

Structural Casting Industry

Welding Structural Castings

CUSTOMER CHALLENGE

Manipulating large structural castings can be a dangerous proposition due to the weight, and odd shapes that present themselves. Workers need a reliable way to orient large castings to improve the speed for critical welding operations.

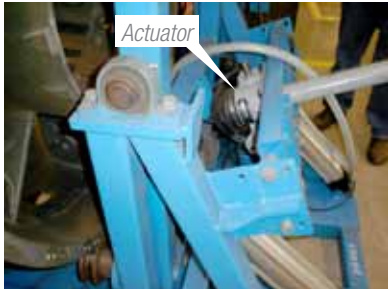
Fixtures that hold the large castings must be stable across a broad range of angular manipulation, and the transition time should be reasonably fast and safe to ensure high productivity.

SOLUTION

Utilize two 5 ton specialized Screw Jacks on a mobile cart that provides a full range of motion from horizontal to vertical for the range of structural castings to be welded. Special wear indicators were utilized to allow for a desired visual indication of maintenance requirements.

DUFF-NORTON ADVANTAGE

- Key to success in this production environment was providing a reliable solution across a long service life to prevent unplanned downtime.
- Quick production profile changes allowing the welder to manipulate the work part, speed weld completion, while delivering an optimal level of work safety.
- Design simplicity, providing only a few moving parts that can be quickly adjusted based upon a single input to meet production demands, and visual indicators to display any maintenance requirements over the working life.



Actuator in vertical orientation.



Translating actuator with bellow boot cover.

Duff-Norton Products:
5 ton Screw Jack
Wear Indicators



Mobile turbine lift cart shown from behind in a vertical position.



Mobile turbine lift cart shown from below in a horizontal position.