

Rpt. 4.

REPORT ON MACHINERY.

No. 27980

Received at London Office

FRI. NOV. 19 1920

Date of writing Report 16-11-1920 When handed in at Local Office 17-11-1920 Port of

Sunderland

No. in Survey held at Sunderland

Date, First Survey 8 Sep 19

Last Survey 15 Nov 1920

Reg. Book.

on the

S.S. GLANMOR.

(Number of Visits 34)

Master

Built at Lowestoft

By whom built

Messrs. Colby Bros. Ltd (N^o 105)Tons { Gross
Net

When built 1920

Engines made at

Sunderland

By whom made

Messrs. MacCall & Pollock, Ltd (N^o 309)

When made 1920

Boilers made at

do

By whom made

do

do

when made 1920

Registered Horse Power

Owners

Port belonging to

Nom. Horse Power as per Section 28

83

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders

12 1/2, 21, 35

Length of Stroke

26

Revs. per minute

110

Dia. of Screw shaft

as per rule 7 1/4

as fitted 7 1/4

Material of

Inf. 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

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

Yes

If two

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

Length of stern bush

2-8 1/2

Dia. of Tunnel shaft

as per rule 6-58

Dia. of Crank shaft journals

as per rule 6-36

Dia. of Crank pin

7 1/8

Size of Crank webs

13 1/4 x 4 1/2

Dia. of thrust shaft under

collars

7 1/8

Dia. of screw

10-0

Pitch of Screw

9-3

No. of Blades

4

State whether moveable

No

Total surface

34 sq ft

No. of Feed pumps

2

Diameter of ditto

2 1/2

Stroke

14

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

2 1/2

Stroke

14

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

2

Sizes of Pumps

6 x 6 x 6, 5 1/4 x 3 1/2 x 5

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

In Engine Room

3 @ 2"

In Holds, &c. Main Hold- 2 @ 2"

No. of Bilge Injections

na sizes

3 1/2

Connected to condenser, or to circulating pump

C. P.

Is a separate Donkey Suction fitted in Engine room & size

Yes, 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

Main below 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

None

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

Machinery aft

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

John Spencer & Sons Ltd John Brown & Co Ltd

Total Heating Surface of Boilers

1494 sq ft

Is Forced Draft fitted

No

No. and Description of Boilers

One S.E. Marine

Working Pressure

180 lbs.

Tested by hydraulic pressure to

360

Date of test

29-3-20

No. of Certificate

3677

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

50.52 sq ft

No. and Description of Safety Valves to

each boiler

2 spring loaded

Area of each valve

4.9 sq in

Pressure to which they are adjusted

185

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

12"

INSIDE

Mean dia. of boilers

13-3 1/2

Length

10-6

Material of shell plates

Steel

Thickness

1 3/32

Range of tensile strength

28-32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

D.R.

long. seams

T.A., D.B.S.

Diameter of rivet holes in long. seams

1 3/16

Pitch of rivets

8 1/4

Lap of plates or width of butt straps

17 5/8

Per centages of strength of longitudinal joint

rivets

91.3

plate

85.6

Working pressure of shell by rules

182.3

Size of manhole in shell

16 x 12

Size of compensating ring

29 x 24 x 1 3/32

No. and Description of Furnaces in each boiler

3 plain

Material

Steel

Outside diameter

3-4

Length of plain part

top

6-4

bottom

5-9 3/8

Thickness of plates

crown

3/4

Description of longitudinal joint

welded

No. of strengthening rings

Yes

Working pressure of furnace by the rules

186

Combustion chamber plates: Material

Steel

Thickness: Sides

1 1/16

Back

1 1/16

Top

1 1/16

Bottom

7/8

Pitch of stays to ditto: Sides

8 1/4 x 9 1/4

Back

9 3/4 x 8 1/2

Top

10 3/8 x 8 1/4

If stays are fitted with nuts or riveted heads

Nuts

Working pressure by rules

186

top

Material of stays

Steel

Area at smallest part

1.73 sq in

Area supported by each stay

76.3

Working pressure by rules

181.4

End plates in steam space:

Material

Steel

Thickness

1 3/16

Pitch of stays

19 x 18 1/2

How are stays secured

D.N.T.W.

