

RECEIVED

1950
Rpt. 4a.

D.O.

REPORT ON STEAM TURBINE MACHINERY. No. 75054

Received at London Office

7 FEB 1950

Date of writing Report

10

When handed in at Local Office

3/21

10 50

Port of

GLASGOW

No. in Survey held at
Reg. Book.

GLASGOW

Date, First Survey

14/12/49

Last Survey

16/11

19 50

on the

SS. TREGLISSON

Built at

PORT GLASGOW

By whom built

HAMILTON

Yard No.

484

When built

Engines made at

GLASGOW

By whom made

BARCLAY CURLE & CO

Engine No.

3W109

When made

1950

Boilers made at

By whom made

Boiler No.

When made

Shaft Horse Power at Full Power

970

Owners

Port belonging to

Nom. Horse Power as per Rule

162

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

Trade for which Vessel is intended

STEAM TURBINE ENGINES, &c.—Description of Engines

One LP Turbine with DR fairings Hydraulic Coupling

No. of Turbines

Ahead

One

Single reduction geared

to

One

propelling shafts.

No. of primary pinions to each set of reduction gearing. One

direct coupled to

Alternating Current Generator

phase

periods per second

rated

Kilowatts

Volts at

revolutions per minute;

for 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 BLADING.

	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							82 1/2"	916 1/2"	1			
2ND							99 1/2"	948"	1			
3RD							118"	986"	1			
4TH							136"	1022"	1			
5TH							155"	1060"	1			
6TH							177"	1104"	1			
7TH							200"	1150"	1			
8TH												
9TH												
10TH												
11TH												
12TH												

Shaft Horse Power at each turbine

H.P.

I.P.

Revolutions per minute, at full power, of each Turbine Shaft

H.P.

I.P.

1st reduction wheel 490

Rotor Shaft diameter at journals

H.P.

I.P.

Pitch Circle Diameter

1st pinion

2nd pinion

Ast reduction wheel

main wheel

Width of Face

1st reduction wheel 260 1/2"

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings

1st pinion

2nd pinion

1st reduction wheel

main wheel

TRANSMISSION

Pinion Shafts, diameter at bearings

1st

2nd

Pinion Shafts, diameter at bearings

External

Internal

1st

2nd

diameter at bottom of pinion teeth

1st

2nd

diameter at bottom of pinion teeth

Wheel Shafts, diameter at bearings

1st

main

diameter at wheel shroud,

1st

main

Generator Shaft, diameter at bearings

Propelling Motor Shaft, diameter at bearings

Intermediate Shafts, diameter

as per rule

as fitted

Thrust Shaft, diameter at collars

as per rule

as fitted

Tube Shaft, diameter

as per rule

as fitted

Screw Shaft, diameter

as per rule

as fitted

Is the

tube

screw

shaft fitted with a continuous liner

Bronze Liners, thickness in way of bushes

as per rule

as fitted

Thickness between bushes

as per rule

as fitted

Is the after end of the liner made watertight in the propeller boss

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

or other appliance fitted at the after end of the tube shaft

If two liners are fitted, is the shaft lapped or protected between the liners

Is an approved Oil Gland

Propeller, diameter

Pitch

No. of Blades

State whether Moveable

Total Developed Surface

square feet.

If Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine

Can the H.P. or I.P. Turbine exhaust direct to the

Condenser

No. of Turbines fitted with astern wheels

Feed Pumps

No. and size

How driven

Pumps connected to the Main Bilge Line

No. and size

How driven

Ballast Pumps, No. and size

Lubricating Oil Pumps, including Spare Pump, No. and size 2 @ 11000 gals/hr.

Are two independent means arranged for circulating water through the Oil Cooler

Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Engine and Boiler Room

In Holds, &c.

Main Water Circulating Pump Direct Bilge Suctions, No. and size

Independent Power Pump Direct Suctions to the Engine Room

Bilges, 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 all Sea Connections fitted direct on the skin of the ship

Are they fitted with Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes pass through the bunkers

How are they protected

What pipes pass through the deep tanks

Have they been tested as per rule

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

worked from

004642-004645-0011

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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?

If so, is a report now forwarded?

Plans. Are approved plans forwarded herewith for Shafting
(If not state date of approval)

Main Boilers

Auxiliary Boilers

Donkey Boilers

Superheaters

General Pumping Arrangements

Oil Fuel Burning Arrangements

Spare Gear. State the articles supplied:-

Spare gear as per Rule requirements and attached list.

The foregoing is a correct description.

Wm G Diversall

Manufacturer

Dates of Survey while building
During progress of work in shops --
During erection on board vessel ---
Total No. of visits

1949 Dec. 14, 15, 19, 20, 1950 Jan. 10

Dates of Examination of principal parts - Casings

Rotors

Blading

Gearing

Wheel shaft

Thrust shaft

Intermediate shafts

Tube shaft

Screw shaft

Propeller

Stern tube

Engine and boiler seatings

Engine holding down bolts

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

O.H.I.S. 36.8 tns

Identification Mark

1478 BH 21.12.48

Pinion shaft, Material and tensile strength

O.H.I.S. 31.6 tns

Identification Mark

1472 BH 17.11.48

1st Reduction Wheel Shaft, Material and tensile strength

O.H.I.S. 32.6 tns

Identification Mark

1503 BH 3.10.49

Wheel shaft, Material

O.H.I.S.

Identification Mark

1432 WK 8.3.49

Thrust shaft, Material

O.H.I.S.

Identification Mark

1490 BH 8.7.49

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

Is this machinery a duplicate of a previous case

If so, state name of vessel

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

This Turbine Double Reduction

gearing and Hydraulic coupling has been constructed under Special Survey in accordance with the Society's Rules and approved plans. Materials and workmanship are good.

The unit has been transported to Messrs D. Roran Glasgow for installing with their machinery contract No 1724.

The unit has now been efficiently installed on board the vessel, tried under full working conditions with satisfactory results. L. Shaw.

The amount of Entry Fee

£ 28 : 10

When applied for,

Special

£ :

19

Donkey Boiler Fee

£ :

When received,

Travelling Expenses (if any)

£ :

19

Committee's Minute

GLASGOW - 8 FEB 1950

Assigned

Deferred for completion

Engineer Surveyor to Lloyd's Register of Shipping.



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