

## A Leading Construction Equipment Manufacturer REMANUFACTURED MACHINE INCREASES UPTIME AND PRODUCTIVITY WHILE ENHANCING SAFETY

### CHALLENGE

Increased demand called for a new machine

A leading construction equipment manufacturer produces parts and components for construction and power generating equipment. Their production process requires special machine tools for facing pockets. These “pocket facing” machine tools are used to cut the smooth, flat surfaces where the bearings for planetary gears are mounted. Market demand increased beyond the capacity of their critical path machine tools. They sought a qualified machine tool service team to identify a used machine tool that could be redesigned and modified to produce the proper part accuracies and finishes required for pocket facing applications.



### SOLUTION

A refurbished machine met the challenge

With the experience of rebuilding, remanufacturing and retrofitting over 170 machine tools for this construction equipment manufacturer, Konecranes MTS had the technical expertise necessary for the project. After a careful review and thorough inspection, a used vertical machine with a pallet changer was chosen. The pallet changer reduced overall set up time because parts could be put on the fixture of one pallet while the machine was cutting a different part on another pallet.

A customized head was added to generate the pocket facing cuts. Due to the fixture height and the size of the generating heads required for the part, a riser was designed and installed underneath the machine's column in order to provide enough height for machining the part. The gib and clamping system of the machine was re-engineered to increase the machine's strength, dampen vibrations and make it easier to perform maintenance work. A new chip collection and conveyor system with guarding was installed to protect the machine and further reduce the overall maintenance needs for the machine. A full enclosure that included door safety interlocks, that was not incorporated on the original machines, was designed to further enhance operator safety.

### RESULTS

Enhanced part accuracies, safety and productivity

The machine run off tests showed that the remanufactured machine was capable of providing the part accuracies and finishes required for pocket facing applications while enhancing safety and productivity.



## 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.