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pt. 4a.

REPORT ON STEAM TURBINE MACHINERY. No. 8608 A

Received at London Office 26 OCT 1942

Date of writing Report Sept. 7th 19 42 When handed in at Local Office 19 Port of SAN FRANCISCO

No. in Reg. Book. 12213 Survey held at SAN FRANCISCO, CALIF Date, First Survey JULY 27 Last Survey AUG 15 1942 (Number of Visits)

on the STEEL S.S. "SINGKEP" Tons Gross 6607 Net 4070

Built at AMSTERDAM By whom built NEDERL SCHPS MAATS Yard No. 165 When built 1922

Engines made at AMSTERDAM By whom made MACHINEFABRICH WERKSPOOR Engine No. ✓ When made 1924

Boilers made at AMSTERDAM By whom made MACHINEFABRICH WERKSPOOR Boiler No. ✓ When made 1928

Shaft Horse Power at Full Power 2760 Owners N.V. STOOMV. MAATS NEDERLAND Port belonging to BATAVIA

Nom. Horse Power as per Rule ~~1206~~ 883 Is Refrigerating Machinery fitted for cargo purposes NO Is Electric Light fitted YES

Grade for which Vessel is intended

STEAM TURBINE ENGINES, &c.—Description of Engines WERKSPOOR - PARSONS

No. of Turbines Ahead H.P. & L.P. Astern H.P. & L.P. ~~Direct coupled~~, ~~single reduction geared~~ double reduction geared } to ONE propelling shafts. No. of primary pinions to each set of reduction gearing TWO

Direct coupled to { Alternating Current Generator ✓ phase ✓ periods per second / Direct Current Generator } rated ✓ Kilowatts ✓ Volts at ✓ revolutions per minute;

or 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 LEADING.	H.P. HEIGHT OF BLADES.	H.P. DIAMETER AT TIP.	H.P. NO. OF ROWS.	I.P. HEIGHT OF BLADES.	I.P. DIAMETER AT TIP.	I.P. NO. OF ROWS.	L.P. HEIGHT OF BLADES.	L.P. DIAMETER AT TIP.	L.P. NO. OF ROWS.	ASTERN. HEIGHT OF BLADES.	ASTERN. DIAMETER AT TIP.	ASTERN. NO. OF ROWS.
ST EXPANSION	21.10 m.m.	448.20 m.m.	6				49.10 m.m.	708.20 m.m.	4	26.80 m.m.	794.80 m.m.	1
ND "	27.00 m.m.	460.00 m.m.	6				65.00 m.m.	740.00 m.m.	4	40.20 m.m.	820.40 m.m.	1
RD "	35.00 m.m.	476.00 m.m.	6				84.90 m.m.	779.80 m.m.	4	55.00 m.m.	850.00 m.m.	3
TH "	46.90 m.m.	499.80 m.m.	6				57.90 m.m.	1005.80 m.m.	2			
TH "	62.90 m.m.	531.80 m.m.	6				74.70 m.m.	1039.40 m.m.	2			
TH "							85.60 m.m.	1061.20 m.m.	1			
TH "							103.50 m.m.	1097.00 m.m.	1			
TH "							122.40 m.m.	1134.80 m.m.	1			
TH "							144.20 m.m.	1178.40 m.m.	3			
TH "												
TH "												
TH "												

Shaft Horse Power ~~direct~~ turbine { H.P. / ~~I.P.~~ / L.P. } TOTAL 2760 **Revolutions** per minute, at full power, of each Turbine Shaft { H.P. 3500 / ~~I.P.~~ / L.P. 2700 } 1st reduction wheel ✓ main shaft 80

Motor Shaft diameter at journals { H.P. 110 m.m. / ~~I.P.~~ / L.P. 125 m.m. } **Pitch Circle Diameter** { H.P. ~~1st~~ pinion 7.219" 1st reduction wheel ✓ / L.P. ~~2nd~~ pinion 9.342 main wheel ✓ } **Width of Face** { ~~1st reduction wheel~~ ✓ / main wheel 395 m.m. }

