X= DIMENSION BELOW DECK ABOVE

PENETRATION LIST

REF	HOLE SIZE	CENTRE OF HOLE DIMENSIONS ATHWARTSHIPS	HEIGHT A/B	LONGITUDINAL	STRUCTURE PENETRATED	LINE DESCRIPTION	PIPE No
P1	7"x3"	1'-0" TO PORT	X=1'-3"	FRAME 61	W/T BHD	CONTROL ROOM DISCHARGE MANIFOLD	—
P2	3"	6'-0" TO STBD	X=2'-3"	FRAME 30	W/T BHD	↓	
P3	7"x3"	1'-0" STBD	MAIN DECK	8" FWD FRM #18	MAIN DECK	CO2 TO CONTROL ROOM MANIFOLD AND SIRENS	
P5	13/16" DRILL	7'-6" TO STBD	X=2'-3"	FRAME 30	W/T BHD	CONTROL ROOM SIREN PIPING	
P6	7"x3"	3'-0" PORT	X=1'-0"	FRM #21	G/T BHD	CO2 TO REFRIGERATED CARGO SPACE	
P7	13/16" DRILL	11'-10" STBD	X=1'-10"	FRM #30	W/T BHD	TUBING TO ACTUATORS	
P8	13/16" DRILL	10'-10" STBD	X=1'-10"	FRM #33	BHD		
P9	13/16" DRILL	10'-10" STBD	X=1'-10"	FRM #61	W/T BHD	↓	
P10	7"x3"	3'-0" PORT	MAIN DECK	8" FWD FRM #165	MAIN DECK	CO2 TO BOWTHRUSTER COMPT	
P11	3"	3'-0" PORT	17'-0" FLAT	8" FWD FRM #165	17'-0" FLAT	↓	
P12	7"x3"	3'-0" PORT	X=1'-0"	FRM #5	W/T BHD	CO2 TO STEERING GEAR COMPT	
P13	7"x3"	3'-0" PORT	MAIN DECK	6" FWD FRM #166	MAIN DECK	CO2 TO FORWARD CARGO HOLD	
P14	7"x3"	8'-10" PORT	X=2'-0"	FRM #165	W/T BHD	↓	
P15	13/16" DRILL	16'-11" PORT	X=1'-0"	FRM #3	G/T BHD	CO2 TO CONTROL ROOM SIRENS	
P16	7"x3"	15'-0" PORT	X=1'-0"	FRM #3	G/T BHD	CO2 TO CONTROL ROOM AND GENERAL STORES MANIFOLD	
P17	13/16" DRILL	13'-2" PORT	X=1'-0"	FRM #3	G/T BHD	TUBING TO GENERAL STORES ACTUATOR	
P18	13/16" DRILL	12'-2" STBD	X=1'-10"	FRM #30	W/T BHD	TUBING TO ACTUATORS	
P19	13/16" DRILL	11'-2" STBD	X=1'-10"	FRM #33	BHD	↓	↓

PENETRATION LIST

REF	HOLE SIZE	CENTRE OF HOLE DIMENSIONS ATHWARTSHIPS	HEIGHT A/B	LONGITUDINAL	STRUCTURE PENETRATED	LINE DESCRIPTION	PIPE No
P20	13/16" DRILL	11'-2" STBD	X=1'-10"	FRM #61	W/T BHD	PIPING TO ACTUATORS	—
P21	13/16" DRILL	16'-7" PORT	X=1'-0"	FRM #3	G/T BHD	CO2 TO GENERAL STORES SIREN	
P22	13/16" DRILL	12'-10" PORT	X=1'-0"	FRM #3	G/T BHD	TUBING TO CONTROL ROOM ACTUATOR	
P23	13/16" DRILL	6'-9" STBD	X=1'-10"	FRM #146	G/T BHD	3/8" COPPER TUBING TO #4 A/C PLANT RM SIREN	
P24	3"	4'-6" STBD	X=1'-10"	FRM #146	G/T BHD	1/2" PIPE TO #4 A/C PLANT RM NOZZLE	
P25	3"	6'-9" STBD	X=3'-6"	FRM #146	G/T BHD	1/2" PIPE TO #4 A/C PLANT RM HEADER SAFETY	↓

