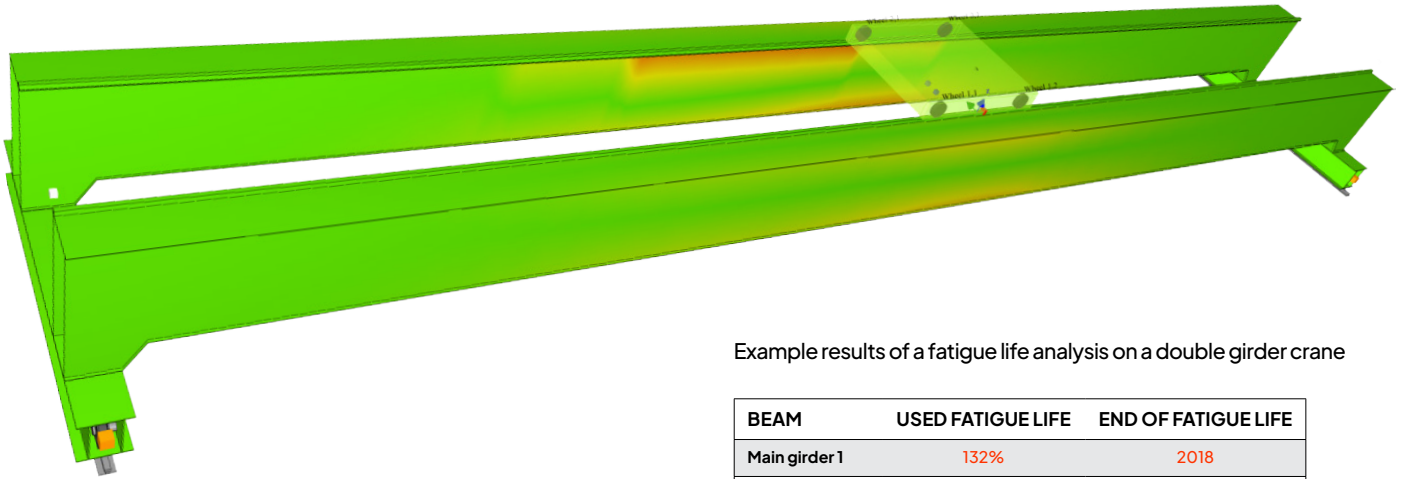


# Steel Structure Analysis





Example results of a fatigue life analysis on a double girder crane

BEAM	USED FATIGUE LIFE	END OF FATIGUE LIFE
Main girder 1	132%	2018
Main girder 2	94.1%	2025
End carriage 1	4.06%	After more than 25 years
End carriage 2	2.31%	After more than 25 years

# Know the condition of the steel structure of your crane

The steel structures of your crane shoulder the weight of your lifting operations. Those structures are subjected to fatigue as loads are lifted; and as fatigue life ends, safety can be compromised.

The Konecranes Steel Structure Analysis can give you an accurate picture of the remaining fatigue life of the steel structure of your crane and help identify defects.

The analysis can help you decide between a modernization or new equipment purchase. It can also help determine if you can continue using your crane after the design working period (DWP) of the steel structure is exhausted.

A trained and qualified inspector will investigate the use history of the crane and perform a visual inspection of the entire steel structure, including the trolley structures and hook block. If needed,

non-destructive testing (NDT) can be performed. A qualified engineer will use proprietary 3D modeling and calculation software to provide the steel structure fatigue calculation. Calculation of stresses and fatigue is conducted according to EN 13001-3-1 and ISO 12482 standards.

We will give you a list of recommendations for needed repairs or replacements and we'll also provide you with a detailed plan for future inspections.

## Benefits of a Steel Structure Analysis

- Provides detailed information of the condition and remaining fatigue life of a crane steel structure.
- Can help determine the applicability of crane modernizations.
- Provides an inspection plan for continued safe use of the crane.

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