

TRANSFERRED TO:
L. R. SYSTEM

No. 2142

THE BRITISH CORPORATION FOR THE SURVEY
AND
REGISTRY OF SHIPPING.

TRANSFERRED TO:
L. R. SYSTEM

Report No. *1983*

No. in Register Book *3315*

83 M/S "EL AMIN"

Makers of Engines *MESSRS. ATLAS-DIESEL,
STOCKHOLM.*

Works No. *50115.*

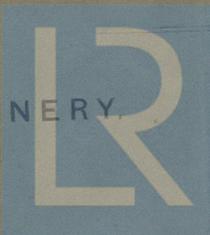
Makers of Main Boilers *NONE*

Works No. *—*

Makers of Donkey Boiler *BOW McLACHLAN & CO LTD*

Works No. *1157*

MACHINERY



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002385-002400-0033

No.

THE BRITISH CORPORATION FOR THE SURVEY

AND

REGISTRY OF SHIPPING.

Report No. No. in Register Book

Received at Head Office

22nd October 1926.

Surveyor's Report on the New Engines, Boilers, and Auxiliary
Machinery of the ~~Twin Quadruple~~ ^{Single Triple} Screw MOTOR VESSEL
S.O. "EL AMIN."

Official No.

Port of Registry LONDON.

Registered Owners

HALAL SHIPPING CO LTD

Engines Built by MESSRS ATLAS DIESEL. STOCKHOLM.

at SICKLA WORKS.

Main Boilers Built by

NONE

at

Donkey ..

MESSRS BOW Mc LACHLAN

at

PAISLEY.

Date of Completion

13th October 1926.

First Visit

25/10/1925
21/10/1926.

Last Visit

8-10-26.
12/6/1926

Total Visits

16

33

49.

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INTERNAL COMB.
RECIPROCATING ENGINES.Works No. **50115** No. of Sets **ONE** Description**SINGLE ACTING, TWO STROKE CYCLE, RECIPROCATING
REVERSIBLE. (FORCED LUBRICATION)**No. of Cylinders each Engine **5** No. of Cranks **5**Diams. of Cylinders **420^M/M.** Stroke **720^M/M.**Cubic feet in each ~~one~~ Cylinder **WORKING = 100 LITER**Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cylr.? **YES.**" " " each Receiver? **YES.**

Type of H.P. Valves,

" 1st I.P. "

" 2nd I.P. "

" L.P. "

" Valve Gear

" Condenser Cooling Surface sq. ft.

Diameter of Piston Rods (plain part) **130^M/M** Screwed part (bottom of thread) **74^M/M.**Material " **TO B.C.'S REQUIREMENTS**Diam. of Connecting Rods (smallest part) **130^M/M** Material **TO B.C.'S R.S.**" Crosshead Gudgeons **220** Length of Bearing **770** Material " " "No. of Crosshead Bolts (each) **4** Diam. over Thrd. **42** Thrds. per inch **11** Material **0.35.C**" Crank Pin " " **2** " **52** " " **11** " **0.35.C.**" Main Bearings **6** Lengths **370^M/M.**" Bolts in each **2** Diam. over Thread **49.2** Threads per inch **8** Material **0.35.C**" Holding Down Bolts, each Engine **42** Diam. **1 5/8"** No. of Metal Chocks **42**Are the Engines bolted to the Tank Top or to a Built Seat? **TO a BUILT SEAT.**

Are the Bolts tapped through the Tank Top and fitted with Nuts Inside?

If not, how are they fitted?

6- FITTED BOLTS & CHOCKS IN THRUST BLOCKConnecting Rods, Forged by **MOTOLA VERKSTAD.**

Piston " " " " " " " " " " " "

Crossheads, " " " " " " " " " " " "

Connecting Rods, Finished by **MESSRS. ATLAS-DIESEL**

Piston " " " " " " " " " " " "

Crossheads, **DATE OF SHOP TRIAL, AT STOCKHOLM "3-11-26"**Date of Harbour Trial **AT ALBERT HARBOUR GREENOCK 25-1X-26.**" Trial Trip **30.9.26. SKELMORLIE MILE**Trials run at **FIRTH OF CLYDE**Were the Engines tested to full power under Sea-going conditions? **YES.**If so, what was the I.H.P.? **BHP. 752.** Revols. per min. **160**

Pressure in 1st I.P. Receiver, lbs., 2nd I.P., - lbs., L.P., - lbs., Vacuum, - ins.

