

2021



TIGERSHARK
CONSULTING & ENGINEERING, INC.



COMPANY PROFILE



TIGERSHARK
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ABOUT US

TIGERSHARK CONSULTING AND ENGINEERING, INC. was created to provide engineering & code fabrication services of excellent quality for the refinery & chemical, oi & gas, and maritime industry, as a result of the collaboration, values, and synergy between OSCAR GOMEZ DIAZ and DAVID CEDILLO.

Our experience includes petrochemical refineries, offshore, onshore, downstream, warships, drilling ships/ rigs, modular structural packages, quarter’s & helideck packages, and pressure vessel builds. Our marine engineering projects include Mobile Offshore Drilling Unit –Jack-ups and Semisubmersibles, offshore supply vessels OSV’s and offshore facilities.

MISSION

To provide creative engineering consulting services with an outline of innovative solutions utilizing the latest technology.

VISION

TIGERSHARK CONSULTING AND ENGINEERING, INC. is interested in forging a strong relationship with its customers by providing reliable engineering solutions for their development and growth; and as well as achieving lasting alliances for mutual benefit.

SERVICES

TSCE provides engineering services to the oil and gas industry as well as maritime industry. TSCE associates have an extensive experience in all structural, maritime, mechanical, and electrical systems in offshore installations and facilities. TSCE offers viable, innovative, and efficient solutions to complex engineering projects.



Our solutions are a clear emblem of our philosophy, to provide value engineering services of the highest quality.

as well as achieving lasting alliances for mutual benefit.



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NEW PROJECTS SERVICES

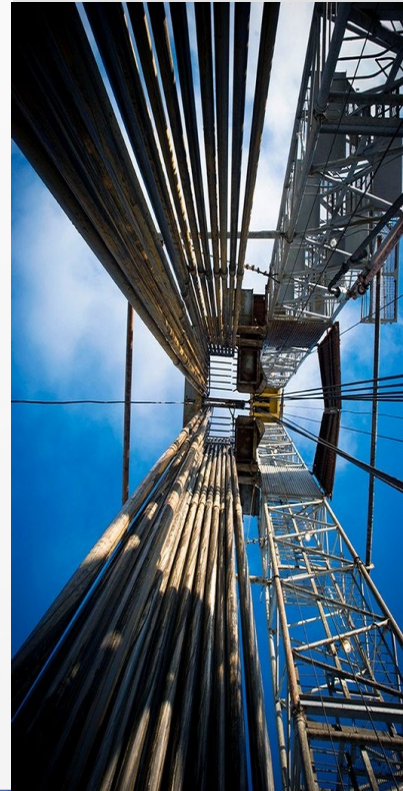
TSCE offers the following services for new projects for Jack-ups and Semisubmersibles as well as F.P.S.O, Drill ships and Service Vessels.

- Conceptual Design, General Arrangements, and Preliminary Geometry.
- Global Strength Analysis
- Bid packages for Shipyards.
- Equipment Selection and Procurement
- Construction Specifications
- Field Engineering and Shipyards Support
- Construction Inspections and Surveying.

CONVERSIONS AND MODIFICATIONS SERVICES

TSCE offers the following services for all modifications and conversions for Jack-ups, Semisubmersibles, F.P.S.O, Drill ships and Service Vessels.

- Engineering to increase drilling loads in Drilling Units.
- Conversions from drilling units to production platforms
- Equipment Selection and Procurement.
- Construction Inspections and Supervision
- Field Engineering
- Modification to existing design for F.P.S.O's and service vessels.





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SERVICES FOR EXISTING OFFSHORE STRUCTURES, VESSELS AND/ OR PETROCHEMICAL

Project Management:

- Small and Major Capital Projects
- Feasibility + Concept through Construction Management + Startup
- Scope Definition
- Risk Management
- Multi-discipline Coordination
- Project Execution Planning
- Estimating, Scheduling, and Cash Flow Management
- Value Engineering
- Communication with Client Project Management, Operations, and Maintenance
- Project Closeout

Structural Engineering:

- Basic structural design and detail design for Drilling Units, F.P.S.O, Drill ships and Service Vessels.
- Global Strength Analysis.
- In-place analysis for Jack-ups.
- Mooring Analysis.
- Analysis and Design of Spud Cans for Jack-ups.
- Analysis and Design of Legs for Jack-ups.
- Analysis and Design of Drill floors for Semisubmersible and Jack-ups and Cantilever Beams for Jack-ups.
- Analysis and Design of Helidecks and Living quarters.
- Analysis and Design of equipment foundation, as well as cranes, winches, and windlasses.
- Dynamic and Vibration Analysis.
- Lifting Analysis & Procedures.
- Inspection of Existing facilities.
- Software: ANSYS & SAFI.
- Transport Drawing Arrangements.
- Structural Design & Detail Drawings.
- Software Includes: Advanced Steel, Plant 3D, Inventor

Fabrication:

- ASME Code Fabrication.
- Non-Destructive Testing.
- Turn-key Project shipping.

