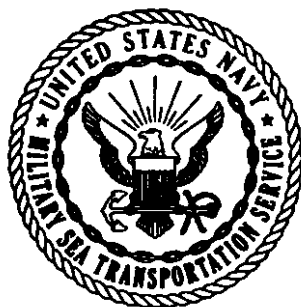


ENGINE ROOM LOG

AFT

GEARED TURBINE DRIVE



USNS GEN. JOHN POPE (T-AP-110)

FROM 12-2-66 **19** 66 **TO** ¹²⁰⁰JAN 3rd **19** 67

INSTRUCTIONS

1. The entries in this book will be made neatly and legibly by the engineer or other person directly in charge of the machinery of the vessel, and with pen and ink or indelible pencil. No erasures nor the removal of any leaves will be permitted. Incorrect entries may be changed by drawing a single line through same with ink or indelible pencil and writing in the correct data, followed by the initials of the person making the change. The greatest care shall be used in keeping the log book to insure absolute accuracy in all particulars.

2. All entries of time shall be made on the 24-hour basis, noon to noon.

3. Under the heading "Remarks" a careful, detailed record of the events occurring daily in the engine department shall be entered in the log book, together with notation of any violation of orders or regulations. Remarks should be preceded by the time when pertaining to important tests, casualties, injuries, etc.

4. Entries regarding the following shall also be made when occurring:

(a) Repairs, cleaning, and painting, including machinery outside the engine spaces.

(b) Faulty or erratic operation or failure of machinery.

(c) Any important changes in machinery of any nature, or additions thereto.

(d) Remetalling of bearings; fitting new piston rings; reboring cylinders; renewing pump parts, metallic packing, important valves, propeller, shafting, stern bearing, zinc protection bars and rings outboard, strainers, etc.; data to show in all cases exactly what parts have been attended to or repaired, material or article used and reasons.

(e) Pumping of bilges.

(f) Blowing of tubes.

(g) Examining holding down bolts.

(h) Fuel and water taken aboard. The fuel account shall be carefully kept and the quantity consumed each day accurately ascertained.

(i) Grade and quality of fuel oil and lubricating oil used; also type of filtering and cleaning elements installed in both fuel and lube oil lines; results obtained from use thereof.

(j) Record of special tests ordered made.

(k) Defects in supplies received.

(l) Derelictions or deficiencies developed on the part of any member of the engine department.

5. In twin screw vessels when both engines are in the same engine space, alternate pages will be used for recording the readings from the starboard machinery, the other pages being used for the port machinery. In such cases, each sheet of the log book will bear the notation either "Port Machinery" or "Starboard Machinery." In the event that the machinery for each propeller is in a separate engine room, two books shall be utilized and each page of each such book shall be properly marked to indicate to which engine room it applies. For such ships, in addition to individual fuel, water, and lube oil summaries, the sheets covering the control engine room shall carry a consolidated figure reflecting the status of these materials for both machinery spaces.

6. The log books shall be retained on board unless required temporarily by the administrative commander and destroyed when three years old.

USNS GEN. John POPE VOYAGE NO. 6-A FROM OAKLAND TO OKINAWA TYPE OF VESSEL P-5-A-2 DATE 12-2-3-66

		WATCH								WATCH									
		1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200			1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200				
RUNNING TIME		240	240	260	260	260	240	MACHINERY PARTICULARS (CONT'D)		TEMPERATURES (CONT'D)		AFT. H. P. ROTOR BEARING	130	130	130	130	130	730	
DETENTION TIME												FORWARD L. P. ROTOR BEARING	125	130	128	125	130	128	
REVOLUTION COUNTER (END OF WATCH)		1508	1510	1513	1515	1518	1520					AFT. L. P. ROTOR BEARING	-	-					
TOTAL REVOLUTIONS (FOR WATCH)		6980	9390	4000	8920	3300	6070					HOTTEST GEAR BEARING FORWARD	146	148	148	144	148	148	
AVERAGE RPM		92.8	93.4	94.6	95.8	93.9	91.9					HOTTEST GEAR BEARING AFT	142	140	140	140	142	146	
F.O. METER (END OF WATCH)		1085	1095	1085	1085	1086	1086					AUX. COND. CONDENSATE	96	100	102	100	100	102	
F.O. CONSUMED		2630	2640	2880	2870	2730	2810					1ST STAGE FEED WATER HEATER	170	170	170	170	170	170	
PRESSURES		THROTTLE	420	420	420	420	420					420	D. C. FEED WATER HEATER	238	238	238	240	235	238
		H.P. AHEAD	420	420	420	420	420					420	3RD STAGE FEED H WATER HEATER L	051	051	051	051	051	051
		L.P. AHEAD	19	20	20	20	20					20	F.O. TO BURNERS	190	190	190	190	190	190
		VACUUM	29"	29.1	29.1	29.0	29.1					29.8	F. O. BACK PRESSURE						
		L.O. TO TURBINES	12.5	12.5	12.5	12.5	12.5					12.5	AIR TO FURNACE	115	115	115	115	120	118
		AUX. STEAM	140	140	140	140	140					140	UPTAKE		295	295	305	295	295
		BACK PRESSURE	9	9	9	9	9					9	MAIN STEAM	730	725	725	725	730	730
		GLAND STEAM	1.0	.5	.5	1.0	1.0					1.5	SUPER HEAT	450	450	450	450	450	450
		H.P. BLEEDER	70	70	70	70	70					70	F.O. TO BURNERS	140	140	140	140	145	145
		I.P. BLEEDER	9	9	9	9	9					9	F.O. TEMP. IN SETTLING TANKS	105	105	110	108	112	115
L.P. BLEEDER	12"	12"	12"	12"	12"	12"	PORT BOILER UPTAKE												
TEMPERATURES		STEAM AT THROTTLE	730	725	725	725	730	730	STBD. BOILER UPTAKE										
		L.P. EXHAUST	105	108	106	105	106	106	ENGINE ROOM TEMPERATURE	87	86	87	88	88	92				
		CONDENSATE	98	103	102	100	102	102	FIRE ROOM TEMPERATURE	87	86	87	88	88	92				
		CIRC. WATER IN	72	74	70	72	74	72	NOZZLES IN USE	18	18	18	18	18	18				
		CIRC. WATER OUT	84	86	84	84	86	84	NO. OF BURNERS IN USE	4	6	6	6	6	6				
		L.O. TO COOLERS	126	128	126	126	126	126	BURNER TIP SIZE	5/55	5/55	5/55	5/55	5/55	5/55				
		L.O. FROM COOLERS	110	108	110	110	110	110	CO ₂ % PORT BOILER		83			83					
		TEMPERATURE THRUST BEARING	115	115	115	115	115	115	CO ₂ % STBD. BOILER		83 1/2			81					
		FORWARD H.P. ROTOR BEARING	120	125	122	120	125	122	OIL LEVEL MAIN SUMP	3'	3'	3'	3'	3'	3'				

GENERATORS												FUEL - WATER AND LUBE OIL					
WATCH	GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLER	L.O. FROM COOLER	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	FUEL OIL	WATER	LUBE OIL	ON HAND AT START OF DAY	EVAPORATED OR RECEIVED	ON HAND
1200 TO 1600	3	1200	450	730	8	128	108		62	1300	1300	METER AT NOON	10863980				
												METER PREVIOUS NOON	10847390				
	4	1200	450	730	10	135	118		48	1300	1300	CONSUMED BY METER	16590				
1600 TO 2000	3	1200	450	725	8	120	110		62	1100	1600	ON HAND AT START OF DAY					
												RECEIVED DURING DAY					
	4	1200	450	725	9	140	120		48	1100	1100	EXPENDED DURING DAY					
2000 TO 2400	3	1200	450	725	8	130	110		62	1050	1050	REMAINING ON BOARD					
												ON HAND AT START OF DAY					
	4	1200	450	725	9	135	120		48	1050	1050	EVAPORATED OR RECEIVED					
2400 TO 0400	3	1200	450	725	9	128	108		62	1150	1150	ON HAND					
												CONSUMED					
	4	1200	450	725	9	135	118		48	1150	1150	DOMESTIC WATER					
0400 TO 0800	3	1200	450	730	9	132	110		62	1300	1300	CONSUMED					
												LOW PRESS. EVAPORATORS (No. of hrs. operated) (Fresh water made gals.)					
	4	1200	450	730	9	140	120		48	1400	1400	L.O. CENTRIFUGE - HOURS OPERATED					
0800 TO 1200	3	1200	450	730	8	132	110		62	1250	1250	1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
												3	4	4 1/3	4 1/3	4	4
	4	1200	450	730	9	138	120		48	1250	1250	SUMMARY					
												RUNNING TIME		PERCENT OF SLIP			
												DETENTION TIME		BBL FUEL/MI			
												TOTAL REVOLUTIONS		WIND DIRECTION			
												AVERAGE R.P.M.		STATE OF SEA			
												TOTAL MILES BY ENGINE		STATE OF WEATHER			
												TOTAL MILES BY OBSERVATION					

REMARKS

1200-1600 WATCH

MACHINERY IN OPERATION. # 3-4 BOILERS, F.O. BLOWERS, F.O. PUMPS & F.O. SERVICE PUMPS, # 3-4 GEN., # 3-4 MAIN COND PUMP, MAIN CIRC, # 2 AIR COMP. L.O. CENTRIFUGE. SECURED AND CLEANED L.O. PURIFIER. CHANGED & CLEANED # 2 BURNER & STD STRAINER. PUMPED BILGES. MADE ROUNDS OF ENGINE SPACES & EQUIPMENT. NORMAL STEAMING WATCH.

FEED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE.

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE.

CLEANED # 4 BURNER & F.O. SUCTION STRAINER.

BLEW TUBES # 3 & # 4 BOILER. PUMPED BILGES.

ROUTINE ROUNDS OF MACHINERY & SPACES.

MAIN COND. .4 G/G.

WATCH ENGR'S SIGNATURE.

2000-2400 WATCH

MACH AS BEFORE. CLEANED & CLEANED # 6 BURNER & F.O. DISG/ STRNR. PUMPED UP SETTLERS FROM 4/5 D.B. RETARDED CLOCK 20 MINS @ 2300.

FEED TANK .83 G/G MAIN COND .41

WATCH ENGR'S SIGNATURE.

2400-0400 WATCH

MACHINERY IN OPERATION AS BEFORE. CHANGED & CLEANED # 1 F.O. BURNER & STRAINER. PUMPED BILGES. MADE ROUNDS & INSPECTION OF MACH SPACES & EQUIPMENT. NORMAL STEAMING WATCH.

FEED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE.

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE.

CLEANED # 3 BURNER & F.O. SUCTION STRAINER

RETARDED CLOCK 20 MIN. AT 0425.

PUMPED ENGINE ROOM AND SHAFTALLEY BILGES.

ROUTINE INSPECTION OF MACHINERY AND SPACES.

MAIN AND AUX. COND. .4 G/G.

WATCH ENGR'S SIGNATURE.

0800-1200 WATCH

MACH AS BEFORE. CLEANED # 5 BURNER & # 4 F.O. SUCT STRNR. BLEW TUBES # 3 & 4 BURS. PUMPED UP SETTLERS FROM 4/5 D.B. TESTED LOW L.O. & OVERSPEED TRIPS.

MAIN COND .41 G/G FEED TANK .83 G/G

WATCH ENGR'S SIGNATURE.

CHIEF ENGINEER

3 STD # 4 PORT

HRS - 261 511

ALK - 11.6 10.5

T-ALK - 15.1 13.4

C - 4.14 4.5

PHOS - 40 40

PH - 11 10

CHIEF ENGR'S SIGNATURE.

REMARKS

1200-1600 WATCH

MACHINERY IN USE AS BEFORE. CHANGED & CLEANED # 2 BURNER & STD STRAINER. MADE ROUNDS & INSPECTION OF MACH SPACES & EQUIPMENT. NORMAL STEAMING WATCH.