Speed on Trial **11.123.**

If the Conditions on Trial were such that full power records were not obtained give the following estimated

data:— **M.E.P. 85/lbs. MAX. I.N.T. = 500/lbs.**Builders (estimated) I.H.P. ON TEST BED **1026-1066** Revols. per min. **7 156-159**Estimated Speed **11 knots.****COOLING OF MAIN ENGINE PARTS IS EFFECTED BY SEA WATER.****THE WATER FROM THE PISTONS DISCHARGING INTO A GALVANIZED TANK****IN BILGE OF E.R. STAR. SIDE, WITH OVERFLOW TO BILGE AND****SUCTION TO M.E. BILGE PUMP. THE WATER FROM JACKETS DIS-****CHARGES DIRECTLY OVERBOARD.****FORCED LUBRICATION OIL IS IN NO. 5 TANK WITH SUCTIONS FROM****EACH SIDE TO ALLOW ONE SIDE TO BE COOLED OR CLEANED WHILE****USING THE OTHER SIDE.****THE STARTING OF THE MAIN ENGINES IS EFFECTED BY AIR ACTING****ON THE LOWER SIDES OF PISTONS. THE LOWER SIDES ALSO****WHILE RUNNING SUPPLYING AIR TO AUGMENT THE SCAVENGING PUMP**

TURBO-ELECTRIC PROPELLING MACHINERY.

No. of Turbo-Generating Sets Capacity of each

Type of Turbines employed

Description of Generators

No. of Motors driving Propeller Shafting

Are the Propeller Shafts driven direct by the Motors or through Gearing?

Is Single or Double Reduction Gear employed?

Description of Motors

Diam. of 1st Reduction Pinion }
 " 1st " Wheel } Width Pitch of Teeth

Estimated Pressure per lineal inch

Diam. of 2nd Reduction Pinion }
 " 2nd " Wheel } Width Pitch of Teeth

Estimated Pressure per lineal inch

Revs. per min. of Generators at Full Power

" Motors "

" 1st Reduction Shaft

" 2nd "

" Propellers at Full Power

Total Shaft Horse Power

Date of Harbour Trial

" Trial Trip

Trials run at

Speed on Trial Knots. Propeller Revs. per min. S.H.P.

Makers of Turbines

" Generators

" Motors

" Reduction Gear

Turbine Spindles forged by

" Wheels forged or cast by

Reduction Gear Shafts forged by

" Wheels forged or cast by

DESCRIPTION OF INSTALLATION.

[Faint handwritten notes and diagrams related to the installation description, including terms like 'Type of Turbine', 'Diam. of Turbine', and 'No. of Turbine']



SHAFTING.

Are the Crank Shafts Built or Solid?

SOLID.

No. of Lengths in each

ONE

Angle of Cranks

$$\frac{360}{5} = 72^\circ$$

Diar. by Rule

270.5 $\frac{m}{m}$.

Actual

275 $\frac{m}{m}$.

In Way of Webs

" of Crank Pins

275

Length between Webs

280 $\frac{m}{m}$.

Greatest Width of Crank Webs

375 $\frac{m}{m}$.

Thickness

152 $\frac{m}{m}$.

Least " "

Diar. of Keys in Crank Webs

Length

" Dowels in Crank Pins

Length

Screwed or Plain

No. of Bolts each Coupling

6

Diar. at Mid Length

65 $\frac{m}{m}$.

Diar. of Pitch Circle

410 $\frac{m}{m}$.

Greatest Distance from Edge of Main Bearing to Crank Web

23 $\frac{m}{m}$.

Type of Thrust Blocks

MICHEL

No. " Rings

1

Diar. of Thrust Shafts at bottom of Collars

260 $\frac{m}{m}$.

No. of Collars

7

" " Forward Coupling

260 $\frac{m}{m}$.

At Aft Coupling

212 $\frac{m}{m}$.

Diar. of Intermediate Shafting by Rule

190 $\frac{m}{m}$.

