

REPORT ON MACHINERY.

No. 14680

Received at London Office

MON. AUG. 29 1921

Date of writing Report 18th Aug. 1921. When handed in at Local Office

Port of HAMBURG

in Survey held at HAMBURG

Date, First Survey 11th July.Last Survey 12th Aug. 1921.

g. Book.

1846 on the S.S. "T.H. SKOGLAND" ex "JAVARY"

(Number of Visits 12.

Master

Built at HAMBURG By whom built BLOHM & VOSS.

Gross 4198

Net 2569.

When built 1915.

Engines made at HAMBURG

By whom made BLOHM & VOSS

when made 1915

Boilers made at HAMBURG

By whom made BLOHM & VOSS

when made 1915

Registered Horse Power 275

Owners T.H. SKOGLAND.

Port belonging to NEWCASTLE.

Horse Power as per Section 28 367.

Is Refrigerating Machinery fitted for cargo purposes no.

Is Electric Light fitted yes.

Engines, &c. Description of Engines Triple Expansion.

No. of Cylinders 3

No. of Cranks 3.

Diameter of Cylinders 10-980-1600 in. Length of Stroke 1220 in. Revs. per minute 68

Dia. of Screw shaft as per rule 336 in. Material of steel.

the screw shaft fitted with a continuous liner the whole length of the stern tube no

Is the after end of the liner made water tight

the propeller boss yes. The liner is in more than one length are the joints burned -

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

screws are fitted, is the shaft lapped or protected between the liners

Length of stern bush 1460 in.

Diameter of Tunnel shaft as per rule 336 in. Dia. of Crank shaft journals as per rule 336 in.

Dia. of Crank pin 336 in. Size of Crank webs 215 x 713 in.

Diameter of screw 5400 in. Pitch of Screw 4900 in.

No. of Blades 4. State whether moveable yes. Total surface 8.5 sq. in.

No. of Feed pumps 2

Diameter of ditto see below.

Can one be overhauled while the other is at work yes

No. of Bilge pumps 2

Diameter of ditto 110 in. Stroke 600 in.

Can one be overhauled while the other is at work yes

No. of Donkey Engines 5 incl. 2 sizes of Pumps see below.

No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 4 wing (2 of 100 in. 2 of 90 in.) in stock. 2 wing of 90 in. Holds, &c. No. 1 - one. No. 2 - two. No. 3 & 4 - four of 90 in. diam. from aft peak one of 90 in. diam. from forward one of 90 in. diam.

No. of Bilge Injections 1 sizes 200 in. Connected to condenser to circulating pump yes

Is a separate Donkey Suction fitted in Engine room & size yes - 2 - 100 in.

Are all the bilge suction pipes fitted with roses yes

Are the roses in Engine room always accessible yes

Are the sluices on Engine room bulkheads always accessible no

Are all connections with the sea direct on the skin of the ship yes

Are they 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 Discharge Pipes above or below the deep water line above.

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

How are they protected wood & steel casings

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes

Results of examination of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight yes

Is it fitted with a watertight door yes

worked from cylinder platform.

Boilers, &c. (Letter for record 5050) Manufacturers of Steel

Total Heating Surface of Boilers 470 sq. m. Is Forced Draft fitted yes

No. and Description of Boilers 2. multitubular single ended.

Working Pressure 14 atm. 200 Tested by hydraulic pressure to 19 atm.

Date of test 1915 by German authorities.

Can each boiler be worked separately yes

Area of fire grate in each boiler 5.8 sq. m. 62

No. and Description of Safety Valves to

each boiler 2 spring loaded

Diameter of each valve 95 in. Pressure to which they are adjusted 14 atm.

Are they fitted with easing gear yes

Smallest distance between boilers on masts and bunkers 350 in.

Mean dia. of boilers 4700 in. Length 3675 in. Material of shell plates steel.

Thickness 34 in. Range of tensile strength 44-51 kg.

Are the shell plates welded or flanged flanged

Descrip. of riveting: cir. seams d. gp. riv.

g. seams d. 6. quad. riv. Diameter of rivet holes in long. seams 39 in.

Pitch of rivets 498 in. Lap of plates or width of butt straps 770 in.

Percentages of strength of longitudinal joint

rivets 115.5% plate 92.2% Working pressure of shell by rules 15 atm.

Size of manhole in shell no manhole in shell.

No. of compensating ring

No. and Description of Furnaces in each boiler 3. Morrison's Material steel. Outside diameter 1250 in.

Length of plain part top 150 in. bottom 150 in.

Thickness of plates crown 16 in. bottom 16 in.

Description of longitudinal joint welded.

No. of strengthening rings 4

Working pressure of furnace by the rules 14.5 atm.

Combustion chamber plates: Material steel Thickness: Sides 17.5 in. Back 17 in. Top 17.5 in. Bottom 23 in.

Pitch of stays to ditto: Sides 180 x 210 in. Back 200 x 180 in. Top 210 x 200 in.

Stays are fitted with nuts or riveted heads nuts.

Working pressure by rules 19.45 kg.

Material of stays steel. Diameter at smallest part 38 in.