FEED TANKS .83 GPG

WATCH ENGR'S SIGNATURE.

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE

CLEANED # 4 BURNER & F.O. SUCTION STRAINER
NORMAL STEAMING WATCH.

2000-2400 WATCH

MAIN COND. .46/G.

WATCH ENGR'S SIGNATURE.

MACH AS BEFORE. CLEANED # 6 BURNER & # 1 F.O. DISCH STRAINER
PUMPED SETTLERS FROM 4P D.B.
RETARDED CLOCK 20 MIN @ 2300

2400-0400 WATCH

WATCH ENGR'S SIGNATURE.

MACHINERY AS BEFORE. CHANGED & CLEANED # 1 BURNER AND STD STRAINER. MADE ROUNDS OF MACH SPACES & EQUIPMENT. NORMAL STEAMING WATCH. RETARDED CLOCK 20 MIN @ 0100 HOURS. MAGALLANES TOOK THE EVAP OILERS WATCH FROM 0001-0200 HOURS. SHEPPARD FROM 0200-0400 HOURS. HAYKLERAD. SICK.

FEED TANKS .83 GPG

WATCH ENGR'S SIGNATURE.

0400-0800 WATCH

MACH. AS BEFORE.

RETARDED CLOCK 20 MIN @ 0425.

CLEANED # 3 BURNER & F.O. SUCTION STRAINER.
PUMPED BILGES

0800-1200 WATCH

MAIN COND. .46/G.

WATCH ENGR'S SIGNATURE.

MACH AS BEFORE. # 4 MIN FO PUMP FWD PISTON WOULDN'T PUMP AS IT HAD BECOME LOOSE. SEC'D # 4 FEED PUMP & STARTED STRY.
PUMPED SETTLERS FROM # 4 P & D.B.
SLOWED MIN ENL TO 90 RPM TO TAKE SOME LOAD OFF BURS & FEED PUMPS

CHIEF ENGINEER

WATCH ENGR'S SIGNATURE.

#3 STAR # 4 BERT

HOURS - 285 535

ALH - 11.68 8.76

T.A.H. 16.95 12.85

C. - 4.14 4.97

PHOS 30 30

PH 11 11

CHIEF ENGR'S SIGNATURE.

USNS	VOYAGE NO.	FROM	TO	TYPE OF VESSEL	DATE
GEN JOHN POPE	6-A	OAKLAND	OKINAWA	P2-52-R2	12-4-5-66

WATCH							WATCH						
	1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200		1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
RUNNING TIME	240	240	240	240	240	240	MACHINERY PARTICULARS (CONT'D)	AFT. H. P. ROTOR BEARING	130	130	130	130	130
DETENTION TIME								FORWARD L. P. ROTOR BEARING	125	130	125	130	128
REVOLUTION COUNTER (END OF WATCH)	1536 6700	1538 9330	1541 1850	1543 4150	1545 6960	1547 9660		AFT. L. P. ROTOR BEARING					
TOTAL REVOLUTIONS (FOR WATCH)	21750	22730	22520	22680	22430	22700		HOTTEST GEAR BEARING FORWARD	146	148	148	146	148
AVERAGE RPM	90.7	94.7	93.8	94.5	93.4	94.9		HOTTEST GEAR BEARING AFT	142	142	140	140	140
F.O. METER (END OF WATCH)	1088 2990	1089 5570	1088 8270	1089 0930	1089 3630	1089 6270		AUX. COND. CONDENSATE	98	102	102	100	104
F.O. CONSUMED	2590	2580	2700	2660	2700	2660		1ST STAGE FEED WATER HEATER	170	170	170	170	170
								D. C. FEED WATER HEATER	238	238	238	238	238
								3RD STAGE FEED WATER HEATER					
								F.O. TO BURNERS	140	140	140	140	135
							BOILER PARTICULARS (CONT'D)	F.O. BACK PRESSURE	0				
THROTTLE	425	420	420	420	420	420		AIR TO FURNACE	4"	4"	4"	4"	4"
H.P. AHEAD	425	420	420	420	420	420		UPTAKE	2				
L.P. AHEAD	20	20	19	19	19	18		MAIN STEAM	450	450	450	450	450
VACUUM	29"	29.2	29.2	29.1	29.1	29.1		SUPER HEAT	700	730	725	730	725
L.O. TO TURBINES	13	12.6	12.6	12.5	12.5	12.5		F.O. TO BURNERS	190	190	190	190	190
AUX. STEAM	140	135	135	140	140	140		F.O. TEMP. IN SETTLING TANKS	105	112 116	118 120	110 104	115 112
BACK PRESSURE	9	9	9	9	9	9		PORT BOILER UPTAKE	295	295	292	295	295
GLAND STEAM	3	3	3	1	1.7	1.5		STBD. BOILER UPTAKE	310	290	285	290	295
H.P. BLEEDER	70	70	70	70	70	70		ENGINE ROOM TEMPERATURE	90	90	90	90	88
L.P. BLEEDER	9	9	9	9	9	9	MISCELLANEOUS	FIRE ROOM TEMPERATURE	90	90	90	90	88
L.P. BLEEDER	16	12"	12"	12"	12"	12"		NOZZLES IN USE	18	18	18	18	18
STEAM AT THROTTLE	705	730	725	730	730	725		NO. OF BURNERS IN USE	6	6	6	6	6
L.P. EXHAUST	106	106	106	106	108	106		BURNER TIP SIZE	5 1/55	5 1/55	5 1/55	5 1/55	5 1/55
CONDENSATE	100	105	102	100	105	100		CO2 % PORT BOILER		83		83	
CIRC. WATER IN	72	77	76	76	78	72		CO2 % STBD. BOILER		83 1/2		83	
CIRC. WATER OUT	84	90	86	86	92	84		OIL LEVEL MAIN SUMP	3'	3'	3'	3'	3'
L.O. TO COOLERS	126	126	126	126	126	126							
L.O. FROM COOLERS	110	110	110	110	110	110							
TEMPERATURE THRUST BEARING	115	115	115	115	115	115							
FORWARD H.P. ROTOR BEARING	120	125	120	120	125	120							

WATCH	GENERATORS												FUEL - WATER AND LUBE OIL					
	GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLER	L.O. FROM COOLER	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	VOLTS	FUEL OIL		DOMESTIC WATER		LUBE OIL	
1200 TO 1600	3	1200	450	700	8	128	108	62	62	1250	1250	235	METER AT NOON	10896270	ON HAND AT START OF DAY			
													METER PREVIOUS NOON	10880400	EVAPORATED OR RECEIVED			
													CONSUMED BY METER	15770	ON HAND			
													ON HAND AT START OF DAY		CONSUMED			
													RECEIVED DURING DAY		ON HAND AT START OF DAY			
													EXPENDED DURING DAY		RECEIVED			
													REMAINING ON BOARD		ON HAND			
1600 TO 2000	3	1200	450	730	8	132	110		63	1100	1100	235	ON HAND AT START OF DAY		CONSUMED			
													EVAPORATED OR RECEIVED					
													ON HAND					
													CONSUMED					
2000 TO 2400	3	1200	450	725	8	132	110		63	1150	1150	235	LOW PRESS. EVAPORATORS (No. of hrs. operated)(Fresh water made gals.)					
													L.O. CENTRIFUGE - HOURS OPERATED					
													1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
													4	4	4	4	4	4
2400 TO 0400	4	1200	450	730	10	138	120		48	1150	1150	235	SUMMARY					
													RUNNING TIME		PERCENT OF SLIP			
													DETENTION TIME		BBL FUEL/MI			
													TOTAL REVOLUTIONS		WIND DIRECTION			
													AVERAGE R.P.M.		STATE OF SEA			
													TOTAL MILES BY ENGINE		STATE OF WEATHER			
													TOTAL MILES BY OBSERVATION					
0400 TO 0800	3	1200	450	730	8	132	112		63	1250	1300	235						
0800 TO 1200	4	1200	450	725	9	138	120		48	1300	1300	235						

REMARKS

1200-1600 WATCH

UNDERWAY 17 NOZZLES, MACHINERY IN USE AS BEFORE, CLEANED & CHANGED #2 BURNER, CLEANED STD F.O. DISCH STRAINER. MADE ROUTINE CHECKS & INSPECTION OF ALL MACHINERY AND MACHINERY SPACES, REPAIRS COMPLETED ON #4 MAIN FEED PUMP, CLEANED LUBE OIL SUMP & FILLED WITH CLEAN OIL FROM L.O. PURIFIER, #4 F.O. PUMP BACK ON LINE AT 1300, RENEWED CENTER PLUNGER GASKET ON #3 MAIN FEED PUMP.

FEED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE

BLEW TUBES #3 & #4 BOILERS.

CLEANED #4 BURNER AND F.O. SUCTION STRAINER.

PUMPED BILGES

ROUTINE INSPECTION OF MACHINERY AND SPACES.

MAIN COND. H/G/G.

WATCH ENGR'S SIGNATURE

2000-2400 WATCH

MACH AS BEFORE CHANGED #6 BURNER & F.O. DISCH STRAIR.

PUMPED UP SETTLERS FROM 4 D.B.

TESTED LOW L.O. & OVERSPEED TRIPS

2400-0400 WATCH

FEED TANK .83 G/L MIN COND H/I

WATCH ENGR'S SIGNATURE

MACHINERY IN OPERATION AS BEFORE. CHANGED & CLEANED #1 BURNER & STRAINER. MADE ROUNDS & INSPECTION OF MACHINERY SPACES & EQUIPMENT. HELD CASUALTY DRILL B-4 LOW WATER IN BOILER, FROM 0100-0130 FOR WATCH PERSONNEL, BRIDGE NOTIFIED. NORMAL STEERING WATCH.

FEED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE.

CLEANED #3 BURNER & F.O. SUCTION STRAINER.

HELD ENG. CASUALTY DRILL # B-4, LOW WATER IN BOILER, FROM 0500 TO 0530

BRIDGE NOTIFIED. ROUTINE INSPECTIONS OF MACH. & SPACES

0800-1200 WATCH

MAIN COND. H/G/G.

WATCH ENGR'S SIGNATURE

MACH AS BEFORE CHANGED #5 BURNER & F.O. DISCH STRAIR.

PUMPED UP SETTLERS FROM 4 D.B.

BLEW TUBES #3 & #4 BUR.

HELD CASUALTY DRILL B-4 AMONG WATCH PERSONNEL @ 1000-1020

CHIEF ENGINEER

MAIN COND. H/G/G.

WATCH ENGR'S SIGNATURE

#3 STD #4 PORT

HOURS-309 559

ALK-11.6 9.9

T-ALK-15.1 14.6

CHL-4.1 4.5

PHOS-40 30

PH-11 11

CHIEF ENGR'S SIGNATURE

REMARKS

1200-1600 WATCH

Machinery in operation as before. Changed & cleaned # 2 burner & STD strainer. Secured & cleaned lube oil purifier. # 2 Fire pump down for repairs. Made rounds of engine spaces & equipment. Normal steaming watch.

FUEL TANKS 83 GPG.

WATCH ENGR'S SIGNATURE-

1600-2000 WATCH

Machinery in operation as before.

Blew tubes #3 and #4 boilers. Cleaned #4 burner and F.O. suction strainer. Routine watch. Lubricated #3 & 4 feed pump guide blocks.

MAIN COND. - 2 G/G.

WATCH ENGR'S SIGNATURE-

2000-2400 WATCH

Machinery as before. Galled & cleaned #6 burner & disc strainer. Pumped settlers from 4 & 5 D.B. TEST RAN STBY L.O. PUMP & STBY F.O. PUMP 30 mins each. Retarded clock 20 mins @ 2300. TESTED LOW L.O. & OVERSPEED TRIPS.