Actual

8.125"

No. of Lengths

ONE

No. of Bolts, each Coupling

Diar. at Mid Length

Diar. of Pitch Circle

Diar. of Propeller Shafts by Rule

8.24"

Actual

9.25"

At Couplings

9 $\frac{5}{16}$ "

Are Propeller Shafts fitted with Continuous Brass Liners?

YES.

Diar. over Liners

8'-7"

Length of After Bearings

Of what Material are the After Bearings composed?

LIGNUM VITAE

Are Means provided for lubricating the After Bearings with Oil?

YES.

VICKERS PATENT

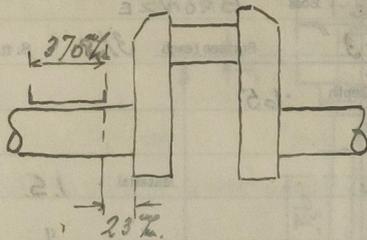
" " to prevent Sea Water entering the Stern Tubes?

YES.

If so, what Type is adopted?

VICKERS PATENT.

SKETCH OF CRANK SHAFT.



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No. of Blades each Propeller **4** Fitted or Solid? **SOLID.**
 Material of Blades **BRONZE** Boss **BRONZE**
 Diam. of Propellers **8'-11 7/8"** Pitch **8'-3"** Surface (each **3/8** S. ft.
 Coefficient of Displacement of Vessel at 1/2 Moulded Depth **.65**

Crank Shafts Forged by	F. SCHICHAU.	Material	1.5.
" Pins "	" "	"	"
" Webs "	" "	"	"
Thrust Shafts	MOTOLA VERTESTAD.	"	"
Intermed. "	LANGLEY FORGE CO LTD	"	1.5.
Propeller "	" "	"	"
Crank " Finished by	ATLAS DIESEL		
Thrust " "	" "		
Intermed. "	BOW MCLACHLAN & CO LTD		
Propeller " "	" "		

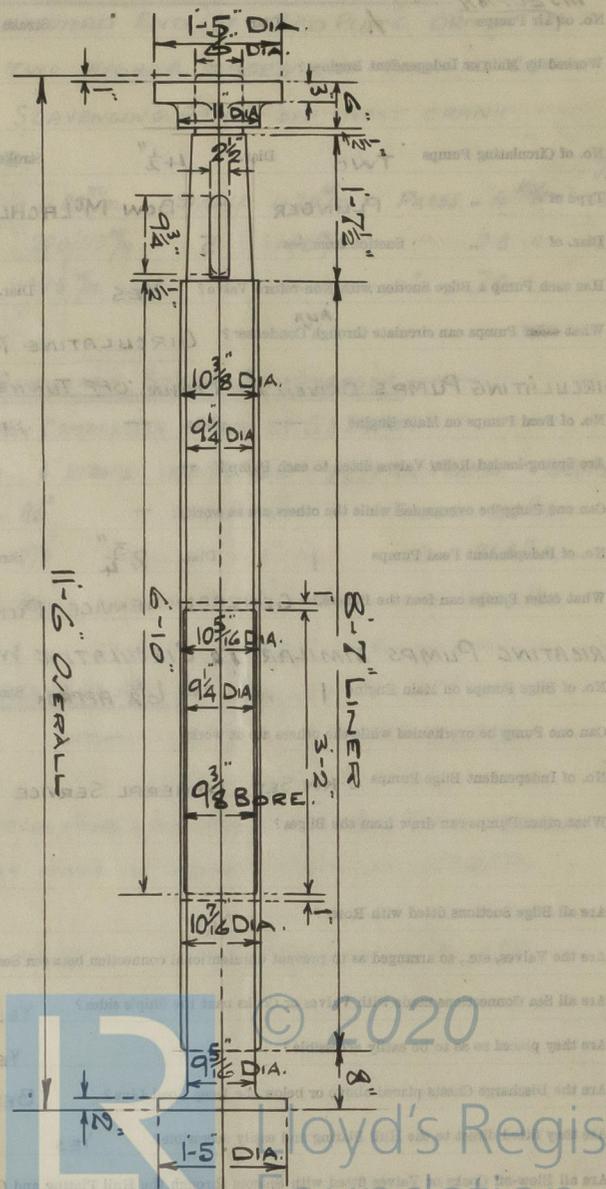
COMPRESSOR SHAFT **KOHLSON JARNVERKS.**

STAMP MARKS ON SHAFTS.

