

Rpt. 4.

REPORT ON MACHINERY.

No. 28942

Received at London Office

29 OCT 1924

Date of writing Report

19

When handed in at Local Office

28 OCT 1924

Port of

Sunderland

No. in Survey held at
Reg. Book.

Sunderland

Date, First Survey

12 June 24

Last Survey

21 Oct

19 24

(Number of Visits

28)

on the new steel S/S "HOMESIDE".

Tons

Gross

4617

Net

2859

Master

Built at Sunderland

By whom built

Short Bros Ltd

S/S No. 418

When built

19 24

Engines made at

Sunderland

By whom made

N.E. Marine Eng Co Ltd (No. 2589)

when made

19 24

Boilers made at

Sunderland

By whom made

N.E. Marine Eng Co Ltd (No. 2589)

when made

19 24

Registered Horse Power

Owners

Charlton S.S. & Co Ltd

Port belonging to

Newcastle

Nom. Horse Power as per Section 28

406

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

25½ - 42 - 70

Length of Stroke

48"

Revs. per minute

68

Dia. of Screw shaft

as per rule 14.2"

Material of

I. 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

-

If two

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

-

Length of stern bush

4-9½"

Dia. of Tunnel shaft

as per rule 12.73"

Dia. of Crank shaft journals

as per rule 13.31"

Dia. of Crank pin

13½"

Size of Crank webs

8½ x 20½"

Dia. of thrust shaft under

collars

13½"

Dia. of screw

17.6"

Pitch of Screw

17-9"

No. of Blades

4

State whether moveable

no

Total surface

93"

No. of Feed pumps

2

Diameter of ditto

4"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

4"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

3

Sizes of Pumps

2 @ 7½ x 8.

1 @ 7½ x 9½ x 10½"

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

In Engine Room

3 @ 3"

In Holds, &c.

No. 1 hold - 2 @ 3".

No. 2 hold - 2 @ 3½".

No. of Bilge Injections

1 size 9"

Connected to condenser, or to circulating pump

B.P.

Is a separate Donkey Suction fitted in Engine room & size

yes. 4½"

Are all the bilge suction pipes fitted with

roses

yes

Are the roses in Engine room always accessible

yes

Are the sluices in 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

main below, all others 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

How are they protected

under limber boards

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, &c.—(Letter for record (5))

Manufacturers of Steel

David Colville & Sons Limited

Total Heating Surface of Boilers

6774 sq ft

Forced Draft fitted

no

No. and Description of Boilers

Coal 3. 58.

Working Pressure

180

Tested by hydraulic pressure to

320

Date of test

29-8-24

No. of Certificate

3898

Can each boiler be worked separately

yes

Area of fire grate in each boiler

58 sq ft

No. and Description of Safety Valves to

each boiler

each boiler

two direct spring

Area of each valve

8.29 sq"

Pressure to which they are adjusted

185

Are they fitted with easing gear

yes

Smallest distance between

boilers or uptakes and bunkers

2-0"

Mean dia. of boilers

14-9"

Length

11-6"

Material of shell plates

steel

Thickness

1 13/64"

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

DR

long. seams

DRS. T.R.

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

8 3/8"

Lap of plates

width of butt straps

18 3/8"

Per centages of strength of longitudinal joint

rivets 89

plate 85.8

Working pressure of shell by rules

180

Size of manhole in

end

16 1/2"

No. of strengthening rings

-

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

3 Doughton

Material

steel

Outside diameter

3 6 5/16"

Length of plain part

top 17"

bottom 17"

Thickness of plates

crown 17"

Description of longitudinal joint

welded

No. of strengthening rings

-

Working pressure of furnace by the rules

181

Combustion chamber plates: Material

steel

Thickness: Sides

3/32"

Back

25/32"

Top

25/32"

Bottom

25/32"

Pitch of stays to ditto: Sides

12 x 9 3/4"

Back

11 x 10 3/4"

Top

11 x 9 3/4"

If stays are fitted with nuts or riveted heads

nuts in ends

Working pressure by rules

180

Material of stays

steel

Area at smallest part

2.36 sq"

Area supported by each stay

118 sq"

Working pressure by rules

180

End plates in steam space:

Material

steel

Thickness

1 1/32"

Pitch of stays

21 1/2 x 20"

How are stays secured

DR & W

Working pressure by rules

181

Material of stays

steel

Area at smallest part

7.66 sq"

Area supported by each stay

430 sq"

Working pressure by rules

198

Material of Front plates at bottom

steel

Thickness

7/8"

Material of Lower back plate

steel

Thickness

15/16"

Greatest pitch of stays

10 3/4 x 14 1/2"

Working pressure of plate by rules

222

Diameter of tubes

3 1/4"

Pitch of tubes

47 1/8 x 4 7/16"

Material of tube plates

steel

Thickness: Front

7/8"

Back

13/16"

Mean pitch of stays

10.6"

Pitch across wide water spaces

14 1/2" (30 ft)

Working pressures by rules

193

Girders to Chamber tops: Material

steel

Depth and

thickness of girder at centre

2 @ 8 x 15"

Length as per rule

2-7 1/16"

Distance apart

11"

Number and pitch of stays in each

2 @ 9 3/4"

Working pressure by rules

189

Steam dome: description of joint to shell

none

% of strength of joint

-

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

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 propeller.

The foregoing is a correct description.

FOR THE NORTH EASTERN MARINE ENGINEERING CO. LTD

C. F. Adams

Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1924 June 12 July 9 29 31 Aug 7 11 18 19 21 26 27 29 Sep 5 11 16 18 29 30 Oct 4 6 8 10 11
{ During erection on board vessel - - - } 17 18 24
Total No. of visits 28

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 14-8-24 Slides 18-9-24 Covers 19-8-24 Pistons 30-9-24 Rods 26-8-24

Connecting rods 7-8-24 Crank shaft 19-8-24 Thrust shaft 4-9-24 Tunnel shafts 4-9-24 Screw shaft 4-9-24 Propeller 30-9-24

Stern tube 30-9-24 Steam pipes tested 14-10-24 Engine and boiler seatings 4-10-24 Engines holding down bolts 17-10-24

Completion of pumping arrangements 24-10-24 Boilers fixed 10-10-24 Engines tried under steam 18-10-24

Completion of fitting sea connections 29-9-24 Stern tube 4-10-24 Screw shaft and propeller 6-10-24

Main boiler safety valves adjusted 18-10-24 Thickness of adjusting washers Roller P 8" S 3 16" bent. bolts 5 16" S 16" P 8" S 16"

Material of Crank shaft 9. steel Identification Mark on Do. LL0705 N° 6949 L.C. 8-24 Material of Thrust shaft 9. steel Identification Mark on Do. LL0705

Material of Tunnel shafts 9. steel Identification Marks on Do. LL0705 GAH. 4-9-24 Material of Screw shafts 9. steel Identification Marks on Do. GAH. 4-9-24

Material of Steam Pipes 6 copper Test pressure 400 lbs

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 no If so, state name of vessel ✓

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 10, 24.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 10. 24. CL.

J. W. Davis
30/10/24

J. W. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 5 : : When applied for.

Special ... £ 85:18 : : 28 OCT 1924

Donkey Boiler Fee ... £ : : When received.

Travelling Expenses (if any) £ : : ✓

Committee's Minute

FRI. 7 NOV 1924

Assigned

+ LMC 10. 24

C. L.



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Foundation