

CASE STUDY

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BNSF Logistics Designs Securement and Clearance Configuration for Rail

Company Profile

A globally operating project logistics company that oversees the lifting and transportation of oversized and over-weight cargo.

Business Challenge

Rail transport is the most feasible mode of transportation for a very heavy, complex vessel including a cartridge secured in a wooden container. Axle load restrictions along the transport route and the oversized dimensional profile of the vessel presented numerous areas of concern.

Solution

BNSF Logistics' engineering team achieved an approved clearance configuration and designed securement for both commodities. Securement design included unconventional and custom securement applications to accommodate the complexity of the load shapes and properly distribute load weight. The BNSFL team also provided project management and field services to see through the successful completion of the project.

Process/Procedure

Understanding all challenges presented along with constant communication amongst the BNSFL team and with the customer was pivotal to project success. Key elements of the project include:

- Submitted clearance diagrams for BNSF Railway approval
- Pre-inspected commodities to determine appropriate contact points and develop securement concepts
- Developed securement design including bolster plates to adhere to Association of American Railroads (AAR) Open Top Loading Rules (OTLR)
- Designed custom saddle and securement pieces to meet general load restraint requirements stated in OTLR
- Applied counterweight to achieve acceptable weight distribution
- Carried out implementation of securement design addressing all field obstacles in the process
- Performed final inspection of load for BNSF Railway approval

Through the combined efforts of numerous BNSFL members, a viable solution to each task was delivered to the customer.

Results

- Successful delivery of commodities as planned without incident
- Increased understanding of unique securement concepts and techniques
- Cost reductions by reuse of steel