TUNNEL & PROPELLOR SHAFTS.

BC.
 NO 3273.
 R.L.G.
 28.6.26.

SKETCH OF PROPELLER SHAFT.



SECTION OF SHEET
PUMPS, ETC.

INJECTION

No. of Air Pumps / Diar. Stroke

Worked by Main or Independent Engines?

No. of Circulating Pumps TWO Diar. $4\frac{1}{2}$ " Stroke 9"

Type of " PLINGER BOW McLACHLAN & CO LTD.

Diar. of " Suction from Sea 5

Has each Pump a Bilge Suction with Non-return Valve? YES Diar. $2\frac{1}{2}$ "

What ~~aux~~ Pumps can circulate through Condenser? ^{AUX} CIRCULATING PUMP (AUX.)

CIRCULATING PUMPS DRIVEN BY CHAIN OFF TUNNEL SHAFTING. SEE PAGE 5

No. of Feed Pumps on Main Engine — Diar. — Stroke —

Are Spring-loaded Relief Valves fitted to each Pump? —

Can one Pump be overhauled while the others are at work? —

No. of Independent Feed Pumps 1 Diar. $2\frac{3}{4}$ " Stroke 5"

What other Pumps can feed the Boilers? GENERAL SERVICE PUMP.

LUBRICATING PUMPS SIMILAR TO CIRCULATING WATER PUMPS SEE P. 5

No. of Bilge Pumps on Main Engine 1 Diar. $6\frac{1}{2}$ " APPROX Stroke 6" APPROX

Can one Pump be overhauled while the others are at work? —

No. of Independent Bilge Pumps 3-KW SET, GENERAL SERVICE

What other Pumps can draw from the Bilges?

Are all Bilge Suctions fitted with Roses? YES

Are the Valves, etc., so arranged as to prevent unintentional connection between Sea and Bilges? YES

Are all Sea Connections made with Valves or Cocks next the Ship's sides? YES.

Are they placed so as to be easily accessible? YES

Are the Discharge Chests placed above or below the Deep Load Line? BELOW

Are they fitted direct to the Hull Plating and easily accessible? YES

Are all Blow-off Cocks or Valves fitted with Spigots through the Hull Plating and Covering Plates or Flanges

on the Outside? YES.

— MAIN ENGINE COMPRESSOR —

FITTED IN FORWARD END OF BED PLATE DRIVEN BY CRANKSHAFT. TWO HIGHER STAGES OFF FORWARD CRANK. LOW STAGE & SCAVENGING PUMP OFF NEXT CRANK. NOS STAGES. 3.

STAGE 1. DIA = 400^{MM}/M. STROKE 420^{MM}/M. PRESS. 4 KG/CM². SAFETY VALVES 35^{MM}/M DIA

" 2. " 290^{MM}/M. " 190^{MM}/M. " 25 " 25 "

" 3. " 115^{MM}/M. " 70 " 11 "

— AUXILIARY STEAM COMPRESSOR —

TANDEM STEAM DRIVEN COMPRESSOR MADE BY G & J WEIR.

STEAM CYL. = 10 $\frac{1}{2}$ " DIA, 6" STROKE 1000/lb PRESS. 82 CF AIR. PER MIN. 450 REVS.

STAGE 1. DIA = 9 $\frac{1}{2}$ " STROKE = 6" PRESS. 40/lb.

" 2. " = 7 $\frac{1}{8}$ " " = 6" " 265/lb.

" 3. " = 2 $\frac{1}{2}$ " " = 6" 1000/lb.

— SCAVENGING PUMP —

DIA. = 680^{MM}/M. STROKE = 420^{MM}/M = PRESS. = 0.2 KG/CM².

ONE COMBINED CIRCULATING & AIR PUMP FOR AUXILIARY STEAM CONDENSER ALL MADE BY BOW McLACHLAN & CO LTD.

