



NORTH STAR SHIPPING
A Member of the Craig Group



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GRAMPIAN SURVEYOR

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GRAMPIAN SURVEYOR

SAFETY INDUCTION

This handbook contains useful guidelines for your safety on board the Grampian Surveyor.

Please read the contents and if you are in any doubt about anything please contact a member of the ship's staff.

Do not remove this booklet from the vessel.

Welcome to the "Grampian Surveyor". This vessel has been specifically designed for worldwide operations serving the subsea industry. The vessel can carry out supply, pipe haul, ROV and trenching operations when mobilised in its various roles. The vessel is an IMT 975 type built to Lloyd's Register ✕100A1 ✕LMC, UMS, DP(AA), PCR (99)(98) standard.

Safety on board has an equal standing with operations and as such this booklet has been produced to help introduce you to the vessel. Details of the hotel facilities have been included to help you settle in more easily.

If you have any questions or queries on safety please contact the duty officer or any member of the ships company.

The vessel is operated in accordance with the company's Shipboard Management System, which is available for viewing on board. This may take precedence over all instructions contained in this booklet.

The Grampian Surveyor is a moving vessel and can throw you off balance so be aware of this when working on board. Always stow equipment and personal belongings safely and securely.

Enjoy your time on the Grampian Surveyor.

GRAMPIAN SURVEYOR

MEAL TIMES

When in PSV Mode	When crewed for DP Work
BREAKFAST 0730 - 0830 LUNCH 1130 - 1230 DINNER 1700 - 1800 Dinner will finish at 1830 when at Rig	BREAKFAST 0530 - 0700 LUNCH 1130 - 1230 DINNER 1730 - 1830 MIDNIGHT 2330 - 0030

The galley provides a twenty-four hour service based around the above times. If due to operations you will be delayed, then let the galley staff know so that they can make arrangements for you.

LAUNDRY

The laundry is located on the upper deck level, forward. To reduce backlogs, put several boiler suits in a machine together rather than washing them individually. Please ensure tumble drier filters are cleaned before and after use as dirty filters are a fire hazard.

TOILETS

The vessel has a vacuum sanitary system, so do not put anything down the toilet, other than that which it was designed for. Please report any defects in the laundry or toilets to the engine room to reduce down time.

EMERGENCY ALARMS

FIRE ALARM

Intermittent ringing of the alarm bells.

ACTION - Report to your emergency muster point as indicated in your cabin and on the Muster list.

EMERGENCY ALARM

Seven short rings followed by one long ring on the alarm bells, supplemented by seven short and one long blast on the ships whistle.

ACTION - Report to your emergency muster point as indicated in your cabin and on the Muster list.

ABANDON SHIP

By word of mouth from the Master of the Grampian Surveyor.

MAN OVERBOARD

Three long blasts on the ships whistle.

ACTION – Inform the bridge and maintain visual contact with the person in the water. Otherwise go to your emergency muster point.

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ACTION ON DISCOVERING A FIRE

If you discover a fire, raise the alarm immediately by activating the nearest fire alarm. Inform the bridge of the LOCATION and NATURE of the fire.

Initial action can be taken using the nearest suitable fire extinguisher.

If you use a portable fire extinguisher try to fight the fire from the doorway. Never enter the compartment. The fire party will take over and do that if necessary.

If the fire is large, close the door and let the fire party fight the fire.

All personnel will muster at their designated muster point for a head count.

During sub-sea operations, personnel on duty on the bridge, ROV control and the on-line survey room may remain at their positions. Sub-sea control and Surveyor will report their head count to the bridge and wait for instructions.

Remain at your muster point unless assigned to the fire party. When you have been informed that the emergency is over you may stand down.

LIFERAFTS

PORT SIDE FORECASTLE DECK – 3 x 25 Man Life Rafts

STBD SIDE FORECASTLE DECK – 3 x 25 Man Life Rafts

There are boarding ladders at the embarkation points on the main deck.

If you have to board the life rafts then try to use the ladder and avoid jumping from a height into the life raft. Jumping from a height into a life raft can cause injury to persons already in the life raft and to your self.

Always ensure that the painter is secure prior to launching.

Obey the instructions of the ships staff at all times.

Please look at the displayed signs and pictograms and ask the ships staff for further details or advice.

LIFEJACKETS

Lifejackets and Survival Suits are stowed in the cabins. Some spare Lifejackets and Survival Suits are stowed at the embarkation point for emergency use only.

WORKING OVERSIDE & AT STERN OF THE VESSEL

When working over side ensure that you have someone reliable to tend to you. Ensure that you have radio contact with the bridge and control. Life vests and safety lines must be used and be aware of the nearest lifebuoy. In the event of a man overboard, raise the alarm, but maintain visual contact with the person.

The vessel will implement man overboard action suitable to the constraints on the situation.

Sub-sea operations and stern working is under the direction of the charterer's superintendent, but appropriate PPE for safely undertaking the workscope will be worn at all times.

Over side work may only be carried out if a permit to work has been issued from the bridge.

OVER SIDE WORKING OTHER THAN AT THE STERN DURING SUB-SEA OPERATIONS WILL NOT BE PERMITTED DURING THE HOURS OF DARKNESS.

GRAMPIAN SURVEYOR

ACCESS TO THE VESSEL

Access to and from the vessel will be by means of the gangway provided. Personnel must not attempt to jump the bulwarks.

HOT WORK PERMITS AND TANK ENTRY PERMITS

All hot work on the vessel must be sanctioned and a hot work permit issued. Hot work includes electric arc welding, grinding, burning or any potentially hazardous electrical work.

Tank entry will only be sanctioned after testing for oxygen and explosive level as required.

In all cases there will be a copy of the permit to work posted on the bridge and at the work site to inform all staff of the operation in hand.

