

REVERSE ENGINEERING PROCESS

P&H Prescription Parts™

CAN'T FIND OBSOLETE CRANE PARTS? OEM LEAD TIMES UNACCEPTABLE?

REVERSE ENGINEERING JUST MIGHT BE THE ANSWER!

Parts for older model cranes can often be hard - if not impossible to find. And, the quality of many replacement parts - even for newer cranes - is often a concern.

We have the answer to those critical parts issues with our Reverse Engineering Process (REP). Through REP, virtually any obsolete, hard-to-find or first-time replacement part can be manufactured at or above the original specs and at the high quality level the industry has come to expect from P&H products.

THERE ARE SEVERAL OTHER REASONS TO USE REP:

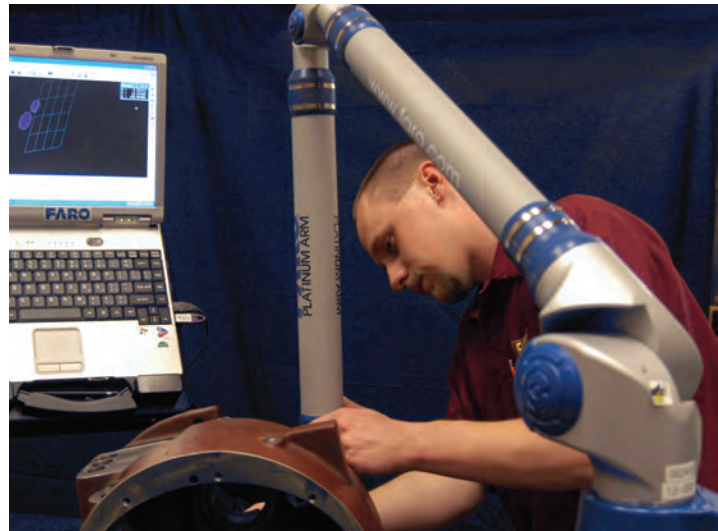
- ▶ The original drawings have been lost, destroyed or you simply don't have access to them.
- ▶ The OEM is no longer in business.
- ▶ The quality you're receiving today is a concern.

REVERSE ENGINEERING PROCESS BEGINS WITH ONE OF THREE OPTIONS:

- ▶ Existing Part Analysis
The actual or spare parts are available to be evaluated and reverse engineered by the skilled REP team.
- ▶ On-Site Dimensions
We measure the part on site and a rough drawing of the required part is completed.
- ▶ Original Drawings
Existing OEM drawings are supplied to be analyzed.

QUESTIONS OR HAVE A REVERSE ENGINEERING NEED, CONTACT:

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PARTS SOLUTION FOR DEFUNCT CRANE BUILDER

Equipment: Unusable hoist drum, drum gear and pinion from a 25 Ton, 50 year old Maris Crane that was not currently in use.

Problem: Deterioration of all parts, drum, gears, pinion, hardware and broken gear teeth. No detailed parts drawings available. Original crane company was out of business.

Konecranes Branch Manager, Doug Henderson approached us with this challenge for one of his most important accounts. He needed to rebuild and remake a hoist drum, using only some sketches, an ancient drawing (with few usable details) and the broken, rusted parts themselves. A quote was quickly developed, accepted, and the original drum was shipped to our manufacturing facility in Watertown, WI.

Examination: After the parts arrived they were analyzed by the REP team to determine what could be reused and what needed to be replaced. Corrosion and 50 years of build-up required sand-blasting which allowed us to accurately measure the components. After analyzing each part, it was determined that only the gear, pinion and hardware needed to be replaced.

Solution: State of the art designs for the gear and pinion were created and manufactured, then sent on with the salvaged components for assembly and paint. Beginning with the moment the parts were shipped, our Reverse Engineering Process tracked every step of the operation to ensure good communication and an on-time delivery. The crane is now being put back into operation.

Review: "We discussed a lot of details up-front. The process was very smooth, and I had confidence in the product I would be receiving from Morris Material Handling. I was very happy with the results, as was my customer. I'll definitely use Morris again for future reverse engineering projects. I know I will get the best possible price, superior quality and peace of mind knowing that the finished product will surpass my expectations." Doug Henderson, Konecranes Branch Manager, Worthington, OH



AFTER



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Morris Material Handling is the original equipment manufacturer of P&H cranes, hoists and replacement parts and is a wholly owned subsidiary of Konecranes Inc. Worldwide, the P&H brand has long been recognized as the symbol of quality, innovation and reliability in the most demanding material handling applications and environments.

Konecranes is a world-leading group of Lifting Businesses™, serving a broad range of customers, including manufacturing and process industries, shipyards, ports and terminals. Konecranes provides productivity-enhancing lifting solutions as well as services for lifting equipment and machine tools of all makes.

800-PARTS-PH

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