STEERING ENGINE NO 3924 BOW McLACHLAN & CO LTD.



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BOILERS.

Works No. 1157.

No. of Boilers ONE Type CYLINDRICAL MULTITUBULAR.

Single or Double-ended SINGLE END FIRED.

No. of Furnaces in each ONE.

Type of Furnaces PLUN.

Date when Plan approved 2-12-25

Approved Working Pressure 100 lbs

Hydraulic Test Pressure 200 lbs.

Date of Hydraulic Test 6-5-26

„ when Safety Valves set 21-9-26

Pressure at which Valves were set 100 lbs.

Date of Accumulation Test 21-9-26

Maximum Pressure under Accumulation Test 102 lbs.

System of Draught WALLSEND OIL BURNING HEATED AIR 8"-20'.

Can Boilers be worked separately? ONE BOILER ONLY.

Makers of Plates THE CONSETT IRON CO.

„ Stay Bars LANARKSHIRE STEEL CO

„ Rivets RIVET BOLT & NUT CO LTD

„ Furnaces THOS PIGGOTT & CO LTD

Greatest Internal Diam. of Boilers 6'-11 1/8"

„ „ Length „ 8'-4 3/8"

Square Feet of Heating Surface each Boiler 469.

„ „ Grate „ „ OIL FUEL.

No. of Safety Valves each Boiler 2 Rule Diam. Actual 2"

Are the Safety Valves fitted with Easing Gear? YES.

No. of Pressure Gauges, each Boiler ONE. No. of Water Gauges ONE

„ Test Cocks „ TWO. „ Salinometer Cocks ONE

BC TEST
 N° 4940
 T.P. 200 lbs.
 W.P. 100 lbs.
 RLG
 6-5-26.

— STARTING AIR RESERVOIRS. —

MADE IN STOCKHOLM SWEDEN.

ONE CYLINDRICAL HORIZONTAL.

3-12-25.
 213.35 lbs = 15 KG/cm².
 426.7 lbs. = 30 "

30-9-26.
 220 lbs.
 30-9-26.
 233 lbs.

4'-9.07" DIA.
 12'-11.59" LEN.

- CAPACITY 222.5 C.F. = 6300 LITRES.



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Diar. of Stays Approved — Threads per Inch —

" " in Boilers

Material "

Thickness of Front Tube Plates Approved $\frac{1}{16}$ "

" " " " in Boilers $\frac{1}{16}$ "

Pitch of Stay Tubes at Spaces between Stacks of Tubes $1-0\frac{1}{2}$ " x 7"

Thickness of Doublings in " " " —

" Stay Tubes at " " " $\frac{3}{8}$ "

Are Stay Tubes fitted with Nuts at Front End? No.

Thickness of Back Tube Plates Approved $\frac{9}{8}$ "

" " " in Boilers "

Pitch of Stay Tubes in Back Tube Plates $10\frac{1}{2}$ " x 7"

" Plain " $3\frac{1}{2}$ " x $3\frac{1}{2}$ "

Thickness of Stay Tubes $\frac{3}{8}$ "

" Plain " 11WG.

External Diar. of Tubes $2\frac{1}{2}$ "

Material " IRON.

Thickness of Furnace Plates Approved $\frac{19}{32}$ "

" " " in Boilers "

Smallest outside Diar. of Furnaces $2'-11\frac{5}{16}$ "

Length between Tube Plates $6'-0"$

Width of Combustion Chambers (Front to Back) $1'-9\frac{7}{8}"$

Thickness of " " Tops Approved $\frac{15}{32}$ "

" " " in Boilers "

Pitch of Screwed Stays in O.C. Tops $8" \times 7\frac{1}{4}"$

— AIR BOTTLES. —

INJECTION AIR BOTTLE.

No. 1.

DIA./INT. $300^m/m$

WP. $70^{kg/cm^2}$

T.P. 140 "

APPROVED. 3-12-25.

CAPACITY. 135 litres.

LENGTH. $2000^m/m$.

THICKNESS. $17.5^m/m$.

DATE BC. 9-6-26 PF 140 $^{kg/cm^2}$.

SPARE AIR BOTTLES.

2

$350^m/m$.

$70^{kg/cm^2}$.

