

RESERVATION 6

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REFERENCE DRAWINGS		
Ref.	Dwg. No.	Title
1	190-001.00-001	GENERAL ARRANGEMENT
2	190-250.10-001	EXHAUST ARRANGEMENT

drawing file: 190-201.10-001 Machinery Arrangement SH1104 Rev2 (in Progress).dwg Plotted: Aug 29, 2014 - 9:41pm

EQUIPMENT LIST						
ITEM	QTY.	DESCRIPTION	MAKE	MODEL	RATING	LOCATION
001	3	PROPULSION DIESEL GENERATOR				MAIN MACH SPACE TANK TOP LEVEL
002	1	PROPULSION MOTOR				PROP MOTOR SPACE
003	1	THRUST BEARING				PROP MOTOR SPACE
004	1	TURNING GEAR / LOCKING DEVICE				PROP MOTOR SPACE
005	1	SHAFT SEAL				PROP MOTOR SPACE
006	1	FORWARD STERN TUBE BEARING				PROP MOTOR SPACE
007	1	AFT STERN TUBE BEARING				VOID 5C
008	1	STERN TUBE WATER SUPPLY UNIT				PROP MOTOR SPACE
009	2	SEA CHEST CROSSOVER STRAINER				MAIN MACH SPACE TANK TOP LEVEL
010	1	ENGINE SEA WATER SUPPLY DUPLEX STRAINER				MAIN MACH SPACE TANK TOP LEVEL
011	2	AUXILIARY SEA WATER COOLING PUMP				MAIN MACH SPACE TANK TOP LEVEL
012	2	AUXILIARY SEA WATER HEAT EXCHANGER				MAIN MACH SPACE TANK TOP LEVEL
013	3	PROPULSION DIESEL GENSET EXHAUST SILENCER				MAIN MACH SPACE 2ND DECK & CASING
014	1	EMERGENCY DIESEL GENSET EXHAUST SILENCER				EMERG GEN ROOM
015	3	PROPULSION DIESEL GENERATOR FUEL OIL FILTER				MAIN MACH SPACE TANK TOP LEVEL
016	1	ENGINE JACKET WATER PREHEATER				MAIN MACH SPACE TANK TOP LEVEL
017	1	MAIN SWITCHBOARD				MAIN SWITCHBOARD
018	-	-				-
019	2	TRANSFORMERS 600 / 240 V				
020	1	240 V SHIP SERVICES SWITCHBOARD				
021	1	240 V SCIENCE SWITCHBOARD				ELECTRICAL ROOM
022	2	TRANSFORMERS 600 / 120 V				
023	1	120 V SWITCHBOARD				
024	1	SHORE POWER TRANSFORMER				ELECTRICAL ROOM
025	1	PROPULSION CONTROL UPS				
026	2	SCIENTIFIC UPS				
027	-	-				-
028	2	PROPULSION VFD				VFD COMPARTMENT
