Ballykeirke

No. 2439

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT.

Report No. 2493. No. in Register Book 3986

S.S. PORTAVOGIE

Makers of Engines JOHN LEWIS & SONS LTD.

Works No. 212.

Makers of Main Boilers JOHN LEWIS & SONS LTD

Works No. 176.

Makers of Donkey Boiler —

Works No. —

MACHINERY.

NOTED TRO S

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No.

THE BRITISH CORPORATION REGISTER OF SHIPPING AND AIRCRAFT.

Report No. ..... No. in Register Book .....

Received at Head Office 9th October 1934

Surveyor's Report on the New Engines, Boilers, and Auxiliary Machinery of the ~~Single~~ ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw STEAMER "PORTAVOGIE"

Official No. Port of Registry BELFAST

Registered Owners JOHN KELLY LTD

Engines Built by JOHN LEWIS & SONS LTD

at ABERDEEN.

Main Boilers Built by JOHN LEWIS & SONS LTD

at ABERDEEN.

Donkey " " —

at —

Date of Completion 2.10.34

First Visit 29.11.33. Last Visit 2.10.34. Total Visits ~~2.10.34~~ 18

RECIPROCATING ENGINES.

Works No. 212. No. of Sets 1. Description TRIPLE EXPANSION, SURFACE CONDENSING, DIRECT ACTING, INVERTED, RECIPROCATING STEAM ENGINES.

No. of Cylinders each Engine 3 No. of Cranks 3.

Diars. of Cylinders 14½" 25" 41" Stroke 30"

Cubic feet in each L.P. Cylinder 22.92 CF

Are Spring-loaded Relief Valves fitted to Top and Bottom of each Cylr.? YES

" " each Receiver? YES

Type of H P. Valves, PISTON

1st I.P. " ANDREWS & CAMERON BALANCED

2nd I.P. " —

L.P. " D SLIDE

" Valve Gear STEPHENSONS LINK MOTION

" Condenser CAST IRON CIRCULAR Cooling Surface 893 sq. ft.

Diameter of Piston Rods (plain part) 4¼" Screwed part (bottom of thread) 3.04"

Material " MILD STEEL

Diar. of Connecting Rods (smallest part) 4¼" " Material MILD STEEL

" Crosshead Gudgeons 4¼" Length of Bearing 4¼ Material " "

No. of Crosshead Bolts (each) 4 Diar. over Thrd. 1¾ Thrds. per inch 6 Material MILD STEEL

" Crank Pin " " 2 " 2¼" " 6 " " "

" Main Bearings 6 Lengths 8⅞"

" Bolts in each 2 Diar. over Thread 2 Threads per inch 6 Material "

" Holding Down Bolts, each Engine 28 Diar. 1" No. of Metal Chocks 58.

Are the Engines bolted to the Tank Top or to a Built Seat? BUILT SEAT.

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

If not, how are they fitted?

Connecting Rods, Forged by FIFE FORGE Co LTD.

Piston " " JOHN LEWIS & SONS LTD

Crossheads, " ~~FIFE FORGE Co LTD.~~

Connecting Rods, Finished by JOHN LEWIS & SONS LTD

Piston " " " " " "

Crossheads, " " " " "

Date of Harbour Trial 28. 9. 34.

" Trial Trip 2. 10. 34.

Trials run at ABERDEEN BAY.

Were the Engines tested to full power under Sea-going conditions? YES.

If so, what was the I.H.P.? Revols. per min. 103.

Pressure in 1st I.P. Receiver, 73 lbs., ~~2nd I.P.~~, — lbs., L.P., 10¼" lbs., Vacuum, 26¼ ins.

Speed on Trial 12.2 Knots

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

Builders' estimated I.H.P 907. Revols. per min. 103.

Estimated Speed 12 KNOTS.

TURBINE ENGINES.

