

REPORT ON MACHINERY.

No. 4276.

Received at London Office

SAT. SEP. 26. 1914.

Date of writing Report 10th Sept. 1914 When handed in at Local Office

Port of Copenhagen

No. in Survey held at Malmo

Date, First Survey 1st Sept. 1913 Last Survey 5th Sept. 1914

Reg. Book.

274 on the Steel S.S. "Johan Sanne"

(Number of Visits 39)

Tons Gross 1371.86

Net 765.73

When built 1914

Master J. B. Josefson. Built at Malmo

By whom built Rocknäs Mek. Verkst. Aktieb.

Engines made at Malmo

By whom made Rocknäs Mek. Verkst. Aktieb.

when made 1914

Boilers made at Malmo

By whom made Rocknäs Mek. Verkst. Aktieb.

when made 1914

Registered Horse Power 157.

Owners J. N. Sanne.

Port belonging to Uddervalla.

Nom. Horse Power as per Section 28 156.86

Is Refrigerating Machinery fitted for cargo purposes No.

Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Inverted triple expansion No. of Cylinders 3 No. of Cranks 3.
Dia. of Cylinders 18 $\frac{1}{8}$ " 28 $\frac{3}{4}$ " 48 $\frac{1}{16}$ " Length of Stroke 31 $\frac{1}{2}$ " Revs. per minute ab. 85 Dia. of Screw shaft as per rule 10.7" Material of S.M. Steel.
as fitted 11.8" screw shaft)
Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liner Is the after end of the liner made water tight
in the propeller boss Edervall's packing ring fitted If 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
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 45.27"
Dia. of Tunnel shaft as per rule 8.9" Dia. of Crank shaft journals as per rule 9.37" Dia. of Crank pin 9.75" Size of Crank webs 187x7.1" Dia. of thrust shaft under
collars 9.75" as fitted 9.0" as fitted 9.75" Dia. of screw 12.9 $\frac{1}{2}$ " Pitch of Screw 11" - 3.36" No. of Blades 4 State whether moveable No. Total surface 44.6 sq. ft.
No. of Feed pumps 2. Diameter of ditto 3.74" Stroke 14.17" Can one be overhauled while the other is at work Yes.
No. of Bilge pumps 2. Diameter of ditto 3.74" Stroke 14.17" Can one be overhauled while the other is at work Yes.
No. of Donkey Engines 2 duplex Sizes of Pumps { 1 off 6" x 8" x 10" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4 off 2 $\frac{1}{2}$ " { 1 off 6" x 4" x 6" In Holds, &c. Fore hold 2 off 3" After hold 2 off 2 $\frac{1}{2}$ "
Tunnel well 1 off 2 $\frac{1}{2}$ " Tank suction 3 $\frac{1}{2}$ " - 2 $\frac{1}{4}$ " Fore peak tank 1 off 3" After peak tank 1 off 3 $\frac{1}{2}$ "
No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2 $\frac{1}{2}$ "
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 None.
Are all connections with the sea direct on the skin of the ship Yes Are they Valves or Cocks Valves and cocks for blow off.
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.
What pipes are carried through the bunkers Bilge pipes to fore hold How are they protected Passing through the frame brackets.
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.
Dates of examination of completion of fitting of Sea Connections 28/4.14. of Stern Tube 18/5.14. Screw shaft and Propeller 5/6.14.
Is the Screw Shaft Tunnel watertight Yes. Is it fitted with a watertight door Yes. worked from Upper Deck.

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel Thyssen & Co. and Deighton's Patent Flue & Tube Co. Ltd.

Total Heating Surface of Boilers 2546 sq. ft. Is Forced Draft fitted No. No. and Description of Boilers Two single ended return tubular
Working Pressure 185 lbs. Tested by hydraulic pressure to 370 lbs. Date of test 7 $\frac{1}{2}$ x 28 $\frac{1}{4}$ 1914. No. of Certificate 349 x 350.
Can each boiler be worked separately Yes. Area of fire grate in each boiler 37.5 sq. ft. No. and Description of Safety Valves to
each boiler Two spring loaded Area of each valve 7.0" Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes.
Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 12'-0" Length 10'-5 $\frac{1}{2}$ " Material of shell plates S.M. Steel.
Thickness 1.0236" Range of tensile strength 28-32 t. Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams Lap joint
long. seams butt straps Diameter of rivet holes in long. seams 1 $\frac{1}{16}$ " Pitch of rivets 7.22" Lap of plates or width of butt straps 15.75"
Per centages of strength of longitudinal joint rivets 87.5 plate 86.0 Working pressure of shell by rules 188.7 lbs. Size of manhole in shell 15.35" x 19.29"
Size of compensating ring 28.35" x 32.28" x 1.0236" No. and Description of Furnaces in each boiler 2 off Deighton's Material S.M. Steel. Outside diameter 45.67"
Length of plain part top 1.7" bottom 1.7" Thickness of plates crown 1 $\frac{1}{16}$ " bottom 1 $\frac{1}{16}$ " Description of longitudinal joint welded. No. of strengthening rings 1
Working pressure of furnace by the rules 198.5 lbs. Combustion chamber plates: Material S.M. Steel Thickness: Sides 9 $\frac{1}{16}$ " + 1 $\frac{1}{32}$ " Back 7 $\frac{1}{16}$ " + 1 $\frac{1}{32}$ " Top 7 $\frac{1}{16}$ " + 1 $\frac{1}{32}$ " Bottom 5 $\frac{1}{8}$ " + 1 $\frac{1}{32}$ "
Pitch of stays to ditto: Sides 7.68" x 8.35" Back 7.68" x 8.27" Top 7.87" x 8.19" If stays are fitted with nuts or riveted heads as per approved plan. Working pressure by rules 187 lbs.
Material of stays S.M. Steel Diameter at smallest part 1.38" Area supported by each stay 64.08 sq. in. Working pressure by rules 187 lbs. End plates in steam space:
Material S.M. Steel Thickness 0.78" Pitch of stays 16.4" x 14.7" How are stays secured df. nuts & washers Working pressure by rules 186.5 lbs. Material of stays S.M. Steel.
Diameter at smallest part 2.63" Area supported by each stay 244.5 sq. in. Working pressure by rules 231 lbs. Material of Front plates at bottom S.M. Steel.
Thickness 0.714" Material of Lower back plate S.M. Steel Thickness 0.784" Greatest pitch of stays 13.4" x 7.7" Working pressure of plate by rules 281 lbs.
Diameter of tubes 3 $\frac{1}{2}$ " Pitch of tubes 4.75" x 4.72" Material of tube plates S.M. Steel Thickness: Front 0.784" Back 0.787" Mean pitch of stays 10.95"
Pitch across wide water spaces 14.58" Working pressures by rules 187 lbs. Girders to Chamber tops: Material S.M. Steel Depth and
thickness of girder at centre 6.93" x 7.79" x 2 Length as per rule 27' Distance apart 8.2" Number and pitch of stays in each 2 off 7.9" pitch
Working pressure by rules 199 lbs. Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked
separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet
holes Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness
If stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed
Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

