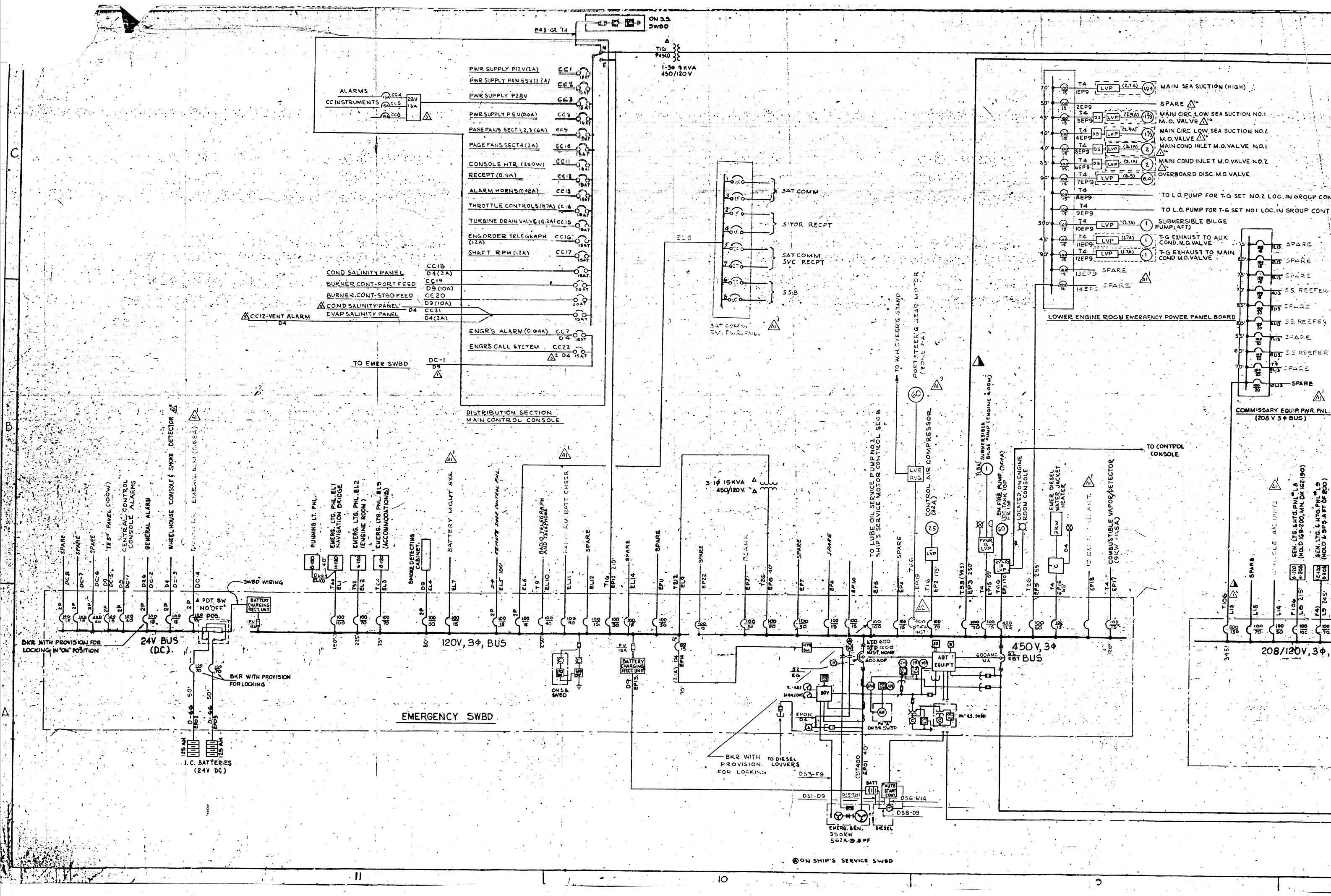
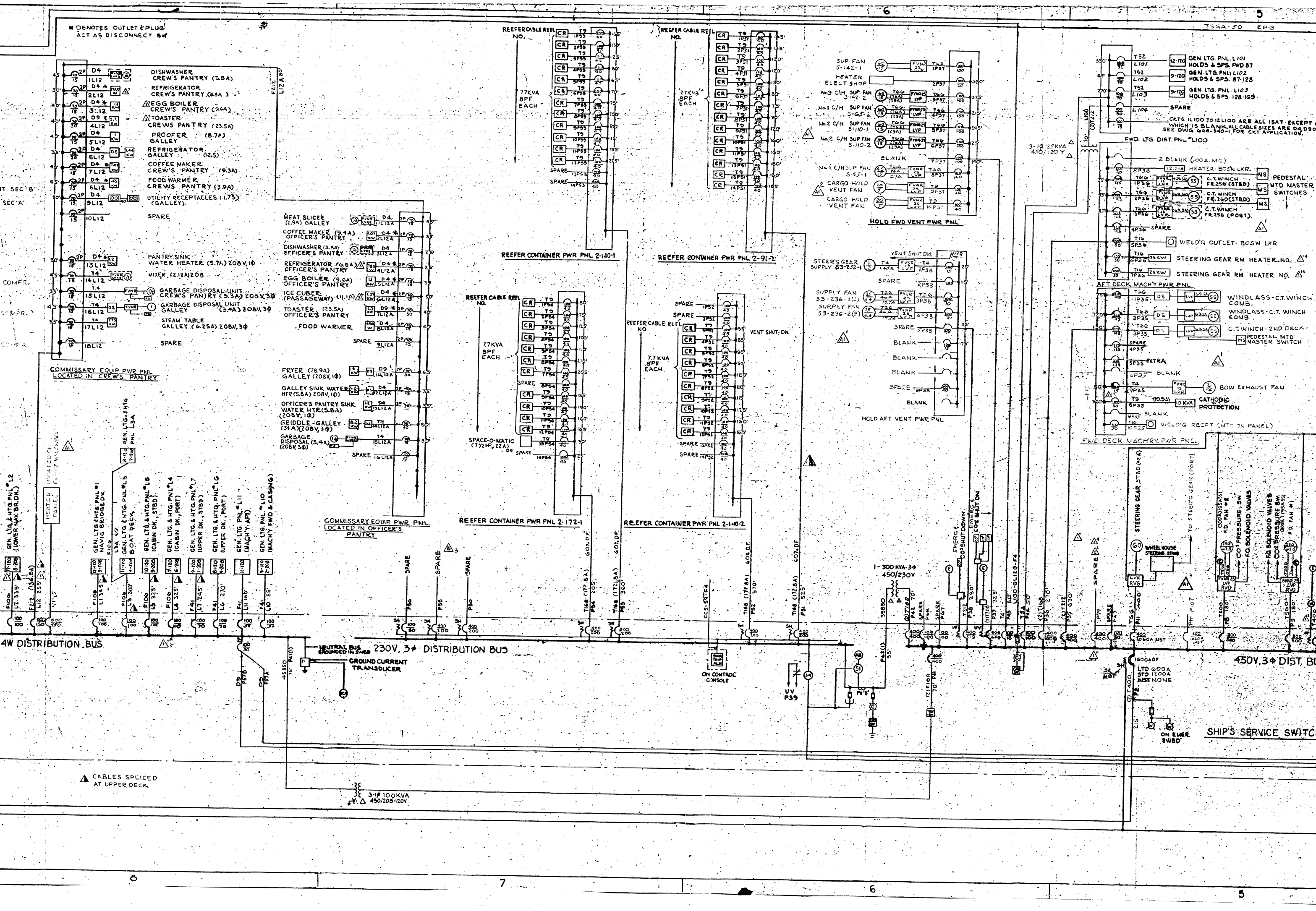
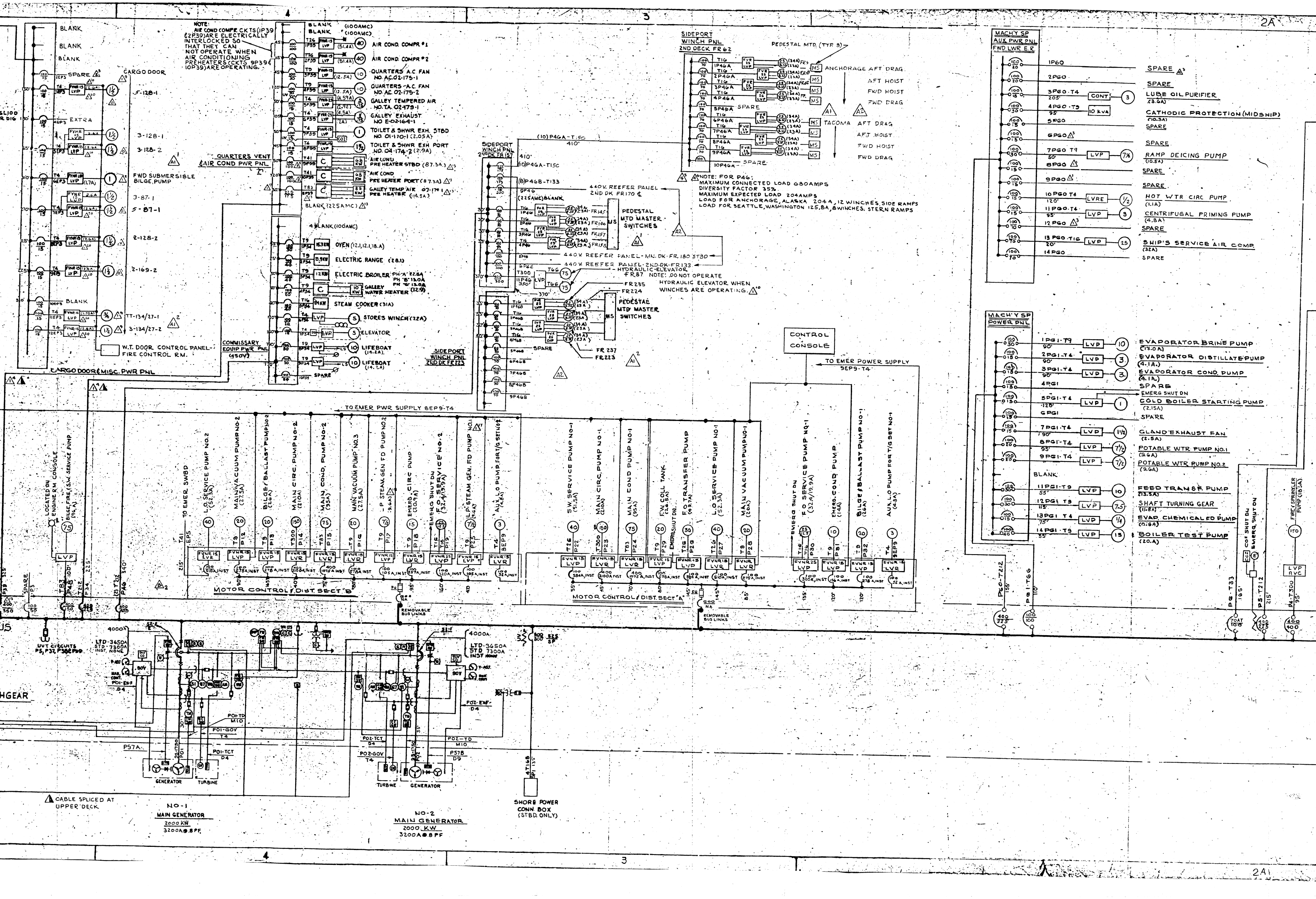

