

REPORT ON MACHINERY

No. 69559
JUL 30 JAN 1917

Received at London Office

29 JAN 1917

Port of NEWCASTLE-ON-TYNE

Survey Report 124 Jan 1917 When handed in at Local Office

Survey held at Newcastle

Date, First Survey 16 Feb 1915 Last Survey 13 Jan 1917

on the S.S. "Lynmouth"

(Number of Plates 77 Gross 2584

Tons Net 1611

Built at Newcastle

By whom built Wood Skinnies & Co

When built 1916

made at Newcastle

By whom made North Eastern Marine Eng Co 2217 when made 1916

made at

By whom made

when made 1916

red Horse Power

Owners Burnett Steamship Co Ltd

Port belonging to Newcastle

Horse Power as per Section 28 329

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

INES, & Co.—Description of Engines

Simple Expansion

No. of Cylinders 3

No. of Cranks 3

of Cylinders 24-40-65 Length of Stroke 42

Revs. per minute 75

Dia. of Screw shaft as per rule 13.13 Material of screw shaft as fitted 13.13

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

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

on the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive

If two

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

Length of stern bush 5'-0"

of Tunnel shaft as per rule 11.23 Dia. of Crank shaft journals as per rule 12.42

as fitted 12 Dia. of Crank pin 12 5/8

Size of Crank webs 20 x 7 3/4 Dia. of thrust shaft under

re 12 5/8 Dia. of screw 16-0 Pitch of Screw 16-0

No. of Blades 4

State whether moveable No Total surface 76 6

of Feed pumps 2 Diameter of ditto 3 1/2 Stroke 21

Can one be overhauled while the other is at work Yes

of Bilge pumps 2 Diameter of ditto 3 1/2 Stroke 21

Can one be overhauled while the other is at work Yes

of Donkey Engines 3 Sizes of Pumps 8 x 10 x 10-8 x 10 x 10-7 1/2 x 5 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room Two 3" dia

In Holds, &c. Two each hold 3" in in Tunnel

of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump Yes

Is a separate Donkey Suction fitted in Engine room & size Yes 2-3"

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

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

Are they Valves or Cocks Both

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

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

that pipes are carried through the bunkers Sections to fore hold How are they protected Wood casing

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

ates of examination of completion of fitting of Sea Connections 13-11-16 of Stern Tube 13-11-16 Screw shaft and Propeller 16-11-16

the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes

worked from Lap platform

ILERS, & Co.—(Letter for record S)

Manufacturers of Steel J. Spence & Sons

Total Heating Surface of Boilers 55-24

Is Forced Draft fitted No

No. and Description of Boilers Two, single-ended

Working Pressure 180 lbs

Tested by hydraulic pressure to 360 lbs

Date of test 1-7-9-16

No. of Certificates 1-8892

Can each boiler be worked separately Yes

Area of fire grate in each boiler 74.6 sq ft

No. and Description of Safety Valves to

each boiler Two, Spring

Area of each valve 8.29

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 6 ft

Mean dia. of boilers 16'-6 1/2" Length 11'-0" Material of shell plates Steel

Thickness 1 1/4" Range of tensile strength 29 3/4 - 33

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams & Lap

long. seams S.B.S. Rivet Diameter of rivet holes in long. seams 1 9/32

Pitch of rivets 8 15/16

Lap of plates or width of butt straps 18 7/8

Per centages of strength of longitudinal joint rivets 85-7

Working pressure of shell by rules 181 lbs

Size of manhole in shell 16" x 12"

Size of compensating ring 35 3/4" x 31 3/4" x 1 1/4" No. and Description of Furnaces in each boiler 4 - Brighton

Material Steel Outside diameter 44 1/2"

Length of plain part top

Thickness of plates crown 17/32

Description of longitudinal joint Welded

No. of strengthening rings

Working pressure of furnace by the rules 183 lbs

Combustion chamber plates: Material Steel Thickness: Sides 23/32

Back 23/32 Top 23/32 Bottom 15/16

Pitch of stays to ditto: Sides 10 1/2" x 9 3/8"

Back 10 1/2" x 9 3/8"

Top 10 1/2" x 9 3/8"

Are stays fitted with nuts or riveted heads nuts Working pressure by rules 180 lbs

Material of stays Steel

Diameter at smallest part 2.03"

Area supported by each stay 98.3 sq in

Working pressure by rules 185 lbs End plates in steam space

Material Steel Thickness 1 9/16

Pitch of stays 26 3/8" x 24"