Area supported by each stay 360 sq. cm. Working pressure by rules 17.6 kg.

Material of stays steel. Thickness 27 in.

Pitch of stays 400 x 390 in. How are stays secured d. n. 3 when Working pressure by rules 16.85 kg.

Diameter at smallest part 76 in.

Area supported by each stay 1560 sq. cm. Working pressure by rules 24.2 kg.

Thickness 23 in. Material of Lower back plate steel.

Thickness 27 in. Greatest pitch of stays 400 in. Working pressure of plate by rules 16.4 kg.

Diameter of tubes 76 in. Pitch of tubes 106 x 110 in.

Material of tube plates steel Thickness: Front 27 in. Back 22 in. Mean pitch of stays 212 x 210 in.

Pitch across wide water spaces 360 in.

Working pressures by rules 16.2 kg. Girders to Chamber tops: Material steel. Depth and

Thickness of girder at centre 250 x (2 x 18) in.

Length as per rule 850 in. Distance apart 200 in. Number and pitch of stays in each 3 - 216 in.

Working pressure by rules

Superheater Schmidt's Patent. How connected to boiler - Can the superheater be shut off and the boiler worked

separately yes

Diameter - Length - Thickness of shell plates - Material - Description of longitudinal joint - Diam. of rivet

Pitch of rivets - Working pressure of shell by rules - Diameter of flue - Material of flue plates - Thickness

Stiffened with rings - Distance between rings - Working pressure by rules - End plates: Thickness - How stayed

Working pressure of end plates

Diam. of safety valves to superheater 50 in. Are they fitted with easing gear yes

IS A DONKEY BOILER FITTED? *no.*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The articles of spare gear required by Section page 87 of the rules, also the recommended articles in the same Section have been supplied with the exception of the crank shaft.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building: During progress of work in shops 11/7 - 15/7 - 16/7 - 20/7 - 23/7 - 25/7 - 28/7 - 29/7 - 30/7 - 2/8 - 4/8 - 12/8/21. During erection on board vessel 12. Total No. of visits 12.

Is the approved plan of main boiler forwarded herewith *yes*

" " " donkey " " "

Dates of Examination of principal parts: Cylinders 15/7. Slides 15/7. Covers 15/7. Pistons 15/7. Rods 15/7.

Connecting rods 16/7. Crank shaft 20/7. Thrust shaft 20/7. Tunnel shafts 20/7, 23/7. Screw shaft Propeller

Stern tube Steam pipes tested Engine and boiler seatings 16/7. Engines holding down bolts 16/7.

Completion of pumping arrangements 23/7 Boilers from 16/7-23/7-12/8 Engines tried under steam 12/8.

Main boiler safety valves adjusted 12/8 Thickness of adjusting washers *Tab. Form 8 - 4 1/2 7 2, - 5 1/2: Form 7. 2 1/2 4 1/2*

Material of Crank shaft *Steel*. Identification Mark on Do. Material of Thrust shaft *Steel* Identification Mark on Do.

Material of Tunnel shafts *Steel* Identification Marks on Do. Material of Screw shafts *Steel* Identification Marks on Do.

Material of Steam Pipes *Steel*. Test pressure 50 atm.

Is an installation fitted for burning oil fuel *no* Is the flash point of the oil to be used over 150°F. *7*

Have the requirements of Section 49 of the Rules been complied with *—*

Is this machinery duplicate of a previous case *no.* If so, state name of vessel *—*

General Remarks (State quality of workmanship, opinions as to class, &c. *Specification of Pumps.*

2. Simplex Steam 260 ³/₄ in x 650 ³/₄ in x 180 ³/₄ in. for feed purposes.

1 Duplex " 300 ³/₄ in x 300 ³/₄ in x 180 ³/₄ in. for auxiliary feed, fire, water ejector, deck water

1 Duplex " 230 ³/₄ in x 360 ³/₄ in x 260 ³/₄ in. for Ballast purposes, auxiliary condenser

1 Duplex: 100 ³/₄ in x 150 ³/₄ in x 100 ³/₄ in for fresh water purposes.

1 Injector 8.5 tons per hour for feed purposes.

All working parts of the engine have been opened out, & and were found in good order & safe working condition. The shaftings are free from defects. The Gaskets have been examined throughout, their packings are as shown on the submitted & accepted plan, the turnovers were found to be satisfactory after thoroughly repairs had been carried out, and are otherwise in good order & safe working condition.

The pumping arrangements are as shown on the submitted plan, deep tank bilge & ballast arrangements are to my satisfaction. The Machinery and Fittings of this vessel are in good & safe condition, in conformity with the submitted & accepted plan & eligible in my opinion to be classed in the Lloyd's Reg. Pl. & to have notification of "L.N.C. 8, 21".

The amount of Entry Fee ... £ : : When applied for, 19. Special ... £ : : When received, 19. Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ : : See RPT 9

Committee's Minute FRI. 24 FEB. 1922

Assigned

L.D. 8.21

TUE. 4 SEP. 1922

L.D. C.L.

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

FRI. 4 AUG. 1922

FRI. 25 AUG. 1922

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