

REPORT ON STEAM TURBINE MACHINERY.

No. 94742

24 FEB 1937

Received at London Office

NEWCASTLE-ON-TYNE

Date of writing Report

19

When handed in at Local Office 20/2/1937 Port of

No. in Survey held at

Newcastle on Tyne

Date, First Survey 20 Nov/36

Last Survey

18/2/1937

Reg. Book.

on the S/S "BELGRAVIAN"

(Number of Visits 9)

Tons Gross 3136

Net 1401

Built at

W. Hantlepool

By whom built

Wm Gray & Co.

Yard No. 1073

When built 1937

Engines made at

ditto

By whom made

Cent. Mar. Eng. Wks.

Engine No.

When made 1937

Boilers made at

Newcastle

By whom made

Swan Hunter & Wigham

Boiler No. 1542

When made 1937

Shaft Horse Power at Full Power

1043

Owners Ellerman Lines Ltd

Port belonging to Liverpool

Nom. Horse Power as per Rule

174

Is Refrigerating Machinery fitted for cargo purposes

Yes

Is Electric Light fitted

Yes

Trade for which Vessel is intended

Ocean going

STEAM TURBINE ENGINES, &c.—Description of Engines

L.P. & H. Steam Turbine (Bauer-Wach System) with hydraulic coupling, D/R Geared

No. of Turbines

Ahead one

Direct coupled, single reduction geared

to one propelling shaft

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

of 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

LADING.

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

11TH

12TH

13TH

14TH

15TH

16TH

17TH

18TH

19TH

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205TH

206TH

207TH

208TH

209TH

210TH

211TH

212TH

213TH

214TH

215TH

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 28/8/36. 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

2 1 Bearing of each size fitted.
1 Set of thrust pads for each thrust bearing
One Spring & 1 set of washers for emergency Governor. etc. etc.

FOR

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

The foregoing is a correct description,

Dates of Survey while building { During progress of work in shops -- } 1936 Nov. 20. Dec. 10. 14. 23
{ During erection on board vessel --- } 1937 Jan 14. Feb. 2. 16. 17. 18.
Total No. of visits 9.

Dates of Examination of principal parts—Casings 14/1/37. Rotors 14/12/36. Blading 18/2/37 Gearing 16/2/37

Wheel shaft 16/2/37 Thrust shaft Quill Intermediate shaft 16/2/37 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 L.P. Turbine in shop. Engines tried under steam 17/2/37

Main boiler safety valves adjusted Thickness of adjusting washers

Rotor shaft, Material and tensile strength S.M. Steel 37 tons Identification Mark 6560 HAI. 293

1st Redn Flexible Pinion Shaft, Material and tensile strength " " 44.0 tons (Y.P. 37 tons) Identification Mark " " 1954

2nd Redn Pinion shaft, Material and tensile strength " " 43.4 tons (Y.P. 32.5 tons) Identification Mark " " 1956

1st Reduction Wheel Shaft (Hydr. Coupling Shaft) Material and tensile strength S.M. Steel 28.6 tons Identification Mark " " 294.

Wheel shaft, Material S.M. Steel Identification Mark 6560 HAI 295 Thrust shaft, Material Identification Mark

Intermediate shaft Quill Material S.M.S. Identification Marks " " 372. 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. H. W. B. L.P. Turbine No 1540. No. 17 9464

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

The machinery has been built under special survey in accordance with the Rules and approved plan, and the materials and workmanship are good.

The machinery has been sent to W. Hartlepool for installation on board the vessel.

The exhaust turbine has now been fitted on board the vessel and upon completion examined under full working conditions and found satisfactory.

The amount of Entry Fee ... £ : : When applied for,
Special 2/3 ... Nov. ... £ 11 : 12/- 19.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 17-3-19.37

Committee's Minute

FRI 24 SEP 1937

Assigned See No 17734

A. Watt & J. Brooke Smith
Engineer Surveyors to Lloyd's Register of Shipping.



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Foundation