029	1	EMERGENCY DIESEL GENERATOR				EMERG GEN ROOM
030	1	EMERGENCY SWITCHBOARD				EMERG GEN ROOM
031	2	EMERGENCY POWER TRANSFORMER				EMERG GEN ROOM
032	1	HVAC SWITCHBOARD				MAIN MACH SPACE 2ND DECK
033	1	BATTERIES PACK				EMERG GEN ROOM
034	2	PROPULSION VFD COOLING UNIT				PROP MOTOR SPACE
035	2	HVAC CHILLER				MACHINERY SPACE
036	2	CHILLED WATER CIRCULATION PUMP				MACHINERY SPACE
037	2	REFRIGERATION UNIT				CHILLER MACH SPACE & NET STORAGE
038	-	DELETED				
039	1	DIESEL GENERATOR WASTE HEAT EXCHANGER				MAIN MACH SPACE TANK TOP LEVEL
040	2	WASTE HEAT HOT WATER CIRCULATION PUMP				MAIN MACH SPACE TANK TOP LEVEL
041	3	FUEL OIL COOLING HEAT EXCHANGERS (NOT SHOWN)				MAIN MACH SPACE TANK TOP LEVEL
042	2	FIRE PUMP				MAIN MACH SPACE TANK TOP LEVEL
043	1	WATER MIST LOCAL FIRE PROTECTION UNIT				AUX MACH SPACE
044	-	-				-
045	3	SCIENTIFIC SEA WATER PUMP				DOMESTIC MACH SPACE
046	2	SCIENTIFIC SEA WATER DISCHARGE PUMP				DOMESTIC MACH SPACE
047	1	LIVE CATCH RETENTION SYSTEM UNIT				MAIN MACH SPACE 2ND DECK
048	-	-				-
049	2	BILGE PUMP				MAIN MACH SPACE TANK TOP LEVEL
050	-	-				-
051	2	BILGE / BALLAST PUMP				AUX MACH SPACE, PROP MOTOR SPACE
052	1	BALLAST WATER TREATMENT PLANT				AUX MACH SPACE
053	4	WET LAB DEWATERING PUMP				WET LAB
054	-	-				-
055	1	FRESH WATER TRANSFER PUMP				DOMESTIC MACH SPACE
056	-	-				-
057	2	FRESH WATER GENERATOR FEED PUMP	HMSA			DOMESTIC MACH SPACE
058	2	MEDIA FILTER	HMSA			DOMESTIC MACH SPACE
059	1	SEA WATER PREHEATER	HMSA			DOMESTIC MACH SPACE
060	2	REVERSE OSMOSIS FRESH WATER GENERATOR	HMSA			DOMESTIC MACH SPACE
061	-	-				-
062	1	WATER MIST BOOST PUMP				AUX MACH SPACE
063	2	FRESH WATER PRESSURE PUMP	HMSA			DOMESTIC MACH SPACE
064	2	HYDROPHORE	HMSA			DOMESTIC MACH SPACE

