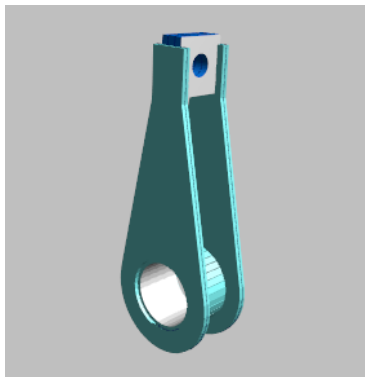




Rig Name: N. Sea Location
Rig Type: semi-submersible
Owner name: N. Sea Location
Classification Society: DNV
Code design: ASD
Analyzed elements: Riser
 Tensioner Turn Down Sheave

Click below to see model 3D!



Get **Adobe Reader**
 To view 3D documents



Project description: Rig Engineering has been tasked by a N. Sea rig owner to do strength verification of turn down sheave for the riser tensioner system. The objective is to provide additional specification to optimize material technology, stress state and service temperature of the rig for the construction of replacement unit.

Tensioner Turn Down Sheave in Operation

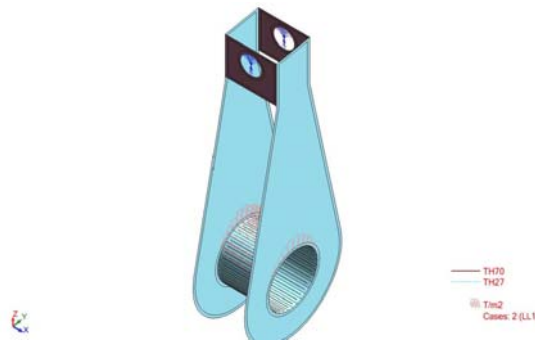


Photo 1

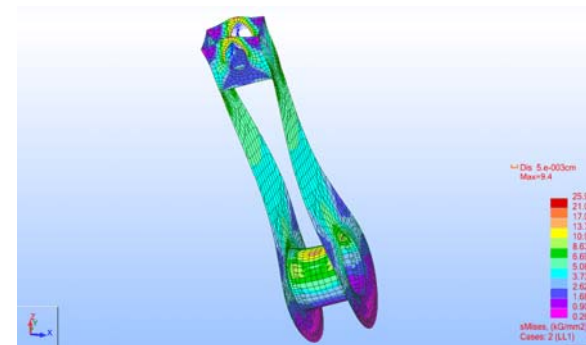


Photo 2

Stress State of Sheave under Tension



Model Geometry



Stress Plots

R.E. scope of work

- Prepare panel 3D model in Autodesk Structural Analysis based on as-built drawing provided by Rig owner.
- Perform strength verification of components.
- Selection of the grade of steel based on allowable stress, thickness and Service Temperature Condition.
- Prepare new workshop drawing incorporating stress state, temperature; thickness limitation and fracture toughness of material.

Engagement Condition

Upload your problem to us and give us relevant input to allow us to resolve your problem, we will need:

1. As built drawings to create 3D model.
2. Static loads in rope.