

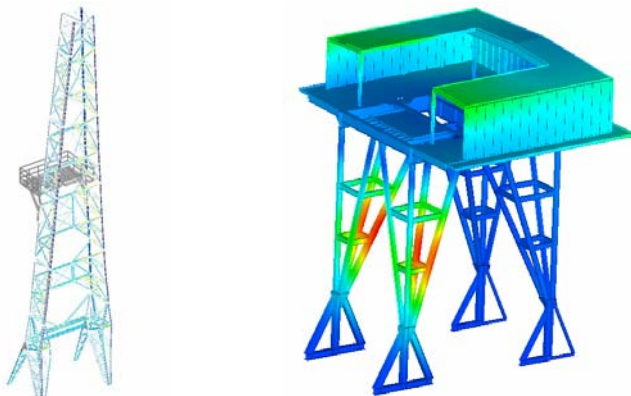


## Marine Case Study (Superior Derrick – Derrick Design)



Superior Derrick ([www.superiorderrick.com](http://www.superiorderrick.com)) is a design and manufacturing facility for the offshore oil industry. Located in New Iberia Louisiana, they provide fabrication and conversion support for offshore drilling rigs and equipment.

On this project, Superior Derrick needed to modify an old derrick design to withstand a significantly higher hook load and meet the American Petroleum Institute's (API) requirements for wind and wave loading. They enlisted NEi Software in applying NEi Nastran and together a simulation model was created. The model highlighted a number of areas of the design that showed stress levels in excess of the API requirements. Superior Derrick generated design modifications and the FEM models were able to be quickly updated so that several rounds of changes and analyses could be examined. The net result was that changes could be easily and quickly evaluated for their effectiveness and then incorporated into the derrick design as it was constructed.



The extensive expertise of Superior Derrick combined with the power of NEi Nastran produced an acceptable update to an older design with a minimum of iterations. Automated output allowed submission of the final design to API for approval. Superior Derrick saved significant engineering time and money by teaming with NEi Software and using NEi Nastran and has now extended this capability to substructure analysis and other platform areas.

**NEi Software, Inc.** is aggressively focused on commitment to the customer. Detailed documentation, customized on-site training, and comprehensive technical support ensures that you will see immediate return on your investment.

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