EQUIPMENT LIST						
ITEM	QTY.	DESCRIPTION	MAKE	MODEL	RATING	LOCATION
065	2	UV STERILIZER	HMSA		3.1 m <sup>3</sup> /h	DOMESTIC MACH SPACE
066	2	POTABLE HOT WATER CIRCULATING PUMP	HMSA			DOMESTIC MACH SPACE
067	2	CALORIFIER	HMSA		200 L	DOMESTIC MACH SPACE
068	1	CHLORINATION DOSING UNIT	HMSA			DOMESTIC MACH SPACE
069	-	-				-
070	1	BOW THRUSTER COOLER (NOT SHOWN)				BOW TRUSTER COMPT
071	1	BOW THRUSTER COOLING PUMP				BOW TRUSTER COMPT
072	4	FRESH WATER COOLING PUMP				MAIN MACH SPACE TANK TOP LEVEL
073	1	ENGINE COOLING WATER TRANSFER PUMP				MAIN MACH SPACE TANK TOP LEVEL
074	1	SERVICE FUEL OIL TRANSFER PUMP				MAIN MACH SPACE TANK TOP LEVEL
075	2	FUEL OIL TRANSFER PUMP				MAIN MACH SPACE TANK TOP LEVEL
076	2	FUEL OIL PURIFIER				MAIN MACH SPACE TANK TOP LEVEL
077	1	LUBE OIL TRANSFER PUMP				MAIN MACH SPACE TANK TOP LEVEL
078	-	-				-
079	2	STARTING AIR COMPRESSOR				MAIN MACH SPACE 2ND DECK
080	2	STARTING AIR RECEIVER				MAIN MACH SPACE 2ND DECK
081	1	SERVICE AIR COMPRESSOR				MAIN MACH SPACE 2ND DECK
082	1	SERVICE AIR RECEIVER				MAIN MACH SPACE 2ND DECK
083	1	LP AIR DRYER				MAIN MACH SPACE 2ND DECK
084	1	CONTROL AIR RECEIVER				CHILLER ROOM 2ND DECK
085	-	-				-
086	1	MAIN HYDRAULIC POWER PACK				MAIN MACH SPACE TANK TOP LEVEL
087	-	-				-
088	1	TRAWL WINCH VFD				VFD COMPARTMENT
089	1	SCIENCE WINCH VFD				VFD COMPARTMENT
090	1	BRAKE RESISTOR				MAIN MACH SPACE 2ND DECK
091	1	STEERING GEAR UNIT				STEERING GEAR COMPT
092	2	STEERING GEAR HPP				STEERING GEAR COMPT
093	1	BOW THRUSTER				BOW THRUSTER COMPT
094	1	BOW THRUSTER MOTOR				BOW THRUSTER COMPT
095	1	BOW THRUSTER DRIVE				BOW THRUSTER COMPT
096	-	-				-
097	1	GREY WATER TRANSFER PUMP				AUX MACHINERY SPACE
098	1	SEWAGE SLUDGE TRANSFER PUMP				AUX MACHINERY SPACE
099	1	BLACK WATER TRANSFER PUMP				AUX MACHINERY SPACE
100	1	VACUUM PUMP ASSEMBLY (2 PUMPS)				AUX MACHINERY SPACE
101	1	SEWAGE TREATMENT PLANT				AUX MACHINERY SPACE
102	-	-				-
103	-	-				-
104	1	OILY WATER PUMP				MAIN MACH SPACE TANK TOP LEVEL
105	1	SLUDGE PUMP				MAIN MACH SPACE TANK TOP LEVEL
106	1	OILY WATER SEPARATOR				MAIN MACH SPACE TANK TOP LEVEL
107	1	INCINERATOR				INCINERATOR ROOM
108	1	FLUE GAS FAN				INCINERATOR ROOM
109	1	EMERGENCY GENERATOR FUEL OIL TANK				EMERG GEN ROOM
110	1	FRESH WATER SERVICE TANK				PASSAGE 2ND DECK
111	1	USED LUBE OIL TANK				MAIN MACH SPACE 2ND DECK
112	1	LUBE OIL TANK				MAIN MACH SPACE 2ND DECK
113	-	-				-
114	1	ENGINE COOLANT STORAGE TANK				MAIN MACH SPACE TANK TOP LEVEL
115	1	OILY WATER SETTLING TANK				MAIN MACH SPACE TANK TOP LEVEL
116	1	BLACK WATER COLLECTION TANK				AUX MACHINERY SPACE
117	-	DELETED				-
118	1	INCINERATOR FUEL OIL TANK				INCINERATOR ROOM
119	1	INCINERATOR SLUDGE TANK				INCINERATOR ROOM
120	-	DELETED				-
121	3	BILGE MANIFOLD				AUX MACHINERY SPACE & MAIN MACH SPACE TANK TOP LEVEL
122	-	-				-
123	1	FUEL OIL MANIFOLD				MAIN MACH SPACE TANK TOP LEVEL