On completion the permit must be returned to be signed off.

WORKING ALOFT

Working aloft at any point on the vessel more than 6 feet above a structural deck will only be done when wearing a safety harness. Safety harnesses are provided for your use. Check your harness before use and if it does not appear in good condition report it to the duty safety officer.

ACCESS TO THE WHEELHOUSE TOP

Access to the wheelhouse top will be with the permission of the officer of the watch on the bridge. There are radars and a satellite dome on the top of the wheelhouse, which emit microwave frequencies and have to be turned off before access.

Do not touch wires on the wheelhouse, as they may be aerials that are in the vicinity and do not open or sit on the battery boxes.

BASKET AND BOAT TRANSFERS

Personnel transfers are at the discretion of the Marine Controller in the field/OIM and the Master of the Grampian Surveyor in conjunction with the Charterers Representative.

All passengers will wear lifejackets and survival suits. Safety helmets will also be worn.

HELICOPTER EVACUATION

In the event of a medi-vac by helicopter, ships staff on deck and on the bridge will direct operations. All personnel not involved in said operation will keep well clear of the area and obey instructions from the ships staff. Prior to such operations all loose equipment must be secured.

SHIP FAMILIARISATION

All personnel will be given a tour of the vessel, as well as viewing a safety Induction Video / CD which is on board the vessel. You should make yourself familiar with all relevant safety equipment and emergency escapes as soon as possible after joining. You are welcome to visit any part of the vessel at any time, but you should avoid interfering with operations. Do not enter the vessels machinery spaces unless escorted by a member of the ships staff.

ESCAPE ROUTE

Please take a few minutes NOW to consult the following ships plan to identify your quickest and safest means of escape to the Muster Station from this cabin.

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<p>POLICIES</p> <ul style="list-style-type: none"> ▪ The vessel operates a restricted smoking policy for all areas outside the accommodation. Smoking within the accommodation only within the designated areas. ▪ The vessel operates a “Dry Ship” and “Zero Tolerance Policy” in respect to drugs and alcohol. ▪ Do not wear working gear in the accommodation. ▪ Maintain living quarters in good and respect the requirements of your colleagues on board the vessel. Please also ensure electrical appliances not in use are switched off. ▪ In order to comply with the management of waste regulations, please utilise the waste disposal points situated throughout the vessel. The vessel operates a Garbage segregation policy, please abide by the requirements. ▪ DO NOT UNDER ANY CIRCUMSTANCE PUT AEROSOL CANS IN THE GENERAL WASTE. The vessel segregation policy will be explained to you during your induction. ▪ Personnel must comply with the vessel policy with regard to the wearing of full personal protective equipment, PPE. As a minimum this is: <ol style="list-style-type: none"> 1. Full PPE will be worn in all areas outside of the accommodation, except the focsle deck area. 2. When working you should also wear coveralls. 3. Full PPE must be worn during drills and emergency exercise. 	<p>PERMIT TO WORK</p> <p>The vessel operates a permit to work system for work being carried out on board.</p> <p>Permits are issued from the permit control station.</p> <p>Read the permit thoroughly and ensure that all the controls stipulated on the permit are in place.</p> <p>On completion of work, ensure the worksite has been left clean and tidy and return the permit to the control station for closure.</p> <p>RISK ASSESSMENT</p> <p>All tasks are subject to a risk assessment before the work commences.</p> <ul style="list-style-type: none"> ▪ Look for hazards. ▪ Decide who might be affected and how. ▪ Evaluate the resulting risk from the hazard. ▪ Apply control measures to reduce the risk to an acceptable level. ▪ Review and revise the assessment if deemed necessary. 	<p>TOOLBOX TALKS</p> <p>Before the start of a job there will be a toolbox talk with everyone involved. This is to make sure that you are aware of the outcome of the risk assessment i.e. hazards associated with the task and what measures have been decided upon to reduce the risks to as low as reasonably practicable.</p> <p>CONTROL SYSTEM</p> <p>This vessel operates a system of control for persons boarding and leaving. Please ensure the system is used each time you come on / off the vessel irrespective of the duration.</p> <p><u>DO NOT USE ANY OTHER MEANS OF ACCESS OTHER THAN THE GANGWAY</u></p> <p>If you see any activity or condition you think may be unsafe, please report it immediately to a member of the ship’s crew.</p> <p><i>If it is not reported we can do nothing about it !!!</i></p>
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GRAMPIAN SURVEYOR

Vessel Particulars

Name	Grampian Surveyor
IMO REG No.	9258533
Call Sign	EADQ
MMSI Number	224 988 000
Flag State	Spain
Port of Registry	Santa Cruz de Tenerife
Classification	Lloyds Register
Owners	✕100A1 ✕LMC UMS DP(AA) PCR (p1) (p2)
Operators	The Craig Group.
Vessel Managers	North Star Shipping (Aberdeen) Ltd
Builder	North Star Shipping (Aberdeen) Ltd
Charterer	Astilleros de Balenciaga.
	Sonsub International
	Tern Place
	Denmore Road
	Aberdeen
Charterers Representative	Mr. Giuseppe Baldini & Mr. Gary Duncan
	Tel 01224 843434
	Fax 01224 843435
	e-mail Giuseppe.baldini@sonsub.Saipem.eni.it
	e-mail Gary.Duncan@sonsub.saipem.eni.it

