

REPORT ON MACHINERY.

No. 32114

SAT. SEP. 11 1920

Date of writing Report

19

When handed in at Local Office

8.9

10.20 Port of

Hull

No. in Survey held at

Hull

Date, First Survey

Apr 30th

Last Survey

Aug 20

1920

Reg. Book.

on the S.S. EMBLETON ex KILDYSART.

Master

Built at South Bank on By whom built Smiths Dock Co Ltd

Engines made at South Bank on Lees

By whom made Smiths Dock Co Ltd

when made 1918

Boilers made at

By whom made

when made

Registered Horse Power

✓

Owners

Joplin & Hull

Port belonging to Newcastle.

Nom. Horse Power as per Section 28

116

Is Refrigerating Machinery fitted for cargo purposes

✓

Is Electric Light fitted

no.

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

No. of Cylinders

3.

No. of Cranks

3.

Dia. of Cylinders

16"-26" x 44"

Length of Stroke

26"

Revs. per minute

Dia. of Screw shaft

as per rule

8.5

Material of

Steel

Is the screw shaft fitted with a continuous-liner the whole length of the stern tube stated 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 49"

Dia. of Tunnel shaft as per rule 4.85

Dia. of Crank shaft journals as per rule 8.35

Dia. of Crank pin 8 1/4

Size of Crank webs 5 1/4 x 5 1/4

Dia. of thrust shaft under collars 8 1/2

Dia. of screw 9-6"

Pitch of Screw 8-6"

No. of Blades 4

State whether moveable no

Total surface 36 sq ft

No. of Feed pumps 2. Weirs Diameter of ditto 4"

Stroke 18"

Can one be overhauled while the other is at work yes.

No. of Bilge pumps one ejector Diameter of ditto 6"

Stroke 18"

Can one be overhauled while the other is at work ✓

No. of Donkey Engines 1-1 ejector Sizes of Pumps 6 x 6 x 6 Duplex

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

In Engine Room 2-2 1/2" Port 1 Sbd.

In Holds, &c. 2 1/2" from Fore Peak, No 1 hold, No 2 hold.

Stokehold, shaft Tunnel.

No. of Bilge Injections 7 sizes 6"

Connected to condenser, or to circulating pump pump

Is a separate Donkey Suction fitted in Engine room & size yes-2 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 For suction

How are they protected wood 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.

Is the Screw Shaft Tunnel watertight yes.

Is it fitted with a watertight door yes

worked from Eng room (hinged door)

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

Total Heating Surface of Boilers

1832 sq ft

Is Forced Draft fitted no

No. and Description of Boilers 1. Single Ended.

Working Pressure 200 lbs

Tested by hydraulic pressure to not tested

Date of test

No. of Certificate

Can each boiler be worked separately ✓

Area of fire grate in each boiler 51.5 sq ft

No. and Description of Safety Valves to each boiler 2. Spring loaded

Area of each valve 5.9 sq ft

Pressure to which they are adjusted 200 lbs

Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12"

Dia. of boilers 13-0"

Length 11-6"

Material of shell plates Steel

Thickness 1 1/4"

Range of tensile strength Stated 28/32

Are the shell plates welded or flanged no.

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

long. seams T.R.D.B.S.

Diameter of rivet holes in long. seams 1 1/4"

Pitch of rivets 9 5/16"

Lap of plates or width of butt straps 19"

Per centages of strength of longitudinal joint rivets 83.8

plate 86.5

Working pressure of shell by rules 198 lbs

Size of manhole in shell 16" x 12"

Size of compensating ring 16 1/4" x 9"

No. and Description of Furnaces in each boiler 3. DEIGHTON

Material Steel

Outside diameter 41 5/8"

Length of plain part top

Thickness of plates crown 9 1/16"

Description of longitudinal joint Welded.

No. of strengthening rings ✓

Working pressure of furnace by the rules 212

Combustion chamber plates: Material Steel

Thickness: Sides 1 1/16"

Back 1 1/16"

Top 1 1/16"

Bottom 1"

Pitch of stays to ditto: Sides 8 3/4" x 9"

Back 8 1/2" x 8 3/4"

Top 8 1/2" x 9"

If stays are fitted with nuts or riveted heads nuts

Working pressure by rules Back 219.

