

Rpt. 4.

REPORT ON MACHINERY

No. 2390

WED. SEP. 11. 1918

Received at London Office

Date of writing Report 25th July 18 When handed in at Local Office

Port of Yokohama

No. in Survey held at Uraga
Reg. Book.Date, First Survey Feby 28th Last Survey July 19th 1918
(Number of Visits 19)

on the Steel Twin Screw Steamer "East Indian"

Master Built at Uraga By whom built Uraga Dock Co Ltd

Tons Gross 8225.88
Net 5113.11

When built 1918.

Engines made at Uraga By whom made Uraga Dock Co Ltd

when made 1918.

Boilers made at Uraga By whom made Uraga Dock Co Ltd

when made 1918.

Registered Horse Power Owners U. S. Shipping Board

Port belonging to

Nom. Horse Power as per Section 28 700 703.

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 22-36 1/2-61

Length of Stroke 48

Revs. per minute 86

Dia. of Screw shaft as per rule 13 1/2

Material of screw shaft S

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

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 X

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 two

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

Length of stern bush 60"

Dia. of Tunnel shaft as per rule 12.2

Dia. of Crank shaft journals as per rule 12.8

Dia. of Crank pin 13 1/2

Size of Crank webs 25x8 1/2

Dia. of thrust shaft under

collars 13 1/2

Dia. of screw 16'-0"

Pitch of Screw 18'-0"

No. of Blades 4

State whether moveable Yes

Total surface 85.3 sq ft

No. of Feed pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines

Sizes of Pumps

5x3 1/2 x 6"

stroke

Ballast pump 9x12x10"

stroke

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

In Engine Room 4 off-3 1/2" in 2 Mumford pump, 10 1/2 x 8 x 24" stroke

In Holds, &c. No. 1 hold 2-3 1/2, No. 2 hold 2-3 1/2, No. 3 hold

2-3 1/2, No. 4 hold 2-3 1/2, No. 5 hold 2-3 1/2, tunnel 2-3 1/2, tunnel well 1-3 1/2.

No. of Bilge Injections 2

sizes 8"

Connected to circulating pump Yes

Is a separate Donkey Suction fitted in Engine room & size Yes-4 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 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 Bilge pipes

How are they protected Wood casing & Iron in way of storm valves

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 top platform

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

Total Heating Surface of Boilers 9835.2 Is Forced Draft fitted Yes No. and Description of Boilers 4 Multitubular

Working Pressure 200

Tested by hydraulic pressure to 400

Date of test 10-6-19

No. of Certificate U 138

Can each boiler be worked separately Yes

Area of fire grate in each boiler 58 3/16 sq ft

No. and Description of Safety Valves to

each boiler 2 Spring loaded

Area of each valve 11.04 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 19"

Mean dia. of boilers 14'-3"

Length 11'-6"

Material of shell plates S

Thickness 1 13/32

Range of tensile strength 28-32

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R.

long. seams T.R.

Diameter of rivet holes in long. seams 1 1/2

Pitch of rivets 10

Lap of plates or width of butt straps 22

Per centages of strength of longitudinal joint

rivets 94

plate 85

Working pressure of shell by rules 224

Size of manhole in shell 16 x 12

Size of compensating ring 36 1/2 x 32 1/2

No. and Description of Furnaces in each boiler 3 Morrison

Material S

Outside diameter 46 1/2

Length of plain part

top X

Thickness of plates

crown 3/8

Description of longitudinal joint Weld

No. of strengthening rings None

Working pressure of furnace by the rules 223

Combustion chamber plates: Material S

Thickness: Sides 45/64

Back 11/16

Top 45/64

Bottom 15/16

Pitch of stays to ditto: Sides 10 1/2 x 7 1/2

Back 8 1/2 x 8 1/2

Top 9 1/2 x 8

If stays are fitted with nuts or riveted heads Nuts

Working pressure by rules 206

Material of stays S

Area at smallest part 2.03

Area supported by each stay 83.25 sq in

Working pressure by rules 220

End plates in steam space:

Material S

Thickness 1 3/16

Pitch of stays 16 5/8 x 18 7/8

How are stays secured D. Nuts

Working pressure by rules 214

Material of stays S

Area at smallest part 7.67

Area supported by each stay 311 sq in

Working pressure by rules 255

Material of Front plates at bottom S

Thickness 3/4

Material of Lower back plate S

Thickness 3/4

Greatest pitch of stays 8 1/2

Working pressure of plate by rules 276

Diameter of tubes 3

Pitch of tubes 4 1/2 x 4 1/2

Material of tube plates S

Thickness: Front 3/4

Back 3/4

Mean pitch of stays 4.2

Pitch across wide water spaces 13 1/2

Working pressures by rules 225

Girders to Chamber tops: Material S

Depth and

thickness of girder at centre 8 x 12

Length as per rule 31 1/2

Distance apart 8

Number and pitch of stays in each 2 x 9 1/2

Working pressure by rules 218

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

1800-0000

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IS A DONKEY BOILER FITTED? No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 4 connecting rod top end bolts & nuts 2 connecting rod bottom end bolts & nuts, 2 main bearing bolts, 6 coupling bolts, 1 set feed & bilge pump valves, 1 set piston springs, 1 section crank shaft, 1 propeller shaft, 4 propeller blades, top & bottom end brasses, main bearing brasses, ahead & astern eccentric rods, air pump rod, bolts & nuts assorted etc.

The foregoing is a correct description,

Y. Kattinura

Manufacturer.

Dates of Survey while building { During progress of work in shops - - Feb 28, March 30th, April 11, 19, 23, 29, May 2, 11, 20, 23, June 3, 10, 26, July 5, 9, 12, 13, 15, 19
During erection on board vessel - - -
Total No. of visits 19

Is the approved plan of main boiler forwarded herewith No

Dates of Examination of principal parts—Cylinders 30-3-18 Slides 11-4-18 Covers 29-4-18 Pistons 8-6-18 Rods 3-6-18
Connecting rods 10-6-18 Crank shaft 3-6-18 Thrust shaft 3-6-18 Tunnel shafts 3-6-18 Screw shaft 26-6-18 Propeller 26-6-18
Stern tube 11-4-18 Steam pipes tested 5-7-18 Engine and boiler seatings 23-5-18 Engines holding down bolts 5-7-18
Completion of pumping arrangements 12-7-18 Boilers fixed 26-6-18 Engines tried under steam 19-7-18
Completion of fitting sea connections 23-5-18 Stern tube 23-5-18 Screw shaft and propeller 9-7-18
Main boiler safety valves adjusted 15-7-18 Thickness of adjusting washers F.P. f1" a116, F.S. f132 a132, A.P. f132 a132
Material of Crank shaft S Identification Mark on Do. J.S.C. Material of Thrust shaft S Identification Mark on Do. J.S.C.
Material of Tunnel shafts S Identification Marks on Do. J.S.C. Material of Screw shafts S Identification Marks on Do. J.S.C.
Material of Steam Pipes Steel Test pressure 600 lbs

Is an installation fitted for burning oil fuel No Is the flash point of the oil to be used over 150°F. xx

Have the requirements of Section 49 of the Rules been complied with xx

Is this machinery duplicate of a previous case Yes If so, state name of vessel Mecanicien Donzel

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this

vessel has been built under special Survey in accordance with the approved plans and the Society's Rules, the materials and workmanship are good, The machinery has been satisfactorily tried under steam, and is in my opinion eligible for the record LMC 7-18.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 7.18 F.D.

12-9-18 *J.R.R.*

The amount of Entry Fee ... £ 820.00 When applied for.
Special ... £ 30.00 18-7-18
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : : 22-7-18

Committee's Minute

TUE. 17. SEP. 1918

Assigned

L.M.C. 7.18
F.D.

Engineer Surveyor to Lloyd's Register of Shipping.



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