Works No. 21 — Type of Turbines —

No. of H.P. Turbines — No. of I.P. — No. of L.P. — No. of Astern —

Are the Propeller Shafts driven direct by the Turbines or through Gearing? —

Is Single or Double Reduction Gear employed? —

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

Estimated Pressure per lineal inch —

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

Estimated Pressure per lineal inch —

Revols. per min. of H.P. Turbines at Full Power — S.H.P. —

" " I.P. —

" " L.P. " " —

" " 1st Reduction Shaft —

" " 2nd " —

" " Propeller Shaft —

Total Shaft Horse Power —

Date of Harbour Trial —

" Trial Trip —

Trials run at —

Speed on Trial — Knots. Propeller Revols. per min. — S.H.P. —

Turbine Spindles forged by —

" Wheels forged or cast by —

Reduction Gear Shafts forged by —

" Wheels forged or cast by —

DESCRIPTION OF INSTALLATION

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 ———

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

Estimated Pressure per lineal inch ———

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

Estimated Pressure per lineal inch ———

Revols. 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 Revols. 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.

SHAFTING.

Are the Crank Shafts Built or Solid? BUILT.

No. of Lengths in each ONE Angle of Cranks 120°

Diar. by Rule 8·16" Actual 8 3/8" In Way of Webs 8 3/4"

" of Crank Pins 8 3/8" Length between Webs 8 5/8"

Greatest Width of Crank Webs 1·3/4" Thickness 5 1/2"

Least " " 1'-0" " 5 1/2"

Diar. of Keys in Crank Webs 1 1/2" Length 8 5/8"

" Dowels in Crank Pins 1" Length 3 5/8" Screwed or Plain PLAIN.

No. of Bolts each Coupling 6 Diar. at Mid Length 1 7/8" Diar. of Pitch Circle 1'-0 3/4"

Greatest Distance from Edge of Main Bearing to Crank Web 1/4"

Type of Thrust Blocks HORSE SHOE.

No. " Rings 5 AHEAD & ASTERN

Diar. of Thrust Shafts at bottom of Collars 8 3/8" No. of Collars 5

" " Forward Coupling 8 3/8" At Aft Coupling 8 3/8"

Diar. of Intermediate Shafting by Rule 7·77" Actual — No. of Lengths —

No. of Bolts, each Coupling — Diar. at Mid Length — Diar. of Pitch Circle —

Diar. of Propeller Shafts by Rule 8·668" Actua 8 7/8" At Coupling 8 3/8"

Are Propeller Shafts fitted with Continuous Brass Liners? YES.

Diar. over Liners 10 1/8" - 10 1/4" Length of After Bearings 2'-11"

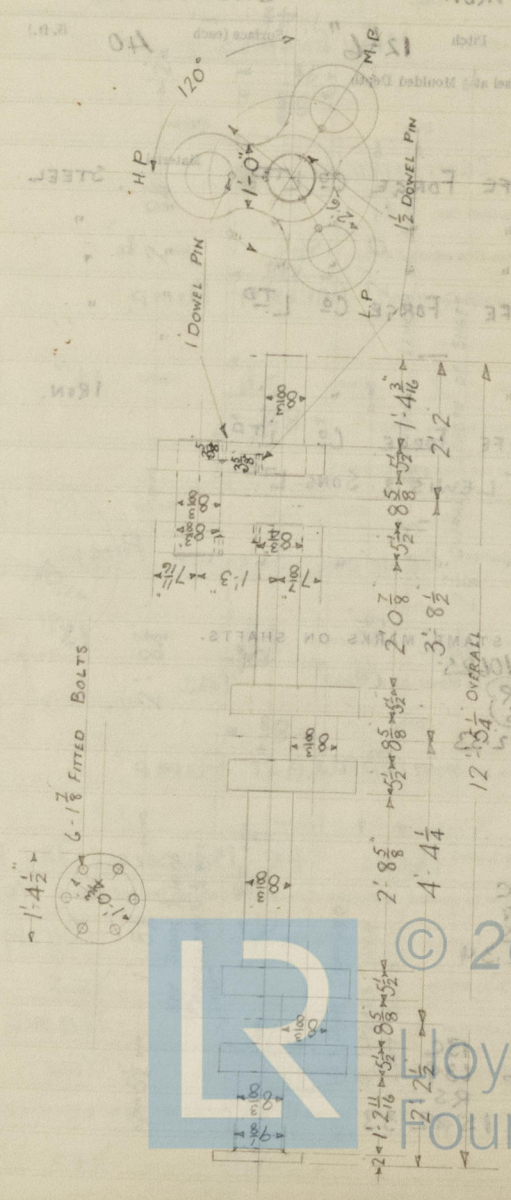
Of what Material are the After Bearings composed? LIGNUM VITAE.