WATCH ENGR'S SIGNATURE-

2400-0400 WATCH

Machinery in operation as before. Changed and cleaned #2 burner. Inspected all machinery and eng spaces. Pumped bilges & shaft alley. Carried out all standing orders & steaming watch routine. Retarded clock 20 min @ 0100.

FUEL TANKS 83 GPG.

WATCH ENGR'S SIGNATURE-

0400-0800 WATCH

Machinery in operation as before.

Cleaned #3 burner and F.O. suction strainer.

Retarded clock @ 0426 - 20 min.

Routine inspections of machinery & spaces.

Compound #4 boiler.

MAIN COND. - 2 G/G.

WATCH ENGR'S SIGNATURE-

0800-1200 WATCH

Machinery as before. Changed #5 burner & F.O. disc strainer. Blew tubes #3 & 4 blrs. Pumped up settlers from 5 D.B.

WATCH ENGR'S SIGNATURE-

CHIEF ENGINEER

4 3

HOURS	4	3
ALK	10.5	11.6
T-ALK	13.3	15.1
C	4.9	4.1
PO ₄	40	40
PH	11	11
SO ₃	60	55

CHIEF ENGR'S SIGNATURE-

REMARKS

1200-1600 WATCH

MACHINERY IN USE AS BEFORE, CLEANED #2 ATOMIZER, CHANGED + CLEANED STBD FUEL OIL DISCH STRAINER, 1330 STBY BELL + GENERAL DRILLS, 1358 FULL AHEAD BELL AND SECURED FROM ALL DRILLS, INSPECTED ALL MACHINERY + MACHINERY SPACE, CARRIED OUT ALL STANDING ORDERS AND UNDERWAY WATCH ROUTINE,

FEED TANKS .83 GPG,

WATCH ENGR'S SIGNATURE-

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE.

BLEW TUBES #3 AND #4 BOILERS. CHANGED + CLEANED #4 BURNER. CLEANED #2 F.O. SECTION STRAINER. ROUTINE INSPECTIONS OF MACHINERY + SPACES. REMOVED FOREIGN MATERIAL FROM PORT BILGE SUCTION - PUMPED BILGES - ADDED PACKING TO LOWER #3 BOILER GAGE GLASS.

MAIN COND. .4 G/G.

WATCH ENGR'S SIGNATURE-

2000-2400 WATCH

#1 AG AS BEFORE. CHANGED #6 BURNER + #4 TO DISC/ STNR. PUMPED SETTLERS FROM SP/S D.B. TESTED LOW L.O. + OVERSPEED TRIPS.

FEED TANK .83 MAIN COND #1

WATCH ENGR'S SIGNATURE-

2400-0400 WATCH

UNDERWAY AS BEFORE 17 NOZZLES, CLEANED #1 ATOMIZER AND STBD FUEL OIL DISCHARGE STRAINER, PUMPED ENGINE ROOM BILGES, INSPECTED ALL MACHINERY SPACES + MACHINERY, CARRIED OUT UNDERWAY WATCH ROUTINE, STARTED AUX CIRC + CONDENSATE PUMPS, AUX AIR EJECTOR @ 0320

FEED TANKS .83 GPG,

WATCH ENGR'S SIGNATURE-

0400-0800 WATCH

MACH. AS BEFORE EXCEPT:

16 NOZZLES @ 0420. B.O.B. 14 NOZ. @ 0440. - 12 NOZ AND 80 RPM @ 0507. TIME CK @ 0641 - ARRIVAL @ 0700. P-FOM-3537810 STBD FOM-7388000 P-CNTR-15729220 STBD CNTR-16356730 - BELLS AS PER BELL BOOK

WATCH ENGR'S SIGNATURE-

0800-1200 WATCH

#1 AG AS BEFORE MANEUVERING INTO BUCKNER BAY. BELLS AS PER BELLBOOK. FWE @ 0907 FOM. 3538220 FOM. 7388400 CR 15733150 CR 16360770. SEC'D #3 BUR @ 0930 TO REPAIR #3 MAIN FO PUMP.

WATCH ENGR'S SIGNATURE-

CHIEF ENGINEER

BOILER WATER READINGS

STEAD	PORT
E S	HOURS
AKL	9.9
T-AL	14.6
SAL.	4.9
PHOS.	50
R.ph	11

CHIEF ENGR'S SIGNATURE-

WATCH							WATCH						
	1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200		1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
RUNNING TIME						120	MACHINERY PARTICULARS (CONT'D)	AFT. H. P. ROTOR BEARING					110
DETENTION TIME								FORWARD L. P. ROTOR BEARING					125
REVOLUTION COUNTER (END OF WATCH)						1574		AFT. L. P. ROTOR BEARING					120
TOTAL REVOLUTIONS (FOR WATCH)						9240		HOTTEST GEAR BEARING FORWARD					120
AVERAGE RPM						92.4		HOTTEST GEAR BEARING AFT					110
F.O. METER (END OF WATCH)	1092	1092	1092	1093	1093	1093		AUX. COND. CONDENSATE					106
F.O. CONSUMED	740	800	830	780	750	8950		1ST STAGE FEED WATER HEATER					145
MACHINERY PARTICULARS	THROTTLE					60		D. C. FEED WATER HEATER	240	236	236	238	238
	H.P. AHEAD					40		3RD STAGE FEED WATER HEATER					135
	L.P. AHEAD					18.5		F.O. TO BURNERS	120	110	110	100	150
	VACUUM	28.1"	28.1	28.1	28.1	29.5		F. O. BACK PRESSURE					
	L.O. TO TURBINES	12.5	13	13	12.5	13		AIR TO FURNACE	3	3	3	3	4
	AUX. STEAM	14.5	150	150	145	150		UPTAKE					
	BACK PRESSURE	9	9	9	9	9		MAIN STEAM	450	450	450	450	450
	GLAND STEAM	3	3	3	3	2.0		SUPER HEAT	700	650	630	630	650
	H.P. BLEEDER					70		F.O. TO BURNERS	190	190	190	190	180
	I.P. BLEEDER					6		F.O. TEMP. IN SETTLING TANKS	105	98	98	100	100
PRESSURES	L.P. BLEEDER					12"	BOILER PARTICULARS	PORT BOILER UPTAKE	280	275	280	275	285
	STEAM AT THROTTLE					725		STBD. BOILER UPTAKE				345	290
	L.P. EXHAUST	105	90	90	90	104		ENGINE ROOM TEMPERATURE	85	84	84	82	84
	CONDENSATE	106	87	90	90	102		FIRE ROOM TEMPERATURE	85	84	84	82	84
	CIRC. WATER IN	72	76	76	74	74		NOZZLES IN USE					
	CIRC. WATER OUT	82	80	80	88	87		NO. OF BURNERS IN USE	2	2	2	2	2
	L.O. TO COOLERS	120			124	120		BURNER TIP SIZE	5 1/55	5 1/55	5 1/55	5 1/55	5 1/55
	L.O. FROM COOLERS	110	110	110	110	110		CO2 % PORT BOILER					
	TEMPERATURE THRUST BEARING					114		CO2 % STBD. BOILER					
	FORWARD H.P. ROTOR BEARING					120		OIL LEVEL MAIN SUMP	2'8"	2'8"	2'8"	2'8"	2'6"
TEMPERATURES							MISCELLANEOUS						

WATCH	GENERATORS												FUEL - WATER AND LUBE OIL															
	GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLER	L.O. FROM COOLER	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	VOLTS	FUEL OIL	METER AT NOON	METER PREVIOUS NOON	CONSUMED BY METER	ON HAND AT START OF DAY	EVAPORATED OR RECEIVED	ON HAND	CONSUMED	ON HAND AT START OF DAY	RECEIVED DURING DAY	EXPENDED DURING DAY	REMAINING ON BOARD	ON HAND AT START OF DAY	EVAPORATED OR RECEIVED	ON HAND	CONSUMED
1200 TO 1600	3	1200	460	700	8	120	120		62	1450	1450	240			10932820	10926170	5950											
1600 TO 2000	4	1200	440	700	10	140	110		48	1410	1450	240																
2000 TO 2400	3	1200	450	650	8	130	108		62	1350	1350	240																
2400 TO 0400	4	1200	450	650	9	140	120		48	1350	1350	240																
0400 TO 0800	3	1200	450	630	8	130	108		62	1300	1300	235																
0800 TO 1200	4	1200	450	630	9	140	120		48	1300	1300	235																
LOW PRESS. EVAPORATORS (No. of hrs. operated) (Fresh water made gals.)																												
L.O. CENTRIFUGE - HOURS OPERATED																												
1200 TO 1600		1600 TO 2000		2000 TO 2400		2400 TO 0400		0400 TO 0800		0800 TO 1200																		
4		4		4		4		4		4																		
SUMMARY																												
RUNNING TIME								PERCENT OF SLIP																				
DETENTION TIME								BBL FUEL/MI																				
TOTAL REVOLUTIONS								WIND DIRECTION																				
AVERAGE R.P.M.								STATE OF SEA																				
TOTAL MILES BY ENGINE								STATE OF WEATHER																				
TOTAL MILES BY OBSERVATION																												

REMARKS

1200-1600 WATCH

2 Boiler, Feed pump & F.O. slower, # 2 F.O. service pump, # 3-4 Generators, aux line, # 3-4 Main cond pumps, main line pump, # 2 Air Comp., L.C., purifier, main unit on jacking gear and now up, # 2 main lube oil service pump. Filling # 3 P/S F.W. Tank from dock. Finished FUELING SHIP @ 1500 Hours. Normal port watch.

JR Engr. STAG OILER BEAUCHAMP FWT, URRUTIA. WATCH ENGR'S SIGNATURE. *Clem*

1600-2000 WATCH

AS BEFORE -

KEEPING #3 boiler warm - ROUTINE PORT WATCH -

INSPECT MACHINERY AND SPACES - BILGES AT SAFE LEVEL.

KEEPING #3 P/S POT TANKS TOPPED OFF.

REPAIRED PLUG LEAK #3 MAIN FEED PUMP.

FOT. PITNEY OILER-GUINAN JRENG-ARCHER. WATCH ENGR'S SIGNATURE. *McDonald*

2000-2400 WATCH

MAG AS BEFORE.

INTERMITTENTLY FIRING #3 BUR

FOT WATKINS OILER HEVILLE

WATCH ENGR'S SIGNATURE. *W.B. Brinkley*

2400-0400 WATCH

MACHINERY IN OPERATION AS BEFORE. BOOSTED STEAM PRESS ON #3 boiler, INSPECTION OF MACHINERY & SPACES. NORMAL PORT WATCH.

OILER BEAUCHAMP FWT, URRUTIA.

WATCH ENGR'S SIGNATURE. *Clem*

0400-0800 WATCH

SAME AS BEFORE EXCEPT.

#3 BOILER ON LINE 0630 - TURNING ENGINE + TESTING GEAR AT 0700
BILGES AT SAFE LEVEL.

MAIN COND. .4 G/G

WATCH ENGR'S SIGNATURE. *McDonald*

0800-1200 WATCH

MAG AS BEFORE. PREPARING FOR DEPT. SBC @ 0815 FOM 3542240 FOM 738880 CTRP 1573350 BELLS AS PER BELLBOOK. DEPT @ 1000 18 NOZZLES B/OB @ 0945. DEPT FOM 3542510 FOM 7389110 CTRP 15736920
SEC'D #4 MAIN COND PUMP. FULL ASTERN THRUST READINGS K.P. CSI L.P. .92
FEED TANK #3 G/G PUMPED UP SETTLERS FROM 1/3 DEEP TK.

