

REPORT ON STEAM TURBINE MACHINERY. No. 103861

St. 4a.

Date of writing Report 17 Dec 1936 When handed in at Local Office 24 DEC 1936 Port of London
No. in Survey held at West Drayton Date, First Survey 21 Sept. Last Survey 9 Dec 1936
Reg. Book. on the Reduction Gearing for.
Built at Sunderland By whom built Bartram's S.S. Yard No. 275 When built
Engines made at Repton-on-Tyne By whom made White Marine Eng. Co. Engine No. 9C When made
Boilers made at By whom made Boiler No. When made
Shaft Horse Power at Full Power 1800 Owners Port belonging to
Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
Trade for which Vessel is intended

STEAM TURBINE ENGINES, &c.—Description of Engines Reciprocating & Turbine Combination
No. of Turbines Ahead. Direct coupled, single reduction geared to one propelling shaft. No. of primary pinions to each set of reduction gearing Recip. UNIT. 1.
Astern. double reduction geared
Direct coupled to Alternating Current Generator phase periods per second Direct Current Generator rated Kilowatts Volts at revolutions per minute;
or supplying power for driving Propelling Motors, Type
rated Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

TURBINE LOADING.	H. P.			I. P.			L. P.			ASTERN.		
	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.	HEIGHT OF BLADES.	DIAMETER AT TIP.	NO. OF ROWS.
1st EXPANSION												
2nd												
3rd												
4th												
5th												
6th												
7th												
8th												
9th												
10th												

8/1/37 RECI. ENG. H.P. 1000
Shaft Horse Power at each turbine I.P. 800
TURBINE L.P. 800
Revolutions per minute, at full power, of each Turbine Shaft
H.P. 4 Pitch Circle 1st pinion 6" 1st reduction wheel
I.P. " Diameter 2nd pinion 11.666" main wheel 75.333"
L.P. " ENG PINION 15" 1st pinion 12 1st reduction wheel 12
2nd pinion 1-10. main wheel 1-10.
Distance between centres of pinion and wheel faces and the centre of the adjacent bearings
1st 4 1/2" 8 7/8"
2nd 10 1/2" 8 7/8"
Flexible Pinion Shafts, diameter at bearings External 1st 5.621
Internal 2nd 11.072
Generator Shaft, diameter at bearings
Wheel Shafts, diameter at bearings 1st 13 1/4" diameter at wheel shroud, 1st 16" Propelling Motor Shaft, diameter at bearings
main 13 1/4" main 16"

Intermediate Shafts, diameter as per rule as fitted
Tube Shaft, diameter as per rule as fitted
Screw Shaft, diameter as per rule as fitted
Is the tube shaft fitted with a continuous liner
Is the after end of the liner made watertight in the
If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive
If two liners are fitted, is the shaft lapped or protected between the liners
Is an approved Oil Gland or other appliance fitted at the after end of the tube
Length of Bearing in Stern Bush used to and supporting propeller
If so, state type
Total Developed Surface square feet.
Can the H.P. or I.P. Turbine exhaust direct to the

Propeller, diameter Pitch No. of Blades State whether Moveable
Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine
No. of Turbines fitted with astern wheels
Feed Pumps No. and size How driven
Lubricating Oil Pumps, including Spare Pump, No. and size
Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge In Pump Room

allast Pumps, No. and size
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes
Are the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges
Are they fitted with Valves or Cocks
Are the Overboard Discharges above or below the deep water line
Are the Blow Off Cocks fitted with a spigot and brass covering plate
How are they protected
Have they been tested as per rule

Are all Sea Connections fitted direct on the skin of the ship
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates
Are they each fitted with a Discharge Valve always accessible on the plating of the vessel
Are pipes pass through the bunkers
Are pipes pass through the deep tanks
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times
Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another
Is the Shaft Tunnel watertight
Is it fitted with a watertight door

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BOILERS, &c.—(Letter for record ✓) Total Heating Surface of Boilers ✓

Is Forced Draft fitted ✓

No. and Description of Boilers ✓

Working Pressure ✓

Is a Report on Main Boilers now forwarded? ✓

Is { a Donkey } Boiler fitted? ✓
an Auxiliary

If so, is a report now forwarded? ✓

Is the donkey boiler intended to be used for domestic purposes only ✓

Plans. Are approved plans forwarded herewith for Shafting 16.12.35 Main Boilers ✓

Auxiliary Boilers ✓

Donkey Boilers ✓

Superheaters ✓

General Pumping Arrangements ✓

Oil Fuel Burning Arrangements ✓

SPARE GEAR.

Has the spare gear required by the Rules been supplied ✓

State the principal additional spare gear supplied

THE POWER PLANT COMPANY LTD

R E Hughes

23.12.

Manufacture

The foregoing is a correct description, OF GEARING.

Dates of Survey while building { During progress of work in shops -- 1936. Oct 30 Nov. 24 Dec. 9.
During erection on board vessel ---
Total No. of visits

Dates of Examination of principal parts—Casings ✓

Rotors ✓

Blading ✓

Gearing 30.10.36

Wheel shaft 24.11.36

Thrust shaft ✓

Intermediate shafts ✓

Tube shaft ✓

Screw shaft ✓

Propeller ✓

Stern tube ✓

Engine and boiler seatings ✓

Engine holding down bolts ✓

Completion of fitting sea connections ✓

Completion of pumping arrangements ✓

Boilers fixed ✓

Engines tried under steam ✓

Main boiler safety valves adjusted ✓

Thickness of adjusting washers ✓

Rotor shaft, Material and tensile strength ✓

Identification Mark

Flexible Pinion Shaft, Material and tensile strength Steel 56.6 18 ton

Identification Mark

Pinion shaft, Material and tensile strength Steel: Turbine 64.80 Recip Eng: 46.00

Identification Mark

1st Reduction Wheel Shaft, Material and tensile strength Steel 28.02 ton

Identification Mark

Wheel shaft, Material Steel

Identification Mark

422 HAZ 9.12.36 Thrust shaft, Material ✓

Identification Mark

Intermediate shafts, Material ✓

Identification Marks

Tube shaft, Material ✓

Identification Marks

Screw shaft, Material ✓

Identification Marks

Steam Pipes, Material ✓

Test pressure ✓

Date of test ✓

Is an installation fitted for burning oil fuel ✓

Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of the Rules for the use of oil as fuel been complied with

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ✓

If so, have the requirements of the Rules been complied with

If the notation for ice strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery a duplicate of a previous case yes

If so, state name of vessel

J. L. Thompson & Sons.
White Marine Eng. Co. S.C.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The gearing has been constructed under special survey in accordance with the requirements of the Rules and approved plans. The materials have been made at Works approved by the Society & tested to Rule requirements. The workmanship is good & the gearing is shiftable, in my opinion for service in a classed vessel. I have the notation of + L.R.C. (with date) when satisfactory installed & tested under full working condition

The amount of Entry Fee ... £

Special

Donkey Boiler Fee ... £

Travelling Expenses (if any) £

When applied for,

30 MAR 1937

When received,

Committee's Minute

Assigned

TUE 25 MAY 1937

See to Sld. J.E. 32092

Engineer Surveyor to Lloyd's Register of Shipping.



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