

Report on Steam Turbine Machinery.

No. 112296

pt. 4a.

450 lbs

Received at London Office 23 NOV 1944

Date of writing Report 1. 11. 1944 When handed in at Local Office 6. 11. 1944 Port of London

No. in Survey held at Rugby Date, First Survey 14. 12. 43 Last Survey 27. 10. 1944

Reg. Book on the Turbine driven Geared Generating Sels for Swan Hunter Ship N°1689 (Number of Visits 29)

Built at NEWCASTLE By whom built SWAN HUNTER & WIGHAM Yard No. 1689 Tons {Gross 1266 Net 773}

Engines made at Rugby By whom made Messrs B. T. H. Co. Ltd. Engine No. R2508 When built R2509 When made 1944

Boilers made at By whom made Boiler No. When made

Shaft Horse Power at Full Power 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

TEAM TURBINE ENGINES, &c.—Description of Engines 2- Single Reduction Geared Impulse Turbines

Ahead one per set Direct coupled, single reduction geared to each Generator

No. of Turbines Astern 1

Direct coupled to { Alternating Current Generator phase periods per second } rated 550 Kilowatts 220 Volts at 1000 revolutions per minute; Direct Current Generator

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 LADING.

	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	1.40	14.56	2 Rows									
2nd	1.70	14.76	Wheel.									
3rd 2nd	1.98	13.62	1									
4th 3rd	1.20	14.06	1									
5th 4th	1.47	14.60	1									
6th 5th	1.89	15.44	1									
7th 6th	1.71	18.78	1									
8th 7th	2.80	20.96	1									
9th 8th	3.82	23.00	1									
10th												
11th												
12th												

Shaft Horse Power at each turbine { H.P. 550kw. I.P. Revolutions per minute, at full power, of each Turbine Shaft L.P. 8000 1st reduction wheel 1000

Motor Shaft diameter at journals { H.P. 3" I.P. Pitch Circle Diameter 1st pinion 3.9367 1st reduction wheel 3.2624 Width of Face 1st reduction wheel 5 1/2 x 2 L.P. 2nd pinion main wheel main wheel

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion 10 1/4 1st reduction wheel 10 1/4 2nd pinion main wheel

Flexible Pinion Shafts, diameter at bearings { 1st 3 1/2 2nd diameter at bottom of pinion teeth 1st 3.6451 2nd

Wheel Shafts, diameter at bearings { 1st 5 1st 2 4 Generator Shaft, diameter at bearings 5 2nd 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 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 shaft. If so, state type. Length of Bearing in Stern Bush next to and supporting propeller.

Propeller, diameter Pitch No. of Bades State whether Moveable Total Developed Surface square feet

Single Screw, are arrangements made so that steam can be led direct to the L.P. Turbine Can the H.P. or I.P. Turbines 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 Lubricating Oil Pumps, including Spare Pump, No. and size Gear Pump - one per set

Ballast Pumps, No. and size Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

Are two independent means arranged for circulating water through the Oil Cooler. Suctions, connected both to Main Bilge Pumps and Auxiliary In Pump Room

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

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

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014784-014743-0037

