

REPORT ON MACHINERY.

No. 42873

Received at London Office

WED. JUL 4 1923

Date of writing Report 2.7.

1923

When handed in at Local Office

Port of Glasgow

No. in Survey held at

Coatbridge

Date, First Survey 13th March

Last Survey 18th June

1923

Reg. Book

4113 on the

Machinery for S.S.

No. 4/S WHEATHILL

(Number of Visits 18)

Gross

Tons

Net

Master

Built at Bideford.

By whom built

Hansen Ship & Repair Co. Ltd.

When built 1923

Engines made at

Coatbridge.

By whom made

Wm. Beardmore & Co. Ltd. No. 590

when made 1923.

Boilers made at

Parkhead.

By whom made

Wm. Beardmore & Co. Ltd. No. 129

when made 1923.

Registered Horse Power

Owners Messrs. Spiller & Baker

Port belonging to

Cardiff

Nom. Horse Power as per Section 28

71. ✓

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Compound.

No. of Cylinders 2.

No. of Cranks 2

Dia. of Cylinders

14" x 36" ✓

Length of Stroke 24"

Revs. per minute

Dia. of Screw shaft

as per rule 7.55

Material of screw shaft

M.S.

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

No. 09

Is the after end of the liner made water tight

in the propeller boss gland 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

No liners fitted

Cedarwood gland

Length of stern bush 3' 0"

Dia. of Tunnel shaft

as per rule 6.86

Dia. of Crank shaft journals

as per rule 4.21

Dia. of Crank pin 4 1/2"

Size of Crank webs 14" x 5"

Dia. of thrust shaft under

collars 7 1/2"

Dia. of screw 9' 0"

Pitch of Screw 11' 0"

No. of Blades 4

State whether moveable

No

Total surface 32 sq. ft.

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 2

Sizes of Pumps 7x4x8 7x7x8

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

In Engine Room 2-2 1/4

Eng Room 7x4x8 7x7x8

In Holds, &c. 2-2 1/4

P.S. ✓

No. of Bilge Injections 1

size 3"

Connected to condenser, or to circulating pump

Air pump

a separate Donkey Suction fitted in Engine room & size 4x3 ✓

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

Yes ✓

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

Hot water

How are they protected

Under plate ✓

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

None

Is it fitted with a watertight door

Yes

worked from

Yes ✓

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers 1334 sq. ft.

Is Forced Draft fitted

Yes

No. and Description of Boilers

One cylindrical single ended

Working Pressure 130 lbs.

Tested by hydraulic pressure to

Date of test 8.6.23

No. of Certificate 16275

Can each boiler be worked separately

Area of fire grate in each boiler 40.25 sq. ft.

No. and Description of Safety Valves to

each boiler 1-2 1/2" Double Spring Loaded

Area of each valve 5.94 sq. in.

Pressure to which they are adjusted

Are they fitted with easing gear

Yes ✓

Smallest distance between boilers or uptakes and bunkers or woodwork

10"

Mean dia. of boilers 12' 0"

Length 20' 6"

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. plate

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 bottom

Thickness of plates

crown bottom

Description of longitudinal joint

No. of strengthening rings

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 Compound

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

002024-002037-0199

✓

Two top and bottom end continuing from

Noles snails; two main bearing bris snails - one set of coupling bris
snails, one set of feed & ledge pump valves one periphery valve, assorted
springs & bris snails. 36 bolts and nuts (assorted); Iron (assorted) ...
... 1 lb each ... 1 pair ...

ad

St. Thomas

Blank

See Glasgow Rpt no 42824
forwarded herewith

Is the approved plan of main boiler forwarded herewith

” ” ” *donkey* ” ”

Connecting rods 28.5.23 Crank shaft 16.5.23 Thrust shaft 28.5.23 Tunnel shafts none Screw shaft 25.6.23 Propeller 4.6.23

Stern tube 4.6.23 Steam pipes tested 3.11.23 Engine and boiler seatings 22.10.23 Engines holding down bolts 22.10.23

Completion of pumping arrangements 7. 11. 23 Boilers fixed 22. 10. 23 Engines tried under steam 7. 11. 23

Completion of fitting sea connections 22.10.23 Stern tube 22.10.23 Screw shaft and propeller 22.10.23

Main boiler safety valves adjusted 7.11.23 Thickness of adjusting washers Port 1 $\frac{1}{32}$ +

Material of Crank shaft M.S. Identification Mark on Do. 16.5.23 Material of Thrust shaft M.S. Identification Mark on Do. 28.5.23

Material of Tunnel shafts none. Identification Marks on Do. ✓ Material of Screw shafts M. S. Identification Marks on Do. 4-6-2

Material of Steam Pipes 100% drawn copper Test pressure 260 lb ✓

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 T. Whartride

General Remarks (State quality of workmanship, opinions as to class, &c. *This engine has been built under*

Special Survey in accordance with the Rules of the Society. The Materials and Workmanship are good. The Engine has been dispatched to Biddeford to be fitted on board the Vessel.

The Machinery will be eligible in my opinion to have Record of \clubsuit L.M.C. (with date) when properly felled on board and tried under working conditions with satisfactory results.

This machinery has now been fitted & secured on board, thus under working conditions found satisfactory.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 11-23. O.G.

R.T. 19/11/23.

The amount of Entry Fee	...	£	2	:	0	:	When applied for,
Special ^{2/5}	...	£	7	:	2	:	3/7/25
Donkey Boiler Fee		£	3	:	11	0	When received,
Travelling Expenses (if any)		£	12	:	1	0	29th Sept 1923

John Barr. John W. Payne
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned Deferred

THE 30 NOV 1923

Feb 11. 29

Q. 9.

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Foundation