- RESERVATIONS:
- 2-RO UNITS(STACKED) OR 1 WASTE HEAT EVAPORATOR WITH 1-RO UNIT. 2-RO UNITS SELECTED BUT WILL BE RESIZED, MAY IMPACT THE ARRANGEMENT.
  - GLYCOL - WATER HEAT EXCHANGER FOR DECK EQUIPMENT IS TBD. HAWBOLDT SUPPLY, NOT SHOWN ON ARRANGEMENT.
  - CURRENTLY NO PLAN FOR AN AUXILIARY HPU, LEFT IN THE ARRANGEMENT AS A SPACE RESERVATION UNTIL HYDRAULICS ARE FINALIZED.
  - SEWAGE SLUDGE TANKS AND GREY WATER TANKS ARE TO BE LOOSE TANKS, FINAL TANK CONFIGURATION TBD.
  - HEAT EXCHANGER AND COOLING SYSTEM PUMPS, FINAL SIZES AND ARRANGEMENT TO BE CONFIRMED.
  - ELECTRICAL EQUIPMENT SIZES AND LOCATIONS.
  - FINAL VFI REQUIRED FOR ALL EQUIPMENT.

FOR INFORMATION ONLY

EXAMINED

EXAMINED on behalf of Transport Canada, Marine Safety for compliance with the applicable Transport Canada Marine Safety Regulations & subject to any amendments or comments stated in the supporting document(s)

Date: 23 September 2014 Initials: RC

Marine, Toronto Office

Lloyd's Register Canada Limited

EXAMINED

This plan has been examined and given the status as shown in the Design Appraisal Document (DAD) number below:

ATS/3650233/P/005

Date: 23 September 2014 Initials: RC

Marine, Toronto Office

Lloyd's Register Canada Limited

This document contains property of Vancouver Shipyards Co. Ltd. ("VSP") or third parties, permitted Government use defined under Public Works and Government Services (PWGSC) Contract No. 19123-11002001001 (the "Contract"). Such property includes Background Information (as defined in the Contract) that is confidential and proprietary to VSP or third parties. This document, and the Background Information herein, may not be used, copied, reproduced, duplicated, released or disclosed, in whole or in part, except in accordance with the restrictions and limitations set out in the Contract, including in Annex I of the Contract. All rights reserved.

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VANCOUVER SHIPYARDS

Vancouver Shipyards Co. Ltd.

90 Pemberton Avenue, North Vancouver, B.C. V7P 2R2

Tel: (604) 988-6361

VARD

a flincantieri company

VARD Marine Inc.

Vancouver BC Tel: +1 604 276 2300

Project No. 190

Hull No. 190

Description of Project OFFSHORE FISHERIES SCIENCE VESSEL

Title MACHINERY ARRANGEMENT

Drawn: MH Date: 07/29/13

Checked: EJD Date: 08/01/13

Approved: RM Date: 08/29/14

Drawing # 190-201.10-001

Sheet 1 of 4

Rev. No. 3

Name Of Vessel

Owner

190 CANADIAN COAST GUARD

3	08/29/14	1) REMOVED REFRIGERATION CIRCULATION PUMPS 2) SS TANK AND GW TANK ARE NOW BUILT IN TANKS, REMOVED FROM EQUIPMENT LIST. RESERVATION 4 CLOSED. 3) HEAT EXCHANGERS AND PUMPS SIZED, RO UNITS SELECTED, RESERVATION 3 CLOSED	MT	EJD	EJD
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2	06/04/14	1. UPDATED EQUIPMENT LOCATIONS. 2. UPDATED RESERVATION #1. 3. ADDED RESERVATIONS 2-7. 4. ADDED EQUIPMENT LOCATIONS TO THE TABLE..	MT	MH	EJD
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1	01/30/14	GENERAL REVISION	MH	MT	--
0	08/01/13	INITIAL RELEASE	MH	ED	--

