

Rpt. 4.

REPORT ON MACHINERY.

No. 13390.

Received at London Office

FRI. SEP. 14 1923

Date of writing Report

19

When handed in at Local Office

19

Port of

Aberdeen

No. in Survey held at

Aberdeen

Date, First Survey

14.1.22.

Last Survey

H. 9. 1923.

Reg. Book.

on the

Steel S.S. "ANNAGHER"

(Number of Visits 49.)

Master

✓

Built at Aberdeen

By whom built

John Lewis & Sons Ltd. n° 169

Tons

Gross 586.

Net 264.

When built 1923.

Engines made at

Aberdeen

By whom made

John Lewis & Sons Ltd. n° 169

when made 1923.

Boilers made at

do.

By whom made

do

do n° 133A

when made 1923.

Registered Horse Power

106.

Owners

John Kelly Ltd.

Port belonging to Belfast.

Nom. Horse Power as per Section 28

106.

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 14", 24", 39"

Length of Stroke 24"

Revs. per minute 86.

Dia. of Screw shaft

as per rule 8.124"

Material of screw shaft

Iron.

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

length

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

no space.

If two

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

✓

Length of stern bush 3' 0 3/4"

Dia. of Tunnel shaft

as per rule 4.14"

Dia. of Crank shaft journals

as per rule 4.53"

Dia. of Crank pin

1 1/2"

Size of Crank webs 10 1/2" x 3 1/2"

Dia. of thrust shaft under

collars 4 1/4"

Dia. of screw 10' 0"

Pitch of Screw 14' 0"

No. of Blades 4.

State whether moveable

no.

Total surface

40 ft

No. of Feed pumps 2.

Diameter of ditto 2 3/4"

Stroke 13 1/2"

Can one be overhauled while the other is at work

yes.

No. of Bilge pumps 2.

Diameter of ditto 2 3/4"

Stroke 13 1/2"

Can one be overhauled while the other is at work

yes.

No. of Donkey Engines Two

Sizes of Pumps

Ballast. 8x8x8 vent duplex

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

In Engine Room Two of 2 1/2" and one of 2" Boiler room. One of 2"

In Holds, &c. Two of 2" Aft peak. one of 2 1/2"

No. of Bilge Injections 1

size 4"

Connected to condenser, or to circulating pump

C.P.

Is a separate Donkey Suction fitted in Engine room & size

yes, 2 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

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

Sues to Nold & Co tank & F.P.T.

How are they protected

strong wood casing

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

none.

Is it fitted with a watertight door

✓

worked from

✓

BOILERS, &c.—(Letter for record (S))

Manufacturers of Steel

D. Colville & Sons Ltd.

Total Heating Surface of Boilers 19334

Is Forced Draft fitted

no.

No. and Description of Boilers

one cyl. mult. S.E.

15B.

Working Pressure 180 lbs per sq. in.

Tested by hydraulic pressure to

320 lbs.

Date of test

18.5.23

No. of Certificate 1019.

Can each boiler be worked separately

✓

Area of fire grate in each boiler

55.47

No. and Description of Safety Valves to

each boiler 2 direct spring

Area of each valve

306 sq. in.

Pressure to which they are adjusted

180 lb.

Are they fitted with easing gear

yes.

Smallest distance between boilers or uptakes and bunkers or woodwork

NO SIDE BUNKERS

Mean dia. of boilers

14' 4 1/2"

Length 10' 0"

Material of shell plates

S.

Thickness 1 1/2"

Range of tensile strength 28-32

Are the shell plates welded or flanged

no.

Descrip. of riveting: cir. seams

d. n. lap

long. seams

TR. DB. STRAPS

Diameter of rivet holes in long. seams

1 1/4"

Pitch of rivets

2 1/2"

Tap of plates

width of butt straps

18' x out. 29' 32"

Per centages of strength of longitudinal joint

rivets 84.9

plate 85.4

Working pressure of shell by rules

184.

Size of manhole in shell

16' x 12"

Size of compensating ring

McNeil.

No. and Description of Furnaces in each boiler

3. Morrison.

Material

S.

Outside diameter

44 1/2"

Length of plain part

top

Thickness of plates

crown 1 1/4"

bottom 3/2"

Description of longitudinal joint

weld.

No. of strengthening rings

✓

Working pressure of furnace by the rules

183.

Combustion chamber plates: Material

S.