GRAMPIAN SURVEYOR

Technical Particulars

Length Overall	75.0 Metres
Length BP	64.8 Metres
Breadth	16.0 Metres
Depth to Main Deck	7.0 Metres
Draft	
	Draft - Summer 5.75 Metres
Tonnage	
	Tonnage - Gross 2786 Tonnes.
	Tonnage - Net 836 Tonnes.
	Tonnage - Deadweight 2141 tonnes @ 5.75 metres
Main Deck (Deck Load / Area)	5 Tonnes / 480M²
Mezzanine Deck (Deck Load / Area)	3 Tonnes / 130M²
Main Power Plant	4 x MAK 6M25 Units
Main Power Generators	4 x Siemens 1800 kW units
Emergency / Port Generator	Cat 3406 150 kW unit
Thrusters	Bow Tunnel(s) 2 @ 767 kW (1029 BHP)
	Bow Azimuth 1 @ 883 kW (1184 BHP)
	Stern Azimuth 2 Contaz 15 CRP's
	2200 kW each.
	(2950 BHP each)
Bunker Capacity	700 m³
Fuel	Marine Gas Oil
Consumption (Typical)	Dependent on WX / DWT / Gensets on line
	Economic 5.85 Tonnes / Day
	DP 5.85 Tonnes / Day
	Port 1 - 2 Tonnes / Day
Speed	
	Economic 12.5 Knots
	Transit 14.0 Knots
	Maximum 15.25 Knots

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Navigation Equipment

Radar System	3 x Furuno
Echo Sounder	Furuno FE 700
Gyro(s)	3 x Anschutz Gyros Standard 20
GPS Navigator	Furuno GP80

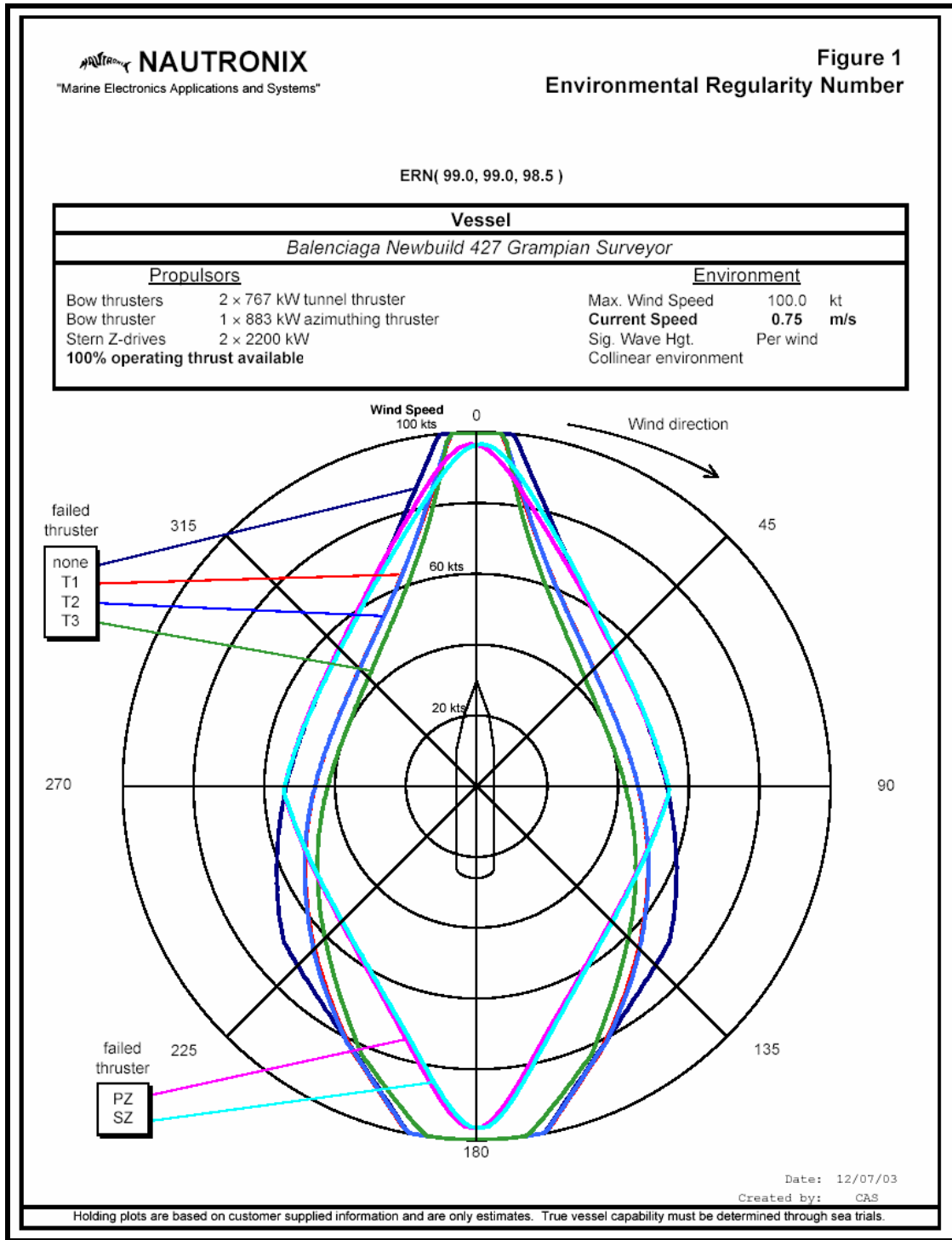
Dynamic Positioning Equipment

Manufacturer	Nautronix ASK 5002 DPS
Model	ASK 5002 DPS
Classification	Lloyds Register AA
ERN	99 / 99 / 98.5
Acoustic References (1)	Nautronix RS 925 NASPOS / NET, fully digital system.
Acoustic References (2)	Simrad Hi-Pap 500 with LBL functionality.
DGPS References (1)	Thales Skyfix
DGPS References (2)	Thales Skyfix – Charterers Supply
Fan Beam Laser	MDL Fanbeam Laser
Attitude Reference	1 x MRU - 5
	2 x DMS - 10
Deployment Capabilities	1.2m x 1.2m deployment moon-tube, and 500mm transducer deployment moontube.