HEVILLE, OILER, FAILED TO SHOW UP FOR WATCH

WATCH ENGR'S SIGNATURE. *W.B. Brinkley*

CHIEF ENGINEER

BOILER WATER READINGS

STBD	PORT
H 3	HOURS
A 11.6	AKL 9.9
T 14.6	T-AKL 14.0
S 4.5	SAL. 5.3
PHOS. 40	PHOS. 30
R.ph 11	R.ph 11

CHIEF ENGR'S SIGNATURE. *W.B. Brinkley*

							WATCH						
							1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200	
RUNNING TIME							240	240	260	260	260	240	
DETENTION TIME													
REVOLUTION COUNTER (END OF WATCH)							1576 3830	1579 1350	1581 5960	1584 0710	1586 6350	1588 7580	
TOTAL REVOLUTIONS (FOR WATCH)							21690	22500	24610	24750	24840	22030	
AVERAGE RPM							90.4	93.7	94.8	95.2	95.6	91.8	
F.O. METER (END OF WATCH)							1093 5560	1093 8380	1094 1360	1097 4500	1094 7500	1095 0300	
F.O. CONSUMED							2740	2820	3000	3120	2995	2800	
MACHINERY PARTICULARS	PRESSURES	THROTTLE	425	420	420	420	420	420					
		H.P. AHEAD	425	420	420	420	420	420					
		L.P. AHEAD	20	19	19	19	19	19					
		VACUUM	29	29	29	29	29	29					
		L.O. TO TURBINES	12.5	12.5	12.5	12.5	12.5	12.5					
		AUX. STEAM	140	140	140	140	140	140					
		BACK PRESSURE	9	9	9	9	9	9					
		GLAND STEAM	2	1.6	2.0	2.0	2.0	1.5					
		H.P. BLEEDER	75	70	70	70	70	70					
		I.P. BLEEDER	9	9	9	9	9	9					
L.P. BLEEDER	12	12"	12"	12"	12"	12"							
TEMPERATURES	STEAM AT THROTTLE	730	725	730	730	720	720						
	L.P. EXHAUST	12	106	106	106	110	108						
	CONDENSATE	105	104	104	104	104	102						
	CIRC. WATER IN	102	76	74	74	77	76						
	CIRC. WATER OUT	84	90	90	90	90	90						
	L.O. TO COOLERS	126	126	126	126	128	128						
	L.O. FROM COOLERS	110	110	110	110	110	110						
	TEMPERATURE THRUST BEARING	150	112	115	115	115	115						
	FORWARD H.P. ROTOR BEARING	125	125	130	125	125	122						
								WATCH					
							1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200	
MACHINERY PARTICULARS (CONT'D)	TEMPERATURES (CONT'D)	AFT. H. P. ROTOR BEARING	130	130	128	130	130	130					
		FORWARD L. P. ROTOR BEARING	125	130	128	130	130	130					
		AFT. L.P. ROTOR BEARING											
		HOTTEST GEAR BEARING FORWARD	146	150	148	148	150	148					
		HOTTEST GEAR BEARING AFT	147	142	140	142	142	140					
		AUX. COND. CONDENSATE	100	108	108	108	110	112					
		1ST STAGE FEED WATER HEATER	170	170	170	170	170	170					
		D. C. FEED WATER HEATER	238	238	240	240	238	240					
		3RD STAGE FEED WATER HEATER											
		BOILER PARTICULARS	TEMPERATURES	F.O. TO BURNERS	130	125	130	130	120	120			
F. O. BACK PRESSURE	0												
AIR TO FURNACE	4"			4"	4"	4"	4"	4"					
UPTAKE													
MAIN STEAM	460			460	460	460	460	460					
SUPER HEAT	725			725	730	730		720					
F.O. TO BURNERS	170			170	170	170	170	170					
F.O. TEMP. IN SETTLING TANKS	100 80			100 85	100 85	100 85	100 85	100 85					
PORT BOILER UPTAKE	310			300	300	315	320	305					
STBD. BOILER UPTAKE	325			290	325	300	305	290					
MISCELLANEOUS	ENGINE ROOM TEMPERATURE	86	88	90	92	94	97						
	FIRE ROOM TEMPERATURE	86	88	90	92	94	97						
	NOZZLES IN USE		18	18	18	18	18						
	NO. OF BURNERS IN USE	6	6	6	6	6	6						
	BURNER TIP SIZE	5 1/55	5 1/55	5 1/55	5 1/55	5 1/55	5 1/55						
	CO2 % PORT BOILER		83			83							
	CO2 % STBD. BOILER		83			83							
	OIL LEVEL MAIN SUMP	3'	3'	3'	3'	2'9"	2'8"						

WATCH	GENERATORS												FUEL - WATER AND LUBE OIL					
	GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLER	L.O. FROM COOLER	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	VOLTS	FUEL OIL		BOILER WATER		LUBE OIL	
1200 TO 1600	3	1200	450	725	8	128	108		62	1450	1450	235	METER AT NOON	10950300		ON HAND AT START OF DAY		
													METER PREVIOUS NOON	10932820		EVAPORATED OR RECEIVED		
													CONSUMED BY METER	17440		ON HAND		
													ON HAND AT START OF DAY			CONSUMED		
													RECEIVED DURING DAY			ON HAND AT START OF DAY		
													EXPENDED DURING DAY			RECEIVED		
													REMAINING ON BOARD			ON HAND		
1600 TO 2000	4	1200	450	725	10	138	118		48	1450	1450	235	ON HAND AT START OF DAY			CONSUMED		
													EVAPORATED OR RECEIVED					
													ON HAND					
													CONSUMED					
2000 TO 2400	3	1200	450	725	8	134	110		62	1350	1350	235	LOW PRESS. EVAPORATORS (No. of hrs. operated) (Fresh water made gals.)					
													L.O. CENTRIFUGE - HOURS OPERATED					
													1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
													3	4	4 1/3	4 1/3	4 1/3	4
2400 TO 0400	4	1200	450	730	9	140	121		48	1300	1300	235	SUMMARY					
													RUNNING TIME			PERCENT OF SLIP		
													DETENTION TIME			BBL FUEL/MI		
													TOTAL REVOLUTIONS			WIND DIRECTION		
0400 TO 0800	3	1200	450	720	8	130	110		62	1600	1550	235	AVERAGE R.P.M.			STATE OF SEA		
													TOTAL MILES BY ENGINE			STATE OF WEATHER		we r
													TOTAL MILES BY OBSERVATION					
0800 TO 1200	4	1200	450	720	9	142	122		48	1600	1600	235						

REMARKS

1200-1600 WATCH

MACHINERY IN OPERATION AS BEFORE. CHANGED & CLEANED #1 BURNER & STD STRAINER. PUMPED BILGES. SECURED & CLEANED L.O. PURIFIER. MADE ROUNDS OF MACH SPACES & EQUIPMENT. NORMAL STEERING WATCH. HELD CASUALTY DRILL B-5 HIGH WATER IN BILGE 1300 TO 1330 BRIDGE NOTIFIED STBY @ 1202 WEATHER

FED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE-

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE EXCEPT SECURED AUT. AIR EJECT. BLEW TUBES #3 AND #4 BOILERS.

W AT 1730. HELD ENG. EMERGENCY CASUALTY DRILL B-5 (HIGH BOILER WATER) FROM 1700 TO 1730 - 4 MEN PRESENT - BRIDGE NOTIFIED. WELD 3' BOILER CASING SEAM ON #3 BOILER. PUMPED BILGES. ROUTINE INSPECTION OF MACHINERY AND SPACES.

MAIN COND. 1.4 G/G.

WATCH ENGR'S SIGNATURE-

2000-2400 WATCH

MACH AS BEFORE. CLEANED #6 BURNER & #4 F.O. DISC/ STRNR. HELD CASUALTY DRILL B-5 @ 2300-2315. AMONG WATCH PERSONNEL PUMPED UP SETTLERS FROM 1/2 DEEP TKS. TESTED LOW L.O. & OVERSPEED TRIPS. RETARDED CLOCK 20 mins @ 2300.

WATCH ENGR'S SIGNATURE-

2400-0400 WATCH

MACHINERY IN OPERATION AS BEFORE. CHANGED & CLEANED #2 BURNER & STD STRAINER. MADE ROUNDS OF ENGINE ROOM SPACES & EQUIPMENT. RETARDED CLOCK 20 MIN @ 0100. NORMAL STEERING WATCH.

FED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE-

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE. CLEANED #3 BURNER + F.O. SUCTION STRAINER. RETARDED CLOCK 20' @ 0425. ROUTINE INSPECTIONS OF EQUIP. & SPACES. PUMP BILGES.

MAIN COND. .4 G/G.

WATCH ENGR'S SIGNATURE-

0800-1200 WATCH

MACH AS BEFORE. CLEANED & CLEANED #6 BURNER & F.O. DISC/ STRNR. BLEW TUBES #3 & #4 BURS. PUMPED UP SETTLERS FROM 1/2 DEEP TKS.

W COND .4 G/G

WATCH ENGR'S SIGNATURE-

CHIEF ENGINEER

BOILER WATER READINGS

STD #3 PORT #4

P 3 383 HOURS 655

A 11.6 AKL 11.6

T 15.1 T-AKL 15.1

SAL. 4.1 SAL. 4.9

PHOS. 40 PHOS. 30

R.ph 11 R.ph 10.5

CHIEF ENGR'S SIGNATURE-

REMARKS

1200-1600 WATCH

ENGINEERY AS BEFORE 18 NOZZLES. MACHINERY IN USE AS BEFORE, CLEANED #2 BURNER, CLEANED STD FUEL AIR DISCHARGE STRAINER, PUMPED BILGES, MADE ROUTINE INSPECTION OF ALL MACHINERY & MACHINERY SPACES, 1330 STD FIRE & BORT DRILL 1352 H SECURE

FEED TANK .83 GPG

WATCH ENGR'S SIGNATURE-

Clemson,

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE.

CLEANED #4 BURNER ATOMIZER & F.O. SUCTION STRAINER.

BLOW TUBES #3 & #4 BOILER. PUMPED BILGES

ROUTINE INSPECTION OF MACHINERY & SPACES.

ROUTINE REPAIRS & CLEANING.

MAIN COND. .4 G/G.

WATCH ENGR'S SIGNATURE-

McDonnell

2000-2400 WATCH

MACH AS BEFORE. CHANGED #6 BURNER & F.O. DISCH STRNR. PUMPED UP SETTLERS FROM #4 PS DEEP TK. TIGHTENED MAIN AIR COMP BELTS. TESTED LOW L.O. & OVERSPEED TRIPS

FEED TK .83 G/G MAIN COND .41 G/G

WATCH ENGR'S SIGNATURE-

W. B. Seagins

2400-0400 WATCH

MACHINERY IN OPERATION AS BEFORE. CHANGED & CLEANED #1 BURNER & STD STRAINER. MADE ROUNDS & INSPECTION OF MACHINERY SPACES & EQUIPMENT. MCGINNIS F/U STD OILERS WATCH FROM 0100 TO 0400. NORMAL STORMING WATCH.

FEED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE-

Clemson

0400-0800 WATCH

AS BEFORE.

CLEANED #3 BURNER & F.O. SUCTION STRNR.

PUMPED BILGES. ROUTINE INSPECTIONS OF MACH. AND SPACES.

O'HAWKED AND REPLACED PIPING BOILER WATER TEST COOLER.

PAINTING BOILER FRONTS.

