

A Mining Equipment Manufacturer ADVANCED MACHINE MODERNIZATION DECREASED DOWNTIME AND SET UP TIME WHILE INCREASING OVERALL EFFICIENCY

CHALLENGE

Aged equipment and high maintenance costs

A mining equipment manufacturer uses sophisticated machine tools to manufacture products for the underground mining industry. A critical machine tool experienced down time due to aged machine tool components. They needed a qualified machine tool service team to modernize the Giddings and Lewis Horizontal Boring Mill (G&L HBM) in order to minimize down time and reduce maintenance expenses.



SOLUTION

Machine redesign and rebuild

Konecranes Machine Tool Service (MTS) was selected to modernize the G&L HBM. The modernization project involved a complete redesign of the spindle carrier. The aged planetary hydraulic gear box was removed and replaced with a two-speed planetary gearbox system which simplified the headstock with fewer wear parts. The new design eliminated the need to replace the hydraulic valves and gears at a high price and a long lead time.

A digital spindle drive system was integrated with the latest Fanuc CNC control system. The new CNC control system gave the facility the flexibility to control the spindle speeds between minimum and maximum available RPM when adjusting the stock removal. Konecranes developed a customized control pendant equipped with an LCD screen which enhanced safety by allowing the operator to have closer access to the parts they set up.

RESULTS

Reduced cost and downtime, increased throughput

The Giddings and Lewis HBM modernization decreased down time while increasing throughput and efficiency. Maintenance costs were greatly reduced. Konecranes will continue to perform preventive maintenance, calibration and service support at the site.





INDUSTRIAL CRANES: Konecranes is the industry benchmark for safety, reliability, cost saving and productivity-enhancing innovation. Standard and heavy duty cranes include electric overhead cranes up to 1,000+ tons and explosion-proof cranes and components. Workstation lifting systems feature enhanced material flow with ceiling-mounted monorails and free standing cranes systems, jib cranes and manual lifting products and electric chain hoist up to 7500 kg. Konecranes provides any lifting application in any industry.



NUCLEAR CRANES: With nearly a half century of nuclear crane experience Konecranes is the most seasoned supplier in the industry. Our wide range of products are designed specifically for operation in nuclear applications and our quality control program ensures that each nuclear crane and component is designed, manufactured and installed to the demanding standards of the nuclear industry.



PORT AND PORTAL CRANES & SERVICE: Konecranes designs, manufactures, and delivers large cranes for ports, container terminals, intermodal terminals, shipyards and bulk material handling. We also provide expert maintenance and after-sale support as well as complete crane service worldwide for all types and makes of harbor and shipyard cranes.



HEAVY-DUTY LIFT TRUCKS: Konecranes is a world-leading manufacturer of lift trucks with lifting capacities of 10 to 80 tons. For over 50 years Konecranes has designed and customized trucks for the most demanding applications and continues to offer a wide range of trucks for customers in many different industries. Products include fork lifts, reach stackers, container handlers, and Roll-on Roll-off (RoRo) Trucks.



CRANE SERVICE: Konecranes provides an extensive range of services and unique capabilities dedicated to improving safety and helping your business decrease the cost of downtime and increase the productivity of uptime. We can service any brand of crane and hoist. As a leading global manufacturer with a 120-year history and the leading maintenance provider in the Americas and around the globe, Konecranes technicians understand what it takes to keep your equipment working at top performance.



MACHINE TOOL SERVICE: As a global leader in machine tool maintenance service, Konecranes offers world-class service on all makes and models of machine tool equipment. From maintenance programs to rebuild, remanufacture and retrofit, we have the knowledge and expertise required to keep your equipment running effectively and efficiently.



PARTS: Konecranes is the OEM for many of the best known brands of hoists and cranes as well as the largest single source supplier for parts of all makes. We have the most extensive inventory in the industry, as well as dedicated in-house parts manufacturing and extensive reverse engineering services to assist you with obsolete and/or not readily available parts. Our expert technicians are always available to help with field installation and support.



TRAINING: One of the easiest and most cost effective ways to improve safety and productivity while reducing maintenance costs is crane operator training. We can provide on-site training that is tailored to your needs, budget and schedule. In addition you will improve employee morale, generate good will and may reduce liability. We also offer courses at our Training Institutes in Milwaukee and Los Angeles as well as regional seminars in 40 cities per year.