

REPORT ON MACHINERY

No. 27964
MGN. NOV 11 1920

Received at London Office

Date of writing Report 19 When handed in at Local Office 30 OCT 1920 Port of SUNDERLAND.

No. in Survey held at SUNDERLAND. Date, First Survey 6 Aug. Last Survey 18th Oct. 1920
Reg. Book. on the "S/S THODE FAGELUND" (Number of Visits 7) Tons Gross 5854 Net 3050

Master *Yorgensen* Built at *Sunderland* By whom built *Sir James Laing & Sons Ltd* When built 1920

Engines made at *Jarrow* By whom made *Palmer's S. B. & Sons Ltd* when made 1920

Boilers made at *Jarrow* By whom made *Palmer's S. B. & Sons Ltd* when made 1920

Registered Horse Power Owners *W. Wilhelmsen* Port belonging to *Larsberg*

Nom. Horse Power as per Section 28 517 Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*

ENGINES, &c.—Description of Engines *Six Newcastle Report 73501* No. of Cylinders No. of Cranks

Dia. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule Material of screw shaft as fitted

Is the screw shaft fitted with a continuous liner the whole length of the stern tube 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

Dia. of Tunnel shaft as per rule Dia. of Crank shaft journals as per rule Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under collars Dia. of screw Pitch of Screw No. of Blades State whether moveable Total surface

No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work

No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room In Holds, &c. *2 in each hold 3 1/2" 1 in Tunnel with 3" 1 in 'Day Tank' under bilges 3"*

No. of Bilge Injections sizes Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses Are the roses in Engine room always accessible Are the sluices on Engine room bulkheads always accessible

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

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel 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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight *yes* Is it fitted with a watertight door *yes* worked from *upper platform*

BOILERS, &c.—(Letter for record) Manufacturers of Steel

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler Area of each valve 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 *way bilges* 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

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 Thickness of plates 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

W 222-0165



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - During erection on board vessel - - - Total No. of visits

Slid. 1919 Aug 6 Sept 7. 20. 30 Oct 11. 13. 18 (7)

Is the approved plan of main boiler forwarded herewith

“ “ “ donkey “ “ “

Dates of Examination of principal parts—Cylinders Slides Covers Pistons Rods Connecting rods Crank shaft Thrust shaft Tunnel shafts Screw shaft Propeller Stern tube Steam pipes tested Engine and boiler seatings Engines holding down bolts Completion of pumping arrangements 20. 9. 20 Boilers fixed 20. 9. 20 Engines tried under steam 13. 10. 20 Completion of fitting sea connections 6. 8. 20 Stern tube 6. 8. 20 Screw shaft and propeller Main boiler safety valves adjusted 13. 10. 20 Thickness of adjusting washers 10. 5 1/2 10. 7 1/2 10. 5 1/2 10. 7 1/2 10. 5 1/2 10. 7 1/2 Material of Crank shaft Identification Mark on Do. Material of Thrust shaft Identification Mark on Do. Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do. Material of Steam Pipes Test pressure Is an installation fitted for burning oil fuel 410 Is the flash point of the oil to be used over 150°F. 410 Have the requirements of Section 49 of the Rules been complied with 410, as approved Is this machinery duplicate of a previous case If so, state name of vessel

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

The Main engines, Boilers + auxiliaries have now been fitted and tried on board all pipe connections made, the oil fuel burning installation has been fitted and examined some trial under working conditions and found satisfactory.

The machinery is slight in my opinion to have used of + LMC 10. 20. Fitted for burning oil fuel F.P. above 150°F 10. 20

It is submitted that this vessel is eligible for THE RECORD. + LMC 10. 20 FD Fitted for oil fuel 10. 20 F.P. above 150°F

Bell. 11/11/20

J.P.P.

Table with 4 columns: Description, Amount (£), Unit, and Status. Rows include Entry Fee, Special, Donkey Boiler Fee, and Travelling Expenses.

Signature of Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE NOV. 9 1920

Assigned

+ L.M.C. 10. 20. F.D. Fitted for oil fuel 10. 20. F.P. above 150°F.



Certificate (if required) to be sent to ...

The Surveyors are requested not to write on or below the space for Committee's Minute.