MAIN COND. .4 G/G

WATCH ENGR'S SIGNATURE-

McDonnell

0800-1200 WATCH

MACH AS BEFORE. CHANGED & CLEANED #5 BURNER & F.O. DISCH STRNR. BLOW TUBES #3 & 4 BURS. TESTED LOW L.O. & OVERSPEED TRIPS

FEED TK .83 G/G MAIN COND .41 G/G

WATCH ENGR'S SIGNATURE-

W. B. Seagins

CHIEF ENGINEER

BOILER WATER READINGS

SEID	PORT
B: S 407	HOURS 679
A: 10.5	AKL 11.1
T: 14.6	T-AKL 15.1
SAL. 4.5	SAL. 4.9
PHOS. 40	PHOS. 40
R. ph 11	R. ph 11

CHIEF ENGR'S SIGNATURE-

W. B. Seagins

REMARKS

1200-1600 WATCH

MACHINERY IN OPERATION AS BEFORE. CHANGED & CLEANED #2 BURNER & STD STRAINER. MADE ROUNDS OF MACHINERY SPACES & EQUIPMENT. DAY WORKERS LAGGING IN ENGINE ROOM. NORMAL STEAMING WATCH.

FEED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE-

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE.

BLEW TUBES #3 AND #4 BOILERS.

CLEANED #4 BURNER AND F.O. SUCTION STRAINER.

ROUTINE INSPECTIONS OF MACH AND SPACES

PUMPED BILGES

2000-2400 WATCH

MAIN COND. .4 G/G.

WATCH ENGR'S SIGNATURE-

MACH AS BEFORE. CHANGED #6 BURNER & F.O. DISCH STRNR
PUMPED UP SETTLERS FROM 1/8 DEEP TK

2400-0400 WATCH

FEED TK .83 1/4 W/N COND 1/1 1/2

WATCH ENGR'S SIGNATURE-

MACHINERY IN OPERATION AS BEFORE. CHANGED & CLEANED #1 BURNER & STD STRAINER. MADE ROUNDS OF MACHINERY SPACES & EQUIPMENT. NORMAL STEAMING WATCH.

FEED TANKS .83 GPG.

WATCH ENGR'S SIGNATURE-

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE.

CLEANED #3 BURNER ATOMIZER AND F.O. SUCTION STRAINER

PUMPED BILGES. ROUTINE STEAMING WATCH.

0800-1200 WATCH

MAIN + AUX COND .4 G/G.

WATCH ENGR'S SIGNATURE-

MACH AS BEFORE. CHANGED #5 BURNER & F.O. DISCH STRNR

BLEW TUBES #3 & #4 BOILERS

PUMPED SETTLERS FROM 1/8 DEEP TKS

TESTED LOW L.C. & OVERSPEED TRIPS

SPLIT PLANT @ 1000

CHIEF ENGINEER

WATCH ENGR'S SIGNATURE-

W/N COND 1/1 FEED TK .83 1/4

BOILER WATER READINGS

STE'D	PORT
HOURS 431	HOURS 703
AKL 11.6	AKL 9.9
T-AKL 14.6	T-AKL 14.0
SAL. 4.5	SAL. 5.3
PHOS. 40	PHOS. 30
R.ph 11	R.ph 11

CHIEF ENGR'S SIGNATURE-

WATCH							WATCH						
	1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200		1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
RUNNING TIME	240	60					MACHINERY PARTICULARS (CONT'D)	AFT. H. P. ROTOR BEARING	130	122			
DETENTION TIME								FORWARD L. P. ROTOR BEARING	130	105			
REVOLUTION COUNTER (END OF WATCH)								AFT. L. P. ROTOR BEARING					
TOTAL REVOLUTIONS (FOR WATCH)	1618	14820						HOTTEST GEAR BEARING FORWARD	146	110			
AVERAGE RPM	94.6	86.6						HOTTEST GEAR BEARING AFT	142	105			
F.O. METER (END OF WATCH)	1098	1098	1098	1098	1098	1099		AUX. CONO. CONDENSATE	102	105	112	108	112
F.O. CONSUMED	2800	1410	630	420	530	510		1ST STAGE FEED WATER HEATER	170	105	100	105	100
MACHINERY PARTICULARS	PRESSURES	THROTTLE	A20					D. C. FEED WATER HEATER	240	236	240	238	238
		H.P. AHEAD	A20					3RD STAGE FEED WATER HEATER					
		L.P. AHEAD	19					F.O. TO BURNERS	120	190	190	190	200
		VACUUM	29	23.5	23.5	23.5		F. O. BACK PRESSURE	0	0	0	0	0
		L.O. TO TURBINES	12.5	13.4	13.4	13.4		AIR TO FURNACE	4"	2"	3"	2"	2"
		AUX. STEAM	140	135	135	140		UPTAKE					
		BACK PRESSURE	9	9	9	9		MAIN STEAM	460	460	460	460	460
		GLAND STEAM	2	2	2.0	2.0		SUPER HEAT	720	690	630	630	630
		H.P. BLEEDER	70	-				F.O. TO BURNERS	150	150	150	150	150
		L.P. BLEEDER	9	-				F.O. TEMP. IN SETTLING TANKS	106	100	100	100	100
MACHINERY PARTICULARS	TEMPERATURES	L.P. BLEEDER	12	21"			BOILER PARTICULARS	PORT BOILER UPTAKE	295	275	265	270	270
		STEAM AT THROTTLE	730	630	630	630		STBD. BOILER UPTAKE	290	265	255	260	260
		L.P. EXHAUST	112	128	125	125		ENGINE ROOM TEMPERATURE	98	96	96	93	94
		CONDENSATE	106	105	92	92		FIRE ROOM TEMPERATURE	98	96	96	93	94
		CIRC. WATER IN	80	83	80	80		NOZZLES IN USE	18	-			
		CIRC. WATER OUT	92	84		92		NO. OF BURNERS IN USE	6	2	2	2	2
		L.O. TO COOLERS	128	104	110	112		BURNER TIP SIZE	5 1/55	5 3/60	5 3/60	5 3/60	5 3/60
		L.O. FROM COOLERS	110	100	105	110		CO2 % PORT BOILER					
		TEMPERATURE THRUST BEARING	117	104				CO2 % STBD. BOILER					
		FORWARD H.P. ROTOR BEARING	120	105				OIL LEVEL MAIN SUMP	2'7"	2'7"	2'5"	2'5"	2'5"

GENERATORS													FUEL - WATER AND LUBE OIL									
WATCH	GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLER	L.O. FROM COOLER	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	VOLTS	FUEL OIL		DOMESTIC WATER		BOILER WATER		LUBE OIL			
1200 TO 1600	3	1200	450	730	8	128	112		62	1500	1000	235	METER AT NOON	10990220	METER PREVIOUS NOON	10983860	CONSUMED BY METER	6360	ON HAND AT START OF DAY		ON HAND AT START OF DAY	
	4	1200	450	730	10	140	124		46	1500	1500	235	ON HAND AT START OF DAY		RECEIVED DURING DAY		EXPENDED DURING DAY		RECEIVED		ON HAND	
1600 TO 2000	3	1200	450	690	8	136	116		62	1400	1400	235	REMAINING ON BOARD		ON HAND AT START OF DAY		EVAPORATED OR RECEIVED		ON HAND		CONSUMED	
	4	1200	450	690	9	145	128		46	1400	1400	235	ON HAND		CONSUMED							
2000 TO 2400	3	1200	450	630	8	136	114		62	1450	1450	235										
	4	1200	450	630	9	140	124		46	1450	1450	235										
2400 TO 0400	3	1200	450	630	8	136	112		60	1300	1300	235										
	4	1200	450	630	10	140	120		46	1300	1300	235										
0400 TO 0800	3	1200	450	630	8	134	114		60	1350	1350	235										
	4	1200	450	630	9	140	124		45	1350	1350	235										
0800 TO 1200	3	1200	450	630	8	128	112		60	1350	1350	235										
	4	1200	450	630	9	140	124		45	1350	1350	235										

LOW PRESS. EVAPORATORS (No. of hrs. operated) (Fresh water made gals.)					

L.O. CENTRIFUGE - HOURS OPERATED					
1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
4	4	4	3	4	4

SUMMARY		
RUNNING TIME		PERCENT OF SLIP
DETENTION TIME		BBL FUEL/MI
TOTAL REVOLUTIONS		WIND DIRECTION
AVERAGE R.P.M.		STATE OF SEA
TOTAL MILES BY ENGINE		STATE OF WEATHER
TOTAL MILES BY OBSERVATION		

REMARKS

1200-1600 WATCH

UNDERWAY AS BEFORE 18 NOZZLES, MACHINERY IN USE AS BEFORE, CLEANED #2 ATOMIZER, CLEANED STD F O DISCHARGE STRAINER, PUMPED ENGINE ROOM & SHAFT ALLEY BILGES, PUMPED WASTE OIL DRUM, INSPECTED ENGINE ROOM AND MACHINERY.

FUEL TANKS .83 GPG.

WATCH ENGR'S SIGNATURE- *W. Brachman*

1600-2000 WATCH

AS BEFORE EXCEPT- BLEW TUBES #3+4 BOILERS

CLEANED #4 BURNER, ATOMIZER & F.O. SUCTION STRAINER. BLEW TUBES #3+4.

ARRIVAL @ 1700

FWE-@ 1821

BELLS AS PER BELL BOOK.

P-FOM-3570350

P-FOM-3570550

JACKING GEAR ENGAGED

S-FOM-7417190

S-FOM-7417360

SECURED 1ST STAGE EJECTOR

P-CNTR-16187520

P-CNTR-16190520

HIGH INTENTION @ 1700.

S-CNTR-16831900

S-CNTR-16834780

WATCH ENGR'S SIGNATURE- *M. Donald*

2000-2400 WATCH

MACH AS BEFORE. CLEANED #4 F.O. DISCH STRNR

11/2 UNIT ON 2ND STAGE AIR EJECTOR, L.O. & JACK GEAR ON

FUEL-WATKINS OILER-NEVILLE

WATCH ENGR'S SIGNATURE- *W. Brachman*

2400-0400 WATCH

AT ANCHOR, VUNG TAU, MAIN ENGINE ON JACKING gear, Lube oil cycle. 1ST STAGE AIR EJECTOR SECURED, SECURED & CLEANED L.O. Purifier.

HELD CASUALTY DRILL B-6 MAJOR FUEL OIL LEAK, FROM 0200 TO 0230

3 MEN, BRIDGE NOTIFIED, MADE ROUNDS & INSPECTION OF MACHINERY SPACES & EQUIPMENT, NORMAL PORT WATCH.

OILER, BRAUCHAMP, F.W.T. URRUTIA.

FUEL TANKS .83 GPG.

WATCH ENGR'S SIGNATURE- *Clemens*

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE! PORT WATCH.

HELD CASUALTY DRILL B-6 (MAJOR FUEL OIL LEAK) FROM 0500 TO 0530.

3 MEN PRESENT, BRIDGE NOTIFIED, INSPECTIONS OF MACHINERY & SPACES.

BILGES AT SAFE LEVEL. DRAIN CONDENSATE FROM HOB. OIL SUMP #3+4 GEN.

MAIN COND. H G/G.

OILER- GUINAN F.W.T- PIXLEY

WATCH ENGR'S SIGNATURE- *M. Donald*

0800-1200 WATCH

MACH AS BEFORE. PUMPED SETTLERS FROM 1/2 DEEP TK.

BLEW TUBES #3 & 4 BURS.

PUT IN #3 & 4 BURNERS & SEC'D #5 & 6

WATCH ENGR'S SIGNATURE- *W. Brachman*

CHIEF ENGINEER

BOILER WATER READINGS

STBD PORT

HOURS HOURS

AKL AKL

T-AKL T-AKL

SAL. SAL.

PHOS. PHOS.

