# **Rig Engineering Case Study 2560**

Arctic III Forward Lifeboat and Davit Replacement

www.rig-engineering.com Tel. (+44) 1224 627200



Rig Name: GSF ARCTIC III Rig Type: Semi-Submersible Owner name: Transocean Inc.

Classification Society: DNV

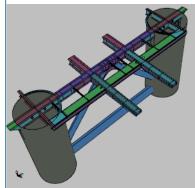
Pertinent code: LSA

**Davit model:** Gsp.0.105/2,0 Lifeboat model: CLR-T 8.5

Vendor names: Global Davit

GmbH

Click below to see 3D model!



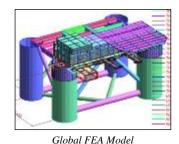
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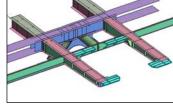
To view 3D documents

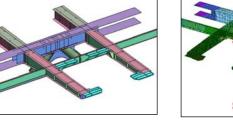
Project description: Preparation of strength verification for new Lifeboats and Davits installation, located on the FWD side of 'Arctic III' semi-submersible drilling unit for the purpose of accommodating new loading requirements.

R.E. structural scope of work is to analyze existing Lifeboat Fingers and Hull Main Girders for all dead, imposed, operating/deployment and testing loads produced by new Lifeboat Installation in conjunction with platform's DL and maximum allowable imposed loads applied to the deck.

## FEA Model

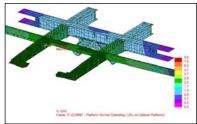






Main Girders - Shell Elements

#### Results



Deformation Plot

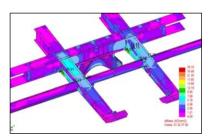
#### Photos



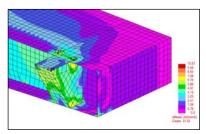
Existing Lifeboat Installation



Existing Lifeboat Installation



Stress Plot



Stress Plot

#### R.E. scope of work

- Conduct site survey to confirm that the as built drawings are still valid and any added structures or changes in structures in way of the forward lifeboat platforms, are captured and used in this campaign.
- Assist with class submittal and provide all the required technical assessment and verification to Det Norske Veritas (DNV).
- Provide fabrication and strengthening drawings deemed necessary to accommodate this lifeboat change out.

## **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 of structure to create 3D FEA model.
- 2. Static and environmental loads of rig.
- 3. Detailed information about new davit and lifeboat installation.





