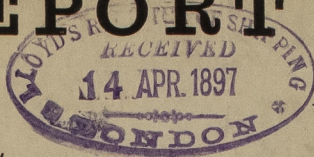


REPORT ON MACHINERY.



Port of *Kobe Kobe*

Received at London Office SAT. 18 DEC 1897

No. in Survey held at Reg. Book.

Date, first Survey

Last Survey

18

on the

Myojima Maru

Master

Built at

By whom built

When built

Engines made at

By whom made

when made

1890

Boilers made at

By whom made

when made

1888

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

160.974 say 161. in round number.

ENGINES, &c.—

Description of Engines

Direct acting, inverted tri-comp. Surf. Cond. S.C.R.

No. of Cylinders

3

Diameter of Cylinders

18 1/4" x 29 1/8" x 47"

Length of Stroke

39"

Revolutions per minute

Diameter of Screw shaft

as per rule 8.97 as fitted 10"

Diameter of Tunnel shaft

as per rule 8.52 as fitted 10"

Diameter of Crank shaft journals

10"

Diameter of Crank pin

10"

Size of Crank webs

18 1/2" x 8"

Diameter of screw

12 1/10"

Pitch of screw

17 1/9"

No. of blades

4

State whether moveable

Solid

Total surface

57.5 sq ft.

No. of Feed pumps

2

Diameter of ditto

2 1/4"

Stroke

39"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

2 3/8"

Stroke

39"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

3

Sizes of Pumps

1-main boiler feed 3 1/2" x 7" stroke, double act. 1-donkey 2 1/4" x 5" 1-ballast 5 1/4" x 9" double

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

2 to Bilge Pump in Fore hold. 2 " " " " Aft hold. yes.

In Engine Room

4 to Donkey pump 2 1/2" dia 4 to Bilge Pump 2 1/2"

In Holds, &c.

2 to Bilge Pump in Fore hold. 2 " " " " Aft hold. yes.

No. of bilge injections

1

sizes

4"

Connected to condenser, or to circulating pump

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

yes

Are all connections with the sea direct on the skin of the ship

yes

Are they Valves or Cocks

They are valves, excepting blow off cock

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

2 bilge pipes from Foreholds

How are they protected

by wooden casing

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

When were stern tube, propeller, screw shaft, and all connections examined in dry dock

Is the screw shaft tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

Span

Main deck

BOILERS, &c.—

(Letter for record)

Total Heating Surface of Boilers *1429.245 x 2 = 2858.49 sq ft.*

No. and Description of Boilers

2-Cylindrical Return tube boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

Can each boiler be worked separately

yes

Area of fire grate in each boiler

37.92 sq ft.

No. and Description of safety valves to

each boiler

2-Spring loaded

Area of each valve

8.9462 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

7 1/2"

Mean diameter of boilers

12 1/2"

Length

11'-1"

Material of shell plates

mild steel

Thickness

1 3/16"

Description of riveting: circum. seams

lap. double

long. seams *double butt, treble*

Diameter of rivet holes in long. seams

1 3/16"

Pitch of rivets

7 1/4"

Lap of plates or width of butt straps

1'-10 1/2"

Per centages of strength of longitudinal joint

83.6

Working pressure of shell by rules

180.072

Size of manhole in shell

17 1/8" x 3 3/8" in shell 14 1/4" x 10 1/4" clear hole

Outside diameter

3'-8"

Size of compensating ring

2'-2" x 1'-1 1/2" x 1'-1 1/2" flange plate

No. and Description of Furnaces in each boiler

2-Fox's Corrugated

Material

m. steel

Outside diameter

3'-8"

Length of plain part

6'-4"

Thickness of plates

1 3/16"

Description of longitudinal joint

weld

No. of strengthening rings

none

Working pressure of furnace by the rules

200.29

Combustion chamber plates: Material

m. steel

Thickness: Sides

5/8"

Back

5/8"

Top

5/8"

Bottom

3/4"

Pitch of stays to ditto: Sides

6 3/4" x 7 1/2"

Back

7 1/2" x 7 1/2"

Top

8 1/2" x 6 1/2"

If stays are fitted with nuts or riveted heads

nut

Working pressure by rules

210.94

Material of stays

m. steel

Diameter at smallest part

1 3/8" (inner) 1 1/2" (back)

Area supported by each stay

2.56 sq ft.

Working pressure by rules

220.1

End plates in steam space:

2'-5 1/2"

Material m. steel Thickness

1"

Pitch of stays

16" x 16"

How are stays secured

double nut washers

Working pressure by rules

185

Material of stays

m. steel

Diameter at smallest part

2.59

Area supported by each stay

2.56 sq ft.

Working pressure by rules

185.22

Material of Front plates at bottom

m. steel

Thickness

1 1/2" (inner) 1 3/4" (bottom)

Material of Lower back plate

m. s.

Thickness

1 5/16"

Greatest pitch of stays

4 1/2" x 7 1/2"

Working pressure of plate by rules

546.6

Diameter of tubes

3 1/2"

Pitch of tubes

4 5/8" x 4 3/4"

Material of tube plates

m. s.

Thickness: Front

1"

Back

3/4"

Mean pitch of stays

10 1/16"

Pitch across wide water spaces

1'-2 1/2"

Working pressures by rules

170.5

Girders to Chamber tops: Material

m. s.

Depth and

thickness of girder at centre

7 1/4" x 2 1/2"

Length as per rule

2'-5 1/8"

Distance apart

8"

Number and pitch of Stays in each

3 x 6 1/2"

Working pressure by rules

246.8

DONKEY BOILER— Description *Cochran's Vertical multitubular boiler*
Made at _____ By whom made _____ When made _____ Where fixed _____
Working pressure _____ tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area *10.56*^{sq ft} Description of safety valves *Spring loaded*
No. of safety valves *2* Area of each *3.1416* Pressure to which they are adjusted _____ If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no* Diameter of donkey boiler *41 5/8"* Length *9' 9 7/8"* Material of shell plates *m.s* Thickness *1/2"*
Description of riveting long. seams *lap. double riveted* Diameter of rivet holes *13/16"* Whether punched or drilled _____ Pitch of rivets *2 1/2"*
Lap of plating *4 1/2"* Per centage of strength of joint _____ Rivets *20.5-1* Thickness of shell crown plates *1/2"* Radius of do. *9' 9"* No. of Stays to do. *3*
Dia. of stays. *2 5/8"* Diameter of furnace Top *spherical* Bottom *3' 9"* Length of furnace _____ Thickness of furnace plates *1/2"* Description of joint *lap* Thickness of furnace crown plates *1/2"* Stayed by *no stay* Working pressure of shell by rules *140.37*^{lbs}
Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *✓*

The foregoing is a correct description,

Manufacturer.

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

State all the particulars of survey & recommend as to Class.

Certificate (if required) to be sent to _____

The amount of Entry Fee..	£	:	:	When applied for,
Special	£	:	:18.....
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:18.....

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

FRI, 31 DEC 1897

Assigned



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Foundation