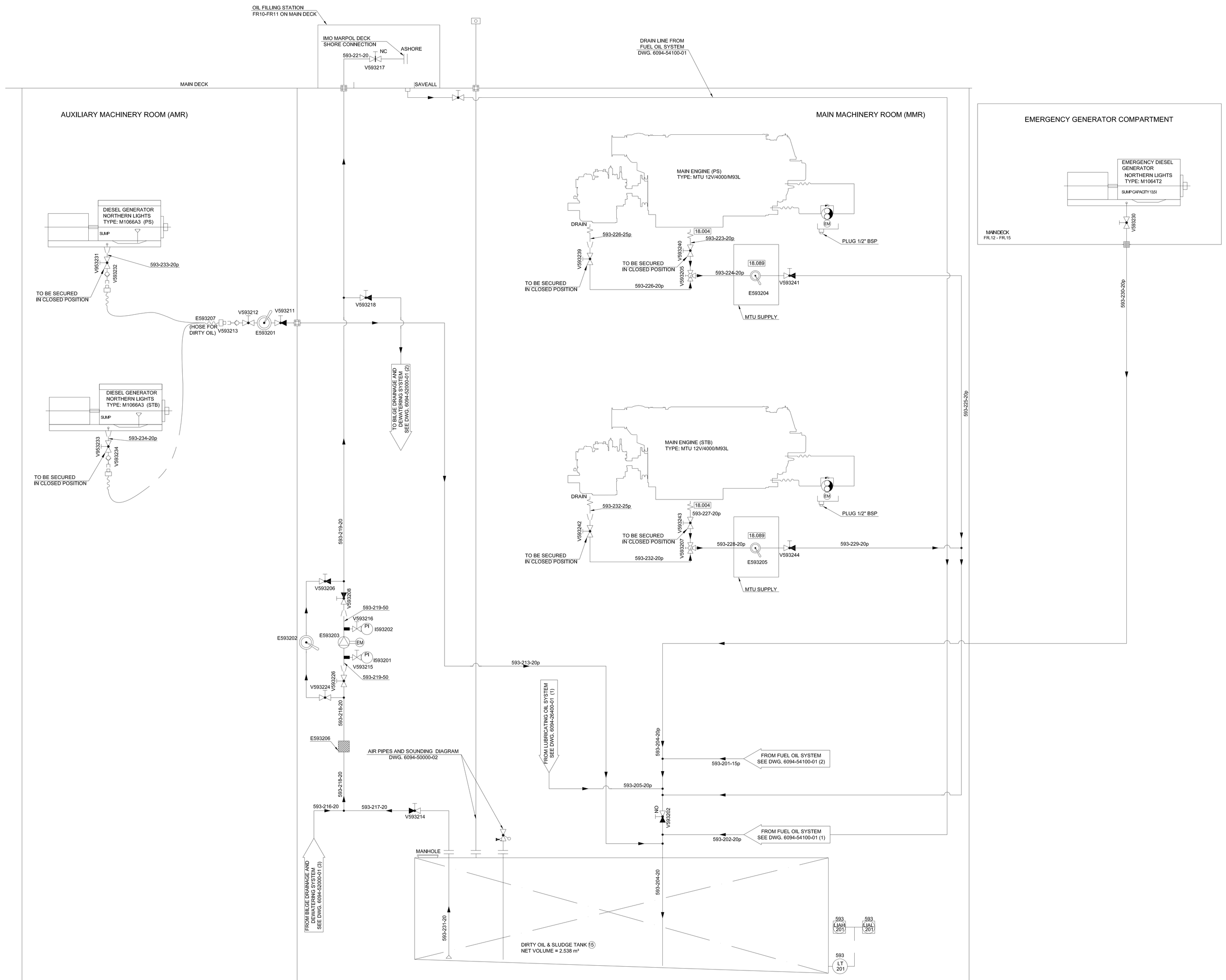

REFERENCE DRAWINGS

NO.	DRAWING TITLE	DRAWING NUMBER
1	GENERAL ARRANGEMENT PLAN	6094-89940-01
2	TANK ARRANGEMENT PLAN AND CAPACITY PLAN	6094-89940-02
3	BILGE DRAINAGE AND DEWATERING SYSTEM	6094-52000-01
4	LUBRICATING OIL SYSTEM	6094-26400-01
5	FUEL OIL SYSTEM	6094-54100-01
6	AIR PIPES AND SOUNDING DIAGRAM	6094-50000-02

