**Project description:** Rig Engineering (RE) was tasked by a leading Drilling Contractor to undertake a feasibility study to quantify the potential candidate means of reinforcing leg truss. This feasibility study is to identify the stress state and what precautionary measures need to be implemented should the needs arise to drill in harsher environment, increased water depth or the effect of corrosion on the truss members which are made of long lead Branded Steel material. RE provides global and local strength verification along with construction drawings of the required reinforcement to accommodate this eventuality for the risk assessment / emergency procedural purpose.

**Strengthening of Leg Sections**

1. Construct the structural model of the truss legs between the upper and lower guides.
2. Load the FEA model with owner furnished leg loads from global assessment.
3. Assess the stress state of each element.
4. Strengthen the areas out with the code allowable stress and rerun.
5. Propose strengthening methods and optimize one solution for ease of implementation.
6. Submit feasibility study to Class Society on behalf of owner.

**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.

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To view 3D documents

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