R.ph R.ph

CHIEF ENGR'S SIGNATURE- *M. Donald*

WATCH							WATCH						
	1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200		1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
RUNNING TIME		120	210	240	168	51	MACHINERY PARTICULARS (CONT'D)	AFT. H. P. ROTOR BEARING		130	132	130	
DETENTION TIME								FORWARD L. P. ROTOR BEARING		130	128	130	
REVOLUTION COUNTER (END OF WATCH)	1619 3480	1620 2700	1622 5340	1624 7640	1626 4790			AFT. L. P. ROTOR BEARING					
TOTAL REVOLUTIONS (FOR WATCH)		9380	22640	22300	17150			HOTTEST GEAR BEARING FORWARD		148	150	148	
AVERAGE RPM		93.8	94.4	92.9	91.2			HOTTEST GEAR BEARING AFT		140	140	140	
F.O. METER (END OF WATCH)	1099 0750	1099 2580	1099 5330	1099 8070	1100 0490	1100 1110		AUX. COND. CONDENSATE	108	110	106	106	104
F.O. CONSUMED	530	1830	2750	2760	2400	620		1ST STAGE FEED WATER HEATER	94	175	170	170	120
PRESSURES	THROTTLE	425	425	420				D. C. FEED WATER HEATER	238	238	240	238	240
	H.P. AHEAD	425	425	420				3RD STAGE FEED WATER HEATER					
	L.P. AHEAD	21	21	21				F.O. TO BURNERS	150	150	150	115	225
	VACUUM	23.5	28.7	28.5	28.8	29		F. O. BACK PRESSURE	0	0	0		
	L.O. TO TURBINES	13	12.4	12.4	12.5	12.5		AIR TO FURNACE	2", 140	114	4"		2'
	AUX. STEAM	140	140	140	140	140		UPTAKE	270 260	295 295			
	BACK PRESSURE	9	9	9	9	9		MAIN STEAM	650	730	720	450	450
	GLAND STEAM	2.5	1.5	1.5	1.5	2.0		SUPER HEAT	450	450	450	730	650
	H.P. BLEEDER		70	70	70			F.O. TO BURNERS	190	115	115	150	150
	L.P. BLEEDER		7	7	9			F.O. TEMP. IN SETTLING TANKS	100 9.5	102 9.0	100 8.5	150 9.0	150 9.0
TEMPERATURES	L.P. BLEEDER	12"	12"	12"	19"		BOILER PARTICULARS	PORT BOILER UPTAKE	270	300	295	290	
	STEAM AT THROTTLE	730	720	720	650	630		STBD. BOILER UPTAKE	260	295	295	295	
	L.P. EXHAUST	145	106	108				ENGINE ROOM TEMPERATURE	95	92	95	94	94
	CONDENSATE	102	106	104		90		FIRE ROOM TEMPERATURE	95	92	95	94	94
	CIRC. WATER IN	80	78	78	80	81		NOZZLES IN USE		18	18	18	Black
	CIRC. WATER OUT	92	92	92	90	82		NO. OF BURNERS IN USE	2	6	6	6	2
	L.O. TO COOLERS	114	126	124		108		BURNER TIP SIZE	53/60	51/55	51/55	51/55	53/60
	L.O. FROM COOLERS	110	108	110		104		CO ₂ % PORT BOILER		83			
	TEMPERATURE THRUST BEARING	115	115	115				CO ₂ % STBD. BOILER		83			
	FORWARD H.P. ROTOR BEARING	125	122	120				OIL LEVEL MAIN SUMP	2'5"	2'5"	2'5"	2'5"	2'6"

GENERATORS												FUEL - WATER AND LUBE OIL					
WATCH	GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLER	L.O. FROM COOLER	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	FUEL OIL		WATER		LUBE OIL	
1200 TO 1600	3	1200	450	650	8	130	112		60	1350	1350	METER AT NOON		ON HAND AT START OF DAY			
	4	1200	450	650	10	140	126		46	1350	1350	METER PREVIOUS NOON	10990220	EVAPORATED OR RECEIVED			
1600 TO 2000	3	1200	450	730	8	130	112		60	1300	1300	CONSUMED BY METER		ON HAND			
	4	1200	450	730	9	140	126		46	1300	1300	ON HAND AT START OF DAY		CONSUMED			
2000 TO 2400	3	1200	450	720	8	132	110		60	1350	1350	RECEIVED DURING DAY		ON HAND AT START OF DAY			
	4	1200	450	720	10	140	120		46	1350	1350	EXPENDED DURING DAY		RECEIVED			
2400 TO 0400	3	1200	450	720	8	130	110		60	1350	1350	REMAINING ON BOARD		ON HAND			
	4	1200	450	720	10	140	120		46	1350	1350	ON HAND AT START OF DAY		CONSUMED			
0400 TO 0800	3	1200	450	650	8	130	110		60	1500	1500	EVAPORATED OR RECEIVED					
	4	1200	450	650	10	140	120		46	1500	1500	ON HAND					
0800 TO 1200	3	1200	450	630	8	130	112		60	1450	1450	CONSUMED					
	4	1200	450	630	10	140	120		46	1450	1450	DOMESTIC WATER					
												LOW PRESS. EVAPORATORS (No. of hrs. operated) (Fresh water made gals.)					
												L.O. CENTRIFUGE - HOURS OPERATED					
												1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
												4	4	4	4	4	4
												SUMMARY					
												RUNNING TIME		PERCENT OF SLIP			
												DETENTION TIME		BBL FUEL/MI			
												TOTAL REVOLUTIONS		WIND DIRECTION			
												AVERAGE R.P.M.		STATE OF SEA			
												TOTAL MILES BY ENGINE		STATE OF WEATHER			
												TOTAL MILES BY OBSERVATION					

REMARKS

1200-1600 WATCH

AT ANCHOR, VUNG TAU. CHANGED & CLEANED F.O. burners & STRAINERS, VAC ON MAIN UNIT, JACKING GEAR ENGAGED, ROUTINE & INSPECTION OF MACHINERY SPACES & EQUIPMENT. NORMAL PORT WATCH. TESTED STEERING GEAR @ 1545

WATCH ENGR'S SIGNATURE- *Clem*

1600-2000 WATCH

AS BEFORE EXCEPT:

TESTING GEAR @ 1600. TIME CHECK 1615. TEST TELEGRAPH @ 1649.

STBY @ 1651	DEPARTURE @ 1800	BELLS AS PER BELL BOOK.
P-FOM- 3572390	P-FOM- 3572570	19 NOZZLES @ 1830
S-FOM- 7418660	S-FOM- 7418830	MAIN COND. .46/G.
P-CNTR- 16190880	P-CNTR- 16193480	
S-CNTR- 16835380	S-CNTR- 16837990	

WATCH ENGR'S SIGNATURE- *McDonnell*

2000-2400 WATCH

WAC AS BEFORE. CHANGED F.O. DISC/ STRNR
PUMPED UP SETTLERS FROM 1/4 DEPTH

WATCH ENGR'S SIGNATURE- *W. Beagins*

2400-0400 WATCH

MACHINERY IN OPERATION AS BEFORE. CHANGED & CLEANED #1 burner & STBD STRAINER. MADE ROUNDS & INSPECTION OF MACHINERY SPACES & EQUIPMENT. NORMAL STEERING WATCH.

WATCH ENGR'S SIGNATURE- *Clem*

0400-0800 WATCH

AS BEFORE EXCEPT.

14 NOZZLES @ 0603. SEA DETAIL @ 0630. 12 NOZ. @ 0635. #1 @ 0648.	
ARRIVAL @ 0648	MAIN COND. .46/G
F.O.M-P - 3576910	PUMPED BILGES.
F.O.M-S - 7423290	
CNTR-P - 16264790	
CNTR-S - 16911470	

WATCH ENGR'S SIGNATURE- *McDonnell*

0800-1200 WATCH

WAC AS BEFORE. MANEUVERING INTO N/A TRAIL
FWE @ 0851 FOM 3577220 FOM 7423560 CNTR 16269370
SEC'D STM TO W/N UNIT & PUT ON JACK GEAR ON 2ND STAGE AIR EJECT
BLOW TUBES #3 & 4 BURS.
PUMPED UP SETTLER FROM 1/4 DEPTH.

WATCH ENGR'S SIGNATURE- *W. Beagins*

CHIEF ENGINEER

BOILER WATER READINGS

SEB'D	PORT
ECRS 479	HOURS 751
AKL 11.6	AKL 11.1
T-WL 15.1	T-AKL 14.6
S.L. 4.5	SAL. 5.8
PHOS. 30	PHOS. 30
R.ph 11	R.ph 11

CHIEF ENGR'S SIGNATURE- *W. Beagins*

REMARKS

1200-1600 WATCH

AT ANCHOR, NHA TRANG, # 3-4 BOILERS, FEED PUMPS, F.O. SERVICE PUMPS,
3-4 GEN, MAIN ENGINE ON JACKING GEAR, VAC UP, TUBO OIL CYCLE.
MADE ROUNDS & INSPECTION OF MACH SPACES & EQUIPMENT, NORMAL PORT WATCH.

OILER-BEAUCHAMP, F.W.T-URRUTIA.

WATCH ENGR'S SIGNATURE-

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE.
MADE ROUNDS & INSPECTIONS OF MACHINERY & SPACES.
BILGES AT SAFE LEVEL - TIGHTEN LOWER GEAR COVER # 3 F.O. SERVICE
PUMP TO CORRECT OIL LEAK.

2000-2400 WATCH

WATCH ENGR'S SIGNATURE-

COND. H/G/G. F.W.T-PITNEY, OILER-GOLMAN
MACH AS BEFORE CHANGED F.O. DISCH STRNR.

2400-0400 WATCH

WATCH ENGR'S SIGNATURE-

F.W.T-WATKINS OILER-NEVILLE
MACHINERY IN OPERATION AS BEFORE. CLEANED STD F.O. STRAINER, CHANGED
& CLEANED burners, PUMPED ENGINE ROOM & SHAFT ALLEY bilges.
ROUNDS & INSPECTION OF MACHINERY SPACES & EQUIPMENT, NORMAL
PORT WATCH.

OILER-BEAUCHAMP, F.W.T-URRUTIA.

WATCH ENGR'S SIGNATURE-

0400-0800 WATCH

MACHINERY AS BEFORE EXCEPT.
WHEEL CLEARANCE @ 0652. TESTING GEAR @ 0700, TEST TELEGRAPH @ 0707.
ROUTINE ANCHOR WATCH. INSPECT ALL EQUIP. IN PREPARATION TO GET UNDERWAY.

0800-1200 WATCH

WATCH ENGR'S SIGNATURE-

MAIN COND. H/G/G
MACH AS BEFORE. PREPARING TO LEAVE NHA TRANG.
STBY @ CED FOM 3579120 FOM 7424220 CTR 16269650
DEPT & 18 NOZZLES @ 0900 FOM 3579400 FOM 7424390 CTR 16273740
BLEW TUBES #3 & 4 BURS
TOPPED OFF SETTLERS FROM 3^{PH} D.B.
SLOWED TO 12 NOZZLES @ 1051 ARRIVAL @ 1100 FOM 3580090 FOM 7425690
CTR 16284590

CHIEF ENGINEER

WATCH ENGR'S SIGNATURE-

BOILER WATER READINGS

STB'D	PORT
HOURS 503	HOURS 775
AKL 9.34	AKL 9.93
T-AKL 12.8	T-AKL 13.4
SAL. 4.14	SAL. 4.97
PHOS. 30	PHOS. 40
R.ph 11	R.ph 11

CHIEF ENGR'S SIGNATURE-

REMARKS

1200-1600 WATCH

AT ANCHOR. ENG RD. # 3-4 BOILERS, FEED PUMPS, RD. BLOWERS, & F.O. PUMPS
3-4 GEN. MAIN UNIT ON JACKING GEAR, LUBE OIL CYCLE, VAC UP.
CHANGED & CLEANED burners STD STRAINER, Bilges dry. ROUNDS & INSPECTION OF
MACH SPACES & EQUIPMENT, NORMAL PORT WATCH.

F.W.F @ 1143 C-16185190. F.O.M P-3580200 S-7425800 Jr. Engr - Leslie

Oiler - Beauchamp. F.W.T. URRUTIA

WATCH ENGR'S SIGNATURE -

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE.

