

# Cranes Lift Aircraft Firm's Productivity

## Case Study Overview



- **Business:** Aircraft maintenance
- **Product type:** Free Standing Work Station Bridge Crane with Aluminum Bridges
- **Lifting Device:** Electric Chain Hoist

An aircraft maintenance re-manufacturing plant in Canada needed a safer, more productive process for disassembling and reassembling turbine engine reduction gear boxes without product damage.

The operation utilized a motorized I-beam crane with an electric hoist to lift shafts from gear boxes. It took one person to work the motorized crane controls and another person to position the shafts through the bearing housings. The motorized crane did not allow for precise positioning of the required load, therefore, two operators were absolutely necessary. Damaged parts and back injuries resulted from employees trying to manually position the 600 lb. loads the last ½ in. or so to achieve the exact position required.

To resolve the problem of product damage and employee safety, the company chose three 1,000 lb. free standing work station bridge cranes, all with aluminum bridges on steel enclosed track runways. The aluminum bridge is 40% lighter than a comparable enclosed track steel bridge and is 300% lighter than an I-beam crane system. Less than 5 lbs. of force is necessary to position the loads. An electric chain hoist is used for lifting.

The company reached its goal of increasing productivity. Now, disassembly/reassembly can be easily and safely performed by one person, rather than two. In the two years of this operation there's been no product damage or worker injuries because of the ease of movement and positioning of the product within the work cell.