



## Application Success Story



## BSFA 635 Brakes with SOBO® iQ Barge Unloading Conveyor Winch

### HIGHLIGHTS

- BSFA 635 mono-spring hydraulically released caliper disc brakes
- Minimum of 350,000 N (78,683 lbf.) of clamping torque
- Custom V-seal ring between the adjusting screw and the yoke prevents contamination
- Special off-shore, corrosion-resistant finish
- Unique soft-braking control (SOBO iQ)
- Hydraulic power unit valve block replacement

### PROBLEM

A global leader in grain origination, shipping and processing needed to upgrade the braking system on a bucket conveyor winch at its large grain elevator facility located near New Orleans, LA. The 10 ft. long conveyor is used to unload grain barges that travel down the Mississippi River. The braking system controls the winch, located on the top of a gantry, that raises and lowers the conveyor as it empties the barges positioned below. The old braking system had reached the end of its useful life and no longer functioned properly in the hot, corrosive salt water conditions near the Gulf of Mexico.

The winch system is comprised of twin cable drums driven by electric motors. Two brake mounting pedestals, with two caliper brakes on each, are positioned on the low-speed side of both drums. Redundant braking controls, along with redundant HPUs, are installed to power the two sets of two brakes on each drum.

### SOLUTION

After a careful review of the installation, Svendborg Brakes engineers, coordinating with the local Motion Industries branch, recommended upgrading the system as opposed to installing a completely new system. The upgrade allowed the utilization of the existing brake mounting pedestals to ensure that the system footprint would remain the same.

The eight caliper brakes were replaced with BSFA 635 mono-spring models. The brakes featured a special off-shore finish to better withstand the corrosive effects of the salt water environment. A custom V-seal ring was installed between the adjusting screw and the yoke to prevent contamination. The older-generation SOBO controls were replaced with SOBO iQ controllers, Svendborg Brakes' most advanced soft-braking technology. Various valve blocks were replaced in the existing SOBO HPUs.

Motion Industries, together with Svendborg Brakes, was able to reduce the customer's costs since the price for the retrofit brake system was almost \$60,000 less than the cost of a completely new system.

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