Naval Architecture and Maritime Engineering:

- Intact and Damage Stability.
- Loading Conditions.
- Longitudinal Strength.
- Freeboard and load lines analysis.
- Inclining Tests.
- Launch analysis.
- Resistance Calculations.
- Drydocking & Field transport analysis.
- Weight Estimating.
- Software: ANSYS AQWA & MOSES.

Mechanical Engineering:

- Piping Systems Design (Hydraulic, pneumatic, salt water, mud, fuel oil, etc.)
- HVAC Systems.
- Fire Resistance systems.
- PDMS modeling for mechanical systems.
- Stress Analysis
- Compress 2020 Build 8000
- Pressure Vessels, Tanks, Reformers.
- Mechanical Design Drawings.

Electrical and Instrumentation Engineering:

- AC/DC Electrical Systems.
- Electrical Load Analysis and Short Circuit Analysis
- Fire and gas detection systems.
- One-line diagrams (low Voltage, medium voltage, and High voltage).
- Power Distribution Analysis and Design
- Power Generation, Monitoring & Control
- Indoor and Outdoor Lighting Design
- Field Instrumentation Specifications
- Emergency Power and Lighting Systems
- Control System Upgrades
- Grounding and Lightning Protection
- Control System Troubleshooting and Optimization



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Experience

2009

Some of TSCE Engineers were contracted by Marítima de Ecología S.A. de C.V. to provide Structural Engineering services required for the conversion of the ECO III Vessel into an F.P.S.O. DP II.

TSCE Engineers performed the following analysis obtaining the approval from the American Bureau of Shipping (ABS):

- Structural Analysis of the new Process Deck along with its Main Deck interfaces.
- Structural Analysis for the Foundation of the Hose Reels.
- Structural Analysis of Living quarters.
- Structural Analysis for both Foundations of Starboard & Port Cranes.
- Structural Analysis of the Machinery Room.
- Structural Analysis of the Flare Boom.
- Structural Analysis for the Foundation of Pumps.
- TSCE Engineers also provided Structural Engineering support to the shipyard during the conversion.



2012

Some of TSCE Engineers were contracted by Transportacion Marítima Mexicana (TMM) to provide Structural Engineering services required for the conversion of the AHTS "ISLA SAN JOSE" Vessel into a Fi. Fi II, S.S.B.V and DP II.

TSCE performed the following analysis obtaining the approval from the American Bureau of Shipping (ABS):

- Structural Analysis for the Foundations of the Fi-Fi monitors.
- Structural Analysis for the Foundation of Pumps for the new Fi-Fi system
- Structural Analysis of the modifications to the superstructure including the Morgue, Recovery area and new lifeboat Cantilever Deck.
- Structural Analysis of the Foundation for the Tugger winches.
- TSCE Engineers also provided Structural Drafting Services for all the required modifications during the conversion.





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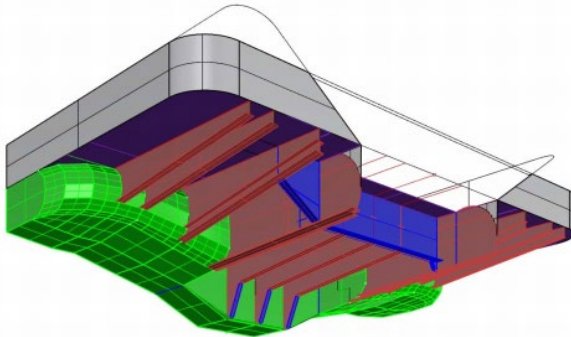
Experience

2013

Some of TSCE Engineers were contracted by Transportacion Marítima Mexicana (TMM) to provide Structural Engineering services required for the Aft Main Deck Extension of the AHTS "Subsea 88" Vessel.

TSCE performed the following analysis obtaining the approval from the American Bureau of Shipping (ABS):

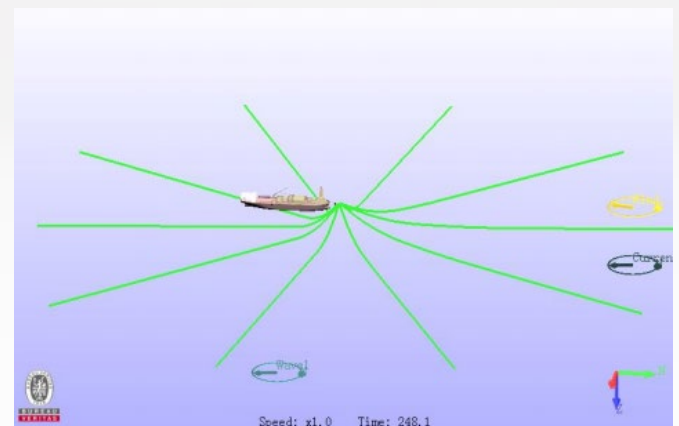
- Structural Analysis of the Aft Main Deck Extension.
- TSCE Engineers also provided Structural Drafting Services for the Aft Main Deck Extension.