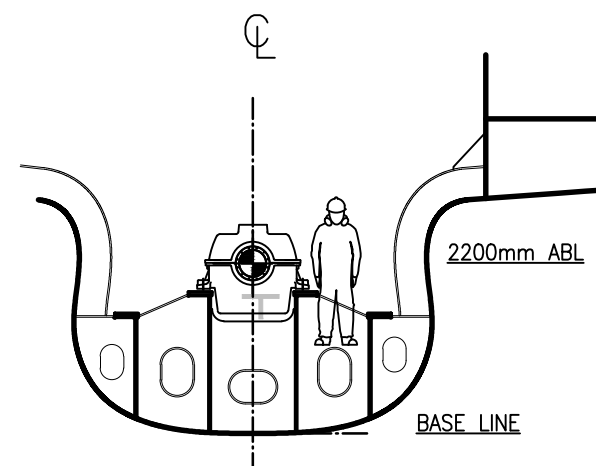
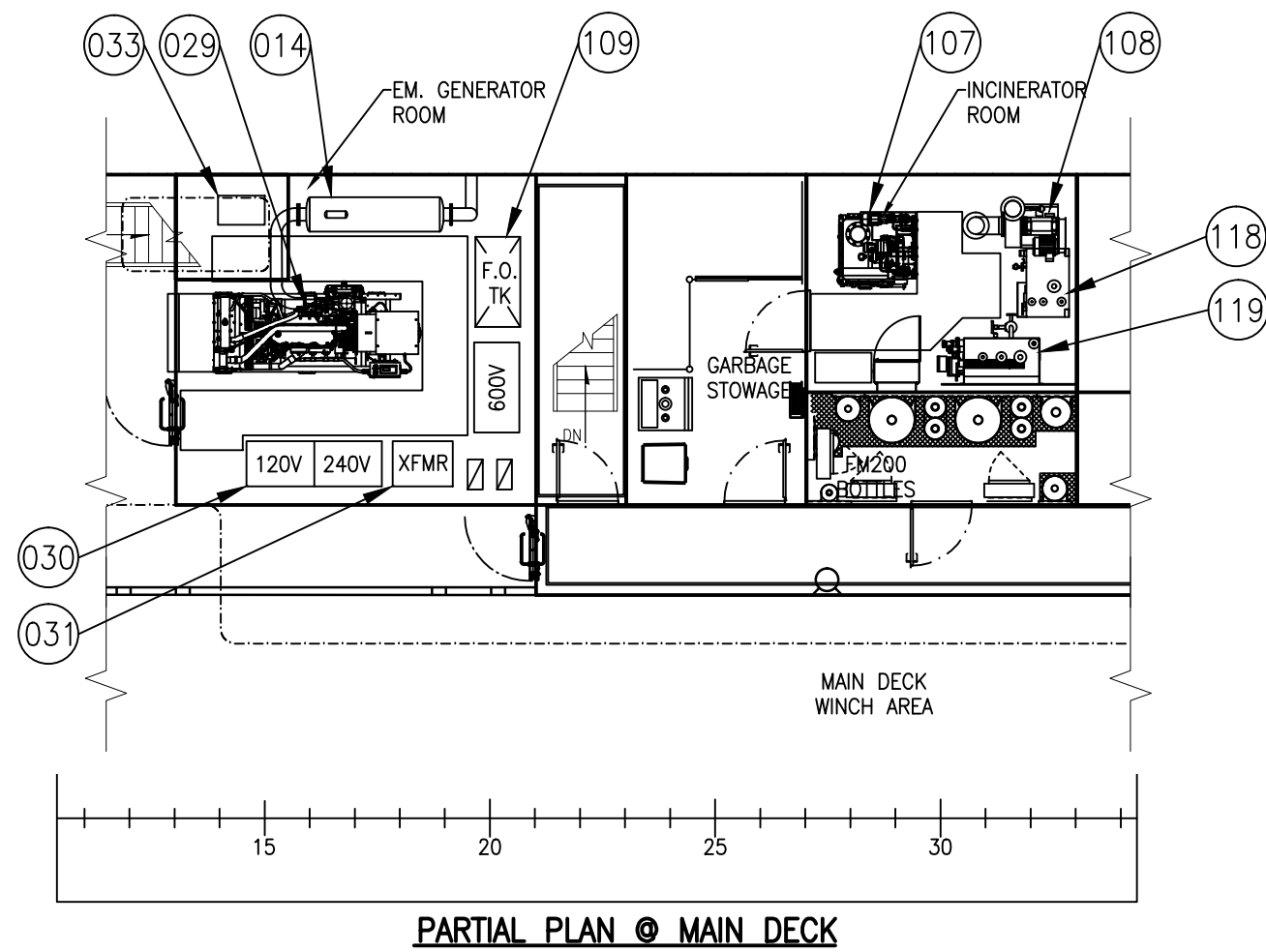
Rev	Date	Description	Revised	Checked	Approved
