

REPORT ON MACHINERY.

No. 34148

Received at London Office

7 Jul 1926

Date of writing Report

19

When handed in at Local Office

6/7/1926 Port of

Hull

No. in Survey held at
Reg. Book.

Hull

Date, First Survey

18-3-26

Last Survey

30-6-1926

(Number of Vials 19)

Gross 351

Net 141

When built 1926

Master

Built at

Selby

By whom built

Cochran & Sons Ltd (18994)

Engines made at

Hull

By whom made

Charles D Holmes & Co. Ltd. (11303)

when made 1926

Boilers made at

Hull

By whom made

-d-

when made 1926

Registered Horse Power

Owners

Messrs John Wark & Co. Ltd.

Port belonging to

Hull

Nom. Horse Power as per Section 28

95

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

13-23-37

Length of Stroke

26

Revs. per minute

Dia. of Screw shaft

as per rule 7.7

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

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

If two

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

Length of stern bush

36"

Dia. of Tunnel shaft

as per rule 6.89

Dia. of Crank shaft journals

as per rule 7.24

7.23

Dia. of Crank pin

7.2

Size of Crank webs

14.4 x 4.2

Dia. of thrust shaft under

collars

7.2

Dia. of screw

9-9

Pitch of Screw

11-0

No. of Blades

4

State whether moveable

no

Total surface

34.6

No. of Feed pumps

one

Diameter of ditto

2.75

Stroke

14.3/4

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

one

Diameter of ditto

2.75

Stroke

14.3/4

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

one

Sizes of Pumps

6.4 x 4 x 6 + 1 gpd

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

In Engine Room

2 @ 2" + one 3" gpd

In Holds, &c.

1 @ 2" in each compartment

No. of Bilge Injections

1

sizes

3.2

Connected to condenser, or to circulating pump

pump

Is a separate Donkey Suction fitted in Engine room & size

yes 3"

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

Forward suction

yes

How are they protected

Wood casing

yes

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

Huckingen

BOILERS, &c.—(Letter for record

S)

Manufacturers of Steel

Mannesmannröhrenwerke, alt. Schulz Knauff

Total Heating Surface of Boilers

1649

Is Forced Draft fitted

no

No. and Description of Boilers

One

S. E. Main

15B

Working Pressure

200 lb

Tested by hydraulic pressure to

350 lb

Date of test

3-6-26

No. of Certificate

3597

Can each boiler be worked separately

yes

Area of fire grate in each boiler

49.2 sq

No. and Description of Safety Valves to

each boiler

2 spring loaded

Area of each valve

4.9 sq

Pressure to which they are adjusted

200 lb

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

alt 7"

Mean dia. of boilers

14-0"

Length

10-8"

Material of shell plates

S

Thickness

1.9/32

Range of tensile strength

26/32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D.R.

long. seams

T.R.D.B.S.

Diameter of rivet holes in long. seams

1.9/32

Pitch of rivets

8.9/16

Lap of plates on width of butt straps

18.13/16

Per centages of strength of longitudinal joint

rivets 90.8

plate 85.0

Working pressure of shell by rules

201

Size of manhole in shell

16 x 12

No. and Description of Furnaces in each boiler

3 plain

Material

S

Outside diameter

41

Length of plain part

top 7.6

bottom 6.9

Thickness of plates

crown 13/16

bottom 13/16

Description of longitudinal joint

welded

No. of strengthening rings

yes

Working pressure of furnace by the rules

219

Combustion chamber plates: Material

S

Thickness: Sides

3/4

Back

23/32

Top

3/4

Bottom

3/4

Pitch of stays to ditto: Sides

9 x 8 3/4

Back

9 x 8 1/2

Top

9 x 8 3/4

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

230

Material of stays

S

Area at smallest part

2.07

Area supported by each stay

78.3/4 sq

Working pressure by rules

230

End plates in steam space:

Material

S

Thickness

1.3/16

Pitch of stays

18"

How are stays secured

D.N.W.