C
B
A
ON S.S. SWBD
P43-GL
T1G
1-3Φ 9 KVA 450/120V
ALARMS
CC INSTRUMENTS
CC4
CC5
CC8
28V 13A
PWR SUPPLY P12V(2A) CC1
PWR SUPPLY PEN SSV(2.2A) CC2
PWR SUPPLY P28V CC3
PWR SUPPLY P S V(0.6A) CC6
PAGE FANS SECT 1,2,3 (6A) CC9
PAGE FANS SECT 4 (2A) CC10
CONSOLE HTR (250W) CC11
RECEPT (0.9A) CC12
ALARM HORNS (0.48A) CC13
THROTTLE CONTROLS (8.7A) CC14
TURBINE DRAIN VALVE (0.7A) CC15
ENG ORDER TELEGRAPH (1.2A) CC16
SHAFT RPM (1.2A) CC17
COND SALINITY PANEL CC18 D4(2A)
BURNER CONT-PORT FEED CC19 D9(10A)
BURNER CONT-STBD FEED CC20 D9(10A)
COND SALINITY PANEL CC21 D4
EVAP SALINITY PANEL D4(2A)
CC12-VENT ALARM D4
ENGR'S ALARM (0.64A) CC7 D4
ENGR'S CALL SYSTEM CC22 D4
TO EMER SWBD DC-1 D9
DISTRIBUTION SECTION MAIN CONTROL CONSOLE
SAT COMM
S'TOR RECPT
SAT COMM SVC RECPT
SSB
SAT COMM SVC PWR PNL
EL6
TO W.H. STEER'G STAND
PORT STEER'G GEAR MOTOR (ZONE 5A)
MAIN SEA SUCTION (HIGH)
SPARE
MAIN CIRC. LOW SEA SUCTION NO.1 M.O. VALVE
MAIN CIRC. LOW SEA SUCTION NO.2 M.O. VALVE
MAIN COND INLET M.O. VALVE NO.1
MAIN COND INLET M.O. VALVE NO.2
OVERBOARD DISC. M.O. VALVE
TO L.O. PUMP FOR T-G SET NO.2 LOC. IN GROUP CON
TO L.O. PUMP FOR T-G SET NO.1 LOC. IN GROUP CONT
SUBMERSIBLE BILGE PUMP (AFT)
T-G EXHAUST TO AUX COND. M.O. VALVE
T-G EXHAUST TO MAIN COND M.O. VALVE
LVP
1EP9 2EP9 3EP9 4EP9 5EP9 6EP9 7EP9 8EP9 9EP9 10EP9 11EP9 12EP9 13EP9 14EP9
LOWER ENGINE ROOM EMERGENCY POWER PANEL BOARD
SPARE
S.S. REEFER
COMMISSARY EQUIP. PWR. PNL. (208 V 3Φ BUS)
TO CONTROL CONSOLE
SPARE
SPARE
SPARE
TEST PANEL (100W)
CENTRAL CONTROL CONSOLE ALARMS
GENERAL ALARM
WHEEL HOUSE CONSOLE & SMOKE DETECTOR
ENGINEERS EMERG ALM (0.68A)
DC-8 DC-7 DC-6 DC-5 DC-1 DC-2 DC-3 DC-4 D4
RUNNING LT. PNL.
EMERG. LTG. PNL. EL1 NAVIGATION BRIDGE
EMERG. LTG. PNL. EL2 (ENGINE ROOM)
EMERG. LTG. PNL. EL3 (ACCOMMODATIONS)
SMOKE DETECTING CABINET
BATTERY LIGHT SYS.
REMOTE DOOR CONTROL PNL.
RADIO TELEGRAPH AND TELEPHONE
RADIO EM'BATT CHGER
SPARE
3-Φ 15KVA 450/120V
SPARE
BLANK
SPARE
SPARE
TO LUBE OIL SERVICE PUMP NO.2 SHIP'S SERVICE MOTOR CONTROL SEC B
SPARE
CONTROL AIR COMPRESSOR (52A)
SUBMERSIBLE BILGE PUMP (ENGINE ROOM)
EM FIRE PUMP LOC. TANK TOP
LOCATED ON ENGINE ROOM CONSOLE
EMER. DIESEL WATER JACKET HEATER
IC CKT HEAT
COMBUSTIBLE VAPOR DETECTOR (9KW - 11.5A)
CONSOLE A/C UNITS
GEN. LTG. & HTG. PNL. L8 (HOLD 169-200, MN. DK. 142-190)
GEN. LTG. & HTG. PNL. L9 (HOLD & 3P3 AFT OF 200)
SWBD WIRING
BATTERY CHARGING RECT. UNIT
4 PDT SW "NO" "OFF" POS.
BKR WITH PROVISION FOR LOCKING IN "ON" POSITION
24V BUS (DC)
120V, 3Φ, BUS
450V, 3Φ BUS
208/120V, 3Φ,
BKR WITH PROVISION FOR LOCKING
ON S.S. SWBD
BATTERY CHARGING RECT. UNIT
D9 EP13
EMERGENCY SWBD
I.C. BATTERIES (24V DC)
125 AH
D-69 D-66
600AMC
ABT EQUIP'T
LTD 600 STD 1200 INST NONE
600AOF
BKR WITH PROVISION FOR LOCKING
TO DIESEL LOUVERS
DS3-F9
DS1-D9
DS5-T217
DS6-M14
DS8-D9
BATT
AUTO START CONT
EMERG. GEN. 350KW 562A @.8PF
DIESEL
EP01
ON S.S. SWBD
Ⓐ ON SHIP'S SERVICE SWBD
11
10
9