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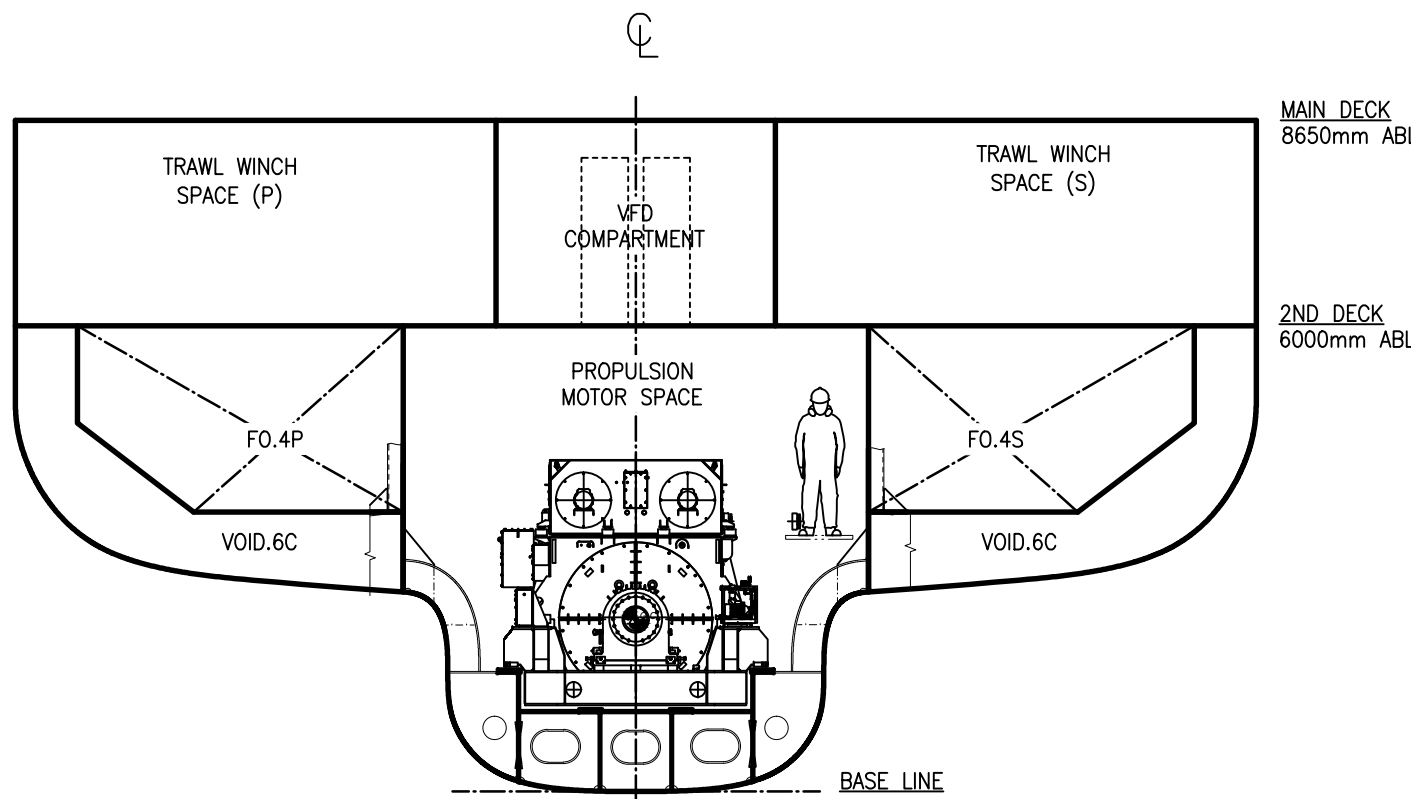




