mine repaired their generator and had it back in service before any of their other generators were scheduled to be down for preventive maintenance. With no standby diesel units, the impact would have reduced the available electricity to the mine, creating significant downtime for mine production.

PARTNER WITH US FOR RELIABLE SOLUTIONS

Our collaborative approach and technical expertise help customers improve equipment reliability, reduce costs and achieve long-term operational success.

For more information, visit **MiRepairandServices.com** or call **1-800-526-9328**.