PENETRATION LIST

REF	HOLE SIZE	CENTRE OF HOLE DIMENSIONS ATHWARTSHIPS	HEIGHT A/B	LONGITUDINAL	STRUCTURE PENETRATED	LINE DESCRIPTION	PIPE No

LEGEND

REF No	NAME OF PART	SUPPLIER	PART No
1	100# CO2 CYLINDER	AUTOMATIC SPRINKLER	46244
2	75# CO2 CYLINDER		46242
3	50# CO2 CYLINDER		46240
4	CYLINDER SADDLES		
5	SUPPORT CHANNELS & STRAPS		50lb #45244 & 45120; 75lb #45261 & 45121; 100lb #45245 & 45122
6	CENTRE CLAMPS		45118
7	SINGLE OR DOUBLE ROW BOLTS		75lb #40936 / 100lb #40367
8	100# CYLINDER AP-8 VALVE		42415
9	75# CYLINDER AP-8 VALVE		42415
10	50# CYLINDER AP-8 VALVE		42415
12	REMOTE PRESSURE ATTATCHMENT		42510
13	CONNECTING LINK		(100# CYL 42514) (75# CYL 42511)
14	1/16" CABLE CLAMP c/w MONEL CABLE		45333
15	FLARED END FITTING		40060
16	CORNER PULLEY		42678
17	PULL STATION		45062
18	FLEXIBLE DISCHARGE BEND		42424
19	Y-MANIFOLD		(1/2" MAIN) #40565
20	1/2" NPT VENT PLUG		40309
21	1/2" NPT HEADER SAFETY		40094
22	5lb CO2 ACTUATOR CYLINDER		52043
23	5lb CO2 CYLINDER BRACKET		33813
24	PRESSURE DIRECTION VALVE		46195
25	PRESSURE OPERATED SIREN		43118
26	PNUEMATIC SWITCH		46250
27	3/4" 20 SEC TIME DELAY VALVE		41734 LEFT HAND OUTLET
28	3/4" RELAY VALVE (CAN BE REMOTELY OPERATED)		41702
29	1/2" CHECK VALVE		40860
30	1/4" CHECK VALVE		25627
31	1/4" BALL VALVE		08421
11	MANUAL LEVER RELEASE		NO HANDLE, NO PIN #42486
32	MANUAL LEVER RELEASE		WITH HANDLE, AND PIN #42484
33	MANUAL LEVER RELEASE		WITH HANDLE, NO PIN #42485
34	MAINTENENCE PLATE		41917
35	3/4" 20 SEC TIME DELAY VALVE		41718 RIGHT HAND OUTLET
36	STOP VALVE		

NOTES

1) PART Nos REFERENCED TO LEGEND IN ZONE 16
2) NOTES ON DWG #68-2430-1 "ARRGT OF CO2 SYSTEM - ENGINE ROOMS" APPLY TO THIS DRAWING.

~~1) FORWARD CARGO HOLD, STEERING GEAR COMPARTMENT AND GENERAL STORES CO2 SYSTEMS IN ABEYANCE PENDING LINE SIZE CONFIRMATION FROM "AUTOMATIC SPRINKLER".~~

C.G.S.I APPROVAL OF CO2 SYSTEM IS REQUIRED BEFORE INSTALLATION IS COMMENCED. DATE OF APPROVAL - 13/5/82

APPROVALS

OWNER	LLOYDS	A.B.S.	C.S.I.	AUTOMATIC SPRINKLER
26/4/82	6 AUG 82		13/5/82	21/4/82

PORT WELLER DRY DOCKS AS FITTED DRAWING

DRG. No. 68-2430-3 ALT. E

ARRANGEMENT OF CO2 SYSTEM - O.M.S.

SCALE: NONE A/C# 2430

HULL No. 68

DRAWN BY: H NEUFELD DATE: 12/3/82

APPROVED BY: G. Perry

PORT WELLER DRY DOCKS
A DIVISION OF UPPER LAKES SHIPPING LTD.
ST. CATHARINES ONTARIO L2R 7C1

DRG No. 68-2430-3 O.M.S.