Thickness: Sides

4 1/2"

Back

4 1/2"

Top

4 1/2"

Bottom

4 1/2"

Pitch of stays to ditto: Sides

9 3/4" x 9 3/4"

Back

9 3/4" x 9 3/4"

Top

9 3/4" x 9 3/4"

If stays are fitted with nuts or riveted heads

nuts.

Material of stays

S.

Area at smallest part

2.04 sq. in.

Area supported by each stay

90.18 sq. in.

Working pressure by rules

181.2

Material

S.

Thickness

1 3/2"

Pitch of stays

20' x 4 1/2"

How are stays secured

d. n. riv.

Area at smallest part

6.9 sq. in.

Area supported by each stay

390 sq. in.

Working pressure by rules

184.2

Material of Front plates at bottom

S.

Thickness

1 3/2"

Material of Lower back plate

S.

Thickness

1 3/2"

Greatest pitch of stays

13 3/4" x 4 1/2"

Working pressure of plate by rules

181.

Diameter of tubes

3 1/4" x 4 1/2"

Pitch of tubes

4 1/2" x 4 1/2"

Material of tube plates

S.

Thickness: Front

1 1/2"

Back

3 1/2"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

B. 190.5

Girders to Chamber tops: Material

S.

Depth and

thickness of girder at centre

9" x 1 1/2"

Length as per rule

29 9/16"

Distance apart

9 1/2"

Number and pitch of stays in each

two: 9 1/4"

Working pressure by rules

184.8

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

None.

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

✓

Diameter of Safety Valve

Is Easing Gear fitted

✓

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Pressure to which each is adjusted

IS A DONKEY BOILER FITTED? No.

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— Two top & 2 bottom end bolts nuts; 2 main bearing, and 1 set coupling bolts nuts; 1 set each, Air, Circulating, Feed and Bilge pump valves; 1 each, main & donkey check valve; 1 safety valve spring; bolts nuts assorted and iron of various sizes.

The foregoing is a correct description,

FOR JOHN LEWIS & SONS, Ltd.

Jan. J. Doucet

Manufacturers of Main Engines & Boiler.

Dates of Survey while building
During progress of work in shops - - -
During erection on board vessel - - -
Total No. of visits 49

Is the approved plan of main boiler forwarded herewith yes.

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 28.3.22 Slides 5.3.23 Covers 5.3.23 Pistons 5.3.23 Rods 21.8.22

Connecting rods 5.3.23 Crank shaft 21.8.22 Thrust shaft 8.11.22 Tunnel shafts ✓ Screw shaft 8.11.22 Propeller 25.4.23

Stern tube 8.11.22 Steam pipes tested 7.8.23 Engine and boiler seatings 25.5.23 Engines holding down bolts 1.8.23

Completion of pumping arrangements 14.8.23 Boilers fixed 1.8.23 Engines tried under steam 16.8.23

Completion of fitting sea connections 25.5.23 Stern tube 25.5.23 Screw shaft and propeller 25.4.23

Main boiler safety valves adjusted 16.8.23 Thickness of adjusting washers Port valve 7/8" Starb. valve 7/8" base.

Material of Crank shaft S. Identification Mark on Do. LLOYD'S No. 15795. Material of Thrust shaft S. Identification Mark on Do. 1384.A

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Iron. Identification Marks on Do. 1388.A

Material of Steam Pipes Copper, solid drawn 3 1/2" bore. N. 6. W. 9. Test pressure 3 bolts per sq. 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 No. If so, state name of vessel ✓

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

These engines, and the Boiler, have been constructed under Special Survey, and in accordance with the Secretary's letters, the Rules, and approved plans. The materials, and workmanship are good. When completed, and properly fitted on board, they were tried under steam with satisfactory results, and are now in good order, and in my opinion entitled to the record * L.M.C. 9.23 in Red, in the Register Book.

An Electric Light installation has been fitted on board a report on which is forwarded herewith.

It is submitted that
the vessel is eligible for
THE RECORD. + L.M.C. 9.23. C.L.

RA. 15/9/23. C.L.

Ridley Towell,
Engineer Surveyor of Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 : 0 :
Special ... £ 26 : 15 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 13.9.1923.
When received, 29.9.23.

Committee's Minute TUE. 18 SEP. 1923

Assigned + L.M.C. 9.23 C.L.

CERTIFICATE WRITTEN



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