6
5
TSGA-50 EP-3
* DENOTES OUTLET & PLUG ACT AS DISCONNECT SW
DISHWASHER CREW'S PANTRY (5.8A)
REFRIGERATOR CREW'S PANTRY (6.8A)
EGG BOILER CREW'S PANTRY (9.6A)
TOASTER CREWS PANTRY (23.5A)
PROOFER GALLEY (8.7A)
REFRIGERATOR GALLEY (12.5)
COFFEE MAKER CREW'S PANTRY (9.3A)
FOOD WARMER CREWS PANTRY (3.9A)
UTILITY RECEPTACLES (1.7A) (GALLEY)
SPARE
PANTRY SINK WATER HEATER (5.7A) 208V, 1Φ
MIXER (2.12A) 208
GARBAGE DISPOSAL UNIT CREW'S PANTRY (5.3A) 208V, 3Φ
GARBAGE DISPOSAL UNIT GALLEY (3.4A) 208V, 3Φ
STEAM TABLE GALLEY (6.25A) 208V, 3Φ
SPARE
COMMISSARY EQUIP PWR PNL LOCATED IN CREWS PANTRY
MEAT SLICER (2.9A) GALLEY
COFFEE MAKER (9.4A) OFFICER'S PANTRY
DISHWASHER (5.8A) OFFICER'S PANTRY
REFRIGERATOR (6.8A) OFFICER'S PANTRY
EGG BOILER (9.6A) OFFICER'S PANTRY
ICE CUBER (PASSAGEWAY) (11.1A)
TOASTER (23.5A) OFFICER'S PANTRY
FOOD WARMER
SPARE
FRYER (28.9A) GALLEY (208V, 1Φ)
GALLEY SINK WATER HTR (5.8A) 208V, 1Φ
OFFICER'S PANTRY SINK WATER HTR (5.8A) (208V, 1Φ)
GRIDDLE-GALLEY (34A) (208V, 3Φ)
GARBAGE DISPOSAL (5.4A) (208V, 3Φ)
SPARE
COMMISSARY EQUIP PWR PNL LOCATED IN OFFICER'S PANTRY
REEFER CABLE REEL NO.
7.7KVA 8PF EACH
REEFER CONTAINER PWR PNL 2-140-1
REEFER CONTAINER PWR PNL 2-91-2
REEFER CONTAINER PWR PNL 2-172-1
REEFER CONTAINER PWR PNL 2-140-2
SPACE-O-MATIC (7 1/2HP, 22A)
VENT SHUT DN.
SUP FAN 5-142-1
HEATER ELECT SHOP
No.3 C/H SUP FAN 5-142-2
No.1 C/H SUP FAN 5-65-2
No.2 C/H SUP FAN 5-110-1
No.2 C/H SUP FAN 5-110-2
No.1 C/H SUP FAN 5-65-1
2 CARGO HOLD VENT FAN
CARGO HOLD VENT FAN
BLANK
HOLD FWD VENT PWR PNL
STEER'G GEAR SUPPLY 53-2/2-1
SUPPLY FAN 53-236-1(S)
SUPPLY FAN 53-236-2(P)
SPARE
BLANK
HOLD AFT VENT PWR PNL
GEN. LTG. PNL. L101 HOLDS & SPS. FWD 87
GEN. LTG. PNL. L102 HOLDS & SPS. 87-128
GEN. LTG. PNL. L103 HOLDS & SPS. 128-169
SPARE
CKTS L100 TO 12 L100 ARE ALL 15AT EXCEPT WHICH IS BLANK. ALL CABLE SIZES ARE D4 D90 SEE DWG 686-340-1 FOR CKT APPLICATION.
FWD. LTG. DIST. PNL. L100
3-1Φ 25KVA 450/120 Y
2 BLANK (100A. MC)
HEATER-BOS'N LKR.
C.T. WINCH FR 256 (STBD)
C.T. WINCH FR 290 (STBD)
C.T. WINCH FR 256 (PORT)
PEDESTAL MTD MASTER SWITCHES
SPARE
WELD'G OUTLET-BOS'N LKR
STEERING GEAR RM HEATER NO.
STEERING GEAR RM HEATER NO.
AFT DECK MACH'Y PWR PNL
WINDLASS-C.T. WINCH COMB.
WINDLASS-C.T. WINCH COMB
C.T. WINCH-2ND DECK
PEDESTAL MTD MASTER SWITCH
EXTRA
BLANK
BOW EXHAUST FAN
CATHODIC PROTECTION
WELD'G RECEPT (MTD ON PANEL)
FWD DECK MACH'RY PWR PNL.
GEN. LTG. & HTG. PNL. L2 (LOWER NAV. BR. DK.)
HEATER PANEL
GEN. LTG. & HTG. PNL. L1 NAVIG BRIDGE DK
GEN. LTG. & HTG. PNL. L3 BOAT DECK
GEN. LTG. & HTG. PNL. L5 (CABIN DK., STBD)
GEN. LTG. & HTG. PNL. L4 (CABIN DK., PORT)
GEN. LTG. & HTG. PNL. L7 (UPPER DK., STBD)
GEN. LTG. & HTG. PNL. L6 (UPPER DK., PORT)
GEN. LTG. PNL. L11 (MACH'Y AFT)
GEN. LTG. PNL. L10 (MACH'Y FWD & CASING)
SPARE
STEERING GEAR STBD
TO STEERING GEAR (PORT)
WHEEL HOUSE STEERING STAND
F.O. SOLENOID VALVES
CO2 PRESSURE SW.
EMERG. CO2 SHUTDOWN
4W DISTRIBUTION BUS
NEUTRAL BUS GROUNDED IN SWBD
230V, 3Φ DISTRIBUTION BUS
GROUND CURRENT TRANSDUCER
ON CONTROL CONSOLE
UV P39
1-300 KVA-3Φ 450/230V
450V, 3Φ DIST. BU
LTD 600A STD 1200A INST NONE
ON EMER SWBD
SHIP'S SERVICE SWITC
CABLES SPLICED AT UPPER DECK
3-1Φ 100KVA 450/208-120V
8
7
6
5



