

REPORT ON STEAM TURBINE MACHINERY. No. 11076

Writing Report 3 July 1928 When handed in at Local Office 19 Port of Amsterdam 13 JUL 1928
 Received at London Office
 Survey held at Hengelo Date, First Survey 8 Nov 1927 Last Survey 7 June 1928
 on the Stel S. S. "Nieuwkerk" (Number of Visits 13)
 Tons } Gross
 Net }
 Built at Rotterdam By whom built P. Smit jr Yard No. 418 When built
 Made at Hengelo By whom made Geb. Stork & Co Engine No. 3211 When made 1920
 Made at By whom made Boiler No. When made
 Horse Power at Full Power 3500 Owners Ver. Neder. Scheep. M^t Port belonging to Amsterdam
 Horse Power as per Rule Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted
 for which Vessel is intended

STEAM TURBINE ENGINES, &c.—Description of Engines Type, "Parsons"

Turbines } Ahead 12 P. } Direct coupled, }
 } Astern 1 H.P. x 12 P. } single reduction geared } to 1 propelling shaft. No. of primary pinions to each set of reduction gearing
 } double reduction geared }
 Coupled to } Alternating Current Generator } phase } periods per second }
 } Direct Current Generator } rated } Kilowatts } Volts at } revolutions per minute;
 Driving power for driving } Propelling Motors, Type }
 } Kilowatts } Volts at } revolutions per minute. Direct coupled, single or double reduction geared to } propelling shafts.

LINE	H. P.			H. P. - Astern			L. 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.
ANSION	42.1/62.4	758.2/192.8	1/1 Wheel	34.2/56	751.5/106	1/1 Curved wheel	51	707	4	42.0/66.1	1090.6/1133	1/1 Curved wheel
"	31.7	432	7	-	-	-	67	819	4	34.9	90.2	2
"	42.86	454	7	-	-	-	86	857	4	50.0	939.8	2
"	44.45	460	7	-	-	-	65	1095	2	76.2	990.6	2
"	50.73	406	7	-	-	-	87.5	1140	2	76.2	990.6	2
"	76.19	525	7	-	-	-	114.5	1144	2	76.2	990.6	2
"	-	-	-	-	-	-	131.75	1220.5	1	-	-	-
"	-	-	-	-	-	-	150.75	1202.5	1	-	-	-
"	-	-	-	-	-	-	190.5	1346	1	-	-	-
"	-	-	-	-	-	-	190.5	1346	1	-	-	-
"	-	-	-	-	-	-	190.5	1346	1	-	-	-

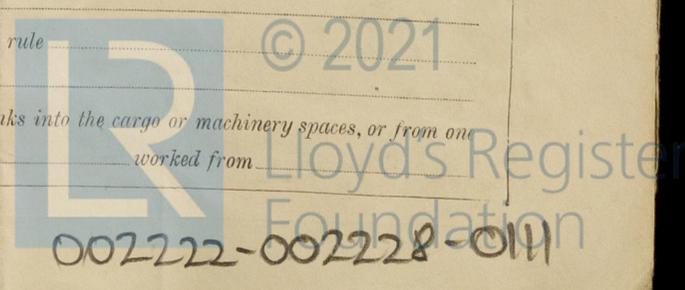
Horse Power at each turbine { H.P. 1750 }
 { I.P. } Revolutions per minute, at full power, of each Turbine Shaft { H.P. 3300 } 1st reduction wheel
 { L.P. 1750 } { I.P. } { L.P. 2300 } main shaft
 Shaft diameter at journals { H.P. 140 φ } Pitch Circle { 1st pinion } 1st reduction wheel { Width of Face { 1st reduction wheel }
 { I.P. } { Diameter } { 2nd pinion } main wheel { main wheel }
 { L.P. 180 φ } { 1st pinion } 1st reduction wheel { 2nd pinion } main wheel

Pinion diameter { 1st } Pinion Shafts, diameter at bearings { External } 1st { diameter at bottom of pinion teeth } { 1st }
 { 2nd } { Internal } 2nd { 2nd }
 Shafts, diameter at bearings { 1st } diameter at wheel shroud, { 1st } Generator Shaft, diameter at bearings
 { main } { main } Propelling Motor Shaft, diameter at bearings
 Intermediate Shafts, diameter as per rule Thrust Shaft, diameter at collars as per rule Tube Shaft, diameter as per rule
 as fitted as fitted as fitted as fitted
 Shaft, diameter as per rule Is the { tube } shaft fitted with a continuous liner { Bronze Liners, thickness in way of bushes as per rule }
 as fitted as fitted as fitted as fitted
 between bushes as per rule 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
 as fitted as fitted as fitted as fitted

Admission 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 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 appliance fitted at the after end of the tube shaft 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.
 Screw, are arrangements made so that steam can be led direct to the L.P. Turbine Yes Can the H.P. or ~~H.P.~~ Turbine exhaust direct to the
Yes No. of Turbines fitted with astern wheels 2 Feed Pumps { No. and size }
 { How driven }

Connected to the Main Bilge Line { No. and size 3 x 150 φ Stroke = 200 }
 { How driven Intermediate shaft }
 Pumps, No. and size Lubricating Oil Pumps, including Spare Pump, No. and size
 Independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge
 No. and size:—In Engine and Boiler Room

Water Circulating Pump Direct Bilge Suctions, No. and size Centrifugal pump with
 { No. and size } { admissible } Independent Power Pump Direct Suctions to the Engine Room
 { How driven }
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes
 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
 Connections fitted direct on the skin of the ship Are they fitted with Valves or Cocks
 Located 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
 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
 Discharges pass through the bunkers How are they protected
 Discharges pass through the deep tanks Have they been tested as per rule
 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 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

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? _____
 { an Auxiliary }

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 _____

Spare Gear. State the articles supplied:—

Machinefabriek Gebr. STORK & Co.

The foregoing is a correct description,

Dates of Survey while building { During progress of work in shops -- } 1927: 8 Nov. 1928 20 Jan. 2 Feb 5. 0. 27 March 10. 26 April. 2. 7. 21 May. 7
 { During erection on board vessel --- }
 Total No. of visits _____

Dates of Examination of principal parts—Casings 20 Jan / 2 May Rotors 20 Jan / 4 June Blading 5 March / 7 May Gearing _____

Wheel shaft _____ Thrust shaft _____ Intermediate shafts _____ Tube shaft _____ Screw shaft _____

Propeller _____ Stern tube _____ Engine and boiler seatings _____ Engine holding down bolts _____

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 S.M.S. 20 Jan and 27. 6. 28 along Identification Mark H. P. 2237. 509. 3. LP=1029 Mk 23.

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

Pinion shaft, Material and tensile strength _____ Identification Mark _____

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 carrying and burning oil fuel 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 vessel's H.P. & L.P. Turbines have been made in accordance with the approved plans & Secretary's letters.

Material duly tested workmanship throughout good.

The reduction gear made at Mr Krupp's H.G. at Düsseldorf has been shipped direct to Messrs P. Smit at Rotterdam, where the hull will be fitted aboard and the machinery completed.

A copy of this report has been sent to the Rotterdam Surveyors.

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 ...	£ 300 -	:	19
Donkey Boiler Fee ...	£	:	When received,
Travelling Expenses (if any) ...	£ 140 -	:	28. 8. 28

H. J. Newdiffe
 Engineer Surveyor in Lloyd's Register of Shipping.

Committee's Minute

TUE. 23 OCT 1928

Assigned

See Rot. J. Rpt. 17858



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