



## Condition Inspections

OSHA requires that “complete inspections of the cranes shall be performed...”. At Simmers Crane Design & Services we fully understand the Code of Federal Regulations requirements so you don’t have to. We fully train our Service Technicians to perform proper crane and hoist inspections. When the inspection is completed, our Service Department will provide you with a comprehensive inspection report for your records. To keep your equipment in reliable and safe operation and to have the appropriate documentation, count on the Simmers professionals.

## Repair Services

It’s 3:00AM Sunday morning and you have two more lifts to make to complete the truck load that absolutely has to be at the job site 600 miles away by Monday morning. Your crane breaks down - now what do you do? Call Simmers. Our

Emergency Breakdown Service is available 24 hours a day, 365 days a year. You can rely on our trained Service Technicians to quickly respond to pinpoint and solve the problem. You can count on our Parts Department to locate the needed parts as soon as possible. We’ll help you get your equipment back into operation with the least amount of down time.

## Special Projects

Special projects can be the most challenging and the most satisfying work that we do. When your needs extend beyond the ordinary, our in-house engineers rise to meet your challenging needs.

### Modernization of a 400 Ton Locomotive Turntable



This circa 1920 turntable was used to transfer two 200 ton diesel locomotives from rail line to rail line or to simply reverse directions. The 70+ year old table was worn out and unreliable. After a thorough engineering analysis, it was determined the table needed extensive structural repair, new automatic drive trucks and reconditioning of the electrics.

Simmers’ engineers designed new drive trucks with built-in adjustability to allow them to be field adjusted for variations in the circle rail radius to reduce wheel and rail wear. New rail locking mechanisms were designed and installed to replace the old manually operated locks.

The modernization was so successful, a second table rebuild soon followed. On this project a new electrification system was also installed which employed a variable frequency drive system to allow for accurate positioning of the rails for alignment.

Upon completion of the projects, two critical pieces of equipment had been brought up to modern standards and had become reliable operating tools once again.



### Re-manufacturing and Re-spanning of Steel Mill Cranes

Re-manufactured used cranes are often a practical and economic way of meeting material handling needs. By utilizing the steel structure and replacing worn and/or obsolete parts, a savings of up to 50 percent of the cost of a new crane can be realized.

Such was the case for a customer who had three 112 ft. span, 1960’s cranes that could potentially be used in buildings with 120 ft. and 90 ft. spans. Simmers engineers inspected the cranes and developed a work scope. They also gathered information on the existing buildings and analyzed the wheel loads and runway capacities to assure compliance and avoid costly problems. The cranes were disassembled at Simmers’ fabricating shop and inspected to confirm the job scope. The girders were re-spanned per engineering’s design. The motors, brakes and limit switches were all reconditioned. New controls, resistors, masters bearings and seals were installed. The cabs were reconditioned with new electrics, glass and air conditioning. When the cranes were finally shipped back to the customer and erected, they had three modern and reliable cranes capable of meeting the rigorous demands of a steel mill production crane.



## Engineering Services

If you are looking for an alternative to the OEM's for design changes, capacity upgrades or engineering support, then Simmers is that alternative. We won't try to sell you a new crane or component unless you absolutely need one or it is the best of all alternatives. Simmers has been performing capacity analysis and engineering design services on various crane manufacturers equipment since 1958. Our engineering staff consists of electrical, mechanical and civil engineering personnel, many of which are Registered Professional Engineers.

### **Capacity Analysis:**

Calculations are performed to verify existing lifting capacity or to determine the feasibility of an increase in lifting capaci-

ty due to process changes or crane application. Calculations are performed according to nationally recognized specifications ( CMAA, AISE, AGMA, etc) in order to assure compliance with codes and adequate mechanical, structural or electrical design.

### **Runways:**

When increasing crane lifting capacity or adding a crane to an existing building, the runway and its support structure must be evaluated for the increase in loading. Girders, rail, columns, tie backs and foundations are inspected and analyzed per AISE, AISC and BOCA specifications and codes.

### **Respans:**

Relocating an existing crane may require a change in span. Changing a crane span requires more than just cutting and splicing girders together. An engineered cut is located at the least stressed point in each girder and is geometrically configured such that the integrity of the weld is sufficient for years of proper operation.

### **Specifications:**

Long term crane performance begins with a well defined specification customized to your requirements. The most common crane problems occur when a crane is misapplied to the application. Simmers can help you identify the application and the proper duty cycle and crane classification whether it is CMAA or an AISE Service Classification. We also recommend enhancements to certain classifications in order to provide you better value and meet your specific needs.

### **Engineered Lifts:**

OSHA specifies when an engineered lift can be performed and at what intervals. Simmers can help you execute such occasional lift requirements, thus avoiding a complete capacity upgrade.

### **Field Engineering Services:**

If you desire to perform the field work, our engineering staff will provide design and coordination services to assure proper component selection, code compliance and installation supervision, assuring you the job will be done right the first time. Unforeseen problems that usually arise during any modernization can be resolved quickly and efficiently by having an on-site qualified person at your side.

### **Re-engineering:**

Having problems obtaining obsolete components or just can't wait for the OEM to respond in a timely manner? Simmers is your answer. We will design replacement drums, wheel assemblies, sheaves, end trucks, gearing, girders, frames, shafting, couplings, hooks, etc.

## Preventive Maintenance

Overhead cranes and hoists are structural, mechanical and electrical machines. Like any other machine, they require regular maintenance. The problem is, they are overhead and sometimes are ignored until they breakdown. Allow Simmers to develop a *tailored* preventive maintenance program for your equipment based on your environment, the usage the equipment gets and the original manufacturer's recommendations. By performing the required frequent and periodic inspections along with scheduled lubrication and minor repairs, major breakdowns can become a thing of the past.

**Call us today at 1-800-220-3376  
or visit our web site at [www.simmerscrane.com](http://www.simmerscrane.com).**