Working pressure by rules

182

Material of stays

Steel

Area at smallest part

6.1 sq in

Area supported by each stay

34.7 sq in

Working pressure by rules

182

Material of Front plates at bottom

Steel

Thickness

3 1/32

Material of Lower back plate

Steel

Thickness

1 3/16

Greatest pitch of stays

13"

Working pressure of plate by rules

189

Diameter of tubes

3 1/4

Pitch of tubes

4 5/8 x 4 5/8

Material of tube plates

Steel

Thickness: Front

3 1/32

Back

2 7/8

Mean pitch of stays

11 9/16

Pitch across wide water spaces

14"

Working pressures by rules

183.8

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

7 3/8 x 2"

Length as per rule

2-4 1/4

Distance apart

10 3/8

Number and pitch of stays in each

2 @ 8 1/4"

Working pressure by rules

183.6

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

UPERHEATER. 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

Pressure to which each is adjusted

Is Easing Gear fitted

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Pressure to which each is adjusted

IS A DONKEY BOILER FITTED?

Yes

If so, is a report now forwarded?

Yes

SPARE GEAR. State the articles supplied:— Two connecting rod top and bottom end bolts and nuts; two main bearing bolts and nuts; one set of coupling bolts and nuts; one set of feed and Bilge pump valves; assorted bolts nuts, and iron; one propeller.

The foregoing is a correct description,

MACCOLL & POLLOCK, LTD.

J. R. Richardson

Manufacturer.

Director.

Dates of Survey while building { During progress of work in shops - - 1919 Sept. 22 Oct. 1. 7. 14. 20 Nov. 2. 19 Dec. 5. 18 Jan. 7. 21. 24 Feb. 5. 12. 25 Mar. 11. 23. 29 Apr. 14. 22. 29. 29
During erection on board vessel - - - May 3. Jun. 16. Oct. 22. 25. 27. 29. Nov. 1. 4. 10. 12. 15
Total No. of visits (34)

Is the approved plan of main boiler forwarded herewith Yes

" " " donkey " " " Yes

Dates of Examination of principal parts—Cylinders 12-12-19 Slides 29-4-20 Covers 29-4-20 Pistons 3-11-19 Rods 3-11-19

Connecting rods 23-3-20 Crank shaft 29-8-19 Thrust shaft 13-9-19 Tunnel shafts ✓ Screw shaft 13-9-19 Propeller 29-4-20

Stern tube 28-7-20 Steam pipes tested 1-11-20 Engine and boiler seatings LWT Engines holding down bolts 4-11-20

Completion of pumping arrangements 10-11-20 Boilers fixed 4-11-20 Engines tried under steam 10-11-20

Completion of fitting sea connections LWT Stern tube 27-10-20 Screw shaft and propeller 27-10-20

Main boiler safety valves adjusted 10-11-20 Thickness of adjusting washers P. washer 5/16 S. washer 5/16

Material of Crank shaft Ing. Steel Identification Mark on Do. 4974 J.R.W. Material of Thrust shaft Ing. Steel Identification Mark on Do. 4974 J.R.W.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Ing. Steel Identification Marks on Do. 4974 J.R.W.

Material of Steam Pipes Solid drawn copper tube Test pressure 360 lbs. sq. in.

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 of * LMC 11, 20

It is submitted that this vessel is eligible for THE RECORD. + LMC 11.20

Rel 19/11/20 ARR

The amount of Entry Fee ... £ 1 : 0 :
Special ... £ 12 : 9 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 18 NOV 1920
When received, 1. 12. 1920

Ed. W. Putter

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. NOV. 30 1920

FRI. DEC. 24 1920

TUE. 11 OCT. 1921

FRI. 2 JUN. 1922

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CERTIFICATE WRITTEN