Material of stays Steel

Area at smallest part 2.03 sq ft

Area supported by each stay Back 4.5

Working pressure by rules 232 lbs

End plates in steam space: Material Steel

Thickness 1 1/16"

Pitch of stays 14 1/2"

How are stays secured DN & W

Working pressure by rules 218 lbs

Material of stays Steel

Area at smallest part 6.1 sq ft

Area supported by each stay 3.06 sq ft

Working pressure by rules 206.5 lbs

Material of Front plates at bottom Steel

Thickness 1"

Material of Lower back plate Steel

Thickness 1"

Greatest pitch of stays 14 1/2" x 8 3/4"

Working pressure of plate by rules 240

Diameter of tubes 2 1/2"

Pitch of tubes 3 3/4" x 3 1/16"

Material of tube plates Steel

Thickness: Front 1"

Back 1 1/16"

Mean pitch of stays 8 3/8"

Pitch across wide water spaces 13 1/4"

Working pressures by rules 204 lbs

Girders to Chamber tops: Material Steel

Depth and thickness of girder at centre 8" x 1 3/4"

Length as per rule 2-7 1/4"

Distance apart 8 1/2"

Number and pitch of stays in each 2-9"

Working pressure by rules 202

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

008700-008710-0250

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two each, top & bottom end bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each feed and bilge pump valves, iron of various sizes, a quantity of assorted bolts nuts etc. One safety valve spring, one pair main bearing branes, one pair connecting rod branes. One main and one donkey check valve.

The foregoing is a correct description.

Manufacturer.

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

May 8th to Aug 20th - 1920.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 3/5/20 Slides 3/5/20 Covers 3/5/20 Pistons 3/5/20 Rods 3/5/20

Connecting rods 19/7/20 Crank shaft 19/7/20 Thrust shaft 6/8/20 Tunnel shafts 6/8/20 Screw shaft 6/8/20 Propeller 6/8/20

Stern tube 20/8/20 Steam pipes tested 30/4/20 Engine and boiler seatings 6/8/20 Engines holding down bolts 6/8/20

Completion of pumping arrangements 20/8/20 Boilers fixed 20/8/20 Engines tried under steam 20/8/20

Completion of fitting sea connections 6/8/20 Stern tube 6/8/20 Screw shaft and propeller 6/8/20

Main boiler safety valves adjusted 20/8/20 Thickness of adjusting washers PORT 1/4" STBD 3/8"

Material of Crank shaft Steel Identification Mark on Do CANNOT BE FOUND Material of Thrust shaft Steel Identification Mark on Do CANNOT BE FOUND

Material of Tunnel shafts Steel Identification Marks on Do FOUND Material of Screw shafts Steel Identification Marks on Do FOUND

Material of Steam Pipes Steel M.S.P. Test pressure 600 lbs sq"

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 KIL Class.

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

The machinery of this vessel has been opened out and examined on board the vessel, and was found to be in accordance with the Rules of this Society, and in all respects similar to the machinery of the "KIL" class vessels built in this district under this Society's survey. The materials and workmanship are good. The main steam pipes have been tested as required by hydraulic pressure. The machinery is properly fitted and secured on board, and has been tested under steam and found satisfactory.

In my opinion the vessel is eligible for the record LMC 8-20.

The amount of Entry Fee ... £ : : When applied for, Special ... £ : : 19 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 19

Committee's Minute

Assigned

Herbert J. Sutherst.

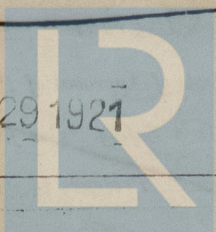
Engineer Surveyor to Lloyd's Register of Shipping.

TUE NOV. 10 1920

Lmc 8.20

TUE NOV. 29 1921

CERTIFICATE WRITTEN



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