2014

Some of TSCE Engineers were contracted by Talleres Navales del Golfo (TNG) to provide Subsea Engineering services required for the FSO "TAKUNTAH" Operation life extension of its mooring system. TSCE performed the following analysis obtaining the approval from the American Bureau of Shipping (ABS):

- FSO Hydrodynamic Analysis.
- Extreme survival condition mooring system analysis.
- Corroded chains mooring system evaluation.
- New reduced extreme survival conditions mooring system evaluation.
- Offloading conditions definition.





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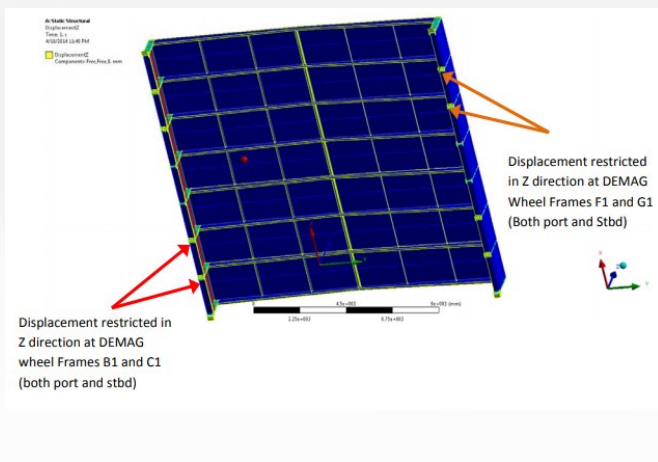
Experience

2014 - CONTINUED

Some of TSCE Engineers were contracted by Transportacion Maritima Mexicana (TMM) to provide Structural/Mechanical/Naval Engineering services required for the AHTS "ISLA MOSERRAT" installation of fixed and removable mechanical deck cover.

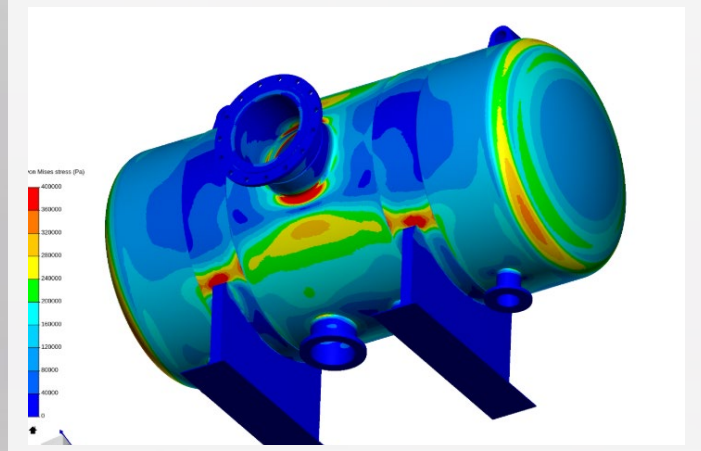
TSCE performed the following analysis obtaining the approval from the American Bureau of Shipping (ABS):

- Structural analysis of fixed and removable deck covers.
- Stability Booklet addendum.
- Mechanical calculations – driving system.



2014 - CONTINUED

Some of TSCE Engineers were contracted by Marítima de Ecología (MARECSA) to provide Structural Engineering services required to determine the onboard pressure vessel's remaining operational life of the FPSO "BOURBON OPALE".





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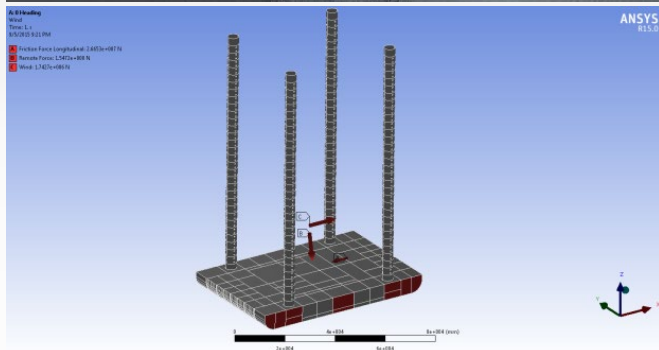
Experience

2015

Some of TSCE Engineers were contracted by GLOBAL MARITIME MEXICO (GMM) to provide the full Engineering scope for the transportation analysis of the Jackup "AGOSTO 12" from China to Mexico.