140 "

3-12-25.

330 litres.

$3500^m/m$.

$21^m/m$.



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VERTICAL DONKEY BOILERS.

No. of Boilers	—	Type	—
Greatest Int. Diar.	—	Height	—
Height of Boiler Crown above Fire Grate	—		
Are Boiler Crowns Flat or Dished?	—		
Internal Radius of Dished Ends	—	Thickness of Plates	—
Description of Seams in Boiler Crowns	—		
Diar. of Rivet Holes	—	Pitch	—
Width of Overlap	—		
Height of Firebox Crowns above Fire Grate	—		
Are Firebox Crowns Flat or Dished?	—		
External Radius of Dished Crowns	—	Thickness of Plates	—
No. of Crown Stays	—	Diar.	—
Material	—		
External Diar. of Firebox at Top	—	Bottom	—
Thickness of Plates	—		
No. of Water Tubes	—	Ext. Diar.	—
Thickness	—		
Material of Water Tubes	—		
Size of Manhole in Shell	—		
Dimensions of Compensating Ring	—		
Heating Surface, each Boiler	—	Grate Surface	—

SUPERHEATERS.

Description of Superheaters	—		
Where situated?	—		
Which Boilers are connected to Superheaters?	—		
Can Superheaters be shut off while Boilers are working?	—		
No. of Safety Valves on each Superheater	—	Diar.	—
Are „ „ fitted with Basing Gear?	—		
Date of Hydraulic Test	—	Test Pressure	—
Date when Safety Valves set	—	Pressure on Valves	—

TAYLOR'S MAIN STEAM PIPES

Free Peak	35	1-2 1/2	
NO. 1	35	2-2 1/2	
NO. 2	35	2-2	
NO. 3	35	2-2	
NO. 4	35	2-2	
NO. 5	35	2-2	
NO. 6	35	2-2	
NO. 7	35	2-2	
NO. 8	35	2-2	
NO. 9	35	2-2	
NO. 10	35	2-2	
NO. 11	35	2-2	
NO. 12	35	2-2	
NO. 13	35	2-2	
NO. 14	35	2-2	
NO. 15	35	2-2	
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NO. 91	35	2-2	
NO. 92	35	2-2	
NO. 93	35	2-2	
NO. 94	35	2-2	
NO. 95	35	2-2	
NO. 96	35	2-2	
NO. 97	35	2-2	
NO. 98	35	2-2	
NO. 99	35	2-2	
NO. 100	35	2-2	



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MAIN STEAM PIPES.

No. of Lengths
 Material
 Brazed, Welded or Seamless
 Internal Diam.
 Thickness
 How are Flanges secured?
 Date of Hydraulic Test
 Test Pressure

No. of Lengths
 Material
 Brazed, Welded or Seamless
 Internal Diam.
 Thickness
 How are Flanges secured?
 Date of Hydraulic Test
 Test Pressure

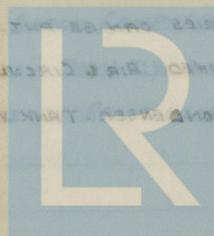
No. of Lengths
 Material
 Brazed, Welded or Seamless
 Internal Diam.
 Thickness
 How are Flanges secured?
 Date of Hydraulic Test
 Test Pressure

TANKS & SUCTIONS.

FORE PEAK.	33 TONS.	FRESH WATER	1-2½"	-
Nº1. TANK.	35 "	BALLAST	2-2½"	W.T. C.D.
Nº2 "	23 "	FRESH WATER	2-2"	"
Nº3 "	46 "	OIL FUEL	2-2"	"
Nº4 "	33 "	" "	2-2"	"
Nº5 "	5 "	LUBRIC. OIL.	2-2"	"
AFTER PEAK	10 "	BALLAST.	1-2½"	"
COFFERDAM BETWEEN NOS 2 & 3 TANKS			1-2"	"
BALLAST MAIN =			2½"	"
OIL "			2"	"
FRESH WATER "			2"	"
BILGE "			3"	"

BILGES SUCTIONS.

Nº1 HOLD	2-2½"	2
Nº2 "	2-2½"	2
E.R.	1-2½"	
G.S. DIRECT	1-2½"	
EMERGENCY	1-2½"	



EVAPORATORS.