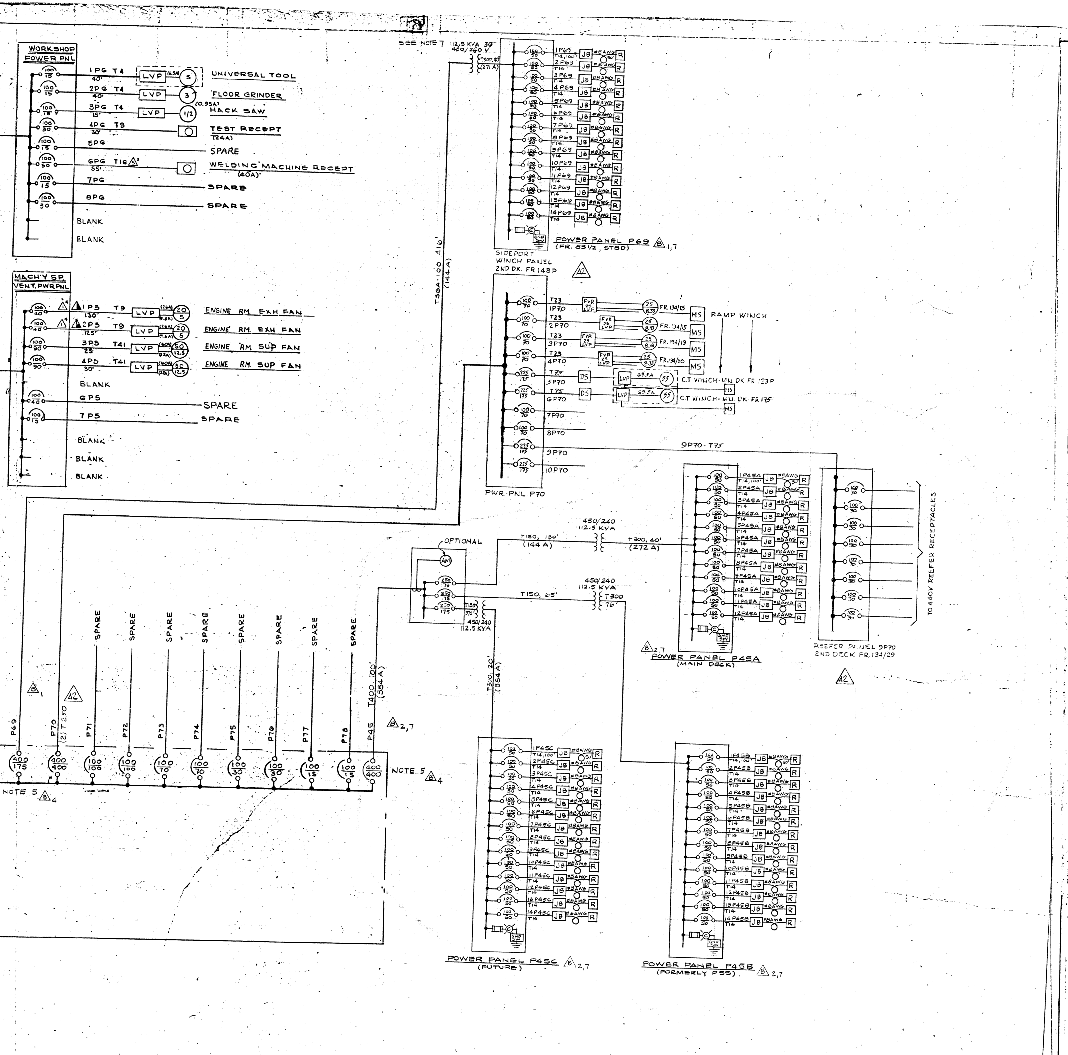
NOTE: AIR COND COMPR CKTS (1P39 & 2P39) ARE ELECTRICALLY INTERLOCKED SO THAT THEY CAN NOT OPERATE WHEN AIR CONDITIONING PREHEATERS (CKTS 9P39 & 10P39) ARE OPERATING.

NOTE: FOR P46:
MAXIMUM CONNECTED LOAD 680AMPS
DIVERSITY FACTOR 35%
MAXIMUM EXPECTED LOAD 204AMPS
LOAD FOR ANCHORAGE, ALASKA 204A, 12 WINCHES, SIDE RAMPS
LOAD FOR SEATTLE, WASHINGTON 125.8A, 8 WINCHES, STERN RAMPS

NOTE: DO NOT OPERATE HYDRAULIC ELEVATOR WHEN WINCHES ARE OPERATING.

