



Overview

Liebherr-Werk Nenzing GmbH globally develops, designs, manufactures, and distributes Deck, Offshore and Harbour Mobile Cranes.

Liebherr also develops an extensive range of Duty Cycle Crawler Cranes, Lift Cranes and Piling & Drilling Rigs.

Liebherr's most recent product; the Reachstacker – a fast-loading container-handling vehicle completes the product range of the Company's onshore port equipment.

Testimonial

“Today, all the load curves of our crawler cranes are calculated with ANSYS. Without ANSYS and its powerful parametric design language APDL, it would be impossible for us to provide all the required load charts.”

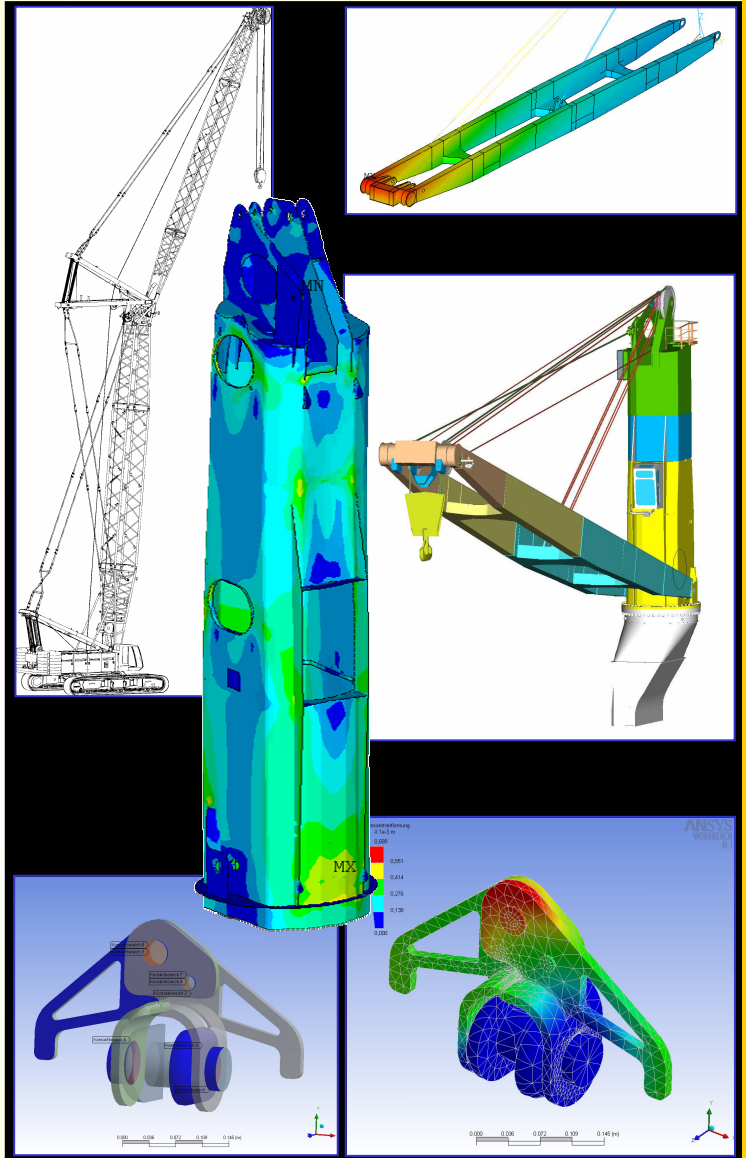
Georgi Kolarov

Georgi Kolarov, Dr. Ing.
Manager Design Static Crawler Cranes

“The biggest benefit we gained from ANSYS is that we achieved cost reduction with simultaneously increasing customers' benefit.”

Thomas Göllnitz

Thomas Göllnitz
Senior Manager Design Stress Analysis



Challenge

- Liebherr-Werk Nenzing GmbH must continuously develop and design new products according to individual customers requirements, and the industry specific trends.
- Crane lifting capacities are continually increasing.
- Product delivery time is getting shorter and shorter.

Solution

- ANSYS and its powerful Parametric Design Language (APDL) to model the complete crawler crane and calculate more than 300000 load cases in batch mode.
- ANSYS and the ANSYS Workbench are used to compare different designs right from the start of the project.

Benefits

- Considerable time saving in calculating of the immense number of load charts for all crawler cranes.
- Higher crane lifting capacities with similar or even lower crane dead weights.
- Improved fatigue behaviour of all structural components due to more stress and strain optimized components.