

A Leading Steel Manufacturer EXPERT KNOWLEDGE ENHANCED SAFETY WHILE INCREASING PART QUALITY

CHALLENGE

Unpredictable machinery control, a concern for safety and productivity

A leading steel manufacturer in the Midwest specializes in hot and cold rolled steel, carbon steel melting, and steel castings. Electronic roll grinders are used to grind the large steel rolls that form, press and finish hot and cold rolled steel. Because of the extreme amount of wear-and-tear involved with forming their rolled steel products, the steel rolls need to be replaced a few times every day. Therefore, the steel rolls and the machines that grind them are vital to steel mill's productivity.



The steel mill's CNC roll grinder was experiencing erratic malfunctions. The operator could not trust that the machine would consistently perform the work required to the dimensions programmed. When the grinding axis functioned unpredictably, the operator did not have control over how close the grinding wheel would come toward the product. Finely controlled movements are needed in order to consistently grind accurate parts. In addition, this malfunction raised safety concerns. The large grinding wheel could fail catastrophically upon impact with the part, presenting risk of serious harm to the operator.

The internal maintenance team and other service companies made several attempts to fix the problem, but were unsuccessful. Even the top service people from the original equipment manufacturer and the control manufacturer were unable to resolve the problem as well.

SOLUTION

Konecranes MTS restores machine beyond original capabilities

Konecranes Machine Tool Service (MTS) was able to determine the root cause of the problem within three hours. They also implemented a temporary solution that allowed the machine to run in a reliable manner until the scheduled permanent repair could be completed.

Once the machine was repaired, it achieved the best repetitive performance of its lifetime. The safety concern of the inconsistent behavior of the grinding wheel was eliminated. While on site, Konecranes MTS repaired several other features, restoring the machine to its full capabilities.

RESULTS

Machine now performs in a reliable manner

The operator could now trust that the machine would consistently perform the work required. The steel mill experienced a remarkable difference in the dependability of the machine. Based on the success of this project, Konecranes will perform a control retrofit on the roll grinder with state-of-the-art technology which will make the grinder easier to operate, service and support.



PRODUCTS & SERVICES



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.