CABLE SPLICED AT UPPER DECK

4
3
2A
BLANK
BLANK
BLANK
SPARE
EXTRA
CARGO DOOR
5-128-1
3-128-1
3-128-2
FWD SUBMERSIBLE BILGE PUMP
3-87-1
5-87-1
2-128-2
2-169-2
TT-134/27-1
3-134/27-2
W.T. DOOR CONTROL PANEL-FIRE CONTROL RM.
CARGO DOOR & MISC. PWR PNL
SL100
R DIG
FVNR-15 LVP
QUARTERS VENT & AIR COND PWR PNL
BLANK (100AMC)
AIR COND. COMPR #1
AIR COND. COMPR #2
QUARTERS A.C. FAN NO. AC.02-175-1
QUARTERS A.C. FAN NO. AC. 02-175-2
GALLEY TEMPERED AIR NO. TA. 02-179-1
GALLEY EXHAUST NO E-02-164-1
TOILET & SHWR EXH. STBD NO. 01-170-1 (2.05A)
TOILET & SHWR EXH PORT NO. 04-174-2 (2.9A)
AIR COND PRE HEATER STBD (87.3A)
AIR COND PRE HEATER PORT (87.3A)
GALLEY TEMP AIR 07-179-1 PRE HEATER (14.5A)
BLANK (225AMC)
4 BLANK (100AMC)
OVEN (12.1, 12.1, 18.A)
ELECTRIC RANGE (28.1)
ELECTRIC BROILER PH "A" 22.6A PH "B" 13.0A PH "C" 13.0A
GALLEY WATER HEATER (12.9)
STEAM COOKER (31A)
STORES WINCH (22A)
ELEVATOR
LIFEBOAT (14.2A)
LIFEBOAT (14.2A)
SPARE
COMMISSARY EQUIP PWR PNL (450V)
SIDEPORT WINCH PNL 2ND DK FR223
SIDEPORT WINCH PNL 2ND DK FR157
(10) P46A-T150 410'
(10) P46A-T150
(8) P46B-T133
9P46
(225AMC) BLANK
440V. REEFER PANEL 2ND DK FR170 ℄
PEDESTAL MTD MASTER SWITCHES
440V. REEFER PANEL-MN. DK-FR. 180 STBD
440V. REEFER PANEL-2ND-DK-FR133
HYDRAULIC ELEVATOR FR87
FR145
FR146
FR157
FR158
FR235
FR224
FR 237
FR223
1P46B
2P46B
3P46B
4P46B
5P46B
6P46B
7P46B
8P46B
9P46B
SIDEPORT WINCH PNL 2ND DECK FR62
PEDESTAL MTD. (TYP 8)
1P46A
2P46A
3P46A
4P46A
5P46A SPARE
6P46A
7P46A
8P46A
9P46A
10P46A SPARE
ANCHORAGE AFT DRAG
AFT HOIST
FWD HOIST
FWD DRAG
TACOMA AFT DRAG
AFT HOIST
FWD HOIST
FWD DRAG
MS
A1
A2
CONTROL CONSOLE
TO EMER POWER SUPPLY 9EP9-T4
TO EMER PWR SUPPLY 8EP9-T4
MACH'Y SP AUX PWR PNL FWD LWR E.R.
1P60 SPARE
2PG0 SPARE
3PG0-T4 205' CONT LUBE OIL PURIFIER (3.6A)
4PG0-T9 95' 10 KVA CATHODIC PROTECTION (MIDSHIP) (10.3A)
5PG0 SPARE
6PG0 SPARE
7PG0 T9 50' LVP RAMP DEICING PUMP (10.5A)
8PG0 SPARE
9PG0 SPARE
10PG0 T4 120' LVRE HOT WTR CIRC PUMP (1.1A)
11PG0-T4 95' LVP CENTRIFUGAL PRIMING PUMP (4.8A)
12PG0 SPARE
13PG0-T16 20' LVP SHIP'S SERVICE AIR COMP. (32A)
14PG0 SPARE
MACH'Y SP POWER PNL
1PG1-T9 90' LVP EVAPORATOR BRINE PUMP (13.0A)
2PG1-T4 90' LVP EVAPORATOR DISTILLATE PUMP (4.1A.)
3PG1-T4 90' LVP EVAPORATOR COND. PUMP (4.1A.)
4PG1 SPARE
EMERG SHUT DN
5PG1-T4 120' LVP COLD BOILER STARTING PUMP (2.15A)
6PG1 SPARE
7PG1-T4 90' LVP GLAND EXHAUST FAN (2.5A)
8PG1-T4 95' LVP POTABLE WTR PUMP NO.1 (9.6A)
9PG1-T4 LVP POTABLE WTR PUMP NO.2 (9.6A)
BLANK
11PG1-T9 55' LVP FEED TRANSF. PUMP (13.5A)
12PG1 T9 115' LVP SHAFT TURNING GEAR (11.8A)
13PG1 T4 75' LVP EVAP. CHEMICAL FD PUMP (0.8A)
14PG1-T9 55' LVP BOILER TEST PUMP (20.A)
CO2 SHUT DN
EMERG. SHUT DN
FIRE & SPRINKLER PUMP (183A)
LVP RVC
PG0-T212
PG1-T66
PG-T33
PS-T212
P4-T300
LOCATED ON ENGINE RM CONSOLE
BILGE, FIRE & S.W. SERVICE PUMP (96.A)
LVP
TO EMER SWBD
T41 EP5
L.O. SERVICE PUMP NO.2 (52.3A)
MAIN VACUUM PUMP NO-2 (27.5A)
BILGE & BALLAST PUMP NO.2 (26A)
MAIN CIRC. PUMP NO-2 (210A)
MAIN COND. PUMP NO-2 (95A)
MAIN VACUUM PUMP NO.3 (27.5A)
L.P. STEAM GEN FD PUMP NO.2 (9.6A)
EMERG. CIRC PUMP (20.9A)
EMERG SHUT DN
F.O. SERVICE NO.2 (32.4/19.9A)
L.P. STEAM GEN. FD PUMP NO.1 (9.6A)
AUX. L.O PUMP FOR T/G SET NO.2 (4.8A)
MOTOR CONTROL & DIST. SECT "B"
S.W. SERVICE PUMP NO-1 (51.5A)
MAIN CIRC. PUMP NO-1 (210A)
MAIN COND PUMP NO-1 (95A)
F.W. COLL TANK (26.5A)
EMERG. SHUT DN.
F.O TRANSFER PUMP (49.7A)
L.O SERVICE PUMP NO-1 (52.3A)
MAIN VACUUM PUMP NO-1 (26A)
EMERG SHUT DN
F.O SERVICE PUMP NO-1 (32.4/19.9A)
EMERG. COND PUMP (14A)
BILGE & BALLAST PUMP NO-1 (26A)
AUX. L.O PUMP FOR T/G SET NO-1 (4.3A)
MOTOR CONTROL & DIST. SECT "A"
REMOVABLE BUS LINKS
FVNR 15 LVR
FVNR 15 LVP
FVNR 25 LVP
SPARE P3
T83 P48
T212 P34
(2) T212 P46
P39
US
UVT CIRCUITS P5, P37, P38 & P39
4000A
LTD-3650A STD-7300A INST. NONE
LTD-3650A STD 7300A INST NONE
HGEAR
90V
V-ADJ
MAN. CONT.
P01-EXF D4
P01-TD M10
P01-GOV T4
P01-TCT D4
P57A
95-1750 P01
GENERATOR
TURBINE
P02-EXF D4
P02-TCT D4
P02-TD M10
P02-GOV T4
P57B D9
95-1750 P02
NO-1 MAIN GENERATOR 2000 KW 3200A @ .8 PF
NO-2 MAIN GENERATOR 2000 KW 3200A @ .8 PF
800/800 52S SP
4T168 SP1 135'
SHORE POWER CONN BOX (STBD. ONLY)