Are Means provided for lubricating the After Bearings with Oil? NO.

" " to prevent Sea Water entering the Stern Tubes? NO.

If so, what Type is adopted? —

SKETCH OF CRANK SHAFT.



No. of Blades each Propeller 4 Fitted or Solid ? SOLID

Material of Blades CAST IRON Boss CAST IRON

Diar. of Propellers 10'-9" Pitch 12'-6" Surface (each 40 S. ft.)

Coefficient of Displacement of Vessel at ⅔ Moulded Depth

Crank Shafts Forged by	FIFE FORGE Co LTD	Material	STEEL
,, Pins ,,	,, ,, ,, ,,	,,	,,
,, Webs ,,	,, ,, ,, ,,	,,	,,
Thrust Shafts ,,	FIFE FORGE Co LTD	,,	,,
Intermed. ,, ,,	—	,,	
Propeller ,, ,,	,, ,, ,, ,,	,,	IRON.
Crank ,, Finished by	FIFE FORGE Co LTD		
Thrust ,, ,,	J LEWIS & SONS LTD		
Intermed. ,, ,,	—		
Propeller ,, ,,	,, ,, ,, ,,		

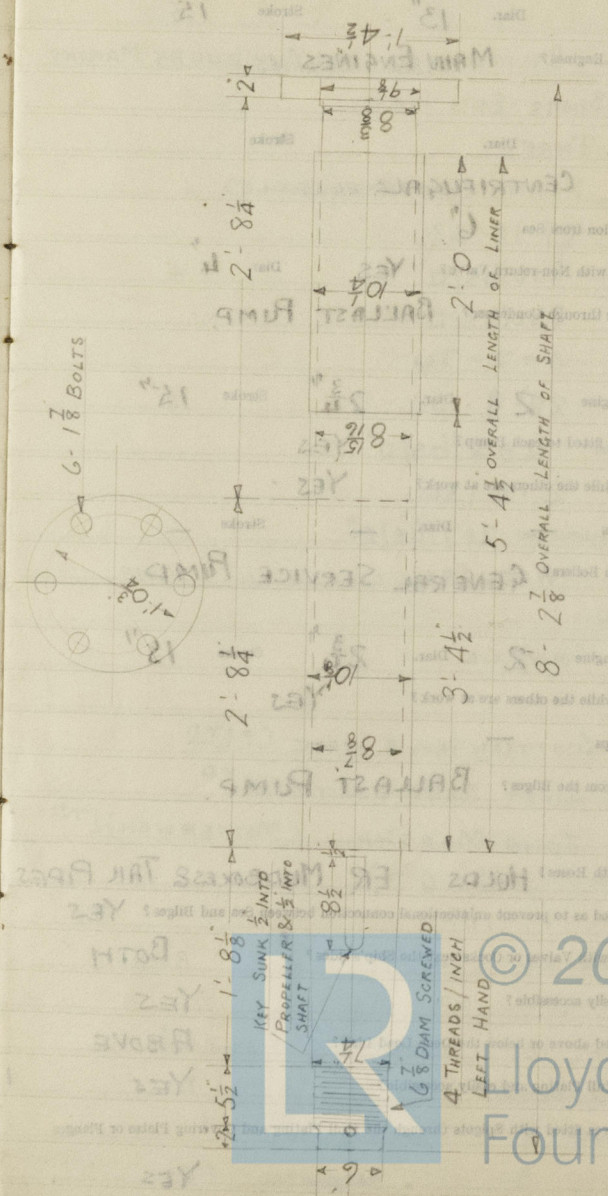
STAMP MARKS ON SHAFTS.

CRANK SHAFT BC 10625 (R S) 8-12-33

THRUST SHAFT BC 638 RS 1-12-34

PROPELLER SHAFT BC 639 RS 15-12-33

SKETCH OF PROPELLER SHAFT.