GRAMPIAN SURVEYOR

<p>NAUTRONIX "Marine Electronics Applications and Systems"</p>	<p>Holding Study - Vessel Data Sheet</p>							
<p>Vessel</p> <p>Balenciaga Newbuild 427 <i>Grampian Surveyor</i></p>								
<p>Vessel Particulars</p>								
LOA	75.0 m	246.1 ft						
LBP (<i>approx.</i>)	64.8 m	212.6 ft						
Beam	16.0 m	52.5 ft						
Draft (max)	5.7 m	18.5 ft						
Depth (main deck->keel)	7.0 m	23.0 ft						
<p>Propulsor Details</p>								
Thruster	Power		Thrust		Offsets (<i>from COR - + Fwd, + Stbd</i>)			
	kW	hp	lb (Max)	lb (Min)	X (m)	X (ft)	Y (m)	Y (ft)
Bow #1 Tunnel	767	1029	24504	0	27.3	89.6	0.0	0.0
Bow #2 Tunnel	767	1029	24504	0	24.9	81.7	0.0	0.0
Bow #3 Azimuth	883	1184	35969	0	22.5	73.9	0.0	0.0
Port Main Azimuth	2200	2950	66993	0	-32.2	-105.6	-4.0	-13.1
Stbd. Main Azimuth	2200	2950	66993	0	-32.2	-105.6	4.0	13.1
<p>Notes</p>								
<p>- All locations based on GA drawing supplied by Customer. - Current in-flow addressed at 6%/knot of in-flow velocity. - Standard workboat scaled aerodynamic and hydrodynamic curves used. - Power and thrust values supplied by Customer (via NIX Aberdeen on 10/01/01).</p> <p>ERN(a,b,c) analysis:</p> <p>a: All thrusters operational. 100% thrust available. Minimum holding capability 51.4 kts b: Least impact thrust failure (PZ or SZ). 100% thrust available. Minimum holding capability 51.4 kts c: Greatest impact thrust failure (T3). 100% thrust available. Minimum holding capability 40.0 kts</p> <p style="text-align: center;">ERN(99.0, 99.0, 98.5)</p>								
<p>Date: 12/07/03 Created by: CAS</p>								

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Communications and Equipment

IMO Reg. No.	9258533
Call Sign	EADQ
MMSI Number	224988000
Sat Comms KU Band (C Band)	Cap Rock C Band Unit Fitted
Sat Comms Sat B	
	Voice 00 871 322 498810
	Fax 00 871 322 498811
	Data 00 871 322 498812
	HSD 00 871 391 024645
GSM Mobile	+ 44 7739 090109
Fax	As SAT B
E-mail	surveyor@skyfile.com
Inmarsat Sat C 1	00 871 422 498 810
Inmarsat Sat C 2	00 871 422 498 820
Wind Sensor	2 x Wind Sensors fitted
Navtex Receiver	Fitted
Portable VHF	Fitted
Portable UHF	Fitted
Batteryless Phone	Fitted
Intercom Phone	Fitted
KU Band (C Band)	Cap Rock C Band Unit Fitted

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Cargo Facilities

Capacities

Marine Diesel Oil	700 m³
Ballast Water	1497 m³
Potable Water	1022 m³

Flange Connections

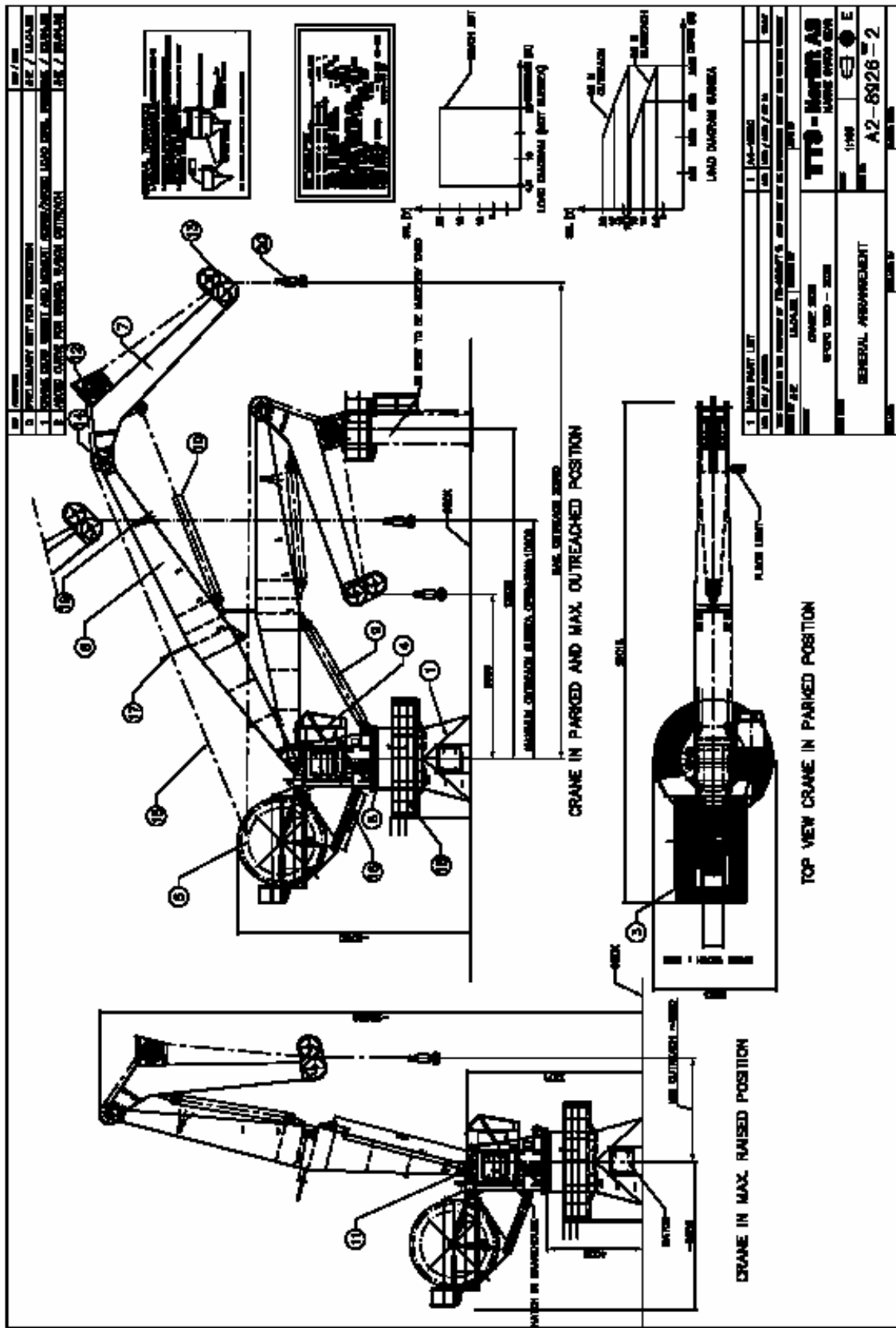
Marine Diesel Oil	Avery Hardoll
Ballast Water	Standard Weco
Potable Water	Standard Weco

