

REPORT ON MACHINERY.

No. 5623

Date of writing Report

19

When handed in at Local Office

19

Port of

Hong Kong

Received at London Office

MON. 11 FEB. 1924

No. in Survey held at

Hong Kong

Date, First Survey

18/9/22

Last Survey

Dec. 1st. 19 23.

Reg. Book.

on the

S. S. "YUEN SANG"

(Number of Visits

75)

Master

Built at

Hong Kong

By whom built

Hong Kong & Whampoa Dock Co.

Tons

Gross 3229.29

Net 1982.89

When built

1923

Engines made at

Hong Kong

By whom made

Hongkong & Whampoa Dock Co. Ltd.

when made

1923

Boilers made at

Hong Kong

By whom made

Hongkong & Whampoa Dock Co. Ltd.

when made

1923

Registered Horse Power

Owners

Messrs The Indo-China S. N. Co.

Port belonging to

London

Nom. Horse Power as per Section 28

414

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines Triple Expansion Surface Condensing

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

23". 38". 63"

Length of Stroke

45"

Revs. per minute

90

Dia. of Screw shaft

as per rule 13.46"

Material of

Ingot steel

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

No liners, Vicker

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

5'0"

Dia. of Tunnel shaft

as per rule 11.98"

Dia. of Crank shaft journals

as per rule 12.58"

Dia. of Crank pin

13"

Size of Crank webs

2'0"

Dia. of thrust shaft under

(Michell)

collars

13"

Dia. of screw

15'0"

Pitch of Screw

16'9"

No. of Blades

4

State whether moveable

fixed

Total surface

72

No. of Feed pumps

2

Diameter of ditto

3 1/2"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

3 1/2"

Stroke

24"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

5

Sizes of Pumps

2 Weir feed

Ballast

Circ. PP 11"

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

In Engine Room 3 at 3" dia. (1.P, 1.S, 1.C)

Fan Eng. 7x5 1/2"

simplex

In Holds, &c. (1-3" cofferdam 142-3) (2-3" fore hold)

(2-3" main hold) (1-3" cofferdam 64-65) (2-3 1/2" deep tank)

(2-3" aft. hold) (1-2 1/2" tunnel well)

(1-3" cofferdam 34-35)

No. of Bilge Injections

1

sizes

7"

Connected to condenser, or to circulating pump

Circ.

Is a separate Donkey Suction fitted in Engine room & size

2 at 3 1/2"

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

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

Yes

Is it fitted with a watertight door

Yes

worked from Upper Deck

OILERS, &c.—(Letter for record

7/9/22)

Manufacturers of Steel

The Steel Co. of Scotland

2SB

Total Heating Surface of Boilers

6364

Is Forced Draft fitted

Yes

No. and Description of Boilers

2 S.E. Multitubular

Working Pressure

190 lbs.

Tested by hydraulic pressure to

335 lbs.

Date of test

5/10/23

No. of Certificate

143 & 144

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

66

No. and Description of Safety Valves to

each boiler 2.4" dia. spring loaded

Area of each valve

12.566

Pressure to which they are adjusted

195 lbs

Are they fitted with easing gear

Yes

Smallest distance between boilers on uptakes and bunkers on woodwork

24"

Mean dia. of boilers

15'9"

Length

12'0"

Material of shell plates

steel

Thickenss

1.5/16"

Range of tensile strength

29-32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

Double lap

long. seams

Treble butt

Diameter of rivet holes in long. seams

1 3/8"

Pitch of rivets

9 1/2"

Lap of plates or width of butt straps

20 1/4"

Per centages of strength of longitudinal joint

rivets 88%

plate 85.5%

Working pressure of shell by rules

191 lbs.

Size of manhole in shell

16" x 12"

Size of compensating ring

3'2" x 2'10"

No. and Description of Furnaces in each boiler

3 Morison

Material

steel

Outside diameter

3'11 1/4"

Length of plain part

top 9 1/2"

Thickness of plates

bottom 8"

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

3/4"

Back

11/16"

Top

3/4"

Pitch of stays to ditto: Sides

9 1/2" x 8 1/2"

Back

10 1/2" x 8 1/2"

Top

8 1/2" x 9"

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

S-237 lbs

Material of stays

steel

Area at smallest part

2.03

Area supported by each stay

S-83.7

Working pressure by rules

S-216 lbs

End plates in steam space:

Bt-196

Material

steel

Thickness

1.3/32"

Pitch of stays

18 1/2" x 15"

How are stays secured

Nuts inside

Working pressure by rules

195 lbs

Area at smallest part

5.411

Area supported by each stay

283.6

Working pressure by rules

210 lbs

Material of Front plates at bottom

steel

Thickness

7/8"

Material of Lower back plate

steel

Thickness

27/32"

Greatest pitch of stays

13 1/2" x 8 1/2"

Working pressure of plate by rules

230 lbs

Diameter of tubes

2 1/2"

Pitch of tubes

3 1/2" x 3 1/2"

Material of tube plates

steel

Thickness: Front

7/8"

Back

13/16"

W

3/4"

Pitch across wide water spaces

13 1/2"

Working pressures by rules

B wings 238 lbs.

