

REDUCTION GEAR

REPORT ON ~~STEAM TURBINE~~ MACHINERY.

No. 1645

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pt. 4a.

Date of writing Report 28 Aug 1934 When handed in at Local Office 10 Port of BREMEN
No. in Survey held at BREMEN Date, First Survey 10 FEBR. 34 Last Survey 21 AUGUST 1934
Reg. Book. on the MOTOR VESSEL BOSCHFONTEIN (a Newburgh)
Built at ROTTERDAM By whom built N.V.M.C.H. & SCHEEPWERF H.P.SMIT JR. Yard No. When built 1928
Engines made at BREMEN By whom made DESCHIMAB. P. G. WESER Engine No. 41 When made 1934
Boilers made at - By whom made - Boiler No. - When made -
Shaft Horse Power at Full Power 8000 Owners VEREENIGDE NEDERLANDSCHE SCHEERMAATS. Port belonging to THE HAGUE
Nom. Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -
Trade for which Vessel is intended -

STEAM TURBINE ENGINES, &c. - Description of Engines S.R. GEAR & VULCAN OIL COUPLING from MAIN ENG. CO 1 PROP. SHAFT

OIL ENGINES Ahead 2 Direct coupled, single reduction geared } to 1 propelling shafts. No. of primary pinions to each set of reduction gearing 2
No. of Turbines Astern - double reduction geared }
direct coupled to Alternating Current Generator - phase - periods per second } rated - Kilowatts - Volts at - revolutions per minute;
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.

Table with columns: TURBINE LADING, H.P., I.P., L.P., ASTERN. Rows: 1ST EXPANSION, 2ND, 3RD, 4TH, 5TH, 6TH, 7TH, 8TH, 9TH, 10TH, 1TH, 2TH. Columns include HEIGHT OF BLADES, DIAMETER AT TIP, NO. OF ROWS.

Shaft Horse Power at each turbine H.P. 4200 Revolutions per minute, at full power, of each Turbine Shaft H.P. 215 1st reduction wheel main shaft 105

Rotor Shaft diameter at journals H.P. Pitch Circle Diameter 1st pinion 1367.03 2nd pinion main wheel 2706.45 Width of Face 1st reduction wheel main wheel 900

Distance between centres of pinion and wheel faces and the centre of the adjacent bearings 1st pinion 725 1st reduction wheel main wheel 735-945

Flexible Pinion Shafts, diameter 1st 560 2nd 380/300 Pinion Shafts, diameter at bearings External 1st 560 2nd diameter at bottom of pinion teeth 1st 1342.5 2nd

Wheel Shafts, diameter at bearings 1st main 560 diameter at wheel shroud, 1st main 25907 Propelling Motor Shaft, diameter at bearings -

Intermediate Shafts, diameter as per rule as fitted Thrust Shaft, diameter at collars as per rule as fitted 560

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 is in more than one length are the junctions made by fusion through the whole thickness of the liner 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 haft If so, state type Length of Bearing in Stern Bush next to and supporting propeller

Propeller, diameter Pitch No. of Blades 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. Turbine 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 Ballast Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size

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

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 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 line

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 covering plate What pipes pass through the bunkers How are they protected

What 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



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? 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 3/11/33 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 spare gear supplied

- 12 coupling bolts, a number of assorted bolts & nuts
2 wheel shaft bearing halves, 2 primary shaft bearing halves.
4 thrust shaft bearing halves
2 pinion shaft bearing halves
12 pads & bolts for main thrust bearing
14 " " " for primary shaft thrust
16 " " " for pinion thrust.

Deutsche Schiff- und Maschinenbau Aktiengesellschaft

Handwritten signature

Manufacturer.

The foregoing is a correct description,

Dates of Survey while building During progress of work in shops -- Feb. 10, April 4, 23, May 2, 11, June 13, 15, 22, 27, July 7, 18, 28, Aug. 11, 21.
During erection on board vessel ---
Total No. of visits 14

Dates of Examination of principal parts - Casings 11.5.34 OIL COUPLINGS 22 & 27.6.34 PINIONS 7.7.34 Gearing 11.8.34

Wheel shaft 7.7.34 Thrust shaft 7.7.34 PRIMARY WHEEL shafts 15.6.34 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 LLOYD'S M.B. 10227/10228.2

PRIMARY WHEEL Shaft, Material and tensile strength Prim. Man. Steel 50 kg/mm^2 Identification Mark AC 15.6.34

Pinion shaft, Material and tensile strength Prim. Man. Nickel Steel 65 kg/mm^2 Identification Mark LLOYD'S M.B. 10286 & 10288 20.3.34 28.7.34 AC. 7.7.34

1st Reduction Wheel Shaft, Material and tensile strength LLOYD'S M.B. 10226. 26.1.34 IN ONE WITH WHEEL SHAFT Identification Mark

Wheel shaft, Material P. M. Steel Identification Mark AC. 7.7.34 Thrust shaft, Material Identification Mark

MAIN WHEELRIM Intermediate shafts, Material P. M. Steel Identification Marks AC. 7.7.34 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 no If so, state name of vessel

General Remarks (State quality of workmanship, opinions as to class, &c.) This Reduction Gear with Vulcan Coupling

and Main Thrust has been built under Special Survey in accordance with the approved plan

and the Secretary's letters. The materials used in the construction are made at works

recognized by the Committee and tested as required by the Rules. Materials & workmanship

are of good quality.

This machinery has been shipped to: Fleetsing to N.V. Koninklijke Maatsk.

"DE SCHELDE".

The amount of Entry Fee ... £ : : When applied for, 28.8.1934

Special survey ... RM 800,- : : When received, 8/10/34

Donkey Boiler Fee ... # : : 20/34

Travelling Expenses (if any) # : : when returned from Rot.

Committee's Minute

Assigned

A. Carstensen Engineer Surveyor to Lloyd's Register of Shipping. Lloyd's Register Foundation logo and copyright notice.

Certificate (if required) to be sent to... (The Surveyors are requested not to write on or below the space for Committee's Minute.)