Main Deck Services

Marine Diesel Oil
Air Supply
Electrical Power
Tugger Winch

Deck outlet fitted
Deck outlet fitted
Deck & ROV workshops outlet fitted
2 x 10 Tonne Tuggers

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1. NAME PART / LIFT	1. NAME / MODEL
2. CODE / NUMBER	2. CODE / MODEL / PART NO.
3. THIS DRAWING IS THE PROPERTY OF THE COMPANY & NOT BE LOANED, REPRODUCED, COPIED, OR REPRODUCED WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.	
4. DATE OF P.E.	4. DATE OF P.E.
5. DRAWN BY	5. DRAWN BY
6. CHECKED BY	6. CHECKED BY
7. APPROVED BY	7. APPROVED BY
GENERAL ARRANGEMENT	
A2-6326-2	

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TTS Norlift Deck Crane Details

TTS Norlift GPCFO 1250 - 2020.

Crane deadweight inc. pedestal oil	100 Tonnes
Deadweight and Static Load	120 Tonnes
Deadweight and Dynamic Load	172 Tonnes
Total Max. Static Moment	601 TM
Total Max. Dynamic Moment	1278 TM
Hoisting Height	2000 Metres
Hoisting / Lowering Speed SWL	40 metres / minute
Hoisting / Lowering Speed @ Light load	100 metres / minute
Luffing Speed (Average up ~ down)	70 seconds
Slewing Sector	Limited 360
Slewing Speed	1 RPM
Power Take Off @ Peak	395 kW
Power Source	3 x 440V @ 60 HZ

Load Diagram In Air

20 Tonnes @ 4.5m - 20m.

Crane is rated for 20 metre outreach.

In Water (Subsea)

13 Tonnes @ 1000 metres @ 20 metres
10 Tonnes @ 1500 metres @ 20 metres
6.5 Tonnes @ 2000 metres @ 20 metres

20 Tonnes @ 1000 metres @ 10 Metres
17 Tonnes @ 1500 metres @ 10 Metres
13.5 Tonnes @ 2000 metres @ 10 Metres

Hydralift ROV Crane Details

Hydralift KMCV 886 1.5 – 11 (7.5)

Load Diagram In Air Hoisting Height Hoisting Speed Luffing Time

1.5 Tonnes @ 2.2 ~ 11 metres
35 Metres
0 ~ 35 Metres / Minute
40 Seconds

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Safety Equipment

Life Rafts	3 x 25 Man Port & 3 x 25 Man Stbd
Mob Boat	1 x M.O.B Boat
Lifebuoys	As per class / flag state
Survival Suits	Fitted for all crew and charterers personnel.
Lifejackets	As per class / flag state
Hospital	Twin Berth / Twin Treatment facilities

Deck Crane

Manufacturer	TTS NORLIFT
Model	GPC
Main Hoist	15 - 20 Tonnes
Wire Length	2000 metres
Tested	Tested and approved by Lloyds Reg.

Deck Handling Crane

Manufacturer	Hydralift
Model	Hydralift KMCV 886 1.5 - 11 (7.5)
Main Hoist	1.5 Tonnes
Wire Length	35 Metres
Tested	Tested and approved by Lloyds Reg.

ROV Workshop

Workshop	130 m2 of covered workspace on maindeck to suit charterers requirements
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ROV LARS System

ROV	Triton XL 31
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Accommodation

Cabins

Single Man en Suite **21 Single Cabins**
 Double Man en Suite **14 x Double Cabins**

Mess Room

Fully Fitted

Lounge (1)

Fully Fitted

Lounge (2)

Fully Fitted

Online Survey

Fully Fitted and networked

Offline Survey

Fully Fitted and networked

Client Office # 1

Fully Fitted and networked

Client Office # 2

Fully Fitted and networked

Ships Office

Fully Fitted

(within Wheelhouse area)

