

REPORT ON MACHINERY

No. 6086A

Received at London Office

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Date of writing Report 28 May 1925 When handed in at Local Office 30 May 1925 Port of Gothenburg
No. in Survey held at Gothenburg Date, First Survey 29 April 1922 Last Survey 18 May 1925
Reg. Book Supplement 90567 on the Single Screw Steamer "ROSLAGEN" (Number of Visits 6)
Master Built at Gothenburg By whom built Aktieb. Lindholmen-Motala When built 1925
Engines made at Gothenburg By whom made Aktieb. Lindholmen-Motala when made 1925
Boilers made at Gothenburg By whom made Aktieb. Lindholmen-Motala when made 1925
Registered Horse Power Owners Rederiaktieb. 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

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 as per rule 11.82 as fitted 12 3/8 Material of 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 Cedarvalle oil gland fitted Length of stern bush 50
Dia. of Tunnel shaft 10.06 as per rule 10.08 as fitted 10 1/4 Dia. of Crank shaft journals 10.55 as per rule 10.6 as fitted 10 7/8 Dia. of Crank pin 11 Size of Crank webs 12 x 6 5/16 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 moveable 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, Hattingen, Düsseldorf. 2SB
Total Heating Surface of Boilers 33700 Is Forced Draft fitted Yes No. and Description of Boilers Two, cylindrical, multitubular.
Working Pressure 185 lbs/sq. in Tested by hydraulic pressure to 328 lbs/sq. in Date of test 12/25, 17/25 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. in Pressure to which they are adjusted 190 lbs/sq. in Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 10 in Inside Mean dia. of boilers 13-6 1/2 Length 10-5 Material of shell plates Steel
Thickness 1/4 Range of tensile strength 28.7-31.8 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams All riveted.
long. seams All butt straps of unequal width Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 4 1/8 & 8 1/2 Lap of plates or width of butt straps inside 20 1/4 outside butt at 13
Per centages of strength of longitudinal joint (c) 91.5 (p) 81.9 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 (Mansu) Material Steel Outside diameter 40
Length of plain part top bottom Thickness of plates 1 1/32 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 Diam. of stays Area at smallest part 1 1/2 x 15/8 Area supported by each stay 62.66 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
Diam. of stays 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 3/16 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.*
During erection on board vessel -- *1922: 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.*
Total No. of visits *36*

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

Dates of Examination of principal parts—Cylinders *8/10/24, 10/1/25, 7/5/25* Slides *8/12/24* Covers *19/11/24* 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 *No* If so, state name of vessel *4 "Bravalla" now "Tumalo"*

General Remarks (State quality of workmanship, opinions as to class, &c. Identification marks:—
H.P. crank shaft. I.P. crank shaft. L.P. crank shaft. Thrust shaft. Tunnel shafts. Prop. shaft. Spare prop. shaft.
683 *GA.* *K. 683* *CH. 2481* *4.9.22* *GA.* *P. 4* *GA.* *P. 6. B.* *GA.* *P. 7. B.* *GA.* *P. 8. B.* *GA.* *P. 9. B.* *GA.* *P. 10. B.* *GA.* *P. 11. B.* *GA.* *P. 12. B.* *GA.* *P. 13. B.* *GA.* *P. 14. B.* *GA.* *P. 15. B.* *GA.* *P. 16. B.* *GA.* *P. 17. B.* *GA.* *P. 18. B.* *GA.* *P. 19. B.* *GA.* *P. 20. B.* *GA.* *P. 21. B.* *GA.* *P. 22. B.* *GA.* *P. 23. B.* *GA.* *P. 24. B.* *GA.* *P. 25. B.* *GA.* *P. 26. B.* *GA.* *P. 27. B.* *GA.* *P. 28. B.* *GA.* *P. 29. B.* *GA.* *P. 30. B.* *GA.* *P. 31. B.* *GA.* *P. 32. B.* *GA.* *P. 33. B.* *GA.* *P. 34. B.* *GA.* *P. 35. B.* *GA.* *P. 36. B.* *GA.* *P. 37. B.* *GA.* *P. 38. B.* *GA.* *P. 39. B.* *GA.* *P. 40. B.* *GA.* *P. 41. B.* *GA.* *P. 42. B.* *GA.* *P. 43. B.* *GA.* *P. 44. B.* *GA.* *P. 45. B.* *GA.* *P. 46. B.* *GA.* *P. 47. B.* *GA.* *P. 48. B.* *GA.* *P. 49. B.* *GA.* *P. 50. B.* *GA.* *P. 51. B.* *GA.* *P. 52. B.* *GA.* *P. 53. B.* *GA.* *P. 54. B.* *GA.* *P. 55. B.* *GA.* *P. 56. B.* *GA.* *P. 57. B.* *GA.* *P. 58. 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