PUMPS, ETC.

No. of Air Pumps 1 Diar. 13" Stroke 15"

Worked by Main or Independent Engines? MAIN ENGINES

No. of Circulating Pumps 1 Diar. Stroke

Type of " CENTRIFUGAL

Diar. of " Suction from Sea 6"

Has each Pump a Bilge Suction with Non-return Valve? YES Diar. 4"

What other Pumps can circulate through Condenser? BALLAST PUMP

No. of Feed Pumps on Main Engine 2 Diar. $2\frac{3}{4}$" Stroke 15"

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

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

No. of Independent Feed Pumps — Diar. — Stroke —

What other Pumps can feed the Boilers? GENERAL SERVICE PUMP

No. of Bilge Pumps on Main Engine 2 Diar. $2\frac{3}{4}$" Stroke 15"

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

No. of Independent Bilge Pumps —

What other Pumps can draw from the Bilges? BALLAST PUMP

Are all Bilge Suctions fitted with Roses? HOLDS ER MUDBOXES & TAIL PIPES

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? BOTH

Are they placed so as to be easily accessible? YES

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

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

BOILERS

Works No. 176

No. of Boilers 1 Type CYLINDRICAL MULTITUBULAR MARINE

Single or Double-ended SINGE END FIRED

No. of Furnaces in each THREE

Type of Furnaces PLAIN (WITHDRAWABLE)

Date when Plan approved 27·10·33

Approved Working Pressure 200 lbs/□"

Hydraulic Test Pressure 350 lbs/□"

Date of Hydraulic Test 11-7-34

" when Safety Valves set 28·9·34.

Pressure at which Valves were set 205 lbs/□"

Date of Accumulation Test 2·10·34.

Maximum Pressure under Accumulation Test 207 lbs/□"

System of Draught NATURAL.

Can Boilers be worked separately? —

Makers of Plates COLVILLE.

" Stay Bars SCOTTISH IRON & STEEL Co LTD

" Rivets RIVET BOLT & NUT Co LTD

" Furnaces JOHN MARSHALL (MOTHERWELL) LTD

Greatest Internal Diar. of Boilers 15'-0 3/8".

" " Length " 10'-9"

Square Feet of Heating Surface each Boiler 2357.

" " Grate " " 60.

No. of Safety Valves each Boiler 2. Rule Diar. 2 17/32" Actual 3"

Are the Safety Valves fitted with Easing Gear? YES.

No. of Pressure Gauges, each Boiler 2 No. of Water Gauges 1

" Test Cocks " 3 " Salinometer Cocks 1

Are the Water Gauges fitted direct to the Boiler Shells or mounted on Pillars? PILLAR

Are the Water Gauge Pillars fitted direct to the Boiler Shells or connected by Pipes? PIPES

Are these Pipes connected to Boilers by Cocks or Valves? COCKS

Are Blow-off Cocks or Valves fitted on Boiler Shells? VALVE

No. of Strakes of Shell Plating in each Boiler 1.

" Plates in each Strake 2.

Thickness of Shell Plates Approved 15/16"

" " in Boilers "

Are the Rivets Iron or Steel? STEEL.

Are the Longitudinal Seams Butt or Lap Joints? BUTT.

Are the Butt Straps Single or Double? DOUBLE.

Are the Double Butt Straps of equal width? YES.

Thickness of outside Butt Straps 1"

" inside " 1 1/8"

Are Longitudinal Seams Hand or Machine Riveted? MACHINE

Are they Single, Double, or Treble Riveted? TREBLE

No. of Rivets in a Pitch 5.

Diar. of Rivet Holes 1 3/8. Pitch ~~1 3/8"~~ 9 1/2"

No. of Rows of Rivets in Centre Circumferential Seams ~~2~~

Are these Seams Hand or Machine Riveted? —

Diar. of Rivet Holes — Pitch —

No. of Rows of Rivets in Front End Circumferential Seams 2.

Are these Seams Hand or Machine riveted? HAND

Diar. of Rivet Holes 1 3/8" Pitch 4.099 & 4.113"

No. of Rows of Rivets in Back End Circumferential Seams 2.

