



Full Design Document List

December 2010



Full Design Document List

Document Name

Gr. 0.0 Project Management

Design Project Management Activity

Gr. 1.1 Concept Design

Concept General Arrangement - Preliminary

Design Specification

Interior Specification - Preliminary

Lines and Body Plan - Preliminary (3D Geometry)

Hydrostatic table - Preliminary

Speed & Power Prediction (including range calculation) - Preliminary

Interior Design - Preliminary 3d Model & Rendering

Exterior Design - Preliminary 3D Model (Hull & Superstructure)

Internal and External Free Heights - Preliminary

Midship Section - Preliminary

Capacity Plan (Fuel) - Preliminary

Gr. 1.2 Basic Design for Contract

Contract General Arrangement

Technical Specification

Interior Specification

Contract Lines and Body Plan (3D Geometry)

Contract Exterior Design - 3D Model (Hull & Superstructure)

Contract Interior Design - 3d Model & Rendering

Contract Architectural Drawings

Contract Architectural Details Booklet

Midship Section - Preliminary

Capacity Plan - Preliminary

Light Ship Mass Estimation - Preliminary

Speed & Power Prediction (including range calculation) - Preliminary

Trim & Stability booklet - Intact - Preliminary

Trim & Stability booklet - Damage - Preliminary

Seakeeping Analysis - Preliminary

CFD Analysis - Preliminary

Tank Model Tests

Freeboard Calculation - Preliminary

Tonnage calculation - Preliminary

Equipment number calculation - Preliminary

Electric Load Analysis - Preliminary

Contract Maker List / Machineries & Equipment List

Full Design Document List

Document Name

Gr. 2.1 Basic Design - General

Executive General Arrangement
Building Technical Specification
Building Interior Specification
Lines and Body Plan (Included Rudder, Bilge Keel & Appendages - 3D Geometry)
Executive Exterior Design - 3D Model (Hull & Superstructure)
Mass & Centre of Gravity booklet
Tonnage calculation
Equipment number calculation
Maker List / Machineries & Equipment List
Furniture List
Tank Plan with Capacities
Pressure Test Plan
Trim & Stability booklet - with Long. Strength
Intact Stability - with Long. Strength
Damage Stability - with Long. Strength
Final stability calculation (intact, damage, ..., <u>after stability trial</u>)
Loading Manual
Sounding tables for tanks
Propellers Design
Bow & Stern Thruster Design
Vibration and noise Analysis
Superstructure Lines
Freeboard Calculation
Freeboard Plan
Structural fire protection Plan
Escape Plan
Field of vision
Freeing ports arrangement and calculation
Hatch Plan
Manholes Plan
Navigation lights Arrangement
Anchor and Mooring Arrangement
Insulation Plan
Booklet for Insulation Details
Door Plan
Door List
Room Number Plan
Windows & side scuttles Arrangement
Windows & side scuttles List
Fire control & Safety Plan
Damage control Plan
Docking Plan



Full Design Document List

Document Name

Gr. 3.1 Lay-out Arrangement, General

Chain Locker Arrangement

Lifesaving Arrangement

Helideck Deck Arrangement

Tender Garage Arrangement

Underwater Lights Arrangement

Paparazzi Light Arrangement

Lifts and Elevators Arrangement

Hazardous Area Plan

Boats and Davits Arrangement

List and Trim of Boats and Davits

Liferafts Arrangement

List and Trim of Liferafts

Rescue Boat Arrangement

List and Trim of Rescue Boat

Freefall Arrangement

List and Trim of Freefall

Fenders Arrangement

Tackle Plan

Mast Arrangement

Pilot Ladder Arrangement

Embarkation Ladder Arrangement

Hull marking Plan

Gr. 3.2 Lay-out Arrangement, Machinery Compartments

Main Engines Room Arrangement (main equipment)

Main Engines and Gear Boxes Positioning (3D Geometry)

Propellers and Shaft Line Arrangement (3D Geometry, Shaft Brackets Included)

POD Propellers Positioning (3D Geometry)

Propulsion Room Arrangement

Main Engines Exhaust Piping Arrangement and Scoop

Auxiliary Machinery Room Arrangement (main equipment)

