

Rpt. 4.

## REPORT ON MACHINERY

No. 36913

Received at London Office

25 MAR 1926

Date of writing Report

10

When handed in at Local Office

24/3/1926 Port of

Hull

No. in Survey held at  
Reg. Book.

Hull

Date, First Survey Dec 24/25 Last Survey Mar 11 1926.

(Number of Visits 26)

on the steam trawler

"NEPTUNIA"

Master

Built at

Selby

By whom built Cochran &amp; Sons Ltd. (No 992)

When built

1926.

Engines made at

Hull.

By whom made Charles D. Holmes &amp; Co. Ltd. (No 1297)

when made

1926.

Boilers made at

Hull

By whom made

-do-

when made

1926.

Registered Horse Power

Owners Societe Havraise de Peche

Port belonging to

Havre

Nom. Horse Power as per Section 28

128

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes.

## ENGINES, &amp;c.—Description of Engines

Triple Expansion.

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

15-25-42

Length of Stroke

27

Revs. per minute

113

Dia. of Screw shaft

as per rule 8.415

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

yes

If two

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

Length of stern bush

40"

Dia. of Tunnel shaft

as per rule 7.54

Dia. of Crank shaft journals

as per rule 7.92

Dia. of Crank pin

8 1/4"

Size of Crank webs

15 1/2 x 5 1/4"

Dia. of thrust shaft under

collars

8 1/4"

Dia. of screw

10-6"

Pitch of Screw

11-0"

No. of Blades

4

State whether moveable

no

Total surface

39 sq ft

No. of Feed pumps

2

Diameter of ditto

2 1/2"

Stroke

16"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

2 1/2"

Stroke

16"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2 1/2 hp

Sizes of Pumps

6x6x6 &amp; 6x4 1/2 x 6

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

In Engine Room

Two 2 1/4"

In Holds, &amp;c. One 2" from store room; one 2" from

No. of Bilge Injections

1 sizes 4"

Connected to condenser, or to circulating pump

pump 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

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

How are they protected

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

yes

Is it fitted with a watertight door

yes

worked from

yes

BOILERS, &amp;c.—(Letter for record

S)

Manufacturers of Steel

Mannesmannröhren-werke, Hückingen.

Total Heating Surface of Boilers

2315

Is Forced Draft fitted

no

No. and Description of Boilers

One (S.E.) main.

Working Pressure

190 lb

Tested by hydraulic pressure to

335 lb.

Date of test

11-2-26.

No. of Certificate

3587

Can each boiler be worked separately

yes

Area of fire grate in each boiler

63 sq ft

No. and Description of Safety Valves to

each boiler

2 spring loaded

Area of each valve

7.070"

Pressure to which they are adjusted

190 lb.

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

9"

INT. dia. of boilers

15-3 1/2"

Length

11-0"

Material of shell plates

S

Thickness

1 1/4"

Range of tensile strength

30/34 tons

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 1/4"

Pitch of rivets

8 3/16"

Lap of plates or width of butt straps

18 1/4"

Per centages of strength of longitudinal joint

rivets 86.1

plate 84.73

Working pressure of shell by rules

191 3 cf.

Size of manhole in shell

16x12"

Size of compensating ring

34x27x1 1/4"

No. and Description of Furnaces in each boiler

3 Corrugated

Material

S

Outside diameter

44 1/16"

Length of plain part

top 19"

Thickness of plates

crown 19"

bottom 32"

Description of longitudinal joint

Welded

No. of strengthening rings

15"

Working pressure of furnace by the rules

192

Combustion chamber plates: Material

S.

Thickness: Sides

23/32"

Back

11/16"

Top

21/32"

Bottom

23/32"

Pitch of stays to ditto: Sides

10 1/2 x 8"

Back

9 3/4 x 8 1/2"

Top

9 x 8"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

197

Material of stays

S

Area at smallest part

1 3/4 dia

Area supported by each stay

82.80"

Working pressure by rules

218

End plates in steam space:

Material

S

Thickness

1 3/32"

Pitch of stays

18 x 18"

How are stays secured

DN+W.

