

Rpt. 4.

REPORT ON MACHINERY.

No. 10782

Received at London Office

Date of writing Report

10th Aug 1920

When handed in at Lloyd's Office

14th Aug 1920

Port of

MIDDLESBRO

No. in Survey held at

Southland

Date, First Survey

12th January

Last Survey

27th July

1920

Reg. Book.

33456 on the

S.S. "URD"

(Number of Visits)

Gross 3300

Master

Frank Anderson

Built at

Middlesbrough

By whom built

Messrs. Smith & Co. Ltd.

Tons

Net

When built

1920

Engines made at

Middlesbrough

By whom made

Messrs. Smith & Co. Ltd.

when made

1920

Boilers made at

Newcastle

By whom made

Messrs. Hawthorn Leslie & Co. Ltd.

when made

1920

Registered Horse Power

Owners

Jacob R. Olsen

Port belonging to

Bergen

Nom. Horse Power as per Section 28

316

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

24" x 30" x 65"

Length of Stroke

42"

Revs. per minute

165

Dia. of Screw shaft

as per rule 13 1/2"

Material of

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 one length

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

Solid

If two

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

Length of stern bush

5'-4"

Dia. of Tunnel shaft

as per rule 14 1/2"

Dia. of Crank shaft journals

as per rule 12 3/4"

Dia. of Crank pin

2 1/2"

Size of Crank webs

8" x 24"

Dia. of thrust shaft under

collars

No. of Feed pumps

2

Diameter of ditto

4"

Stroke

18"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

2

Diameter of ditto

3 1/2"

Stroke

1'-10"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

one

Sizes of Pumps

9 dia x 10 stroke

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

In Engine Room

3-3" and 1-3 1/2"

In Holds, &c. No. 1 20" 3 No. 2 20" 3 No. 3 20" 2 1/2 No. 4 20" 3

No. of Bilge Injections

1 sizes 6 1/2"

Connected to condenser, or to circulating pump

Yes pumps a separate Donkey Suction fitted in Engine room & size 1-3 1/2"

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

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

Cold suction

How are they protected

wood ceiling

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

13-4-20

of Stern Tube

8-5-20

Screw shaft and Propeller

8-5-20

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

Total Heating Surface of Boilers

5104

Is Forced Draft fitted

No

No. and Description of Boilers

2 S B

Working Pressure

180

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

Size of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space

Material

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Superheater or Steam chest; how connected to boiler

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

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

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

002465-002470-0107

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WEB-FI

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W.T.BUL

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Riggi
Sails

IS A DONKEY BOILER FITTED?

SPARE GEAR. State the articles supplied:-

One Cut-Iron propeller Two Connecting Rod bolts + nuts Two push Rod bolts + nuts Two main bearing bolts + nuts One set Coupling bolts + nuts Six pump ring bolts One set air pump valves One set feed pump valves One set bilge pump valves + seats One safety valve spring for main & donkey boiler assorted bolts and nuts and iron of various sizes

The foregoing is a correct description,

FOR SMITH'S DOCK COMPANY

J. H. Stone

Engine Works Manager

Manufacturer.

Dates of Survey while building
During progress of work in shops - 1920 Jan 12, 14, 21, 22, 29 Feb 12, 17, 25 Mar 10, 15, 22, 24, 29, 30, 31 Apr 3, 13, 16, 19, 21, 22, 24, 26, 27, 29, 30 May 10, 17, 26, 29, 31 Jun 7, 8, 10, 24
During erection on board vessel - 29, 30 Jul 6, 7, 12, 14, 15, 21, 22, 23, 26, 27
Total No. of visits 48

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts - Cylinders 29.5.20 Slides 28.6.20 Cores 30.6.20 Pistons 28.6.20 Rods 30.6.20
Connecting rods 10.5.20 Crank shaft 29.5.20 Thrust shaft 26.5.20 Tunnel shafts 26.5.20 Screw shaft 28.5.20 Propeller 28.5.20
Stern tube 24.4.20 Steam pipes tested 29.6.20 Engines and boiler seatings 13.7.20 Engines holding down bolts 13.7.20
Completion of pumping arrangements 24.4.20 Boilers fixed 21.4.20 Engines tried under steam 21.4.20
Main boiler safety valves adjusted 21.4.20 Thickness of adjusting washers 3/16 3/8 5/16 3/4
Material of Crank shaft Steel Identification Mark on Do. 14-10-19 Material of Thrust shaft Steel Identification Mark on Do. 14-10-19
Material of Tunnel shafts Steel Identification Marks on Do. 14-10-19 Material of Screw shafts Steel Identification Marks on Do. 14-10-19
Material of Steam Pipes Steel Test pressure 540 lbs

Is an installation fitted for burning oil fuel

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

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

The machinery of this vessel has been built under special survey and the materials and workmanship found good and it is now fitted on board in accordance with the Rules and tried under steam and found satisfactory. The machinery of this vessel is eligible in my opinion to be classed with this Society with the record of LMC 7.20

See boiler report

It is submitted that this vessel is eligible for THE RECORD. LMC 7.20

ARK Rem 30/8/20

The amount of Entry Fee ... £ 3 : : When applied for,
Special ... £ 23 : 8 : 27.8.1920.
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ 2/10/20

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

Committee's Minute

Assigned

LMC 7.20

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