

REPORT ON MACHINERY.

No. 1538

Port of Göteborg

MUN. 18 MAY 1908

Received at London Office

19

No. in Survey held at Lödöse and Göteborg Date, first Survey 18th June 1906 Last Survey 8th May 1908.
 Reg. Book 112 on the Steel Screw Steamer "Sita" (Number of Visits 34)

Master O. W. Thorssell Built at Lödöse By whom built Aktiebolaget Lödöse Varf Tons { Gross 542
 Net 298
 When built 1908

Engines made at Lödöse By whom made Aktiebolaget Lödöse Varf when made 1908

Boilers made at Lödöse By whom made Aktiebolaget Lödöse Varf when made 1908

Registered Horse Power ✓ Owners Rederiaktiebolaget Concordia Port belonging to Göteborg

Nom. Horse Power as per Section 28 66 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines CompoundNo. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 16 1/2" & 36" Length of Stroke 24" Revs. per minute 125 Dia. of Screw shaft as per rule 8 1/4" Material of steel
as fitted 8 9/16" screw shaft

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no liner fitted Is the after end of the liner made water tight
 in the propeller boss ✓ 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 Pedernwallspat. past. box fitted Length of stern bush 6' 4 1/8"

Dia. of Tunnel shaft as per rule 7 1/8" Dia. of Crank shaft journals as per rule 7 17/32" Dia. of Crank pin 7 5/8" Size of Crank webs 4 1/16" x 8 3/4" Dia. of thrust shaft under
as fitted 7 9/16" collars 7 9/16" Dia. of screw 10" Pitch of Screw 10" No. of Blades 4 State whether moveable no Total surface 280'

No. of Feed pumps 1 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work ✓

No. of Bilge pumps 1 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work ✓

No. of Donkey Engines 2 Sizes of Pumps 6" x 7 1/2" x 6" & 2 3/4" x 4 1/2" x 4" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room None, one 2" connected to bilge pump and one 2" connected to donkey pump. In Holds, &c. None, one 2" connected to donkey pump.

No. of Bilge Injections 1 sizes 3 1/4" Connected to condenser, or to circulating pump no Is a separate Donkey Suction fitted in Engine room & size yes 3"

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 fitted

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates accessible 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 none 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

Dates of examination of completion of fitting of Sea Connections 23rd January of Stern Tube 16th Feb 1907 Screw shaft and Propeller 23rd Jan. 1908

Is the Screw Shaft Tunnel watertight none fitted Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Blechnalwerke Schuck & Knandt, Essen - Ruhr.

Total Heating Surface of Boilers 11650' Is Forced Draft fitted no No. and Description of Boilers Two, cylindrical multitubular

Working Pressure 125 lbs per sq. in. Tested by hydraulic pressure to 250 lbs per sq. in. Date of test 14th & 19th Feb 1908 No. of Certificates 34 & 35

Can each boiler be worked separately yes Area of fire grate in each boiler 300 sq. ft. No. and Description of Safety Valves to

each boiler Two, spring loaded Area of each valve 70 sq. in. Pressure to which they are adjusted 128 lbs per sq. in. Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 9" Mean dia. of boilers 8' 10 1/2" Length 8' 10" Material of shell plates steel

Thickness 2 1/32" Range of tensile strength 48-43,800 lbs per sq. in. Are the shell plates welded or flanged no Descrip. of riveting: cir. seams none

long. seams all straps & riv. Diameter of rivet holes in long. seams 7/8" Pitch of rivets 3 5/8" Lap of plates or width of butt straps 9 1/2"

Per centages of strength of longitudinal joint 75.1 rivets 75.86 plate Working pressure of shell by rules 126 lbs per sq. in. Size of manhole in shell 16" x 12"

Size of compensating ring 5" x 2 1/32" No. and Description of Furnaces in each boiler Two corrugated Material steel Outside diameter 2' 10 1/2"

Length of plain part top 6' 4" Thickness of plates bottom 7 1/16" Description of longitudinal joint none No. of strengthening rings ✓

Working pressure of furnace by the rules 182 lbs Combustion chamber plates: Material steel Thickness: Sides 9 1/16" Back 9 1/16" Top 9 1/16" Bottom 9 1/16"

Pitch of stays to ditto: Sides 8 7/8" x 7" Back 8" x 8" Top 8 7/8" x 7" If stays are fitted with nuts or riveted heads both Working pressure by rules 127 lbs per sq. in.

Material of stays steel Diameter at smallest part 1 1/8" Area supported by each stay 64 sq. in. Working pressure by rules 125 lbs End plates in steam space:

Material steel Thickness 3/4" Pitch of stays 16" x 14" How are stays secured flts. nuts and washers riv. on. Working pressure by rules 141 lbs per sq. in. Material of stays steel

Diameter at smallest part 2" Area supported by each stay 224 sq. in. Working pressure by rules 146 lbs Material of Front plates at bottom steel

Thickness 3/4" Material of Lower back plate steel Thickness 3/4" Greatest pitch of stays 12" Working pressure of plate by rules 135 lbs per sq. in.

