

Report on Steam Turbine Machinery.

MD.B. 17867

No. 18651

Received at London Office

18 MAY 1945

Date of writing Report

15/5/1945

When handed in at Local Office

16/5/1945

Port of WEST HARTLEPOOL

No. in Survey held at

HARTLEPOOL

Date, First Survey

23/12/43

Last Survey

7/5/1945

eg. Book

on the

S/S "WAVE REGENT"

(Number of Visits 126)

Tons {Gross 8184
Net 4554

built at Harland & Wolff

By whom built James Stephen & Co. Ltd.

Yard No.

363

When built 1945

Engines made at Harland & Wolff

By whom made Richardson Westgarth & Co. Ltd.

Engine No.

2752

When made 1945

Boilers made at Harland & Wolff

By whom made Richardson Westgarth & Co. Ltd.

Boiler No.

2752

When made 1945

Shaft Horse Power at Full Power

6800

Owners

Port belonging to

Nom. Horse Power as per Rule

1226

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

Trade for which Vessel is intended

M.N. 1470

STEAM TURBINE ENGINES, &c.—Description of Engines Double reduction geared turbines

No. of Turbines Ahead 2 Direct coupled, single reduction geared to 1 propelling shafts. No. of primary pinions to each set of reduction gearing 2

Direct coupled to Alternating Current Generator phase periods per second rated Kilowatts Volts at revolutions per minute; Direct Current Generator

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.

TUBINE				I. P.				L. P.				ASTERN.				
LOADING.				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				1.23"	17.46"	7	Rotor Outer	1.815"	39.75"	3	1"	49.5"	1			
2nd				1.52"	18.04"	7		1.324"	24.8"	1	7"	52.75"	1			
3rd				1.68"	18.36"	6		1.896"	24.8"	1	9"	55"	1			
4th				2.07"	19.14"	6		2.468"	24.8"	1	(Rotor)					
5th				2.58"	20.16"	6		3.109"	24.8"	1						
6th				above blading preceded				3.824"	24.8"	1	Impulse blading					
7th				by 2 rows impulse blades				4.539"	24.8"	1						
8th				as per particulars below				5.3"	24.8"	1						
9th				7.15"	30.47"	1		6.13"	24.8"	1						
10th				1.68"	31.69"	1		7.041"	24.8"	1						
11th								8.185"	24.8"	1						
12th								9"	56"	1						

Shaft Horse Power at each turbine H.P. 3500 I.P. 3300 L.P. 3300

Rotor Shaft diameter at journals H.P. 5" I.P. 7" L.P. 7"

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

Flexible Pinion Shafts, diameter at bearings

Wheel Shafts, diameter at bearings

Intermediate Shafts, diameter

Tube Shaft, diameter

Bronze Liners, thickness in way of bushes

Propeller, diameter

Condenser

Pumps connected to the Main Bilge Line

Ballast Pumps, No. and size

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

Bilges, No. and size

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 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

Total H.S. of Boilers :- Boilers 6840
2 Spts 1660 } 10905 sq
2 Econ 2405 }
50%

BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 6840 sq
Is Forced Draft fitted yes No. and Description of Boilers 2 Foster Wheeler D 3 1/2 Working Pressure 490 lbs
Is a Report on Main Boilers now forwarded? yes
Is { a Donkey } Boiler fitted? yes If so, is a report now forwarded? no
{ an Auxiliary }
Is the donkey boiler intended to be used for domestic purposes only?
Plans. Are approved plans forwarded herewith for Shafting 19-6-42 Main Boilers 18-6-42 Auxiliary Boilers ✓ Donkey Boilers 29-6-42
(If not, state date of approval)
Superheaters 22-7-42 General Pumping Arrangements 30-9-42 Oil Fuel Burning Arrangements 1-6-42

SPARE GEAR.

Has the spare gear required by the Rules been supplied.

State the principal additional spare gear supplied.

The foregoing is a correct description,

For RICHARDSONS, WESTGARTH & Co. LTD.

DIRECTOR Manufacture

Dates of Survey while building
During progress of work in shops - 1942 Dec 23, 1944 Jan 10, 14, 15, 20, 27, Feb 2, 3, 6, 10, 11, 12, 21, 24, Mar 1, 2, 4, 5, 19, 24, 27, 28, 29, May 1, 3, 8, 9, 10, 12, 22, 23, 30, Jun 3, 8, 13, 14, 15, 16, 17, 18, 19, 27, Aug 10, 15, 16, 22, 28, 30, 31, Sept 18, 19, 21, 22, 23, 29, Oct 6, 6, 9, 10, 11, 13, 16, 19, 20, 21, 24, 27, 30, 31, Nov 1, 2, 6, 8, 9, 14, 20, 22, 23, 24, 27, 28, Dec 1, 2, 7, 11, 13, 15, 18, 28, 1945 Jan 3, 10, 13, 14, 17, 18, 20, 22, 23, 26, Feb 7, 19, 21, 31, Mar 20, 21, 28, 30, April 6, 11, 13, 17, 20, 24, 25, 26, 27, May 1, 2, 7
During erection on board vessel -
Total No. of visits 126

Dates of Examination of principal parts—Casings 10-5-44 Rotors 10-5-44 Blading 13-6-44 Gearing ✓

Wheel shaft ✓ Thrust shaft 19-9-44 Intermediate shafts 11-4-45 Tube shaft ✓ Screw shaft 11-4-45

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 Steel 34/38 Identification Mark 87910WH

Flexible Pinion Shaft, Material and tensile strength Steel 28/32 sleeves 34/38 Identification Mark 86571WH

Pinion shaft, Material and tensile strength Nickel Steel 40 Identification Mark 86071WH

1st Reduction Wheel Shaft, Material and tensile strength Nickel Steel 40 Identification Mark N°1064 JLS

Wheel shaft, Material Steel Identification Mark N°89694WH Thrust shaft, Material Steel Identification Mark N°8204 CP

Intermediate shafts, Material Steel Identification Marks N°8198 CP Tube shaft, Material ✓ Identification Marks ✓

Screw shaft, Material Steel Identification Marks N°8214 CP Steam Pipes, Material SD Steel Test pressure 1470 lbs

Date of test 15-5-45 Is an installation fitted for burning oil fuel yes

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 N° 2748 HPLRPT N° 18591

General Remarks. (State quality of workmanship, opinions as to class, &c.) The engines and boilers of this vessel have been constructed under special survey and in accordance with the approved plans and specification

The workmanship and materials have been found good

The machinery of this vessel will be eligible, in my opinion to have the record of 1/2 LMC (with date) on completion

This machinery has been forwarded to Stawerton Steel for fitting on board vessel

Turner S.B. 6" yard N° 363

The amount of Entry Fee ... £ 6 : 0 : When applied for.

1/2 LMC less 25 pence Special ... £ 81 : 9 : 16/5/45

SUPERVISION Donkey Boiler Fee ... £ 28 : 15 : When received.

Travelling Expenses (if any) £ : : 19

Arthur M. Oxford.
Engineer Surveyor to Lloyd's Register of Shipping.

FRI, 13 JUL 1945

Committee's Minute

Assigned

See Mdb fe made N° 17867



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Foundation