B centre 248

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

9 1/2" x 11/16"

Length as per rule

34 1/2"

Distance apart

9"

Number and pitch of stays in each

Three 1 1/2"

Working pressure by rules

193 lbs

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 DONKEY BOILER FITTED?

Yes, Cochran

If so, is a report now forwarded?

No

SPARE GEAR. State the articles supplied:—

See attached list.

The foregoing is a correct description of the machinery of the vessel.

HONGKONG & WHARF CO., Ltd.

R. M. Dunn

Manufacturer.

Chief Manager
1922. Sept. 18, Nov. 14, 16, 28, Dec. 7, 16, 19, 28. 1923. Jan. 5, 8, 11, 15, Feb. 1, 5, 14, 22, Mar. 1, 5, 12, 16, 28, April. 3, 11, 16, 24, 30, May. 3, 10, 14, 15, 22, 26, 28, 29, June. 4, 8, 9, 11, 12, 18, 27, 30, July. 3, 10, 14, 26, Aug. 8, 15, 17, 21, 23, 28, Sept. 3, 5, 10, 11, 13, 19, 21, 25, 26, 28, Oct. 3, 5, 11, 18, 25, Nov. 2, 6, 14, 21, 26, 27, 29, Dec. 1.
Dates of Survey while building: During progress of work in shops -- 18/6/23
During erection on board vessel -- 17/8/23
Total No. of visits 75
Is the approved plan of main boiler forwarded herewith No
" " " donkey " " " No

Dates of Examination of principal parts—Cylinders 17/8/23 Slides 28/8/23 Covers 17/8/23 Pistons 1/2/23 Rods 25/9/23
Connecting rods 28/8/23 Crank shaft 22/2/23 Thrust shaft 22/5/23 Tunnel shafts 17/8/23 Screw shaft 17/8/23 Propeller 17/8/23
Stern tube 13/9/23 Steam pipes tested 2/11/23 Engine and boiler seatings 26/9/23 Engines holding down bolts 25/10/23
Completion of pumping arrangements tested 26/11/23 Boilers fixed 25/10/23 Engines tried under steam 26/11/23
Completion of fitting sea connections 26/9/23 Stern tube 26/9/23 Screw shaft and propeller 28/9/23
Main boiler safety valves adjusted 21/11/23 Thickness of adjusting washers P- 25/64 & 23/64! S- 23/64 & 25/64
Material of Crank shaft steel Identification Mark on Do. Lloyd's No. 8612 Material of Thrust shaft steel Identification Mark on Do. Lloyd's No. 8612
Material of Tunnel shafts steel Identification Marks on Do. Lloyd's No. 8612 Material of Screw shafts steel Identification Marks on Do. Lloyd's No. 8612
Material of Steam Pipes Solid drawn copper ✓ Test pressure 400 lbs. ✓
" " Feed & blow off " " No ✓ 500 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 -

Is this machinery duplicate of a previous case Yes ✓ If so, state name of vessel S. S. "SUI SANG" Report No. 56

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

The Materials have been tested by the Surveyors to this Society, and constructed as shown and amended on approved plans now in London Office.

The Workmanship is good and it is recommended that the vessel be classed with Lloyds Machinery Certificate and the record of L.M.C. 12,1923. be made in the Register Book.

IDENTIFICATION MARKS ON MAIN BOILERS

No. 143 Hkg.
Lloyds Test
335 lbs.
W.P. 190 lbs.
T.S.M. 5.10.23

No. 144 Hkg.
Lloyds Test
335 lbs.
W.P. 190 lbs.
T.S.M. 5.10.23

Donkey Boiler with mountings complete, made by Cochran & Co. Amman. ✓

Placed in recess in stokehold. ✓ Steam from Main Boilers cannot enter Donkey Boiler. ✓

Safety valves adjusted to 100 lbs. Thickness of washers 7/16"x15/64". ✓

IDENTIFICATION MARKS.

No. 16119
Lloyds Test
200 lbs.
W. P. 100 lbs.
26.9.22. J.D.

The amount of Entry Fee ... \$ 88.00. ✓ When applied for, 1/12/1923

Special ... \$ 1534.00. ✓ When received, 1/12/1923

Donkey Boiler Fee ... \$ 50.00. ✓

Travelling Expenses (if any) \$ 166.00. ✓

Electric Light \$ 247.00. ✓

Committee's Minute

Assigned

L.M.C. 12.23

F.D. O.G.

Engineer Surveyor to Lloyd's Register of Shipping



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