

## REPORT ON MACHINERY.

No. 35744

-6 JAN 1925

Received at London Office

Date of writing Report *best 22* 19 *24* When handed in at Local Office2/1/1925 Port of *HULL*No. in Survey held at *Hull*  
Reg. Book.

Date, First Survey

18/8/24

Last Survey

*best 22*

1924

on the *S. Trawler "LORD INCHCAPE"*

(Number of Visits)

17

Master

Built at

*Selby*

By whom built

*Cochrane & Sons Ltd*

Engines made at

*Hull*

By whom made

*C. Holmes & Co Ltd*

when made

1924

Boilers made at

*Hull*

By whom made

*C. Holmes & Co Ltd*

when made

1924

Registered Horse Power

Owners *Dickinson & Haldane's S.T.C. Ltd*

Port belonging to

*Hull*

Nom. Horse Power as per Section 28

96

Is Refrigerating Machinery fitted for cargo purposes

*ho*

Is Electric Light fitted

*Yes*

ENGINES, &amp;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

as per rule *4.95*

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 *4.04*

Dia. of Crank shaft journals

as per rule *36.7.39*

Dia. of Crank pin

*1 1/2*

Size of Crank webs

*4 1/2 x 4 1/2*

Dia. of thrust shaft under

Collars

*1 1/2*

Dia. of screw

*9.9*

Pitch of Screw

*11.0*

No. of Blades

4

State whether moveable

*ho*

Total surface

No. of Feed pumps

*one*

Diameter of ditto

*2 1/8*

Stroke

*14 1/4*

Can one be overhauled while the other is at work

No. of Bilge pumps

*one*

Diameter of ditto

*2 1/8*

Stroke

*14 1/4*

Can one be overhauled while the other is at work

No. of Donkey Engines

*one*

Sizes of Pumps

*6 x 4 1/2 x 6, and 1 Ejector.*

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

In Engine Room

*2 @ 2"**1 @ 3" (Ejector)*In Holds, &c. *1 @ 2" Each Compartment.*

No. of Bilge Injections

*one*

sizes

*3 1/2*

Connected to condenser, or to circulating pump

*CP.*

Is a separate Donkey Suction fitted in Engine room &amp; 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

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 Suctions.*

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

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Is the Screw Shaft Tunnel watertight

*ho.*

Is it fitted with a watertight door

*Yes.*

worked from

OILERS, &amp;c.—(Letter for record

*S.*)

Manufacturers of Steel

*Rheinische Stahlwerke**Duisburg.*

Total Heating Surface of Boilers

*1698 sq ft*

Is Forced Draft fitted

*ho.*

No. and Description of Boilers

*one Single ended.*

Working Pressure

*200 lbs*

Tested by hydraulic pressure to

*350 lbs*

Date of test

*14.11.24.*

No. of Certificate

*3541.*

Can each boiler be worked separately

*Yes.*

Area of fire grate in each boiler

*49.2 sq ft.*

No. and Description of Safety Valves to

each boiler

*2 Spring loaded.*

Area of each valve

*49 sq in.*

Pressure to which they are adjusted

*200 lbs*

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

*24"*

Mean dia. of boilers

*14'-0"*

Length

*10'-8"*

Material of shell plates

Thickness

*1 1/2"*

Range of tensile strength

*38/32 tons.*

Are the shell plates welded or flanged

*Yes.*

Descrip. of riveting: cir. seams

*BR.*

Long. seams

*TR. 508.*

Diameter of rivet holes in long. seams

*1 1/2"*

Pitch of rivets

*8 3/8"*

Lap of plates or width of butt straps

*18 1/2"*

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"*

Size of compensating ring

*34 x 27 x 1 1/2"*

No. and Description of Furnaces in each boiler

*3 Plain*

Material

*Steel*

Outside diameter

Length of plain part

top *76"*bottom *69"*

Thickness of plates

crown *13"*bottom *76"*

Description of longitudinal joint

*Welded*

No. of strengthening rings

Working pressure of furnace by the rules

*219*

Combustion chamber plates: Material

*Steel*

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 3/4"*

Top

*9 x 8 3/4"*

If stays are fitted with nuts or riveted heads

*ho.*

Working pressure by rules

*230.*

Material of stays

*Steel*

Area at smallest part

*2.04 sq in.*

Area supported by each stay

*78 3/4"*

Working pressure by rules

*230.*

End plates in steam space:

Material

*Steel*

Thickness

*1 1/2"*

Pitch of stays

*18"*

How are stays secured

*ON & W.*

Working pressure by rules

*220*

Material of stays

*Steel.*

Area at smallest part

*4.5 sq in.*

Area supported by each stay

*324*

Working pressure by rules

*275*

Material of Front plates at bottom

*Steel*

Thickness

*1 1/2"*

Material of Lower back plate

*Steel.*

Thickness

*29"*

Greatest pitch of stays

*14 x 8 3/4"*

Working pressure of plate by rules

*228*

Diameter of tubes

*3 1/2"*

Pitch of tubes

*47 1/8"*

Material of tube plates

*Steel*

Thickness: Front

*15"*

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

*Steel*

Depth and

Thickness of girder at centre

*10 1/2 x 13 1/4"*

Length as per rule

*36 1/2"*

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

Diameter

*Yes.*

Thickness of shell plates

*Yes.*

Material

*Yes.*

Description of longitudinal joint

*Yes.*

Diam. of rivet holes

Pitch of rivets

*Yes.*

Working pressure of shell by rules

*Yes.*

Crown plates

*Yes.*

Thickness

*Yes.*

How stayed

SUPERHEATER. Type

*Yes.*

Date of Approval of Plan

*Yes.*

Tested by Hydraulic Pressure to

Date of Test

*Yes.*

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

Diameter of Safety Valve

*Yes.*



IS A DONKEY BOILER FITTED?

No

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—2 Top end bolts + nuts. 2 Bottom end bolts + nuts. 2 main bearing bolts + nuts. Set of coupling bolts + nuts. Valves for air feed and donkey pumps. Main + donkey check valves. Safety valve spring. Impeller + spindle for circulating pump. One feed pump ca

The foregoing is a correct description,

FOR CHARLES D. HOLMES & CO. LTD

J. Cooper

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1924:—Aug 18. 25. Sep. 25. Oct 22, 30, Nov 4. 12. 13. 17. 24. 27 Dec 4. 8. 11. During erection on board vessel -- 22. Total No. of visits 17

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " "

Dates of Examination of principal parts—Cylinders 24.11.24 Slides 30.10.24 Covers 24.11.24 Pistons 30.10.24. Rods 24.11.24 Connecting rods 24.11.24 Crank shaft 27.11.24 Thrust shaft 13.11.24. Tunnel shafts ✓ Screw shaft 18.8.24 Propeller 18.8.24 Stern tube 18.8.24. Steam pipes tested 13.12.24. Engine and boiler seatings 8/12/24. Engines holding down bolts 11/12/24. Completion of pumping arrangements 22.12.24. Boilers fixed 8/12/24. Engines tried under steam 22.12.24. Completion of fitting sea connections 25.8.24. Stern tube 25.8.24. Screw shaft and propeller 25.8.24. Main boiler safety valves adjusted 18.12.24. Thickness of adjusting washers 5/16 F. 3/8 A.

Material of Crank shaft Steel Identification Mark on Do. 122 J.H.M. Material of Thrust shaft Steel Identification Mark on Do. 122 J.H.

Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts Steel Identification Marks on Do. 122 J.H.

Material of Steam Pipes T.S. Copper, 4" Bore + 6 lbs. ✓ Test pressure 400 lbs 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 "Lord Chelmsford"

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 Society's Rules. They have been satisfactorily fitted on board, tried under working conditions found good. Safety valves adjusted + pumping arrangements found in order. The machinery is eligible in my opinion have record of + L.M.C 12.24 - C.L.

Approved plan of boiler sent with No 1274 - H. "Avalite". Now returned

It is submitted that this vessel is eligible for THE RECORD. + LMC 12.24. CL.

The amount of Entry Fee ... £ 2 : : When applied for, 2/11/25 Special ... £ 24 : 0 : : When received, 3/11/25 Donkey Boiler Fee ... £ : : Travelling Expenses (if any) £ : : 3/11/25

Committee's Minute

FRI. 9 JAN 1925

Assigned

+ L.M.C 12.24 C.L.

J.W.D. 6/1/25 A.R.R. J. H. Mackenzie Engineer Surveyor to Lloyd's Register of Shipping.



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