



Rig Name: Marianas

Rig Type: Semi-submersible

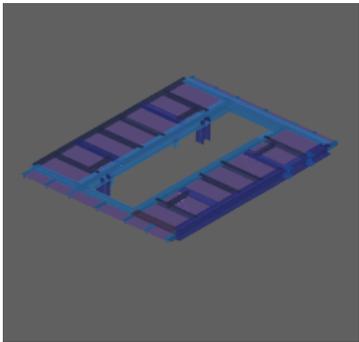
Owner name: [Transocean Ltd.](#)

Classification Society: [ABS](#)

Code design: ASD

(WSD method)

[Click below to see model 3D!](#)

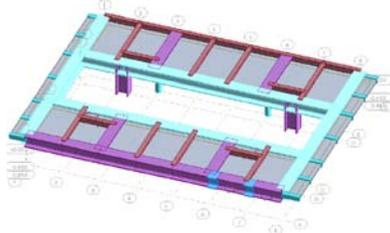


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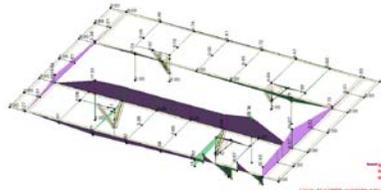


Project description: Structural platform and associated walkways to take the imposed load of Weatherford Microflux Control System (MFC) inclusive of the hose loading to the slip joint, were designed, built and installed on the existing false rotary table placed on the BOP carrier in Marianas' moon pool. Functional loadings from hose during storm conditions were assessed and used as additional design load for the proposed platform.

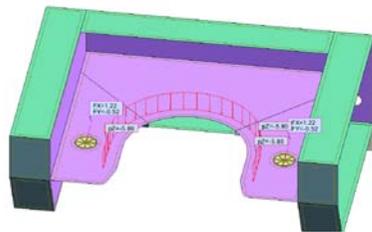
Model of Geometry and Results



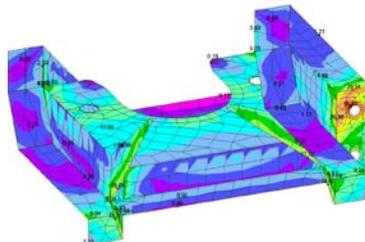
Choke Manifold Platform
Bending Moments Diagram



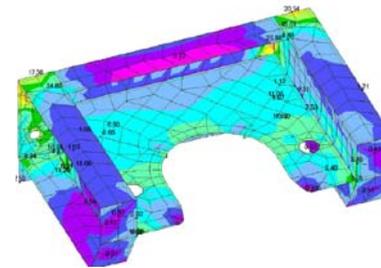
Choke Manifold Platform
Displacements



Hose Hanger
(Extent of FEA Model)

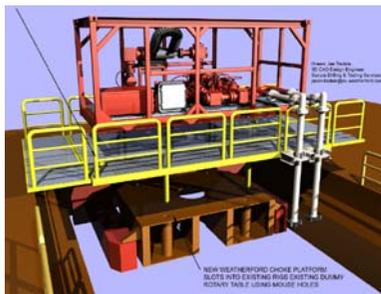


Hose Hanger Stress Contours
(During Storm Conditions)



Hose Hanger Stress Contours
(During Storm Conditions)

Photos



New Choke Manifold Installation
(Conceptual Design)



Existing BOP Carrier
(Candidate Area for New Platform)



Bird's Eye View of False Rotary Table

R.E. scope of work

Job assignment was to design geometry layout and scantlings of the proposed new platform, taking into account the existing obstruction due to BOP carrier's arm, additional attachment and construction added to the trolley system since as built. Structural analysis also included hose hangers loading during storm conditions. The final solution consists of platform on stilts with 4 guide spears engaged in to guide posts opening on the BOP carrier. ISO blocks, quick lock system were used to facilitate quick assembly and disassembly of Weatherford system.

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
2. Weight and centre of gravity of MFC system components.
3. Expected loading in storm conditions.

Key word: Rig Engineering, Marianas, Weatherford Microflux Control System, MFC, Choke Manifold, Hose Hanger, False Rotary Table, BOP Carrier, Moon Pool, Managed Pressure Drilling System, MPD