ROUTINE INSPECTION OF MACH. & SPACES.

NORMAL PORT WATCH.

F.W.T - PILEY OILER - GUINAN

WATCH ENGR'S SIGNATURE -

2000-2400 WATCH

"ACH" AS BEFORE. CHANGED PORT FO DISCH STRNR

F.W.T - WATKINS OILER - NEVILLE

WATCH ENGR'S SIGNATURE -

2400-0400 WATCH

MACHINERY IN OPERATION AS BEFORE. CLEANED STD F.O. STRAINER.

Bilges dry. Held CASUALTY drill B-7 FORCED DRAFT BLOWER FAILURE 3 MEN
BRIDGE NOTIFIED. ROUNDS & INSPECTION OF MACH SPACES & EQUIPMENT.
NORMAL PORT WATCH.

Oiler - Beauchamp. F.W.T. URRUTIA

WATCH ENGR'S SIGNATURE -

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE EXCEPT

HELD ENG. CASUALTY DRILL # B-7, FORCED DRAFT BLOWER FAILURE, 3 MEN
PRESENT. BRIDGE NOTIFIED. TEST O'SPEED + LOW OIL PRESSURE TRIP MAIN TURB.
CHIEF ENG. IN ENG. RM. @ 0635 TO 0638. WHEEL CLEAR. @ 0642.
TESTING GEAR @ 0700. TIME & TELEGRAPH TEST @ 0707.

WATCH ENGR'S SIGNATURE -

0800-1200 WATCH

MACH AS BEFORE. PREPARING TO LEAVE UNCL R.

STBY @ 0801 FOM 3581770 FOM 7427160 CTR 16286140

DEPT # 18 NOZZLES @ 0830 FOM 3581810 FOM 7427230 CTR 16286820

BLEW TUBES #3 & 4 BURS. Held CASUALTY DRILL B-7 @ 1000-1020 AMONG WATCH
PERSONNEL

WATCH ENGR'S SIGNATURE -

CHIEF ENGINEER

POWER WATER READINGS

STEAD	PORT
PS 517	HOURS 799
AKL 9.34	AKL 9.34
T-KL 12.85	T-AKL 12.85
SAL. 4.14	SAL. 4.97
PHOS. 40	PHOS. 30
R.ph 11	R.ph 11

CHIEF ENGR'S SIGNATURE -

USNS		VOYAGE NO.		FROM		TO		TYPE OF VESSEL		DATE	
Gen. John. Pope								P2		12-15+16-16	

WATCH							WATCH						
1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200		1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200	
RUNNING TIME DETENTION TIME REVOLUTION COUNTER (END OF WATCH) TOTAL REVOLUTIONS (FOR WATCH) AVERAGE RPM F.O. METER (END OF WATCH) 1101 1101 1101 1101 1101 1101 2190 2720 3240 3730 4290 4870 F.O. CONSUMED 870 530 320 490 560 580							AFT. H. P. ROTOR BEARING FORWARD L. P. ROTOR BEARING AFT. L. P. ROTOR BEARING HOTTEST GEAR BEARING FORWARD HOTTEST GEAR BEARING AFT AUX. COND. CONDENSATE 104 104 104 104 106 106 1ST STAGE FEED WATER HEATER 110 104 110 110 110 110 D. C. FEED WATER HEATER 240 238 240 240 238 240 3RD STAGE FEED WATER HEATER F.O. TO BURNERS 180 180 180 200 190 190 F. O. BACK PRESSURE AIR TO FURNACE 2" 2" 2" 2" 2" 2" UPTAKE MAIN STEAM 450 450 450 450 450 450 SUPER HEAT 640 650 650 650 650 630 F.O. TO BURNERS 150 150 150 150 150 150 F.O. TEMP. IN SETTLING TANKS 90 90 90 90 102 102 100 100 100 100 90 80 PORT BOILER UPTAKE 275 270 275 275 275 275 STBD. BOILER UPTAKE 270 260 280 270 270 280 ENGINE ROOM TEMPERATURE 92 92 91 90 90 91 FIRE ROOM TEMPERATURE 92 92 91 90 90 91 NOZZLES IN USE NO. OF BURNERS IN USE 2 2 2 2 2 2 BURNER TIP SIZE 53/60 53/60 53/60 53/60 53/60 53/60 CO2 % PORT BOILER CO2 % STBD. BOILER OIL LEVEL MAIN SUMP 2'4" 2'4" 2'4" 2'4" 2'4" 2'5"						

PRESSURES							TEMPERATURES												
THROTTLE	H.P. AHEAD	L.P. AHEAD	VACUUM 26.5 26.5 26.5 26.5 26.5 27	L.O. TO TURBINES 13.5 13.5 140 13.5 13.5 13.5	AUX. STEAM 145 140 140 140 140 140	BACK PRESSURE 9 9 9 9 9 9	GLAND STEAM 2.5 2.5 2.5 2.5 2.5 2.5	H.P. BLEEDER	I.P. BLEEDER	L.P. BLEEDER	STEAM AT THROTTLE	L.P. EXHAUST 124 126 118 116 118 118	CONDENSATE 92 90 94 92 88 88	CIRC. WATER IN 78 78 78 74 78 74	CIRC. WATER OUT 88 82 90 82 82 80	L.O. TO COOLERS 112 112 110 112 112 110	L.O. FROM COOLERS 110 110 106 108 110 108	TEMPERATURE THRUST BEARING	FORWARD H.P. ROTOR BEARING

GENERATORS												FUEL - WATER AND LUBE OIL															
GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLERS	L.O. FROM COOLERS	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	VOLTS	METER AT NOON	METER PREVIOUS NOON	CONSUMED BY METER	ON HAND AT START OF DAY	EVAPORATED OR RECEIVED	ON HAND	CONSUMED	ON HAND AT START OF DAY	RECEIVED DURING DAY	EXPENDED DURING DAY	REMAINING ON BOARD	ON HAND AT START OF DAY	EVAPORATED OR RECEIVED	ON HAND	CONSUMED	
1200 TO 1600	3	1200	450	650	8	132	110		62	1250	1250	235	1101 4350	1101 1320	3630												
1600 TO 2000	4	1200	450	650	10	138	122		48	1250	1250	235															
2000 TO 2400	3	1200	450	650	8	132	110		62	1300	1300	235															
2400 TO 0400	4	1200	450	650	10	140	122		48	1300	1300	235															
0400 TO 0800	3	1200	450	650	8	132	110		62	1250	1250	235															
0800 TO 1200	4	1200	450	650	10	140	122		48	1250	1250	235															

L.O. CENTRIFUGE - HOURS OPERATED					
1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
4	4	4	4	4	4

SUMMARY	
RUNNING TIME	PERCENT OF SLIP
DETENTION TIME	BBL FUEL/MI
TOTAL REVOLUTIONS	WIND DIRECTION
AVERAGE R.P.M.	STATE OF SEA
TOTAL MILES BY ENGINE	STATE OF WEATHER
TOTAL MILES BY OBSERVATION	

REMARKS

1200-1600 WATCH

ARRIVAL Qui Nhon @ 1200 F.O.M. 11011560 CTR-16306450. F.W.E C 1304
F.O.M. 11011870. CTR-16308720. MAIN ENGINE ON JACKING GEAR. VAC UP & LUBE OIL CYCLE
SECURED & CLEANED L.O. PURIFIER. MADE TOUNDS & INSPECTION OF MACH SPACES & EQUIPMENT.
NORMAL PORT WATCH.

WATCH ENGR'S SIGNATURE- *Clemson*

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE.
ROUTINE INSPECTIONS OF MACHINERY & SPACES.
BILGES AT SAFE LEVEL. CLEANED F.O. SUCTION STRAINER.

FWT - PITLEY OILER - GUINAN

MAIN + AUX. COND. #2 G/G.

WATCH ENGR'S SIGNATURE- *McDonald*

2000-2400 WATCH

MACH AS BEFORE CHANGED PORT F.O. DISCH STRNR

FWT - WATKINS OILER - NEVILLE

WATCH ENGR'S SIGNATURE- *W. Braginskas*

2400-0400 WATCH

AT ANCHOR. Qui Nhon. MACHINERY IN OPERATION AS BEFORE. CLEANED STD
F.O. STRAINER. ROUTINE INSPECTION OF MACHINERY SPACES & EQUIPMENT.
NORMAL PORT WATCH.

OILER - BOUCHAMP, F.W.T. URRUTIA

WATCH ENGR'S SIGNATURE- *Clemson*

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE.
CLEANED F.O. SUCTION STRAINER. COMPOUND BOILERS. BILGES AT SAFE
LEVEL. ROUTINE INSPECTIONS OF MACHINERY & SPACES.
SECURE STEAM PRESSURE GAGE VALVE # 4 BOILER.

FWT - PITLEY OILER - GUINAN

WATCH ENGR'S SIGNATURE- *McDonald*

0800-1200 WATCH

MACH AS BEFORE PREPARING TO LEAVE Qui Nhon
WHEEL CLEAR @ 1054 STD TO G/G @ 1108 TIME & TELE CHECK @ 1100

CHIEF ENGINEER

WATCH ENGR'S SIGNATURE- *W. Braginskas*

BOILER WATER READINGS

STBD	PORT
W.S. 551	HOURS 8.23
AL. 9.34	AKL 9.34
T-WL 12.26	T-AKL 11.68
SAL. 4.14	SAL. 4.5
PHOS. 30	PHOS. 30
R.ph 11	R.ph 11

CHIEF ENGR'S SIGNATURE- *W. Braginskas*

USNS GEN JOHN POPE T-AP110 VOYAGE NO. FROM QUE NHAN TO SAN FRANCISCO TYPE OF VESSEL P-2 DATE 12-16+17-66

		WATCH								WATCH					
		1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200			1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
RUNNING TIME		198	240	240	240	240	240	MACHINERY PARTICULARS (CONT'D) TEMPERATURES (CONT'D) 							

GENERATORS											FUEL - WATER AND LUBE OIL										
WATCH	GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLER	L.O. FROM COOLER	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	VOLTS	FUEL OIL			BOILER WATER			LUBE OIL		
1200 TO 1600	3	1200	450	725	8	130	110		62	1300	1300	235	METER AT NOON	11031530		ON HAND AT START OF DAY			ON HAND		
	4	1200	450	725	10	140	120		48	1300	1300	235	METER PREVIOUS NOON	11014950		EVAPORATED OR RECEIVED			CONSUMED		
1600 TO 2000	3	1200	450	725	8	134	114		62	1400	1400	235	CONSUMED BY METER	16380		ON HAND			ON HAND		
	4	1200	450	725	10	143	124		48	1400	1400	235	ON HAND AT START OF DAY			CONSUMED			ON HAND AT START OF DAY		
2000 TO 2400	3	1200	450	730	8	134	112		62	1300	1300	235	RECEIVED DURING DAY			ON HAND AT START OF DAY			RECEIVED		
	4	1200	450	730	10	140	122		48	1300	1300	235	EXPENDED DURING DAY			ON HAND			ON HAND		
2400 TO 0400	3	1200	450	730	8	134	112		62	1300	1300	235	REMAINING ON BOARD			CONSUMED			CONSUMED		
	4	1200	450	730	10	140	120		48	1300	1300	235	ON HAND AT START OF DAY			ON HAND			ON HAND		
0400 TO 0800	3	1200	450	725	8	134	112		62	1350	1350	235	EVAPORATED OR RECEIVED			CONSUMED			CONSUMED		
	4	1200	450	725	10	140	124		42	1400	1400	235	ON HAND								
0800 TO 1200	3	1200	450	725	8	134	114		62	1350	1350	235	CONSUMED								
	4	1200	450	725	10	142	124		42	1350	1350	235									

L.O. CENTRIFUGE - HOURS OPERATED					
1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200
4	4	4	4	4	4

SUMMARY			
RUNNING TIME		PERCENT OF SLIP	
DETENTION TIME		BBL FUEL/MI	
TOTAL REVOLUTIONS		WIND DIRECTION	
AVERAGE R.P.M.		STATE OF SEA	
TOTAL MILES BY ENGINE		STATE OF WEATHER	
TOTAL MILES BY OBSERVATION			

REMARKS

1200-1600 WATCH

UNDERWAY ON 18 NOZZLES, # 3-4 Boilers, F.D Pumps, F.D blowers, & F.O. Service Pumps, # 3-4 GEN. AUX Circ, COND PUMP & AIR EJECTOR, MAIN Circ, AIR EJECTOR & # 4 COND Pump, # 2 Air Comp, L.O. Purifier, DEP C1242, C-16310130, F.O.M-11015130
ROUNDS & INSPECTION OF MACH SPACES & EQUIPMENT, NORMAL STEAMING WATCH.