PIPE DIMENSIONS

PIPE CODE	PIPE SIZE	STANDARD	MATERIAL	REMARKS	JOINTS
15p	18 x 2.0	DIN2391	CARBON STEEL	-	COMPRESSION FITTINGS
25p	28 x 2.0	DIN2391	CARBON STEEL	-	
20p	22 x 2.0	DIN2391	CARBON STEEL	-	
20	26.9 x 3.2	DIN2448	CARBON STEEL	-	FLANGED
50	60,3 x 3,6	DIN2448	CARBON STEEL	-	

VALVE MATERIALS

ND	NP	TEMP	VALVE TYPE	MATERIAL		L.R. CERT.
				BODY	TRIM	
20	16	40	GLOBE VALVE	BRONZE	BRONZE DISC AND SEAT, BRASS STEM	NO
20	16	40	SDNR GLOBE VALVE	BRONZE	BRONZE DISC AND SEAT, BRASS STEM	NO
20	16	40	GATE VALVE	BRONZE	BRONZE WEDGE AND STEM	NO
20	16	40	3 WAY BALL VALVE	ST. STEEL	ST. STEEL BALL AND STEM	NO

EQUIPMENT TABLE

ITEM	DESCRIPTION	CHARACTERISTICS	REMARKS
E593203	DIRTY OIL TRANSFER ELECTRIC PUMP	Q=1.5 m³/h, H=30 m, P=2.5 KW	
E593201 E593202	DIRTY OIL TRANSFER MANUAL PUMP	Q=abt.1.0m³/h	
E593204 E593205	DRAIN PUMP	Q=24 l/min	MTU SUPPLY
E593206	DIRTY OIL TRANSFER FILTER	ND20, max 13,8 bar at 37,8°C, 50 µm MESH	
E593207	HOSE FOR DIRTY OIL	3/4", L=3 m	QUICK CONNECT COUPLINGS

TESTS TABLE

ITEM	DESIGN PRESSURE (bar)	ON WORKSHOP (bar)	ON BOARD (bar)
PIPES	4.5	-	TIGHTNESS TEST AND TEST FOR LEAKAGE UNDER OPERATIONAL CONDITIONS TO BE CONDUCTED IN THE PRESENCE OF L.R. SURVEYOR

MTU CONNECTIONS

ITEM	DESCRIPTION	SIZE	REMARKS
18.004	OIL EXTRACTION CONNECTION	ND 20	-
18.089	LUBE OIL HAND PUMP	-	-

LEGEND:

	SCREW PUMP		SELF CLOSING SOUNDING VALVE WITH TEST VALVE		FLANGE CONNECTION
	PUMP		PRESSURE GAUGE COCK		SHORE CONNECTION
	MANUAL PUMP		TANK VENT CHECK VALVE WITH AUTOMATIC CLOSING APPLIANCE		PIPE CROSSOVER
EM	ELECTRIC MOTOR		REDUCTION PIECE		PIPE BRANCH
	FILTER		PIPE PENETRATION		PIPE FLOW DIRECTION
	GLOBE VALVE		PIPE SOCKET	PI	PRESSURE INDICATOR
	GATE VALVE		SUCTION FUNNEL	LT	LEVEL TRANSMITTER
	SDNR GLOBE VALVE		QUICK RELEASE COUPLING	LAH	LEVEL INDICATION ALARM HIGH
	SAFETY VALVE		HOSE	LAL	LEVEL INDICATION ALARM LOW
	3 WAY BALL VALVE		FLEXIBLE JOINT		SAVEALL WITH DRAIN PLUG