Hospital

Twin bedded fully equipped hospital

Gymnasium

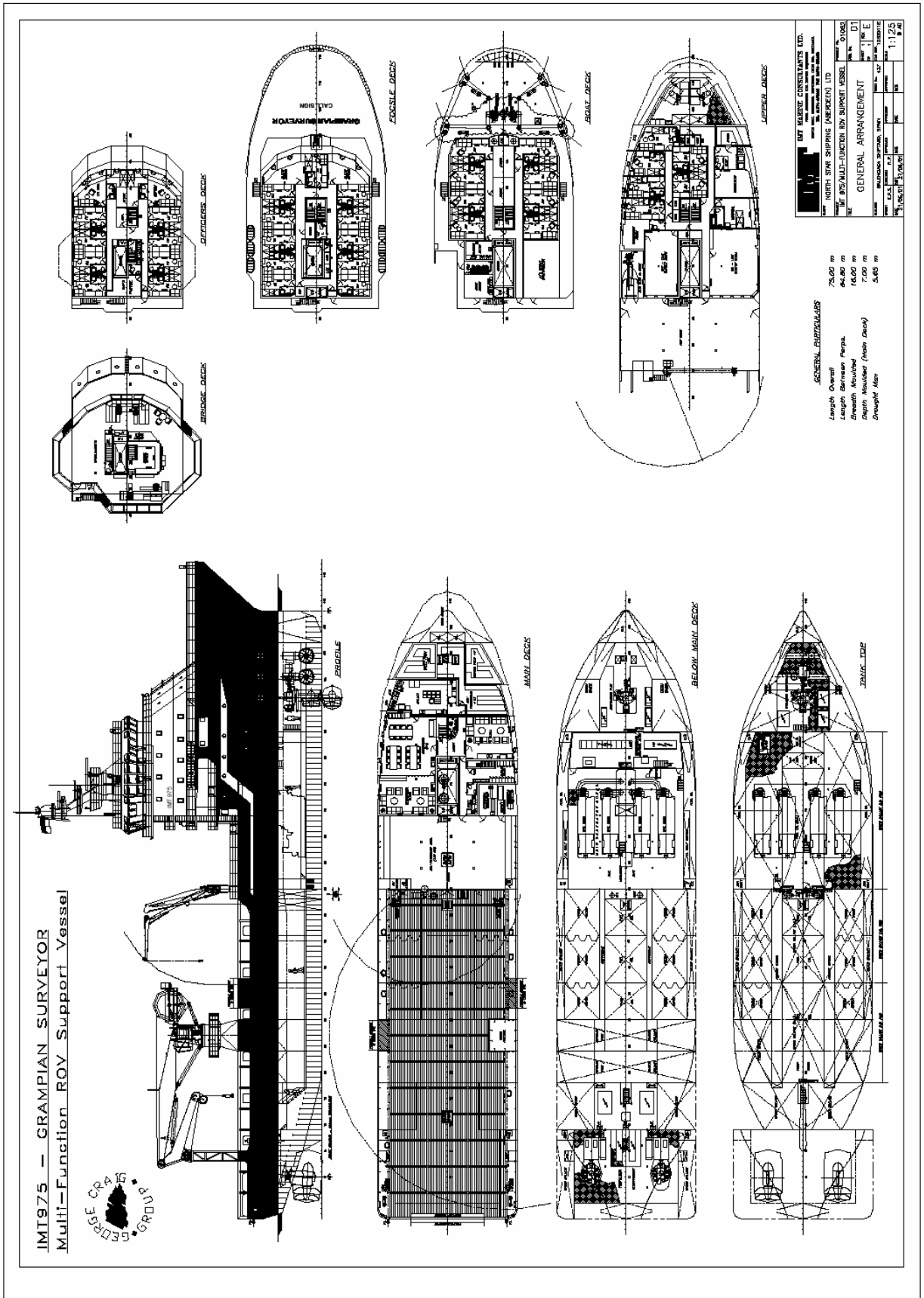
Fully Fitted Gym

Sauna

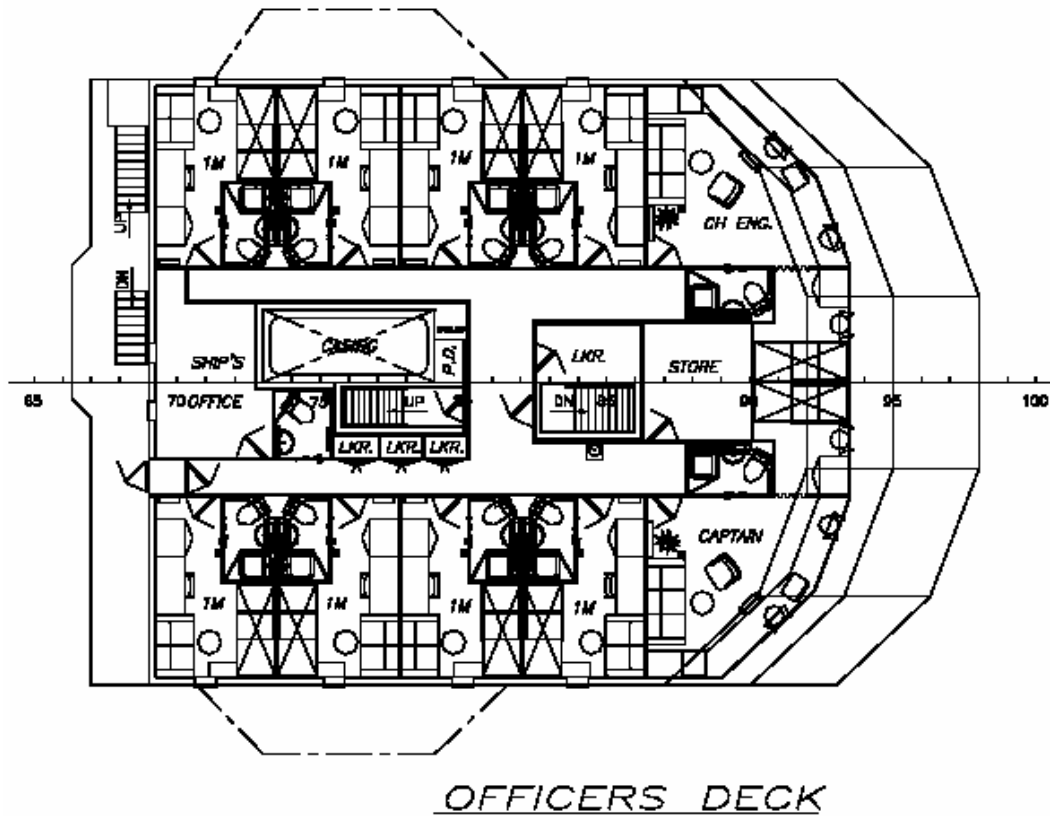