Working pressure by rules

191

Material of stays

S

Area at smallest part

3" dia.

Area supported by each stay

3240"

Working pressure by rules

207

Material of Front plates at bottom

S

Thickness

27/32"

Material of Lower back plate

S

Thickness

13/16"

Greatest pitch of stays

14 1/2 x 8 1/2"

Working pressure of plate by rules

190 lb

Diameter of tubes

3 1/2"

Pitch of tubes

4 2/3 x 4 3/4"

Material of tube plates

S

Thickness: Front

27/32"

Back

13/16"

Mean pitch of stays

12-14.

Pitch across wide water spaces

14 1/2"

Working pressures by rules

208 lb.

Girders to Chamber tops: Material

S.

Depth and

thickness of girder at centre

9 x 1 3/4"

Length as per rule

34"

Distance apart

9

Number and pitch of stays in each

3 @ 8"

Working pressure by rules

211.

Steam dome: description of joint to shell

-

% 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

-

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

-

-

-

Is Easing Gear fitted

-

-

Diameter of Safety Valve

-



IS A DONKEY BOILER FITTED?

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, 1 set coupling bolts, 1 set of air, feed & bilge pump valves, one safety valve spring, 1 spare main check valve, 1 donkey check valve, 3 condenser tubes, 12 condenser gaskets, 1 set connecting rod top & bottom end brasses, 1 set piston rings & springs, One set piston valve rings & springs for HP & MP. One set of escape valve springs.

The foregoing is a correct description,

For CHARLES D. HOLMES & Co. LTD

Manufacturer.

Dates of Survey while building { During progress of work in shops -- 1925: - Dec 24, 29, 1926: - Jan 1, 5, 7, 8, 12, 15, 22, 26, 27, 28, Feb 3, 9, 10, 11  
During erection on board vessel -- 12, 16, 17, 20, 23, 26, Mar 2, 5, 6, 11.  
Total No. of visits 26

Is the approved plan of main boiler forwarded herewith *yes*  
" " " donkey " " "

Dates of Examination of principal parts—Cylinders 27-1-26 Slides 3-2-26 Covers 27-1-26 Pistons 3-2-26 Rods 10-2-26  
Connecting rods 10-2-26 Crank shaft 28-1-26 Thrust shaft 28-1-26 Tunnel shafts ✓ Screw shaft 12-1-26 Propeller 12-1-26  
Stern tube 12-1-26 Steam pipes tested 2-3-26 Engine and boiler seatings 12-1-26 Engines holding down bolts 23-2-26  
Completion of pumping arrangements 11-3-26 Boilers fixed 23-2-26 Engines tried under steam 11-3-26  
Completion of fitting sea connections 12-1-26 Stern tube 12-1-26 Screw shaft and propeller 12-1-26  
Main boiler safety valves adjusted 6-3-26 Thickness of adjusting washers  $\frac{3}{8}$  F. & A.  
Material of Crank shaft *Steel* Identification Mark on Do. 209 P.F. Material of Thrust shaft *Steel* Identification Mark on Do. 209 P.F.  
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Steel* Identification Marks on Do. 209 P.F.  
Material of Steam Pipes *S.D. Copper*,  $4\frac{1}{2}$  dia. 5 SWG. ✓ 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 *No* ✓ If so, state name of vessel ✓

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 to Rule requirements. The safety valves have been adjusted under steam & tested for accumulation. The machinery is eligible in my opinion to have the record + LMC 3, 26; C.L. in the Register Book.

It is submitted that  
this vessel is eligible for  
THE RECORD + LMC 3. 26. CL.

The amount of Entry Fee ... £ 3 : -  
Special ... £ 32 : -  
Donkey Boiler Fee ... £ :  
Travelling Expenses (if any) £ : -

When applied for.

9/3/1926

When received.

26/3/1926

P. Fitzgerald.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 30 MAR 1926

Assigned

+ LMC 3, 26

CERTIFICATE WRITTEN.



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Foundation