How are stays secured S, N, W

Working pressure by rules 181 lbs Material of stays Steel

Diameter at smallest part 11.04"

Area supported by each stay 63.3 sq in

Working pressure by rules 181 lbs

Material of Front plates at bottom Steel

Thickness 1"

Material of Lower back plate Steel

Thickness 29/32

Greatest pitch of stays 14 1/4"

Working pressure of plate by rules 195 lbs

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2" x 4 3/8"

Material of tube plates Steel

Thickness: Front 1"

Back 13/16"

Mean pitch of stays 8 7/8"

Pitch across wide water spaces 14 1/4"

Working pressures by rules 188 lbs

Girders to Chamber tops: Material Steel

Depth and

thickness of girder at centre 9 1/2" x 1 1/2"

Length as per rule 34"

Distance apart 9 3/8"

Number and pitch of stays in each 2-10 1/2"

Working pressure by rules 182 lbs

separately Diameter Length Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes Pitch of rivets Working pressure of shell by rules

If 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

IS A DONKEY BOILER FITTED? *yes*

If so, is a report now forwarded? *yes*

SPARE GEAR. State the articles supplied:—

Two top-end, 2 bottom-end & 2 main-bearing bolts & nuts, 1 set of coupling bolts, 1 set of feed & bilge pump valves, a quantity of assorted bolts nuts & washers & a propeller, a set of feed check valves, a spring for H.P. piston, 100 condenser tubes.

The foregoing is a correct description,

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- *Dec. 16, 18, 20, Apr. 1, 15, 19, 22, May 7, 12, 13, 27, Jun 4, Jul 1, 2, 18, 19, Nov 1, 1917, Dec 3, 1917*
During erection on board vessel -- *Jan 7, 11, 12, 24, 25, 26, Feb 9, 15, 21, Mar 10, 28, Apr 3, 27, May 1, 2, 18, Jun 13, 19, 27, Jul 4, 11, 18, 25, 26, Aug 1, 11, 12, 13, 1918*
Total No. of visits *67*

Is the approved plan of main boiler forwarded herewith? *yes*

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders *4-6-15* Slides *1-5-15* Covers *4-6-15* Pistons *22-4-15* Rods *2-7-15*
Connecting rods *2-7-15* Crank shaft *12-7-16* Thrust shaft *13-5-15* Tunnel shafts *25-7-16* Screw shaft *15-2-16* Propeller *29-3-16*
Stern tube *21-2-16* Steam pipes tested *11-12-16* Engine and boiler seatings *13-11-16* Engines holding down bolts *10-1-17*
Completion of pumping arrangements *10-1-17* Boilers fixed *10-1-17* Engines tried under steam *10-1-17*
Main boiler safety valves adjusted *10-1-17* Thickness of adjusting washers *P.B. P⁷/₁₆ S⁵/₁₆ S.B. P³/₈ S³/₈ A.B. P⁵/₁₆ S⁵/₁₆*
Material of Crank shaft *Steel* Identification Mark on Do. *L.X. 7-16* Material of Thrust shaft *Steel* Identification Mark on Do. *C.C. 5-15*
Material of Tunnel shafts *Steel* Identification Marks on Do. *L.X. 7-16* Material of Screw shafts *Iron* Identification Marks on Do. *C.C. 2-16*
Material of Steam Pipes *Iron* Test pressure *540 lbs*

Is an installation fitted for burning oil fuel? *no* Is the flash point of the oil to be used over 150°F. *yes*

Have the requirements of Section 49 of the Rules been complied with? *yes*

Is this machinery duplicate of a previous case? *yes* If so, state name of vessel *S.S. "Holden"*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The engines & boilers of this vessel have been constructed under special survey & the materials & workmanship are found to be good. The engines have been tried under steam & the safety valves adjusted at the working pressures. The machinery is now in good & safe working condition & eligible in our opinion to have the notation of + LMC 1-17.*

It is submitted that this vessel is eligible for THE RECORD + LMC 1-17.

JWD

ARC

The amount of Entry Fee ... £ 3 0 0
Special ... £ 3 6 9 0
Donkey Boiler Fee ...
Travelling Expenses (if any) £ ...

When applied for, 29 JAN 1917

When received, 1.2.1917

Charles Cooper & Thomas Field
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

Committee's Minute

Assigned

+ LMC 1-17

TUE. FEB. - 6. 1917



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