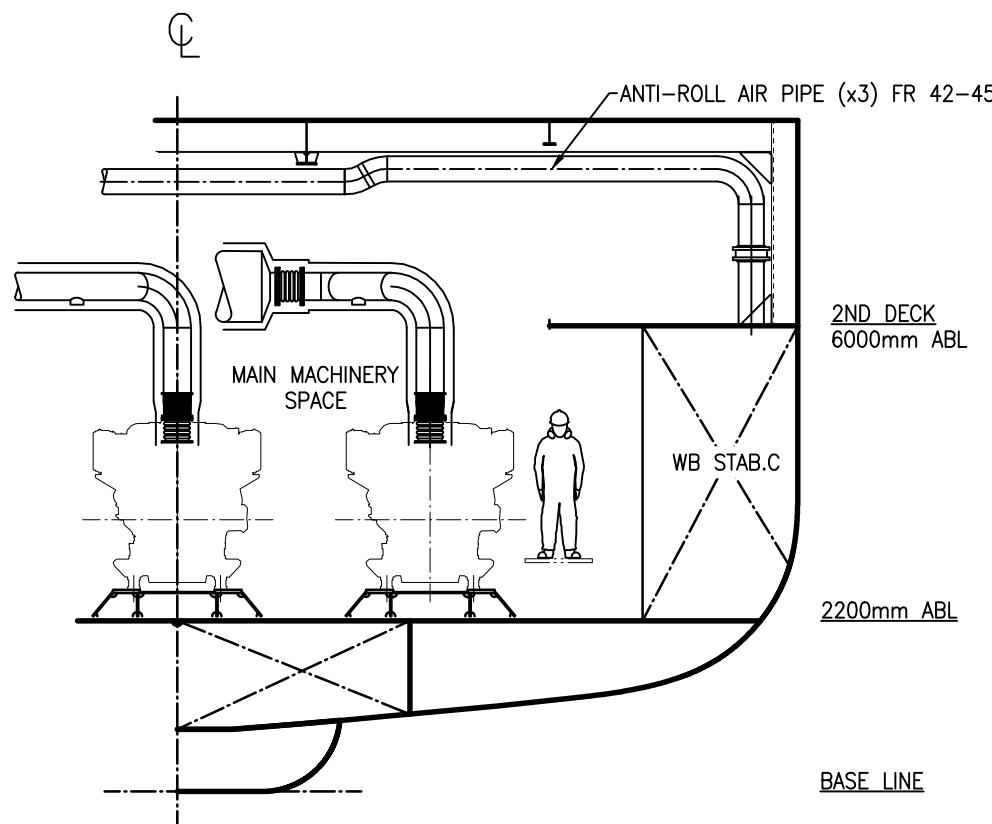




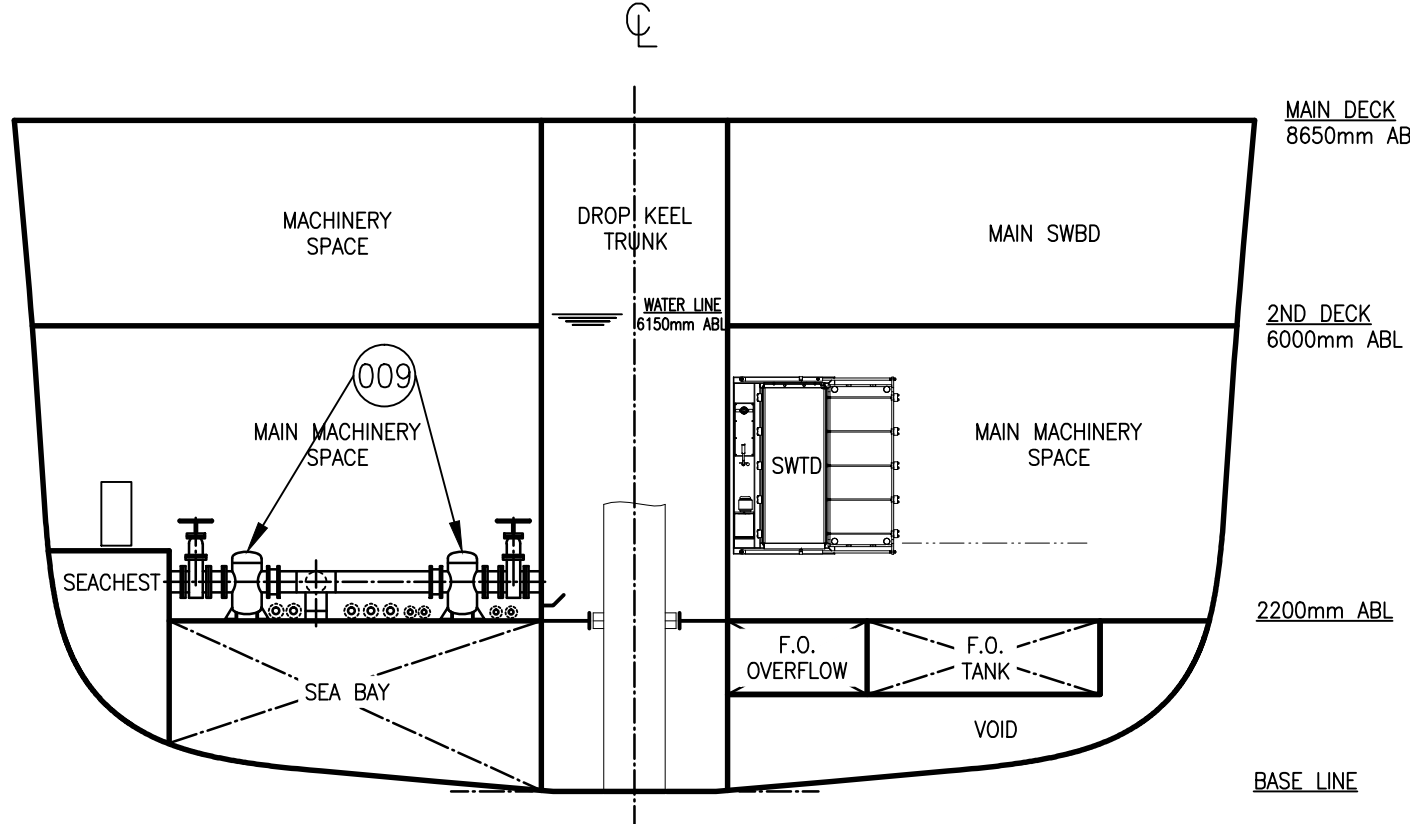
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LOOKING FORWARD



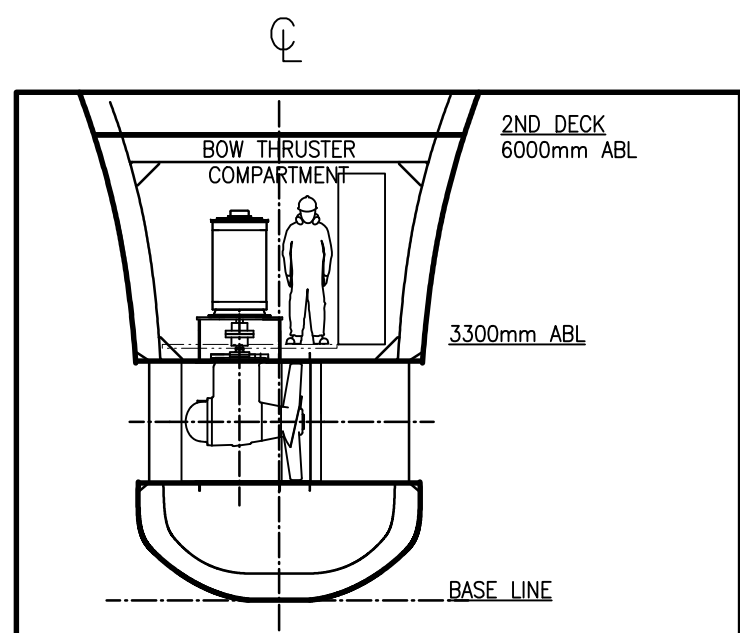
SECTION @ FRAME 27  
LOOKING FORWARD



SECTION @ FRAME 37  
LOOKING FORWARD



SECTION @ FRAME 54  
LOOKING FORWARD



SECTION @ FRAME 86  
LOOKING FORWARD

FOR INFORMATION ONLY



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Title			
MACHINERY ARRANGEMENT			
Drawing #	Sheet #	Scale:	Rev.
190-201.10-001	4	NONE	3

D-Metric