WATCH ENGR'S SIGNATURE- *Clemson*

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE.
BLEW TUBES #3 & #4 BOILERS, NORMAL STEAMING WATCH.
TIGHTEN LOWER GAGE GLASS UPPER VALVE FLANGE ON #4 BOILER.
PUMPED BILGES.

WATCH ENGR'S SIGNATURE- *McDonald*

2000-2400 WATCH

MAIN COND. 226/G.
MACH AS BEFORE, CHANGED #6 BURNER & #4 F.O. DISCH STRNR.
PUMPED UP SETTLERS FROM 3P/S D.B.
TESTED LOW L.O. & OVERSPEED TRIPS
CHANGED & CLEANED ALL GEN. L.O. STNRS

WATCH ENGR'S SIGNATURE- *W. B. Beardsley*

2400-0400 WATCH

MACHINERY AS BEFORE, CHANGED & CLEANED #1 burner & STD F.O.
STRAINER, ROUNDS & INSPECTION OF MACH SPACES & EQUIPMENT.
NORMAL STEAMING WATCH.

WATCH ENGR'S SIGNATURE- *Clemson*

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE.
CLEANED #3 BURNER + F.O. SUCTION STRAINER, ROUTINE STEAMING WATCH.
PUMPED BILGES, CHANGED TO INBOARD SETTLER @ 0700.

WATCH ENGR'S SIGNATURE- *McDonald*

0800-1200 WATCH

MAIN COND. 226/G.
MACH AS BEFORE, CHANGED #5 BURNER & #4 F.O. STRNR
BLEW TUBES #3 & #4 BLS
GRAVITATED L.O. FROM L.O. SETTLING TK TO S/AFT ALLEY DAY TK.
PUMPED SETTLERS FROM 3P/S & D.B.
TESTED LOW L.O. & OVERSPEED TRIPS

WATCH ENGR'S SIGNATURE- *W. B. Beardsley*

CHIEF ENGINEER

BOILER WATER READINGS

SEED	PORT
HOURS 57.5	HOURS 847
AKL 11.10	AKL 8.18
T-AKL 14.6	T-AKL 12.24
SAL. 4.14	SAL. 4.9
PHOS. 40	PHOS. 40
R.ph 11	R.ph 10.6

CHIEF ENGR'S SIGNATURE- *Clemson*

USNS GEN JOHN POPE-TAPILO VOYAGE NO. 6F FROM QUE NHAN TO SAN FRANCISCO TYPE OF VESSEL P-2 DATE 12-17-66

		WATCH								WATCH								
		1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200			1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200			
RUNNING TIME		240	240	240	240	240	240	MACHINERY PARTICULARS (CONT'D)	TEMPERATURES (CONT'D)	AFT. H. P. ROTOR BEARING		130	134	132	130	132	132	
DETENTION TIME										FORWARD L. P. ROTOR BEARING		130	130	128	130	130	128	
REVOLUTION COUNTER (END OF WATCH)		1646 3380	1648 5990	1650 8500	1653 1360	1655 4150	1657 6820			AFT. L. P. ROTOR BEARING								
TOTAL REVOLUTIONS (FOR WATCH)		22720	22610	22510	22860	22790	22670			HOTTEST GEAR BEARING FORWARD		146	148	148	146	150	148	
AVERAGE RPM		94.7	94.2	93.8	95.2	94.9	94.5			HOTTEST GEAR BEARING AFT		142	142	140	140	142	140	
F.O. METER (END OF WATCH)		11034 320	1103 7110	1103 9980	1104 2790	1104 5530	1104 8380			AUX. COND. CONDENSATE		104	110	110	108	110	108	
F.O. CONSUMED		2790	2790	2870	2790	2760	2850			1ST STAGE FEED WATER HEATER		176	175	175	175	175	170	
MACHINERY PARTICULARS		THROTTLE		420	420	420	420	420	420	D. C. FEED WATER HEATER		240	238	238	138	238	238	
		H.P. AHEAD		426	420	420	420	420	420	420	3RD STAGE FEED WATER HEATER							
		L.P. AHEAD		21	23	22	22	22	22									
		VACUUM		28.6	28.6	28.7	28.6	28.6	28.7									
		L.O. TO TURBINES		12.5	12.5	12.5	12.5	12.5	12.5									
		AUX. STEAM		140	140	140	140	140	140									
		BACK PRESSURE		9	9	9	9	9	9									
		GLAND STEAM		0	.4	.5	0	6	-									
		H.P. BLEEDER		80	70	70	70	70	70									
		L.P. BLEEDER		9	9	9	9	9	9									
TEMPERATURES		L.P. BLEEDER		15"	12"	12"	12"	11"	11"									
		STEAM AT THROTTLE		725	715	720	725	715	720									
		L.P. EXHAUST		114	116	116	112	112	110									
		CONDENSATE		106	112	110	108	112	106									
		CIRC. WATER IN		76	84	82	80	83	78									
		CIRC. WATER OUT		92	96	96	92	94	88									
		L.O. TO COOLERS		124	128	126	126	128	126									
		L.O. FROM COOLERS		110	110	108	110	110	110									
		TEMPERATURE THRUST BEARING		116	116	115	115	115	115									
		FORWARD H.P. ROTOR BEARING		120	125	120	120	125	120									
MISCELLANEOUS																		

GENERATORS													FUEL - WATER AND LUBE OIL							
WATCH	GENERATOR NUMBER	R.P.M.	STEAM PRESSURE	STEAM TEMP.	L.O. PRESSURE	L.O. TO COOLER	L.O. FROM COOLER	TEMP. OF HOTTEST BEARING	L.O. GOVERNOR PRESSURE	AMPS POSITIVE	AMPS NEGATIVE	VOLTS	FUEL OIL		DOMESTIC WATER		BOILER WATER		LUBE OIL	
1200 TO 1600	3	1200	450	725	8	132	110		62	1350	1350	235	METER AT NOON	11048380			ON HAND AT START OF DAY			
													METER PREVIOUS NOON	11031530			EVAPORATED OR RECEIVED			
	4	1200	450	725	10	146	124		42	1350	1350	235	CONSUMED BY METER	16850			ON HAND			
													ON HAND AT START OF DAY				CONSUMED			
1600 TO 2000	3	1200	450	715	8	134	114		62	1350	1350	235	RECEIVED DURING DAY				ON HAND AT START OF DAY			
													EXPENDED DURING DAY				RECEIVED			
	4	1200	450	715	10	145	126		42	1350	1350	235	REMAINING ON BOARD				ON HAND			
													ON HAND AT START OF DAY				CONSUMED			
2000 TO 2400	3	1200	450	720	8	132	114		62	1300	1300	235	EVAPORATED OR RECEIVED							
													ON HAND							
	4	1200	450	715	10	140	120		42	1300	1300	235	CONSUMED							
2400 TO 0400	3	1200	450	725	8	132	112		62	1300	1300	235								
	4	1200	450	725	10	140	120		42	1300	1300	235								
0400 TO 0800	3	1200	450	715	8	134	114		62	1400	1400	235								
	4	1200	450	715	10	145	124		42	1400	1400	235								
0800 TO 1200	3	1200	450	720	8	134	112		62	1350	1350	235								
	4	1200	450	720	10	140	120		42	1350	1350	235								
LOW PRESS. EVAPORATORS (No. of hrs. operated) (Fresh water made gals.)																				
L.O. CENTRIFUGE - HOURS OPERATED																				
	1200 TO 1600	1600 TO 2000	2000 TO 2400	2400 TO 0400	0400 TO 0800	0800 TO 1200														
	4	4	4	4	4	4														
SUMMARY																				
RUNNING TIME													PERCENT OF SLIP							
DETENTION TIME													BBL FUEL/MI							
TOTAL REVOLUTIONS													WIND DIRECTION							
AVERAGE R.P.M.													STATE OF SEA							
TOTAL MILES BY ENGINE													STATE OF WEATHER							
TOTAL MILES BY OBSERVATION																				

REMARKS

1200-1600 WATCH

UNDERWAY AS BEFORE 18 NOZZLES, CHECKED ALL MACHINERY IN USE. CLEANED #2 ATOMIZER AND STD F.O. DISCH STRAINER, PUMPED ENGINE ROOM BILGES, NORMAL STEAMING WATCH.

WATCH ENGR'S SIGNATURE-

1600-2000 WATCH

MACHINERY IN OPERATION AS BEFORE
BLEW TUBES #3 & #4 BOILERS. CLEANED #4 BURNER AND F.O. SUCTION STRAINER. WATER TIGHT DOORS CLOSED @ 1742, B.O.B.
COMPOUND #4 BOILER. PUMPED SHAFT ALLEY BILGES.

WATCH ENGR'S SIGNATURE-

2000-2400 WATCH

MAIN COND. 2 G/G.
MACH AS BEFORE CHANGED #6 BURNER & #4 F.O. DISCH STRNR
PUMPED UP SETTLERS FROM 3 $\frac{1}{2}$ D.B.
TIGHTENED SIDE ROD NUTS #3 W/IN FD PUMP.

WATCH ENGR'S SIGNATURE-

2400-0400 WATCH

UNDERWAY AS BEFORE 18 NOZZLES, MADE ROUTINE INSPECTION OF MACHINERY SPACES AND MACHINERY, CLEANED #1 ATOMIZER AND STD F.O. DISCHARGE STRAINER, PUMPED ENGINE ROOM BILGES, CARRIED OUT ALL STANDING ORDERS AND WATCH ROUTINE,

WATCH ENGR'S SIGNATURE-

0400-0800 WATCH

MACHINERY IN OPERATION AS BEFORE.
CLEANED #3 BURNER ATOMIZER & F.O. SUCTION STRAINER.
PUMPED SHAFT ALLEY BILGES. ROUTINE INSPECTIONS OF MACH. & SPACES
SWITCHED TO INBOARD SETTLER @ 0700.

WATCH ENGR'S SIGNATURE-

0800-1200 WATCH

MAIN COND. 2 G/G.
MACH AS BEFORE CHANGED #6 BURNER & #4 F.O. DISCH STRNR
BLEW TUBES #3 & #4 BLRS.
PUMPED SETTLERS FROM 3 $\frac{1}{2}$ & 2 $\frac{1}{2}$ D.B.
TESTED LOW L.O. & OVERSPEED TRIPS

WATCH ENGR'S SIGNATURE-

CHIEF ENGINEER

BOILER WATER READINGS

STEAD #3 PORT #4

HOURS 619 HOURS 871

AKL 11.10 AKL 9.34

T-AKL 15.18 T-AKL 13.43

SAL. 4.56 SAL. 4.56

PHOS. 40 PHOS. 40

R.ph 11 R.ph 11

SO₂ 60 SO₂ 60

CHIEF ENGR'S SIGNATURE-