No.	Type	Tons per Day
Makers	NONE	
Working Pressure	Test Pressure	Date of Test
Date of Test of Safety Valves under Steam		

FEED WATER HEATERS.

No.	Type	
Makers	NONE	
Working Pressure	Test Pressure	Date of Test

FEED WATER FILTERS.

No.	Type	Size
Makers	NONE	
Working Pressure	Test Pressure	Date of Test

MAIN ENGINE PUMP. DRIVEN BY LEVERS.

SUCTIONS:- PISTON COOLING TANK, SEA, BILGE,

DISCHARGE:- OVERBOARD, DECK.

STEERING ENGINE BOWMELACHLAN & CO^{LD} N^O 3924.

THE EXHAUST STEAM FROM AUXILIARIES CAN BE PUT THROUGH AN AUX.
CONDENSER CONNECTED TO A COMBINED AIR & CIRCULATING PUMP.
THE CONDENSATE GOING INTO A CONDENSER-TANK WITH CONNECTION
TO THE FEED PUMP.

LIST OF DONKEY PUMPS.

PUMPS	MAKERS	N ^O .	SIZE.
<u>GENERAL SERVICE</u>	DAWSON & DOWNIE	7170	6" x 4" x 6"
SUCTIONS:- BALLAST, BILGE DIRECT, SEA, BILGE MAIN, N ^O 5 TANK (LUB.)			
N ^O 2 FW TANK - FORE PEAK, FUEL TANKS (N ^O 3 & 4)			
DISCHARGES:- OVERBOARD, M.E. CIR. WATER, DECK, BALLAST, BOILER, OIL, FIRE HOSE.			

TRANSFER OIL.

SUCTIONS:- FUEL OIL DRAIN TANK, DIS. OIL TANKS, N^O 5 LUB TANK,

DISCHARGES:- BOILER SETTLING TANK, D.S. TANKS, M.E. FORCED LUB.

BOILER FEED

DAWSON & DOWNIE 7180. 4" x 2 3/4" x 5"

SUCTIONS:- DRAIN TANK, SEA, N^O 2 FEED TANK,

DISCHARGE:- BOILER, DECK.

3-KW. SET

PELAPDNE ENG. CO

SUCTIONS:- SEA, BILGE DIRECT, BALLAST.

DISCHARGE:- OVERBOARD, DECK, M.E. CIR., FIRE HOSE.

THE ABOVE 3-KW PUMP IS DRIVEN BY A PETROL-PARAFFIN ENGINE
WITH THE FOLLOWING ARRANGEMENT
FOR END TWO STAGE COMPRESSOR COUPLED TO PET-PAR. ENGINE
COUPLED TO 3KW. DYNAMO COUPLED TO PUMP. ALL ONE UNIT.
COMPRESSOR MADE BY REAYALL'S N^O 18761.

LIST OF CIRCUITS

No. of Circuits	Description of Circuits	No. of Lights	No. of Motors	No. of Heaters
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ELECTRIC LIGHTING.

Installation Fitted by **H.T. ROBERTSON & CO. GOVAN.**

No. and Description of Dynamos

**1-3KW.
1-10KW.**

Makers of Dynamos

PELAPONE ENG. CO. N^o 6728 FLATHER & CO.

Capacity

**1-3KW. 27
1-10KW. 91**

Amperes, at

110.

Volts,

850.

Revs. per Min.

Current Alternating or Continuous

CONTINUOUS RATING.

Single or Double Wire System

DOUBLE WIRE SYSTEM.

Position of Dynamos

STAR SIDE 10KW. SET. PORT SIDE 3KW.

