

REPORT ON MACHINERY.

No. 1994a

Received at London Office

WED. FEB. 4 1920

Date of writing Report 3/1 - 1920 When handed in at Local Office 29/1 - 1920 Port of Christiania

No. in Survey held at Tonsberg Date, First Survey 7-17 Last Survey 2-12-1919
Reg. Book. (Number of Visits)

on the shulsen whale "SORKA" Tons } Gross 267.73
Net 76.56
When built 1919

Master Gran Built at Tonsberg By whom built Kaldnes mch. Nerthsted & Co. when made 1919

Engines made at Bergen By whom made Bergens mch. Nerthsted when made 1919

Boilers made at Bergen By whom made Bergens mch. Nerthsted when made 1919

Registered Horse Power Owners Herr. N. Hennissen Port belonging to Tonsberg

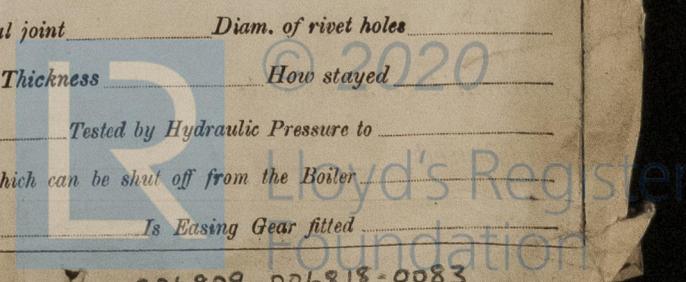
Nom. Horse Power as per Section 28 98.5 99 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple exp. No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 13 1/2 - 22 - 37 Length of Stroke 24 Revs. per minute 110 Dia. of Screw shaft as per rule 7 1/16 Material of screw shaft steel
 as fitted 7 1/16
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes 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 ✓ Length of stern bush 2'-7"
 Dia. of Tunnel shaft as per rule 7-6-9" Dia. of Crank shaft journals as per rule 7-5/16 Dia. of Crank pin 7-5/16 Size of Crank webs 5 1/4 x 14 Dia. of thrust shaft under collars 7/4 Dia. of screw 9'-3" Pitch of Screw 10'-4" No. of Blades 4 State whether moveable Total surface 33 sq. feet
 No. of Feed pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes
 No. of Donkey Engines 1 Sizes of Pumps 4 1/2 - 2 3/4 - 4 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 3, 2' internal dia. In Holds, &c. 2, 2' internal dia.
 No. of Bilge Injections 1 sizes 3 1/2 Connected to condenser, or to circulating pump circ. p. Is a separate Donkey Suction fitted in Engine room & size yes
 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 ✓
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both 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
 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
 Is the Screw Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel
 Total Heating Surface of Boilers 1800 Is Forced Draft fitted no No. and Description of Boilers
 Working Pressure 200 lbs Tested by hydraulic pressure to 1793 Date of test ✓ No. of Certificate ✓
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 58 sq' No. and Description of Safety Valves to each boiler 1 double Area of each valve 10 sq' Pressure to which they are adjusted 200 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers Length Material of shell plates
 Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
 long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
 plate
 Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
 bottom
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 Pitch of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Area at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Area at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
 Working pressure by rules Steam dome: description of joint to shell % 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 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

If not, state whether, and when, one will be sent? In a Report also sent on the hull of the ship



4 / ME 1994

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 coupling bolts, 1 set safety valve springs, 1 propeller, 1 propellershaft, 1 set piston springs, 1 set feed and ledge pump valves, A quantity of assorted bolts and nuts, Iron of various sizes.

The foregoing is a correct description,

for Kaldnæs mek. Verksted A/s

L. W. Fosberg

Manufacturer.

Dates of Survey while building: During progress of work in shops -- 7/2-1917; During erection on board vessel --- 2/10, 2/12-1919; Total No. of visits 3. Is the approved plan of main boiler forwarded herewith yes.

Dates of Examination of principal parts: Connecting rods ✓, Crank shaft ✓, Thrust shaft 4/2-17, Tunnel shafts 4/2-17, Screw shaft 4/2-17, Propeller 4/10-19, Stern tube 27/10-16, Steam pipes tested 2/10-19, Engine and boiler seatings 4/2-17, Engines holding down bolts 27/11-17, Completion of pumping arrangements 2/10-19, Boilers fixed 2/12-19, Engines tried under steam 4/12-19, Completion of fitting sea connections 2/10-19, Stern tube 4/10-19, Screw shaft and propeller 4/10-19, Main boiler safety valves adjusted 2/12-19, Thickness of adjusting washers none.

Material of Crank shaft 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 copper Test pressure 400 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 yes. 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. The machinery and boiler of this vessel have been built by Bergens mek. Verksted, Bergen, see Bergen report. The machinery and boiler have been installed to our entire satisfaction.

The boiler has been examined under steam pressure and the safety valves set to 200 lbs per sq inch. The machinery has been tried under steam and found to work satisfactory.

The workmanship throughout are of the best and to our entire satisfaction. Quick acting stop valve has been fitted to boiler, same examined under steam and found to work satisfactory.

Recommend * L.M.C. 12, 19 in the Register Book

It is submitted that this vessel is suitable for + L.M.C. 12-19.

JWD 11/2/20. AFR

The amount of Entry Fee ... \$r. 20 -; Special ... £ 150 -; Donkey Boiler Fee ... £ :; Travelling Expenses (if any) £ :; When applied for, 29/1-1920; When received, 31/2/20.

L. W. Fosberg, Engineer Surveyor to Lloyd's Register of Shipping.

FRI. DEC. 17 1920

Committee's Minute Assigned + L.M.C. 12-19