TSCE performed the following analysis obtaining the approval from Global Maritime Mexico (GMM):

- Global strength analysis of hull during transport.
- Structural integrity of jackup legs during transport, upright position.
- Sea fastening analysis.



2016

Some of TSCE Engineers were contracted by Talleres Navales del Golfo (TNG), to perform the probabilistic analysis to determine the feasibility to be subject to previous years recorded atmospheric data, to determine the operational continuity of the FSO "TAKUNTAH".

TSCE performed the following analysis obtaining the approval from American Bureau of Shipping (ABS):

- Probabilistic analysis based on historical Gulf of Mexico atmospheric Data.





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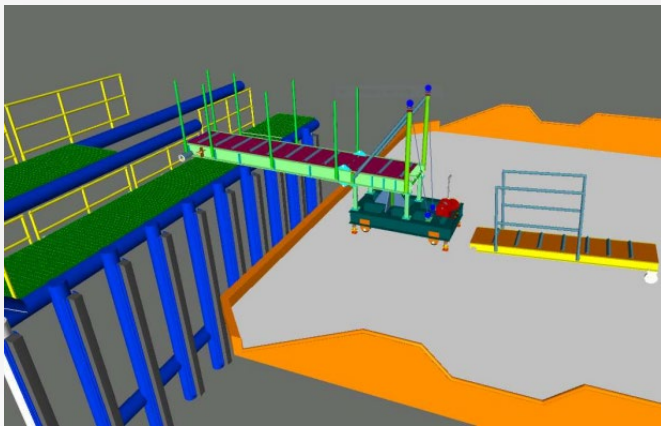
Experience

2020

TSCE was contracted by Transportacion Maritima Mexicana (TMM) to provide the full Engineering scope for the gangway analysis of the FSV "ISLA SAN LUIS".

TSCE performed the following analysis obtaining the approval from American Bureau of Shipping (ABS):

- Global strength analysis of hull during transport.
- Structural integrity of jackup legs during transport, upright position.
- Sea fastening analysis.



2020 - CONTINUED

TSCE was contracted by a Houston based fabricator to provide the full Engineering analysis for the approval of the fabrication drawings of their decanter tank.

TSCE performed the following analysis obtaining the approval from Neo-Rig:

- ASME code calculations including operational, seismic, wind and rigging conditions, utilizing COMPRESS software.
- Structural strength analysis for the tank transport analysis, utilizing ANSYS structural software.





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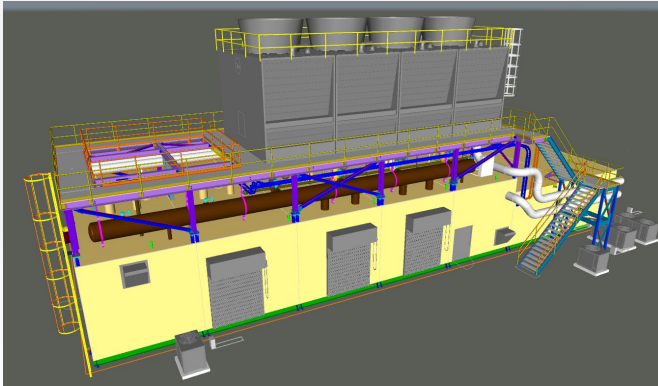
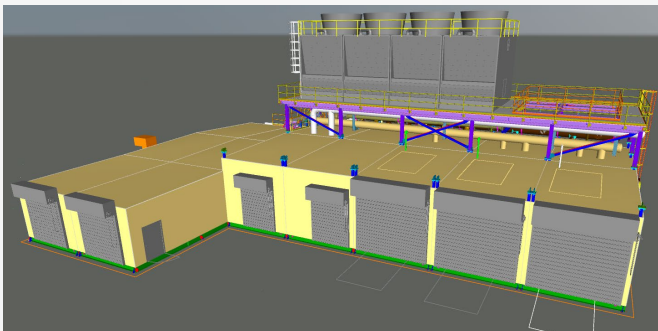
Experience

2021

TSCE was contracted by a Florida based energy company to provide the full Professional Engineering Review for the approval of the fabrication drawings and calculations of a Chilled Water Plant.

TSCE performed the following professional engineering reviews:

- STAAD PRO calculations including operational, seismic, wind and rigging conditions, utilizing Visual Analysis software.
- Main Modules drawings including General Arrangement and modules fabrication drawings and rigging.





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LET US ROLL UP OUR SLEEVES AND KNOCK THIS DOWN FOR YOU . . .

Contact:

TigerShark Consulting & Engineering, Inc.
2600 South Shore Blvd Suite 300
League City, TX 77573.
www.TigerSharkEngineering.com

oscar.diaz@tigersharkengineering.com
PH. (832) 425-7029