

REPORT ON MACHINERY

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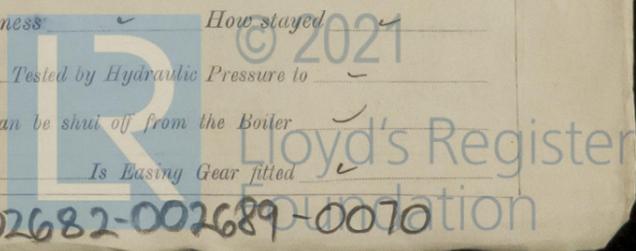
Date of writing Report 28th May 1925 When handed in at Local Office 30th May 1925 Port of Gothenburg
 No. in Survey held at Gothenburg Date, First Survey 29th April 1922 Last Survey 18th May 1925
 Reg. Book Supplement 90567 on the Single Screw Steamer "ROSLAGEN" (Number of Visits 6)
 Master ✓ Built at Gothenburg By whom built Aktief. Lindholmen-Motala When built 1925
 Engines made at Gothenburg By whom made Aktief. Lindholmen-Motala when made 1925
 Boilers made at Gothenburg By whom made Aktief. Lindholmen-Motala when made 1925
 Registered Horse Power ✓ Owners Rederiaktief. Roslagen Port belonging to Stockholm
 Nom. Horse Power as per Section 28 238 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Gross 1841
 Net 1078
 When built 1925

ENGINES, &c.—Description of Engines One triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 20 1/2, 33 & 55" Length of Stroke 36" Revs. per minute 75 Dia. of Screw shaft 11.86" Material of screw shaft Steel
 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 ✓ 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 Cedervalls oil gland fitted Length of stern bush 50"
 Dia. of Tunnel shaft 10.08" Dia. of Crank shaft journals 10.6" Dia. of Crank pin 11" Size of Crank webs 12 x 6 1/2" Dia. of thrust shaft under collars 10 7/8" Dia. of screw 14-6" Pitch of Screw 15'-0" No. of Blades 4 State whether moceable No Total surface 59 sq. feet.
 No. of Feed pumps 2 Diameter of ditto 3" Stroke 18" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 3" Stroke 18" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 2 Sizes of Pumps 8 1/2 x 8 1/2 x 10"; 6 x 4 x 6" No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room Four 2 3/4" In tunnel well one 2 1/4" In Holds, &c. Two 2 3/4" in each hold.
 No. of Bilge Injections 1 sizes 6 1/2" Connected to condenser, or to circulating pump Exc. pump 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
 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 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 suction pipes to forward hold How are they protected By wood casings.
 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
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper engine room platform.

BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Henschel & Sohn, Kattlingen, Düsseldorf.
 Total Heating Surface of Boilers 33700 Is Forced Draft fitted Yes No. and Description of Boilers Two, cylindrical, multitubular.
 Working Pressure 185 lbs/sq" Tested by hydraulic pressure to 328 lbs/sq" Date of test 12/2/25, 17/2/25 No. of Certificate 208 & 209
 Can each boiler be worked separately Yes Area of fire grate in each boiler 50 sq. feet No. and Description of Safety Valves to each boiler Two springloaded Area of each valve 12.5 sq" Pressure to which they are adjusted 190 lbs/sq" Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean dia. of boilers 13'-6 1/2" Length 10'-5" Material of shell plates Steel
 Thickness 1 1/4" Range of tensile strength 28.7-31.8 tons/sq" Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Double riveted.
 long. seams Double butt straps of unequal width Diameter of rivet holes in long. seams 1 1/16" = 1 1/16" Pitch of rivets 4 1/8" & 8 1/2" Lap of plates or width of butt straps outside butt at 1 3/4", inside " " 20 1/4"
 Per centages of strength of longitudinal joint 91.0 Working pressure of shell by rules 197 lbs Size of manhole in shell 12" x 16"
 Size of compensating ring Dia 30" - 1" No. and Description of Furnaces in each boiler 3 scow (Moussin) Material Steel Outside diameter 40"
 Length of plain part top 1 1/2" bottom 1 1/2" Thickness of plates 1 1/2" Description of longitudinal joint Welded No. of strengthening rings ✓
 Working pressure of furnace by the rules 192 lbs Combustion chamber plates: Material Steel Thickness: Sides 45/64" Back 45/64" Top 45/64" Bottom 7/8"
 Pitch of stays to ditto: Sides 7 1/2 x 8 1/4" Back 7 3/8 x 8 3/8" Top 8 x 8 1/4" If stays are fitted with nuts or riveted heads Nuts on stays to top plate only Working pressure by rules 186 lbs.
 Material of stays Steel Area supported by each stay 62.660 Working pressure by rules 230 lbs End plates in steam space: Material Steel Thickness 1 1/16" Pitch of stays 16 x 18 1/2" How are stays secured Double nuts & outside washers Working pressure by rules 192 lbs Material of stays Steel
 Area at smallest part 3" Area supported by each stay 996 Working pressure by rules 227 lbs Material of Front plates at bottom Steel
 Thickness 7/8" Material of Lower back plate Steel Thickness 1 1/16" Greatest pitch of stays 13 1/4" x 8" Working pressure of plate by rules 220 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 3/8" Material of tube plates Steel Thickness: Front 7/8" Back 7/8" Mean pitch of stays 10.3"
 Pitch across wide water spaces 14" Working pressures by rules 192 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 6 3/4" x 2" Length as per rule 27" Distance apart 8" Number and pitch of stays in each 2 - 8 1/4"
 Working pressure by rules 270 lbs Steam dome: description of joint to shell None % of strength of joint ✓
 Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓
 Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓

SUPERHEATER. Type None Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓
 Date of Test ✓ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler ✓
 Diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓



IS A DONKEY BOILER FITTED? *No* ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— *2 connecting rod top-end bolts and nuts, 2 connecting rod bottom end bolts and nuts, 2 main bearing bolts, 1 set of coupling bolts, 1 set of feed and bilge pump valves, 1 set of LP piston springs, 1 propeller shaft, 1 propeller, 1 air pump rod, 1 set of air pump valves, 10 condenser tubes, 20 condenser tube bushes, 4 ordinary boiler tubes, 2 stay tubes, 2 safety valve springs, & quantity of assorted bolts & nuts, Iron of various sizes.*

The foregoing is a correct description.

AKTIEBOLAGET LINDHOLMEN-MOTALA
K. LINDHOLMEN VERKSAD

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1922: Jan. 2, 10, 28, Feb. 12, 17, April 30, May 7.
1923: April 29, Sept 4, 1924: April 12, July 30, Aug 14, 26, Sept 16, 22, 26, 29, Oct 8, Nov 1, 3, 14, 20, 27, 28, Dec 8, 8, 19.
During erection on board vessel --- 1925: Feb. 17, March 5, 12, April 27, May 5, 7, 11, 16, 18, 19.
Total No. of visits 36

Is the approved plan of main boiler forwarded herewith *Yes* ✓

Is the approved plan of donkey boiler forwarded herewith *Yes* ✓

Dates of Examination of principal parts—Cylinders *8/10/24, 10/1/25, 7/5/25* Slides *8/12/24* Covers *17/11/24* Pistons *8/12/24* Rods *30/7/24*
Connecting rods *30/7/24* Crank shaft *4/9/22* Thrust shaft *4/9/22* Tunnel shafts *4/9/22* Screw shaft *4/9/22, 7/5/25* Propeller *8/12/25*
Stern tube *30/7/24* Steam pipes tested *30/4/25* Engine and boiler seatings *26/8/24* Engines holding down bolts *20/11/24*
Completion of pumping arrangements *5/5/25* Boilers fixed *19/3/25* Engines tried under steam *18/5/25*
Completion of fitting sea connections *17/2/25* Stern tube *17/2/25* Screw shaft and propeller *5/3/25*
Main boiler safety valves adjusted *16/5/25* Thickness of adjusting washers ✓

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

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

Material of Steam Pipes *Steel* ✓ Test pressure *40 lbs per sq inch.*

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 *"Bravalla" now "Tumala"*
See below, for Boiler plan see Gen. Reg. 3732.

General Remarks (State quality of workmanship, opinions as to class, &c. Identification marks:)

HP crank shaft	IP crank shaft	LP crank shaft	Thrust shaft	Tunnel shafts	Prop shaft	Space prop shaft
<i>W. 683</i>	<i>W. 4922</i>					
<i>CH. 2481</i>						
<i>GA.</i>	<i>P.4</i>	<i>GA.</i>	<i>P.6.B</i>	<i>GA</i>	<i>P.7.B</i>	<i>GA</i>

This machinery has been built under special survey and all the requirements of the Rules have been complied with.

The shafting as per forging reports attached.

The boilers as per approved plan.

The workmanship is good.

This vessel is fitted with wireless telegraphy of the Telefunken system.

*The machinery of this vessel is worthy in our opinion to be classed in the Register Book of this Society with the notation of **7-6-16-5-25** being in a good and safe working condition at a working pressure of 185 lbs/sq.*

The amount of Entry Fee ... *£ 78:80*
Special ... *£ 1088:90*
Donkey Boiler Fee ... *£*
Travelling Expenses (if any) *£*

When applied for, *30th May 1925*
When received, *9.12.25*
V. Adilov, G. Snander
Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute *PM. 5 JUN 1925*
Assigned *+ Link 5, 25*
FD, 09

CERTIFICATE WRITTEN

