

Rpt. 4.

REPORT ON MACHINERY.

No. 26288

Date of writing Report

19

When handed in at Local Office

28 NOV 1914

Received at London Office

Port of

Sunderland

MON NOV 30, 1914

No. in Survey held at

Sunderland

Date, First Survey

7th May, 1914

(Number of Visits)

Last Survey 20th Nov. 1914

Reg. Book.

on the new steel S/S "MEUSE".

Master L Raymond

Built at Sunderland

By whom built

Sunderland S.B. & L. (S.N. 285)

Tons

Gross 14075

Net 2558

When built 1914

Engines made at

Sunderland

By whom made

George Black L^{td} (N^o 1012)

when made

1914

Boilers made at

Sunderland

By whom made

George Black L^{td} (N^o 1012)

when made

1914

Registered Horse Power

Owners Lia de Navigation et de Commerce

Port belonging to La Rochelle

Nom. Horse Power as per Section 28

371

Is Refrigerating Machinery fitted for cargo purposes

Is Electric Light fitted

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

No. of Cranks

Dia. of Cylinders

25", 41", 69"

Length of Stroke

48"

Revs. per minute

65

Dia. of Screw shaft

as per rule 14.26

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 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

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

Length of stern bush

4'-10 1/2"

Dia. of Tunnel shaft

as per rule 12.64

as fitted 1'-1"

Dia. of Crank shaft journals

as per rule 13.28

as fitted 1'-1 1/8"

Dia. of Crank pin

1'-1 1/8"

Size of Crank webs

18"x8 1/2"

Dia. of thrust shaft under

collars

1'-1 1/8"

Dia. of screw

17'-6"

Pitch of Screw

17'-0"

No. of Blades

4

State whether moveable

no

Total surface

95 ft²

No. of Feed pumps

2

Diameter of ditto

3 3/4"

Stroke

26"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4 1/2"

Stroke

26"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

3

Sizes of Pumps

10"x10"

20"x10"

20"x10"

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

In Engine Room

4 @ 3 1/2"

In Holds, &c.

N^o 1 hold - 2 @ 3 1/2"N^o 2 hold - 2 @ 3 1/2"N^o 3 hold - 2 @ 3 1/2"

Tunnell well - 1 @ 3 1/2"

No. of Bilge Injections

1

sizes

6 1/2"

Connected to condenser, or to circulating pump

6 P.

Is a separate Donkey Suction fitted in Engine room & size

yes

1 1/2"

Are all the bilge suction pipes fitted with roses

yes

Are the roses in Engine room 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

Forward hold suction

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

15-10-14

of Stern Tube

22-10-14

Screw shaft and Propeller

26-10-14

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

Aachen

Hüttenverein

Aachen

Thyssen & Co.

of Mulheim &

David & Co.

Boilers

Three single ended marine

Total Heating Surface of Boilers

5898 ft²

Working Pressure

180 lb.

Tested by hydraulic pressure to

360 lb.

Date of test

5-10-14

No. of Certificate

3250

Can each boiler be worked separately

yes

Area of fire grate in each boiler

58 ft²

No. and Description of Safety Valves to

each boiler

Two direct spring

Area of each valve

8290"

Pressure to which they are adjusted

185 lb.

Are they fitted with easing gear

yes

Smallest distance between boiler uptakes and bunkers or woodwork

19"

Mean dia. of boilers

14'-0"

Length

10'-9"

Material of shell plates

steel

Thickness

15"

Range of tensile strength

29-33

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

10 R.

long. seams

WBS, TR

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

7 1/2"

Lap of plates or width of butt straps

14"

Per centages of strength of longitudinal joint

rivets 91

plate 85

Working pressure of shell by rules

180

Size of manhole in shell

end 16"x12"

Size of compensating ring

flanged in 3 1/2"

No. and Description of Furnaces in each boiler

3 maison bou

Material

steel

Outside diameter

3'-7"

Length of plain part

top

Thickness of plates

crown 3 1/2"

bottom 3 1/2"

Description of longitudinal joint

welded

No. of strengthening rings

Working pressure of furnace by the rules

183

Combustion chamber plates: Material

steel

Thickness: Sides

3 1/2"

Back

N 1 1/2"

Top 3 1/2"

Bottom 7/8"

Pitch of stays to ditto: Sides

9"x9 1/2"

Back

9"x10"

Top

8 1/2"x11"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

181

Material of stays

steel

Diameter at smallest part

2-030"

Area supported by each stay

93-70"

Working pressure by rules

194

End plates in steam space:

Material

steel

Thickness

1 1/16"

Pitch of stays

23 1/8"x17 1/2"

How are stays secured

N.N.

