RIG ENGINEERING

Rig Engineering Case Study 2542

Paul B. Loyd Junior Sheave Supporting System Verification

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Rig Name: *Paul B. Loyd Junior*

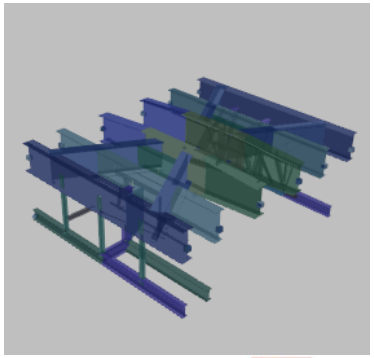
Rig Type: *Semi-submersible*

Owner name: *Transocean*

Classification Society: DNV

Code design: *AISC, 9th Ed.*

Click below to see model 3D!

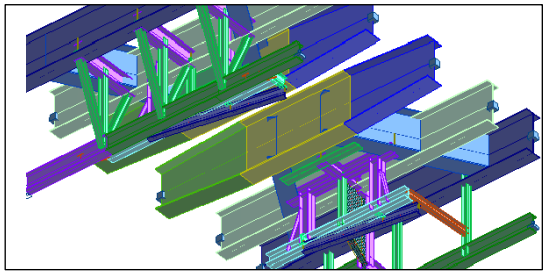


Get Adobe Reader
To view 3D documents

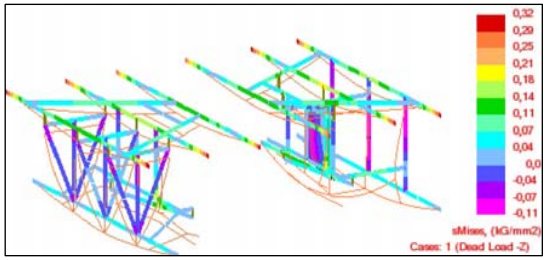
Project description: *Paul B Loyd Junior Operations Personnel and Project Team have recently done the functional review of the existing BOP pod hose spooling system. The current system is based on fixed sheave mounting installed underneath the drill floor. Although certain amount of the out plane movements of the sheave is currently being offered by the existing system, it has been concluded that better performance in spooling can be gained. Rig Engineering was tasked with providing 'swivel' system to accommodate variable fleet angle during hauling in and paying out of pod hose.*

System Global Assessment Extent

Installation view



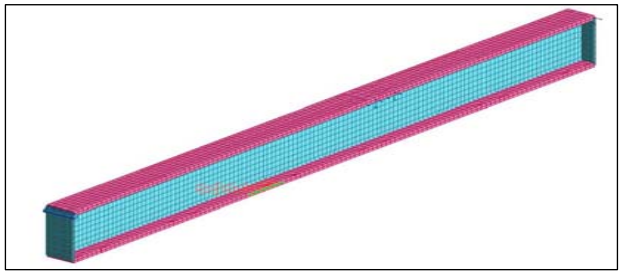
FEA Model



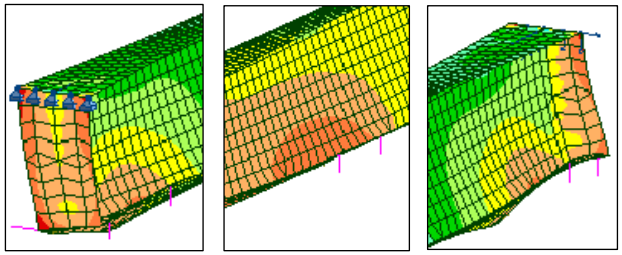
Results presentation

Local Detail Assessment Extent

Installation view



FEA Model



Stress contour

R.E. scope of work

Rig Engineering was tasked to assist in sizing and provide fabrication drawings of the pod hose system that would allow better spooling of the pod hose during the paying out and hauling in of the hose. A 'swinging beam' system from TOI was analyzed and fabrication drawings supplied to shipyard during the Special Periodical Survey in 2010-2011. The system also allows for the sheave to be pull back to the nearby maintenance location for ease of on site internal inspection.

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. Functional layout of installation
3. List of your requirements and expectation.

Key word: Rig Engineering, Reel, BOP, Spooling System, Sheave, Drill Floor, Case Study, banana sheave, control pod hose hanger