Sea-chest Arrangement

Steering Gear Room Arrangement

Bow Thruster Room Arrangement

Stabilizers Room Arrangement

Incinerator/Garbage Room Arrangement

Switchboard Trafo Room Arrangement

Pump Jet Converter Room Arrangement

ECR Arrangement

Pump Room Arrangement

Purifier Room Arrangement

Emergency Generator Room Arrangement

Full Design Document List

Document Name

Gr. 3.3 Lay-out Arrangement, Service Space Areas

- Lay-out arr. In Wheelhouse
- Lay-out arr. on Top of Wheelhouse (antenna arr.)
- Lay-out arr. in Paint Store
- Lay-out arr. in Bosun Store
- Lay-out arr. in Engineer's Workshop Room
- Lay-out arr. in Electrical Workshop Room
- Lay-out arr. in Engineer's store
- Lay-out arr. in Deck store
- Lay-out arr. in HI-FOG Room
- Lay-out arr. in Deck Office
- Lay-out arr. in Change Room
- Lay-out arr. in Laundry
- Lay-out arr. in Pantries
- Lay-out arr. in Galley
- Lay-out arr. in Crew Mess Room
- Lay-out arr. in Hospital
- Lay-out arr. in Batteries Room
- Lay-out arr. in Day Room
- Lay-out arr. in Meeting Room
- Lay-out arr. in Linen store
- Lay-out arr. in Heli Reception
- Lay-out arr. in Helirefuelling Room
- Lay-out arr. in Baggage & Uniform Store
- Lay-out arr. in Crew Gym
- Lay-out arr. in Fire&Safety Store
- Lay-out arr. in Foam Room
- Lay-out arr. in CO2 Room
- Lay-out arr. in Liferaft Machinery Room
- Lay-out arr. in Davit Machinery Room
- Lay-out arr. in HVAC Rooms

Gr. 4.1 Main Structure

- Structural definition Plan
- Main scantling calculation (According to Class Rules)
- Midship section
- WT Bulkheads
- Profiles & Plans
- Shell expansion
- Aft ship (aft to fr.xx)
- Transversal Sections (from fr.xx to fr.yy)
- Fwd ship (fw to fr.yy)
- Superstructures - Profiles & Plans

Full Design Document List

Document Name

Superstructures - Transversal Sections

Superstructures Racking Analysis

FEA calculation of specific areas

Rudder Structural Design

Shaft Bossing

Shaft Brackets

Welding table

Shell Doors - Scantling and Details i.w.o. Hydraulic Pin/Hinges connections

Mast (scantling)

Block Plan

Material List for Purchasing - Plates

Material List for Purchasing - Profiles

Gr. 4.2 Foundation Main Equipment

Main Foundation calculation

Foundation of tender cranes

Foundation of rescueboat cranes

Foundation of main diesel generator

Foundation of aux diesel generator

Foundation of liferaft davit

Foundation of lifeboat davit

Foundation of Freefall Davit

Foundation of Crane

Foundation of Mooring Equipment

Foundation of Incinerator

Foundation of Emergency Generator

Foundation of forward gun

Foundation of AHU

Gr. 5.1 Outfitting Steel/Aluminium

Bottom Plugs Arrangement

Hawse pipe and anchor pocket (3D Model Geometry)

Cathodic protection Plan

Hatches Details

Shell Doors and Platforms Arrangement

Internal Stairs and ladder plan in accomodation

Internal Stairs and ladder plan in engine area

Internal Stairs and ladder plan in funnel

Internal Stairs and ladder plan in tanks

Internal Stairs and ladder plan in cargo holds

Internal Stairs Details

Internal Ladders Details

Grating in machinery spaces Arrangement

Railing in machinery spaces Arrangement

Full Design Document List

Document Name

External Stairs Arrangement
 External stairs Details
 Gangway Arrangement
 Gates on Bulkwark
 Overboard pipe and sea intake Arrangement
 Shaft Line Details (Pipes and Bearings)
 Loose tanks
 Traveling crane & lifting equipment in engine Room

Gr. 6.1 Piping Diagram

ICCP System
 Potable Water System – Reverse Osmosis
 Sanitary & Deck Wash System
 Domestic Hot and Cold Water System
 Technical Water System
 FO Bunker and Transfer System
 FO Stripping System
 FO Overflow System
 FO Service System
 FO Purifying System
 LO Bunker and Transfer System
 LO Service System
 Watertight Damper Pneumatic System
 Sliding Door Pneumatic System
 Sewage System
 Grey Water and Internal Scuppers System
 Black Water System
 A/C Drain System
 Emergency Remote Quick Closing Valves
 Sea water cooling System
 Fresh water cooling System
 Working and Control Air System
 Bilge and ballast System
 Oily Bilge and Sludge Handling System
 Petrol and Kerosene Store Bilge System
 Anchor Wash and Chain Locker Drain System
 Open Deck Scupper System
 Oil and Water Drainage System
 Water Fire Fighting System
 HI-FOG fire fighting System
 Foam Fire Fighting System
 Air vent & sounding System
 Sounding Pipe Details