Working pressure by rules

182

Diameter at smallest part

5-410"

Area supported by each stay

2930"

Working pressure by rules

192

Material of Front plates at bottom

steel

Thickness

1 1/16"

Material of Lower back plate

steel

Thickness

1 1/16"

Greatest pitch of stays

15"x9 3/4"

Working pressure of plate by rules

189

Diameter of tubes

3 1/4"

Pitch of tubes

4 3/8"x4 1/2"

Material of tube plates

steel

Thickness: Front

13/16"

Back

3/4"

Mean pitch of stays

11 1/4"

Pitch across wide water spaces

14"x12"

Working pressures by rules

262

Girders to Chamber tops: Material

steel

thickness of girder at centre

20-8 1/2"x7/8"

Length as per rule

2'-6"

Distance apart

11"

Number and pitch of stays in each

2 @ 8 3/4"

Working pressure by rules

184

Superheater or Steam chest; how connected to boiler

none

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

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

W858-0063

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No. _____ Description _____

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 _____ Radius of do. _____ Stayed by _____

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

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, bilge, air and circulating pump valves, iron and bolts of various sizes, one eccentric strap, one pair of top and bottom end bearings, one piston rod, one air and circulating pump rod, two valve spindles, one tail shaft and one propeller.

The foregoing is a correct description,

FOR GEORGE CLARK, LIMITED

Manufacturer.

1098 MULL

2 The main Engineer Rules.

Dates of Survey while building { During progress of work in shops - - } 1914 May 7 18 19 26 27 Jun 8 15 16 19 23 26 Jul 3 9 14 Aug 6 13 18 25 26 28 Sep 1 2
 { During erection on board vessel - - } 7 14 18 22 23 25 29 30 Oct 2 5 15 16 17 19 20 21 22 26 27 30 Nov 4 5 18 20
 Total No. of visits (46)

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 28-8-14 Slides 23-9-14 Covers 18-5-14 Pistons 23-6-14 Rods 25-9-14
 Connecting rods 18-9-14 Crank shaft 6-8-14 Thrust shaft 7-9-14 Tunnel shafts 20-10-14 Screw shaft 20-10-14 Propeller 5-10-14
 Stern tube 30-9-14 Steam pipes tested 30-10-14 Engine and boiler seatings 22-9-14 Engines holding down bolts 4-11-14
 Completion of pumping arrangements 20-11-14 Boilers fixed 4-11-14 Engines tried under steam 5-11-14
 Main boiler safety valves adjusted 5-11-14 Thickness of adjusting washers Port H. - P $\frac{3}{8}$ " S $\frac{1}{16}$ " Center H. - P $\frac{5}{16}$ " S $\frac{3}{16}$ " Shell H. - P $\frac{1}{2}$ " S $\frac{3}{8}$ "
 Material of Crank shaft 9 steel Identification Mark on Do. 4278 PA Material of Thrust shaft 9 steel Identification Mark on Do. RW 12
 Material of Tunnel shafts 9 steel Identification Marks on Do. 26, 18, 15, 24 & Material of Screw shafts 9 steel Identification Marks on Do. 10 & 23 RW
 Material of Steam Pipes 1/2" iron lap welded 5 @ 4" bore x 5/16" thick Test pressure 540 lbs per sq"

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

The materials and workmanship are good

The machinery has been constructed under special survey and is eligible in my opinion for classification and the record + LMC 11.14

It is submitted that
 this vessel is eligible for
 THE RECORD. + LMC 11.14.

JAR

30/11/14

JAR

The amount of Entry Fee .. £ 3 : :
 Special .. £ 38 : 11 : :
 Donkey Boiler Fee .. £ : : :
 Travelling Expenses (if any) £ : : :
 When applied for, 28 NOV 1914
 When received, 11 DEC 1914

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

Committee's Minute

FRI. DEC. -4 1914

Assigned

+ LMC 11.14



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 Foundation