Area at smallest part

7.50

Area supported by each stay

324.0

Working pressure by rules

275

Material of Front plates at bottom

S

Thickness

15/16

Material of Lower back plate

S

Thickness

29/32

Greatest pitch of stays

14 x 8 3/4

Working pressure of plate by rules

228

Diameter of tubes

3.2

Pitch of tubes

4.8

Material of tube plates

S

Thickness: Front

15/16

Back

7/8

Mean pitch of stays

9.3/4

Pitch across wide water spaces

13.3/4

Working pressures by rules

212

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

9.2/10 x 1.3/4

Length as per rule

36.3/16

Distance apart

9"

Number and pitch of stays in each

3 @ 8.3/4

Working pressure by rules

210

Steam dome: description of joint to shell

yes

% of strength of joint

yes

Diameter

yes

Thickness of shell plates

yes

Material

yes

Description of longitudinal joint

yes

Diam. of rivet holes

yes

Pitch of rivets

yes

Working pressure of shell by rules

yes

Crown plates

yes

Thickness

yes

How stayed

yes

SUPERHEATER. Type

yes

Date of Approval of Plan

yes

Tested by Hydraulic Pressure to

IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two top end belts & nuts. 2 bottom end
belts & nuts, 2 main bearing belts & nuts, Set of coupling belts & nuts,
Valves for air, feed & bilge pumps; Main & donkey check valves; Safety
valve spring; Centrifugal pump impeller & spindle. Valves for donkey pump.

The foregoing is a correct description,

For CHARLES D. HOLMES & Co. LTD

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1926: Mar 18 22 24 29 Apr. 12 15 24 May 4 7 14 18 28 Jun 3 11 14
During erection on board vessel -- 18 26 28 30
Total No. of visits 19

Is the approved plan of main boiler forwarded herewith

yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 17-5-26 Slides 28-5-26 Covers 17-5-26 Pistons 28-5-26 Rods 28-5-26
Connecting rods 28-5-26 Crank shaft 17-5-23 Thrust shaft 17-5-23 Tunnel shafts ✓ Screw shaft 29-3-26 Propeller 29-3-26
Stern tube 29-3-26 Steam pipes tested 18-6-26 Engine and boiler seatings 12-4-26 Engines holding down bolts 11-6-26
Completion of pumping arrangements 26-6-26 Boilers fixed 11-6-26 Engines tried under steam 26-6-26
Completion of fitting sea connections 12-4-26 Stern tube 12-4-26 Screw shaft and propeller 12-4-26.
Main boiler safety valves adjusted 26-6-26 Thickness of adjusting washers F $\frac{3}{8}$ A $\frac{5}{16}$.

Material of Crank shaft Steel Identification Mark on Do. 224 PF. Material of Thrust shaft Steel Identification Mark on Do. 224 PF.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. 224 PF.

Material of Steam Pipes S.D. Copper. 4 dia. 6 W.G. ✓ Test pressure 400 lb per 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 yes ✓ If so, state name of vessel "Dairy Coaster".

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boiler of this vessel have been built under special survey, & in accordance with the approved plans & the Rules of this Society. The materials & workmanship are good. The machinery has been satisfactorily fitted on board, tried under working conditions, & found good. The steam & feed ^{pipes} have been tested by hydraulic pressure as required by the Rules. The safety valves have been adjusted under steam & tried for accumulation. The machinery is eligible in my opinion for the record + LMC 6.26. C.L. in the Register Book.

The steel invoices will be forwarded with report on boiler No 1304.

Marks on forging:— Screw shaft.

Slides
No 897
J.L. 22-2-26

Crank shaft:—

Slides
No 905
J.L. 22-2-26.

Thrust shaft

Slides
No 12357
K.H. 18-7-25

These forging reports will be forwarded at a later date.

It is submitted that
this vessel is eligible for
THE RECORD + LMC 6.26.CZ

The amount of Entry Fee ... £ 2 : - :
Special ... £ 23 : 15 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 6/7 1926
When received, 31.7.1926

P. Fitzgibbon.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE 8. 13 JUL 1926

Assigned

+ L.M.C. 6:26

CERTIFICATE WRITTEN



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Foundation