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

Flexible Pinion Shafts, diameter { 1st ✓ / 2nd ✓ } **Pinion Shafts,** diameter AT BEARINGS ~~at bearings~~ External ~~External~~ { H.P. ~~1st~~ 165 m.m. ✓ / L.P. ~~2nd~~ 220 m.m. ✓ } diameter at bottom of pinion teeth { 1st ✓ / 2nd ✓ }

Wheel Shafts, diameter at bearings { ~~1st~~ ✓ / main 420 m.m. } diameter at wheel shroud, { 1st ✓ / main ✓ } **Generator Shaft,** diameter at bearings ✓

Propelling Motor Shaft, diameter at bearings ✓

Intermediate Shafts, TUNNEL SHAFTS diameter as per rule 12.625 as fitted 330 m.m. 12.902 **Thrust Shaft,** diameter at collars ~~as per rule~~ MICHEL as fitted 13.875 **Tube Shaft,** diameter as per rule ✓ as fitted ✓

Screw Shaft, diameter as per rule 13.575 as fitted 14.625 Is the { ~~tube~~ / screw } shaft fitted with a continuous liner { YES } **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 shaft YES Length of Bearing in **Stern Bush** next to and supporting propeller ✓

Propeller, diameter 5640 m.m. Pitch 3467 m.m. No. of Blades 5 State whether Moveable NO Total Developed Surface ✓ square feet.

Single Screw, are arrangements made so that steam can be led direct to the **L.P. Turbine** YES Can the **H.P. or I.P. Turbine** exhaust direct to the Condenser NO No. of Turbines fitted with astern wheels H.P. & L.P. **Feed Pumps** { No. and size TWO (2) SIMPLEX DOUBLE ACTING 210 m.m. dia. 534 m.m. STROKE, and ONE (1) CENTRIFUGAL / ~~Hand driven~~ STEAM DRIVEN } Removed 10.46

Pumps connected to the **Main Bilge Line** { No. and size TWO (2) SIMPLEX DOUBLE ACTING 210 MM DIA - 534 m.m. STROKE / How driven STEAM. }

Ballast Pumps, No. and size ✓ **Lubricating Oil Pumps,** including Spare Pump, No. and size TWO (2) SIZE NOT AVAILABLE

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

Main Water Circulating Pump Direct Bilge Suctions, No. and size ONE (1) 10" **Independent Power Pump Direct Suctions** to the Engine Room Boilers, No. and size FOUR (4) 6" Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes YES 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 YES Are all **Sea Connections** fitted direct on the skin of the ship YES Are they fitted with Valves or Cocks VALVES & COCKS Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates YES Are the Overboard Discharges above or below the deep water line BELOW WHEN VESSEL IS LOADED Are they each fitted with a Discharge Valve always accessible on the plating of the vessel YES Are the Blow Off Cocks fitted with a spigot and brass covering plate YES

Do pipes pass through the bunkers TELEMOTER LINES How are they protected GAURDS (IRON)

Do 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 YES

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 YES Is it fitted with a watertight door YES worked from UPPER DECK

BOILERS, &c.—(Letter for record) Total Heating Surface of Boilers 3,560 SQ FEET EACH BOILER

Is Forced Draft fitted YES No. and Description of Boilers 4 - 3 FURNACE SCOTCH BOILERS Working Pressure 225 LBS/□"

Is a Report on Main Boilers now forwarded? YES

Is { **a Donkey** / **an Auxiliary** } **Boiler fitted?** NO *If so, is a report now forwarded?* NO

Plans. *Are approved plans forwarded herewith for Shafting* ✓ NOT AVAILABLE *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:—*

The foregoing is a correct description, *Manufacturer*

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 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* ✓

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. NONE *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 NO *If so, have the requirements of the Rules 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 machinery was built under Special Survey by the Bureau Veritas.

In June 1941, at Sourabaya the Surveyors to Lloyd's Register of Shipping made an examination of the machinery with a view to its Classification and recommended that the machinery be classed ✠ L. M. C.

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

F. G. Arnold & W. M. Jolegg
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute NEW YORK SEP 23 1942

Assigned Transmit to London

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

(The Surveyors are requested to write on or below the space for Committee's Minute.)

If not, state whether, and when, one will be sent. Already sent

Is a Report also sent on the Hull of the Ship? NO