

Rpt. 4.

# REPORT ON MACHINERY.

No. 35824

Received at London Office

18 FEB 1925

Date of writing Report Feb. 12<sup>th</sup> 1925 When handed in at Local Office

12/2/25 Port of Hull

No. in Survey held at Hull.  
Reg. Book.

Date, First Survey 30/10/24

Last Survey Feb. 9<sup>th</sup> 1925

(Number of Visits 23)

Tons { Gross 338  
Net 137

Master

Built at Selby

By whom built Cochrane & Sons Ltd

When built 1925

Engines made at Hull

By whom made C. Holmes & Co Ltd (1276)

when made 1925

Boilers made at Hull

By whom made C. Holmes & Co Ltd

when made 1925

Registered Horse Power

Owners Dick King & Sons S. T. & Co Ltd Port belonging to Hull

Nom. Horse Power as per Section 28 96

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 13.23.34

Length of Stroke 26

Revs. per minute 110

Dia. of Screw shaft 7.7

as per rule 7.9

Material of screw shaft 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 36

Dia. of Tunnel shaft 4.04

as per rule 4.89

Dia. of Crank shaft journals 4.36

as per rule 4.36

Dia. of Crank pin 4.5

Size of Crank webs 4.4 x 4.8

Dia. of thrust shaft under

collars 4.5

Dia. of screw 9.9

Pitch of Screw 11.0

No. of Blades 4

State whether moveable No

Total surface 34 sq ft.

No. of Feed pumps One

Diameter of ditto 2.5

Stroke 1.4

Can one be overhauled while the other is at work

No. of Bilge pumps One

Diameter of ditto 2.5

Stroke 1.4

Can one be overhauled while the other is at work

No. of Donkey Engines One

Sizes of Pumps 6 x 4 x 6, and one ejector

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

In Holds, &c. 1 @ 2" Each compartment

In Engine Room 2 @ 2", and 1 @ 3" Ejector

Is a separate Donkey Suction fitted in Engine room & size

Yes 3"