Are these Seams Hand or Machine Riveted? MACHINE

Diar. of Rivet Holes 1 3/8" Pitch 4.099 & 4.113"

Size of Manholes in Shell 16" x 12" DOOR 19" x 15"

Dimensions of Compensating Rings 2'-9" x 2'-5" 15/16" RIVETS = 1 3/8" x 40

Thickness of End Plates in Steam Space Approved $1\frac{1}{4}$"

" " " " " in Boilers "

Pitch of Steam Space Stays 1'-8¼" – 1'-8½" × 1'-5" – 1'-5½"

Diar. " " " " Approved 3/8" Threads per Inch 6

" " " " " in Boilers " " 6

Material of " " " STEEL

How are Stays Secured? DOUBLE NUTS 1 INSIDE & 1 OUTSIDE.

Diar. and Thickness of Loose Washers on End Plates —

" " Riveted " " —

Width " " Doubling Strips " —

Thickness of Middle Back End Plates Approved 27/32"

" " " " " in Boilers "

Thickness of Doublings in Wide Spaces between Fireboxes —

Pitch of Stays at " " " 1. EITHER SIDE WING FURNACES.

Diar. of Stays Approved 2" Threads per Inch 6

" " in Boilers " " 6

Material " STEEL.

Are Stays fitted with Nuts outside? YES.

Thickness of Back End Plates at Bottom Approved 27/32"

" " " " " in Boilers "

Pitch of Stays at Wide Spaces between Fireboxes 14 1/8" × 9 1/8"

Thickness of Doublings in " " —

Thickness of Front End Plates at Bottom Approved 29/32"

" " " " " in Boilers "

No. of Longitudinal Stays in Spaces between Furnaces —

Diar. of Stays Approved — Threads per Inch —

" in Boilers —

Material " —

Thickness of Front Tube Plates Approved 29/32"

" " " " in Boilers "

Pitch of Stay Tubes at Spaces between Stacks of Tubes 14 1/8" x 9"

Thickness of Doublings in " " " —

" Stay Tubes at " " " 5/16"

Are Stay Tubes fitted with Nuts at Front End? BETWEEN NESTS.

Thickness of Back Tube Plates Approved 25/32"

" " " in Boilers "

Pitch of Stay Tubes in Back Tube Plates 9" - 1'-1 1/2" x 9"

" Plain " 4 1/2" x 4 1/2"

Thickness of Stay Tubes 54 - 1/4" 45 - 5/16"

" Plain " 228 - SWG.

External Diar. of Tubes 3 1/4"

Material " LAP WELDED WROT IRON.

Thickness of Furnace Plates Approved 13/16"

" " " in Boilers "

Smallest outside Diar. of Furnaces 3'-7 3/8"

Length between Tube Plates 6'-11 1/2"

Width of Combustion Chambers (Front to Back) 3'-0"

Thickness of " " Tops Approved 21/32"

" " " " in Boilers "

Pitch of Screwed Stays in C.C. Tops 8 1/8" x 9"

Diar. of Screwed Stays Approved 1 5/8" Threads per Inch 9

" " " in Boilers " 9

Material " " STEEL.

Thickness of Combustion Chamber Sides Approved 21/32"

" " " " in Boilers "

Pitch of Screwed Stays in C.C. Sides 9 1/8" x 8 1/8"

Diar. " " Approved 1 5/8" Threads per Inch 9

" " " in Boilers " "

Material " " STEEL.

Thickness of Combustion Chamber Backs Approved 11/16"

" " " " in Boilers "

Pitch of Screwed Stays in C.C. Backs 9 1/8" x 9"

Diar. " " Approved 1 3/4" Threads per Inch 9

" " " in Boilers " "

Material " " STEEL.

Are all Screwed Stays fitted with Nuts inside C.C.? YES.

Thickness of Combustion Chamber Bottoms 21/32"

No. of Girders over each Wing Chamber 4.

" " " Centre " 2.

Depth and Thickness of Girders 2-14" x 9/16"

Material of Girders STEEL.

