GLOBAL MARITIME

SEAFASTENING DESIGN AND ENGINEERING

MEETING THE CHALLENGES OF THE SEA

Global Maritime has an international team of structural engineers and naval architects, who apply their diverse skills and knowledge to a variety of technical and commercial challenges at sea.

We have been providing seafastening design and consultancy over the last three decades working with vessel owners, designers and other stakeholders to provide a comprehensive inhouse solution.

OUR TYPICAL SCOPES INCLUDE:

- Grillage and seafastening detailed design
- Vessel strength analyses
- Stability and ballasting calculations
- Motions analyses
- Hydrodynamic and operability analysis of marine operations
- Lashings design and stowage plan for standard and non-standard cargoes
- Onshore and onboard skidways structural design
- Vessel inspections (structural suitability and structural integrity review)
- Client on-site support during seafastening/ grillage fabrication and installation onboard

GM TRACK RECORD

- Fred Olsen Windcarrier (FOWIC) - Blade rack root end backloading seafastening, Nacelle lifting tool (seafastening and grillage design)
- Borkum Riffgrund (FOWIC) - Mezzanine deck structural analyses and verification, Flatrack GSF structural analyses and verification
- Hornsea (FOWIC) - Blade rack support, mezzanine deck, Aft Nacelles GSF structural analysis and verification
- Burbobank Seafastening for DEME - design basis, seakeeping analysis, tower and nacelle sea fastening
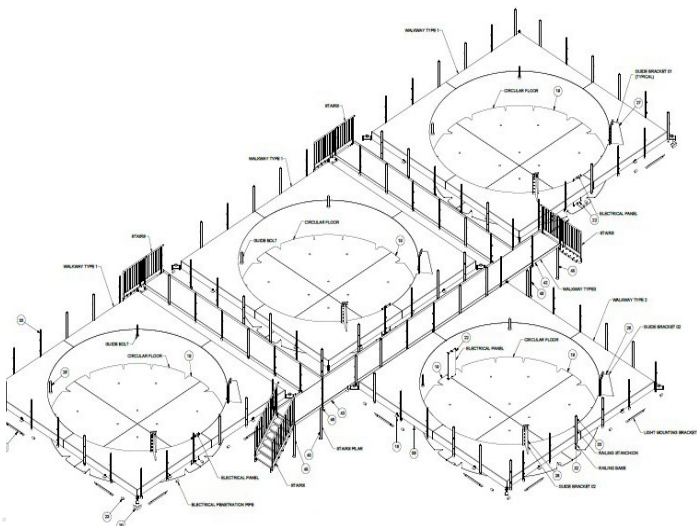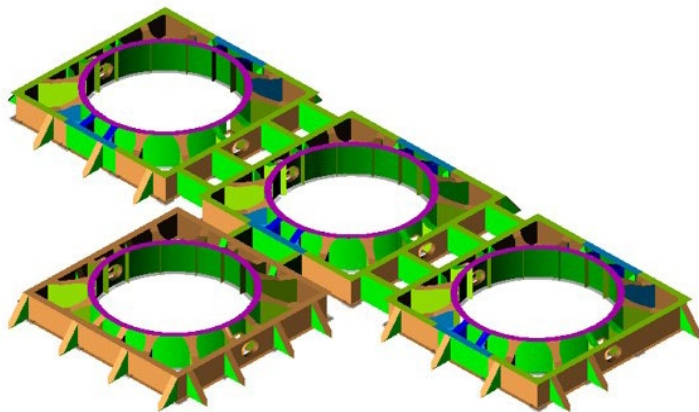
GRILLAGE AND SEAFASTENING DETAILED DESIGN

- Lashing
- D rings
- Stoppers and tipping brackets
- Welds
- Load case determination
- Strength and fatigue analysis
- Structural integrity verification

STRENGTH ANALYSES DOCUMENTING

- Grillages
- Stoppers
- Underdeck supports
- Global vessel strength anaylsis
- Local vessel strength analysis

STABILITY AND BALLASTING CALCULATIONS

- Loaded and ballast conditions
- Intermediate conditions
- Transport conditions

MOTIONS ANALYSES

- Simplified DNV rules for ship motions
- Direct calculated motion analysis
- Vessel motions for specific route of transport

SOFTWARE

We use a range of software for seakeeping analysis, structural calculations and drafing including:

- OrcaWave
- OrcaFlex
- Excel
- Anaconda Spyder
- Dlubal RFEM
- AutoCAD
- SESAM suite of programmes
- Staad
- Mathcad
- Section
- StiplaSection
- Stipla
- Autohydro
- Python
- Sap2000
- ANSYS/Non linear software
- GeniE

GLOBAL MARITIME

Global Maritime is a marine, offshore, and engineering consultancy, dedicated to understanding client challenges and exceeding all expectations. Our services span the entire offshore project lifecycle from engineering and design, construction, and third-party verification through to marine warranty surveying, dynamic positioning, installation, geoscience, and decommissioning.

FOR MORE INFORMATION:

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