

Report on Steam Turbine Machinery. No. 105788

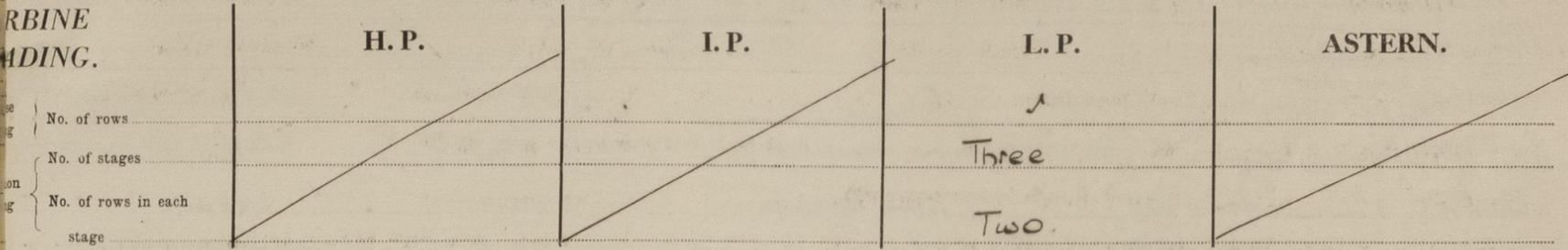
Received at London Office

31 DEC 1918

of writing Report 19 When handed in at Local Office **29 DEC 1918** Port of **NEWCASTLE-ON-TYNE**
 Survey held at **HEBBURN ON TYNE** Date, First Survey **30/12/17** Last Survey **26/11/18** 19
 Book " **STANROYAL** " (Number of Visits **81**)
 Tons { Gross **9026**
 Net **5637**
 at **HAMBURG** By whom built **DEUTSCHE SCHIFF-UND MASCHINENBAU AG. VULCAN** Card No. ✓ When built **1929**
 Engines made at **HAMBURG** By whom made **VULCAN WERKE** Engine No. ✓ When made **1929**
 Boilers made at **HAMBURG** By whom made **VULCAN WERKE** Boiler No. ✓ When made **1929**
 L.P. Exhaust Turbine
 Net Horse Power at Full Power **1,000** Owners **STANHOPE S.S. CO. LD.** Port belonging to
 Net Horse Power as per Rule **1430** Is Refrigerating Machinery fitted for cargo purposes **Yes** Is Electric Light fitted **Yes**
 Use for which Vessel is intended

AM TURBINE ENGINES, &c.—Description of Engines **L.P. Exhaust Turbine, DR Gearing with Hydraulic Clutch.**

Ahead **One** Direct coupled, single reduction geared to Main propelling shafts. No. of primary pinions to each set of reduction gearing **One**
 Astern ✓ double reduction geared
 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
 Kilowatts Volts at revolutions per minute Direct coupled, single or double reduction geared to propelling shafts.



Net Horse Power at each turbine { H.P. ✓
 I.P. ✓
 L.P. **1000** } Revolutions per minute, at full power, of each Turbine Shaft { H.P. ✓
 I.P. ✓
 L.P. **3900** } 1st reduction wheel **510**
 main shaft **78**

Shaft diameter at journals { H.P. ✓
 I.P. ✓
 L.P. **6 19/64** } Pitch Circle Diameter { 1st pinion **9 25/32** 1st reduction wheel **74 21/32** Width of Face { 1st reduction wheel **11**
 main wheel **29 1/2**
 2nd pinion **16 43/64** main wheel **109** } 1st reduction wheel **23 5/8 + 10 1/4**
 main wheel **22**

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings { 1st pinion **11** 1st reduction wheel **23 5/8 + 10 1/4**
 2nd pinion **20 5/8** main wheel **22**

Pinion Shafts, diameter at bearings { External 1st
 Internal 1st 2nd diameter at bottom of pinion teeth 1st 2nd
 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
 Propeller 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

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
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

Does the liner do 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
 Are liners 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

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

Pipes connected to the Main Bilge Line { No. and size
 How driven Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected both to Main Bilge Pumps and Auxiliary
 Pumps, No. and size:—In Engine and Boiler Room In Pump Room

Are all Water Circulating Pump Direct Bilge Suctions, No. and size Independent Power Pump Direct Suctions to the Engine Room
 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

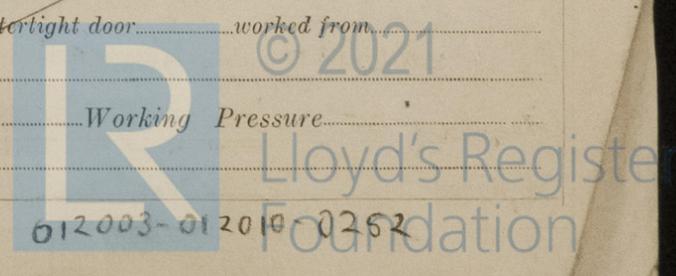
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Overboard Discharges above or below the deep water
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel Are the Blow Off Cocks fitted with a spigot and brass
 ring plate What pipes pass through the bunkers How are they protected

Are all 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

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

Report on Main Boilers now forwarded?



Is a Donkey Boiler fitted? an Auxiliary Boiler fitted? If sq. 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..... 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.....

State the principal additional spare gear supplied.....

The foregoing is a correct description,

Manufacture

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

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 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..... Identification Mark.....

Flexible Pinion Shaft, Material and tensile strength..... Identification Mark.....

Pinion shaft, Material and tensile strength..... Identification Mark.....

; Chemical analysis.....

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

1st Reduction Wheel Shaft, Material and tensile strength..... Identification Mark.....

Wheel shaft, Material..... Identification Mark..... Thrust shaft, Material..... Identification Mark.....

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.....

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.) *The L.P. Exhaust Turbine was originally fitted in Germany to Germanischer Lloyd class in 1929 and has at this time been opened out, reconditioned with a view to classification, and is in my opinion eligible, and in satisfactory condition to be incorporated in the LMC 11.48 record.*

Certificate (if required) to be sent to.....

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee	... £	:	:	When applied for
Special £	:	:	19
Donkey Boiler Fee	... £	:	:	When received
Travelling Expenses (if any)	£	:	:	19

A. Butler
 Engineer Surveyor to Lloyd's Register of Shipping.



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Committee's Minute..... **FRI 4 MAR 1949**
 Assigned..... *See minute on file rpt.*