No. of Stays in each 3.

No. of Tubes, each Boiler 327

Size of Lower Manholes 16" x 12".

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 Easing Gear? —

Date of Hydraulic Test — Test Pressure —

Date when Safety Valves set — Pressure on Valves —

MAIN STEAM PIPES.

No. of Lengths	ONE			
Material	COPPER			
Brazed, Welded or Seamless	SEAMLESS			
Internal Diar.	4"			
Thickness	5" WG.			
How are Flanges secured?	BRAZED			
Date of Hydraulic Test	20.9.34.			
Test Pressure	400 lbs.			
No. of Length				
Materia				
Brazed, Welded or Seamless				
Internal Diar.				
Thickness				
How are Flanges secured?				
Date of Hydraulic Test				
Test Pressure				
No. of Lengths				
Material				
Brazed, Welded or Seamless				
Internal Diar.				
Thickness				
How are Flanges secured?				
Date of Hydraulic Test				
Test Pressure				

EVAPORATORS.

No. — Type — Tons per Day —

Makers —

Working Pressure — Test Pressure — Date of Test —

Date of Test of Safety Valves under Steam —

FEED WATER HEATERS.

No. — Type —

Makers —

Working Pressure — Test Pressure — Date of Test —

FEED WATER FILTERS.

No. — Type — Size —

Makers —

Working Pressure — Test Pressure — Date of Test —

LIST OF DONKEY PUMPS.

BALLAST PUMP. DAWSON & DOWNIE 7"x8"x8" No 11438.

SUCTIONS:- BILGE LINE DIRECT BILGE, TANKS, SEA.

DISCHARGES:- OVERBOARD, TANKS, CONDENSER,

CIR. PUMP AMOS & SMITH.

" ENGINE " " 6" BORE.

GENERAL SERVICE PUMP. DAWSON & DOWNIE 6"x4¼"x6" No 11437.

SUCTIONS:- EXHAUST TANK, BOILER, HOTWELL, TANKS, AFT PEAK SEA.

DISCHARGES:- BOILER EXHAUST TANK, DECK, SANITARY, TANK.

DYNAMO ENGINE. SUNDERLAND FORGE & ENG Co LTD F808.

STEERING ENGINE REID PAISLEY.

SPARE GEAR.

No of Top End Bolts.	4	No. of Bot. End Bolts.	2	No. of Cylinder Cover Studs	6
„ Coupling Bolts	6	„ Main Bearing Bolts	2	„ Valve Chest „	
„ Junk Ring Bolts	6	„ Feed Pump Valves	2	„ Bilge Pump Valves	2
„ H.P. Piston Rings	—	„ I.P. Piston Rings	—	„ L.P. Piston Rings	—
„ „ Springs	—	„ „ Springs	—	„ „ Springs	—
„ Safety Valve „	1	„ Fire Bars	½ BOILER	„ Feed Check Valves	2
„ Piston Rods	—	„ Connecting Rods	—	„ Valve Spindles	—
„ Air Pump Rods	—	„ Air Pump Buckets	—	„ Air Pump Valves	1 SET
„ Cir. „	1 IMPELLER & SHAFT			Cir. „	—
„ Crank Shafts	—	„ Crank Pin Bushes	—	„ Crosshead Bushes	—
„ Propeller Shafts	—	„ Propellers	1 —	„ Propeller Blades	—
„ Boiler Tubes	3	„ Condenser Tubes	3	„ Condenser Ferrules	12

OTHER ARTICLES OF SPARE GEAR:—

12 GAUGE GLASSES
A QUANTITY OF ASSORTED IRON.
1 ESCAPE VALVE SPRING FOR EACH SIZE.
1 ECCENTRIC
ASSORTED BOLTS & NUTS.

REFRIGERATORS.