Diameter of tubes 3" Pitch of tubes 4 1/4" x 4" Material of tube plates steel Thickness: Front 3/4" Back 3/4" Mean pitch of stays 12-8"

Pitch across wide water spaces 13" Working pressures by rules 136 lbs per sq. in. Girders to Chamber tops: Material steel Depth and

thickness of girder at centre (4 5/16" x 5 1/4") Length as per rule 19 1/2" Distance apart 8 7/8" Number and pitch of stays in each Two, 7"

Working pressure by rules 137 lbs per sq. in. Superheater or Steam chest; how connected to boiler none fitted 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 ✓

W885-0073

VERTICAL DONKEY BOILER—Manufacturers of Steel

No.	Description	Made at	By whom made	When made	Where fixed
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length		
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams		
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets Plates
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays	
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint	
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by			
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey		

SPARE GEAR. State the articles supplied:—Two connecting rod top end bolts with nuts, two connecting rod bottom end bolts with nuts, two main bearing bolts with nuts, one set of coupling bolts, one set of feed and bilge pump valves, one set of piston springs. A quantity of assorted bolts with nuts and iron of various sizes.

The foregoing is a correct description,

Manufacturer. *Anthebolaget Lööse VAB*

Dates	During progress of work in shops—	18/6, 24/7, 22/8, 15/9, 24/9, 5/10, 6/11, 20/11, 8/12, 9/12 1906. 2/3, 4/6, 10/6, 13/6, 19/7, 30/8, 21/9, 29/10, 15/11, 2/12, 16/12 1907. 15/1, 23/1 1908.
of Survey	During erection on board vessel—	14/2, 19/2, 3/3, 30/3, 9/4, 23/4, 27/4, 2/5, 4/5, 5/5, 8/5 1908
while building	Total No. of visits	34

Is the approved plan of main boiler forwarded herewith—form per Com. Rep. P.

Dates of Examination of principal parts—Cylinders	24/9, 13/10, 14/12, 18/12, 29/10, 29/11, 1907.	Covers	22/8, 14/12, 1908.	Pistons	29/10, 1907.	Rods	23/1, 1908.
Connecting rods	23/1, 1908.	Crank shaft	15/9, 24/9, 20/10, 30/10, 18/11, 24/12, 1907.	Thrust shaft	22/8, 24/10, 14/12, 1907.	Funnel shafts	
Screw shaft	22/8, 24/10, 14/12, 1907.	Propeller	23/10, 23/1, 1908.				
Stern tube	30/8, 1907.	Steam pipes tested	14/12, 1908.	Engine and boiler seatings	23/1, 1908.	Engines holding down bolts	19/2, 1908.
Completion of pumping arrangements	8/5, 1908.	Boilers fixed	30/3, 1908.	Engines tried under steam	27/4, 1908.		
Main boiler safety valves adjusted	4/5, 1908.	Thickness of adjusting washers	None washed, nuts securely fixed.				
Material of Crank shaft	Steel	Identification Mark on Do.	30-8-07. VCB	Material of Thrust shaft	Steel	Identification Mark on Do.	24/12-07. VCB
Material of Tunnel shafts		Identification Marks on Do.		Material of Screw shafts	Steel	Identification Marks on Do.	16-12-07. VCB
Material of Steam Pipes	Copper	Test pressure	250 lbs per sq. in.				

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under the usual conditions of survey. Condenser tested with water pressure. Steam and feed pipes tested to double the working pressure. The sheffing as per forging report attached.

The main boilers have been built in accordance with the approved plans, forwarded to London per commercial papers post, of material tested as required by the rules. The workmanship is good.

The plans of this machinery are duplicates of the plans for the machinery of the steamer "Alma" No. 663 in the Register Book.

To complete survey:—A branch pipe with valve to be fitted from the main engine bilge pump to the aux. valve chest in order to enable the main engine bilge pump to draw from the well in the hold. The Owner states that the survey will be completed at this port in a few days time.

The machinery of this vessel is in a good and safe working condition at a working pressure of 125 lbs per sq. in. and eligible in my opinion to be classed in the Reg. Book of this Society with the notation of * LMC 5,08 subject to the survey be completed as above. Boiler pressure 125 lbs per sq. in.

The amount of Entry Fee.	£ 20.00	When applied for.	13 th May 1908.
Special	£ 200.00	When received,	15 th May 1908.
Donkey Boiler Fee	£ :		
Travelling Expenses (if any)	£ :		

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

Committee's Minute
Assigned
TUES. 2 JUN 1908
WED. 10 JUN 1908

MACHINERY CERTIFICATE
WRITTEN

Lloyd's Register
Foundation

Certificate (if required) to be sent to Surveyors office, Galloway.

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