

Aircraft Engine Service Center



The massive size of jet engines presents challenges during repair and maintenance activities.

Repair And Retrofit Of Jet Aircraft Engines

CUSTOMER CHALLENGE

Providing rapid repair and retrofit of jet aircraft engines can be a challenging environment, especially when that environment is under the time pressures found in military applications. A system needed to be designed to lift the aircraft engine 43 inches off the ground so easy access could be obtained by the maintenance crew. In addition the application also needed to have a way to lower the engine in case a power failure occurred.

SOLUTION

Four 20 ton mechanical actuators used in dynamic tension to support the weight of each Jet Engine. A special motor was provided with an extended shaft to accommodate a hand wheel so the engines could be manually raised or lowered during a power outage. Six different lifting stations were installed on this project to support the demanding needs of engine maintenance personnel.

DUFF-NORTON ADVANTAGES

- Turn-key supply of important sub-components for the systems, that included actuators, protective actuator bellows boots, motors, hand wheels, couplings, and shafting.
- Improved access for maintenance personnel meeting the high demands for short turn-around times.
- The ability to maintain a safe environment providing the ability to raise and lower the engines during power outages.
- Meeting today's personnel environment requirements for low airborne noise operation.
- Eliminating the environmental impact of typical hydraulic system fluid leakages.
- Providing robust, reliable operation across a long service life.

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Duff-Norton Products:
20 ton Mechanical Actuators
Motor with extended shaft
Handwheel



An airplane engine seen during maintenance in a warehouse (shown for illustration purposes only)