LAST PIPE: 593-234
LAST VALVE: V593244

NOTES:

1. All piping must be routed so that it is protected against mechanical and vibration damage.
2. All piping must be installed tension free.
3. Pipes installed in way of removal routes to be easily removable.
4. Valves in engine rooms must be grouped and placed in an accessible position.
5. Do not place flanges and/or coupling behind or above walls, ceiling or electric boxes.
6. Deleted.
7. Pipe systems shall be identified in accordance with the colour coding standard for piping systems CCGS 30-000-000-ES-TE-001.
8. Securing and clamping of all pipework is to be in accordance with shipyard standard practice.
9. Pipes are to be cleaned following completion of welding and mounting and thereafter all open ends are to be sealed in order to prevent ingress of dirt and rubbish.
10. For pipes smaller than ND40, threaded connections may be used only where it is acceptable to the Classification Society.
11. Deleted.
12. Deleted.
13. All open ends of pipes must be blanked-off during transport operations, preferably with blank flanges. Falling that they are to be blanked-off using plugs.
14. Pipework connected to equipment must be fitted with nearby flanges in order to enable easy dismounting equipment.
15. In the machinery room all pipe lengths are to be of manageable lengths and easy removable.
16. Pipe runs should not be routed under small hatches. In the event that there is no alternative then they are to be manufactured and installed in easily removable lengths.
17. Deleted.
18. Deleted.
19. Reducers and pipe elbows are to be located at a minimum distance of L>5xND of pump suction connection, if is possible.
20. Pipe penetrations may be either sleeved or flanged.
21. In accordance with LR 'special service craft', Part. 15, Ch. 1 Section 3, Table 1.3.1 the system is Class III (p<7 bar)
22. Pipes with gravitational flow which are installed horizontally shall have a 1:5 slope.
23. Deleted.
24. Dirty oil hose will be as short as possible and will be stowed in Auxiliary Machinery Room, in a safe position. The storage position will be approved by Lloyd's at pipe execution.
25. Emergency STOP push button for Dirty Oil Transfer Pump is placed on Main Deck near Oil Filling Station, see dwg. 6094-43600-03.
26. Plugs for saveall will be provided if are not existing in ME description.
27. All valves shall have bilingual brass label plates securely attached to them in accordance with ASTM F992-86 (2006) 'Standard Specification for Valve Label Plates'.
28. Contents of all savealls with drain plug will be collected into a collection container and will be poured into fuel oil tank dewatering funnel V541052.

Rev	Date	Description	Perform	Check	Appr.
0	05/05/2011	ISSUED FOR CONSTRUCTION	M.Samoila	S.Hanganu	M.Mocanu

Client: CANADIAN COAST GUARD

ICE international contract engineering

IRVING IRVING SHIPBUILDING INC.

P.O. Box 9110, 3099 Barrington Street, Halifax NS, Canada B3K 5M7,Tel: 902.423.9271, Fax: 902.429.4510

Title: OILY WASTE SYSTEM

MID-SHORE PATROL VESSEL

Scale:	Size:	Project No:
NTS	A0	6094
Drawn by: M.Samoila	Checked by: S.Hanganu	Dwg. date: 05/05/2011
Draw.no: 6094-59300-04		Rev. 0
Contract No. F7045-06001/002/NQ	Proj.	Sheet: 1 of 1

© IRVING SHIPBUILDING INC. 2009

The information and data contained herein are proprietary to Irving Shipbuilding Inc. and are not to be copied, reproduced, duplicated or disclosed to others, in whole or in part, without prior written consent of Irving Shipbuilding Inc.

File name:6094-52000-04_01 OILY WASTE SYSTEM.dwg