002320-002329-0102

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

✓

SPARE GEAR.

State the articles supplied:— 2 piston rod top end bolts and nuts. 2 connecting rod bottom end bolts and nuts. 2 main bearing bolts and nuts. 1 set of coupling bolts. 1 set of feed and bilge pump valves. 1 set of piston springs. A quantity of assorted bolts and nuts. Iron of various sizes. 1 propeller. 2 feed check valves. 1 air pump rod. 10 junkering bolts. Cylinder cover bolts. 4 valve chest cover bolts. 3 stay & 4 plain boiler tubes. 10 condenser tubes & 20 ferrules. 1 set of safety valve springs.

The foregoing is a correct description,

KOCKUMS MEKANISKA VERKSTADS

AKTIE-BOLAG.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1/9, 24/9, 29/9, 6/10, 7/10, 16/10, 17/10, 12/11, 5/12, 19/13, 8/1, 20/1, 24/1, 26/1, 18/2, 24/2, 28/2, 3/3, 5/3, 10/3, 7/4, 28/4, 2/5, 6/5, 15/7, 19/14.
During erection on board vessel -- 7/4, 28/4, 2/5, 18/5, 5/6, 8/6, 16/6, 19/6, 23/6, 25/6, 1/7, 8/7, 15/7, 17/7, 27/7, 28/7, 30/7, 5/9, 19/14.
Total No. of visits 39.

Is the approved plan of main boiler forwarded herewith yes.

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 24/2, 28/2, 3/3, 5/3 Slides 28/4.14. Covers 24/2, 28/2, 3/3, 5/3 Pistons 2/5.14. Rods 2/5.14.
Connecting rods 2/5.14 Crank shaft 19/11.13. Thrust shaft 19/11.13 Tunnel shafts 17/12.13 6/1.14. Screw shaft 10/12.13. Propeller 6/5.14.
Stern tube 6/5.14. Steam pipes tested 15/7.14 Engine and boiler seatings 15/7.14 Engines holding down bolts 15/7.14.
Completion of pumping arrangements 27/7.14 Boilers fixed 15/7.14 Engines tried under steam 30/7.14.
Main boiler safety valves adjusted 28/7.14 Thickness of adjusting washers Starb. bl. { 7/8 " forward 7/8 " aft. Port bl. { 7/8 " forward 7/8 " aft.
Material of Crank shaft S.M.I. Steel Identification Mark on Do. 11.13. A.F.Q. Material of Thrust shaft S.M.I. Steel Identification Mark on Do. 11.13. A.F.Q.
Material of Tunnel shafts S.M.I. Steel Identification Marks on Do. 12.13. 1.14. A.F.Q. Material of Screw shafts S.M.I. Steel Identification Marks on Do. 12.13. A.F.Q.
Material of Steam Pipes Steel Test pressure 555 lbs.

Is an installation fitted for burning oil fuel

No.

Is the flash point of the oil to be used over 150°F.

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

Is this machinery duplicate of a previous case yes If so, state name of vessel 1/2 Thai, Avesta & Nautic.

General Remarks

(State quality of workmanship, opinions as to class, &c.)

In accordance with the rules

for Special Survey we have examined the material and workmanship from the commencement until the final trial under steam and found it good in every respect.

The dimensions are as specified and in accordance with the rules and the approved plans.

Recommend the vessel's machinery to have notation of LMC-9.14.

It is submitted that this vessel is eligible for THE RECORD + LMC 9.14.

The amount of Entry Fee ... £ 36 : 60 :
Special ... £ 430 : 96 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 104 : 65 :
When applied for, 9.9.1914
When received, 5/11/14

Committee's Minute

TUE. SEP. 29. 1914

Assigned

+ LMC 9.14.

MACHINERY CERTIFICATE WRITTEN.



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