No. of Machines ——— Capacity of each ———

Makers ———

Description ———

No. of Steam Cylinders, each Machine ——— No. of Compressors ——— No. of Cranks ———

Particulars of Pumps in connection with Refrigerating Plant and whether worked by Refrigerating Machines or Independently ———

System of Refrigeration ———

" Insulation ———

Are Brine and other Regulating Valves placed so as to be accessible without entering the Insulated Spaces? ———

Are all Pipes, Air Trunks, &c., well secured and protected from risk of damage? ———

Are all Bilge, Sounding, and Air Pipes in Insulated Spaces properly insulated? ———

Are Thermometer Tubes so arranged that Water cannot enter and freeze in them? ———

Date of Test under Working Conditions ———

RESULTS OF TRIALS.

COMPARTMENT.	Temp. at beginning of Trial.	Temp. at end of Trial.	Time required to obtain this Result.	Rise of Temp. after hours.

Articles of Spare Gear for Refrigerating Plant carried on board:—

ELECTRIC LIGHTING.

Installation Fitted by JOHN LEWIS & SONS LTD

No. and Description of Dynamos 1 – 4 POLE SEMI-ENCLOSED COMPOUND. No 163211

Makers of Dynamos SUNDERLAND FORGE & ENG CO LTD

Capacity " 5 KW. 45 Amperes, at 110. Volts, 430. Revols. per Min.

Current Alternating or Continuous CONTINUOUS.

Single or Double Wire System DOUBLE WIRE SYSTEM.

Position of Dynamos STAR BOARD SIDE AFT END ON PLATFORM IN ENGINE ROOM

" Main Switch Board " " " " " BULKHEAD " " "

No. of Circuits to which Switches are provided on Main Switch Board 4.

Particulars of these Circuits:—

Circuit.	Number of Lights.	Candle Power.	Current Required. Amps.	Size of Conductor.	MAX ~~Current Density~~ CAPACITY	Conductivity of Conductor.	Insulation Resistance per Mile.
FORECASTLE	14.	—	5.	3/·036	12.	ARM & B.	
CABIN.	24.	—	7	7/·029	17.	" "	
NAVIGATION	6.	—	3	3/036	12	" "	
ER & AFT.	21.	—	8·5.	3/·036	12	" "	

Total No. of Lights 65. No. of Motors driving Fans, &c. — No. of Heaters —

Current required for Motors and Heaters —

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

Are Cut-outs fitted as follows?—

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

On Aux. " " each Auxiliary Circuit YES

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. 3/·029. S.W.G., Largest, No. 7/·029. S.W.G.

How are Conductors in Engine and Boiler Spaces protected? L.C. ARM. 2 BRAIDED.

" " 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 " " "

(3) " " Deck Beams or Bulkheads W.T. GLANDS.

Are all Joints in Cables properly soldered and thoroughly Insulated so that the efficiency of the Cables is unimpaired? YES.

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? 2000000. Ohms.

Is the Installation supplied with a Voltmeter? YES.

" " " an Ampere Meter YES.

Date of Trial of complete Installation 2-10·34 Duration of Tria 6 HOURS

Have all the requirements of Section 11 been satisfactorily carried out? YES

Robert L. Greig.

GENERAL CONSTRUCTION.

Have the Machinery and Boilers been constructed in accordance with the requirements of the Rules and the Approved Plans? YES.

If not, give details of the points of difference, and state when these were sanctioned by the Chief Surveyor. —

Are the Materials used in the Construction of Engines and Boilers, so far as could be seen, sound and trustworthy? YES.

Is the Workmanship throughout thoroughly satisfactory? YES.

The above correctly describes the Machinery of the S.S. "PORTAVOGIE"

as ascertained by ~~me~~ me from personal examination

Robert L. Greig.

Engineer Surveyor to the British Corporation Register of Shipping and Aircraft.

Fees—

		£	s.	d.
MAIN BOILERS.				
H.S.	Sq. ft.		:	:
G.S.	"		:	:
DONKEY BOILERS.				
H.S.	Sq. ft.		:	:
G.S.	"		:	:
	£		:	:
ENGINES.				
L.P.C.	Cub. ft.		:	:
	£		:	:
Testing, &c.			:	:
	£		:	:
Expenses			:	:
Total ...	£		:	:

It is submitted that this Report be approved,

Chief Surveyor.

19 DEC 1934

Approved by the Committee for the Class of M.B.S.* on the 19th December 1934

Fees advised

Fees paid

Secretary.