Main Switch Board

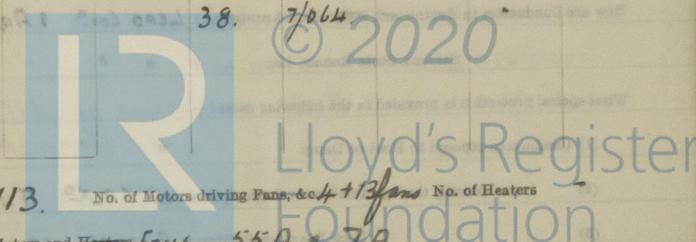
AFT SIDE OF FORD ENGINE ROOM BULKHEAD.No. of Circuits to which Switches are provided on Main Switch Board **7.**

Particulars of these Circuits:—

Circuit.	Number of Lights.	Candle Power.	Current Required. Amps.	Size of Conductor.	Current Density.	Conductivity of Conductor.	Insulation Resistance per Mile.
NAVIGATION.	4	100w.				100%	6000.
	11	30w.	6.5	7/029			
F. ACCOMMODATION	18	30w.					
	5	60w.	8	7/029			
A "	40	30w.					
	5	60w.	13.	7/029			
WIRELESS.			30/35	7/052			
ENGINE ROOM.	28	30w.					
	2	100w.	16	7/036			
	2	MOTORS 1/2 H.P.	11	7/036			
WORKSHOP MOTOR.							
TURNING			38.	7/064			

Total No. of Lights **113.**No. of Motors driving Fans, &c. **4 + 13 fans**

No. of Heaters

Current required for Motors and Heaters **FANS.****55 A. L. 7 A.**

Positions of Auxiliary Switch Boards, with No. of Switches on each

Installation Title of H.T. ROBERTSON & CO. GUYANA
 No. and Description of Engines 1-3KW
 1-10KW
 Name of Engineer PARSONS ENG. CO. No. 1778 FATHERS C.
 Capacity 1-10KW 110V 850 REVS.
 Current Rating in Amps CONTINUOUS RATING
 Type of Insulation Double Wire System
 Location of Engines STARBOARD PORTSIDE 3KW
 Main Switch Board AT SIDE OF MAIN ENGINE ROOM BULKHEADS
 Location of other Switch Boards
 Location of other Switch Boards

Location of other Switch Boards	Location of other Switch Boards	Location of other Switch Boards	Location of other Switch Boards	Location of other Switch Boards	Location of other Switch Boards

Are Cut-outs fitted as follows?—

On Main Switch Board, to Cables of Main Circuits **YES.**

On Aux. " " each Auxiliary Circuit **—**

Wherever a Cable is reduced in size **YES.**

To each Lamp Circuit **YES.**

To both Flow and Return Wires of all Circuits when the Double-Wire System is adopted **YES.**

Are the Fuses of Standard Sizes? **YES.**

Are all Switches and Cut-outs constructed of Non-inflammable Material? **YES.**

Are they placed so as to be always and easily accessible? **YES.**

Smallest Single Wire used, No. **1/012** S.W.G., Largest, No. **1/014** S.W.G.

How are Conductors in Engine and Boiler Spaces protected? **LEAD COV. & ARMOURED.**

" Saloons, State Rooms, &c., " ? " "

What special protection is provided in the following cases?—

(1) Conductors exposed to Heat or Damp " " "

(2) " passing through Bunkers or Cargo Spaces **IN GALV. TUBES.**

(3) " " Deck Beams or Bulkheads **BUSHES OR GLANDS.**

Are all Joints in Cables properly soldered and thoroughly Insulated so that the efficiency of the Cables is unimpaired? **NONE.**

Are all Joints in accessible positions, none being made in Bunkers or Cargo Spaces? **—**

Are all Hull Connections for Single-Wire Systems made with Screws of large Surface? **—**

Are the Dynamos, Motors, Main and Branch Cables, so placed that the Compasses are not injuriously affected by them? **YES.**

Have Tests been made to prove that this condition has been satisfactorily fulfilled? **YES.**

Has the Insulation Resistance over the whole system been tested? **YES.**

What does the Resistance amount to? **1 MEGOHM.** Ohms.

Is the Installation supplied with a Voltmeter? **YES**

" " " an Ampere Meter? **YES**

Date of Trial of complete Installation **30-9-26** Duration of Trial **6 hours.**

Have all the requirements of Section 42 been satisfactorily carried out? **YES.**

THE 10 KW. SET CONSISTS OF A 4-CYLINDER PETROL-PARAFFIN ENGINE No. 2672 DIRECTLY COUPLED TO A 4-POLE GENERATOR No. 6728 110V. 91A. 850 REVS.

