

Date of writing Report

19

When handed in at Local Office

30.4.19 Port of

Received at London Office

Sunderland

No. in Survey held at

Sunderland

Date, First Survey

12 May 1918

Last Survey

11 April 1919

Reg. Book.

98 on the new steel S/S "WHITWOOD"

(Number of Visits

44)

Gross 1875 1926

Net 403 1147

Master

Howle

Built at

Sunderland

By whom built

J. Brown &amp; Sons Ltd (S/S No 165)

When built

1919

Engines made at

Sunderland

By whom made

North Eastern Marine Engineering Co. Ltd. (No 2364) when made

1919

Boilers made at

Sunderland

By whom made

North Eastern Marine Engineering Co. Ltd. (No 2364) when made

1919

Registered Horse Power

Owners W. France Fenwick &amp; Co. Ltd.

Port belonging to

London

Nom. Horse Power as per Section 28

199

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &amp;c.—Description of Engines Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

20½" - 33" - 54"

Length of Stroke

39"

Revs. per minute

70

Dia. of Screw shaft

as per rule 11.8"

Material of screw shaft

J. steel

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

yes

If two

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

Length of stern bush

3'-11½"

Dia. of Tunnel shaft

as per rule 10.31" 10.32"

Dia. of Crank shaft journals

as per rule 10.83" 10.84"

Dia. of Crank pin

11½"

Size of Crank webs

17" x 6½"

Dia. of thrust shaft under

collars

11"

Dia. of screw

14'-9"

Pitch of Screw

15'-6"

No. of Blades

4

State whether moveable

no

Total surface

68 sq ft

No. of Feed pumps

2

Diameter of ditto

3"

Stroke

21"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

3½"

Stroke

21"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

3

Sizes of Pumps

2 @ 7½" x 9" x 9" 1 @ 5½" x 3½" x 5"

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

In Engine Room

3 @ 2½"

In Holds, &amp;c. Forward hold, - 2 @ 2½". After hold 2 @ 2½".

Tunnel well - 1 @ 2½"

No. of Bilge Injections

1

sizes

7½"

Connected to condenser, or to circulating pump

b.p.

Is a separate Donkey Suction fitted in Engine room &amp; size

yes, 3"

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

no

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

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from top platform

BOILERS, &amp;c.—(Letter for record (5))

Manufacturers of Steel John Spencer &amp; Sons Ltd.

Total Heating Surface of Boilers

3092 sq ft

Is Forced Draft fitted

no

No. and Description of Boilers

two single ended marine

Working Pressure

180

Tested by hydraulic pressure to

360

Date of test

24-12-18

No. of Certificate

3522

Can each boiler be worked separately

yes

Area of fire grate in each boiler

40 sq ft

No. and Description of Safety Valves to

each boiler

two direct spring

Area of each valve

3.97 sq ft

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between boilers

18"

Mean dia. of boilers

13'-0"

Length

10'-6"

Material of shell plates

steel

Thickness

1½"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

DR

long. seams

DRS. TR

Diameter of rivet holes in long. seams

1½"

Pitch of rivets

9 9/16"

Top of plates or width of butt straps

19"

Per centages of strength of longitudinal joint

rivets 86.69

plate 87.25

Working pressure of shell by rules

180

Size of manhole in shell

10' x 12"

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

two plain

Material

steel

Outside diameter

3'-9½"

Length of plain part

top 6'1½"

bottom 5'-6"

Thickness of plates

crown 5½"

bottom 6"

Description of longitudinal joint

welded

No. of strengthening rings

none

Working pressure of furnace by the rules

181

Combustion chamber plates: Material

steel

Thickness: Sides

¾"

Back

25/32"

Top

¾"

Bottom

15/16"

Pitch of stays to ditto: Sides

11½" x 8½"

Back

10½" x 10½"

Top

11" x 8½"

If stays are fitted with nuts or riveted heads

nuts in use

Working pressure by rules

180

Material of stays

steel

Area at smallest part

2.79 sq ft

Area supported by each stay

13.75 sq ft

Working pressure by rules

182

End plates in steam space:

Material

steel

Thickness

1½"

Pitch of stays

22" x 18"

How are stays secured

DN &amp; W

Working pressure by rules

183

Material of stays

steel

Area at smallest part

6.80 sq ft

Area supported by each stay

39.60 sq ft

Working pressure by rules

180

Material of Front plates at bottom

steel

Thickness

¾"

Material of Lower back plate

steel

Thickness

15/16"

Greatest pitch of stays

14½" x 10½"

Working pressure of plate by rules

182

Diameter of tubes

3½"

Pitch of tubes

4½" x 4½"

Material of tube plates

steel

Thickness: Front

¾"

Back

¾"

Mean pitch of stays

11 13/16"

Pitch across wide water spaces

14½" x 5½"

Working pressures by rules

180

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

2 @ 9½" x 7"

Length as per rule

30½"

Distance apart

11"

Number and pitch of stays in each

2 @ 8½"

Working pressure by rules

184

Steam dome: description of joint to shell

none

% 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



IS A DONKEY BOILER FITTED? no

If so, is a report now forwarded? —

SPARE GEAR. State the articles supplied:— Two connecting rod top and bottom end bolts and nuts, two main bearing bolts, one set of coupling bolts, one set of feed and bilge pump valves, iron and bolts of various sizes, one set of direct pump valves and one half set of circulating pump valves.

The foregoing is a correct description,

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LD

Geo. D. Veer

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1918 Aug 12, 14, 28 Sept 1, 11, 16, 27 30 Oct 1, 3, 8, 10, 24, 15, 18, 21, 25, 31 Nov 21, 25, 27, 28 Dec 2, 9, 11, 24, 31  
During erection on board vessel -- Jan 6, 16, 20, 23, 27 Feb 3, 7, 28 Mar 20, 24, 28 Apr 2, 3, 4, 7, 8, 11  
Total No. of visits 44

Is the approved plan of main boiler forwarded herewith yes  
" " " donkey " " " "

Dates of Examination of principal parts—Cylinders 28-8-18 Slides 25-10-18 Covers 11-9-18 Pistons 18-10-18 Rods 15-10-18  
Connecting rods 17-9-18 Crank shaft 10-10-18 Thrust shaft 10-10-18 Tunnel shafts 10-10-18 Screw shaft 23-1-19 Propeller 21-1-19  
Stern tube 6-1-19 Steam pipes tested 3-4-19 Engine and boiler seatings 28-2-19 Engines holding down bolts 2-4-19  
Completion of pumping arrangements 11-4-19 Boilers fixed 7-4-19 Engines tried under steam 8-4-19  
Completion of fitting sea connections 7-2-19 Stern tube 23-1-19 Screw shaft and propeller 20-3-19  
Main boiler safety valves adjusted 8-4-19 Thickness of adjusting washers Port boiler -  $F \frac{7}{16}$  "  $A \frac{15}{32}$  " Starboard boiler -  $F \frac{7}{16}$  "  $A \frac{15}{32}$  "  
Material of Crank shaft Steel Identification Mark on Do 3843 N. W. C. Material of Thrust shaft Steel Identification Mark on Do 3843 N. W. C.  
Material of Tunnel shafts Steel Identification Marks on Do 3843 N. W. C. Material of Screw shaft Steel Identification Marks on Do 3843 N. W. C.  
Material of Steam Pipes Lap welded wrought iron Test pressure 540 pounds per square inch.  
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? If so, state name of vessel Standard "CS" type.

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

The workmanship and materials are good  
The machinery has been constructed under special survey and is eligible  
in my opinion for classification and the record + LMC 4, 19.

It is submitted that  
this vessel is eligible for  
THE RECORD. + LMC 4, 19.

AWD 6/5/19. ARR

The amount of Entry Fee ... £ : :  
Special 42 ... £ 42 : 16 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 19. 4. 19. 19  
When received, 17. 5. 19. 19

She Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

+ LMC 4:19

MINISTRY OF COMMERCE  
WRITTEN



© 2021

Lloyd's Register  
Foundation