

B. VINOTHKUMAR

Structural Fabrication Designer

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STRUCTURAL DESIGNER | AUTOCAD 2D & 3D | NUPAS CADMATIC | NESTIX |

SUMMARY

Experienced Mechanical Engineer with over 14 years in production design within the structural fabrication department of the marine industry. Specialized in offshore platforms, offshore drilling units, and offshore support vessels. Expert in preparing detailed shop floor drawings that meet international standards and support efficient fabrication and assembly.

- Create structural 3D model in NUPAS Cadmatic for new projects.
- Evaluate block arrangement, block breakdown, general arrangement and scantling drawings of different type of vessels.
- Develop detailed plans for each block fabrication.
- Comply with department master schedules, detailed plans and project milestone.
- Work with subordinates from other production sections, quality control engineer, dimension control engineer and customer to keep the schedule on track.
- Perform resource levelling when necessary to meet deadlines for critical structures.
- Record unfavorable events that can impact the delay of schedule, develop rectification plan and implement effectively.
- Update job knowledge by tracking and understanding emerging fabrication engineering practices; participating in educational opportunities and professional organizations and reading professional publications.
- Identify, troubleshoots recurring problems and performs root cause analysis study on structure fabrication and installation defects in order to take effective corrective and preventive measures.
- Positive mind-set, Good team player, Critical thinker, Collaborative approach.

REFERENCE

Mr. Tan Dermond
Section Manager
Seatrium (SG) Pte. Ltd.
+65 91568702

KEY SKILLS

- AUTOCAD 2D, 3D
- NUPAS-CADMATIC 2021
- NESTIX
- TEKLA STRUCTURES
- AVEVA E-3D
- SOLID WORKS

NOTABLE ACHIEVEMENTS

- WELD MAP : Collaborated with IT to develop weldgen software, cutting manpower needs by 50%.
- NUPAS CADMATIC: New Block Creation, New Block groups Creations and Block splitting for Complete Projects, as well as Cadmatic Administrator Supports for My Department.

EXPERIENCE

Seatrium Ltd Singapore (Sembcorp Marine Ltd)
Role: Structure Fabrication Production Designer

2011 - 2025

Key responsibilities:

- Evaluates block arrangement, block breakdown, general arrangement and scantling drawings of different type of vessels.
- Creates structural 3D model in NUPAS Cadmatic for new projects.
- Verifying production models in NUPAS Cadmatic and carefully assessing major dimension of blocks, plate mold lines, plate thickness and its direction, stiffener sizes and various end cut types.
- Designing Bevels according to (SAW or FCAW) for plate and angle bar joining.
- Effectively preparing sets of Production Plan, Assembly and Sub-assembly Plan, Profile Sketch, Piece Table, and Welding Map with the aid of NUPAS Cadmatic Software.
- Preparing weld map's according to type welding's like number of fillets, partial penetration and full penetration welding.
- Preparing total welding length, for fillet, partial penetration and full penetration
- Generates sets of Cutting Plan and Material Lists.
- Understanding and application of the knowledge on pipe and plate expansion to relevant revisions and on-site repairs as per yard request using AutoCAD.
- Issue modifications of production models and drawings as required, according to engineering drawing revisions, production capabilities, owner's requests, welding requirements, class requirements and other relevant standards.
- Collaborates with Field Engineers regarding factory and construction feedbacks, modifications and repairs.

Projects Involved:

Transocean (Drill ship) , Libra (FPSO Conversion) Heerema Sleipnir (Semi-submersible Crane Vessel), Modoc (FSO Vessel), Statoil (FPSO), LNG Bunker (LNG vessel), Shapoorji Pallonji (FPSO vessel) WTIV (Wind Turbine Installation Vessel), Sparta(Semi-submersible Floating Production unit),Tennet (Offshore wind project for Tennet).

Structures-Main Deck, Bottom Deck, Pipe Rack, Topside modules, Topside support Stools & Living Quarters.

HORNBILL TECHNOLOGIES | India

2007 - 2011

Role: Cad Design engineer.

Key responsibilities:

- Hands on experience in designing of Injection-mold designing of automotive parts & domestic items.
- Perform draft check on the reference model (moldability) to determine if it has sufficient draft to be ejected from the mold cleanly, apply shrinkage for contraction of the molding as it solidifies and cools during cooling
- Create the work piece, the overall volume of the mold components for shaping the molten material create the parting surface using the available tools. Create the mold volume (CORE & CAVITY) by splitting using parting surface then extract this mold volume to mold compound.
- Preparing MILLING, SPARKING, creating model for Computer Numerical Code

EDUCATION AND QUALIFICATIONS

2006 Bachelor's degree in Mechanical Engineering, Annamalai University, India.

HOBBIES: Professional Cricketer - Division 4 Player, Singapore.