Full Design Document List

Document Name

Remote Tank Sounding System

Hydraulic Diagram

Gun Armament System

Petrol & Kerosene System

Chilled Water System

Starting Air System

Pulper System

Fresh Water System for Swimming Pool and Whirlpool

Exhaust Gas System

Material List for Purchasing - Fittings

Material List for Purchasing - Pipes

Gr. 7.1 Basic Drawings, Electrical System

Electrical load analysis and balance

Short circuit currents calculation

Schematic arrangement of main switchboard

Schematic arrangement of emergency switchboard

Switchboards Layout

Starter list with schematic Diagram

List of transformer

Electrical tests panel

Shore connection panel

Battery calculation

Preliminary one line cables runs Arrangement

Schematic Arrangement of electrical distribution

Circuit list

Single line Diagram of power distribution

Wiring Diagram of normal/emergency lighting System in ER

Wiring Diagram of normal/emergency lighting System in accommodation

Wiring Diagram of normal/emergency external lighting System

Navigation equipment specification and panel

One line nav/com/ams Systems Diagram

Communication equipment specification and panel

GMDSS equipment specification and panel

One line sound powered telephones Diagram

One line automatic telephones Diagram

One line public address System Diagram

One line central serial System Diagram

One line TV System Diagram

Wiring Diagram of fire detectors and general alarm

PA and GA System Call Group

Full Design Document List

Document Name

Gr. 8.1 Basic Drawings, HVAC System

General Arrangement mech. and natural ventilation
 Space ventilation calculation
 Air Conditioning One Line Diagram

Gr. 9.1 Workshop Drawings, Hull (as per Block Plan Subdivision)

3D Model Output - Block xxx
 Workshop drawings - Block xxx
 Profile sketches - Block xxx
 Profile list - Block xxx
 Jiggs and/or Templates - Block xxx
 Weight and Centre of gravity - Block xxx
 Material List - Block xxx
 Part list - Block xxx
 Nesting sketches - Block xxx

Gr. 9.2 Workshop Drawings, Superstructure (as per Block Plan Subdivision)

3D Model Output - Block xxx
 Workshop drawings - Block xxx
 Profile sketches - Block xxx
 Profile list - Block xxx
 Jiggs and/or Templates - Block xxx
 Weight and Centre of gravity - Block xxx
 Material List - Block xxx
 Part list - Block xxx
 Nesting sketches - Block xxx

Gr. 10.1 Outfitting Production Document Machinery Spaces (as per MVZ subdivision)

3D MODEL - Database
 3D MODEL - Plants AND VARIOUS FITTINGS
 MOUNTING Plans
 PIPE ISO SPOOLS (construction drawings)
 MATERIAL LISTS FOR PIPING
 VENTILATION DUCTS (construction drawings)
 MATERIAL LISTS FOR DUCTS
 CABLE TRAYS
 MATERIAL LISTS FOR CABLE TRAYS
 FOUNDATIONS OF MACHINERIES-FITTINGS (not included in workshop documents)



Full Design Document List

Document Name

Gr. 10.2 Outfitting Production Document Accomodation and Open Area (as per MVZ subdivision)

3D MODEL - Database

3D MODEL - Plants AND VARIOUS FITTINGS

MOUNTING Plans

PIPE ISO SPOOLS (construction drawings)

MATERIAL LISTS FOR PIPING

VENTILATION DUCTS (construction drawings)

MATERIAL LISTS FOR DUCTS

CABLE TRAYS

MATERIAL LISTS FOR CABLE TRAYS

FOUNDATIONS OF MACHINERIES-FITTINGS (not included in workshop documents)

Gr. 11.1 Furnishing Engineering - Basic Design

Free height in accommodation

Free height in External Area

Bulkhead and Lining

Ceiling Plan

Floor Plan

Architectural Drawings

Architectural Details Booklet

Lighting Design Plan

Internal and External Loose Furniture

External Floor Plan

External Ceiling Plan

Interior 3D Model

Interior Rendering

Gr. 11.2 Furnishing Engineering - Joinery Documentation

Workshop Drawings per each Room