SEE NOTE 7
112.5 KVA 3Ø
450/240 V
T300, 25'
(271 A)
WORKSHOP POWER PNL
1PG T4 LVP (6.5A) 5 UNIVERSAL TOOL
2PG T4 LVP 3 FLOOR GRINDER
3PG T4 LVP 1/2 HACK SAW
4PG T9 TEST RECEPT (24A)
5PG SPARE
6PG T16 WELDING MACHINE RECEPT (40A)
7PG SPARE
8PG SPARE
BLANK
BLANK
MACH'Y SP. VENT. PWR. PNL
1PS T9 LVP 20 ENGINE RM. EXH FAN
2PS T9 LVP 5 ENGINE RM. EXH FAN
3PS T41 LVP 50 ENGINE RM. SUP FAN
4PS T41 LVP 12.5 ENGINE RM. SUP FAN
BLANK
6PS SPARE
7PS SPARE
BLANK
BLANK
BLANK
TSGA-100 416' (144 A)
POWER PANEL P69 △B 1,7
(FR. 83 1/2, STBD)
SIDEPORT WINCH PANEL 2ND DK. FR 148P
△A2
1P69 … 14P69 T14 JB #8AWG R
T23 1P70 FVR 25 LVP 25 8.33 FR. 134/13 MS
T23 2P70 FVR 25 LVP 25 8.33 FR. 134/15 MS
T23 3P70 FVR 25 LVP 25 8.33 FR. 134/19 MS
T23 4P70 FVR 25 LVP 25 8.33 FR. 134/20 MS
RAMP WINCH
T75 5P70 DS LVP 69.5A 55 C.T WINCH-MN. DK FR 123P MS
T75 6P70 DS LVP 69.5A 55 C.T WINCH-MN. DK-FR 175 MS
7P70
8P70
9P70
10P70
PWR. PNL. P70
9P70-T75
OPTIONAL
AM
450/240 112.5 KVA
T150, 130' (144 A)
T300, 40' (272 A)
450/240 112.5 KVA
T150, 65'
T300 76'
T150 370'
450/240 112.5 KVA
T300, 20' (384 A)
1P45A … 12P45A T14, 100' JB #8AWG 50' R
△B 2,7
POWER PANEL P45A
(MAIN DECK)
TO 440V REEFER RECEPTACLES
REEFER PANEL 9P70
2ND DECK FR. 134/29
△A2
SPARE SPARE SPARE SPARE SPARE SPARE SPARE SPARE
P69 P70 (2) T 250 P71 P72 P73 P74 P75 P76 P77 P78 P45 T400, 100' (384 A)
△A2
△B 2,7
200/175 400/400 100/100 100/100 100/70 100/70 100/30 100/15 100/15 400/400
NOTE 5 △B 4
1P45C … 14P45C T14, 100' JB #8AWG R
POWER PANEL P45C △B 2,7
(FUTURE)
1P45B … 14P45B T14 JB #8AWG R
POWER PANEL P45B △B 2,7
(FORMERLY P55)

LEGEND

- AIR CIRCUIT BREAKER, ELECTRICALLY OPERATED
- AIR CIRCUIT BREAKER, MANUAL
- AIR CIRCUIT BREAKER, MOLDED CASE { *INST - MAGNETIC ONLY; *NA - NON-AUTOMATIC }

ALL BREAKERS ARE 3-POLE UNLESS OTHERWISE NOTED

- C CONTACTOR
- MOTOR, HP AS SHOWN
- MOTOR STARTER
  - RED. VOLT. - REDUCED VOLTAGE STARTING
  - FVNR-1S - FULL VOLTAGE, NON-REVERSIBLE, SINGLE SPEED
  - FVNR-2S - FULL VOLTAGE, NON-REVERSIBLE, TWO-SPEED
  - FVR-1S - FULL VOLTAGE, REVERSIBLE, SINGLE SPEED
  - LVP - LOW VOLTAGE PROTECTION
  - LVR - LOW VOLTAGE RELEASE
  - LVRE - LOW VOLTAGE RELEASE EFFECT
- PUSHBUTTON, EMERG. STOP
- PUSHBUTTON, TWO ELEMENT, MOM. CONTACT
- PUSHBUTTON, THREE ELEMENT, MOM. CONTACT
- PUSHBUTTON, ONE ELEMENT, MAINT. CONTACT
- PUSHBUTTON, TWO ELEMENT, MAINT. CONTACT
- CONTROL OR PILOT DEVICES (PRESSURE SW, FLOAT SW, THERMOSTAT, ETC.)
- INDICATOR LIGHT - (R-RED, G-GREEN, A-AMBER, W-WHITE, C-CLEAR, B-BLUE)
- SELECTOR SWITCH - (HAND-OFF-AUTOMATIC)
- SELECTOR SWITCH - (HAND-AUTOMATIC)
- IMPEDOR (FREQ METER
- VOLTMETER
- WATTMETER
- FREQUENCY METER
- SYNCHROSCOPE
- AMMETER
- VOLTMETER SW.
- FREQUENCY METER SW.
- SYNCHROSCOPE & SYNCHRO LTS. SW.
- GOVERNOR MOTOR CONTROL SW.
- GROUND LAMP SW.
- HEATER SW.
- AMMETER SW.
- 67 REVERSE POWER RELAY
- 51 OVERCURRENT RELAY
- AUX. CONTACT, NORMALLY OPEN
- AUX. CONTACT, NORMALLY CLOSED
- FUSE
- SH SHUNT TRIP
- UV UNDERVOLTAGE TRIP
- RECEPTACLE
- CKT. BKR. CONTROL SWITCH
- VOLTAGE REG. CUTOFF SWITCH
- 90V VOLTAGE REGULATOR
- TEMPERATURE SWITCH
- PRESSURE SWITCH
- TEMPERATURE METER
- GOVERNOR MOTOR
- 10 MODE SELECTOR SWITCH
- GROUND CURRENT AMMETER
- REC. PLUG
- CR REEFER CABLE REEL
- 2 TIMING RELAY
- PEDESTAL MOUNTED SWITCH
- 34 SEQUENTIAL TIMING RELAY
- R RECEPTACLE, 3 WIRE, 4 POLE 50 AMP, 240 VOLT △B 5
- DS DISCONNECT SWITCH