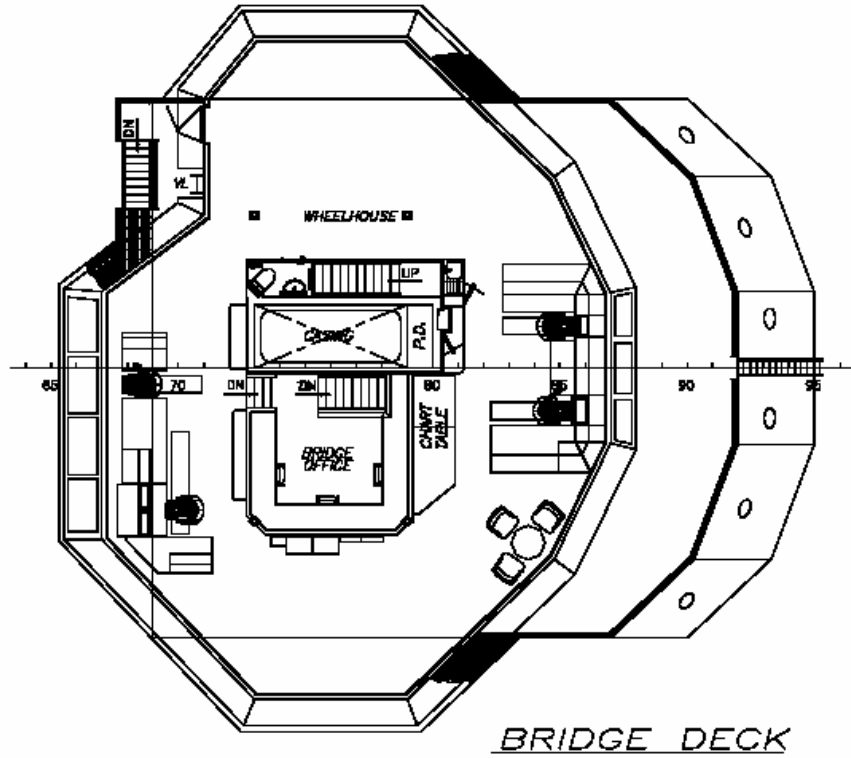
Fully Fitted Sauna

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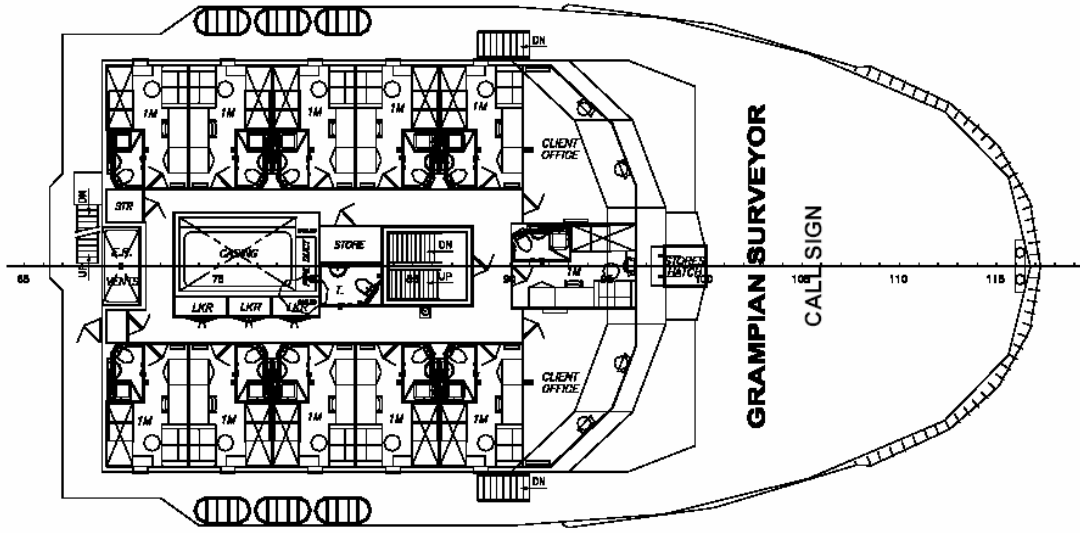
Sonsub



