

REPORT ON MACHINERY.

No. 8493.

Received at London Office

18 SEP 1924

Date of writing Report 16-9-1924

When handed in at Local Office 17-9-1924

Port of

Dundee

No. in Survey held at

Dundee

Date, First Survey 18 June 1924

Last Survey 11 Sept 1924

1924

Reg. Book.

on the

Twin Screw Steamer

"KHOEN HOEA"

(Number of Visits 24)

Gross Tons

Net Tons

Master

Built at

Dundee

By whom built

Caledon S.S. & Co. (No 289)

When built

1924

Engines made at

Coathbridge

By whom made

W. Beardmore & Co. Ltd.

No 604/5 when made

1924

Boilers made at

Parkhead

By whom made

W. Beardmore & Co. Ltd.

No 170/1 when made

1924

Registered Horse Power

Owners

Thong & S.S. Co

Port belonging to

Portianak

Nom. Horse Power as per Section 28

139

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Twin Screw Triple Expansion

No. of Cylinders

6 No. of Cranks 6

Dia. of Cylinders

12-20-33

Length of Stroke

23

Revs. per minute

125

Dia. of Screw shaft

as per rule

Material of

screw shaft

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

No

Is the after end of the liner made water tight

in the propeller boss

Yes

If the liner is in more than one length are the joints burned

No

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

Yes

If

liners are fitted, is the shaft lapped or protected between the liners

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

Two

Sizes of Pumps

Gen Service 6x4x4
Ballast 7x8x6

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

In Engine Room 2 @ 2 1/2" Thrust 1 @ 2 1/2" Tunnel 1 @ 2 1/2"

In Holds, &c. Fore hold 3 @ 2 3/4" after hold 3 @ 2 1/4"

No. of Bilge Injections

2 sizes

3 1/2" Connected to condenser, or to circulating pump

C. P.

Is a separate Donkey Suction fitted in Engine room & size

Yes 3 1/4"

Are all the bilge suction pipes fitted with roses

Yes

Are the roses in Engine room always accessible

Yes

Are the sluices in 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

Below

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

Fore hold suction

How are they protected

Strong 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 deck level

BOILERS, &c.—(Letter for record

Manufacturers of Steel

Total Heating Surface of Boilers

2492

Is Forced Draft fitted

No

No. and Description of Boilers

Two single ended multitubular

Working Pressure

180

Tested by hydraulic pressure to

320

Date of test

15-5-24 (P)
23-5-24 (S)

No. of Certificate

16512

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

39.4

No. and Description of Safety Valves to

each boiler

Two spring loaded

Area of each valve

5.93

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

24"

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

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

002260-002268-0077

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Lloyd's Register
Foundation

IS A DONKEY BOILER FITTED? *Yes* ✓

If so, is a report now forwarded? *Yes. Rpt No 77935*

SPARE GEAR. State the articles supplied:— *1 set each of top & bottom end, main bearing coupling bolts & nuts. 1 set each of air, circulating, feed & Bilge pump valves. 6 condenser tubes & 12 ferrules, 6 boiler tubes (plain) 6 junk ring bolts, 6 cylinder cover studs, 1 set of boiler check valves for each of the main & donkey boilers, 1 cast iron propeller, 1 screw shaft, assorted nuts, bolts & bar iron.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } *1924*
During erection on board vessel - - - { *JUNE 18. 20. 24. 26 JULY 3. 9. 15. 18. 22. 24. AUG. 4. 6. 11. 13. 15. 19. 21. 24. 28. 29. SEPT. 2. 3. 4. 8. 9. 10. 11.*
Total No. of visits *24*

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 *27-8-24* Engine and boiler seatings *18-6-24* Engines holding down bolts *13-8-24*
Completion of pumping arrangements *9-9-24* Boilers fixed *13-8-24* Engines tried under steam *3-9-24*
Completion of fitting sea connections *20-6-24* Stern tube *20-6-24* Screw shaft and propeller *26-6-24*
Main boiler safety valves adjusted *2-9-24* Thickness of adjusting washers *P. P 3/8" S 3/8" S. P 3/8" S 5/16"*
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 *Seamless Copper 3 1/2" Vol. 8. W.G.* Test pressure *360 lbs*
Is an installation fitted for burning oil fuel ✓ 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 ✓ If so, state name of vessel ✓

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

The machinery and boilers of this vessel have been fitted on board in an efficient manner, tried under working conditions and found satisfactory and are eligible in my opinion to be classed with record of L.M.C. 9-24.

Glasgow Report No 43837, & Newcastle Report No 77935 are forwarded herewith.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 9.24.

19/9/24.

The amount of Entry Fee ... £ : :
Special *1/5th fitting on board* ... £ *6* : *19* :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, *Sept. 17th 1924.*
When received, *16.10.1924*

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 3 OCT 1924

Committee's Minute

FRI. 26 SEP 1924

Assigned

+ L.M.C. 9.24.

CERTIFICATE WRITTEN