ALARMS & SWITCHES ASSOCIATED WITH GROUP CONTROL:
PFA - POWER FAILURURE ALARM
SDA - SHUT DOWN ALARM

- CABLE SPLICED AT UPPER DECK △4

△A1 2

TABLE OF CABLE ABBREVATIONS		CORRESPONDING CABLES TO BE USED IN NEW MIDBODY	
ABBREV.	CABLE TYPE & SIZE (CM)	ABBREV.	CABLE TYPE & SIZE (CM)
S300	SAVIB 300,000		
S600	SAVIB 600,000		
S850	↓ 850,000		
D4	DSGA 4494		
D9	↓ 9016		
D16	DAVIB 16,500	D23	DSGA-22 800
D26	↓ 26,300	D50	DSGA-49080
D66	DVL 66,400		
T4	TSGA 4494		
T9	TSGA 9016		
T14 △B 6	TSGA 14,340		
T16	TAVIB 16,500	T23	TSGA-22,800
T20	20,800	T23	TSGA-22,800
T26	26,300	T30	TSGA-30,860
T33	33,100	T40	TSGA-38,810
T41	41,700	T50	TSGA-49,080
T52	52,600	T60	TSGA-60,090
T66	66,400	T75	TSGA-75,780
T83	83,700	T100	TSGA-99,060
T106	106,000	T125	TSGA-124,900
T133	133,000	T150	TSGA-157,600
T168	168,000	T200	TSGA-198,700
T212	212,000	T250	TSGA-250,500
T250	250,000	T250	TSGA-250,500
T300	300,000	T300	TSGA-298,600
T400	↓ 400,000	T400	TSGA-413,600
△B 6 #8AWG	SO-3 16,500		
F4	FSG 4494		
F9	↓ 9016		
F16	FAVIB 16,500	F23	FSGA-22,800
F41	41,700	F50	FSGA-49,080
F83	83,700	F100	FSGA-99,060
F133	↓ 133,000	F150	FSGA-157,600
F106	106,000	F125	FSGA-124,900

WHERE A NUMBER APPEARS PRECEEDING A CABLE SIZE IT DESIGNATES THE NUMBER OF CONDUCTORS. i.e.
9S850 - 9 CABLES OF SAVIB 850,000 (3 IN PARALLEL PER PHASE)
2T300 - 2 CABLES OF TAVIB 300,000 (2 IN PARALLEL PER PHASE)

NOTES:

1. TYPICAL METHOD OF IDENTIFICATION FOR LOCATING F.L. AMP RATING EXMP: M T4 (12A) MP
2. INSTANTANEOUS CIRCUIT BREAKER RATINGS IN GROUP CONTROL MOTORS ARE RATED AT NEXT HIGHEST SET POINT GREATER THAN TEN TIMES FULL LOAD CURRENT.
3. 100,000 AMP CURRENT LIMITERS IN INDIVIDU CONTROLLERS ON GROUP CONTROLS. 450 VOLT BUS CKT BKRS ON MAIN SWBD WITH CURRENT LIMITING FUSES.
4. * - INDICATES ALASKAN FEATURES.

△B 4 5. SET INSTANTANEOUS TRIP TO "HI" FOR SWBD. CIRCUIT BREAKERS P45 & P69.

△B 7 6. TYPICAL CABLE LENGTHS SHOWN FOR PURPOSE OF COMPUTING VOLTAGE DROP

△B 8 7. USE 444 VOLT PRIMARY TAPS.

AL

(SEPARATE).

ALTERATIONS

ALT.	ITM.	ALT. NO.	PAN	DESCRIPTION	BY	APPROVED OWNER DATE	OWNER BY	BUILDER DATE	BUILDER BY
1	19	*	3	CHGD 5P46 SPARE CKT BKR 70AT TO [illegible]AT & DESIGNATED FOR "RAMP ROLL UP DOOR"	MK				
	20		5	CHGD CURRENT RATINGS OF 1½ HP CARGO DOORS FROM 2.9A TO 2.6A AND ¾ HP TO 1.72A ON EP3 PANEL. CHANGE DUE TO LATEST VENDERS INFORMATION.					
2	1	*	2A	ADDED "RAMP DEICING PUMP" TO 1P60 AND NOTED AS AN ALASKAN FEATURE.	MK				
	2			DELETED 2-.75 HP MOTORS FOR AFT CARGO ELEV ON CIRC P79 THIS CIRC IS NOW SPARE					
	3			DELETE CARGO DOOR 3-134/27-1 ON CIRC 2EP3 THIS CIRC IS NOW SPARE (ITEMS 2/3 ARE DUE TO THE LATEST DESIGN CHANGE)				4/26/75	
3	1		11	REVISED CCB CENTRAL CONTROL CONSOLE ALARMS.	MK				
	2			ADDED CKT CC22 FOR ENGR'S CALL SYSTEM.					
	3			CHGD DC4 ENGR'S EMER ALARM TO SPARE.					
	4		5	CHGD P79 SPARE TO A 400-400AT.					
	5		4	CHGD 9P39 & 10P39 CKT BKR TRIPS FROM 90A TO A 100A.					
	6		7	6L12A, ICE CUBER WATTAGE CHGD FROM 1.1 TO 1.27 WATTS. CHGD RATING OF REFRIG 4L12A FROM 600W TO 785W.					
	7		8	EGG BOILER, 3L12 CHGD FROM 1KW TO 1.1KW. TOASTER 4L12 CHGD FROM 2.45KW TO 1.27 KW. REFRIG 2L12, CHGD FROM 600W TO 785W.				5/[illegible]/75	WN PW
4	1		9	DESIGNATED 13EP9 & 14EP9 SPARE, TO DYNAPURE MIST FILTER.	MK			5/30/75	
	2	*	6	DESIGNATED 9P37 BLANK, TO VENT FAN (BOSUN'S STORES & WINDLASS CONT. RM.)					
	3	*	2A	DELETED DEICER PUMP 1P60 & DESIGNATED SPARE					
	4	*	3	ADDED (4) SIDEPORT MOTOR WINCHES TO P46B PANEL WITH DESIGNATIONS 6P46B, 7P46B, 8P46B & 9P46B WITH ADDITIONAL PEDESTAL MOUNTED MASTER SWITCHES.					
	5	*	3	ADDED TO P46A PANEL (4) SIDEPORT WINCHES & DESIGNATED AS 6P46A, 7P46A, 8P46A & 9P46A & WITH ADDITIONAL PEDESTAL MOUNTED MASTER SWITCHES.					
	6		3	ADDED NOTE CONCERNING P46 LOADS.					
5			11	ADDED TO CC21 COND SALINITY PANEL & VENT ALARM.					
			3	DESIGNATED 10P46A AS HEATER FOR HYDRAULIC ELEVATOR PIPE LINE.	MK				
			3A	CHGD CABLE OF [illegible] FROM DIGJ0 TO [illegible] WELDING RECPT.					
		*	6	REVISED H.P. RATING OF FWD VENT FANS CKT. 9P37 A & B FROM ⅓ H.P. TO 1¼ H.P.					

