

REPORT ON MACHINERY

No. 7847

TUE. AUG. 11. 1914

Received at London Office

Date of writing Report 21st July 1914. When handed in at Local Office

10 AUG 1914

Port of

DUNDEE

No. in Survey held at

Dundee

Date, First Survey

8th May

Last Survey

20th July 1914

Reg. Book.

6

on the MACHINERY OF THE STEEL S.S. K. "IMELDA"

(Number of Visits 17)

Gross
Tons
Net

Master JOHN W. BARKER

Built at

Dundee

By whom built

Dundee M.S. Co., Ltd. (265)

When built 1914-7

Engines made at

Coatbridge

By whom made

Lidgerwood Ltd. (423)

when made 1914

Boilers made at

Mazons

By whom made

J. Rowan & Co., (210)

when made 1914

Registered Horse Power

Owners J. Marr & Son, Ltd.

Port belonging to Fleetwood

Nom. Horse Power as per Section 28

81

Is Refrigerating Machinery fitted for cargo purposes

no.

Is Electric Light fitted

no.

ENGINES, &c.—Description of Engines Triple expansion, surface condensing No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 12 $\frac{3}{4}$ " 22" & 36" Length of Stroke 24" Revs. per minute 108 Dia. of Screw shaft as per rule 7 $\frac{3}{4}$ " Material of screw shaft

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 ✓ 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

Dia. of Tunnel shaft as per rule 7" Dia. of Crank shaft journals as per rule 7" Dia. of Crank pin 7" Size of Crank webs Dia. of thrust shaft under

collars 7" Dia. of screw 9'-0" Pitch of Screw 11'-6" No. of Blades 4 State whether moveable no Total surface 34 $\frac{1}{2}$ No. of Feed pumps 1 Diameter of ditto 2 $\frac{5}{8}$ " Stroke 12" Can one be overhauled while the other is at work ✓No. of Bilge pumps 1 Diameter of ditto 2 $\frac{5}{8}$ " Stroke 12" Can one be overhauled while the other is at work ✓

No. of Donkey Engines 1 Sizes of Pumps 6" & 3" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Forward 1 @ 2" / Aft 1 @ 2" In Holds, &c. For Jack 1 @ 2" / Fish room 1 @ 2"

And Fish well 1 @ 2"

No. of Bilge Injections 1 sizes 3 $\frac{1}{2}$ " Connected to circulating pump yes. Is a separate Donkey Suction fitted in Engine room & size yes - 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 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 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.

Dates of examination of completion of fitting of Sea Connections 25-5-14 of Stern Tube 4-6-14 Screw shaft and Propeller 4-6-14

Is the Screw Shaft Tunnel watertight none. Is it fitted with a watertight door ✓ worked from ✓

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

Total Heating Surface of Boilers 1438 $\frac{1}{2}$ Is Forced Draft fitted no. No. and Description of Boilers 1, S.E. cylindrical Multitubular

Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 10-6-14 No. of Certificate 12758

Can each boiler be worked separately ✓ Area of fire grate in each boiler 49.5 $\frac{1}{2}$ No. and Description of Safety Valves to

each boiler 2 direct spring loaded Area of each valve 4.91 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 10" Int. dia. of boilers 13'-6" Length 10'-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 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 Diameter 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

Diameter 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 Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

stiffened with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

Working pressure of end plates Area of safety valves to superheater Are they fitted with easing gear

W309-0095

© 2019

Lloyd's Register
Foundation

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No. Description None fitted.

Made at By whom made When made Where fixed

Working pressure tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of Safety

Valves No. of Safety Valves Area of each Pressure to which they are adjusted Date of adjustment

If fitted with easing gear If steam from main boilers can enter the donkey boiler Dia. of donkey boiler Length

Material of shell plates Thickness Range of tensile strength Descrip. of riveting long. seams

Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Rivets Plates

Working pressure of shell by rules Thickness of shell crown plates Radius of do. No. of stays to do. Dia. of stays

Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint

Working pressure of furnace by rules Thickness of furnace crown plates Stayed by

Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— 2 top and 2 bottom end bolts & nuts; 2 main bearing bolts; 1 set coupling bolts; 1 set feed & ledge pump valves; assorted bolts & nuts; rim of various sizes; 6 condenser tubes & 12 frames; and 3 plain boiler tubes.

The foregoing is a correct description,

LIDGERWOOD LIMITED Manufacturers per R Sneddon

Dates of Survey During progress of work in shops During erection on board vessel building Total No. of visits 17

Is the approved plan of main boiler forwarded herewith

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 4-7-14 Engine and boiler seatings 25-5-14 Engines holding down bolts 15-6-14

Completion of pumping arrangements 20-7-14 Boilers fixed 26-6-14 Engines tried under steam 15-7-14

Main boiler safety valves adjusted 6-7-14 Thickness of adjusting washers Port 3/8" Starboard 7/16"

Material of Crank shaft Identification Mark on Do 28-4-14 Material of Thrust shaft Identification Mark on Do P.M.G. 1-6-14

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts Identification Marks on Do P.M.G. 1-6-14

Material of Steam Pipes Seamless Copper Test pressure 360 lbs.

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

The Machinery of this vessel has now been fitted on board in accordance with the Society's rules, examined under full working conditions and found satisfactory; and eligible, in my opinion, to have record of + LMC 7.14.

Note: For particulars of engines and boiler see Glasgow Report No. 34142.

It is submitted that this vessel is eligible for THE RECORD. + LMC 7.14

T.P.S.
12.8.14

J.P.S.

The amount of Entry Fee .. £ When applied for.

Special .. £ When received.

Donkey Boiler Fee .. £

Travelling Expenses (if any) £

Committee's Minute FRI. AUG. 14. 1914

Assigned + LMC 7.14

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



© 2019

Lloyd's Register Foundation