

Report on Steam Turbine Machinery.

25 DEC 1953

No. 41187

28. Oct. 4a. Date of writing Report 24. 11. 1953 When handed in at Local Office 27. 11. 1953 Port of Glasgow
 Date, First Survey 2. 2. 53 Last Survey 28. 10. 1953
 (Number of Visits 16)
 Book 523 on the S.S. "STANPOOL"
 Tons (Gross 4351 Net 4241)
 Built at West Hartlepool By whom built Wm Gray & Co. Ltd Yard No. 1266 When built 1954
 Engines made at GLASGOW By whom made BARCLAY CURLE & CO. LTD Engine No. BW125 When made 1953
 Boilers made at W. Hartlepool By whom made Ben Mar. & Co. (W. Gray & Co. Ltd) Boiler No. 1266 When made 1954
 Shaft Horse Power at Full Power Owners Stanhope S.S. Co. Ltd Port belonging to London
 m. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Made for which Vessel is intended Open Sea Service

STEAM TURBINE ENGINES, &c.—Description of Engines

One L.P. Turbine with D.R. Gearing and hydraulic coupling
 of Turbines Ahead One Direct coupled, single reduction geared to One propelling shaft. No. of primary pinions to each set of reduction gearing One
 Aster - double reduction geared
 Direct coupled to Alternating Current Generator phase periods per second Direct Current Generator rated Kilowatts Volts at revolutions per minute;
 supplying power for driving Propelling Motors, Type
 ed Kilowatts Volts at revolutions per minute. Direct coupled, single or double reduction geared to propelling shafts.

No. of rows	H. P.				I. P.				L. P.				ASTERN.			
	No. of stages				No. of rows in each stage				No. of rows in each stage				No. of rows in each stage			
	20/01/ES				20/01/ES				7				20/01/ES			

ft Horse Power at each turbine H.P. — I.P. — L.P. 865
 Revolutions per minute, at full power, of each Turbine Shaft H.P. — I.P. — L.P. 3620
 1st reduction wheel 470 main shaft 81.5

or Shaft diameter at journals H.P. — I.P. — L.P. 125mm
 Pitch Circle Diameter 1st pinion 7.927" 1st reduction wheel 61.0594" 2nd pinion 14.2834" main wheel 79.1298"
 Width of Face 1st reduction wheel 260mm main wheel 600mm

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion 265mm F, 225mm A 1st reduction wheel 1565mm F, 360mm A
 2nd pinion 422.5mm F, A main wheel 525mm F, A

Pinion Shafts, diameter at bearings External 1st 125mm 2nd 320mm Internal 1st 35mm 2nd 250mm
 diameter at bottom of pinion teeth 1st 7.3504" 2nd 13.511"

Generator Shaft, diameter at bearings 1st 1470mm 2nd 1910mm
 Propelling Motor Shaft, diameter at bearings 1st 1470mm 2nd 1910mm
 Thrust Shaft, diameter at collars as per rule as fitted 365mm

Is the tube screw shaft fitted with a continuous liner
 as per rule as fitted
 as per rule as fitted

Size 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 peller boss

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner
 Is 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
 No 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

If so, state type Length of Bearing in Stern Bush next to and supporting propeller
 peller, diameter Pitch No. of Blades State whether Moveable Total Developed Surface square feet
 Angle 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

lenser No. of Turbines fitted with astern wheels Feed Pumps No. and size How driven
 ps connected to the Main Bilge Line No. and size How driven

ast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
 two independent means arranged for circulating water through the Oil Cooler Suctions, connected both to Main Bilge Pumps and Auxiliary
 e Pumps, No. and size In Engine and Boiler Room In Pump Room

olds, &c. Independent Power Pump Direct Suctions to the Engine Room
 n Water Circulating Pump Direct Bilge Suctions, No. and size Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes

he 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
 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
 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
 ing plate What pipes pass through the bunkers How are they protected

Have they been tested as per rule
 all Pipes, Cocks, Valves and Pumps in connection with the machinery and all boiler mountings accessible at all times

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
 s, or from one compartment to another Is the Shaft Tunnel watertight Is it fitted with a watertight door worked from

ERS, &c.—(Letter for record) Total Heating Surface of Boilers
 rced Draft fitted No. and Description of Boilers Working Pressure

Report on Main Boilers now forwarded?
 Lloyd's Register Foundation

Is { a Donkey } Boiler fitted? If so, is a report now forwarded? t. 5a.
{ an Auxiliary }
Is the donkey boiler intended to be used for domestic purposes only?
Plans. Are approved plans forwarded herewith for Shafting. Yes Main Boilers. Auxiliary Boilers. Donkey Boilers.
(If not, state date of approval)
Superheaters. General Pumping Arrangements. Oil Fuel Burning Arrangements.
Geared turbines situated aft. Have torsional vibration characteristics of system been approved. Date of approval.

SPARE GEAR.

Has the spare gear required by the Rules been supplied? Yes
State the principal additional spare gear supplied.

List attached herewith.

The foregoing is a correct description.

Wm G. Snedley

Manufacture

Dates of Survey while building { During progress of work in shops - 1953 4.6.17. Mar. 20.30. May 27. Aug. 7.12.13.19.21.25.26.3.22.23. Oct. 23.28.
During erection on board vessel - - -
Total No. of visits. 16.

Dates of Examination of principal parts - Casings. 22/9/53 Rotors. 23/10/53 Blading. 23/10/53 Gearing. 23/10/53

Wheel shaft. 23/10/53 Thrust shaft. 23/10/53 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. 1.5. 40 Tons/0" Identification Mark. LR 24408 417

Pinion shaft, Material and tensile strength. Electric Furnace Steel Identification Mark. LR 24408 5712

Pinion shaft, Material and tensile strength. 48 Tons/0" Identification Mark. 53588 GS 21

Chemical analysis. 3 1/2 % Nickel Identification Mark. 71768

If Pinion Shafts are made of special steel state date of approval of chemical analyses, physical properties and heat treatment.

1st Reduction Wheel Shaft, Material and tensile strength. 1.5. 32.4 Tons/0" Identification Mark. LR 24408 421

Main Gear Wheel shaft, Material. 1.5. Identification Mark. LR 24408 422

Transmission Intermediate shafts, Material. 1.5. Identification Marks. LR 24408 423

Main Gear Wheel Rim. 1.5. Identification Marks. LR 24408 418

Screw shaft, Material. 1.5. Identification Marks. LR 24408 423

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. If so, state name of vessel.

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

This Bauer Wack Steam Turbine unit has been constructed under Special Survey in accordance with the Rule requirements and approved plans.

The materials and workmanship are good.

The unit has been dispatched to Central Marine Engine Works, West Hartlepool, for installation with their Engine No 1266, and our opinion is eligible to be classed with the main machinery on satisfactory installation.

The turbine referred to herein has been satisfactorily installed in the vessel "STANPOOL", and examined under full power in conjunction with the main engine with satisfactory results.

The amount of Entry Fee ... £ 27 : 0 : When applied for. 1 DEC 1953

Special ... £ : : When received.

Donkey Boiler Fee ... £ : : 19

Travelling Expenses (if any) £ : : 19

Committee's Minute. GLASGOW 1 DEC 1953

Assigned. Deferred for completion.

pp. G.P. Snedley, A Campbell & Self.
John Macleod
Engineer Surveyor to Lloyd's Register of Shipping.

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