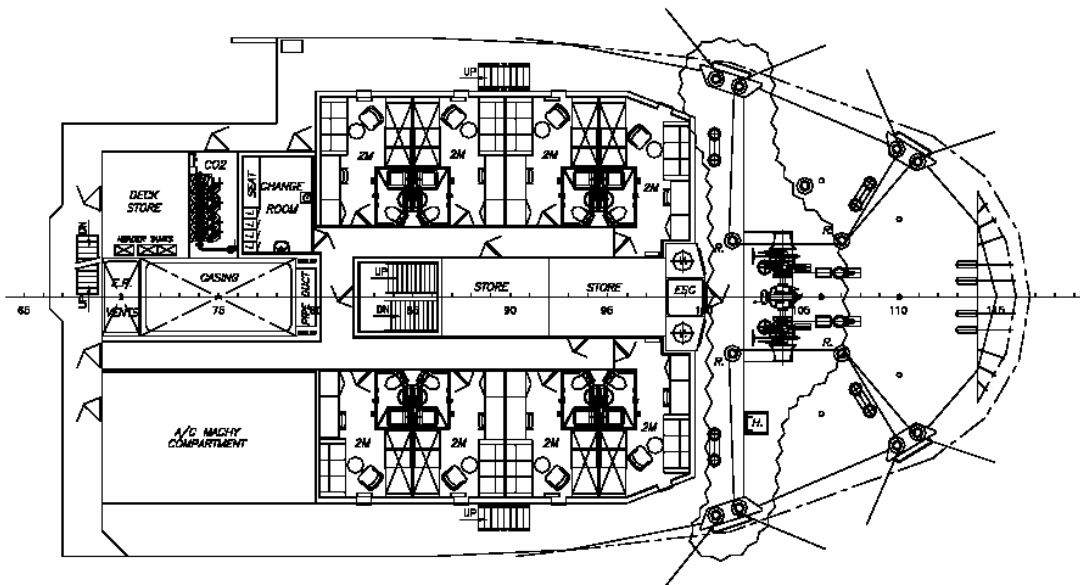
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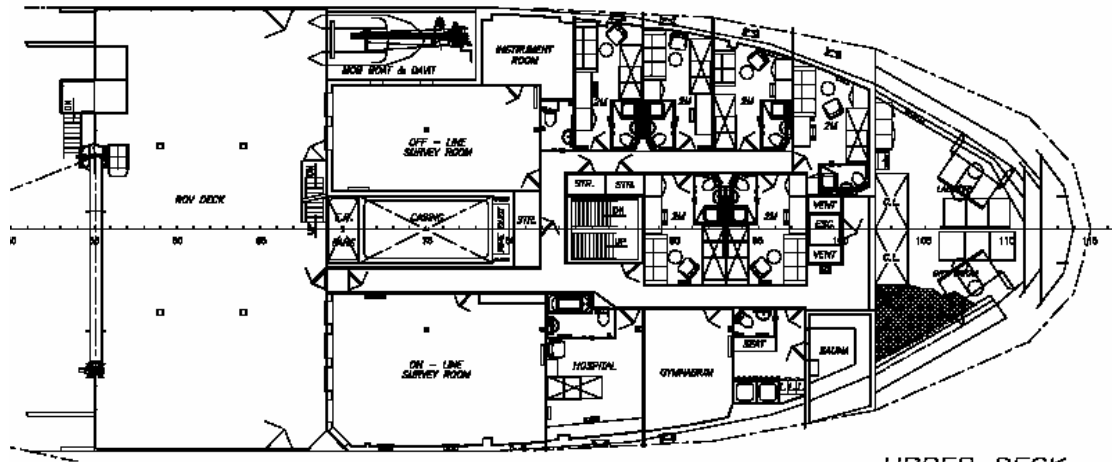


FOCSLE DECK

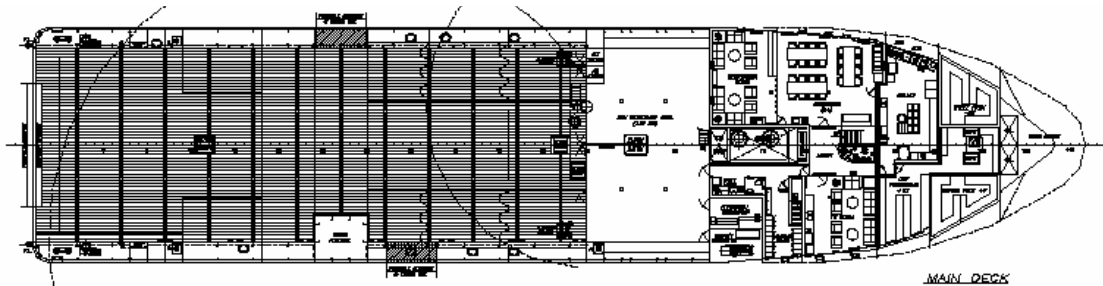


BOAT DECK

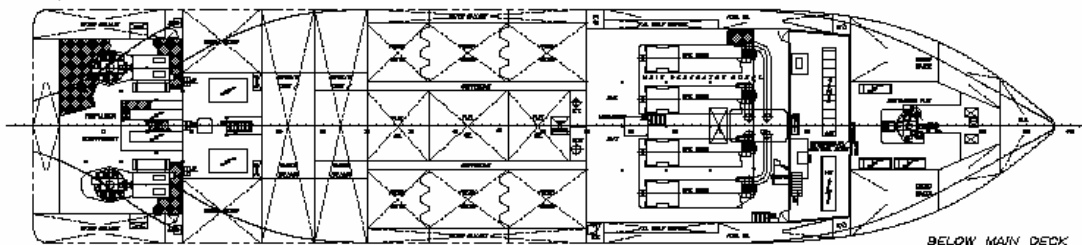
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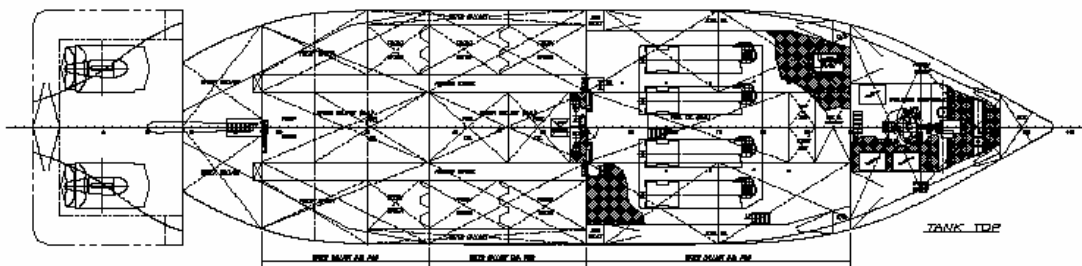
UPPER DECK



MAIN DECK



BELOW MAIN DECK



TANK TOP