ALTERATIONS

ALT.	ITM.	ALT. NO.	PAN	DESCRIPTION
				[illegible]
	4		2A	NOTED SPLICED CABLES [illegible]
	5		3	NOTED SPLICED CABLES [illegible]
	6		10	DELETED [illegible] FROM EP10 AND MADE SPARE.
	7		ALL	REVISED LENGTHS OF FEEDER CABLES TO AGREE WITH DECK PLANS.
	8		5C	REVISED W.T. DOOR CKT 4EP3-T4 (WAS 5EP3A-T4) 10EP3-T4 (WAS 7EP3A-T4)
	9		5	ADDED TO WATER TIGHT DOORS POWER PANEL 2EP3, 11EP3 & 12EP3.
	10		3	ADDED NOTE CONCERNING HYDRAULIC ELEVATOR [illegible]
	11		5	CHGD P79 TRIP FROM 400A TO 300A AND FROM SPARE TO HYDRAULIC AFT ELEVATOR MOTORS.
	12		6	ADDED CKTS 1P37 AND 8P37 (CARGO HOLD VENT FANS) TO HOLD FWD VENT PWR. PNL
	13	*	3,5	CHGD KW RATING OF 9P39 & 10P39 FROM 52 KW TO 68KW. CHGD 11P39 KW RATING FROM 68 KW TO 83 KW. CABLE FROM [illegible] TO [illegible] CKT BKR FROM 100-100AT TO 225-[illegible] P39 CABLE T300 CHGD TO T400 AND CKT BKR FROM [illegible] 400-300AT TO 400-350AT ALSO 12P39 (100-[illegible]AT) SPARE CHANGED TO 225 [illegible] BLANK.
	14	*	5	REMOVED STEERING GEAR [illegible] FROM 6P5[illegible] AND REDESIGNATED AS [illegible] CARPENTER SHOP [illegible] [illegible] BKR CHGD FROM 15A TO [illegible]
	15	*	5	DESIGNATED [illegible] STEERING GEAR ROOM HEATER [illegible]
	16		9	DELETED [illegible] SUCTION [illegible] AND MADE SPARE [illegible] DISCONNECT SWITCH FOR [illegible]
	17			[illegible]

33 2	33 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
69	70	77	78	[illegible]	[illegible]	[illegible]	[illegible]
CF 2	OCF Z	97HE	69	81	[illegible]	[illegible]	[illegible]

	YD. HULL	SHIP'S NAME
	673	SS GREAT LAND
	[illegible]	[illegible]

APPROVALS

BY	SUBMIT DATE	APPRD. DATE	RESUBMIT DATE	RESUBMIT DATE
OWNER	[illegible]	[illegible]	[illegible]	[illegible]
MARAD	[illegible]	[illegible]	[illegible]	[illegible]
A.B.S.	12/[illegible]/74	12/17/74	[illegible]	[illegible]
U.S.C.G.	12/[illegible]/74	[illegible]	[illegible]/30/75	[illegible]
U.S.P.H.S.	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	5-7-75	[illegible]	[illegible]
USCG	[illegible]	7-25-75	[illegible]	[illegible]

SUN SHIPBUILDING & DRY DOCK CO.
CHESTER, PA. U.S.A.

DRAWN BY MK
CHK. BY [illegible]
IN CHARGE [illegible]
DATE [illegible]
SCALE [illegible]

TITLE
ELECTRIC POWER DISTRIBUTION
DIAGRAM ONE LINE
SINGLE SCREW
ROLL-ON/ROLL-OFF STEAMSHIP

MARAD DWG. NO. [illegible]
SUN DWG. NO. 673-938-1
SHEET NO. [illegible]

NO.	TITLE	BUILD'R NO.	MARAD NO.

REFERENCE PLANS

REVISIONS

REV	ZONE	DESCRIPTION	DATE	APPROVED
A1		THIS DRAWING IS ISSUED FOR CONTRACT 1252 & IS A DUPLICATE OF A PREVIOUS DWG ISSUED FOR 673-938-1 EXCEPT AS NOTED:		
	1	MODIFIED DWG TO INCORPORATE "AS IS" CIRCUITS FOR "SS NORTHERN LIGHTS".	11/3/92	[redacted]
	2	ADDED CIRCUITS NECESSARY FOR THE ADDITION OF THE 90' MIDBODY.		
	3	RELOCATED PORT STEERING MOTOR FROM THE MAIN SWITCHBOARD TO THE EMERGENCY SWITCHBOARD.		
A2	2A-C	1- ADDED SIDEPORT WINCH PANEL P70 FOR NEW C.T. & RAMP WINCHES.		
	2A-B	2- ADDED NEW POWER PANEL 9P70 FOR 440V REEFER RECEPTACLES.		
	2A-A	3- ADDED FEEDER P70-(2) T250 TO MN SWBD		
	10A	4- IDENTIFIED FEEDER EP19 FOR PORT STEER'G GEAR		
	3C	5- ADDED LOCATIONS OF 440V REEFER RECPTS ON POWER PANEL P46		
	3B	6- REVISE DISTRIBUTION OF SIDEPORT WINCH P46B TO SUIT "AS IS" CONDITIONS.	3/3/93	[redacted]
B	2A-D	1. ADDED PANEL P69 & TRANSFORMER PER EXISTING SYSTEM	4/20/94	CWK TKD
	4A	2. MOVED P45 CIRCUIT TO ZONE 2A. ADDED PANELS P45, P45A, P45B & P45C (P45C FOR FUTURE USE).		
	2A-B	3. PANEL P55 REWIRED TO BE PANEL P45B.		
	2,2A	4. ADDED NOTE 5 REGARDING P45 & P69 INSTANTANEOUS TRIP.		
	2	5. ADDED SYMBOL FOR RECEPTACLE.		
	2	6. ADDED TO TABLE OF CABLE ABBREVIATIONS		
	2	7. ADDED NOTE REGARDING TYPICAL CABLE LENGTH.		

REVISION B BY THE GLOSTEN ASSOCIATES, INC.

SUBMITTALS

SUBMITTED TO	DATE	APPROVAL/ DATE	RESUBMIT	RESUBMIT 1	APPROVAL/ DATE
ABS/ TOTE	11/9/92				

ATLANTIC MARINE, INC.
DUNLAP DRIVE, GATE B
MOBILE, ALABAMA
36652

TOTEM OCEAN TRAILER EXPRESS, INC.
TACOMA, WASHINGTON 98421

"NORTHERN LIGHTS" CONVERSION

JJMA Inc.
[illegible]

[illegible] 8213-01

H.J.F. T.C. 11-3-92

HM 11-3-92

ELECTRICAL POWER DISTRIBUTION DIAGRAM ONE LINE

APPROVED
This approval covers only ABS requirements and does not include items not required by ABS. See comments in ABS letter dated:
JUN 16 1994
ABS
HOUSTON
CHRISTOPHER WIERNICKI, P.E.
V.P. OF ENGINEERING
[redacted]
BY

H 1252-938-1 B

SCALE NONE SHEET 1 OF 1