No. of Bilge Injections 1

sizes 3.5

Connected to condenser, or to circulating pump

CR

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

Inward Suction

How are they protected

Wood Casings

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

worked from

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Port Talbot Steel Co. Ltd

Is Forced Draft fitted

No

No. and Description of Boilers One Single Ended

158

Total Heating Surface of Boilers 1698

Is Forced Draft fitted

No

No. and Description of Boilers One Single Ended

158

Working Pressure 200

Tested by hydraulic pressure to

350

Date of test 31/12/24

No. of Certificate 3544

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

49.2

No. and Description of Safety Valves to

each boiler 2 Spring loaded

Area of each valve

4.9

Pressure to which they are adjusted

200

Smallest distance between boilers or uptakes and bunkers or woodwork

24

Mean dia. of boilers

4.0

Length of boiler

10.8

Material of shell plates

Steel

Thickness 1.9

Range of tensile strength

28/32

Are the shell plates welded or flanged

Yes

Descrip. of riveting: cir. seams

BR

long. seams T.R. 5/8

Diameter of rivet holes in long. seams

1.9

Pitch of rivets

8.7

Lap of plates or width of butt straps

18.3

Material of shell plates

Steel

Per centages of strength of longitudinal joint

plate 85.0

Working pressure of shell by rules

201

Size of manhole in shell

16 x 12

Material

Steel

Outside diameter

41

Size of compensating ring

24 x 27 x 1.9

No. and Description of Furnaces in each boiler

3 Plain

Material

Steel

No. of strengthening rings

Yes

Length of plain part

top 76

Thickness of plates

bottom 69

Description of longitudinal joint

Welded

No. of strengthening rings

Yes

Working pressure of furnace by the rules

219

Pitch of stays to ditto: Sides

7 x 8.3

Back

7 x 8.3

Top

7 x 8.3

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

230

Material of stays

Steel

Area at smallest part

2.04

Area supported by each stay

7.8

Working pressure by rules

230

End plates in steam space

Yes

Material

Steel

Thickness

1.3

Pitch of stays

18

How are stays secured

By rivets

Working pressure by rules

220

Area at smallest part

7.5

Area supported by each stay

3.2

Working pressure by rules

275

Material of Front plates at bottom

Steel

Thickness

1.5

Material of Lower back plate

Steel

Thickness

2.9

Greatest pitch of stays

4 x 8.3

Working pressure of plate by rules

228

Material of stays

Steel

Diameter of tubes

3.5

Pitch of tubes

4.7

Material of tube plates

Steel

Thickness: Front

1.5

Back

7.8

Pitch across wide water spaces

13.4

Working pressures by rules

212

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

8.5 x 13.4

Length as per rule

36.3

Distance apart

9

Number and pitch of stays in each

3 @ 8.3

% of strength of joint

Yes

Working pressure by rules

210

Steam dome: description of joint to shell

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Yes

Diam. of rivet holes

Yes

How stayed

Yes

Tested by Hydraulic Pressure to

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

Yes

Tested by Hydraulic Pressure to

Yes

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

Yes

Is Easing Gear fitted

Yes

Pressure to which each is adjusted

Yes

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Pressure to which each is adjusted

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IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—Two top end bolts & nuts. 2 Bottom end bolts & nuts. 2 main bearing bolts & nuts. Set of coupling bolts & nuts. Spare valves for air, fuel, bilge & donkey pumps. Main & donkey check valves. Safety valve spring. Impeller & spindle. And fuel pump ram.

The foregoing is a correct description,

CHARLES D. HOLMES & CO. LTD

J. Cooper

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1924:- Oct 30, Nov 4, 13, 15, 17, 27, Dec 2, 4, 10, 15, 22, 30, 31, 1925:- Jan 5, 8.  
During erection on board vessel -- 13, 19, 21, 26, 27, 29 Feb, 5, 9  
Total No. of visits 23

Is the approved plan of main boiler forwarded herewith *Yes, how in London.*

" " " donkey " " " *Yes*

Dates of Examination of principal parts—Cylinders 5.1.25 Slides 8.1.25 Covers 5.1.25 Pistons 8.1.25 Rods 8.1.25

Connecting rods 8.1.25 Crank shaft 5.1.25 Thrust shaft 5.1.25 Tunnel shafts ✓ Screw shaft 4.12.24 Propeller 4.12.24

Stern tube 4.12.24 Steam pipes tested 29.1.25 Engine and boiler seatings 21.1.25 Engines holding down bolts 27.1.25

Completion of pumping arrangements 5.2.25 Boilers fixed 26.1.25 Engines tried under steam 5.2.25

Completion of fitting sea connections 10.12.24, Stern tube 10.12.24 Screw shaft and propeller 10.12.24.

Main boiler safety valves adjusted 5.2.25. Thickness of adjusting washers F.  $\frac{11}{32}$  A  $\frac{3}{8}$

Material of Crank shaft *Steel* Identification Mark on Do. 132 J.H.M. Material of Thrust shaft *Steel* Identification Mark on Do. 132 J.H.M.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Steel* Identification Marks on Do. 132 J.H.M.

Material of Steam Pipes *S.S. Copper, 4" Bore & 6 lbs.* Test pressure 400 lbs per sq. in.

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 *Yes*. If so, state name of vessel *Lord Lucke*  
*Lord Winkerton*

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 and the Society's Rules. They have been satisfactorily fitted on board, tried under working conditions & found good. Safety valves adjusted, and pumping arrangements found in order. The machinery is eligible in our opinion to have record in Register Book of 2.25, C.L.

The approved plan of boiler sent with first entry report upon the Lord Winkerton, together with the steel invoices.

It is submitted that this vessel is eligible for THE RECORD. + LMC 2.25.

The amount of Entry Fee ... £ 2 : 0 :  
Special ... £ 24 : 0 :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ : :  
When applied for, 14/2/1925  
When received, 3/3/25

Committee's Minute

TUES. 17 FEB 1925

Assigned

+ LMC 2.25

CERTIFICATE WRIT



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